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<td>Naval Surface Warfare Center CD Code 2230 - Design Integration Tools Building 192 Room 128 9500 MacArthur Blvd Bethesda, MD 20817-5700</td>
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Standard Form 298 (Rev. 8-98)

Prepared by ANSI Std Z39-18
WORK MANAGEMENT MANUAL

SHEETMETAL SHOP VENTILATION COMPONENTS

Prepared For

SNAME PANEL SP-8

MarAd Task ES8-13 (Phase III)

Prepared By

William S. Oakes
Barbara J. Faison
Robert L. Young

Facilities & Maintenance Department

National Steel & Shipbuilding Company
Harbor Drive at 28th Street
San Diego, California 92138

December, 1983
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## APPENDICES

A. Glossary of Terms
B. Samples of Forms
1.0 SCOPE

1.1 Plant Area. Department.

This Work Management Manual applies to the Sheetmetal Shop, Building 7, Department 011.

1.2 Product and Components

The ventilation parts produced consist of the 13 standard shapes as designated by the Sheetmetal Planning Office. Whether these shapes go to make up an assembly (called a sketch) or a "package" (all the parts in a compartment), the single unit produced in the shop is the object of this manual. Other parts produced in the Sheetmetal Shop such as stainless steel galley equipment, spools, or foundations are specifically excluded as well as installation or erection in the ship.

The standard shapes are listed on the following pages.

For statistical purposes, we analyzed a representative period of sheetmetal shop work and found - (out of more than 2000 shapes) the following breakdown:

<table>
<thead>
<tr>
<th>Shape No.</th>
<th>Name</th>
<th>Percent of Total</th>
</tr>
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<tbody>
<tr>
<td>1</td>
<td>Transformer (rectangular)</td>
<td>12</td>
</tr>
<tr>
<td>2</td>
<td>Straight Section</td>
<td>38</td>
</tr>
<tr>
<td>3</td>
<td>Square to Round (centered)</td>
<td>8</td>
</tr>
<tr>
<td>4</td>
<td>Round Section</td>
<td>2*</td>
</tr>
<tr>
<td>5</td>
<td>Round Elbow (5. gored)</td>
<td>1</td>
</tr>
<tr>
<td>6</td>
<td>Square to Round (off center)</td>
<td>2</td>
</tr>
<tr>
<td>7</td>
<td>Rectangular Elbow</td>
<td>20</td>
</tr>
<tr>
<td>8</td>
<td>Rectangular Elbow with Vane Track</td>
<td>3</td>
</tr>
<tr>
<td>9</td>
<td>Rectangular Transition to Radius Corner</td>
<td>&lt;1</td>
</tr>
<tr>
<td>10</td>
<td>Flat Oval to Radius Corner</td>
<td>&lt;1</td>
</tr>
<tr>
<td>11</td>
<td>Square to Flat Oval</td>
<td>7</td>
</tr>
<tr>
<td>12</td>
<td>O-Gee, Rectangular</td>
<td>6</td>
</tr>
<tr>
<td>13</td>
<td>Offset, Rectangular</td>
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* Most round section vent is made from purchased round spiral duct.
Transformer -
Rectangle to
Rectangle
NASSCO Shape 1
**SQUARE TO ROUND SHAPE 3**

<table>
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<tr>
<th>OLD METHOD before CNC</th>
<th>NEW METHOD with CNC</th>
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<tr>
<td>Time required to sketch</td>
<td>30 min</td>
</tr>
<tr>
<td>Time required to layout</td>
<td>30 min</td>
</tr>
<tr>
<td>Time required to markout</td>
<td>20 min</td>
</tr>
<tr>
<td>Time required to cutout</td>
<td>15 min</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>95 min</strong></td>
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</table>

There is an approximate 57% saving in overall time in this portion of the construction. The time required to assemble remains close to the same. It will require an extended study to evaluate the effect of more accurate pieces on possible time saving during assembly.

The overall saving for this particular piece represents between 20 and 30 percent.
ROUND TO ROUND

SSCO SHAPE 4
OFF CENTER SQUARE TO ROUND SHAPE 6

SQUARE TO ROUND OFF CENTER, X/Y

NASSCO SHAPE 6
RECTANGLE ELBOW WITH/ WITHOUT STRAIGHT SHAPE 7

RECTANGLE ELBOW WITH STRAIGHT

NASSCO SHAPE 7
RECTANGLE ELBOW WITH VANE TRACK

NASSCO SHAPE 8
FLAT OVAL TO RADIUS CORNER

NASSCO SHAPE 10
OGEE OFFSET  SHAPE 12

OGEE OFFSET

NASSCO SHAPE 12
1.3 Materials

For the purpose of this study the materials involved is standard galvanized sheet steel - FED SPEC QQ-S-775.

<table>
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<tr>
<th>USSG</th>
<th>THICKNESS (Inches)</th>
<th>Pounds per Sq. Ft.</th>
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<td>.1233</td>
<td>5.16</td>
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NOTES:
1. See, also, Sheet 1 of NS-5500 (Page 23).
2. The gauge of galvanized sheet is shown on the MOST-analyses sheet in the backup data.

1.4 OPERATIONS

Here is a list of typical operations:

1. **Sketch.** The journeyman, following instructions from the Sheetmetal Planning Group, takes the engineering drawing and prepares a "sketch". This is a 3-D assembly drawing and consist of one or more of the Standard Shapes described in Section 1.2. Sometimes the engineering drawing is merely duplicated on the copying machine (enlarged if necessary). When complete the sketch contains all essential information - gauge, dimensions, details, auxiliary views, et cetera. Shear size is also marked on this document.

2. **Layout.** If the sketch needs development (as in a square to round) the layout man using dividers, awl, square, steel rule and tin snips lays out the pattern and traces it on heavy layout paper, finally cutting to actual size. An alternate way to layout is to do this work on the computer for the CNC Whitney Panelmaster Punching and Plasma Ave Cutting Machine.

3. **Markout.** Here the various patterns and sketches are marked on the galvanized steel sheet preparatory to cutting to size. Sometimes bend lines are marked as well as centerpunch marks. Also construction instructions and part numbers are also placed on the material.

4. **Material Handling.** The usual way to handle the typical 4x8 foot sheets of material is with a 4 wheel cart.
GENERAL NOTES

STANDARD RECTANGULAR DUCTING

1. Rectangular ducting will be manufactured from galvanized sheet steel of lock forming quality. FED SPEC QQ-S-775. All ductwork will be airtight.

2. Ducts exposed to the weather, or where required by Regulatory Bodies for structural fire protection or watertightness, will be 11 USSG (.1196 inch) and of welded construction.

3. All horizontal ducts in dry cargo holds will be 7.65# plate. All vertical ducts in dry cargo holds will be 10.2# plate.

4. All vertical ducts in shops, stores and other locations where subject to damage will be 11 USSG (.1196 inch).

5. Ducts manufactured from 11 USSG sheet will be made 1/8 inch undersized to accommodate standard flange sizes.

6. Ducts other than those mentioned above will be made with Pittsburgh Corner Lock Seams or Welded. Transverse joints will be overlapped and riveted on 1-1/2 inch centers or spot welded with the external seams and rivets sealed with an approved fire resistive high velocity duct sealer. The thickness of material will be determined by the maximum dimension for rectangular ducts as follows:

All vertical exposed ducts and horizontal or concealed vertical ducts 24 inches and over

\[
\begin{align*}
\text{16 USSG (0.0598 inch)}
\end{align*}
\]

Horizontal or concealed vertical ducts less than 24 inches

\[
\begin{align*}
\text{20 USSG (0.0359 inch)}
\end{align*}
\]

7. All ducts in machinery spaces will be 16 USSG (.0598 inch).

8. Circular or flat oval duct sections will be used in lieu of rectangular when passing through beams, girders or other strength members. These penetrations must be approved by the Hull Scientific, who will determine what reinforcement, if any, is required.

9. The following standard sizes of square or rectangular ducting will be adhered to where the use of round spiral ducting is impractical. The ratio of width to depth of standard sizes has been limited to 3-1.

10. Where it is necessary to design ducting outside the range of standard sizes, any component parts required will be detailed on the system drawing as a nonstandard part.

11. Where branch splits are required in rectangular ducts, the two-inch increment sizes will be maintained. The minimum split sizes being two inches.
5. **Shear.** This operation may be done before or after layout. Here the large 4x8 sheet is cut to the proper size in the powered square shear.

6. **Nibbler.** Irregular or curved pieces are "nibbled" to size with this machine or sometimes by hand with a unishear powered portable hand shear.

7. **Band Saw.** An alternate to nibbling, the bandsaw cuts notches and v-cuts.

8. **Roll-Bender.** Cylindrical shapes are rolled to size in one of the two powered rolls.

9. **Duplicator.** This machine, hydraulically powered, is a hole puncher. A pattern device that guides a pin into a master pattern can be used to punch a desired hole configuration.

10. **Drill Press.** This typical shop machine drill holes.

11. **NC Drilling Machine.** To achieve a desired hole pattern in a square configuration, angle flanges are drilled on this machine. Usually 7/16 holes for 3/8 bolts.

12. **Small Press-Brake.** For bending 16 gauge and thinner. Pan brakes and leaf brakes are also used for bending.

13. **Large Press Brake.** A 200 ton mechanical press, this machine will bend quite thick metal.

14. **Lockformer.** To produce the form required for Pittsburgh joints there are two basic machines: one to produce the Pittsburgh portion and another to make a flange on the material that will be inserted into the joint. There are also other small, powered, edge forming machines. See page 43.

15. **Spot Welder.** For welding lapped joints.

16. **Fitting.** Essentially a hand process, the various sheet metal formed and flat parts are assembled together to make the complete shape.

17. **Welding.** Besides TIG (tungsten inert gas) and MIG (metal inert gas) hand welding there is also a butt joint automatic seam welder capable of welding an 8 foot long water-tight seam in either TIG (for aluminum or stainless steel) or MIG (for galvanized steel).
SECTION 2

2.0 STANDARD PRACTICES AND POLICIES

2.1 Care of Equipment and Work Area

The journeymen take care of their own tools and work area, picking up scrap as they go and cleaning up at the end of every shift. The foremen are responsible for preventive maintenance either doing it themselves or getting Maintenance trades to doing it for them.

2.2 Quality Control and Inspection

The inspection is usually performed by the journeyman who does the work, or the foreman. On Navy New Construction (but not conversion or repair work) an inspection step is done by the foreman with a copy sent to Quality Assurance who verify the inspection with spot checking. Essentially this is "in process" inspection as another, final, inspection occurs when the sheetmetal assemblies are installed aboard ship. See Form 800-34 in the "Sample Forms" Section at the end of the manual.

2.3 Material Service

The sheetmetal shop has its own fork trucks to move heavy material around.

Outside stock racks contain the various gauges of galvanized sheetmetal and the fitters get their own material, sometimes with help. up to several sheets are transported with 4 wheeled carts. The usual method of transportation is with a 3.5'x5' by 33 inches high cart with two (2) fixed and two (2) swivel wheels. Purchased material - fans, heat exchanges, etc. - is staged in the shop for incorporation into the sheetmetal assembly. Miscellaneous hardware is kept in the stockroom and issued as required.

2.4 Supply and Maintenance of Tools

Tools are supplied from two (2) sources: the first is from the journeyman's tool "list" that each employee is obliged to purchase and maintain. Other, more expensive tools are furnished by the sheetmetal shop tool room on a check-out basis. These tools are described on the following pages.
THE FOLLOWING IS A LIST OF HAND TOOLS REQUIRED FOR EACH SHEETMETAL FITTER

THESE TOOLS ARE TO BE KEPT IN GOOD WORKING CONDITION AT ALL TIMES. PERIODICALLY TOOL INSPECTION WILL BE MADE TO INSURE ALL REQUIRED TOOLS ARE KEPT AND MAINTAINED IN GOOD WORKING CONDITION.

1 ea. 3/8 Drive Socket Wrench Set, with Ratchet and 12" and 6" Extension (with U Joint)
1 ea. Open End Wrench Set 3/8" thru 7/8"
2 ea. 1/2" Drift Pins
2 ea. 3/8" Drift Pins
1 ea. Tap Handle
1 ea. Hacksaw Frame
2 ea. 10" Vise Grips
2 ea. Vise Grip "C" Clamps
1 ea. 8" Adjustable Dividers
1 ea. Scratch Awl
1 ea. 9" Center Punch
1 ea. 1/2" Cold Chisel
1 ea. 3/4" Cold Chisel
1 ea. 8" Crescent Wrench
1 ea. Pliers
1 ea. 16 oz. Ball Peen Hammer
1 ea. 10 foot Steel Tape Rule (yo-yo type)
1 ea. 12" Comb. Square w/Square Head
1 ea. Left Hand Aviation Snips and Right Hand Aviation Snips
1 ea. Pair Leather Gloves
1 ea. Stubby Screw Driver (standard bit)
1 ea. 4 inch Screw Driver (standard bit)
1 ea. 6 inch Screw Driver (standard bit)
1 ea. Stubby Screw Driver (Phillips)
1 ea. 6 inch Screw Driver (Phillips)
1 ea. Allen Wrench Set
1 ea. Chalk Line (50 foot)
1 ea. Flashlight (2 cell)
1 ea. Tool Box with Lock
1 pr. Pencil Dividers
# TOOL CONTROL RECORD

**REQUIRED MINIMUM TOOL LIST FOR WELDERS AND PIPE WELDERS**

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<th>Badge</th>
<th>Classification</th>
<th>Date</th>
<th>Tools</th>
<th>Quan.</th>
<th>Brand Name</th>
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<td>WELDING SHIELD WITH FLIP UP WINDOW</td>
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<td></td>
<td>Good □ □ □ □ □ □ □ □ □ □</td>
<td>□ □ □ □ □ □ □ □ □ □ □ □ □</td>
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GENERAL PRECAUTIONS AND REMINDERS

HELMETS MUST BE WORN OUTSIDE OF SHEET METAL SHOP.
EYE PROTECTION MUST BE WORN IN ALL PARTS OF THE YARD.
NEVER LOOK DIRECTLY AT AN ARC.
LONG HAIR AND BEARDS MUST BE PROTECTED.
EAR PROTECTION MUST BE WORN AS NEEDED.
DO NOT WEAR LOOSE, OR TORN CLOTHING.
NECKTIES AND DANGLING JEWELRY ARE HAZARDOUS.
BE AWARE OF TRIPPING HAZARDS.
PROTECTIVE SHOES SHOULD BE WORN.
STANDING WATER CAN BE A POTENTIAL ELECTRICAL HAZARD.
MAKE SURE ALL GUARDS ARE IN PLACE BEFORE ATTEMPTING.

TO OPERATE ANY MACHINE.
NEVER ATTEMPT TO BYPASS MACHINE GUARDS.
IN BURNING AND WELDING AREAS CAUTION SHOULD BE TAKEN TO AVOID CONTACT WITH HOT METAL.
DO NOT LEAVE TOOLS AND MATERIAL SCATTERED ABOUT.
BE ALERT FOR LOOSE, BROKEN, OR WORN PARTS.
REPORT ANY DAMAGED EQUIPMENT.
ALL INJURIES MUST BE REPORTED IMMEDIATELY.
WHEN LIFTING, USE LEGS NOT BACK.
BE AWARE OF SHARP EDGES WHILE WORKING WITH METAL.
GLOVES ARE NOT RECOMMENDED AND SHOULD NOT BE WORN WHEN USING POWER TOOLS.
TOXIC FUMES ARE PRODUCED WHEN WELDING GALVANIZED AND PAINTED METALS. INSURE PROPER VENTILATIONS PROVIDED, OR A RESPIRATOR SHALL BE WORN.

(1) 3/8" DRIVE SOCKET WRENCH SET, WITH RATCHET AND 12" AND 6" EXTENSION.
(2) OPEN END WRENCH SET, 3/8" thru 7/8".
(3) DRIFT PINS .12" (2 EA.), .18" (2 EA.).
(4) TAP HANDLE, 16 oz BALLPEEN HAMMER.
(5) 8" CRESSENT WRENCH.
(6) 10" STEEL TAPE RULE (10 YD.) TYPE.
(7) CHALK LINE (50 FT.).
(8) HACKSAW FRAME.
(9) 8" ADJUSTABLE DIVIDERS.
(10) SCRATCH AWL.
(11) CENTER PUNCH.
(12) COLD CHISELS, AND 7/8".
(13) PLIERS.
(14) 10" VICE GRIPS (2 EA.).
(15) VICE GRIP C-CLAMP (2 EA.).
(16) 12" COMBINATION SQUARE WITH SQUARE HEAD, 18" ALLEN WRENCH SET.
(17) LEFT AND RIGHT HAND AVIATION SNIPS.
(18) 17" HEAVY DUTY BULL DOG SNIPS.
(19) FLASHLIGHT (2 CELL).
(20) 4" SCREW DRIVER (STANDARD BIT), STUBBY SCREW DRIVERS (STANDARD AND PHILLIPS), 6" (STANDARD AND PHILLIPS),
(21) TOOL BOX (WITH LOCK).
PORTABLE TOOLS - TOOL ROOM

The following illustrated tools are found in the shop, and onboard ship in the gang box. Deadman switches, where employed, are for your protection and must not be defeated. If equipment is in need of repair, it should be done by qualified personnel. Report any discrepancy to your foreman.
2.5 Work Assignments

The Sheetmetal Planning Office issues a schedule updated once a week to act as a general guide. All work generally flows through the "machine foreman" who takes the shop instructions in the form of sketches, NC tapes, and patterns and starts the initial process. After flat piece production the work proceeds to other foremen and fitters for final assembly.

Basically the shop foreman assigns all work and keeps the work moving.

2.6 Time and Production Reporting

Each fitter and welder has a new time card each day that he hands to the foreman after he clocks in. The foreman fills out the card during each day with the proper charge number(s) and the time in hours and returns it to the operator at the end of each shift. The operator clocks out with the card. The charge number is tracable to the hull number, a code number signifying "ventilation", and the appropriate engineering drawing number.

2.7 Set-Up and Tear-Down

The set-up time is part of each work package and no separate time is allowed. Set-up in a shipyard sheetmetal shop may be a major activity as the production "runs" are very low.

2.8 Safety Responsibilities

The Company's safety rules are very explicit and the fitter is expected to follow them. Enforcement is in the hands of the foreman and management. Please see the following pages for company and department safety policies and rules.

2.9 Supervisory Responsibilities

The foreman has a number of responsibilities including:

1. Know and maintain the Company's safety rules and procedures.
2. Get the work out on time.
3. Make work assignments.
5. Expedite material, parts, and necessary maintenance.
6. Deal with personnel problems.
7. Represent NASSCO management to the workers and the community.
The NASSCO Safety Policy is of utmost importance to every NASSCO employee, regardless of job. This Policy, which represents Management's renewed commitment to a safe working environment requires from all of us our complete cooperation in fulfilling this goal.

NASSCO Management, Which includes all levels of supervision, ranks SAFETY equal in importance with PRODUCTIVITY and PRODUCT QUALITY.

NASSCO Management believes that:
All injuries can be prevented. Prevention of all injuries is a realistic goal. A supervisor with responsibility for the well-being of employees cannot be effective without fully accepting this principle.

It is possible to protect against all operating hazards. No matter what the exposure, an effective safeguard can be provided.

NASSCO Management further believes that:
It is the responsibility of Management to provide a safe work environment in which the employees can perform their job assignments. All supervisors must be aware of safety requirements and must assure that no employee is given a job assignment without first determining that the employee can perform his or her duty under safe conditions.

Accidents are costly not only in terms of human pain and suffering, but also in terms of productivity and efficiency in NASSCO'S operations. These have a direct impact on NASSCO's competitive posture within the shipbuilding and repair industry. Only if Manager and Employees together give safety the attention it must get to avoid injuries, the future well-being of NASSCO and its employees be assured.
SAFETY MEMO FOR SHEETMETAL WORKERS

BELOW IS A LIST OF ITEMS WE WOULD LIKE FOR YOU TO READ. AS YOU READ THEM, FEEL FREE TO ASK ANY QUESTIONS YOU MIGHT HAVE. IF WE CAN'T ANSWER THEM, WE WILL DO OUR BEST TO GET AN ANSWER FOR YOU.

1. THE NUMBER ONE ITEM IN THIS SHIPYARD IS SAFETY. THE REASONS ARE:
   A. SUPERVISORS IN THE SHEETMETAL DEPARTMENT ARE ALWAYS CONCERNED FOR YOUR SAFETY. IF YOU ARE INJURED AND OFF WORK YOU SUFFER PAIN, YOUR FAMILY IS DEPRIVED BECAUSE OF LOST PAY AND IT IS DIFFICULT FOR THE DEPARTMENT TO MAINTAIN ITS PRODUCTION SCHEDULE WHEN YOU ARE INJURED.
   B. NASSCO HAS SAFETY RULES "SAFETY FIRST-LAST-ALWAYS", WHICH WE MUST ABIDE BY.
   C. OSHA (CAL & FED) ALSO HAVE RESTRICTIONS WE MUST ADHERE TO.
   D. MANY ACCIDENTS ARE CAUSED BECAUSE OF THE WORK HABITS OF THE EMPLOYEE. WE AT NASSCO HOPE THAT YOU COME TO WORK EACH DAY WITH A POSITIVE ATTITUDE. WE HAVE ATTACHED A SHEET ON ATTITUDES AND WE ASK THAT YOU READ IT AND LOOK AT THE NEGATIVE AND POSITIVE ATTITUDE WHILE YOU ARE READING.

2. SAFETY REQUIREMENTS
   A. ALL WORK MUST BE DONE IN A SAFE WAY. EVERY PRECAUTION MUST BE TAKEN TO ACCOMPLISH EVERY JOB SAFELY.
   B. COMPANY SAFETY RULES REQUIRE APPROVED SAFETY GLASSES BE WORN AT ALL TIMES 'IN THE YARD. CHECK WITH YOUR SUPERVISOR TO SEE IF YOUR PRESCRIPTION GLASSES ARE APPROVED INDUSTRIAL SAFETY GLASSES. NON-PRESCRIPTION GLASSES ARE AVAILABLE AT THE CENTRAL TOOL ROOM. PRESCRIPTION GLASSES MAY BE OBTAINED THROUGH THE COMPANY. HOWEVER, AT LEAST PART OF THE EXPENSE WILL BE THE EMPLOYEE'S RESPONSIBILITY. IF YOU ARE A WELDER YOUR SAFETY GLASSES MUST BE WORN UNDER YOUR HOOD. THE GLASSES IN YOUR HOOD ARE NOT CONSIDERED ENOUGH EYE PROTECTION SO YOU MUST WEAR YOUR SAFETY GLASSES UNDER YOUR WELDING HOOD.
   C. COMPANY SAFETY RULES REQUIRE THAT HARD HAT BE WORN AT ALL TIMES EXCEPT IN THE SHEETMETAL SHOP.

IF YOU ARE A WELDER, YOU MUST WEAR YOUR BARD HAT WITH YOUR WELDING HOOD ATTACHED TO THE HARD HAT. OTHER TYPES OF WELD HOODS ARE NOT LEGAL EXCEPT WHEN APPROVED BY YOUR DEPARTMENT READ OR A SAFETY SPECIALIST.

D. YOU MAY BE REQUIRED TO WORK IN CLOSE PLACES. IF YOU DO AND YOU ARE WELDING, BURNING OR WORKING WITH OR CLOSE TO ANYONE WHO IS WELDING OR BURNING ON GALVANIZE MATERIAL, ON A PAINTED SURFACE OR A SURFACE COATED WITH A PRESERVATIVE, YOU MUST HAVE AN EXHAUST VENTILATION TUBE WITHIN SIX (6") INCHES OF THE WORK.
YOU SHOULD ALSO WEAR A RESPIRATOR. RESPIRATORS CAN BE OBTAINED FROM THE TOOL ROOM THROUGH YOUR SUPERVISOR. VENTILATION CAN BE OBTAINED FROM THE TEMPORARY SERVICES DEPARTMENT THROUGH YOUR SUPERVISOR. SUPERVISORS MUST ENFORCE THE REQUIREMENT FOR PROPER VENTILATION AND WEARING RESPIRATORS.

THE TEMPORARY SERVICES DEPARTMENT HAS THE RESPONSIBILITY OF STARTING AND TURNING OFF CERTAIN TYPE OF BLOWERS THROUGHOUT THE YARD. IT IS VERY IMPORTANT THAT THESE BLOWERS BE LEFT OPERATING ONCE THEY HAVE BEEN TURNED ON IN ORDER TO AVOID THE POSSIBILITY OF A BUILD-UP OF HAZARDOUS FUMES. WE HAVE RECEIVED REPORTS OF SOME EMPLOYEES TURNING OFF THESE LARGE BLOWERS DURING LUNCH BREAK. THIS IS A SERIOUS PROBLEM THAT CANNOT BE IGNORED.

NO ONE OTHER THAN AUTHORIZED EMPLOYEES IS TO TURN OFF THESE BLOWERS ONCE THEY HAVE BEEN TURNED ON BY TEMPORARY SERVICES. IN THE EVENT THESE BLOWERS NEED TO BE TURNED OFF, EMERGENCY OR OTHERWISE, CALL TEMPORARY SERVICES AT EXTENSION 2-258.

BEGINNING 05/07/79, VIOLATIONS OF THIS PROCEDURE WILL BE CONSIDERED A TERMINATION OFFENSE UNDER GENERAL RULE A OF THE COMPANY’S ESTABLISHED WORK RULES. THIS PROCEDURE WILL NOT APPLY TO STARTING AND TURNING OFF THE SMALL LOCAL EXHAUST BLOWERS USED BY WELDERS.

E. IT IS PRESENTLY MANDATORY THAT YOU WEAR HEARING PROTECTION IN THE SHEETMETAL SHOP. IN OTHER AREAS IT IS RECOMMENDED THAT YOU WEAR HEARING PROTECTION WHEN WORKING WHERE THERE IS LOUD NOISES. HOWEVER, IF YOUR SUPERVISOR DETERMINES THAT THE NOISE LEVEL IS SUCH THAT DAMAGE TO YOUR HEARING IS POSSIBLE HE/SHE CAN MAKE IT MANDATORY FOR YOU TO WEAR HEARING PROTECTION.

F. YOU WILL HAVE OCCASIONS TO WORK ON SCAFFOLDING OR STAGING. SEVERAL THINGS TO KEEP IN MIND ARE:

1. NEVER HAVE LESS THAN TWO (2) 12" PLANKS TO WALK ON.

2. IF YOU ARE WORKING OVER 5' HIGH, YOU MUST HAVE GUARD RAILS TO KEEP FROM FALLING. THIS REQUIRES A TOP RAIL AND AMID RAIL. IF RAILING ARE NOT UP, YOU MUST WEAR A SAFETY BELT TIED OFF TO A SOLID STRUCTURE OTHER THAN THE SCAFFOLD. IF FOR SOME REASON YOU MUST MOVE GUARDRAILS OR PLANKS, BE SURE TO TELL YOUR SUPERVISOR SO THAT THEY CAN BE REPLACED SO THAT THE NEXT MAN UP THERE HAS PROPER PROTECTION.

3. BEFORE CONSTRUCTING STAGING, CHECK PLANKS AND HORSES. NEVER USE FAULTY PLANKS, PLYWOOD OR HORSES. FOR MORE DETAIL ON STAGING SEE ATTACHED SHEET.

4. NEVER MAKE CHANGES TO EXISTING SCAFFOLDING OTHER THAN HORSES AND PLANKS. IF CHANGES ARE TO BE MADE, CONTACT YOUR IMMEDIATE SUPERVISOR AND HE WILL GET SOMEONE TO MAKE THE NECESSARY CHANGES FOR YOU.

G. YOU WILL HAVE MANY OCCASIONS TO WORK ON PORTABLE LADDERS. THEY ARE ONLY AS SAFE AS YOU MAKE THEM. WHEN A LADDER IS DAMAGED IN ANY WAY TARE IT TO YOUR SUPERVISOR SO HE/SHE CAN EITHER HAVE IT FIXED OR DESTROYED. MAKE SURE THE LADDER IS OPENED UP PROPERLY AND IS SETTING ON A FLAT SURFACE BEFORE USING. IF LADDER IS LEANED AGAINST ANOTHER SURFACE MAKE SURE IT IS PROPERLY SECURED AT TOP AND BOTTOM BEFORE USING. NEVER WORK FROM THE TOP TWO RUNGS OF ANY LADDER. YOU SHOULD NEVER TRY TO REACH OUT BEYOND THE LADDER SO THAT YOUR BODY IS IN AN UNBALANCED POSITION.
H. ALWAYS KEEP YOUR WORK AREA CLEAN. HANG ALL HOSES, LINES, LEADS AND ELECTRICAL CORDS UP OFF AND OUT OF THE WALKWAYS. NEVER WORK IN AN AREA WHERE YOU MUST CLIMB OVER SCRAP AND TRASH.

I. IT IS RECOMMENDED THAT YOU WEAR SAFETY SHOES OR OTHER FOOT PROTECTION. A SHOE MOBILE COMES INTO NASSCO PERIODICALLY. YOU WILL BE NOTIFIED THROUGH THE BULLETIN BOARD AND YOUR SUPERVISOR THE NEXT TIME THE SHOEMOBILE WILL BE HERE. YOUR SUPERVISOR CAN PROVIDE YOU WITH THE FORMS NECESSARY FOR YOU TO MAKE A VISIT TO THE SHOE MOBILE. FILL OUT THE FORM AND GIVE IT TO YOUR SUPERVISOR AND HE WILL RETURN IT TO YOU SHOWING THE TIME AND DATE YOU MAY VISIT THE SHOE MOBILE. THERE ARE OTHER TYPES OF FOOT PROTECTION AVAILABLE IN THE CENTRAL TOOL ROOM. CHECK WITH YOUR SUPERVISOR AND HE/SHE WILL MAKE ARRANGEMENTS FOR YOU TO CHECK THEM OUT. TENNIS SHOES, SHOES WITH NO HEELS AND ALL CLOTH SHOES ARE PROHIBITED TO WEAR DURING WORK

J. NEVER WEAR RAGGED OR TORN CLOTHING.

K. BEFORE CLIMBING THE VERTICAL LADDERS ABOARD SHIP MAKE SURE THEY ARE SECURED SO IT WON'T SLIP WHILE YOU ARE CLIMBING.

L. NEVER WALK UNDER A LOAD SUSPENDED BY A CRANE OR FORK LIFT.

M. WHEN WORKING AROUND MACHINERY MAKE SURE THAT ALL GUARDS ARE IN PLACE AND KEEP YOUR MIND ON THE JOB AT HAND TO PREVENT SERIOUS INJURIES. NEVER REMOVE GUARDS FROM MACHINERY UNLESS AUTHORIZED BY YOUR SUPERVISOR. IF YOU SEE A GUARD THAT HAS BEEN REMOVED FROM THE MACHINERY, CONTACT YOUR SUPERVISOR.

N. YOU SHOULD NEVER USE ANY MACHINERY BEYOND ITS CAPACITY. THIS CAN CAUSE DAMAGE TO YOURSELF, YOUR FELLOW WORKER AND THE MACHINERY. ALMOST ALL OF THE MACHINES ARE MARKED AS TO IT'S CAPACITY. THERE ARE CERTAIN MACHINES IN THE SHEETMETAL SHOP THAT REQUIRE MACHINE OPERATORS ONLY AND YOUR SUPERVISOR WILL POINT THESE MACHINES OUT TO YOU.

P. WHEN USING A COME-A-LONG YOU SHOULD FOLLOW THE FOLLOWING:

1. ALWAYS KNOW CAPACITY AND CAPABILITY OF A COME-A-LONG. NEVER USE THE TOOL BEYOND ITS CAPACITY AND/OR CAPABILITY.

2. ALWAYS MAKE A VISUAL INSPECTION OF ALL COME-A-LONGS BEFORE USING:

   A. CHECK CHAIN FOR BAD LINKS AND END STOP.

   B. CHECK HOUSING FOR CRACKS.

   C. CHECK FORWARD AND REVERSE TRIGGER TO SEE THAT IT WORKS PROPERLY.

   D. CHECK CHAIN RELEASE TO SEE THAT IT WORKS PROPERLY.

   E. CHECK HOOKS FOR SAFETY DEVICE (MOUSE) AND MAKE SURE HOOKS ARE NOT SPREAD TOO FAR APART.

3. IF COME-A-LONG DOES NOT OPERATE PROPERLY; TURN TN FOR REPAIR. DO NOT USE.

4. NEVER USE CHEATERS (PIPE SLIPPED ON HANDLE) ON COME-A-LONG.

5. NEVER USE UNAUTHORIZED BEAM CLAMPS OR PAD EYES, CLAMPS SHOULD BE STAMPED FOR WEIGHT CAPACITY.
6. COME-A-LONG HOOKS MUST ALWAYS BE MOUSED WHEN IN USE.

7. COME-A-LONG MUST BE HOOKED IN PAD EYE OR BEAM CLAMP SO THAT WEIGHT IS IN THROAT OF HOOK. NEVER USE POINT OR EDGE OF HOOK TO LIFT OR MOVE OBJECT.

8. ALWAYS USE BEAM CLAMPS OR PAD EYES WITH COME-A LONG. NEVER USE EDGE OF BEAMS. THIS CAUSES HOOK TO SPREAD, THEREFORE, WEAKENING HOOK.

9. PAD EYES SHOULD ALWAYS BE WELDED SOLID ON THE OUTSIDE AND TACK WELDED ON INSIDE.

10. BEAM CLAMPS SHOULD ALWAYS BE SECURED SO THEY WILL NOT SLIDE ON BEAM WHILE COME-A-LONG IS IN USE.

11. IF A BEAM CLAMP OR PAD EYE BECOMES UNSAFE TO USE RETURN TO SUPERVISOR FOR REPLACEMENT.

12. AN EVALUATION OF THE OBJECT BEING LIFTED TO DETERMINE WHETHER ONE OR TWO COME-A-LONGS SHOULD BE USED, MUST BE DONE BEFORE OPERATING COME-A-LONGS.


14. NEVER ALLOW EXCESSIVE SLACK IN CHAIN. OBJECT COULD SLIP AND FALL.

15. NEVER STAND, WALK OR WORK UNDER A LOAD WHILE BEING HELD BY A COME-A-LONG.

16. NEVER LEAVE A COME-A-LONG IN OPERATION OVER NIGHT UNLESS AUTHORIZED BY SUPERVISOR.

17. IF THE LOAD BEING HANDLED IS SUCH THAT IT WOULD BE UNSAFE TO USE SHEETMETAL DEPARTMENT COME-A-LONGS (3/4 TON), CONTACT YOUR SUPERVISOR FOR ASSISTANCE IN HOW TO HANDLE LOAD OR SEEK HELP FROM RIGGING DEPARTMENT.

18. COME-A-LONGS SHOULD NEVER BE LEFT LAYING AROUND. WHEN NOT IN USE, RETURN TO GANG BOX.

19. NEVER LOAN COME-A-LONGS TO ANOTHER DEPARTMENT UNLESS APPROVED BY SUPERVISOR.

Q. ANY TIME YOU ARE REQUIRED TO ENTER A TANK, YOU SHOULD ALWAYS CHECK WITH YOUR SUPERVISOR TO MAKE SURE, THE TANK IS GAS FREE AND YOU SHOULD ALWAYS HAVE PROPER VENTILATION BEFORE ENTERING THE TANK. MOST GASES ARE HEAVIER THAN AIR AND WILL THEREFORE SETTLE IN THE BOTTOM OF TANKS. SO REMEMBER TO ALWAYS CHECK TO SEE THAT TANKS ARE GAS FREE BEFORE ENTERING.

3. NEW EMPLOYEES, ASSIGNED TO THE SHEETMETAL SHOP WILL BE CONDUCTED ON A TOUR OF THE SHOP WITH A SUPERVISOR TO EXPLAIN THE MACHINES, THEIR CAPABILITIES, AND THEIR USES. DO NOT USE THESE MACHINES UNTIL YOU HAVE BEEN INSTRUCTED IN THEIR SAFE OPERATING PROCEDURES.

4. IF YOU ARE INJURED ON THE JOB, YOU SHOULD NOTIFY YOUR FOREMAN IMMEDIATELY AND THEN HE WILL RELEASE YOU TO GO TO MEDICAL,
5. We request that you do not take food, newspapers and magazines aboard the ships. These items create housekeeping problems and fire hazards. However, if you do take food aboard, there is designated eating areas. Only in those areas are you allowed to eat food. Please throw all trash in the trash can.

6. When you enter an area to work, check for the following:

1. Exits - be sure you know the direction you must go to exit. If more than one, know each one.

2. Fire extinguisher: find closest extinguishers for each type of fire. Never use water on electric fire.

7. The company has installed an alarm system aboard ship under construction. Each alarm given represents certain things. Each employee should make themselves familiar with each signal so that if he/she hears that alarm they will know what to do.

Following is a list of signals given when necessary:

1. Flooding - high-low steady tone for ten (10) seconds, to be repeated as necessary.

2. Fire - three ten-second blasts with a pause between each blast, to be repeated as needed, augmented by announcement over the loudspeaker system.

3. Stop hot work - pulsing tone for ten-seconds to be repeated as needed, augmented by announcement over the loudspeaker system.

4. Evacuation - steady tone for ten-seconds to be repeated as needed, and announcement over the loudspeaker system. When the evacuation signal is given, all personnel not engaged in the fire fighting activities will immediately but in an orderly manner, evacuate the ship and meet with their supervisor in the vicinity of the lower end of the brow or gangway. When descending from ramps, gangways, and/or stairs, please use the right hand side so that our fire fighters can gain access to the fire.

Occasionally fire drills may be conducted. The purpose of fire drills are basically to keep you informed as to the proper means of escape. Escape routes are posted on the ships bulkheads, adhere to them and know them. The life you save may be your own. We can train you and teach you the proper means of egress but the whole key is - do you want to learn and do you care?

Note: The above safety suggestions are only a few of the many that could be mentioned. Most of the safety hazards are caused by individuals as they work. We ask that all of you make safety your job. If you see something that is or looks unsafe please notify your supervisor immediately so that corrective action can be taken. Safety is a team effort so let's be a good team.

"Never take that chance: it's too costly"
SAFETY ATTITUDE

Following are some thoughts on the subject of Safety Attitude. These comments are basic and fundamental. Almost anyone commenting on these basic attitude principles would say, "well, any fool knows that." Herein lies the Problem. Just knowing is not enough; however, knowing and then acting upon that knowledge with a positive "Can do" attitude is what marks a winner. For example, look at NASSCO's Can Do attitude towards quality and production. Safety attitude forms what could be called the backbone of any safety program, new or old. In comparing a negative attitude in a safety program to the building of a ship, it would be like not including a rudder prior to delivery. If these basic points are not driven home and adhered to, the safety program just-sort of drifts around off course. Addressed to all supervisors, these-basic points are as follows

1. The negative attitude.

The negative or wrong attitude is one that conveys the message:—"This safety-business is not my idea but something that the company, my boss, or the Safety Department dreamed up; you know that I don't agree with it, after all, I am on your side. It is mostly just a waste of time, but because I have to go through the motions, here it is."

There are probably a hundred ways that the above negative message can be conveyed; following are a few:

a) Expressed outright
b) Implied... a verbal message..(sometimes..very..subtle).

c) By actions, and they do indeed speak louder than words...

No matter how the negative attitude described above is conveyed, it is 100% guaranteed to produce zero benefits for

a) The employee-
b) Yourself
c) Your boss
d) Your Company.
2. The positive attitude.

   The positive attitude is a sincere personal and consistent commitment to prevent or lost time injuries. The Company you work for has every right, and does expect you to convey the above positive approach to Safety.

To convey the sincere, positive message described above does not require a college degree in psychology of human behavior. It seems that there is hardly anything that people pick up faster from other people can insincerity. So the answer to how to convey the positive message is very simple. It just takes an honest, sincere-effort on your part.

Are there any-benefits to be derived from honest, sincere, positive approach? You bet there are:

a) The employees. They can avoid suffering and injury. They do not lose time. Helping them to avoid crippling-injury is also helping their families. There are many more benefits for the employees who avoid injury.

b) Yourself - Satisfaction in properly performing your job and helping to prevent injury to the employees you supervise. You become a more valuable asset to your boss and your Company.

c) Your boss - You are telling your boss that you are supervising your employees in the performance-of their work in a safe manner, and that he does-not have to worry about your holding up your end.

d) Your Company. - You are performing your in the manner expected. of you. You are helping your Company avoid liability for injuries. You are helping to keep good, experienced People on their jobs and prevent expensive retiring and training. All in all, you are helping your Company to stay more competitive in obtaining new business and therefore maintaining the present workforce, or perhaps increasing employment.
Housekeeping Attitude

Look around your area and take a common-sense approach to housekeeping. Are you asking your people, on a daily basis, to continually walk over unnecessary tripping hazards? If so, clean them up. Don't let accumulations of scrap and debris pile up. Order scrap boxes and clean out accumulations. Poor housekeeping not only looks bad, it has a tendency to breed other types of sloppy-work practices. Walkways throughout the yard should be kept clear of protruding material and debris, and should be clearly marked off.

Caution

There is a caution that everyone should be applying when carrying out a good, aggressive safety program: Avoid any possibility of being accused that safety is used as a club or a way to get at someone, or to harass someone. Again it is a very simple matter to avoid this by just adhering to an honest, sincere, positive approach.

Accountability

It is your personal attitude towards safety, your personal commitment to the Company's safety policy that you will be held accountable for, not necessarily the statistics or numbers. In other words, it is your sincere, positive effort that is expected and required.
3.0 FACILITIES AND EQUIPMENT

3.1 Shop Layout and Production Equipment

The next enclosed page shows a pictograph of the shop and a list of the major equipments.

3.2 Material Handling Equipment

A dedicated fork lift truck using pallets is the common way to handle the completed ventilation components. The components go first to painting which is an outside area downwind from the shop and then to a staging area.
LIST OF EQUIPMENT

1. WHITNEY 6470 PANELMASTER
2. WHITNEY 636A DUPLICATOR
3. 12 FT. HYDRAULIC PRESS BRAKE
4. 12 FT. MECHANICAL PRESS BRAKE
5. N/C DRILLMASTER
6. RADIAL DRILL
7. BANDSAW
8. PRESS BRAKE
9. GRINDER
10. 1/4" X 14' SHEAR
11. SPOT WELDER
12. 1/16" X 8' SHEAR
13. EDDER
14. FLANGER
15. FORMER
16. PIT SQUISH FORMER
17. NIBBLER
18. LOCKFORMER
19. CORNICE BRAKE
20. PAN BRAKE
21. 4 FT. LEAF BRAKE
22. DRILL PRESS
23. NOTCH PUNCH
24. BANDSAW
25. ROD BENDER
26. CUT-OFF SAW
27. MID WELDERS
28. IRON WORKER
29. SANDBLAST CABINET
30. 1 TON JIB CRANE
31. GRINDER
32. NUMERIDEX LC.6000

*NOTE: SHAPES WITHOUT ASSIGNED NUMBERS ARE WORKTABLES.
SHOP MACHINES

ALL MACHINES PERFORM SETTER AND SAFER WHEN OPERATED PROPERLY. IF YOU DON'T KNOW HOW - SEE YOUR FOREMAN FOR INSTRUCTIONS BEFORE STARTING.

SHEARS

Lodge and Shipley (745)
Shears metal sheets and plates. Maximum capacity: 1/4 inch medium steel. Shear is normally set to shear 1/16 inch to 1/8 inch thickness, have machine operator make adjustments, for thinner or thicker metals. Motor driven backstop is for multiple cuts under 36 inches. Keep fingers outside of guards. Always have metal under hydraulic hold down when shearing. Keep hands clear of this clamping action. Use mirrors to see that no one will be hit by working of shear or falling of metal. Use overhead crane or get help when plates are heavy. The green light on this machine casts a shadow for shearing to your cut lines.

Wysong (772)
Shears sheet metal and is similar in operation to the Lodge and Shipley. Has manually operated backstop. Maximum capacity: 1/16 inch medium steel.

Pullmax

Makes other than straight cuts of metal. Cuts circles up to 24 inch radius, larger radius requires external adapter. Best cuts are made with metal in horizontal position.

Buffalo Iron Worker (704)
Shears angle, flat, round and square bar. This machine also notches and copes for:

- Angle bar: 4 x 4 1/2 in inches
- Flat bar: 5/8 x to 1/4 x 3/8
- Round bar: 15/8 diameter
- Square: 11/2 x 11/2

Angle bar can be sheared at angles other than 90 degrees. Maximum capacity: 3 x 3 x 5/18 at 45 degrees. Hold down clamps must be used to secure metal before attempting to shear.
POWER PRESS BREAKS
(BENDING)

STURDY BENDER [730]
(MACHINE OPERATOR ONLY)
CINCINNATI
ENDS FLATTENS AND SHAPES METAL
MAXIMUM CAPACITY: 1/8 INCH AT 14 FEET.

DI ACRO PRESS BRAKE [705]
(MACHINE OPERATOR ONLY)
35 Ton
UP TO 16 GAGE FITTINGS FORMED HERE
MAXIMUM CAPACITY: 1/16 INCH AT 8 FEET.

DIAMOND 30 PRESS BRAKE [760] IS USED TO FORM VARIOUS
STRAP.

LEAF AND BOX BRAKES
MANUALLY OPERATED TO BEND
FORM SHEET METAL.
MAXIMUM CAPACITY: 16 GAGE.
ADJUST SIDE LEVERS FOR MEN CLAMPING.
LOW ONE METAL THICKNESS BETWEEN UPPER CLAMPING ART AND EDGE OF HINGED LEAF.

TE: A BASIC FACT IS THAT METAL HAS THICKNESS AND
THICKNESS MUST BE CONSIDERED AND ALLOWED
FOR ON ALL BENDING AND FORMING OPERATIONS.

DRILL PRESSES

DRILLS HOLES USING DRILL BITS OR HOLE-SAWS.
MATERIAL BEING DRILLED MUST BE CLAMPED
OR OTHER WISE SECURED.
DO NOT LEAVE KEY IN CHUCK.
SPEED (RPM) CAN BE DIALED ON TWO VARIABLE
SPEED PRESSES - OTHERS REQUIRE CHANGING
BELT LOCATION ON THEIR PULLEYS. DISCONNECT
POWER BEFORE ATTEMPTING TO CHANGE THE BELT.

LOCKFORMERS [748, 743, 742]
PITTSBURG LOCK IS FORMED
ON THESE MACHINES.
[748] 16 GAGE MAXIMUM CAPACITY.
[743] 18 GAGE MAXIMUM CAPACITY.
ALSO FORMS 18 GAGE PIPE LOCK.
[742] 20 GAGE MAXIMUM CAPACITY - ALSO FORMS
1/4 INCH FLANGE UP.

LOCKFORMER EDGER [754]
FORMS 1/4 INCH FLANGE ON OTHER THAN STRAIGHT EDGES.

PEXTO FORMER [757]
THIS MACHINE USED BASICALLY
TO FORM LAP OUT AND LAP IN.
SHRINKS DIAMETER OF ENDS OR ROUND
DUCT BY CORRUGATING THEM. FORMS,
BEADS, AND ROLLS EDGES. SMALLER
HAND OPERATED FORMERS DO THE
SAME WORK ONLY ON THIN METAL.
**PUNCH PRESS**

WHITNEY DUPLICATOR [706]
(MACHINE OPERATOR ONLY)
PUNCHES HOLES IN METAL
MAXIMUM THICKNESS 1/4 INCH AT 2 INCH DIAMETER
MAXIMUM DIAMETER 5 INCHES AT 1/8 INCH THICKNESS
FORMS LOUVER OPENINGS.
SLOTTING AND CUTTING CAN BE DONE HERE.

THE BUFFALO IRON WORKER ALSO HAS PUNCH CAPABILITY,
MAXIMUM DIAMETER AT 5/8 INCH THICKNESS.
TWO OTHER POWER PUNCHES #720 SMALL AND #516 MEDIUM.
NOTE: THERE ARE SEVERAL BENCH MOUNTED PUNCHES THROUGHOUT SHOP.

**SLIP ROLLS**

VARIOUS SIZES AND CAPACITIES ARE FOUND IN THE SHOP. ALL WILL ROLL METAL INTO CYLINDERS AND ALLOW CYLINDER TO SLIP OFF THE END OF THE TOP ROLL.
OME ROUND BAR AND CONE SHAPES CAN BE FORMED HERE. POWER DRIVEN ROLLS ARE DESIGNED TO SHUT OFF WHEN FINGER IS REMOVED FROM SWITCH (DEAD MAN SWITCH). NO GLOVES, NO LOOSE CLOTHING ARE PERMITTED BECAUSE OF THE POWERFUL INCH POINTS ON THESE MACHINES.

**BAND SAW S**

WHEN INSTALLING BAND SAW BLADES, TEETH MUST FACE OPERATOR AND TURN DOWN TOWARD METAL BEING CUT

BLADE GUIDES ARE ADJUSTABLE FOR HEIGHT AND SHOULD BE RAISED NO HIGHER THAN NECESSARY TO JUST CLEAR THE WORK.

**MARVEL 8 BAND SAW [10093]**
SIMILAR TO OTHER BAND SAWS WITH THESE ADDED FEATURES
1) METAL BEING CUT CAN BE QUICKLY CLAMPED.
2) BLADE CAN BE POSITIONED 45° TO EITHER SIDE OF VERTICAL.
3) VARIABLE SPEED.
4) SAW DRY OR WITH COOLANT.
5) HAND OR SELF FEEDING FEATURE.

**ABRASIVE SAWS**

BRILLIANT ABRASIVE SAW [10292]
CUTS BY GRINDING A NARROW SLOT THROUGH METAL. USED TO CUT SHAPES - NOT SHEETS OR PLATE. SHAPES BEING CUT MUST BE SECURELY AND EVENLY HELD, TO PREVENT BINDING OF SAW BLADE.
THE BRILLIANT ABRASIVE SAW HAS A 14 INCH BLADE ANGLE CUTS UP TO 45°. DUST EXHAUSTER MUST BE ON BEFORE THIS SAW WILL OPERATE.
THE MERCURY (734) ABRASIVE SAW MAKES SQUARE CUTS ONLY WITH A 20" BLADE.

**GRINDING**

PEDESTAL GRINDERS (AND DISC SANDERS) ARE USED PRIMARILY TO REMOVE SMALL AMOUNTS OF METAL, TO DEBURR, TO TRUE UP AN IRREGULAR EDGE.
MAKE SURE TOOL RESTS ARE ABOUT 1/16 INCH FROM WHEEL OR DISC.
DO NOT GRIND ON SIDES OF WHEELS, GRIND ON HIGH SPOTS TO KEEP SURFACE WEAR EVEN (DO NOT GOUGE).
FACE SHIELDS ARE REQUIRED ON ALL GRINDING OPERATIONS.
4.0 LAYOUTS AND MATERIAL FLOW

4.1 Work Areas

In the several volumes describing the various standard shapes and the MOST-Analysis, you will find descriptions of the various FIT and WELD work places.

4.2 Material Flow

The material used consists of 4x8 sheets ranging from 45 to 165 pounds each (see Section 1.3). These are stacked in a rack outside of the sheetmetal shop. As the fitters or layout people need material they procure a transfer cart, go out to the stock rack and load on the cart one or more sheets for moving to their bench.

Completed assemblies are usually moved on pallets with a fork truck.
5.0 PROCESS DATA

5.1 Derivation of Process Times

The processes that are timed and used are rather short and do not consume much of the total. They are:

1. Plasma arc cutting on the Whitney Panel Master where the process time is known and programmed in by the CNC personnel.

2. Seam welding. When the analyst observes this process, the traverse time can be recorded. A digital indicator on the machine given the inches per minute weld speed.

5.2 Technical Processes

The various technical processes used are determined by the product and by the machines required. A typical ventilation manufacturing cycle goes like this:

1. The part is planned and included in a sketch for shop instructions, dimensions, material thickness, etc.

2. If complicated a paper pattern is laid out to assist in determining the flat stretch out. Sometimes, as with a simple square section duct the fitter lays out his own work. Also, if planned for the CNC, the layout work is essentially done as part of the cutting process in the CNC machine. This is one of the real labor-saving aspects of a machine like the Whitney Panel Master that de facto layout, marking, and cutting are all done as one quick part of the manufacturing process.

3. The sheetmetal is sheared to the proper size.

4. If not CNC, the material is "marked out" showing outline, bend lines, part number, etc.

5. The piece(s) is cut to the proper outline using a power shear, hand shear (powered unishear), nibbler, or punch.

6. The piece(s) are formed in the brake (press or hand) or roll former and/or lock seam machine.

7. The fitter assembles the pieces into a 3-D shape using tack welding, Pittsburgh joints, riveting, etc.
9. The individual shapes are combined with other shapes or at the ends, temporarily attached flanges.

10. The part is inspected and goes to get painted.

5.3 Tool Life

Tool life doesn't figure much in sheetmetal processes, but shear blades drills, punches, etc. do have to be sharpened or replaced on occasion. The foreman is responsible for this.
6.0 MANUAL METHODS

6.1 Manual Methods

The manual methods, all listed in the backup data are described in great detail in the MOST-Analyses. Both the step by step manual method, referring to the Work Area Layout, and the MOST analysis, is listed for all of the standard shapes. Also information is included to add flanges, rivet to another shape, add access covers, end caps, and so on.
SECTION 7

7.0 STANDARD TIME CALCULATION

7.1 Standard Data

For ease and convenience of use we worked up a chart, in conjunction with the people who will use the standard time, of the standard shapes and the appropriate standard time. A rather extensive analysis was made of past history of the yard (only a rough guide) as to the use and sizes of the standard shapes. As there was an expected tendency of the sizes to cluster around certain categories we plotted our data in histograms in order to get the representative sample. For example we found groupings around areas of less than 100 square inches and more than 100 square inches. Using this and other criteria we developed a chart that is based on the users requirements and with an estimated accuracy of better than 10% - plenty good enough for our needs.

7.2 How to Calculate Time Standards

Refer to the next two pages for our instruction sheet and "Sheetmetal Sketch Standard Data."

7.3 Manning, Crew Size, and Job Classes

The shop is run by a general foreman with several foreman reporting to him. The foreman is an exempt, salaried position. Reporting to the foreman are working foremen, leadmen, and journeymen - all non-exempt jobs. The basic sheetmetal "fitter" fabricates from drawings and templates and operates certain shop equipment as assigned. The journeyman welders are assigned to the sheetmetal shop for welding operations. They don't usually weld until the unit is fitted and tacked in position.
1. Use a new sheet for each sketch,

2. Fill in part number, etc.

3. Circle the standard hour values that come closest to the shapes on the sketch. Use frequency to allow for more than one similar part.

4. Add time for riveted joints, flange attachment, etc.

5. Total up, multiply by 1.15 to get standard time. NOTE: While this 15% adder for personal time, "relaxation allowance," unavoidable delays, and cleanup time may change, the concept of standard time does not change except to correct for errors.

6. Multiply by this years achievability factor, let's say 2.0 for example, to get target time for shop loading. This will change next year as we improve our efficiency.

STANDARD TIME: The time which is determined to be necessary for a qualified journeyman, working at a sustainable pace (8-hour day), with capable supervision, with all tools and material required, to do a defined quantity of work.

STANDARD DATA: A published compilation of standard time values for well-defined and coded elements. Usually based on a visible, tangible, output item.
<table>
<thead>
<tr>
<th>AREA</th>
<th>SHORT OFF</th>
<th>LONG OFF</th>
<th>OFFICE</th>
</tr>
</thead>
<tbody>
<tr>
<td>≤ 100 sq ft</td>
<td>1.02</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td>&gt; 100 sq ft</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
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</tbody>
</table>

*Other Operations:*

- Attach Brackets
- Access Holes
- Blank Ends

**Normal Time - Hours**

<table>
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<tr>
<th>Personal</th>
<th>Fatigue</th>
<th>Fatiguing Delay</th>
<th>Standard Time</th>
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<tbody>
<tr>
<td>1.02</td>
<td>1.00</td>
<td>1.00</td>
<td>2.0</td>
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**Multiply by 2.0 for 1983 Attainability**

**Target Time**

<table>
<thead>
<tr>
<th>2.0</th>
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<tbody>
<tr>
<td>1.07</td>
<td>1.67</td>
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**Total Area**

<table>
<thead>
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<th>AREA</th>
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<tr>
<td>&gt; 100 sq ft</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
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</table>
8.0 DATA SYNTHESIS AND BACKUP

8.1 Summary

This was explained in Section 6.1 and 7.2.
9.0 ALLOWANCES

9.1 General

Allowances have been arbitrarily set, for this Work Management Manual, at 15%. This will be reviewed in the future. The allowance is further subdivided to:

10% Personal: Forty-eight (48) minutes are allowed per day for cleaning up, going to the toilet, etc.

2.5% Fatigue: It is understood that at times the work is physically demanding. An allowance of twelve (12) minutes a day is allowed for resting.

2.5% Delay: Occasionally there will be delay at the stockroom, or a machine, and twelve (12) minutes a day (average) are allowed for this.

Sheetmetal work, by its very nature is not very fatiguing, nor beset with delays. Often the fitters can observe the activity around him and mesh their time properly to avoid delays.

In practice, our standard time is built on the expectation of 6.96 hours a day of normal work and a little more than an hour (1.04 hours) allowed for personal, fatigue and expected delay.
APPENDICES

A. GLOSSARY OF TERMS

(A glossary of terms peculiar to local sheetmetal work)

Blackpen A heavy duty felt-tipped marking pen.

Cpunch Center punch.

Drillmotor Erroneously called an electric drill. A portable drill motor chucks and turns a twist drill.

Extention When a square or round straight section is made part of a conventional shape. For example an extension is often made part of an ell with no more separate pieces of sheetmetal.

Lapout A powered Pexto machine that forms a 1/16 x 1" offset collar on the end of a piece of duct. This outside offset facilitates the forming of a lays joint. In ventilation equipment the lapout joint is usually the downstream piece. See page 47 (machine number 757).

Redpen A heavy duty felt-tipped marking pen.

Shapes, Standard shapes See Section 1.2.

Stinger The electrode holder of a welding machine.

Template A pattern (flat outline) of the developed sheetmetal part made out of heavy paper or metal. They are used to guide the tracing of the outline on the metal - called the stretch out before forming.

Unishear A powered hand-operated sheetmetal cutting shear. Will cut rounded or straight cuts.

Visegrip A clamping type pair of pliers.

Weldor The journeyman who does the welding.

Welder A power supply and machine system to perform arc welding.
APPENDIX B

SAMPLE OF FORMS
<table>
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<tr>
<th>Nature of Observations</th>
<th>Accept</th>
<th>Reject</th>
<th>No. of Deficiencies</th>
<th>Nature of Defects</th>
<th>Nature of Corrective Act</th>
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<td><strong>FABRICATION</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Fabricated in Accordance with applicable drawings. (Includes Flanges)</td>
<td></td>
<td></td>
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<tr>
<td>3. Welds to Leave a neat uniform appearance, free of excessive slag and inclines</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Dampers, splitter and deflectors hemmed on leading edge.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Total Observations.</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</table>

**REMARKS:**
Back-up

MOST Analyses
TRANSPORTATION

File Description ? LOAD SHEETMETAL ON CART

Output to line-printer <Y or N> ? N

FIT W04 MAREOT. MOO
LOAD SHEETMETAL FOR TRANSPORT WITH CART AT SHEETMETAL SHOP
PER SHEET OFG: 3 22-FEB-83
4x8 - 16 GAUGE SHEETMETAL
* 2 OPERATORS USED FOR LOADING
FITTER BEGINS AT SHEETMETAL-STORAGE

1 PLACE SHEETMETAL2 ( 1 SHEET ) FROM SHEETMETAL-STORAGE TO CART AT SHEETMETAL-STORAGE F 2
A1 BO G1 A1 BO P3 A0 2.00 120.

2 POSITION SHEETMETAL FROM CART WITH 2 STEPS AT WORKTABLE TO WORKTABLE WITH 8 STEPS
A3 B3 G1 A16 B0 F6 A0 1.00 290.

3 POSITION SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 8 STEPS
A1 B0 G1 A16 B0 P6 A0 1.00 240.

TOTAL TMU 650.

Type D, EH, CT, EX, T, W <or H for help> ? T MARKOT, MO1

File Description ? TRANSPORT FOR MARK OUT

Output to line-printer <Y or N> ? N

FIT W04 MARKOT, MO1
TRANSPORT SHEETMETAL FOR MARK CUT AT SHEETMETAL SHOP
PER SKETCH OFG: 4 22-FEB-83
4x8 x 16 GAUGE SHEETMETAL
* METHOD FOR TYPICAL SKETCHES
*: USED BY MARK CUT PEOPLE AND FITTERS
FITTER BEGINS AT WORKTABLE

1 MOVE TEMPLATES FROM WORKTABLE ( TEMPLATE STORAGE RACK ) TO WORKTABLE WITH 40 STEPS
A1 B0 G1 A67 B0 F1 A0 1.00 700.

2 MOVE CART FROM TOOLROOM ( RANDOM SHOP LOCATIONS ) TO SHEETMETAL-STORAGE
A96 BO G1 A113 B0 F1 A0 1.00 2110.

3 MOVE CART FROM SHEETMETAL-STORAGE TO WORKTABLE PF 2 ( 4 )
A1 B0 G1 (A152) B3 F1 A0 (2) 1.00 3100.

4 MOVE CART FROM WORKTABLE TO MARKOUT-STORAGE PF 2 ( 4 )
A1 B0 G1 (A67 ) B0 P1 A0 (2) 1.00 1370.

5 MOVE CART FROM WORKTABLE TO MARKOUT-STORAGE PF 2 ( 4 ) F 2 / 3
A67 B3 G1 (A67) B0 P1 A0 (2) 0.67 1373.

6 MOVE CART FROM TOOLROOM ( RANDOM SHOP LOCATIONS ) TO MARKOUT-STORAGE
A54 B0 G1 A54 B0 F1 A0 1.00 1100.

7 MOVE CART FROM MARKOUT-STORAGE ( WITH MARKED CUT SHEETMETAL ) TO WORKTABLE PF 2 ( 4 )
A1 SO G1 (A67 ) B3 F1 A0 (2) 1.00 1400.

TOTAL TMU 11153.
SHEETMETAL SHAPE # 1

8 x 6 to 10 x 4 x 16" LG TRANSFORMER

---

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File Description ? MARK OUT SHEETMETAL FOR TRANSFORMER

output to line-printer <Y or N> ? N

39, 3)
FIT .W11 TRANSF.M90
MARK OUT SHEETMETAL FOR TRANSFORMER WITH AWL AT SHEETMETAL SHOP
PER TRANSFORMER OFG: 4 01-JUL-83
NASSCO SHEETMETAL SHAPE 1
* 20 GAUGE GALV. SHEETMETAL
* 8"X6" TO 10"X4"X16" LG
* MARK OUT USING TEMPLATE
FITTER BEGINS AT WORKTABLE

1 POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS
A1 B0 G1 A6 B0 P6 A0 1.00 140.

2 PLACE WEIGHT FROM WORKTABLE TO TEMPLATE AT WORKTABLE WITH 3 STEPS F2
A1 B0 G1 A6 B0 P3 A0 2.00 220.

3 MARK OUTLINE FROM TEMPLATE TO SHEETMETAL AT WORKTABLE USING AWL AT WORKTABLE AND ASIDE PF 8 (4 5 6 7)
A1 BO G1 (A1 BO P1 R16) A1 B0 P1 A0 (8) 1.00 1480.

4 POSITION CPUNCH FROM WORKTABLE TO TEMPLATE AT WORKTABLE F4
A1 BO G1 A1 BO P6 A0 4.00 360.

5 FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE AND ASIDE PF 4 (4 5 6 7)
A1 BO G1 (A1 BO PO F3) A1 BO P1 A0 (4) 1.00 200.

6 REPLACE WEIGHT FROM TEMPLATE TO WORKTABLE WITH 3 STEPS
A1 BO G1 A6 BO P3 A0 1.00 110.

7 REPLACE TEMPLATE FROM SHEETMETAL TO WORKTABLE WITH 3 STEPS
A1 BO G1 A6 BO P3 A0 1.00 110.

8 PLACE CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS
A1 BO G1 A6 BO P3 A0 1.00 110.

9 HAMRK CORNERS FROM CORNER TEMPLATE TO SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF 16 (4 5 6 7)
A1 BO G1 (A1 BO P1 R3) A1 BO P1 A0 (16) 1.00 840.

10 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 5 (4 5 6 7)
A1 BO G1 (A1 BO P1 R16) A1 BO P1 A0 (5) 1.00 940.

11 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 47 (4 5 6 7)
A1 BO G1 (A1 BO P1 R3) A1 BO P1 A0 (47) 1.00 2390.

12 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 34 (4 5 6 7)
A1 BO G1 (A1 BO P1 R3) A1 BO P1 A0 (34) 1.00 1740.

TOTAL TMU 8640.
File Description ? MARK OUT SHEETMETAL TOP FOR TRANSFORMER

output to line-printer <Y or N> ? N

39, 3) FIT .W11 TRANSF.M91
MARK OUT SHEETMETAL TOP FOR TRANSFORMER WITH AWL AT SHEETMETAL
SHOP
PER TRANSFORMER OFG: 4 21-JUN-83
NASSCO SHEETMETAL SHAPE 1
* 20 GAUGE GALV. SHEETMETAL
* 8"X6" TO 10"X4"X16" LG
* MARK OUT USING TEMPLATE
FITTER BEGINS AT WORKTABLE

1 POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE WITH 3 STEPS
A1 BO G1 A6 BO P6 A0 1.00 140.

2 PLACE WEIGHT FROM WORKTABLE TO TEMPLATE AT WORKTABLE
WITH 3 STEPS
A1 BO G1 A6 BO P3 A0 1.00 110.

3 MARK OUTLINE FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5
DIGITS USING AWL AT WORKTABLE AND ASIDE PF 3 (4 5 6 7)
A1 BO G1 (A1 BO P1 R16) A1 BO P1 A0 (3) 1.00 580.

4 REPLACE WEIGHT FROM TEMPLATE TO WORKTABLE WITH 3 STEPS
A1 BO G1 A6 BO P3 A0 1.00 110.

5 REPLACE TEMPLATE FROM SHEETMETAL TO WORKTABLE WITH 3
STEPS
A1 BO G1 A6 BO P3 A0 1.00 110.

6 PLACE CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE AND ASIDE PF 4 (4 5 6 7)
A1 BO G1 (A1 BO P3 A0) 1.00 180.

7 MARK SHEETMETAL FROM CORNER TEMPLATE AT WORKTABLE 1
DIGIT USING AWL AT WORKTABLE AND ASIDE PF 8 (4 5 6 7)
A1 BO G1 (A1 BO P1 R3) A1 BO P1 A0 (8) 1.00 440.

8 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS
USING REDPEN AT WORKTABLE AND ASIDE PF 4 (4 5 6 7)
A1 BO G1 (A1 BO P1 R16) A1 BO P1 A0 (4) 1.00 760.

9 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE
1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 20 (4 5 6 7)
A1 BO G1 (A1 BO P1 R3) A1 BO P1 A0 (20) 1.00 1040.

10 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT
USING BLACKPEN AT WORKTABLE AND ASIDE PF 34 (4 5 6 7)
A1 BO G1 (A1 BO P1 R3) A1 BO P1 A0 (34) 1.00 1740.

11 PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE
WITH 4 STEPS F 2
A1 BO G1 A6 BO P3 A0 2.00 220.

12 MOVE CART FROM WORKTABLE TO SMALLSHEAR
A1 BO G1 A67 BO P1 A0 1.00 700.

TOTAL TMU 6130.
**File Description ? SHEAR SHEETMETAL FOR TRANSFORMER**

Output to line-printer <Y or N>? N

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<td>SHEETMETAL SHOP</td>
<td>OFG: 4 21-JUN-83</td>
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<td>PER TRANSFORMER</td>
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NASSCO SHEETMETAL SHAPE 1
* 20 GAUGE GALV. SHEETMETAL
* 8"x6" TO 10"x4"x16" LG
FITTER BEGINS AT SMALLSHEAR

1 POSITION SHEETMETAL FROM CART AT SMALLSHEAR TO SMALLSHEAR WITH 4 STEPS F 2
   A1 BO G1 A6 BO P6 A0 2.00 280.
2 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS
   A1 BO G1 M1 X6 IO A0 1.00 90.
3 POSITION SHEETMETAL FROM SMALLSHEAR TO SMALLSHEAR F 8
   A1 BO G1 A1 BO P6 A0 8.00 720.
4 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 8
   A1 BO G1 M1 X6 IO A0 8.00 720.
5 PLACE SHEETMETAL FROM SMALLSHEAR TO CART AT SMALLSHEAR WITH 10 STEPS F 2
   A1 BO G1 A16 BO P3 A0 2.00 420.
6 MOVE CART FROM SMALLSHEAR TO WORKTABLE
   A1 BO G1 A67 B3 P1 A0 1.00 730.

**TOTAL TMU** 2960.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W (or H for help> ?
File Description: SHEAR UNEVEN END OF TRANSFORMER

Output to line-printer <Y or N> ? N

SHEAR UNEVEN END OF TRANSFORMER WITH UNI-SHEAR AT SHEETMETAL SHOP

PER TRANSFORMER

NASSCO SHEETMETAL SHAPE 1
* 20 GAUGE GALV. SHEETMETAL
* 8"X6" TO 10"X4"X16" LG
* USE UNI-SHEAR ON AREAS OF TRANSFORMER-
  * -THAT CAN NOT BE CUT WITH 8FT. SHEAR

FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS
   A1 BO G1 A6 BO P3 A0 1.00 110. ✔
2 MOVE UNISHEAR2 FROM TOOLROOM TO WORKTABLE
   A96 BO G1 A96 B3 P1 A0 1.00 1970. ✔
3 POSITION UNISHEAR FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS
   A1 BO G1 A3 BO P6 A0 1.00 110. ✔
4 OPERATE UNISHEAR AT WORKTABLE PROCESS F 2
   A1 BO G1 M6 X17310 A0 2.00 3620. ✔
5 CUT CORNERS ON SHEETMETAL AT WORKTABLE 1 CUT USING SNIPS AT WORKTABLE AND ASIDE PF 24 (4 5 6 7)
   A1 BO G1 (A1 BO P3 C1) A1 BO P1 A0 (24) 1.00 1240. ✔
6 FASTEN (FLATTEN) SHEETMETAL CORNERS ON SHEETMETAL AT WORKTABLE 2 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 24 (4 5 6 7)
   A1 BO G1 (A1 BO P0 F6) A1 BO P1 A0 (24) 1.00 1720 ✔
7 PLACE SHEETMETAL2 FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS
   A1 BO G1 A6 BO P3 A0 1.00 110. ✔
8 MOVE CART FROM WORKTABLE TO LAPOUT MACHINE
   A1 BO G1 A54 BO P1 A0 1.00 570. ✔

TOTAL TMU 9450.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?
File Description ? FORM LAP END FOR TRANSFORMER

Output to line-Printer <Y or N> ? N

(39, 3)
FIT .W11 TRANSF.M94
FORM LAP END FOR TRANSFORMER WITH LAPOUT MACHINE AT SHEETMETAL SHOP
PER TRANSFORMER OFG: 4 22-JUN-83

NASSCO SHEETMETAL SHAPE 1
* 20 GAUGE GALV. SHEETMETAL
* 8"X6" TO 10"X4"X16" LG
FITTER BEGINS AT LAPOUT

1 PLACE SHEETMETAL FROM CART AT LAPOUT TO LAPOUT WITH 4 STEPS F 2
   A1 BO G1 A6 BO P3 A0  2.00  220.
2 PUSH LAPOUT-SWITCH PROCESS F 2
   A1 BO G1 M1 X16 IO A0  2.00  380.
3 REPLACE SHEETMETAL FROM LAPOUT TO CART AT LAPOUT WITH 4 STEPS F 2
   A1 BO G1 A6 BO P3 A0  2.00  220.
4 MOUE CART FROM LAPOUT TO PITTSBURGH
   A1 BO G1 A6 BO P1 A0  1.00  90.

TOTAL TMU  910.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

7320
FORM PITTSBURGH LOCK FOR TRANSFORMER

Output to line-printer <Y or N> ? N

( 39, 3)

FIT WITH Pittsburgh MACHINE AT SHEETMETAL SHOP

PER TRANSFORMER OFG: 4 22-JUN-83

NASSCO SHEETMETAL SHAPE 1
* 20 GAUGE GALV. SHEETMETAL
* 8"X6" TO 10"X4"X16" LG
FITTER BEGINS AT PITTSBURGH

1 PLACE SHEETMETAL FROM CART AT PITTSBURGH TO PITTSBURGH WITH 4 STEPS F 2
   A1 BO G1 A6 BO P3 A0 2.00 220.

2 PUSH PITTSBURGH-BUTTON PROCESS F 4
   A1 BO G1 M1 X32 IO A0 4.00 1400.

3 PUSH AND GUIDE SHEETMETAL THROUGH PITTSBURGH WITH 2 STEPS F 4
   A3 BO G1 M1 X0 I3 A0 4.00 320.

4 PLACE SHEETMETAL FROM PITTSBURGH TO CART AT PITTSBURGH WITH 4 STEPS F 2
   A1 BO G1 A6 BO P3 A0 2.00 220.

5 MOVE CART FROM PITTSBURGH TO LEAFBRAKE
   AL BO G1 A32 BO P1 A0 1.00 350.

TOTAL TMU 2510.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

15830
BEND SHEETMETAL FOR TRANSFORMER WITH LEAFBRAKE AT SHEETMETAL SHOP

PER TRANSFORMER

TRANSF.M96

NASSCO SHEETMETAL SHAPE 1

* 20 GAUGE GALV. SHEETMETAL
* 8"X6" TO 10"X4"X16" LG
* BEND SIDES OF TRANSFORMER UP 90 DEGREES
FITTER BEGINS AT LEAFBRAKE

1 POSITION SHEETMETAL FROM CART AT LEAFBRAKE TO
LEAFBRAKE WITH 4 STEPS
A1 BO G1 A6 BO P6 A0 1.00 140.

2 OPERATE LEAFBRAKE-LEVER PROCESS
A1 BO G1 M6 X16 IO A0 1.00 240.

3 POSITION SHEETMETAL FROM LEAFBRAKE TO LEAFBRAKE
A1 BO G1 A1 BO P6 A0 1.00 90.

4 OPERATE LEAFBRAKE-LEVER PROCESS
A1 BO G1 M6 X16 IO A0 1.00 240.

5 REPLACE SHEETMETAL FROM LEAFBRAKE TO CART AT LEAFBRAKE
WITH 4 STEPS
A1 BO G1 A6 BO P3 A0 1.00 110.

6 MOVE CART FROM LEAFBRAKE TO PANBRAKE
A1 BO G1 A42 BO P1 A0 1.00 450.

TOTAL TMU 1270.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

17,100
BEND LAP ENDS FOR TRANSFORMER

PER TRANSFORMER

NASSCO SHEETMETAL SHAPE 1
* 20 GAUGE GALV. SHEETMETAL
* 8"X6" TO 10"X4"X16" LG
* KINK UP LAP ENDS FOR TRANSFORMER
FITTER BEGINS AT PANBRAKE

1. POSITION SHEETMETAL2 FROM CART AT PANBRAKE TO PANBRAKE WITH 4 STEPS F 2
   A1 BO G1 A6 BO P6 A0 2.00 280.

2. FASTEN [JAWS1 NUST TO SHEETMETAL AT PANBRAKE 5
   WRIST-STROKES USING WRENCH AT PANBRAKE AND ASIDE
   A1 BO G1 A1 BO P3 F16 A1 BO P1 A0 1.00 240.

3. OPERATE PANBRAKE-LEVER PROCESS F 2
   A1 BO G1 M6 X96 IO A0 2.00 2080.

4. POSITION SHEETMETAL FROM PANBRAKE TO PANBRAKE F 6
   A1 BO G1 A1 BO P6 A0 6.00 540.

5. OPERATE PANBRAKE-LEVER PROCESS F 6
   A1 BO G1 M6 X96 IO A0 6.00 6240.

6. REPLACE SHEETMETAL2 FROM PANBRAKE TO CART AT PANBRAKE WITH 4 STEPS F 2
   A1 BO G1 A6 BO P3 A0 2.00 220.

7. MOVE CART FROM PANBRAKE TO WORKTABLE
   A1 BO G1 A54 B3 P1 A0 1.00 600.

TOTAL TMU 10200.
File Description ? ASSEMBLE TRANSFORMER

Output to line-printer <Y or N> ? N

39, 3) FIT .W11

ASSEMBLE TRANSFORMER WITH HAMMER AT SHEETMETAL SHOP

PER TRANSFORMER OFG: 4 06-JUL-83

NASSCO SHEETMETAL SHAPE 1
* 20 GAUGE GALV. SHEETMETAL
* 8"X6" TO 10"X4"X16" LG
* JOIN TOP SECTION TO BOTTOM SECTION --
* --WITH PITTSBURGH LOCK

FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 4

A1 BO G1 A6 BO P3 A0 4.00 440.

2 FASTEN [FLATTEN] SHEETMETAL CORNERS AT WORKTABLE 3 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )

A1 BO G1 (A1 BO PO F6) A1 BO P1 A0 (4) 1.00 320.

3 POSITION SHEETMETAL [TOP] FROM WORKTABLE TO SHEETMETAL [BOTTOM] AT WORKTABLE

A1 BO G1 A1 BO P6 A0 1.00 90.

4 PLACE SETTING TOOL FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 6

A1 BO G1 A1 BO P3 A0 6.00 360.

5 FASTEN SETTING TOOL TO SHEETMETAL AT WORKTABLE 3 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7 )

A1 BO G1 (A1 BO PO F6) A1 BO P1 A0 (6) 1.00 460.

6 FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 3 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7 )

A1 BO G1 (A1 BO PO F6) A1 BO P1 A0 (6) 1.00 460.

7 FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 3 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7 )

A1 BO G1 (A1 BO PO F6) A1 BO P1 A0 (6) 1.00 460.

8 FASTEN [BEND] SHEETMETAL CLAP FLANGES7 AT WORKTABLE 3 WRIST-STROKES USING HANDFORMERS AT WORKTABLE AND ASIDE PF8 ( 4567 )

A1 BO G1 (A1 BO P3 F10) A1 BO P1 A0 (8) 1.00 1160.

9 INSPECT SHEETMETAL AT WORKTABLE 9 POINTS

A0 BO GO A0 BO PO T10 A0 BO PO A0 1.00 100.

TOTAL TMU 3850.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W (or H for help) ? 31/50
SHEET METAL SHAPE

15" x 9" to 10" x 14" x 18" LG TRANSFORMER

FAB. 34480 20 MIN.
MARK OUT 15360 9 MIN.
TOTAL TMU 49840 29 MIN.
File Description: MARK OUT SHEETMETAL FOR TRANSFORMER

Output to line-printer <Y or N> ? N

( 39,101)
FIT .W12
TRANSF.M20
MARK OUT SHEETMETAL FOR TRANSFORMER WITH AWL AT SHEETMETAL SHOP
PER TRANSFORMER
OFG: 4 29-JUN-83
NASSCO SHEETMETAL SHAPE 1
* 20 GAUGE GALV. SHEETMETAL
* 15"X9" TO 10"X14"X18" LG
* MARK OUT USING TEMPLATE
FITTER BEGINS AT WORKTABLE

1 POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE WITH 3 STEPS
A1 BO G1 A6 BO P6 A0 1.00 140.

2 PLACE WEIGHT FROM WORKTABLE TO TEMPLATE AT WORKTABLE
WITH 3 STEPS F 3
A1 BO G1 A6 BO P3 A0 3.00 330.

3 MARK OUTLINE FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5
DIGITS USING AWL AT WORKTABLE AND ASIDE PF 8 ( 4 5 6 7 )
A1 BO G1 (A1 BO P1 R16) A1 BO P1 A0 (8) 1.00 1480.

4 POSITION CPUNCH FROM WORKTABLE TO TEMPLATE AT WORKTABLE
F 4
A1 BO G1 A1 BO P6 A0 4.00 360.

5 FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING
HAMMER AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )
A1 BO G1 (A1 BO P0 F3) A1 BO P1 A0 (4) 1.00 200.

6 REPLACE WEIGHT FROM TEMPLATE AT WORKTABLE TO WORKTABLE
WITH 3 STEPS
A1 BO G1 A6 BO P3 A0 1.00 110.

7 REPLACE TEMPLATE FROM SHEETMETAL AT WORKTABLE TO
WORKTABLE WITH 3 STEPS
A1 BO G1 A6 BO P3 A0 1.00 110.

8 PLACE CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE WITH 3 STEPS
A1 BO G1 A6 BO P3 A0 1.00 110.

9 MARK CORNERS FROM CORNER TEMPLATE TO SHEETMETAL AT
WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF
1 6 ( 4 5 6 7 )
A1 BO G1 (A1 BO P1 R3) A1 BO P1 A0 (16) 1.00 840.

10 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS
USING REDPEN AT WORKTABLE AND ASIDE PF 5 ( 4 5 6 7 )
A1 BO G1 (A1 BO P1 R16 )A1 BO P1 A0 (5) 1.00 940.

11 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT
WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND
ASIDE PF 68 ( 4 5 6 7 )
A1 BO G1 (A1 BO P1 R3 )A1 BO P1 A0 (68) 1.00 3440.

12 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT
USING BLACKPEN AT WORKTABLE AND ASIDE PF 25 ( 4 5 6 7 )
A1 BO G1 (A1 BO P1 R3 )A1 BO P1 A0 (25) 1.00 1290.

TOTAL TMU 9350.
File Description ? HARK OUT SHEETMETAL FOR TRANSFORMER

Output to line-printer <Y or N> ?
File Description ? MARK OUT TOP FOR TRANSFORMER

output to line-Printer <Y or N> ? N

( 39,101)
FIT • M2 TRANSF.M21
MARK OUT TOP FOR TRANSFORMER WITH AWL AT SHEETMETAL SHOP
PER TRANSFORMER OFG: 4 29-JUN-83
NASSCO SHEETMETAL SHAPE 1
* 20 GAUGE GALV. SHEETMETAL
* 15"X9" TO 14"X10" LG
* MARK OUT USING TEMPLATE
FITTER BEGINS AT WORKTABLE

1 POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS
   A1 BO G1 A6 BO P6 A0 1.00 140.

2 PLACE-WEIGHT FROM WORKTABLE TO TEMPLATE AT WORKTABLE WITH 3 STEPS
   A1 BO G1 A6 BO P3 A0 1.00 110.

3 MARK OUTLINE FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 3 ( 4 5 6 7 )
   A1 BO G1 (A1 BO P1 R16) A1 BO P1 A0 (3) 1.00 580.

4 REPLACE WEIGHT FROM TEMPLATE AT WORKTABLE TO WORKTABLE WITH 3 STEPS
   A1 BO G1 A6 BO P3 A0 1.00 110.

5 REPLACE TEMPLATE FROM SHEETMETAL AT WORKTABLE TO WORKTABLE WITH 3 STEPS
   A1 BO G1 A6 BO P3 A0 1.00 110.

6 PLACE CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 4
   A1 EO G1 A1 BO P3 A0 4.00 240.

7 MARK SHEETMETAL FROM CORNER TEMPLATE AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF 8 ( 4 5 6 7 )
   A1 BO G1 (A1 BO P1 R3 )A1 BO P1 A0 (8) 1.00 440.

8 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 3 ( 4 5 6 7 )
   A1 BO G1 (A1 BO P1 R16 )A1 BO P1 A0 (3) 1.00 580.

9 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 20 ( 4 5 6 7 )
   A1 BO G1 (A1 BO P1 R3 )A1 BO P1 A0 (20) 1.00 1040.

10 MARK IDENTIFICAITON ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 34 ( 4 5 6 7 )
    A1 BO G1 (A1 BO P1 R3 )A1 BO P1 A0 (34) 1.00 1740.

11 PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2
    A1 EO G1 A6 HO P3 A0 2.00 220.

12 MOUE CART FROM WORKTABLE TO SMALLSHEAR
    A1 BO G1 A67 BO P1 A0 1.00 700.

TOTAL TMU 6010.
File Description ? MARK OUT TOP FOR TRANSFORMER
Output to line-printer <Y or N> ?
NASSCO SHEETMETAL SHAPE 1
* 20 GAUGE GALV. SHEETMETAL
* 15"X9" TO 10"X14"X18" LG
FITTER BEGINS AT SMALLSHEAR

1 POSITION SHEETMETAL FROM CART AT SMALLSHEAR TO SMALLSHEAR WITH 4 STEPS F 2
   A1 BO G1 A6 BO P6 A0 2.00 280.

2 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS
   A1 BO G1 M1 X6 IO A0 1.00 90.

3 POSITION SHEETMETAL2 FROM SMALLSHEAR TO SMALLSHEAR F 8
   A1 BO G1 A1 BO P6 A0 8.00 720.

4 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 8
   A1 BO G1 M1 X6 IO A0 8.00 720.

5 PLACE SHEETMETAL2 FROM SMALLSHEAR TO CART AT SMALLSHEAR WITH 10 STEPS F 2
   A1 BO G1 A16 BO P3 A0 2.00 420.

6 MOUE CART FROM SMALLSHEAR TO WORKTABLE
   A1 BO G1 A67 B3 P1 A0 1.00 730.

TOTAL TMU 2960.
File Description ? SHEAR UNEVEN END OF TRANSFORMER

Output to line-printer <Y or N> ? N

( 39,101)
FIT >W12
TRANS.M23
SHEAR UNEVEN END ON 'TRANSFORMER WITH UNI-SHEAR AT SHEETMETAL SHOP
PER TRANSFORMER OFG: 4 29-JUN-83

NASSCO SHEETMETAL SHAPE 1
* 20 GAUGE GALV. SHEETMETAL
* 15"X9" TO 10"X14"X18" LG
FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 2
  A1 BO G1 A6 BO P3 A0  2.00  220.
2 MOVE UNISHEAR2 FROM TOOLROOM TO WORKTABLE
  A96 BO G1 A96 B3 P1 A0  1.00  1970.
3 POSITION UNISHEAR FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS
  A1 BO G1 A3 BO P6 A0  1.00  110.
4 OPERATE UNISHEAR AT WORKTABLE PROCESS F 2
  A1 BO G1 M6 X173I0 A0  2.00  3620.
5 CUT CORNERS ON SHEETMETAL AT WORKTABLE 1 CUT USING SNIPS AT WORKTABLE AND ASIDE PF 24 ( 4 5 6 7 )
  A1 BO G1 (A1 BO P3 C1 )A1 BO P1 A0 (24)  1.00  1240.
6 FASTEN [FLATTEN] SHEETMETAL CORNERS AT WORKTABLE 2 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 24 ( 4 5 6 7 )
  A1 BO G1 (A1 BO PO F6 )A1 BO P1 A0 (24)  1.00  1720.
7 PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2
  A1 BO G1 A6 BO P3 A0  2.00  220.
8 MOVE CART FROM WORKTABLE TO LAPOUT MACHINE
  A1 BO G1 A54 BO P1 A0  1.00  570.

TOTAL TMU  9670.

File Description ? SHEAR UNEVEN END OF TRANSFORMER

Output to line-printer (Y or N) ? 

18630
output to line-printer <Y or N> ? N

FIT W12 TRANSF.M24
FORM LAP END ON TRANSFORMER WITH LAPOUT ROTARY MACHINE AT
SHEETMETAL SHOP

NASSCO SHEETMETAL SHAPE 1
* 20 GAUGE GALV. SHEETMETAL
* 15"X9" TO 10"X14"X18" LG
FITTER BEGINS AT LAPOUT

1 PLACE SHEETMETAL FROM CART AT LAPOUT TO LAPOUT WITH 4
STEPS F 2

2 PUSH LAPOUT-SWITCH PROCESS F 2

3 PUSH AND GUIDE SHEETMETAL2 THROUGH LAPOUT MACHINE WITH
2 STEPS F 2

4 REPLACE SHEETMETAL FROM LAPOUT TO CART AT LAPOUT WITH
4 STEPS F 2

5 MOVE CART FROM LAPOUT TO PITTSBURGH

TOTAL TMU 1070.

Fife Description ? FORM LAP END ON TRANSFORMER

Output to line-printer <Y or N> ?
FORM PITTSBURGH LOCK FOR TRANSFORMER WITH PITTSBURGH MACHINE AT SHEETMETAL SHOP
PER TRANSFORMER OFG: 4 29-JUN-83

NASSCO SHEETMETAL SHAPE 1
* 20 GAUGE GALV. SHEETMETAL
* 15"X9" TO 10"X14"X18" LG
* MARK OUT USING TEMPLATE

FITTER BEGINS AT PITTSBURGH

1 PLACE SHEETMETAL FROM CART AT PITTSBURGH TO PITTSBURGH WITH 4 STEPS F 2
A1 BO G1 A6 BO P3 A0 2.00 220.

2 PUSH PITTSBURGH-BUTTON PROCESS F 4
A1 BO G1 M1 X32 IO A0 4.00 1400.

3 PUSH AND GUIDE SHEETMETAL THROUGH PITTSBURGH WITH 2 STEPS F 4
A3 BO G1 M1 X0 I3 A0 4.00 320.

4 PLACE SHEETMETAL FROM PITTSBURGH TO CART AT PITTSBURGH WITH 4 STEPS F 2
A1 BO G1 A6 BO P3 A0 2.00 220.

5 MOVE CART FROM PITTSBURGH TO LEAFBRAKE
A1 BO G1 A32 BO P1 A0 1.00 350.

TOTAL TMU 2510.
FIT W12 TRANSFM.26
BEND SHEETMETAL FOR TRANSFORMER WITH LEAFBRAKE AT SHEETMETAL SHOP
PER TRANSFORMER OFG: 4 29-JUN-83
NASSCO SHEETMETAL SHAPE 1
* 20 GUAGE GALV. SHEETMETAL
* 15'X9' TO 10'X14'X18' LG
* BEND TRANSFORMER SIDES UP 90 DEGREES
FITTER BEGINS AT LEAFBRAKE

1 POSITION SHEETMETAL 2 FROM CART AT LEAFBRAKE TO
LEAFBRAKE WITH 4 STEPS  A1 B0 G1 A6 B0 F6 A0  1.00  140.
2 OPERATE LEAFBRAKE-LEVER PROCESS A1 B0 G1 M6 X16 I0 A0  1.00  240.
3 POSITION SHEETMETAL FROM LEAFBRAKE TO LEAFBRAKE A1 B0 G1 A1 B0 F6 A0  1.00  90.
4 OPERATE LEAFBRAKE-LEVER PROCESS A1 B0 G1 M6 X16 I0 A0  1.00  240.
5 REPLACE SHEETMETAL2 FROM LEAFBRAKE TO CART AT LEAFBRAKE WITH 4 STEPS A1 B0 G1 A6 B0 F3 A0  1.00  110.
6 MOVE CART FROM LEAFBRAKE TO PANBRAKE A1 B0 G1 A42 B0 P1 A0  1.00  450.

TOTAL TMU 1270.
FIT •W12 TRANSF.M27
BEND SHEETMETAL LAP ENDS FOR TRANSFORMER WITH PAN-BRAKE AT
SHEETMETAL SHOP
PER TRANSFORMER OFG: 4 29-JUN-83
NASSCO SHEETMETAL SHEETMETAL SHAPE 1
*20 GAUGE GAL SHEETMETAL
* 15'X9' TO 10'X14'X18' LG
* KING UP LAP ENDS AS PER INSTRUCTIONS
FITTER BEGINS AT PANBRAKE

1 POSITION SHEETMETAL2 FROM CART AT PANBRAKE TO PANBRAKE
WITH 4 STEPS F 2
A1 B0 G1 A6 B0 P6 A0  2.00  280.
2 FASTEN NUT (JAWS) TO SHEETMETAL2 AT PANBRAKE 5
WRIST-STROKES USING WRENCH AT PANBRAKE AND ASIDE F 2
A1 B0 G1 A1 B0 P3 F16 A1 B0 F1 A0  2.00  480.
3 OPERATE PANBRAKE-LEVER PROCESS F 2
A1 B0 G1 M6 X96 IO A0  2.00  2080.
4 POSITION SHEETMETAL2 FROM PANBRAKE TO PANBRAKE F 6
A1 B0 G1 A1 B0 P6 A0  6.00  540.
5 OPERATE PANBRAKE-LEVER PROCESS F 6
A1 B0 G1 M6 X96 IO A0  6.00  6240.
6 REPLACE SHEETMETAL2 FROM PANBRAKE TO CART AT PANBRAKE
WITH 4 STEPS F 2
A1 B0 G1 A6 B0 P3 A0  2.00  220.
7 MOVE CART FROM PANBRAKE TO WORKTABLE
A1 B0 G1 A54 B3 F1 A0  1.00  600.

TOTAL TMU  10440.

File Description ? BEND SHEETMETAL LAP ENDS FOR TRANSFORMER
OUTPUT to line-printer <Y or N> ?  

27920
ASSEMBLE TRANSFORMER

File Description ? ASSEMBLE TRANSFORMER

output to line-printer <Y or N> ? N

(39,101)

FIT- W12

TRANSF.M28

ASSEMBLE TRANSFORMER WITH HAMMER AT SHEETMETAL SHOP

PER TRANSFORMER OFG: 4 29-JUN-83

NASSCO SHEETMETAL SHAPE 1
* 20 GAUGE GALV SHEETMETAL
* 15'X9' TO 10'X14'X18' LG
FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL2 FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F2
   A1 B0 'G1 A6 B0 P3 A0 2.00 220.

2 FASTEN [FLATTEN] SHEETMETAL CORNERS AT WORKTABLE 3 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 4 (45 6 7)
   A1 B0 G1 (A1 B0 P0 F6 )A1 B0 F1 A0 (4) 1.00 320.

3 POSITION SHEETMETAL [TOP] FROM WORKTABLE TO SHEETMETAL [BOTTOM] AT WORKTABLE WITH 3 STEPS
   A1 B0 G1 A6 B0 P6 A0 1.00 140.

4 PLACE SETTING TOOL FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F6
   A1 B0 G1 A1 B0 F3 A0 6.00 360.

5 FASTEN SETTING TOOL TO SHEETMETAL AT WORKTABLE 3 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 6 (4567)
   A1 B0 G1 (A1 B0 P0 F6 )A1 B0 F1 A0 (6) 1.00 460.

6 FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 3 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 6 (4567)
   A1 B0 G1 (A1 B0 P0 F6 )A1 B0 F1 A0 (6) 1.00 460.

7 FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 16 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 10 (4567)
   A1 B0 G1 (A1 B0 P0 F32 )A1 B0 P1 A0 (10) 1.00 3340.

8 FASTEN [BEND] SHEETMETAL CLAP FLANGES3 AT WORKTABLE 3 WRIST-STROKES USING HANDFORMERS AT WORKTABLE AND ASIDE PF 8 (4 5 6 7)
   A1 B0 G1 (A1 B0 P3 F10 )A1 B0 P1 A0 (8) 1.00 1160.

9 INSPECT SHEETMETAL AT WORKTABLE 9 POINTS
   A0 B0 GO A0 B0 P0 T10 A0 B0 PO A0 1.00 100.

TOTAL TMU 6560.

File Description ? ASSEMBLE TRANSFORMER

Output to line-printer <Y or N> ?
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<td>Mark Out</td>
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<td>Weld</td>
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MARK OUT SHEETMETAL FOR TRANSFORMER WITH AWL AT SHEET METAL SHOP

OFG: 4  23-JUN-83

NASSCO SHEET METAL SHAPE 1
* 11 GAUGE GALV. SHEET METAL
* 10'X12' TO 12'X10'X18' LG
* MARK OUT USING TEMPLATE

FITTER BEGINS AT WORKTABLE

1 POSITION TEMPLATE FROM WORKTABLE TO SHEET METAL AT WORKTABLE WITH 3 STEPS
   A1 B0 G1 A6 B0 P6 A0  1.00  140.

2 PLACE WEIGHT FROM WORKTABLE TO TEMPLATE AT WORKTABLE WITH 3 STEPS F2
   -A1 B0 G1 A6 B0 P3 A0  2.00  220.

3 MARK LINE FROM TEMPLATE TO SHEET METAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 8 (4 567)
   A1 B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0  1.00  1480.

4 POSITION CPUNCH FROM WORKTABLE TO TEMPLATE AT WORKTABLE
   A1 B0 G1 A1 B0 P6 A0  1.00  90.

5 FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE AND ASIDE PF 4 (4567)
   A1 B0 G1 (A1 B0 P0 F3 )A1 B0 F1 A0  1.00  200.

6 REPLACE WEIGHT FROM TEMPLATE AT WORKTABLE TO WORKTABLE WITH 3 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0  2.00  220.

7 REPLACE TEMPLATE FROM SHEETMETAL AT WORKTABLE TO WORKTABLE WITH 3 STEPS
   A1 B0 G1 A6 B0 P3 A0  1.00  110.

8 PLACE CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS
   A1 B0 G1 A6 B0 P3 A0  1.00  110.

9 MARK CORNERS FROM CORNER TEMPLATE TO SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF 16 (4 567)
   A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0  1.00  840.

10 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 1 DIGIT USING REDPEN AT WORKTABLE AND ASIDE PF 47 (4567)
   A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0  1.00  2390.

11 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 47 (4 56 7)
   A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0  1.00  2390.

12 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 34 (4567)
   A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0  1.00  1740.

TOTAL TMU  9930.
MARK OUT SHEETMETAL TOP FOR TRANSFORMER WITH AWL AT SHEETMETAL

NASSCO SHEETMETAL SHAPE 1
* 11 GAUGE GALV. SHEETMETAL
* 10'X12' TO 12'X10'
* MARK OUT USING TEMPLATE
FITTER BEGINS AT WORKTABLE

1 POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS
A1 B0 G1 A6 B0 P6 A0 1.00 140.

2 PLACE WEIGHT FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS
A1 B0 G1 A6 B0 P3 A0 1.00 110.

3 MARK OUTLINE FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 3 (4567)
A1 B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (3) 1.00 580.

4 REPLACE WEIGHT FROM TEMPLATE AT WORKTABLE TO WORKTABLE WITH 3 STEPS
A1 B0 G1 A6 B0 P3 A0 1.00 110.

5 REPLACE TEMPLATE FROM SHEETMETAL AT WORKTABLE TO WORKTABLE WITH 3 STEPS
A1 B0 G1 A6 B0 P3 A0 1.00 110.

6 PLACE CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE AND ASIDE PF.4 (4567)
A1 B0 G1 (A1 B0 P3 A0) 1.00 180.

7 MARK SHEETMETAL FROM CORNER TEMPLATE AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF 8 (4567)
A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (8) 1.00 440.

8 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 4 (4567)
A1 B0 G1 (A1 B0 P1 R16) A1 B0 P1 A0 (4) 1.00 760.

9 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 20 (4567)
A1 B0 G1 (A1 B0 P1 R3) A1 B0 P1 A0 (20) 1.00 1040.

10 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 20 (4567)
A1 B0 G1 (A1 B0 P1 R3) A1 B0 P1 A0 (20) 1.00 1040.

11 PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2
A1 B0 G1 A6 B0 F3 A0 2.00 220.

12 MOVE CART FROM WORKTABLE TO 14FT. SHEAR
A1 B0 G1 A152B0 P1 A0 1.00 1550.

TOTAL TMU 6280.

File Description ? MARK OUT SHEETMETAL TOP FOR TRANSFORMER

OutPut to line-printer <Y or N> ?
File Description ? SHEAR SHEETMETAL FOR TRANSFORMER

Output to line-printer <Y or N) ? N

(39.101)
FIT w12 TRANSF.M03
SHEAR SHEETMETAL FOR TRANSFORMER WITH 14FT SHEAR AT SHEETMETAL SHOP
PER TRANSFORMER OFG: 4 23-JUN-83
NASSCO SHEETMETAL SHAPE 1
* 11 GAUGE GALV. SHEETMETAL
* 10'X12' TO 12'X10'X18' LG
* c MARK OUT USING TEMPLATE
FITTER BEGINS AT 14FT.SHEAR

1 POSITION SHEETMETAL2 FROM CART AT 14FT.SHEAR TO 14FT.SHEAR WITH 4 STEPS F2
   A1  B0  G1  A6  B0  P6  A0  2.00  280.
2 PUSH 14FT.SHEAR-FOOTPEDAL PROCESS F2
   A1  B0  G1  M1  X3  IO  A0  2.00  120.
3 POSITION SHEETMETAL2 FROM 14FT.SHEAR TO 14FT.SHEAR F7
   A1  B0  G1  A1  B0  P6  A0  7.00  630.
4 PUSH 14FT.SHEAR-FOOTPEDAL PROCESS F 2
   A1  B0  G1  M1  X3  IO  A0  2.00  120.
5 PLACE SHEETMETAL2 FROM 14FT.SHEAR TO CART AT 14FT.SHEAR WITH 10 STEPS F2
   A1  B0  G1  A16  B0  P3  A0  2.00  420.
6 MOVE CART FROM 14FT.SHEAR TO WORKTABLE
   A1  B0  G1  A152B3  P1  A0  1.00  1580.

TOTAL TMU 3150.

File Description ? SHEAR SHEETMETAL FOR TRANSFORMER

Output to line-printer <Y or N> ?
File Description ? CUT SHEETMETAL FOR TRANSFORMER

Output to line-printer <Y or N> ? N

(39,101)
FIT  0 W12
CUT SHEETMETAL FOR TRANSFORMER' WITH SABER-SAW AT SHEETMETAL SHOP PER TRANSFORMER 0 FG: 4 23-JUN-83

NASSCO SHEETMETAL SHAPE 1
* 11 GAUGE GALV. SHEETMETAL
* 10'X12' TO 12'X10'X18' LG
* CUT AREA THAT CAN NOT BE CUT ON --
* --SHEAR AND CORNERS
FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F2
   A1  B0  G1  A6  B0  F3  A0       2.00  220.
2 MOUE SABER-SAW2 FROM TOOLROOM TO WORKTABLE
   A96  B0  G1  A96  B3  P1  A0       1.00  1970.
3 POSITION SABER-SAW FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F13
   A1  B0  G1  A1  B0  P6  A0       13.00  1170.
4 OPERATE SABER-SAW AT WORKTABLE PROCESS F15
   A1  B0  G1  M6  X67  IO  A0       15.00  11250.
5 REPLACE SHEETMETAL2 FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F2
   A1  B0  G1  A6  B0  P3  A0       2.00  220.
6 MOVE CART FROM WORKTABLE TO 14FTHYDROPRESSBRAKE
   A1  B0  G1  A96  B0  F1  A0       1.00  990.

TOTAL TMU  15820.

File Description ? CUT SHEETMETAL FOR TRANSFORMER

Output to line-printer <Y or N> ?
FIT •W12
TRANSF.MO5
BEND SHEETMETAL FOR TRANSFORMER WITH 14FT. HYDRO-PRESS-BRAKE AT SHEETMETAL SHOP
PER TRANSFORMER OFG: 4 23-JUN-83
NASSCO SHEETMETAL SHAPE 1
* 11 GAUGE GALV. SHEETMETAL
* 10’X12’ TO 12'X10'X18' LG
FITTER BEGINS AT 14FTHYDROPRESSBRAKE

1 POSITION SHEETMETAL FROM CART AT 14FTHYDROPRESSBRAKE TO 14FTHYDROPRESSBRAKE WITH 4 STEPS
   A1 B0 G1 A6 B0 P6 A0  1.00  140.
2 PUSH 14FTHYDROPRESSBRAKE-FOOTPEDAL PROCESS
   A1 B0 G1 M1 X24 IO A0  1.00  270.
3 POSITION SHEETMETAL FROM 14FTHYDROPRESSBRAKE TO 14FTHYDROPRESSBRAKE WITH 4 STEPS
   A1 B0 G1 A6 B0 P6 A0  1.00  140.
4 PUSH 14FTHYDROPRESSBRAKE-FOOTPEDAL PROCESS
   A1 B0 G1 M1 X24 IO A0  1.00  270.
5 REPLACE SHEETMETAL2 FROM 14FTHYDROPRESSBRAKE TO CART AT 14FTHYDROPRESSBRAKE WITH 4 STEPS
   A1 B0 G1 A6 B0 P3 A0  1.00  110.
6 MOVE CART FROM 14FTHYDROPRESSBRAKE TO WORKTABLE
   A1 B0 G1 A96 B3 P1 A0  1.00  1020.

   TOTAL TMU 1950.

File Description ? BEND SHEETMETAL FOR TRANSFORMER
output to line-printer <Y or N> ? N

(39,101)
Please input file "TRANSF.M06"?

Yes Description? WELD TRANSFORMER

Output to line-Printer <Y or N> ? N

(39,101)

WELD .W01 TRANSF.M06

WELD TRANSFORMER WITH ARC (STICK) WELDER AT SHEETMETAL SHOP

WELDING BOOTH

PER TRANSFORMER DFG; 4 19-JUL-83

WELDING NASSCO SHEETMETAL SHAPE 1

* 11 GAUGE GALV. SHEETMETAL

* 10'X12' TO 12'X10'X18' L

* WELDING DONE IN WELD AREA BOOTH

* WELDOR PERFORMS THE WORK

* FITTER TRANSPORTS SHEETMETAL

FITTER BEGINS AT WORKTABLE

1 FITTER PLACE SHEETMETAL ASSEMBLY FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2

A1 B0 G1 A6 B0 P3 A0 2.00 220.

2 FITTER MOVE CART FROM WORKTABLE TO WELDTABLE

-A1 B0 G1 A131B3 P1 A0 1.00 1370.

3 PLACE SHEETMETAL ASSEMBLY FROM CART AT WELDTABLE TO WELDTABLE WITH 4 STEPS F 2

A1 B0 G1 A6 B0 P3 A0 2.00 220.

4 WELDOR PUSH POWER SUPPLY BUTTON FROM OFF AT WELDMACHINES TO ON AT WELDMACHINES WITH 16 STEPS

A3 B0 G1 M1 X0 IO A32 1.00 370.

5 WELDOR TURN CURRENT OUTPUT CONTROL LEVER FROM OFF AT WELDMACHINES TO ON AT WELDMACHINES

A1 B0 G1 M3 X0 IO A1 1.00 60.

6 WELDOR POSITION ANTI-SPATTER SPRAY CAN FROM WELDTABLE TO SHEETMETAL ASSEMBLY AT WELDTABLE F 2

A3 B3 G1 A1 B0 P6 A0 2.00 280.

7 WELDOR PUSH ANTI-SPATTER2 SPRAY CAN PROCESS F 2

A1 B0 G1 M1 X10 IO A0 2.00 260.

8 WELDOR FASTEN WELDROD TO STINGER1 AT WELDTABLE 1 WRIST-TURN USING HAND F 8

A1 B0 G1 A1 B0 P1 F3 A0 B0 P0 A0 8.00 560.

9 FULL WELDHOOD FROM UP AT WELDOR TO DOWN AT WELDOR F 8

A1 B0 G1 M1 X0 IO A1 8.00 320.

10 POSITION STINGER-BUTTON1 FROM WELDTABLE TO SHEETMETAL AT WELDTABLE F 8

A1 B0 G1 A1 B0 P6 A0 8.00 720.

11 OPERATE WELD STINGER-BUTTON2 AT WELDTABLE PTIME 65 S F 6

A1 B0 G1 M6 X17310 A0 6.00 10860.

12 PUSH WELDHOOD FROM DOWN AT WELDOR TO UP AT WELDOR F 8

A1 B0 G1 M1 X0 IO A1 8.00 320.

13 WELDOR LOOSEN SLAG FROM SHEETMETAL ASSEMBLY AT WELDTABLE 5 STRIKES USING SLAGHAMMER AT WELDTABLE ASIDE PF 3 (4 5 6 7)

A1 B0 G1 (A1 B0 P0 L16 )A1 B0 P1 A0 (3) 1.00 550.

14 WELDOR DEBURR WELDED ASSEMBLY AT WELDTABLE 10
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<td>Arm strokes using wirebrush at weldtable and aside PF</td>
<td>12 (4567)</td>
<td>1.00</td>
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<td>Replace sheetmetal assembly from weldtable to cart at weldtable with 4 steps F</td>
<td>2</td>
<td>2.00</td>
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<td>16</td>
<td>Fitter move cart from weldtable to worktable</td>
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**TOTAL TMU:** 19150.

File Description? WELD TRANSFORMER

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7"x6" to 8"x7"x31" LG Transformer
MARK OUT SHEETMETAL FOR RECTANGULAR TO RECTANGULAR TRANSFORMER
WITH AWL AT SHEETMETAL SHOP
PER TRANSFORMER

NASSCO SHEETMETAL SHAPE 1
* 20 GAUGE GALV. SHEETMETAL
* 7.6' TO 8'X7'X31' RECT, TO --
* --RECT. TRANSFORMER
* MARK OUT USING TEMPLATE
FITTER BEGINS AT WORKTABLE

1 POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS F 2
   A1 B0 G1 A3 B0 P6 A0  2.00  220.
2 POSITION WEIGHTS FROM WORKTABLE TO TEMPLATE AT WORKTABLE WITH 3 STEPS F 4
   A1 B0 G1 A6 B0 P6 A0  4.00  560.
3 MARK OUTLINE FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 16 (4 5 5 7)
   A1 B0 G1 (A1 B0 P1 R16) A1 B0 P1 A0 (16)  1.00  2920.
4 POSITION CPUNCH FROM WORKTABLE TO TEMPLATE AT WORKTABLE F 6
   A1 B0 G1 A1 B0 P6 A0  6.00  540.
5 FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE AND ASIDE PF 6 (4 5 6 7)
   A1 B0 G1 (A1 B0 P0 F3) A1 B0 P1 A0 (6)  1.00  280.
5 REMOVE WEIGHTS FROM TEMPLATES AT WORKTABLE TO WORKTABLE WITH 3 STEPS F 5
   A1 B0 G1 A6 B0 P1 A0  6.00  540.
7 REMOVE TEMPLATES FROM SHEETMETAL AT WORKTABLE TO WORKTABLE WITH 2 STEPS F 2
   A1 B0 G1 A3 B0 P1 A0  2.00  120.
8 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 16 (4 5 6 7)
   A1 B0 G1 (A1 B0 P1 R16) A1 B0 P1 A0 (16)  1.00  2920.
9 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 45 (4 5 6 7)
   A1 B0 G1 (A1 B0 P1 R3) A1 B0 P1 A0 (45)  1.00  2290.
10 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 (4 5 6 7)
   A1 B0 G1 (A1 B0 P1 R3) A1 B0 P1 A0 (52)  1.00  2640.
11 REPLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0  2.00  220.
12 MOVE CART WITH SHEETMETAL FROM WORKTABLE TO SMALLSHEAR
   A1 B0 G1 A67 B0 P1 A0  1.00  700.

TOTAL TMU  13950.
File Description ? SHEAR SHEETMETAL FOR TRANSFORMER

Output to line-printer <Y or N> ? N

(39, 1 ) FIT .W11 TRANSF.M31
SHEAR SHEETMETAL FOR RECTANGULAR TO RECTANGULAR TRANSFORMER WITH
SMALL 8FT. SHEAR AT SHEETMETAL SHOP
PER TRANSFORMER

NASSOC SHEETMETAL SHAPE 1
* 20 GAUGE GALV, SHEETMETAL
* 7.6' X 7.6' X 31' L RECT. TO --
* --RECT. TRANSFORMER
* COMPLETE SHEARING AT WORKTABLE --
* -- WITH UNI-SHEAR
FITTER BEGINS AT SMALLSHEAR

1 POSITION SHEETMETAL2 FROM CART AT SMALLSHEAR TO
   SMALLSHEAR WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 F6 A0 2.00 280.

2 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 2
   A1 B0 G1 M1 X5 I0 A0 2.00 180.

3 POSITION SHEETMETAL FROM SMALLSHEAR TO SMALLSHEAR F 8
   A1 B0 G1 A1 B0 P6 A0 8.00 720.

4 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 12
   A1 B0 G1 M1 X5 I0 A0 12.00 1080.

5 REPLACE SHEETMETAL2 FROM SMALLSHEAR TO CART AT
   SMALLSHEAR WITH 10 STEPS F 2
   A1 B0 G1 A15 B0 P3 A0 2.00 420.

MOVE CART WITH SHEETMETAL2 FROM SMALLSHEAR TO WORKTABLE
   A1 B0 G1 A67 B3 P1 A0 1.00 730.

TOTAL TMU  3410.

TYPE D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?
CUT CORNERS FOR TRANSFORMER

1. Place sheetmetal from cart at worktable to worktable with 4 steps F 2
   - A1 B0 G1 A6 B0 P3 A0 2.00 220.

2. Move Unishear2 from toolroom to worktable
   - A96 B0 G1 A96 B3 P1 A0 1.00 1970.

3. Operate Unishear at worktable process F 2
   - A1 B0 G1 M6 X17310 A0 2.00 3620.

4. Cut corners on sheetmetal at worktable 2 cuts using snips at worktable and aside PF 16 (4 5 6 7)
   - A1 B0 G1 (A1 B0 P3 C3 )A1 B0 P1 A0 (16) 1.00 1160.

5. Fasten [flatten] sheetmetal at worktable 3 strikes
   - Using hammer at worktable and aside PF 16 (4 5 6 7)
   - A1 B0 G1 (A1 B0 P0 F6 )A1 B0 P1 A0 (16) 1000 1160.

6. Replace sheetmetal from worktable to cart at worktable with 4 steps
   - A1 B0 G1 A6 B0 P3 A0 1.00 110.

7. Move cart with sheetmetal from worktable to lapout
   - A1 B0 G1 A54 B0 P1 A0 1.00 570.

**Total TMU** 8810.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ? 12220
File Description ? FORM LAP ENDS FOR TRANSFORMER

Output to line-Printer <Y or N> ? N

(39,1)
FIT .W11
TRANSF.M33
FORM LAP ENDS FOR RECTANGULAR TO RECTANGULAR TRANSFORMER WITH
LAPOUT (ROTARY MACHINE) AT SHEETMETAL SHOP
PER TRANSFORMER OFG:4 18-MAY-83
NASSCO SHEETMETAL SHAPE 1
* 20 GAUGE GALV. SHEETMETAL
* 7'X6' TO 8'X7'X31'L RECT. TO --
* -- RECT. TRANSFORMER
FITTER BEGINS AT LAPOUT

1 PLACE SHEETMETAL2 FROM CART AT LAPOUT TO LAPOUT WITH 4
STEPS F2
   A1 B0 G1 A6 B0 P3 A0 2.00 220.
2 PUSH LAPOUT-SWITCH PROCESS F 2
   A1 B0 G1 M1 X16 IO A0 2.00 380.
3 PUSH AND GUIDE SHEETMETAL THROUGH LAPOUT WITH 2 STEPS
   F 2
   A3 B0 G1 M1 X0 I3 A0 2.00 160.
4 REPLACE SHEETMETAL FROM LAPOUT TO CART AT LAPOUT WITH
   4 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0 2.00 220.
5 MOVE CART WITH SHEETMETAL2 FROM LAPOUT TO PITTSBURGH
   AL B0 G1 A6 B0 P1 A0 1.00 90.

TOTAL TMU 1070.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

/13,290
FORM PITTSBURGH LOCK FOR TRANSFORMER

output to line-Printer <Y or N> ? N

(39,1)

FIT .W1 TRANSF.M34

FORM PITTSBURGH LOCK FOR RECTANGULAR TO RECTANGULAR TRANSFORMER
WITH PITTSBURGH MACHINE AT SHEETMETAL SHOP

PER TRANSFORMER OFG: 4 11-JUL-83

NASSCO SHEETMETAL SHAPE 1
* 20 GAUGE GALV. SHEETMETAL
* 7'X6' TO 8'X7'X3L'L RECT. TO --
* -- RECT. TRANSFORMER
* FORM PITTSBURGH ON BOTTOM SECTION AND--
* -- 90 DEGREE EDGE ON TOP SECTION

FITTER BEGINS AT PITTSBURGH

1 PLACE SHEETMETAL2 FROM CART AT PITTSBURGH TO PITTSBURGH
WITH 4 STEPS F 2
A1 B0 G1 A6 B0 P3 A0 2.00 220.

2 PUSH PITTSBURGH-BUTTON PROCESS F 4
A1 B0 G1 M1 X32 IO A0 4.00 1400.

3 PUSH AND GUIDE SHEETMETAL2 THROUGH PITTSBURGH WITH 2
STEPS F 4
A3 B0 G1 M1 X0 I3 A0 4.00 320.

4 REPLACE SHEETMETAL2 FROM PITTSBURGH TO CART AT
PITTSBURGH WITH 4 STEPS F 2
A1 B0 G1 A6 B0 P3 A0 2.00 220.

5 MOVE CART FROM PITTSBURGH TO LEAFBRAKE
A1 B0 G1 A32 B0 P1 A0 1.00 350.

TOTAL TMU 2510.

TYPe D,EM,CT,EW,EX,L,LD,LS,T,W <or H for help> ?

15,800
FIT *W11
BEND SHEETMETAL FOR RECTANGULAR TO RECTANGULAR TRANSFORMER WITH
LEAF BRAKE AT SHEETMETAL SHOP
PER TRANSFORMER

FITTER BEGINS AT LEAFBRAKE

1 POSITION SHEETMETAL FROM CART AT LEAFBRAKE TO
LEAFBRAKE WITH 4 STEPS

2 OPERATE LEAFBRAKE-LEVER PROCESS

3 POSITION SHEETMETAL FROM LEAFBRAKE TO LEAFBRAKE

4 OPERATE LEAFBRAKE-LEVER PROCESS

5 REPLACE SHEETMETAL FROM LEAFBRAKE TO CART AT LEAFBRAKE
WITH 4 STEPS

6 MOVE CART FROM LEAFBRAKE TO PANBRAKE

TOTAL TMU: 1270.

TYpe D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

17,070
File Description ? BEND LAP ENDS FOR TRANSFORMER

output to line-printer <Y or N> ? N

(39,1)
FIT •W11 TRANSF.M36
BEND LAP ENDS FOR RECTANGULAR TO RECTANGULAR TRANSFORMER WITH
PANBRAKE AT SHEETMETAL SHOP
PER TRANSFORMER OFG: 4 12-JUL-83

NASSCO SHEETMETAL SHAPE 1
* 20 GAUGE GALV. SHEETMETAL
* 7'X6' TO 8'X7'X31' RECT. TO --
* --- RECT. TRANSFORMER
* KINK UP LAP ENDS TO OFFSET ANGLE
FITTER BEGINS AT PANBRAKE

1 POSITION SHEETMETAL FROM CART AT PANBRAKE TO PANBRAKE
WITH 4 STEPS F 2
  A1 B0 G1 A6 B0 P6 A0 2.00 280.

2 FASTEN NUT [JAWS] TO SHEETMETAL AT PANBRAKE WITH 5
WRIST-STROKES USING WRENCH AT PANBRAKE AND ASIDE
  A1 B0 G1 A1 B0 P3 FL6 A1 B0 P1 A0 1.00 240.

3 OPERATE PANBRAKE-LEVER PROCESS F 8
  A1 B0 G1 M6 X96 IO A0 8.00 8320,

4 REPLACE SHEETMETAL2 FROM PANBRAKE TO CART AT PANBRAKE
WITH 4 STEPS F 2
  A1 B0 G1 A6 E0 P3 A0 2.00 220.

5 MOVE CART FROM PANBRAKE TO WORKTABLE
  A1 B0 G1 A54 B3 P1 A0 1.00 600.

TOTAL TMU 9660.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?
FIT W1

ASSEMBLE TRANSFORMER WITH HAMMER AT SHEETMETAL SHOP

NASSCO SHEETMETAL SHAPE 1
* 20 GAUGE GALV. SHEETMETAL
* 7'X6' TO 8'X7'X31 RECT. TO --
* -- RECT TRANSFORMER
* FLATTEN CORNERS BEFORE ASSEMBLING

FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 110.

2 FASTEN [FLATTEN] SHEETMETAL CORNERS TO SHEETMETAL AT WORKTABLE 3 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 PO F6) A1 E0 P1 A0 (4) 1.00 320.

3 POSITION SHEETMETAL [TOP] FROM WORKTABLE TO SHEETMETAL [BOTTOM] AT WORKTABLE WITH 3 STEPS
   A1 B0 G1 A6 R0 F6 A0 1.00 140.

4 POSITION SETTINGTOOL FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 12
   A1 B0 G1 A1 B0 P6 A0 12.00 1080.

5 FASTEN SETTINGTOOL TO SHEETMETAL AT WORKTABLE 3 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 12 (4 5 6 7)
   A1 B0 G1 (A1 B0 PO F6) A1 B0 P1 A0 (12) 1.00 880.

6 FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 4 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 12 (4567)
   A1 B0 G1 (A1 B0 PO F10)A1 E0 P1 A0 (12) 1.00 1360.

7 FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 16 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 20 (4567)
   A1 B0 G1 (A1 B0 PO F32) A1 B0 P1 A0 (20) 1.00 6640.

8 INSPECT SHEETMETAL AT WORKTABLE 9 POINTS
   A0 B0 GO A0 B0 P0 T10 A0 B0 PO A0 1.00 100.

TOTAL TMU 10630.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

3.7360
File Description: MARK OUT RECTANGULAR TO RECTANGULAR TRANSFORMER

Output to line-printer <Y or N> ? N

(39,1)

FIT

MARK OUT SHEETMETAL FOR RECTANGULAR TO RECTANGULAR TRANSFORMER
WITH AWL AT SHEETMETAL SHOP

PER TRANSFORMER

OFG: 4 18-MAY-83

NASSCO SHEETMETAL SHAPE 1
* 18 GAUGE GALV. SHEETMETAL
* 17'X15' TO 16('X18'X32' RECT TO --
* --RECT. TRANSFORMER

FITTER BEGINS AT WORKTABLE

1 POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE WITH 3 STEPS F 2
A1 B0 G1 A6 B0 P6 A0 2.00 280.

2 POSITION WEIGHTS FROM WORKTABLE TO TEMPLATE AT
WORKTABLE WITH 4 STEPS F 5
A1 E0 G1 A6 B0 P6 A0 5.00 700.

3 MARK OUTLINE ON SHEETMETAL AT WORKTABLE 5 DIGITS USING
AWL AT WORKTABLE AND ASIDE PF 16 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 R16) A1 B0 P1 A0 (16) 1.00 2920.

4 POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE F 6
A1 B0 G1 A1 B0 P6 A0 6.00 540.

5 FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING
HAMMER. AT WORKTABLE AND ASIDE PF 6 (4 5 6 7)
A1 B0 G1 (A1 B0 P0 F3) A1 B0 P1 A0 (6) 1.00 260.

6 REMOVE WEIGHTS FROM TEMPLATES AT WORKTABLE TO WORKTABLE
WITH 4 STEPS F 6
A1 B0 G1 A6 HO P1 A0 6.00 540.

7 REMOVE TEMPLATES FROM SHEETMETAL AT WORKTABLE TO
WORKTABLE WITH 3 STEPS F 2
A1 B0 G1 A6 B0 P1 A0 2.00 180.

8 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS
USING RED PEN AT WORKTABLE AND ASIDE PF 16 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 R16) A1 B0 P1 A0 (16) 1.00 2920.

9 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT
WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND
ASIDE PF 45 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 R3) A1 B0 P1 A0 (45) 1.00 2290.

10 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT
USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 R3) A1 B0 P1 A0 (52) 1.00 2640.

11 REPLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE
WITH 4 STEPS F 2
A1 B0 G1 A6 B0 P3 A0 2.00 220.

12 MOUE CART WITH SHEETMETAL FROM WORKTABLE TO SMALLSHEAR
A1 E0 G1 A67 B0 P1 A0 1.00 700.

TOTAL TMU 14210,
File Description ? SHEAR SHEETMETAL FOR RECT. TO RECT. TRANSFORMER

Output to line-printer <Y or N> ? N

(39,1)
FIT  #11
TRANSF.M41
SHEAR SHEETMETAL FOR RECTANGULAR TO RECTANGULAR TRANSFORMER WITH
SHALL 8FT. SHEAR AT SHEETMETAL SHOP
PER TRANSFORMER OFG: 4 06-JUL-83
NASSCO SHEETMETAL SHAPE 1
* 20 GAUGE GALV. SHEETMETAL
* 17'X15' TO 16'X18'X32' RECT TO RECT. --
* TRANSFORMER
FITTER BEGINS AT SMALLSHEAR

1 POSITION SHEETMETAL FROM CART AT SMALLSHEAR TO
SMALLSHEAR WITH 4 STEPS F 2
A1 B0 G1 A6 E0 P6 A0 2.00 280.

2 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 2
A1 B0 G1 M1 X6 IO A0 2.00 180.

3 POSITION SHEETMETAL FROM SMALLSHEAR TO SMALLSHEAR F 8
A1 B0 G1 A1 B0 P6 A0 8.00 720.

4 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 8
A1 B0 G1 M1 X6 IO A0 8.00 720.

5 REPLACE SHEETMETAL F-ROM SMALLSHEAR TO CART AT
SMALLSHEAR WITH 10 STEPS F 2
A1 B0 G1 A16 B0 P3 A0 2.00 420.

6 MOUE CART WITH SHEETMETAL FROM SMALLSHEAR TO WORKTABLE
A1 B0 E1 A67 B3 P1 A0 1.00 730.

TOTAL TMU 3050,

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?
file description? cut corners for rect. to rect transformer

output to line-printer <y or n> ? n

(3991)
fit *w1

transf.m42

cut corners for rectangular to rectangular transformer with
uni-shear at sheetmetal shop

per transformer

ofig: 4 06-jul-83

nassco sheetmetal shape 1

* 18 gauge galv. sheetmetal

* 17'x15' to 16'x18'x32'l rect to rect.--

* --transformer

* flatten corners after cutting

fitter begins at worktable

1 place sheetmetal from cart at worktable to worktable
with 4 steps f 2

'a1 b0 g1 a6 b0 p3 a0 2.00 220.

2 move unishear2 from toolroom to worktable

a96 b0 g1 a96 b3 p1 a0 1.00 1970.

3 operate unishear at worktable process f 4

a1 b0 g1 m6 x17310 a0 4.00 7240.

4 cut corners on sheetmetal at worktable 2 cuts using
snips at worktable and aside pf 16 (4 5 6 7)

a1 b0 g1 (a1 b0 p3 c3 )a1 e0 p1 a0 (16) 1.00 1160.

5 fasten [flatten] sheetmetal at worktable 3 strikes
using hammer at worktable and aside pf 12 (4 5 6 7)

a1 b0 g1 (a1 b0 po f6 )a1 b0 f1 a0 (12) 1.00 880.

6 replace sheetmetal from' worktable to cart at worktable
with 4 steps f 2

a1 b0 g1 a6 b0 p3 a0 2.00 220.

7 move cart with sheetmetal2 from worktable to lapout

a1 b0 g1 a54 b0 p1 a0 1.00 570.

12260.

type d,em,ct,ew,ex,l,ld,ls,m,t,w <or h for help> ?
File Description ? FROM LAP ENDS FOR RECT TO RECT. TRANSFORMER

Output to line-printer <Y or N> ? N

(39,1)
FIT •W11

FORM LAP ENDS FOR RECTANGULAR TO RECTANGULAR TRANSFORMER WITH
LAYOUT (ROTARY MACHINE) AT SHEETMETAL SHOP

PER TRANSFORMER OFG: 4 07-JUL-83

NASSCO SHEETMETAL SHAPE 1
* 18 GAUGE GLAV. SHEETMETAL
* 17'X15' TO 16'X18'X32'L RECT. TO --
X RECT. TRANSFORMER
FITTER BEGINS AT LAPOUT

1 PLACE SHEETMETAL FROM CART AT LAPOUT TO LAPOUT WITH 4
STEPS F 2
A1 B0 G1 A6 B0 P3 A0 2.00 220.

2 PUSH LAPOUT-SWITCH PROCESS F 2
A1 B0 G1 M1 X16 IO A0 2.00 380.

3 PUSH AND GUIDE SHEETMETAL2 THROUGH LAPOUT WITH 2 STEPS.
F 2
A3 B0 G1 M1 X0 I3 A0 2.00 160.

4 REPLACE SHEETMETAL FROM LAPOUT TO CART AT LAPOUT WITH
4 STEPS F 2
A1 B0 G1 A6 B0 P3 A0 2.00 220.

5 MOVE CART WITH SHEETMETAL2 FROM LAPOUT TO PITTSBURGH
A1 B0 G1 A6 B0 P1 A0 1.00 90.

TOTAL TMU 1070.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

16.3080
output to line-printer <Y or N> ? N

(39, 1)
FIT *W1
TRANSF.M44
FORM PITTSBURGH LOCK FOR RECTANGULAR TO RECTANGULAR TRANSFORMER WITH PITTSBURGH MACHINE AT SHEETMETAL SHOP
PER TRANSFORMER
NASSCO SHEETMETAL SHAPE 1
* 18 GAUGE GALV. SHEETMETAL
* 17'X15' TO 16'X18'X32'L RECT. TO --
* --RECT. TRANSFORMER
* FORM PITTSBURGH ON BOTTOM SECTION AND--
* --90 DEGREE EDGE ON TOP SECTION
FITTER BEGINS AT PITTSBURGH

1 PLACE SHEETMETAL FROM CART AT PITTSBURGH TO PITTSBURGH WITH 4 STEPS F 2
   A1 B0 G1 A6 E0 P3 A0  2.00  220.

2 PUSH PITTSBURGH-BUTTON PROCESS F 4
   A1 B0 G1 M1 X32 IO A0  4.00  1400.

3 PUSH AND GUIDE SHEETMETAL THROUGH PITTSBURGH WITH 2 STEPS F 4
   A3 B0 G1 M1 X0 13 A0  4.00  320.

4 REPLACE SHEETMETAL FROM PITTSBURGH TO CART AT PITTSBURGH WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0  2.00  220.

5 MOVE CART WITH SHEETMETAL FROM PITTSBURGH TO COR NICE BRAKE
   A1 B0 G1 A24 B0 P1 A0  1.00  270.

TOTAL TMU 2430.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

18810
File Description ? BEND SHEETMETAL FOR TRANSFORMER

Output to line-printer <Y or N> ? N

( 39,1) FIT *W11 TRANSF.M45
BEND SHEETMETAL FOR RECTANGULAR TO RECTANGULAR TRANSFORMER WITH
CORNICEBRAKE AT SHEETMETAL SHOP
PER TRANSFORMER OFG: 4 07-JUL-83

NASCO SHEETMETAL SHAPE 1
* 18 GAUGE GALV. SHEETMETAL
* 17'X15' TO 16'X18'X32' RECT. TO--
* RECT. TRANSFORMER
* BEND UP SIDES OF TRANSFORMER 90 DEGREES
FITTER BEGINS AT CORNICEBRAKE

1 POSITION SHEETMETAL FROM CART AT CORNICEBRAKE TO
CORNICEBRAKE WITH 4 STEPS
   A1 B0 G1 A6 B0 P6 A0 1.00 140.
2 OPERATE CORNICEBRAKE-LEVER PROCESS
   A1 E0 E1 M6 X42 I0 A0 1.00 500.
3 POSITION SHEETMETAL FROM CORNICEBRAKE TO CORNICEBRAKE
   A1 B0 G1 A1 B0 P6 A0 1.00 90.
4 OPERATE CORNICEBRAKE-LEVER PROCESS
   A1 B0 G1 M6 X42 I0 A0 1.00 500.
5 REPLACE SHEETMETAL FROM CORNICEBRAKE TO CART AT
CORNICEBRAKE WITH 4 STEPS
   A1 B0 E1 A6 B0 P3 A0 1.00 110.
6 MOVE CART WITH SHEETMETAL2 FROM CORNICEBRAKE TO
PANBRAKE
   A1 B0 E1 A10 B0 P1 A0 1.00 130.

TOTAL TMU 1470.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

20,280
File Description ? BEND SHEETMETAL FOR TRANSFORMER

Output to line-printer <Y or N> ? N

(39,1)

FIT

W 1 1

TRANSF.M46

BEND SHEETMETAL FOR TRANSFORMER WITH PAN-BRAKE AT SHEETMETAL SHOP

PER TRANSFORMER

NASSCO SHEETMETAL SHAPE 1

* 18 GAUGE GALV. SHEETMETAL

* 17'X15' TO 16'X18'X32' LG RECT.--

* --TO RECT. TRANSFORMER

FITTER BEGINS AT PANBRAKE

1 POSITION SHEETMETAL FROM CART AT PANBRAKE TO PANBRAKE WITH 4 STEPS F 2

A1 B0 G1 A6 B0 P6 A0 2.00 280.

2 FASTEN NUT [JAWS] TO SHEETMETAL AT PANBRAKE WITH 4 WRIST-STROKES USING WRENCH AT PANBRAKE AND ASIDE F 2

A1 B0 G1 A1 B0 P3 F16 A1 B0 P1 A0 2.00 480.

3 OPERATE PANBRAKE-LEVER PROCESS F 2

A1 B0 G1 M6 X96 IO A0 2.00 2080.

4 POSITION SHEETMETAL FROM PANBRAKE TO PANBRAKE F 6

A1 B0 G1 A1 B0 P6 A0 6.00 540.

5 OPERATE PANBRAKE-LEVER PROCESS F 6

A1 B0 G1 M6 X96 IO A0 6.00 6240.

6 REPLACE SHEETMETAL FROM PANBRAKE TO CART AT PANBRAKE WITH 4 STEPS F 2

A1 B0 G1 A6 B0 P3 A0 2.00 220.

7 MOVE CART FROM PANBRAKE TO WORKTABLE

A1 B0 G1 A54 B3 F1 A0 1.00 600.

TOTAL TMU 10440.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

30720
File Description ? ASSEMBLE TRANSFORMER

Output to line-printer <Y or N> ? N

FIT .W11

ASSEMBLE RECTANGULAR TO RECTANGULAR TRANSFORMER WITH HAMMER AT SHEETMETAL SHOP PER TRANSFORMER OFG: 4 07-JUL-83

NASSCO SHEETMETAL SHAPE 1
* 18 GAUGE GALV. SHEETMETAL
* 17'X15' TO 16'X18'X32' RECT. TO --
* --RECT, TRANSFORMER
* FASTEN TOP TO BOTTOM WITH PITTSBURGH
* LOCK

FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0 2.00 220.

2 FASTEN [FLATTEN] SHEETMETAL CORNERS AT WORKTABLE 3 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P0 F6 )A1 B0 P1 A0 (4) 1.00 320.

3 POSITION SHEETMETAL [TOP] FROM WORKTABLE TO SHEETMETAL [BOTOM] AT WORKTABLE WITH 2 STEPS
   A1 B0 E1 A3 B0 P6 A0 1.00 1 1 0

4 POSITION SETTINGTOOL FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 12
   A1 B0 G1 A1 B0 P6 A0 12.00 1080.

5 FASTEN SETTINGTOOL TO SHEETMETAL AT WORKTABLE 3 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 12 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P0 F6 )A1 B0 P1 A0 (12) 1.00 880.

6 FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 4 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 12 ( 4 5 6 7 )
   A1 B0 E1 (A1 E0 P0 F10 )A1 E0 P1 A0 (12) 1.00 1360.

7 FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 16 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 20 ( 4 5 6 7 )
   A1 B0 E1 (A1 B0 P0 F32 )A1 B0 P1 A0 (20) 1.00 6640.

8 INSPECT SHEETMETAL AT WORKTABLE 9 POINTS
   A0 B0 GO A0 B0 PO T10 A0 B0 PO A0 1.00 100.

TOTAL TMU 10710.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ? 41430
TITLE: MARK OUT RECTANGLES TO RECTANG. TRANSFORMER

ACTIVITY: MARK

OBJECT: SHEETMETAL

*18 GAUGE GALV. 12" X 15" X 1/16" X 18" X 32. RED & RED TONE

TOOL: AWL

DATA UNIT TO BE FILED:

WORK AREA LAYOUT

MOST ANALYSIS

COMBINED SUB-OP.

TITLE SHEET

TITLE: MARK OUT RECTANGLES TO RECTANG. TRANSFORMER

SPECIAL CONDITIONS: *KEYPOINTS

1. Position template from workable to sheetmetal at workable F-2
2. Position weights from workable to template at workable with 3 steps F-5
3. Mark outline on sheetmetal at workable 5 digits using awl at workable and aside PE-16
4. Position punch from workable to sheetmetal at workable F-G
5. Fasten punch from workable to sheetmetal at workable 1 strike using hammer at workable and aside PE-6
6. Remove weights from template to workable at workable with 3 steps F-6
7. Remove template from sheetmetal to workable at workable F-2
8. Mark outlines on sheetmetal at workable 5 digits using red pen at workable and aside PE-16
9. Mark construction information on sheetmetal at workable 1 digit using black pen at workable and aside PE-45
10. Mark identification on sheetmetal at workable 1 digit using black pen at workable and aside PE-52
11. Replace sheetmetal from workable to cart at workable with 4 steps and aside F-2
12. Move cart from workable to small shelve
<table>
<thead>
<tr>
<th>Task</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fab (1430)</td>
<td>25 min</td>
</tr>
<tr>
<td>Mark Out (14210)</td>
<td>9 min</td>
</tr>
<tr>
<td>Total</td>
<td>33 min</td>
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**Sheet Metal Shape**

18 x 16 to 18 x 20 x 30" Ge Transformer

<table>
<thead>
<tr>
<th>Task</th>
<th>Hours</th>
<th>Minutes</th>
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<td>Fab</td>
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<tr>
<td>Mark Out</td>
<td>11.840</td>
<td>7</td>
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<tr>
<td>Weld</td>
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<td>17</td>
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<td><strong>Total Time</strong></td>
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File Description ? MARK OUT TRANSFORMER

Output to line-printer <Y or N> ? N

(39, 1)
FIT •W1

TRANSF.M50

MARK OUT RECTANGULAR TO RECTANGULAR TRANSFORMER WITH AWL AT
SHEETMETAL SHOP

FIT TRANSFORMER OFG: 4 26-JUL-83

NASSCO SHEETMETAL SHAPE 1
* 11 GAUGE GALV. SHEETMETAL
* 18' X 16' TO 18' X 30' L RECT. TO--
* --RECT. TRANSFORMER
* MARK OUT USING TEMPLATE
FITTER BEGINS AT WORKTABLE

1 POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS F 2
A1 B0 G1 A3 B0 P6 A0 2.00 220.

2 POSITION WEIGHTS FROM WORKTABLE TO TEMPLATE AT WORKTABLE WITH 3 STEPS F 4
A1 B0 G1 A6 B0 P6 A0 4.00 560.

3 MARK OUTLINE FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 16 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 F1 )A1 B0 P1 A0 (16) 1.00 2920.

4 POSITION CPUNCH FROM WORKTABLE TO TEMPLATE AT WORKTABLE WITH 3 STEPS F 6
A1 B0 G1 A6 B0 P6 40 6.00 840.

5 FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE AND ASIDE PF 6 (4 5 7)
A1 B0 G1 (A1 B0 P0 F3 )A1 B0 P1 A0 (6) 1.00 580.

6 REMOVE WEIGHTS FROM TEMPLATE AT WORKTABLE TO WORKTABLE WITH 3 STEPS F 6
A1 B0 G1 A6 B0 P1 A0 6.00 540.

7 REMOVE TEMPLATE FROM SHEETMETAL AT WORKTABLE TO WORKTABLE WITH 2 STEPS F 2
A1 B0 G1 A3 B0 P1 A0 2.00 120.

8 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 16 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (16) 1.00 2920.

9 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 45 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (45) 1.00 2290.

10 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PLF 52 (4 5 6 7)
A1 B0 G1 A1 B0 P1 A1 B0 P1 A0 1.00 90.

11 REPLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS AND ASIDE F 2
A1 B0 G1 A6 B0 P3 A0 2.00 220.

12 MOVE CART WITH 42 STEPS FROM WORKTABLE TO 14FT.SHEAR WITH 43 STEPS
A81 B0 G1 A81 B0 P1 A0 1.00 1640.
TOTAL TMU 12640,

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?
File Description ? SHEAR SHEETMETAL FOR TRANSFORMER

Output to line-Printer <Y or N> ? N

(39,1)
FIT .W11 TRANSF.M51
SHEAR SHEETMETAL FOR RECTANGULAR TO RECTANGULAR TRANSFORMER WITH
14FT. SHEAR AT SHEETMETAL SHOP
PER TRANSFORMER OFG: 4 26-JUL-83
NASSCO SHEETMETAL SHAPE 1
* 11 GAUGE GALV. SHEETMETAL
* 18'X16' TO 18'X20'X30'L RECTANGULAR--
* -- TO RECTANGULAR TRANSFORMER
FITTER BEGINS AT 14FT.SHEAR

1 POSITION SHEETMETAL FROM CART AT 14FT.SHEAR TO 14FT.SHEAR WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P6 A0 2.00 280.
2 PUSH 14FT.SHEAR-FOOTPEDAL PROCESS F 2
   A1 B0 G1 M1 X3 IO A0 2.00 120.
3 POSITION SHEETMETAL2 FROM 14FT.SHEAR TO 14FT.SHEAR WITH 2 STEPS F 7
   A1 B0 G1 A3 B0 P6 A0 7.00 770.
4 PUSH 14FT.SHEAR-FOOTPEDAL PROCESS F 7
   A1 B0 G1 M1 X3 IO A0 7.00 420.
5 REPLACE SHEETMETAL2 FROM 14FT.SHEAR TO CART AT 14FT.SHEAR WITH 10 STEPS F 2
   A1 B0 G1 A16 B0 P3 A0 2.00 420.
6 MOVE CART WITH 42 STEPS FROM 14FT.SHEAR TO WORKTABLE WITH 43 STEPS
   A81 B0 G1 A81 B3 P1 A0 1.00 1670.

TOTAL TMU 3680.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?
CUT SHEETMETAL FOR TRANSFORMER

FIT: W11

CUT SHEETMETAL FOR RECTANGULAR TO RECTANGULAR TRANSFORMER WITH SABER-SAW AT SHEETMETAL SHOP

PER TRANSFORMER OFG: 4 26-JUL-83

NASSCO SHEETMETAL SHAPE 1
* 11 GAUGE GALV. SHEETMETAL
* 18'X16' TO 18'X20'X30'L RECTANGULAR--
* -- TO RECTANGULAR TRANSFORMER

FITTER BEGINS AT WORKTABLE

1 POSITION SHEETMETAL2 FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P6 A0 2.00 280.

2 MOVE SABER-SAW2 FROM TOOLROOM TO WORKTABLE
   A96 B0 G1 A96 B3 P1 A0 1.00 1970.

3 FASTEN NUT [SAW-BLADE] TO SHEETMETAL AT WORKTABLE 4 WRIST-TURNS USING ALLEN-WRENCH AT WORKTABLE AND ASIDE PF 2 (4 5 6 7)
   A1 B0 G1 (A1 B0 P3 F10 )A1 B0 P1 A0 (2) 1.00 320.

4 POSITION SABER-SAW FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 13
   A1 B0 G1 A1 B0 P6 A0 13.00 1170.

5 OPERATE SABER-SAW AT WORKTABLE PROCESS F15
   A1 B0 G1 M6 X67 IO A0 15.00 11250.

6 FASTEN [FLATTEN] SHEETMETAL CORNERS AT WORKTABLE 4 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 12 (4 5 6 7)
   A1 B0 G1 (A1 B0 PO F10 )A1 B0 P1 A0 (12) 1.00 1360.

7 REPLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0 2.00 220.

8 MOVE CART FROM WORKTABLE TO 14FTHYDROPRESSBRAKE
   A1 B0 G1 A96 B0 P1 A0 1.00 990.

TOTAL TMU 17560.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?
BEND SHEETMETAL FOR TRANSFORMER

File Description ? BEND SHEETMETAL FOR TRANSFORMER
Output to line-printer <Y or N> ? N

FIT W11 TRANSF.M53
BEND SHEETMETAL FOR RECTANGULAR TO RECTANGULAR TRANSFORMER WITH 14FTHYDROPRESSBRAKE AT SHEETMETAL SHOP
PER TRANSFORMER OFG: 4 18-MAY-83
NASSCO SHEETMETAL SHAPE 1
* 11 GAUGE GALV. SHEETMETAL
* 18'X16' TO 18'X20'X30'L RECTANGULAR--
* -- TO RECTANGULAR TRANSFORMER
* BEND UP SIDES OF TRANSFORMER 90 DEGREES
* KINK LAP ENDS TO SUIT
* COMPLETE IN WELD BOOTH AREA
* SEE MWELD, TRANSF.M54
FITTER BEGINS AT 14FTHYDROPRESSBRAKE

1 POSITION SHEETMETAL FROM CART AT 14FTHYDROPRESSBRAKE TO 14FTHYDROPRESSBRAKE WITH 4 STEPS F 2
A1 B0 G1 A6 H0 P6 A0 2.00 280.

2 PUSH 14FTHYDROPRESSBRAKE-FOOTPEDAL PROCESS F 2
A1 B0 G1 M1 X24 IO A0 2.00 540.

3 POSITION SHEETMETAL FROM 14FTHYDROPRESSBRAKE TO 14FTHYDROPRESSBRAKE WITH 2. STEP F 4
A1 0 G1 A3 B0 P6 A0 4.00 440.

4 PUSH 14FTHYDROPRESSBRAKE-FOOTPEDAL PROCESS F 2
A1 B0 G1 M1 X24 IO A0 2.00 540.

5 REPLACE SHEETMETAL2 FROM 14FTHYDROPRESSBRAKE TO CART AT 14FTHYDROPRESSBRAKE WITH 4 STEPS F 2
A1 B0 G1 A6 BO P3 A0 2.00 220.

6 MOVE CART FROM 14FTHYDROPRESSBRAKE TO WORKTABLE
A1 B0 G1 A96 B3 P1 A0 1.00 1020.

TOTAL TMU 3040.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

13,920
OutPut to line-Printer <Y or N> ?

(39,3)

WELD TRANSFORMER WITH ARC (STICK) WELDING AT SHEETMETAL SHOP

WELDING BOOTH

PER TRANSFORMER OFG: 4 21-JUL-83

WELDING NASSCO SHEETMETAL SHAPE 1
* 11 GAUGE GALV. SHEETMETAL
* 18X16 TO 18X30 LG RECTANGULAR TO --
* --RECTANGULAR TRANSFORMER
* WELDING DONE IN WELD AREA BOOTH
* WELDOR PERFORMS THE WORK
* FITTER TRANSPORTS SHEETMETAL

FITTER BEGINS AT WORKTABLE

1 FITTER PLACE SHEETMETAL ASSEMBLY FROM WORKTABLE TO CART
   AT WORKTABLE WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0 2.00 220.

2 FITTER MOVE CART FROM WORKTABLE TO WELDTABLE
   A1 B0 G1 A131B3 P1 A0 1.00 1370.

3 PLACE SHEETMETAL ASSEMBLY FROM CART AT WELDTABLE TO
   WELDTABLE WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0 2.00 220.

4 WELDOR PUSH POWER SUPPLY BUTTON FROM OFF AT
   WELDMACHINES TO ON AT WELDMACHINES WITH 16 STEPS
   A3 B0 G1 M1 X0 IO A32 1.00 370.

5 WELDOR TURN CURRENT OUTPUT CONTROL LEVER FROM OFF AT
   WELDMACHINES TO ON AT WELDMACHINES
   A1 B0 G1 M3 X0 IO A1 1000 60.

6 WELDOR POSITION ANTI-SPATTER SPRAY CAN FROM WELDTABLE
   TO SHEETMETAL ASSEMBLY AT WELDTABLE F 2
   A3 B3 G1 A1 B0 P6 A0 2.00 280.

7 WELDOR PUSH ANTI-SPATTER2 SPRAY CAN PROCESS F 2
   A1 B0 G1 M1 X10 IO A0 2.00 260.

8 WELDOR FASTEN WELDROD TO STINGER1 AT WELDTABLE 1
   WRIST-TURN USING HAND F 8
   A1 B0 G1 A1 B0 P1 F3 A0 B0 PO A0 8.00 560.

9 PULL WELDHOOD FROM UP AT WELDOR TO DOWN AT WELDOR F 8
   A1 B0 G1 M1 X0 IO A1 8.00 320.

10 WELDOR POSITION STINGER1 FROM WELDTABLE TO SHEETMETAL
    ASSEMBLY AT WELDTABLE F 8
    A1 B0 G1 A1 B0 P6 A0 8.00 720.

11 OPERATE STINGER-BUTTON2 AT WELDTABLE PTIME 65 S F 10
    A1 B0 G1 M6 X173I0 A0 10.00 18100.

12 PUSH WELDHOOD FROM Down AT WELDOR TO Up AT WELDOR F 8
    A1 B0 G1 M1 X0 IO A1 8.00 320.

13 WELDOR LOOSEN SLAG FROM SHEETMETAL ASSEMBLY AT
    WELDTABLE 6 STRIKES USING SLAGHAMMER AT WELDTABLE AND
    ASIDE F 5
    A1 B0 G1 A1 B0 PO L16 A1 B0 P1 A0 5.00 1050.

14 WELDOR DEBURR WELDED ASSEMBLY AT WELDTABLE 10
    ARM-STROKES USING WIREBRUSH AT WELDTABLE AND ASIDE PF
    20 (4567)
    A1 B0 G14 (A1 B0 P1 C10 )A1 B0 P1 A0 (20) 1.00 2440.
15 REPLACE SHEETMETAL ASSEMBLY FROM WELDTABLE TO CART AT WELDTABLE WITH 4 STEPS F 2
A1 B0 G1 A6 B0 P3 A0 2.00 220.

16 FITTER MOVE CART FROM WELDTABLE TO WORKTABLE
A1 B0 G1 A131B0 P1 A0 1.00 1340.

TOTAL TMU 27850.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?
Sheet Metal Shape

7.5" x 6" to 10" x 4.5" x 14" LG transformer

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8 SHS.
MARK OUT TRANSFORMER

PER TRANSFORMER OFG: 4 OS-MAR-83

FILE W04 TRANSF

MARK OUT SHEETMETAL FOR TRANSFORMER WITH AWL AT SHEETMETAL SHOP

U.S.S. CAPE COD
* WORK ORDER 3070-339
* SKETCH 737
* 20 GAUGE GALV. SHEETMETAL
* DIMENSIONS: 7 1/2' X 6' TO 10' X 4 1/2'
* MARK OUT TRANSFORMER USING TEMPLATE
* CENTER PUNCH BEND LINES
* 1 TEMPLATE 1 PIECE
* 1 PIECE = BOTTOM AND SIDES OF TRANSFORMER

FITTER BEGINS AT WORKTABLE

1 PLACE TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 110.

2 PLACE 1 WEIGHT FROM WORKTABLE TO SHEETMETAL AND TEMPLATE AT WORKTABLE WITH 3 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 110.

3 MARK OUTLINE FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AND ASIDE PF 8 (4 5 6 7)
   A1 B0 G1 (A1 B0 P1 "R16") A1 B0 P1 A0 (B) 1.00 14B0.

4 POSITION CPUNCH FROM WORKTABLE TO TEMPLATE AT WORKTABLE AND ASIDE PF 4 (4. 5 6)
   A1 B0 G1 (A1 B0 P6) A0 (4) 1.00 300.

5 FASTEN CPUNCH TO WORKTABLE AT WORKTABLE 1 STRIKE USING HAMMER AND ASIDE PF 4 (4 5 6 7)
   A1 B0 G1 (A1 B0 P0 F3) A1 B0 P1 A0 (4) 1.00 200.

6 REPLACE WEIGHT FROM TEMPLATE TO WORKTABLE AT WORKTABLE WITH 3 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 110.

7 REPLACE TEMPLATE FROM SHEETMETAL TO WORKTABLE AT WORKTABLE WITH 3 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 110.

B PLACE CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 4 STEPS
   A1 B0 G1 A.5 B0 P3 A0 1.00 110.

9 MARK CORNERS FROM CORNER TEMPLATE ON SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AND ASIDE PF 16 (4 5 6 7)
   A1 B0 G1 (A1 B0 P1 R3) A1 B0 P1 A0 (16) 1.00 840.

10 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 1 DIGIT USING REDPEN AT WORKTABLE AND ASIDE PF 52 (4 5 6 7)
    A1 B0 G1 (A1 B0 P1 R3) A1 B0 P1 A0 (52) 1.00 2640.

11 MARK CONSTRUCTION LINES ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 47 (4 5 6 7)
    A1 B0 G1 (A1 B0 P1 R3) A1 B0 P1 A0 (47) 1.00 2390.

MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 34 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (34) 1.00 1740.

TOTAL THU 10140.

**Type D, E, M, C, T, E, W, E, X, L, D, L, S, M, T, W <or H for help> ?**
FIT

MARK OUT SHEETMETAL FOR TRANSFORMER TOP WITH AWL AT SHEETMETAL SHOP
PER TRANSFORMER (TOP) OFG: 4 08-MAR-83

S.S. CAPE COD
* WORK ORDER 3070-339
* SKETCH 737
* 20 GAUGE GALV. SHEETMETAL
* DIMENSIONS: 7 1/2'X6' TO 10'X4 1/2'
* MARK OUT TRANSFORMER TOP USING TEMPLATE
* 1 TEMPLATE 1 PIECE
FITTER BEGINS AT WORKTABLE

1 PLACE TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS
   A1 H0 G1 A6 B0 P3 A 0 1.00 110.

2 PLACE 1 WEIGHT FROM WORKTABLE TO TEMPLATE AT WORKTABLE WITH 3 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0 2.00 220.

3 MARK OUTLINE FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7)
   A1 B0 G1 B0 (A1 B0 F1 R16 )A1 B0 F1 A0 (4) 1.00 760.

4 REPLACE WEIGHT FROM SHEETMETAL TO WORKTABLE AT WORKTABLE WITH 3 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 110.

5 REPLACE TEMPLATE FROM SHEETMETAL TO WORKTABLE WITH 3 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 110.

6 PLACE CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 )
   A1 B0 G1 (A1 B0 P3 )A0 (4) 1.00 130.

7 MARK SHEETMETAL FROM CORNER TEMPLATE AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF 3 ( 4 5 6 7)
   A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (B) 1.00 440.

8 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 1 DIGIT USING REDPEN AT WORKTABLE AND ASIDE PF 25 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (25) 1.00 1290.

9 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 20 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (20) 1.00 1040.

10 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 34 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (34) 1.00 1740.

11 PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS
   A1 B0 G1 AS B0 P3 A 0 1.00 110.

12 MOVE CART FROM WORKTABLE TO SMALLSHEAR
   A 1 B0 G1 A67 B0 F1 A0 1.00 700.

13
please input file <TRANSF> ?

File Description ? SHEAR TRANSFORMER OUT LINES

Output to line-printer <Y or N> ? N

(39, 3)
FIT .W04 TRANSF.M03
SHEAR SHEETMETAL FOR TRANSFORMER WITH SHEAR (SMALL SHEAR) AT
SHEETMETAL SHOP
PER TRANSFORMER OFG: 4 03-MAR-83
U.S.S. CAPE COD
* WORK ORDER 3070-339
* SKETCH 737
* 20 GAUGE GALV. SHEETMETAL
* DIMENSIONS: 7 1/2’X6’ TO 10’X4 1/2’
* ROUGH CUT TRANSFORMER ENDS ON SHEAR
FITTER BEGINS AT SMALLSHEAR

1 POSITION 4X3 SHEETMETAL2 FROM CART AT SMALLSHEAR TO
SMALLSHEAR WITH 4 STEPS
A1 B0 G1 A6 B0 P6 A0 1.00 140.

2 PUSH FOOTPEDAL AT SMALLSHEAR FOR CUTTING SHEETMETAL2
PROCESS
A1 B0 G1 M1 X6 I0 A0 1.00 90.

3 POSITION SHEETMETAL FROM SMALLSHEAR TO SMALLSHEAR WITH
2 STEPS
A1 B0 G1 A3 B0 P6 A0 1.00 110.

4 PUSH FOOTPEDAL AT SMALLSHEAR FOR CUTTING SHEETMETAL
PROCESS F 5
A1 B0 G1 M1 X6 I0 A0 5.00 450.

5 PLACE SHEETMETAL FROM SMALLSHEAR TO CART AT SMALLSHEAR
WITH 4 STEPS
A1 B0 G1 A6 B0 P3 A0 1.00 110.

6 MOVE CART FROM SMALLSHEAR TO WORKTABLE
A1 B0 G1 A67 B3 P1 A0 1.00 730.

TOTAL TMU 1630.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?
File Description ? SHEAR TRANSFORMER ENDS

Output to line-Printer <Y or N> ? N

(39, 3)
FIT .W04
TRANSF
SHEAR SHEETMETAL FOR TRANSFORMER ENDS WITH UNI-SHEAR AT
SHEETMETAL SHOP

U.S.S CAPE COD
* WORK ORDER 3070-339
* SKETCH 737
* 20 GAUGE GALV. SHEETMETAL
* DIMENSIONS: 7 1/2'X6' TO 10'X4 1/2'X14'L

FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 3 STEPS
A1 B0 G1 A6 B0 F3 A0 1.00 110.

2 MOVE UNI-SHEAR2 FROM TOOLROOM TO WORKTABLE
A96 B0 G1 A96 B3 P1 A0 1.00 1970.

3 POSITION UNI-SHEAR2 FROM WORKTABLE TO SHEETMETAL AT WORKTABLE
A1 B0 G1 A1 B0 P6 A0 1.00 90.

4 OPERATE UNISHEAR ON SHEETMETAL AT WORKTABLE PROCESS F 2
A1 B0 G1 M6 X173 I0 A0 2.00 3620.

5 CUT CORNERS ON SHEETMETAL AT WORKTABLE 1 CUT USING SNIPS AT WORKTABLE AND ASIDE PF 24 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P3 C1) A1 B0 P1 A0 (24) 1.00 1240.

6 FASTEN ( FLATEN ) SHEETMETAL CORNERS ON SHEETMETAL AT WORKTABLE 2 STRIKES USING HAMMER AND ASIDE PF 24 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P6 F6) A1 B0 P1 A0 (24) 1.00 1720.

7 PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 3 STEPS
A1 B0 G1 A6 B0 P3 A0 1.00 110.

8 MOVE CART FROM WORKTABLE TO LAPOUT MACHINE
A1 B0 G1 A54 B0 P1 A0 1.00 570.

TOTAL TMU 9430.

Type D, EM, CT, EW, EX, L, LD, LS, M, M, W <or H for help> ?

11.060
File Description ? FORM TRANSFORMER LAP

Output to line-printer <Y or N> ? N

FIT .W04 TRANSF SHEETMETAL FOR TRANSFORMER LAP WITH LAPOUT AT SHEETMETAL SHOP PER TRANSFORMER OFG: 4 09-MAR-83

U.S.S. CAFE COD
* WORK ORDER 3070-339
* SKETCH 737
* 20 GAUGE GALV. SHEETMETAL
* DIMENSIONS: 7 1/2'X6' TO 10'X4 1/2'X14'L
* LAP-OUT 1 END (2SIDES, BOTTOM, TOP)
FITTER BEGINS AT LAPOUT

1 PLACE SHEETMETAL FROM CART AT LAPOUT TO LAPOUT WITH 4 STEPS

A1 B0 G1 A6 B0 P3 A0 1.00 110.

2 PUSH LAPOUT-SWITCH AT LAPOUT PROCESS F 3

A1 B0 G1 M1 X16 I0 A0 3.00 970.

3 REPLACE SHEETMETAL FROM LAPOUT TO CART AT LAPOUT WITH 4 STEPS

A1 B0 G1 A6 B0 P3 A0 1.00 110.

4 MOVE CART FROM LAPOUT TO PITTSBURGH

A1 B0 G1 A6 B0 P1 A0 1.00 90.

TOTAL TMU 880.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

/1940
File Description: FORM PITTSBURGH LOCK ON TRANSFORMER

Output to line-printer <Y or N> ? N

FIT .W04 TRANSFORM SHEETMETAL FOR TRANSFORMER LOCK WITH PITTSBURGH AT SHEETMETAL SHOP

U.S.S. CAPE COD
* WORK ORDER 3070-339
* SKETCH 737
* 20 GAUGE GALV. SHEETMETAL
* DIMENSIONS: 7 1/2'X6' TO 10'X4 1/2'X14'L
* FORM PITTSBURGH LOCK ON 1 SIDE OF MACH
* FORM EDGE ON OTHER SIDE OF MACH
FITTER BEGINS AT PITTSBURGH

1 PLACE SHEETMETAL2 FROM CART AT PITTSBURGH TO PITTSBURGH WITH 4 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 110.
2 PUSH PITTSBURGH-BUTTON AND FORM PITTSBURGH PROCESS F 2
   A1 B0 G1 M1 X32 I0 A0 2.00 700.
3 PUSH AND GUIDE SHEETMETAL THROUGH PITTSBURGH F 2
   A1 B0 G1 M1 X0 I3 A0 2.00 120.
4 PUSH AND GUIDE SHEETMETAL THROUGH PITTSBURGH WITH 2 STEPS F 2
   A3 B0 G1 M1 X0 I3 A0 2.00 160.
5 PLACE SHEETMETAL2 FROM PITTSBURGH TO CART AT PITTSBURGH WITH 4 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 110.
6 MOVE CART FROM PITTSBURGH TO CORNICE BRAKE
   A1 B0 G1 A24 B0 P1 A0 1.00 270.

TOTAL TMU 1470.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

13,410
FIT .W04
BEND SHEETMETAL FOR TRANSFORMER WITH CORNICE BRAKE AND FAN BRAKE
AT SHEETMETAL SHOP
PER TRANSFORMER
U.S.S. CAPE COD
* WORK ORDER 3070-339
* SKETCH 737
* 20 GAUGE GALV. SHEETMETAL
* DIMENSIONS: 7 1/2'X6' TO 10'X4 1/2'X14'L
* BEND TRANSFORMER SIDES UP 90 DEGREES
FITTER BEGINS AT CORNICEBRAKE

1 POSITION SHEETMETAL FROM CART AT CORNICEBRAKE TO CORNICEBRAKE WITH 4 STEPS
   A1 B0 G1 A6 B0 P6 A0 1.00 140.
2 OPERATE CORNICEBRAKE-LEVER PROCESS F 2
   A1 B0 G1 M6 X42 I0 A0 2.00 1000.
3 REPLACE SHEETMETAL2 FROM CORNICEBRAKE TO CART AT CORNICEBRAKE WITH 4 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 110.
4 MOVE CART FROM CORNICEBRAKE TO PABRAKE
   A1 B0 G1 A10 B0 P1 A0 1.00 130.
5 POSITION SHEETMETAL2 FROM CART AT PABRAKE TO PABRAKE WITH 4 STEPS
   A1 B0 G1 A6 B0 P6 A0 1.00 140.
5 FASTEN ( JAWS ) NUT TO SHEETMETAL AT PABRAKE 5
   WRIST-STROKES USING HAND
   A1 B0 G1 A1 B0 F1 F16 A0 B0 P0 A0 1.00 200.
7 OPERATE PABRAKE-LEVER PROCESS
   A1 B0 G1 M6 X96 I0 A0 1.00 1040.
8 REPLACE SHEETMETAL2 FROM PABRAKE TO CART AT PABRAKE WITH 4 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 110.
9 MOUE CART FROM PABRAKE TO WORKTABLE
   A1 B0 G1 A54 B3 F1 A0 1.00 600.

TOTAL TMU 3470.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ? 16880
Please input file <TRANSF.W04> ?

File Description ? ASSEMBLE TRANSFORMER

output to line-printer <Y or N> ? N

(39, 3)
FIT .W04 TRANSF
ASSEMBLE SHEETMETAL PIECES FOR TRANSFORMER WITH HAMMER AT
SHEETMETAL SHOP

PER TRANSFORMER OFG: 4 09-MAR-83
U.S.S. CAPE COD
* WORK ORDER 3070-339
* SKETCH 737
* 20 GAUGE GALV. SHEETMETAL
* DIMENSIONS: 7 1/2'X6 TO 10'X4 1/2'X14' L
* ASSEMBLE BOTTOM AND SIDES TO TOP
* SECURE ASSEMBLY
FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE
WITH 3 STEPS
A1 B0 G1 A6 B0 P3 A0 1.00 110.

2 POSITION HAMMER TO SHEETMETAL AT WORKTABLE F 2
A1 B0 G1 A1 B0 F6 A0 2.00 180.

3 FASTEN CORNERS ON SHEETMETAL AT WORKTABLE 2 STRIKES
USING HAMMER AND ASIDE PF 8 ( 4 5 6 7 )
A1 B0 G1 ( A1 B0 P0 F6 ) A1 B0 F1 A0 (8) 1.00 400.

4 POSITION SHEETMETAL FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE
A1 B0 G1 A1 B0 P6 A0 1.00 90.

5 PLACE SETTING TOOL FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE AND ASIDE PF 12 ( 4 5 6 )
A1 B0 G1 ( A1 B0 P3 ) A0 (12) 1.00 500.

6 FASTEN SETTING TOOL TO SHEETMETAL AT WORKTABLE 2 STRIKES
USING HAMMER AT WORKTABLE AND ASIDE PF 12 ( 4 5 6 7 )
A1 B0 G1 ( A1 B0 P0 F6 ) A1 B0 P1 A0 (12) 1.00 880.

7 FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 16 STRIKES
USING HAMMER AT WORKTABLE AND ASIDE PF 9 ( 4 5 6 7 )
A1 B0 G1 ( A1 B0 P0 F32 ) A1 B0 P1 A0 (9) 1.00 3010.

8 POSITION CAULKING GUN TO SHEETMETAL AT WORKTABLE PF 12
(4 5 6)
A1 B0 G1 ( A1 B0 F6 ) A0 (12) 1.00 860.

9 GRIP SEALANT TO SHEETMETAL DIFFICULT AT WORKTABLE USING
CAULKING GUN AND ASIDE PF 12 (4 5 6 7 )
A1 B0 G1 ( A1 B0 P10 C1 ) A1 B0 F1 A0 (12) 1.00 1480.

10 INSPECT SHEETMETAL AT WORKTABLE 9 POINTS
A0 B0 G0 A0 B0 P0 T10 A0 B0 P0 A0 1.00 100,

TOTAL TMU 7810.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W (or H for help> ?

24,960
**Sheet Metal Shape**

17" x 18" to 20" x 14" x 30" 16 Transformer

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File Description ? MARK OUT SHEETMETAL FOR OFFSET TRANSFORMER

Output to line-Printer <Y or n> ? N

(39, 1)
FIT .W11 TRANSF.M80
MARK OUT SHEETMETAL FOR
RECTANGULAR TO RECTANGULAR OFFS
SHOP
PER TRANSFORMER OFG: 4 20-MAY-83

NASSCO SHEETMETAL SHAPE 1
* 18 GAUGE GALv. SHEETMETAL
* 17'X18'X20'X14'X30' RECTANGULAR TO--
* --RECTANGULAR TRANSFORMER WITH 5' OFFSET
* MARK OUT USING TEMPLATE
FITTER BEGINS AT WORKTABLE
1 POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS F 2
   A1 B0 G1 A3 B0 P6 A0 2.00 220.
2 POSITION WEIGHTS FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS F 6
   A1 B0 G1 A6 B0 P6 A0 6.00 840.
3 MARK OUTLINE FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 16 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 R16) A1 B0 P1 A0 (16) 1.00 2920.
4 POSITION CPUNCH FROM WORKTABLE TO TEMPLATE AT WORKTABLE WITH 1 STEP F 16
   A1 B0 G1 A3 B0 P6 A0 16.00 1760.
5 FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE AND ASIDE PF 16 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P0 F3) A1 B0 P1 A0 (16) 1.00 680.
6 REPLACE WEIGHTS FROM TEMPLATE AT WORKTABLE TO WORKTABLE WITH 3 STEPS F 6
   A1 B0 G1 A6 B0 P3 A0 6.00 660.
7 MARK CUT LINES FROM TEMPLATE AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 16 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 R16) A1 B0 P1 A0 (16) 1.00 2920.
8 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 45 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 R3) A1 B0 P1 A0 (45) 1.00 2290.
9 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 R3) A1 B0 P1 A0 (52) 1.00 2640.
10 REPLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0 1.00 220.
11 MOUE CART FROM WORKTABLE TO SMALLSHEAR
   A1 B0 G1 A67 B0 P1 A0 1.00 700.

TOTAL TMU 15850.
SHEAR SHEETMETAL FOR OFFSET TRANSFORMER

Output to line-printer <Y or N> ? N

(39, 1) FIT .W11 TRANSF.M81

SHEAR SHEETMETAL FOR
RECTANGULAR TO- RECTANGULAR OFFSET TRANSFORMER WITH SMALL 8FT. SHEAR AT
SHEETMETAL SHOP
PER TRANSFORMER OFG: 4 06-JUL-83

NASSCO SHEETMETAL SHAPE 1
* 18 GAUGE GALV. SHEETMETAL
* 17'X18’ TO 20’X14’X30’ RECTANGULAR TO--
* COMPLETE SHEARING AT WORKTABLE --
* --WITH UNI-SHEAR
FITTER BEGINS AT SMALLSHEAR

1 POSITION SHEETMETAL FROM CART AT SMALLSHEAR TO
SHALLSHEAR WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P6 A0 2.00 280.

2 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 2
   A1 B0 G1 M1 X6 I0 A0 2.00 180.

3 POSITION SHEETMETAL FROM SMALLSHEAR TO SMALLSHEAR F 8
   A1 B0 G1 A1 B0 P6 A0 8.00 720.

4 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 8
   A1 B0 G1 M1 X6 I0 A0 8.00 720.

5 REPLACE SHEETMETAL2 FROM SMALLSHEAR TO CART AT
SMALLSHEAR WITH 10 STEPS F 2
   A1 B0 G1 A16 B0 P3 A0 2.00 420.

6 MOVE CART FROM SMALLSHEAR TO WORKTABLE
   A1 B0 G1 A67 B3 P1 A0 1.00 730.

TOTAL TMU 3050.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?
File Description ? CUT SHEETMETAL FOR OFFSET TRANSPORT

output to line-printer <Y or N> ? N

(39, 1)
FIT .W11  TRANSF.M82
CUT SHEETMETAL FOR RECTANGULAR TO RECTANGULAR OFFSET TRANSFORMER
WITH SNIPS AT SHEETMETAL SHOP
PER TRANSFORMER  OFG: 4 06-JUL-83
NASSCO SHEETMETAL SHAPE 1
* 18 GAUGE GALV. SHEETMETAL
* 17'X18' TO 20'X14'X30'L RECTANGULAR --
* TO RECTANGULAR TRANSFORMER. WITH 5' OFFSET
FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE
   WITH 4 STEPS F 2
       A1 B0 G1 A6 B0 P3 A0  2.00  220.
2 MOVE UNISHEAR2 FROM TOOLROOM TO WORKTABLE
       A96 B0 G1 A96 B3 P1 A0  1.00  1970.
3 OPERATE UNISHEAR AT WORKTABLE PROCESS F 4
       A1 B0 G1 M6 X173I0 A0  4.00  7240.
4 CUT CORNERS ONL SHEETMETAL AT WORKTABLE 2 CUTS USING
   SNIPS AT WORKTABLE AND ASIDE PF 16 ( 4 5 6 7 )
       A1 B0 G1 (A1 B0 P3 C3) A1 B0 P1 A0 (16)  1.00  1160.
5 FASTEN [FLATTEN] SHEETMETAL AT WORKTABLE 3 STRIKES
   USING HAMMER AT WORKTABLE AND ASIDE PF 12 ( 4 5 6 7 )
       A1 B0 G1 (A1 B0 P0 F6) A1 B0 P1 A0 (12)  1.00  880.
6 REPLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE
   WITH 4 STEPS F 2
       A1 B0 G1 A6 B0 P3 A0  2.00  220.
7 MOUE CART FROM WORKTABLE TO LAPOUT
       A1 B0 G1 A54 B0 P1 A0  1.00  570.

TOTAL TMU  12260.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ? 15310
File Description ? FORM LAP ENDS FOR OFFSET TRANSFORMER

Output to line-Printer <Y or N> ? N

(39, 1)
FIT .W11 TRANSF.M83
FORM LAP ENDS FOR RECTANGULAR TO RECTANGULAR OFFSET TRANSFORMER WITH LAPOUT MACHINE AT SHEETMETAL SHOP
PER TRANSFORMER OFG: 4 06-JUL-83

NASSCO SHEETMETAL SHAPE 1
* 18 GAUGE GALV. SHEETMETAL
* 17’X18’ TO 20’X14’X30’ RECTANGULAR TO--
* RECTANGULAR TRANSFORMER WITH 5’ OFFSET
FITTER BEGINS AT LAPOUT

1 PLACE SHEETMETAL FROM CART AT LAPOUT TO LAPOUT WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0 2.00 220.

2 PUSH LAPOUT-SWITCH PROCESS F 2
   A1 B0 G1 M1 X16 I0 A0 2.00 380.

3 PUSH AND GUIDE SHEETMETAL THROUGH LAPOUT WITH 2 STEPS F 2
   A3 B0 G1 M1 X0 I3 A0 2.00 160.

4 REPLACE SHEETMETAL FROM LAPOUT TO CART AT LAPOUT WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0 2.00 220.

5 MOUE CART FROM LAPOUT TO PITTSBURGH
   A1 B0 G1 A6 B0 F1 A0 1.00 90.

TOTAL TMU 1070.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

16,380
File Description ? FORM PITTSBURGH LOCK FOR OFFSET TRANSFORMER

Output to line-printer <Y or N> ? N

(39, 1)
FIT .W11 TRANSF
FORM PITTSBURGH LOCK FOR
RECTANGULAR TO RECTANGULAR OFFSE
AT SHEETMETAL SHOP SHOP
PER TRANSFORMER OFG: 4 20-MAY-83
NASSCO SHEETMETAL SHAPE 1
* 18 GAUGE GALV. SHEETMETAL
* 17'X18' TO 20'X14'30'L RECTANGULAR TO --
* --RECTANGULAR TRANSFORMER WITH 5' OFFSET
FITTER BEGINS AT PITTSBURGH

1 PLACE SHEETMETAL FROM CART AT PITTSBURGH TO PITTSBURGH
WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0 2.00 220.
2 PUSH PITTSBURGH-BUTTON PROCESS F 4
   A1 B0 G1 M1 X32 I0 A0 4.00 1400.
3 PUSH AND GUIDE SHEETMETAL THROUGH PITTSBURGH WITH 2
   STEPS F 4
   A3 B0 G1 M1 X0 I3 A0 4.00 320.
4 REPLACE SHEETMETAL FROM PITTSBURGH TO CART AT
   PITTSBURGH WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0 2.00 220.
5 MOVE CART FROM PITTSBURGH TO CORNICEBREAK
   A1 B0 G1 A24 B0 F1 A0 1.00 270.

TOTAL TMU 2430.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

18810
BEND SHEETMETAL FOR OFFSET TRANSFORMER

File Description ? BEND SHEETMETAL FOR OFFSET TRANSFORMER

Output to line-printer <Y or N> ? N

(39, 1)
FIT .W11 TRANSF.M85
BEND SHEETMETAL FOR RECTANGULAR TO RECTANGULAR OFFSET TRANSFORMER
WITH CORNICE-BRAKE AT SHEETMETAL SHOP
PER TRANSFORMER OFG: 4 06-JUL-83

NASSCO SHEETMETAL SHAPE 1
* 18 GAUGE GALV. SHEETMETAL
* 17'X18' TO 20'X14'X30' RECTANGULAR TO--
* --RECTANGULAR TRANSFORMER WITH 5' OFFSET
* BEND UP SIDES OF TRANSFORMER 90 DEGREES
FITTER BEGINS AT CORNICEBRAKE

1 POSITION SHEETMETAL2 FROM CART AT CORNICEBRAKE TO CORNICEBRAKE WITH 4 STEPS
   A1 B0 G1 A6 B0 P6 A0 1.00 140.
2 OPERATE CORNICEBRAKE-LEVER PROCESS
   A1 B0 G1 M6 X42 I0 A0 1.00 500.
3 POSITION SHEETMETAL FROM CORNICEBRAKE TO CORNICEBRAKE
   A1 B0 G1 A1 B0 P6 A0 1.00 90.
4 OPERATE CORNICEBRAKE-LEVER PROCESS
   A1 B0 G1 M6 X42 I0 A0 1.00 500.
5 REPLACE SHEETMETAL2 FROM CORNICEBRAKE TO CART AT CORNICEBRAKE WITH 4 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 110.
6 MOVE CART FROM CORNICEBRAKE TO PANBRAKE
   A1 B0 G1 A10 B0 P1 A0 1.00 130.

   TOTAL TMU 1470.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ? 20,280
File Description ? BEND LAP ENDS FOR OFFSET TRANSFORMER

Output to line-printer <Y or N> ? N

(39, 1)
FIT .W11 TRANSF.M86
BEND LAP ENDS FOR RECTANGULAR TO RECTANGULAR OFFSET TRANSFORMER
WITH PAN-BRAKE AT SHEETMETAL SHOP
PER TRANSFORMER OFG: 4 07-JUL-83
NASSCO SHEETMETAL SHAPE 1
* 18 GAUGE GLAV. SHEETMETAL
* 17' X 18' TO 20' X 14' X 30' RECTANGULAR TO --
* --RECTANGULAR TRANSFORMER WITH 5' OFFSET
* KINK UP LAP ENDS TO OFFSET ANGLE
FITTER BEGINS AT PANBRAKE

1 POSITION SHEETMETAL2 FROM CART AT PANBRAKE TO PANBRAKE
WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P6 A0  2.00  280.

2 FASTEN NUT [JAWS] TO SHEETMETAL AT PANBRAKE 4
   WRIST-STROKES USING WRENCH AT PANBRAKE AND ASIDE PF 2
   ( 4 5 6 7)
   A1 B0 G1 (A1 B0 P3 F16) A1 B0 P1 A0 (2)  1.00  440.

3 OPERATE PANBRAKE-LEVER PROCESS F 2
   A1 B0 G1 M6 X96 I0 A0  2.00  2080.

4 POSITION SHEETMETAL FROM PANBRAKE TO PANBRAKE F 6

5 OPERATE PANBRAKE-LEVER PROCESS F 6
   A1 B0 G1 A1 B0 P6 A0  6.00  540.

6 REPLACE SHEETMETAL2 FROM PANBRAKE TO CART AT PANBRAKE
WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0  2.00  220.

7 MOVE CART FROM PANBRAKE TO WORKTABLE
   A1 B0 G1 A54 B3 P1 A0  1.00  600.

TOTAL TMU  10400.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

30680
File Description ? ASSEMBLE OFFSET TRANSFORMER

Output to line-printer <Y or N> ? N

(39, 1)
FIT .W11 TRANSF.M87

ASSEMBLE SHEETMETAL FOR
RECTANGULAR TO RECTANGULAR OFFSET TRANSFORMER WITH HAMMER AT
SHEETMETAL SHOP

PER TRANSFORMER OFG: 4 06-JUL-83

NASSCO SHEETMETAL SHAPE 1
* 19 GAUGE GALV. SHEETMETAL
* 17'X18' TO 20'X14'X30'L RECTANGULAR TO--
* --RECTANGULAR TRANSFORMER WITH 5' OFFSET
* FASTEN TRANSFORMER TOP AND BOTTOM--
* -- WITH PITTSBURGH

FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE
 WITH 4 STEPS F 2
A1 B0 G1 A6 B0 P3 A0 2.00 220.

2 FASTEN [FLATTEN] SHEETMETAL CORNERS TO SHEETMETAL AT
 WORKTABLE 3 STRIKES USING HAMMER AT WORKTABLE AND
 ASIDE PF 4 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 PO F6) A1 B0 P1 A0 (4) 1.00 320.

3 POSITION SHEETMETAL [TOP] FROM WORKTABLE TO SHEETMETAL
 [BOTTOM] AT WORKTABLE WITH 4 STEPS
A1 B0 G1 A6 B0 P6 A0 1.00 140.

4 POSITION SETTINGTOOL FROM WORKTABLE TO SHEETMETAL AT
 WORKTABLE F 12
A1 B0 G1 A1 B0 P6 A0 12.00 1080.

5 FASTEN SETTINGTOOL TO SHEETMETAL AT WORKTABLE 3 STRIKES
 USING HAMMER AT WORKTABLE AND ASIDE PF 12 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P0 F6) A1 B0 P1 A0 (12) 1.00 880.

6 FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 4 STRIKES
 USING HAMMER AT WORKTABLE AND ASIDE PF 12 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P0 F10) A1 B0 F1 A0 (12) 1.00 1360.

7 FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 16 STRIKES
 USING HAMMER AT WORKTABLE AND ASIDE PF 20 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P0 F32) A1 B0 P1 A0 (20) 1.00 6640.

8 INSPECT SHEETMETAL AT WORKTABLE 9 POINTS
   A0 B0 G0 A0 B0 P0 T10 A0 B0 P0 A0 1.00 100.

TOTAL TMU 10740.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ? 41,920
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FIT . W 1 1 TRANSF.M70
MARK OUT SHEETMETAL FOR RECTANGULAR TO RECTANGULAR TRANSFORMER
WITH AWL AT SHEETMETAL SHOP
PER TRANSFORMER OFG: 4 18-MAY-83

NASSCO SHEETMETAL SHAPE 1
* 11 GAUGE GALV. SHEETMETAL
* 18'X19' TO 17'X20'X31'L RECTANGULAR --
* --TO RECTANGULAR TRANSFORMER
* OFFSET 4'
FITTER BEGINS AT WORKTABLE

1 POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE WITH 3 STEPS F 2
   A1 B0 G1 A6 B0 P6 A0 2.00 280.

2 POSITION WEIGHTS FROM WORKTABLE TO TEMPLATE AT
WORKTABLE WITH 4 STEPS F 4
   A1 B0 G1 A6 B0 P6 A0 4.00 560.

3 MARK OUTLINE FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5
DIGITS USING AWL AT WORKTABLE AND ASIDE PF 16 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 F1 R16) A1 B0 P1 A0 (16) 1.00 2920.

4 POSITION CPUNCH FROM WORKTABLE TO TEMPLATE AT WORKTABLE
WITH 2 STEPS F 6
   A1 B0 G1 A3 B0 P6 A0 6.00 660.

5 FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING
HAMMER AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 PO F3) A1 B0 P1 A0 (6) 1.00 280.

6 REMOVE WEIGHTS FROM TEMPLATE AT WORKTABLE TO WORKTABLE
WITH 4 STEPS F 6
   A1 B0 G1 A6 B0 P1 A0 6.00 540.

7 REMOVE TEMPLATES FROM SHEETMETAL AT WORKTABLE TO
WORKTABLE WITH 3 STEPS F 2
   A1 B0 G1 A6 B0 P1 A0 2.00 180.

8 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS
USING REDPEN AT WORKTABLE AND ASIDE PF 16 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 R16) A1 B0 P1 A0 (16) 1.00 2920.

9 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT
WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND
ASIDE PF 45 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 R3) A1 B0 P1 A0 (45) 1.00 2290.

10 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT
USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 R3) A1 B0 P1 A0 (52) 1.00 2640.

11 REPLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE
WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0 2.00 220.

12 MOUE CART FROM WORKTABLE TO 14FT. SHEAR
   A1 B0 G1 A81 B0 P1 A0 1.00 840.

TOTAL TMU 14330.
File Description ? SHEAR SHEETMETAL FOR OFFSET TRANSFORMER

Output to line-printer <Y or N> ? N

FIT .W11 TRANSF.M71

SHEAR SHEETMETAL FOR
RECTANGULAR TO RECTANGULAR OFFSET TRANSFORMER WITH 14FT. SHEAR AT
SHEETMETAL SHOP
PER TRANSFORMER OFG: 4 19-MAY-83

NASSCO SHEETMETAL SHAPE 1
* 11 GAUGE GALV. SHEETMETAL
* 18'X19' TO 17'X20'X31'L RECTANGULAR --
* --TO RECTANGULAR OFFSET TRANSFORMER
* OFFSET 4'
FITTER BEGINS AT 14FT. SHEAR

1 POSITION SHEETMETAL FROM CART AT 14FT. SHEAR TO 14FT. SHEAR WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P6 A0 2.00 280.

2 PUSH 14FT. SHEAR-FOOTPEDAL PROCESS F 2
   A1 B0 G1 M1 X3 I0 A0 2.00 120.

3 POSITION SHEETMETAL FROM 14FT. SHEAR TO 14FT. SHEAR F 7
   A1 B0 G1 A1 B0 P6 A0 7.00 630.

4 PUSH 14FT. SHEAR-FOOTPEDAL PROCESS F 7
   A1 B0 G1 M1 X3 I0 A0 7.00 420.

5 REPLACE SHEETMETAL2 FROM 14FT. SHEAR TO CART AT 14FT. SHEAR WITH 10 STEPS F 2
   A1 B0 G1 A16 B0 P3 A0 2.00 420.

6 MOVE CART FROM 14FT. SHEAR TO WORKTABLE
   A1 B0 G1 A81 B3 P1 A0 1.00 870.

   TOTAL TMU 2740.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?
CUT SHEETMETAL FOR OFFSET TRANSFORMER

FIT .W11 TRANSF.M72

CUT SHEETMETAL FOR RECTANGULAR TO RECTANGULAR OFFSET TRANSFORMER
WITH SABER-SAW AT SHEETMETAL SHOP PER TRANSFORMER OFG: 4 19-MAY-83

NASSCO SHEETMETAL SHAPE 1
* 11 GAUGE GALV. SHEETMETAL
* 18'X19' TO 17'X20'X31'L RECTANGULAR --
* -- TO RECTANGULAR OFFSET TRANSFORMER
* OFFSET 4'
FITTER BEGINS AT WORKTABLE

1 POSITION SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS
   A1 B0 G1 A6 B0 P6 A0 1.00 140.
2 MOVE SABER-SAW2 FROM TOOLROOM TO WORKTABLE
   A96 B0 G1 A96 B3 F1 A0 1.00 1970.
3 FASTEN NUT [SABER BLADE] TO SHEETMETAL AT WORKTABLE
   WRIST-TURNS USING ALLEN-WRENCH AT WORKTABLE AND ASIDE PF 2(4 5 6 7 )
   A1 B0 G1 (A1 B0 P3 F10) A1 B0 P1 A0 (2) 1.00 320.
4 OPERATE SABER-SAW AT WORKTABLE PROCESS F 4
   A1 B0 G1 M6 X67 I0 A0 4.00 3000.
5 FASTEN [FLATTEN] SHEETMETAL CORNERS AT WORKTABLE
   STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 12 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P0 F10) A1 B0 P1 A0 (12) 1.00 1360.
6 REPLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE
   WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0 2.00 220.
7 MOVE CART FROM WORKTABLE TO 14FT HYDROPRESSBRAKE
   A1 B0 G1 A96 B0 P1 A0 1.00 990.

TOTAL TMU 8000.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

10.740
File Description ? BEND SHEETMETAL FOR OFFSET TRANSFORMER

Output to line-printer <Y or N> ? N

1) F I T .W11 TRANSF.M73
BEND SHEETMETAL FOR RECTANGULAR TO RECTANGULAR OFFSET TRANSFORMER
WITH 14 FT. HYDRO-PRESS-BRAKE AT SHEETMETAL SHOP
PER TRANSFORMER OFG: 4 19-MAY-83

NASSCO SHEETMETAL SHAPE 1
* 11 GAUGE GALV. SHEETMETAL
* 18'X19' TO 17'X20'X31'L RECTANGULAR--
* --TO RECTANGULAR OFFSET TRANSFORMER
* OFFSET 4'
* BEND UP SIDES OF TRANSFORMER 90 DEGREES
* KINK UP LAP ENDS TO OFFSET ANGLE
* COMPLETE IN WELD BOOTH AREA
* SEE MWELD...TRANSF.M74
FITTER BEGINS AT 14FT HYDROPRESSBRAKE

1 POSITION SHEETMETAL FROM CART AT 14FT HYDROPRESSBRAKE TO 14FT HYDROPRESSBRAKE WITH 4 STEPS F 2
A1 B0 G1 A6 B0 P6 A0 2.00 280.
2 PUSH 14FT HYDROPRESSBRAKE-FOOTPEDAL PROCESS F 2
A1 B0 G1 M1 X24 I0 A0 2.00 540.
3 POSITION SHEETMETAL FROM 14FT HYDROPRESSBRAKE TO 14FT HYDROPRESSBRAKE F 6
A1 B0 G1 A1 B0 P6 A0 6.00 540.
4 PUSH 14FT HYDROPRESSBRAKE-FOOTPEDAL PROCESS F 2
A1 B0 G1 M1 X24 I0 A0 2.00 540.
5 REPLACE SHEETMETAL FROM 14FT HYDROPRESSBRAKE TO CART AT 14FT HYDROPRESSBRAKE WITH 4 STEPS F 2
A1 B0 G1 A6 B0 P3 A0 2.00 220.
6 MOVE CART FROM 14FT HYDROPRESSBRAKE TO WORKTABLE
A1 B0 G1 A96 B3 P1 A0 1.00 1020.

TOTAL TMU 3140.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

13840
WELD TRANSFORMER WITH ARC (STICK) WELDER AT SHEETMETAL SHOP

WELDING BOOTH

PER TRANSFORMER

OFG: 4 19-JUL-83

WELDING NASSCO SHEETMETAL SHAPE 1
* 11 GAUGE GALV. SHEETMETAL
* 18'X19' TO 17'X20'X31'L RECTANGULAR-
* --TO RECTANGULAR OFFSET, OFFSET 4'
* WELDING DONE IN WELD AREA BOOTH
* WELDOR PERFORMS THE WORK
* FITTER TRANSPORTS SHEETMETAL

FITTER BEGINS AT WORKTABLE

1 FITTER PLACE SHEETMETAL ASSEMBLY FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0 2.00  220.

2 FITTER MOVE CART FROM WORKTABLE TO WELDTABLE
   A1 B0 G1 A131B3 P1 A0 1.00  1370.

3 PLACE SHEETMETAL ASSEMBLY FROM CART AT WELDTABLE TO WELDTABLE WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0 2.00  220.

4 WELDOR PUSH POWER SUPPLY BUTTON FROM OFF AT WELDMACHINES TO ON AT WELDMACHINES WITH 16 STEPS
   A3 B0 G1 M1 X0 I0 A32 1.00  370.

5 WELDOR TURN CURRENT OUTPUT CONTROL LEVER FROM OFF AT WELDMACHINES TO ON AT WELDMACHINES
   A1 B0 G1 M3 X0 I0 A1 1.00  60.

6 WELDOR POSITION ANTI-SPATTER SPRAY CAN FROM WELDTABLE TO SHEETMETAL ASSEMBLY AT WELDTABLE F 2
   A3 B3 G1 A1 B0 P6 A0 2.00  280.

7 WELDOR PUSH ANTI-SPATTER2 SPRAY CAN PROCESS F 2
   A1 B0 G1 M1 X10 I0 A0 2.00  260.

8 WELDOR FASTEN WELDROD TO WRIST-TURN USING HAND F 14
   A1 B0 G1 A1 B0 P1 F3 A0 B0 P0 A0 14.00  980.

9 PULL WELDHOOD FROM UP AT WELDOR TO DOWN AT WELDOR F 14
   A1 B0 G1 M1 X0 I0 A1 14.00  560.

10 WELDOR POSITION STINGER1 FROM WELDTABLE TO SHEETMETAL ASSEMBLY AT WELDTABLE F 14
    A1 B0 G1 A1 B0 P6 A0 14.00  1260.

11 OPERATE WELD STINGER1 AT WELDTABLE PTIME 65 S F 10
    A1 B0 G1 M6 X17310 A0 10.00  18100.

13 PUSH WELDHOOD FROM DOWN AT WELDOR TO UP AT WELDOR F 14
    A1 B0 G1 M1 X0 I0 A1 14.00  560.

13 WELDOR LOOSEN SLAG FROM SHEETMETAL ASSEMBLY AT WELDTABLE 6 STRIKES USING SLAGHAMMER AT WELDTABLE AND ASIDE F 5
    A1 B0 G1 A1 B0 P0 L16 A1 B0 P1 A0 5.00  1050.

WELDOR DEBURR WELDED ASSEMBLY AT WELDTABLE 10 ARM-STROKES USING WIREBRUSH AT WELDTABLE AND ASIDE PF 20 (4 5 6 7)
    A1 B0 G1 (A1 B0 P1 C10) A1 B0 F1 A0 (20) 1.00  2440.
15 REPLACE SHEETMETAL ASSEMBLY FROM WELDTABLE TO CART AT WELDTABLE WITH 4 STEPS F 2
A1 B0 G1 A6 B0 P3 A0 2.00 220.

16 FITTER MOVE CART FROM WELDTABLE TO WORKTABLE
A1 B0 G1 A131B0 F1 A0 1.00 1340.

TOTAL TMU 29290.

Type D,EM,CT,EW,EX,L,LD,LS,H,T,W <or H for help> ?
Sheet Metal Shape

10" x 5" x 11" - LG Straight Section

- Fab: 13160  8 min
- Mark Out: 11730  7 min
- Total Tmu: 24890  15 min.
Please input file <STRGHT.W04> ?

File Description: MARK OUT 11' STRAIGHT (BOTTOM & SIDES)

Output to line-printer <Y or N>? N

(39, 3)

FIT .W04

MARK OUT SHEETMETAL FOR 11 STRAIGHT WITH AWL AT SHEETMETAL SHOP
PER 11' STRAIGHT
NASSCO SHEETMETAL PART # 2
* HULL 418
* DRAWING 501-292
* V2-92008
* V6-1945
* 20 GAUGE GALV. SHEETMETAL
* DIMENSIONS: 10'X5'X11'L
* LAYOUT STRAIGHT SECTION WITHOUT TEMPLATE
FITTER BEGINS AT WORKTABLE

1 MEASURE DIMENSION ON SHEETMETAL AT WORKTABLE USING
STEEL-TAPE AT WORKTABLE USING STEEL-TAPE AND ASIDE PF
4 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 M32) A1 B0 P1 A0 (4) 1.00 1400.

2 MARK SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AT
WORKTABLE AND ASIDE PF 12 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 R3) A1 B0 T1 A0 (12) 1.00 640.
POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE AND ASIDE WITH 3 STEPS PF 2 (4 5 6)
A1 B0 G1 (A6 B0 P6) A0 (2) 1.00 260.

3 MARK SHEETMETAL FROM STRAIGHTEDGE AT WORKTABLE 5 DIGITS
USING AWL AT WORKTABLE AND ASIDE PF 2 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 R16) A1 B0 P1 (2) 1.00 400.

4 POSITION CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL
AT WORKTABLE AND ASIDE PF 4 (4 5 6)
A1 B0 G1 (A1 B0 P6) A0 (4) 1.00 300.

5 MARK CORNERS FROM CORNER TEMPLATE AT WORKTABLE 2 DIGITS
USING AWL AT WORKTABLE AND ASIDE PF 4 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 R5) A1 B0 F1 A0 (4) 1.00 360.

6 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 1 DIGIT USING
REDPEN AT WORKTABLE AND ASIDE PF 12 (4 5 6 7)
A1 B0 G1 (A1 B0 F1 R3) A1 B0 F1 A0 (12) 1.00 640.

7 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT
WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND
ASIDE PF 29 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 R3) A1 B0 P1 A0 (29) 1.00 1490.

TOTAL TMU 5490.

Type B, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

8 SHTS.
File Description ? MARK OUT 11' STRAIGHT SECTION (TOP PIECE)

Output to line-printer <Y or N> ? N

FIT .W04
MARK OUT SHEETMETAL FOR STRAIGHT SECTION TOP PIECE WITH AWL AT
SHEETMETAL SHOP
PER STRAIGHT
NASSCO SHEETMETAL PART # 2
* HULL 418
* DRAWING 501-294
* V2-92008
* V6-1945
* 20 GAUGE GALV. SHEETMETAL
* DIMENSIONS : 10'X5'X11' L
* LAYOUT TOP PIECE WITHOUT TEMPLATE
FITTER BEGINS AT WORKTABLE

1 MEASURE DIMENSION ON SHEETMETAL AT WORKTABLE USING
STEEL-TAPE AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 F1 M32) A1 B0 P1 A0 (4) 1.00 1400.

2 MARK SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AT
WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 F1 R3 )A1 B0 P1 A0 (4) 1.00 240.

3 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE AND ASIDE PF 2 ( 4 5 6 )
A1 B0 G1 (A1 B0 P6 )A0 (4) 1.00 300.

4 MARK LINES FROM STRAIGHTEDGE TO SHEETMETAL AT WORKTABLE
5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 2 ( 4 5 6 7 )
P1 R16 )A1 B0 P1 (2) 1.00 400.

5 POSITION CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL
AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 )
A1 B0 G1 (A1 B0 P6 )A0 (4) 1.00 300.

6 MARK CORNERS FROM CORNER TEMPLATE AT WORKTABLE 2 DIGITS
USING AWL AND ASIDE PF 4 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P1 B6) A1 B0 P1 A0 (4) 1.00 360.

7 MARK OUT LINES ON SHEETMETAL AT WORKTABLE 1 DIGIT USING
RED PEN AT WORKTABLE AND ASIDE PF 8 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P1 R3) A1 B0 P1 A0 (8) 1.00 440.

8 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT
WORKTABLE 1 DIGIT USING BLACK PEN AND ASIDE PF 16 (4,5 6 7 )
A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (16) 1.00 840.

9 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT
USING BLACK PEN AT WORKTABLE AND ASIDE PF 25 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (25) 1.00 1290.

10 PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE
WITH 4 STEPS
A1 B0 G1 A6 B0 P3 A0 1.00 110.

11 MOVE CART FROM WORKTABLE TO SHEALSHCARE
A1 B0 G1 A67 B0 P1 A0 1.00 700.

TOTAL TMU 6240.
File Description ? SHEAR 11' STRAIGHT SECTION

Output to line-printer <Y or N> ? N

(39, 3)
FIT .W04 STRGHT- SHEAR SHEETMETAL FOR 11' STRAIGHT SECTION WITH SMALL SHEAR AT SHEETMETAL SHOP
PER STRAIGHT OFG: 4 10-MAR-83

NASSCO SHEETMETAL PART # 2
* HULL 418
* DRAWING 501-292
* V2-92008
* V6-1945
* 20 GAUGE GALV. SHEETMETAL
* DIMENSIONS : 10'X5'X11'L
* SMALL 8 FT. SHEAR
FITTER BEGINS AT SMALLSHEAR

1 POSITION 4X8 SHEETMETAL FROM CART AT SMALLSHEAR TO SMALLSHEAR WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 F6 A0 2.00 230.
2 PUSH FOOTPEDAL AT SMALLSHEAR FOR CUTTING SHEETMETAL PROCESS
   A1 B0 G1 M1 X6 I0 A0 1.00 90.
3 POSITION SHEETMETAL FROM SMALLSHEAR TO SMALLSHEAR F 2
   A1 B0 G1 A1 B0 P6 A0 2.00 180.
4 PUSH FOOTPEDAL AT SMALLSHEAR FOR CUTTING SHEETMETAL PROCESS F 2
   A1 B0 G1 M1 X6 I0 A0 2.00 130.
5 REPLACE SHEETMETAL FROM SMALLSHEAR TO CART AT SMALLSHEAR WITH 4 STEPS
   A1 B0 G1 A6 B0 P3 A3 1.00 110.
6 MOVE CART FROM SMALLSHEAR TO WORKTABLE
   A1 B0 G1 A67 B3 P1 A0 1.00 730.

TOTAL TMU 1570.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help>?
File Description: CUT 11' STRAIGHT SECTION CORNERS

Output to line-printer <Y or N> ? N

(39, 3)
FIT .W04 STRAIGHT CUT SHEETMETAL FOR CORNERS ON STRAIGHT WITH SNIPS AT SHEETMETAL SHOP PER STRAIGHT OFG: 4 10-MAR-83

NASSCO SHEETMETAL PART # 2
* HULL 418
* DRAWING 501-292
* V2-92008
* V6-1945
* 20 GAUGE GALV. SHEETMETAL
* DIMENSIONS: 10'X5'11'L
* CUT PITTSBURGH CORNERS WITH SNIPS
* 11' LONG STRAIGHT SECTION
FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS
   A1 B0 G1 A6 B0 F3 A0 1.00 110.
2 CUT CORNERS ON SHEETMETAL AT WORKTABLE 2 CUTS USING SNIPS AT WORKTABLE AND ASIDE PF 12 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P3 C3) A1 B0 P1 A0 (12) 1.00 880.
3 FASTEN ( FLATTEN ) SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE AND ASIDE PF 36 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P0 F3 )A1 B0 P1 A# (36) 1.00 1480.
4 PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 110.
5 MOVE CART FROM WORKTABLE TO LAPOUT
   A1 B0 G1 A54 B0 P1 A0 1.00 570.

TOTAL TMU 3150.

Type B, EN, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

4780
File Description? LAYOUT 11' STRAIGHT SECTION

Output to line-printer <Y or N>? N

FIT .W04

FORM SHEETMETAL FOR 11" STRAIGHT SECTION WITH LAPOUT MACHINE AT SHEETMETAL SHOP

PER STRAIGHT OFG: 4 10-MAR-83

NASSCO SHEETMETAL PART # 2
* HULL 418
* DRAWING 501-292
* V2-92008
* V6-1945
* 20 GAUGE GALV. SHEETMETAL
* DIMENSIONS: 10'X5'X11'L
* LAPOUT IS ROTARY MACHINE
* LAPOUT 1 END OF STRAIGHT SECTION
FITTER BEGINS AT LAPOUT

1 PLACE SHEETMETAL FROM CART AT LAPOUT TO LAPOUT WITH 4 STEPS F 2
A1 B0 G1 A6 B0 P3 A0 2.00 220.

2 PUSH LAPOUT-SWITCH PROCESS F 2
A1 B0 G1 M1 X16 I0 A0 2.00 380.

3 REPLACE SHEETMETAL FROM LAPOUT TO CART AT LAPOUT WITH 4 STEPS
A1 B0 G1 A6 B0 P3 A0 1.00 110.

4 MOVE CART FROM LAPOUT TO PITTSBURGH
A1 B0 G1 A6 B0 P1 A0 1.00 90.

TOTAL TMU 200.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help>? 5520
Please input file <STRGHT.M14> ?

File Description ? FORM PITTSBURGH ON 11' STRAIGHT SECTION

Output to line-printer <Y or N> ? N

(39, 3)
FIT .W04

FORM SHEETMETAL FOR 11' STRAIGHT SECTION WITH PITTSBURGH MACHINE
AT SHEETMETAL SHOP
PER STRAIGHT  OFG: 4 10-MAR-83

NASSCO SHEETMETAL PART # 2
* HULL 418
* DRAWING 501-292
* V2-92008
* V6-1945
* 20 GAUGE GALV. SHEETMETAL
* DIMENSIONS: 10'X5'X11'L
* FORM PITTSBURGH ON BOTTOM SECTION
* FORM EDGE ON TOP SECTION
FITTER BEGINS AT PITTSBURGH

1 PLACE SHEETMETAL FROM CART AT PITTSBURGH TO PITTSBURGH
A1 B0 G1 A1 B0 P3 A0 1.00 60.

2 PUSH PITTSBURGH-BUTTON PROCESS F 2
A1 B0 G1 M1 X32 I0 A0 2.00 700.

3 PUSH AND GUIDE SHEETMETAL THROUGH PITTSBURGH F 2
A1 B0 G1 M1 X0 I3 A0 2.00 120.

4 PUSH GUIDE SHEETMETAL2 THROUGH PITTSBURGH WITH 4 STEPS
F 3
A6 B0 G1 M1 X0 I3 A0 3.00 330.

5 PLACE SHEETMETAL FROM PITTSBURGH TO CART AT PITTSBURGH
WITH 4 STEPS
A1 B0 G1 A6 B0 P3 A0 1.00 110.

6 MOVE CART FROM PITTSBURGH TO LEAFBRAKE
A1 B0 G1 A32 B0 P1 A0 1.00 350.

TOTAL TMU 1670.

Type D,EM,CT,EX,T,W <or H for help> ?

7190
Please input file <STRGHT.M15> ?

File Description ? BEND 11' STRAIGHT 'SECTION

Output to line-printer <Y or N> ? N

(39, 3) FIT .W04

FIT .W04 STRGHT

BEND SHEETMETAL FOR 11' STRAIGHT SECTION WITH LEAF BRAKE AT
SHEETMETAL SHOP
PER STRAIGHT OFG: 4 10-MAR-83
NASSCO SHEETMETAL PART # 2
* HULL 418
* DRAWING 501-292
* V2-92008
* V6-1945
* 20 GAUGE GALV. SHEETMETAL
* BEND SIDES UP 90 DEGREES
FITTER BEGINS AT LEAFBRAKE

1 POSITION SHEETMETAL FROM CART AT LEAFBRAKE TO LEAFBRAKE WITH 4 STEPS
   A1 B0 G1 A6 B0 P6 A0 1.00 140.

2 OPERATE LEAFBRAKE-LEVER PROCESS F 2
   A1 B0 G1 M6 X16 I0 A0 2.00 430.

3 PLACE SHEETMETAL2 FROM LEAFBRAKE TO CART AT LEAFBRAKE WITH 4 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 110.

4 MOVE CART FROM LEAFBRAKE TO WORKTABLE
   A1 B0 G1 A81 B3 P1 A0 1.00 370.

   TOTAL TMU 1600.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

8790
File Description ? ASSEMBLE 11' STRAIGHT SECTION

Output to line-printer <Y or N> ? N

(39, 3)
FIT .W11 STRGHT.M16
ASSEMBLE SHEETMETAL PIECES FOR 11' STRAIGHT SECTION WITH HAMMER
AT SHEETMETAL SHOP
PER STRAIGHT
NASSCO SHEETMETAL SHAPE 2
* HULL 418
* DRAWING 501-292
* V2-92008
* V6-1945
* 20 GAUGE GALV. SHEETMETAL
* DIMENSIONS: 10'X5'X11' LG
* SECURE TOP PIECE TO BOTTOM PIECE
* SECURE PIECES WITH PITTSBURGH
FITTER BEGINS AT WORKTABLE
1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE
WITH 4 STEPS F 2
A1 B0 G1 A6 B0 P3 A0 2.00 220.
2 FASTEN [FLATTEN] SHEETMETAL AT WORKTABLE 3 STRIKES
USING HAMMER AT WORKTABLE AND ASIDE PF 12 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P0 F6) A1 B0 P1 A0 (12) 1.00 880.
3 POSITION SHEETMETAL [TOP] TO SHEETMETAL [BOTTOM] AT
WORKTABLE WITH 2 STEPS
A1 B0 G1 A3 B0 P6 A0 1.00 110.
4 PLACE SETTINGTOOL FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE F 4
A1 B0 G1 A1 B0 P3 A0 4.00 240.
5 FASTEN SETTINGTOOL TO SHEETMETAL AT WORKTABLE 2 STRIKES
USING HAMMER AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P0 F6) A1 B0 P1 A0 (4) 1.00 320.
6 FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 4 STRIKES
USING HAMMER AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P0 F10) A1 B0 P1 A0 (4) 1.00 480.
7 FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 16 STRIKES
USING HAMMER AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P0 F32) A1 B0 P1 A0 (6) 1.00 2020.
8 INSPECT SHEETMETAL AT WORKTABLE 9 POINTS
A0 B0 G0 A0 B0 P0 T10 A0 B0 P0 A0 1.00 100.

TOTAL TMU 4370.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

13/160
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File Description ? MARK OUT SHEETMETAL FOR STRAIGHT SECTION

Output to line-Printer <Y or N> ? N

(39, 1)
FIT .W11
MARK OUT SHEETMETAL FOR STRAIGHT SECTION WITH AWL AT SHEETMETAL SHOP PER STRAIGHT SECTION

NASSCO SHEETMETAL SHAPE 2
* 18 GAUGE GALV. SHEETMETAL
* 18'X12'X18' L STRAIGHT SECTION
* MARK OUT WITHOUT TEMPLATE

FITTER BEGINS AT WORKTABLE

1 MEASURE DIMENSION ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE
A1 B0 G1 A1 B0 P1 M32 A1 B0 P1 A0 1.00 380.

2 MARK DIMENSION FROM STEEL-TAPE TO SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF 4 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 R3) A1 B0 P1 A0 (4) 1.00 240.

3 MOVE STEEL-TAPE FROM WORKTABLE TO OTHER SIDE OF WORKTABLE WITH 9 STEPS
A1 B0 G1 A16 B0 P1 A0 1.00 190.

4 MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE PF 3 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 M32) A1 B0 P1 A0 (3) 1.00 1060.

5 MARK DIMENSIONS FROM STEEL-TAPE TO SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF 6 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 R3) A1 B0 P1 A0 (6) 1.00 340.

6 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL WITH 1 STEP F 5
A1 B0 G1 A3 B0 P6 A0 5.00 550.

7 MARK LINES FROM STRAIGHTEDGE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE WITH 1 STEP AND ASIDE PF 5 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 A3) R16 A1 B0 P1 A0 (5) 1.00 450.

8 POSITION CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS
A1 B0 G1 A6 B0 P6 A0 1.00 140.

9 POSITION CORNER TEMPLATE FROML SHEETMETAL TO SHEETMETAL AT WORKTABLE F 7
A1 B0 G1 A1 B0 P6 A0 7.00 630.

10 MARK SHEETMETAL FROM CORNER TEMPLATE AT WORKTABLE 2 DIGITS USING AWL AT WORKTABLE AND ASIDE WITH 1 STEP
A1 B0 G1 A1 B0 P1 R6 A1 B0 P1 A0 1.00 120.

11 MARK SHEETMETAL FROM CORNER TEMPLATE AT WORKTABLE 2 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 7 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 R6) A1 B0 P1 A0 (7) 1.00 600.

12 POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 4
A1 B0 G1 A1 B0 P6 A0 4.00 360.

13 FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE AND ASIDE PF 4 (4 5 6 7)
MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 3 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 R16) A1 B0 P1 A0 (4) 1.00 200.

MARK CUT LINES ON SHEETMETAL AT WORKTABLE 2 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 8 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 R6) A1 B0 P1 A0 (3) 1.00 580.

MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 15 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 R3) A1 B0 P1 A0 (8) 1.00 680.

MOVE CORNER TEMPLATE FROM WORKTABLE TO OTHER SIDE OF WORKTABLE WITH 9 STEPS
A1 B0 G1 A16 B0 P1 A0 1000 190.

POSITION CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE
A1 B0 G1 A1 B0 P6 A0 1.00 90.

MARK SHEETMETAL FROM CORNER TEMPLATE AT WORKTABLE 2 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 8 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 R6) A1 B0 P1 A0 (8) 1.00 680.

MARK CUT LINES ON SHEETMETAL AT WORKTABLE 2 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 8 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 R6) A1 B0 P1 A0 (8) 1.00 680.

MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 15 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 R3) A1 B0 P1 A0 (15) 1.00 790.

MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 R3) A1 B0 P1 A0 (52) 1.00 2640.

PLACE SHEETMETAL2 FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2
A1 B0 G1 A6 B0 P3 A0 2.00 220.

MOVE CART WITH SHEETMETAL FROM WORKTABLE TO SMALLSHEAR
A1 B0 G1 A67 B0 P1 A0 1.00 700.

TOTAL TMU 13300.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?
File Description ? SHEAR SHEETMETAL FOR STRAIGHT SECTION

Output to line-printer <Y or N> ? N

(39, 1)
FIT .W11 STRGHT.M51
SHEAR SHEETMETAL FOR STRAIGHT SECTION WITH SMALL 8FT. SHEAR AT SHEETMETAL SHOP
PER. STRAIGHT SECTION OFG: 4 13-MAY-83
NASSCO SHEETMETAL SHAPE 2
* 18 GAUGE GALV. SHEETMETAL
* 18'X12'X18' L STRAIGHT SECTION
* SHEAR TOP AND BOTTOM PIECES FOR STRAIGHT FITTER BEGINS AT SMALLSHEAR

1 POSITION SHEETMETAL FROM CART AT SMALLSHEAR TO SMALLSHEAR WITH 4 STEPS F 2
A1 B0 G1 A6 B0 P6 A0 2.00 280.

2 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 2
A1 B0 G1 M1 X6 I0 A0 2.00 180.

3 POSITION SHEETMETAL FROM SMALLSHEAR TO SMALLSHEAR F 2
A1 B0 G1 A1 B0 P6 A0 2.00 180.

4 REPLACE SHEETMETAL FROM SMALLSHEAR TO CART AT SMALLSHEAR WITH 10 STEPS F 2
A1 B0 G1 A16 B0 P3 A0 2.00 420.

5 MOVE CART WITH SHEETMETAL FROM SMALLSHEAR TO WORKTABLE
A1 B0 G1 A67 B3 P1 A0 1.00 730.

TOTAL TMU 1790.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?
CUT SHEETMETAL FOR STRAIGHT SECTION

PER STRAIGHT SECTION

NASSCO SHEETMETAL SHAPE 2
* 18 GAUGE GALV. SHEETMETAL
* 18'X12'X18'L STRAIGHT SECTION
FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0  2.00  220.

2 CUT CORNERS ON SHEETMETAL AT WORKTABLE 2 CUTS USING SNIPS AT WORKTABLE AND ASIDE PF 16 ( 4 5 6 7 ) /2
   A1 B0 G1 (A1 B0 P3 C3) A1 B0 P1 A0 (16)  1.00  1160.

3 FASTEN [FLATTEN] CORNERS ON SHEETMETAL AT WORKTABLE 3 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 16 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P0 F6) A1 B0 P1 A0 (16)  1.00  1160.

4 REPLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE F 2
   A1 B0 G1 A1 B0 P3 A0  2.00  120.

5 MOVE CART WITH SHEETMETAL FROM WORKTABLE TO LAPOUT
   A1 B0 G1 A54 B0 P1 A0  1.00  570.

TOTAL TMU 3230.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ? 5-020
File Description ? FORM LAP END ON STRAIGHT SECTION

Output to line-printer <Y or N> ? N

(39,1)
F11 STRGHT.M53
FORM LAP END ON STRAIGHT SECTION WITH LAPOUT (ROTARY MACHINE) AT
SHEETMETAL SHOP
PER STRAIGHT SECTION OFG: 4 13-MAY-83
NASSCO SHEETMETAL SHAPE 2
* 18 GAUGE GALV, SHEETMETAL
* 18'X12'X18' L STRAIGHT SECTION
FITTER BEGINS AT LAPOUT

1 PLACE SHEETMETAL FROM CART AT LAPOUT TO LAPOUT WITH 4
STEPS F 2
AL B0 G1 A6 B0 P3 A0 2.00 220.

2 PUSH LAPOUT-SWITCH PROCESS F 2
A1 B0 G1 M1 X16 10 A0 2.00 380.

3 PUSH AND GUIDE SHEETMETAL THROUGH LAPOUT WITH 2 STEPS
F 2
A3 B0 G1 M1 X0 I3 A0 2.00 160.

4 REPLACE SHEETMETAL FROM LAPOUT TO CART AT LAPOUT WITH
4 STEPS F 2
A1 B0 G1 A6 B0 P3 A0 2.00 220.

5 MOVE CART WITH SHEETMETAL FROM LAPOUT TO PITTSBURGH
A1 B0 G1 A6 B0 P1 A0 1.00 90.

TOTAL TMU 1070.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

6090
File Description ? FORM PITTSBURGH ON STRAIGHT SECTION

Output to line-printer <Y or N> ? N

(39, 1)
FIT, W11 STRGHT.M54
FORM PITTSBURGH ON STRAIGHT SECTION WITH PITTSBURGH MACHINE AT
SHEETMETAL SHOP
PER STRAIGHT SECTION

NASSCO SHEETMETAL SHAPE 2
* 18 GAUGE GALV, SHEETMETAL
* 18'X12'X18' L STRAIGHT SECTION
FITTER BEGINS AT PITTSBURGH

1 PLACE SHEETMETAL FROM CART AT PITTSBURGH TO PITTSBURGH
WITH 4 STEPS
A1 B0 G1 A6 B0 P3 A0 1.00 110.

2 PUSH PITTSBURGH-BUTTON PROCESS F 4
A1 B0 G1 M1 X32 IO A0 4.00 1400.

3 PUSH AND GUIDE SHEETMETAL THROUGH PITTSBURGH WITH 2
STEPS F 4
A3 B0 G1 M1 X0 I3 A0 4.00 320.

4 REPLACE SHEETMETAL FROM PITTSBURGH TO CART AT
PITTSBURGH WITH 4 STEPS F 2
A1 B0 G1 A6 B0 P3 A0 2.00 220.

TOTAL TMU 2050.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?
File Description: BEND SHEETMETAL FOR STRAIGHT SECTION

Output to line-printer <Y or N> ? N

(39, 1) FIT .W11 STRGHT.M55
BEND SHEETMETAL FOR STRAIGHT SECTION WITH LEAFBRAKE AT SHEETMETAL SHOP
PER STRAIGHT SECTION OFG: 4 13-MAY-83
NASSCO SHEETMETAL SHAPE 2
* 18 GAUGE GALV, SHEETMETAL
* 18'X12'X18'L STRAIGHT SECTION
* BEND UP SIDES ON STRAIGHT 90 DEGREES
FITTER BEGINS AT LEAFBRAKE

1 POSITION SHEETMETAL FROM CART AT LEAFBRAKE TO LEAFBRAKE WITH 4 STEPS
   A1 B0 G1 A6 B0 P6 A0 1.00 140.

2 OPERATE LEAFBRAKE-LEVER PROCESS
   A1 B0 G1 M6 X16 I0 A0 1.00 240.

3 POSITION SHEETMETAL FROM LEAFBRAKE TO LEAFBRAKE
   A1 B0 G1 A1 B0 P6 A0 1.00 90.

4 OPERATE LEAFBRAKE-LEVER PROCESS
   A1 B0 G1 M6 X16 I0 A0 1.00 240.

5 REPLACE SHEETMETAL2 FROM LEAFBRAKE TO CART AT LEAFBRAKE WITH 4 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 110.
MOVE CART WITH SHEETMETAL FROM LEAFBRAKE TO WORKTABLE
   A1 B0 G1 A81 B3 P1 A0 1.00 870.

TOTAL TMU 1690.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?
Output to line-Printer <Y or N> ? N

(39, 1)
FIT, W11 STRGHT.M56
ASSEMBLE STRAIGHT SECTION WITH HAMMER AT SHEETMETAL SHOP
PER STRAIGHT OFG: 4 21-JUL-83

NASSCO SHEETMETAL SHAPE 2
* 18 GAUGE GALV. SHEETMETAL
* 18'X12'X18'L STRAIGHT SECTION
* FLATTEN LAP ENDS
FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0 2.00 220.
2 FASTEN [FLATTEN] SHEETMETAL AT WORKTABLE 3 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 12 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 PO F6) A1 B0 P1 A0 (12) 1.00 880.
3 POSITION SHEETMETAL [TOP] TO SHEETMETAL [BOTTOM] AT WORKTABLE WITH 2 STEPS
   A1 B0 G1 A3 B0 P6 A0 1.00 110.
4 PLACE SETTINGTOOL FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 6
   A1 B0 G1 A1 B0 P3 A0 6.00 360.
5 FASTEN SETTINGTOOL TO SHEETMETAL AT WORKTABLE 2 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 PO F6) A1 B0 P1 A0 (6) 1.00 460.
6 FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 4 STRIKES USING HAMMER AT WORKTABLE. AND ASIDE PF 6 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 PO F10) A1 B0 P1 A0 (6) 1.00 700.
7 FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 16 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 10 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 PO F32) A1 B0 P1 A0 (10) 1.00 3340.
8 INSPECT SHEETMETAL AT WORKTABLE 9 POINTS
   A0 B0 GO A0 B0 PO T10 A0 B0 P0 A0 1.00 100.

TOTAL TMU 6170.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?
**SHEET METAL SHAPE #2**

**10" X 6" X 16" LG. STRAIGHT SECTION**

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MARK OUT SHEETMETAL FOR STRAIGHT SECTION

Output to line-Printer <Y or N> ? N

FIT .W11 STRGHT.M80
MARK OUT SHEETMETAL FOR STRAIGHT SECTION WITH AWL AT SHEETMETAL SHOP
PER STRAIGHT SECTION
OFG: 4 24-MAY-83
NASSCO SHEETMETAL SHAPE 2
* 11 GAUGE GALV. SHEETMETAL
* 10'X6'X16' STRAIGHT SECTION
* MARK OUT WITHOUT TEMPLATE
FITTER BEGINS AT WORKTABLE

1 MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING
STEEL-TAPE AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P1 M32) A1 B0 P1 A0 (4) 1.00 1400.
2 MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT
USING AWL AT WORKTABLE AND ASIDE PF 10 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P1 R3) A1 B0 P1 A0 (10) 1.00 540.
3 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE F 5
A1 B0 G1 A1 B0 P6 A0 5.00 450.
4 MARK LINES FROM STRAIGHTEDGE TO SHEETMETAL AT WORKTABLE
5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 5 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P1 R16) A1 B0 P1 A0 (5) 1.00 940.
5 POSITION CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE F 10
A1 B0 G1 A1 B0 P6 A0 10.00 900.
6 MARK SHEETMETAL FROM CORNER TEMPLATE AT WORKTABLE 2
DIGITS USING AWL AT WORKTABLE AND ASIDE PF 10 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 F1 R6) A1 B0 F1 A0 (10) 1.00 840.
7 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT
WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND
ASIDE PF 29 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P1 R3) A1 B0 P1 A0 (29) 1.00 1490.
8 FASTEN CONSTRUCTION INFORMATION ON SHEETMETAL AT
WORKTABLE 1 STRIKE USING
HAMMER AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 F0 F3) A1 B0 P1 A0 (4) 1.00 200.
9 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS
USING REDPEN AT WORKTABLE AND ASIDE PF 5 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P1 R16) A1 B0 P1 A0 (5) 1.00 940.
10 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT
WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND
ASIDE PF 29 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P1 R3) A1 B0 P1 A0 (29) 1.00 1490.
11 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT
USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 F1 R3) A1 B0 P1 A0 (52) 1.00 2640.
12 PLACE SHEETMETAL2 FROM WORKTABLE TO CART AT WORKTABLE
WITH 4 STEPS F 2
A1 B0 G1 A6 B0 F3 A0 2.00 220.
13 MOVIE CART FROM WORKTABLE TO 14FT.SHEAR
A1 B0 G1 A81 B0 P1 A0 1.00 840.
TOTAL TMU 11760.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for heir>?
File Description ? SHEAR SHEETMETAL FOR STRAIGHT SECTION

Output to line-printer <Y or N> ? N

(39, 1)
FIT .W11 STRGHT.M81
SHEAR SHEETMETAL FOR STRAIGHT SECTION WITH 14FT.SHEAR AT
SHEETMETAL SHOP
PER STRAIGHT SECTION OFG: 4 24-MAY-83
NASSCO SHEETMETAL SHAPE 2
* 11 GAUGE GALV. SHEETMETAL
* 10'X6'X16' STRAIGHT SECTION
* SHEAR STRAIGHT TOP AND BOTTOM PIECES
FITTER BEGINS AT 14FT.SHEAR

1 POSITION SHEETMETAL FROM CART AT 14FT.SHEAR TO
14FT.SHEAR WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P6 A0  2.00  280.

2 PUSH 14FT.SHEAR-FOOTPEDAL PROCESS
   A1 B0 G1 M1 X3 I0 A0  1.00  60.

3 POSITION SHEETMETAL FROM 14FT.SHEAR TO 14FT.SHEAR F 2
   A1 B0 G1 A1 B0 P6 A0  2.00  180.

4 PUSH 14FT.SHEAR-FOOTPEDAL PROCESS F 2
   A1 B0 G1 M1 X3 I0 A0  2.00  120.

5 REPLACE SHEETMETAL FROM 14FT.SHEAR TO CART AT
14FT.SHEAR WITH 12 STEPS F 2
   A1 P0 G1 A24 B0 P3 A0  2.00  580.

6 MOVE CART FROM 14FT.SHEAR TO WORKTABLE
   A1 B0 G1 A81 B3 P1 A0  1.00  870.

TOTAL TMU  2090.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?
File Description ? CUT SHEETMETAL FOR STRAIGHT SECTION

Output to line-Printer <Y or N> ? N

(39, 1)
FIT .W11 STRGHT.M82
CUT SHEETMETAL FOR STRAIGHT SECTION WITH SABER-SAW AT SHEETMETAL SHOP
PER STRAIGHT SECTION OFG: 4 24-MAY-83
NASSCO SHEETMETAL SHAPE 2
* 11 GAUGE GALV. SHEETMETAL
* 10'X6'X16' STRAIGHT SECTION
* CUT CORNERS FOR STRAIGHT SECTION
FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0  2.00.  *** .
2 MOVE SABER-SAW2 FROM TOOLROOM TO WORKTABLE
   A96 B0 G1 A96 B3 P1 A0  1.00.  1970.
3 OPERATE SABER-SAW AT WORKTABLE PROCESS
   A1 B0 G1 M6 X67 I0 A0  1.00  750.
4 REPLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2
   A1 B0 G11 A6 B0 P3 A0  2.00  220.
5 MOVE CART FROM WORKTABLE TO 14FT HYDROFRESSBRAKE
   A1 B0 G1 A96 B0 P1 A0  1.00  990.

TOTAL TMU 4150.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

- 6240
File Description ? BEND SHEETMETAL FOR STRAIGHT SECTION

Output to line-printer <Y or N> ? N

(39, 1)
FIT .W11 STRGHT.M83
BEND SHEETMETAL FOR STRAIGHT SECTION WITH 14FT. HYDRO-PRESS-BRAKE
AT SHEETMETAL SHOP
PER STRAIGHT SECTION OFG: 4 24-MAY-83
NASSCO SHEETMETAL SHAPE 2
* 11 GAUGE GALV. SHEETMETAL
* 10'X6'X16'L STRAIGHT SECTION
* BEND SIDES OF STRAIGHT UP 90 DEGREES
* COMPLETE IN WELD BOOTH AREA
* COMPLETE IN MWELD...SEE STRGHT.M84
FITTER BEGINS AT 14FT HYDROPRESSBRAKE

1 POSITION SHEETMETAL FROM CART AT 14FT HYDROPRESSBRAKE
   TO 14FT HYDROPRESSBRAKE WITH 4 STEPS
   A1 B0 G1 A6 B0 P6 A0  1.00  140.
2 PUSH 14FT HYDROPRESSBRAKE-FOOTPEDAL PROCESS
   A1 B0 G1 M1 X24 I0 A0  1.00  270.
3 POSITION SHEETMETAL FROM 14FT HYDROPRESSBRAKE TO
   14FT HYDROPRESSBRAKE WITH 5 STEPS
   A1 B0 G1 A10 B0 P6 A0  1.00  180.
4 PUSH 14FT HYDROPRESSBRAKE-FOOTPEDAL PROCESS
   A1 B0 G1 M1 X24 I0 A0  1.00  270.
5 REPLACE SHEETMETAL2 FROM 14FT HYDROPRESSBRAKE TO CART AT
   14FT HYDROPRESSBRAKE WITH 4 STEPS
   A1 B0 G1 A6 B0 P3 A0  1.00  110.
6 MOVE CART FROM 14FT HYDROPRESSBRAKE TO WORKTABLE
   A1 B0 G1 A96 B3 P1 A0  1.00  1020.

TOTAL TMU  1990.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?  8230
Output to line-Printer <Y or N> ? N

39,101) WELD, W01 STRGHT.M84
WELD STRAIGHT SECTION WITH ARC (STICK) WELDER AT SHEETMETAL SHOP
WELDING BOOTH
PER STRAIGHT SECTION OFG: 4 21-JUL-83

WELDING NASSCO SHEETMETAL SHAPE 2
* 11 GAUGE GALV. SHEETMETAL
* 10'X6'X16'L STRAIGHT SECTION
* WELDING DONE IN WELD AREA BOOTH
* WELDOR PERFORMS THE WORK
* FITTER TRANSPORTS SHEETMETAL
FITTER BEGINS AT WORKTABLE

1 FITTER PLACE SHEETMETAL ASSEMBLY FROM WORKTABLE TO CART
AT WORKTABLE WITH 4 STEPS F 2
A1 B0 G1 A6 B0 P3 A0 2.00 220.

2 FITTER MOUE CART FROM WORKTABLE TO WELDTABLE
A1 B0 G1 A131 B3 P1 A0 1.00 1370.

3 PLACE SHEETMETAL FROM CART AT WELDTABLE TO WELDTABLE
WITH 4 STEPS F 2
A1 B0 G1 A6 B0 F3 A0 2.00 220.

4 WELDOR PUSH POWER SUPPLY BUTTON FROM OFF AT
WELDMACHINES TO ON AT WELDMACHINES WITH 16 STEPS
A3 B0 G1 M1 X0 IO A32 1.00 370.

5. WELDOR TURN CURRENT OUTPUT CONTROL LEVER FROM OFF AT
WELDMACHINES TO ON AT WELDMACHINES
A1 B0 G1 M3 X0 IO A1 1.00 60.

6 WELDOR POSITION ANTI-SPATTER SPRAY CAN FROM WELDTABLE
TO SHEETMETAL ASSEMBLY AT WELDTABLE F 2
A3 B3 G1 A1 B0 F6 A0 2.00 280.

7 WELDOR PUSH ANTI-SPATTER2 SPRAY CAN PROCESS F 2
A1 B0 G1 M1 X10 IO A0 2.00 260.

8 WELDOR FASTEN WELDOR TO STINGER-BUTTON1 AT WELDTABLE 1
WRIST-TURN USING HAND F 7
A1 B0 G1 A1 B0 P1 F3 A0 B0 P0 A0 7.00 490.

9 PULL WELDHOOD FROM UP AT WELDOR TO DOWN AT WELDOR F 7
A1 B0 G1 M1 X0 IO A1 7.00 280.

10 WELDOR POSITION STINGER FROM WELDTABLE TO SHEETMETAL
ASSEMBLY AT WELDTABLE F 7
A1 B0 G1 A1 B0 P6 A0 7.00 630.

11 OPERATE WELD STINGER-BUTTON2 AT WELDTABLE PTIME 65 S F
5
A1 B0 G1 M6 X17310 A0 5.00 9050.

12 PUSH WELDHOOD FROM DOWN AT WELDOR TO UP AT WELDOR F7
A1 B0 G1 M1 X0 IO A1 7.00 280.

13 WELDOR LOOSEN SLAG FROM SHEETMETAL ASSEMBLY AT
WELDTABLE 6 STRIKES USING SLAGHAMMER AT WELDTABLE AND
ASIDE PF 3 (4567)
A1 B0 G1 (A1 B0 P0 L16 )A1 B0 P1 A0 (3) 1.00 550.

4 WELDOR DEBURR WELDED ASSEMBLY AT WELDTABLE 10
ARM-STROKES USING WIREBRUSH AT WELDTABLE AND ASIDE PF
10 (4567)
A1 B0 G1 (A1 B0 F1 C10) A1 B0 P1 A0 (10) 1.00 1240.
15 REPLACE SHEETMETAL ASSEMBLY FROM WELDTABLE TO CART AT WELDTABLE WITH 4 STEPS F 2
A1 B0 G1 A6 B0 P3 A0 2.00 220.
16 FITTER MOUE CART FROM WELDTABLE TO WORKTABLE
A1 B0 G1 A131B0 P1 A0 1.00 1340.

TOTAL TMU 16860.

File Description ? WELD STRAIGHT SECTION
Output to line-printer <Y or N> ?
**Sheet Metal Shape #2**

12" x 8" x 35" LG  Straight Section

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5 Shots.
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Output to line-printer <Y or N> ? N

FIT .008 STRAIGHT SECTION
MARK OUT SHEETMETAL FOR 12X8X35 STRAIGHT SECTION WITH AWL AT SHEETMETAL SHOP
PER STRAIGHT SECTION
NASSCO SHEETMETAL SHAPE #2
* HULL 418
* DRAWING 501-292
* V2-92008
* V6-1917
* 20 GAUGE GALV. SHEETMETAL
* 12'X8'X35'L STRAIGHT SECTION
* MARK OUT BOTTOM & TOP WITHOUT TEMPLATE
FITTER BEGINS AT WORKTABLE

1 MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING
STEEL-TAPE AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 M32) A1 B0 P1 A0 (4) 1.00 1400.
2 MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT
USING AWL AND ASIDE PF 10 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 R3) A1 B0 P1 A0 (10) 1.00 540.
3 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 3
   A1 R0 G1 A1 B0 F6 A0 3.00 270.
4 MARK SHEETMETAL FROM STRAIGHTEDGE AT WORKTABLE 1 DIGIT
USING AWL AND ASIDE PF 3 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 F1 R3) A1 B0 P1 A0 (3) 1.00 190.
5 POSITION CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 10
   A1 B0 G1 A1 B0 F6 A0 10.00 900.
6 MARK SHEETMETAL FROM CORNER TEMPLATE AT WORKTABLE 2 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 10 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 F1 R6) A1 B0 F1 A0 (10) 1.00 840.
7 POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 8
   A1 B0 G1 A1 B0 F6 A0 8.00 720.
8 FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 2 STRIKES
USING HAMMER AND ASIDE PF 8 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P0 F6) A1 B0 P1 A0 (8) 1.00 600+.
9 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 2 DIGITS
USING REDPEN AT WORKTABLE AND ASIDE PF 22 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 R6) A1 B0 F1 A0 (22) 1.00 1800.
10 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND HOLD PF 36 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 R3) A0 B0 P0 A0 (36) 1.00 1820.
11 MOVE BLACKPEN FROM FITTER TO SHEETMETAL AT WORKTABLE
   A1 B0 G1 A1 B0 F1 A0 1.00 40.
2 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT
USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 R3) A1 B0 F1 A0 (52) 1.00 2640.
PLACE SHEETMETAL2 FROM WORKTABLE TO CART AT WORKTABLE
WITH 4 STEPS
A1 B0 G1 A6 B0 F3 A0 1.00 110.

MOVE CART FROM WORKTABLE TO SMALLSHEAR
A1 B0 G1 A67 B0 F1 A0 1.00 700.

TOTAL TMU 12570.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help>  ?
SHEAR SHEETMETAL FOR 12'X8' STRAIGHT SECTION

Output to line-printer <Y or N> ? N

(39, 3)
FIT .W11 STRGHT.M31
SHEAR SHEETMETAL FOR 12'X8' STRAIGHT SECTION WITH SMALL SHEAR AT SHEETMETAL SHOP

PER STRAIGHT SECTION OFG: 4 07-JUL-83
NASSCO SHEETMETAL SHAPE # 2
* HULL 418
* DRAWING 501-292
* V2-92008
* V6-1917
* 20 GAUGE GALV. SHEETMETAL
* 12'X8'X35'L STRAIGHT SECTION
* SHEAR TOP & BOTTOM PIECES OF STRAIGHT
FITTER BEGINS AT SMALLSHEAR

1 POSITION SHEETMETAL FROM CART AT SMALLSHEAR TO SMALLSHEAR WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P6 A0 2.00 280.
2 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS
   A1 B0 G1 M1 X6 I0 A0 1.00 90.
3 POSITION SHEETMETAL2 FROM SMALLSHEAR TO SMALLSHEAR WITH 3 STEPS F 2
   A1 B0 G1 A6 B0 F6 A0 2.00 280.
4 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 2
   A1 B0 G1 M1 X6 I0 A0 2.00 180.
5 REPLACE SHEETMETAL FROM SMALLSHEAR TO CART AT SMALLSHEAR WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0 2.00 220.
6 MOVE CART WITH SHEETMETAL2 FROM SMALLSHEAR TO WORKTABLE
   A1 B0 G1 A67 B3 P1 A0 1.00 730.

TOTAL TMU 1780.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?
Please input file <STRGHT.M32> ?

1e Description ? CUT CORNERS FOR STRAIGHT SECTION

Output to line-printer <Y or N> ? N

FIT .W08 STRGHT
CUT CORNERS FOR STRAIGHT SECTION WITH SNIPS AT SHEETMETAL SHOP
PER STRAIGHT OFG: 4 25-APR-83

FIT .W08 STRGHT
CUT CORNERS FOR STRAIGHT SECTION WITH SNIPS AT SHEETMETAL SHOP
PER STRAIGHT OFG: 4 25-APR-83

NASSCO SHEETMETAL SHAPE 2
* HULL 418
* DRAWING 501-292
* V2-92008
* V6-1017
* 20 GAUGE GALV. SHEETMETAL
* 12'X8'X35' L STRAIGHT SECTION
* FLATTEN CORNERS AFTER CUTTING
FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE
WITH 3 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 110.

2 CUT CORNERS ON SHEETMETAL AT WORKTABLE 2 CUTS USING
   SNIPS AT WORKTABLE AND ASIDE PF 12 ( 4 5 6 7)
   A1 B0 G1 (A1 B0 F3 C3) A1 B0 P1 A0 (12) 1.00 880.

3 FASTEN [FLATTEN] CORNERS ON SHEETMETAL AT WORKTABLE
   STRIKES USING HAMMER AND ASIDE PF 12 ( 4 5 6 7)
   A1 B0 G1 (A1 B0 P0 F6) A1 B0 P1 A0 (12) 1.00 880.

4 PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE
WITH 4 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 110.

5 MOUE CART WITH SHEETMETAL FROM WORKTABLE TO PITTSBURGH
   A1 B0 G1 A54 B0 F1 A0 1.00 570.

TOTAL TMU 2550.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

4330
File Description ? FORM PITTSBURGH EDGE ON STRAIGHT SECTION

Output to line-printer <Y or N> ? N

(39, 3)

FIT .W08

STRG  
FORM SHEETMETAL FOR PITTSBURGH EDGE ON STRAIGHT SECTION WITH
PITTSBURGH MACHINE AT SHEETMETAL SHOP
PER STRAIGHT SECTION  OFG: 4  25-APR-83

NASSCO SHEETMETAL SHAPE # 2
* HULL 418
* DRAWING 501-292
* V2-92008
* V6-1917
* 20 GAUGE GALV. SHEETMETAL
* 12'X8'X35'L STRAIGHT SECTION
* FORM 90 DEGREE EDGE
* FORM EDGE ON BACK SIDE OF PITTS. MACHINE
FITTER BEGINS AT PITTSBURGH

1 PLACE SHEETMETAL FROM CART AT PITTSBURGH TO PITTSBURGH
WITH 4 STEPS F 2
  A1 B0 G1 A6 B0 F3 A0  2.00  220.

2 PUSH PITTSBURGH-BUTTON PROCESS F 2
  A1 B0 G1 M1 X32 I0 A0  2.00  700.

3 PUSH AND GUIDE SHEETMETAL THROUGH PITTSBURGH AT
PITTSBURGH WITH 4 STEPS F 2
  A6 B0 G1 M1 X0 I3 A0  2.00  220.

4 PUSH AND GUIDE SHEETMETAL THROUGH PITTSBURGH AT
PITTSBURGH WITH 6 STEPS F 2
  A10 B0 G1 M1 X0 I3 A0  2.00  300.

5 REPLACE SHEETMETAL2 FROM PITTSBURGH TO CART AT
PITTSBURGH WITH 4 STEPS
  A1 B0 G1 A6 B0 F3 A0  1.00  110.

6 MOVE CART WITH SHEETMETAL FROM PITTSBURGH TO
CORNICEBRAKE
  A1 B0 G1 A24 B0 F1 A0  1.00  270,

TOTAL TMU  1820,

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

6150
BEND SHEETMETAL TO 90 DEGREE BEND IN STRAIGHT SECTION WITH CORNICE BRAKE AT SHEETMETAL SHOP

NASSCO SHEETMETAL SHAPE 2
* HULL 418
* DRAWING 501-292
* V2-92008
* V6-1917
* 20 GAUGE GALV, SHEETMETAL
* 12'X8'X35'L STRAIGHT SECTION
* MARK OUT BOTTOM AND TOP
FITTER BEGINS AT CORNICE BRAKE

1 PLACE SHEETMETAL FROM CART AT CORNICE BRAKE TO CORNICE BRAKE WITH 4 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 110.

2 OPERATE CORNICE BRAKE-LEVER PROCESS F 2
   A1 B0 G1 M6 X42 I0 A0 2.00 1000.

3 REPLACE SHEETMETAL FROM CORNICE BRAKE TO CART AT CORNICE BRAKE WITH 4 STEPS
   A1 B0 G1 A6 B0 F3 A0 1.00 110.

4 MOVE CART WITH SHEETMETAL FROM CORNICE BRAKE TO WORKTABLE
   A1 B0 G1 A54 B3 P1 A0 1.00 600.

TOTAL TMU 1820.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?
File Description ? ASSEMBLE STRAIGHT SECTION

Output t0 line-Printer <Y or N> ? N

(39, 3)
FIT .Wll STRGHT.M35
ASSEMBLE SHEETMETAL FOR 12X8 STRAIGHT SECTION WITH HAMMER AT
SHEETMETAL SHOP
PER STRAIGHT OFG: 4 07-JUL-83
NASSCO SHEETMETAL SHAPE 2
* HULL 418
* DRAWING: 501-292
* V2-92008
* V6-1917
* 20 GAUGE GALV, SHEETMETAL
* 12'X8'X35' LG STRAIGHT SECTION
* ASSEMBLE TOP TO BOTTOM OF STRAIGHT

FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0 2.00 220.

2 POSITION SHEETMETAL [TOP] FROM WORKTABLE TO SHEETMETAL [BOTTOM] AT WORKTABLE
   A1 B0 G1 A1 B0 F6 A0 1.00 90.

3 POSITION SETTINGTOOL FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 8
   A1 B0 G1 A1 B0 P6 A0 8.00 720.

4 FASTEN SETTINGTOOL TO SHEETMETAL AT WORKTABLE 2 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 8 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P0 F6) A1 B0 P1 A0 (8) 1.00 600.

5 FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 3 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P0 P0) A1 B0 F1 A0 (6) 1.00 460.

6 FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 16 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 19 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P0 F32) A1 B0 P1 A0 (19) 1.00 6310.

7 INSPECT SHEETMETAL AT WORKTABLE 9 POINTS
   A0 B0 G0 A0 B0 P0 T10 A0 B0 P0 A0 1.00 100.

TOTAL TMU 8500.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

16,470
**Sheet Metal Shape**  

17" x 14" x 33" LG. Straight Section

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PREPARED 09/17/82 PAGE 1
MARK OUT SHEETMETAL FOR STRAIGHT SECTION WITH AWL AT SHEETMETAL SHOP

OFG: 4 16-MAY-83

NASSCO SHEETMETAL SHAPE 2
* 18 GAUGE GALV, SHEETMETAL
* 17'X14'X33' L STRAIGHT SECTION
* MARK OUT STRAIGHT WITHOUT TEMPLATE
FITTER BEGINS AT WORKTABLE

1 MEASURE DIMENSION ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE
   A1 B0 G1 A1 B0 P1 M32 A1 B0 P1 A0 1.00 330.
2 MARK DIMENSIONS FROM STEEL-TAPE TO SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 R3) A1 B0 P1 A0 (4) 1.00 240.
3 MOVE STEEL-TAPE FROM WORKTABLE TO OTHER SIDE OF WORKTABLE WITH 9 STEPS
   A1 B0 G1 A16 B0 P1 A0 1.00 190.
4 MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE PF 3 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 M32) A1 B0 P1 A0 (3) 1.00 1060.
5 MARK DIMENSIONS FROM STEEL-TAPE TO SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 R3) A1 B0 P1 A0 (6) 1.00 340.
6 POSITION STRAIGHTEDGE-FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 1 STEP F 5
   A1 B0 G1 A3 B0 P6 A0 5.00 950.
7 MARK LINES FROM STRAIGHTEDGE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE WITH 1 STEP F 5
   A1 B0 G1 A1 B0 P1 R16 A1 B0 P1 A0 5.00 1100.
8 POSITION CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS
   A1 B0 G1 A6 B0 P6 A0 1.00 140.
9 POSITION CORNER TEMPLATE FROM SHEETMETAL TO SHEETMETAL AT WORKTABLE F 7
   A1 B0 G1 A1 B0 P6 A0 7.00 630.
10 MARK SHEETMETAL FROM CORNER TEMPLATE TO SHEETMETAL AT WORKTABLE 2 DIGITS USING AWL AT WORKTABLE WITH 1 STEP AND ASIDE
    A1 B0 G1 A1 B0 P1 A3 R6 A1 B0 P1 A0 1.00 150.
11 MARK SHEETMETAL FROM CORNER TEMPLATE TO SHEETMETAL AT WORKTABLE 2 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 7 ( 4 5 6 7 )
    A1 B0 G1 (A1 B0 P1 R6) A1 B0 P11 A0 (7) 1.00 600.
POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 4
   A1 B0 G1 A1 B0 P6 A1 4.00 360.
13 FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING
HAMMER AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P0 F3) A1 B0 P1 A0 (4) 1.00 200.

14 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS
USING REDPEN AT WORKTABLE AND ASIDE PF 3 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P1 R16) A1 B0 P1 A0 (3) 1.00 580.

15 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 2 DIGITS
USING REDPEN AT WORKTABLE AND ASIDE PF 8 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P1 R6) A1 B0 F1 A0 (8) 1.00 680.

16 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT
WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND
ASIDE PF 15 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P1 R3) A1 B0 P1 A0 (15) 1.00 790.

17 MOVE CORNER TEMPLATE FROM WORKTABLE TO OTHER SIDE OF
WORKTABLE WITH 9 STEPS
A1 B0 G1 A16 B1 P1 A0 1.00 190.

18 POSITION CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL
AT WORKTABLE F 3
A1 B0 G1 A1 B0 P6 A0 8.00 720.

19 MARK SHEETMETAL FROM CORNER TEMPLATE AT WORKTABLE 2
DIGITS USING AWL AT WORKTABLE AND ASIDE PF 8 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P1 R6) A1 B0 P1 A0 (8) 1.00 630.

20 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 2 DIGITS
USING REDPEN AT WORKTABLE AND ASIDE PF 8 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P1 R6) A1 B0 P1 A0 (8) 1.00 630.

21 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT
WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND
ASIDE PF 15 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P1 R3) A1 B0 P1 A0 (15) 1.00 790.

22 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT
USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P1 R3) A1 B0 P1 A0 (52) 1.00 2640.

23 PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE
WITH 4 STEPS F 2
A1 B0 G1 A6 B0 P3 A0 2.00 220.

24 MOVE CART WITH SHEETMETAL FROM WORKTABLE TO SMALLSHEAR
A1 B0 G1 A67 B0 F1 A0 1.00 700.

TOTAL TMU 14610.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?
File Description ? SHEAR SHEETMETAL FOR STRAIGHT SECTION

Output to line-printer <Y or N> ? N

(39, 1)
FIT W11 STRGHT
SHEAR SHEETMETAL FOR STRAIGHT SECTION WITH SMALL 8FT. SHEAR' AT
SHEETMETAL SHOP
OFG: 4 16-MAY-83

PER D'STRAIGHT SECTION
NASSCO SHEETMETAL SHAPE 2
* 18 GAUGE GALV. SHEETMETAL
* 17'X14'X33' L STRAIGHT SECTION
* SHEAR TOP & BOTTOM PIECES FOR --
* -- STRAIGHT SECTION
FITTER BEGINS AT SMALLSHEAR

1 POSITION SHEETMETAL FROM CART AT SMALLSHEAR TO
SMALLSHEAR WITH 4 STEPS F 2
A1 B0 G1 A6 B0 P6 A0 2.00 280.

2 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 2
A1 B0 G1 M1 X6 I0 A0 2.00 180.

3 POSITION SHEETMETAL FROM SMALLSHEAR TO SMALLSHEAR F 2
A1 B0 G1 A1 B0 P6 A0 2.00 180.

4 REPLACE SHEETMETAL FROM SMALLSHEAR TO CART AT
SMALLSHEAR F 2
A1 B0 G1 A1 B0 A0 2.00 120.

5 MOVE CART WITH SHEETMETAL FROM SMALLSHEAR TO WORKTABLE
A1 B0 G1 A67 B3 P1 A0 1.00 730.

TOTAL TMU 1490.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?
File Description: CUT SHEETMETAL FOR STRAIGHT SECTION

Output to line-printer <Y or N> ? N

(39, 1)

FIT .W11

CUT SHEETMETAL FOR STRAIGHT SECTION WITH SNIPS AT SHEETMETAL SHOP PER STRAIGHT SECTION DFG: 4 16-MAY-83

NASSCO SHEETMETAL SHAPE 2
* 13 GAUGE GALV. SHEETMETAL
* 17'X14'X33'L STRAIGHT SECTION
FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL2 FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0  2.00  220.

2 CUT CORNERS ON SHEETMETAL AT WORKTABLE 2 CUTS USING SNIPS AT WORKTABLE AND ASIDE PF 16 (4 5 6 7)
   A1 B0 G1 (A1 B0 P3 C3)A1 B0 P1 A0 (16)  1.00  1160.

3 FASTEN [FLATTEN] CORNERS ON SHEETMETAL AT WORKTABLE 3 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 16 (4 5 6 7)
   A1 B0 G1 (A1 B0 P0 F6)A1 B0 P1 A0 (16)  1.00  1160.

4 REPLACE SHEETMETAL2 FROM WORKTABLE TO CART AT WORKTABLE F 2
   A1 B0 G1 A1 B0 P3 A0  2.00  120.

5 MOVE CART WITH SHEETMETAL FROM WORKTABLE TO LAPOUT
   A1 B0 G1 A54 B0 P1 A0  1.00  570.

TOTAL TMU 3230.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ? 720
File Description ? FORM LAP ENDS FOR STRAIGHT SECTION

Output to line-printer <Y or N> ? N

( 39, 1)

FIT .W11

FORM LAP ENDS FOR STRAIGHT SECTION WITH LAPOUT (ROTARY MACHINE)
AT SHEETMETAL SHOP
PER STRAIGHT SECTION

NASSCO SHEETMETAL SHAPE 2
* 18 GAUGE GALV. SHEETMETAL
* 17'X14''X33'L STRAIGHT SECTION
FITTER BEGINS AT LAPOUT

1 PLACE SHEETMETAL FROM CART AT LAPOUT TO LAPOUT WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0  2.00  220.

2 PUSH LAPOUT-SWITCH PROCESS F 2
   A1 B0 G1 M1 X16 IO A0  2.00  380.

3 PUSH AND GUIDE SHEETMETAL THROUGH LAPOUT WITH 2 STEPS F 2
   A3 B0 G1 M1 X0 I3 A0  2.00  160.

4 REPLACE SHEETMETAL FROM LAPOUT TO CART AT LAPOUT WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0  2.00  220.

5 MOVE CART WITH SHEETMETAL2 FROM LAPOUT TO PITTSBURGH
   A1 B0 G1 A6 B0 P1 A0  1.00  90.

TOTAL TMU 1070.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?
File Description ? FORM PITTSBURGH ON STRAIGHT SECTION

Output to line-Printer <Y or N> ? N

(39, 1)
FIT .W11 STRGHT.M64
FORM PITTSBURGH ON STRAIGHT SECTION WITH PITTSBURGH MACHINE AT SHEETMETAL SHOP
PER STRAIGHT SECTION OFG: 4 07-JUL-83
NASSCO SHEETMETAL SHAPE 2
* 13 GAUGE GALV. SHEETMETAL
* 17'X14'X33' L STRAIGHT SECTION
FITTER BEGINS AT PITTSBURGH

1 PLACE SHEETMETAL FROM CART AT PITTSBURGH TO PITTSBURGH WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0  2.00  220.

2 PUSH PITTSBURGH-BUTTON PROCESS F 4
   A1 B0 G1 M1 X32 I0 A0  4.00  1400.

3 PUSH AND GUIDE SHEETMETAL THROUGH PITTSBURGH WITH 2 STEPS F 4
   A3 B0 G1 M1 X0 I3 A0  4.00  320.

4 REPLACE SHEETMETAL2 FROM PITTSBURGH TO CART AT PITTSBURGH WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0  2.00  220.

5 HOVE CART WITH SHEETMETAL FROM PITTSBURGH TO CORNICEBRAKE
   A1 B0 G1 A24 B0 P1 A0  1.00  270.

TOTAL TMU 2430.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?
File Description ? BEND SHEETMETAL FOR STRAIGHT SECTION

Output to line-Printer <Y or N> ? N

(39, 1)
FIT .W1
BEND SHEETMETAL FOR STRAIGHT SECTION WITH CORNICE BRAKE AT

SHEETMETAL SHOP
PER STRAIGHT SECTION
NASSCO SHEETMETAL SHAPE 2
* 13 GAUGE GALV. SHEETMETAL
* 17'X14'X33'L STRAIGHT SECTION
* BEND UP SIDES ON STRAIGHT SECTION--
* --90 DEGREES
FITTER BEGINS AT CORNICE BRAKE

OFG: 4  16-MAY-83

1 POSITION SHEETMETAL FROM CART AT CORNICE BRAKE TO CORNICE BRAKE WITH 4 STEPS
   A1  B0  G1  A6  B0  P6  A0  1.00  140.

2 OPERATE CORNICE BRAKE-LEVER PROCESS
   A1  B0  G1  M6  X42  I0  A0  1.00  500.

3 POSITION SHEETMETAL FROM CORNICE BRAKE TO CORNICE BRAKE
   A1  B0  G1  A1  B0  F6  A0  1.00  90.

4 OPERATE CORNICE BRAKE-LEVER PROCESS
   A1  B0  G1  M6  X42  I0  A0  1.00  500.

5 REPLACE SHEETMETAL FROM CORNICE BRAKE TO CART A1-
   CORNICE BRAKE WITH 4 STEPS
   A1  B0  G1  A6  B0  P3  A0  1.00  110.

6 MOVE CART WITH SHEETMETAL2 FROM CORNICE BRAKE TO WORKTABLE
   A1  B0  G1  A54  B3  P1  A0  1.00  600.

TOTAL TMU  1940.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ? 19 160
FIT .W11

ASSEMBLE STRAIGHT SECTION WITH HAMMER AT SHEETMETAL SHOP

PER STRAIGHT SECTION

NASSCO SHEETMETAL SHAPE 2
* 18 GAUGE GALV. SHEETMETAL
* 17'X14'X33'L STRAIGHT SECTION

FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0 2.00 220.

2 FASTEN [FLATTEN] SHEETMETAL AT WORKTABLE WITH 3 STRIKES
   USING HAMMER AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P0 F6) A1 B0 P1 A0 (4) 1.00 320.

3 POSITION SHEETMETAL [TOP] TO SHEETMETAL [BOTTOM] AT WORKTABLE
   A1 B0 G1 A1 B0 P6 A0 1.00 90.

4 PLACE SETTINGTOOL FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 12
   A1 B0 G1 A1 B0 P3 A0 12.00 720.

5 FASTEN SETTINGTOOL TO SHEETMETAL AT WORKTABLE 2 STRIKES
   USING HAMMER AT WORKTABLE AND ASIDE PF 12 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P0 F6) A1 B0 F1 A0 (12) 1.00 380.

5 FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 4 STRIKES
   USING HAMMER AT WORKTABLE AND ASIDE PF 12 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P0 F10) A1 B0 P1 A0 (12) 1.00 1360.

7 FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 16 STRIKES
   USING HAMMER AT WORKTABLE AND ASIDE PF 20 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P0 F32) A1 B0 P1 A0 (20) 1.00 6640.

3 INSPECT SHEETMETAL AT WORKTABLE 9 POINTS
   A0 B0 G0 A0 B0 P0 T10 A0 B0 P0 A0 1.00 100.

TOTAL TMU 10330.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?
Sheet Metal Shape #2

18" x 11" x 34" L6. Straight Section

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| 7. **COMPLETE INSTALLATION, V-32005** | NCRE | NREC | NREC | NREC | NREC | 08/31/93 | 09/01/93 | 09/02/93 |}
| 8. **COMPLETE INSTALLATION, V-32005** | NCRE | NREC | NREC | NREC | NREC | 11/31/93 | 12/01/93 | 12/02/93 |}
| 9. **COMPLETE INSTALLATION, V-32005** | NCRE | NREC | NREC | NREC | NREC | 02/31/93 | 03/01/93 | 03/02/93 |}
FIT \_W11

MARK OUT SHEETMETAL FOR STRAIGHT SECTION WITH AWL AT SHEETMETAL SHOP

PER STRAIGHT SECTION

  NASSCO SHEETMETAL SHAPE 2
  * 11 GAUGE GALV. SHEETMETAL
  * 18'X11'X34'L STRAIGHT SECTION
  * HARK OUT WITHOUT TEMPLATE
  FITTER BEGINS AT WORKTABLE

1 MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE WITH 3 STEPS PF 4 (4 5 6 7)
   A1 B0 G1 (A1 B0 P1 M32) A1 B0 P1 A0 (4) 1.00 1400.

2 MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT USING STEEL-TAPE AT WORKTABLE AND ASIDE PF 7 (4 5 6 7)
   A1 B0 G1 (A1 B0 P1 R3) A1 B0 P1 A0 (7) 1.00 390.

3 MOVE STEEL-TAPE FROM WORKTABLE TO OTHER SIDE OF WORKTABLE WITH 9 STEPS
   A1 B0 G1 A16 B0 P1 A0 1.00 190.

4 MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE WITH 3 STEPS PF 3 (4 5 6 7)
   A1 B0 G1 (A1 B0 P1 M32) A1 B0 P1 A0 (3) 1.00 1060.

5 MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE WITH 3 STEPS PF 5 (4 5 6 7)
   A1 B0 G1 (A1 B0 P1 R3) A1 B0 P1 A0 (5) 1.00 290.

6 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS F 3
   A1 B0 G1 A3 B0 P6 A0 3.00 330.

7 MARK LINES FROM STRAIGHTEDGE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE WITH 3 STEPS AND ASIDE PF 3 (4 5 6 7)
   A1 B0 G1 (A1 R0 P1 A6) R16 A1 B0 P1 A0 (3) 1.00 440.

8 MOVE STRAIGHTEDGE FROM WORKTABLE TO OTHER SIDE OF WORKTABLE WITH 9 STEPS
   A1 B0 G1 A1 B0 P1 A0 1.00 190.

9 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 3
   A1 B0 G1 A1 B0 P6 A0 3.00 270.

10 MARK LINES FROM STRAIGHTEDGE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 3 (4 5 6 7)
    A1 B0 G1 (A1 B0 P1 R16) A1 B0 P1 A0 (3) 1.00 580.

11 POSITION CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS F 4
    A1 B0 G1 A3 B0 P6 A0 4.00 440.

12 MARK LINES FROM CORNER TEMPLATE TO SHEETMETAL AT WORKTABLE 2 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 4 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 R6) A1 B0 P1 A0 (4) 1.00 360.

13 POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS AND ASIDE F 2
A1 B0 G1 A3 B0 P6 A0 2.00 220.

14 FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE WITH 3 STEPS AND ASIDE PF 2 (4 5 6 7)
A1 B0 G1 (A1 B0 P0 A6) F3 A1 B0 P1 A0 (2) 1.00 210.

15 MOUE CPUNCH FROM WORKTABLE TO OTHER SIDE OF WORKTABLE WITH 9 POINTS
A1 B0 G1 A1 B0 P1 A0 1.00 40.

16 POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS AND ASIDE F 2
A1 B0 G1 A3 B0 P6 A0 2.00 220.

17 FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE AND ASIDE WITH 2 STEPS F 2
A1 B0 G1 A1 B0 P0 F3 A1 B0 P1 A0 2.00 160.

18 POSITION CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS F 4
A1 B0 G1 A3 B0 P6 A0 4.00 440.

19 MARK LINES FROM CORNER TEMPLATE TO SHEETMETAL AT WORKTABLE 2 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 4 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 R6) A1 B0 P1 A0 (4) 1.00 360.

20 FITTER MOVE FROM WORKTABLE TO OTHER SIDE OF WORKTABLE WITH 9 STEPS
A1 B0 G1 A16 B0 P1 A0 1.00 190.

21 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 9 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 3 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 R16) A1 B0 P1 A0 (3) 1.00 580.

22 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 26 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 R3) A1 B0 P1 A0 (26) 1.00 1340.

23 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 R3) A1 B0 P1 A0 (52) 1.00 2640.

24 PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2
A1 B0 G1 A6 B0 F3 A0 2.00 220.

25 MOVE CART FROM WORKTABLE TO 14FT. SHEAR
A1 B0 G1 A81 B0 P1 A0 1.00 840.

TOTAL TMU 13400.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?
FIT .W11 SHEAR SHEETMETAL FOR STRAIGHT SECTION WITH 14FT. SHEAR AT SHEETMETAL SHOP PER STRAIGHT SECTION OFG: 4 24-MAY-83

NASSCO SHEETMETAL SHAPE 2
* 11 GAUGE GALV. SHEETMETAL
* 18'X11'X34' STRAIGHT SECTION
* SHEAR TOP 3 BOTTOM PIECES FOR -- t -- STRAIGHT SECTION
FITTER BEGINS AT 14FT. SHEAR
1 POSITION SHEETMETAL FROM CART AT 14FT. SHEAR TO 14FT. SHEAR WITH 4 STEPS F 2
    A1 B0 G1 A6 B0 P6 A0 280.
2 PUSH 14FT. SHEAR-FOOTPEDAL PROCESS
    A1 B0 G1 M1 X3 I0 A0 1000 60.
3 POSITION SHEETMETAL FROM 14FT. SHEAR TO 14FT. SHEAR WITH 2 STEPS F 6
    A1 B0 G1 A3 B0 P6 A0 6.00 660.
4 PUSH 14FT. SHEAR-FOOTPEDAL PROCESS F 6
    A1 B0 G1 M1 X3 I0 A0 6.00 360.
5 REPLACE SHEETMETAL FROM 14FT. SHEAR TO CART AT 14FT. SHEAR WITH 12 STEPS F 2
    A1 B0 G1 A24 B0 P3 A0 2.00 580.
6 MOVE CART FROM 14FT. SHEAR TO WORKTABLE
    A1 B0 G1 A81 B3 P1 A0 1.00 870.

TOTAL TMU 2810.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?
File Description  
CUT SHEETMETAL FOR STRAIGHT SECTION  

Output to line-printer <Y or N> ? N  

(39, 1)  
FIT .W11  
CUT SHEETMETAL FOR STRAIGHT SECTION WITH SABER-SAW AT SHEETMETAL  
SHOP  
PER STRAIGHT SECTION  
OFG: 4  24-MAY-83  

NASSCO SHEETMETAL SHAPE 2  
* 11 GAUGE GALV. SHEETMETAL  
* 18'X11'X34' STRAIGHT SECTION  
* CUT CORNERS FOR STRAIGHT SECTION  
FITTER BEGINS AT WORKTABLE  

1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 2  
A1 B0 G1 A6 B0 F3 A0  2.00  220.  

2 MOUE SABER-SAW2 FROM TOOLROOM TO WORKTABLE  
A96 B0 G1 A96 B3 P1 A0  1.00  1970.  

3 OPERATE SABER-SAW AT WORKTABLE PROCESS  
A1 B0 G1 M6 X67 I0 A0  1.00  750.  

4 PLACE SHEETMETAL FROM WORKTABLE TO WORKTABLE WITH 2 STEPS  
A1 B0 G1 A3 B0 P3 A0  1.00  80.  

5 OPERATE SABER-SAW AT WORKTABLE PROCESS  
A1 B0 G1 M6 X67 I0 A0  1.00  750.  

6 REPLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2  
A1 B0 G1 A6 B0 F3 A0  2.00  220.  

7 MOUE CART FROM WORKTABLE TO 14FT HYDROPRESSBRAKE  
A1 B0 G1 A96 B0 P1 A0  1.06  990.  

TOTAL TMU  4980.  

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help>  ?  

7790
File Description: BEND SHEETMETAL FOR STRAIGHT SECTION

Output to line-printer <Y or N> ? N

FIT .W1 STRGHT

BEND SHEETMETAL FOR STRAIGHT SECTION WITH 14FT. HYDRO-PRESS-BRAKE
AT SHEETMETAL SHOP
PER STRAIGHT SECTION

NASSCO SHEETMETAL SHAPE 2
* 11 GAUGE GALV. SHEETMETAL
* 18'X11'X34' STRAIGHT SECTION
* BEND SIDES IF STRAIGHT SECTION
* COMPLETE IN WELD BOOTH AREA
* SEE MWELD ....STRGHT.M94
FITTER BEGINS AT 14FT. HYDROFRESSBRAKE

1 POSITION SHEETMETAL FROM CART AT 14FT HYDROFRESSBRAKE
TO 14FT HYDROFRESSBRAKE WITH 2 STEPS F 2
A1 B0 G1 A3 B0 P6 A0 2.00 220.

2 PUSH 14FT HYDROFRESSBRAKE-FOOTPEDAL PROCESS F 2
A1 B0 G1 M1 X24 I0 A0 2.00 540.

3 POSITION SHEETMETAL FROM 14FT HYDROFRESSBRAKE TO
14FT HYDROFRESSBRAKE WITH 2 STEPS F 2
A1 B0 G1 A3 B0 F6 A0 2.00 220.

4 PUSH 14FT HYDROFRESSBRAKE-FOOTPEDAL PROCESS F 2
A1 B0 G1 M1 X24 I0 A0 2.00 540.

5 REPLACE SHEETMETAL FROM 14FT HYDROFRESSBRAKE TO CART AT
14FT HYDROFRESSBRAKE WITH 4 STEPS
A1 B0 G1 A6 B0 P3 A0 1.00 110.

6 MOVE CART FROM 14FT HYDROFRESSBRAKE TO WORKTABLE
A1 B0 G1 A96 B3 P1 A0 1.00 1020.

TOTAL TMU 2650.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W (or H for help) ?

10,440
WELD STRAIGHT SECTION

Output to line-printer <Y or N> ? N

(39, 101)

WELD .WO1 STRGHT.M94

WELD STRAIGHT SECTION WITH ARC (STICK) WELDER AT SHEETMETAL SHOP
WELDING BOOTH
PER STRAIGHT SECTION OFG: 4 19-JUL-83

WELDING NASSCO SHEETMETAL SHAPE 2
* 11 GAUGE GALV. SHEETMETAL
* 18'X11'X34'L STRAIGHT SECTION
* WELDING DONE IN WELD AREA BOOTH
* WELDOR PERFORMS THE WORK
* FITTER TRANSPORTS SHEETMETAL
FITTER BEGINS AT WORKTABLE

1 FITTER PLACE SHEETMETAL ASSEMBLY FROM WORKTABLE TO CART
AT WORKTABLE WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0 2.00 220.

2 FITTER MOVE CART FROM WORKTABLE TO WELDTABLE
   A1 B0 G1 A131 B3 P1 A0 1.00 1370.

3 PLACE SHEETMETAL ASSEMBLY FROM CART AT WELDTABLE TO
WELDTABLE WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0 2.00 220.

4 WELDOR PUSH POWER SUPPLY BUTTON FROM OFF AT
WELDMACHINES TO ON AT WELDMACHINES WITH 16 STEPS
   A3 B0 G1 M1 X0 I0 A32 1.00 370.

5 WELDOR TURN CURRENT OUTPUT CONTROL LEVER FROM OFF AT
WELDMACHINES TO ON AT WELDMACHINES
   A1 B0 G1 M3 X0 I0 A1 1.00 60.

6 WELDOR POSITION ANTI-SPATTER SPRAY CAN FROM WELDTABLE
TO SHEETMETAL ASSEMBLY AT WELDTABLE F 2
   A3 B3 G1 A1 B0 P6 A0 2.00 280.

7 WELDOR PUSH ANTI-SPATTER2 SPRAY CAN PROCESS F 2
   A1 B0 G1 M1 X10 I0 A0 2.00 260.

8 WELDROD FASTEN WELDROD TO STINGER1 AT WELDTABLE 1
WRIST-TURN USING HAND F 15
   A1 B0 G1 A1 B0 P1 F3 A0 B0 P0 A0 15.00 1050.

9 FULL WELDHOOD FROM UP AT WELDOR TO DOWN AT WELDOR F 15
   A1 B0 G1 M1 X0 I0 A1 15.00 600.

10 WELDOR POSITION STINGER-BUTTON1 FROM WELDTABLE TO
SHEETMETAL ASSEMBLY AT WELDTABLE F 15
   A1 B0 G1 A1 B0 P6 A0 15.00 1350.

11 OPERATE WELD STINGER-BUTTON2 AT WELDTABLE PTIME 65 S F
   11
   A1 B0 G1 M6 X173 I0 A0 11.00 19910.

12 PUSH WELDHOOD FROM DOWN AT WELDOR TO UP AT WELDOR F 15
   A1 B0 G1 M1 X0 I0 A1 15.00 2680.

13 WELDOR LOOSEN SLAG FROM SHEETMETAL ASSEMBLY AT
WELDTABLE 6 STRIKES USING SLAGHAMMER AT WELDTABLE AND
ASIDE PF 6 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 PO L16) A1 B0 P1 A0 (6) 1.00 1060.

14 WELDOR DEBURR WELDED ASSEMBLY AT WELDTABLE 10
ARM-STROKES USING WIREBRUSH AT WELDTABLE AND ASIDE PF
   22 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 C10) A1 B0 P1 A0 (22) 1.00 2680.
15 REPLACE SHEETMETAL ASSEMBLY FROM WELDTABLE TO CART AT
WELDTABLE WITH 4 STEPS F 2
A1  B0  G1  A6  B0  F3  A0    2.00  220.
16 FITTER MOUE CART FROM WELDTABLE TO WORKTABLE
A1  B0  G1  A131B0  P1  A0    1.00  1340.

TOTAL TMU      31590.

File Description ? WELD STRAIGHT SECTION
output to line-printer <Y or N>. ?
**Sheet Metal Shape #2**

5 x 6 x 48" LG. Straight Section

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7 Shs
MARK OUT SHEETMETAL FOR STRAIGHT SECTION WITH AWL AT SHEETMETAL SHOP
PER STRAIGHT

A REPRESENTATIVE STRAIGHT SECTION

* 20 GAUGE GALV. SHEETMETAL
* DIMENSIONS: 5' X 6' X 48' L
* NO TEMPLATE USED - LAYOUT ONLY (2 PIECES)
* STRAIGHT VENT = STRGHT
FIT 31 STRGHT.M02

FITTER BEGINS AT WORKTABLE

1 MEASURE DIMENSION ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND HOLD
A1 B0 G1 A1 B0 F1 M32 A0 B0 P0 A0 360.

2 MARK SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF 3 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P1 R3 ) A1 B0 P1 A0 190.

3 MOVE STEEL-TAPE FROM WORKTABLE TO OTHER SIDE OF WORKTABLE WITH 9 STEPS
A1 B0 G1 A1 & B0 F1 A0 190.

4 MEASURE DIMENSION ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND HOLD
A1 B0 G1 A1 B0 F1 M32 A0 B0 P0 A0 190.

5 MARK SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AND ASIDE PF 3 ( 4 5 6 7 )
A1 B0 G1 . (A1 B0 P1 R3 ) A1 B0 P1 A0 190.

6 MEASURE DIMENSION ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND HOLD
A1 B0 G1 A1 B0 F1 M32 A0 B0 FO A0 90.

7 MARK SHEETMETAL AT WORKTABLE 1 DIGIT USING STEEL-TAPE AT WORKTABLE AND ASIDE WITH 3 STEPS PF 8 ( 4 5 6 7 )
A1 B0 G1 A1 B0 F1 R3 ) A1 B0 P1 A0 440.

8 MOVE STEEL-TAPE FROM WORKTABLE TO WORKTABLE 3 STEPS AND HOLD
A1 B0 G1 A6 B0 F1 A0 450.

9 MEASURE DIMENSION ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE
A1 B0 G1 A1 B0 F1 M32 A1 B0 P1 A0 380.

10 MARK SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AND ASIDE PF 8 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P1 R3 ) A1 0 P1 A0 440.

11 POSITION STRAIGHT-EDGE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE AND HOLD F 5
A1 B0 G1 A1 B0 F6 A0 5.00

12 MARK LINE ON SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 5 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 F1 R16 ) A1 B0 P1 A0 5.00

13 MOVE STRAIGHT-EDGE FROM WORKTABLE TO OTHER SIDE OF WORKTABLE AND HOLD

--------- ---- ---- ---- ---- 1.00
15 MARK LINE ON SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AND ASIDE PF 5 (4 5 6 7)
   A1 B0 G1 (A1 B0 P6 A0) (5) 1.00 940.
16 POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT WORKTABLE AND ASIDE PF 8 (4 5 6)
   A1 B0 G1 (A1 B0 P6 A0) (8) 1.00 580.
17 FASTEN CPUNCH ON SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE AND ASIDE PF 8 (4 5 6 7)
   A1 B0 G1 (A1 B0 P0 F3) A1 B0 P1 A0 (8) 1.00 360.
18 PLACE CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE AND ASIDE PF 12 (4 5 6)
   A1 B0 G1 (A1 B0 P3 A0) (12) 1.00 500.
19 MARK LINES ON SHEETMETAL AT WORKTABLE 2 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 12 (4 5 6 7)
   A1 B0 G1 (A1 B0 P1 R6) A1 B0 P1 A0 (12) 1.00 1000.
20 MOVE CPUNCH FROM WORKTABLE TO OTHER SIDE OF WORKTABLE WITH 9 STEPS
   A1 B0 G1 A16.0 B0 F1 A0 1.00 190.
21 POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT WORKTABLE AND ASIDE PF 4 (4 5 6)
   A1 B0 G1 (A1 B0 P6 A0) (4) 1.00 300.
22 FASTEN CPUNCH ON SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE AND ASIDE PF 4 (4 5 6 7)
   A1 B0 G1 (A1 B0 P0 F3) A1 B0 P1 A0 (4) 1.00 200.
23 PLACE CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE AND ASIDE PF 4 (4 5 6)
   A1 B0 G1 (A1 B0 P3 A0) (4) 1.00 180.
24 MARK SHEETMETAL WITH CORNER TEMPLATE AT WORKTABLE 2 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 4 (4 5 6 7)
   A1 B0 G1 (A1 B0 P1 R6) A1 B0 P1 A0 (4) 1.00 360.
   MARK CUT LINES ON SHEETMETAL AT WORKTABLE 1 DIGIT USING REDPEN AT WORKTABLE AND ASIDE PF 25 (4 5 6 7)
   A1 B0 G1 (A1 B0 P1 R3) A1 B0 P1 A0 (25) 1.00 1290.
26 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 8 DIGITS USING BLACKPEN AND HOLD F 8
   A1 B0 G1 A1 B0 P1 R32 A0 B0 P0 A0 8.00 2880.
27 MOVE BLACKPEN FROM FITTER TO WORKTABLE
   A1 B0 G1 A1 B0 P1 A0 1.00 40.
28 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AND ASIDE PF 35 (4 5 6 7)
   A1 B0 G1 (A1 B0 P1 R3) A1 B0 F1 A0 (35) 1.00 1790.
29 MOVE REDPEN FROM WORKTABLE TO OTHER SIDE OF WORKTABLE WITH 9 STEPS
   A1 B0 G1 A16.0 B0 F1 A0 1.00 190.
30 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 1 DIGIT USING REDPEN AT WORKTABLE AND ASIDE PF 30 (4 5 6 7)
   A1 B0 G1 (A1 B0 P1 R3) A1 B0 P1 A0 (30) 1.00 1540.
31 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 20 (4 5 6 7)
   A1 B0 G1 (A1 B0 P1 R3) A1 B0 P1 A0 (20) 1.00 1040.
32 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 35 (4 5 6 7)
   A1 B0 G1 (A1 B0 P1 R3) A1 B0 P1 A0 (35) 1.00 1790.
33 PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE
34 MOVE CART FROM WORKTABLE TO SMALLSHEAR
A1 B0 G1 AS7 B0 P1 A0 1.00 700.

TOTAL TMU -

:pe D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help>?
File Description ? SHEAR OUTLINES OF STRAIGHT PIE&E

Output to line-printer <Y or N> ? N

%Invalid command.

Output to line-printer <Y or N> ? N

( 39, 3)
FIT .W11 STRGHT.M03
SHEAR SHEETMETAL OUTLINES FOR STRAIGHT (#2) PIECE WITH SHEAR AT SHEETMETAL SHOP
PER STRAIGHT DFG: 4 07-JUL-83

NASSCO SHEETMETAL PART #2
* 20 GAUGE GALV. SHEETMETAL
* DIMENSIONS: 5'X6'X48'L
* STRAIGHT VENT = STRGHT
* SHEAR IS SMALL 3 FT, SHEAR FITTER BEGINS AT SMALLSHEAR

1 POSITION 4X8 SHEETMETAL FROM CART AT SMALLSHEAR TO SMALLSHEAR WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P6 A0 2.00 280.
2 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS
   A1 B0 G1 M1 X6 I0 A0 1.00 90.
3 POSITION SHEETMETAL FROM SMALLSHEAR TO SMALLSHEAR WITH 4 STEPS
   A1 B0 G1 A6 B0 P6 A0 1.00 140.
4 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 2
   A1 B0 G1 M1 X6 I0 A0 2.00 180.
5 PLACE SHEETMETAL FROM SMALLSHEAR TO CART AT SMALLSHEAR
   WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0 2.00 220.
6 MOUE CART FROM SMALLSHEAR TO WORKTABLE
   A1 B0 G1 A67 B3 P1 A0 1.00 730.

TOTAL TMU 1640.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?
CUT CORNERS ON STRAIGHT PIECE

Output to line-printer <Y or N> ? N

( 39, 3)
FIT .W11 STRGHT.MO4
CUT SHEETMETAL FOR STRAIGHT (#2) PIECE CORNERS WITH SNIPS AT
SHEETMETAL SHOP
PER STRAIGHT DFG: 4 07-JUL-83
NASSCO SHEETMETAL PART # 2
* 20 GAUGE GALV. SHEETMETAL
* DIMENSIONS: 5'X6'X48' L
* STRAIGHT VENT = STRGHT
FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE
WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0 2.00 220.

2 CUT CORNERS ON SHEETMETAL AT WORKTABLE 2 CUTS USING
SNIPS AT WORKTABLE AND ASIDE PF 12 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P3 C3 )A1 B0 P1 A0 (12) 1.00 380.

3 FASTEN [FLATTEN] SHEETMETAL AT WORKTABLE 3 STRIKES
USING HAMMER AT WORKTABLE AND ASIDE PF 12 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P0 F6 )A1 B0 P1 A0 (12) 1.00 880.

4 PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE
WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0 2.00 220.

5 MOVE CART FROM WORKTABLE TO LAPOUT MACHINE
   A1 B0 G1 A54 B0 P1 Ad 1.00 570.

   TOTAL TMU 2770.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ? 4410
File Description: FORM LAP OUT FOR STRAIGHT PIECE

Output to line-printer <Y or N> ? N

39, 3) FIT .wo4 STRGHT.MO5
FORM LAP OUT END FOR STRAIGHT PIECE WITH LAP OUT MACHINE AT
SHEETMETAL SHOP
PER STRAIGHT DFG: 4 04-MAR-83

A REPRESENTATIVE STRAIGHT PIECE
* 20 GAUGE GALV. SHEETMETAL
* DIMENSIONS: 5'X6'X48'L
* STRAIGHT VENT = STRGHT
FITTER BEGINS AT LAPOUT

1 PLACE SHEETMETAL FROM CART AT LAPOUT TO LAPOUT MACHINE
WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0 2.00 220.

2 PUSH LAPOUT-SWITCH AT LAPOUT PROCESS F 2
   A1 B0 G1 M1 X16 IO A0 2.00 380.

3 REPLACE SHEETMETAL FROM LAPOUT TO CART AT LAPOUT WITH
   4 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 110.

4 MOUE CART FROM LAPOUT TO PITTSBURGH
   A1 B0 G1 A6 B0 P1 A0 1.00 90.

   TOTAL TMU 800.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

$52/0$
Please input file <STRGHT.M06> ?

Description ? FORM PITTSBURGH ON STRAIGHT PIECE

Output to line-Printer <y or N> ? N

( 39, 3)
FIT .wo4 Strght.M06
FORM SHEETMETAL FOR STRAIGHT PIECE WITH PITTSBURGH MACHINE AT SHEETMETAL SHOP
PER STRAIGHT DFG: 4 04-MAR-83

A REPRESENTATIVE STRAIGHT PIECE
* 20 GAUGE GALV, SHEETMETAL
* DIMENSIONS: 5'X6'X48' L
* STRAIGHT VENT = STRGHT
* PITTSBURGH JOINT MACHINE (STEELERS)
FITTER BEGINS AT PITTSBURGH

1 PLACE SHEETMETAL FROM CART AT PITTSBURGH TO PITTSBURGH WITH 4 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 110.

2 PUSH PITTSBURGH-BUTTON AND FORM PITTSBURGH AT PITTSBURGH PROCESS F 2
   A1 B0 G1 M1 X32 I0 A0 2.00 700.

3 PUSH AND GUIDE SHEETMETAL THROUGH PITTSBURGH AT PITTSBURGH F 4
   A1 B0 G1 M1 X0 I3 A0 4.00 240.

4 PLACE SHEETMETAL FROM PITTSBURGH TO CART AT PITTSBURGH WITH 4 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 110.

5 MOUE CART FROM PITTSBURGH TO CORNICEBRAKE
   A1 B0 G1 A24 BO P1 A0 1.00 270.

TOTAL TMU 1430.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help>? 86.40
Please input file <STRGHT.M07> ?

Description ? BEND STRAIGHT PIECE

OutPut to line-printer <Y or N> ? N

( 39, 3)
FIT .wo4 STRGHT.M07
BEND SHEETMETAL FOR STRAIGHT PIECE WITH CORNICE BRAKE AT
SHEETMETAL SHOP
PER STRAIGHT DFG: 4 04-MAR-83

A REPRESENTATIVE STRAIGHT PIECE
I 20 GAUGE GALV, SHEETMETAL
* DIMENSIONS: 5'X6'X48'L
* STRAIGHT VENT = STRGHT
* CORNICE BRAKE BENDS WITH LEAF
* CORNICE BRAKE HAND OPERATED
FITTER BEGINS AT CORNICEBRAKE

1 POSITION SHEETMETAL FROM CART AT CORNICEBRAKE TO CORNICEBRAKE WITH 4 STEPS
A1 B0 G1 A6 B0 P6 A0 1.00 140.

2 OPERATE CORNICEBRAKE-LEVER AT CORNICEBRAKE PROCESS F 2
A1 B0 G1 M6 X42 I0 A0 2.00 1000.

3 PLACE SHEETMETAL2 FROM CORNICEBRAKE TO CART AT CORNICEBRAKE WITH 4 STEPS
A1 B0 G1 A6 B0 P3 A0 1.00 110.

4 MOVE CART FROM CORNICEBRAKE TO WORKTABLE
A1 B0 G1 A54 B3 P1 A0 1.00 600.

TOTAL TMU 1850.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ? 8 4 9 0
File Description: ASSEMBLE STRAIGHT PIECE

Output to line-printer <Y or N> ? N

( 39, 3)
FIT .W11 STRGHT.M08
ASSEMBLE STRAIGHT SECTION WITH HAMMER AT SHEETMETAL SHOP
PER STRAIGHT

NAASSCO SHEETMETAL SHAPE 2
* 20 GAUGE GALV. SHEETMETAL
* DIMENSIONS: 5'X6'X48' LG
* STRAIGHT VENT=STRGHT
FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE
WITH 4 STEPS F 2
A1 B0 G1 A6 B0 P3 A0 2.00 220.

2 POSITION SHEETMETAL [TOP] FROM WORKTABLE TO SHEETMETAL [BOTTOM] AT WORKTABLE
A1 B0 G1 A1 B0 P6 A0 1.00 90.

3 POSITION SETTING TOOL FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 3
A1 B0 G1 A1 B0 P6 A0 8.00 720.

4 FASTEN SETTING TOOL TO SHEETMETAL AT WORKTABLE 3 STRIKES
USING HAMMER AT WORKTABLE AND ASIDE PF 3 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 PO F6 )A1 B0 P1 A0 (8) 1.00 600.

5 FASTEN SHEETMETAL [TOP] TO SHEETMETAL [BOTTOM] AT WORKTABLE 3 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 3 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 PO F6 )A1 B0 P1 A0 (8) 1.00 600.

6 FASTEN SHEETMETAL [TOP] TO SHEETMETAL [BOTTOM] AT WORKTABLE 16 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 25 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 PO F32 )A1 B0 P1 A0 (25) 1.00 8 2 9 0.

7 INSPECT SHEETMETAL AT WORKTABLE 9 POINTS
A0 B0 GO A0 B0 PO T10 A0 B0 PO A0 1.00 100.

TOTAL TMU 10620.

Type D,EM,CT,EW,EX,L,LD,LS,T,W <or H for help> ?
### Sheet Metal Shape #2

**19" x 10" x 6' 6" LG Straight Section**

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File Description ? MARK OUT STRAIGHT SECTION

Output to line-printer <Y or N> ? N

(3 9, 3) FIT

W09 STRGHT
MARK OUT SHEETMETAL FOR STRAIGHT SECTION WITH AWL AT SHEETMETAL SHOP

PER STRAIGHT SECTION=
NASSCO SHEETMETAL SHAPE = 2
* HULL 414
* DRAWING 501-062
* V2-1099
* VS-7620
* 18 GAUGE GALV. SHEETMETAL
* 19'XAO'X6'6'L STRAIGHT SECTION
* MARK OUT TOP & BOTTOM WITHOUT TEMPLATE
FITTER BEGINS AT WORKTABLE

1 MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE WITH 3 STEPS
   A1 B0 G1 A1 B0 M32 A1 B0 P1 A0 1.00 380.
2 MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AND ASIDE
   A1 B0 G1 A1 B0 P1 R3 A1 B0 P1 A0 1.00 90.
3 MOVE STEEL-TAPE FROM WORKTABLE TO OTHER SIDE OF WORKTABLE WITH 9 STEPS
   A1 B0 G1 A16 B0 P1 A0 1.00 190.
4 MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE WITH 3 STEPS AND ASIDE PF 3 (4 5 6 7)
   A1 B0 G1 (A1 B0 P1 M32 )A1 B0 P1 A0 (3) 1.00 1060.
5 MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AND ASIDE PF 10 (4 5 6 7)
   A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (10) 1.00 540.
6 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS F 3
   A1 B0 G1 A6 B0 P6 A0 3.00 420.
7 MARK LINES FROM STRAIGHTEDGE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL WITH 3 STEPS AND ASIDE PF 3 (4 5 6 7)
   A1 B0 G1 (A1 B0 P1 A6 )R16A1 B0 P1 A0 (3) 1.00 440.
3 MOVE STRAIGHTEDGE FROM WORKTABLE TO OTHER SIDE OF WORKTABLE WITH 9 STEPS
   A1 B0 G1 A16 B0 P1 A0 1.00 190.
9 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 2
   A1 B0 G1 A1 B0 P6 A0 2.00 130.
10 MARK SHEETMETAL FROM STRAIGHTEDGE AT WORKTABLE 5 DIGITS USING AWL WITH 3 STEPS AND ASIDE PF 2 (4 5 6 7)
   A1 B0 G1 (A1 B0 P1 A6 )R16A1 B0 P1 A0 (2) 1.00 360.
11 POSITION CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS F 6
   A1 B0 G1 A6 B0 P6 A0 6.00 840.
12 MARK SHEETMETAL FROM CORNER TEMPLATE AT WORKTABLE 2
DIGITS USING AWL AND ASIDE PF 6 (4 5 6 7 )
A1 B0 G1 (A1 B0 P1 R6 )A1 B0 P1 A0 (6) 1.00 520.
13 MOVE CORNER TEMPLATE FROM WORKTABLE TO OTHER SIDE OF WORKTABLE WITH 9 STEPS
A1 B0 G1 A16 B0 P1 A0 1.00 190.
14 POSITION CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS F 6
A1 B0 G1 A6 B0 P6 A0 6.00 840.
15 MARK SHEETMETAL FROM CORNER TEMPLATE AT WORKTABLE 2 DIGITS USING AWL AND ASIDE PF 6 (4 5 6 7 )
A1 B0 G1 (A1 B0 P1 R6 )A1 B0 P1 A0 (6) 1.00 520.
16 POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 4 STEPS F 6
A1 B0 G1 A6 B0 P6 A0 6.00 840.
17 FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AND ASIDE PF 6 (4 5 6 7 )
A1 B0 G1 (A1 B0 P0 F3 )A1 B0 P1 A0 (6) 1.00 280.
18 MOVE CPUNCH FROM WORKTABLE TO OTHER SIDE OF WORKTABLE WITH 9 STEPS
A1 B0 G1 A16 B0 P1 A0 1.00 190.
19 FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AND ASIDE
A1 B0 G1 A1 B0 P0 F3 A1 B0 P1 A0 1.00 80.
20 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND HOLD PF 7 (4 5 6 7 )
A1 B0 G1 (A1 B0 P1 R16 )A0 B0 P0 A0 (7) 1.00 1280.
21 MOVE REDPEN FROM FITTER TO OTHER SIDE OF WORKTABLE WITH 9 STEPS
A1 B0 G1 A16 B0 P1 A0 1.00 190.
22 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 7 (4 5 6 7 )
A1 B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (7) 1.00 1300.
23 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AND HOLD PF 29 (4 5 6 7 )
A1 B0 G1 (A1 B0 P1 R3 )A0 B0 P0 A0 (29) 1.00 1470.
24 MOVE BLACKPEN FROM FITTER TO OTHER SIDE OF WORKTABLE WITH 9 STEPS
A1 B0 G1 A16 B0 P1 A0 1.00 1901
25 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AND ASIDE PF 29 (4 5 6 7 )
A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (29) 1.00 1490.
26 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 25 (4 5 6 7 )
A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (25) 1.00 1290.
27 PLACE SHEETMETAL2 FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS
A1 B0 G1 A6 B0 P3 A0 1.00 110.
28 MOVE CART WITH SHEETMETAL FROM WORKTABLE TO SMALLSHEAR
A1 B0 G1 A67 B0 P1 A0 1.00 700.

TOTAL TMU 16170.
Please input file <STRGHT.M41> ?

File Description ? SHEAR SHEETMETAL FOR STRAIGHT SECTION

Output to line-printer <Y or N> ? N

FIT  •W09

SHEAR SHEETMETAL FOR STRAIGHT SECTION WITH SMALL 8 FT. SHEAR AT SHEETMETAL SHOP PER STRAIGHT OEM: 4 07-APR-83

NASSCO SHEETMETAL SHAPE =2
* HULL 414
* DRAWING 501-062V2-1099
* V6-7620
* 18 GAUGE GALV. SHEETMETAL
* 19'X10'X6'6" STRAIGHT SECTION
* 2 MEN REQUIRED TO MOVE&POSITION METAL
FITTER BEGINS AT SMALLSHEAR

1 POSITION SHEETMETAL FROM CART AT SMALLSHEAR TO SMALLSHEAR WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P6 A0 2.00 280.

2 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 2
   A1 B0 G1 M1 X6 IO A0 2.00 180.

3 POSITION SHEETMETAL2 FROM SMALLSHEAR TO SMALLSHEAR F 4
   A1 B0 G1 A1 B0 P6 A0 4.00 360.

4 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 2
   A1 B0 G1 M1 X6 IO A0 2.00 180.

5 REPLACE SHEETMETAL FROM SMALLSHEAR TO CART AT SMALLSHEAR WITH 10 STEPS F 2
   A1 B0 G1 A16 B0 P3 A0 2.00 420.

6 HOVE CART WITH SHEETMETAL FROM SMALLSHEAR TO WORKTABLE
   A1 B0 G1 A67 B3 P1 A0 1.00 730.

TOTAL TMU 2150.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?
File Description ? CUT LAP CORNERS ON STRAIGHT SECTION

Output to line-printer <Y or N) ? N

FIT .W11
STRGHT.M42
CUT SHEETMETAL FOR STRAIGHT SECTION LAP CORNERS WITH SNIPS AT SHEETMETAL SHOP
PER STRAIGHT OFG: 4 07-JUL-83
NASSCO SHEETMETAL SHAPE =2
* HULL 414
* DRAWING 501-062
* V2-1099
* V6-7620
* 18 GAUGE GALV. SHEETMETAL
* 19'X10'X6'6" STRAIGHT SECTION
* CUT OUT CORNER ON LAP ENDS WITH SNIPS
FITTER BEGINS AT WORKTABLE
1 PLACE SHEETMETAL2 FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 2
A1 B0 G1 A6 B0 P3 A0 2.00 220.
2 CUT CORNERS ON SHEETMETAL AT WORKTABLE 2 CUTS USING SNIPS AT WORKTABLE AND ASIDE F 6
A1 B0 G1 A1 B0 P3 C3 A1 B0 P1 A0 6.00 660.
3 MOVE SNIPS FROM WORKTABLE TO OTHER SIDE OF WORKTABLE WITH 4 STEPS
A1 B0 G1 A6 B0 P1 A0 1.00 90.
4 CUT CORNERS ON SHEETMETAL AT WORKTABLE 2 CUTS USING SNIPS AT WORKTABLE AND ASIDE F 6
A1 B0 G1 A1 B0 P3 C3 A1 B0 P1 A0 6.00 660.
5 FASTEN SHEETMETAL [CORNERS] TO WORKTABLE 3 STRIKES USING HAMMER AND HOLD PF 6 (4 5 6 7 )
A1 B0 G1 (A1 B0 PO F6 )A0 B0 P0 A0 (6) 1.00 440.
6 MOVE HAMMER FROM FITTER TO OTHER SIDE OF WORKTABLE WITH 4 STEPS AND ASIDE
A1 B0 G1 A6 B0 P1 A0 1.00 90.
7 FASTEN SHEETMETAL [CORNERS] AT WORKTABLE 3 STRIKES USING HAMMER AND HOLD PF 6 (4 5 6 7 ) 1
A1 B0 G1 (A1 (A1 PO F6 )A0 B0 PO A0 (6) 1.00 440.
8 REPLACE SHEETMETAL2 FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2
A1 B0 G1 A6 B0 P3 A0 2.00 220.
9 MOVE CART FROM WORKTABLE TO LAPOUT
A1 B0 G1 A54 B0 P1 A0 1.00 570.

TOTAL TMU 3390.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ? 5540
Please input file <STRGHT.M43> ?

File Description ? FORM LAP END OFFSET ON STRAIGHT SECTION

Output to line-printer <Y or N> ? N

(39'3) FIT STRGHT

FORM LAP END OFFSET FOR STRAIGHT SECTION WITH LAPOUT MACHINE AT SHEETMETAL SHOP

PER STRAIGHT OFG: 4 07-APR-83

NASSCO SHEETMETAL SHAPE =2
* HULL 414
* DRAWING 501-062
* V2-1099
* 0 V6-7620
* 18 GAUGE GALV. SHEETMETAL
* 19'X10'6'L STRAIGHT SECTION
* 2 MEN REQUIRED TO HOLD SHEETMETAL
FITTER BEGINS AT LAPOUT

1 PLACE SHEETMETAL FROM CART AT LAPOUT TO LAPOUT WITH 4 STEPS F 2
   A1 B0 G1 A6 E0 P3 A0 2.00 220.

2 PUSH LAPOUT-SWITCH AT LAPOUT PROCESS F 4
   A1 B0 G1 M1 X16 IO A0 4.00 760.

3 REPLACE SHEETMETAL2 FROM LAPOUT TO CART AT LAPOUT WITH 4 STEPS F 4
   A1 B0 G1 A6 B0 P3 A0 4.00 440.

4 MOVE CART WITH SHEETMETAL2 FROM LAPOUT TO PITTSBURGH
   A1 E0 G1 A6 B0 F1 A0 1.00 90.

TOTAL TMU 1510.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

7050
Please input file <STRGHT.M44> ?

Description: FORM PITTSBURGH LOCKS ON STRAIGHT SECTION

Output to line-printer <Y or N> ? N

(39,3)
FIT *09

FORM PITTSBURGH LOCKS ON STRAIGHT SECTION WITH PITTSBURGH MACHINE
AT SHEETMETAL SHOP
PER STRAIGHT

NASSCO SHEETMETAL SHAPE =2
* HULL 414
* DRAWING 501-062
* V2-1099
* V6-7620
* 18 GAUGE GALV. SHEETMETAL
* 19'X10'X6'6' L STRAIGHT SECTION
* 2 MEN REQUIRED TO POSITION & MOVE METAL
FITTER BEGINS AT PITTSBURGH

1 PLACE SHEETMETAL FROM CART AT PITTSBURGH TO PITTSBURGH
WITH 4 STEPS F 4
   A1 B0 G1 A6 B0 P3 A0 4.00 440.

2 PUSH PITTSBURGH-BUTTON PROCESS F 4
   A1 B0 G1 M1 X32 IO A0 4.00 1400.

3 PUSH AND GUIDE SHEETMETAL2 THROUGH PITTSBURGH WITH 4
   STEPS F 8
   A6 B0 G1 M1 X0 I3 A0 8.00 880.

4 REPLACE SHEETMETAL2 FROM PITTSBURGH TO CART AT
   PITTSBURGH WITH 4 STEPS F 4
   A1 B0 G1 A6 B0 P3 A0 4.00 440.

5 MOVE CART WITH SHEETMETAL2 FROM PITTSBURGH TO
   CORNICEBRAKE
   A1 B0 G1 A24 B0 P1 A0 1.00 270.

TOTAL TMU 3430.

Type D,EM,CT,EW,EX,L,LD,LS,M,,W <or H for help> ?

10486
Please input file <STRGHT.M45> ?

File Description ? BEND UP 90 DEGREE SIDES ON STRAIGHT SECTION

Output to line-printer <Y or N> ? N

(39, 3)
FIT STRGHT BEND UP 90 DEGREE SIDES ON STRAIGHT SECTION WITH CORNICE BRAKE AT
SHEETMETAL SHOP OFG: 4 07-APR-83
PER STRAIGHT

NASSCO SHEETMETAL SHAPE #2
* HULL 414
* DRAWING 501-062
* V2-1099
* V6-7620
* 18 GAUGE GALV. SHEETMETAL
* 19'X10'X6'6"L STRAIGHT SECTION
*( 2 MEN REQUIRED TO POSITION & MOVE METAL
FITTER BEGINS AT CORNICEBRAKE

1 POSITION SHEETMETAL FROM CART AT CORNICEBRAKE TO CORNICEBRAKE WITH 4 STEPS F 2
A1 B0 G1 A6 B0 P6 A0 2.00 280.

2 OPERATE CORNICEBRAKE-LEVER PROCESS F 2
A1 B0 G1 M6 X42 I0 A0 2.00 1000.

3 POSITION SHEETMETAL2 FROM CORNICEBRAKE TO CORNICEBRAKE F 2
A1 B0 G1 A1 B0 P6 A0 2.00 180.

4 OPERATE CORNICEBRAKE-LEVER PROCESS F 2
A1 B0 G1 M6 X42 I0 A0 2.00 1000.

5 REPLACE SHEETMETAL2 FROM CORNICEBRAKE TO CART AT CORNICEBRAKE WITH 4 STEPS F 2
A1 B0 G1 A6 P3 A0 2.00 220.

6 MOVE CART WITH SHEETMETAL FROM CORNICEBRAKE TO WORKTABLE
A1 B0 G1 A54 B3 P1 A0 1.00 600.

TOTAL TMU 3280.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?
File Description ? ASSEMBLE TOP TO BOTTOM OF STRAIGHT SECTION

output to line-printer <Y or N> ? N

(39, 3) STRGHT.M46
FIT .W11

ASSEMBLE TOP TO BOTTOM ON STRAIGHT SECTION WITH HAMMER AT SHEETMETAL SHOP
PER STRAIGHT

NASSCO SHEETMETAL SHAPE #2
* HULL 414
* DRAWING 501-062
* V2-1099
* V6-7620
* 18 GAUGE GALV. SHEETMETAL
* 19'X10'X6'6' L STRAIGHT SECTION
* LAY SCRAPMETAL ACROSS BOTTOM TO HOLD TOP
FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL2 FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0 2.00 220.

2 FASTEN [FLATTEN] CORNERS ON SHEETMETAL WITH 3 STEPS AT WORKTABLE 3 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 12 (4567)
   A6 B0 G1 (A1 B0 P0 F6 )A1 B0 P1 A0 (12) 1.00 9301.

3 POSITION SHEETMETAL [TOP] FROM WORKTABLE TO SHEETMETAL [BOTTOM] AT WORKTABLE WITH 3 STEPS
   A1 B0 G1 A6 B0 P6 A0 1.00 140.

4 POSITION SHEETMETAL [SCRAP] FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS F 2
   A1 B0 G1 A6 B0 P6 A0 2.00 280.

5 POSITION SETTINGTOOL FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 7
   A1 B0 G1 A1 B0 P6 A0 7.00 630.

6 FASTEN SETTINGTOOL TO SHEETMETAL AT WORKTABLE 3 STRIKES USING HAMMER AND ASIDE PF 7 (4 5 6 7 )
   A1 B0 G1 (A1 B0 P0 F6 )A1 B0 P1 A0 (7) 1.00 530.

7 FASTEN SHEETMETAL TO SHEETMETAL 4 STRIKES USING HAMMER AND ASIDE F 7 (4567)
   A1 B0 G1 (A1 B0 P0 F10 )A1 B0 P1 A0 (7) 1.00 810.

8 REPLACE SHEETMETAL [SCRAP] FROM SHEETMETAL AT WORKTABLE TO WORKTABLE WITH 3 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 110.

9 MOVE SETTINGTOOL TO OTHER END OF WORKTABLE WITH 4 STEPS AND ASIDE PF 2 (4567)
   A1 B0 G1 (A6 B0 P1 A0 ) 1.00 160.

10 FASTEN SETTINGTOOL TO SHEETMETAL AT WORKTABLE 3 STRIKES USING HAMMER AND ASIDE PF 7 (4 5 6 7 )
   A1 B0 G1 (A1 B0 P0 F6 )A1 B0 P1 A0 (7) 1.00 530.

11 FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 4 STRIKES USING HAMMER AND ASIDE PF 7 (4567)
   A1 B0 G1 (A1 B0 P0 F10 )A1 B0 P1 A0 (7) 1.00 810.

12 MOVE HAMMER FROM WORKTABLE TO OTHER END OF WORKTABLE WITH 4 STEPS AND ASIDE PF 2 (4 5 6 7)
   A1 B0 G1 (A6 B0 P1 A0 ) 1.00 160.

13 FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 16 STRIKES
USING HAMMER AT WORKTABLE AND ASIDE PF 41 (4 5 6 7)
A1 B0 G1 (A1 B0 P0 F32 A1 B0 F1 A0 (41) 1.00 13570.
14 INSPECT SHEETMETAL AT WORKTABLE 9 POINTS
A0 B0 G0 A0 B0 PO T10 A0 B0 PO A0 1.00 100.

TOTAL TMU . 18980.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

32740
Sheet Metal Shape #2

20" x 14" x 48" L.G. Straight Section

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4 shifts.
FIT - STRGHT.M70
MARK OUT SHEETMETAL FOR STRAIGHT SECTION WITH AWL AT SHEETMETAL SHOP
PER STRAIGHT SECTION

NASSCO SHEETMETAL SHAPE 2
* 11 GAUGE GALV. SHEETMETAL
* 20'X14'X48'L STRAIGHT SECTION
* MARK OUT WITHOUT TEMPLATE
FITTER BEGINS AT WORKTABLE

1 MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE WITH 3 STEPS AND ASIDE F 4
   A1 B0 G1 A1 B0 P1 A6 M32 A1 B0 P1 A0 4.00 1760.

2 MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE WITH 3 STEPS AND ASIDE F 7
   A1 B0 G1 A1 B0 P1 A6 R3 A1 B0 P1 A0 7.00 1050.

3 MOVE STEEL-TAPE FROM WORKTABLE TO OTHER SIDE OF WORKTABLE WITH 9 STEPS
   A1 B0 G1 A16 B0 P1 A0 1.00 190.

4 MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE WITH 3 STEPS AND ASIDE PF 3 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 A6 )M32A1 B0 P1 A0 (3) ... 600.
MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE WITH 3 STEPS AND ASIDE PF 5 ( 4 5 6 7 )
   A1 B0 G1 (A1 30 P1 A6 )R3 Al B0 P1 A0 (5) 1.00 470.

6 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS F 3
   A1 B0 G1 A6 B0 P6 A0 3.00 420.

7 MARK LINES FROM STRAIGHTEDGE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE WITH 3 STEPS AND ASIDE PF 3 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 A6 )R16A1 B0 P1 A0 (3) 1.00 440.

8 MOVE STRAIGHTEDGE FROM WORKTABLE TO OTHER SIDE OF WORKTABLE WITH 9 STEPS
   A1 R0 G1 A16 B0 F1 A0 1.00 190.

9 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS F 3
   A1 B0 G1 A6 B0 P6 A0 3.00 420.

10 MARK SHEETMETAL FROM STRAIGHTEDGE AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 3 ( 4 5 6 7 )
    A1 B0 G1 (A1 B0 P1 R16 )A1 B0 F1 A0 (3) 1.00 580.

11 POSITION - CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 4
    A1 B0 G1 A1 B0 P6 A0 4.00 360.

12 MARK SHEETMETAL FROM CORNER TEMPLATE AT WORKTABLE 2 DIGITS USING AWL AND ASIDE PF 4 ( 4 5 6 7 )
    A1 B0 G1 (A1 B0 F1 R6 )A1 B0 P1 A0 (4) 1.00 360.

13 MOVE CORNER TEMPLATE TO OTHER SIDE OF WORKTABLE WITH 4 STEPS
   A1 B0 G1 A6 B0 F1 A0 1.00 90.
14 POSITION CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL
AT WORKTABLE WITH 2 STEPS F 4
   A1 B0 G1 A3 B0 P6 A0 4.00 440.
15 MARK SHEETMETAL FROM CORNER TEMPLATE AT WORKTABLE 2
   DIGITS USING AWL AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7
   A1 B0 G1 (A1 B0 P1 R6 )A1 B0 P1 A0 (4) 1.00 360.
6 POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT
   WORKTABLE AND ASIDE PF 2 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P6 A0 ) 1.00 160.
17 FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING
   HAMMER AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P0 F3 )A1 B0 P1 A0 (4) 1.00 200.
18 MOVE CPUNCH FROM WORKTABLE TO OTHER SIDE OF WORKTABLE
   WITH 9 STEPS
   A1 B0 G1 A16 B0 P1 A0 1.00 190.
19 POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT
   WORKTABLE F 2
   A1 B0 G1 A1 B0 P6 A0 2.00 180.
20 FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING
   HAMMER AT WORKTABLE AND ASIDE PF 2 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P0 F3 )A1 B0 P1 A0 (2) 1.00 120.
21 MOVE REDPEN FROM WORKTABLE TO OTHER SIDE OF WORKTABLE
   WITH 9 STEPS
   A1 B0 G1 A16 B0 P1 A0 1.00 190.
22 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS
   USING REDPEN AT WORKTABLE WITH 3 STEPS AND ASIDE PF 3
   ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 F1 A6 )R16A1 B0 P1 A0 (3) 1.00 440.
23 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT
   WORKTABLE 1 DIGIT USING BLACK PEN AND HOLD PF 26 ( 4 5
   6 7 )
   A1 B0 G1 (A1 B0 P1 R3 )A0 B0 F0 A0 (26) 1.00 1320.
24 MOVE BLACKPEN FROM FITTER AT WORKTABLE TO OTHER SIDE OF
   WORKTABLE WITH 9 STEPS
   A1 B0 G1 A16 B0 P1 A0 1.00 190.
25 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT
   WORKTABLE 1 DIGIT USING BLACK PEN AND ASIDE PF 29 ( 4 5
   6 7 )
   A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (29) 1.00 1490.
26 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT
   USING BLACKPEN AT WORKTABLE AND ASIDE PF 25 ( 4 5 6 7)
   A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (25) 1.00 1290.
27 PLACE SHEETMETAL2 FROM WORKTABLE TO CART AT WORKTABLE
   WITH 4 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 110.
28 HOVE CART FROM WORKTABLE TO 14FT. SHEAR
   A1 B0 G1 A81 B0 P1 A0 1.00 840.

TOTAL TMU 14450.
Fit  W1 STRGHT.M71
SHEAR SHEETMETAL FOR STRAIGHT SECTION WITH 14FT.SHEAR AT
SHEETMETAL SHOP
PER STRAIGHT SECTION OFG: 4 08-JUL-83
NASSCO SHEETMETAL SHAPE 2
* 11 GAUGE GALV. SHEETMETAL
* 20'X14'X48'L STRAIGHT SECTION
* SHEAR STRAIGHT TOP AND BOTTOM SECTIONS
FITTER BEGINS AT 14FT.SHEAR

1 POSITION SHEETMETAL2 FROM CART AT 14FT.SHEAR TO
14FT.SHEAR WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P6 A0 2.00 280.
2 PUSH 14FT.SHEAR-FOOTPedAL PROCESS F 2
   A1' B0 G1 M1 X3 I0 A0 2.00 120.
3 POSITION SHEETMETAL2 FROM 14FT.SHEAR TO 14FT.SHEAR WITH
4 STEPS F 4
   A1 B0 G1 A6 B0 P6 A0 4.00 560.
4 PUSH 14FT.SHEAR-FOOTPedAL PROCESS F 4
   A1 B0 G1 M1 X3 I0 A0 4.00 240.
5 REPLACE SHEETMETAL2 FROM 14FT.SHEAR TO CART AT
14FT.SHEAR WITH 12 STEPS F 2
   A1 B0 G1 A24 B0 P3 A0 2.00 580.
6 MOVE. CART FROM 14FT.SHEAR TO I WORKTABLE
   A1 B0 G1 A81 B3 P1 A0 1.00 870.

   TOTAL TMU 2650.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?
CUT CORNERS FOR STRAIGHT SECTION WITH SABER-SAW AT SHEETMETAL SHOP

PER STRAIGHT SECTION

NASSCO SHEETMETAL SHAPE 2
* 11 GAUGE GALV. SHEETMETAL
* 20'X14'X48'L STRAIGHT SECTION
* CUT CORNERS ON ENDS

FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL2 FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0 2.00 220.
2 MOVE SABER-SAW2 FROM TOOLROOM TO WORKTABLE
   A96 B0 G1 A96 B3 P1 A0 1.00 1970.
3 OPERATE SABER-SAW AT WORKTABLE PROCESS
   A1 B0 G1 M6 X67 IO A0 1.00 750.
4 POSITION SHEETMETAL FROM WORKTABLE TO WORKTABLE WITH 3 STEPS
   A1 B0 G1 A6 B0 P6 A0 1.00 140.
5 OPERATE SABER-SAW AT WORKTABLE PROCESS
   A1 B0 G1 M6 X67 IO A0 1.00 750.
6 REPLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0 2.00 220.
7 MOVE SHEETMETAL2 ON CART FROM WORKTABLE TO 14FTHYDROPRESSBRAKE
   A1 B0 G1 A96 B0 P1 A0 1.00 990.

TOTAL TMU 5040.

Type D, D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

7690
File Description? BEND SHEETMETAL FOR STRAIGHT SECTION

output to line-printer <Y or N>?

(39,1)
FIT .W11 STRGHT.M73

FIT SHEETMETAL FOR STRAIGHT SECTION WITH 14FT. HYDRO-PRESS-BRAKE

NASSAO SHEETMETAL SHOP

*11 GAUGE GALV. SHEETMETAL
*20"X14"X48"L STRAIGHT SECTION
*BEND SIDES--ON STRAIGHT UP 90 DEGREES
*COMPLETE IN WELD BOOTH AREA
*SEE MWELED......SEE STRGHT.M74
FITTER BEGINS AT 14FTHYDROPRESSBRAKE

1 POSITION SHEETMETAL2 FROM CART AT 14FTHYDROPRESSBRAKE
-TO 14FTHYDROPRESSBRAKE WITH 4 STEPS F 2
   A1 B0 G1 -A6 B0 P6 A0 2.00 280.
2 PUSH 14FTHYDROPRESSBRAKE-FOOTPEDAL PROCESS F 2
   A1 B0 G1 M1 -X24 10 B0 --- 2.00 540.
3 POSITION SHEETMETAL2 FROM 14FTHYDROPRESSBRAKE TO
14FTHYDROPRESSBRAKE F 2
   A1 B0 G1 A1 B0 P6 A0 2.00 180.
4 PUSH 14FTHYDROPRESSBRAKE-FOOTPEDAL PROCESS F 2
   A1 E0 G1 M1 X24 10 A0 2.00 54.
5 REPLACE SHEETMETAL2 FROM 14FTHYDROPRESSBRAKE TO CART AT
14FTHYDROPRESSBRAKE F 2
   A1 E0 G1 A1 B0 P3 A0 2.00 120.
6 MOVE CART FROM 14FTHYDROPRESSBRAKE TO WORKTABLE
   A1 E0 G1 A96 B3 Pi A0 1.00 1020.

TOTAL TMU 2680.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help>?

16370
File Description ? WELD STRAIGHT SECTION

output to line-printer <Y or N> ? N

3 9 , 3 )
WELD .WO1 STRGHT.M74
WELD STRAIGHT SECTION WITH ARC (STICK) WELDER AT SHEETMETAL SHOP
WELDING BOOTH
PER STRAIGHT SECTION OFG: 4 21-JUL-83
WELDING NASSCO SHEETMETAL SHAPE 2
* 11 GAUGE GALV. SHEETMETAL
* 20X14X48'L STRAIGHT SECTION
* WELDING DONE IN WELD AREA BOOTH'
* WELDOR PERFORMS THE WORK
* FITTER TRANSPORTS SHEETMETAL
FITTER BEGINS AT WORKTABLE

1 FITTER PLACE SHEETMETAL ASSEMBLY FROM WORKTABLE TO CART
AT WORKTABLE WITH 4 STEPS F 2
   AL B0 G1 A6 B0 P3 A0 2.00 220.
2 FITTER MOVE CART FROM WORKTABLE TO WELDTABLE
   A1 B0 G1 A131B3 P1 A0 1.00 1370.
3 PLACE SHEETMETAL ASSEMBLY FROM CART AT WELDTABLE TO
WELDTABLE WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0 2.00 220.
4 WELDOR PUSH POWER SUPPLY BUTTON FROM OFF AT
WELDMACHINES TO ON AT WELDMACHINES WITH 16 STEPS
   A3 B0 G1 M1 X0 I0 A32 1.00 370.
5 WELDOR TURN CURRENT OUTPUT CONTROL LEVER FROM OFF AT
WELDMACHINES TO ON AT WELDMACHINES
   A1 B0 G1 M3 X0 I0 A1 1.00 60.
6 WELDOR POSITION ANTI-SPATTER SPRAY CAN FROM WELDTABLE
TO SHEETMETAL ASSEMBLY AT WELDTABLE F 4
   A3 B3 G1 A1 B0 P6 A0 4.00 560.
7 WELDOR PUSH ANTI-SPATTER2 SPRAY CAN PROCESS F 4
   A1 B0 G1 M1 X10 I0 A0 4.00 520.
8 WELDOR FASTEN WELDROD TO
WRIST-TURN USING HAND F 21
   A1 B0 G1 A1 B0 P1 F3 A0 B0 P0 A0 21.00 1470.
9 PULL WELDHOOD FROM UP AT
WELDOR TO DOWN AT WELDOR F 21
   A1 B0 G1 M1 X0 I0 A1 21.00 840.
10 WELDOR POSITION STINGER1
ASSEMBLY AT WELDTABLE F 21
   A1 B0 G1 A1 B0 P6 A0 21.00 1890.
11 OPERATE WELD STINGER1 AT
WELDTABLE PTIME 65 S F 16
   A1 B0 G1 M6 X173I0 A0 16.00 28960,
12 PUSH WELDHOOD FROM DOWN AT WELDOR TO UP AT WELDOR F 21
   A1 B0 G1 M1 X0 I0 A1 21.00 840.
13 WELDOR LOOSEN SLAG FROM SHEETMETAL ASSEMBLY AT
WELDTABLE 6 STRIKES USING SLAGHAMMER AT WELDTABLE AND
ASIDE PF 8 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P0 L16 )A1 B0 P1 A0 (8) 1.00 1400.
14 WELDOR DEBURR WELDED ASSEMBLY AT WELDTABLE 10
ARM-STROKES USING WIREFRUSH AT WELDTABLE AND ASIDE PF
32 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 C10 )A1 B0 P1 A0 (32) 1.00 3880.
15 REPLACE SHEETMETAL ASSEMBLY FROM WELDTABLE TO CART AT
WELDTABLE WITH 4 STEPS F 2

16 FITTER MOVE CART FROM WELDTABLE TO WORKTABLE

TOTAL TMU 44160.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?
FORM LAP END FOR STRAIGHT SECTION WITH LAPOUT (ROTARY MACHINE) AT SHOP

PER STRAIGHT

OFG: -4 30-JUN-83

NASSCO SHEETMETAL SHAPE 2
* 20 GAUGE GALV. SHEETMETAL
* 8'X6'X96' LG STRAIGHT SECTION
* TWO (2) FITTERS REQUIRED
FITTER BEGINS AT LAPOUT

1 PLACE SHEETMETAL2 FROM CART AT LAPOUT TO LAPOUT WITH 4 STEPS F 4

2 PUSH LAPOUT-SWITCH PROCESS F 4

3 PUSH AND GUIDE SHEETMETAL2 THROUGH LAPOUT WITH 4 STEPS F 4

4 REPLACE SHEETMETAL2 FROM LAPOUT TO CART AT LAPOUT WITH 4 STEPS F 4

5 MOVE CART FROM LAPOUT TO PITTSBURGH

TOTAL TMU 2170.

Output to line-printer <Y or N>?
FORM PITTSBURGH FOR STRAIGHT SECTION

Richard's Pittsburg Machine at

NASSCO SHEETMETAL SHAPE 2
* 20 GAUGE GALV. SHEETMETAL
* 8' X 6' X 96' LG STRAIGHT SECTION
* TWO (2) FITTERS REQUIRED

FITTER BEGINS AT PITTSBURGH

1 PLACE SHEETMETAL2 FROM CART AT PITTSBURGH TO PITTSBURGH
WITH 4 STEPS F 4
A1 B0 G1 A6 B0 P3 A0 4.00 440.

2 PUSH PITTSBURGH-BUTTON PROCESS F 4
A1 B0 G1 M1 X32 IO A0 4.00 1400.

3 PUSH AND GUIDE SHEETMETAL2 THROUGH PITTSBURGH WITH 4
STEPS F 8
A6 B0 G1 M1 X0 I3 A0 8.00 880.

4 REPLACE SHEETMETAL2 FROM PITTSBURGH TO CART AT
PITTSBURGH WITH 4 STEPS F 4
A1 B0 G1 A6 B0 P3 A0 4.00 440.

5 MOUE CART FROM PITTSBURGH TO CORNICE BRAKE
A1 B0 G1 A24 B0 P1 A0 1.00 270.

TOTAL TMU 3430.

File Description ? FORM PITTSBURGH FOR STRAIGHT SECTION

Output to line-Printer <Y or N> ? 12/20
BEND SHEETMETAL FOR STRAIGHT SECTION

NASSCO SHEETMETAL SHAPE 2
* 20 GAUGE GALV. SHEETMETAL
* 8'X6'X96' LG STRAIGHT SECTION
* TWO (2) FITTERS REQUIRED
* BEND STRAIGHT SIDES UP 90 DEGREES
FITTER BEGINS AT CORNICE-BRAKE

1 POSITION SHEETMETAL FROM CART AT CORNICEBRAKE TO CORNICEBRAKE WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P6 A0 2.00 280.
2 OPERATE CORNICEBRAKE-LEVER PROCESS F 2
   A1 B0 G1 M6 X42 IO A0 2.00 1000.
3 POSITION SHEETMETAL2 FROM CORNICEBRAKE TO CORNICEBRAKE
   F 2
   A1 B0 G1 A1 B0 P6 A0 2.00 180.
4 OPERATE CORNICEBRAKE-LEVER PROCESS F 2
   A1 B0 G1 M6 X42 IO A0 2.00 1000.
5 REPLACE SHEETMETAL2 FROM CORNICEBRAKE TO CART AT CORNICEBRAKE WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0 2.00 220.
6 MOVE CART FROM CORNICEBRAKE TO WORKTABLE
   AL B0 G1 A54 B3 P1 A0 1.00 600.

TOTAL TMU 3280.

BEND SHEETMETAL FOR STRAIGHT SECTION

Output to line-printer <Y or N>?

15400
File Description ? ASSEMBLE STRAIGHT SECTION

Output to line-printer <Y or N> ? N

(39,101)
FIT .W12 STRGHT.M07

ASSEMBLE STRAIGHT SECTION WITH HAMMER AT SHEETMETAL SHOP

OPER
STRAIGHT
NASSCO SHEETMETAL SHAPE 2
* 20 GAUGE GALV. SHEETMETAL
* 8'X6'X96' LG STRAIGHT SECTION
FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL2 FROM CART AT WORKTABLE TO WORKTABLE
WITH 4 STEPS F 2
A1 B0 G1 A6 B0 P3 A0 2.00 220.

2 FASTEN [FLATTEN] SHEETMETAL CORNERS AT WORKTABLE 3
STRIKES USING HAMMER AT WORKTABLE AND PAOIDE PF 4 (4 5
6 7)
A1 B0 G1 (A1 B0 PO F6 )A1 B0 P1 A0 (4) 1.00 320.

3 POSITION SHEETMETAL [TOP] FROM WORKTABLE TO SHEETMETAL
[BOTTOM] AT WORKTABLE WITH 3 STEPS
A1. B0 G1 A6 B0 P6 A0 1.00 140.

4 PLACE SETTINGTOOL FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE F 16
A1 B0 G1 A1 B0 P3 A0 16.00 960.

5 FASTEN SETTINGTOOL TO SHEETMETAL AT WORKTABLE 3 STRIKES
USING HAMMER AT WORKTABLE AND ASIDE PF 16 (4 5 6 7)
A1 B0 G1 (A1 B0 PO F6 )A1 B0 P1 A0 (16) 1.00 1160.

6 FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 3 STRIKES
USING HAMMER AT WORKTABLE AND ASIDE PF 10 (4 5 6 7)
A1 B0 G1 (A1 B0 PO F6 )A1 B0 P1 A0 (10) 1.00 740.

7 FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 16 STRIKES
USING HAMMER AT WORKTABLE AND ASIDE PF 50 (4 5 6 7)
A1 B0 G1 (A1 B0 PO F32 )A1 B0 P1 A0 (50) 1.00 16540.

8 INSPECT SHEETMETAL AT WORKTABLE 9 POINTS
A0 B0 G0 A0 B0 PO T10 A0 B0 PO A0 1.00 100.

TOTAL TMU 20180.

File Description ? ASSEMBLE STRAIGHT SECTION

Output to line-printer <Y or N> ?
Sheetmetal Shape

8" x 6" x 48" LG Straight Section (Stainless Steel)

Welded at Seamwelder With Tig Welder

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<th>Task</th>
<th>Time</th>
<th>Notes</th>
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MARK OUT STAINLESS STEEL STRAIGHT SECTION

FIT .W14 STRGHT.M40
MARK OUT STAINLESS STEEL STRAIGHT SECTION WITH AWL AT SHEETMETAL
SHOP
PER STRAIGHT OFG: 4 27-JUL-83

1 MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE WITH 2 STEPS PF 2 (4 5 6 7)
   A1 B0 G1 (A1 B0 P1 M32 )A1 B0 P1 A0 (2) 1.00 720.

2 MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF 2 (4 5 6 7)
   A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (2) 1.00 140.

3 MOUE STEEL-TAPE FROM WORKTABLE TO OTHER SIDE OF WORKTABLE WITH 9 STEPS
   A1 B0 G1 A16 B1 P1 A0 1.00 190.

4 MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT USING STEEL-TAPE AT WORKTABLE WITH 2 STEPS AND ASIDE
   A1 B0 G1 A1 B0 P1 A3 M32 A1 B0 P1 A0 1.00 410.

5 MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF 6 (4 5 6 7)
   A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (6) 1.00 340.

6 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS F 4
   A1 B0 G1 A3 B0 P6 A0 4.00 440.

7 MARK LINES FROM STRAIGHTEDGE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 4 (4 5 6 7)
   A1 B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (4) 1.00 760.

8 MOUE STRAIGHTEDGE FROM WORKTABLE TO OTHER SIDE OF WORKTABLE WITH 9 STEPS
   A1 B0 G1 A16 B0 P1 A0 1.00 190.

9 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS F 3
   A1 B0 G1 A16 B0 P6 A0 3.00 3301

10 MARK LINES FROM STRAIGHTEDGE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE WITH 4 STEPS
    PF 3 (4 5 6 7)
    A1 B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (3) 1.00 580.

11 POSITION CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 1 STEP AND ASIDE PF 8 (4 5 6 7)
    A1 B0 G1 (A3 B0 P6 A0 ) 1.00 740.

12 MARK LINES ON SHEETMETAL FROM CORNER TEMPLATE AT WORKTABLE 2 DIGITS USING AWL AT WORKTABLE WITH 1 STEP AND ASIDE PF 8 (4 5 6 7)
    A1 E0 G1 )A1 B0 P1 A3 )R6 A1 B0 P1 A0 (8) 1.00 500.

13 MOUE CORNER TEMPLATE FROM WORKTABLE TO OTHER SIDE OF WORKTABLE WITH 9 STEPS
    A1 B0 G1 A16 B0 P1 A0 1.00 190.
14 POSITION CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 1 STEPS AND ASIDE PF 8 (4 5 6 7)
   A1 B0 G1 (A3 B0 P6 A0 ) 1.00 740.
15 MARK LINES ON SHEETMETAL FROM CORNER TEMPLATE AT WORKTABLE 2 DIGITS USING AWL AT WORKTABLE WITH 1 STEP AND ASIDE
   A1 B0 G1 A1 B0 P1 A3 R6 A1 B0 P1 A0 1.00 150.
16 POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS F 4
   A1 B0 G1 A3 B0 P6 A0 4.00 440.
17 FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE AND ASIDE PF 4 (4 5 6 7)
   A1 B0 G1 (A1 B0 P0 F3 )A1 B0 P1 A0 (4) 1.00 200.
18 MOVE CPUNCH FROM WORKTABLE TO OTHER SIDE OF WORKTABLE WITH 9 STEPS
   A1 B0 G1 A16 B0 P1 A0 1.00 190.
19 POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS F 4
   A1 B0 G1 A3 B0 P6 A0 4.00 440.
20 FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE AND ASIDE PF 4 (4 5 6 7)
   A1 B0 G1 (A1 B0 P0 F3 )A1 B0 P1 A0 (4) 1.00 200.
21 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE WITH 2 STEPS AND ASIDE PF 2 (4 5 6 7)
   A1 B0 G1 (A1 B0 P1 A3 )R16 A1 B0 P1 A0 (2) 1.00 300.
22 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 2 DIGITS USING REDPEN AT WORKTABLE WITH 2 STEPS AND ASIDE PF 16 (4 5 6 7)
   A1 B0 G1 (A1 B0 P1 A3 )R6 A1 B0 P1 A0 (16) 1.00 900.
23 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 25 (4 5 6 7)
   A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (25) 1.00 1290.
24 MOVE BLACKPEN FROM WORKTABLE TO OTHER SIDE OF WORKTABLE WITH 9 STEPS
   A1 B0 G1 A16 B0 P1 A0 1.00 190.
25 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE
   A1 B0 G1 A1 B0 P1 R3 A1 B0 P1 A0 1.00 90.
26 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 (4 5 6 7)
   A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (52) 1.00 2640.
27 PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0 2.00 220.
28 MOVE CART FROM WORKTABLE TO 14FT.SHEAR
   A1 B0 G1 A152B0 P1 A0 1.00 1550.

TOTAL TMU 15070,

File Description ? MARK OUT STAINLESS STEEL STRAIGHT SECTION

Output to line-Printer <Y or N> ?
Please input file (STRGHT.M41> ?

File Description ? SHEAR STAINLESS SHEETMETAL FOR STRAIGHT SECTION

Output to line-Printer <Y or N> ? N

(39,101)
FIT .W14
STRGHT.M41
SHEAR STAINLESS STEEL SHEETMETAL FOR STRAIGHT SECTION WITH
14FT. SHEAR AT SHEETMETAL SHOP
PER STRAIGHT OFG: 4 27-JUL-83
NASSCO SHEETMETAL SHAPE 2
* 18 GAUGE CRES
* 8'X6'X48' LG STRAIGHT SECTION
* USE 14FT. SHEAR
FITTER BEGINS AT 14FT.SHEAR

1 POSITION SHEETMETAL FROM CART AT 14FT.SHEAR TO
14FT.SHEAR WITH 4 STEPS F 2
A1 B0 G1 A6 B0 P6 A0 2.00 280.

2 PUSH 14FT.SHEAR-FOOTPEDALL PROCESS F 2
A1 B0 G1 M1 X3 IO A0 2.00 120.

3 REPOSITION SHEETMETAL2 FROM 14FT.SHEAR TO 14FT.SHEAR F 2
A1 B0 G1 A1 B0 P6 A0 2.00 180.

4 PUSH 14FT.SHEAR-FOOTPEDALL PROCESS F 4
A1 B0 G1 M1 X3 IO A0 4.00 240.

5 REPLACE SHEETMETAL2 FROM 14FT.SHEAR TO CART AT
14FT.SHEAR WITH 5 STEPS F 4
A1 B0 G1 A10 B0 P3 A0 4.00 600.

6 MOUE CART FROM 14FT.SHEAR TO WORKTABLE
A1 B0 G1 A152B3 P1 A0 1.00 1580.

TOTAL TMU 3000.

File Description ? SHEAR STAINLESS SHEETMETAL FOR STRAIGHT SECTION

Output to line-Printer <Y or N> ?
Please input file <STRGHT.M42> ?

File Description : CUT STAINLESS SHEETMETAL FOR STRAIGHT SECTION

Output to line-printer <Y or N> ? N

FIT

STRGHT.M42

CUT STAINLESS STEEL SHEETMETAL FOR STRAIGHT SECTION WITH
SABER-SAW AT SHEETMETAL SHOP
STRAIGHT

OFG: 4 27-JUL-83

PER

NASSCO SHEETMETAL SHAPE 2
* 18 GAUGE CRES
* 8'X6'X48' LG STRAIGHT SECTION
FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL2 FROM CART AT WORKTABLE TO WORKTABLE
   WITH 4 STEPS F 4
   . G1 A6 B0 P3 A0 4.00 440.

2 MOUE SABER-SAW2 FROM TOOLROOM TO WORKTABLE
   A96 B0 G1 A96 B3 P1 A0 1.00 1970.

3 FASTEN SAW-BLADE TO SHEETMETAL AT WORKTABLE 3
   WRIST-TURNS USING ALLEN-WRENCH AT WORKTABLE AND ASIDE
   A1 B0 G1 A1 B0 P3 F6 A1 B0 P1 A0 1.00 140.

4 POSITION SABER-SAW FROM WORKTABLE TO SHEETMETAL AT
   WORKTABLE F 4
   A1 B0 G1 A1 B0 P6 A0 4.00 360.
   OPERATE SABER-SAW PROCESS F 4
   A1 B0 G1 M6 X67 IO A0 4.00 3000.

6 MOUE SABER-SAW FROM WORKTABLE TO OTHER SIDE OF
   WORKTABLE WITH 9 STEPS
   A1 B0 G1 A16 B0 P1 A0 1.00 190.

7 POSITION SABER-SAW FROM WORKTABLE TO SHEETMETAL AT
   WORKTABLE F 4
   A1 B0 G1 A1 B0 P6 A0 4.00 360.
   OPERATE SABER-SAW PROCESS F 4
   A1 B0 G1 M6 X67 IO A0 4.00 3000.

9 PLACE SHEETMETAL2 FROM WORKTABLE TO CART AT WORKTABLE
   WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0 2.00 220.

10 MOUE CART FROM WORKTABLE TO LAPOUT
    A1 B0 G1 A54 B0 P1 A0 1.00 570.

   TOTAL TMU  10250.

File Description : CUT STAINLESS SHEETMETAL FOR STRAIGHT SECTION

Output to line-printer <Y or N> ?
Please input file <STRGHT.M43> ?

File Description ? FORM LAPENDS FOR STRAIGHT SECTION

Output to line-printer <Y or N> ? N

(39,101)
FIT STRGHT.M43
FORM LAPENDS FOR STRAIGHT SECTION WITH LAPOUT (ROTARY MACHINE) AT SHEETMETAL SHOP
PER STRAIGHT OFG: 4 27-JUL-83
NASSCO SHEETMETAL SHAPE 2
* 18 GAUGE CRES
* 8'x6'x48' LG STRAIGHT SECTION
* TWO (2) FITTERS REQUIRED
FITTER BEGINS AT LAPOUT

1 PLACE SHEETMETAL FROM CART AT LAPOUT TO LAPOUT WITH 4 STEPS F 4
   A1 B0 G1 A6 R0 P3 A0 4.00 440.
2 PUSH LAPOUT-SWITCH PROCESS F 4
   A1 B0 G1 M1 X16 IO A0 4.00 760.
3 PUSH AND GUIDE SHEETMETAL2 THROUGH LAPOUT WITH 4 STEPS F 4
   A6 B0 G1 M1 X0 I3 A0 4.00 440.
4 REPLACE SHEETMETAL2 FROM LAPOUT TO CART AT LAPOUT WITH 4 STEPS F 4
   A1 B0 G1 A6 B0 P3 A0 4.00 440.
5 MOVE CART FROM LAPOUT TO CORNICEBRAKE
   A1 B0 G1 A32 B0 P1 A0 1.00 350.

TOTAL TMU 2430.

File Description ? FORM LAPENDS FOR STRAIGHT SECTION

Output to line-printer <Y or N> ?
Please input file <STRGHT.M44> ?

File Description ? BEND STAINLESS STEEL FOR STRAIGHT SECTION

Output to line-printer <Y or N> ? N

(39,101)
FIT .W14 STRGHT.M44
BEND STAINLESS STEEL SHEETMETAL FOR STRAIGHT SECTION WITH CORNICE-BRAKE AT SHEETMETAL SHOP
PER STRAIGHT OFG: 4 27-JUL-83
NASSCO SHEETMETAL SHAPE 2
* 18 GAUGE CRES
* 8'X6'X48' LG STRAIGHT SECTION
FITTER BEGINS AT CORNICEBRAKE

1 POSITION SHEETMETAL2 FROM CART AT CORNICEBRAKE TO CORNICEBRAKE WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P6 A0 280.
2 OPERATE CORNICEBRAKE-LEVER PROCESS F 2
   A1 B0 G1 M6 X42 IO A0 1000.
3 POSITION SHEETMETAL2 FROM CORNICEBRAKE TO CORNICEBRAKE F 2
   A1 B0 G1 A1 B0 P6 A0 180.
4 OPERATE CORNICEBRAKE-LEVER PROCESS F 2
   A1 B0 G1 M6 X42 IO A0 1000.
5 REPLACE SHEETMETAL FROM CORNICEBRAKE TO CART AT CORNICEBRAKE WITH 4 STEPS F 2
   A1 B0 G1 A6 R0 P3 A0 220.
6 MOVE CART FROM CORNICEBRAKE TO SEAMWELDER
   A1 B0 G1 A13B3 P1 A0 1190.

TOTAL TMU 3870.

File Description ? BEND STAINLESS STEEL FOR STRAIGHT SECTION

Output to line-printer <Y or N> ?
Please input file <STRGHT.M45> ?

File Description ? WELD STAINLESS STEEL STRAIGHT SECTION

Output to line-printer <Y or N> ? N

( 39,101)
FIT

STRGHT.M45

WELD STAINLESS STEEL SHEETMETAL STRAIGHT SECTION WITH SEAM WELDER
AT SHEETMETAL SHOP
PER STRAIGHT

NASSCO SHEETMETAL SHAPE 2
* 18 GAUGE CRES
* 8'X6'X48' LG STRAIGHT SECTION
* USE TIG-WELDING MACHINE AT SEAM WELDER
FITTER BEGINS AT SEAMWELDER

1 SLIDE SEAMWELDER POWER ON-OFF-SWITCH AT SEAMWELDER USING HAND
   A1 B0 G1 M3 X0 I0 A0 1.00 50.

2 INSPECT PANEL-LIGHTS ON SEAMWELDER 9 POINTS
   A0 E0 G0 A0 B0 P0 T10 A0 B0 P0 A0 1.00 100.

3 TWIST CARRIAGE-SPEED-SWITCH AT SEAMWELDER 1 WRIST-TURN USING HAND
   A1 B0 G1 A1 B0 P1 C6 A0 B0 P0 A0 1.00 100.

4 TWIST WIRE-SPEED-SWITCH AT SEAMWELDER 1 WRIST-TURN USING HAND
   A1 B0 G1 A1 B0 P1 C6 A0 B0 P0 A0 1.00 100.

5 TWIST SEAMWELDER VOLTAGE-METER-SWITCH 1 WRIST-TURN USING HAND
   A1 B0 G1 A1 B0 P1 C6 A0 E0 P0 A0 1.00 100.

6 FITTER MOUE FROM SEAMWELDER TO CART AT END OF SEAMWELDER WITH 4 STEPS
   A1 B0 G1 A6 B0 P1 A0 1.00 90.

7 OPEN SEAMWELDER-LATCH AT SEAMWELDER 1 ARM-STROKE USING HAND
   A1 B0 G1 M3 X0 I0 A0 1.00 50.

8 POSITION SHEETMETAL2 FROM CART AT SEAMWELDER TO BACK SIDE OF SEAMWELDER WITH 4 STEPS
   A1 B0 G1 A6 B0 P6 A0 1.00 140.

9 PULL DOWN CENTERING-DEVICE 1 ARM-STROKE USING HAND F 4
   A1 B0 G1 M1 X0 I0 A0 4.00 120.

10 TWIST CENTERING-DEVICE-BLADE AT SEAMWELDER 1 WRIST-TURN USING HAND F 8
    A1 B0 G1 A1 B0 P1 C6 A0 B0 P0 A0 8.00 800.

11 PUSH AND GUIDE SHEETMETAL THROUGH SEAMWELDER CENTERING-DEVICE F 2
    A1 B0 G1 M1 X0 13 A0 2.00 120.

12 PUSH SEAMWELDER CLAMPING-DEVICE-FOOTSWITCH PTIME 2 S
    A1 B0 G1 M1 X6 I0 A0 1.00 90.

13 LOOSEN CARRIAGE STOP FROM CARRIAGE-TRACK AT SEAMWELDER 3 WRIST-TURNS USING ALLENWRENCH AT SEAMWELDER AND ASIDE
    A1 B0 G1 A1 R0 P3 L6 A1 B0 P1 A0 1.00 140.

14 REPOSITION CARRIAGE-STOP FROM SEAMWELDER TO CARRIAGE-TRACK AT SEAMWELDER WITH 3 STEPS
15 FASTEN CARRIAGE STOP AT SEAMWELDER 3 WRIST-TURNS USING ALLENWRENCH AT SEAMWELDER AND ASIDE
   A1 B0 G1 A1 B0 P6 A1 B0 P6 A0 1.00 140.
16 FITTER MOVE FROM SEAMWELDER TO CART AT END OF SEAMWELDER WITH 4 STEPS
   A1 B0 G1 A6 B0 P1 A0 1.00 140.
17 POSITION SHEETMETAL2 FROM CART AT SEAMWELDER TO FRONT SIDE OF SEAMWELDER WITH 4 STEPS
   A1 B0 G1 A6 B0 P6 A0 1.00 140.
18 SHUT SEAMWELDER-LATCH AT SEAMWELDER 1 ARM-STROKE USING HAND
   A1 B0 G1 M3 X0 I0 A0 1.00 50.
19 PUSH UP CENTERING-DEVICE AT SEAMWELDER 1 ARM-STROKE USING HAND F 4
   A1 B0 G1 M1 X0 I0 A0 4.00 120.
20 TWIST CENTERING-DEVICE-BLADE AT SEAMWELDER 1 WRIST-TURN USING HAND F 4
   A1 B0 G1 A1 B0 P1 C6 A0 B0 P0 A0 4.00 400.
21 PUSH AND GUIDE SHEETMETAL2 THROUGH SEAMWELDER CENTERING-DEVICE
   A1 B0 G1 M1 X0 I3 A0 1.00 60.
22 PUSH SEAMWELDER CLAMPING-DEVICE-FOOTSWITCH PTIME 2 S
   A1 B0 G1 M1 X6 I0 A0 1.00 90.
23 PUSH SEAMWELDER TORCH-UP-AND-DOWN-SWITCH PTIME 10 S
   A1 B0 G1 M1 X32 I0 A0 1.00 350.
24 PUSH SEAMWELDER SEQUENCE-START-SWITCH PROCESS F 1.6
   A1 B0 G1 M1 X17310 A0 1.60 2816.
25 PUSH SEAMWELDER TORCH-UP-AND-DOWN-SWITCH PTIME 10 S
   A1 B0 G1 M1 X32 I0 A0 1.00 350.
26 PUSH SEAMWELDER CLAMPING-DEVICE-FOOTSWITCH PTIME 2 S
   A1 B0 G1 M1 X6 I0 A0 1.00 90.
27 OPEN SEAMWELDER-LATCH 1 ARM-STROKE USING HAND
   A1 B0 G1 M3 X0 I0 A0 1.00 50.
28 REPOSITION SHEETMETAL2 FROM SEAMWELDER TO SEAMWELDER WITH 6 STEPS
   A1 B0 G1 A10 B0 P6 A0 1.00 180.
29 SHUT SEAMWELDER-LATCH 1 ARM-STROKE USING HAND
   A1 B0 G1 M3 X0 I0 A0 1.00 50.
30 PUSH SEAMWELDER CLAMPING-DEVICE-FOOTSWITCH PTIME 2 S
   A1 B0 G1 M1 X6 I0 A0 1.00 90.
31 PUSH SEAMWELDER TORCH-UP-AND-DOWN-SWITCH PTIME 10 S
   A1 B0 G1 M1 X32 I0 A0 1.00 350.
32 PUSH SEAMWELDER SEQUENCE-START-SWITCH PROCESS F 1.6
   A1 B0 G1 M1 X17310 A0 1.60 2816.
33 PUSH SEAMWELDER TORCH-UP-AND-DOWN-SWITCH PTIME 10 S
   A1 B0 G1 M1 X32 I0 A0 1.00 350.
34 PUSH SEAMWELDER CLAMPING-DEVICE-FOOTSWITCH PTIME 2 S
   A1 B0 G1 M1 X6 I0 A0 1.00 90.
35 OPEN SEAMWELDER-LATCH AT SEAMWELDER 1 ARM-STROKE USING HAND
   A1 B0 G1 M3 X0 I0 A0 1.00 50.
36 REPLACE SHEETMETAL2 FROM SEAMWELDER TO CART AT SEAMWELDER WITH 4 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 110.
37 MOVE CART FROM SEAMWELDER TO WORKTABLE
   A1 B0 G1 A131B3 P1 A0 1.00 1370.

TOTAL TMU 12342.
File Description ? WELD STAINLESS STEEL STRAIGHT SECTION

Output to line-printer <Y or N> ?
Sheet Metal Shape C

8" x 6" x 96" LG Straight Section (welded)

Welded at Seam Welder with Mig Welder

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Page 7
Please input file <STRGHT.M20> ? N.

File Description ? MARK OUT STRAIGHT SECTION

Output to line-printer <Y or N> ? N->

(39,101)
FIT .w13  STRGHT.M20
MARK OUT SHEETMETAL FOR STRAIGHT SECTION WITH AWL AT SHEETMETAL
SHOP
PER STRAIGHT  
OFG: 4  22-JUL-83

NASSCO SHEETMETAL SHAPE 2
* 20 GAUGE GALV. SHEETMETAL
* 8'X6'X96'L -STRAIGHT SECTION
* MARK OUT WITHOUT TEMPLATE
* WELDED WITH SEAMWELDER
FITTER BEGINS AT WORKTABLE

1 MEASURE DIMENSIONS N SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE WITH 2 STEPS PF 2 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1. M32 )A1 B0 P1 A0 (2) 1000 720.

2 MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF 2 ( 4 5 6 7 1
   A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (2) 1.00 140.

3 MOVE STEEL-TAPE FROM WORKTABLE TO OTHER SIDE OF WORKTABLE WITH 9 STEPS
   .A1. B0 G1 A16 B0 P1 A0. 1.00 190.

4 MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE WITH 2 STEPS PF 2 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 M32 )A1 B0 P1 A0 (2) 1.00 720.

5 MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (6) 1.00 340.

6 MOVE AWL, FROM WORKTABLE TO OTHER END OF WORKTABLE WITH 4 STEPS
   A1 B0 G1 A6 B0 P1 A0 1.00 90.

7 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS F 3J
   A1 B0 G1 A3 B0 P6 A0 3.00 330.

8 MARK LINES FROM STRAIGHTEDGE TO WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 3 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (3) 1.00 580.

9 MOVE STRAIGHTEDGE FROM OTHER SIDE OF WORKTABLE WITH 9 STEPS
   A1 B0 G1 A16 B0 P1 A0 1.00 190.

10 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS F 3
    A1 B0 G1 A3 B0 P6 A0 3.00 330.

11 MARK LINES FROM STRAIGHTEDGE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE WITH 4 STEPS PF 3 ( 4 5 6 7 )
    A1 B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (3) 1.00 580.

12 POSITION CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL
13 Mark lines on sheetmetal from corner template at worktable with 2 digits using awl at worktable and aside with 1 step pf 8 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P6 A0 ) 1 1.00 740.

14 Move corner template from worktable to other side of worktable with 9 steps
A1 B0 G1 A16 B0 P1 A0 1 1.00 190.

15 Position corner template from worktable to sheetmetal at worktable with 1 step and aside pf 8 ( 4 5 6 7 )
A1 B0 G1 (A3 B0 P6 A0 ) 1 1.00 740.

16 Mark lines on sheetmetal from corner template at worktable with 2 digits using awl at worktable and aside with 1 step pf 8 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P1 R6 ) A1 B0 P1 A0 (8) 1.00 680.

17 Position cpunch from worktable to sheetmetal at worktable with 2 steps f 4
A1 B0 G1 A3 B0 P6 A0 4.00 440.

18 Fasten cpunch to sheetmetal at worktable 1 strike using hammer at worktable and aside pf 4 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P0 F3 ) A1 B0 P1 A0 (4) 1.00 200.

19 Move cpunch from worktable to other side of worktable with 9 steps
A1 B0 G1 A16 B0 P1 A0 1 1.00 190.

20 Position cpunch from worktable to sheetmetal at worktable with 2 steps pf 4 ( 4 5 6 7 )
A1 B0 G1 (A3 B0 P6 A0 ) 1 1.00 380.

21 Fasten cpunch to sheetmetal at worktable 1 strike using hammer at worktable and aside pf 4 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P0 F3 ) A1 B0 P1 A0 (4) 1.00 200.

22 Mark cut lines on sheetmetal at worktable 5 digits using redpen at worktable with 2 steps and hold pf 2 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P1 A3 ) R16 A0 B0 P0 A0 (2) 1.00 280.

23 Mark cut lines on sheetmetal at worktable 2 digits using redpen at worktable with 2 steps and aside pf 16 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P1 A3 ) R6 A1 B0 P1 A0 (16) 1.00 900.

24 Mark construction information on sheetmetal at worktable 1 digit using blackpen at worktable and aside pf 25 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P1 R3 ) A1 B0 P1 A0 (25) 1.00 1290.

25 Move blackpen from worktable to other side of worktable with 9 steps
A1 B0 G1 A16 B0 P1 A0 1 1.00 190.

26 Mark construction information on sheetmetal at worktable 1 digit using blackpen at worktable and aside pf 25 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P1 R3 ) A1 B0 P1 A0 (25) 1.00 1290.

27 Mark identification on sheetmetal at worktable 1 digit using blackpen at worktable and aside pf 52 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P1 R3 ) A1 B0 P1 A0 (52) 1.00 2640.

28 Place sheetmetal from worktable to cart at worktable with 4 steps f 2
A1 B0 G1 A6 B0 P3 A0 2.00 220.

29 Move cart from worktable to smallshear
A1 B0 G1 A67 B0 P1 A0 1.00 700.
TOTAL TMU 16160.

File Description ? MARK OUT STRAIGHT SECTION

Output to line-printer <Y or N> ?
Please input file (STNGHT.M21> ?

File Description ? SHEAR STRAIGHT SECTION

Output to line-printer <Y or N> ? N

( 39,101)
FIT .W13 STRGHT.M21
SHEAR STRAIGHT SECTION WITH SMALL 8FT. SHEAR AT SHEETMETAL SHOP
PER STRAIGHT OFG: 4 -22-JUL-83
NASSCO SHEETMETAL SHAPE 2
* 18 GAUGE GALV. SHEETMETAL
* 8'X6'X96' LG STRAIGHT SECTION
* TWO (2) FITTERS REQUIRED
* WELDED WITH SEAMWELDER
FITTER BEGINS AT SMALLSHEAR

1 POSITION SHEETMETAL FROM CART AT SMALLSHEAR TO SMALLSHEAR WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P6 A0 2.00 280.
2 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 2
   A1 B0 G1 M1 X6 I0 A0 2.00 180.
3 POSITION SHEETMETAL FROM SMALLSHEAR TO SMALLSHEAR F 2
   A1 B0 G1 A1 B0 P6 A0 2.00 180.
4 REPLACE SHEETMETAL FROM SMALLSHEAR TO CART AT SMALLSHEAR WITH 5 STEPS F 4
   A1 B0 G1 A10 B0 P3 A0 4.00 600.
5 MOVE CART FROM SMALLSHEAR TO WORKTABLE
   A1 B0 G1 A67 B3 P1 A0 1.00 730.

   TOTAL TMU 1970.

File Description ? SHEAR STRAIGHT SECTION

Output to line-printer <Y or N> ?
Please input file <STRGHT.M22> ?

File Description ? CUT CORNERS FOR STRAIGHT SECTION

Output to line-printer <Y or N> ? N

' ( 39,101)
FIT ,W13  STRGHT,M22
  CUT CORNERS FOR STRAIGHT SECTION WITH SNIPS AT SHEETMETAL SHOP
PER STRAIGHT OFG: 4 22-JUL-83
  NASSCO SHEETMETAL SHAPE 2
  * 20 GAUGE GALV. SHEETMETAL
  * 8.8X96' LG STRAIGHT SECT-ION
  * WELDED WITH SEAMWELDER
  FITTER BEGINS AT WORKTABLE

1. PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 4
   A1 B0 G1 A6 B0 P3 A0 4.00 440.

2. POSITION SNIPS FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 4
   A1 B0 G1 A1 B0 P6 A0 4.00 360.

3. CUT CORNERS ON SHEETMETAL AT WORKTABLE 2 CUTS USING SNIPS AT WORKTABLE AND ASIDE PF 4 (4 5 6 7)
   A1 B0 G1 (A1 B0 P3 C3) A1 B0 P1 A0 (4) 1.00 320.

4. MOVE SNIPS FROM WORKTABLE TO OTHER SIDE OF WORKTABLE WITH 4 STEPS AND HOLD
   A1 B0 G1 A6 B0 P1 A0 1.00 90.

5. POSITION SNIPS FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 4
   A1 B0 G1 A1 B0 P6 A0 4.00 360.

6. CUT CORNERS ON SHEETMETAL AT WORKTABLE 2 CUTS USING SNIPS AT WORKTABLE AND ASIDE PF 4 (4 5 6 7)
   A1 B0 G1 (A1 B0 P3 C3) A1 B0 P1 A0 (4) 1.00 320.

7. FASTEN [FLATTEN] CORNERS ON SHEETMETAL AT WORKTABLE-3 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 4 (4 5 6 7)
   A1 B0 G1 (A1 B0 P0 F6) A1 B0 P1 A0 (4) 1.00 320.

8. MOVE HAMMER FROM WORKTABLE TO OTHER END OF WORKTABLE WITH 4 STEPS AND HOLD
   A1 B0 G1 A6 B0 P1 A0 (4) 1.00 90.

9. FITTER MOVE HAMMER TO SHEETMETAL AT WORKTABLE
   A1 B0 G1 A1 B0 P1 A0 1.00 40.

10. FASTEN [FLATTEN] CORNERS ON SHEETMETAL AT WORKTABLE 3 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 4 (1 4 5 6 7)
    A1 B0 G1 (A1 B0 P0 F6) A1 B0 P1 A0 (4) 1.00 320.

11. PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F -4
    A1 B0 G1 A6 B0 P3 A0 4.00 440.

12. MOVE CART FROM WORKTABLE TO LAPOUT
    A1 B0 G1 A54 B0 P1 A0 1.00 570.

TOTAL TMU 3670.
Please input file <STRGHT.M23> ?

File Description ? FORM LAP ENDS ON STRAIGHT SECTION

Output to line-printer <Y or N> ? N

( 39,101)
FIT .W13 STRGHT.M23
FORM LAP ENDS ON STRAIGHT SECTION WITH LAPOUT MACHINE AT
SHEETMETAL SHOP
PER STRAIGHT OFG: 4 22-JUL-83
NASSCO SHEETMETAL SHAPE 2
* 20 GAUGE GALV. SHEETMETAL
* 8'X6'X96' LG STRAIGHT SECTION
* TWO (2) FITTERS REQUIRED
* WELDED WITH SEAMWELDER
FITTER BEGINS AT LAPOUT
1 PLACE SHEETMETAL FROM CART AT LAPOUT TO LAPOUT WITH 4
STEPS F 4
   A1 B0 G1 A6 B0 P3 A0 4.00 440.
2 PUSH LAPOUT-SWITCH PROCESS F 4
   A1 B0 G1 M1 X16 I0 A0 4.00 760.
3 PUSH AND GUIDE SHEETMETAL THROUGH LAPOUT WITH 4 STEPS
   F 4
   A6 B0 G1 M1 X0 I3 A0 4.00 440.
4 REPLACE SHEETMETAL FROM LAPOUT TO CART AT LAPOUT WITH
   4 STEPS F 4
   A1 B0 G1 A6 B0 P3 A0 4.00 440.
5 MOVE CART FROM LAPOUT TO CORNICEBRAKE
   A1 B0 G1 A32 B0 P1 A0 1.00 350.

TOTAL TMU 2430,

File Description ? FORM LAP ENDS ON STRAIGHT SECTION

Output to line-printer <Y or N> ?

8070
Please input file <STRGHT.M24> ?

* File Description ? BEND STRAIGHT SECTION

Output to line-printer <Y or N> ? N

(39,101)
FIT .W13 STRGHT.M24
BEND STRAIGHT SECTION WITH CORNICE-BRAKE AT SHEETMETAL SHOP
PER STRAIGHT OFG: 4 22-JUL-83

NASSCO SHEETMETAL SHAPE 2
* 20 GAUGE GALV. SHEETMETAL
* 8'X6'X96' LG STRAIGHT SECTION
* TWO (2) FITTERS REQUIRED
* BEND STRAIGHT SIDES UP 90 DEGREES
* WELDED WITH SEAMWELDER
FITTER BEGINS AT CORNICEBRAKE

1 POSITION SHEETMETAL FROM CART AT CORNICEBRAKE TO CORNICEBRAKE WITH 4 STEPS F 4
A1 B0 G1 A6 B0 P6 A0 4.00 560.

2 OPERATE CORNICEBRAKE-LEVER PROCESS F 4
A1 B0 G1 M6 X42 S0 A0 4.00 2000,

3 POSITION SHEETMETAL FROM CORNICEBRAKE TO CORNICEBRAKE F 4
A1 B0 G1 A1 B0 P6 A0 4.00 360.

4 OPERATE CORNICEBRAKE-LEVER PROCESS F 4
A1 B0 G1 M6 X42 I0 A0 4.00 2000.

5 REPLACE SHEETMETAL FROM CORNICEBRAKE TO CART AT CORNICEBRAKE WITH 4 STEPS F 4
A1 B0 G1 A6 B0 P3 A0 4.00 440.

6 MOVE CART FROM CORNICEBRAKE TO SEAMWELDER
A1 B0 G1 A113B3 P1 A0 1.00 1190.

TOTAL TMU 6550.

File Description ? BEND STRAIGHT SECTION

Output to line-printer <Y or N> ?.->
Please input file <STRGHT.M25> ?

File Description ? SEAM WELD STRAIGHT SECTION

Output to line-printer <Y or N> ? N

( 39,101)
FIT • W14 STRGHT.M25
WELD STRAIGHT SECTION WITH SEAM-WELDER AT SHEETMETAL SHOP
PER STRAIGHT OFG: 4 27-JUL-83
SEAM-WELDING NASSCO SHEETMETAL SHAPE 2
* 20 GAUGE GALV. SHEETMETAL
* 8'X6'X96' LG STRAIGHT SECTION
* WELDED WITH SEAMWELDER
FITTER BEGINS AT SEAMWELDER

1 SLIDE SEAMWELDER POWER-SWITCH 1 WRIST-STROKE AT SEAMWELDER USING HAND
A1 B0 G1 M3 X0 I0 A0 1.00 50.

2 INSPECT PANEL LIGHTS ON SEAMWELDER 9 POINTS
A0 B0 G0 A0 B0 P0 T10 A0 B0 P0 A0 1.00 100.

3 TWIST CARRIAGE-SPEED-SWITCH AT SEAMWELDER 1 WRIST-TURN USING HAND
A1 B0 G1 A1 B0 P1 C6 A0 B0 P0 A0 1.00 100.

4 TWIST VOLTAGE-SWITCH AT SEAMWELDER 1 WRIST-TURN USING HAND
A1 B0 G1 A1 B0 P1 C6 A0 B0 P0 A0 1.00 100.

5 TWIST AMP-SWITCH AT SEAMWELDER 1 WRIST-TURN USING HAND
A1 B0 G1 A1 B0 31 C6 A0 B0 P0 A0 1.00 100.

6 FITTER MOVE FROM SEAMWELDER TO CART AT END OF SEAMWELDER WITH 4 STEPS
A1 B0 G1 A6 B0 P1 A0 1.00 90.

7 POSITION SHEETMETAL FROM CART AT SEAMWELDER TO BACK SIDE OF SEAMWELDER WITH 4 STEPS F 2
A1 B0 G1 A6 B0 P6 A0 2.00 280.

8 PULL DOWN CENTERING-DEVICE AT SEAMWELDER 1 ARM-STROKE USING HAND F 4
A1 B0 G1 M1 X0 I0 A0 4.00 120.

9 TWIST CENTERING-DEVICE-BLADE AT SEAMWELDER 1 WRIST-TURN USING HAND F 4
A1 B0 G1 A1 B0 P1 C6 A0 B0 P0 A0 4.00 400.

10 PUSH AND GUIDE SHEETMETAL THROUGH SEAMWELDER CENTERING-DEVICE F 2
A1 B0 G1 M1 X0 I3 A0 2.00 120.

11 PUSH SEAMWELDER CLAMPING-DEVICE-FOOTSWITCH PTIME 2 S
A1 B0 G1 M1 X6 I0 A0 1.00 90.

12 LOosen CARRIAGE-STOP FROM CARRIAGE-TRACK _AT SEAMWELDER 3 WRIST-TURNS USING ALLENWRENCH AT SEAMWELDER AND ASIDE
A1 B0 G1 A1 B0 P3 L6 A1 B0 P1 A0 1.00 140.

13 REPOSITION CARRIAGE-STOP FROM SEAMWELDER TO CARRIAGE-TRACK AT SEAMWELDER WITH 3 STEPS
A1 H0 G1 A6 B0 P6 A0 1.00 140.

14 FASTEN CARRIAGE-STOP AT SEAMWELDER 3 WRIST-TURNS USING ALLENWRENCH AT SEAMWELDER AND ASIDE
A1 B0 G1 A1 B0 P3 F6 A1 B0 P1 A0 1.00 140.
15 FITTER MOVE CART FROM SEAMWELDER TO END OF SEAMWELDER WITH 4 STEPS
   A1 B0 G1 A6 B0 F1 A0 1.00 90.
16 POSITION SHEETMETAL FROM CART AT SEAMWELDER TO FRONT SIDE OF SEAMWELDER WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 F6 A0 2.00 280.
17 PUSH UP CENTERING-DEVICE AT SEAMWELDER 1 ARM-STROKE USING HAND F 4.
   A1 B0 G1 M1 X0 I0 A0 4.00 120.
18 TWIST CENTERING-DEVICE BLADE AT SEAMWELDER 1 WRIST-TURN USING HAND F 4
   A1 B0 G1 A1 B0 P1 C6 A0 B0 F0 A0 4.00 400.
19 PUSH AND GUIDE SHEETMETAL THROUGH SEAMWELDER
   A1 B0 G1 M1 X0 I3 A0 1.00 60.
20 PUSH SEAMWELDER CLAMPING-DEVICE-FOOT-SWITCH PTIME 2 S
   A1 B0 G1 M1 X6 I0 A0 1.00 90.
21 CRANK SEAMWELDER-TORCH AT SEAMWELDER 6 REVS USING HAND F 2
   A1 B0 G1 M10 X0 I0 A0 2.00 240.
22 CRANK SEAMWELDER-TORCH AT SEAMWELDER 3 REVS USING HAND
   A1 B0 G1 M6 X0 I0 A0 1.00 80.
23 PUSH SEAMWELDER SEQUENCE-START-SWITCH PROCESS F 5.4
   A1 B0 G1 M1 X173I0 A0 5.40 9504.
24 CRANK SEAMWELDER-TORCH AT SEAMWELDER 6 REVS USING HAND F 2
   A1 B0 G1 M10 X0 I0 A0 2.00 240.
25 PUSH SEAMWELDER CLAMPING-DEVICE-FOOTSWITCH PTIME 2 S F 2
   A1 B0 G1 M1 X6 I0 A0 2.00 180.
26 OPEN SEAMWELDER-LATCH AT SEAMWELDER 1 ARM-STROKE USING HAND F 2
   A1 B0 G1 M1 X6 I0 A0 2.00 180.
27 REPLACE SHEETMETAL FROM SEAMWELDER TO CART AT
   SEAMWELDER WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0 2.00 220.
28 SHUT SEAMWELDER-LATCH AT SEAMWELDER 3 ARM-STROKES USING HAND F 2
   A1 B0 G1 M3 X0 I0 A0 2.00 100.
29 MOVE CART FROM SEAMWELDER TO WORKTABLE
   A1 B0 G1 A131B3 P1 A0 1.00 1370.

TOTAL TMU 15044.

File Description ? SEAM WELD STRAIGHT SECTION

Output to line-printer <Y or N> ?
Shee Metal Shape # 2

8" x 6" x 96" LG. Straight Section (with phsburg)

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MARK OUT SHEETMETAL FOR STRAIGHT SECTION

( 39,101)
FIT .W12 STRGHT.M01
MARK OUT SHEETMETAL FOR STRAIGHT SECTION WITH AWL AT SHEETMETAL SHOP
PER STRAIGHT SECTION OFG: 4 25-JUL-83

NASSCO SHEETMETAL SHAPE 2
* 20 GAUGE GALV, SHEETMETAL
* 8'X6'X96' LG STRAIGHT SECTION
* MARK OUT WITHOUT TEMPLATE
FITTER BEGINS AT WORKTABLE

1 MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE WITH 2 STEPS PF 2 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P1 M32 )A1 B0 P1 A0 (2) 1.00 720.

2 MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF 2 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (2) 1.00 140.

3 MOVE STEEL-TAPE FROM WORKTABLE TO OTHER SIDE OF WORKTABLE WITH 9 STEPS
A1 B0 G1 A16 B0 P1 A0 1.00 190.

4 MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE WITH 2 STEPS PF 2 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P1 M32 )A1 B0 P1 A0 (2) 1.00 720.

5 MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE WITH 2 STEPS AND ASIDE PF 8 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P1 A3 )R3 A1 B0 P1 A0 (8) 1.00 470.

6 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS F 2
A1 B0 G1 A3 B0 P6 A0 2.00 220.

7 MARK LINES FROM STRAIGHTEDGE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE WITH 2 STEPS AND ASIDE PF 2 ( 4567 )
A1 B0 G1 (A1 B0 P1 A3 )R16A1 B0 F1 A0 (2) 1.00 300.

8 MOVE STRAIGHTEDGE FROM WORKTABLE TO OTHER SIDE OF WORKTABLE WITH 9 STEPS
A1 B0 G1 A16 B0 P1 A0 1.00 190.

9 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS F 2
A1 B0 G1 A3 B0 P6 A0 2.00 220.

10 MARK LINES FROM STRAIGHTEDGE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE WITH 3 STEPS AND ASIDE PF 2 ( 4567 )
A1 B0 G1 (A1 B0 P1 A6 )R16A1 B0 F1 A0 (2) 1.00 360.

11 POSITION CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 4
A1 B0 G1 A1 B0 P6 A0 4.00 360.

12 MARK LINES FROM CORNER TEMPLATE TO SHEETMETAL AT WORKTABLE 2 DIGITS USING AWL AT WORKTABLE WITH 2 STEPS AND ASIDE PF 4 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P1 A3 )R6 A1 H0 F1 A0 (4) 1.00 300.
13 MOVE CORNER TEMPLATE FROM WORKTABLE TO OTHER SIDE OF WORKTABLE WITH 9 STEPS
   A1 B0 G1 A16 B0 P1 A0 1.00 190.
14 POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 4
   A1 B0 G1 A1 B0 P6 A0 4. 4.00 360.
15 MARK LINES FROM CORNER TEMPLATE TO SHEETMETAL AT WORKTABLE 2 DIGITS USING AWL AT WORKTABLE WITH 2 STEPS AND ASIDE PF 4 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 A3 R6 A1 B0 F1 A0 (4) 1.00 300.
16 POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS F 4
   A1 B0 G1 A3 B0 P6 A0 4.00 440.
17 FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE WITH 2 STEPS AND ASIDE PF 3 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P0 A3 )F3 A1 B0 P1 A0 (3) 1.00 190.
18 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE WITH 2 STEPS AND ASIDE PF 2 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 A3 )R16A1 B0 F1 A0 (2) 1.00 300.
19 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 2 DIGITS USING REDPEN AT WORKTABLE WITH 2 STEPS AND ASIDE PF 8 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 F1 A3 )R6 A1 B0 F1 A0 (8) 1.00 500.
20 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 25 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (25) 1.00 1290.
21 MOVE BLACKPEN FROM WORKTABLE TO OTHER SIDE OF WORKTABLE WITH 9 STEPS'
   A1 B0 G1 .A16 B0 P1 A0 1.00 190.
22 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 25 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 R3 )A1 R0 P1 A0 (25) 1.00 1290.
23 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 R3 )A1 B0 F1 A0 (52) 1.00 2640.
24 PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0 2.00 220.
25 MOVE CART FROM WORKTABLE TO SMALLSHEAR
   A1 B0 G1 A67 B0 F1 A0 1.00 700.

TOTAL TMU 12800.

File Description ? MARK OUT SHEETMETAL FOR STRAIGHT SECTION
Output to line-printer <Y or N> ? "rZ-i
SHEAR SHEETMETAL FOR STRAIGHT SECTION

FIT #12 STRGHT.M02

NASSCO SHEETMETAL SHAPE 2
* 20 GAUGE GALV. SHEETMETAL
* 8'X6'X96' LG STRAIGHT SECTION
* TWO (2) FITTERS REQUIRED

FITTER BEGINS AT SMALLSHEAR

1 POSITION SHEETMETAL FROM CART AT SMALLSHEAR TO SMALLSHEAR WITH 4 STEP F 2
   A1 B0 G1 A6 B0 P6 A0 2.00 280.
2 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 2
   A1 B0 G1 M1 X6 I0 A0 2.00 180.
3 POSITION SHEETMETAL2 FROM SMALLSHEAR TO SMALLSHEAR F 2
   A1 B0 G1 A1 B0 P6 A0 2.00 180.
4 REPLACE SHEETMETAL2 FROM SMALLSHEAR TO CART AT SMALLSHEAR WITH 5 STEPS F 4
   A1 B0 G1 A10 B0 P3 A0 4.00 600.
5 MOVE CART FROM SMALLSHEAR TO WORKTABLE
   A1 B0 G1 A67 B3 P1 A0 1.00 730.

TOTAL TMU 1970.
FIT .W12 STRGHT.M03

CUT CORNERS ON SHEETMETAL FOR STRAIGHT SECTION WITH SNIPS AT SHOP

NASSCO SHEETMETAL SHAPE 2
* 20 GAUGE GALV. SHEETMETAL
* 8'X6'X96' LG STRAIGHT SECTION
FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 4
   A1 B0 G1 A6 B0 P3 A0 4.00 440.

2 POSITION SNIPS FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 6
   A1 B0 G1 A1 B0 P6 A0 6.00 540.

3 CUT CORNERS ON SHEETMETAL AT WORKTABLE 2 CUTS USING SNIPS AT WORKTABLE AND ASIDE PF 6 (4 5 6 7)
   A1 B0 G1 (A1 B0 P3 C3 )A1 B0 P1 A0 (6) 1.00 460.

4 MOVE SNIPS FROM WORKTABLE TO OTHER SIDE OF WORKTABLE WITH 4 STEPS
   A1 B0 G1 A6 B0 P1 A0 1.00 90.

5 POSITION SNIPS FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 6
   A1 B0 G1 A1 B0 P6 A0 6.00 540.

6 CUT CORNERS ON SHEETMETAL AT WORKTABLE 2 CUTS USING SNIPS AT WORKTABLE AND ASIDE PF 6 (4 5 6 7)
   A1 B0 G1 (A1 B0 P3 C3 )A1 B0 P1 A0 (6) 1.00 460.

7 FASTEN [FLATTEN] SHEETMETAL CORNERS AT WORKTABLE 3 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 6 (4 5 6 7)
   A1 B0 G1 (A1 B0 P0 F6 )A1 B0 P1 A0 (6) 1.00 460.

8 MOVE HAMMER FROM WORKTABLE TO OTHER SIDE OF WORKTABLE WITH 4 STEPS
   A1 B0 G1 A6 B0 P1 A0 1.00 90.

9 FASTEN [FLATTEN] CORNERS ON SHEETMETAL AT WORKTABLE 3 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 6 (4 5 6 7)
   A1 B0 G1 (A1 B0 P0 F6 )A1 B0 P1 A0 (6) 1.00 460.

10 PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 4
    A1 B0 G1 A6 B0 F3 A0 4.00 440.

11 MOVE CART FROM WORKTABLE TO LAPOUT
    A1 B0 G1 A54 B0 P1 A0 1.00 570.

TOTAL TMU 4550.

Output to line-printer <Y or N> ? 6520
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Please input file <SQ2RND.M30> ?

File Description ? MARK OUT SQUARE TO ROUND

Output to line-printer- <Y or N> ? N

(39,3)  FIT.SQ2RND.M30
HARK OUT SHEETMETAL FOR SQUARE TO ROUND WITH AWL AT SHEETMETAL-SHOP

PER SQUARE TO ROUND

NASSCO SHEETMETAL SHAPE #3
* HULL 418
* DRAWING 501 - 292
* V2-92008
* V6-1951
* 22 GAUGE GALV. SHEETMETAL-
* 8'X8' TO 5' DIA 9'L SQUARE TO ROUND
* USE TEMPLATE TO MARK OUT 2 HALVES -
FITTER BEGINS AL- WORKTABLE

1 POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS F 2
---a---. A1 B0 G1 A6 B0 P6 A0 2.00 280.

2 PLACE 2 WEIGHTS FROM WORKTABLE TO TEMPLATE AT WORKTABLE - WITH -4 STEPS F 2
A1 B0 G1 A6 B0 P3 A0 2.00 220.

3 MARK OUTLINE FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AND ASIDE PF . 9 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P1 R16 )A1 B0 F1- A0 (9) 1.00 1660.

4 POSITION. CPUNCH FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 40
A1 B0 G1 A1 B0 P6 A0 40.00 3600.

5 FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE AND ASIDE PF 40 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P0 F3 )A1 B0 P1. A0 (40) 1.00 1640.

6 REPLACE 2 WEIGHTS FROM TEMPLATE TO WORKTABLE WITH 3 STEPS F 2
-----A1 B0 G1 A6 B0 P3 A0 2.00 220.

7 REPLACE TEMPLATE FROM SHEETMETAL AT WORKTABLE TO WORKTABLE WITH 3 STEPS F 2
A1 B0 G1 A6 B0 P3 A0 2.00 220.

8 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 18 ( 4 5 6 7 )
A1 H0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (18) 1.00 3280.

9 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 99 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (99) 1.00 4990.

10 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 ( 4 5 6 7 )
A1 B0 G1 (A1 H0 P1 R3 )A1 B0 F1 A0 (52) 1.00 2640.

1 SHEETMETAL [COLLAR] AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE PF 3 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P1 M32 )A1 B0 P1 A0 (3) 1.00 1060.
12 MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE. 1 DIGIT
   USING AWL AT WORKTABLE AND ASIDE PF 3 ( 4 5 6 7 )
   A1 B0 G1 ( A1 B0 F1 R3 ) A1 B0 P1 A0 (3) 1.00 190.
13 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT
   WORKTABLE F 2
   ' A1 B0 G1 A1 B0 P6 A0 2.00 180.
14 MARK LINE FROM STRAIGHTEDGE AT WORKTABLE 1 DIGIT USING
   AWL AT WORKTABLE AND ASIDE PF 2 ( 4 5 6 7 )
   A1 B0 G1 ( A1 B0 P1 R3 ) A1 B0 P1 A0 (2) 1.00 140.
15 MARK CUT LINE ON SHEETMETAL AT WORKTABLE 1 DIGIT USING
   REDPEN AT WORKTABLE AND ASIDE PF 3 ( 4 5 6 7 )
   A1 B0 G1 ( A1 B0 P1 R3 ) A1 B0 P1 A0 (3) 1.00 190.
16 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT
   WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND
   ASIDE PF 6 ( 4 5 6 7 )
   A1 B0 G1- ( A1 B0 P1 R3 ) A1 B0 P1 A0 (6) 1.00 340.
17 PLACE SHEETMETAL2 FROM WORKTABLE TO CART AT WORKTABLE
   WITH 4 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 110.
18 MOVE CART WITH SHEETMETAL FROM WORKTABLE TO SMALLSHEAR
   A1 B0 G1 A67 B0 P1 A0 1.00 700.

TOTAL TMU 21660.

Type D, EM, CT, EW, EX, LD, LS, M, T, W <or H for help> ?
File Description ? SHEAR 22 GAUGE SHEETMETAL FOR SQUARE TO ROUND

Output to line-winter <Y or N> ? N

39, 3)
FIT ,W11
SHEAR SHEETMETAL FOR SQUARE TO ROUND WITH SMALLSHEAR AT SHEETMETAL SHOP PER SQUARE TO ROUND OFG: 4 08-JUL-83 NASSCO SHEETMETAL SHAPE #3 * HULL 418 * DRAWING 501-292 * V2-92008 * V6-1951 * 22 GAUGE GALV. SHEETMETAL * 8'X8' TO 5'DIA. 9'L SQUARE TO ROUND * USE TEMPLATE TO MARK OUT 2 HALVES FITTER BEGINS AT SMALLSHEAR

1 POSITION SHEETMETAL FROM CART AT SMALLSHEAR TO SHALLSHEAR WITH 4 STEPS F 2
A1 B0 G1 A6 B0 P6 A0 2.00 280.

2 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS
A1 B0 G1 M1 X6 I0 A0 1.00 90.

3 POSITION SHEETMETAL2 FROM SHALLSHEAR TO SMALLSHEAR WITH 4 STEPS
A1 B0 G1 A6 B0 P6 A0 1.00 140.

4 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 12
A1 B0 G1 M1 X6 I0 A0 12.00 1080.

5 REPLACE SHEETMETAL2 FROM SMALLSHEAR TO CART AT SMALLSHEAR WITH 8 STEPS F 2
A1 B0 G1 A16 B0 P3 A0 2.00 420.

6 MOUE CART FROM SMALLSHEAR TO WORKTABLE
A1 B0 G1 A67 B3 P1 A0 1.00 730.

TOTAL TMU 2740.

Type D, EM, CT. EW, EX, L, LD, LS, M, T, W <or H for help> ?
File Description ? SHEAR RADIUS FOR SQUARE TO ROUND

Output to line-printer <Y or N> ? N

( 39, 3)
FIT .W11 SQ2RND.M32
SHEAR SHEETMETAL FOR SQUARE TO ROUND RADIUS WITH UNI-SHEAR AT SHEETMETAL SHOP
PER SQUARE TO ROUND

OFG: 4 08-JUL-83

NASSCO SHEETMETAL SHAPE #3
* HULL 418
* DRAWING 501-292
* V2-92008
* V6-1951
* 22 GAUGE GALV. SHEETMETAL
* 8'X8' TO 5'DIA. 9'L SQUARE TO ROUND
* SHEAR FLAT OVAL RADIUS
FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL2 FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS
A1 B0 G1 A6 B0 P3 A0 1.00 110.
2 MOVE UNISHEAR2 FROM TOOLROOM TO WORKTABLE
A96 B0 G1 A96 B3 P1 A0 1.00 1970.
3 OPERATE UNISHEAR AT WORKTABLE PROCESS F 2
A1 B0 G1 M6 X17310 A0 2.00 3620.
4 CUT CORNERS ON SHEETMETAL AT WORKTABLE 2 CUTS USING SNIPS AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P3 C3 )A1 B0 P1 A0 (4) 1.00 320.
5 FASTEN ( FLATTEN ) SHEETMETAL [CORNERS] AT WORKTABLE 3 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 8 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 PO F6 )A1 B0 P1 A0 (8) 1.00 600.
6 PLACE SHEETMETAL1 FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS
A1 B0 G1 A6 B0 P3 A0 1.00 110.
7 MOVE CART FROM WORKTABLE TO HAND-ROLLER AT WORKBENCH
A1 B0 G1 A67 B3 P1 A0 1.00 730.

TOTAL TMU 7460.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W (or H for help) ?

10200
Please input file <SQ2RND.M33> ?

File Description ? FORM COLLAR FOR SQUARE TO ROUND

Output to line-printer (Y or N) ? N

( 39, 3)
FIT .W08 SQ2RND.M33
FORM SHEETMETAL FOR SQUARE TO ROUND COLLAR WITH
HAND OPERATED ROLLER AT SHEETMETAL SHOP
PER SQUARE TO ROUND OFG: 4 24-MAR-83
NASSCO SHEETMETAL SHAPE #3
* HULL 418
* DRAWING 501-292
* V2-92008
* V6-1951
* 22 GAUGE GALV. SHEETMETAL
* 8'X8' TO 5' DIA. 9'L SQUARE TO ROUND
* ROLL UP 1'X15 3/4' SHEETMETAL COLLAR
FITTER BEGINS AT WORKBENCH

1 PLACE SHEETMETAL2 FROM CART AT WORKBENCH TO HAND-ROLLE
R AT WORKBENCH WITH 4 STEPS
   A1 B0 G1 A6 B0 P3 A0  1.00  110;
2 FASTEN SHEETMETAL2 WITH HAND-ROLLER AT WORKBENCH 5
   SPINS USING FINGERS F 2
   A1 B0 G1 A1 B0 P1 F10 A0 B0 P0 A0  2.00  280.
3 CRANK HAND-ROLLER AT WORKBENCH 3 REVS USING HAND
   A1 B0 G1 M6 X0 I0 A0  1.00  80.
4 LOOSEN BOLT [ROLLS] TO SHEETMETAL2 AT HAND-ROLLER AT
   WORKBENCH 5 SPINS USING HAND
   A1 B0 G1 A1 B0 P1 L10 A0 B0 P0 A0  1.00  140.
5 REPLACE SHEETMETAL2 FROM HAND-ROLLER AT WORKBENCH TO
   CART AT WORKBENCH WITH 4 STEPS
   A1 B0 G1 A6 B0 P3 A0  1.00  110.
6 MOVE CART WITH SHEETMETAL2 FROM WORKBENCH TO LEAFBRAKE
   A1 B0 G1 A10 B0 P1 A0  1.00  130.

TOTAL TMU  8 5 0 .

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W (or H for help) ?
Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ? T

lease input file <SQ2RND.M34> ?

File Description ? BEND RADIUS FOR SQUARE TO ROUND

Output to line-printer <Y or N> ?

%A command is required,

Output to line-printer <Y or N> ? N

( 39, 3)
FIT . W 0 8 SQ2RND.M34
BEND SHEETMETAL FOR SQUARE TO ROUND RADIUS WITH LEAF BRAKE AT SHEETMETAL SHOP
PER SQUARE TO ROUND

NASSCO SHEETMETAL SHAPE #3
* HULL 418
* DRAWING 501-292
* V2-92008
* V6-1951
* 22 GUAGE GLAV. SHEETMETAL
* 8'X8' TO 5'DIA. X 9' L SQUARE TO ROUND
* BEND RADIUS ON 2 PIECES
* FITTER BEGINS AT LEAFBRAKE

1 PLACE SHEETMETAL2 FROM CART AT LEAFBRAKE TO LEAFBRAKE WITH 4 STEPS F 2
   A1 R0 G1 A6 B0 P3 A0 2.00 220.
2 GRIP LEAFBRAKE [ADJUSTMENT ROD] AT LEAFBRAKE USING BOLT [VISEGRIPS] AT LEAFBRAKE AND ASIDE
   A1 B0 G1 A1 R0 F3 C1 A1 B0 P1 A0 1.00 90.
3 OPERATE LEAFBRAKE-LEVER PROCESS F 80
   A1 B0 G1 M6 X16 I0 A0 80.00 19200.
4 REPLACE SHEETMETAL3 FROM LEAFBRAKE TO CART AT- LEAFBRAKE WITH 4 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 110.
5 MOVE CART FROM LEAFBRAKE TO WORKTABLE
   A1 B0 G1 A81 B3 P1 A0 1.00 870.

TOTAL TMU 20490.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ? 31,540
Please input file (SQ2RND.M35)?

File Description? ASSEMBLE SQUARE TO ROUND

Output to line-printer <Y or N>? N

( 39, 3)
FIT .W08 SQ2RND.M35
ASSEMBLE SHEETMETAL FOR SQUARE TO ROUND WITH RIVET GUN AT SHEETMETAL SHOP
PER SQUARE TO ROUND OGF: 4 24-MAR-83
NASSCO SHEETMETAL SHAPE #3
* HULL 418
* DRAWING 501-292
* V2-92008
* V6-1951
* 22 GAUGE GALV. SHEETMETAL
* 8'X8' TO 5'DIA. 9'L SQUARE TO ROUND
* RIVET BOTTOM
* LEAVE TOP LOOSE TO ADJUST COLLAR
FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS
A1 B0 G1 A6 B0 P3 A0 1.00 110.

2 FASTEN 5.32 DRILL-BIT FROM WORKTABLE TO DRILLMOTOR AT WORKTABLE 3 WRIST-TURNS USING CHUCKKEY AND ASIDE
A1 B0 G1 A1 B0 P3 F6 A1 B0 P1 A0 1.00 140.

3 POSITION SHEETMETAL FROM WORKTABLE TO WORKTABLE WITH 3 STEPS
A1 B0 G1 A6 B0 P6 A0 1.00 140.

4 GRIP SHEETMETAL TO SHEETMETAL AT WORKTABLE USING VISEGRIPS AT WORKTABLE AND ASIDE PF 2 (4 5 6 7)
A1 B0 G1 (A1 B0 P3 C1 >A1 B0 P1 A0 (2) 1.00 140.

5 OPERATE DRILLMOTOR AT WORKTABLE PROCESS F 2
A1 B0 G1 M6 X6 I0 A0 2.00 280.

6 POSITION RIVETS FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 2
A1 B0 G1 A1 B0 P6 A0 2.00 180.

7 OPERATE RIVETGUN PROCESS F 2
A1 B0 G1 M6 X3 I0 A0 2.00 220.

TOTAL TMU 1210.

'Type D, EM, CT, EW, EX, L, LD, LS, M, T, W (or H for help)?

32,750
Please input file <SQ2RND.M36> ?

File Description ? TACK WELD SQUARE TO ROUND

Output to line-Printer <Y or N> ? N

FIT .W08 SQ2RND.M36
TACK SHEETMETAL FOR SQUARE TO ROUND WITH TACK WELDER AT SHEETMETAL SHOP
PER SQUARE TO ROUND OFG: 4 24-MAR-83
NASSCO SHEETMETAL SHAPE #3
* HULL 418
* DRAWING 501-292
* V2-92008
* V6-1951
* 22 GAUGE GALV. SHEETMETAL
* 8'X8' TO 5'DIA. 9'L SQUARE TO ROUND
* CLAMP COLLAR TO SQ2RND &TACKWELD
FITTER BEGINS AT WORKTABLE

1 MOUE VISEGRIPS AND SHEETMETAL2 FROM WORKTABLE TO WELDOUT
   A1 B0 G1 A54 B3 P1 A0  1.00  600.

2 POSITION SHEETMETAL2 FROM WELDOUT [WELDTABLE] TO SHEETMETAL AT WELDTABLE WITH 4 STEPS
   A1 B0 G1 A6 B3 P6 A0  1.00  170.

3 GRIP SHEETMETAL2 TO SHEETMETAL2 AT WELDOUT USING VISEGRIFS AND ASIDE PF 4 ( 4 5 6 7)
   A54 B3 G1 (A1 R0 P3 C1 )A1 B0 P1 A0 (4)  1.00  800.

4 OPERATE TACKWELDER PROCESS F 10
   A1 B0 G1 M6 X3 I0 A0  10.00 1100.

5 MOUE SHEETMETAL2 AND VISEGRIPS FROM WELDOUT TO WORKTABLE
   A1 B0 G1 A54 B3 P1 A0  1.00  600.

TOTAL TMU  3270.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

36020
WELD SQUARE TO ROUND WITH TIG-WELDER AT SHEETMETAL SHOP

WELDING BOOTH

R SQUARE TO ROUND OFG: 4 20-JUL-83

WELDING NASSCO SHEETMETAL SHAPE 3
* 11 GAUGE GALV. SHEETMETAL
* 8'X8' TO 5'DIAMETER 9'L SQUARE TO ROUND,
* WELDING DONE IN WELD BOOTH AREA
* WELDOR PERFORMS WORK
* FITTER TRANSPORTS SHEETMETAL

FITTER BEGINS AT WORKTABLE

1 FITTER PLACE SHEETMETAL ASSEMBLY FROM WORKTABLE TO CART AT WORKTABLE. WITH 4 STEPS F 2
A1 B0 G1 A6 B0 P3 A0 2.00 220.
2 FITTER MOUE CART FROM WORKTABLE TO WELDTABLE
A1 B0 G1 A131B3 F1 A0 1.00 1370.
3 PLACE SHEETMETAL ASSEMBLY FROM CART AT WELDTABLE TO WELDTABLE WITH 4 STEPS F 2
A1 B0 G1 A6 B0 F3 A0 2.00 220.
4 WELDOR PUSH POWER SUPPLY BUTTON FROM OFF AT WELDMACHINES TO ON AT WELDMACHINES WITH 16 STEPS
A3 B0 G1 M1 X0 I0 A32 1.00 370.
5 WELDOR PUSH GAS-HOUP-SWITCH FROM OFF AT WELDMACHINES TO ON AT WELDMACHINES
A1 B0 G1 M1 X0 I0 A1 1.00 40.
6 WELDOR FASTEN CURRENT SELECTOR HANDLE AT WELDMACHINES
A1 B0 G1 X0 I0 A1 1.00 70.

WRIST-TURN USING HAND
A1 B0 G1 A1 B0 P1 F3 A0 1.00 60.
7 WELDOR TURN OUTPUT CONTROL LEVER FROM OFF AT WELDMACHINES TO ON AT WELDMACHINES
A1 B0 G1 M3 X0 I0 A1 1.00 140.
8 WELDOR POSITION ANTI-SPATTER SPRAY CAN FROM WELDTABLE TO SHEETMETAL ASSEMBLY AT WELDTABLE
A3 B3 G1 A1 B0 P6 A0 1.00 130.
9 WELDOR PUSH ANTI-SPATTER2 SPRAY CAN PROCESS
A1 B0 G1 M1 X10 I0 A0 3.00 270.
10 WELDOR POSITION WELDROD FROM WELDTABLE TO SHEETMETAL ASSEMBLY AT WELDTABLE F 3
A1 B0 G1 A1 B0 P6 A0 1.00 40.
11 PULL WELDHOOD FROM UP AT WELDOR TO DOWN AT WELDOR
A1 B0 G1 M1 X0 I0 A1 3.00 450.
12 WELDOR POSITION WELDGUN FROM WELDTABLE TO SHEETMETAL ASSEMBLY AT WELDTABLE WITH PARTIAL BEND F 3
A1 B0 G1 A1 B6 P6 A0 6.00 5340.
13 WELDOR OPERATE WELD STINGER-BUTTON1 PROCESS F 6
A1 B0 G1 M6 X81 I0 A0 1.00 40.
14 PULL WELDHOOD FROM DOWN AT WELDOR TO UP AT WELDOR
A1 B0 G1 M1 X0 I0 A1 1.00 1540.
15 WELDOR DEBURR WELDED ASSEMBLY AT WELDTABLE 1 ARM-STROKE USING WIREFUSHER AT WELDTABLE AND ASIDE PF 50 ( 4 5 6 7
A1 B0 G1 (A1 B0 P1 C1 )A1 B0 P1 A0 (50) 2.00 220.
16 REPLACE SHEETMETAL ASSEMBLY FROM WELDTABLE TO CART AT WELDTABLE WITH 4 STEPS F 2
A1 B0 G1 A6 B0 P3 A0 2.00 220.
17 FITTER MOUE CART FROM WELDTABLE TO WORKTABLE
A1  B0  G1  A131B0  P1  A0  1.00  1340.

TOTAL TMU  11860.

File Description ? WELD SQUARE TO ROUND

Output to line-Printer <Y or N> ?
File Description ? RIVET SQUARE TO ROUND

Output to line-Printer <Y or N> ? N

( 39, 3)
FIT .W11 SQ2RND.M38
RIVET SHEETMETAL FOR SQUARE TO ROUND WITH RIVET GUN AT SHEETMETAL
SHOP PER, SQUARE TO ROUND OFG: 4 08-JUL-83
NASSCO SHEETMETAL SHAPE #3
* HULL 418
* DRAWING 501-292
* V2-92008
* V6-1951
* 22 GAUGE GALV. SHEETMETAL
* 8"X8" TO 5'DIA. 9'L SQUARE TO ROUND
* SEAL RIVET SEAM WITH SEALANT
* SEAL RIVET HEADS WITH SEALANT
FITTER BEGINS AT WORKTABLE

1 POSITION RIVET-HOLE-GUIDE FROM WORKTABLE TO SHEETMETAL
   AT WORKTABLE WITH 3 STEPS F 2
   A1 B0 G1 A6 80 P6 A0 2.00 280.
2 MARK-RIVET HOLES ON SHEETMETAL AT WORKTABLE 1 DIGIT
   USING BLACKPEN AT WORKTABLE AND ASIDE PF 12 (4 5 6 7
   A1 B0 G1 (A1 B0 P1 R3 )A1 E0 P1 A0 (12) 1.00 640.
3 OPERATE DRILLMOTOR ON SHEETMETAL PROCESS F 12
   A1 B0 G1 M6 X6 I0 A0 12.00 1680.
4 POSITION RIVETS FROM WORKTABLE TO SHEETMETAL AT
   WORKTABLE F 12
   A1 B0 G1 A1 E0 P6 A0 12.00 1080.
5 OPERATE RIVETGUN ON SHEETMETAL PROCESS F 12
   A1 B0 G1 M6 X3 I0 A0 12.00 1320.
6 GRIP SEALANT TO SHEETMETAL AT WORKTABLE USING
   CAULKINGGUN AND ASIDE PF 6 (4 5 6 7)
   A1 B0 G1 (A1 E0 P3 C1 )A1 B0 P1 A0 (6) 1.00 340.
7 INSPECT SHEETMETAL AT WORKTABLE 9 POINTS
   A0 B0 G0 A0 B0 P0 T10 A0 B0 P0 A0 1.00 100.

TOTAL TMU 5440.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

47960
SHEET METAL SHAPE #3

9-1/2" X 13-1/2" to 12" DIA. X 18" LC. SQUARE TO ROUND

<table>
<thead>
<tr>
<th>Task</th>
<th>Hours</th>
<th>Minutes</th>
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<tbody>
<tr>
<td>FAB</td>
<td>76.360</td>
<td>46 MIN.</td>
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<tr>
<td>MARK OUT</td>
<td>23.90</td>
<td>14 MIN.</td>
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<tr>
<td>WELD</td>
<td>18.60</td>
<td>11 MIN.</td>
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<tr>
<td>TOTAL</td>
<td>118.00</td>
<td>71 MIN.</td>
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File Description ? MAKE READY SHEETMETAL FOR MARK OUT (SQ2RND)

Output to line-Printer <Y or N> ? N

39, 3) FIT ,W04 SQ2RND.M01
MOVE SHEETMETAL FOR MARK OUT AT SHEETMETAL SHOP
PER 2 SQUARE TO ROUNDS OFG: 4 28-FEB-83
HULL 420
* DRAWING 501-062
* V2-62003
* '6-703
* 20 GAUGE SHEETMETAL
* DIMENSIONS: 9 1/2'X13 1/2'TO 12'DIA, 8'L
FITTER BEGINS AT WORKTABLE

1 MOVE TEMPLATES AND SKETCH FROM TEMPLATE RACK TO WORKTABLE WITH 40 STEPS
A1 E0 G1 A67 B0 P1 A0 1.00 700.
2 READ SKETCH AT WORKTABLE 59 WORDS
A0 B0 G0 A0 B0 P0 T32 A0 B0 P0 A0 1.00 320.
3 MOVE CART FROM WORKTABLE TO SHEETMETAL-STORAGE
A1 B0 G1 A152 B0 P1 A0 1.00 1550.
4 PLACE 20 GAUGED-SHEETMETAL FROM SHEETMETAL--STORAGE TO CART AT SHEETMETAL-STORAGE
A1 80 G1 A1 E0 P3 A0 1.00 60.
5 MOVE CART FROM SHEETMETAL-STORAGE TO WORKTABLE
A1 S0 G1 A153 B3 P1 A0 1.00 1580.
6 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE
A1 80 G1 A1 80 P3 A0 1.00 60.

TOTAL TMU 4270.

Type D,EX,CT,EX,T,W <or H for help> ? T SQ2RND

%Error, You have described more than one file,
Consult your DIRECTORY for a full name.

File Description ? HARK OUT SQUARE TO ROUND (43)

Output to line-Printer <Y or N> ? N

(39), 3) FIT ,W04 SQ2RND.M02
MARK OUT SHEETMETAL WITH TEMPLATE AT SHEETMETAL SHOP
PER 1 SQUARE TO ROUND OFG: 4 24-FEB-83
HULL 420
*DRAWING 501-062
* V6-703
* 20 GAUGE GALV. SHEETMETAL
* DIMENSIONS: 9 1/2'X13 1/2'TO 12'DIA. 18'L
* HARK OUT 2 PIECES WITH 1 TEMPLATE
FITTER BEGINS AT WORKTABLE

1 position template from worktable to sheetmetal at worktable with 5 steps f 2
A1 E0 G1 A10 B0 P6 A0 2.00 360.

2 position weights from worktable to template at worktable with 4 steps f 2
A1 B0 G1 A6 30 P6 A0 2.00 230.

3 mark outline on sheetmetal from template 1 digit using awl and aside pf 10 (4 5 6 7) f 2
A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (10) 2.00 1080.

4 position cpunch from worktable to sheetmetal and aside pf 22 (4 5 6) f 2
A1 B0 G1 (A1 B0 P6 A0(22) 2.00 3120.

5 fasten cpunch to sheetmetal on worktable 1 strike using hammer and aside pf 22 (4 5 6 7) f 2
A1 E0 G1 (A1 B0 P0 F3 )A1 B0 P1 A0 (22) 2.00 1340.

6 remove weights from template at worktable to worktable f 6
A1 B0 G1 A1 B0 P1 A0 6.00 240.

7 remove template from sheetmetal at worktable to worktable f 2
A1 B0 G1 A1 B0 P1 A0 2.00 80.

8 position straightedge from worktable to sheetmetal at worktable f 2
A1 B0 G1 A1 B0 P6 A0 2.00 180.

9 mark lines on sheetmetal with straightedge at worktable 16 digits using awl and aside with 3 steps pf 2 (4 5 6 7) f 2
A1 B0 G1 (A1 E0 P1 R54 )A1 B0 P1 A0 (2) 2.00 2320.

10 mark cut lines on sheetmetal at worktable 1 digit using redpen at worktable and aside pf 50 (4 5 6 7) f 2
A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (50) 2.00 5080.

11 mark construction information on sheetmetal 1 digit using blackpen anf hold pf 56 (4 5 6 7) f 2
A1 B0 G1 (A1 B0 P1 R3 )A0 B0 P0 A0 (56) 2.00 5640.

12 mark identification on sheetmetal at worktable 16 digits using blackpen and aside pf 2 (4 5 6 7) f 2
A1 B0 G1 (A1 B0 P1 R54 )A1 B0 P1 A0 (2) 2.00 2320.

13 place sheetmetal 2 from worktable to cart at worktable with 6 steps
A1 B0 G1 A10 B0 P3 A0 1.00 150.

14 move cart with sheetmetal from worktable to smallshear
A1 B0 G1 A67 B0 P1 A0 1.00 700.

TOTAL TMU 23390.

Type D, E, H, C, T, W <or H for help> ?
File Description? MAKE READY SHEETMETAL FOR MARK OUT (SQ2RND)

Output to line-printer <Y or N> ? N

33, 3) FIT .W04 SQ2RND.M01
MOVE SHEETMETAL FOR MARK OUT AT SHEETMETAL SHOP
PER 2 SQUARE TO ROUNDS OFG: 4 23-FEB-83
HULL 420
* DRAWING 501-062
* V2-62003
* V6-703
* 20 GAUGE SHEETMETAL
* DIMENSIONS:9 1/2'X13 1/2'TO 12'DIA.18'L
FITTER BEGINS AT WORKTABLE

1 MOVE TEMPLATES AND SKETCH FROM TEMPLATE RACK TO WORKTABLE WITH 40 STEPS
   A1 80 G1 A67 B0 p1 A0 1.00 700.

2 READ SKETCH AT WORKTABLE 59 WORDS
   A0 B0 G0 A0 B0 P0 T32 A0 B0 P0 A0 1.00 320.

3 MOVE CART FROM WORKTABLE TO SHEETMETAL-STORAGE
   A1 E0 G1 A152E0 P1 A0 1.00 1550.

4 PLACE 20 GAUGED-SHEETMETAL FROM SHEETMETAL-STORAGE TO CART AT SHEETMETAL-STORAGE
   A1 B0 G1 A1 B0 P3 A0 1.00 60.

5 MOVE CART FROM SHEETMETAL-STORAGE TO WORKTABLE
   A1 B0 G1 A152B3 P1 A0 1.00 1550.

6 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE
   A1 B0 G1 A1 B0 P3 A0 1.00 60

   TOTAL THU 4270.

Type D, EM, CT, EX, T, W <or H for help> ?
MARK OUT SQUARE TO ROUND (43)

Output to line-Printer <Y or N> ? N

39, 3)
.W04 SQ2RND.M02
MARK OUT SHEETMETAL WITH TEMPLATE AT SHEETMETAL SHOP

PER 1 SQUARE TO ROUND OFG: 4 24-FEB-83
HULL 420
* DRAWING 501-062
* V2-62003
* V6-703
* 20 GAUGE GALV. SHEETMETAL
* DIMENSIONS: 9 1/2'X13 1/2'TO 12'DIA, 18'L
* MARK OUT 2 PIECES WITH 1 TEMPLATE
FITTER BEGINS AT WORKTABLE

1 POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE WITH 5 STEPS F 2
A1 B0 G1 A10 B0 P6 A3 2.00 360.

2 POSITION WEIGHTS FROM WORKTABLE TO TEMPLATE AT
WORKTABLE WITH 4 STEPS F 2
A1 B0 G1 A6 B0 P6 A0 2.00 230.

3 MARK OUTLINE ON SHEETMETAL FROM TEMPLATE 1 DIGIT USING
AWL AND ASIDE PF 10 ( 4 5 6 7 ) F 2
A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (10) 2.00 1030.

4 POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AND ASIDE
PF 22 ( 4 5 6 ) F 2
A1 B0 G1 (A1 B0 P6 )A0 (22) 2.00 3120.

5 FASTEN CPUNCH TO SHEETMETAL ON WORKTABLE 1 STRIKE USING
HAMMER AND ASIDE PF 22 ( 4 5 6 7 ) F 2
A1 D0 G1 (A1 B0 P0 F3 )A1 E0 P1 A0 (22) 2.0 1340.

6 REMOVE WEIGHTS FROM TEMPLATE AT WORKTABLE TO WORKTABLE
F 4
A1 E0 G1 A1 B0 P1 A0 4.00 240.

7 REMOVE TEMPLATE FROM SHEETMETAL AT WORKTABLE TO
WORKTABLE F 2
A1 B0 G1 A1 B0 P1 A0 2.00 30.

3 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE F 2
A1 B0 G1 A1 B0 P6 A0 2.00 130.

9 MARK LINES ON SHEETMETAL WITH STRAIGHTEDGE AT WORKTABLE
16 DIGITS USING AWL AND ASIDE WITH 3 STEPS PF 2 ( 4 5 6 7 ) F 2
A1 B0 G1 (A1 B0 P1 R54 )A1 B0 P1 A0 (2) 2.00 2320.

10 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 1 DIGIT USING
RED PEN AT WORKTABLE AND ASIDE PF 50 ( 4 5 6 7 ) F 2
A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (50) 2.00 5080.

11 MARK CONSTRUCTION INFORMATION ON SHEETMETAL 1 DIGIT
USING BLACK PEN AND HOLD PF 56 ( 4 5 6 7 ) F 2
B0 G1 (A1 B0 F1 R3 )A0 B0 P0 A0 (56) 2.00 5640.

12 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 16
DIGITS USING BLACK PEN AND ASIDE PF 2 ( 4 5 6 7 ) F 2
A1 B0 G1 (A1 B0 P1 R54 )A1 B0 P1 A0 (2) 2.00 2320.

13 PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE
WITH 6 STEPS
A1 B0 G1 A10 B0 P3 A0 1.00 150.
14 MOVE CART WITH SHEETMETAL2 FROM WORKTABLE TO SMALLSHEAR
     A1  B0  01  A67  B0  P1  A0     1.00    700.

     TOTAL TMU     23390.

Type D, EM, CT, EX, T, W <or H for help> ?
Shear Outline of Square to Round (#3)

Output to Line-Printer <Y or N> ? N

( 39, 3)
FIT .01

Shear Sheetmetal - Outline of SQ2RND (#3) on 20 Gauge Sheetmetal

With Small Shear at Sheetmetal Shop

Per Square to Round

OFG: 4 08-JUL-83

NASSCO Sheetmetal Part # 3 (From Hull 420)

* Drawing 501-062
* V2-62003
* 20 Gauge Galv. Sheetmetal
* Dimensions: 9 1/2'x13 1/2' to 12'Dia. 18'L
* V6-703

Fitter Begins at Smallshear

1 Position 4X8 Sheetmetal2 from Cart at Smallshear to
Smallshear F 2

A1 B0 G1 A1 E0 P6 A0 2.00 180.

2 Push Footpedal at Smallshear for Cutting Sheetmetal2

PROCESS

A1 B0 G1 M1 X6 I0 A0 1.00 90.

3 Position Sheetmetal2 from Smallshear to Smallshear F 6

A1 B0 G1 A1 E0 P6 A0 6.00 540.

4 Push Footpedal at Smallshear Cutting Lines on
Sheetmetal2 Process F 6

A1 B0 G1 M1 X6 I0 A0 6.00 540.

5 Place Sheetmetal2 from Smallshear to Cart at Smallshear

With 16 Steps PBend

A1 B0 G1 A32 B3 P3 A0 1.00 400.

6 Move Cart with Sheetmetal2 from Smallshear to Worktable

A1 B0 G1 A67 B3 P1 A0 1.00 730.

TOTAL TMU 2480.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?
T SQ2RND.M04

File Description ? SHEAR SQUARE TO ROUND RADIUS LINES & CORNERS

Output to line-printer <Y or N> ? N


39, 3)
FIT *W04 SQ2RND.M04
SHEAR SHEETMETAL FOR SQUARE TO ROUND WITH UNI-SHEAR AT SHEETMETAL
SHOP PER SQUARE TO ROUND OFG: 4 28-FEB-83
HULL 420
* DRAWING 501-062
* V2-62003
* V6-703
* 20 GAUGE GALV. SHEETMETAL
* DIMENSIONS: 9 1/2'X13 1/2'TO 12'DIA. 18'L
FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL2 FROM CART AT WORKTABLE TO WORKTABLE
A1 E0 G1 A1 B0 P3 A0 1.00 60.

2 CUT LINES ON SHEETMETAL AT WORKTABLE 11 CUTS USING
UNISHEAR AND ASIDE PROCESS PF 11 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 F3 C16 )A1 B0 P1 A0 (11) 1.00 2240.

3 MOVE TEMPLATE FROM WORKTABLE TO WORKTABLE
A1 B0 G1 A1 E0 P1 A0 1.00 40.

4 MARK RADIUS ON TEMPLATE PAPER AT WORKTABLE 16 DIGITS
USING DIVIDERS AND ASIDE
A1 B0 G1 A1 E0 P1 R54 A1 B0 P1 A0 1.00 600.

5 MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING
STEEL-TAPE AT WORKTABLE AND ASIDE
A1 80 G1 A1 B0 P1 M32 A1 B0 P1 A0 1.00 380.

6 CUT SHEETMETAL COLLAR AT WORKTABLE 2 CUTS USING SNIPS
AT WORKTABLE AND ASIDE PF 2 ( 4 5 6 7 )
A1 E0 01 (A1 E0 P3 C3 )A1 E0 P1 A0 (2) 1.00 130.

7 PLACE SHEETMETAL2 FROM WORKTABLE TO CART AT WORKTABLE
A1 E0 G1 A1 B0 P3 A0 1.00 60.

8 MOVE CART WITH SHEETMETAL2 FROM WORKTABLE TO LEAFBRAKE
A1 B0 G1 A81 B0 P1 A0 1.00 840.

TOTAL TMU 4400.

Type D, EM, CT, EX, T, W <or H for help> ?

6880
File Description? FORM SQUARE TO ROUND (#3) RADIUS

Output to line-Printer <Y or N> ? N

39, 3) FIT • SQ2RND .M05
FORM SQUARE TO ROUND (#3) ON 20 GAUGE SHEETMETAL WITH LEAFBRAKE AT SHEETMETAL SHOP
PER SQUARE TO ROUND DFG: 4 2B-FEB-83
Hull 420
* DRAWING 501-062
* V2-62003
* V6-703
* 20 GAUGE GALV, SHEETMETAL
* DIMENSIONS: 9 1/2"X13 1/2 TO 12DIA 18'L
FITTER BEGINS AT LEAFBRAKE

1 POSITION SHEETMETAL2 FROM CART AT LEAFBRAKE TO LEAFBRAKE F 60
   A1 B0 G1 A1 B0 P6 A0 60.00 5400.

2 POSITION SHEETMETAL2 FROM CART AT LEAFBRAKE TO LEAFBRAKE F 60
   A1 B0 G1 A1 B0 P6 A0 60.00 5400.

3 OPERATE LEAFBRAKE-LEVER AT LEAFBRAKE PROCESS F 60
   A1 B0 G1 MS X16 IO A0 60.00 14400.

4 OPERATE LEAFBRAKE-LEVER AT LEAFBRAKE PROCESS F 60
   A1 B0 G1 M6 X16 IO A0 60.00 14400.

5 PLACE SHEETMETAL2 FROM LEAFBRAKE TO CART AT LEAFBRAKE
   A1 B0 G1 A1 PO P3 A0 1.00 60.

4 MOVE CART FROM LEAFBRAKE TO ROLLER
   A1 B0 G1 A32 B0 P1 A0 1.00 350

7 PLACE HAMMER FROM WORKTABLE TO CART AT WORKTABLE
   A54 B3 G1 A1 B0 P3 A0 1.00 620

TOTAL TMU 40630.

Type D, EM, CT, EX, T, W <or H for help>? 47510
File Description: FORM SQUARE TO ROUND DIAMETER

Output to line-printer <Y or N>? N

39, 3
FIT .w04

FORM SQUARE TO ROUND (#3). WITH ROLLER (ROLL FORMER) AT SHEETMETAL SHOP

PER SQUARE TO ROUND (#3)

HULL 420
* DRAWING 501-062
* V2-62003
* V6-703
* 20 GAUGE GALV. SHEETMETAL
* DIMENSIONS: 9 1/2X13 1/2'TO12'DIA, 18L
FITTER BEGINS AT ROLLER

1 POSITION SHEETMETAL FROM CART AT ROLLER TO ROLL FORMER AT ROLLER
   A1 B0 G1 A1 B0 P6 A0 1.00 90.

2 FASTEN (KINK) SHEETMETAL2 TO ROLLER AT ROLL FORMER 3 STRIKES USING HAMMER AND ASIDE PF 2 (4 5 6 5 7)
   A54 B3 G1 (A54 B0 PO F6 )A1 B0 P1 A0 (2) 1.00 1800.

3 FASTEN (ROLLS) NUT TO SHEETMETAL AT ROLLER 5 WRIST-STROKES USING HAND F 2
   A1 B0 G1 A1 B0 P1 F16 A0 B0 PO A0 2.00 400.

4 OPERATE ROLLER-BUTTON AT ROLLER PROCESS F 4
   A1 B0 G1 MS X96 I0 A3 4.00 4160.

5 PLACE SHEETMETAL2 FROM ROLLER (ROLL FORMER) TO CART.
   AT ROLLER WITH 8 STEPS
   A1 B0 G1 A16 B0 P3 A0 1.00 210.

6 MOVE CART WITH SHEETMETAL2 FROM ROLLER (ROLL FORMER)
   TO WORKTABLE
   A1 B0 G1 A54 B3 P1 A0 1.00 600.

TOTAL TMU 7260.

Type D,EM,CT,EX,T,W <or H for help> ? 54770
File Description ? ASSEMBLE SQUARE TO ROUND (#3)

Output to line-Printer <Y or N> ? N

39, 3)
FIT .wo4 SQ2RND.M07
ASSEMBLE SQUARE TO ROUND (#3) WITH RIVET GUN AT SHEETMETAL SHOE
PER SQUARE TO ROUND (#3) DFG: 4 28-FEB-83
HULL 420
* DRAWING 501-062
* V2-62003
* U6-703
* 20 GAUGE GALV, SHEETMETAL
* DIMENSIONS: 91/2' X 131/2' TO 12' DIA X 18' L
FITTER BEGINS AT WORKTABLE

1 GET+PLACE SHEETMETAL2 FROM CART AT WORKTABLE 4 STEPS TO
WORKTABLE WITH 4 STEPS
   A,5 B0 G3 A6 B0 P3 A0 1.00 180.

2 INSPECT SHEETMETAL RADIUS 6 POINTS USING RADIUS
TEMPLATE AND ASIDE
   A0 B0 GO A0 B0 PO T10 A0 B0 P0 A0 1.00 100.

3 FASTEN ( FORM ) SHEETMETAL AT WORKTABLE 12 STRIKES
USING HAMMER AND ASIDE PF 2 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 PO F24 )A1 B0 P1 A0 (2) 1.00 540.

4 POSITION SHEETMETAL FROM WORKTABLE TO WORKTABLE
   A1 B0 G1 A1 B0 P6 A0 1.00 90.

5 GRIP SHEETMETAL TO SHEETMETAL AT WORKTABLE USING
VISEGRIPS AND ASIDE PF 2 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P3 C1 )A1 B0 P1 A0 (2) 1.00 140.

5 GET+POSITION DRILLMOTOR TO SHEETMETAL AT WORKTABLE
   A1 B0 G3 A1 B0 P6 A0 1.00 110.

7 OPERATE DRILLMOTOR ON SHEETMETAL AT WORKTABLE AND ASIDE
PROCESS F 4
   A1 B0 G1 MS X6 IO A0 4.00 5.50.

8 GET+POSITION RIVETGUN TO SHEETMETAL AT WORKTABLE
   A1 B0 G3 A1 B0 P6 A0 1.00 110.

9 OPERATE RIVETGUN ON SHEETMETAL AT WORKTABLE PROCESS F 4
   A1 B0 G1 M6 X3 I0 A0 4.00 440.

10 FITTER MOUE FLANGE FROM FLANGEAREA TO WORKTABLE
    A152B0 G1 A152B3 P1 A0 1.00 30901

11 GET+PLACE SHEETMETAL ( FLANGE COLLAR ) FROM WORKTABLE
    TO SHEETMETAL ( TRANSFORMER COLLAR ) AT WORKTABLE WITH
    5 STEPS
    A1 B0 G3 A10 PO P3 A0 1.00 170.

12 MARK SHEETMETAL ( FLANGE COLLAR ) AT WORKTABLE 16
    DIGITS USING AWL AND ASIDE
    B0 G1 B0 P1 R54 A1 B0 P1 A0 1.00 600.

13 CUT SHEETMETAL ( FLANGE COLLAR ) AT WORKTABLE 4 CUTS
    USING SNIPS AT WORKTABLE AND ASIDE
    A1 B0 G1 A1 PO P3 C6 A1 B0 P1 A0 1.00 140

14 GET+PLACE SHEETMETAL AND FLANGE FROM WORKTABLE TO CART
    AT WORKTABLE WITH 8 STEPS
    A1 B0 G3 A16 B0 P3 A0 1.00 230.

15 MOUE CART WITH SHEETMETAL FROM WORKTABLE TO WELDOUT ( TABLE )
    A1 B0 G1 A54 B3 P1 A0 1.00 600.
ype D, EM, CT, EX, T, W <or H for help> ?

TOTAL THU 7100.

61,870
TACK WELD COLLAR ON SQUARE TO ROUND (#3) WITH TACKWELDER AT SHEETMETAL SHOP

PER SQUARE TO ROUND

HULL 420

* DRAWING 501-062
* V2-62003
* V6-703
* 20 GAUGE GALV. SHEETMETAL
* DIMENSIONS: 9 1/2X13 1/2 TO 12' DIAX18'L
* WELDING OPERATIONS IN MWELD PROGRAM

FITTER BEGINS AT WELDOUT

1. MOVE SHEETMETAL FROM CART 4 STEPS AT WELDOUT TO WELDOUT (TABLE) WITH 4 STEPS

2. PLACE SHEETMETAL2 (COLLAR) FROM WELDOUT (TABLE) TO SHEETMETAL (TRANSFORMER AT WELDOUT (TABLE) WITH 6 STEPS

3. GRIP SHEETMETAL2 AT WELDOUT (TABLE) USING VISE-GRIPS AT WELDOUT AND ASIDE PF 2 (4 5 6 7)

4. POSITION TACKWELDER FROM WELDOUT TO SHEETMETAL AT WELDOUT F 10

5. OPERATE TACKWELDER 'ON SHEETMETAL AT WELDOUT PROCESS F 10

6. REPLACE SHEETMETAL FROM WELDOUT (TABLE) TO CART AT WELDOUT WITH 8 STEPS

7. MOVE CART WITH SHEETMETAL2 FROM WELDOUT TO WORKTABLE

TOTAL TMU 3240.

Type D, EM, CT, EX, T, W <or H for help> ?
Please input file <SQ2RND.M09>. ?

1st Description ? WELD SQUARE TO ROUND

Output to line-printer <Y or N> ? N

( 39,101)
WELD .WO1 SQ2RND.M09
WELD SQUARE TO ROUND WITH TIG-WELDER AT SHEETMETAL SHOP
WELDING BOOTH
PER SQUARE TO ROUND OFG: 4 20-JUL-83

WELDING NASSCO SHEETMETAL SHAPE 3
* HULL 420
* DRAWING 501-062
* V2-62003
* V6-703
* 20 GAUGE GALV. SHEETMETAL
* 9 1/2 X 13 1/3' TO 12' DIAMETER X 18'L
* WELDING DONE IN WELD BOOTH AREA
* WELDOR PERFORMS WORK
* FITTER TRANSPORTS SHEETMETAL

FITTER BEGINS AT WORKTABLE

1 FITTER PLACE SHEETMETAL ASSEMBLY FROM WORKTABLE TO CAR
   AT WORKTABLE WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0  2.00  220.

2 FITTER MOUE CART FROM WORKTABLE TO WELDTABLE
   A1 B0 G1 A131B3 P1 A0  1.00  1370.

3 PLACE SHEETMETAL ASSEMBLY FROM CART AT WELDTABLE TO
   WELDTABLE WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0  2.00  220.

4 WELDOR PUSH POWER SUPPLY BUTTON FROM OFF AT
   WELDMACHINES TO ON AT WELDMACHINES WITH 16 STEPS
   A3 B0 G1 M1 X0 IO A32  1.00  370.

5 WELDOR PUSH GAS-HOOKUP-SWITCH FROM OFF AT WELDMACHINES
   TO ON AT WELDMACHINES
   A1 B0 G1 M1 X0 IO A1  1.00  40.

4 WELDOR FASTEN CURRENT SELECTOR HANDLE AT WELDMACHINES 1
   WRIST-TURN USING HAND
   A1 B0 G1 A1 B0 P1 F3 A0 B0 PO A0  1.00  70.

7 WELDOR TURN OUTPUT CONTROL LEVER FROM OFF AT
   WELDMACHINES TO ON AT WELDMACHINES
   A1 B0 G1 M3 X0 IO A1  1.00  60.

8 WELDOR POSITION ANTI-SPATTER SPRAY CAN FROM WELDTABLE
   TO SHEETMETAL ASSEMBLY AT WELDTABLE
   A3 B3 G1 A1 B0 B0 P6 A0  1.00  140.

9 WELDOR PUSH ANTI-SPATTER2 SPRAY CAN PROCESS
   A1 B0 G1 M1 X10 IO A0  1.00  130.

10 WELDOR POSITION WELDROD FROM WELDTABLE TO SHEETMETAL
    ASSEMBLY AT WELDTABLE F 4
    A1 B0 G1 A1 E0 P6 A0  6.00  540.

11 PULL WELDHOOD FROM UP AT WELDOR TO DOWN AT WELDOR F 6
    A1 B0 G1 M1 X0 IO A1  6.00  240.

12 WELDOR POSITION WELDGUN FROM WELDTABLE TO SHEETMETAL
    ASSEMBLY AT WELDTABLE WITH PARTIAL BEND F 4
    A1 B0 G1 A1 B6 P6 A0  6.00  900.
13 OPERATE WELD STINGER-BUTTON1 PROCESS F 12
   A1 B0 G1 M6 X81 IO A0 12.00 10680.
14 PUSH WELDHOOD FROM DOWN AT WELDOR TO UP AT WELDOR F 4
   A1 B0 G1 M1 X0 IO A1 6.00 240.
15 WELDOR DEBURR WELDED ASSEMBLY AT WELDTABLE 10
   ARM-STROKES USING WIREBRUSH AT WELDTABLE AND ASIDE PF
   12 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 C10 )A1 B0 P1 A0 (12) 1000 1480.
16 REPLACE SHEETMETAL ASSEMBLY FROM WELDTABLE TO CART AT
   WELDTABLE WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0 2.00 220.
17 FITTER MOVE CART FROM WELDTABLE TO WORKTABLE
   A1 B0 G1 A131BO P1 A0 1.00 1340.

TOTAL TMU 18260.

File Description ? WELD SQUARE TO ROUND

Output to line-printer <Y or N> ? C
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<tr>
<th>Step</th>
<th>Description</th>
<th>TMU</th>
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<tbody>
<tr>
<td>1</td>
<td>Place sheetmetal from cart at worktable to worktable with 8 steps</td>
<td>210</td>
</tr>
<tr>
<td>2</td>
<td>Mark rivet holes on sheetmetal at worktable from rivet-hole-guide 1 digit</td>
<td>840</td>
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<tr>
<td></td>
<td>using blackpen at worktable and aside pf 16</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Position drillmotor to sheetmetal at worktable f 16</td>
<td>1440</td>
</tr>
<tr>
<td>4</td>
<td>Operate drillmotor on sheetmetal at worktable process f 16</td>
<td>1440</td>
</tr>
<tr>
<td>5</td>
<td>Position rivetgun to sheetmetal at worktable f 16</td>
<td>2240</td>
</tr>
<tr>
<td>6</td>
<td>Operate rivetgun on sheetmetal at worktable process f 16</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Position caulkinggun to sheetmetal at worktable f 2</td>
<td>1740</td>
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<tr>
<td>8</td>
<td>Grip sealant to sheetmetal difficult using caulkinggun and aside pf 25</td>
<td>3040</td>
</tr>
<tr>
<td>9</td>
<td>Inspect sheetmetal at worktable 9 points</td>
<td>100</td>
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**Total TMU:** 11250
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<tr>
<th>Task</th>
<th>Time</th>
<th>Notes</th>
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<tr>
<td>Fab</td>
<td>25550</td>
<td>21 min</td>
</tr>
<tr>
<td>Mark Off</td>
<td>20160</td>
<td>12 min</td>
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<tr>
<td>Weld</td>
<td>36850</td>
<td>22 min</td>
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<td>Total Thu</td>
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<td>56 min</td>
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</table>
File Description: MARK OUT SHEETMETAL FOR SQUARE TO ROUND

Output to line-printer <Y or N>? N

( 39, 1)

FIT  * M50

MARK OUT SHEETMETAL FOR SQUARE TO ROUND WITH AWL AT SHEETMETAL

SHOP

PER SQUARE TO ROUND

OFG: 4  25-MAY-83

NASSCO SHEETMETAL SHAPE 3

* 11 GAUGE GALV. SHEETMETAL
* 14'X12'X13' DIAMETER SQUARE TO ROUND
* MARK OUT WITH TEMPLATE
* MARK OUT COLLAR WITHOUT TEMPLATE

FITTER BEGINS AT WORKTABLE

1. POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS F 2
   A1  B0  G1  A6  B0  P6  A0  2.00  280.

2. POSITION WEIGHTS FROM WORKTABLE TO TEMPLATES AT WORKTABLE WITH 3 STEPS F 4
   A1  B0  G1  A6  B0  P6  A0  4.00  560.

3. MARK OUTLINE ON SHEETMETAL FROM TEMPLATE AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7)
   A1  B0  G1  (A1  B0  P1  R16 )A1  B0  P1  A0  (6)  1.00  1120.

4. POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS F 34
   A1  B0  G1  A3  B0  P6  A0  34.00  3740.

5. FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE AND ASIDE PF 34 1 4 5 6 7 )
   A1  B0  G1  (A1  B0  PO  P3 )A1  B0  P1  A0  (34)  1.00  1400.

6. REPLACE WEIGHTS FROM SHEETMETAL AT WORKTABLE TO
   WORKTABLE WITH 3 STEPS F 4
   A1  B0  G1  A6  B0  P3  A0  4.00  440.

7. REPLACE TEMPLATES FROM SHEETMETAL AT WORKTABLE TO
   WORKTABLE WITH 3 STEPS F 2
   A1  B0  G1  A6  B0  P3  A0  2.00  220.

8. MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7 )
   A1  B0  G1  (A1  B0  P1  R16 )A1  B0  P1  A0  (6)  1.00  1120.

9. MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 98 ( 4 5 6 7 )
   A1  B0  G1  (A1  B0  P1  R3 )A1  B0  P1  A0  (98)  1.00  4940.

10. MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 ( 4 5 6 7)
    A1  B0  G1  (A1  B0  P1  R3 )A1  B0  P1  A0  (52)  1.00  2640.

11. MEASURE DIMENSIONS ON SHEETMETAL [FOR COLLAR] AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE PF 2 ( 4 5 6 7 )
    A1  B0  G1  (A1  B0  P1  M32 )A1  B0  P1  A0  (2)  1.00  720.

12. MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF 2 ( 4 5 6 7 )
    A1  B0  G1  (A1  B0  P1  R3 )A1  B0  P1  A0  (2)  1.00  140.

13. POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT
14 **MARK LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 2 (4 5 6 7)**
   A1 B0 G1 (A1 B0 P1 R16 A1 B0 P1 A0) (2) 1.00 400.

15 **MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING RED PEN AT WORKTABLE AND ASIDE**
   A1 B0 G1 A1 B0 P1 R16 A1 B0 P1 A0 1.00 220.

16 **MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACK PEN AT WORKTABLE AND ASIDE PF 6 (4 5 6 7)**
   A1 B0 G1 (A1 B0 P1 R3 A1 B0 P1 A0) (6) 1.00 340.

17 **MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACK PEN AT WORKTABLE AND ASIDE PF 12 (4 5 6 7)**
   A1 B0 G1 (A1 B0 P1 R3 A1 B0 P1 A0) (12) 1.00 640.

18 **PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2**
   A1 B0 G1 A6 B0 P3 A0 2.00 220.

19 **MOVE CART FROM WORKTABLE TO 14FT. SHEAR**
   A1 E0 G1 A81 B0 P1 A0 1.00 840.

**TOTAL TMU** 20160.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, w <or H for help> ?
File Description: SHEAR SHEETMETAL FOR SQUARE ID ROUND

Output to line-printer <Y or N>? N

FIT .W11
SQ2RND,M51
SHEAR SHEETMETAL FOR SQUARE TO ROUND WITH 14FT, SHEAR AT
SHEETMETAL SHOP
PER SQUARE TO ROUND
OFG: 4 25-MAY-83
NASSCO SHEETMETAL SHAPE 3
* 11 GAUGE GALV. SHEETMETAL
* 14'X12'X13' DIAMETER SQUARE TO ROUND
* SHEAR 1 1/2' STRIP FOR COLLAR
FITTER BEGINS AT 14FT.SHEAR

1 POSITION SHEETMETAL FROM CART AT 14FT.SHEAR TO
14FT.SHEAR WITH 4 STEPS F 2
A1 B0 G1 A6 B0 P6 A0 2.00 280.

2 PUSH 14FT.SHEAR-FOOTPEDAL PROCESS F 2
A1 B0 G1 M1 X3 IO A0 2.00 120.

3 POSITION SHEETMETAL FROM 14FT.SHEAR TO 14FT.SHEAR WITH
2 STEPS F 13
A1 B0 G1 A3 B0 P6 A0 13.00 1430,

4 PUSH 14FT.SHEAR-FOOTPEDAL. PROCESS F 16
A1 B0 G1 M1 X3 IO A0 16.00 960.

5 REPLACE SHEETMETAL FROM 14FT.SHEAR TO CART AT
14FT.SHEAR WITH 4 STEPS
A1 B0 G1 A6 B0 P3 A0 1.00 110.

6 MOVE CART FROM 14FT.SHEAR TO WORKTABLE
A1 B0 G1 A81 B3 P1 A0 1.00 870.

TOTAL TMU 3770.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?
File Description - CUT RADIUS FOR SQUARE TO ROUND

Output to line-printer <Y or N> ? N

( 39, 1)
FIT .W11 SQ2RND.M52
CUT RADIUS FOR SQUARE TO ROUND WITH SABER-SAW AT SHEETMETAL SHOP
PER SQUARE TO ROUND OFG: 4 25-MAY-83
NASSCO SHEETMETAL SHAPE 3
* 11 GAUGE GALV. SHEETMETAL
* 14'X12'X13' DIAMETER SQUARE TO ROUND
* CUT RADIUS AND CORNERS WITH UNI-SHEAR
FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL FROM ART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 2
   A1 B0 G1 A6 H0 P3 A0 2.00 220.
2 MOVE SABER-SAW FROM TOOLROOM TO WORKTABLE
   A96 B0 G1 A96 B3 P1 A0 1.00 1970.
3 OPERATE SABER-SAW AT WORKTABLE PROCESS F 4
   A1 B0 G1 M6 X67 I0 A0 4.00 3000.
4 REPLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 110.
5 MOVE CART FROM WORKTABLE TO 14FT HYDROPRESS BRAKE
   A1 H0 G1 A96 B0 P1 A0 1.00 990.

   TOTAL TMU 6290.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

/ 0, 0 6 U
File Description ? BEND RADIUS FOR SQUARE TO ROUND

Output to line-printer <Y or N> ? N

( 39, 1)
FIT .W11 SQ2RND.M53
BEND RADIUS FOR SQUARE TO ROUND WITH 14FT. HYDRO-PRESS-BRAKE AT
SHEETMETAL SHOP
PER SQUARE TO ROUND OFG: 4 25-MAY-83
NASSCO SHEETMETAL SHAPE 3
* 11 GAUGE GALV. SHEETMETAL
* 14'X12'X13' DIAMETER SQUARE TO ROUND
* BEND RADIUS FOR SQUARE TO ROUND
FITTER BEGINS AT 14FTHYDROPRESSBRAKE

1 POSITION SHEETMETAL FROM CART AT 14FTHYDROPRESSBRAKE
TO 14FTHYDROPRESSBRAKE WITH 4 STEPS F 2
A1 B0 G1 A6 B0 P6 A0 2.00 280.
2 PUSH 14FTHYDROPRESSBRAKE-FOOTPEDAL PROCESS
A1 B0 G1 M1 X24 IO A0 1.00 270.
3 POSITION SHEETMETAL2 FROM 14FTHYDROPRESSBRAKE TO
14FTHYDROPRESSBRAKE WITH 3 STEPS F 31
A1 B0 G1 A6 B0 P6 A0 31.00 4340.
4 PUSH 14FTHYDROPRESSBRAKE-FOOTPEDAL PROCESS F 31
A1 B0 G1 M1 X24 IO A0 31.00 8370.
5 REPLACE SHEETMETAL FROM 14FTHYDROPRESSBRAKE TO CART AT
14FTHYDROPRESSBRAKE WITH 4 STEPS F 2
A1 B0 G1 A6 B0 P3 A0 2.00 220.
6 MOVE CART FROM 14FTHYDROPRESSBRAKE TO ROLLER
A1 B0 G1 A54 B0 P1 A0 1.00 570.

TOTAL TMU 14050.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ? 24110
Output to line-printer <Y or N> ? N

( 39, 1)
FIT  • W1 SQ2RND.M54
  FORM COLLAR FOR SQUARE TO ROUND WITH ROLLER (ROLL FORMER) AT
  SHEETMETAL SHOP
PER SQUARE TO ROUND OFG: 4 25-MAY-83
  NASSCO SHEETMETAL SHAPE 3
  * 11 GAUGE GALV. SHEETMETAL
  * 14'X12'X13' DIAMETER SQUARE TO ROUND
  * ROLL UP 13'DIAMETER COLLAR FOR--
  * --SQUARE TO ROUND
  * CHECK DIAMETER WITH RADIUS ON SQUARE--
  * --TO ROOUND
  * COMPLETE IN WELD BOOTH AREA
  * SEE MWELD . . . SEE SQ2RND.M55
  FITTER BEGINS AT ROLLER

1 POSITION SHEETMETAL2 FROM CART AT ROLLER TO ROLLER WITH
  4 STEPS
A1 B0 G1 A6 B0 P6 A0  1.00  140.
2 FASTEN NUT [ROLLS] TO SHEETMETAL2 AT WORKTABLE 3
  WRIST-TURNS USING HAND F 4
A1 B0 G1 A54 B3 P1 F6 A0 B0 P0 A0  4.00  2640.
3 PUSH ROLLER-BUTTON PROCESS F 4
  A54 B0 G1 M1 X96 IO A0  4.00  6080.
4 PosITIon SHEETMETAL2 [COLLAR FROM WORKTABLE TO
  SHEETMETAL [SQUARE TO ROUND] AT WORKTABLE WITH ?
  STEPS F 2
A54 B3 G1 A3 B0 P6 A0  2.00  1340.
5 REPLACE SHEETMETAL2 FROM ROLLER TO CART AT ROLLER WITH
  4 STEPS
A54 B0 G1 A6 B0 P3 A0  1.00  640.
6 MOUE CART FROM ROLLER TO WORKTABLE
  A1 B0 G1 A54 B3 P1 A0  1.00  600.

  TOTAL TMU  11440.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

35,550
Please input file <SQ2RND.M55> ?

'De Description ? WELD SQUARE TO ROUND

Output to line-Printer <Y or N> ? N

( 39,101)
WELD ● W01
SR2RND.M55
WELD SQUARE TO ROUND WITH ARC (STICK) WELDER AT SHEETMETAL SHOP
WELDING BOOTH
PER SQUARE TO. ROUND
WELDING NASSCO SHEETMETAL SHAPE 3
* 11 GAUGE GALV. SHEETMETAL
* 14X12X13"DIAMETER SQUARE TO ROUND X20'L
* WELDOR PERFORMS THE WORK
* FITTER TRANSPORTS SHEETMETAL
FITTER BEGINS AT WORKTABLE

1 FITTER PLACE SHEETMETAL ASSEMBLY FROM WORKTABLE TO CART
   AT WORKTABLE WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0 2.00 220.
2 FITTER MOVE CART FROM WORKTABLE TO WELDTABLE
   A1 B0 G1 A131B3 F1 A0 1.00 1370.
3 PLACE SHEETMETAL ASSEMBLY FROM CART AT WELDTABLE TO
   WELDTABLE WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0 2.00 220.
4 WELDOR PUSH POWER SUPPLY BUTTON FROM OFF AT WELDMACHINES TO ON AT WELDMACHINES WITH 16 STEPS
   A3 B0 G1 M1 X0 IO A32 1.00 370.
5 WELDOR TURN CURRENT OUTPUT CONTROL LEVER FROM OFF AT WELDMACHINES TO ON AT WELDMACHINES
   A1 B0 G1 M3 X0 IO A1 1.00 60.
6 WELDOR POSITION ANTI-SPATTER SPRAY CAN FROM WELDTABLE
   TO SHEETMETAL ASSEMBLY AT WELDTABLE F 2
   A3 B3 G1 A1 B0 F6 A0 2.00 280.
7 WELDOR PUSH ANTI-SPATTER2 SPRAY CAN PROCESS F 2
   A1 B0 G1 M1 X10 IO A0 2.00 260.
8 WELDOR FASTEN WELDROD TO STINGER AT WELDTABLE 1
   WRIST-TURN USING HAND F 17
   A1 B0 G1 A1 B0 P1 F3 A0 B0 P0 A0 17.00 1190.
9 PULL WELDHOOD FROM UP AT WELDOR TO DOWN AT WELDOR F 17
   A1 B0 G1 M1 X0 IO A1 17.00 680.
10 WELDOR POSITION STINGER-BUTTON1 FROM WELDTABLE TO
    SHEETMETAL ASSEMBLY AT WELDTABLE F 17
    A1 B0 G1 A1 B0 F6 A0 17.00 1530.
11 OPERATE WELD STINGER-BUTTON2 AT WELDTABLE PTIME 65 S F 13
    A1 B0 G1 M6 X173I0 A0 13.00 23530.
12 PUSH WELDHOOD FROM DOWN AT WELDOR TO UP AT WELDOR
    A1 B0 G1 M1 X0 IO A1 1.00 40.
13 WELDOR LOOSEN SLAG FROM SHEETMETAL ASSEMBLY AT
    WELDTABLE 6 STRIKES USING SLAGHAMMER AT WELDTABLE AND
    ASIDE PF 13 ( 4 5 6 7 )
    A1 B0 G1 ( A1 B0 P0 L16 ) A1 B0 P1 A0 (13) 1.00 2230.
14 WELDOR DEBURR WELDED ASSEMBLY AT WELDTABLE 10
   ARM-STROKES USING WIREBRUSH AT WELDTABLE AND ASIDE PF
File Description ? WELD SQUARE TO ROUND

Output to line-printer <Y or N> ?
**SHEET METAL SHAPE**


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56 MIN.
Please input file <R02RO.M01>?

File Description: MAKE READY SHEETMETAL FOR MARK OUT (R02RO)

Output to line-printer <Y or N> ? N

FIT .wo4

MOVE SHEETMETAL FOR MARK OUT (ROUND TO ROUND) WITH CART AT SHEETMETAL SHOP PER 1 4X8 SHEET (1 ROUND TO ROUND) OFG: 4 03-MAR-83

HULL 420
* DRAWING 501-062
* V2-62003
* V6-588
* 20 GAUGE GALV. SHEETMETAL
* DIMENSIONS: 15 3/4" DIA TO 12" DIA X 22" L
* ONE 4X8 SHEET FOR ONE ROUND TO ROUND

FITTER BEGINS AT WORKTABLE

1 MOVE TEMPLATE AND SKETCH FROM TEMPLATE RACK TO WORKTABLE WITH 40 STEPS
2 MOVE SKETCH TO FITTER FROM WORKTABLE AND ASIDE
3 READ SKETCH AT WORKTABLE 59 WORDS
4 MOVE CART FROM WORKTABLE TO SHEETMETAL-STORAGE
5 PLACE GAUGED-SHEETMETAL WITH 6 STEPS FROM SHEETMETAL-STORAGE TO CART AT SHEETMETAL-STORAGE F 2
6 MOVE CART WITH GAUGED-SHEETMETAL FROM SHEETMETAL-STORAGE TO WORKTABLE
7 PLACE 20 GAUGED-SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 8 STEPS

TOTAL TMU 4700.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W < or H for help> ?
Please input file (R02RO.M02 > ?

File Description ? MARK OUT ROUND TO ROUND.

Output to line-printer <Y or N> ? N

FIT .wo4
MARK OUT SHEETMETAL FOR ROUND TO ROUND WITH AWL AT SHEETMETAL SHOP

PER ROUND TO ROUND
OF G: 4  03-MAR-83
HULL 420
* DRAWING 501-062
* V2-62003
* V6-588
* 20 GAUGE GALV. SHEETMETAL
* DIMENSIONS: 15 3/4" DIA TO A 12'DIA X 22'L
* 1 TEMPLATE & 1 PIECE
FITTER BEGINS AT WORKTABLE

1 POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS
A1 B0 G1 A3 B0 P6 A0 1.00 110.

2 PLACE WEIGHTS FROM WORKTABLE TO TEMPLATE ON WORKTABLE WITH 2 STEPS F 2
A1 B0 G1 A3 B0 P3 A0 2.00 160

3 MARK OUTLINE ON METAL FROM TEMPLATE 16 DIGITS USING AWL AND ASIDE PF 4 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 R54 )A1 B0 P1 A0 (4) 1.00 2280.

4 REPLACE WEIGHTS FROM TEMPLATE ON WORKTABLE TO WORKTABLE WITH 2 STEPS F 2
A1 B0 G1 A3 B0 P3 A0 2.00 160

5 REMOVE TEMPLATE FROM SHEETMETAL ON WORKTABLE TO WORKTABLE
A1 B0 G1 A1 B0 F1 A0 1.00 40.

6 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 16 DIGITS USING REDPEN AT WORKTABLE AND ASIDE P1 20 (7)
A1 B0 G1 A1 B0 P1 (R54 )A1 B0 P1 A0 (20) 1.00 10860.

7 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AND HOLD PF 23 (7)
A1 B0 G1 A1 B0 P1 (R3 A0 B0 P0 A0 (23) 1.00 730.

8 FITTER MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 16 DIGITS USING BLACKPEN AND ASIDE PF 2 (7)
A1 B0 G1 A1 B0 P1 (R54 )A1 B0 P1 A0 (2) 1.00 1140.

TOTAL TMU 15480.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

SHEAR SHEETMETAL FOR ROUND TO ROUND (TRANSITION) WITH SMALL SHEAR (8 FT, SHEAR) AT SHEETMETAL SHOP PER ROUND TO ROUND OFG: 4 01-MAR-83

HULL 420
* DRAWING 501-062
* V2-62003
* V6-588
* 20 GAUGE GALV, SHEETMETAL
* DIMENSIONS: i5 3/4' DIA TO A 12' DIA X 22' L
FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 3 STEPS
   A1 B0 G1 A16 B0 P3 A0 1.00 210
2 MOVE CART WITH SHEETMETAL2 FROM WORKTABLE TO SMALLSHEAR
   A1 B0 G1 A67 B0 P1 A0 1.00 700
3 POSITION 4X8 SHEETMETAL FROM CART AT SMALLSHEAR TO SMALLSHEAR WITH 3 STEPS F 2
   A1 B0 G1 A5 B0 P6 A0 2.00 280
4 PUSH FOOTPEDAL AT SMALLSHEAR CUTTING SHEETMETAL PROCESS
   A1 B0 G1 M1 X6 I0 A0 1.00 90
5 POSITION SHEETMETAL3 FROM SMALLSHEAR TO SMALLSHEAR WITH 3 STEPS F 6
   A1 B0 G1 A6 B0 P6 A0 6.00 840
6 PUSH FOOTPEDAL AT SMALLSHEAR FOR CUTTING SHEETMETAL PROCESS F 8
   A1 B0 G1 M1 X6 I0 A0 3.00 720
7 PLACE SHEETMETAL FROM SMALLSHEAR TO CART AT SMALLSHEAR WITH 16 STEPS PBEND
   A1 B0 G1 A32 B3 P3 A0 1.00 400
8 MOVE CART WITH SHEETMETAL FROM SMALLSHEAR TO WORKTABLE
   A1 B0 G1 A67 B3 P1 A0 1.00 730

TOTAL TMU 3970

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?
File Description ? SHEAR ROUND TO ROUND WITH UNI-SHEAR

Output to line-printer <Y or N>. ? N

( 39, 3)
FIT .wo4

SHEAR SHEETMETAL FOR ROUND TO ROUND WITH UNI-SHEAR AT SHEETMETAL

SHUP
PER ROUND TO ROUND
HULL 420
* DRAWING 501-062
* V2-62003
* V6-588
* 20 GAUGE GALV. SHEETMETAL
* DIMENSIONS:15 3/4'TO 12'DIA X 22'L
FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 6 STEPS
   A1 B0 G1 A10 B0 P3 A0 1.00 150.
2 OPERATE UNISHEAR AT WORKTABLE PROCESS PF 7 (5)
   A1 B0 G1 M6 (X173)10 A0 (7) 1.00 12190.
3 PLACE (ASIDE) UNISHEAR FROM WORKTABLE TO WORKTABLE
   A1 B0 G1 A1 B0 P3 A0 1.00 60.
4 MEASURE SHEETMETAL (FLANGE & TRANS, COLLARS) LENGTH AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE PF 2 (4 5 6 7)
   A1 B0 G1 (A1 B0 P1 M32 )A1 B0 P1 A0 (2) 1.00 720.
5 MARK LENGTH ON SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AND ASIDE PF 2 (1 2 3 4 5 6 7)
   (A1 B0 G1 A1 B0 P1 R3 )A1 B0 P1 A0 (2) 1.00 160.
6 CUT SHEETMETAL AT WORKTABLE 1 CUT USING SNIPS AT WORKTABLE AND ASIDE PF 2 (1 2 3 4 5 6 7)
   (A1 B0 G1 A1 B0 P3 C1 )A1 B0 P1 A0 (2) 1.00 160.

TOTAL TMU 13440.

Type D,EM,CT,Ew,EX,L,LD,LS,M,T,W <or H for help> ?

/74 1 0
FORM SHEETMETAL FOR ROUND TO ROUND WITH ROLLER (ROLL FORMER) AT SHEETMETAL SHOP
PER ROUND TO ROUND OFG: 4 02-MAR-83

HULL 420
* DRAWING 501-062
* V2-62003
* V6-588
* 20 GAUGE GALV. SHEETMETAL
* DIMENSIONS: 15 3/4"DIA TO 12"DIA X 22"L
* ROLLER IS ALSO ROLL FORMER

FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL, HAMMER, CLAMP, FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 110.

2 MOVE CART WITH SHEETMETAL, HAMMER, CLAMP FROM WORKTABLE TO ROLLER
   A1 B0 G1 A54 B0 F1 A0 1.00 570.

3 PLACE SHEETMETAL FROM CART AT ROLLER TO ROLLER WITH 3 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 110.

4 FASTEN SHEETMETAL2 (KINK END) TO ROLLER 13 STRIKES
   USING HAMMER AND ASIDE PF 2 (4 5 6 7)
   A1 B0 G1 (A1 B0 P0 F32) A1 B0 P1 A0 (2) 1.00 700.

5 PLACE SHEETMETAL2 FROM ROLLER TO ROLLER
   A1 B0 G1 A1 B0 P3 A0 1.00 570.

6 FASTEN (ROLLS) NUT TO SHEETMETAL AT ROLLER 5
   WRIST-STROKES USING HAND F 4
   A1 B0 G1 A1 B0 P1 F16 A0 B0 P0 A0 4.00 800.

7 OPERATE ROLLER-BUTTON AT ROLLER PROCESS  F 4
   A1 B0 G1 M6 X96 I0 A0 4.00 4160.

8 REPLACE SHEETMETAL FROM ROLLER TO CART AT ROLLER WITH 3 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 110.

9 PLACE SHEETMETAL (COLLAR) FROM CART AT ROLLER TO ROLLS WITH 3 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 110.

10 FASTEN SHEETMETAL (KINK END) TO ROLLER 4 STRIKES
    USING HAMMER AND ASIDE PF (4 5 6 7)
   A1 B0 G1 (A1 B0 P0 F10) A1 B0 P1 A0 (2) 1.00 260.

11 PLACE SHEETMETAL FROM ROLLER TO ROLLER F 2
   A1 B0 G1 A1 B0 P3 A0 2.00 120.

12 FASTEN (ROLLS) NUT TO SHEETMETAL AT ROLLER 5
   WRIST-STROKES USING HAND F 2
   A1 B0 G1 A1 B0 P1 F16 A0 B0 P0 A0 2.00 400.

13 OPERATE-ROLLER-BUTTON AT ROLLER PROCESS F 8
   A1 B0 G1 M6 X96 I0 A0 3.00 8320.

14 REPLACE SHEETMETAL (COLLARS) AND HAMMER FROM ROLLER TO CART AT ROLLER WITH 3 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 110.

15 MOVE CART FROM ROLLER TO WELDOUT
Type D, EM, CT, EW, EX, LS, LD, LS, M, T, W <or H for help>?
TACK WELD SHEETMETAL FOR ROUND TO ROUND WITH TACK WELDER AT SHEETMETAL SHOP PER ROUND TO ROUND

OF: 4 02-MAR-33

HULL 420
* DRAWING 501-062
* V2-62003
* V6-588
* 20 GAUGE GALV. SHEETMETAL
* DIMENSIONS: 15m3/4'DIA TO 12'DIA X 22'L
* ADDITIONAL WELDING SEE MWELD
FITTER BEGINS AT WELDOUT

1 PLACE SHEETMETAL FROM CART AT WELDOUT TO WELDOUT TABLE WITH 3 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 10.

2 MOVE FLANGE FROM FLANGE AREA TO WELDOUT
   A152 B0 G1 A152 B3 P1 A0 1.00 3090.

3 MOVE VISEGRIPS FROM WORKTABLE TO WELDOUT
   A54 B3 G1 A54 B3 P1 A0 1.00 1160.

4 GRIP SHEETMETAL AT WELDOUT USING VISEGRIPS AT WELDOUT HAD ASIDE
   A1 B0 G1 A1 B0 P3 C1 A1 P0 P1 A0 1.00 90.

5 POSITION TACKWELDER FROM WELDOUT TO SHEETMETAL2 AT WELDOUT F 5
   A1 B0 G1 A1 B0 P6 A0 5.00 450.

6 OPERATE TACKWELDER ON SHEETMETAL AT WELDOUT PROCESS F 5
   A1 B0 G1 M6 x3 I0 A0 5.00 550.

7 PLACE SHEETMETAL ( COLLAR ) FROM WELDOUT ( TABLE ) TO SHEETMETAL2 ( ROUND TO ROUND ) AT WELDOUT
   A1 B0 G1 A1 B0 P3 A0 1.00 60.

8 OPERATE TACKWELDER ON SHEETMETAL2 AT WELDOUT PROCESS F 8
   A1 B0 G1 M6 x3 I0 A0 S100 880.

9 POSITION SHEETMETAL ( FLANGE COLLAR ) FROM WELDOUT ( TABLE ) TO FLANGE AT WELDOUT
   A1 B0 G1 A1 B0 P6 A0 1.00 90.

10 POSITION TACKWELDER FROM WELDOUT TO SHEETMETAL2 AT WELDOUT
    A1 B0 G1 A1 B0 P6 A0 1.00 90.

11 OPERATE TACKWELDER ON SHEETMETAL2 AT WELDOUT PROCESS F 8
    A1 B0 G1 M6 x3 I0 A0 3.00 880.

12 REPLACE SHEETMETAL, VISEGRIPS FROM WELDOUT TO CART AT WELDOUT
    A1 B0 G1 A1 B0 P3 A0 1.00 60.

13 MOVE CART [ VISEGRIPS AND HAMMER ] FROM WELDOUT TO WORKTABLE
    A1 B0 G1 A54 B3 P1 A0 1.00 600.
WELD ROUND TO ROUND WITH TIG-WELDER AT SHEETMETAL SHOP

WELDING BOOTH
PER ROUND TO ROUND

WELDING. NASSCO SHEETMETAL SHAPE 4
* HULL 420
* DRAWING 501-062
* V2-62003
* V6-588
* 20 GAUGE GALV. SHEETMETAL
* 15 3/4 DIAMETER TO 12' DIAMETER X 22'LG
* WELDOR PERFORMS WORK
* FITTER TRANSPORT SHEETMETAL ASSEMBLY
FITTER BEGINS AT WORKTABLE

1 FITTER PLACE SHEETMETAL ASSEMBLY FROM WORKTABLE TO CART
AT WORKTABLE WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0  2.00  220.

2 FITTER MOVE CART FROM WORKTABLE TO WELDTABLE
   A1 B0 G1 A131B3 P1 A0  1.00  1370.

3 PLACE SHEETMETAL ASSEMBLY FROM CART AT WELDTABLE TO
WELDTABLE WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0  2.00  220.

4 WELDOR PUSH POWER SUPPLY BUTTON FROM OFF AT
WELDMACHINES TO ON AT WELDMACHINES WITH 16 STEPS
   A3 B0 G1 M1 X0 I0 A32  1.00  370.

5 WELDOR PUSH GAS-HOOKUP-SWITCH FROM OFF AT WELDMACHINES
TO ON AT WELDMACHINES
   A1 B0 G1 M1 X0 I0 A1  1.00  40.

6 WELDOR FASTEN CURRENT SELECTOR HANDLE AT WELDMACHINES 1
WRIST-TURN USING HAND
   A1 B0 G1 A1 B0 P1 F3 A0 B0 P0 A0  1.00  70.

7 WELDOR TURN OUTPUT CONTROL LEVER FROM OFF AT
WELDMACHINES TO ON AT WELDMACHINES
   A1 B0 G1 M3 X0 I0 A1  1.00  60.

8 WELDOR POSITION ANTI-SPATTER SPRAY CAN FROM WELDTABLE
TO SHEETMETAL ASSEMBLY AT WELDTABLE
   A3 B3 G1 A1 B0 P6 A0  1.00  140.

9 WELDOR PUSH ANTI-SPATTER2 SPRAY CAM ROCESS F 4
   A1 B0 G1 M1 X10 I0 A0  4.00  520.

10 WELDOR POSITION WELDROD FROM WELDTABLE TO SHEETMETAL
ASSEMBLY AT WELDTABLE F 7
    A1 B0 G1 A1 B0 P6 A0  7.00  630.

11 PULL WELDHOOD FROM UP AT WELDOR TO DOWN AT WELDOR F 4
    A1 B0 G1 M1 X0 I0 A1  4.00  160.

12 WELDOR POSITION WELDGUN FROM WELDTABLE TO SHEETMETAL
ASSEMBLY AT WELDTABLE *M(H PARTIAL BEND F 7
    A1 B0 G11 A1 6 P6 A0  7.00  1050.

13 OPERATE WELD STINGER-BUTTON1 PROCESS F 23
    A1 B0 G1 M6 X81 I0 A0  28.00  24920.

14 PUSH WELDHOOD FROM DOWN AT WELDOR TO UP AT WELDOR F 4
    A1 B0 G1 M1 X0 I0 A1  4.00  160.
WELDOR DEBURR WELDED ASSEMBLY AT WELDTABLE 5
ARM-STROKES USING WIREBRUSH AT WELDTABLE AND ASIDE PF
56 (4567)
A1 B0 G1 (A1 B0 P1 C6 )A1 B0 P1 A0 (56) 1.00 4520.
REPLACE SHEETMETAL ASSEMBLY FROM WELDTABLE TO CART AT
WELDTABLE WITH 4 STEPS F 2
A1 B0 G1 A6 B0 P3 A0 2.00 220.
FITTER MOUE CART FROM WELDTABLE TO WORKTABLE
A1 B0 G1 A131BO P1 A0 1.00 1340.

TOTAL TMU 36010.
### Sheet Metal Shape 4

30" dia. to 24" dia x 40" L6 Round to Round Transition

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5 Shifts.
File Description ? MARK OUT ROUND TO ROUND TRANSITION

Output to line-printer <Y or N> ? N

( 39, 1)
FIT .W11

MARK OUT ROUND TO ROUND TRANSITION WITH AWL AT SHEETMETAL SHOP
OFG: 4 26-MAY-83

NASSCO SHEETMETAL SHAPE 4
* 16 GAUGE GALV, SHEETMETAL
* 30'DIAMETER TO 24'DIAMETER X 40'L
* MARK OUT TRANSITION WITH TEMPLATE
* MARK OUT COLLARS WITHOUT TEMPLATE
FITTER BEGINS AT WORKTABLE

1 POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 4 STEPS
A1 B0 G1 A6 B0 P6 A0 1.00 140.

2 PLACE WEIGHT FROM WORKTABLE TO TEMPLATE AT WORKTABLE WITH 3 STEPS F 3
A1 B0 G1 A6 B0 P3 A0 3.00 330.

3 MARK OUTLINE FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (4) 1.00 760.

4 REPLACE WEIGHTS FROM TEMPLATE AT WORKTABLE TO WORKTABLE WITH 3 STEPS F 3
A1 B0 G1 A6 B0 P3 A0 3.00 330.

5 REPLACE TEMPLATES FROM SHEETMETAL AT WORKTABLE TO WORKTABLE WITH 4 STEPS
A1 B0 G1 A6 B0 P3 A0 1.00 110.

6 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING BLACKPEN AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (4) 1.00 760.

7 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 23 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (23) 1.00 1190.

8 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (52)1 1.00 2640.

9 MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P1 M32 )A1 B0 P1 A0 (4) 1.00 1400,

10 MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (6) 1.00 340.

11 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS F 4
A1 B0 G1 A3 B0 P6 A0 4.00 440.

12 MARK LINES FROM STRAIGHTEDGE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING BLACKPEN AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (4) 1.00 760.

13 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )
14 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 14 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (14) 1.00 740.
MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 12 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (12) 1.00 640.
16 PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0 2.00 700.
17 MOVE CART FROM WORKTABLE TO SMALLSHEAR
   A1 B0 G1 A67 B0 P1 A0 1.00 700.

TOTAL TMU. 12260.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?
File Description ? SHEAR SHEETMETAL FOR ROUND TO ROUND TRANSITION

Output to line-printer <Y or N> ? N

( 39, 1)
FIT .W11 R02RO .M21
SHEAR SHEETMETAL FOR ROUND TO ROUND TRANSITION WITH SMALL 8FT. SHEAR AT SHEETMETAL SHOP
PER ROUND TO ROUND OFG: 4 26-MAY-83
NASSCO SHEETMETAL SHAPE 4
* 16 GAUGE GALV. SHEETMETAL
* 30' DIAMETER TO 24' DIAMETER X 40'L
* SHEAR 1 1/2' STRIPS FOR COLLARS
FITTER BEGINS AT SMALLSHEAR

1 POSITION SHEETMETAL FROM CART AT SMALLSHEAR TO SMALLSHEAR WITH 4 STEPS F 2
A1 B0 G1 A6 B0 p6 A0 2.00 280.
2 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS
A1 B0 G1 M1 X6 IO A0 1.00 90.
3 POSITION SHEETMETAL FROM SMALLSHEAR TO SMALLSHEAR WITH 3 STEPS F 9
A1 B0 G1 A6 B0 p6 A0 9.00 1260.
4 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 9
A1 B0 G1 M1 X6 IO A0 9.00 810.
5 REPLACE SHEETMETAL FROM SMALLSHEAR TO CART AT SMALLSHEAR WITH 10 STEPS F 2
A1 B0 G1 A16 B0 P3 A0 2.00 420.
6 MOUE CART FROM SMALLSHEAR TO WORKTABLE
A1 B0 G1 A67 B3 F1 A0 1.00 730.

TOTAL TMU 3590,

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?
CUT RADIUS FOR ROUND TO ROUND TRANSITION

FIT

CUT RADIUS FOR ROUND TO ROUND TRANSITION WITH UNI-SHEAR AT

SHEETMETAL SHOP

ROUND TO ROUND

NASSCO SHEETMETAL SHAPE 4

* 16 GAUGE GALV. SHEETMETAL
* 30' DIAMETER TO 24' DIAMETER X 40' L

FITTER BEGINS AT WORKTABLE

POSITION SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 2

MOUE UNISHEAR FROM TOOLROOM TO WORKTABLE

OPERATE UNISHEAR AT WORKTABLE PROCESS F 14

FASTEN [FLATTEN] CORNERS ON SHEETMETAL AT WORKTABLE 3 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 4

REPLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2

MOUE CART FROM WORKTABLE TO ROLLER

TOTAL TMU

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W < or H for help > ?

33290
FORM RADIUS FOR ROUND TO ROUND TRANSITION WITH (ROLL FORMER) AT SHEETMETAL SHOP

NASSCO SHEETMETAL SHAPE 4
* 16 GAUGE GALV. SHEETMETAL
* 30' DIAMETER TO 24' DIAMETER X 40' L
* ROLL-UP TRANSITION AND COLLARS
FITTER BEGINS AT ROLLER

1 PLACE SHEETMETAL FROM CART AT ROLLER TO ROLLER WITH 4 STEPS F 3
   A1 B0 G1 A6 B0 P3 A0 3.00 330.

2 MOVE MALLET FROM TOOLROOM TO ROLLER
   A54 B0 G1 A54 B0 P1 A0 1.00 1100.

3 FASTEN SHEETMETAL [KINK END] AT ROLLER TO ROLLER 1 STRIKE USING MALLET AT ROLLER AND ASIDE PF 30 (4 5 6 7)
   A1 B0 G1 (A1 B0 PO F3 )A1 P0 P1 A0 (30) 1.00 1240.

4 PLACE SHEETMETAL FROM ROLLER TO ROLLER WITH 2 STEPS F 3
   A1 B0 G1 A3 B0 P3 A0 3.00 240.

5 FASTEN NUT [ROLLS] TO SHEETMETAL AT WORKTABLE 3 WRIST-STROKES USING HAND WITH 2 STEPS F 10
   A1 B0 G1 A54 B3 F1 F10 A0 B0 PO A0 10.00 7000.

6 OPERATE ROLLER-BUTTON PROCESS F 14
   A54 B0 G1 M6 X96 IO A0 14.00 21980.

7 REPLACE SHEETMETAL FROM ROLLER TO CART AT ROLLER WITH 4 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 110.

8 MOVE CART FROM ROLLER TO WELDOUT
   A1 B0 G1 A67 B3 P1 A0 1.00 730.

TOTAL TMU 32730.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?
FIT

TACK ROUND TO ROUND TRANSITION

NASSCO SHEETMETAL SHAPE 4
* 16 GAUGE GALV. SHEETMETAL
* 30'DIAMETER TO 24'DIAMETER X 40'L
* TACK WELD COLLAR TO TRANSITION
* COMPLETE IN WELD BOOTH AREA
* SEE MWELD..SEE R02RO.M25
FITTER BEGINS AT WELDOUT

1 PLACE SHEETMETAL2 FROM CART AT WELDOUT TO WELDOUT WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0   2.00   220.

2 MOUE UISERGRIPS FROM WORKTABLE TO WELDOUT
   A54 B3 G1 A54 B3 P1 A0   1.00   1160.

3 POSITION SHEETMETAL2 FROM WELDOUT TO SHEETMETAL AT WELDOUT WITH 2 STEPS F 3
   A1 B0 G1 A3 B0 P6 A0   3.00   330.

4 GRIP SHEETMETAL TO SHEETMETAL AT WELDOUT USING VISEGRIPS AT WELDOUT AND ASIDE PF 14 ( 4 5 6 7 )
   A1 B0 G1 ( A1 B0 P3 C1 ) A1 B0 F1 A0 (14)   1.00   740.

5 POSITION TACKWELDER FROM WELDOUT TO SHEETMETAL AT WELDOUT F 24
   A1 B0 G1 A1 B0 P6 A0   24.00   2160.

6 REPLACE SHEETMETAL FROM WELDOUT TO CART AT WELDOUT WITH 4 STEPS
   A1 B0 G1 A6 B0 P3 A0   1.00   110.

7 MOVE CART FROM WELDOUT TO WORKTABLE
   A1 B0 G1 A54 B3 P1 A0   1.00   600.

TOTAL TMU 5320.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ? 70.340
File Description ? WELD ROUND TO ROUND

Output to line-Printer <Y or N> ? N

( 39, 3)
WELD .W01 R02RO .M25
WELD ROUND TO ROUND WITH TIG-WELDER AT SHEETMETAL SHOP
WELDING BOOTH
PER ROUND TO ROUND OFG; 4 21-JUL-83
WELDING NASSCO SHEETMETAL SHAPE 4
* 16 GAUGE GALV. SHEETMETAL
* 30' DIAMETER TO 24' DIAMETER X 4O'LG
* WELDOR PERFORMS WORK
* FITTER TRANSPORT SHEETMETAL
* WELD SHEETMETAL AT WELD AREA BOOTH
FITTER BEGINS AT WORKTABLE

1 FITTER PLACE SHEETMETAL ASSEMBLY FROM WORKTABLE TO CART
   AT WORKTABLE WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0  2.00  220.1
2 FITTER MOVE CART FROM WORKTABLE TO WELDTABLE
   A1 B0 G1 A131B3 P1 A0  1.00  1370.
3 PLACE SHEETMETAL ASSEMBLY FROM CART AT WELDTABLE TO
   WELDTABLE WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0  2.00  220.1
4 WELDOR PUSH POWER SUPPLY BUTTON FROM OFF AT
   WELDMACHINES TO ON AT WELDMACHINES
   A3 B0 G1 M1 X0 IO A1  1.00  60.
5 WELDOR PUSH GAS-HOOKUP-SWITCH FROM OFF AT WELDMACHINE
   TO ON AT WELDMACHINES
   A1 B0 G1 M1 X0 IO A1  1.00  40.
6 WELDOR FASTEN CURRENT SELECTOR HANDLE AT WELDMACHINES 1
   WRIST-TURN USING HAND
   A1 B0 G1 A1 B0 P1 F3 A0 B0 P0 A0  1.00  70.
7 WELDOR TURN OUTPUT CONTROL LEVER FROM OFF AT
   WELDMACHINES TO ON AT WELDMACHINES
   A1 B0 G1 M3 X0 IO A1  1.00  60.
8 WELDOR POSITION ANTI-SPATTER SPRAY CAN FROM WELDTABLE
   TO SHEETMETAL ASSEMBLY AT WELDTABLE F 4
   A3 B3 G1 A1 B0 P6 A0  4.00  560.
9 WELDOR PUSH ANTI-SPATTER2 SPRAY CAN PROCESS F 4
   A1 B0 G1 M1 X10 IO A0  4.00  520.
10 WELDOR POSITION WELDROD FROM WELDTABLE TO SHEETMETAL
    ASSEMBLY AT WELDTABLE F 15
    A1 B0 G1 A1 B0 P6 A0  15.00 1350.
11 PULL WELDHOOD FROM UP AT WELDOR TO DOWN AT WELDOR F 6
    A1 B0 G1 M1 X0 IO A1  6.00  240.
12 WELDOR POSITION WELDGUN FROM WELDTABLE TO SHEETMETAL
    ASSEMBLY AT WELDTABLE WITH PARTIAL BEND F 15
    A1 B0 G1 A1 B6 P6 A0  15.00 2250.
13 OPERATE WELD STINGER-BUTTON1 PROCESS F 56
    A1 B0 G1 M6 X81 IO A0  56.00 49840.
14 PUSH WELDHOOD FROM DOWN AT WELDOR TO UP AT WELDOR F 6
    A1 B0 G1 M1 X0 IO A1  6.00  240.
15 WELDOR DEBURR WELDED ASSEMBLY AT WELDTABLE 10
   ARM-STROKES USING WIREBRUSH AT WELDTABLE AND ASIDE PF
   5 6 (4 5 6 7)
16 REPLACE SHEETMETAL ASSEMBLY FROM WELDABLE TO CART AT
WELD TABLE WITH 4 STEPS F 2
A1 B0 G1 A6 B0 P3 A0 2.00 220.
17 FITTER MOUE CART FROM WELD TABLE TO WORK TABLE
A1 B0 G1 A131 B0 P1 A0 1.00 1340.

TOTAL TMU 65360.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?
**SHEET METAL SHAPE**

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4 SHFS
MARK OUT ROUND TO ROUND TRANSITION WITH AWL AT SHEETMETAL SHOP

OFG: 4  26-MAY-83

NASSCO SHEETMETAL SHAPE 4
* 11 GAUGE GALV. SHEETMETAL
* 12'DIAMETER TO 19'DIAMETER X 30'L
* MARK OUT TRANSITION USING TEMPLATE
* MARK OUT COLLARS WITHOUT TEMPLATE
FITTER BEGINS AT WORKTABLE

1 POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 4 STEPS
   A1 B0 G1 A6 B0 P6 A0 1.00 140.

2 PLACE WEIGHTS FROM WORKTABLE TO TEMPLATE AT WORKTABLE WITH 3 STEPS F 3
   A1 B0 G1 A6 B0 P3 A0 3.00 330.

3 MARK OUTLINES FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 R16 >A1 B0 P1 A0 (4) 1.00 760.

4 REPLACE WEIGHTS FROM TEMPLATE AT WORKTABLE TO WORKTABLE WITH 3 STEPS F 3
   A1 B0 G1 A6 B0 P3 A0 3.00 330.

5 REPLACE TEMPLATE FROM SHEETMETAL AT WORKTABLE TO WORKTABLE WITH 4 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 110.

6 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (4) 1.00 760.

7 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 30 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (30) 1.00 1540.

8 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (52) 1.00 2640.

9 MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 M32 )A1 B0 P1 A0 (4) 1.00 1400.

10 MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (6) 1.00 340.

11 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS F 4
   A1 B0 G1 A6 B0 P6 A0 4.00 560.

12 MARK LINES FROM STRAIGHTEDGE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING BLACKPEN AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (4) 1.00 760.

13 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )
MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 12 (4 5 6 7) A1 B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (4) 1.00 760.

MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 (4 5 6 7) A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (12) 1.00 640.

PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2 A1 B0 G1 A6 B0 P3 A0 2.00 220.

MOVE CART FROM WORKTABLE TO 14FT.SHEAR A1 B0 G1 A81 B0 P1 A0 1.00 840.

TOTAL TMU 14770.

; Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?
File Description ? SHEAR SHEETMETAL FOR ROUND TO ROUND TRANSITION

Output to line-printer <Y or N> ? N

( 39, 1)
FIT  W11  .
SHEAR SHEETMETAL FOR ROUND TO ROUND TRANSITION WITH 14FT, SHEAR AT SHEETMETAL SHOP
PER ROUND TO ROUND
OFG: 4  26-MAY-83
NASSCO SHEETMETAL SHAPE 4
* 11 GAUGE GALV. SHEETMETAL
* 12'DIAMETER TO 10 19'DIAMETER X 30'L
FITTER BEGINS AT 14FT, SHEAR

1 POSITION SHEETMETAL FROM CART AT 14FT. SHEAR TO 14FT. SHEAR WITH 4 STEPS F 2
  A1  B0  G1  A6  B0  P6  A0  2.00  280.

2 PUSH 14FT. SHEAR-FOOTPEDAL PROCESS
  A1  B0  G1  M1  X3  IO  A0  1.00  60.

3 POSITION SHEETMETAL FROM 14FT. SHEAR TO 14FT. SHEAR WITH 2 STEPS F 6
  A1  B0  G1  A3  B0  P6  A0  6.00  660.

4 PUSH 14FT, SHEAR-FOOTPEDAL PROCESS F  9
  A1  B0  G1  M1  X3  IO  A0  9.00  540.

5 REPLACE SHEETMETAL FROM 14FT. SHEAR TO CART AT 14FT. SHEAR WITH 4 STEPS
  A1  B0  G1  A6  B0  P3  A0  1.00  110.

6 MOVE CART FROM 14FT SHEAR TO WORKTABLE
  A1  B0  G1  A81  B3  P1  A0  1.00  870.

TOTAL TMU  2520.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?
File Description? CUT RADIUSES FOR ROUND TO ROUND TRANSITION

Output to line-printer <Y or N>? N

FIT R02RO

CUT RADIUSES FOR ROUND TO ROUND TRANSITION WITH SABER-SAW AT SHEETMETAL SHOP

PER ROUND TO ROUND OFG: 4 26-HAY-83

NASSCO SHEETMETAL SHAPE 4
* 11 GAUGE GALV, SHEETMETAL
* 12" DIAMETER TO 19" DIAMETER X 30'L
FITTER BEGINS AT WORKTABLE

1 POSITION SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 2

2 MOVE SABER-SAW2 FROM TOOLROOM TO WORKTABLE

3 OPERATE SABER-SAW AT WORKTABLE PROCESS F 7

4 REPLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2

5 MOUE CART FROM WORKTABLE TO ROLLER

TOTAL TMU 8290.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help>? 10810
FORM RADIUS FOR ROUND TO ROUND TRANSITION

Output to line-printer <Y or N> ? N

( 39, 1) FIT .W11

FORM RADIUS FOR ROUND TO ROUND TRANSITION WITH
ROLLER (ROLL FORMER) AT SHEETMETAL SHOP
PER ROUND TO ROUND

NASSCO SHEETMETAL SHAPE 4
* 11 GAUGE GALV. SHEETMETAL
* 12' DIAMETER TO 19' DIAMETER X 30' L
* ROLL-UP TRANSITION AND COLLAR
* KINK END FOR EASE OF OPERATION
FITTER BEGINS AT ROLLER

1 PLACE SHEETMETAL2 FROM CART AT ROLLER TO ROLLER WITH 4 STEPS F 3
   A1 B0 G1 A6 B0 P3 A0  3.00  330.

2 MOUE MALLET FROM TOOLROOM TO ROLLER
   A54 B0 G1 A54 B0 P1 A0  1.00  1100.

3 FASTEN SHEETMETAL2 [KINK END] TO ROLLER 1 STRIKE USING MALLET AT ROLLER AND ASIDE PF 30 (1 4 5 6 7)
   A1 B0 G1 (A1 B0 PO F3 )A1 B0 P1 A0 (30)  1.00  1240.

4 PLACE SHEETMETAL2 FROM ROLLER TO ROLLER WITH 3 STEPS F 3
   A1 B0 G1 A6 B0 P3 A0  3.00  330.

5 FASTEN NUT [ROLLS] TO SHEETMETAL2 AT ROLLER 3 WRIST-STROKES USING HAND WITH 2 STEPS F 14
   A1 B0 G1 A1 B0 P1 F10 A0 B0 P0 A0  14.00  1960.

6 OPERATE ROLLER-BUTTON PROCESS F 18
   A1 B0 G1 M6 X96 IO A0  18.00  18720.

7 REPLACE SHEETMETAL2 FROM ROLLER TO CART AT ROLLER WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0  2.00  220.

8 MOUE CART FROM ROLLER TO WELDOUT
   A1 B0 61 A67 B3 P1 A0  1.00  730.

TOTAL TMU 24630

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ? -35,440
Please input file (R02R0.M44 > ?)

File Description ? WELD ROUND TO ROUND

Output to line-printer <Y or N> ? N

(39, 101)
WELD .W01 R02R0 .M44

WELD ROUND TO ROUND WITH ARC (STICK) WELDER A-f SHEETMETAL SHOP
WELDING BOOTH
PER ROUND TO ROUND

WELDING NASSCO SHEETMETAL SHAPE 4
* 11 GAUGE GALV. SHEETMETAL
* 12' DIAMETER TO 19' DIAMETER X 30'L
* WELDING DONE IN WELD BOOTH AREA
* WELDOR PERFORMS THE WORK
* FITTER TRANSPORTS SHEETMETAL
FITTER BEGINS AT WORKTABLE

1 FITTER PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0 2.00 220.
2 FITTER MOUE CART FROM WORKTABLE TO WELDTABLE
   A1 B0 G1 A131B3 P1 A0 1.00 1370.
3 PLACE SHEETMETAL ASSEMBLY FROM CART AT WELDTABLE TO WELDTABLE WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0 2.00 220.
f-l 4 WELDOR PUSH POWER SUPPLY BUTTON FROM OFF AT WELDMACHINES TO ON AT WELDMACHINES WITH 16 STEPS
   A1 B0 G1 M1 X0 IO A32 1.00 370.
5 WELDOR TURN CURRENT OUTPUT CONTROL LEVER FROM OFF AT WELDMACHINES TO ON AT WELDMACHINES
   A1 B0 G1 M3 X0 IO A1 1.00 60.
6 WELDOR POSITION ANTI-SPATTER SPRAY CAN FROM WELDTABLE TO SHEETMETAL ASSEMBLY AT WELDTABLE F 6
   A1 B0 G1 A1 B0 P6 A0 6.00 840.
7 WELDOR PUSH ANTI-SPATTER2 SPRAY CAN PROCESS F 6
   A1 B0 G1 M1 X10 IO A0 6.00 780.
8 WELDOR FASTEN WELDROD TO STINGER1 AT WELDTABLE 1 WRIST-TURN USING HAND F 35
   A1 B0 G1 A1 B0 P1 F3 A0 B0 P0 A0 35.00 2450.
9 PULL WELDHOOD FROM UP AT WELDOR TO DOWN AT WELDOR F 35
   A1 B0 G1 M1 X0 IO A1 35.00 1400,
10 WELDOR POSITION STINGER1 FROM WELDTABLE TO SHEETMETAL ASSEMBLY AT WELDTABLE F 35
   A1 B0 G1 A1 B0 P6 A0 35.00 3150.
11 WELDOR OPERATE WELD STINGER1 AT WELDTABLE PTIME 65 S F 26
   A1 B0 G1 M6 X173IO A0 26.00 470.60
12 PUSH WELDHOOD FROM DOWN A1- WELDOR TO UP A-f WELDOR F 35
   A1 B0 G1 M1 X0 IO A1 35.00 1400.
13 WELDOR LOOSEN SLAG FROM SHEETMETAL ASSEMBLY A-f WELDTABLE 6 STRIKES USING SLAGHAMMER AT WELDTABLE AND ASIDE PF 13 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P0 L16 )A1 B0 F1 A0 (13) 1.00 2250.
14 WELDOR DEBURR WELDED ASSEMBLY A1- WELDTABLE 10
ARM-STROKES USING WIREBRUSH AT WELDTABLE AND ASIDE PF
52 (4567)
A1 B0 G1 (A1 B0 P1 C10 )A1 B0 P1 A0 (52)  1.00  6280.
15 REPLACE SHEETMETAL ASSEMBLY FROM WELDTABLE TO CART AT
WELDTABLE WITH 4 STEPS F 2
A1 B0 G1 A6 B0 F3 A0  2.00  220.
16 FITTER MOVE CART FROM WELDTABLE TO WORKTABLE
A1 B0 G1 A131B0 P1 A0  1.00  1340 \RM\$$$

File Description ? WELD ROUND TO ROUND

Output to line-printer <Y or N> ?

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MARK OUT ROUND DUCT SECTION WITH AWL AT SHEETMETAL SHOP

FIT .W11

MARK OUT ROUND DUCT SECTION

PER ROUND DUCT

1 MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE PF 4 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 M32 )A1 B0 P1 A0 (4) 1.00 1400.

2 MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF 4 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (4) 1.00 240.

3 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS F 2
A1 B0 G1 A3 B0 P6 A0 2.00 220.

4 MARK LINES FORM STRAIGHTEDGE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 2 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (2) 1000 400.

5 POSITION CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS F 2
A1 B0 G1 A3 B0 P6 A0 2.00 220.

6 MARK SHEETMETAL FROM CORNER TEMPLATE AT WORKTABLE 2 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 2 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 R6 )A1 B0 P1 A0 (2) 1.00 200.

7 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 6 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (6) 1.00 1120.

8 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 3 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (3) 1.00 190.

9 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 26 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (26) 1.00 1340.

10 PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS
A1 B0 G1 A6 B0 P3 A0 1.00 110.

11 MOVE CART FROM WORKTABLE TO SMALLSHEAR
A1 B0 G1 A67 B0 P1 A0 1.00 700.

TOTAL TMU 6140.
File Description ? SHEAR SHEETMETAL FOR ROUND DUCT SECTION

Output to line-Printer <Y or N> ? N

( 39, 11
FIT .W11

RODUCT .M11

SHEAR SHEETMETAL FOR ROUND DUCT SECTION WITH SMALL 8FT. SHEAR AT SHEETMETAL SHOP
PER ROUND DUCT .OFG: 4 31-MAY-83

NASSCO SHEETMETAL ROUND DUCT SECTION
* 20 GAUGE GALV. SHEETMETAL
* 6’ DIAMETER ROUND DUCT 18’LG
FITTER BEGINS AT SMALLSHEAR

1 POSITION SHEETMETAL FROM CART AT SMALLSHEAR TO SMALLSHEAR WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P6 A0 2.00 280.

2 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS
   A1 B0 G1 M1 X6 IO A0 1.00 90.

3 POSITION SHEETMETAL2 FROM SMALLSHEAR TO SMALLSHEAR WITH 2 STEPS
   A1 B0 G1 A3 B0 P6 A0 1.00 110.

4 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS
   A1 B0 G1 M1 X6 IO A0 1.00 90.

5 REPLACE SHEETMETAL2 FROM SMALLSHEAR TO CART AT SMALLSHEAR WITH -4 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 110.
MOUE CART FROM SMALLSHEAR TO WORKTABLE
   A1 B0 G1 A67 B3 F1 A0 1.00 730.

TOTAL TMU 1410.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help) ?
CUT CORNERS FOR ROUND DUCT SECTION

PER ROUND DUCT

20 GAUGE GALV. SHEETMETAL
* 6' DIAMETER ROUND DUCT 18' LG

FITTING BEGINS AT WORKTABLE

1. PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 110.

2. POSITION SNIPS FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 2
   -A1 B0 G1 A1 B0 P6 A0 2.00 180.

3. CUT CORNERS ON SHEETMETAL AT WORKTABLE 2 CUTS USING SNIPS AT WORKTABLE AND ASIDE PF 2 (4 5 6 7)
   A1 B0 G1 (A1 B0 P3 C3 )A1 B0 F1 A0 (2) 1.00 180.

4. FASTEN FLATTEN SHEETMETAL CORNERS AT WORKTABLE 3 STRIKES USING HAMMER-AT WORKTABLE AND ASIDE PF 2 (4 5 6 7)
   A1 B0 G1 (A1 B0 P0 F6 )A1 B0 P1 A0 (2) 1.00 180.

5. REPLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS
   A1 B0 G1 A'6 B0 P3 A0 1.00 110.

6. MOVE CART FROM WORKTABLE TO LAPOUT
   A1 B0 G1 A54 B0 P1 A0 1.00 570.

TOTAL TMU 1330.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?.
File Description ? FORM LAP SEAM ON ROUND DUCT

Output to line-Printer <Y or N> ? N

( 39., 1)
FIT ,W11 RODUCT.M13
FORM LAP SEAM ON ROUND DUCT WITH LAPOUT (ROTARY MACHINE) AT
SHEETMETAL SHOP
PER ROUND DUCT DFG: 4 31-MAY-83

NASSCO SHEETMETAL ROUND DUCT SECTION
* 20 GAUGE GALV, SHEETMETAL
* 6’ DIAMETER ROUND DUCT 18’LG
* FORM LAP SEAM AND LAPOUT END FOR FLANGE
FITTER BEGINS AT LAPOUT

1 PLACE SHEETMETAL FROM CART AT LAPOUT TO LAPOUT WITH 4
   STEPS
   A1 BO G1 A6 BO P3 A0  1.00  110.

2 PUSH LAPOUT-SWITCH PROCESS
   A1 BO G1 M1 X16 IO A0  1.00  190.

3 POSITION SHEETMETAL FROM LAPOUT TO LAPOUT WITH 2 STEPS
   A1 BO G1 A3 BO P6 A0  1.00  110.

4 PUSH LAPOUT-SWITCH PROCESS
   A1 BO G1 M1 X16 IO A0  1.00  190 *

5 REPLACE SHEETMETAL FROM LAPOUT TO CART AT LAPOUT WITH
   4 STEPS
   A1 BO G1 A6 BO P3 A0  1.00  110,

6 MOVE CART FROM LAPOUT TO ROLLER
   A1 BO G1 A10 BO P1 A0  1.00  130,

TOTAL TMU  840.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

3580
File Description ? FORM ROUND DIAMETER FOR ROUND DUCT

Output to line-printer <Y or N> ? N

( 39, 1)
FIT

ROLL DUCT : M 14

FORM ROUND DIAMETER FOR ROUND DUCT SECTION WITH
ROLLER (ROLL FORMER) AT SHEETMETAL SHOP

OFG: 4 31-MAY-83

NASSCO SHEETMETAL ROUND DUCT SECTION ' *
* 20 GAUGE GALV, SHEETMETAL
* 6' DIAMETER ROUND DUCT 18'LG
FITTER BEGINS AT ROLLER

1 MOVE MALLET FROM TOOLROOM TO ROLLER
   AS4 BO G1 AS4 BO P1 A0 1.00 1100.
2 POSITION SHEETMETAL FROM CART AT ROLLER TO ROLLER WITH
4 STEPS
   A1 BO G1 A6 BO P6 A0 1.00 140.
3 FASTEN [KINK] SHEETMETAL AT ROLLER 1 STRIKE USING
   MALLET AT ROLLER AND ASIDE PF 40 ( 4 5 6 7 )
   A1 BO G1 (A1 BO PO F3 )A1 BO P1 A0 (40) 1,00 1640.
4 POSITION SHEETMETAL FROM ROLLER TO ROLLER F 4
   A1 BO G1 A1 BO P6 A0 4.00 360.
5 FASTEN BOLT [ROLLS] TO SHEETMETAL AT ROLLER 3
   WRIST-TURNS USING HAND F 8
   A1 BO G1 A1 BO P6 P1 F6 A0 B0 PO A0 8.00 800,
6 PUSH ROLLER-BUTTON PROCESS F 8
   A1 BO G1 M1 X96 IO AO, 8.00 7920.
7 REPLACE SHEETMETAL FROM ROLLER TO CART AT ROLLER WITH
4 STEPS
   A1 BO G1 A6 BO P3 A0 1.00 110,
8 MOVE CART FROM ROLLER TO WORKTABLE
   A1 BO G1 A54 B3 F1 A0 1.00 600.

TOTAL TMU 12670.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?. 
NASSCO SHEETMETAL ROUND DUCT SECTION
* 20 GAUGE GALV, SHEETMETAL
* 6' DIAMETER ROUND DUCT 18' LG
* SEAL RIVET HEADS AND SEAM WITH SEALANT
FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS
   A1 BO G1 A6 BO P3 A0 1.00 110.

2 PLACE RIVET-HOLE-GUIDEY FROM WORKTABLE TO SHEETMETAL AT WORKTABLE
   A1 BO G1 A1 BO P3 A0 1,00 60.

3 MARK SHEETMETAL FROM RIVET-HOLE-GUIDE AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 14 ( 4 5 6 7 )
   A1 BO G1 (A1 BO P1 R3 )A1 BO F1 A0 (14) 1.00 740.

4 GRIP SHEETMETAL TO SHEETMETAL AT WORKTABLE USING VISEGRIPS AT WORKTABLE AND ASIDE PF 2 ( 4 5 6 7 )
   A1 BO G1 (A1 BO P3 C1 )A1 BO F1 A0 (2) 1.00 140.

5 FASTEN 5-32DRILL-BIT FROM WORKTABLE TO DRILLMOTOR AT WORKTABLE 3 WRIST-TURNS USING, CHUCKKEY AT WORKTABLE AND ASIDE
   A1 BO G1. A1 BO P3 F6 A1 BO P1 A0 1.00 140.

6 POSITION DRILLMOTOR FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 14
   A1 BO GL A1 BO P6 A0 14.00 1260.

7 OPERATE DRILLMOTOR AT WORKTABLE PROCESS F 14
   A1 BO G1 M6 X6 IO A0 14.00 1960.

8 POSITION RIVET FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 14
   A1 BO G1 A1 BO P6 A0 14.00 1260.

9 POSITION RIVETGUN FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 14
   A1 BO G1 A1 BO P6 A0 14.00 1260.

10 OPERATE RIVETGUN AT WORKTABLE PROCESS F 14
    A1 BO G1 M6 X3 IO A0 14.00 1540.

11 POSITION CAULKINGGUN FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 16
    A1 BO G1 A1 BO P6 A0 16.00 1440.

12 GRIP SEALANT TO SHEETMETAL AT WORKTABLE USING CAULKINGGUN AT WORKTABLE AND ASIDE PF 16 ( 4 5 6 7 )
    A1 BO G1 (A1 BO P3 C1 )A1 BO F1 A0 (16) 1.00 8.40.

13 INSPECT SHEETMETAL AT WORKTABLE 9 POINTS
    A0 BO GO A0 BO P0 T10 A0 BO P0 A0 1.00 100.

TOTAL TMU 10850.

23/00
**Sheet Metal Shape #4**

**8" Dia. x 18" LG Round Duct Section**

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6 Shrs.
FIT
PER

ROUND DUCT WITH AWL AT SHEETMETAL SHOP

NASSCO SHEETMETAL SHAPE 4
* 20 GAUGE GALV, SHEETMETAL
* 8' DIAMETER ROUND DUCT 18' LG
* MARK OUT WITHOUT TEMPLATE

FITTER BEGINS AT WORKTABLE

1 MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 M32 )A1 B0 P1 A0 (4) 1.00 1400.

2 MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (4) 1.00' 240.

3 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS F 2
   A1 B0 G1 A3 B0 P6 A0 2.00 220.

4 MARK LINES FROM STRAIGHTEDGE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 2 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (2) 1.00 400.

5 POSITION CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS F 2
   A1 B0 G1 A6 B0 P6 A0 2.00 280.

6 MARK SHEETMETAL FROM CORNER TEMPLATE AT WORKTABLE 2 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 2 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 R6 )A1 R0 P1 A0 (2) 1.00 200.

7 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 .R16 )A1 B0 P1 A0 (6) 1.00 1120.

8 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 33 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (33) 1.00 1690.

9 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 26 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 R3 )A1 HO P1 A0 (26) 1.00 1340.

10 PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS
   A1 B0 G1 A6 BO P3 A0 1.00 110.

11 MOVE CART' FROM WORKTABLE TO SMALLSHEAR
   A1 B0 G1 A67 B0 P1 A0 1.00 7.00 .

TOTAL TMU 7700.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?
File Description ? SHEAR SHEETMETAL FOR ROUND DUCT

Output to line-printer <Y or N> ? N

FIT W11

SHEAR SHEETMETAL FOR ROUND DUCT SECTION WITH SMALL 8FT. SHEAR AT SHEETMETAL SHOP

PER ROUND DUCT OFG: 4 01-JUN-83

NASSCO SHEETMETAL SHAPE 4
* 20 GAUGE GALV. SHEETMETAL
* 8' DIAMETER ROUND DUCT 18' LG
FITTER BEGINS AT SMALLSHEAR

1 POSITION SHEETMETAL FROM CART AT SMALLSHEAR TO SMALLSHEAR WITH 4 STEPS
   A1 DO G1 A6 DO P6 A0  2.00  280.

2 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS
   A1 B0 G1 M1 X6 IO A0  1.00  90.

3 POSITION SHEETMETAL FROM SMALLSHEAR TO SMALLSHEAR WITH 3 STEPS.
   A1 B0 G1 A6 H0 P6 A0  1.00  140.

4 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS
   A1 DO G1 M1 X6 IO A0  1.00  90.

5 REPLACE SHEETMETAL FROM SMALLSHEAR TO CART AT SMALLSHEAR WITH 4 STEPS
   A1 B0 G1 A6 B0 P3 A0  1.00  110.

MOUE CART FROM SMALLSHEAR TO WORKTABLE
   A1 B0 G1 A67 B3 P1 A0  1.00  730.

TOTAL TMU  1440.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?
CUT CORNERS FOR ROUND DUCT

FIT .W1

RODUCT

CUT CORNERS FOR ROUND DUCT SECTION WITH SNIPS AT SHEETMETAL SHOP PER ROUND DUCT

NASSCO SHEETMETAL SHAPE 4
* 20 GAUGE GALV. SHEETMETAL
* 8' DIAMETER ROUND. DUCT 18' LG
FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 110.

2 POSITION SNIPS FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS P 2
   A1 B0 G1 A3 B0 P6 A0 2.00 220.

3 CUT CORNERS ON SHEETMETAL AT WORKTABLE 2 CUTS USING SNIPS AT WORKTABLE AND ASIDE PF 2 (4 5 6 7)
   A1 B0 G1 (A1 B0 P3 C3 )A1 B0 P1 A0 (2) 1.00 180.

4 FASTEN [FLATTEN] SHEETMETAL CORNERS AT WORKTABLE 3 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 2 (4 5 6 7)
   A1 B0 G1 (A1 B0 P0 F6 )A1 B0 P1 A0 (2) 1.00 180.

5 REPLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 110.

6 MOVE CART FROM WORKTABLE TO LAPOUT
   A1 B0 G1 AS4 B0 P1 A0 1.00 570.

TOTAL TMU 1370.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

2810
File Description ? FORM LAP SEAM ON ROUND DUCT

Output to line-printer <Y or N> ? N

{ 39, 1}-. W11
FIT
FORM LAP SEAM ON 'ROUND DUCT SECTION WITH LAPOUT (ROTARY MACHINE)
AT SHEETMETAL SHOP
PER ROUND DUCT
OFG: 4 01-JUN-83
NASSCO SHEETMETAL SHAPE 4
* 20 GAUGE GALV. SHEETMETAL
* 8' DIAMETER ROUND DUCT 18' LG
* FORM LAP RIVET SEAM
* LAP OUT END FLANGE
FITTER BEGINS AT LAPOUT

1 PLACE SHEETMETAL FROM CART AT LAPOUT TO LAPOUT WITH 4 STEPS
A1 B0 G1 A6 B0 P3 A0 1.00 110.

2 PUSH LAPOUT-SWITCH PROCESS
A1 B0 G1 M1 X16 IO A0 1.00 190.

3 POSITION SHEETMETAL FROM LAPOUT TO LAPOUT WITH 3 STEPS
A1 B0 G1 A6 B0 P6 A0 1.00 140.

4 PUSH LAPOUT-SWITCH PROCESS
A1 B0 G1 M1 X16 IO A0 1.00 190.

5 REPLACE SHEETMETAL FROM LAPOUT TO CART AT LAPOUT WITH 4 STEPS
A1 B0 G1 A6 B0 P3 A0 1.00 110.

6. MOUE CART FROM LAPOUT TO ROLLER
A1 B0 G1 A10 B0 P1 A0 1.00 130.

TOTAL TMU 870.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

- 3680
File Description ? FORM ROUND DIAMETER FOR ROUND DUCT

Output to line-printer <Y or N> ? Y

( 39, 1)
FIT .W11
FORM ROUND DIAMETER FOR ROUND DUCT SECTION WITH
ROLLER (ROLL FORMER) .AT SHEETMETAL SHOP
PER ROUND DUCT OFG: 4 01-JUN-83

NASSCO SHEETMETAL SHAPE 4
* 20 GAUGE GALV SHEETMETAL
* 8' DIAMETER ROUND DUCT 18' LG
FITTER BEGINS AT ROLLER

1 MOVE MALLETS FROM TOOLROOM TO ROLLER
   A54 B0 G1 A54 B0 P1 A0  1.00  1100.

2 POSITION SHEETMETAL FROM CART AT ROLLER TO ROLLER WITH 4 STEP
   A1 B0 G1' A6 B0 P6 A0  1.00  140.

3 FASTEN [KINKI] SHEETMETAL 2 AT ROLLER 2 STRIKES USING
   MALLETS AT ROLLER AND ASIDE PF 20 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P0 F6 )A1 B0 P1 A0 (20)  1.00  1440.

4 POSITION SHEETMETAL FROM ROLLER TO ROLLER WITH 3 STEPS
   F 4
   A1. B0 G1 A6 B0 P6 A0  4.00  560.

5 FASTEN BOLT [ROLLS] TO SHEETMETAL AT ROLLER 3
   WRIST-TURNS USING HAND F 8
   A1 B0 G1- A1 B0 P1 F6 A0 B0 P0 A0  8.00  800.

6 PUSH ROLLER-BUTTON PROCESS F 8
   A1 B0 G1 M1 X96 IO A0  8.00  7920.

7 REPLACE SHEETMETAL 2 FROM ROLLER TO CART AT ROLLER WITH 4 STEPS
   A1 B0 G1 A6 B0 P3 A0  1.00  110.

8 MOVE CART FROM ROLLER TO WORKTABLE
   A1 B0 G1 A54 B3 P1 A0  1.00  600.

TOTAL TMU  12670.

16350
FIT .W1

RIVET ROUND DUCT SECTION WITH RIVET GUN AT SHEETMETAL SHOP

PER ROUND DUCT OFG: 4 01-JUN-83

NASSCO SHEETMETAL SHAPE 4
* 20 GAUGE GALV. SHEETMETAL
* 8' DIAMETER ROUND DUCT 18' LG
* SEAL RIVET HEADS AND SEAM WITH SEALANT
FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS

2 PLACE RIVET-HOLE-GUIDE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE

3 MARK SHEETMETAL FROM RIVET-HOLE-GUIDE TO SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 14 ( 4 5 6 7 )

4 GRIP SHEETMETAL AT WORKTABLE USING VISEGRIPS AT WORKTABLE AND ASIDE PF 2 ( 4 5 6 7 )

5 FASTEN 5-32 DRILL-BIT PTO DRILLMOTOR AT WORKTABLE 3 WRIST-TURNS USING CHUCKKEY AT WORKTABLE AND ASIDE

6 POSITION DRILLMOTOR FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 14

7 OPERATE DRILLMOTOR AT WORKTABLE PROCESS F 14

8 POSITION RIVET FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 1 STEP F 14

9 POSITION RIVETGUN FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS F 14

10 OPERATE DRILLMOTOR AT WORKTABLE PROCESS F 14

11 POSITION CAULKINGGUN FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS F 16

12 GRIP SEALANT TO SHEETMETAL AT WORKTABLE USING CAULKINGGUN AT WORKTABLE AND ASIDE PF 16 ( 4 5 6 7 )

13 INSPECT SHEETMETAL AT WORKTABLE 9 POINTS

TOTAL TMU 12150.

28,500
SHEET METAL SHAPE # 4

5" DIA. ROUND DUCT SECTION 38" LG

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Output to line-printer <Y or N>? N:

MARK OUT ROUND DUCT SECTION WITH AWL AT SHEETMETAL SHOP

PER ROUND DUCT OFG: 4 31-MAY-83

NASSCO SHEETMETAL ROUND DUCT SECTION
* 20 GAUGE GALV, SHEETMETAL
* 5' DIAMETER ROUND DUCT 38' LG
* MARK OUT WITHOUT TEMPLATE
FITTER BEGINS AT WORKTABLE

1 MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE PF 4 (4 5 6 7)
   A1 B0 G1 (A1 B0 P1 M32) A1 B0 P1 A0 (4) 1.00 1400.
2 MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF 4 (4 5 6 7)
   A1 B0 G1 (A1 B0 P1 R3) A1 B0 P1 A0 (4) 1.00 240.
3 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE
   A1 B0 G1 A1 B0 P6 A0 2.00 180.
4 MARK LINES FROM STRAIGHTEDGE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 2 (4 5 6 7)
   A1 B0 G1 (A1 B0 P1 R16) A1 B0 P1 A0 (2) 1.00 400.
5 POSITION CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS F 2
   A1 B0 G1 A1 B0 P6 A0 2.00 220.
6 MARK SHEETMETAL AT WORKTABLE FROM CORNER TEMPLATE TO SHEETMETAL AT WORKTABLE 2 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 2 (4 5 6 7)
   A1 B0 G1 (A1 B0 P1 R6) A1 B0 P1 A0 (2) 1.00 200.
7 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 6 (4 5 6 7)
   A1 B0 G1 (A1 B0 P1 R16) A1 B0 P1 A0 (6) 1.00 1120.
8 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 33 (4 5 6 7)
   A1 B0 G1 (A1 B0 P1 R3) A1 B0 P1 A0 (33) 1.00 1690.
9 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 26 (4 5 6 7)
   A1 B0 G1 (A1 B0 P1 R3) A1 B0 P1 A0 (26) 1.00 1340.
10 PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 110.
11 MOUE CART FROM WORKTABLE TO SMALLSHEAR
   A1 B0 G1 A67 B0 P1 A0 1.00 7.00.

TOTAL TMU 7600.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?
File Description ? SHEAR SHEETMETAL FOR ROUND DUCT SECTION

Output to line-printer <Y or N> ? N

( 39, 1)
FIT   1 W11
RODUCT  R..

SHEAR SHEETMETAL FOR ROUND DUCT SECTION WITH SMALL 8FT, SHEAR AT
SHEETMETAL SHOP
PER ROUND DUCT
NASSCO SHEETMETAL ROUND DUCT SECTION
* 20 GAUGE GALV. SHEETMETAL
* 5' DIAMETER ROUND DUCT 38'LG
FITTER BEGINS AT SMALLSHEAR

1 POSITION SHEETMETAL FROM CART AT SMALLSHEAR TO
   SMALLSHEAR WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P6 A0  2.00  280.
2 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS
   A1 B0 G1 M1 X6 IO A0  1.00  90.
3 POSITION SHEETMETAL FROM SMALLSHEAR TO SMALLSHEAR WITH
   2 STEPS
   A1 B0 G1 A3 B0 P6 A0  1.00  110.
4 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS
   A1 B0 G1 M1 X6 IO A0  1.00  90.
5 REPLACE SHEETMETAL FROM SMALLSHEAR TO CART AT
   SMALLSHEAR WITH 4 STEPS
   A1 B0 G1 A6 B0 P3 A0  1.00  110.
6 MOVE CART FROM SMALLSHEAR TO WORKTABLE
   A1 B0 G1 A67 B3 P1 A0  1.00  730.

TOTAL TMU  1410.
CUT CORNERS FOR ROUND DUCT SECTION WITH SNIPS AT SHEETMETAL SHOP
PER ROUND DUCT

NASSCO-SHEETMETAL ROUND DUCT SECTION
* 20 GAUGE GALV. SHEETMETAL
* 5' DIAMETER ROUND DUCT 38' LG
FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE
   WITH 4 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 110.

2 POSITION SNIPS FROM WORKTABLE TO SHEETMETAL AT
   WORKTABLE F 2
   A1 B0 G1 A1 B0 P6 A0 2.00 180.

3 CUT CORNERS ON SHEETMETAL AT WORKTABLE 2 CUTS USING
   SNIPS AT WORKTABLE AND ASIDE PF 2 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P3 C3 )A1 B0 F1 A0 (2) 1.00 180.

4 FASTEN [FLATTEN] SHEETMETAL CORNERS AT WORKTABLE 3
   STRIKES USING HAMMER. AT WORKTABLE AND ASIDE PF 2 ( 4 5
   6 7 )
   A1 B0 G1 (A1 B0 P0 F6 )A1 B0 P1 A0 (2) 1.00 180.

5 REPLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE
   WITH 4 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 110.

6 MOVE CART FROM WORKTABLE TO LAPOUT
   A1 B0 G1 A54 B0 P1 A0 1.00 570.

TOTAL TMU 1330.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ? 2740
File Description: FORM LAP SEAM ON ROUND DUCT

Output to line-printer <Y or N> ? N

( 39, 1)
FIT ,W11

FORM LAP SEAM ON ROUND DUCT SECTION WITH LAPOUT (ROTARY MACHINE)
AT SHEETMETAL SHOP
PER ROUNC DUCT

NASSCO SHEETMETAL ROUND DUCT SECTION
* 20 GAUGE GALV, SHEETMETAL
* 5' DIAMETER ROUND DUCT 38'LG
* FORM LAP SEAM AND LAPOUT FOR END FLANGE
FITTING BEGINS AT LAPOUT

PLACE SHEETMETAL FROM CART AT LAPOUT TO LAPOUT WITH 4 STEPS

1. PUSH LAPOUT-SWITCH PROCESS
   A1 B0 G1 A6 B0 P3 A0 1.00 110.

2. POSITION SHEETMETAL FROM LAPOUT TO LAPOUT WITH 3 STEPS
   A1 B0 G1 A6 B0 P6 A0 1.00 140.

3. PUSH LAPOUT-SWITCH PROCESS
   A1 B0 G1 M1 X16 IO A0 1.00 190.

4. REPLACE SHEETMETAL FROM LAPOUT TO CART AT LAPOUT WITH 4 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 110.

5. MOUE CART FROM LAPOUT TO ROLLER
   A1 B0 G1 A10 B0 P1 A0 1.00 130.

TOTAL TMU 870.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

36/10
FORM ROUND DIAMETER FOR ROUND DUCT SECTION WITH ROLLER (ROLL FORMER) AT SHEETMETAL SHOP

NASSCO SHEETMETAL ROUND DUCT SECTION
* 20 GAUGE GALV. SHEETMETAL
* 5' DIAMETER ROUND DUCT 38' LG
FITTER BEGINS AT ROLLER

1. MOVE MALLET FROM TOOLROOM TO ROLLER
   A54 B0 G1 A54 B0 P1 A0 1.00 1100.

2. POSITION SHEETMETAL FROM CART AT ROLLER TO ROLLER WITH 4 STEPS
   A1 B0 G1 A6 B0 P6 A0 1.00 140.

3. FASTEN [KINK] SHEETMETAL AT ROLLER 2 STRIKES USING MALLET AT ROLLER AND ASIDE PF 40 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P0 F6 )A1 B0 F1 A0 (401 1.00 2 8 4 0 9

4. POSITION SHEETMETAL FROM ROLLER TO ROLLER WITH 2 STEPS F 4
   A1 B0 G1 A3 B0 P6 A0 4.00 440.

5. FASTEN BOLT [ROLLS] TO SHEETMETAL AT ROLLER 3
   WRIST-TURNS USING HAND F 8
   A1 B0 G1 A1 B0 P1 F6 A0 B0. P0 A0 8.00 800.

6. PUSH ROLLER-BUTTON PROCESS F 8.
   A1 B0 G1 M1 X96 10 A0 8.00 7920.

7. REPLACE SHEETMETAL FROM ROLLER TO CART AT ROLLER WITH 4 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 110.

8. MOUE CART FROM ROLLER TO WORKTABLE
   A1 B0 G1 A54 B3 P1 A0 1.00 600.

TOTAL TMU 13950.
RIVET ROUND DUCT SECTION

PER ROUND DUCT

NASSCO SHEETMETAL ROUND DUCT SECTION
*
20 GAUGE GALV. SHEETMETAL
*
5' DIAMETER ROUND DUCT 38' LG
*
SEAL RIVET HEADS AND SEAM WITH SEALANT
FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS
A1 B1 G1 A6 B0 P3 A0 1.00 110.

2 PLACE RIVET-HOLE-GUIDE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE
A1 B0 G1 A1 B0 P3 A0 1.00 60.

3 MARK SHEETMETAL FROM RIVET-HOLE-GUIDE AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 30 4 5 6 7
A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (30) 1.00 1540.

4 GRIP SHEETMETAL TO SHEETMETAL AT WORKTABLE USING VISEGRIPS AT WORKTABLE AND ASIDE PF 2 4 5 6 7
A1 B0 G1 (A1 B0 P3 C1 )A1 B0 P1 A0 (2) 1.00 140.

5 FASTEN 5-32DRILL-BIT TO DRILLMOTOR AT WORKTABLE 3 WRIST-TURNS USING CHUCKKEY AT WORKTABLE AND ASIDE
A1 B0 G1 A1 B0 P3 F6 A1 B0 P1 A0 1.00 140.

6 POSITION DRILLMOTOR' FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 30
A1 B0 G1 A1 B0 P6 A0 30.00 2700.

7 OPERATE DRILLMOTOR AT WORKTABLE PROCESS F 30
A1 B0 G1 M6 X6 IO A0 30.00 4200.

8 POSITION RIVET FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 30
A1 B0 G1 A1 B0 P6 A0 30.00 2700.

9 POSITION RIVETGUN FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 30
A1 B0 G1 A1 B0 P6 A0 30.00 2700.

10 OPERATE RIVETGUN AT WORKTABLE PROCESS F 30
A1 B0 G1 M6 X3 IO A0 30.00 3300.

11 POSITION CAULKINGGUN FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 32
A1 B0 G1 A1 B0 P6 A0 32.00 2880.

12 GRIP SEALANT TO SHEETMETAL AT WORKTABLE USING CAULKINGGUN AT WORKTABLE AND ASIDE PF 32 4 5 6 7
A1 B0 G1 (A1 B0 P3 C1 )A1 B0 P1 A0 (32) 1.00 1640.

13 INSPECT SHEETMETAL AT WORKTABLE 9 POINTS
A0 B0 GO A0 B0 P0 T10 A0 B0 PO A0 1.00 100.

TOTAL TMU 22210.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ? 39,770
**Sheet Metal Shape #4**

6" Dia. 38" Lg. Round Duct

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6 SHFS.
File Description ? MARK OUT ROUND DUCT SECTION

**Output to line-printer <Y or N> ? N**

( 39, 1)
FIT  • WII  RODUCT.M20
MARK OUT ROUND DUCT SECTION WITH AWL AT SHEETMETAL SHOP
PER ROUND DUCT  OFG: 4 31-MAY-83
NASSCO SHEETMETAL ROUND DUCT SECTION
* 20 GAUGE GALV. SHEETMETAL
* 6' DIAMETER ROUND DUCT 38'LG
* MARK OUT WITHOUT TEMPLATE
FITTER BEGINS AT WORKTABLE

1 MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING
   STEEL-TAPE AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 M32 )A1 B0 F1 A0 (4)  1.00  1400.
2 MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT
   USING AWL AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 F1 R3 )A1 B0 F1 A0 (4)  1.00  240.
3 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT
   WORKTABLE F 2
   A1 B0 G1 A1 B0 P6 A0  2.00  180.
4 MARK LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING
   AWL AT WORKTABLE AND ASIDE PF 2 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (2)  1.00  400.
5 POSITION CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL
   AT WORKTABLE WITH 2 STEPS F 2
   A1 B0 G1 A3 B0 P6 A0  2.00  220.
6 MARK SHEETMETAL FROM CORNER TEMPLATE AT WORKTABLE 2
   DIGITS USING AWL AT WORKTABLE AND ASIDE PF 2 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 F1 R6 )A1 B0 P1 A0 (2)  1.00  200.
7 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING
   REDPEN AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 F1 R16 )A1 B0 F1 A0 (6)  1.00  1120.
8 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT
   WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND
   ASIDE PF 33 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 F1 R3 )A1 B0 F1 A0 (33)  1.00  1690.
9 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT
   USING BLACKPEN AT WORKTABLE AND ASIDE PF 26 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 F1 R3 )A1 B0 F1 A0 (26)  1.00  1340.
10 PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE
    WITH 4 STEPS
    A1 B0 G1 A6 B0 P3 A0  1.0P  110.
11 MOVE CART FROM WORKTABLE TO SMALLSHEAR
    A1 B0 G1 A67 B0 F1 A0  1.00  700.

     TOTAL TMU 7600.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W (or H for help> ?
File Description ? SHEAR SHEETMETAL FOR ROUND DUCT

output to line-Printer <Y or N> ? N

( 39,. 1)
FIT ,WI.

RODUCT.M21

SHEAR SHEETMETAL FOR ROUND DUCT SECTION WITH SMALL 8FT, SHEAR AT
SHEETMETAL SHOP
PER ROUND DUCT

NASSCO SHEETMETAL ROUND DUCT SECTION
* 20 GAUGE GALU, SHEETMETAL
* 6' ROUND DUCT 38' LG
FITTER BEGINS AT SMALLSHEAR

0FG: 4 31-MAY-83

1 POSITION SHEETMETAL FROM CART AT SMALLSHEAR TO
SMALLSHEAR WITH 4 STEPS
   A1 B0 G1 A6 B0 P6 A0 1.00  140.
2 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS
   A1 B0 G1 M1 X6 IO A0 1.00  90.
3 POSITION SHEETMETAL FROM SMALLSHEAR TO SMALLSHEAR WITH
   2 STEPS
   A1 B0 G1 A3 B0 P6 A0 1.00'  110.
4 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS
   A1 B0 G1 M1 X6 IO A0 1.00  90.
5 REPLACE SHEETMETAL FROM SMALLSHEAR TO CART AT
SMALLSHEAR WITH 4 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00  110.
6 MOVE CART FROM SMALLSHEAR TO WORKTABLE
   A1 B0 G1 A67 B3 F1 AO. 1.00  730.

   TOTAL TMU  1270.

Type  D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?
Invalid File Name

Please input file <RODUCT.M22> ?

File Description ? CUT CORNERS FOR ROUND DUCT

Output to line-Printer <Y or N> ?'N

( 39, 1)
FIT .W11
RODUCT.M22
CUT CORNERS FOR ROUND DUCT WITH SNIPS AT SHEETMETAL SHOP
OFG: 4 31-MAY-83
PER ROUND DUCT
NASSCO SHEETMETAL ROUND DUCT SECTION
* 20 GAUGE GALV. SHEETMETAL
* 6' ROUND DUCT 38'LG
FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE
WITH 4 STEPS
   A1 B0 G1 A6 B0 P3 A0  1.00  110.

2 POSITION SNIPS FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE F 2
   A1 B0 G1 A1 B0 P6 A0  2.00  180.

3 CUT CORNERS ON SHEETMETAL AT WORKTABLE 2 CUTS USING
SNIPS AT WORKTABLE AND ASIDE PF 2 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P3 C3 )A1 B0 P1 A0 (2)  1.00  180.

4 FASTEN [FLATTEN] SHEETMETAL CORNERS AT WORKTABLE 3
STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 2 ( 4 5
6 7 )
   A1 B0 G1 (A1 B0 P0 F6 )A1 B0 F1 A0 (2)  1.00  180.

5 REPLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE
WITH 4 STEPS
   A1 B0 G1 A6 B0 P3 A0  1.00  110.

6 MOVE CART FROM WORKTABLE TO LAPOUT
   A1 B0 G1 A54 B0 P1 A0  1.00  570.

TOTAL TMU  1330.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?.
File Description ? FORM LAP SEAM ON ROUND DUCT

Output to line-printer <Y or N> ? N

( 39, 1)
FIT

RODUCT.M23
FORM LAP SEAM ON ROUND DUCT SECTION WITH LAPOUT AT SHEETMETAL
SHOP
PER ROUND DUCT
OFG: 4 31-MAY-83
NASSCO SHEETMETAL ROUND DUCT SECTION
* 20 GAUGE GALV. SHEETMETAL
* 6' DIAMETER ROUND DUCT 38' LG
* FORM RIVET SEAM
* LAPOUT END FLANGE
FITTER BEGINS AT LAPOUT

1 PLACE SHEETMETAL FROM CART AT LAPOUT TO LAPOUT WITH 4 STEPS
A1 B0 G1 A6 B0 P3 A0 1.00 110.

2 PUSH LAPOUT-SWITCH PROCESS
A1 B0 G1 M1 X16 IO A0 1.00 190.

3 POSITION SHEETMETAL FROM LAPOUT TO LAPOUT WITH 2 STEPS
A1 B0 G1 A3 B0. P6 A0 1.00 110.

4 PUSH LAPOUT-SWITCH PROCESS
A1 B0 G1 M1 X16 IO A0 1.00 190.

5 REPLACE SHEETMETAL FROM LAPOUT TO CART AT LAPOUT WITH 4 STEPS
A1 B0 G1 A6 B0 P3 A0 1.00 110.

6 MOVE CART-FROM LAPOUT TO ROLLER
A1 B0 G1 A10 B0 P1 A0 1.00 130.

TOTAL TMU 840.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

3440
 File Description ? FORM ROUND DIAMETER FOR ROUND DUCT

Output to line-printer (Y or N> ? N

( 39, 1)
FIT %11
RODUCT.M24
FORM ROUND DIAMETER FOR ROUND DUCT SECTION WITH
ROLLER (ROLL FORMER) AT SHEETMETAL SHOP
PER ROUND DUCT OFG: 4 01-JUN-8-3
NASSCO SHEETMETAL ROUND DUCT SECTION
* 20 GAUGE GALV, SHEETMETAL
* 6' DIAMETER ROUND DUCT 38' LG
FITTER BEGINS AT ROLLER

1 MOVE MALLETS FROM TOOLROOM TO ROLLER
A54 B0 G1 A54 B0 F1 A0 1.00 1100.

2 POSITION SHEETMETAL FROM CART AT ROLLER TO ROLLER WITH
4 STEPS
A1 B0 G1 A6 B0 P6 A0 1.00 140.

3 FASTEN [KINK] SHEETMETAL AT ROLLER 2 STRIKES USING
MALLETS AT ROLLER AND ASIDE PF 40 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P0 F6 )A1 B0 P1 A0 (401 1.00 2840.

4 POSITION SHEETMETAL FROM ROLLER TO ROLLER WITH 2 STEPS
F 4
A1 B0 G1 A3 B0 P6 A0 4.00 440.

5 FASTEN BOLT [ROLLS] TO SHEETMETAL AT ROLLER 3
WRIST-TURNS USING HAND F 8
A1 B0 G1 A1 B0 F1 F6 A0 B0 P0 A0 8.00 800.

6 PUSH ROLLER-BUTTON PROCESS F 8
A1 B0 G1 M1 X96 IO A0 8.00 7920.

7 REPLACE SHEETMETAL FROM ROLLER TO CART AT ROLLER WITH
4 STEPS
A1 B0 G1 A6 B0 P3 A0 1.00 110.

8 MOVE CART FROM ROLLER TO WORKTABLE
A1 B0 .G1 A54 B3 P1 A0 1.00 600.

TOTAL TMU 13950.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help) ?
RIVET ROUND DUCT SECTION

FIT

ROIVD.25

RIVET ROUND DUCT SECTION WITH RIVET GUN AT SHEETMETAL SHOP

NASSCO SHEETMETAL ROUND DUCT SECTION

* 20 GAUGE GALV SHEETMETAL
* 6' DIAMETER ROUND DUCT 36'LG
* SEAL RIVET HEADS AND SEAM WITH SEALANT

FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL2 FROM CART AT WORKTABLE TO WORKTABLE
   WITH 4 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 110.
2 PLACE RIVET-HOLE-GUIDE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE
   A1 B0 G1 A1 B0 P3 A0 1.00 601
3 MARK SHEETMETAL FROM RIVET-HOLE-GUIDE AT WORKTABLE 1 DIGIT
   USING BLACKPEN AT WORKTABLE AND ASIDE' PF 30 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (30) 1.00 1540.
4 GRIP SHEETMETAL TO SHEETMETAL AT WORKTABLE USING VISEGRIPS AT WORKTABLE AND ASIDE PF 2 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P3 C1 )A1 B0 P1 A0 (2) 1.00 140.
5 FASTEN 5-32DRILL-BIT TO DRILLMOTOR AT WORKTABLE 3
   WRIST-TURNS USING CHUCKKEY AT WORKTABLE AND ASIDE
   A1 B0 G1 A1 B0 P3 F6 A1 B0 P1 A0 1.00 140.
6 POSITION DRILLMOTOR FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS F 30
   A1 B0 G1 A3 B0 P6 A0 30.00 3300.
7 OPERATE DRILLMOTOR AT WORKTABLE PROCESS F 30
   A1 B0 G1 M6 X6 I0 A0 30.00 4200.
8 POSITION RIVET FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 30
   A1 B0 G1 A1 B0 P6 A0 30.00 2700.
9 POSITION RIVETGUN FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 30
   A1 B0 G1 A1 B0 P6 A0 30.00 2700.
10 OPERATE RIVETGUN AT WORKTABLE PROCESS F 30
    A1 B0 G1 A1 B0 P6 A0 30.00 2700.
11 POSITION CAULKINGGUN FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS F 30
    A1 B0 G1 A3 B0 P6 A0 30.00 3300.
12 GRIP SEALANT TO SHEETMETAL AT WORKTABLE USING
    CAULKINGGUN AT WORKTABLE AND ASIDE PF 30 ( 4 5 6 7 )
    A1 B0 G1 (A1 B0 P3 C1 )A1 B0 P1 A0 (30) 1.00 1540.
13 INSPECT SHEETMETAL AT WORKTABLE 9 POINTS
    A0 B0 GO A0 B0 PO T10 A0 B0 PO A0 1.00 100.

TOTAL TMU 23130.

Type D, EM, CT, EW, EX, L, LB, LS, M, T, W <or H for help> ? 4520
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<td>1</td>
<td>MEASURE DIMENSION ON SHEETMETAL AT WORKABLE USING STEEL-TAPE AT WORKABLE AND ASIDE PF-4</td>
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<tr>
<td>2</td>
<td>MARK DIMENSION ON SHEETMETAL AT WORKABLE 1 DIGIT USING AWL AT WORKABLE AND ASIDE PF-4</td>
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<td>3</td>
<td>POSITION STRAIGHT/EDGE FROM WORKABLE TO SHEETMETAL AT WORKABLE F-2</td>
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<td>4</td>
<td>MARK LINES FROM STRAIGHT/EDGE TO SHEETMETAL AT WORKABLE 5 DIGITS USING AWL AND ASIDE PF-2</td>
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<td>5</td>
<td>POSITION CORNER TEMPLATE FROM WORKABLE TO SHEETMETAL AT WORKABLE F-2</td>
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<td>6</td>
<td>MARK SHEETMETAL FROM CORNER TEMPLATE TO SHEETMETAL AT WORKABLE 2 DIGITS USING AWL AT WORKABLE AND ASIDE PF-2</td>
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<td>7</td>
<td>MARK CUT LINES ON SHEETMETAL AT WORKABLE 5 DIGITS USING RED PENCIL AT WORKABLE AND ASIDE PF-6</td>
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<td>MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKABLE 1 DIGIT USING BLACK PEN AT WORKABLE AND ASIDE PF-3</td>
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<td>MARK IDENTIFICATION ON SHEETMETAL AT WORKABLE 1 DIGIT USING BLACK PEN AT WORKABLE AND ASIDE PF-2G</td>
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<td>10</td>
<td>PLACE SHEETMETAL FROM WORKABLE TO CART AT WORKABLE WITH 4 STEPS</td>
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<td>11</td>
<td>MOVE CART FROM WORKABLE TO SMALL SHEAR</td>
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**Shear Sheetmetal for Round Duct**

**Title and Method Specification Sheet**

- **Title (Required):** SHEAR SHEETMETAL FOR ROUND DUCT
- **Special Conditions/Key Points:** NASSCO. SHEETMETAL ROUND DUCT

**Task:**

- **Activity:** SHEAR
- **Object:** SHEETMETAL
- **Tool:** SMALL SHEAR

**Product/Equipment:**

- **Quantity/Size/Capacity:**
- **Work Area Origin:** SHOP
- **Work Area Number:**
- **Unit/Per:** PER RND DUCT

**Operator:**

- Begins:

**Date Filed:**

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<td>Position SHEETMETAL from cart at SMALL SHEAR</td>
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<td>at SMALL SHEAR WITH 4 STEPS</td>
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<tr>
<td>2</td>
<td>Push FOOT PEDAL at SMALL SHEAR PROCESS</td>
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<tr>
<td>3</td>
<td>Position SHEETMETAL from SMALL SHEAR to SMALL SHEAR</td>
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<tr>
<td></td>
<td>at SMALL SHEAR</td>
</tr>
<tr>
<td>4</td>
<td>Push FOOT PEDAL at SMALL SHEAR PROCESS</td>
</tr>
<tr>
<td>5</td>
<td>Replace SHEETMETAL from SMALL SHEAR to cart at SMALL SHEAR WITH 4 STEPS</td>
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<tr>
<td>6</td>
<td>Move cart from SMALL SHEAR to WORKABLE</td>
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**Temporary File Name/No.:**

- WORK AREA LAYOUT
- MOST ANALYSIS
- COMBINED SUB-OP.
- TITLE SHEET
Sheet Metal Shape #4

4" dia. x 48" LG. Round Duct

- Fab: 49410 .30 min.
- Mark Out: 7720 5 min.
- Total: 57110 35 min.
File Description ? MARK OUT ROUND DUCT

Output to line-Printer <Y or N> ? N

( 39, 1)
FIT ,W11
MARK OUT ROUND DUCT SECTION WITH AWL AT SHEETMETAL SHOP
PER ROUND DUCT OFG: 4 26-JUL-83

NASSCO SHEETMETAL ROUND DUCT SECTION
* 20 GAUGE GALV. SHEETMETAL
* 4' DIAMET ROUND DUCT 48' LG
* MARK OUT WITHOUT TEMPLATE
FITTER BEGINS AT WORKTABLE

1 MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING
STEEL-TAPE AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P1 M32 )A1 B0 P1 A0 (4) 1.00 1400.

2 MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT
USING AWL AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )
A1 B0 ‘G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (4) 1.00 240.

3 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE WITH 2 STEPS F 2
A1 B0 G1 A3 B0 P6 A0 2.00 220.

4 MARK LINES FROM STRAIGHTEDGE TO SHEETMETAL AT WORKTABLE
5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 2 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P1 R16.)A1 B0 P1 A0 (2) 1.00 400.

5 POSITION CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL
AT WORKTABLE WITH 3 STEPS F 2
A1 B0 G1 A6 B0 P6 A0 2.00 280.

6 MARK SHEETMETAL FROM CORNER TEMPLATE AT WORKTABLE 2
DIGITS USING AWL AT WORKTABLE AND ASIDE PF 2 ( 4 5 6 7 )
A1 B1 G1 (A1 B0 P1 R6 )A1 B0 P1 A0 (2) 1.00 200.

7 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS
USING REDPEN AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (6) 1.00 1120.

8 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT
WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND
ASIDE PF 33 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (33) 1.00 1690.

9 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT
USING BLACKPEN AT WORKTABLE AND ASIDE PF 26 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (26) 1.00 1340.

10 PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE
WITH 4 STEPS
A1 B0 G1 A6 B0 P3 A0 1.00 1101

11 MOVE CART FROM WORKTABLE TO SMALLSHEAR
A1 B0 G1 A67 B0 P1 A0 1.00 700.

TOTAL TMU 7700.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help:> ?
File Description: SHEAR SHEETMETAL FOR ROUND DUCT

Output to line-Printer (Y or N) ? N

FIT .W11

SHEAR SHEETMETAL FOR ROUND DUCT SECTION WITH SMALL 8FT. SHEAR AT SHEETMETAL SHOP PER ROUND DUCT

NASSCO SHEETMETAL ROUND DUCT SECTION
* 20 GAUGE GALV. SHEETMETAL
* 4' DIAMETER ROUND DUCT 48' LG
FITTER BEGINS AT SMALLSHEAR

1 POSITION SHEETMETAL FROM CART AT SMALLSHEAR TO SMALLSHEAR WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P6 A0 2.00 280.
2 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS
   A1 B0 G1 M1 X6 IO A0 1.00 90.
3 POSITION SHEETMETAL FROM SMALLSHEAR TO SMALLSHEAR WITH 2 STEPS
   A1 B0 G1 A3 B0 P6 A0 1.00 110.
4 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS
   A1 B0 G1 M1 X6 IO A0 1.00 90.
5 REPLACE SHEETMETAL FROM SMALLSHEAR TO CART AT SMALLSHEAR WITH 4 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 110.
6 MOVE CART FROM SMALLSHEAR TO WORKTABLE
   A1 B0 G1 A67 B3 P1' 60 1.00 730.

TOTAL TMU 1410.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W (or H for help) ?
File Description ? CUT CORNERS FOR ROUND DUCT

Output to line-Printer <Y or N> ?-N

(FIT ) .W11

CUT CORNERS FOR ROUND DUCT SECTION WITH SNIP'S AT SHEETMETAL SHOP

NASSCO SHEETMETAL ROUND DUCT SECTION
* 20 GAUGE GALV. SHEETMETAL
* 4' DIAMETER ROUND DUCT 48' LG
FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 110.

2 POSITION SNIPS FROM WORKTABLE TO SHEETMETAL AT WORKTABLE f 2
   A1 B0 G1 A1 B0 P6 A0 2.00 180.

3 CUT CORNERS ON SHEETMETAL AT WORKTABLE 2 CUTS USING SNIPS AT WORKTABLE AND ASIDE PF 2 (4 5 6 7)
   A1 B0 G1 (A1 B0 P3 C3 )A1 B0 P1 A0 (2) 1.00 180.

4 FASTEN [FLATTEN] SHEETMETAL CORNERS AT WORKTABLE 3 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 2 (4 5 6 7)
   A1 B0 G1 (A1 B0 PO F6 )A1 B0 P1 A0 (2) 1.00 180.

5 REPLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS
    A1 B0 G1 A6 B0 P3 A0 1.00 110.

6 MOUE CART FROM WORKTABLE TO LAPOUT
   A1 B0 G1 A54 B0 P1 A0 1.00 570.

TOTAL TMU 1330.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?; 2740
File Description ? FORM LAP SEAM ON ROUND DUCT

Output to line-Printer <Y or N> ? N

(39, 1)
FIT .W1
FORM LAP SEAM ON ROUND DUCT SECTION WITH LAPOUT (ROTARY MACHINE)
AT SHEETMETAL SHOP
PER ROUND DUCT
NFG: 401-JUN-83

NASSCO SHEETMETAL SHAPE 4
* 20 GAUGE GALV, SHEETMETAL
* 4' DIAMETER ROUND DUCT 48' LG
* FORM LAP RIVET SEAM
* LAPOUT END FLANGE
FITTER BEGINS AT LAPOUT

1 PLACE SHEETMETAL FROM CART AT LAPOUT TO LAPOUT WITH 4 STEPS
A1 BO G1 A6 BO P3 A0 1.00 110.

2 PUSH LAPOUT-SWITCH PROCESS
A1 BO G1 M1 X16 IO A0 1.00 190.

3 POSITION SHEETMETAL FROM LAPOUT TO LAPOUT WITH 4 STEPS
A1 BO G1 A6 BO P6 A0 1.00 140.

4 PUSH LAPOUT-SWITCH PROCESS
A1 BO G1 M1 X16 IO A0 1.00 190.

5 REPLACE SHEETMETAL FROM LAPOUT TO CART AT LAPOUT WITH
4 STEPS
A1 BO G1 A6 BO P3 A0 1.00 110.

6 MOVE CART FROM LAPOUT TO ROLLER
A1 BO G1 A10 BO P1 A0 1.00 130.

TOTAL TMU 870.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

36, 10
File Description ? FORM ROUND DIAMETER FOR ROUND DUCT

Output to line-printer <Y or N) ?.N

( 39, 1)
FIT .W11

FORM ROUND DIAMETER FOR ROUND DUCT SECTION WITH ROLLER (ROLL FORMER) AT SHEETMETAL SHOP

PER ROUND DUCT OFG: 4 01-JUN-83

NASSCO SHEETMETAL SHAPE 4
* 20 GAUGE GALV. SHEETMETAL
* 4' DIAMETER ROOUND DUCT 48' LG

FITTER BEGINS AT ROLLER

1 MOUE Mallet FROM TOOLROOM TO ROLLER
   A54 BO G1 A54 BO P1 A0  1.00  1100.

2 POSITION SHEETMETAL FROM CART AT ROLLER TO ROLLER WITH 4 STEPS
   A1 BO G1 A6 BO P6 A0  1.00  140.

3 FASTEN [KINK] SHEETMETAL AT ROLLER 2 STRIKES USING MALLET AT ROLLER AND ASIDE PF 50 ( 4 5 6 7)
   A1 BO G1 (A1 BO PO P6 )A1 BO P1 A0 (50) 1.00  3540 .

4 POSITION SHEETMETAL FROM ROLLER TO ROLLER WITH 3 STEPS F 4
   A1 BO G1 A6 BO P6 A0  4.00  560.

5 FASTEN BOLT [ROLLS] TO SHEETMETAL AT ROLLER 3 WRIST-TURNS USING HAND F 8
   A1 BO G1 A1 BO P1 F6 A0 BO PO A0  8.00  800.

6 PUSH ROLLER-BUTTON PROCESS F 8
   A1 BO G1 M1 X96 IO A0  8.00  7920.

7 REPLACE SHEETMETAL2'FROM ROLLER TO CART AT ROLLER WITH 4 STEPS
   A1 BO G1 A6 BO P3 A0  1.00  110.

8 MOUE CART FROM ROLLER TO WORKTABLE
   A1 BO G1 A54 B3 P1 A0  1.00  600.

TOTAL TMU 14770.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

/8,380
RIVET ROUND DUCT SECTION

FIT .W11

RIVET ROUND DUCT SECTION WITH RIVET (SUN AT SHEETMETAL SHOP PER ROUND DUCT

NASSCO SHEETMETAL SHAPE 4
* 20 GAUGE GALV, SHEETMETAL
* 4' DIAMETER ROUND DUCT 48' LG
* SEAL RIVET HEADS AND SEAM WITH SEALANT

FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS
A1 B0 G1 A6 B0 P3 A0 1.00 110.

2 PLACE RIVET-HOLE-GUIDE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE
A1 B0 G1 A1 B0 P3 A0 1.00 60.

3 MARK SHEETMETAL FROM RIVET-HOLE-GUIDE TO SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 38 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (38) 1.00 1940.

4 GRIP SHEETMETAL TO SHEETMETAL AT WORKTABLE USING VISEGRIPS AT WORKTABLE AND ASIDE PF 2 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P3 C1 )A1 B0 P1 A0 (2) 1.00 140.

5 FASTEN 5-32 DRILL-BIT TO DRILLMOTOR AT WORKTABLE 3 WRIST-TURNS USING CHUCKKEY AT WORKTABLE AND ASIDE
A1 B0 G1 A1 B0 P3 F6 A1 B0 P1 A0 1.00 140.

6 POSITION DRILLMOTOR FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS F 38
A1 B0 G1 A6 B0 P6 A0 38.00 5320.

7 OPERATE DRILLMOTOR AT WORKTABLE PROCESS F 38
A1 B0 G1 M6 X6' IO A0 38.00 5320.

8 POSITION RIVET FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 38
A1 B0 G1 A1 B0 P6 A0 38.00 3420.

9 POSITION RIVETGUN FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS F 38
A1 B0 G1 A3 B0 P6 A0 38.00 4180.

10 OPERATE RIVETGUN AT WORKTABLE PROCESS F 38
A1 B0 G1 M6 X3 IO A0 38.00 4180.

11 POSITION CAULKINGGUN FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS F 38
A1 B0 G1 A3 B0 P6 A0 38.00 4180.

12 GRIP SEALANT TO SHEETMETAL AT WORKTABLE USING CAULKINGGUN AT WORKTABLE AND ASIDE PF 38 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P3 C1 )A1 B0 P1 A0 (38) 1.00 1940.

13 INSPECT SHEETMETAL AT WORKTABLE 9 POINTS
A0 B0 GO A0 B0 PO T10 A0 B0 PO A0 1.00 100+

TOTAL TMU 31030.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help) ?
**Sheet Metal Shape # 4**

**10" Dia x 48" LG. Round Duct**

<p>| | | |</p>
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File Description ? MARK OUT ROUND DUCT SECTION

Output to line-printer <Y or N> ? N

( 39, 1)
FIT .W11 RODUCT.M50

MARK OUT ROUND DUCT SECTION WITH AWL AT SHEETMETAL SHOP
PER ROUND DUCT OFG: 4 O1-JUN-83
NASSCO SHEETMETAL SHAPE 4
* 20 GAUGE GALV. SHEETMETAL
* 10' DIAMETER ROUND DUCT 48' LG
* MARK OUT WITHOUT TEMPLATE
FITTER BEGINS AT WORKTABLE

1 MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE. USING
STEEL-TAPE AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P1 M32 )A1 B0 P1 A0 (4) '1.00 1400.

2 MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT
USING AWL AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (4) 1.00 240.

3 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE WITH 2 STEPS F 2
A1 B0 G1 A3 B0 P6 A0 2.00 220.

4 MARK LINES FROM STRAIGHTEDGE AT WORKTABLE 5 DIGITS
USING AWL AT WORKTABLE AND ASIDE PF 2 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (2) 1.00 400.

5 POSITION CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL
AT WORKTABLE F 2 with 3 steps
A1 B0 G1 A1 B0 P6.A0 2.00 180.

6 MARK SHEETMETAL FROM CORNER TEMPLATE AT WORKTABLE 2
DIGITS USING AWL AT WORKTABLE AND ASIDE PF 2 ( 4 5 6 7 )
A1 B0 G1 <A1 B0 P1 R6 )A1 B0 P1 A0 (2) 1.00 200.

7 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS
USING R {DPEN AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7 )
}1
A1 B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (6) 1.00 1120.

8 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT
WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND
ASIDE PF 33 ( 4 5 6 7 )
A1 B0 G1 (A1 . B0 P1 R3 )A1 B0 P1 A0 (33) 1.00 1690.

9 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT
USING BLACKPEN AT WORKTABLE AND ASIDE PF 26 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (26) 1.00 1340.

10 PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE
WITH 3 STEPS
A1 B0 G1 A6 B0 P3 A0 1.00 110.

11 MOUE CART FROM WORKTABLE TO SMALLSHEAR
A1 B0 611 A67 O P1 A0 1.00 100.

TOTAL TMU 7600.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help) ?
File Description ? SHEAR SHEETMETAL FOR ROUND DUCT

Output to line-Printer .<Y or N> ? }iN

%Invalid command.

Output to line-printer <Y or N> ? N

( 39, 1)
FIT .W11
RODUCT.M51
SHEAR SHEETMETAL FOR ROUND DUCT SECTION WITH SMALL 8FT. SHEAR AT
SHEETMETAL SHOP
PER ROUND DUCT OFG: 4 01-JUN-83
NASSCO SHEETMETAL SHAPE 4
* 20 GAUGE GALV. SHEETMETAL
* 10' DIAMETER ROUND DUCT 48' LG
FITTER BEGINS AT SMALLSHEAR

1 POSITION SHEETMETAL FROM CART AT SMALLSHEAR TO
SMALLSHEAR WITH 4 STEPS F 2
A1 B0 G1 A6 B0 P6 A0 2.00 280.

2 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS
A1 B0 G1 M1 X6 IO A0 1.00 90.

3 POSITION SHEETMETAL FROM SMALLSHEAR TO SMALLSHEAR WITH
2 STEPS
A1 B0 G1 A3 B0 P6 A0 1.00 110.

4 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS
A1 B0 G1 M1 X6 IO A0 1.00 90.

5 REPLACE SHEETMETAL FROM SMALLSHEAR TO CART AT
SMALLSHEAR WITH 4 STEPS
A1 B0 G1 A6 B0 P3 A0 1.00 110.

6 MOVE CART FROM SMALLSHEAR TO WORKTABLE
A1 B0 G1 A67 B3 P1 A0 1.00 730.

TOTAL TMU 1410.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?
FIT
RODUCT.M52
CUT CORNERS FOR ROUND DUCT SECTION WITH SNIPS AT SHEETMETAL SHOP
OFG: 4 01-JUN-83

1. FIT SHEETMETAL SHAPE 4
   NASSCO SHEETMETAL SHAPE 4
   * 20 GAUGE GALV, SHEETMETAL
   * 10' DIAMETER ROUND DUCT 48' LG
   FITTER BEGINS AT WORKTABLE

2. PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 110.

3. POSITION SNIPS FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS F 2
   A1 B0 G1 A3 B0 P6 A0 2.00 220.

4. CUT CORNERS ON SHEETMETAL AT WORKTABLE 2 CUTS USING SNIPS AT WORKTABLE AND ASIDE PF 2 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P3 C3 )A1 B0 P1 A0 (2) 1.00 180.

5. FASTEN [FLATTEN] SHEETMETAL CORNERS AT WORKTABLE 3 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 2 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P0 F6 )A1 B0 P1 A0 (2) 1.00 180.

6. REPLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 110.

7. MOVE CART FROM WORKTABLE TO LAPOUT
   A1 B0 G1 A54 B0 P1 A0 1.00 570.

TOTAL TMU 1370.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?
File Description ? FORM. LAP SEAM ON ROUND DUCT

Output to line-printer <Y or N> ? N

( 39, 1)
FIT .W11 RODUCT.M53
FORM LAP SEAM ON ROUND DUCT SECTION WITH LAPOUT (ROTARY MACHINE)
AT SHEETMETAL SHOP
PER ROUND DUCT OFG: 4 01-JUN-83

NASSCO SHEETMETAL SHAPE 4
* 20 GAUGE GALV. SHEETMETAL
* 10' DIAMETER ROUND DUCT 48' LG
* FORM LAP RIVET SEAM
* LAP OUT END FLANGE
FITTER BEGINS AT LAPOUT

1 PLACE SHEETMETAL FROM CART AT LAPOUT TO LAPOUT WITH 4 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 110.

2 PUSH LAPOUT-SWITCH PROCESS
   A1 B0 G1 M1 X16 IO A0 1.00 190.

3 POSITION SHEETMETAL FROM LAPOUT TO LAPOUT WITH 3 STEPS
   A1 B0 G1 A6 B0 P6 A0 1.00 140.

4 PUSH LAPOUT-SWITCH PROCESS
   A1 B0 G1 M1 X16 IO A0 1.00 190.

5 REPLACE SHEETMETAL FROM LAPOUT TO CART AT LAPOUT WITH 4 STEPS
   A1 B0 'G1 A6 B0 P3 A0 1.00 110.

6 MOVE CART FROM LAPOUT TO ROLLER
   A1 B0 G1 A10 B0 P1 A0 1.00 130.

TOTAL'TMU 870.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

3650
File Description ? FORM ROUND DIAMETER FOR ROUND DUCT

Output to line-printer <Y or N> ? N

~ (39,    1) FIT .W11 RODUCT.M54
 FORM ROUND DIAMETER FOR ROUND DUCT WITH ROLLER (ROLL FORMER) AT
 SHEETMETAL SHOP
 PER ROUND DUCT OFG: 4 01-JUN-83

NASSCO SHEETMETAL SHAPE 4
* 20 GAUGE GALV. SHEETMETAL
* 10' DIAMETER ROUND DUCT 48' LG
 FITTER BEGINS AT ROLLER

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<th>Step</th>
<th>Action Description</th>
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<th>Parameters</th>
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<th>Total TMU</th>
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<tr>
<td>1</td>
<td>MOVE MALLET FROM TOOLROOM TO ROLLER</td>
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<td>2</td>
<td>POSITION SHEETMETAL FROM CART AT ROLLER TO ROLLER WITH 4 STEPS</td>
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<td>FASTEN [KINK] SHEETMETAL AT ROLLER 2 STRIKES USING MALLET AT ROLLER AND ASIDE PF 50 ( 4 5 6 7 )</td>
<td>A1 B0 G1 (A1 B0 P0 F6 )A1 B0 P1 A0 (50)</td>
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<td>4</td>
<td>POSITION SHEETMETAL FROM ROLLER TO ROLLER WITH 3 STEPS</td>
<td>A1 B0 G1 A6 B0 P6 A0</td>
<td>4.00</td>
<td>560</td>
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<td>5</td>
<td>FASTEN BOLT [ROLLS] TO SHEETMETAL AT ROLLER 3 WRIST-TURNS USING HAND F 8</td>
<td>A1 B0 G1 A1 B0 P1 F6 A0 B0 P0 A0</td>
<td>8.00</td>
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<tr>
<td>6</td>
<td>PUSH ROLLER-BUTTON PROCESS F 8</td>
<td>A1 B0 G1 M1 X96 IO A0</td>
<td>8.00</td>
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<td>7</td>
<td>REPLACE SHEETMETAL FROM ROLLER TO CART AT ROLLER WITH 4 STEPS</td>
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<td>1.00</td>
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<td>8</td>
<td>MOVE CART FROM ROLLER TO WORKTABLE</td>
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TOTAL TMU 14770.

Type D*EM*CT*EW*EX*L*LD*LS*M*T*W <or H for help> ?: 18420
File Description ? RIVET ROUND DUCT SECTION

Output to line-printer <Y or N> ? N

( 39, 1)
FIT .W11
RODUCT.M55
RIVET ROUND DUCT SECTION WITH RIVET GUN AT SHEETMETAL SHOP
PER ROUND DUCT OFG: 4 26-JUL-83
NASSCO SHEETMETAL SHAPE 4
* 20 GAUGE GALV, SHEETMETAL
* 10' DIAMETER ROUND DUCT 48' LG
* SEAL RIVET HEADS AND SEAM WITH SEALANT
FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 110.

2 PLACE RIVET-HOLE-GUIDE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE AND ASIDE
   A1 B0 G1 A1 B0 P3 A0 1.00 60.

3 MARK SHEETMETAL FROM RIVET-HOLE-GUIDE AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 38 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (38) 1.00 1940.

4 GRIP SHEETMETAL TO SHEETMETAL AT WORKTABLE USING VISEGRIPS AT WORKTABLE AND ASIDE PF 2 ( 4.5 6 7 )
   A1 B0 G1 (A1 B0 P3 C1 >A1 B0 P1 A0 (2) 1.00 140.

5 FASTEN 5-32DRILL-BIT TO DRILLMOTOR AT WORKTABLE 3 WRIST-TURNS USING CHUCKKEY AT WORKTABLE AND ASIDE
   A1 B0 G1 A1 B0 P3 F6 A1 B0 P1 A0 1.00 140.

6 POSITION DRILLMOTOR FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH, 3 STEPS F 38
   A1 B0 G1 A6 B0 P6 A0 38.00 5320.

7 OPERATE DRILLMOTOR AT WORKTABLE PROCESS F 38
   A1 B0 G1 M6 X6 I0- A0 38.00 5320.

8 POSITION RIVET FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 1 STEP F 38
   A1 B0 G1 A3 B0 P6 A0. 38.00 4180.

9 POSITION RIVETGUN FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS F 38
   A1 B0 G1 A6 B0 P6 A0 38.00 5320.

10 OPERATE RIVETGUN AT WORKTABLE PROCESS F 38
    A1 B0 G1 M6 X3 I0 A0 38.00 4180.

11 POSITION CAULKINGGUN FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS F 42
    A1 B0 G1 A3 B0 P6 A0 42.00 4620.

12 GRIP SEALANT TO SHEETMETAL AT WORKTABLE USING CAULKINGGUN AT WORKTABLE AND ASIDE PF 42 ( 4 5 6 7 )
    A1 B0 G1 (A1 B0 P3 C1 )A1 B0 P1 A0 (42) 1.00 2140.

13 INSPECT SHEETMETAL AT WORKTABLE 9 POINTS
   A0 B0 GO A0 B0 P0 T10 A0 B0 P0 A0 1.00 100.

TOTAL TMU 33570.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help) ?
SHEET METAL SHAPE

5 GORED 5" Dia. 90° ELBOW

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5 SHS.
File Description  ? MARK OUT 5 GORED ELBOW

Output to line-printer <Y or N> ? N

( 39, 1)
FIT .W1

MARK OUT SHEETMETAL FOR 5 GORED ELBOW WITH AWL AT SHEETMETAL SHOP

PER GORED ELBOW OFG: 4 23-MAY-83

NASSCO SHEETMETAL SHAPE 5
* 18 GAUGE GALV. SHEETMETAL
* 5' DIAMETER 5 GORED ELBOW
* MARK OUT ELBOW USING TEMPLATE

FITTER BEGINS AT WORKTABLE

1 POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 5
A1 B0 G1 A1 B0 P6 A0 5.00 450.

2 GRIP TEMPLATE TO SHEETMETAL AT WORKTABLE USING VISEGRIPS AND ASIDE PF 5 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P3 C1 )A1 B0 P1 A0 (5) 1.00 290.

3 MARK OUTLINES FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AND ASIDE PF 10 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (10) 1.00 540.

4 POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 34
A1 B0 G1 A1 B0 P6 A0 34.00 3060.

5 FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE AND ASIDE F 34.
A1 B0 G1 A1 B0 P0 F3 A1 B0 P1 A0 34.00 2720.

6 MARK CUT LINES FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 10 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P1 R16 )A1 B0 F1 A0 (10) 1.00 1840.

7 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 99 ( 4 5 6 7 )
A1 B0. G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (99) 1.00 4990.

8 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 31 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (31) 1.00 1590.

9 PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2
A1 B0 G1 A6 B0 P3 A0 2100 220.

10 MOVE CART FROM WORKTABLE TO SMALLSHEAR
A1 B0 G1 A67 B0 P1 A0 1.00 700.

TOTAL TMU 16400.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help) ?
File Description ? SHEAR SHEETMETAL FOR 5 GORED ELBOW

Output to line-Printer <Y or N> ? N

( 39, 1)
FIT * W1

G E L B O W

SHEAR SHEETMETAL FOR-5 GORED ELBOW WITH SMALL 8FT, SHEAR AT
SHEETMETAL SHOP
PER GORED ELBOW

OFG: 4 23-MAY-83

NASSCO SHEETMETAL SHAPE 5
* 18 GAUGE GALV. SHEETMETAL
* 5' DIAMETER 5 GORED ELBOW
FITTER BEGINS'AT SMALLSHEAR

1 POSITION SHEETMETAL FROM CART AT SMALLSHEAR TO
SMALLSHEAR WITH 4 STEPS F 2
A1 B0 G1 A6 B0 P6 A0 2.00 280.

2 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 2
A1 B0 G1 M1 X6 I0 A0 2.00 180.

3 POSITION SHEETMETAL FROM SMALLSHEAR TO SMALLSHEAR WITH
2 STEPS
A1 B0 G1 A3 B0 P6 A0 1.00 110.

4 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS
A1 B0 G1 M1 X6 I0 A0 1.00 90.

5 REPLACE SHEETMETAL FROM SMALLSHEAR TO CART AT
SMALLSHEAR WITH 12 STEPS F 2
A1 B0 G1 A24 B0 P3 A0 2.00 580.

6 MOVE CART FROM SMALLSHEAR TO WORKTABLE
A1 B0 G1 A67 B3 P1 A0 1.00 730.

TOTAL TMU 1970.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?
File Description ? SHEAR SHEETMETAL FOR 5 GORED ELBOW

Output to line-printer <Y or N> ? N

(39, 1)
FIT

GELBOW.822

SHEAR SHEETMETAL FOR 5 GORED ELBOW WITH UNI-SHEAR AT SHEETMETAL

SHOP

PER GORED ELBOW

NASSCO SHEETMETAL SHAPE 5
* 18 GAUGE GALV. SHEETMETAL
* 5' DIAMETER 5 GORED ELBOW
* SHEAR RADIUS ON GORES
FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE
WITH 4 STEPS F 2

A1 B0 G1 A6 B0 P3 A0 2.00 220.

2 MOVE UNISHEAR2 FROM TOOLROOM TO WORKTABLE

A96 B0 G1 A96 B3 P1 A0 1.00 1970.

3 OPERATE UNISHEAR ON SHEETMETAL PROCESS F 5

A1 B0 G1 M6 X17310 A0 5.00 9050.

4 FASTEN [FLATTEN] CORNERS ON SHEETMETAL AT WORKTABLE
STIKES USING HAMMER-AND ASIDE PF 20 (4 5 6 7)

A1 B0 G1 (A1 B0 P0 P6 )A1 B0 P1 A0 (20) 1.00 1440.

5 REPLACE SHEETMETAL2 FROM WORKTABLE TO CART AT WORKTABLE
WITH 4 STEPS F 2

A1 B0 G1 A6 B0 P3 A0 2.00 220.

6 MOVE CART FROM WORKTABLE TO ROLLER

A1 B0 G1 A54 B0 P1 A0 1.00 570.

TOTAL TMU 13470.

Type D,EM,CT,EW,EX,L,LD,LS,T,W <or H for help> ?

15,440
File Description ? FORM SHEETMETAL FOR 5 GORED ELBOW

Output to line-printer <Y or N> ? N

( 39, 1)
FIT .W11

FORM SHEETMETAL FOR 5 GORED ELBOW (ROLL FORMER) AT
SHEETMETAL SHOP
PER GORED ELBOW

OFG: 4 24-MAY-83

NASSCO SHEETMETAL SHAPE 5
* 18 GAUGE GALV. SHEETMETAL
* 5' DIAMETER 5 GORED ELBOW
* ROLL UP GORES TO 5' DIAMETER
FITTER BEGINS AT ROLLER

PLACE SHEETMETAL2 FROM CART AT ROLLER TO ROLLER WITH 4
STEPS F 5

2 FASTEN NUT [ROLLS] TO SHEETMETAL AT ROLLER 5
WRIST-TURNS USING HAND F 23

3 PUSH ROLLER-BUTTON PROCESS F 40

4 REPLACE SHEETMETAL2 FROM ROLLER TO CART AT ROLLER WITH
4 STEPS F 5

5 MOVE CART FROM ROLLER TO WELDOUT

TOTAL TMU 44650.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help) ?

69090
ASSEMBLE 5 GORED ELBOW

PER GORED ELBOW

NASSCO SHEETMETAL SHAPE 5
* 18 GAUGE GALV. SHEETMETAL
* 5' DIAMETER 5 GORED ELBOW
* CLAMP SHEETMETAL GORES TOGETHER AND --
* -- TACK WELD
* MOVE TO WELD BOOTH AREA
* COMPLETE IN MWELD..SEE GELBOW.M25
FITTER BEGINS AT WELDOUT

1 PLACE SHEETMETAL FROM CART AT WELDOUT TO WELDOUT WITH
4 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0 2.00 220.  

2 MOVE CCLAMP FROM WORKTABLE TO WELDOUT
   A54 B3 G1 A54 B3 P1 A0 1.00 1160. 

3 GRIP SHEETMETAL TO SHEETMETAL AT WELDOUT USING
CCLAMPS AND ASIDE PF.10 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P3 01 )A1 B0 P1 A0 (10) 1.00 540. 

4 POSITION TACKWELDER FROM WELDOUT TO SHEETMETAL AT
WELDOUT F 99
   A1 B0 G1 A1 B0 P6 A0 99.00 8910. 

5 POSITION TACKWELDER FROM WELDOUT TO SHEETMETAL AT
WELDOUT F 16
   A1 B0 G1 A1 B0 P6 A0 16.00 1440. 

6 REPLACE SHEETMETAL FROM WELDOUT TO CART AT WELDOUT
WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0 2.00 220. 

7 MOVE CART FROM WELDOUT TO WORKTABLE
   A1 B0 G1 A54 B3 P1 A0 1.00 600. 

TOTAL TMU 13090. 

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W (or H for help). ? 73180
File Description ? WELD 5 GORED ELBOW

Output to line-printer <Y or N> ? N

( 39, 3)

WELD 5 GORED ELBOW WITH TIG-WELDER AT SHEETMETAL SHOP

WELDING BOOTH

* PER GORED ELBOW

WELDING NASSCO SHEETMETAL SHAPE 5
* 18 GAUGE GLAV. SHEETMETAL
* 5' DIAMETER 5 GORED ELBOW
* WELDING DONE IN WELD BOOTH
* GAS TUNGSTEN ARC WELDING
* WORK PERFORMED BY WELDOR
* FITTER TRANSPORTS SHEETMETAL ASSEMBLY

FITTER BEGINS AT WORKTABLE

1 FITTER PLACE SHEETMETAL ASSEMBLY FROM WORKTABLE TO CART
AT WORKTABLE WITH 4 STEPS

A1 B0 G1 A6 B0 P3 A0 1.00 110.

2 FITTER MOVE CART FROM WORKTABLE TO WELDTABLE

A1 B0 G1 A131B3 P1 A0 1.00 1370.

3 PLACE SHEETMETAL ASSEMBLY FROM CART AT WELDTABLE TO
WELDTABLE WITH 4 STEPS

A1 B0 G1 A6 B0 P3 A0 1.00 110.

4 WELDOR PUSH POWER SUPPLY BUTTON FROM OFF AT
WELDMACHINES TO ON AT WELDMACHINES WITH 16 STEPS

A3 B0 G1 M1 X0 I0 A32 1.00 370.

5 WELDOR PUSH GAS-HOOKUP-SWITCH FROM OFF AT WELDMACHINES
TO ON AT WELDMACHINES

A1 B0 G1 M1 X0 I0 A1 1.00 40.

6 WELDOR FASTEN CURRENT SELECTOR HANDLE AT WELDMACHINES 1
WRIST-TURN USING HAND

A1 B0 G1 A1 B0 P1 F3 A0 B0 PO A0 1.00 70.

7 WELDOR TURN OUTPUT CONTROL LEVER FROM OFF AT
WELDMACHINES TO ON AT WELDMACHINES

A1 B0 G1 M3 X0 I0 A1 1.00 60.

8 WELDOR POSITION ANTI-SPATTER SPRAY CAN FROM WELDTABLE
TO SHEETMETAL ASSEMBLY AT WELDTABLE F 4

A3 B3 G1 A1 B0 P6 A0 4.00 560.

9 WELDOR PUSH ANTI-SPATTER2 SPRAY CAN PROCESS F 4

A1 B0 G1 M1 X10 I0 A0 4.90 520.

10 WELDOR POSITION WELDROD WELDTABLE TO SHEETMETAL
ASSEMBLY AT WELDTABLE (F 12)

A1 B0 G1 A1 B0 P6 A0 12.00 1080.

11 PULL WELDHOOD FROM LUP AT WELDOR TO DOWN AT WELDOR F 4

A1 B0 G1 M1 X0 I0 A1 4.00 160.

12 WELDOR POSITION WELDGUN FROM WELDTABLE TO SHEETMETAL
ASSEMBLY AT WELDTABLE WITH PARTIAL BEND F 12

A1 B0 G1 A1 B6 B6 P6 A0 12.00 1800.

13 OPERATE WELD STINGER-BUTTON1 PROCESS F 20

A1 B0 G1 M6 X81 I0 A0 20.00 17800.

14 PUSH WELDHOOD FROM DOWN AT WELDOR TO UP AT WELDOR F 4

A1 B0 G1 M1 X0 I0 A1 4.00 160.

15 WELDOR DEBURR WELDED ASSEMBLY AT WELDTABLE 1 ARM-STROKE
USING WIREBRUSH AT WELDTABLE AND ASIDE PF 50 ( 4 5 6 7
F 4

1 6 REPLACE SHEETMETAL ASSEMBLY FROM WELD TABLE TO CART AT WELD TABLE WITH 4 STEPS

A1 B0 G1 A6 B0 P3 A0 1.00 110.

1 7 FITTER HOVE CART FROM WELD TABLE TO WORK TABLE

A1 B0 G1 A131B0 P1 A0 1.00 1340.

TOTAL TMU 31820.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?
Sheet Metal Shape # 5

5 Gored 12" Dia. 90° Elbow

Fab 126,890 76 min.
Mark out 12300 7 min.
Weld 65,460 39 min.
Total Thu. 204,650 123 min.
Please input file <GELBOW.M01> ?

File Description ? MARK OUT 5 GORED ELBOW

Output to line-printer <Y or N> ? N

( 39, 3)
FIT .W08
GELBOW.M01
MARK OUT SHEETMETAL FOR 5 GORED ELBOW WITH AWL AT SHEETMETAL SHOP
PER GORED ELBOW OFG: 4' 31-MAR-83

FIT
HULL 414
DRAWING 501-073
V6-5493
18 GAUGE GALV. SHEETMETAL
12'DIA. ELBOW WITH 12'RADIUS
MARK OUT ELBOW WITH STANDARD TEMPLATE
FITTER BEGINS AT WORKTABLE

1 POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 4 STEPS F 5
   A1 B0 G1 A6 B0 P6 A0 5.00 700.

2 GRIP TEMPLATE TO SHEETMETAL AT WORKTABLE USING VISEGRIPS AND ASIDE PF 5 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P3 C1 )A1 B0 P1 A0 (5) 1.00 290.
MARK OUTLINES FROM TEMPLATE TO SHEETMETAL AT WORKTABLE

3 1 DIGIT USING AWL AND ASIDE PF 10 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A6 (10) 1.00 540.

4 POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 4 STEPS
   A1 B0 G1 A6 B0 P6 A0 1.00 140.

5 FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AND ASIDE PF 34 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P0 F3 )A1 B0 P1 A0 (34) 1.00 1400.

6 MARK CUT LINES FROM TEMPLATE TO SHEETMETAL AT WORKTABLE
   5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 10 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (10) 1.00 1840.

7 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 65 < 4 5 6 7
   A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (65) 2.00 6580.

8 PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 110.

9 MOVE CART WITH SHEETMETAL FROM WORKTABLE TO SMALLSHEAR
   A1 B0 G1 A67 B0 P1 AO 1.00 700.

TOTAL TMU 12300.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W (or H for help> ?
Please input file <GELBOW.M02> ?

File Description ? SHEAR SHEETMETAL FOR 5 GORED ELBOW

Output to line-printer <Y or N> ? N

( 39, 3)
FIT .W08

GELBOW.M02
SHEAR SHEETMETAL FOR 5 GORED ELBOW WITH SMALL SHEAR (8FT. SHEAR)
AT SHEETMETAL SHOP
PER GORED ELBOW
OFG: 4 31-MAR-83
NASSCO SHEETMETAL SHAPE # 5
* HULL 414
* DRAWING 501-073
* V6-54493
* 18 GAUGE GALV. SHEETMETAL
* 12'DIA. ELBOW WITH 12'RADIUS
FITTER BEGINS AT SMALLSHEAR

1 POSITION SHEETMETAL FROM CART AT SMALLSHEAR TO SMALLSHEAR WITH 4 STEPS
   A1 B0 G1 A6 B0 P6 A0 1.00 140.
2 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS
   A1 B0 G1 M1 X6 I0 A0 1.00 90.
3 POSITION SHEETMETAL FROM SMALLSHEAR TO SMALLSHEAR WITH 4 STEPS
   A1 B0 G1 A6 B0 P6 A0 1.00 140.
4 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS
   A1 B0 G1 M1 X6 I0 A0 1.00 90.
5 REPLACE SHEETMETAL FROM SMALLSHEAR TO CART AT SMALLSHEAR WITH 4 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 110.
6 MOVE CART FROM SMALLSHEAR TO WORKTABLE
   A1 B0 G1 A67 B3 P1 A0 1.00 730.

TOTAL TMU 1300.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?
Please input file <GELBOW.M03>?

File Description: SHEAR RADIUS FOR 5 GORED ELBOW

Output to line-printer <Y or N>? N

FIT .W08 GELBOW.M03
SHEAR SHEETMETAL RADIUS FOR 5 GORED ELBOW WITH UNI-SHEAR A1-SHEETMETAL SHOP

PER GORED ELBOW

NASSCO SHEETMETAL SHAPE #5
* HULL 414
* DRAWING 501-073
* V6-5493
* 18 GAUGE GALV. SHEETMETAL
* 12' DIA. ELBOW WITH 12' RADIUS
FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS
A1 B0 G1 A6 B0 P3 A0 1.00 110.

2 MOVE UNI-SHEAR2 FROM TOOLROOM TO WORKTABLE
A96 B0 G1 A96 B3 P1 A0 1.00 1970.

3 OPERATE UNISHEAR ON SHEETMETAL PROCESS F 12
A1 B0 G1 M6 X17310 A0 12.00 21720.

4 FASTEN (FLATTEN) CORNERS ON SHEETMETAL AT WORKTABLE 3
STRIKES USING HAMMER AND ASIDE PF 20 (4.5 6 7)
A1 B0 G1 (A1 B0 P0 F6 )A1 B0 P1 A0 -(20) 1.00 1440.

5 REPLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS
A1 B0 G1 A6 B0 P3 A0 1.00 110.

6 MOVE CART WITH SHEETMETAL FROM WORKTABLE TO ROLLER
A1 B0 G1 A54 B0 P1 A0 1.00 570.

TOTAL TMU 25920.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W (or H for help)?
Please input file (GELBOWM.04 ?)

File Description ? FORM 12' DIAMETER ON ELBOW GORES

OutPut to line-printer <Y or N> ? N

( 39, 3) FIT .W08 GELBOW.MO4
FORM SHEETMETAL FOR 12' DIAMETER ELBOW GORES WITH ROLLER AT SHEETMETAL SHOP
PER GORED ELBOW OFG: 4 31-MAR-83

NASSCO SHEETMETAL SHAPE # 5
* HULL 414
* DRAWING 501-073
* 06-5493
* 18 GAUGE GALV. SHEETMETAL
* 12'DIA. ELBOW WITH 12' RADIUS
* ROLL UP 5 GORES TO 12' DIA. ON ROLLER
FITTER BEGINS AT ROLLER

1 PLACE SHEETMETAL FROM CART AT ROLLER TO ROLLER WITH 4 STEPS
   A1 B0 G1 A6 B0 P3 A0  1.00  110.

2 FASTEN NUT [ROLLS] TO SHEETMETAL AT ROLLER 5
   WRIST-TURNS USING HAND F 23
   A1 B0 G1 A1 B0 P1 F10 A0 B0 P0 A0  23.00  3220.

3 PUSH ROLLER-BUTTON PROCESS F 40
   A1 B0 G1 M1 X96 IO A0  40.00  39600.

4 REPLACE SHEETMETAL2 FROM ROLLER TO CART AT ROLLER WITH 4 STEPS
   A1 B0 G1 A6 B0 P3 A0  1.00  110.

5 MOVE CART WITH SHEETMETAL2 FROM ROLLER TO WELDOUT
   A1 B0 G1 A67 B3 F1 A0  1.00  730.

   TOTAL TMU  43770.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help>.

70.9  90
Please, input file (GELBOW.M05 ?

File Description ? ASSEMBLE 5 GORED ELBOW

Output to line-printer <Y or N> ? N

( 39, 3) FIT .W08 GELBOW.M05

ASSEMBLE SHEETMETAL FOR 5 GORED ELBOW WITH TACK WELDER AT SHEETMETAL SHOP

PER GORED ELBOW OFG: 4 31-MAR-83

NASSCO SHEETMETAL SHAPE #5
* HULL 414
* DRAWING 501-073
* V6-5493
* 18 GAUGE GALV. SHEETMETAL
* 12' DIA. ELBOW WITH 12' RADIUS
* ASSEMBLE 5 GORED ELBOW WITH TACK WELDS
* THIS ELBOW COMPLETE WITH MWELD FOR (M061

FITTER BEGINS AT WELDOUT

1 PLACE SHEETMETAL FROM CART AT WELDOUT TO WELDOUT WITH 4 STEPS F 3
   A1 B0 G1 A6 B0 P3 A0  3.00  330.
2 MOVE CCLAMPS FROM WORKTABLE TO WELDOUT
   A54 B3 G1 A54 B3 P1 A0  1.00  1160.
GRIP SHEETMETAL TO SHEETMETAL AT WELDOUT USING CCLAMPS AND ASIDE PF 10 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P3 C1 )A1 B0 P1 A0 (10)  1.00  540.
4 POSITION TACKWELDER. FROM WELDOUT TO SHEETMETAL AT WELDOUT PF 3 ( 4 5 6 ) F 96
   A1 B0 G1 (A1 B0 P6 )A0 (3)  96.00  22080.
5 OPERATE TACKWELDER AT WELDOUT PROCESS F 96
   A1 B0 G1 M6 X3 IO A0  96.00  10560.
6 OPERATE TACKWELDER AT WELDOUT PROCESS F 96
   A1 B0 G1 M6 X3 IO A0  96.00  10560.
7 OPERATE TACKWELDER AT WELDOUT PROCESS F 96
   A11 B0 G1 M6 X3 IO A0  96.00  10560.
8 REPLACE SHEETMETAL FROM WELDOUT TO CART AT WELDOUT WITH 4 STEPS
   A1 B0 G1 A6 B0 P3 A0  1.00  110.

TOTAL TMU  55900.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ? 126,890
WELD 5 GORED ELBOW

TO LINE-PRINTER <Y or N> ? N

( 39, 3)  
WELD W1  
GELBOW.MO6  
WELD 5 GORED ELBOW WITH TIG-WELDER AT SHEETMETAL SHOP  
WELDING BOOTH  
PER GORED ELBOW  
OFG: 4 14-JUL-83  
WELDING FOR NASSCO SHEETMETAL SHAPE 5  
* 18 GAUGE GALV. SHEETMETAL  
* 12' DIAMETER 90 DEGREE ELBOW WITH--  
* --12' RADIUS  
* GAS TUNGSTEN ARC WELDING DONE IN WELD--  
* --AREA BOOTH  
* FITTER TRANSPORTS SHEETMETAL ASSEMBLY  
* WORK PERFORMED BY WELDOR  
FITTE BEGINS AT WORKTABLE  
1 FITTER PLACE SHEETMETAL ASSEMBLY FROM WORKTABLE TO CART  
AT WORKTABLE WITH 4 STEPS  
A1 B0 G1 A6 B0 P3 A0 1.00 110.  
2 FITTER HOVE CART FROM WORKTABLE TO WELDTABLE  
A1 B0 G1 A131B3 P1 A0 1.00 1370.  
3 PLACE SHEETMETAL ASSEMBLY FROM CART AT WELDTABLE TO  
WELDTABLE WITH 4 STEPS  
A1 B0 G1 A6 B0 P3 A0 1.00 110.  
4 WELDOR PUSH POWER SUPPLY BUTTON FROM OFF AT  
WELDMACHINES TO ON AT WELDMACHINES WITH 16 STEPS  
A3 B0 G1 M1 X0 IO A32 1.00 370.  
5 WELDOR PUSH GAS-HOOKUP-SWITCH FROM OFF AT WELDMACHINES  
TO ON AT WELDMACHINES  
A1 B0 G1 M1 X0 IO A1 1.00 40.  
6 WELDOR FASTEN CURRENT SELECTOR HANDLE AT WELDMACHINE 1  
WRIST-TURN USING HAND  
A1 B0 G1 A1 B0 P1 P3 A0 B0 P0 A0 1.00 70.  
7 WELDOR TURN OUTPUT CONTROL LEVER FROM OFF AT  
WELDMACHINE TO ON AT WELDMACHINE  
A1 B0 G1 M3 X0 IO A1 1.00 60.  
8 WELDOR POSITION ANTI-SPATTER SPRAY CAN FROM WELDTABLE  
TO SHEETMETAL ASSEMBLY AT WELDTABLE F 8  
A3 B3 G1 A1 B0 P6 A0 8.00 1120.  
9 WELDOR PUSH ANTI-SPATTER2 SPRAY CAN PROCESS F 8  
A1 B0 G1 M1 X10 IO A0 8.00 1040.  
10 WELDOR POSITION WELDROD FROM WELDTABLE TO SHEETMETAL  
ASSEMBLY AT WELDTABLED  
A1 B0 G1 A1 B0 P6 A0 8.00 720.  
11 PULL WELDHOOD FROM UP AT WELDOR TO DOWN AT WELDOR F 4  
A1 B0 G1 M1 X0 IO A1 4.00 160.  
12 WELDOR POSITION WELDGUN FROM WELDTABLE TO SHEETMETAL  
ASSEMBLY AT WELDTABLE WITH PARTIAL BEND F 8  
A1 B0 G1 A1 B6 P6 A0 8.00 1200.  
13 OPERATE WELDING STINGER-BUTTON1 PROCESS F 48  
A1 B0 G1 M6 X81 IO A0 48.00 42720.  
14 WELDOR PUSH WELDHOOD FROM DOWN AT WELDOR TO UP AT  
WELDOR F 4  
A1 B0 G1 M1 X0 IO A1 4.00 160.
15 WELDOR DEBURY WELDED ASSEMBLY AT WELDTABLE 1 ARM-STROKE USING WIREBRAUSH AT WELDTABLE AND ASIDE PF 50 ( 4 5 6 7 ) F 8
   A1 B0 G1 (A1 B0 P1 C1 )A1 B0 P1 A0 (50) 8.00 12320.
16 WELDOR DEBURY WELDED ASSEMBLY AT WELDTABLE 1 ARM-STROKE USING WIREBRUSH AT WELDTABLE AND ASIDE PF 80 ( 4 5 6 7
   A1 B0 G1 (A1 B0 P1 C1 )A1 B0 P1 A0 (80) 1.00 2440.
17 REPLACE SHEETMETAL ASSEMBLY FROM WELDTABLE TO CART AT WELDTABLE WITH 4 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 110.
18 FITTER MOVE CART FROM WELDTABLE TO WORKTABLE
   A1 B0 G1 A131B0 P1 A0 1.00 1340.

TOTAL TMU 65460.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?
Sheet Metal Shape

7" x 3" to 5" Dia. x 14" LG. Offset Square to Round

<table>
<thead>
<tr>
<th>Task</th>
<th>Time</th>
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<tbody>
<tr>
<td>Fab.</td>
<td>52,210</td>
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<td>Mark Out</td>
<td>21,490</td>
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<td>Weld</td>
<td>11,230</td>
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<td>Total Tau</td>
<td>84,930</td>
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Please input file <OS2RND..M01 ?

File Description ? MARK OUT OFFSET SQUARE TO ROUND

Ouput to line-winter <Y or N> ? N

( 39, 3)
FIT .W08 OS2RND ..M01
MARK OUT SHEETMETAL FOR OFFSET SQUARE TO ROUND WITH AWL AT SHEETMETAL SHOP PER OFFSET SQUARE TO ROUND OFG: 4 31-MAR-83
NASSCO SHEETMETAL SHAPE' 16
* HULL 418
* DRAWING 501-082
* V2-82008
* V6-1542
* 20 GAUGE GALV. SHEETMETAL
* 7'X3'TO 5'DIA. SQUARE TO ROUND 14'L
* OFFSET 10 1/2'
* MARK OUT SQUARE TO ROUND WITH A TEMPLATE
FITTER BEGINS AT WORKTABLE
1 PLACE TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 4 STEPS F 2
A1 B0 G1 A6 B0 P3 A0 2.00 220.
2 POSITION 2.WEIGHTS FROM WORKTABLE TO TEMPLATE AT WORKTABLE WITH 4 STEPS F 2
A1 B0 G1 A6 B0 P6 A0 2.00 280.
3 MARK OUTLINES FROM TEMPLATES TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AND ASIDE PF 16 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (16) 1.00 2920.
4 POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 38
A1 B0 G1 A1 B0 P6 A0 38.00 3420.
5 FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AND ASIDE PF 38 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P0 F3 )A1 B0 P1 A0 (38) 1.00 1560.
6 REPLACE 2 WEIGHTS FROM TEMPLATE AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 2
A1 B0 G1 A6 B0 P3 A0 2.00 220.
7 REPLACE TEMPLATE FROM SHEETMETAL AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 2
A1 B0 G1 A6 B0 P3 A0 2.00 220.
8 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 16 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (16) 1.00 2920.
9 MARK CONSTRUCTION INFORMATION ON SHEETMETAL 1 DIGIT USING BLACKPEN AT WORKTABLE AND HOLD F 60
A1 B0 G1 A1 B0 P1 R3 A0 B0 P0 A0 60.00 4200.
10 MOVE BLACKPEN FROM FITTER TO SHEETMETAL AT WORKTABLE
A1 B0 G1 A1 B0 P1 A0 1.00 40.
11 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 ( 4 5 6 7
12 MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE PF 2 (4 5 6 7)
   A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (52) 1.00 2640.
13 MARK. DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AND ASIDE PF 4 (4 5 6 7)
   A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (4) 1.00 240.
14 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P6 A0 2.00 280.
15 HARK LINES FROM STRAIGHTEDGE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AND ASIDE PF 2 (4 5 6 7)
   A1 B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (2) 1.00 400.
16 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 2 (4 5 6 7)
   A1 B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (2) 1.00 400.
17 PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 110.
18 MOVE CART WITH SHEETMETAL FROM WORKTABLE TO SMALLSHEAR
   A1 B0 G1 A67 B0 P1 A0 1.00 700.

TOTAL TMU 21490.

Type D,EM,CT,EW,EX,L,LD,L,M,T,W <or H for help> ?
Please input file <OS2RND.M02> ?

File Description ? SHEAR OFFSET SQUARE TO ROUND

Output to line-printer <Y or N> ? N

(39, 3)
FIT .W08 OS2RND SHEAR SHEETMETAL FOR OFFSET SQUARE TO ROUND WITH SMALL 8 FT. SHEAR AT SHEETMETAL SHOP PER OFFSET SQUARE TO ROUND OFG: 4 31-MAR-83 NASSCO SHEETMETAL SHAPE #6 * HULL 418 * DRAWING 501-082 * 'J2-82008 * V6-1542 * 20 GAUGE GALV. SHEETMETAL * 7'X3' TO 5' DIA. SQUARE TO ROUND'14'L * OFFSET 10 1/2'

FITTER BEGINS AT SMALLSHEAR

1 POSITION SHEETMETAL FROM CART AT SMALLSHEAR TO SMALLSHEAR WITH 4 STEPS
   A1 B0 G1 A6 B0 P6 A0 1.00 140.

2 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS
   A1 B0 G1 M1 X6 IO A0 1.00 90.

3 POSITION SHEETMETAL FROM SMALLSHEAR TO SMALLSHEAR F 7
   A1 B0 G1 A1 B0 P6 A0 7.00 630.

4 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 7
   A1 B0 G1 M1 X6 IO A0 7.00 630.

5 REPLACE SHEETMETAL FROM SMALLSHEAR TO CART AT SMALLSHEAR WITH 16 STEPS
   A1 B0 G1 A32 B0 P3 A0 1.00 370.

6 MOVE CART WITH SHEETMETAL FROM SMALLSHEAR TO WORKTABLE
   A1 B0 G1 A67 B3 P1 A0 1.00 730.

   TOTAL TMU  2590.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or for help> ?
Please input file <OS2RND.M03> ?

file Description ? SHEAR RADIUS FOR OFFSET SQUARE TO ROUND

Output to line-printer <Y or N> ? N

FIT 39 3)
  OS2RND
  SHEAR SHEETMETAL FOR OFFSET SQUARE TO ROUND RADIUS WITH UNI-SHEAR.
  AT SHEETMETAL SHOP
  PER OFFSET SQUARE TO ROUND
    NASSCO SHEETMETAL SHAPE # 6
    * HULL 418
    * DRAWING 501-082
    * V2-82008
    * V6-1542
    * 20 GAUGE GALV. SHEETMETAL
    * 7'X3'TO S'DIA. SQUARE TO ROUND
    * 14' L OFFSET (OFFSET 10 1/2')
    * SHEAR RADIUS ON 2 HALVES OF OS2RND
    * OS2RND = OFFSET SQUARE TO ROUND
  FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS.
   A1 BO G1 A6 BO P3 A0 1.00 110.
2 MOVE UNISHEAR2 FROM TOOLROOM TO WORKTABLE
   A96 BO G1 A96 B3 P1 A0 1.00 1970.
3 OPERATE UNISHEAR AT WORKTABLE PROCESS F 4
   A1 BO G1 M6 X1731O A0 4.00 .7240.
4 CUT CORNERS ON SHEETMETAL AT WORKTABLE 1 CUT USING
   SNIPS AT WORKTABLE AND ASIDE PF 20 ( 4 5 6 7 )
   A1 BO G1 (A1 BO P3 C1 ) A1 BO P1 A0 (20) 1.00 1040,
5 FASTEN (FLATTEN) CORNERS ON SHEETMETAL AT WORKTABLE 3
   STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 12 ( 4 5 6 7 )
   A1 BO G1 (A1 BO PO F6) A1 BO P1 A0 (12) 1.00 880.
6 REPLACE SHEETMETAL2 FROM WORKTABLE TO CART A1- WORKTABLE
   WITH 4 STEPS
   A1 BO G1 A6 BO P3 A0 1.00 110.
7 MOVE CART WITH SHEETMETAL2 FROM WORKTABLE TO LEAFBRAKE
   A1 BO G1 A81 BO P1 A0 1.00 840.

TOTAL TMU 12190.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W<or H for help> ?- /c1/7p
Please input file <OS2RND.M04> ?

File Description ? BEND RADIUS FOR OFFSET SQUARE TO ROUND

Output to line-Printer <Y or N> ? N

(39, 3)
FIT .WO8 OS2RND.M04>?
BEND SHEETMETAL RADIUS FOR OFFSET SQUARE TO ROUND WITH LEAF BRAKE
AT SHEETMETAL SHOP
PER OFFSET SQUARE TO ROUND OFG: 4 31-MAR-83
NASSCO SHEETMETAL SHAPE # 6
* HULL 418
* DRAWING 501-082
* V2-82008
* V6-1542
* 20 GAUGE GALV. SHEETMETAL
* 7'x3'TO 5'DIA. SQUARE TO ROUND 14'L
* OFFSET 10 1/2'
* ADJUST ANGLE ON LEAF BRAKE BEFORE BENDING
FITTER BEGINS AT LEAF BRAKE

1 PLACE SHEETMETAL FROM CART AT LEAF BRAKE TO LEAF BRAKE WITH 4 STEPS F 2
   A1 BO G1 A6 BO P3 A0 2.00 220.

2 MOVE VISEGRIPS FROM WORKTABLE TO LEAF BRAKE
   A81 B3 G1 A81 BO PI A0 1.00 1670.

3 GRIP LEAF BRAKE ADJUSTMENT ROD TO LEAF BRAKE USING VISEGRIPS AND ASIDE
   A1 BO G1 A1 BO P3 C1 A1 BO P1 A0 1.00 90.

4 OPERATE LEAF BRAKE-LEVER PROCESS F 56
   A1 BO G1 M6 X16 IO A0 56.00 13440.

5 REPLACE SHEETMETAL FROM LEAF BRAKE TO CART AT LEAF BRAKE WITH 4STEPS F 2
   A1 BO G1 A1 BO P3 A0 2.00 120.

6 MOVE CART WITH SHEETMETAL FROM LEAF BRAKE TO HAND-ROLLER AT WORKBENCH
   A1 BO GL A10 B3 P1 A0 1.00 160.
   TOTAL TMU 15700.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ? 30,480.
Please input file <OS2RND,MOS> ?

file Description ? FORM COLLAR FOR OFFSET SQUARE TO ROUND

Output to line-printer <Y or N> ? N

(39, 3)

FIT .W08 O S 2 R N D

FORM SHEETMETAL FOR OFFSET SQUARE TO ROUND COLLAR WITH
HAND OPERATED ROLLER AT SHEETMETAL SHOP
PER OFFSET SQUARE TO ROUND

OFG: 4 31-MAR-83

NASSCO SHEETMETAL SHAPE # 6
* HULL 418
* DRAWING 501-082
* V2-82008
* V6-1542
* 20 GAUGE GALV, SHEETMETAL
* 7. X3' TO 5'DIA. SQUARE TO ROUND 14' L
* OFFSET 10 1/2'
FITTER BEGINS AT WORKBENCH

1 PLACE SHEETMETAL FROM CART AT WORKBENCH TO HAND-ROLLER
A-f WORKBENCH WITH 4 STEPS

AL BO G1 A6 BO P3 AO 1.00 110.

2 FASTEN BOLT [ROLLS] TO SHEETMETAL AT HAND-ROLLER AT
WORKBENCH 5 SPINS USING HAND F 2

AL BO G1 AL BO P1 F1O A0 BO PO A0 2.00 280.

3 CRANK HAND-ROLLER AT WORKBENCH 3 REVS USING HAND F 2

AL BO G1 M6 X0 IO A0 2.00 160.

4 LOOSEN BOLT [ROLLS] TO SHEETMETAL AT HAND-ROLLER AT
WORKBENCH 5 SPINS USING HAND

AL BO G1 AL BO P1 L1O A0 BO PO A0 1.00 140.

5 REPLACE SHEETMETAL FROM HAND-ROLLER AT WORKBENCH TO
CART AT WORKBENCH WITH 4 STEPS

AL BO G1 A6 BO P3 AO 1.00 110.

6 MOVE CART WITH SHEETMETAL2 FROM WORKBENCH TO PANBRAKE

AL BO G1 A32 BO P1 AO 1.00 350.

TOTAL TMU 1150.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

31630
BEND SHEETMETAL LAP ENDS FOR OFFSET SQUARE TO ROUND WITH PAN BRAKE AT SHEETMETAL SHOP

* HULL 418
* DRAWING 501-082
* V2-82008
* V6-1542
* 20 GAUGE GALV+ SHEETMETAL
* 7.3' X 5' DIAM. SQUARE TO ROUND 14' L
* OFFSET 10 1/2'
* KINK UP OR DOWN LAP ENDS AS INDICATED

FITTER BEGINS AT PANBRAKE

1 FASTEN NUT TO PANBRAKE 5 WRIST-STROKES USING 15.16 WRENCH AT PANBRAKE AND ASIDE
   A1 BO G1 A1 BO P3 F16 A1 BO P1 A0 1.00 240.
2 POSITION SHEETMETAL FROM CART AT PANBRAKE TO PANBRAKE WITH 4 STEPS F 7
   A1 BO G1 A6 BO P6 A0 2.00 280.
3 OPERATE PANBRAKE-LEVER PROCESS
   A1 BO G1 M6 X96 IO A0 1.00 1040.
4 POSITION SHEETMETAL FROM PANBRAKE TO PANBRAKE F 5
   A1 BO G1 A1 BO F6 A0 5.00 450.
5 OPERATE PANBRAKE-LEVER PROCESS F 5
   A1 BO G1 M6 X96 IO A0 5.00 5200.
6 REPLACE SHEETMETAL FROM PANBRAKE TO CART AT PANBRAKE WITH 4 STEPS F 2
   A1 BO G1 A6 BO P3 A0 2.00 220.
7 MOVE CART WITH SHEETMETAL FROM PANBRAKE TO WORKTABLE
   A1 BO G1 AS4 B3 P1 A0 1.00 600.

TOTAL TMU 8030

39,660
Please input file (OS2RND

file Description ? ASSEMBLE OFFSET SQUARE TO ROUND

Output to line-printer <Y or N> ? N

(391 3 )
FIT .WO8 OS2RND.MO7
ASSEMBLE SHEETMETAL FOR OFFSET SQUARE TO ROUND WITH RIVET GUN AT
SHEETMETAL SHOP
PER OFFSET SQUARE TO ROUND OFG: 4 31-MAR-83
NASSCO SHEETMETAL SHAPE #6
* HULL 418
* DRAWING 501-082
* V2-82008
* V6-1542
* 20 GAUGE GALV, SHEETMETAL
* 7.03' TO 5'DIA. SQUARE TO ROUND 14'L
* OFFSET 10 1/2"
* LEAVE TOP END LOOSE TO FIT COLLAR
FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL 2 FROM CART AT WORKTABLE TO WORKTABLE
 WITH 4 STEPS
A1 BO Gl A6 BO P3 A0 1.00 110.

2 POSITION SHEETMETAL FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE WITH 4 STEPS
A1 BO Gl A6 BO P6 A0 1.00 140.

3 FASTEN 5 / 32DRILL-BIT FROM WORKTABLE TO DRILLMOTOR AT
WORKTABLE 3 WRIST-TURNS USING CHUCKKEY AND ASIDE
A1 BO Gl A0 B0 (P3 A1 F6) A1 BO P1 A0 (5) 1.00 540.

4 POSITION RIVET-HOLE-GUIDE FROM WORKTABLE TO SHEETMETAL
AT WORKTABLE WITH 3 STEPS
A1 BO Gl A6 BO P6 A0 1.00 140.

5 MARK SHEETMETAL FROM RIVET-HOLE-GUIDE AT WORKTABLE 1
DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 10 ( 4
5 6 7 )
A1 BO Gl (A1 BO P1 R3) A1 BO P1 A0 (10) 1.00 540.

6 GRIP SHEETMETAL TO SHEETMETAL AT WORKTABLE USING
VISEGRIPS AND ASIDE PF 2 ( 4 5 6 7 )
A1 BO Gl (A1 BO P3 C1) A1 BO P1 A0 (2) 1.00 140.

7 OPERATE DRILLMOTOR AT WORKTABLE PROCESS F 2
A1 BO Gl M6 X6 IO A0 2.00 280.

8 POSITION RIVETS FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE F 2
A1 BO Gl A1 BO P6 A0 2.00 180.

9 OPERATE RIVETGUN AT WORKTABLE PROCESS F 2
A1 BO Gl M6 X3 IO A0 2.00 220.

10 MOVE SHEETMETAL FROM WORKTABLE TO WELDOUT
A1 BO Gl A54 B3 P1 A0 1.00 600.

TOTAL TMU 2890.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?
Please input file <OSZRND>

file Description ? RIVET OFFSET SQUARE TO ROUND

Output to line-printer <Y or N> ? N

FIT .WO8 OS2RND.MO9
RIVET SHEETMETAL FOR OFFSET SQUARE TO ROUND WITH RIVET GUN AT SHEETMETAL SHOP
PER OFFSET SQUARE TO ROUND OFG: 4 31-MAR-83
NASSCO SHEETMETAL SHAPE #6
* HULL 418
* DRAWING 501-082
* v2-82008
* V6-1542
* 20 GAUGE GALV. SHEETMETAL
* 7'X3' TO 5'DIA. SQUARE TO ROUND 14'L
* OFFSET 10 1/2'
* COMPLETE WITH MWELD (M10)
FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL FROM FITTER TO WORKTABLE
   A1 BO G1 A1 BO P3 A0 1.00 60.
2 OPERATE DRILLMOTOR AT WORKTABLE PROCESS F 18
   A1 BO G1 M6 X6 IO A0 18.00 2520.
3 POSITION RIVETS FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 18
   A1 BO G1 A1 BO P6 A0 18.00 1620.
4 OPERATE RIVETGUN ON SHEETMETAL AT WORKTABLE PROCESS F 18
   A1 BO G1 M6 X3 IO A0 18.00 1980.
5 GRIP SEALANT TO SHEETMETAL AT WORKTABLE USING CAULKINGGUN AND ASIDE PF 6 ( 4 5 6 7 )
   A1 BO G1 (A1 BO P3 C1 )A1 BO P1 A0 (6) 1.00 340.
6 INSPECT SHEETMETAL AT WORKTABLE 9 POINTS
   A0 BO GO A0 BO PO T10 A0 BO PO A0 1.00 100.

TOTAL TMU 6620.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?.

52,210
File Description: WELD OFFSET SQUARE TO ROUND

output to line-printer <Y or N> ? N

(39, 3)

WELD . .WO1
OS2RND.M10

WELD OFFSET SQUARE TO ROUND WITH TIG-WELDER AT SHEETMETAL SHOP
WELDING BOOTH
PER OFFSET SQUARE TO ROUND

OFG: 4 18-JUL-83

WELDING NASSCO SHEETMETAL SHAPE 6
* HULL 418
* DRAWING 501-082
* v2-82008
* V6-1542
* 20 GAUGE GALV. SHEETMETAL
* 7X3 TO 5' DIAMETER SQUARE TO ROUND--
* --14' LG OFFSET 10 1/2'
* WELDER PERFORMS THE WORK
* FITTER TRANSPORT SHEETMETAL
FITTER BEGINS AT WORKTABLE

1 FITTER PLACE SHEETMETAL ASSEMBLY FROM WORKTABLE TO CART
AT WORKTABLE WITH 4 STEPS
   A1 BO G1 A6 BO P3 A0 1.00 110.

2 FITTER MOVE CART FROM WORKTABLE TO WELDTABLE
   A1 BO G1 A131B3 P1 A0 1.00 1370.

3 PLACE SHEETMETAL ASSEMBLY FROM CART AT WELDTABLE TO
WELDTABLE WITH 4 STEPS.
   A1 BO G1 A6 BO P3 A0 1.00 110.

4 WELDOR PUSH POWER SUPPLY BUTTON FROM OFF AT
WELDMACHINES TO ON AT WELDMACHINES WITH 16 STEPS
   A3 BO G1 M1 X0 IO A32 1.00 370.

5 WELDOR PUSH GAS-HOOKUP-SWITCH FROM OFF AT WELDMACHINES
TO ON AT WELDMACHINES
   A1 BO G1 M1 X0 IO A1 1.00 40.

6 WELDOR FASTEN CURRENT SELECTOR HANDLE AT WELDMACHINES 1
WRIST-TURN USING HAND
   A1 BO G1 A1 BO P1 F3 A0 BO PO A0 1.00 70.

7 WELDOR TURN OUTPUT CONTROL LEVER FROM OFF AT
WELDMACHINES TO ON AT WELDMACHINES
   A1 BO G1 M3 X0 IO A1 1.00 60.

8 WELDOR POSITION ANTS-SPATTER SPRAY CAN FROM WELDTABLE
TO SHEETMETAL ASSEMBLY AT WELDTABLE F 2
   A3 B3 G1 A1 BO P6 A0 2.00 280.

9 WELDOR PUSH ANTI-SPATTER2 SPRAY CAN PROCESS F 2
   A1 BO G1 M1 X10 IO A0 2.00 260.

10 WELDOR POSITION WELDROD FROM WELDTABLE TO SHEETMETAL
ASSEMBLY AT WELDTABLE F 3
   A1 BO G1 A1 BO F6 A0 3.00 270.

11 PULL WELDHOOD FROM UP AT WELDOR TO DOWN AT WELDOR F 5
   A1 BO G1 M1 X0 IO A1 5.00 400.

12 WELDOR POSITION WELDGUN FROM WELDTABLE TO SHEETMETAL
ASSEMBLY AT WELDTABLE WITH PARTIAL BEND F 3
   A1 BO G1 A1 B6 P6 A0 3.00 450.

13 OPERATE WELDING STINGER-BUTTON1 PROCESS F 5
   A1 BO G1 H6 X81 IO A0 5.00 4450.

14 PUSH WELDHOOD FROM DOWN AT WELDOR TO UP AT WELDOR F 5
15 WELDOR DEBURR WELDED ASSEMBLY AT WELDTABLE- 1 ARM-STROKE
   USING WIREBRUSH AT WELDTABLE AND ASIDE PF SO (4 5 6 7)
   A1 BO Gl M1 X0 IO Al  5.00  200.

16 REPLACE SHEETMETAL ASSEMBLY FROM WELDTABLE TO CART AT
   WELDTABLE WITH 4 STEPS
   A1 BO Gl (A1 BO P1 C1) A1 BO P1 A0 (50)  1.00  1540.

17 FITTER MOVE CART FROM WELDTABLE TO WORKTABLE
   A1 BO Gl A131BO P1 A0  1.00  1340.

TOTAL TMU  11230.

Type D,EM,CT,EW,EX,L,LD,LS,M,W  <or H for help> ?
Sheet Metal Shape #6

20" x 15" to 17" dia. x 30" L6 Offset Square to Round

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File Description: MARK OUT SHEETMETAL FOR SQUARE TO ROUND OFF CENTER

Outut to line-printer (Y or N) ? N

( 39, 1) FIT .W1 OSQRN.M20

MARK out SHEETMETAL FOR SQUARE TO ROUND OFF CENTER WITH AWL AT SHEETMETAL SHOP

FILE

NASSCO SHEETMETAL SHAPE 6
18GAUGE GALV. SHEETMETAL
20'X15' TO 17' DIA. 30'L OFFSET LO'
MARK OUT WITH TEMPLATE
MARK OUT COLLAR WITHOUT TEMPLATE
FITTER BEGINS AT WORKTABLE

1 POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS F 2
A1 BO G1 A3 BO P6 A0 2.00 220.

2 POSITION WEIGHTS FROM WORKTABLE TO TEMPLATE AT WORKTABLE WITH 3 STEPS F 6
A1 BO G1 A6 BO P6 A0 6.00 840.

3 MARK OUTLINE FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL 'AT WORKTABLE AND ASIDE PF 16 (4 5 6 7)
A1 BO G1 (A1 BO P1 R16 )A1 BO P1 A0 (16) 1.00 2920.

4 POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS F 76
A1 BO G1 A3 BO P6 A0 76.00 8360.

5 FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE AND ASIDE PF 76 (4 5 6 7)
A1 BO G1 (A1 BO PO F3 ) A1 BO P1 A0 (76) 1.00 3080.

6 REPLACE WEIGHTS FROM TEMPLATE TO WORKTABLE WITH 3 STEPS F 6
A1 BO G1 A6 BO P3 A0 6.00 660.

7 REPLACE TEMPLATE FROM SHEETMETAL AT WORKTABLE TO WORKTABLE F 2
A1 BO G1 A1 BO P3 A0 2.00 120.

8 MARK CUT LINE ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 16 (4 5 6 7)
A1 BO G1 (A1 BO P1 R16) A1 BO P1 A0 (16) 1.00 2920.

9 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 70 (4 5 6 7)
A1 BO G1 (A1 BO P1 R3) A1 BO P1 A0 (70) 1.00 3540.

10 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 (4 5 6 7)
A1 BO G1 (A1 BO P1 R3 )A1 BO P1 A0 (52) 1.00 2640.

11 MEASURE DIMENSION ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE PF 3 (4 5 6 7)
A1 BO G1 (A1 BO P1 M32 ) A1 BO P1 A0 (3) 1.00 1060.

12 MARK DIMENSION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF 3 (4 5 6 7)
A1 BO G1 (A1 BO P1 R3 )A1 BO P1 A0 (3) 1.00 190.
13 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS F 2
   A1 BO G1 A6 BO P6 A0 2.00 280.

14 MARK SHEETMETAL FROM STRAIGHTEDGE AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 2 ( 4 5 6 7 )
   A1 BO G1 (A1 BO P1 R16 )A1 BO P1 A0 (2) 1.00 400.

15 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 2 ( 4 5 6 7 )
   A1 BO G1 (A1 BO P1 R16 )A1 BO P1 A0 (2) 1.00 400.

16 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 27 ( 4 5 6 7 )
   A1 BO G1 (A1 BO P1 R3) A1 BO P1 A0 (27) 1.00 1390.

17 MARK CONSTRUCTION INFORMATION ON SHEETMETAL 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 15 ( 4 5 6 7 )
   A1 BO G1 (A1 BO P1 R3) A1 BO P1 A0 (15) 1.00 790.

18 PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2
   A1 BO G1 A6 BO P3 A0 2.00 .

19 MOVE CART WITH SHEETMETAL FROM WORKTABLE TO SMALLSHEAR
   A1 BO G1 A67 BO P1 A0 1.00 700.

TOTAL TMU 30730.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?
File Description ? SHEAR SHEETMETAL FOR SQUARE TO ROUND OFF CENTER

output to line-printer <Y or N> ? N

( 39, 1)
FIT .W11 OSQ2RN.M21

SHEAR SHEETMETAL FOR SQUARE TO ROUND OFF CENTER WITH
SMALL 8FT. SHEAR AT SHEETMETAL SHOP
PER SQUARE TO ROUND OFF CENTER OFG: 4 11-MAY-83
NASSCO SHEETMETAL SHAPE 6
* 18 GAUGE GALV. SHEETMETAL
* 20'X15' TO 17'DIA. 30'L OFFSET 10'
* 2 FITTERS REQUIRED FOR FIRST 2 CUTS
* CUT 1 1/2' STRIPS FOR COLLAR
FITTER BEGINS AT SMALLSHEAR

1 POSITION SHEETMETAL FROM CART AT SMALLSHEAR TO
   SMALLSHEAR WITH 4 STEPS F 2
   A1 BO G1 A6 BO P6 A0  2.00  280.
2 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 2
   A1 BO G1 M1 X6 IO A0  2.00  180.
3 POSITION SHEETMETAL FROM SMALLSHEAR TO SMALLSHEAR WITH
   3 STEPS F 8
   A1 BO G1 A6 BO P6 A0  8.00 1120.
4 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 8
   A1 BO G1 M1 X6 IO A0  8.00  720.
5 REPLACE SHEETMETAL FROM SMALLSHEAR TO CART AT
   SMALLSHEAR WITH 10 STEPS F 2
   A1 BO G1 A16 BO P3 A0  2.00  420.
6 MOVE CART WITH SHEETMETAL FROM SMALLSHEAR TO WORKTABLE
   A1 BO G1 A67 B3 P1 A0  1.00  730.

TOTAL TMU  3450.

type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?
File Description: SHEAR SHEETMETAL FOR SQUARE TO ROUND OFF CENTER

Output to line-printer <Y or N> ? N

( 39, 1)
FIT .W11 OSQ2RN,M21

SHEAR SHEETMETAL FOR SQUARE TO ROUND OFF CENTER WITH
SMALL 8FT. SHEAR AT SHEETMETAL SHOP
PER SQUARE TO ROUND OFF CENTER OFG: 4 11-MAY-83
NASSCO SHEETMETAL SHAPE 6
* 18 GAUGE GALU, SHEETMETAL
* 20'X15' TO 17'DIA. 30'L OFFSET 10'
* 2 FITTERS REQUIRED FOR FIRST 2 CUTS
* CUT 1 1/2' STRIPS FOR COLLAR
FITTER BEGINS AT SMALLSHEAR

1 POSITION SHEETMETAL FROM CART AT SMALLSHEAR TO
SMALLSHEAR WITH 4 STEPS F 2
   A1 BO G1 A6 BO P6 A0 2.00  280.

2 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 2
   A1 BO G1 M1 X6 IO A0 2.00  180.

3 POSITION SHEETMETAL FROM SMALLSHEAR TO SMALLSHEAR WITH
   3 STEPS F 8
   A1 BO G1 A6 BO P6 A0 8.00 1120.

4 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 8
   A1 BO G1 M1 X6 IO A0 8.00  720.

5 REPLACE SHEETMETAL FROM SMALLSHEAR TO CART AT
   SMALLSHEAR WITH 10 STEPS F 2
   A1 BO G1 A6 BO P3 A0 2.00  420.

6 MOVE CART WITH SHEETMETAL, FROM SMALLSHEAR TO WORKTABLE
   A1 BO G1 A67 B3 P1 A0 1.00  730.

   TOTAL TMU  3450.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?
File Description ? SHEAR RADIUS FOR SQUARE TO ROUND OFF CENTER

Output to line-printer <Y or N> ? N

( 391, 1)
FIT .W11 OSQ2RN.M22
SHEAR RADIUS FOR SQUARE TO ROUND OFF CENTER WITH UNI-SHEAR AT SHEETMETAL SHOP
PER SQUARE TO ROUND OFF CENTER
NASSCO SHEETMETAL SHAPE 6
* 18 GAUGE GALV, SHEETMETAL
* 20'X15'TO 17' DIA. 30'L OFFSET 10'
* CUT OUT CORNER NOTCHES WITH SNIPS
* FLATTEN CORNERS AFTER CUTTING
FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL 2 FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 2
A1 B0 G1 A6 B0 P3 A0 2.00 220.

2 MOUE UNISHEAR2 FROM TOOLROOM TO WORKTABLE
A96 B0 G1 A96 B3 P1 A0 1.00 1970.

3 OPERATE UNISHEAR AT WORKTABLE PROCESS F 6
A1 B0 G1 M6 X17310 A0 6.00 10860.

4 CUT CORNERS ON SHEETMETAL AT WORKTABLE 2 CUTS USING SNIPS AT WORKTABLE AND ASIDE PF 12 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P3 C3 )A1 B0 P1 A0 (12) 1.00 8 8 0.

5 FASTEN [FLATTEN] SHEETMETAL CORNERS 3 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 12 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 PO F6 )A1 B0 P1 A0 (12) 1.00 880.

6 REPLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS
A1 B0 G1 A6 B0 P3 A0 1.00 110.

7 MOUE CART WITH SHEETMETAL FROM WORKTABLE TO LAPOUT
A1 B0 G1 A54 B0 P1 A0 1.00 570.

TOTAL TMU 15490.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

18340
File Description ? FORM LAP ENDS ON SQUARE TO ROUND OFF CENTER

Output to line-Printer <Y or N> ? N

( 39, 1)
FIT  OSQ2RN.M23
    FORM LAP ENDS ON SQUARE TO ROUND OFF CENTER WITH LAPOUT MACHINE
    AT SHEETMETAL SHOP
    PER SQUARE TO ROUND OFF CENTER
    NASA CO SHEETMETAL SHAPE 6
    * 18 GAUGE GALV. SHEETMETAL
    * 20'X15' TO 17' DIA. 30'L OFFSET 10'
    FITTER BEGINS AT LAPOUT

1 PLACE SHEETMETAL FROM CART AT LAPOUT TO LAPOUT WITH 4 STEPS F 2
   A1  B0  G1  A6  B0  P3  A0  2.00  220.

2 PUSH LAPOUT-SWITCH PROCESS F 2
   A1  B0  G1  M1  X16  IO  A0  2.00  380.

3 PUSH AND GUIDE SHEETMETAL THROUGH LAPOUT WITH 3 STEPS
   A6  B0  G1  M1  X0  I3  A0  1.00  110.

4 REPLACE SHEETMETAL2 FROM LAPOUT TO CART AT LAPOUT WITH
   4 STEPS F 2
   A1  B0  G1  A6  B0  P3  A0  2.00  220.

5 MOVE CART WITH SHEETMETAL2 FROM LAPOUT TO HAND-ROLLER
   AT WORKBENCH
   A1  B0  G1  A24  B3  P1  A0  1.00  300.

TOTAL TMU 1230.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

20170
File Description? FORM COLLAR FOR SQUARE TO ROUND OFF CENTER
to line-printer <Y or N> ? N

(39, 1)
FIT W11 OSQ2RN.M24
FORM COLLAR FOR SQUARE TO ROUND OFF CENTER WITH HAND-ROLLER AT SHEETMETAL SHOP
PER SQUARE TO ROUND OFF CENTER OFG: 4 12-MAY-83
NASSCO SHEETMETAL SHAPE 6
* 18 GAUGE GALV. SHEETMETAL
* 20' X 15' TO 17'DIA. 30'L OFFSET 10'
FITTER BEGINS AT WORKBENCH

1 PLACE SHEETMETAL FROM-CART AT WORKBENCH TO HAND-ROLLER AT WORKBENCH WITH 4 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 110.

2 FASTEN BOLT [ROLLS] TO SHEETMETAL2 ON HAND-ROLLER AT WORKBENCH 5 SPINS USING FINGERS F 3
   A1 B0 G1 A1 B0 P1 F10 A0 B0 P0 A0 3.00 420.

3 CRANK HAND-ROLLER AT WORKBENCH 3 REVS USING HAND F 3
   A1 B0 G1 M6 X0 I0 A0 3.00 240.

4 REPLACE SHEETMETAL FROM HAND-ROLLER AT WORKBENCH TO CART AT WORKBENCH WITH 4 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 110.

5 MOVE CART WITH SHEETMETAL FROM WORKBENCH TO CORNICEBRAKE
   A1 B0 G1. A32 B0 P1 A0 1.00 350.

TOTAL TMU 1230.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ? 21400
File Description ? BEND RADIUS FOR SQUARE TO ROUND OFF CENTER
to line-Printer <Y or N> ? N

FIT .W11
OSQ2RN.M25
BEND RADIUS FOR SQUARE TO ROUND OFF CENTER WITH CORNICE BRAKE AT SHEETMETAL SHOP
PER SQUARE TO ROUND OFF CENTER OFG: 4 12-MAY-83
NASSCO SHEETMETAL SHAPE 6
* 18 GAUGE GALV. SHEETMETAL
* 20'X15' TO 17'DIA. 30'L OFFSET 10'
* SET LEAF ON BRAKE WITH VISEGRIPS
FITTER BEGINS AT CORNICE BRAKE

1 POSITION SHEETMETAL FROM CART AT CORNICEBRAKE TO CORNICEBRAKE WITH 4 STEPS F 2
A1 B0 G1 A6 B0 P6 A0 2.00 280.

2 MOVE VISEGRIPS FROM WORKTABLE TO CORNICEBRAKE
A54 B3 G1 A54 B0 P1 A0 1.00 1130.

3 GRIP ADJUSTMENT ROD AT CORNICEBRAKE USING VISEGRIPS AT CORNICEBRAKE AND 'ASIDE
A1 B0 G1 A1 B0 P3 C1 A1 B0 P1 A0 1.00 90.

4 OPERATE CORNICEBRAKE -LEVER PROCESS F 2
A1 B0 G1 M6 X42 IO A0 2.00 1000.

5 POSITION SHEETMETAL FROM CORNICEBRAKE TO CORNICEBRAKE F 66
A1 B0 G1 A1 B0 P6 A0 66.00 5940.

6 OPERATE CORNICEBRAKE-LEVER PROCESS F 66
A1 B0 G1 M6 X42 IO A0 66.00 33000.

7 REPLACE SHEETMETAL FROM CORNICEBRAKE TO CAR-i' AT CORNICEBRAKE WITH 4 STEPS F 2
A1 B0 G1 A6 B0 P3 A0 2.00 220.

8 MOVE CART WITH SHEETMETAL FROM CORNICEBRAKE TO PANBRAKE
A1 B0 G1 A10 B0 P1 A0 1.00 130.

TOTAL TMU 41790.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?
FIT .W11
OSQ2RN.M26
BEND LAP ENDS FOR SQUARE TO ROUND OFF CENTER WITH PAN BRAKE AT SHEETMETAL SHOP
PER-SQUARE TO ROUND OFF CENTER OFG: 4 12-MAY-83
NASCO SHEETMETAL SHAPE 6
* 18 GAUGE GALV. SHEETMETAL
* 20'x15' TO 17'DIA. 30' OFFSET 10'
* SELECT AND ADJUST FINGERS ON PAN BRAKE
FITTER BEGINS AT PANBRAKE

1 FASTEN BOLT TO PANBRAKE 5 WRIST-STROKES USING
15.16 WRENCH AT PANBRAKE AND ASIDE PF 2 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P3 F16 )A1 B0 P1 A0 (2) 1.00 440.

2 POSITION SHEETMETAL2 FROM CART AT PANBRAKE TO PANBRAKE WITH 4 STEPS F 2
A1 B0 G1 A6 B0 P6 A0 2.00 280.

3 OPERATE PANBRAKE -LEVER PROCESS F 2
A1 B0 G1 M6 X96 IO A0 2.00 2080.

4 POSITION SHEETMETAL2 FROM PANBRAKE TO PANBRAKE F 4
A1 B0 G1 A1 B0 P6 A0 4.00 360.

5 OPERATE PANBRAKE-LEVER PROCESS F 4
A1 B0 G1 M6 X96 IO A0 4.00 4160.

6 REPLACE SHEETMETAL2 FROM PANBRAKE TO CART AT PANBRAKE WITH 4 STEPS
A1 B0 G1 A6 B0 P3 A0 1.00 110.

7 MOUE CART WITH SHEETMETAL2 FROM PANBRAKE TO WORKTABLE
A1 B0 G1 A54 B3 P1 A0 1.00 600.

TOTAL TMU 8030.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?
File Description: ASSEMBLE SQUARE TO ROUND OFF CENTER

Output to line-printer <Y or N> ? N

( 39, 1)
FIT .W11 OSQ2RN.M27
ASSEMBLE SHEETMETAL FOR SQUARE TO ROUND OFF CENTER WITH HAMMER AT SHEETMETAL SHOP
PER SQUARE TO ROUND OFF CENTER OFG: 4 12-MAY-83
NASSCO SHEETMETAL SHAPE 6
* 18 GAUGE GALV. SHEETMETAL
* 20'X15' TO 17'DIA. OFFSET 10'
* RIVET ASSEMBLY AT BOTTOM WITH 2 RIVETS--
* -ONLY SO COLLAR CAN BE FITTED AT WELDOUT
FITTER BEGINS AT WORKTABLE

1 POSITION SHEETMETAL FROM WORKTABLE TO SHEETMETAL AT WORKTABLE
   A1 B0 G1 A1 B0 P6 A0 1.00 90.
2 GRIP SHEETMETAL AT WORKTABLE TO SHEETMETAL AT WORKTABLE USING VISEGRIPS AND ASIDE PF 2 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P3 C1 ) A1 B0 F1 A0 (2) 1.00 140.
3 FASTEN 5-32DRILLBIT TO DRILLMOTOR AT WORKTABLE 3 WRIST-TURNS USING CHUCKKEY AND ASIDE
   A1 B0 G1 A1 B0 P3 F6 A1 B0 P1 A0 1.00 140.
4 OPERATE DRILLMOTOR AT WORKTABLE PROCESS F 2
   A1 B0 G1 M6 X6 IO A0 2.00 280.
5 POSITION RIVET FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 2
   A1 B0 G1 A1 B0 P6 A0 2.00 180.
6 OPERATE RIVETGUN AT WORKTABLE PROCESS F 2
   A1 B0 G1 M6 X3 IO A0 2.00 220.

TOTAL TMU 1050.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

7,2870
File Description ? TACK WELD COLLAR TO SQUARE TO ROUND OFF CENTER

Output to line-printer <Y or N> ? N

( 39, 1)
FIT .W11

OSQ2RN.M28

TACK WELD COLLAR ON SQUARE TO ROUND OFF CENTER WITH TACK WELDER AT SHEETMETAL SHOP

PER SQUARE TO ROUND OFF CENTER OFG: 4 12-MAY-83

NASSCO SHEETMETAL SHAPE 6

* 18 GAUGE GALV. SHEETMETAL

* 20'X15' TO 17'DIA. 30'L OFFSET 10'

* FIT & HOLD COLLAR TO ASSEMBLY WITH --

* --VISEGRIPS WHILE TACK WELDING

* COMPLETE WELDING IN WELDING AREA

* SEE OSQ2RN.M29 FOR WELDING

FITTER BEGINS AT WORKTABLE

MOUE VISEGRIPS. SHEETMETAL2 FROM WORKTABLE TO WELDOUT

A1 B0 G1 A54 B3 P1 A0 1.00 600.

PLACE SHEETMETAL2 FROM TABLE AT WELDOUT TO SHEETMETAL 2 AT WELDOUT

A1 B0 G1 A54 B3 P3 A0 1.00 620.

GRIP SHEETMETAL2 TO SHEETMETAL2 AT WELDOUT USING VISEGRIPS AT WELDOUT AND ASIDE PF 10 ( 4 5 6 7 )

A54 B3 G1 (A1 B0 P3 C1 )A1 B0 P1 A0 (10) 1.00 1100.

OPERATE TACKWELDER PROCESS F 12

A1 B0 G1 M6 X3 IO A0 12.00 1320.

MOUE VISEGRIPS , SHEETMETAL2 FROM WELDOUT TO WORKTABLE

A1 B0 G1 A54 B3 P1 A0 1.00 600.

TOTAL TMU 4240.

Type D,EM, CT, EW, EX, L, LD, LS, M, T ,W <or H for help> ?
File Description ? WELD OFFSET SQUARE TO ROUND

Output to line-Printer <Y Or N> ? N

( 39, 3)
WELD .WO1
OSQ2RN.M29
WELD OFFSET SQUARE TO ROUND WITH TIG-WELDER AT SHEETMETAL SHOP
WELDING BOOTH
PER OFFSET SQUARE TO ROUND
WELDING NASSCO SHEETMETAL SHAPE 6
* 18 GAUGE GALV. SHEETMETAL
* 20'X15' TO 17' DIAMETER OFFSET 10'
* WELDING DONE IN WELD AREA BOOTH
* WELDOR PERFORMS WORK
* FITTER TRANSPORTS SHEETMETAL
FITTER BEGINS AT WORKTABLE.

1 FITTER PLACE SHEETMETAL ASSEMBLY FROM WORKTABLE TO CART
   AT WORKTABLE WITH 4 STEPS
   A1 B0 G1 A6 B0 P3 A0  1.00   110.

2 FITTER MOVE CART FROM WORKTABLE TO WELDTABLE
   A1 B0 G1 A131B3 P1 A0  1.00   1370.

3 PLACE SHEETMETAL ASSEMBLY FROM CART AT WELDTABLE TO
   WELDTABLE WITH 4 STEPS
   A1 B0 G1 A6 B0 P3 A0  1.00   110.

4 WELDOR PUSH POWER SUPPLY BUTTON FROM OFF AT
   WELDMACHINES TO ON AT WELDMACHINES WITH 16 STEPS
   A3 B0 G1 M1 X0 IO A32  1.00   370.

5 WELDOR PUSH GAS-HOOKUP-SWITCH FROM OFF AT WELDMACHINES
   TO ON AT WELDMACHINES
   A1 B0 G1 M1 X0 IO A1  1.00   40.

6 WELDOR FASTEN CURRENT SELECTOR HANDLE AT WELDMACHINES 1
   WRIST-TURN USING HAND
   A1 B0 G1 A1 B0 P1 F3 A0 B0 PO A0  1.00   70.

7 WELDOR TURN OUTPUT CONTROL LEVER FROM OFF AT
   WELDMACHINES TO ON AT WELDMACHINES
   A1 B0 G1 M3 X0 IO A1  1.00   60.

8 WELDOR POSITION ANTI-SPATTER SPRAY CAN FROM WELDTABLE
   TO SHEETMETAL ASSEMBLY AT WELDTABLE F 2
   A3 B3 G1 A1 B0 P6 A0  2.00   280.

9 WELDOR PUSH ANTI-SPATTER2 SPRAY CAN PROCESS F 2
   A1 B0 G1 M1 X10 IO A0  2.00   260.

10 WELDOR POSITION WELDROD FROM WELDTABLE TO SHEETMETAL
    ASSEMBLY AT WELDTABLE F 4
    A1 B0 G1 A1 P0 P6 A0  4.00   360.

11 PULL WELDHOOD FROM UP AT WELDOR TO DOWN AT WELDOR F 8
    A1 B0 G1 M1 X0 IO A1  8.00   320.

12 WELDOR POSITION WELDGUN FROM WELDTABLE TO SHEETMETAL
    ASSEMBLY AT WELDTABLE WITH PARTIAL BEND F 4
    A1 B0 G1 A1 B6 P6 A0  4.00   600.

13 OPERATE WELD STINGER-BUTTON1 PROCESS F 18
    A1 B0 G1 M6 X81 IO A0  18.00   16020.

14 PUSH WELDHOOD FROM DOWN AT WELDOR TO UP AT WELDOR F 8
    A1 B0 G1 M1 X0 IO A1  8.00   320.

15 WELDOR DEBURR WELDED ASSEMBLY AT WELDTABLE 1 ARM-STROKE
   USING WIREBRUSH AT WELDTABLE AND ASIDE PF 30 ( 4 5 6 7 ) F 6
16 REPLACE SHEETMETAL ASSEMBLY FROM WELDTABLE TO CART AT WELDTABLE WITH 4 STEPS

A2 BO G2 A6 BO P3 A0 2.00 110.

17 FITTER MOVE CART FROM WELDTABLE TO WORKTABLE

A2 BO G1 A131B0 P1 A0 1000 1340.

TOTAL TMU 27380,
File Description ? RIVET SQUARE TO ROUND OFF CENTER

Output to line-Printer <Y or N> ? N

( 39, 1)
FIT W11
OSQ2RN.M30
RIVET SHEETMETAL FOR SQUARE TO ROUND OFF CENTER WITH RIVET GUN AT SHEETMETAL SHOP
PER SQUARE TO ROUND OFF CENTER OSG: 4 12-MAY-83
NASSCO SHEETMETAL SHAPE 6
* 18 GAUGE GALV. SHEETMETAL
* 20'X15' TO 17'DIA. OFFSET 10'
* COMPLETE RIVETING AFTER COLLAR IS WELDED
FITTER BEGINS AT WORKTABLE
1 POSITION RIVET-HOLE-GUIDE FROM WORKTABLE TO SHEETMETAL
   AT WORKTABLE WITH 3 STEPS AND ASIDE
       A1 B0 G1 A6 B0 P6 A0 1.00 140.
2 MARK SHEETMETAL FROM RIVET-HOLE-GUIDE AT WORKTABLE 1
   DIGIT USING BLACKPEN AND ASIDE PF 40 ( 4 5 6 7 )
       A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (40) 1.00 2040.
3 POSITION DRILLMOTOR FROM WORKTABLE TO SHEETMETAL AT
   WORKTABLE F 40
       A1 B0 G1 A1 B0 P6 A0 40.00 3600.
4 OPERATE DRILLMOTOR AT WORKTABLE PROCESS F 40
       A1 B0 G1 M6 X6 IO A0 40.00 5600.
5 POSITION RIVET FROM WORKTABLE TO SHEETMETAL AT
   WORKTABLE F 40
       A1 B0 G1 A1 B0 P6 A0 40.00 3600.
6 OPERATE RIVETGUN AT WORKTABLE PROCESS F 40
       A1 B0 G1 M6 X3 IO A0 . 40.00 4400.
7 INSPECT SHEETMETAL AT WORKTABLE 9 POINTS
       A0 B0 GO A0 B0 PO T10 A0 B0 PO A0 1.00 100.

TOTAL TMU  19480.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help) ? 95990
Sheet Metal Shape #6

12" x 8" to 10" dia. square to round with 3" offset

<table>
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<th>Time</th>
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<td>Mark Out</td>
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<td>34300</td>
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File Description? MARK OUT SQUARE TO ROUND WITH OFFSET

\textit{Output} to line-Printer \textit{Y or N}? N

( 39, 1)
FIT
\textcolor{red}{W1}
MARK OUT SQUARE TO ROUND \textcolor{red}{OFF CENTER} WITH AWL AT SHEETMETAL SHOP
PER SQUARE TO ROUND
NASSCO SHEETMETAL SHAPE 6
* 11 GAUGE GALV. SHEETMETAL
* 12'X8'X10' DIAMETER SQUARE TO ROUND
* WITH 3' OFFSET
* MARK OUT USING TEMPLATE
* MARK OUT COLLAR WITHOUT TEMPLATE
FITTER BEGINS AT WORKTABLE

1 POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE WITH 3 STEPS F 2
A1 B0 G1 A6 B0 P6 A0 2.00 280.
2 POSITION WEIGHTS FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE WITH 3 STEPS F 2
A1 B0 G1 A6 B0 P6 A0 2.00 280.
3 MARK OUTLINE FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5
DIGITS USING AWL AT WORKTABLE AND ASIDE
A1 B0 G1 A1 B0 P1 R16 A1 B0 P1 A0 1.00 220.
4 POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE WITH 2 STEPS F 28
A1 B0 G1 A3 B0 P6 A0 28.00 3080.
5 FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING
HAMMER AT WORKTABLE AND ASIDE PF 28 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P0 F3 )A1 B0 P1 A0 (28) 1.00 1160.
6 REPLACE WEIGHTS FROM SHEETMETAL AT WORKTABLE TO
WORKTABLE WITH 3 STEPS F 4
A1 B0 G1 A6 B0 P3 A0 4.00 440.
7 REPLACE TEMPLATES FROM SHEETMETAL AT WORKTABLE TO
WORKTABLE WITH 3 STEPS F 2
A1 B0 G1 A6 B0 P3 A0 2.00 220.
8 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS
USING AWL AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (6) 1.00 1120.
9 MARK Construction INFORMATION ON SHEETMETAL AT
WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND
ASIDE PF 98 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (98) 1.00 4940.
10 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT
USING BALCKPEN AT WORKTABLE AND ASIDE PF 52 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (52) 1.00 2640.
11 MEASURE DIMENSIONS ON SHEETMETAL [FOR COLLAR] AT
WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE PF 2
( 4 5 6 7 )
A1 B0 G1 (A1 H0 P1 M32 )A1 B0 P1 A0 (2) 1.00 720.
12 MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT
USING AWL AT WORKTABLE AND ASIDE PF 2 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (2) 1.00 140.
13 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE WITH 3 STEPS F 2
14 MARK LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING
   AWL AT WORKTABLE AND ASIDE PF 2 (4 5 6 7)
   A1 B0 G1 (A1 B0 P1 R16) A1 B0 P1 A0 (2) 1.00 400.
15 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS
   USING AWL AT WORKTABLE AND ASIDE PF 2 (4 5 6 7)
   A1 B0 G1 (A2 B0 P1 R16) A1 B0 P1 A0 (2) 1.00 4 0 0.
16 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT
   WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND
   ASIDE PF 6 (4 5 6 7)
   A1 B0 G2 (A1 B0 P1 R3) A1 B0 P1 A0 (6) 1.00 340.
17 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT
   USING BLACKPEN AT WORKTABLE AND ASIDE PF 12 (4 5 6 7)
   A1 B0 G1 (A1 B0 P1 R3) A1 B0 P1 A0 (12) 1.00 640.
18 PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE
   WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0 2.00 220.
19 MOVE CART FROM WORKTABLE TO 14FT. SHEAR
   A1 B0 G1 A81 B0 P1 A0 1.00 840.

TOTAL TMU 18360.
File Description: SHEAR SHEETMETAL FOR SQUARE TO ROUND OFF CENTER

Output to line-printer <Y or N>? N

FIT *W11 OSQ2RN

SHEAR SHEETMETAL FOR SQUARE TO ROUND OFF CENTER WITH 14FT. SHEAR AT SHEETMETAL SHOP PER SQUARE TO ROUND

NASCO SHEETMETAL SHAPE 6
* 11 GAUGE GALV. SHEETMETAL
* 12'X8'X10' DIAMETER SQUARE TO ROUND
* WITH 3' OFFSET
* SHEAR 1 1/2' STRIP FOR COLLAR
FITTER BEGINS AT 14FT. SHEAR

1 POSITION SHEETMETAL FROM CART AT 14FT. SHEAR TO
   14FT. SHEAR WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 F6 A0 2.00 280.
2 PUSH 14FT. SHEAR-FOOTPEDAL PROCESS F 2
   A1 B0 G1 M1 X3 I0 A0 2.00 120.
3 POSITION SHEETMETAL FROM 14FT. SHEAR TO 14FT. SHEAR WITH
   2 STEPS F 13
   A1 B0 G1 A3 B0 P6 A0 13.00 1430.
4 PUSH 14FT. SHEAR-FOOTPEDAL PROCESS F 13
   A1 B0 G1 M1 X3 I0 A0 13.00 780.
5 REPLACE SHEETMETAL FROM 14FT. SHEAR TO CART AT
   14FT. SHEAR WITH 4 STEPS
   A1 B0 G1 A6 B0 F3 A0 1.00 110.
6 MOUE CART FROM 14FT. SHEAR TO WORKTABLE
   A1 B0 G1 A81 B3 P1 A0 1.00 870.

TOTAL TMU 3590.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help>?
CUT RADIUS FOR SQUARE TO ROUND OFF CENTER

File Description ? CUT RADIUS FOR SQUARE TO ROUND OFF CENTER

Output to line-Printer <Y or N> ? N

FIT .W11

CUT RADIUS FOR SQUARE TO ROUND OFF CENTER WITH SABER-SAW AT SHEETMETAL SHOP

PER SQUARE TO ROUND

NASSCO SHEETMETAL SHAPE 6
* 11 GAUGE GALV. SHEETMETAL
* 12'X8'X10' DIAMETER SQUARE TO ROUND
* WITH 3' OFFSET

OFG: 4 25-MAY-83

FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE
WITH 4 STEPS F 2

A1 B0 G2 A6 B0 P3 A0 2.00 220.

2 MOVE SABER-SAW2 FROM TOOLROOM TO WORKTABLE

A96 B0 G1 A96 B3 P1 A0 1.00 1970.

3 OPERATE SABER-SAW PROCESS F 3

A1 B0 G1 M6 X67 IO A0 3.00 2250.

4 REPLACE SHEETMETAL2 FROM WORKTABLE TO CART AT WORKTABLE
WITH 4 STEPS

A1 B0 G1 A6 B0 P3 A0 1.00 110.

5 MOVE CART FROM WORKTABLE TO 14FTHYDROPRESSBRAKE

AL B0 G1 A96 B0 F1 A0 1.00 990.

TOTAL TMU 5540.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

9130
File Description ? BEND RADIUS FOR SQUARE TO ROUND OFF CENTER

Output to line-Printer <Y or N> ? N

FIT .W11 OSQ2RN.

BEND RADIUS FOR SQUARE TO ROUND OFF CENTER WITH
14FT HYDRO-PRESS-BRAKE AT SHEETMETAL SHOP
PER SQU

NASSCO SHEETMETAL SHAPE 6
* 11 GAUGE GALV. SHEETMETAL
* 12'X8'X10' DIAMETER SQUARE TO --
* --ROUND WITH 3' OFFSET
FITTER BEGINS AT 14FTHYDROPRESSBRAKE

1 POSITION SHEETMETAL FROM CART AT 14FTHYDROPRESSBRAKE
   TO 14FTHYDROPRESSBRAKE WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 F6 A0 2.00 280.

2 PUSH 14FTHYDROPRESSBRAKE-FOOTPEDAL PROCESS
   A1 B0 G1 M1 X24 I0 A0 1.00 270.

3 POSITION SHEETMETAL FROM 14FTHYDROPRESSBRAKE TO
   14FTHYDROPRESSBRAKE WITH 3 STEPS F 25
   A1 B0 G2 A6 B0 P6 A0 25.00 3500.

4 PUSH 14FTHYDROPRESSBRAKE-FOOTPEDAL PROCESS F 25
   A1 B0 G1 M1 X24 I0 A0 25.00 6750.

5 REPLACE SHEETMETAL FROM 14FTHYDROPRESSBRAKE TO CART AT
   14FTHYDROPRESSBRAKE WITH 4 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 210.

6 MOUE CART FROM 14FTHYDROPRESSBRAKE TO ROLLER
   A1 B0 G1 A54 B0 F1 A0 1.00 570.

TOTAL TMU 11480.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ? 20,610
File Description  FORM COLLAR FOR SQUARE TO ROUND OFF CENTER

Output to line-Printer <Y or N> ? N

( 39, 1)
FIT  W11  OSQ2RN
FORM COLLAR FOR SQUARE TO ROUND OFF CENTER WITH ROLLER (ROLL FORMER) AT SHEETMETAL SHOP PER SQUARE TO ROUND OFG: 4  25-MAY-83
NASSCO SHEETMETAL SHAPE 6
* 11 GAUGE GALV. SHEETMETAL
* 12'X8'X10' DIAMETER SQUARE TO ROUND--
* -- WITH 3' OFFSET
* COMPLETE IN WELD BOOTH AREA
* SEE MWELD ...SEE OSQ2RN.M75
FITTER BEGINS AT ROLLER

1 POSITION SHEETMETAL FROM CART AT ROLLER TO ROLLER WITH 4 STEPS
A1 B0 G1 A6 B0 P6 A0 1.00 140.

2 FASTEN NUT [ROLLS] TO SHEETMETAL AT ROLLER 3
WRIST-TURNS USING HAND AND ASIDE F 4
A1 B0 G1 A1 B0 P1 F6 A1 B0 P1 A0 4.00 480.

3 PUSH ROLLER-BUTTON PROCESS F 4
A1 B0 G1 M1 X96 I0 A0 4.00 3960.

4 POSITION SHEETMETAL [COLLAR] FROM WORKTABLE TO SHEETMETAL [SQUARE TO ROUND] AT WORKTABLE WITH 2 STEPS F 2
A54 B-3 G1 A3 B0 P6 A0 2.00 1340.

5 REPLACE SHEETMETAL FROM ROLLER TO CART AT ROLLER WITH 4 STEPS
A54 B0 G1 A6 B0 P3 A0 1.00 640.

6 MOUE CART FROM ROLLER TO WORKTABLE
A2 B0 G1 A54 B3 P1 A0 1.00 600.

TOTAL TMU 7160.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

27770
WELD OFFSET SQUARE TO ROUND

utput to line-printer <Y or N> ? N

( 39,101)
WELD *W01
OSQ2RN.M72
WELD OFFSET SQUARE TO ROUND WITH ARC (STICK) WELDER AT SHEETMETAL
SHOP WELDING Booth
PER OFFSET SQUARE TO ROUND
OFG: 4 19-JUL-83
WELDING NASSCO SHEETMETAL SHAPE 6
* 11 GAUGE GALV. SHEETMETAL
* 12'X8'X10' DIAMETER SQUARE TO ROUND-
* -WITH 3' OFFSET X20' L
* WELDING DONE IN WELD AREA BOOTH
* WELDOR PERFORMS THE WORK
* FITTER TRANSPORTS SHEETMETAL
FITTER BEGINS AT WORKTABLE
FITTER PLACE SHEETMETAL ASSEMBLY FROM WORKTABLE TO CART
AT WORKTABLE WITH 4 STEPS F 2
A1 B0 G1 A6 B0 P3 A0 2.00 220.
2 FITTER MOVE CART FROM WORKTABLE TO WELDTABLE
A1 B0 G1 A131B3 P1 A0 1.00 1370.
3 PLACE SHEETMETAL ASSEMBLY FROM CART AT WELDTABLE TO
WELDTABLE WITH 4 STEPS F 2
A1 B0 G1 A6 B0 P3 A0 2.00 220.
4 WELDOR PUSH POWER SUPPLY BUTTON FROM OFF AT
WELDMACHINES TO ON AT WELDMACHINES WITH 16 STEPS
A3 B0 G1 M1 X0 IO A32 1.00 370.
5 WELDOR TURN CURRENT OUTPUT CONTROL LEVER FROM OFF AT
WELDMACHINES TO ON AT WELDMACHINES
A1 B0 G1 M3 X0 IO A1 1.00 60.
6 WELDOR POSITION ANTI-SPATTER SPRAY CAN FROM WELDTABLE
TO SHEETMETAL ASSEMBLY AT WELDTABLE F 4
A3 B3 G1 A1 B0 P6 A0 4.00 560.
7 WELDOR PUSH ANTI-SPATTER2 SPRAY CAN PROCESS F 4
A1 B0 G1 M1 X10 IO A0 4.00 520.
8 WELDOR FASTEN WELDROD TO STINGER AT WELDTABLE 1
WRIST-TURN USING HAND. F 16
A1 B0 G1 A1 B0 P1 F3 A0 B0 PO A0 16.00 1120.
9 PULL WELDHOOD FROM UP AT WELDOR TO DOWN AT WELDOR F 16
A1 B0 G1 M1 X0 IO A1 16.00 640.
10 WELDOR POSITION STINGER FROM WELDTABLE TO SHEETMETAL
ASSEMBLY AT WELDTABLE F 16
A1 B0 G1 A1 B0 P6 A0 16.00 1440.
11 OPERATE WELD STINGER-BUTTON2 AT WELDTABLE PTIME 65 S F
12 A1 B0 G1 M6 X173I0 A0 12.00 21720.
12 PUSH WELDHOOD FROM DOWN AT WELDOR TO UP AT WELDOR F 16
A1 B0 G1 M1 X0 IO A1 16.00 640.
13 WELDOR LOOSEN SLAG FROM SHEETMETAL ASSEMBLY AT
WELDTABLE 6 STRIKES USING SLAGHAMMER AT WELDTABLE AND
ASIDE PF 6 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 PO LI6 )A1 B0 P1 A0 (6) 1.00 1060.
14 WELDOR DEBURR WELDED ASSEMBLY AT WELDTABLE 10
ARM-STROKES USING WIREBRUSH AT WELDTABLE AND ASIDE PF
23 (4567 )
15 REPLACE SHEETMETAL ASSEMBLY FROM WELDTABLE TO CART AT WELDTABLE WITH 4 STEPS F 2
A1 B0 G1 A6 B0 P3 A0 2.00 220.
16 FITTER MOVE CART FROM WELDTABLE TO WORKTABLE
A1 B0 G1 A131B0 F1 A0 1.00 1340.

TOTAL TMU 34300,

File Description ? WELD OFFSET SQUARE TO ROUND

Output to line-printer <Y or N> ?
**Sheet Metal Shape # 7**

7-1/2" x 6" x 90° with 7/16" radius elbow

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<th>Task</th>
<th>Time</th>
<th>Notes</th>
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<td>24 min.</td>
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<td>Mark out</td>
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<td>Total Time</td>
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File Description ? MARK OUT ELBOW (*.7) CHEEKS

Output to line-printer <Y or N> ? N

( 39, 3)
FIT .W04
ELBOW .MO1
MARK SHEETMETAL FOR ELBOW (*.7) CHEEKS WITH AWL AT SHEETMETAL
SHOP PER ELBOW (* 7) OFG: 4 09-MAR-83
NASSCO SHEETMETAL *# 7
* U.S. CAPE COD
* WORK ORDER 3070-339
* SKETCH 737
* 20 GAUGE GALV. SHEETMETAL
* DIMEN: 7 1/2'X6'X90DEGREESX7 1/2'RAD
* MARK OUT TOP & BOTTOM CHEEKS
* USING TEMPLATE
FITTER BEGINS AT WORKTABLE

1 PLACE TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0 2.00 220.
2 PLACE 1 WEIGHT FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0 2.00 220.
3 MARK OUTLINE FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AND ASIDE PF 8 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (8) 1.00 1480.
4 REPLACE 1 WEIGHT FROM Template AT WORKTABLE TO WORKTABLE WITH 3 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0 2.00 220.
5 REPLACE 1 TEMPLATE FROM SHEETMETAL AT WORKTABLE TO WORKTABLE WITH 3 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 110.
6 MARK CUT LINE ON SHEETMETAL AT WORKTABLE 1 DIGIT USING REDPEN AT WORKTABLE AND ASIDE PF 60 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (60) 1.00 3040.
7 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 38 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (38) 1.00 1940.
8 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AND ASIDE PF 46 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (46) 1.00 2340.

TOTAL TMU 9570.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W (or H for help) ?
File Description ? MARK OUT ELBOW THROAT & HEEL

output to line-printer <Y or N> ? N

FIT *W04
ELBOW .M02
MARK OUT SHEETMETAL FOR ELBOW THROAT & HEEL WITH AWL AT SHEETMETAL SHOP PER ELBOW
NASSCO SHEETMETAL PART * 7
* U.S.S. CAPE COD
* WORK ORDER 3070-339
* SKETCH 737
* 20 GAUGE GALV. SHEETMETAL
* DIMEN: 7 1/2'X6'X90DEGREESX7 1/2'RAD
* LAYOUT THROAT & HEEL WITHOUT TEMPLATE
FITTER BEGINS AT WORKTABLE

1 MEASURE DIMENSION ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE PF 6 ( 1 2 3 4 5 6 7 )
   (A1 B0 G1 A1 B0 P1 M32 )A1 B0 P1 A0 (6) 1.00 2180.
2 MARK SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (6) 1.00 340.
3 POSITION STRAIGHT-EDGE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE AND ASIDE PF 3 ( 4 5 6 )
   A1 B0 G1 (A1 B0 P6 )A0 (3) 1.00 230.
4 PLACE CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 8
   A1 B0 G1 A1 B0 P3 A0 3.00 480.
5 MARK SHEETMETAL FROM CORNER TEMPLATE TO SHEETMETAL 2 DIGITS USING AWL AND ASIDE PF 8 ( 1 2 3 4 5 6 7 )
   (A1 B0 G1 A1 B0 P1 R6 )A1 B0 P1 A0 (8) 1.00 320.
6 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 1 DIGIT USING REDPEN AT WORKTABLE AND ASIDE PF 50 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (540) 1.00 2540.
7 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 41 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (41) 1.00 2090.
8 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 24 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (24) 1.00 1240.
9 PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 3 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 110.
10 MOVE CART FROM WORKTABLE TO SMALLSHEAR
   A1 B0 G1 A67 B0 P1 A0 1.00 700.

TOTAL TMU 10730.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?
SHEAR SHEETMETAL OUTLINES FOR ELBOW WITH SHEAR AT SHEETMETAL SHOP PER ELBOW NASSCO SHEETMETAL PART * 7 U.S.S. CAPE COD WORK ORDER 3070-339 SKETCH 737 20 GAUGE GALV. SHEETMETAL DIMEN: 1/2'X6'X90DEGREESX7 1/2'RAD ROUGH CUT CHEEK RADIUS ON SHEAR SHEAR IS SMALL 3 FT. SHEAR FITTER BEGINS AT SMALLSHEAR 1 POSITION 4X8 SHEETMETAL FROM CART AT SMALLSHEAR TO SMALLSHEAR WITH 4 STEPS A1 B0 G1 A6 PO P6 A0 1.00 140. 2 PUSH FOOTPEDAL AT SMALLSHEAR FOR CUTTING SHEETMETAL PROCESS A1 B0 G1 M1 X6 I0 A0 1.00 90. 3 POSITION SHEETMETAL FROM SMALLSHEAR TO SMALLSHEAR A1 B0 G1 A1 B0 P6 A0 1.00 90. 4 PUSH FOOTPEDAL AT SMALLSHEAR FOR CUTTING LINES ON SHEETMETAL PROCESS F 28 A1 B0 G1 M1 X6 I0 A0 25.00 2520. 5 PLACE SHEETMETAL FROM SMALLSHEAR TO CART AT SMALLSHEAR WITH 3 STEPS A1 B0 G1 A6 B0 P3 A0 1.00 110. 6 MOUE CART FROM SMALLSHEAR TO WORKTABLE A1 B0 G1 A67 B3 P1 A0 1.00 730. TOTAL TMU 3680.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?
File Description ? SHEAR ELBOW RADIUS LINES

Output to Line-Printer (Y or N> ? N

( 39, 3)
FIT W04 ELBOW .M04
SHEAR SHEETMETAL FOR ELBOW RADIUS LINES WITH UNI-SHEAR AT
SHEETMETAL SHOP
PER ELBOW OFG: 4 09-MAR-33

NASSCO SHEETMETAL PART * 7
* U.S.S. CAPE COD
* WORK ORDER 3070-339
* SKETCH 737
* 20 GAUGE GALV. SHEETMETAL
* DIMEN: 1/2'X6'X90DEGREESX7 1/2'RAD
* FINISH SHEAR CHEEK RADIUS WITH UNI-SHEAR
FITTER BEGINS AT WORKTABLE

PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE
WITH 3 STEPS  
A1 B0 G1 A6 B0 P3 A0 1.00 110.

MOVE UNI-SHEAR2 FROM TOOLROOM TO WORKTABLE  
A96 B0 G1 A96 B3 P1 A0 1.00 1970.

OPERATE UNISHEAR ON SHEETMETAL AT WORKTABLE PROCESS F 4
A1 P0 G1 M6 X17310 A0 4.00 7240.

CUT CORNERS ON SHEETMETAL AT WORKTABLE 1 CUT USING
SNIPS AT WORKTABLE AND ASIDE PF 32 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P3 C1 )A1 B0 P1 A0 (32) 1.00 1640.

FASTEN ( FLATEN )SHEETMETAL CORNERS ON SHEETMETAL AT
WORKTABLE 1 STRIKE USING HAMMER AND ASIDE PF 32 ( 4 5
6 7 )
A1 B0 G1 (A1 B0 P0 F3 )A1 B0 P1 A0 (32) 1.00 1320.

PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE
A1 B0 G1 A1 B0 P3 A0 1.00 60.

MOVE CART FROM WORKTABLE TO LAPOUT MACHINE
A1 B0 G1 A54 B0 P1 A0 1.00 570.

TOTAL TMU 12910.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?
File Description ? FORM ELBOW LAP

Output to line-Printer <Y or N> ? N

( 39, 3)
FIT .W04 ELBOW .MO5
FORM SHEETMETAL FOR ELBOW LAP WITH
LAPOUT MACHINE (ROTARY MACHINE) AT SHEETMETAL SHOP
PER ELBOW OFG: 4 09-MAR-83

NASSCO SHEETMETAL PART * 7
* U.S.S. CAPE COD
* WORK ORDER 3070-339
* SKETCH 737
* 20 GUAGE GALV. SHEETMETAL
* DIM: 7 1/2'X6'X90DEGREESX7 1/2'RAD
* LAPOUT 1 END, 2 CHEEKS, 1 THROAT & 1 HEEL
FITTER BEGINS AT LAPOUT

1 PLACE SHEETMETAL FROM CART AT LAPOUT TO LAPOUT WITH 4
STEPS F 4
   A1 B0 G1 A6 B0 P3 A0 4.00 440.
2 PUSH LAPOUT-SWITCH AT LAPOUT PROCESS F 4
   A1 B0 G1 M1 X16 IO A0 4.00 760.
3 REPLACE SHEETMETAL FROM LAPOUT TO CART AT LAPOUT WITH
   4 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 110.
4 MOUE CART FROM LAPOUT TO PITTSBURGH
   A1 B0 G1 A6 B0 P1 A0 1.00 90.

TOTAL TMU 1400.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

17,990
File Description: FORM PITTSBURGH LOCK ON ELBOW

Output to line-printer <Y or N>? N

{ 39, 3 }
FIT .W04
ELBOW .M06
FORM SHEETMETAL FOR ELBOW LOCK WITH PITTSBURGH AT SHEETMETAL SHOP
PER ELBOW

NASSCO SHEETMETAL PART * 7
* U.S.S. CAPE COD
* WORK ORDER 3070-339
* SKETCH 737
* 20 GAUGE GALV. SHEETMETAL
* DIMEN: 7 1/2'X6'X90DEGREESX7 1/2'RAD
* FORM PITTSBURGH LOCK ON 1 SIDE OF MACH
* FORM EDGE ON OTHER SIDE OF MACH
FITTER BEGINS AT PITTSBURGH

1 PLACE SHEETMETAL2 FROM CART AT PITTSBURGH TO PITTSBURGH WITH 4 STEPS
   A1  B0  G1  A6  B0  P3  A0
   1.00  110.
2 PUSH PITTSBURGH-BUTTON AND FORM PITTSBURGH PROCESS F 2
   A1  B0  G1  M1  X32  I0  A0
   2.00  300.
3 PUSH AND GUIDE SHEETMETAL2 THROUGH PITTSBURGH F 3
   A1  B0  G1  M1  X0  I3  A0
   3.00  100.
4 PUSH AND GUIDE SHEETMETAL THROUGH PITTSBURGH WITH 4 STEPS
   A6  B0  G1  M1  X0  I3  A0
   1.00  110.
5 PLACE SHEETMETAL FROM PITTSBURGH TO CART AT PITTSBURGH WITH 4 STEPS
   A1  B0  G1  A6  B0  P3  A0
   1.00  110.
6 MOVE CART FROM PITTSBURGH TO WORKTABLE
   A1  B0  G1  A54  B3  P1  A0
   1.00  600.

TOTAL TMU 1810.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?
File Description: FORM ELBOW RADIUS THROAT & HEEL

Output to line-printer <Y or N>? N

(39, 3)
FIT .W04
ELBOW .M07
FORM RADIUS ON ELBOW THROAT & HEEL WITH ROLLER AT SHEETMETAL SHOP
PER ELBOW

NASSCO SHEETMETAL PART * 7
* U.S. CAFE COD
* WORK ORDER 3070-339
* SKETCH 737
* 20 GAUGE GALV. SHEETMETAL
* DIMEN: 7 1/2"X6"X90DEGREESX7 1/2'RAD
* PLACE SCRAP METAL IN LOCK.
* SO ROLLER WILL NOT CLOSE GAP
FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 110.

2 MOVE SCRAP-SHEETMETAL FROM SCRAPBIN TO WORKTABLE
   A54 B3 G1 A54 B3 P1 A0 1.00 1160.

3 PLACE SHEETMETAL (SCRAP STRIPS 1 FROM WORKTABLE TO SHEETMETAL (THROAT & HEEL) PITTSBURGH AT WORKTABLE F4
   A1 B0 G1 A1 B0 P3 A0 4.00 240.

4 FASTEN SHEETMETAL (SCRAP) TO SHEETMETAL (THROAT & HEEL) AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE AND ASIDE PF 8 (4 5 6 7)
   A1 B0 G1 (A1 B0 P0 F3 )A1 B0 P1 A0 (8) 1.00 360.

5 PLACE SHEETMETAL AND HAMMER FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 110.

6 MOVE CART FROM WORKTABLE TO ROLLER
   A1 B0 G1 A54 B0 F1 A0 1.00 570.

7 PLACE SHEETMETAL FROM CART AT ROLLER TO ROLLER WITH 4 STEPS
   A1 B0 G1 A6 B0 F3 A0 1.00 110.

TOTAL TMU 2660.

Type D, EM, CT, EX, T, W <Or H for help>?
File Description: FORM EDGE ON ELBOW CHEEKS
Output to line-printer <Y or N> ? N

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<th>ELBOW .M08</th>
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<td>FORM SHEETMETAL FOR ELBOW CHEEKS WITH ROLLER AT SHEETMETAL SHOP</td>
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<tr>
<td>PER ELBOW</td>
<td>OFG: 4 10-MAR-83</td>
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NASSCO SHEETMETAL FART * 7
* U.S.S. CAFE COD
* WORK ORDER 3070-339
* SKETCH 737
* 20 GAUGE GALV. SHEETMETAL
* DIMEN: 7 1/2'X6'X90DEGREESX7 1/2'RAD
* KINK CORNER ON SHEETMETAL WITH VISEGRIPS
* DONE FOR EASE OF OPERATION
* ROLLER IS EDGE ROLLER

FITTER BEGINS AT WORKTABLE
1 PLACE SHEETMETAL2 FROM CART AT WORKTABLE TO WORKTABLE WITH 3 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 110.
2 LOOSEN SHEETMETAL [SCRAP] FROM SHEETMETAL AT WORKTABLE
   1 STRIKE USING HAMMER AT WORKTABLE AND ASIDE PF 8 (4 5 6 7)
   A1 B0 G1 (A1 B0 P0 L3 )A1 B0 P1 A0 (8) 1.00 360.
3 GRIP AND TWIST SHEETMETAL [CHEEKS] AT WORKTABLE 1 TWIST USING VISEGRIPS AND ASIDE F 4
   A1 B0 G1 A1 B0 P3 C1 A1 B0 P1 A0 4.00 360.
4 MOVE SHEETMETAL FROM WORKTABLE TO EDGER
   A1 B0 G1 A67 B0 P1 A0 1.00 700.
5 POSITION SHEETMETAL TO EDGER WITH 4 STEPS
   A1 B0 G1 A6 B0 P6 A0 1.00 140.
6 OPERATE EDGER-SWITCH AT EDGER PROCESS F 4
   A1 B0 G1 M6 X42 IO A0 4.00 2000.
7 MOVE SHEETMETAL FROM EDGER TO WORKTABLE
   A1 B0 G1 A67 B3 P1 A0 1.00 730.

TOTAL TMU 4400.

Type D,EM,CT,EW,EX,LI,LS,M,T,W <or H for help> ?
File Description ? ASSEMBLE ELBOW

Output to line-Printer <Y or N> ? N

( 39, 3)
FIT  IN ELBOW .M09
ASSEMBLE SHEETMETAL PIECES FOR ELBOW WITH HAMMER AT SHEETMETAL
SHOP
PER ELBOW  OFG: 4  10-MAR-83

NASSCO SHEETMETAL PART * 7
* U.S.S. CAFE COD
* WORK ORDER 3070-339
* SKETCH 737
* 20 GAUGE GALV. SHEETMETAL
* DIMEN: 7 1/2"X6'X90DEGREESX7 1/2' RAD
* ASSEMBLE 2 CHEEKS, 1 THROAT & 1 HEEL
* SECURE ASSEMBLY WITH PITTSBURGH LOCK
FITTER BEGINS AT WORKTABLE

1 FASTEN ( FLATTEN ) CORNERS ON SHEETMETAL AT WORKTABLE 2
STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 16 ( 4
5 6 7 )
   A1 B0 G1 (A1 B0 PO F6 )A1 B0 P1 A0 (16)  1.00  1160.
2 MOVE BARCLAMP2 FROM TOOLROOM TO WORKTABLE
   A96 B0 G1 A96 B3 P1 A0  1.00  1970.
3 POSITION SHEETMETAL FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE F 2
   A1 B0 G1 A1 B0 P6 A0  2.100  180.
4 FASTEN BARCLAMP TO ELBOW AT WORKTABLE 3 WRIST-CRANKS
USING 'HAND F 2
   A1 B0 G1 A1 B0 P1 F6 A0 B0 PO A0  2.00  200 .
5 PLACE SETTING TOOL FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE PF 12 ( 4 5 6 )
   A1 B0 G1 (A1 B0 P3 A0 (12)  1.00  500.
6 FASTEN SETTING TOOL TO SHEETMETAL AT WORKTABLE 1 STRIKE
USING HAMMER AND ASIDE PF 12 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 PO F3 )A1 B0 P1 A0 (12)  1.00  520.
7 FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 1 STRIKES
USING HAMMER AND ASIDE P1 24 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 PO F3 )A1 B0 P1 A0 (24)  1.00  1000.
8 LOOSEN BARCLAMP FROM SHEETMETAL AT WORKTABLE 3
WRIST-CRANKS USING HAND PF 2 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 L6 )A0 B0 P0 A0 (2)  1.00  180.
9 FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 2 STRIKES
USING HAMMER AND ASIDE PF 99 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 PO F6 )A1 B0 P1 A0 (99)  1.00  6970.
10 GRIP SEALANT TO SHEETMETAL IFIICULT AT WORKTABLE USING
CAULKING GUN AND ASIDE PF 12 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 F3 C1 )A1 B0 P1 A0 (12)  1.00  640 .
11 INSPECT SHEETMETAL AT WORKTABLE 9 POINTS
   A0 B0 GO A0 B0 PO T10 A0 B0 P0 A0  1.00  100.

TOTAL TMU  13420.

Type D, EM, CT, EW, EX, L, LD, LS, H, T, W <or H for help> ? 40280
SHEET METAL SHAPE

15" x 15" x 90° ELBOW WITH 15" RADIUS

FAB.  75890  45 MIN.
MARK OUT  22000  13 MIN.
TOTAL TMU.  97890  59 MIN.
Please input file <ELBOW.M40 > ?

File Description ? MARK OUT CHEEKS FOR ELBOW

Output to line-printer <Y or N> ? N

( 39, 3)
FIT .W11 ELBOW .M40
MARK OUT CHEEKS FOR ELBOW WITH AWL AT SHEETMETAL SHOP
PER ELBOW OFG: 4 14-APR-83

NASSCO SHEETMETAL SHAPE 7
* HULL 414
* DRAWING 501-'W@  * V2-62001
* V6-2491
* 18 GAUGE GALV. SHEETMETAL
* 15'x15' RECT. ELBOW WITH 15' RADIUS
* MARK OUT CHEEKS WITH TEMPLATE
FITTER BEGINS AT WORKTABLE

WORKTABLE TO SHEETMETAL AT
WORKTABLE WITH 3 STEPS F 2
A1 B0 G1 A6 B0 P6 A0 2.00 280.

2 PLACE WEIGHTS FROM WORKTABLE TO TEMPLATE ON SHEETMETAL
AT WORKTABLE WITH 3 STEPS F 4
A1 B0 G1 A6 B0 P3 A0 4.00 440.

3 MARK OUTLINES FROM TEMPLATE TO SHEETMETAL AT WORKTABLE
5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 6 ( 4] 5RG4) 3 7
A1 B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (6) 1.00 1120.

4 POSITION CPUNCH FROM WORKTABLE TO TEMPLATE AT WORKTABLE
F 8
A1 B0 G1 A1 B0 P6 A0 8.00 720.

5 FASTEN CPUNCH TO TEMPLATE AT WORKTABLE 1 STRIKE USING
HAMMER AT WORKTABLE AND ASIDE PF 8 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P0 F3 )A1 B0 P1 A0 (8) 1.00 360.

6 REPLACE WEIGHTS FROM TEMPLATE TO WORKTABLE WITH 3 STEPS
F 4
A1 B0 G1 A6 B0 P3 A0 4.00 440.

7 REPLACE TEMPLATES FROM SHEETMETAL AT WORKTABLE TO
WORKTABLE WITH 3 STEPS F 2
A1 B0 G1 A6 B0 P3 A0 2.00 220.

8 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS
USING REDPEN AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7S )
A1 B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (6) 1.00 1120.

9 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT
WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND
ASIDE PF 60 ( 4 5 6 7 )
A1 B0 X061 (A1 B0 P1 R3 )A1 B0 P1 A0 (60) 1.00 3040.

10 MARK IDENTIFICATION INFORMATION ON SHEETMETAL AT
WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND
ASIDE PF 52 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (52) 1.00 2640.

TOTAL TMU 10380,
FIT .W11
ELBOW .M41

MARK OUT HEEL AND THROAT FOR ELBOW WITH AWL AT SHEETMETAL SHOP
PER ELBOW

NASSCO SHEETMETAL SHAPE 7
* HULL 414
* DRAWING 501-062
* V2-62001
* V6-2491
* 18 GAUGE GALV. SHEETMETAL
* 15'X15' RECT. ELBOW WITH 15' RADIUS
* MARK OUT THROAT&HEEL WITHOUT TEMPLATE
FITTER BEGINS AT WORKTABLE

1 MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING
STEEL-TAPE AT WORKTABLE AND ASIDE PF 4 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 M32 )A1 B0 P1 A0 (4) 1.00 1400.

2 MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT
USING AWL AT WORKTABLE AN ASIDE PF 8 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (8) 1.00 440.

3 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE WITH 3 STEPS F 4
A1 B0 G1 A6 B0 P6 A0 4.00 560.

4 MARK LINES FROM STRAIGHTEDGE TO SHEETMETAL AT WORKTABLE
5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 4 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (4) 1.00 760.

5 POSITION CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL
AT WORKTABLE WITH 3 STEPS F 8
A1 B0 G1 A6 B0 P6 A0 8.00 1120.

6 MARK LINES FROM CORNER TEMPLATE AT WORKTABLE 2 DIGITS
USING AWL AT WORKTABLE AND ASIDE PF 8 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 R6 )A1 B0 P1 A0 (8) 1.00 680.

7 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS
USING REDPEN AT WORKTABLE AND HOLD PF 4 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 R16 )A0 B0 P0 A0 (4) 1.00 740.

8 HOLD+MARK CUT LINES ON SHEETMETAL AT WORKTABLE 2 DIGITS
USING BW7EDPEN AT WORKTABLE AND ASIDE PF 8 (4 5 6 7)
A0 B0 GO (A1 B0 P1 R6 )A1 B0 P1 A0 (8) 1.00 660.

9 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT
WORKTABLE 1 DIGIT USING BLACKP AT WORKTABLE AND HOLD
PF 34 (4567)
A1 B0 G1 (A1 B0 F1 R3 )A0 B0 P0 A0 (34) 1.00 1720.

10 Holden+MARK IDENTIFICATION INFORMATION ON SHEETMETAL AT
WORKTABLE E 1 DIGIT USING BLACKPEN AT WORKTABLE AND
ASIDE PF 52 (4 5 6 7)
A0 B0 GO (A1 B0 P1 R3 )A1 B0 P1 A0 (52) 1.00 2620.

11 PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE
WITH 4 STEPS F 2
A1 B0 G1 A6 B0 P3 A0 2.00 220.

12 MOVE CART WITH SHEETMETAL FROM WORKTABLE TO SMALLSHEAR
A1 B0 G1 A67 B0 P1 A0 1.00 700.

TOTAL TMU 11620.

Type D, EM, CT, EW, EX, L, LD, LS, H, T, W <or H for help> ?
Please input file <ELBOW.M42 > ?

File Description ? SHEAR SHEETMETAL FOR ELBOW

Output to line-Printer <Y or N> ? N

( 391 3) FIT 1

FIT 1

SHEAR SHEETMETAL FOR ELBOW WITH SMALL 8FT. SHEAR AT SHEETMETAL SHOP

PER ELBOW

NASSCO SHEETMETAL SHAPE 7
* HULL 414
* DRAWING 501-062
* V2-62001
* V6-2491
* 18 GAUGE GALV. SHEETMETAL
* 15'X15' RECT. ELBOW WITH 15' RADIUS
* SHEAR SPACER STRIPS FOR PITTSBURGH LOCKS
FITTER BEGINS AT SMALLSHEAR

1 POSITION SHEETMETAL FROM CART AT SMALLSHEAR TO SMALLSHEAR WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P6 A0 2.00 280.

2 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 2
   A1 B0 G1 M1 X6 IO A0 2.00 180.

3 POSITION SHEETMETAL FROM SMALLSHEAR TO SMALLSHEAR WITH 3 STEPS F 20
   A1 B0 G1 A6 B0 P6 A0 20.00 2800.

4 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 20
   A1 B0 G1 M1 X6 IO A0 20.00 1800.

5 REPLACE SHEETMETAL2 FROM SMALLSHEAR TO CART AT SMALLSHEAR WITH 20 STEPS
   A1 B0 G1 A32 B0 P3 A0 1.00 370.

6 MOVE CART WITH SHEETMETAL FROM SMALLSHEAR TO WORKTABLE
   A1 B0 G1 A67 B3 P1 A0 1.00 730.

   TOTAL TMU 6160.

Type D, EM, CT, EW, EX, L, LB, LS, M, T, W (or H for help) ?
Please input file (ELBOW.M > ?)

File Description ? SHEAR RADIUS ON CHEEKS FOR ELBOW

Output to line-printer <Y or N> ? N

( 39, 3)
FIT .W11 ELBOW .M43
SHEAR RADIUS ON CHEEKS FOR ELBOW WITH UNI-SHEAR AT SHEETMETAL SHOP
PER ELBOW OFG: 4 14-AFR-83

NASSCO SHEETMETAL SHAPE 7
* HULL 414
* DRAWING 501-062
* V2-62008
* V6-2491
* 18 GAUGE GALV. SHEETMETAL
* 15'X15' RECT. ELBOW WITH 15' RADIUS
* BEND EDGE CORNERS UP 90DEGREES FOR EDGER
FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL2 FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 F3 A0 2.00 220.

2 MOVE UNISHEAR2 FROM TOOLROOM TO WORKTABLE
   A96 B0 G1 A96 B3 P1 A0 1.00 1970.

3 OPERATE UNISHEAR AT WORKTABLE PROCESS F 8
   A1 B0 G1 M6 X17310 A0 8.00 14480.

4 CUT CORNERS ON SHEETMETAL AT WORKTABLE 2 CUTS USING SNIPS AT WORKTABLE AND ASIDE PF 8 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 F3 C3 )A1 B0 F1 A0 (8) 1.00 600.

5 FASTEN [FLATTEN] CORNERS ON SHEETMETAL AT WORKTABLE 3 STRIKES USING HAMMER A-T WORKTABLE AND ASIDE PF 8 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P0 F6 )A1 B0 F1 A0 (8) 1.00 600.

6 GRIP AND TWIST EDGE CORNERS ON SHEETMETAL [CHEEKS] AT WORKTABLE 1 TWIST USING VISEGRIPS AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 F3 C1 )A1 B0 P1 A0 (4) 1.00 240.

7 REPLACE SHEETMETAL2 FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 F3 A0 2.00 220.

8 MOVE CART WITH SHEETMETAL2 FROM WORKTABLE TO LAPOUT
   A1 E0 G1 A54 B0 F1 A0 1.00 570.

TOTAL TMU  18900.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

35 060
Please input file <ELBOW.M44> ?

File Description ? FORM LAP ENDS ON SHEETMETAL FOR ELBOW

Output to line-printer <Y or N> ? N

( 391 3)
FIT   #11 ELBOW .M44
FORM LAP ENDS ON SHEETMETAL FOR ELBOW WITH LAPOUT MACHINE AT
SHEETMETAL SHOP
PER ELBOW

NASSCO SHEETMETAL SHAPE 7
* HULL 414
* DRAWING 501-062
* V2-62001
* V6-2491
* 18 GAUGE GALV. SHEETMETAL
* 15'X15' RECT. ELBOW WITH 90DEGREE RADIUS
FITTER BEGINS AT LAPOUT

1 PLACE SHEETMETAL FROM CART AT LAPOUT TO LAPOUT WITH 4
STEPS F 4

2 PUSH LAPOUT-SWITCH PROCESS F 4

3 PUSH AND GUIDE SHEETMETAL THROUGH LAPOUT WITH 3 STEPS

4 REPLACE SHEETMETAL FROM LAPOUT TO CART AT LAPOUT WITH
4 STEPS F 4

5 MOVE CART WITH SHEETMETAL FROM LAPOUT TO EDGER

TOTAL TMU 1940.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

27000
Please input file <ELBOW.M45>  ?

File Description ? FORM 90DEGREE EDGE ON CHEEKS FOR ELBOW

Output to line-printer <Y or N> ? N

( 39, 3) FIT .W11

ELBOW .M45

FORM 90 DEGREE EDGE ON CHEEKS FOR ELBOW WITH
EDGER (FLANGER) MACHINE AT SHEETMETAL SHOP
PER ELBOW OFG: 4 14-APR-83

NASSCO SHEETMETAL SHAPE 7
* HULL 414
* DRAWING 501-062
* V2-62001
* V6-2491
* 18 GAUGE GALV. SHEETMETAL
* 15'X15' RECT. ELBOW WITH 15' RADIUS
* USE PREVIOUSLY TURNED UP EDGE TO --
S START METAL IN MACHINE
FITTER BEGINS AT EDGER

1 POSITION SHEETMETAL FROM CART AT EDGER TO EDGER WITH 4
STEPS F 2
A1 B0 G1 A6 B0 P6 A0 2.00 280.

2 PUSH EDGER- SWITCH PROCESS F 2
A1 B0 G1 M1 X42 IO A0 2.00 900.

3 POSITION SHEETMETAL FROM EDGER TO EDGER WITH 3 STEPS F
2
A1 B0 G1 A6 B0 P6 A0 2.00 280.

4 PUSH EDGER- SWITCH PROCESS F 2
A1 B0 G1 M1 X42 IO A0 2.00 900.

5 PUSH AND GUIDE SHEETMETAL THROUGH EDGER WITH 3 STEPS
A6 B0 G1 M1 X0 I3 A0 1.00 1101

6 REPLACE SHEETMETAL FROM EDGER TO CART AT EDGER WITH 4
STEPS F 2
A1 B0 G1 A6 B0 P3 A0 2.00 220.

7 MOVE CART WITH SHEETMETAL FROM EDGER TO PITTSBURGH
A1 B0 G1 A16 B0 F1 A0 1.00 190.

TOTAL TMU 2880.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W (or H for help> ?
Please input file <ELBOW.M46> ?

File Description ? FORM PITTSBURGH LOCK ON THROAT & HEEL FOR ELBOW

Output to line-printer (Y or N)? N

(39, 3)
FIT .M11

ELBOW .M46
FORM PITTSBURGH LOCK ON THROAT & HEEL FOR ELBOW WITH PITTSBURGH
AT SHEETMETAL SHOP
PER ELBOW OFG: 4 14-APR-83

NASSCO SHEETMETAL SHAPE 7
* HULL 414
* DRAWING 501-062
* V2-62001
* V6-2491
* 18 GAUGE GALV. SHEETMETAL
* 15'X15' RECT. ELBOW WITH 15' RADIUS
FITTER BEGINS AT PITTSBURGH

1 PLACE SHEETMETAL FROM CART AT PITTSBURGH TO PITTSBURGH
WITH 4 STEPS F 2

2 PUSH PITTSBURGH-BUTTON PROCESS F 2

3 PLACE SHEETMETAL FROM PITTSBURGH TO PITTSBURGH WITH 2
STEPS F 2

4 PUSH PITTSBURGH-BUTTON PROCESS F 2

5 PUSH AND GUIDE SHEETMETAL THROUGH PITTSBURGH WITH 3
STEPS F 4

6 REPLACE SHEETMETAL FROM PITTSBURGH TO CART AT
PITTSBURGH WITH 4 STEPS F 2

7 MOVE CART WITH SHEETMETAL FROM PITTSBURGH TO WORKTABLE

TOTAL TMU 3040.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

32920
Please input file <ELBOW.M47> ?

File Description ? POSITION SPACERS IN PITTSBURGH LOCKS FOR ELBOW

Output to line-Printer <Y or N> ? N

(39, 3)
FIT .W11

ELBOW.M47
POSITION SPACERS IN PITTSBURGH LOCKS FOR ELBOW WITH HAMMER AT SHEETMETAL SHOP
PER ELBOW

FIT
NASSCO SHEETMETAL SHAPE 7
* HULL 414
* DRAWING 501-062
* V2-62001
* V6-2491
* 18 GAUGE GALV. SHEETMETAL
* 15'X15' RECT. ELBOW WITH 15' RADIUS
* PROTECT PITTSBURGH LOCKS WITH SPACERS--
* WHILE ROLLING
FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0 2.00

2 POSITION SHEETMETAL [SPACERS] FROM WORKTABLE TO SHEETMETAL [PITTSBURGH LOCKS] AT WORKTABLE WITH 3 STEPS F 4
   A1 B0 G1 A6 B0 P6 A0 4.00

3 FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE AND ASIDE PF 8 (4 5 6 7)
   A1 B0 G1 (A1 B0 P0 F3 )A1 B0 P1 A0 \(8\) 1.00

4 PLACE MASKING-TAPE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 1 STEP F 12
   A1 B0 G1 A3 B0 P3 A0 12.00

5 MOVE SHEETMETAL FROM WORKTABLE TO ROLLER
   A1 B0 G1 A54 B0 P1 A0 1.00

TOTAL TMU 2670.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

35590
Please input file <ELBOW.M48> ?

File Description ? FORM RADIUS ON THROAT AND HEEL FOR ELBOW

Output to line-printer (Y or N)? N

(39, 3)
FIT  W1

FORM RADIUS ON THROAT AND HEEL FOR ELBOW WITH
ROLL FORMER (ROLLER) MACHINE AT SHEETMETAL SHOP
PER ELBOW

NASSCO SHEETMETAL SHAPE 7
* HULL 414
* DRAWING 501-062
* V2-62001
* V6-2491
* 18 GAUGE GALV. SHEETMETAL
* 15'X15' RECT. ELBOW WITH 15' RADIUS
* CHECK RADIUS ON THROAT & HEEL WITH --
t. RADIUS ON CHEEK
FITTER BEGINS AT ROLLER

1 PLACE SHEETMETAL FROM FITTER AT ROLLER TO ROLLER WITH
3 STEPS

A1 B0 G1 A6 H0 P3 A0 1.00 110.

2 FASTEN BOLT [ROLLS] TO SHEETMETAL AT ROLLER 3
WRIST-TURNS USING HAND F 6

A1 B0 G1 A1 B0 P1 F6 A0 B0 P0 A0 6.00 600.

3 PUSH ROLLER-BUTTON PROCESS F 8

A1 B0 G1 M1 X96 IO A0 8.00 7920.

4 POSITION SHEETMETAL [THROAT & HEEL] FROM WORKTABLE TO
SHEETMETAL [CHEEK] AT ROLLER WITH 3 STEPS F 8

A54 B3 G1 A6 B0 P6 A0 8.00 5600.

5 MOVE SHEETMETAL FROM ROLLER TO WORKTABLE

A1 B0 G1 A54 B3 F1 A0 1.00 600.

TOTAL TMU 14830.

Type D, EM, CT, EW, EX, L, LD, LS, M, W <or H for help> ?

50420
Please input file LBOW.M49 > ?

File Description ? ASSEMBLE CHEEKS, THROAT, AND HEEL FOR ELBOW

Output to line-printer <Y or N>? N

(39, 3)
FIT .W11 ELBOW.M49
ASSEMBLE CHEEKS, THROAT, AND HEEL FOR ELBOW WITH HAMMER AT SHEETMETAL SHOP
PER ELBOW OFG: 4 14-APR-83

NASSCO SHEETMETAL SHAPE 7
* HULL 414
* DRAWING 501-062
* V2-62001
* VS-2491
* 18 GAUGE GALV. SHEETMETAL
* 15'x15' RECT. ELBOW WITH 15' RADIUS
* REMOVE SPACERS FROM PITTSBURGH LOCK
FITTER BEGINS AT WORKTABLE

1. PLACE SHEETMETAL FROM FITTER AT WORKTABLE TO WORKTABLE
   A1 B0 G1 A1 B0 P3 A0 1.00 60.

2. REPLACE MASKING-TAPE FROM SHEETMETAL AT WORKTABLE TO WORKTABLE WITH 2 STEPS F 8
   A1 B0 G1 A3 B0 P3 A0 8.00 640.

3. LOOSEN SHEETMETAL FROM SHEETMETAL AT WORKTABLE 2 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 8 (4 5 6 7)
   A1 B0 G1 (A1 B0 P0 L6 )A1 B0 P1 A0 (8) 1.00 600.

4. MOVE BARCLAMP FROM TOOLROOM TO WORKTABLE
   A96 B0 G1 A96 B3 P1 A0 1.00 1970.

5. POSITION SHEETMETAL [CHEEK] TO SHEETMETAL [THROAT: HEEL] AT WORKTABLE WITH 1 STEP F 2
   A1 B0 G1 A3 B0 P6 A0 2.00 220.

6. POSITION BARCLAMP FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 6
   A1 B0 G1 A1 B0 P6 A0 6.00 540.

7. FASTEN BARCLAMP TO SHEETMETAL AT WORKTABLE 3 STRIKES USING HAND PF 6 (4 5 6 7)
   A1 B0 G1 (A1 B0 P1 F6 )A0 B0 PO A0 (6) 1.00 500.

8. POSITION SETTING TOOL FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 40
   A1 B0 G1 A1 B0 P6 A0 40.00 3600.

9. FASTEN SETTING TOOL TO SHEETMETAL AT WORKTABLE 2 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 40 (4 5 6 7)
   A1 B0 G1 (A1 B0 PO F6 )A1 B0 P1 A0 (40) 1.00 2840.

10. FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 3 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 16 (4 5 6 7)
    A1 B0 G1. (A1 B0 PO F6 )A1 B0 P1 A0 (16) 1.00 1160.

11. FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 16 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 40 (4 5 6 7)
    A1 B0 G1 (A1 B0 P0 F32 )A1 B0 P1 A0 (40) 1.00 13240.

12. INSPECT SHEETMETAL AT WORKTABLE 9 POINTS
    A0 B0 GO A0 H0 P0 T10 A0 B0 P0 A0 1.00
TOTAL TMU 25470.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help>?
Sheet Metal Shape # 7

15" x 40" x 90° Elbow with Van Turb

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<thead>
<tr>
<th>Operation</th>
<th>Time (Hr)</th>
<th>Time (Min)</th>
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<tbody>
<tr>
<td>F &amp; B</td>
<td>76480</td>
<td>46 Min</td>
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<td>Mark Out</td>
<td>34320</td>
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<td>D</td>
<td>V2 1000</td>
<td>414 PURCHASED PRE FILTERS (UNDER C/ (SEE TEQUILA)</td>
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<tr>
<td>D</td>
<td>V2 797</td>
<td>414 FILTERS (ABS. WITH DUMMY) (FU 501-913 C/ (SEE TEQUILA)</td>
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<td>D</td>
<td>V2 1002</td>
<td>414 ABSOLUTE FLTR (21-6)501-097 (FU VENT 3RD PLATF.FR.90-100 SPARE SPARE</td>
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<tr>
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<td>V2 1006</td>
<td>414 PVC FILTER (21-6)501-007 (PUNCH VENT 3RD PLATF.FR.90-100 SPARE SPARE</td>
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<td>V2 1008</td>
<td>414 PRE FILTER (21.16)501-014 (FU VENT. 2ND. PLATF.FR.90-100)</td>
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UNITS BEHIND SCHE
Please input file <ELBOW.M20 > ?

File Description ? MARK OUT CHEEKS FOR ELBOW WITH VANE TURNS

Output to line-printer <Y or N> ? N

( 39, 3)

FIT

MARK OUT CHEEKS FOR RECTANGULAR ELBOW WITH VANE TURNS WITH AWL AT SHEETMETAL SHOP PER ELBOW

NASSCO SHEETMETAL SHAPE *7
* HULL 414
* DRAWING 501-062
* V2-1098
* V6-7598
* 11 GAUGE GALV. SHEETMETAL
* 15'X40' ELBOW WITH VANE TURNS
* MARK OUT CHEEKS WITH TEMPLATE
FITTER BEGINS AT WORKTABLE

1 POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS F 2
   A1 B0 G1 A6 B0 P6 A0 2.00 280.

2 POSITION WEIGHTS FROM WORKTABLE TO TEMPLATE AT WORKTABLE WITH 3 STEPS F 6
   A1 B0 G1 A6 B0 P6 A0 6.00 840.
   3 MARK LINES FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (6) 1.00 1120.

4 POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 57
   A1 B0 G1 A1 B0 P6 A0 57.00 5130.

5 POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 57
   A1 B0 G1 A1 B0 P6 A0 57.00 5130.

6 FASTEN CPUNCH TO TEMPLATE AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE AND ASIDE PF 57 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P0 F3 )A1 B0 P1 A0 (57) 1.00 2320.

7 FASTEN CPUNCH TO TEMPLATE AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE AND ASIDE PF 57 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P0 F3 )A1 B0 P1 A0 (57) 1.00 2320.

8 REPLACE WEIGHTS FROM TEMPLATE TO WORKTABLE WITH 3 STEPS F 6
   A1 B0 G1 A6 B0 P3 A0 6.00 660.

9 REPLACE TEMPLATE FROM SHEETMETAL AT WORKTABLE TO WORKTABLE WITH 3 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0 2.00 220.

10 HARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (6) 1.00 1120.

11 HARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 48 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (48) 1.00 2440.
MARK IDENTIFICATION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACK PEN AT WORKTABLE AND ASIDE PF 52 (4 5 6 7 )
A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (52) 1.00 2640.

TOTAL TMU 24220.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?
Please input file <ELBOW.M21 > ?

MARK OUT THROAT AND HEEL FOR ELBOW

Output to line-printer <Y or N> ? N

FIT .009

MARK OUT THROAT AND HEEL FOR ELBOW WITH AWL AT SHEETMETAL SHOP

PER ELBOW

NASSCO SHEETMETAL SHAPE *7
* HULL 414
* DRAWING 501-062
* V2-1098
* V6-7598
* 11 GAUGE GALV. SHEETMETAL
* 15'X40' ELBOW WITH VANE TURNS
* MARK OUT WITHOUT TEMPLATE
FITTER BEGINS AT WORKTABLE

1 MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING
STEEL-TAPE AT WORKTABLE AND ASIDE F 4
A1 B0 G1 A1 B0 P1 M32 A1 B0 P1 A0 4.00 1520.

2 MARK DIMENSIONS FROM STEEL-TAPE ON SHEETMETAL AT
WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF
1 6 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (16) 1.00 840.

3 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE WITH 3 STEPS F 8
A1 B0 G1 A6 B0 P6 A0 8.00 1120.

4 MARK LINES FROM STRAIGHTEDGE TOSHEETMETAL AT WORKTABLE
5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 8 ( 4 5 6
7 )
A1 B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (8) 1.00 1480.

5 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS
USING REDPEN AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (4) 1.00 760.

6 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT
WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND
ASIDE PF 34 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (34) 1.00 1740.

7 MARK IDENTIFICATION INFORMATION ON SHEETMETAL AT
WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND
ASIDE PF 52 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (52) 1.00 2640.

TOTAL TMU 10100.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?
Please input file (ELBOW.M22 > ?)

File Description ? MARK OUT TURN VANES FOR RECTANGULAR ELBOW

Output to line-printer <Y or N> ? N

( 39, 3)
FIT .W09

MARK OUT TURN VANES FOR RECTANGULAR ELBOW WITH AWL AT SHEETMETAL
SHOP
PER ELBOW

OFG: 4 11-APR-83

NASSCO SHEETMETAL SHAPE 7
* HULL 414
* DRAWING 501-062
* V2-1098
* V6-7598
* 11 GAUGE GALV. SHEETMETAL
* 15'X40' ELBOW WITH VANE TURNS
* MARK OUT WITHOUT TEMPLATE
FITTER BEGINS AT WORKTABLE

1 MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING
STEEL-TAPE AT WORKTABLE WITH 3 STEPS AND ASIDE PF 4 ( 1 2 3 4 5 6 7 )
(A1 B0 G1 A1 B0 P1 A6 )M32A1 B0 P1 A0 (4) 1.00 740.
2 MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT
USING AWL AT WORKTABLE WITH 3 STEPS AND ASIDE PF 12 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P1 A6 )R3 A1 B0 P1 A0 (12) 1.00 1030.
3 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE F 6
A1 B0 G1 A1 B0 P6 A0 6.00 540.
4 MARK LINES FROM STRAIGHTEDGE TO SHEETMETAL AT WORKTABLE
5 DIGITS USING AWL AT WORKTABLE WITH 2 STEPS AND ASIDE
PF 6 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P1 A3 )R16A1 B0 P1 A0 (6) 1.00 500.
5 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS
USING REDPEN AT WORKTABLE WITH 3 STEPS AND ASIDE PF 4
( 4 5 6 7 )
A1 B0 G1 (A1 B0 P1 A6 )R16A1 B0 P1 A0 (4) 1.00 520.
6 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT
WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE WITH 3
STEPS AND ASIDE PF 46 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P1 A6 )R3 A1 B0 P1 A0 (46) 1.00 3750.
7 MARK IDENTIFICATION INFORMATION ON SHEETMETAL AT
WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND
ASIDE PF 52 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (52) 1.00 2640.
8 PEACE SHEET METAL2 FROM WORKTABLE TO CART AT WORKTABLE
WITH 4 STEPS F 2
A1 B0 G1 A6 B0 P3 A0 2.00 220.
* MOVE CART WITH SHEETMETAL FROM WORKTABLE TO SMALLSHEAR
A1 B0 G1 A67 B0 P1 A0 1.00 700.

TOTAL TMU 10640.
Please input file <ELBOW.M23 > ?

File Description ? SHEAR SHEETMETAL FOR REC. ELBOW WITH VANE TURNS

Output to line-printer <Y or N> ? N

( 39, 3)
FIT .W10

SHEAR SHEETMETAL FOR RECTANGULAR ELBOW WITH 'JANE TURNS WITH LARGE 14FT. SHEAR AT SHEETMETAL SHOP PER ELBOW

NASSCO SHEETMETAL SHAPE 7
* HULL 414
* DRAWING 501-062
* V2-1098
* V6-7598
* 11 GAUGE GALV. SHEETMETAL
* 15'X40' ELBOW WITH 'JANE TURNS
* 2 FITTERS REQUIRED:
FITTER BEGINS AT 14FT.SHEAR

OFG: 4 12-APR-83

1 POSITION SHEETMETAL FROM CART AT 14FT.SHEAR TO 14FT.SHEAR WITH 4 STEPS F 4
   A1 B0 G1 A6 B0 P6 A0 4.00 560.

2 PUSH 14FT.SHEAR-FOOTPEDAL PROCESS
   A1 B0 G1 M1 X3 IO A0 1.00 60.

3 POSITION SHEETMETAL FROM 14FT.SHEAR TO 14FT.SHEAR F 32
   A1 B0 G1 A1 B0 P6 A0 32.00 2880.

4 PUSH 14FT.SHEAR-FOOTPEDAL PROCESS F 32
   A1 B0 G1 M1 X3 10 A0 32.00 1920.

5 REPLACE SHEETMETAL FROM 14FT.SHEAR TO CART AT 14FT.SHEAR WITH 8 STEPS F 3
   A1 B0 G1 A16 B0 P3 A0 3.00 630.

6 MOVE CART WITH SHEETMETAL FROM 14FT.SHEAR TO NIBBLER
   A1 B0 G1 A54 B0 P1 A0 1.00 570.

TOTAL TMU 6620.

Type D, EM, CT, EW, EX, L, LD, LS, M, T. W <or H for help> ?
Please input file <ELBOW.M24 > ?

File Description ? SHEAR RADIUS ON CHEEKS FOR ELBOW

Output to line-printer <Y or N> ? N

( 39, 3)
FIT .W10
SHEAR RADIUS ON CHEEKS FOR RECTANGULAR ELBOW WITH 'JANE TURNS WITH NIBBLER AT SHEETMETAL SHOP PER ELBOW
NASSCO SHEETMETAL SHAPE 7
* HULL 414
* DRAWING 501-062
* V2-1098
* V6-7592
* 11 GAUGE GALV. SHEETMETAL
* 15'X40' ELBOW WITH VANE TURNS
* 2 FITTERS REQUIRED
FITTER BEGINS AT NIBBLER

1 POSITION SHEETMETAL FROM CART AT NIBBLER TO NIBBLER WITH 3 STEPS F 2
   A1 B0 G1 A6 B0 P6 A0 2.00 280.

2 PUSH NIBBLER-BUTTON PROCESS F 2
   A1 B0 G1 M1 X81 IO A0 2.00 1680.

3 POSITION SHEETMETAL FROM NIBBLER TO NIBBLER WITH 3 STEPS F 14
   A1 B0 G1 A6 B0 P6 A0 14.00 1960.

4 PUSH NIBBLER-BUTTON PROCESS F 14
   A1 B0 G1 M1 X81 IO A0 14.00 11760.

5 REPLACE SHEETMETAL FROM NIBBLER TO CART AT NIBBLER WITH 4 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 110.

6 MOUE CART WITH SHEETMETAL FROM NIBBLER TO ROLLER
   A1 B0 G1 A24 B0 P1 A0 1.00 270.

TOTAL TMU 16060.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

22680
Please input file <ELBOW.M25> ?

File Description ? FORM RADIUS ON THROAT & HEEL FOR ELBOW
Output to line-Printer <Y or N> ? N

( 39, 3)
FIT .W09

ELBOW

FORM RADIUS ON THROAT AND HEEL FOR RECTANGULAR ELBOW WITH
ROLL FORMER (ROLLER) AT SHEETMETAL SHOP

FITTER BEGINS AT ROLLER

1 PLACE SHEETMETAL2 FROM CART AT ROLLER TO ROLLER WITH 4
STEPS F 4

2 FASTEN BOLT [ROLLS] TO SHEETMETAL2 AT ROLLER 3 SPINS
USING HAND AT ROLLER WITH 2 STEPS F 48

3 PUSH ROLLER-BUTTON PROCESS F 48

4 REPLACE SHEETMETAL2 FROM ROLLER TO CART AT ROLLER WITH
4 STEPS F 4

5 MOUE CART WITH SHEETMETAL FROM ROLLER TO WORKTABLE
[WELD AREA]

TOTAL TMU 53800.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

76480
File Description ? WELD RECTANGULAR ELBOW

Output to line-Printer <Y or N> ? N

WELD RECTANGULAR ELBOW WITH ARC (STICK) WELDER AT SHEETMETAL SHOP
WELDING BOOTH
PER RECTANGULAR ELBOW
WELDING NASSCO SHEETMETAL SHAPE 7
* 11 GAUGE GALV. SHEETMETAL
* 15X40 RECTANGULAR ELBOW X60'L WITH-
* --TURN VANES
* WELDING DONE IN WELD AREA BOOTH
* WELDOR PERFORMS THE WORK
* FITTER TRANSPORTS SHEETMETAL
FITTER BEGINS AT WORKTABLE

1 FITTER PLACE SHEETMETAL ASSEMBLY FROM WORKTABLE TO CART
   AT WORKTABLE WITH 4 STEPS
      A1 B0 G1 A6 B0 P3 A0 1.00  110.
2 FITTER MOUE CART FROM WORKTABLE TO WELDTABLE
      A1 B0 G1 A131B3 P1 A0 1.00  1370.
3 PLACE SHEETMETAL FROM CART AT WELDTABLE TO WELDTABLE
   WITH 4 STEPS
      A1 B0 G1 A6 B0 P3 A0 1.00  110.
4 WELDOR PUSH POWER SUPPLY BUTTON FROM OFF AT
   WELDMACHINES TO ON AT WELDMACHINES WITH 16 STEPS
      A3 B0 G1 M1 X0 IO A32 1.00  370.
5 WELDOR TURN CURRENT OUTPUT CONTROL LEVER FROM OFF AT
   WELDMACHINES TO ON AT WELDMACHINES
      A1 B0 G1 M3 X0 IO A1 1.00  60.
6 WELDOR POSITION ANTI-SPATTER SPRAY CAN FROM WELDTABLE
   TO SHEETMETAL ASSEMBLY AT WELDTABLE F 8
      A3 B3 G1 A1 B0 P6 A0 8.00  1120.
7 WELDOR PUSH ANTI-SPATTER2 SPRAY CAN PROCESS F 8
      A1 B0 G1 M1 X10 IO A0 8.00  1040.
8 WELDOR FASTEN WELDROD TO
   WRIST-TURN USING HAND F 56
      A1 B0 G1 A1 B0 P1 F3 A0 B0 P0 A0 56.00  3920.
9 WELDOR FASTEN WELDROD TO
   WRIST-TURN USING HAND F 55
      A1 B0 G1 A1 E0 P1 F3 A0 B0 P0 A0 55.00  3850.
10 PULL WELDHOOD FROM UP AT
    WELDOR TO DOWN AT WELDOR F 56
       A1 B0 G1 M1 X0 IO A1 56.00  2240.
11 PULL WELDHOOD FROM UP AT
    WELDOR TO DOWN AT WELDOR F 55
       A1 B0 G1 M1 X0 IO A1 55.00  2200.
12 WELDOR POSITION STINGER FROM WELDTABLE TO SHEETMETAL
   ASSEMBLY AT WELDTABLE F 90
       A1 B0 G1 A1 B0 P6 A0 90.00  8100.
13 WELDOR POSITION STINGER FROM WELDTABLE TO SHEETMETAL
   ASSEMBLY AT WELDTABLE F 36
       A1 B0 G1 A1 B0 P6 A0 36.00  3240.
14 OPERATE WELD STINGER-BUTTON2 AT WELDTABLE PTIME 65 S F
ALB0 G1 M6 X17310 A0 84.00 152040.
1 5 PUSH WELDHOOD FROM DOWN AT WELDOR TO UP AT WELDOR F 90
   A1 B0 G1 M1 X0 I0 A1 90.00 8400.
16 PUSH WELDHOOD FROM DOWN AT WELDOR TO UP AT WELDOR F 21
   A1 B0 G1 M1 X0 I0 A1 21.00 840.
17 WELDOR LOOSEN SLAG FROM SHEETMETAL ASSEMBLY AT
   WELDTABLE 6 STRIKES USING SLAGHAMMER AT WELDTABLE AND
   ASIDE F 40
   A1 B0 G1 A1 B0 P0 L16 A1 B0 P1 A0 40.00 8400.
18 WELDOR DEBURR WELDED ASSEMBLY AT WELDTABLE 20
   ARM-STROKES USING WIREBRUSH AT WELDTABLE AND ASIDE PF
   80 (4 5 6 7)
   A1 B0 G1 (A1 B0 P1 C24 )A1 B0 P1 A0 (80) 1.00 20840.
19 REPLACE SHEETMETAL ASSEMBLY FROM WELDTABLE TO CART AT
   WELDTABLE WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0 2.00 220.
20 FITTER MOUE CART FROM WELDTABLE TO WORKTABLE
   A1 B0 G1 A131B0 P1 A0 1.00 1340,

TOTAL TMU 215010.

File Description ? WELD RECTANGULAR ELBOW

Output to line-minter <Y or N> ?
VOLUME TWO

WORK MANAGEMENT MANUAL
SHEETMETAL SHOP VENTILATION COMPONENTS
NASSCO
Sheetmetal Shape #8

8 x 8 x 90° Elbow with Vane Track

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MARK OUT CHEEKS FOR VANE TRACK ELBOW

Output to line-Printer <Y or N> ? N

FIT W04

MARK OUT SHEETMETAL FOR JANE TRACK ELBOW WITH AWL AT SHEETMETAL SHOP

PER VANE TRACK ELBOW OFG: 4 1 1-MAR-83

NASSCO SHEETMETAL PART * 8
* HULL 418
* DRAWN 501-292
* U2-92008
* V6-1497
* 22 GAUGE GALV. SHEETMETAL
* DIMENSIONS: 8'X8'X90 DEGREES
* 8'X8' ELBOW WITH VANE TRACK
* MARK OUT ELBOW CHEEKS WITH TEMPLATE

FITTER BEGINS AT WORKTABLE

1 POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS
   A1 B0 G1 A6 B0 P6 A0 1.00 140.

2 PLACE 1 WEIGHT FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 110.

3 MARK OUTLINE FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 8 (4 5 6 7
   A1 B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (8) 1.00 1480.

4 POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT WORKTABLE AND ASIDE PF 16 (4 5 6)
   A1 B0 G1 (A1 B0 P6 )A0 (16) 1.00 1140.

5 FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AND ASIDE PF 16 (4 5 6 7)
   A1 B0 G1 (A1 B0 P0 F3 )A1 B0 P1 A0 (16) 1.00 680.

6 REPLACE 1 WEIGHT FROM TEMPLATE AT WORKTABLE TO WORKTABLE WITH 3 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 110.

7 REPLACE TEMPLATE FROM SHEETMETAL AT WORKTABLE TO WORKTABLE WITH 3 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 110.

8 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE AND ASIDE PF 4 (4 5 6)
   A1 B0 G1 (A1 B0 P6 )A0 (4) 1.00 300.

9 MARK SHEETMETAL FROM STRAIGHTEDGE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 4 (4 5 6 7)
   A1 B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (4) 1.00 760.

10 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 1 DIGIT USING REDPEN AT WORKTABLE AND ASIDE PF 19 (4 5 6 7)
    A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (19) 1.00 990.

11 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 27 (4 5 6 7)
    A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (27) 1.00 1390.

12 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 34 (4 5 6 7
A1  B0  G1  (A1  B0  P1  R3  )A1  B0  P1  A0  (34)  1.00  1740.

TOTAL TMU  8950.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help>?
Mark out throat & heel for Vane Track Elbow

Input to line-printer (Y or N)? N

(39, 3)

FIT .004 VNELBO

Mark out sheetmetal for Vane Track Elbow with awl at sheetmetal shop per Vane Track Elbow

NASSCO sheetmetal part *8
* Hull 418
* Drawing 501-292
* V2-92008
* V6-1497
* 22 gauge galv. Sheetmetal
* Dimensions: 8'x8'x90 degrees
* Elbow with vane track
* Mark out throat & heel
Fitter begins at worktable

1 Measure dimension on sheetmetal at worktable using steel-tape at worktable and aside PF 6 (1 2 3 4 5 6 7)

   (A1 B0 G1 A1 B0 P1 M32 )A1 B0 P1 A0 (6) 1.00 2180.

2 Mark line on sheetmetal at worktable 1 digit using awl and aside PF 18 (4 5 6 7)

   A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (18) 1.00 940.

3 Position straightedge from worktable to sheetmetal at worktable and aside PF 5 (4 5 6)

   A1 B0 G1 (A1 B0 P6 )A0 (5) 1.00 370.

4 Mark lines from straightedge to sheetmetal at worktable 5 digits using awl and aside PF 5 (4 5 6 7)

   A1 B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (5) 1.00 940.

5 Position corner template from worktable to sheetmetal at worktable and aside F 3

   A1 B0 G1 A1 B0 P6 A0 8.00 720.

6 Mark lines from corner template to sheetmetal at worktable 2 digits using awl and aside PF 8 (4 5 6 7)

   A1 B0 G1 (A1 B0 P1 R6 )A1 B0 P1 A0 (8) 1.00 680.

7 Mark cut lines on sheetmetal at worktable 1 digit using redpen at worktable and aside PF 19 (4 5 6 7)

   A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (19) 1.00 990.

8 Mark construction information on sheetmetal at worktable 1 digit using blackpen and aside PF 40 (4 5 6 7)

   A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (40) 1.00 2040.

9 Mark identification on sheetmetal at worktable 1 digit using blackpen and aside PF 38 (4 5 6 7)

   A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (38) 1.00 1940.

   TOTAL TMU 10800.

Type D, EH, CT, EW, EX, L, LD, LS, M, T, W < or H for help > ?
MARK OUT SHEETMETAL FOR ACCESS COVER & BACK UP PLATE WITH AWL AT SHEETMETAL SHOP PER VANE ELBOW OFG: 4 11-MAR-33

NASSCO SHEETMETAL PART * 8
* HULL 418
* DRAWING 501-292
* V2-91006
* V6-1497
* 10 GAUGE GALV. SHEETMETAL FOR PLATE
* MARK OUT USING COVER PLATE TEMPLATE
FITTER BEGINS AT WORKTABLE

1 MOVE 10 GAUGE SHEETMETAL-SCRAP FROM SCRAPBIN TO WORKTABLE

2 POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS

3 MARK OUTLINE FROM ACCESS TEMPLATE TO SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF 4 (4 5 6 7)
   A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (4) 1.00 240.

4 POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT WORKTABLE AND ASIDE PF 13 (4 5 6)
   A1 HO G1 (A1 B0 P6 )A0 (13) 1.00 930.

5 FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AND ASIDE PF 13 (4 5 6 7)
   A1 B0 G1 (A1 B0 P0 P3 )A1 B0 P1 A0 (13) 1.00 560.

6 REPLACE TEMPLATE FROM SHEETMETAL AT WORKTABLE TO WORKTABLE
   A1 B0 G1 A1 B0 P3 A0 1.00 60.

7 MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE P1 6 (4 5 6 7)
   A1 B0 G1 (A1 B0 P1 M32 )A1 B0 P1 A0 (6) 1.00 2030.

8 MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF 6 (4 5 6 7)
   A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (6) 1.00 340.

9 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 1 DIGIT USING REDPEN AT WORKTABLE AND ASIDE PF 10 (4 5 6 7)
   A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (10) 1.00 540.

10 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AND ASIDE PF 13 (4 5 6 7)
    A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (13) 1.00 690.

11 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AND ASIDE P1 34 (4 5 6 7)
   A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (34) 1.00 1740.

12 PLACE SHEETMETAL2 FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 110.
Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?
File Description ? MARK OUT TURN VANES & END PIECE

Output to line-Printer <Y or N> ? N

( 39, 3)
FIT .004
MARK OUT SHEETMETAL FOR TURN VANES & END PIECE WITH AWL AT SHEETMETAL SHOP PER VANE ELBOW OFG: 4 17-MAR-83
NASSCO SHEETMETAL FART * 8
* HULL 418
* DRAWING 501-292
* V2-92008
* V6-1497
* 22 GAUGE GALV. SHEETMETAL
* LAYOUT PIECES WITHOUT TEMPLATE
FITTER BEGINS AT WORKTABLE

1 MEASURE DIMENSION ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE PF 10 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 M32 )A1 B0 P1 A0 (10) 1.00 3440.
2 MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AND ASIDE PF 18 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (18) 1.00 940.
3 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE AND ASIDE PF 12 ( 4 5 6 )
   A1 B0 G1 (A1 B0 P6 )A0 (12) 1.00 360.
4 MARK LINES FROM STRAIGHTEDGE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL. AT WORKTABLE AND ASIDE PF 12 ( 4 5 6 7 )
   A1 B0 G1(A1 B0 P1 R16 )A1 B0 P1 A0 (12) 1.00 2200.
5 MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE PF 2 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 M32 )A1 B0 P1 A0 (2) 1.00 720.
6 MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AND ASIDE PF 13 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (13) 1.00 690.
7 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 1 DIGIT USING REDPEN AT WORKTABLE AND ASIDE PF 16 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 R3 )A1 B0 E1 A0 (16) 1.00 840.
8 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 56 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (56) 1.00 2840.
9 PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 110.
10 MOVE CART WITH SHEETMETAL FROM WORKTABLE WITH 12 STEPS TO SMALLSHEAR [SHEAR IS REALLY THE 14 FT. SHEAR]
   A24 B0 G1 A67 B0 P1 A0 1.00 939.

TOTAL TMU 13570.
T

Please input file <VUELBO> ?

File Description ? SHEAR SHEETMETAL FOR ACCESS COVER

Output to line-printer <Y or N> ? N

| 39, 3 |
FIT . W05 VNELBO.M05
SHEAR 10 GAUGE SHEETMETAL FOR ACCESS COVER WITH 14 FT. SHEAR AT SHEETMETAL SHOP
PER VANE ELBOW OFG: 4 17-MAR-83
NASSCO SHEETMETAL SHAPE #8
* HULL 418
* DRAWING 501-292
* V2-92008
* V6-1947
* 10 GAUGE GALV. SHEETMETAL
* BACK UP PLATES & COVER PLATE
* 3'X8'X90 DEGREE ELBOW WITH VANE TRACK
FITTER BEGINS AT SMALLSHEAR

1 POSITION SHEETMETAL FROM CART AT SMALLSHEAR [14 FT. SHEAR] TO SMALLSHEAR [14 FT. SHEAR] WITH 4 STEPS
   A1 B0 G1 A6 B0 P6 A0 1.00 140.
2 PTIME 3 S AT 14 FT SHEAR FOR CUTTING SHEETMETAL 1.00 33.
3 POSITION SHEETMETAL FROM SMALLSHEAR [14 FT. SHEAR] TO SMALLSHEAR [14 FT. SHEAR] F 11
   A1 B0 G1 A1 B0 P6 A0 11.00 990.
4. PTIME 33 S [11 CUTS] AT 14 FT SHEAR FOR CUTTING SHEETMETAL 1.00 917.
5 REPLACE SHEETMETAL FROM SMALLSHEAR [14 FT. SHEAR] TO CART AT SMALLSHEAR [14 FT. SHEAR] WITH 4 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 110.
6 MOVE CART FROM SMALLSHEAR [14 FT. SHEAR] TO SMALLSHEAR WITH 18 STEPS
   A1 B0 G1 A32 B0 P1 A0 1.00 350.

TOTAL TMU 2590.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?
Please input file <VNELBO.MO6> ?

File Description ? SHEAR 90 DEGREE ELBOW WITH VANE TRACK

Output to line-printer <Y or N> ? N

(39, 3)
FIT .W05 VNELBO
SHEAR SHEETMETAL FOR 90 DEGREE TURN VANE ELBOW WITH SMALL SHEAR
AT SHEETMETAL SHOP
PER VANE-ELBOW OFG: 4 17-MAR-83
NASSCO SHEETMETAL PART # 8
* HULL 418
* DRAWING 501-292
* V2-92008
* V6-1947
* SHEAR 22 GA & 10 GA GALV. ON 8FT. SHEAF:
FITTER BEGINS AT SMALLSHEAR

1 POSITION SHEETMETAL FROM CART AT SMALLSHEAR TO
SMALLSHEAR WITH 4 STEPS F 2
A1 B0 G1 A6 B0 P6 A0 2.00 280.

2 PUSH FOOTPEDAL AT SMALLSHEAR FOR CUTTING SHEETMETAL
PROCESS F 2
A1 B0 G1 M1 X5 I0 A0 2.00 180.

3 POSITION SHEETMETAL FROM SMALLSHEAR TO SMALLSHEAR F 28
A1 B0 G1 A1 B0 P6 A0 28.00 2520.

4 PUSH FOOTPEDAL AT SMALLSHEAR FOR CUTTING SHEETMETAL
PROCESS F 30
A1 B0 G1 M1 X6 I0 A0 30.00 2700.

5 REPLACE SHEETMETAL FROM SMALLSHEAR TO CART AT
SMALLSHEAR WITH 3 STEPS F 2
A1 B0 G1 A16 B0 P3 A0 2.00 420.

6 MOVE CART FROM SMALLSHEAR TO WORKTABLE
A1 B0 G1 A67 B3 P1 A0 1.00 730.

TOTAL TMU 6830.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?
Please input file <VNELBO.W07> ?

File Description ? SHEAR VANE ELBOW CHEER'S WITH UNI-SHEAR

Output to line-Printer <Y or N> ? N

FIT .W05
VNELBO

SHEAR SHEETMETAL FOR VANE ELBOW CHEEKS WITH UNI-SHEAR AT
SHEETMETAL SHOP

PER VANE ELBOW

NASSCO SHEETMETAL PART # 8
* HULL 418
* DRAWING 501-292
* V2-92003
* V6-1947
* SHEAR 22 GAUGE ELBOW CHEEKS
* SHEAR WITH UNI-SHEAR
* CUT PITTSBURGH CORNERS WITH SNIPS

FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS

2 MOVE UNI-SHEAR FROM TOOLROOM TO WORKTABLE

3 POSITION CHISEL FROM WORKTABLE TO SHEETMETAL AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 )

4 FASTEN CHISEL TO SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AND ASIDE PF 4 ( 4 5 6 7 )

5 OPERATE UNISHEAR ON SHEETMETAL AT WORKTABLE PROCESS F 10

6 CUT CORNERS ON SHEETMETAL AT WORKTABLE 2 CUTS USING SNIPS AT WORKTABLE AND ASIDE PF 20 ( 4 5 6 7 )

7 FASTEN ( FLATTEN ) SHEETMETAL AT WORKTABLE 2 STRIKES USING HAMMER AND ASIDE PF 28 ( 4 5 6 7 )

8 PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS

9 MOVE CART FROM WORKTABLE TO BARFOLDER

TOTAL TMU 24830.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ? 34350
Please input file <VNELEO.M08> ?

File Description ? BEND HEMMED EDGE ON VANE ELBOW

Output to line-printer <Y or N> ? N

( 39, 3)
FIT W05 VNELBO
BEND HEMMED EDGE FOR VANE TRACK ELBOW WITH BAR FOLDER AT SHEETMETAL SHOP
PER VANE ELBOW OFG: 4 17-MAR-83

NASSCO SHEETMETAL PART #8
* HULL 418
* DRAWING 501-292
* V2-92008
* V6-1947
*22 GAUGE GALV. SHEETMETAL
* DIMENSIONS: 8'X8'X90 DEGREES
* ELBOW WITH VANE TRACK
* BEND EDGE OVER 130 DEGREES
* BENDED EDGE IS FOR HEMMED EDGE
FITTER BEGINS AT BARFOLDER

PLACE SHEETMETAL2 FROM CART AT BARFOLDER TO BARFOLDER WITH 2 STEPS F 6

OPERATE BARFOLDER-LEVER PROCESS F 6

REPLACE SHEETMETAL2 FROM BARFOLDER TO CART AT BARFOLDER F 6

MOUE CART FROM BARFOLDER TO LAPOUT

TOTAL TMU 2550.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?
Please input file <VNELBO> ?

File Description ? LAP OUT VANE ELBOW

Output to line-printer <Y or N> ? N

( 39,  3)
FIT   W05  VNELBO.M09
FORM (LAPOUT) SHEETMETAL FOR 90 DEGREE VANE TRACK ELBOW WITH
LAPOUT AT SHEETMETAL SHOP
PER VANE ELBOW  OFG: 4  17-MAR-83

NASSCO SHEETMETAL PART # 8
* HULL 413
* DRAWING 501-292
* V2-92008
* V6-1947
* 22 GAUGE GALV. SHEETMETAL
* LAPOUT ONE END
FITTER BEGINS AT LAPOUT

1 PLACE SHEETMETAL FROM CART AT LAPOUT TO LAPOUT WITH 4
   STEPS
   A1  B0  G1  A6  B0  P3  A0  1.00  110.

2 PUSH LAPOUT-SWITCH PROCESS F 4
   A1  B0  G1  M1  X16  I0  A0  4.00  760.

3 REPLACE SHEETMETAL FROM LAPOUT TO CART AT LAPOUT WITH
   4 STEPS
   A1  B0  G1  A6  B0  P3  A0  1.00  110.

4 MOVE CART FROM LAPOUT TO PITTSBURGH
   A1  B0  G1  A6  B0  P1  A0  1.00  90.

   TOTAL TMU  1070.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

39, 970
Please input file (VNELBO.M10> ?

File Description ? FORM PITTSBURGH LOCK ON VANE TRACK ELBOW

Output to line-Printer (Y or N> ? N

( 39, 3)
FIT .W05 VNELBO
FOR SHEETMETAL LOCK FOR ELBOW WITH VANE TRACK WITH
PITTSBURGH MACHINE AT SHEETMETAL SHOP
PER VANE ELBOW OFG: 4 17-MAR-83

NASSCO SHEETMETAL PART # 8
* HULL 413
* I DRAWING 501-292
* V2-92008
* V6-1947
* 22 GAUGE GALV. SHEETMETAL
* FORM PITTSBURGH LOCK & EDGE
* PITTSBURGH IS LOCKFORMER
FITTER BEGINS AT PITTSBURGH

1 PLACE SHEETMETAL FROM CART AT PITTSBURGH TO PITTSBURGH
WITH 4 STEPS
A1 B0 G1 A6 B0 P3 A0 1.00 110.

2 PUSH PITTSBURGH-BUTTON PROCESS F 2
A1 B0 G1 M1 X32 I0 A0 2.00 700.

3 PUSH AND GUIDE SHEETMETAL THROUGH PITTSBURGH F 3
A1 B0 G1 M1 X0 I3 A0 3.00 180.

4 PUSH AND GUIDE SHEETMETAL THROUGH PITTSBURGH WITH 4
STEPS
A6 B0 G1 M1 X0 I3 A0 1100 110.

5 REPLACE SHEETMETAL FROM PITTSBURGH TO CART AT
PITTSBURGH WITH 4 STEPS
A1 B0 G1 A6 B0 P3 A0 1.00 110.

4 MOVE CART WITH SHEETMETAL FROM PITTSBURGH TO LEAFBRAKE
A1 B0 G1 A32 B0 P1 A0 1100 350.

TOTAL TMU 1560.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

39,530
Please input file <VNELBO>

File Description? BEND END PIECE & FLATTEN HEMMED EDGE ON VANE TURNS

File Description?

Output to line-printer <Y or N>? N

(39, 3)
FIT . W05 VNELBO.M11
BEND END PIECE AND FLATTEN HEMMED EDGE ON VANE TURNS WITH LEAF BRAKE AT SHEETMETAL SHOP PER VANE ELBOW OFG: 4 17-MAR-83

NASSCO SHEETMETAL PART #8
* HULL 418
* DRAWING 501-292
* V2-92008
* V6-1947
* 22 GAUGE GALV. SHEETMETAL
* DIMENSIONS: 8'X8'X90 DEGREES
* ELBOW WITH VANE TURNS
* COMPLETE BENDS OF END PIECE ON FAN BRAKE FITTER BEGINS AT LEAFBRAKE

1 POSITION SHEETMETAL FROM CART AT LEAFBRAKE TO LEAFBRAKE WITH 4 STEPS F 9
   A1 B0 G1 A6 B0 P6 A0 9.00 1260.
2 OPERATE LEAFBRAKE-LEVER PROCESS F 9
   A1 B0 G1 M6 X16 IO A0 9.00 2160.
3 REPLACE SHEETMETAL2 FROM LEAFBRAKE TO CART AT LEAFBRAKE F 9
   A1 B0 G1 A1 B0 P3 A0 9.00 540.
4 MOVE CART FROM LEAFBRAKE TO ( TABLE AT 8FT. ) HYDROPRESS
   A1 B0 G1 A54 B0 P1 A0 1.00 570.

TOTAL TMU 4530.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help>.?
Please input file <VNELBO.12> ?

File Description: BEND TURN VANES FOR ELBOW WITH VANE TRACK

Output to line-printer <Y or N> ? N

( 39, 3)
FIT .W05 VNELBO.M12
BEND TURN VANES FOR ELBOW WITH VANE TRACK WITH
8 FT. HYDRAULIC PRESS BRAKE AT SHEETMETAL SHOP
PER VANE ELBOW
NASSCO SHEETMETAL PART #8
* HULL 418
* DRAWING 501-292
* V2-92008
* V6-1947
* 22 GAUGE GALV. SHEETMETAL
* DIMENSIONS: 8'X8'X90DEGREES
* ELBOW WITH TURN VANE
* USE LAYOUT ON 'JANE TRACK FOR BEND RADIUS
* HYDROPRESS IS 8FT HYDRAULIC PRESS BRAKE
FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL FROM CART AT HYDROPRESS TO TABLE AT
HYDROPRESS WITH 3 STEPS
   A96 B0 G1 A6 B0 P3 A0 1.00 1060.
2 PLACE SHEETMETAL FROM TABLE AT HYDROPRESS TO
HYDROPRESS F 6
   A1 B0 G1 A1 B0 P3 A0 6.00 360.
3 OPERATE HYDROPRESS-FOOTPEDAL PROCESS F 43
   A1 B0 G1 M6 X5 IO A0 48.00 6720.
4 REPLACE SHEETMETAL2 FROM HYDROPRESS TO TABLE AT
HYDROPRESS WITH 3 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 110.
5 REPLACE SHEETMETAL FROM TABLE AT HYDROPRESS TO CART AT
HYDROPRESS WITH 3 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 110.
6 MOVE CART FROM TABLE AT HYDROPRESS TO PANBRAKE
   A1 B0 G1 A81 B0 P1 A0 1.00 840.

TOTAL TMU 9200.

Type D, EW, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

53260
Please input file <VNELBO.>

File Description ? BEND THROAT, HEEL & END PIECE FOR VANE ELBOW

Output to line-printer (Y or N> ? N

( 39, 3)
FIT .W05 VNELBO.M13
BEND SHEETMETAL THROAT, HEEL & END PIECE FOR VANE TRACK ELBOW
WITH FAN BRAKE AT SHEETMETAL SHOP
PER VANE ELBOW OFG: 4 17-MAR-83
NASSCO SHEETMETAL PART #8
* HULL 418
* DRAWING 501-292
* V2-92008
* 116-1947
* COMPLETE BEND IN END PIECE
* BEND THROAT & HEEL FOR 8X8X90DEGREES
* ELBOW WITH VANE TURN
FITTER BEGINS AT PANBRAKE

1 POSITION SHEETMETAL FROM CART AT PANBRAKE TO PANBRAKE
WITH 4 STEPS F 3
A1 B0 G1 A6 B0 P6 A0 3.00 420.

2 FASTEN SHEETMETAL ( BOLT ) TO PANBRAKE ( FINGER ) AT
PANBRAKE 5 WRIST-STROKES USING 15,16WRENCH AT PANBRAKE
AND ASIDE PF 2 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P3 F16 )A1 B0 P1 A0 (2)1 1.00 440.

3 FASTEN SHEETMETAL ( NUT ) TO PANBRAKE ( TABLE ) AT
PANBRAKE 3 WRIST-STROKES USING HAND
A1 B0 G1 A1 B0 P1 F10 A0 B0 P0 A0 1.00 140.

4 OPERATE PANBRAKE-LEVER AT PANBRAKE PROCESS F 3
A1 B0 G1 M6 X95 IO A0 3.00 3120.

5 POSITION SHEETMETAL FROM PANBRAKE TO PANBRAKE F 6
A1 B0 G1 A1 B0 F6 A0 6.00 540.

6 OPERATE PANBRAKE-LEVER AT PANBRAKE PROCESS F 6
A1 B0 G1 M6 X96 IO A0 6.00 6240.

7 PLACE SHEETMETAL2 FROM PANBRAKE TO CART AT PANBRAKE
WITH 4 STEPS F 3
A1 B0 G1 A6 B0 P3 A0 3.00 330.

8 MOUE CART FROM PANBRAKE TO WELDOUT
A1 B0 G1 A54 B3 P1 A0 1.00 600.

TOTAL TMU 11830.

Type D, EM, CT, EW, EX, L, LD, LS, T, W (or H for help> ?

65,090
Please input file <VNELBO.M14> .?

File Description: TACK WELD VANE TRACK ASSEMBLY FOR ELBOW

Output to line-Printer <Y or N> ? N

(39, 3) FIT .W05 V N E L B O
TACK WELD VANE TRACK ASSEMBLY FOR ELBOW WITH TACK WELDER AT SHEETMETAL SHOP
PER VANE ELBOW

NASSCO SHEETMETAL PART #3
* HULL 418
* DRAWING 501-292
* V2-92008
* V6-1947
* 22 GAUGE GALV. SHEETMETAL
* DIMENSIONS: 8'X8'X90DEGREES
* ELBOW WITH VANE TRACK
* TACK WELD 6 VANE TURNS TO VANE TRACK FITTER BEGINS AT WELDOUT

1 PLACE SHEETMETAL2 FROM CART AT WELDOUT TO WELDOUT WITH 4 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 1-10.

2 POSITION SHEETMETAL2 FROM WELDOUT TO SHEETMETAL2 AT WELDOUT F 7
   A1 B0 G1 A1 B0 P6 A0 7.00 630.

3 OPERATE TACKWELDER AT WELDOUT PROCESS F 36
   A1 B0 G1 M6 X3 IO A0 36.00 3960.

4 REPLACE SHEETMETAL2 FROM WELDOUT TO CART AT WELDOUT WITH 4 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 110.

5 MOVE CART FROM WELDOUT TO SPOTWELDER
   A1 B0 G1 A81 B0 P1 A0 1.00 840.

TOTAL TMU 5650.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

70,740
Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ? T

'please input file <VNELBO,M15> ?

File Description ? SPOT WELD ACCESS COVER TO BACK UP PLATE

Output to line-printer <Y or N> ? N

(39, 3)
FIT .W05
WELD ACCESS COVER TO BACK UP PLATE FOR VANE TRACK ELBOW WITH
SPOT WELDER AT SHEETMETAL SHOP
PER VANE ELBOW
NASSCO SHEETMETAL FART #8
* HULL 418
* DRAWING 501-292
* V2-92008
* V6-1947
* SPOT WELD ACCESS COVER BACK UP PIECES
* TO ELBOW CHEEK
* FOR "X8"X90DEGREE ELBOW WITH VANE TRACK
* FOR OTHER WELDIING SEE MWELD
FITTER BEGINS AT SPOTWELDER

1. POSITION SHEETMETAL2 FROM CART AT SPOTWELDER TO
SPOTWELDER F 4

A1 B0 G1 A1 B0 P6 A0 4.00 360.

2 OPERATE SPOTWELDER-FOOTPEDAL PROCESS F 19
A1 B0 G1 M6 X6 10 A0 19.00 2660.

3 REPLACE SHEETMETAL2 FROM SPOTWELDER TO CART AT
SPOTWELDER WITH 4 STEPS
A1 B0 G1 A6 B0 P3 A0 1.00 11.0

4 MOVE CART FROM SPOTWELDER TO WORKTABLE
A1 B0 G1 A54 B3 P1 A0 1.00 600.

TOTAL TMU 3730.

Type D, DE, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?
Please input file <VNELBO.M17> ?

'File Description ? WELD ELBOW WITH VANE TRACK

Output to line-printer <Y or N> ? N

(39,1)
WELD VN17 VNELBO.M17
WELD VANE TRACK ELBOW WITH TIG-WELDER AT SHEETMETAL SHOP WELDING BOOTH
PER VANE TRACK ELBOW OFG: 4 22-JUL-83

WELDING NASSCO SHEETMETAL SHAPE 8
* HULL 418
* DRAWING 501-292
* V2-92008
* V6-1947
* 22 GAUGE GALV. SHEETMETAL
* 8'X8'X90 DEGREES WITH VANE TRACK--
* --WITH 6 TURN VANES
* TACK WELD VANE TRACK WITH 1' TACK
* WELDING DONE IN WELD BOOTH AREA
* WELDOR PERFORMS THE WORK
* FITTER TRANSPORTS SHEETMETAL

FITTER BEGINS AT WORKTABLE

1 FITTER PLACE SHEETMETAL ASSEMBLY FROM WORKTABLE TO CART
   AT WORKTABLE WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0 2.00 220.
2 FITTER MOVE CART FROM WORKTABLE TO WELDTABLE
   A1 B0 G1 A131B3 P1 A0 1.00 1370.
3 PLACE SHEETMETAL ASSEMBLY FROM CART AT WELDTABLE TO
   WELDTABLE WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0 2.00 220.
4 WELDOR PUSH POWER SUPPLY BUTTON FROM OFF AT
   WELDMACHINES TO ON AT WELDMACHINES WITH 16 STEPS
   A3 B0 G1 M1 X0 IO A32 1.00 370.
5 WELDOR PUSH GAS-HOOKUP-SWITCH FROM OFF AT WELDMACHINES
   TO ON AT WELDMACHINES
   A1 B0 G1 M1 X0 IO A1 1.00 40.
6 WELDOR FASTEN CURRENT SELECTOR HANDLE AT WELDMACHIN 1
   WRIST-TURN USING HAND
   A1 B0 G1 A1 B0 P1 F3 A0 B0 P0 A0 1.00 70.
7 WELDOR TURN OUTPUT CONTROL LEVER FROM OFF AT
   WELDMACHINES TO ON AT WELDMACHINES
   A1 B0 G1 M3 X0 IO A1 1.00 60.
8 WELDOR POSITION ANTI-SPATTER SPRAY CAN FROM WELDTABLE
   TO SHEETMETAL ASSEMBLY AT WELDTABLE
   A3 B3 G1 A1 B0 P6 A0 1.00 140.
9 WELDOR PUSH ANTI-SPATTER2 SPRAY CAN PROCESS
   A1 B0 G1 M1 X10 IO A0 1.00 130.
10 WELDOR POSITION WELDROD FROM WELDTABLE TO SHEETMETAL
    ASSEMBLY AT WELDTABLE F 52
    A1 B0 G1 A1 B0 P6 A0 52.00 4680.
11 FULL WELDHOOD FROM UP AT WELDOR TO DOWN AT WELDOR F 16
    A1 B0 G1 M1 X0 IO A1 16.00 640.
12 WELDOR POSITION WELDGUN FROM WELDTABLE TO SHEETMETAL
ASSEMBLY AT WELDTABLE WITH PARTIAL BEND F 52
A1 B0 G1 A1 B6 P6 A0 52.00 7800.

13 OPERATE WELD STINGER-BUTTON1 PROCESS F 17
A1 B0 G1 M6 X31 IO A0 17.00 15130.

14 PUSH WELDHOOD FROM DOWN AT WELDOR TO UP AT WELDOR F 16
A1 B0 G1 M1 X0 IO A1 16.00 640.0

15 WELDOR DEBURR WELDED ASSEMBLY AT WELDTABLE 10
ARM-STROKES USING WIREBRUSH AT WELDTABLE AND ASIDE PF
14 (4567)
A1 B0 G1 (A1 B0 P1 C10 )A1 B0 P1 A0 (14) 1.00 1720.

16 REPLACE SHEETMETAL ASSEMBLY FROM WELDTABLE TO CART AT
WELDTABLE WITH 4 STEPS
A1 B0 G1 A6 B0 P3 A0 1.00 110.

17 FITTER MOUE CART FROM WELDTABLE TO WORKTABLE
A1 B0 G1 A131B0 F1 A0 1.00 1340.

TOTAL TMU 34680.

File Description ? WELD ELBOW WITH VANE TRACK

Output to line-printer <Y or N> ?
Please input file <V.NELBO> ?

File Description ? ASSEMBLE CHEEKS, THROAT & HEEL FOR VANE TRACK ELBOW

File Description ?

Output to line-Printer <Y or N> ? N

FIT .W04 V.NELBO 

ASSEMBLE SHEETMETAL FOR CHEEKS, THROAT & HEEL IN VANE ELBOW WITH 
HAMMER AT SHEETMETAL SHOP
PER 'JANE ELBOW' OFG: 4 17-MAR-83 

NASSCO SHEETMETAL PART # 8
* HULL 418
* DRAWING 501-292
* V2-92008
* V6-1947
* ASSEMBLE ELBOW & INSTALL VANE TRACK
* 22 GAUGE GALV. SHEETMETAL
* DIMEN: '8'X'8'X'90DEGREES WITH VANE TRACK
FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL2 FROM CART AT WORKTABLE TO WORKTABLE 
WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0 2.00 220.

2 POSITION SHEETMETAL (CHEEK #1) FROM WORKTABLE TO 
SHEETMETAL (THROAT&HEEL ) AT WORKTABLE WITH 3 STEPS 
   A1 B0 G1 A6 B0 P6 A0 1.00 140.

3 FASTEN SHEETMETAL (PITTS. LOCK ) ON SHEETMETAL AT 
WORKTABLE 1 STRIKE USING HAMMER AND HOLD F 12 
   A1 B0 G1 A1 B0 P0 F3 A0 B0 P0 A0 12.00 720.

4 FASTEN SHEETMETAL (PITTS LOCK ) ON SHEETMETAL AT 
WORKTABLE 16 STRIKES USING HAMMER AND ASIDE PF 13 (4 5 6 7 ) 
   A1 B0 G1 (A1 B0 P0 F32 )A1 B0 P1 A0 (13) 1.00 4330.

5 POSITION SHEETMETAL (VANE TRACK ) FROM WORKTABLE TO 
SHEETMETAL AT WORKTABLE
   A1 B0 G1 A1 B0 P6 A0 1.00 90.

6 POSITION SHEETMETAL (CHEEK #2) FROM WORKTABLE TO 
SHEETMETAL AT WORKTABLE WITH 2 STEPS 
   A1 B0 G1 A3 B0 P6 A0 1.00 110.

7 FASTEN SHEETMETAL (PITTS LOCK ) ON SHEETMETAL AT 
WORKTABLE 1 STRIKE USING HAMMER AND HOLD F 12 
   A1 B0 G1 A1 B0 P0 F3 A0 B0 A0 A0 12.00 720.

8 FASTEN SHEETMETAL (PITTS LOCK ) ON SHEETMETAL AT 
WORKTABLE 16 STRIKES USING HAMMER AND ASIDE PF 13 ( 4 
5 6 7 ) 
   A1 B0 G1 (A1 B0 P0 F32 A1 B0 P1 A0 (13) 1.00 4330.

TOTAL TMU 1500.

Choose D,EM,OT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

85130
File Description ? TACK WELD-VANE TRACK TO ELBOW

PER VANE ELBOW

NASSCO SHEETMETAL PART # 8
* HULL 418
* DRAWING 1-292
* V2-92008
* V6-1947
* 22 GAUGE GALV. SHEETMETAL
* DIMENSIONS: 8'X8'X90 DEGREES
* ELBOW WITH VANE TRACK
* TACK WELD 'JANE TRACK TO INSIDE OF ELBOW
* OTHER WELDING SEE MWELD
FITTER BEGINS AT WORKTABLE

1 MOVE SHEETMETAL2 FROM WORKTABLE TO WELDOUT
   A1 B0 G10 A54 B3 F1 A0 1.00 600.
2 PLACE SHEETMETAL2 FROM FITTER TO WELDOUT WITH 4 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 110.
3 OPERATE TACKWELDER ON SHEETMETAL PROCESS F lb
   A1 B0 G1 M6 X3 IO A0 16.00 1760.
4 MOVE SHEETMETAL2 FROM WELDOUT TO WORKTABLE
   A1 B0 G1 A54 B3 P1 A0 1.00 600.

TOTAL TMU 3070.

Type D, EM, GT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

88200
FIT .W05 VENLBO.M19
TAP AND DRILL SHEETMETAL FOR MAKING GASKET FOR ACCESS PLATE WITH
TAPPING MOTOR AT SHEETMETAL SHOP
PER VANE ELBOW OFG: 4 18-MAR-83
NASSCO SHEETMETAL SHAPE #8
* HULL 418
* DRAWING 501-292
* V2-92008
* V6-1947
* 10 GAUGE GALV. ACCESS PLATE
* FOR 8'X8'X90 DEGREE 'JANE TRACK ELBOW
FITTER BEGINS AT WORKTABLE

1 POSITION SHEETMETAL [ACCESS COVER] TO SHEETMETAL [ELBOW
ASSEMBLY] AT WORKTABLE WITH 2 STEPS
   A1 B0 G1 A3 B0 PS A0 1.00 110.

2 GRIF SHEETMETAL [ACCESS PLATE & ASSEMBLY] AT WORKTABLE
USING CCLAMPS AND HOLD
   A1 B0 G1 A1 B0 P3 C1 A0 B0 P0 A0 1.00 270.

3 MOVE TAPINGMOTOR FROM TOOLROOM TO WORKTABLE
   A96 B0 G1 A96 B3 P1 A0 1.00 1970.

4 FASTEN 7,32DRILL-BIT TO DRILLMOTOR AT WORKTABLE 3
WRIST-TURNS USING CHUCKKEY AND ASIDE
   A1 B0 G1 A1 B0 P3 F6 A1 B0 P1 A0 1.00 140

5 PLACE DRILLMOTOR FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE
   A1 B0 G1 A1 B0 P3 A0 1.00 60.

6 OPERATE DRILLMOTOR ON SHEETMETAL AT WORKTABLE PROCESS F
13
   A1 B0 G1 M6 x6 I0 A0 13.00 1820.

7 [UN] GRIP SHEETMETAL [ACCESS PLATE & ASSEMBLY AT
WORKTABLE USING CCLAMPS AND ASIDE
   A1 B0 G1 A1 B0 P3 C1 A1 B0 Pi A0 1.00 90.

8 FASTEN 1 / 4TAP FROM WORKTABLE TO TAPINGMOTOR AT
WORKTABLE 3 WRIST-STROKES USING CHUCKKEY AND ASIDE
   A1 B0 G1 A1 B0 P3 F10 A1 B0 P1 A0 1.00 180.

9 OPERATE DRILLMOTOR [TAPING MOTOR] ON SHEETMETAL AT
WORKTABLE PROCESS F 13
   A1 B0 G1 M6 x6 I0 A0 13.00 1820.

10 FASTEN S.16DRILL-BIT TO DRILLMOTOR AT WORKTABLE 3
WRIST-STROKES USING CHUCKKEY AND ASIDE
   A1 B0 G1 A1 B0 P3 F10 A1 B0 P1 A0 1.00 180.

11 OPERATE DRILLMOTOR ON SHEETMETAL AT WORKTABLE PROCESS
13
   A1 B0 G1 M6 x6 I0 A0 13.00 1820.

12 MOVE SHEETMETAL [ACCESS PLATE] AND BLACKPEN [INK PEN]
FROM WORKTABLE TO GASKET-CUTTING-TABLE
   A1 B0 G1 A152B0 P1 A0 1.00 1550.

13 MOVE UTILITY KNIFE, 3 / B HOLE PUNCH AND FROM
TOOLROOM TO GASKET-GUTTING-TABLE
A96 B0 G1 A96 B0 P1 A0 1.00 1940.

14 PLACE SHEETMETAL2 [ACCESS COVER] FROM FITTER AT
GASKET-GUTTING-TABLE TO GASKET-CUTTING-TABLE
A1 B0 G1 A1 B0 P3 A0 1.00 60.

15 PLACE RUBBER FROM SHELF AT GASKET-CUTTING-TABLE TO
GASKET-CUTTING-TABLE
A1 B0 G1 A1 B0 P3 A0 1.00 60.

16 PLACE SHEETMETAL2 [ACCESS COVER] FROM
GASKET-GUTTING-TABLE TO RUBBER AT GASKET-GUTTING-TABLE
A1 B0 G1 A1 B0 P3 A0 1.00 60.

17 CUT RUBBER TRACING SHEETMETAL2 [ACCESS COVER] AT
GASKET-GUTTING-TABLE 1 GUT USING UTILITY-KNIFE AND
ASIDE PF 4 ( 4 5 6 7 )
A96 B0 G1 (A96 B0 P3 C1 )A1 B0 P1 A0 (4) 1.00 4990.

18 MARK HOLES ON RUBBER AT GASKET-GUTTING-TABLE 1 DIGIT
USING BLACKPEN [INKPEN] AND ASIDE PF 13 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P1 R3 )A1 H0 P1 A0 (13) 1.00 690.

19 POSITION 3 / 8 HOLE PUNCH FROM GASKET-GUTTING-TABLE TO
RUBBER AT GASKET-CUTTING-TABLE AND ASIDE PF 13 ( 4 5 6
7 )
A1 B0 G1 (A1 B0 P6 A0 ) 1.00 930.

20 FASTEN HOLE PUNCH TO RUBBER AT GASKET-CUTTING-TABLE 13
STRIKES USING MALLET AT GASKET-CUTTING-TABLE AND ASIDE
PF13 (4567)
A1 B0 G1 (A1 B0 P0 F32 )A1 B0 P1 A0 (13) 1.00 4330.

21 MOVE HOLE PUNCH, UTILITY-KNIFE, AND MALLET FROM
GASKET-CUTTING-TABLE TO TOOLROOM
A1 B0 G1 A95 B0 P1 A0 1.00 990.

22 MOVE GLUE FROM TOOLROOM TO WORKTABLE
A1 B0 G1 A96 B3 P1 A0 1.00 1020.

23 MOVE RUBBER, SHEETMETAL2 [ACCESS COVER] FROM
GASKET-CUTTING-TABLE TO WORKTABLE
A152B3 A152B3 P1 A0 1.00 3090.

24 DEBURR SHEETMETAL [ACCESS COVER] AT WORKTABLE 1
ARM-STROKE USING FILE AND ASIDE PF 25 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P1 C1 )A1 B0 P1 A0 (25) 1.00 790.

25 GRIP GLUE TO RUBBER AT WORKTABLE USING HAND
A1 B0 G1 A1 B0 P1 C1 A0 B0 P0 A0 1.00 50.

26 WIFE GLUE TO RUBBER AT WORKTABLE 1 SQ.FT. USING BRUSH
AND ASIDE
A96 B0 G1 A96 B3 P1 S10-A1 B0 P1 A0 1.00 2090.

TOTAL TMU 30900.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ? 199100
Please input file <VNELBO.M20> ?

File Description ? ASSEMBLE END PIECE TO ELBOW WITH VANE TRACK

Output to line-Printer <Y or N> ? N

(39, 3)
FIT .W09
ASSEMBLE END PIECE FOR VANE TRACK ELBOW WITH RIVET GUN-AT SHEETMETAL SHOP
PER VANE ELBOW OFG: 4 18-MAR-83
NASSCO SHEETMETAL SHAPE #8
* HULL 418
* DRAWING 501-292
* V2-92008
* V6-1947
* 22 GAUGE GALV. SHEETMETAL
* 8'X8'X90 DEGREE ELBOW WITH VANE TRACK
* FASTEN END PIECE TO ELBOW WITH RIVETS
FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL END PIECE] FROM WORKTABLE TO SHEETMETAL [ELBOW] AT WORKTABLE
   A1 B0 G1 A1 B0 P3 A0 1.00 60.
2 PLACE RIVET-HOLE-GUIDE FROM WORKTABLE TO SHEETMETAL [END PIECE] AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 )
   A1 B0 G1 (A1 B0 P1 R3 )A1 B0 F1 A0 (4) 1.00 180.
3 MARK RIVET HOLES ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AND ASIDE PF 24 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 R3 )A1 B0 F1 A0 (24) 1.00 1240.
4 PLACE 5,32DRILL-BIT FROM WORKTABLE TO DRILLMOTOR
   A1 B0 G1 A1 B0 P3 A0 1.00 60.
5 FASTEN NUT [DRILLBIT] TO DRILLMOTOR AT WORKTABLE 3 WRIST-TURNS USING WRENCH [CHUCKKEY] AT WORKTABLE AND ASIDE
   A1 B0 G1 A1 B0 P3 F6 A1 B0 P1 A0 1.00 140.
6 OPERATE DRILLMOTOR ON SHEETMETAL AT WORKTABLE PROCESS F 24
   A1 B0 G1 M6 X6 IO A0 24.00 3360.
7 PLACE RIVETS FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 24
   A1 B0 G1 A1 B0 P3 A0 24.00 1440.
8 OPERATE RIVETGUN ON SHEETMETAL AT WORKTABLE PROCESS F 24
   A1 B0 G1 MS X3 I 0 A0 24.00 2640.
9 PLACE SHEETMETAL [ACCESS COVER] FROM WORKTABLE TO SHEETMETAL [ELBOW] AT WORKTABLE WITH 2 STEPS
   A1 B0 G1 A3 B0 P3 A0 1.00 80.
10 MOVE BOLTS FROM TOOLROOM TO WORKTABLE
   A96 B0 G1 A96 B3 P1 A0 1.00 1970.
11 POSITION BOLT FROM WORKTABLE TO SHEETMETAL [ELBOW] AT WORKTABLE
   A1 B0 G1 A1 B0 P6 A0 1.00 90.
12 FASTEN BOLT TO SHEETMETAL AT WORKTABLE 10 WRIST-TURNS USING WRENCH AT WORKTABLE AND ASIDE
   A1 B0 G1 A1 B0 P3 F24 A1 B0 P1 A0 1.00 320.
13 INSPECT SHEETMETAL AT WORKTABLE 9 POINTS
A0 B0 G0 A0 30 P0 T10 A0 B0 P0 A0 1.00 1.00

TOTAL TMU 116801

Type D,EM,CT,EW,EX,L,LD,LS,T,W <or H for help> ? 130780
**Sheet Metal Shape #8**

**22" x 12" x 90° Elbow with Vane Track**

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<th>Task</th>
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MARK OUT CHEEKS FOR 22'X12' VANE TRACK. ELBOW

output to line-Printer <Y or N> ? N

(39,3)
FIT .007 VNELBO.M30
MARK OUT SHEETMETAL FOR VANE TRACK ELBOW CHEEKS WITH AWL AT SHEETMETAL SHOP
PER VANE ELBOW OFG: 4 23-MAR-83
NASSCO SHEETMETAL SHAPE 88
* HULL 418
* DRAWING 501-292
* V2-92007
* V6-1914
* 18 GAUGE GALV. SHEETMETAL
* 22'X12' ELBOW WITH VANE TRACK
* MARK OUT CHEEKS WITH TEMPLATE
FITTER BEGINS AT WORKTABLE 1
POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS F 2
   A1 B0 G1 A3 B0 P6 A0 2.00 220.
2 POSITION 2 WEIGHTS FROM WORKTABLE TO TEMPLATE AT WORKTABLE WITH 3 STEPS F 2
   A1 B0 G1 A6 B0 P6 A0 2.00 280.
3 MARK OUT LINES FROM TEMPLATE TO SHEETMETAL AT WORKTABLE
   5 DIGITS USING AWL AND ASIDE PF 16 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 R16)A1 B0 P1 A0 (16) 1.00 2920.
   4 POSITION CPUNCH FROM WORKTABLE 1-a TEMPLATE AT WORKTABLE F 24
   A1 B0 G1 A1 B0 P6 A0 24.00 2160.
5 FASTEN CPUNCH TO TEMPLATE AT WORKTABLE 1 STRIKE USING HAMMER AND ASIDE PF 24 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P0 F3)A1 B0 P1 A0 (24) 1.00 1000.
6 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 6
   A1 B0 G1 A1 B0 P6 A0 6.00 540.
7 MARK LINES FROM STRAIGHTEDGE TO SHEETMETAL AT WORKTABLE
   5 DIGITS USING AWL AND ASIDE PF 6 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 R16)A1 B0 P1 A0 (6) 1.00 1120.
8 POSITION ACCESS TEMPLATE FROM WORKTABLE TO SHEETMETAL A1- WORKTABLE FOR ONE CHEEK ONLY
   A1 B0 G1 A1 B0 P6 A0 1.00 90.
9 POSITION CPUNCH FROM WORKTABLE 1-a TEMPLATE AT WORKTABLE F 4
   A1 B0 G1 A1 B0 P6 A0 4.00 360.
10 FASTEN CPUNCH TO TEMPLATE AT WORKTABLE 1 STRIKE USING HAMMER AND ASIDE. PF 4 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P0 F3)A1 B0 P1 A0 (4) 1.00 200.
11 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 4
   A1 B0 G1 A1 B0 P6 A0 4.00 360.
12 MARK LINES ON SHEETMETAL FROM STRAIGHT EDGE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AND ASIDE PF 4( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 R16)A1 B0 P1 A0 (4) 1.00 760.
13 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 1 DIGIT USING
REDPEN AT WORKTABLE AND ASIDE PF 24 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (24) 1.00 1240.
14 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AND HOLD PF (4 5 6 7 8 9)
A1 B0 G1 (A1 B0 P1 R3 A0 B0)PO A0 (1) 1.00 70.
15 MOVE BLACKPEN FROM FITTER AT WORKTABLE TO SHEETMETAL AT WORKTABLE
A1 B0 G1 A1 B0 P1 A0 1.00 40.
16 MARK IDENTIFICATION INFORMATION SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (52) 1.00 2640.
17 REPLACE 2 WEIGHTS FROM TEMPLATE AT WORKTABLE TO WORKTABLE WITH 3 STEPS F 2
A1 B0 G1 A6 B0 P3 A0 2.00 220.

TOTAL TMU 14220.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?
Please input file <VNELBO.M31> ?

File Description ? MARK OUT 1/2 THROAT&HEEL FOR 22X12 V.T. ELBOW

Output to line-printer <Y or N> ? N

( 3 9 , 3 )
FIT .W07

MARK OUT SHEETMETAL FOR VANE TRACK ELBOW THROAT & HEEL WITH AWL
AT SHEETMETAL SHOP
PER VANE ELBOW

NASSCO SHEETMETAL SHPAE #8
* HULL 418
* DRAWING 501-292
* V2-92007
* V6-1914
* 18 GAUGE GALV. SHEETMETAL
* 22'X12' ELBOW WITH VANE TRACK
* USE TEMPLATE FOR HALF WITH BEND
FITTER BEGINS AT WORKTABLE
1 POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 2

A1 B0 G1 A1 B0 P6 A0 2.00 180.

2 PLACE 2 WEIGHTS FROM WORKTABLE TO TEMPLATE AT WORKTABLE WITH 3 STEPS F 2

A1 B0 G1 A6 B0 P3 A0 2.00 220.

3 MARK OUTLINE FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5
DIGITS USING AWL AND ASIDE PF -4 ( 4 5 6 7 )

A1 B0 G1 (A1 BO P1 R16 )A1 B0 P1 A0 (4) 1.00 760.

4 POSITION CPUNCH FROM WORKTABLE TO TEMPLATE AT WORKTABLE F 8

A1 B0 G1 A1 B0 P6 A0 8.00 720.

5 FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AND ASIDE PF 8 ( 4 5 6 7 )

A1 B0 G1 (A0 B0 P0 P3 )A1 B0 P1 A0 (8) 1.00 360.

6 MARK CUT LINE ON SHEETMETAL AT WORKTABLE 1 DIGIT USING REDPEN AT WORKTABLE AND ASIDE PF 8 ( 4 5 6 7 )

A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (8) 1.00 440.

7 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AND ASIDE PF 48 ( 4 5 6 7 )

A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (48) 1.00 2440.

8 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AND ASIDE PF 52 ( 4 5 6 7 )

A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (52) 1.00 2640.

9 REPLACE 2 WEIGHTS FROM TEMPLATE AT WORK-TABLE TO WORKTABLE WITH 3 STEPS F 2

A1 B0 G1 A6 B0 P3 A0 2.00 220.

TOTAL TMU 7980.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

22200
output to line-printer <Y or N> ? N

(39,3)
FIT .WO6 VNELBO.M32
MARK OUT SHEETMETAL FOR THROAT & HEEL WITH AWL (NO TEMPLES) AT SHEETMETAL SHOP
ER VANE ELBOW OFG: 4 21-MAR-83
NASSCO SHEETMETAL SHAPE #8
* HULL 418
* DRAWING 501-292
* V2-92007
* V6-1914
* 18 GAUGE GLAV. SHEETMETAL
* 22'X12' ELBOW WITH VANE TRACK
* MARK OUT HALF WITHOUT BEND
FITTER BEGINS AT WORKTABLE

1 MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKABLE AND ASIDE PF 8 (4 5 6 7)
   A1 B0 G1 (A1 B0 P1 M32) A1 B0 P1 A0 (8) 1.00 2760.

2 MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AND ASIDE PF 8 (4 5 6 7)
   A1 B0 G1 (A1 B0 P1 R3) A1 B0 P1 A0 (8) 1.00 440.

3 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE AND ASIDE F 4
   A1 B0 G1 A1 B0 P6 A0 4.00 360.

4 MARK LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AND ASIDE PF 4 (4 5 6 7)
   A1 B0 G1 (A1 B0 P1 R16) A1 B0 P1 A0 (4) 1.00 760.

5 POSITION CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 8
   A1 B0 G1 A1 B0 P6 A0 8.00 720.

6 MARK CORNERS FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 2 DIGITS USING AWL A1' WORKTABLE AND ASIDE PF 8 (4 5 6 7)
   A1 B0 G1 (A1 B0 P1 R6) A1 B0 P1 A0 (8) 1.00 680.

7 POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 8
   A1 B0 G1 A1 B0 P6 A0 8.00 720.

8 FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE AND ASIDE PF 8 (4 5 6 7)
   A1 B0 G1 (A1 B0 P0 P3) A1 B0 P1 A0 (8) 1.00 360.

9 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 1 DIGIT USING REDPEN A1- WORKTABLE AND ASIDE PF 8 (4 5 6 7)
   A1 B0 G1 (A1 B0 P1 R3) A1 B0 P1 A0 (8) 1.00 440.

10 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 48 (4 5 6 7)
    A1 B0 G1 (A1 B0 P1 R3) A1 B0 P1 A0 (48) 1.00 2440.

11 MARK IDENTIFICATION ON SHEETMETAL A1- WORKTABLE 1 DIGIT' USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 (4 5 6 7)
    A1 B0 G1 (A1 B0 P1 R3) A1 B0 P1 A0 (52) 1.00 2640.
Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

TOTAL TMU 12320.
Please input file <VNELBO.M33>?

File Description? MARK OUT VANE TRACK & VANES FOR ELBOW

Output to line-printer <Y or N>? N

(39,3) FIT .WO6 VNELBO.M33 MARK OUT SHEETMETAL FOR VANE TRACK & VANES IN ELBOW WITH AWL AT SHEETMETAL SHOP PER 'JANE ELBOW' OFG: 4 22-MAR-83

NASSCO SHEETMETAL SHAPE #8
* HULL 418
* DRAWING 501-292
* V2-92007
* V6-1914
* 18 GAUGE GALV. SHEETMETAL
* 22"X12"X90 DEGREE ELBOW WITH 'JANE TRACK
* CENTER PUNCH VANE RADIUS ON VANE TRACK

FITTER BEGINS AT WORKTABLE

1 Position Template from WorkTable to SheetMetal at WorkTable with 3 steps F 2
A1 B0 G1 A6 B0 P6 A0 2.00 280.

2 Mark lines from Template to SheetMetal at WorkTable 5 digits using AWL at WorkTable and aside PF 4 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 R16) A1 B0 P1 A0 (4) 1.00 760.

3 Position CPunch from WorkTable to Template at WorkTable F 80
A1 B0 G1 A1 B0 P6 A0 80.00 7200.

4 Position CPunch from WorkTable to Template at WorkTable F 80
A1 B0 G1 A1 B0 P6 A0 80.00 7200.

5 Fasten CPunch to SheetMetal at WorkTable 1 strike using hammer and aside PF 80 (4 5 6 7)
A1 B0 G1 (A1 B0 P0 F3) A1 B0 P1 A0 (80) 1.00 3240.

6 Fasten CPunch to SheetMetal at WorkTable 1 strike using hammer and aside PF.80 (4 5 6 7)
A1 B0 G1 (A1 B0 P0 F3) A1 B0 P1 A0 (80) 1.00 3240.

7 Measure dimension on SheetMetal at WorkTable using steel-tape at WorkTable and aside PF 6 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 M32) A1 B0 P1 A0 (6) 1.00 2080.

8 Mark Dimensions on SheetMetal at WorkTable 1 digit using AWL and aside PF 20 (4 5 6 7)
A1 H0 G1 (A1 B0 P1 R3) A1 B0 P1 A0 (20) 1.00 1040.

9 Position StraightEdge from WorkTable to SheetMetal at WorkTable and aside PF 11 (4 5 6 7)
A1 B0 G1 (A1 B0 P6 A0) 1.00 790.

10 Mark SheetMetal from StraightEdge at WorkTable 1 digit using AWL and aside PF 11 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 R3) A1 B0 P1 A0 (11) 1.00 590.

11 Mark cut lines on SheetMetal at WorkTable 1 digit using RedPen at WorkTable and aside PF 12 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 R3) A1 B0 P1 A0 (12) 1.00 640.

12 Mark Construction lines on SheetMetal at WorkTable 5
DIGITS USING BLACKPEN AT WORKTABLE AND ASIDE PF 20 ( 4 5 6 7 )

A1 B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (20) 1000 3640.

MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 5 DIGITS USING BLACKPEN AT WORKTABLE AND ASIDE PF 61 ( 4 5 6 7)

A1 B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (61) 1.00 11020.

TOTAL TMU 417209.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

76240
Please input file <VNELBO.M34> ?

File Description ? MARK OUT ACCESS COVER AND BACK UP PLATES

output to line-printer <Y or N> ? N

(3 9, 3)
FIT .W06 VNELBO.M34
MARK OUT SHEETMETAL FOR ACCESS COVER AND BACK UP PLATES WITH AWL
AT SHEETMETAL SHOP
PER VANE ELBOW OFG: 4 22-MAR-83
NASSCO SHEETMETAL SHAPE #8
* HULL 418
* DRAWING 501-292
* V2-92007
* V6-1914
* 18 GAUGE GALV. SHEETMETAL
* 22'X12'X90 DEGREE ELBOW WITH VANE TRACK
* 11 GAUGE GALV. ACCESS COVER
* 11 GAUGE GALV. BACK UP PLATES
FITTER BEGINS AT WORKTABLE

1 MOVE 11 GAUGE SHEETMETAL SCRAP FROM SCRAPBIN TO WORKTABLE
   A54 B3 G1 A54 B3 P1 A0 1.00 1160.
2 POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS
   A1 B0 G1 A6 B0 P6 A0 1.00 140.
3 MARK OUTLINE FROM ACCESS TEMPLATE TO SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF 4 (4 5 6 7)
   A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (4) 1.00 240.
4 POSITION CPUNCH FROM WORKTABLE TO TEMPLATE AT WORKTABLE F 37
   A1 B0 G1 A1 B0 P6 A0 37.00 3330.
5 FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AND ASIDE PF 37 (4 5 6 7)
   A1 B0 G1 (A1 B0 P0 P3 )A1 B0 P1 A0 (37) 1.00 1520.
6 MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE PF 6 (4 5 6 7)
   A1 B0 G1 (A1 B0 P1 M32 )A1 B0 P1 A0 (6) 1.00 2080.
7 MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF 6 (4 5 6 7)
   A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (6) 1.00 340.
8 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 1 DIGIT USING REDPEN AT WORKTABLE AND ASIDE PF 10 (4 5 6 7)
   A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (10) 1.00 540.
9 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND HOLD PF 33 (4 5 6 7)
   A1 B0 G1 (A1 B0 P1 R3 )A0 B0 P0 A0 (33) 1.00 1670.
10 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 26 (4 5 6 7)
   A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (26) 1.00 1340.
11 PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE
WITH 4 STEPS F 4
A1 B0 G1 A6 B0 P3 A0 4.00 440.
12 MOVE CART FROM WORKTABLE TO SMALLSHEAR [14 FT. SHEAR]
WITH 47 STEPS
A1 B0 G1 A81 B0 P1 A0 1.00 840.

TOTAL TMU 13640,

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?
Please input file `<VNELBO.M35>` ?

File Description ? SHEAR 11 GAUGE SHEETMETAL ACCESS COVER & PLATE

Output to line-printer <Y or N> ? N

(39, 3)
FIT #007

SHEAR 11 GAUGE SHEETMETAL FOR ACCESS COVER AND PLATE WITH 14FT. SHEAR AT SHEETMETAL SHOP
PER VANE ELBOW

* HULL 418
* DRAWING 501-232
* V2-92007
* V6-1914
* 18 GAUGE GALV. SHEETMETAL
* 22'X12'X90 DEGREE ELBOW WITH VANE TRACK
* SHEAR 11 GAUGE SHEETMETAL PARTS
FITTER BEGINS AT 14FT.SHEAR

1 POSITION 11 GAUGE SHEETMETAL2 FROM CART AT 14FT.SHEAR TO 14FT.SHEAR WITH 4 STEPS

A1 B0 G1 A6 B0 P6 A0  1.00  140.

2 PUSH 14FT.SHEAR-FOOT Pedal A-f 14FT.SHEAR PROCESS
A1 B0 G1 M1 X3 IO A0  1.00  60.

3 POSITION 11 GAUGE SHEETMETAL2 FROM 14FT.SHEAR TO 14FT.SHEAR F 11

A1 B0 G1 A1 B0 P6 A0  11.00  990.

4 PUSH 14FT.SHEAR-FOOT Pedal PROCESS F 11
A1 B0 G1 M1 X3 IO A0  11.00  660.

5 REPLACE SHEETMETAL2 FROM 14FT.SHEAR TO CART AT 14FT.SHEAR WITH 18 STEPS

A1 B0 G1 A32 B0 P3 A0  1.00  370.

6 MOVE CART WITH SHEETMETAL FROM 14FT.SHEAR TO SMALLSHEAR

A1 B0 G1 A32 B0 F1 A0  1.00  390.

TOTAL TMU  2570.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?
Please input file <VNELBO.M36> ?

file Description ? SHEAR CHEEKS, THROAT, HEEL AND VANE TRACK

Output to line-printer <Y or N> ? N

(39,3)
FIT .W07 VNELBO.M36
SHEAR SHEETMETAL FOR CHEEKS, THROAT, HEEL AND VANE TRACK WITH
SMALLSHEAR AT SHEETMETAL SHOP
PER VANE ELBOW OFG: 4 22-MAR-83
NASSCO SHEETMETAL SHAPE. #8
* HULL 418
* DRAWING 501-292
* V2-92007
* V6-1914
* 18 GAUGE GALV. SHEETMETAL
* 22'X12'X90 DEGREE ELBOW WITH VANE TURN
* THROAT AND HEEL HAVE TWO PARTS EACH
FITTER BEGINS AT SMALLSHEAR

1 POSITION 18 GAUGE SHEETMETAL FROM CART AT SMALLSHEAR
TO SMALLSHEAR WITH 4 STEPS
A1 B0 G1 A6 B0 P6 A0 1.00 140.

2 PUSH FOOTPEDAL AT SMALLSHEAR FOR CUTTING SHEETMETAL
PROCESS
A1 B0 G1 M1 X6 IO A0 1.00 90.

3 POSITION 18 GAUGE SHEETMETAL FROM SMALLSHEAR TO
SMALLSHEAR WITH 4 STEPS
A1 B0 G1 A6 B0 P6 A0 1.00 140.

4 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 30
A1 B0 G1 M1 X6 IO A0 30.00 2700.

5 MOVE SHEETMETAL SCRAP (18 GAUGE) FROM SCRAPBIN TO
SMALLSHEAR
A32 B3 G1 A32 B0 P1 A0 1.00 690.

6. PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 8
A1 B0 G1 M1 X6 IO A0 8.00 720.

7 REPLACE SHEETMETAL FROM SMALLSHEAR TO CART AT
SMALLSHEAR WITH 48 STEPS
A1 B0 G1 A81 B0 P3 A0 1.00 860.

8 MOVE CART WITH SHEETMETAL2 FROM SMALLSHEAR TO WORKTABLE
A1 B0 G1 A67 B3 P1 A0 1.00 730.

TOTAL TMU 6070.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ? 8640


Please input file <VNELBO.M37> ?

File Description ? SHEAR CHEEKS & ACCESS WITH UNI-SHEAR

Output to line-printer <Y or N> ? N

(3 9, 3) FIT .W08 VNELBO.M37 SHEAR SHEETMETAL FOR CHEEKS AND ACCESS WITH UNI-SHEAR AT SHEETMETAL SHOP PER VANE ELBOW OFG: 4 24-MAR-83

NASSCO SHEETMETAL SHAPE # 8
* HULL 418
* DRAWING 501-292-
* V2-92007
* V6-1914
* 18 GAUGE GALV. SHEETMETAL
* 22'X12'X90 DEGREE ELBOW WITH VANE TRACK
* HAMMER 90 DEGREE EDGE ON THROAT
* USE WEIGHT ON BACKUP
FITTER BEGINS AT WORKTABLE'

1 PLACE SHEETMETAL2 FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 4
A1 B0 G1 A6 B0 P3 A0 4.00 440.

2 MOVE UNISHEAR2 FROM TOOLROOM TO WORKTABLE
A96 B0 G1 A96 B3 P1 A0 1.00 1970.

3 PLACE CHISEL FROM WORKTABLE TO SHEETMETAL AT WORKTABLE
F 4
A1 B0 G1 A1 B0 P3 A0 4.00 240.

4 FASTEN CHISEL TO SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AND ASIDE PF 4 (4 5 6 7 )
A1 B0 G1 (A1 B0 P0 F3 )A1 B0 P1 A0 (4) 1.00 200.

5 OPERATE UNISHEAR ON SHEETMETAL AT WORKTABLE PROCESS F 13
A1 B0 G1 M6 X173I0 A0 13.00 23530.

6. CUT CORNERS ON SHEETMETAL AT WORKTABLE 2 CUTS. USING SNIPS AT WORKTABLE AND ASIDE PF 32 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P3 C3 )A1 B0 P1 A0 (32) 1.00 2280.

7 FASTEN ( FLATTEN ) SHEETMETAL TO WORKTABLE 2 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 32 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P0 F6 )A1 B0 P1 A0 (32) 1.00 2280.

8 POSITION SHEETMETAL FROM WORKTABLE TO WORKTABLE F 6
A1 B0 G1 A1 B0 P6 A0 6.00 540.

9 GRIP SHEETMETAL TO WORKTABLE USING CCLAMPS AT WORKTABLE AND ASIDE PF 12 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P3 C1 )A1 B0 P1 A0 (12) 1.00 640.

10 PLACE WEIGHT FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 12
A1 B0 G1 A1 B0 P3 A0 12.00 720.

11 FASTEN SHEETMETAL ( BEND EDGE ) ON WORKTABLE 1 STRIKE USING HAMMER AND ASIDE PF 76 ( 4 5 6 7 ) F 3
A1 B6 G1 (A1 B0 P0 F3 )A1 B0 P1 A0 (76) 3.00 9420.

12 PLACE SHEETMETAL2 FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 4
A1 B0 G1 A6 B0 P3 A0 4.00 440.
13 MOVE CART WITH SHEETMETAL2 FROM WORKTABLE TO LAPOUT
A1 B0 G1 A54 B0 P1 A0 1.00 570.

TOTAL TMU 43270.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ? 5,910
File Description ? LAP OUT VANED ELBOW

Output to line-Printer <Y or N> ? N

(39,3)
FIT .W07 VNELBO.M38
FORM SHEETMETAL ON VANED ELBOW WITH LAP OUT (ROTARY MACHINE) AT SHEETMETAL SHOP PER VANED ELBOW OFG: 4 22-MAR-83
NASSCO SHEETMETAL SHAPE # 8
* HULL 418
* DRAWING 501-292
* V2-92007
* V6-1914
* 18 GAUGE GALV. SHEETMETAL
* 22'X90 DEGREE ELBOW WITH VANE TRACK
* FORM LAPOUT OFFSET ON ROTARY MACHINE
FITTER BEGINS AT LAPOUT

1 PLACE SHEETMETAL2 FROM CART AT LAPOUT TO LAPOUT WITH 4 STEPS F 6
   A1 B0 G1 A6 B0 P3 A0 6.00 660.
2 PUSH LAPOUT-SWITCH PROCESS F 6
   A1 B0 G1 M1 X16 IO A0 6.00 1140.
3 REPLACE SHEETMETAL2 FROM LAPOUT TO CART AT LAPOUT WITH 4 STEPS F 6
   A1 B0 G1 A6 B0 P3 A0 6.00 660.
4 MOVE CART WITH SHEETMETAL2 FROM LAPOUT TO PITTSBURGH
   A1 B0 G1 A6 B0 P1 A0 1.00 90.

TOTAL TMU 2550.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ? 54460
Please input file <VNELBO.M39> ?

File. Description ? FORM PITTSBURGH LOCK ON VANE TRACK ELBOW

Output to line-printer <Y or N> ? N

(39,3)
FIT .W07 VNELBO.M39
FORM SHEETMETAL FOR VANE TRACK ELBOW WITH PITTSBURGH (LOCKFORMER)
AT SHEETMETAL SHOP
PER VANE ELBOW OFG: 4  22-MAR-83

NASSCO SHEETMETAL SHAPE #8
* HULL.  418
* DRAWING 501-292
* V2-92007
* V6-1914
* 18 GAUGE GALV. SHEETMETAL
* 22'X12'X 90 DEGREE ELBOW WITH VANE TRACK
* FORM PITTSBURGH
* FORM 90 DEGREE EDGE ON PITTSBURGH
FITTER BEGINS AT PITTSBURGH

1 PLACE SHEETMETAL2 FROM CART AT PITTSBURGH TO PITTSBURGH
WITH 4 STEPS F 6
A1 B0 G1 A6 B0 P3 A0 6.00  660.
2 PUSH PITTSBURGH-BUTTON PROCESS F 2
A1 B0 G1 M1 X32 I0 A0 2.00  700.
3 PUSH AND GUIDE SHEETMETAL2 THROUGH PITTSBURGH F 12
A1 B0 G1 M1 X0 I3 A0 12.00  720.
4 PUSH AND GUIDE SHEETMETAL2 THROUGH PITTSBURGH WITH 4
STEPS F 2
A6 B0 G1 M1 X0 I3 A0 2.00'  220.
5 REPLACE SHEETMETAL FROM PITTSBURGH TO CART AT
PITTSBURGH WITH 4 STEPS F 6
A1 B0 G1 A6 B0 P3 A0 6.00  660.
6 MOVE CART FROM PITTSBURGH TO WORKTABLE
A1 B0 G1 A54 B3 P1 A0 1.00  600.

TOTAL TMU 3560.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

58020
Please input file <VNELBO.M40> ?

File Description ? POSITION SPACERS IN PITTSBURGH LOCK

Output to line-Printer <Y or N> ? N

(39, 3)
FIT .W07 VNELBO.M40
POSITION SHEETMETAL (SPACERS) FOR PITTSBURGH LOCK WITH HAMMER AT SHEETMETAL SHOP

PER VANE ELBOW OFG: 4 22-MAR-83

NASSCO SHEETMETAL SHAPE # 8
* HULL 418
* DRAWING 501-292
* V2-92007
* V6-1914
* 18 GAUGE GALV. SHEETMETAL
* 22'X12'X90 DEGREE ELBOW WITH VANE TRACK
* POSITION STRIPS IN PITTSBURGH LOCK
* POSITION FOR SPACERS BEFORE BEND
FITTER BEGINS AT WORKTABLE

1 POSITION SHEETMETAL2 FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P6 A0  2.00  280.

2 FASTEN (FLATTEN) SHEETMETAL CORNERS TO WORKTABLE 7 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 16 4 5 6 7)
   A1 B0 G1 (A1 B0 P0 F16 )A1 B0 P1 A0 (16)  1.00  2760.

3 PLACE SHEETMETAL (STRIPS) FROM WORKTABLE TO SHEETMETAL (THROAT & HEEL PITTS.) AT WORKTABLE F 4
   A1 B0 G1 A1 B0 P3 A0  4.00  240.

4 FASTEN SHEETMETAL [STRIPS] TO SHEETMETAL [PITTS.] AT WORKTABLE 2 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 8 (4 5 6 7)
   A1 B0 G1 (A1 B0 P0 F6 )A1 B0 P1 A0 (8)  1.00  600.

5 POSITION MASKING-TAPE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 4
   A1 B0 G1 A1 B0 P6 A0  4.00  360.

6 REPLACE SHEETMETAL2 FROM WORKTABLE TO CART AT WORKTABLE WITH 2 STEPS F 2
   A1 B0 G1 A3 B0 P3 A0  2.00  160.

7 MOVE CART WITH SHEETMETAL2 FROM WORKTABLE TO CORNICEBRAKE
   A1 B0 G1 A54 B0 F1 A0  1.00  570.

TOTAL TMU 4970.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

62990
Please input file <VNELBO.M41>* ?

File Description ? BEND THROAT, HEEL & VANES FOR ELBOW

Output to line-printer <Y or N> ? N

(39,3)
FIT .W07

BEND SHEETMETAL FOR THROAT, HEEL, AND VANES FOR ELBOW WITH
CORNICE BRAKE AT SHEETMETAL SHOP
PER VANE ELBOW

NASSCO SHEETMETAL SHAPE # 8
* HULL 418
* DRAWING 501-292
* V2-92007
* V6-1914
* 18 GAUGE GALV. SHEETMETAL
* 22'X12'X90 DEGREE ELBOW WITH VANE TRACK
* BEND HEMMED EDGE ON VANES 180 DEGREES
FITTER BEGINS AT CORNICE BRAKE

1 POSITION SHEETMETAL2 FROM CART AT CORNICE BRAKE TO
CORNICE BRAKE F 14
  A1 B0 G1 A1 B0 P6 A0 14.00 1260.

2 OPERATE CORNICE BRAKE-LEVER PROCESS F 74
  A1 B0 G1 M6 X42 IO A0 74.00 37000.

3 REPLACE SHEETMETAL2 FROM CORNICE BRAKE TO CART AT
CORNICE BRAKE WITH .4 STEPS
  A1 B0 G1 A6 B0 P3 A0 1.00 110.

4 MOVE CART WITH SHEETMETAL2 FROM CORNICE BRAKE TO TABLE
AT HYDROPRESS
  A1 B0 G1 A81 B0 P1 A0 1.00 840.

TOTAL TMU 39210.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

10,2200
please input file <VNEBLO.M42> ?

File Description ? FORM RADIUS ON VANES FOR ELBOW WITH VANE TRACK

Output to line-printer <Y or N> ? N

(39,3)
FIT .W07 VNEBLO.M42
BEND SHEETMETAL FOR RADIUS ON VANES FOR VANE TRACK ELBOW WITH
8 FT. HYDRO PRESS AT SHEETMETAL SHOP
PER VANE ELBOW OFG: 4 22-MAR-83

NASSCO SHEETMETAL SHAPE # 8
* HULL 418
* DRAWING 501-292
* V2-92007
* V6-1914
* 18 GAUGE GALV. SHEETMETAL
* 22'X12'X90 DEGREE ELBOW WITH VANE TRACK
* BEND RADIUS ON VANES
FITTER BEGINS AT HYDROPRESS

1 PLACE SHEETMETAL2 FROM CART AT HYDROPRESS TO TABLE AT
HYDROPRESS WITH 4 STEPS
A1 B0 G1 A6 B0 P3 A0 1.00 110.

2 PLACE SHEETMETAL2 FROM TABLE AT HYDROPRESS TO
HYDROPRESS F 10
A1 B0 G1 A1 B0 P3 A0 10.00 600.

3 OPERATE HYDROPRESS-FOOTPEDAL PROCESS F 99
A1 B0 G1 M6 X6 IO A0 99.00 13860.

4 OPERATE HYDROPRESS-FOOTPEDAL PROCESS F 99
A1 B0 G1 M6 X6 IO A0 99.00 13860.

5 REPLACE SHEETMETAL2 FROM HYDROPRESS TO TABLE AT
HYDROPRESS F 10
A1 B0 G1 A1 B0 P3 A0 10.00 600.

6 REPLACE SHEETMETAL2 FROM TABLE AT HYDROPRESS TO CART AT
HYDROPRESS WITH 4 STEPS
A1 B0 G1 A6 B0 P3 A0 1.00 110.

7 MOVE CART FROM HYDROPRESS TO SPOTWELDER
A1 B0 G1 A42 B0 F1 A0 1.00 450.

TOTAL TMU 29590.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ? 131790
Please input file <VNELBO.M43> ?

File Description ? SPOT WELD BACK UP PLATES TO ACCESS OPENING

Output to line-printer <Y or N> ? N

(39,3)
FIT .W07 VNELBO.M43
WELD SHEETMETAL ON BACK UP PLATES TO ACCESS OPENING WITH
SPOT WELDER AT SHEETMETAL SHOP
PER VANE ELBOW OFG: 4 23-MAR-83
NASSCO SHEETMETAL SHAPE #8
* HULL 418
* DRAWING 501-292
* V2-92007
* V6-1914
* 18 GAUGE GALV. SHEETMETAL
* 22"X12"X90 DEGREE ELBOW WITH VANE TRACK
* TWO PEOPLE ARE NEEDED TO POSITION
FITTER BEGINS AT WORKTABLE

1 MOVE CCLAMP FROM WORKTABLE TO SPOTWELDER
   A1 B0 G1 A54 B0 P1 A0 1.00 570.

2 POSITION SHEETMETAL FROM CART AT SPOTWELDER TO SPOTWELDER WITH 3 STEPS
   A1 B0 G1 A6 B0 P6 A0 1.00 140.

3 GRIP SHEETMETAL2 [BACK UP PLATES] TO SHEETMETAL AT WORKTABLE USING CCLAMPS AND ASIDE PF 7 (4 5 6 7)
   A1 B0 G1 (A54 B3 P3 C1 )A1 B0 P1 A0 (7) 1.00 4 3 1 0

4 POSITION SHEETMETAL2 FROM SPOTWELDER TO SPOTWELDER F 64
   A54 B0 G1 A1 B0 P6 A0 64.00 39680.

5 OPERATE SPOTWELDER-FOOTPEDAL PROCESS F 64
   A1 B0 G1 M6 X6 IO A0 64.00 8960.

6 REPLACE SHEETMETAL FROM SPOTWELDER TO CART AT SPOTWELDER WITH 4 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 110.

7 MOVE CART WITH SHEETMETAL2 FROM SPOTWELDER TO WELDOUT
   A1 B0 G1 A81 B3 P1 A0 1.00 870.

   TOTAL TMU 54640.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ? / 8 X 4 3 0
File Description ? TACK WELD VANE TURNS TO VANE TRACK
output to line-printer <Y or N> ? N

(39, 37)
FIT .W07 VNELBO.M4

SHEETMETAL ON UP VANE TURNS TO VANE TRACK WITH TACK WELDER AT SHEETMETAL SHOP
PER VANE ELBOW OFG: 4 23-MAR-83

NASSCO SHEETMETAL SHAPE # 8
* HULL 418
* DRAWING 501-292
* V2-9200/
* V6-1914
* 18 GAUGE GALV. SHEETMETAL
* 22'X12'X90' DEGREE ELBOW WITH VANE TRACK
FITTER BEGINS AT WELDOUT

1 PLACE SHEETMETAL2 FROM CART AT WELDOUT TO WELDOUT WITH 4 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 110.

2 POSITION SHEETMETAL2 FROM WELDOUT TO SHEETMETAL AT WELDOUT WITH 4 STEPS
   A1 B0 G1 A6 B0 P6 A0 1.00 140.

3 OPERATE TACKWELDER AT WELDOUT PROCESS F 60
   A1 B0 G1 M6 x3 I0 A0 60.00 6600.

4 REPLACE SHEETMETAL2 FROM WELDOUT TO CART AT WELDOUT WITH 4 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 110.

5 MOVE CART FROM WELDOUT TO WORKABLE
   A1 B0 G1 A54 B3 P1 A0 1.00 600.

TOTAL TMU 7560.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ? 193990
Please input file <VNELBO.M45>?

File Description ? ASSEMBLE ELBOW WITH VANE TRACK

Output to line-printer <Y or N> ? N

( 39, 3)

FIT .WO7 VNELBO.M45

ASSEMBLE SHEETMETAL FOR VANE TRACK ELBOW WITH HAMMER AT SHEETMETAL SHOP

PER VANE ELBOW OFG: 4 23-MAR-83

NASSCO SHEETMETAL SHAPE #8
* HULL 418
* DRAWING 501-292
* V2-92007
* V6-1914
* 18 GAUGE GALV. SHEETMETAL
* 22'X12'X90 DEGREE ELBOW WITH VANE TRACK
* THROAT & HEEL HAVE 2 PARTS EACH

FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL FROM CART AT WORKTABLE WITH 3 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 110.

2 POSITION SHEETMETAL [CHEEK #1] FROM WORKTABLE TO SHEETMETAL [THROAT&HEEL] AT WORKTABLE WITH 3 STEPS
   A1 B0 G1 A6 B0 P6 A0 1.00 140.

3 FASTEN SHEETMETAL [PITTSBURGH LOCK] ON SHEETMETAL 6 STRIKES USING HAMMER AND ASIDE PF 10 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P0 P16) A1 B0 P1 A0 (10) 1.00 1740.

4 POSITION SETTING TOOL FROM WORKTABLE TO SHEETMETAL AT WORKTABLE
   A1 B0 G1 A6 B0 P6 A0 8.00 720.

5 FASTEN SETTING TOOL TO SHEETMETAL AT WORKTABLE 3 STRIKES USING HAMMERA AND ASIDE PF 8 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P0 P6) A1 B0 P1 A0 (8) 1.00 600.

6 POSITION SHEETMETAL [VANE TRACK] FROM WORKTABLE TO SHEETMETAL [CHEEK, HEEL, & THROAT ASSEMBLY1 AT WORKTABLE WITH 3 STEPS
   A1 B0 G1 A6 B0 P6 A0 1.00 140.

7 POSITION SHEETMETAL [CHEEK#2] FROM WORKTABLE TO SHEETMETAL [CHEEK, HEEL, & V, T, ASSEMBLY3 AT WORKTABLE WITH 3 STEPS
   A1 B0 G1 A6 B0 P6 A0 1.00 140.

8 FASTEN SHEETMETAL [PITTS. LUCK] ON SHEETMETAL AT WORKTABLE 6 STRIKES USING HAMMER A1 WORKTABLE AND ASIDE PF 10 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P0 P16) A1 B0 P1 A0 (10) 1.00 1740.

9 POSITION SETTING TOOL FROM WORKTABLE TO SHEETMETAL AT WORKTABLE
   A1 B0 G1 A1 B0 P6 A0 8.00 720.

10 FASTEN SETTING TOOL TO SHEETMETAL AT WORKTABLE 3 STRIKES USING HAMMER AND ASIDE PF 8 ( 4 5 6 7 )
   (A1 B0 P0 P6) A1 B0 P1 A0 (8) 1.00 600.

11 FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 16 STRIKES
USING HAMMER AND ASIDE PF 46 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P0 F32 )A1 B0 P1 A0 (46) 1.00 15220.

12 REPOSITION SHEETMETAL FROM WORKTABLE TO WORKTABLE WITH 3 STEPS
A1 B0 G1 A6 B0 P6 A0 1.00 140.

13 FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 16 STRIKES
USING HAMMER AND ASIDE PF 46 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P0 F32)A1 B0 P1 A0 (46) 1.00 15220.

TOTAL TMU 37230.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

231220
File Description ? RIVET VANE TRACK & THROAT & HEEL LAPS

Output to line-printer <Y or N> ? N

( 39, 3)
FIT W07 VNELBO.M46

RIVET SHEETMETAL FOR VANE TRACK, THROAT, & HEEL LAPS WITH
RIVET GUN AT SHEETMETAL SHOP
PER VANE ELBOW

NASSCO SHEETMETAL SHAPE # 8
* HULL 418
* DRAWING 501-292
* V2-92007
* V6-1914
* 18 GAUGE GALV. SHEETMETAL
* 22'X12'X90 DEGREE ELBOW WITH VANE TRACK
* RIVET 2 PART THROAT & 2 PART HEEL & V. T.
FITTER BEGINS AT WORKTABLE

1 MEASURE DIMENSION ON SHEETMETAL [THROAT & HEEL] AT
WORKTABLE USING-STEEL-TAPE AT WORKTABLE AND ASIDE PF 4
( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 M32 )A1 B0 P1 A0 (4) 1.00 1400.
2 MARK DIMENSION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING
AWL AND ASIDE PF 20 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (20) 1.00 1040.
3 FASTEN 5 / 32DRILL-BIT TO SHEETMETAL AT WORKTABLE 3
WRIST-TURNS USING CHUCKKEY AT WORKTABLE AND ASIDE
   A1 B0 G1 A0 B0 (P3 A1 F6 )A1 B0 P1 A0 (5) 1.00 540.
4 OPERATE DRILLMOTOR ON SHEETMETAL PROCESS F 20
   A1 B0 G1 M6 X6 I0 A0 20.00 2800.
5 POSITION RIVETS FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE F 20
   A1 B0 G1 A1 B0 P6 A0 20.00 1800.
6 OPERATE RIVETGUN PROCESS F 20
   A1 B0 G1 M6 X3 I0 A0 20.00 2200.
7 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE F 4
   A1 B0 G1 A1 B0 P6 A0 4.00 360.
8 MARK LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING
AWL AND ASIDE PF 4 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (4) 1.00 760.

7 OPERATE DRILLMOTOR PROCESS F 12
--- --- A1 B0 G1 M6 X6 I0 A0 12.00 1680.
10 OPERATE RIVETGUN PROCESS F 12
   A1 B0 G1 M6 X3 I0 A0 12.00 1320.

TOTAL TMU 13900.

Type U,E,M,L,T,W,EX,LS,LD,L2,M,T,W <or H for help> ?
input file <VNELBo.M47> ?

File Description Y TAP BOLT HOLES PLATE

output to line-printer <Y or N> ? N

( 39, 3 ) FIT --- VNELBo.M47)

THREAD SHEETMETAL FOR BOLT HOLES IN ELBOW BACK UP PLATE WITH TAP
AT SHEETMETAL SHOP "....." OFG: 4 23-MAR-83

* NASSCO SHEETMETAL SHAPE #8
* HOLE 418
* DRAWING 501-292
* V 2 - 9 2 0 0 1
* V 6 - 1 9 1 4
* 18 GAUGE GALV. SHEETMETAL
* 22 X 12 X 90 DEGREES ELBOW WITH VANE TRACK
* TAP 11 GAUGE BACK UP PLATE
* DRILL CLEARANCE IN ACCESS PLATE
FITTER BEGINS AT WORKTABLE

1 POSITION SHEETMETAL [ACCESS COVER] TO SHEETMETAL [ELBOW ASSEMBLY] AT WORKTABLE WITH 3 STEPS
   A1 B0 G1 A6 B0 P6 A0 1.00 140.
2 LOOSEN 5 / 32DRILL-BIT FROM DRILLMOTOR AT WORKTABLE 3
   WRIST-TURNS USING CHUCKKEY AND HOLD
   A1 B0 G1 A0 B0 (P3 A1 L6 )A0 B0 P0 A0 (5) 1.00 520.
3 FASTEN 7 / 32DRILL-BIT TO DRILLMOTOR AT WORKTABLE 3
   WRIST-TURNS USING CHUCKKEY AND ASIDE
   A1 B0 G1 A0 B0 (P3 A1 F6 )A1 B0 P1 A0 (7) 1.00 740.
4 OPERATE DRILLMOTOR PROCESS F 4
   A1 B0 G1 M6 X6 I0 A0 4.00 560.
5 HOVE TAPINGMOTOR FROM TOOLROOM TO WORKTABLE
   A96 B0 G1 A96 B3 P1 A0 1.00 1970.
6 OPERATE DRILLMOTOR [TAPINGMOTOR] PROCESS F 4
   A1 B0 G1 M6 X6 I0 A0 4.00 560.
7 POSITION BOLT FROM WORKTABLE TO SHEETMETAL AT WORKTABLE
   F 4
   A1 B0 G1 A1 B0 P6 A0 4.00 360.
8 FASTEN BOLT TO SHEETMETAL AT WORKTABLE 10 WRIST-TURNS
   USING WRENCH AT WORKTABLE AND ASIDE PF 4 (4 5 6 7 )
   A1 B0 G1 (A1 B0 P3 F24 )A1 B0 P1 A0 (4) 1.00 1160.
9 OPERATE DRILLMOTOR PROCESS F 29
   A1 B0 G1 M6 X6 I0 A0 29.00 4060.
10 LOOSEN BOLT FROM SHEETMETAL AT WORKTABLE 10 WRIST-TURNS
   USING WRENCH AT WORKTABLE AND ASIDE PF 4 (4 5 6 7 )
   A1 B0 G1 (A1 B0 P3 L24 )A1 B0 P1 A0 (4) 1.00 1160.
11 REPLACE SHEETMETAL [ACCESS COVER] FROM SHEETMETAL TO
   WORKTABLE
   A1 B0 G1 A1 B0 P3 A0 1.00 60.
12 OPERATE DRILLMOTOR [TAPINGMOTOR] PROCESS F 29
   A1 B0 G1 M6 X6 I0 A0 29.00 4060.
13 LOOSEN 7.32DRILL-BIT FROM DRILLMOTOR AT WORKTABLE 3
   WRIST-TURNS USING CHUCKKEY AND ASIDE
   A1 B0 G1 A1 B0 P3 L6 A1 B0 P1 A0 1.00 140.
14 FASTEN 5.16DRILL-BIT TO DRILLMOTOR AT WORKTABLE 3
   WRIST-TURNS USING CHUCKKEY AND ASIDE
   A1 B0 G1 A1 B0 P3 F6 A1 B0 P1 A0 1.00 140.
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Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?
Please input file <VNELBO.M48> ?

File Description ? CUT RUBBER GASKET FOR ACCESS PLATE

Output to line-printer <Y or N> ? N

( 39, 3)
FIT .W07 VNELBO.M48
CUT RUBBER FOR ACCESS PLATE GASKET WITH UTILITY KNIFE AT
SHEETMETAL SHOP
PER VANE ELBOW OFG: 4 23-MAR-83

NASSCO SHEETMETAL SHAPE #8
* HULL 418
* DRAWING 501-292
* V2-92007
* V6-1914
* 18 GAUGE GALV. SHEETMETAL
* 22 X 12 X 90 DEGREE ELBOW WITH WANE TRACK
* USE AC. PLATE FOR TEMPLATE TO CUT RUBBER
FITTER BEGINS AT WORKTABLE

1 MOVE-SHEETMETAL2 [ACCESS COVER] AND BLACKPEN [INK PEN] 
FROM WORKTABLE TO GASKET-CUTTING-TABLE
   A 1 B0 G1 A152B0 P1 A0 1.00 1550.

2 MOVE UTILITY-KNIFE, 3 / 8HOLE-PUNCH AND MALLET FROM 
TOOLROOM TO GASKET-CUTTING-TABLE
   AY6 B0 G1 A96 B0 P1 A0 1.00 1940.

3 PLACE RUBBER FROM SHELF AT GASKET-CUTTING-TABLE TO 
GASKET-CUTTING-TABLE WITH 3 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 110.

4 PLACE SHEETMETAL2 [ACCESS COVER3 FROM 
GASKET-CUTTING-TABLE TO RUBBER AT GASKET-CUTTING-TABLE
   A1 B0 G1 A1 B0 P3 A0 1.00 60.

5 CUT RUBBER TRACING SHEETMETAL [ACCESS COVER] AT 
GASKET-CUTTING-TABLE 1 CUT USING UTILITY-KNIFE AND 
ASIDE PF 4 ( 4 5 6 7 )
   AY6 B0 G1 -(AY6 B0 P3 G1 )A1 B0 P1 A0 (4) 1.00 4990.

6 REPLACE SHEETMETAL2 FROM RUBBER AT GASKET-CUTTING-TABLE 
TO GASKET-CUTTING-TABLE
   A1 B0 G1 A1 B0 P3 A0 1.00 60.

7 POSITION 3 / 8HOLE-PUNCH FROM GASKET-CUTTING-TABLE TO 
RUBBER AT GASKET-CUTTING-TABLE F 33
   A1 B0 G1 A1 B0 P6 A0 33.00 2970.

8 FASTEN HOLE PUNCH TO RUBBER AT GASKET-CUTTING-TABLE 2
STRIKES USING MALLET AT GASKET-CUTTING-TABLE AND ASIDE 
PF 33 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P0 P6 )A1 B0 P1 A0 (33) 1.00 2350.

9 MOVE SHEETMETAL2 [ACCESS PLATE] AND RUBBER FROM 
GASKET-CUTTING-TABLE TO WORKTABLE
   A1 B0 G1 A152 B3 P1 A0 1.00 1580.

10 MOVE HOLE PUNCH, UTILITY-KNIFE, AND MALLET FROM 
GASKET-CUTTING-TABLE TO TOOLROOM
   A152B0 G1 A96 B0 P1 A0 1.00 2500.

TOTAL TMU 18110.
Please input file <VNELBO.M49> ?

File Description ? DEBURR ACCESS COVER & ACCESS HOLE

Output to line-printer <Y or N> ? N

( 39, 3)
FIT W07 VNELBO.M49
DEBURR SHEETMETAL FOR ACCESS COVER & ACCESS HOLE WITH FILE AT SHEETMETAL SHOP
PER VANE ELBOW OFG: 4 23-MAR-83
NASSCO SHEETMETAL SHAPE #8
* HULL 418
* DRAWING 501-292
* V2-92007
* V6-1914
* 18 GAUGE GALV. SHEETMETAL
* 22'X12'X90 DEGREE ELBOW WITH VANE TRACK
* DEBURR BOLT HOLES & ROUGH EDGES
FITTER BEGINS AT WORKTABLE

1 MOVE GLUE FROM TOOLROOM TO WORKTABLE
   A96 B0 G1 A96 B3 P1 A0  1.00  1970.
2 DEBURR SHEETMETAL [ACCESS COVER] AT WORKTABLE 1
   ARM-STROKE USING FILE AND HOLD PF 30 ( 4 5 6 7 )
   B0 G1 (A1 B0 P1 C1 )A0 B0 P0 A0 (30)  1.00  920.
3 DEBURR SHEETMETAL ELBOW ASSEMBLY? AT WORKTABLE 1
   ARM-STROKE USING FILE AND ASIDE PF 30 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 C1 )A1 B0 P1 A0 (30)  1.00  940.
4 MOVE RUBBER WITH 0 STEPS FROM GASKET-CUTTING-TABLE TO WORKTABLE WITH 0 STEPS
   A1 B0 G1 A1 B3 P1 A0  1.00  70.
5 GRIP GLUE TO RUBBER AT WORKTABLE 2 SQ.FT. USING BRUSH AND ASIDE
   A96 B0 G1 A96 B3 P3 C1 A1 B0 P1 A0  1.00  2020.
6 PLACE SHEETMETAL [ACCESS COVER] FROM WORKTABLE TO SHEETMETAL [ELBOW] AT WORKTABLE
   A1 B0 G1 A1 B0 P3 A0  1.00  60.
7 POSITION BOLT FROM WORKTABLE TO SHEETMETAL [ELBOW] AT WORKTABLE
   A1 B0 G1 A1 B0 P6 A0  1.00  90.
8 FASTEN BOLT TO SHEETMETAL AT WORKTABLE 10 WRIST-TURNS USING WRENCH AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )
   P1 E24)A1 B0 P1 A0 (4)  1.00  1160.
9 INSPECT SHEETMETAL AT WORKTABLE 9 POINTS
   A0 B0 G0 A0 B0 P0 H10 A0 B0 P0 A0  1.00  100.

   TOTAL TMU  7330.

   TYPE U,EN,Cl,T,EX,T,LD,T,LY,T,IN,T,OR,T,FO,T,HELP> ?  290810
Please input file <VNELBO.M30> ?

File Description ? WELD ELBOW WITH VANE TRACK

Output to line-printer <Y or N> ? N

( 39,101)
WELD .W01 VNELBO.M30
WELD VANE TRACK ELBOW WITH TIG-WELDER AT SHEETMETAL SHOP
WELDING BOOTH
PER VANE TRACK ELBOW
* WELDING NASSCO SHEETMETAL SHAPE 8
  * HULL418
  * DRAWING 501-292
  * V2-92007
  * V6-1914
  * 18 GAUGE GALV. SHEETMETAL
  * 22'X12' ELBOW WITH VANE TRACK
  * --WITH 9 TURN VANES
  * TACK WELD WITH 1' TACKS
  * WELDING DONE IN WELD AREA BOOTH
  * WELDOR PERFORMS WORK
  * FITTER TRANSPORTSHEETMETAL
  FITTER BEGINS AT WORKTABLE

1 FITTER PLACE SHEETMETAL ASSEMBLY FROM WORKTABLE TO CART
   AT WORKTABLE WITH 4 STEPS F 2
      A1 B0 G1 A6 B0 P3 A0 2.00 220.
2 FITTER HOVE CART FROM WORKTABLE TO WELDTABLE
      A1 B0 G1 A131B3 P1 A0 1.00 1370.
3 PLACE SHEETMETAL ASSEMBLY FROM CART AT WELDTABLE TO
   WELDTABLE WITH 4 STEPS F 2
      A1 B0 G1 A6 B0 P3 A0 2.00 220.
4 WELDOR PUSH POWER SUPPLY BUTTON FROM OFF AT
   WELDMACHINES TO ON AT WELDMACHINES WITH 16 STEPS
      A3 B0 G1 M1 X0 I0 A32 1.00 370.
5 WELDOR PUSH GAS-HOOKUP-SWITCH FROM OFF AT WELDINGHINES
   TO ON AT WELDMACHINES
      A1 B0 G1 M1 X0 I0 A1 1.00 40.
6 WELDOR FASTEN CURRENT SELECTOR HANDLE AT WELDMACHINES 1
   WRIST-TURN USING HAND
      A1 B0 G1 A1 B0 P1 F3 A0 B0 P0 A0 1.00 70.
7 WELDOR TURN OUTPUT CONTROL LEVER FROM OFF AT
   WELDMACHINES TO ON AT WELDMACHINES
      A1 B0 G1 M3 X0 I0 A1 1.00 60.
8 WELDOR POSITION ANTI-SPATTER SPRAY CAN FROM WELDTABLE
   TO SHEETMETAL ASSEMBLY AT WELDTABLE
      A3 B3 G1 A1 B0 P6 A0 1.00 140.
9 WELDOR PUSH ANTI-SPATTER2 SPRAY CAN PROCESS
      A1 B0 G1 M1 X10 I0 A0 1.00 130.
10 WELDOR POSITION WELDROD FROM WELDTABLE TO SHEETMETAL
    ASSEMBLY AT WELDTABLE F 70
       A1 B0 G1 A1 B0 P6 A0 70.00 6300.
11 PULL WELDHOOD FROM UP AT WELDOR TO DOWN AT WELDOR F 22
       A1 B0 G1 M1 X0 I0 A1 22.00 880.
12 WELDOR POSITION WELDGUN FROM WELDTABLE TO SHEETMETAL
ASSEMBLY AT WELDTABLE WITH PARTIAL BEND F 70
   A1 B0 G1 A1 B6 P6 A0  70.00  10500.
13 OPERATE WELD STINGER-BUTTON1 PROCESS F 22
   A1 B0 G1 M6 X81 I0 A0  22.00  19580.
14 PUSH WELDHOOD FROM DOWN AT WELDOR TO UP AT WELDOR F 22
   A1 B0 G1 M1 X0 I0 A1  22.00  880.
15 WELDOR DEBurr WELDED ASSEMBLY AT WELDTABLE 10
   ARM-STROKES USING WIREBRUSH AT WELDTABLE AND ASIDE PF
   22( 4567 )
   A1 B0 G1 (A1 B0 P1 C10 )A1 B0 P1 A0 (22)  1.00  2680.
16 REPLACE SHEETMETAL ASSEMBLY FROM WELDTABLE TO CART AT
   WELDTABLE WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0  2.00  220.
17 FITTER MOUE CART FROM WELDTABLE TO WORKTABLE
   A1 B0 G1 A131B0 P1 A0  1.00  1340.

TOTAL TMU  45000.

File Description ? WELD ELBOW WITH VANE TRACK

Output to line-printer <Y or N> ?
Sheetmetal Shape #9

10" x 5" to 8" x 5" Rectangle to Radius Corners

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Output to line-minter <Y or N> ? N

( 39, 1) FIT .W11 RCT2RC.M01
MARK OUT SHEETMETAL FOR RECTANGULAR TO RADIUS CORNERS WITH AWL AT SHEETMETAL SHOP
PER RECTANGULAR TO RADIUS CORNERS OFG: 4 12-MAY-83
NASSCO SHEETMETAL SHAPE 9
* 20 GAUGE GALV. SHEETMETAL
* 10'X5' TO 8'X5' RADIUS CORNERS 12'L--
* WITH 1 1/2' RADIUS CORNERS
* MARK OUT USING TEMPLATE
FITTER BEGINS AT WORKTABLE

1 POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS F 4
   A1 B0 G1 A6 B0 P6 A0 4.00 560.
2 POSITION WEIGHTS FROM WORKTABLE TO TEMPLATE AT WORKTABLE WITH 3 STEPS F 4
   A1 B0 G1 A6 B0 P6 A0 4.00 560.
3 MARK OUTLINE FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 16 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (16) 1.00 2920.
4 POSITION CFUNCH FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS F 40
   A1 B0 G1 A3 B0 P6 A0 40.00 4400.
5 FASTEN CFUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AND ASIDE PF 30 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P0 F3 )A1 B0 P1 A0 (30) 1.00 1240.
6 REPLACE WEIGHTS FROM TEMPLATE AT WORKTABLE TO WORKTABLE WITH 3 STEPS F 4
   A1 B0 G1 A6 B0 P3 A0 4.00 440.
7 REPLACE TEMPLATE FROM SHEETMETAL TO WORKTABLE AT WORKTABLE WITH 3 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0 2.00 220.
8 MARK CUT LINE ON SHEETMETAL AT WORKTABLE 1 DIGIT USING REDPEN AT WORKTABLE AND ASIDE PF 16 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (16) 1.00 840.
9 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 84 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (84) 1.00 4240.
10 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (52) 1.00 2640.
11 MEASURE DIMENSION ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE PF 5 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 M32 )A1 B0 P1 A0 (5) 1.00 1740.
12 MARK DIMENSION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (6) 1.00 340.
13 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE AND ASIDE WITH 3 STEPS PF 6 ( 4 5 6 7 )
14 MARK SHEETMETAL FROM STRAIGHTEDGE AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 5 (4 5 6 7)
   A1 B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (5) 1.00 740.
15 MARK CUT LINE ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 5 (4 5 6 7)
   (A1 B0 P1 R16 )A1 B0 P1 A0 (5) 1.00 940.
16 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 32 (4 5 6 7)
   A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (32) 1.00 1640.
17 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 (4 5 6 7)
   A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (52) 1.00 2640.
18 PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0 2.00 220.
19 MOVE CART WITH SHEETMETAL2 FROM WORKTABLE TO SMALLSHEAR
   A1 B0 G1 A67 B0 P1 A0 1.00 700.

TOTAL TMU 27960.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?
File Description ? SHEAR SHEETMETAL FOR RECTANGULAR TO RADIUS CORNERS

Output to line-printer <Y or N> ? N

( 39, 1 )
FIT .W11 RCT2RC.M02
SHEAR SHEETMETAL FOR RECTANGULAR TO RADIUS CORNERS WITH
SMALL 8FT. SHEAR AT SHEETMETAL SHOP
PER RECTANGULAR TO RADIUS CORNERS OFG: 4 13-MAY-83
NASSCO SHEETMETAL SHAPE 9
* 20 GAUGE GALV. SHEETMETAL
* 10'X5' TO 8'X5' RADIUS CORNERS 12'L--
* --WITH 1 1/2' RADIUS CORNERS
* SHEAR 1 1/2', STRIPS FOR RADIUS CORNERS
FITTER BEGINS AT SMALLSHEAR

1 POSITION SHEETMETAL FROM CART AT SMALLSHEAR TO
SMALLSHEAR WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P6 A0 2.00 280.
2 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS
   A1 B0 G1 M1 X6 IO A0 1.00 90.
3 POSITION SHEETMETAL2 FROM SMALLSHEAR TO SMALLSHEAR WITH
   2 STEPS F 15
   A1 B0 G1 A3 B0 P6 A0 15.00 1650.
4 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 15
   A1 B0 G1 M1 X6 IO A0 15.00 1350.
5 REPLACE SHEETMETAL FROM SMALLSHEAR TO CART AT
SMALLSHEAR WITH 20 STEPS
   A1 B0 G1 A32 B0 P3 A0 1.00 370.
6 MOUE CART WITH SHEETMETAL FROM SMALLSHEAR TO WORKTABLE
   A1 B0 G1 A67 B3 P1 A0 1.00 730.

TOTAL TMU 4470.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?
File Description ? SHEAR RADIUS FOR RECTANGULAR TO RADIUS CORNERS

Output to line-printer <Y or N> ? N

( 39, 1)
FIT .W11 RCT2RC.M03

SHEAR RADIUS FOR. RECTANGULAR TO RADIUS CORNERS WITH UNI-SHEAR AT
SHEETMETAL SHOP
PER RECTANGULAR TO RADIUS CORNERS OFG: 4 13-MAY-83

NASSCO SHEETMETAL SHAPE 9
* 20 GAUGE GALV. SHEETMETAL
* 10'X5' TO 8'X5' RADIUS CORNERS 12'L--
* --WITH 1 1/2. RADIUS CORNERS
FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE
WITH 4 STEPS
  A1 B0 G1 A6 B0 P3 A0 1.00 110.
2 MOVE UNISHEAR2 FROM TOOLROOM TO WORKTABLE
  A96 B0 G1 A96 B3 P1 A0 1.00 1970.
3 OPERATE UNISHEAR AT WORKTABLE PROCESS F 4
  A1 B0 G1 M6 X17310 A0 4.00 7240.
4 CUT CORNERS ON SHEETMETAL AT WORKTABLE 2 CUTS USING
SNIPS AT WORKTABLE AND ASIDE PF 8 ( 4 5 6 7 )
  A1 B0 G1 (A1 B0 P3 C3 )A1 B0 P1 A0 (8) 1.00 600.
5 FASTEN [FLATTEN] CORNERS ON SHEETMETAL AT WORKTABLE 3
STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 16 ( 4
5 6 7 )
  A1 B0 G1 (A1 B0 P0 F6 )A1 B0 P1 A0 (16) 1.00 1160.
6 REPLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE
WITH 4 STEPS F 2
  A1 B0 G1 A6 B0 P3 A0 2.00 220.
7 MOUE CART WITH SHEETMETAL FROM WORKTABLE TO LAPOUT
  A1 B0 G1 A54 B0 P1 A0 1.00 570.

TOTAL TMU 11870.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

16340
File Description: FORM LAP END OR RECTANGULAR TO RADIUS CORNERS

Output to line-printer (Y or N)? N

(39, 1)
FIT

RCT2RC.M04

FORM LAP END ON RECTANGULAR TO RADIUS CORNERS WITH LAPOUT MACHINE
AT SHEETMETAL SHOp

PER RECTANGULAR TO RADIUS CORNERS

NASSCO SHEETMETAL SHAPE 9

* 20 GAUGE GALV. SHEETMETAL

* 10'X5' TO 8'X5' RADIUS CORNERS 12'L--

* --WITH 1 1/2' RADIUS CORNERS

FITTER BEGINS AT LAPOUT

1 PLACE SHEETMETAL2 FROM CART AT LAPOUT TO LAPOUT WITH 4 STEPS F 2

A1 B0 G1 A6 B0 P3 A0 2.00 220.

2 PUSH LAPOUT-SWITCH PROCESS F 2

A1 B0 G1 M1 X16 I0 A0 2.00 380.

3 PUSH AND GUIDE SHEETMETAL THROUGH LAPOUT WITH 2 STEPS

A3 B0 G1 M1 X0 I3 A0 1.00 80.

4 REPLACE SHEETMETAL FROM LAPOUT TO CART AT LAPOUT WITH 4 STEPS F 2

A1 B0 G1 A6 B0 P3 A0 2.00 220.

5 HOVE CART WITH SHEETMETAL FROM LAPOUT TO WORKTABLE

A1 B0 G1 A54 B3 P1 A0 1.00 600.

TOTAL TMU 1500.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help>?

17,840
File Description ? BEND RADIUS FOR RECTANGULAR TO RADIUS CORNERS

Output to line-printer <Y or N> ? N

( 39, 1)
FIT .W11 RCT2RC.M05
BEND RADIUS FOR RECTANGULAR TO RADIUS CORNERS WITH LEAF BRAKE AT SHEETMETAL SHOP PER RECTANGULAR TO RADIUS CORNERS OFG: 4 13-MAY-83 NASSCO SHEETMETAL SHAPE 9
* 20 GAUGE GALV. SHEETMETAL
* 10'X5' TO 8'X5' RADIUS CORNERS 12'L--
* --WITH 4' RADIUS CORNERS
FITTER BEGINS AT WORKTABLE

1 MOVE VISEGRIPS FROM WORKTABLE TO LEAFBRAKE
   A1 B0 G1 A81 B0 P1 A0 1.00 840.

2 GRIP ADJUSTMENT ROD ON LEAFBRAKE USING VISEGRIPS AT LEAFBRAKE AND ASIDE
   A1 B0 G1 A1 B0 P3 C1 A1 B0 P1 A0 1.00 90.

3 POSITION SHEETMETAL FROM CART AT LEAFBRAKE TO LEAFBRAKE F 2
   A1 B0 G1 A1 B0 P6 A0 2.00 180.

4 OPERATE LEAFBRAKE-LEVER PROCESS F 2
   A1 B0 G1 M6 X16 I0 A0 2.00 480.

5 POSITION SHEETMETAL2 FROM LEAFBRAKE TO LEAFBRAKE F 24
   A1 B0 G1 A1 B0 P6 A0 24.00 2160.

6 OPERATE LEAFBRAKE-LEVER PROCESS F 24
   A1 B0 G1 M6 X16 I0 A0 24.00 5760.

7 REPLACE SHEETMETAL FROM LEAFBRAKE TO CART AT LEAFBRAKE WITH 4 STEPS F 2
   AL B0 G1 A6 B0 P3 A0 2.00 220.

8 MOVE CART WITH SHEETMETAL FROM LEAFBRAKE TO WORKTABLE
   A1 B0 G1 A81 B3 P1 A0 1.00 870.

TOTAL TMU 10600.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

28440
FORM RADIUS FOR RECTANGULAR TO RADIUS CORNERS

output to line-printer <Y or N> ? N

RCT2RC.M06

FORM RADIUS FOR RECTANGULAR TO RADIUS CORNERS WITH HAND-ROLLER AT SHEETMETAL SHOP

PER RECTANGULAR TO RADIUS CORNERS

OFG: 4 13-MAY-83

NASSCO SHEETMETAL SHAPE 9

* 20 GAUGE GALV. SHEETMETAL

* 10'X5' TO 8'X5' RADIUS CORNERS 12'L--

* --WITH 1 1/2' RADIUS CORNERS

* CHECK COLLAR RADIUS WITH TRANSF. RADIUS

FITTER BEGINS AT WORKBENCH

1 POSITION SHEETMETAL2 FROM CART AT WORKBENCH TO HAND-ROLLER AT WORKBENCH WITH 4 STEPS F 4

A1 B0 G1 A6 B0 P6 A0 4.00 560.

2 FASTEN BOLT [ROLLS] TO SHEETMETAL2 AT WORKTABLE 3 SPINS USING FINGERS F 4

A1 B0 G1 A67 B3 P1 F6 A0 B0 P0 A0 4.00 3160.

3 CRANK HAND-ROLLER AT WORKBENCH 3 REV'S USING HAND F 8

A67 B3 G1 M6 X0 I0 A0 8.00 6160.

4 PLACE SHEETMETAL FROM HAND-ROLLER AT WORKBENCH TO SHEETMETAL AT WORKBENCH F 8

A1 B0 G1 A1 B0 P3 A0 8.00 480.

5 REPLACE SHEETMETAL FROM WORKBENCH TO CART AT WORKBENCH WITH 4 STEPS F 4

A1 B0 G1 A6 B0 P3 A0 4.00 440.

6 MOVE CART WITH SHEETMETAL2 FROM WORKBENCH TO PANBRAKE

A1 B0 G1 A32 B0 P1 A0 1.00 350.

TOTAL TMU 11150.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

39590
File Description ? BEND LAP ENDS FOR RECTANGULAR TO RADIUS CORNERS

output to line-printer <Y or N> ? N

( 39, 1)
FIT .WI1
RCT2RC.M07

BEND LAP ENDS FOR RECTANGULAR TO RADIUS CORNERS WITH FAN-BRAKE AT
SHEETMETAL SHOP

PER RECTANGULAR TO RADIUS CORNERS

NASSCO SHEETMETAL SHAPE 9
* 20 GAUGE GLAV. SHEETMETAL
* 10’X8’ TO 8’X5’ RADIUS CORNER 12’L--
* --WITH 1 1/2’ RADIUS CORNERS
FITTER BEGINS AT PANBRAKE

1 POSITION SHEETMETAL FROM CART AT PANBRAKE TO PANBRAKE
WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P6 A0 2.00 280.
2 FASTEN NUT [JAWS] TO SHEETMETAL AT PANBRAKE 5
   WRIST-TURNS USING WRENCH’ AT PANBRAKE AND ASIDE
   A1 B0 G1 A1 B0 P3 F10 A1 B0 P1 A0 1.00 180.
3 OPERATE PANBRAKE-LEVER PROCESS F 6
   A1 B0 G1 M6 X96 I0 A0 6.00 6240.
4 REPLACE SHEETMETAL FROM PANBRAKE TO CART AT PANBRAKE
WITH 4 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 110.
5 MOVE CART WITH SHEETMETAL2 FROM PANBRAKE TO WORKTABLE
   A1 B0 G1 A54 B3 P1 A0 1.00 600.

TOTAL TMU 7410.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ? M

47.000
File Description ? ASSEMBLE RECTANGULAR TO RADIUS CORNERS

output to line-printer <Y or N> ? N

(39, 1)
FIT .W11
RCT2RC.M08
ASSEMBLE SHEETMETAL FOR RECTANGULAR TO RADIUS CORNERS WITH
'RIVET GUN AT SHEETMETAL SHOP
PER RECTANGULAR TO RADIUS CORNERS OFG: 4 13-MAY-83
NASSCO SHEETMETAL SHAPE 9
* 20 GAUGE GALV. SHEETMETAL
* 10'X5' TO 8'X5' RADIUS CORNER 12' L--
* -- WITH 1 1/2' RADIUS CORNERS
* HOLD PIECES WITH VISEGRIPS WHILE --
* --DRILLING
FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0 2.00 220.
2 POSITION SHEETMETAL FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 2
   A1 B0 G1 A1 B0 P6 A0 2.00 180.
3 GRIP SHEETMETAL TO SHEETMETAL AT WORKTABLE USING
   VISEGRIPS AT WORKTABLE AND ASIDE PF 2 (4 5 6 7 )
   A1 B0 G1 (A1 B0 P3 C1 )A1 B0 P1 A0 (2) 1.00 140.
4 FASTEN 5-32DRILLBIT TO DRILLMOTOR AT WORKTABLE 3
   WRIST-TURNS USING CHUCKKEY AT WORKTABLE AND ASIDE
   A1 B0 G1 A1 B0 P3 F6 A1 B0 P1 A0 1.00 140.
5 POSITION DRILLMOTOR FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 2
   A1 B0 G1 A1 B0 P6 A0 2.00 180.
6 OPERATE DRILLMOTOR AT WORKTABLE PROCESS F 2
   A1 B0 G1 M6 X6 I0 A0 2.00 280.
7 POSITION RIVETS FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 2
   A1 B0 G1 A1 B0 P6 A0 2.00 180.
8 POSITION RIVETGUN FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 2
   A1 B0 G1 A1 B0 P6 A0 2.00 180.
9 OPERATE RIVETGUN AT WORKTABLE PROCESS F 2
   A1 B0 G1 M6 X3 I0 A0 2.00 220.

TOTAL TMU 1720.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

48720
File Description ? TACK RADIUS CORNERS ON RECT. TO RADIUS CORNERS

Output to line-printer <Y or N> ? N

( 39, 1)
FIT .W1
RCT2RC.M09
TACK RADIUS CORNERS ON RECTANGULAR TO RADIUS CORNERS WITH
TACK WELDER AT SHEETMETAL SHOP
PER RECTANGULAR TO RADIUS CORNERS OFG: 4 13-MAY-83
NASSCO SHEETMETAL SHAPE 9
* 20 GAUGE GALV. SHEETMETAL
* 10'X5' TO 8'X5' RADIUS CORNERS 12'L--
* --WITH 1 1/2' RADIUS CORNERS
* COMPLETE WELDING AT WELD AREA
* SEE RCT2RC.M10
FITTER BEGINS AT WORKTABLE

1 MOVE [CLAMPS , SHEETMETAL FROM WORKTABLE TO WELDOUT
   A1 B0 G1 A54 B3 P1 A0 1.00  600.

2 POSITION SHEETMETAL FROM WELDOUT TO SHEETMETAL2 AT
   WELDOUT F 4
   A1 B0 G1 A1 B0 P6 A0 4.00  360.

3 GRIP SHEETMETAL TO SHEETMETAL AT WELDOUT USING
   [CLAMPS AT WELDOUT AND ASIDE PF 8 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P3 C1 )A1 B0 P1 A0 (8) 1.00  440.

4 POSITION TACKWELDER TO SHEETMETAL AT WELDOUT F 14
   A1 B0 G1 A1 B0 P6 A0 14.00 1260.

5 OPERATE TACKWELDER AT WELDOUT PROCESS F 14
   A1 B0 G1 M6 X3 IO A0 14.00 1540.

6 MOVE [CLAMPS , SHEETMETAL FROM WELDOUT TO WORKTABLE'
   A1 B0 G1 A54 B3 P1 A0 1.00  600.

   TOTAL TMU  4800.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ? $53,520
File Description ? WELD RECTANGULAR TO RADIUS CORNERS

output to line-Printer <Y or N> ? N

( 39, 3)

WELD .W01 RCT2RC.M10

WELD RECTANGULAR TO RADIUS CORNERS WITH TIG-WELDER AT SHEETMETAL SHOP WELDING BOOTH

PER RECTANGULAR TO RADIUS CORNERS

WELDING NASSCO SHEETMETAL SHAPE 9
* 20 GAUGE GALV. SHEETMETAL
* 10'X5 TO 8'x5' RADIUS CORNERS 12'L
* --WITH 1 1/2' RADIUS CORNERS
* WELDING DONE IN WELD AREA BOOTH
* WELDOR PERFORMS WORK
* FITTER TRANSPORTS SHEETMETAL
FITTER BEGINS AT WORKTABLE

1 FITTER PLACE SHEETMETAL ASSEMBLY FROM WORKTABLE TO CART
   AT WORKTABLE WITH 4 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 110.

2 FITTER MOVE CART FROM WORKTABLE TO WELDTABLE
   A1 B0 G1 A131B3 P1 A0 1.00 1370.

3 PLACE SHEETMETAL ASSEMBLY FROM CART AT WELDTABLE TO
   WELDTABLE WITH 4 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 110.

4 WELDOR PUSH POWER SUPPLY BUTTON FROM OFF AT
   WELDMACHINES TO ON AT WELDMACHINES WITH 16 STEPS
   A3 B0 G1 M1 X0 I0 A32 1.00 370.

5 WELDOR PUSH GAS-HOOKUP-SWITCH FROM OFF AT WELDMACHINES
   TO AT WELDMACHINES
   A1 B0 G1 M1 X0 I0 A1 1.00 40.

6 WELDOR FASTEN CURRENT SELECTOR HANDLE AT WELDMACHINES
   1 WRIST-TURN USING HAND
   A1 B0 G1 A1 B0 P1 F3 A0 B0 P0 A0 1.00 70.

7 WELDOR TURN OUTPUT CONTROL LEVER FROM OFF AT
   WELDMACHINES TO ON AT WELDMACHINES
   A1 B0 G1 M3 X0 I0 A1 1.00 60.

8 WELDOR POSITION ANTI-SPATTER SPRAY CAN FROM WELDTABLE
   TO SHEETMETAL ASSEMBLY AT WELDTABLE F 2
   A3 B3 G1 A1 B0 P6 A0 2.00 280.

9 WELDOR PUSH ANTI-SPATTER2 SPRAY CAN PROCESS F 2
   A1 B0 G1 M1 X10 I0 A0 2.00 260.

10 WELDOR POSITION WELDROD FROM WELDTABLE TO SHEETMETAL
    ASSEMBLY AT WELDTABLE F 4
    A1 B0 G1 A1 B0 P6 A0 4.00 360.

11 PULL WELDHOOD FROM UP AT WELDOR TO DOWN AT WELDOR F 4
    A1 B0 G1 M1 X0 I0 A1 4.00 160.

12 WELDOR POSITION WELDGUN FROM WELDTABLE TO SHEETMETAL
    ASSEMBLY AT WELDTABLE WITH PARTIAL BEND F 4
    A1 B0 G1 A1 B6 P6 A0 4.00 600.

13 OPERATE WELD STINGER-BUTTON1 PROCESS F 4
    A1 B0 G1 M6 X81 I0 A0 4.00 3560.

14 PUSH WELDHOOD FROM DOWN AT WELDOR TO UP AT WELDOR F 4
    A1 B0 G1 M1 X0 I0 A1 4.00 160.

15 WELDOR DEBURR WELDED ASSEMBLY AT WELDTABLE 1 ARM-STROKE
    USING WIREBRUSH AT WELDTABLE AND ASIDE PF 40 ( 4 5 6 7
16 REPLACE SHEETMETAL ASSEMBLY FROM WELDTABLE TO CART AT WELDTABLE WITH 4 STEPS

17 FITTER MOVE CART FROM WELDTABLE TO WORKTABLE

TOTAL TMU

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?
File Description ? RIVET RECTANGULAR TO RADIUS CORNERS

Output to line-Printer <Y Or N> ? N

( 39, 1)
FIT • W11
RIVET RECTANGULAR TO RADIUS CORNERS WITH RIVET GUN AT SHEETMETAL SHOP
PER RECTANGULAR TO RADIUS CORNERS OFG: 4 13-MAY-83
NASSCO SHEETMETAL SHAPE 9
* 20 GAUGE GALV. SHEETMETAL
* 10'X5' TO 8'X5' RADIUS CORNERS 12'L--
* --WITH 1 1/2' RADIUS CORNERS
FITTER BEGINS AT WORKTABLE

1 POSITION RIVET-HOLE-GUIDE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 2
   A1 B0 G1 A1 B0 P6 A0 2.00 180.
2 MARK RIVET HOLES FROM RIVET-HOLE-GUIDE AT WORKTABLE 1
   DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 16 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (16) 1.00 840.
3 POSITION DRILLMOTOR FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 16
   A1 B0 G1 A1 B0 P6 A0 16.00 1440.
4 OPERATE DRILLMOTOR AT WORKTABLE PROCESS F 16
   A1 B0 G1 M6 X6 I0 A0 16.00 2240.
5 POSITION RIVET FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 16
   A1 B0 G1 A1 B0 P6 A0 16.00 1440.
6 POSITION RIVETGUN FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 16
   A1 B0 G1 A1 B0 P6 A0 16.00 1440.
7 OPERATE RIVETGUN AT WORKTABLE PROCESS F 26
   A1 B0 G1 M6 X3 I0 A0 26.00 2860.
8 POSITION CAULKINGGUN FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 16
   A1 B0 G1 A1 B0 P6 A0 16.00 1440.
9 GRIP SEALANT TO SHEETMETAL AT WORKTABLE USING CAULKINGGUN AT WORKTABLE AND ASIDE PF 16 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P3 C1 )A1 B0 P1 A0 (16) 1.00 840.
10 INSPECT SHEETMETAL AT WORKTABLE 9 POINTS
   A0 B0 G0 A0 B0 P0 T10 A0 B0 P0 A0 1.00 100.

TOTAL TMU 12820.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H far help> ?
### SHEET METAL SHAPE # 9

30" x 15" to 25" x 20" RECTANGULAR TO RADIUS CORNERS

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<th>Process</th>
<th>Time</th>
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</table>
File Description ? MARK OUT RECTANGULAR TO RADIUS CORNERS

Output to line-printer <Y or N ? N

( 39, 1)

FIT  RCT2RC.M30

MARK OUT SHEETMETAL FOR RECTANGULAR TO RADIUS CORNERS WITH AWL AT SHEETMETAL SHOP

PER RECTANGULAR TO RADIUS CORNERS

NASSCO SHEETMETAL SHAPE 9
* 16 GAUGE GALV. SHEETMETAL
* 30'X15' TO 25'X20' RADIUS CORNERS 40'L--
* --WITH 5' RADIUS CORNERS
* HARK OUT WITH TEMPLATE
FITTER BEGINS AT WORKTABLE

1 POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS F 2
A1 B0 G1 A3 B0 P6 A0 2.00 200.

2 POSITION WEIGHTS FROM WORKTABLE TO TEMPLATE AT WORKTABLE WITH 3 STEPS F 8
A1 B0 G1 A6 B0 P6 A0 8.00 1120.

3 MARK OUTLINE FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 16 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (16) 1.00 2920.

4 POSITION CPUNCH FROM 'WORKTABLE TO TEMPLATE AT WORKTABLE F 40
A1 B0 G1 A1 B0 P6 A0 40.00 3600.

5 FASTEN CPUNCH TO TEMPLATE AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE AND ASIDE PF 40 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P0 P3 )A1 B0 P1 A0 (40) 1.00 1640.

6 REMOVE WEIGHTS FROM TEMPLATE AT WORKTABLE TO WORKTABLE WITH 3 STEPS F 8
A1 B0 G1 A6 B0 P1 A0 8.00 720.

7 REMOVE TEMPLATE FROM SHEETMETAL AT WORKTABLE TO WORKTABLE WITH 2 STEPS F 2
A1 B0 G1 A3 B0 P1 A0 2.00 120.

8 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING RED PEN AT WORKTABLE AND ASIDE PF 16 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (16) 1.00 2920.

9 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACK PEN AT WORKTABLE AND ASIDE PF 84 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (84) 1.00 4240.

10 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACK PEN AT WORKTABLE AND ASIDE PF 52 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (52) 1.00 2640.

11 MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE PF 5 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P1 M32 )A1 B0 P1 A0 (5) 1.00 1740.

12 MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (6) 1.00 340.

13 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 )
14 MARK SHEETMETAL FROM STRAIGHTEDGE AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 5 (4 5 6 7)
   A1 B0 G1 (A1 B0 P1 R16) A1 B0 P1 A0 (5) 1.00 940.
15 MARK CUT LINE ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 5 (4 5 6 7)
   A1 B0 G1 (A1 B0 P1 R16) A1 B0 P1 A0 (5) 1.00 940.
16 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 32 (4 5 6 7)
   A1 B0 G1 (A1 B0 P1 R3) A1 B0 P1 A0 (32) 1.00 1640.
17 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 (4 5 6 7)
   A1 B0 G1 (A1 B0 P1 R3) A1 B0 P1 A0 (52) 1.00 2640.
18 PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 110.
19 MOUE CART WITH SHEETMETAL FROM WORKTABLE TO SMALLSHEAR
   A1 B0 G1 A67 B0 P1 A0 1.00 700.

TOTAL TMU 29630.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help>?
File Description ? SHEAR SHEETMETAL FOR RECTANGULAR TO RADIUS CORNERS

File Description ?

Output to line-printer (Y or N> ? N

( 39, 1)
FIT .W11 RCT2RC.M31
SHEAR SHEETMETAL FOR RECTANGULAR TO RADIUS CORNERS WITH
SMALL 8FT. SHEAR AT SHEETMETAL SHOP
PER RECTANGULAR TO RADIUS CORNERS OFG: 4 17-MAY-83
NASSCO SHEETMETAL SHAPE 9
* 16 GAUGE GALV. SHEETMETAL
* 30’X15’ TO 25’X20’ RADIUS CORNERS 40’L -
* WITH 5’ RADIUS CORNERS
* SHEAR 1 1/2’ STRIPS FOR RADIUS CORNERS
FITTER BEGINS AT SMALLSHEAR

1 POSITION SHEETMETAL FROM CART AT SMALLSHEAR TO
SMALLSHEAR WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P6 A0 2.00 280.
2 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 2
   A1 B0 G1 M1 X6 I0 A0 2.00 180.
3 POSITION SHEETMETAL FROM SMALLSHEAR TO SMALLSHEAR F 15
   A1 B0 G1 A1 B0 P6 A0 15.00 1350.
4 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 15
   A1 B0 G1 M1 X6 I0 A0 15.00 1350.
5 REPLACE SHEETMETAL FROM SMALLSHEAR TO CART AT
SMALLSHEAR WITH 10 STEPS F 2
   A1 B0 G1 A67 B3 P1 A0 2.00 420.
6 MOVE CART WITH SHEETMETAL FROM SMALLSHEAR TO WORKTABLE
   A1 B0 G1 A67 B3 P1 A0 1.00 730.

TOTAL TMU 4310.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?
File Description ? SHEAR RADIUS FOR RECTANGULAR TO RADIUS CORNERS

output to line-printer <Y or N> ? N

( 39, 1)
FIT .W11
RCT2RC.M32

SHEAR RADIUS FOR RECTANGULAR TO RADIUS CORNERS WITH UNI-SHEAR AT SHEETMETAL SHOP

PER RECTANGULAR TO RADIUS CORNERS

OFG: 4 17-MAY-83

NASSCO SHEETMETAL SHAPE 9

* 16 GAUGE GALV. SHEETMETAL
* 30’X15’ TO 25’X20’ RADIUS CORNERS 40’L
* WITH 5’ RADIUS CORNERS

FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS

A1 B0 G1 A6 B0 P3 A0 1.00 110.

2 MOVE UNISHEAR2 FROM TOOLROOM TO WORKTABLE

A96 B0 G1 A96 B3 P1 A0 1.00 1970.

3 OPERATE UNISHEAR AT WORKTABLE PROCESS F 8

A1 B0 G1 M6 X17310 A0 8.00 14480.

4 CUT CORNERS ON SHEETMETAL AT WORKTABLE 2 CUTS USING SNIPS AT WORKTABLE AND ASIDE PF 16 ( 4 5 6 7 )

A1 B0 G1 (A1 B0 P3 C3 )A1 B0 P1 A0 (16) 1.00 1160.

5 FASTEN [FLATTEN] SHEETMETAL AT WORKTABLE 4 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 16 ( 4 5 6 7 )

A1 B0 G1 (A1 B0 P0 F10 )A1 B0 P1 A0 (16) 1.00 1800 .

6 REPLACE SHEETMETAL2 FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2

A1 B0 G1 A6 B0 P3 A0 2.00 220.

7 MOVE CART WITH SHEETMETAL2 FROM WORKTABLE TO LAPOUT

A1 B0 G1 A54 B0 P1 A0 1.00 570.

TOTAL TMU 20310.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

$4,620
FORM LAP ENDS ON RECTANGULAR TO RADIUS CORNERS

NASSCO SHEETMETAL SHAPE 9
* 16 GAUGE GALV. SHEETMETAL
* 30'X15' TO 225'X20' RADIUS CORNERS 40'L
* WITH 5' RADIUS CORNERS
* TWO FITTERS ARE REQUIRED
FITTER BEGINS AT LAPOUT

1 PLACE SHEETMETAL FROM CART AT LAPOUT TO LAPOUT WITH 4 STEPS F 4
   A1 B0 G1 A6 B0 P3 A0 4.00 440.
2 PUSH LAPOUT-SWITCH PROCESS F 4
   A1 B0 G1 M1 X16 I0 A0 4.00 760.
3 PUSH AND GUIDE SHEETMETAL THROUGH LAPOUT WITH 2 STEPS F 4
   A3 B0 G1 M1 X0 I3 A0 4.00 320.
4 REPLACE SHEETMETAL FROM LAPOUT TO CART AT LAPOUT WITH 4 STEPS F 4
   A1 B0 G1 A6 B0 P3 A0 4.00 440.
5 MOVE CART WITH SHEETMETAL FROM LAPOUT TO CORNICE BRAKE
   A1 B0 G1 A32 B0 P1 A0 1.00 350.

TOTAL TMU 2310,

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help>?
BEND RADIUS FOR RECTANGULAR TO RADIUS CORNERS

Output to line-printer <Y or N> ? N

FIT .W11 RCT2RC.M34

BEND RADIUS FOR RECTANGULAR TO RADIUS CORNERS WITH CORNICE BRAKE
AT SHEETMETAL SHOP
PER RECTANGULAR TO RADIUS CORNERS OFG: 4 17-MAY-83

NASSCO SHEETMETAL SHAPE 9
* 16 GAUGE GALV. SHEETMETAL
* 30'X15' TO 25'X20' RADIUS CORNERS 40'L
* WITH 5' RADIUS CORNERS

FITTER BEGINS AT WORKTABLE

1 MOVE VISEGRIPS FROM WORKTABLE TO CORNICEBRAKE
   A1 B0 G1 A54 B0 P1 A0  1.00  570.
2 GRIP ADJUSTMENT ROD ON CORNICEBRAKE USING VISEGRIPS AT
   CORNICEBRAKE AND ASIDE
   A1 B0 G1 A1 B0 P3 C1 A1 B0 P1 A0  1.00  90.
3 POSITION SHEETMETAL FROM CART AT CORNICEBRAKE TO
   CORNICEBRAKE WITH 4 STEPS F 4
   A1 B0 G1 A6 B0 P6 A0  4.00  560.
4 OPERATE CORNICEBRAKE-LEVER PROCESS F 4
   A1 B0 G1 M6 X42 I0 A0  4.00  2000.
5 POSITION SHEETMETAL FROM CORNICEBRAKE TO CORNICEBRAKE
   F 80
   A1 B0 G1 A1 B0 P6 A0  80.00  7200.
6 OPERATE CORNICEBRAKE-LEVER PROCESS F 80
   A1 B0 G1 M6 X42 I0 A0  80.00  40000.
7 REPLACE SHEETMETAL FROM CORNICEBRAKE TO CART AT
   CORNICEBRAKE WITH 4 STEPS
   A1 B0 G1 A6 B0 P3 A0  1.00  110.
8 MOVE CART WITH SHEETMETAL FROM CORNICEBRAKE TO
   HAND-ROLLER AT WORKBENCH
   A1 B0 G1 A32 B3 P1 A0  1.00  380.

TOTAL TMU  50910.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?  77,840
FORM RADIUS ON COLLARS FOR RECT. TO RADIUS CORNERS

File Description ? FORM RADIUS ON COLLARS FOR RECT. TO RADIUS CORNERS

Output to line-Printer <Y or N> ? N

( 39, 1)
FIT .W11 RCT2RC.M35
FORM RADIUS ON COLLARS FOR RECTANGULAR TO RADIUS CORNERS WITH
HAND OPERATED ROLLER AT SHEETMETAL SHOP
PER RECTANGULAR TO RADIUS CORNERS OFG: 4 17-MAY-83
NASSCO SHEETMETAL SHAPE 9
* 16 GAUGE GALV. SHEETMETAL
* 30'X15' TO 25'X20' RADIUS CORNERS 40'L
* WITH 5' RADIUS CORNERS
FITTER BEGINS AT WORKBENCH

1 POSITION SHEETMETAL FROM CART AT WORKBENCH TO
HAND-ROLLER AT WORKBENCH WITH 4 STEPS
   A1 B0 G1 A6 B0 P6 A0 1.00 140.
2 FASTEN BOLT [ROLLS] TO SHEETMETAL AT WORKBENCH 3 SPINS
   USING FINGERS F 4
   A1 B0 G1 A1 B0 P1 F6 A0 B0 P0 A0 4.00 400.
3 CRANK HAND-ROLLER AT WORKBENCH 3 REVS USING HAND F 8
   A1 B0 G1 M6 X0 I0 A0 8.00 640.
4 PLACE SHEETMETAL FROM HAND-ROLLER AT WORKBENCH TO
SHEETMETAL AT WORKBENCH 3 SPINS
   A1 B0 G1 A67 B3 P3 A0 8.00 6000.
5 REPLACE SHEETMETAL2 FROM WORKBENCH TO CART AT WORKBENCH
   A67 B3 G1 A6 B0 P3 A0 1.00 800.
6 MOVE CART WITH SHEETMETAL2 FROM WORKBENCH TO PANBRAKE
   A1 B0 G1 A32 B0 P1 A0 1.00 350.

TOTAL TMU 8330.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?
Output to line-printer <Y or N> ? N

```
( 39, 1)
FIT .W11
RCT2RC.M36
BEND LAP ENDS FOR RECTANGULAR TO RADIUS CORNERS WITH PAN BRAKE AT
SHEETMETAL SHOP
PER RECTANGULAR TO RADIUS CORNERS
NASSCO SHEETMETAL SHAPE 9
* 16 GAUGE GALV. SHEETMETAL
* 30'X15' TO 25'X20' RADIUS CORNERS 40' L
* WITH 5' RADIUS CORNERS
* KINK UP LAP ENDS ON PAN BRAKE
FITTER BEGINS AT PANBRAKE

1 POSITION SHEETMETAL FROM CART AT PANBRAKE TO PANBRAKE
   WITH 4 STEPS F 2
       A1 B0 G1 A6 B0 P6 A0   2.00   250.

2 FASTEN NUT [JAWS] ON SHEETMETAL AT PANBRAKE 5
   WRIST-STROKES USING WRENCH AT PANBRAKE AND ASIDE
       A1 B0 G1 A1 B0 P3 F16 A1 B0 P1 A0   1.00   240.

3 OPERATE PANBRAKE-LEVER PROCESS F 6
       A1 B0 G1 M6 X96 I0 A0   6.00   6240.

4 REPLACE SHEETMETAL FROM PANBRAKE TO CART AT PANBRAKE
   WITH 4 STEPS
       A1 B0 G1 A6 B0 P3 A0   1.00   110.

5 MOVE CART WITH SHEETMETAL FROM PANBRAKE TO WORKTABLE
       A1 B0 G1 A54 B3 P1 A0   1.00   600.

TOTAL TMU   7470 .
```

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

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93640
```
File Description ? ASSEMBLE RECTANGULAR TO RADIUS CORNERS

Output to line-printer <Y or N> ? N

( 39, 1)
FIT * W1
RCT2RC.M37
ASSEMBLE RECTANGULAR TO RADIUS CORNERS WITH RIVET GUN AT
SHEETMETAL SHOP
PER RECTANGULAR TO RADIUS CORNERS OFG: 4 17-MAY-83
NASSCO SHEETMETAL SHAPE 9
* 16 GAUGE GLAV. SHEETMETAL
* 30'X15' TO 25'X20' RADIUS CORNERS 40'L
* WITH 5' RADIUS CORNERS
FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0 2.00 220.

2 POSITION SHEETMETAL FROM WORKTABLE TO SHEETMETAL AT WORKTABLE
   A1 B0 G1 A1 B0 P6 A0 1.00 90.

3 GRIP SHEETMETAL TO SHEETMETAL AT WORKTABLE USING VISEGRIPS AT WORKTABLE AND ASIDE PF 2 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P3 C1 )A1 B0 P1 A0 (2) 1.00 140.

4 FASTEN 5-32DRILLBIT TO DRILLMOTOR AT WORKTABLE 3 WRIST-STROKES USING CHUCKKEY AND ASIDE
   A1 B0 G1 A1 B0 P3 F10 A1 B0 P1 A0 1.00 180.

5 POSITION DRILLMOTOR FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 2
   A1 B0 G1 A1 B0 P6 A0 2.00 180.

6 OPERATE DRILLMOTOR AT WORKTABLE PROCESS F 2
   A1 B0 G1 B0 X6 I0 A0 2.00 280 .

7 POSITION RIVET FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 2
   A1 B0 G1 A1 B0 P6 A0 2.00 180.

8 POSITION RIVETGUN FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 2
   A1 B0 G1 A1 B0 P6 A0 2.00 180.

9 OPERATE RIVETGUN AT WORKTABLE PROCESS F 2
   A1 B0 G1 M6 X3 I0 A0 2.00 220.

TOTAL TMU 1670.

Type D, EM, CT, EW, EX, L, LD,LS, M, T, W <or H for help> ?
File Description ? TACK RADIUS CORNERS ON RECT. TO RADIUS CORNERS

output to line-printer <Y or N> ? N

( 39, 1)

FIT       RCT2RC.M38
TACK RADIUS CORNERS ON RECTANGULAR TO RADIUS CORNERS WITH TACK WELDER AT SHEETMETAL SHOP
PER RECTANGULAR TO RADIUS CORNERS
NASSCO SHEETMETAL SHAPE 9
* 16 GAUGE GALV. SHEETMETAL
* 30'X15' TO 25'X20' RADIUS CORNERS
* 40'L WITH 5' RADIUS CORNERS
* COMPLETE WELDING IN MWELD PROGRAM
* WELDING DONE IN WELD BOOTH AREA
* SEE RCT2RC.M39
FITTER BEGINS AT WORKTABLE

1 MOVE CCLAMPS, SHEETMETAL FROM WORKTABLE TO WELDOUT
   A1 B0 G1 A54 B3 P1 A0 1.00 600.

2 POSITION SHEETMETAL FROM WELDOUT TO SHEETMETAL AT WELDOUT F 4
   A1 B0 G1 A1 B0 P6 A0 4.00 360.

3 GRIP SHEETMETAL AT WELDOUT USING CCLAMPS AT WELDOUT AND ASIDE PF 12 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P3 C1 )A1 B0 P1 A0 (12) 1.00 640.

4 POSITION TACKWELDER TO SHEETMETAL AT WELDOUT F 24
   A1 B0 G1 A1 B0 P6 A0 24.00 2160.

5 OPERATE TACKWELDER PROCESS F 24
   A1 B0 G1 M6 X3 I0 A0 24.00 2640.

6 HOVE SHEETMETAL2, CCLAMPS FROM WELDOUT TO WORKTABLE
   A1 B0 G1 A54 B3 P1 A0 1.00 600.

TOTAL TMU    7000.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

10 2 3 1 0
File Description ? WELD RECTANGULAR TO RADIUS CORNERS

Output to line-minter <Y or N> ? N

( 39, 3) WELD W01 RCT2RC.M39

WELD RECTANGULAR TO RADIUS CORNERS WITH TIG-WELDER AT SHEETMETAL SHOP WELDING BOOTH

PER RECTANGULAR TO RADIUS CORNERS OFG: 4 14-JUL-83

WELDING NASSCO SHEETMETAL SHAPE 9
* 16 GAUGE GALV. SHEETMETAL
* 30X15 TO 25X02 RADIUS CORNERS 40' LG
* ---WITH 5' RADIUS CORNERS
* WELDING DONE IN WELD AREA BOOTH
* GAS TUNGSTEN ARC WELDING
* WORK PERFORMED BY WELDOR
* FITTER TRANSPORTS SHEETMETAL

FITTER BEGINS AT WORKTABLE

1 FITTER PLACE SHEETMETAL ASSEMBLY FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 110.

2 FITTER MOVE CART FROM WORKTABLE TO WELDTABLE
   A1 B0 G1 A131B3 P1 A0 1.00 1370.

3 PLACE SHEETMETAL ASSEMBLY FROM CART AT WELDTABLE TO WELDTABLE WITH 4 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 110.

4 WELDOR PUSH POWER SUPPLY BUTTON FROM OFF AT WELDMACHINES TO ON AT WELDMACHINES WITH 16 STEPS
   A3 B0 G1 M1 X0 I0 A32 1.00 370.

5 WELDOR PUSH GAS-HOOKUP-SWITCH FROM OFF AT WELDMACHINES TO ON AT WELDMACHINES
   A0 D A1 B0 G1 M1 X0 I0 A1 1.00 40.

6 WELDOR FASTEN CURRENT SELECTOR HANDLE AT WELDMACHINES 1 WRIST-TURN USING HAND
   A1 B0 G1 A1 B0 P1 F3 A0 B0 P0 A0 1.00 70.

7 WELDOR TURN OUTPUT CONTROL LEVER FROM OFF AT WELDMACHINES TO ON AT WELDMACHINES
   A1 B0 G1 M3 X0 I0 A1 1.00 60.

8 WELDOR POSITION ANTI-SPATTER SPRAY CAN FROM WELDTABLE TO SHEETMETAL ASSEMBLY AT WELDTABLE F 4
   A3 B3 G1 A1 B0 P6 A0 4.00 560.

9 WELDOR PUSH ANTI-SPATTER2 SPRAY CAN PROCESS F 4
   A1 B0 G1 M1 X10 I0 A0 4.00 520.

10 WELDOR POSITION WELDROD FROM WELDTABLE TO SHEETMETAL ASSEMBLY AT WELDTABLE (F 4)
   A1 B0 G1 A1 B0 P6 A0 4.00 360.

11 PULL WELDHOOD FROM UP AT WELDOR TO DOWN AT WELDOR F 4
   A1 B0 G1 M1 X0 I0 A1 4.00 160.

12 WELDOR POSITION WELDGUN FROM WELDTABLE TO SHEETMETAL ASSEMBLY AT WELDTABLE WITH PARTIAL BEND (F 4)
   A1 B0 G1 A1 B6 P6 A0 4.00 600.

13 OPERATE WELD STINGER-BUTTON1 PROCESS F 4
   A1 B0 G1 M6 X81 I0 A0 4.00 3960.

14 PUSH WELDHOOD FROM DOWN AT WELDOR TO UP AT WELDOR F 4
   A1 B0 G1 M1 X0 I0 A1 4.00 160.

15 WELDOR DEBURR WELDED ASSEMBLY AT WELDTABLE 1 ARM-STROKE
USING WIREBRUSH AT WELDABLE AND ASIDE PF 40 (4 5 6 7)

16 REPLACE SHEETMETAL ASSEMBLY FROM WELDTABLE TO CART AT WELDABLE WITH 4 STEPS

17 FITTER MOVE CART FROM WELDABLE TO WORKABLE

TOTAL TMU 10740.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help>?
File Description ? RIVET RECTANGULAR TO RADIUS CORNERS

Output to line-printer <Y or N> ? N

( 39, 1)
FIT  W11 RCT2RC.M40
RIVET RECTANGULAR TO RADIUS CORNERS WITH RIVET GUN AT SHEETMETAL
SHOP
PER RECTANGULAR TO RADIUS CORNERS OFG: 4 17-MAY-83
NASSCO SHEETMETAL SHAPE 9
* 16 GAUGE GALV. SHEETMETAL
* 30'X15' TO 25'X20' RADIUS CORNERS
* 40'L WITH 5' RADIUS CORNERS
* SEAL RIVET HEADS AND SEAMS WITH SEALANT
FITTER BEGINS AT WORKTABLE

1 POSITION RIVET-HOLE-GUIDE FROM WORKTABLE TO SHEETMETAL
   AT WORKTABLE WITH 3 STEPS F 2
   A1 B0 G1 A6 B0 P6 A0 2.00 280.

2 MARK RIVET HOLES FORM RIVET-HOLE-GUIDE AT WORKTABLE 1
   DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 ( 4
   5 6 7 )
   A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (52) 1.00 2640.

3 POSITION DRILLMOTOR FROM WORKTABLE TO SHEETMETAL AT
   WORKTABLE WITH 2 STEPS F 52
   A1 B0 G1 A3 B0 P6 A0 52.00 5720.

4 OPERATE DRILLMOTOR AT WORKTABLE PROCESS F 52
   A1 B0 G1 M6 X6 I0 A0 52.00 7280.

5 POSITION RIVET FROM WORKTABLE TO SHEETMETAL AT
   WORKTABLE F 52
   A1 B0 G1 A1 B0 P6 A0 52.00 4680.

6 POSITION RIVETGUN FROM WORKTABLE TO SHEETMETAL AT
   WORKTABLE F 52
   A1 B0 G1 A1 B0 P6 A0 52.00 4680.

7 OPERATE RIVETGUN PROCESS F 52
   A1 B0 G1 M6 X3 I0 A0 52.00 5720.

8 POSITION CAULKINGGUN FROM WORKTABLE TO SHEETMETAL AT
   WORKTABLE F 52
   A1 B0 G1 A1 B0 P6 A0 52.00 4680.

9 GRIP SEALANT TO SHEETMETAL AT WORKTABLE USING
   CAULKINGGUN AND ASIDE F 52
   A1 B0 G1 A1 B0 P3 C1 A1 B0 P1 A0 52.00 4680.

10 INSPECT SHEETMETAL AT WORKTABLE 9 POINTS
   A0 B0 G0 A0 B0 P0 T10 A0 B0 P0 A0 1.00 100.

TOTAL TMU 40460.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

143, 470
**Mossco Computer Systems**

**Title and Method Specification Sheet**

**Activity:** MARK

**Object:** SHEETMETAL

**Tool:** AWL

**Mark out Sheetmetal for rectangle to radius corners**

**Special Conditions / Key Points:**
- #9 16 gauge galv 3' x 15'6" x 20' radius corners 40
- With 5" radius corners
- Mark out with template

<table>
<thead>
<tr>
<th>NO.</th>
<th>KEYWORD / METHOD DESCRIPTION</th>
</tr>
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<tbody>
<tr>
<td>1.</td>
<td>Position template from workable to sheetmetal at workable F-2</td>
</tr>
<tr>
<td>2.</td>
<td>Position weights from workable to template at workable F-8</td>
</tr>
<tr>
<td>3.</td>
<td>Mark outline from template to sheetmetal at workable 5 digits using awl at workable F-16</td>
</tr>
<tr>
<td>4.</td>
<td>Position crouch from workable to template at workable F-40</td>
</tr>
<tr>
<td>5.</td>
<td>Fasten crouch to template at workable 1 strike using hammer at workable and aside Pf-6</td>
</tr>
<tr>
<td>6.</td>
<td>Remove weights from template at workable 1 workable F-8</td>
</tr>
<tr>
<td>7.</td>
<td>Remove template from sheetmetal to workable at workable F-2</td>
</tr>
<tr>
<td>8.</td>
<td>Mark c.1 lines on sheetmetal at workable 5 digits using red pen at workable and aside Pf-16</td>
</tr>
<tr>
<td>9.</td>
<td>Mark construction information on sheetmetal at workable 1 digit using black pen at workable and aside Pf-84</td>
</tr>
<tr>
<td>10.</td>
<td>Mark identification on sheetmetal at workable 1 digit using black pen at workable and aside Pf-5</td>
</tr>
<tr>
<td>11.</td>
<td>Measure dimension on sheetmetal at workable using steel tape at workable and aside Pf-5</td>
</tr>
<tr>
<td>12.</td>
<td>Mark dimension on sheetmetal at workable 1 digit using awl at workable and aside Pf-6</td>
</tr>
<tr>
<td>NO.</td>
<td>KEYWORD / METHOD DESCRIPTION</td>
</tr>
<tr>
<td>-----</td>
<td>------------------------------</td>
</tr>
<tr>
<td>13</td>
<td>Position straight edge from workable to sheetmetal at workable and aside PE-16</td>
</tr>
<tr>
<td>14</td>
<td>Mark sheetmetal from straight edge at workable 5 digits using awl at workable and aside PE-5</td>
</tr>
<tr>
<td>15</td>
<td>Mark cut line on sheetmetal at workable 5 digits using red pen at workable and aside PE-5</td>
</tr>
<tr>
<td>16</td>
<td>Mark construction information on sheetmetal at workable 1 digit using black pen at workable and hold PE-72</td>
</tr>
<tr>
<td>17</td>
<td>Mark identification on sheetmetal at workable 1 digit using black pen at workable and aside PE-52</td>
</tr>
<tr>
<td>18</td>
<td>Place sheetmetal from workable to cart at workable with 4 steps</td>
</tr>
<tr>
<td>19</td>
<td>Move cart from workable to small shear</td>
</tr>
<tr>
<td>Task</td>
<td>Time</td>
</tr>
<tr>
<td>-------------</td>
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<td>Fab</td>
<td>36570</td>
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<tr>
<td>Mark out</td>
<td>23000</td>
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<tr>
<td>Weld</td>
<td>39710</td>
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<td>Total TMU</td>
<td>99280</td>
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</table>
MARK OUT RECTANGULAR TO RADIUS CORNERS

output to line-printer <Y or N> ? N

( 39, 1)
FIT .W11

RCTZRC.M50

MARK OUT RECTANGULAR TO RADIUS CORNERS WITH AWL AT SHEETMETAL

SHOP

PER RECTANGULAR TO RADIUS CORNERS OFG: 4 17-MAY-83

NASSCO SHEETMETAL SHAPE 9

* 1# GAUGE GALV. SHEETMETAL
* 20'x12' TO 16'x8' RADIUS CORNER 30'L
'4 WITH 2' RADIUS CORNERS
* MARK OUT USING TEMPLATE
FITTER BEGINS AT WORKTABLE

1 POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS F 2
  A1 B0 G1 A3 B0 P6 A0 2.00 220.

2 POSITION WEIGHTS FROM WORKTABLE TO TEMPLATE AT WORKTABLE WITH 3 STEPS F 6
  A1 B0 G1 A6 B0 P6 A0 6.00 840.

3 MARK OUTLINE FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 16 ( 4 5 6 7 )
  A1 B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (16) 1.00 2920.

4 POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 30
  A1 B0 G1 A1 B0 P6 A0 30.00 2700.

5 FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE AND ASIDE PF 30 ( 4 5 6 7 )
  A1 B0 G1 (A1 B0 P0 F3 )A1 B0 P1 A0 (30) 1.00 1240.

6 REMOVE WEIGHTS FROM TEMPLATES AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 6
  A1 B0 G1 A6 B0 P1 A0 6.00 540.

7 REMOVE TEMPLATE FROM SHEETMETAL AT WORKTABLE TO WORKTABLE WITH 3 STEPS F 2
  A1 B0 G1 A6 B0 P1 A0 2.00 180.

8 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 16 ( 4 5 6 7 )
  A1 B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (16) 1.00 2920.

9 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE
  A1 B0 G1 A1 B0 P1 R3 A1 B0 P1 A0 1.00 90.

10 MARK IDENTIFICATION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 ( 4 5 6 7 )
  A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (52) 1.00 2640.

11 MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE PF 5 ( 4 5 6 7 )
  A1 B0 G1 (A1 B0 P1 M32 )A1 B0 P1 A0 (5) 1.00 1740.

12 MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF 5 ( 4 5 6 7 )
  A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (5) 1.00 290.

13 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS
14 MARK SHEETMETAL FROM STRAIGHTEDGE AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF 5 (4 5 6 7)
   A1 B0 G1 (A1 B0 P1 R3) A1 B0 P1 A0 (5) 1.00 290.
15 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REOPEN AT WORKTABLE AND ASIDE PF 5 (4 5 6 7)
   A1 B0 G1 (A1 B0 P1 R16) A1 B0 P1 A0 (5) 1.00 940.
16 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 32 (4 5 6 7)
   A1 B0 G1 (A1 B0 P1 R3) A1 B0 P1 A0 (32) 1.00 1640.
17 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 (4 5 6 7)
   A1 B0 G1 (A1 B0 P1 R3) A1 B0 P1 A0 (52) 1.00 1640.
18 PLACE SHEETMETAL 2 FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0 2.00 220.
19 MOUE CART WITH SHEETMETAL FROM WORKTABLE TO 14FT. SHEAR
   A1 B0 G1 A81 B0 P1 A0 1.00 840.

TOTAL TMU  23000.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?
File Description? SHEAR SHEETMETAL FOR RECTANGULAR TO RADIUS CORNERS

File Description?

Output to line-printer <Y or N> ? N

( 39, 1)
FIT .W11 RCT2RC.M51

SHEAR SHEETMETAL FOR RECTANGULAR TO RADIUS CORNERS WITH
14FT. SHEAR AT SHEETMETAL SHOP
PER RECTANGULAR TO RADIUS CORNERS OFG: 4 17-MAY-83

NASSCO SHEETMETAL SHAPE 9
* 11 GAUGE GALV. SHEETMETAL
* 20'X12' TO 16'X3' RADIUS CORNERS 30'L
* WITH 2' RADIUS CORNERS
FITTER BEGINS AT 14FT.SHEAR

1 POSITION SHEETMETAL2 FROM CART AT 14FT. SHEAR TO
14FT. SHEAR WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P6 A0  2.00  280.
2 PUSH 14FT. SHEAR-FOOTPEDAL PROCESS F 2
   A1 B0 G1 M1 X3 I0 A0  2.00  120.
3 POSITION SHEETMETAL2 FROM 14FT. SHEAR TO 14FT. SHEAR F 15
   A1 B0 G1 A1 B0 P6 A0  15.00  1350.
4 PUSH 14FT. SHEAR-FOOTPEDAL PROCESS F 15
   A1 B0 G1 M1 X3 I0 A0  15.00  900.
5 REPLACE SHEETMETAL FROM 14FT. SHEAR TO CART AT
14FT. SHEAR WITH 4 STEPS
   A1 B0 G1 A6 B0 P3 A0  1.00  110.
6 MOVE CART WITH SHEETMETAL2 FROM 14FT. SHEAR TO WORKTABLE
   A1 B0 G1 A81 B3 P1 A0  1.00  870.

TOTAL TMU 3630.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?
File Description ? CUT RADIUS FOR RECTANGULAR TO RADIUS CORNERS

Output to line-Printer <Y or N> ? N

( 39, 1)
FIT .W11 RCT2RC.M52
CUT RADIUS FOR RECTANGULAR TO RADIUS CORNERS WITH SABER-SAW AT SHEETMETAL SHOP
PER RECTANGULAR TO RADIUS CORNERS OFG: 4 17-MAY-83
NASSCO SHEETMETAL SHAPE 9
* 11 GAUGE GALV. SHEETMETAL
* 20'X12' TO 16'X8' RADIUS CORNERS
* 30'1 WITH 2' RADIUS CORNERS
FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 110.

2 MOVE SABER-SAW2, SAW-BLADES2 FROM TOOLROOM TO WORKTABLE
   A96 B0 G1 A96 B3 P1 A0 1.00 1970.

3 FASTEN NUT [SAW BLADES] AT WORKTABLE 4 WRIST-TURNS USING ALLEN-WRENCH AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P3 F10 )A1 B0 P1 A0 (4) 1.00 600.

4 OPERATE SABER-SAW AT WORKTABLE PROCESS F 3
   A1 B0 G1 M6 X67 I0 A0 3.00 2250.

5 FASTEN [FLATTEN] SHEETMETAL AT WORKTABLE 3 STRIKES USING HAMMER AT-WORKTABLE AND ASIDE PF 16 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P0 F6 )A1 B0 P1 A0 (16) 1.00 1160.

6 REPLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 110.

7 MOUE CART WITH SHEETMETAL FROM WORKTABLE TO 14FTHYDROPRESSBRAKE
   A1 B0 G1 A96 B0 P1 A0 1.00 990.

TOTAL TMU 7190.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

16820
File Description ? BEND RADIUS FOR RECTANGULAR TO RADIUS CORNERS

Output to line-printer <Y or N>? N

( 39, 1)
FIT .W11 RCT2RC.M53
  BEND RADIUS FOR RECTANGULAR TO RADIUS CORNERS WITH
14FT. HYDRO-PRESS-BRAKE AT SHEETMETAL SHOP
PER RECTANGULAR TO RADIUS CORNERS

  NASSCO SHEETMETAL SHAPE 9
  * 11 GAUGE GALV. SHEETMETAL
  * 20'X12' TO 16'X8' RADIUS CORNERS
  * 30'L WITH 2' RADIUS CORNERS
  * KINK DOWN LAP ENDS
FITTER BEGINS AT 14FTHYDROPRESSBRAKE

1 POSITION SHEETMETAL FROM CART AT 14FTHYDROPRESSBRAKE
  TO 14FTHYDROPRESSBRAKE WITH 2 STEPS F 2
  A1 B0 G1 A3 B0 P6 A0 2.00 220.
2 PUSH 14FTHYDROPRESSBRAKE-FOOTPEDAL PROCESS F 2
  A1 B0 G1 M1 X24 I0 A0 2.00 540.
3 POSITION SHEETMETAL FROM 14FTHYDROPRESSBRAKE TO
  14FTHYDROPRESSBRAKE F 40
  A1 B0 G1 A1 B0 P6 A0 40.00 3600.
4 PUSH 14FTHYDROPRESSBRAKE-FOOTPEDAL PROCESS F 40
  A1 B0 G1 M1 X24 I0 A0 40.00 10800.
5 REPLACE SHEETMETAL FROM 14FTHYDROPRESSBRAKE TO CART AT
  14FTHYDROPRESSBRAKE WITH 4 STEPS
  A1 B0 G1 A6 B0 P3 A0 1.00 110.
6 MOUE CART WITH SHEETMETAL FROM 14FTHYDROPRESSBRAKE TO
  ROLLER
  A1 B0 G1 A54 B0 P1 A0 1.00 570.

  TOTAL TMU 15840.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

26660
Please input file <RCT2RC.M54> ?

File Description ? FORM RADIUS FOR COLLAR FOR RECT. TO RADIUS CORNERS

File Description ?

Output to line-Printer <Y or N> ? N

( 39, 1)
FIT .W11 RCT2RC.M54
FORM RADIUS FOR COLLAR ON RECTANGULAR TO RADIUS CORNERS WITH ROLLER (ROLL FORMER) AT SHEETMETAL SHOP PER RECTANGULAR TO RADIUS CORNERS OFG: 4 18-MAY-83
NASSCO SHEETMETAL SHAPE 9
* 11 GAUGE GALV. SHEETMETAL
* 20'X12' TO 16'X8' RADIUS CORNERS 30'L
* WITH 2' RADIUS CORNERS
* COMPLETE IN WELD BOOTH AREA
* SEE RCT2RC.M55
* COMPLETE WITH MWELD
FITTER BEGINS AT ROLLER

1 PLACE SHEETMETAL FROM CART AT ROLLER TO ROLLER WITH 4 STEPS
A1 B0 G1 A6 B0 P3 A0 1.00 110.

2 FASTEN BOLT [ROLLS] TO SHEETMETAL AT ROLLER 3 WRIST-TURNS USING HAND F 2
A1 B0 G1 A1 B0 P1 F6 A0 B0 P0 A0 2.00 200.

3 PUSH ROLLER-BUTTON PROCESS F 8
A1 B0 G1 M1 X96 I0 A0 8.00 7920.

4 PLACE SHEETMETAL FROM ROLLER TO SHEETMETAL AT ROLLER WITH 2 STEPS F 8
A1 B0 G1 A3 B0 P3 A0 8.00 640.

5 REPLACE SHEETMETAL FROM ROLLER TO CART AT ROLLER WITH 4 STEPS F 4
A1 B0 G1 A6 B0 P3 A0 4.00 440.

6 MOVE CART WITH SHEETMETAL FROM ROLLER TO WORKTABLE
A1 B0 G1 A54 B3 P1 A0 1.00 600.

TOTAL TMU 9910.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

36590
AZ

File Description ? WELD RECTANGULAR TO RADIUS CORNERS

Output to line-printer <Y or N> ? N

( 39,101)
WELD .WO1

RCT2RC.M55

WELD RECTANGULAR TO RADIUS CORNERS WITH ARC (STICK) WELDER AT SHEETMETAL SHOP WELDING BOOTH

PER RECTANGULAR TO RADIUS CORNERS

WELDING NASSCO SHEETMETAL SHAPE 9

* 11 GAUGE GALV. SHEETMETAL

* 20'X12' TO 16'X8' RADIUS CORNERS 30' L

* ---WITH 2' RADIUS CORNERS

FITTER BEGINS AT WORKTABLE

FITTER PLACE SHEETMETAL ASSEMBLY FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2

A1 B0 G1 A6 B0 P3 A0 2.00 220.

2 FITTER MOUE CART FROM WORKTABLE TO WELDTABLE

A1 B0 G1 A13I3 B3 P1 A0 1.00 1370.

3 PLACE SHEETMETAL FROM CART AT WELDTABLE TO WELDTABLE WITH 4 STEPS F 2

A1 B0 G1 A6 B0 P3 A0 2.00 220.

4 WELDOR PUSH POWER SUPPLY BUTTON FROM OFF AT WELDMACHINES TO ON AT WELDMACHINES WITH 16 STEPS

A3 B0 G1 M1 X0 I0 A32 1.00 370.

5 WELDOR TURN CURRENT OUTPUT CONTROL LEVER FROM OFF AT WELDMACHINES TO ON AT WELDMACHINES

A1 B0 G1 M3 X0 I0 A1 1.00 60.

6 WELDOR POSITION ANTI-SPATTER SPRAY CAN FROM WELDTABLE TO SHEETMETAL ASSEMBLY AT WELDTABLE F 6

A3 B3 G1 A1 B0 P6 A0 6.00 840.

7 WELDOR PUSH ANTI-SPATTER2 SPRAY CAN PROCESS F 6

A1 B0 G1 M1 X10 I0 A0 6.00 780.

8 WELDOR FASTEN WELDROD TO STINGER AT WELDTABLE

WRIST-TURN USING HAND F 18

A1 B0 G1 A1 B0 P1 F3 A0 B0 P0 A0 18.00 1260.

9 PULL WELDHOOD FROM UP AT WELDOR TO DOWN AT WELDOR F 18

A1 B0 G1 M1 X0 I0 A1 18.00 720.

10 WELDOR POSITION STINGER-BUTTON1 FROM WELDTABLE TO SHEETMETAL ASSEMBLY AT WELDTABLE F 18

A1 B0 G1 A1 B0 P6 A0 13.00 1620.

11 OPERATE WELD STINGER-BUTTON2 AT WELDTABLE PTIME 65 S F 14

A1 B0 G1 M6 X173 I0 A0 14.00 25340.

12 PUSH WELDHOOD FROM DOWN AT WELDOR TO UP AT WELDOR F 18

A1 B0 G1 M1 X0 I0 A1 18.00 720.

13 WELDOR LOOSEN SLAG FROM SHEETMETAL ASSEMBLY AT WELDTABLE 6 STRIKES USING SLAGHAMMER AT WELDTABLE AND ASIDE PF 7 ( 4 5 6 7 )

A1 B0 G1 (A1 B0 P0 L16 )A1 B0 P1 A0 (7) 1.00 1230.

14 WELDOR DEBURR WELDED ASSEMBLY AT WELDTABLE 10 ARM-STROKES USING WIREBRUSH AT WELDTABLE AND ASIDE PF 28 ( 4 5 6 7 )

A1 B0 G1 (A1 B0 P1 C10 )A1 B0 P1 A0 (28) 1.00 3400.

15 REPLACE SHEETMETAL ASSEMBLY FROM WELDTABLE TO CART AT WELDTABLE WITH 4 STEPS F 2
<table>
<thead>
<tr>
<th>File Description</th>
<th>Output to line-printer</th>
</tr>
</thead>
<tbody>
<tr>
<td>WELD RECTANGULAR TO RADIUS CORNERS</td>
<td>&lt;Y or N&gt;</td>
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TOTAL TMU 39710.
SHEET METAL SHAPE # 10

10" x 6" to 8" x 6" x 10" LG. FLAT OVAL

<p>| | | |</p>
<table>
<thead>
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<tbody>
<tr>
<td>FAB</td>
<td>68,230</td>
<td>41 M.</td>
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<tr>
<td>MARK OUT</td>
<td>30,260</td>
<td>18 M.</td>
</tr>
<tr>
<td>WELD</td>
<td>17,570</td>
<td>10 M.</td>
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<td>TOTAL</td>
<td>116,060</td>
<td>69 M.</td>
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</table>
File Description: MARK OUT FLAT OVAL TO RADIUS CORNERS

Output to line-printer <Y or N> ? N

FIT .W11 .02RC . M01

MARK OUT SHEETMETAL FOR FLAT OVAL TO RADIUS CORNERS WITH AWL AT SHEETMETAL SHOP
PER FLAT OVAL TO RADIUS CORNERS OFG: 4 05-MAY-83
NASSCO SHEETMETAL SHAPE 10
* 22 GAUGE GALV. SHEETMETAL
* 10'X6' R.C. TO 8'X6' F.O. 10'L
* MARK OUT FLAT OVAL WITH TEMPLATE
* MARK OUT R.C. & COLLAR WITHOUT TEMPLATE
FITTER BEGINS AT WORKTABLE

1. POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P6 A0 2.00 280.

2. POSITION WEIGHTS FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 4 STEPS F 4
   A1 B0 G1 A6 B0 P6 A0 4.00 560.

3. MARK SHEETMETAL FROM TEMPLATE AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 10 (4567)
   A1 B0 G1 (A1 B0 P1 R16) A1 B0 P1 A0 (10) 1.00 1840.

4. POSITION CPUNCH FROM WORKTABLE TO TEMPLATE AT WORKTABLE F 64
   A1 B0 G1 A1 B0 P6 A0 64.00 5760.

5. FASTEN CPUNCH TO TEMPLATE AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE AND ASIDE PF 64 (4567)
   A1 B0 G1 (A1 B0 P0 F3) A1 B0 P1 A0 (64) 1.00 2600.

6. REPLACE WEIGHTS FROM TEMPLATE AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 4
   A1 B0 G1 A6 B0 P3 A0 4.00 440.

7. REPLACE TEMPLATE FROM SHEETMETAL AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0 2.00 220.

8. MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 10 (4567)
   A1 B0 G1 (A1 B0 P1 R16 > A1 B0 P1 A0 (10) 1.00 1840.

9. MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 86 (4567)
   A1 B0 G1 (A1 B0 P1 R3) A1 B0 P1 A0 (86) 1.00 4340.

10. MARK IDENTIFICATION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 (4567)
    A1 B0 G1 (A1 B0 P1 R3) A1 B0 P1 A0 (53) 1.00 2640.

11. MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE PF 3 (4567)
    A1 B0 G1 (A1 B0 P1 M32) A1 B0 P1 A0 (3) 1.00 1060.

12. MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF 6 (4567)
    A1 B0 G1 (A1 B0 P1 R3) A1 B0 P1 A0 (6) 1.00 340.

13. POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS F 5
    A1 B0 G1 A6 B0 P6 A0 5.00 700.
MARK SHEETMETAL FROM STRAIGHTEDGE AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 5 (4 5 6 7 )
A1 B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (5) 1.00 940 .
MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 86 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (86) 1.00 4340.
MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 28 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (28) 1.00 1440.
PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2
A1 B0 G1 A6 B0 P3 A0 2.00 220.
MOVE CART WITH SHEETMETAL FROM WORKTABLE TO SMALLSHEAR A1 B0 G1 A67 B0 P1 A0 1.00 700.
TOTAL TMU 30260.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?
File Description ? SHEAR SHEETMETAL FOR FLAT OVAL TO RADIUS CORNERS

output to line-Printer <Y or N> ? N

( 39, 1)
FIT .W11 F02RC.M02
SHEAR SHEETMETAL FOR FLAT OVAL TO RADIUS CORNERS WITH
SMALL 8FT. SHEAR AT SHEETMETAL SHOP
PER FLAT OVAL TO RADIUS OCRNERS OFG: 4 05-MAY-83
NASSCO SHEETMETAL SHAPE 10
* 22 GAUGE GALV. SHEETMETAL
* 10''X6''R.C. TO 8''X6''F.O. 10'' L
* SHEAR 1 1/2' STRIPS FOR CORNERS
FITTER BEGINS AT SMALLSHEAR

1 POSITION SHEETMETAL FROM CART AT SMALLSHEAR TO
SMALLSHEAR WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P6 A0 2.00 280.
2 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 2
   A1 B0 G1 M1 X6 I0 A0 2.00 180.
3 POSITION SHEETMETAL FROM SMALLSHEAR TO SMALLSHEAR WITH
   STEPS F 14
   A1 B0 G1 A3 B0 P6 A0 14.00 1540.
4 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 14
   A1 DO G1 M1 X6 I0 A0 14.00 1260.
5 REPLACE SHEETMETAL FROM SMALLSHEAR TO CART AT
SMALLSHEAR WITH 10 STEPS F 2
   A1 B0 G1 A16 B0 P3 A0 2.00 420.
6 MOUE CART WITH SHEETMETAL FROM SMALLSHEAR TO WORKTABLE
   A1 B0 G1 A67 B3 P1 A0 1.00 730.

TOTAL TMU 4410.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

200 \# 5410 = 5110
Invalid File Name.

Please input file <R02RC>.M03 > ?

File Description ? SHEAR RADIUS FLAT OVAL TO RADIUS CORNERS

Output to line-printer <Y or N> ? N

(39, 1)
FIT .W11 R02RC .M03
SHEAR SHEETMETAL FOR RADIUS FLAT OVAL TO RADIUS CORNERS WITH
UNI-SHEAR AT SHEETMETAL SHOP
PER FLAT OVAL TO RADIUS CORNERS
OFG: 4 01-JUL-83
NASSCO SHEETMETAL SHAPE 10
* 22 GAUGE GALV. SHEETMETAL
* 10'X6' TO 8'X6' R.C./F.O. 10'L
FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE
   WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0 2.00 220.

2 MOVE UNI-SHEAR2 FROM TOOLROOM TO WORKTABLE
   A96 B0 G1 A96 B3 P1 A0 1.00 1970.

3 OPERATE UNISHEAR PROCESS F 10
   A1 B0 G1 M6 X17310 A0 10.00 18100.

4 CUT CORNERS ON SHEETMETAL AT WORKTABLE 2 CUTS USING
   SNIPES AT WORKTABLE AND ASIDE PF 8 (4 5 6 7 )
   A1 B0 G1 (A1 B0 P3 C3 )A0 B0 P1 A0 (8) 1.00 600.

5 FASTEN (FLATTEN) CORNERS ON SHEETMETAL AT WORKTABLE 3
   STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 20 (4
   5 6 7 )
   A1 B0 G1 (A1 B0 P0 F6)A1 B0 P1 A0 (20) 1.00 1440.

6 REPLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE
   WITH 4 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 110.

7 MOVE CART FROM WORKTABLE TO LAPOUT
   A1 B0 G1 A54 B0 P1 A0 1.00 570,

TOTAL TMU 23010.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ? 28120
File Description ? FORM LAP ENDS FOR FLAT OVAL TO RADIUS CORNERS

Output to line-Printer <Y or N> ? N

(39, 1)
FIT .W11 F02RC.M04
FORM LAP ENDS FOR FLAT OVAL TO RADIUS CORNERS WITH LAPOUT MACHINE
AT SHEETMETAL SHOP
PER FLAT OVAL TO RADIUS CORNERS OFG: 4 01-JUL-83
NASSCO SHEETMETAL SHAPE 10
* 22 GAUGE GALV. SHEETMETAL
* 10'X6' TO 8'X6' R.C./F.O. 10'L
FITTER BEGINS AT LAPOUT

1 POSITION SHEETMETAL FROM CART AT LAPOUT TO LAPOUT WITH
4 STEPS F 2
A1 B0 G1 A6 B0 P6 A0 2.00 280.

2 OPERATE LAPOUT-SWITCH PROCESS F 2
A1 B0 G1 M6 X16 I0 A0 2.00 480.

3 PUSH AND GUIDE SHEETMETAL THROUGH LAPOUT WITH 3 STEPS
F 2
A6 B0 G1 M1 X0 I3 A0 2.00 220.

4 REPLACE SHEETMETAL FROM LAPOUT TO CART AT LAPOUT WITH
4 STEPS F 2
A1 B0 G1 A6 B0 P3 A0 2.00 220.

5 HOVE CART FROM LAPOUT TO HAND-ROLLER AT WORKBENCH
A1 B0 G1 A24 B3 P1 A1 1.00 300.

TOTAL TMU 1500,

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

29680
File Description: ROLL UP FLAT OVAL AND RADIUS CORNERS

Output to line-printer <Y or N> ? N

( 39, 1)
FIT .W11  
FORM SHEETMETAL FOR FLAT OVAL AND RADIUS CORNERS WITH HAND ROLLER
AT SHEETMETAL SHOP
PER FLAT OVAL TO RADIUS CORNERS
OFG: 4 OS-MAY-83
NASSCO SHEETMETAL SHAPE 10
* 22 GAUGE GALV. SHEETMETAL
* 10'X6' TO 8'X6' RADIUS CORNER TO
* FLAT OVAL 10' L
FITTER BEGINS AT WORKBENCH

1 POSITION SHEETMETAL FROM CART AT WORKBENCH TO
WORKBENCH WITH 4 STEPS F 6
   A1 B0 G1 A6 B0 P6 A0  6.00  840.
2 FASTEN BOLT [ROLLS] TO SHEETMETAL AT HAND-ROLLER AT
WORKBENCH 3 SPINS USING FINGERS AT WORKBENCH F 10
   A1 B0 G1 A1 B0 P1 F6 A0 B0 P0 A0  10.00  1000.
3 CRANK HAND-ROLLER AT WORKBENCH 3 REVS F 12
   A1 B0 G1 M6 X0 I0 A0  12.00  960.
4 REPLACE SHEETMETAL FROM HAND-ROLLER AT WORKBENCH TO
CART AT WORKBENCH WITH 4 STEPS F 6
   A1 B0 G1 A6 B0 P3 A0  6.00  660.
5 MOVE CART WITH SHEETMETAL FROM WORKBENCH TO LEAFBRAKE
   A1 B0 G1 A10 B0 P1 A0  1.00  130.

TOTAL TMU  3590,

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

33,210
FIT W11 F02RC.M06

BEND SHEETMETAL FOR FLAT OVAL TO RADIUS CORNERS WITH LEAFBRAKE AT SHEETMETAL SHOP

PER FLAT OVAL TO RADIUS CORNERS OFG: 4 06-MAY-83

NASSCO SHEETMETAL SHAPE 10
* 22 GAUGE GALV. SHEETMETAL
* 10'X6' TO 8'X6' RADIUS CORNERS TO
* FLAT OVAL 10'L
FITTER BEGINS AT WORKTABLE

1 MOVE VISEGRIPS FROM WORKTABLE TO LEAFBRAKE
   A1 B0 G1 A81 B0 P1 A0 1.00 840.

2 GRIP ADJUSTMENT ROD ON LEAFBRAKE USING VISEGRIPS AND ASIDE
   A1 B0 G1 A1 B0 P3 C1 A1 B0 P1 A0 1.00 90.

3 POSITION SHEETMETAL FROM CART AT LEAFBRAKE TO LEAFBRAKE WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P6 A0 2.00 280.

4 OPERATE LEAFBRAKE-LEVER PROCESS F 2
   A1 B0 G1 M6 X16 I0 A0 2.00 480.

5 POSITION SHEETMETAL FROM LEAFBRAKE TO LEAFBRAKE F 5437
   A1 B0 G1 A1 B0 P6 A0 54.00 4860.

6 OPERATE LEAFBRAKE-LEVER PROCESS F 54
   A1 B0 G1 M6 X16 I0 A0 54.00 12960.

7 REPLACE SHEETMETAL FROM LEAFBRAKE TO CART AT LEAFBRAKE WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0 2.00 220.

8 MOVE CART WITH SHEETMETAL AND VISEGRIPS FROM LEAFBRAKE TO WORKTABLE.
   A1 B0 G1 A81 B3 P1 A0 1.00 870.

TOTAL TMU 20600.

Type D, EM, CT, EX, T, W <or H for help> ?

57,810
File Description: ASSEMBLE FLAT OVAL TO RADIUS CORNERS

Output to line-printer <Y or N> ? N

( 3.3 9,1)
FIT .W11 F02RC.M07
ASSEMBLE SHEETMETAL FOR FLAT OVAL TO RADIUS CORNERS WITH
RIVET GUN AT SHEETMETAL SHOP
PER FLAT OVAL TO RADIUS CORNERS OFG: 4 06-MAY-83
NASSCO SHEETMETAL SHAPE 10
* 22 GAUGE GALV. SHEETMETAL
* 10'X6' TO RADIUS CORNERS TO
* FLAT OVAL 10' L
* LEAVE-TOP LOOSE UNTIL --
I RADIUS FOR FLAT OVAL IS WELDED
FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE
   WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0 2.00 220.

2 POSITION SHEETMETAL FROM WORKTABLE TO SHEETMETAL AT
   WORKTABLE WITH 3 STEPS
   A1 B0 G1 A6 B0 P6 A0 1.00 140.

3 GRIP SHEETMETAL TO SHEETMETAL AT WORKTABLE USING
   VISEGRIPS AT WORKTABLE AND ASIDE F 2
   A1 B0 G1 A1 B0 P3 C1 A1 B0 P1 A0 2.00 180.

4 FASTEN 5-32DRILLBIT TO DRILLMOTOR AT WORKTABLE
   WRIST-TURNS USING CHUCKKEY AT WORKTABLE AND ASIDE
   A1 B0 G1 A1 B0 P3 F6 A1 B0 P1 A0 1.00 140.

5 POSITION DRILLMOTOR FROM WORKTABLE TO SHEETMETAL AT
   WORKTABLE F 2
   A1 B0 G1 A1 B0 P6 A0 2.00 180.

6 OPERATE DRILLMOTOR PROCESS F 2
   A1 B0 G1 A1 B0 P6 A0 2.00 180.

7 POSITION RIVET FROM WORKTABLE TO SHEETMETAL AT
   WORKTABLE F 2
   A1 B0 G1 A1 B0 P6 A0 2.00 180.
   a OPERATE RIVETGUN PROCESS F 2
   A1 B0 G1 M6 X3 I0 A0 2.00 220.

TOTAL TMU 1540.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?
File Description ? TACK WELD FLAT OVAL TO RADIUS CORNERS

Output to line-Printer <Y or N> ? N

FIT W1
F02RC.M08
WELD SHEETMETAL FOR FLAT OVAL TO RADIUS CORNERS WITH TACK WELDER AT SHEETMETAL SHOP
PER FLAT OVAL TO RADIUS CORNERS OFG: 4 01-JUL-83
NASSCO SHEETMETAL SHAPE 10
* 22 GAUGE GALV. SHEETMETAL
* 10'X6' TO 8'X6' RADIUS CORNERS TO
* FLAT OVAL 10'L
* HOLD R. CORNERS TO ASSEMBLY WITH CCLAMPS
* MOVE TO WELD AREA ON NEXT ANALYSIS
* WELD R. CORNERS & FLAT OVAL TO ASSEMBLY
FITTER BEGINS AT WORKTABLE

1 MOVE CCLAMPS , SHEETMETAL FROM WORKTABLE TO WELDOUT
  A1 B0 G1 A54 B3 P1 A0 1.00 600.
2 POSITION SHEETMETAL FROM TABLE AT WELDOUT TO SHEETMETAL AT WELDOUT WITH 3 STEPS
  A1 B0 G1 A6 B0 P6 A0 1.00 140.
3 GRIP SHEETMETAL TO SHEETMETAL AT WELDOUT USING CCLAMPS AT WELDOUT AND ASIDE PF 20 ( 4 5 6 7 )
  A1 B0 G1 (A1 B0 P3 C1 )A1 B0 P1 A0 (20) 1.00 1040.
4 OPERATE TACKWELDER PROCESS F 28
  A1 B0 G1 M6 X3 I0 A0 28.00 3080.
5 MOVE CCLAMPS , SHEETMETAL FROM WELDOUT TO WORKTABLE
  A1 B0 G1 A54 B3 P1 A0 1.00 600.

TOTAL TMU 5460.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?
File Description ? RIVET FLAT OVAL TO RADIUS CORNERS

Output to line-Printer <Y or N> ? N

FIT .W11 F02RC.M09

RIVET FLAT OVAL TO RADIUS CORNERS WITH RIVET GUN AT SHEETMETAL

SHOP FLAT OVAL TO RADIUS CORNERS OFG: 4 01-JUL-83

NASSCO SHEETMETAL SHAPE 10
* 22 GAUGE GALV. SHEETMETAL
* 10'X6' RADIUS CORNERS TO 8'X6' FLAT OVAL
* COMPLETE RIVETING AFTER FLAT OVAL 10'LG
* RADIUS AND RADIUS CORNERS ARE WELDED
FITTER BEGINS AT WORKTABLE

1 POSITION RIVET-HOLE-GUIDE FROM WORKTABLE TO SHEETMETAL
   AT WORKTABLE WITH 2 STEPS F 2
   A1 B0 G1 A3 B0 P6 A0 2.00 220.

2 HARK RIVET HOLES FROM RIVET-HOLE-GUIDE TO SHEETMETAL AT
   WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF
   1 4 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (14) 1.00 740.

3 POSITION DRILLMOTOR FROM WORKTABLE TO SHEETMETAL AT
   WORKTABLE WITH 3 STEPS F 14
   A1 B0 G1 A6 B0 P6 A0 14.00 1960.

4 OPERATE DRILLMOTOR PROCESS F 14
   A1 B0 G1 M6 X6 I0 A0 14.00 1960.

5 POSITION RIVET FROM WORKTABLE TO SHEETMETAL AT
   WORKTABLE F 14
   A1 B0 G1 A1 B0 P6 A0 14.00 1260.

6 OPERATE RIVETGUN PROCESS F 14
   A1 B0 G1 M6 X3 I0 A0 14.00 1540.

7 GRIP SEALANT TO SHEETMETAL AT WORKTABLE USING
   CAULKINGGUN AT WORKTABLE AND ASIDE PF 8 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P3 C1 )A1 B0 P1 A0 (8) 1.00 440.

TOTAL TMU 8120.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ? 68930
WELD FLAT OVAL TO RADIUS CORNERS

1. FITTER PLACE SHEETMETAL ASSEMBLY FROM WORKTABLE TO CART
   AT WORKTABLE WITH 4 STEPS
   A1 BO G1 A6 BO P3 A0
   1.00 110.

2. FITTER MOVE CART FROM WORKTABLE TO WELDTABLE
   A1 BO G1 A131B3 P1 A0
   1.00 1370.

3. PLACE SHEETMETAL ASSEMBLY FROM CART AT WELDTABLE TO
   WELDTABLE WITH 4 STEPS
   A1 BO G1 A6 BO P3 A0
   1.00 110.

4. WELDOR PUSH POWER SUPPLY BUTTON FROM OFF AT WELDMACHINES TO ON AT WELDMACHINES WITH, 16 STEPS
   A3 BO G1 M1 X0 IO A32
   1.00 370.

5. WELDOR PUSH GAS-HOOKUP-SWITCH FROM OFF AT WELDMACHINES TO ON AT WELDMACHINES
   A1 BO G1 M1 X0 IO A1
   1.00 40.

6. WELDOR FASTEN CURRENT SELECTOR HANDLE AT WELDMACHINES 1 WRIST-TURN USING HAND
   A1 BO G1 A1 BO P1 F3 A0 BO PO A0
   1.00 70.

7. WELDOR TURN OUTPUT CONTROL LEVER FROM OFF AT WELDMACHINES TO ON AT WELDMACHINES
   A1 BO G1 M3 X0 IO A1
   1.00 60.

8. WELDOR POSITION ANTI-SPATTER SPRAY' CAN FROM WELDTABLE TO SHEETMETAL ASSEMBLY AT WELDTABLE F 6
   A3 B3 G1 A1 BO P6 A0
   6.00 840.

9. WELDOR PUSH ANTI-SPATTER2 SPRAY CAN PROCESS F 6
   A1 BO G1 M1 X10 IO A0
   6.00 780.

10. WELDOR POSITION WELDROD FROM WELDTABLE TO SHEETMETAL ASSEMBLY AT WELDTABLE F 6
    A1 BO G1 A1 BO P6 A0
    6.00 540.

11. PULL WELDHOOD FROM UP AT WELDOR TO DOWN AT WELDOR F 6
    A1 BO G1 M1 X0 IO A1
    6.00 240.

12. WELDOR POSITION WELDGUN FROM WELDTABLE TO SHEETMETAL ASSEMBLY AT WELDTABLE WITH PARTIAL BEND F 6
    A1 BO G1 A1 B6 P6 A0
    6.00 900.

13. OPERATE WELD STINGER-BUTTON1 PROCESS F/9
    A1 BO G1 M6 x81 IO A0
    6.00 240.

14. PUSH WELDHOOD FROM DOWN AT WELDOR TO UP AT WELDOR F 6
    A1 BO G1 M1 X0 IO A1
    6.00 240.

15. WELDOR DEBURR WELDED ASSEMBLY AT WELDTABLE WARM-STROKE
FO2RC M1C

USING WIREBRUSH AT WELDTABLE AND ASIDE PF_ 80 4 5 6 7.

16 REPLACE SHEETMETAL ASSEMBLY FROM WELDTABLE TO CART AT WELDTABLE WITH 4 STEPS

A1 BO Gl (A1 BO P1 C1) A1 BO P1 A0 (80) 1.00 2440.

17 FITTER MOVE CART FROM WELDTABLE TO WORKTABLE

A1 BO Gl A6 BO P3 A0 1.00 110.
A1 BO Gl A131BO P1 A0 1.00 1340.

TOTAL TMU 14900.

TYPE D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for hel> ?-
SHEET METAL SHAPE #10

20 x 12 to 16 x 12 x 30" LG FLAT OVAL TO RE81055G60

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File Description ? MARK OUT FLAT OVAL TO RADIUS CORNERS

Output to line-printer <Y or N> ? N

( 39, 1)
FIT .W11 F02RC .M30

MARK OUT SHEETMETAL FOR FLAT OVAL TO RADIUS CORNERS WITH AWL AT SHEETMETAL SHOP
PER FLAT OVAL TO RADIUS CORNERS OFG: 4 01-JUL-83
NASSCO SHEETMETAL SHAPE 10
* 18 GAUGE GALV. SHEETMETAL
* 20'X12'T'X12' FLAT OVAL TO
* RADIUS CORNERS 30'L
* MARK OUT CORNERS WITHOUT TEMPLATE
* MARK OUT FLAT OVAL WITHOUT TEMPLATE
FITTER BEGINS AT WORKTABLE

1 POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 4 STEPS F 2
A1 BO G1 A6 BO P6 A0 2.00 280.

2 POSITION WEIGHTS FROM WORKTABLE TO TEMPLATES AT WORKTABLE WITH 4 STEPS F 4
A1 BO G1 A6 BO P6 A0 4.00 560.

3 MARK OUTLINE FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 20 ( 4 5 6 7)
A1 BO G1 (A1 BO P1 R1-6) A1 BO P1 A0 (20) 1.00 3640.

4 POSITION CPUNCH FROM WORKTABLE TO TEMPLATE AT WORKTABLE WITH 2 STEPS F 64
A1 BO G1 A3 BO P6 A0 64.00 7040.

5 FASTEN CFUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE AND ASIDE PF 64 ( 4 5 6 7)
A1 BO G1 (A1 BO PO F3 ) A1 BO F1 A0 (64) 1.00 2600.

6 REPLACE WEIGHTS FROM TEMPLATES AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 4
A1 BO G1 A6 BO P3 A0 4.00 440.

7 REPLACE TEMPLATES FROM SHEETMETAL AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 2
A1 BO G1 A6 BO P3 A0 2.00 220.

8 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 10 ( 4 5 6 7)
A1 BO G1 (A1 BO P1 R16 )A1 BO F1 A0 (10) 1.00 1840.

9 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 48 ( 4 5 6 7)
A1 BO. G1 (A1 BO P1 R3 ) A1 BO P1 A0 (48) 1.00 2440.

10 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 ( 4 5 6 7
A1 BO G1 (A1 BO P1 R3 ) A1 BO P1 A0 (52) 1.00 2640.

11 MEASURE DIMENSION ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE F 3
A1 BO G1 A1 BO P1 M32 A1 BO P1 A0 3.00 1140.

12 MARK DIMENSION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7)
A1 BO G1 (A1 BO P1 R3 ) A1 BO P1 A0 (6) 1.00 340.

13 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE WITH 3 STEPS F 5

14 MARK SHEETMETAL FROM STRAIGHTEDGE AT WORKTABLE 5 DIGITS
USING AWL AT WORKTABLE AND ASIDE PF 5 ( 4 5 6 7 )
A1 BO G1 (A1 BO P1 R16) A1 BO P1 A0 (5) 1.00 940.

15 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS
USING REDPEN AT WORKTABLE AND ASIDE PF 5 ( 4 5 6 7 )
A1 BO G1 (A1 BO P1 R16) A1 BO P1 A0 (5) 1.00 940.

16 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT
WORKTABLE 1 DIGIT USING BLACKPEN AND ASIDE PF 40 ( 4 5 6 7 )
A1 BO G1 (A1 BO P1 R3 A1 BO P1 A0 (40) 1.00 2040.

17 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT
USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 ( 4 5 6 7 )
A1 BO G1 (A1 BO F1 R3 A1 BO F1 A0 (52) 1.00 2640.

18 PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE
WITH 4 STEPS F 2
A1 BO G1 A6 BO F3 A0 2.00 220.

19 MOVE CART WITH SHEETMETAL2 FROM WORKTABLE TO SMALLSHEAR
A1 BO G1 A67 BO P1 A0 1.00 700.

TOTAL TMU 31360.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?'
( 39 1) FIT .W11 F02RC .M31
SHEAR SHEETMETAL FOR FLAT OVAL TO RADIUS CORNERS WITH
SMALL 8FT, SHEAR AT SHEETMETAL SHOP
PER FLAT OVAL TO RADIUS CORNERS          OFG: 4 01-JUL-83
NASSCO SHEETMETAL SHAPE 10
  * 18 GAUGE GALV. SHEETMETAL
  * 20'X12' TO 16.X12' FLAT OVAL TO
  * RADIUS CORNERS 30'L
FITTER BEGINS AT SMALLSHEAR

1 POSITION SHEETMETAL FROM CART AT SMALLSHEAR TO
   SMALLSHEAR WITH 4 STEPS F 2
   A1 BO 61 A6 BO F6 A0          2.00 280.
2 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 2
   A1 BO G1 M1 X6 IO A0         2.00 180.
3 POSITION SHEETMETAL FROM SMALLSHEAR TO SMALLSHEAR WITH
   4 STEPS F 14
   A1 HO G1 A6 BO F6 A0        14.00 1960.
4 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 14
   A1 BO G1 M1 X6 IO A0       14.00 1260.
5 REPLACE SHEETMETAL FROM SMALLSHEAR TO CART AT
   SMALLSHEAR WITH 10 STEPS F 2
   A1 BO G1 A16 BO P3 A0       2.00 420.
6 MOVE CART WITH SHEETMETAL FROM SMALLSHEAR TO WORKTABLE
   A1 B0 G1 A67 B3 P1 A0       1.00 730.

TOTAL TMU 4830.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

4830
File Description ? SHEAR RADIUS ON FLAT OVAL TO RADIUS CORNERS

output to line-printer <Y or N> ? N

{ 39 1}
FIT .W1
F02RC .M32
SHEAR RADIUS ON FLAT OVAL TO RADIUS CORNERS WITH UNI-SHEAR-AT
SHEETMETAL SHOP
PER FLAT OVAL TO RADIUS CORNERS OFG: 4 09-MAY-83
NASSCO SHEETMETAL SHAPE 10
* 18 GAUGE GALv. SHEETMETAL
* 20.X12' TO 1b'X12' FLAT OVAL
* RADIUS CORNERS 30'L
FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL FROM-CART AT WORKTABLE TO WORKTABLE
WITH 4 STEPS F 2
A1 BO GI 'A6 BO P3 A0 2.00 220.

2 MOVE UNISHEAR2 FROM TOOLROOM TO WORKTABLE
--A96B O G l A96 B3 F1 A0 1.00 1970.

3 OPERATE UNISHEAR AT WORKTABLE PROCESS F 10
A1 BO G1 M6 X17310 A0 10.00 18100.

4 CUT CORNERS ON SHEETMETAL AT WORKTABLE 2 CUTS USING
SNIPS AT WORKTABLE AND ASIDE PF 8 ( 4 5 6 7 )
A1 BO P1 A0 (8) 1.00 600.

5 FASTEN BLCKPEN CURNERS -UN SHEET METAL AT WORKTABLE 5.
(STRIKES--USING NAMER AT WORKTABLE AND ASIDE PF 20 ( 4
-5 - 6-7)
A1 BO G1 (A1 BO FO P6 )A1 BO P1 A0(20)1. 00 1440.

6 REPLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE
WITH 4 STEPS
A1 BO G1 A6 BO P3 A0 1.00 110.

7 MOVE CART'WITH SHEETMETAL FROM WORKTABLE TO LAPOUT
A1 BO G1 A54 BO P1 A0 1.00 570.

TOTAL TMU 23010.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

27840
File Description ? FORM LAP ENDS FOR FLAT OVAL TO RADIUS CORNERS

Output to line-printer <Y or N> ? N

( 39, 1)
FIT .W11 F02RC . M33
FORM... FORM LAP END FOR FLAT OVAL TO RADIUS CORNERS' WITH LAPOUT MACHINE
SHEETMETAL SHUF)
FERR FLAT OVAL TO RADIUS CORNERS
NA53LU SHEETMETAL 1V
* 18 GAUGE GALV. SHEETMETAL
* 20'X12' TO 16'X12' FLAT OVAL'
* RADIUS CORNERS 30.L
FITTER BEGINS AT LAPOUT

1 POSITION SHEETMETAL 2 FROM CART AT LAPOUT TO LAPOUT WITH
4 STEPS F 4
A1 BO G1 A6 BO P6 A0 4.00 560.
2 PUSH LAPOUT-SWITCH PROCESS F 2
A1 BO G1 M1 X16 IO A0 2.00 380.
3 PUSH AND GUIDE SHEETMETAL2 THROUGH LAPOUT WITH 3 STEP’S
F 2
A6 BO G1 M1 X0 13 A0 2.00 220.
4 REPLACE SHEETMETAL FROM LAPOUT TO CART AT LAPOUT WITH
4 STEFS F 4
A1 BO G1 A6 BO P3 A0 4.00 440.
5 MOVE CART WITH SHEETMETAL2 FROM LAPOUT TO HANDROLLER AT
WORKBENCH
A1 80 G1 A24 B3 P1 AO 1.00 300.

TOTAL TMU 1900.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

89340
File Description ? FORM RADIUS ON COLLARS FOR F.0 TO R.C.'ELLO

OUTPUT to line-Prenter <Y or N> ? N

(399,1)
'FIT ' W11' F02RC .M34
FROM RADIUS ON COLLARS FOR FLAT OVAL TO RADIUS CORNERS WITH
MANU RULLER AT SHEETMETAL SHUF
PER FLAT OVAL TO RADIUS CORNERS OFG: 4 09-MAY-83
NASSCO SHEETMETAL SHAPE 10
* 18 GAUGE GALU, SHEETMETAL
* 20'X12'T016FLAT OVAL TO RAD. CORNERS
FITTER BEGINS AT WORKBENCH

1. SHEETMETAL 2 FROM CART AT WORKBENCH TO-
MANU RULLER AT WORKBENCH WITH 4 STEPS '6'
   A1 BO G1 A6 BO P6 A0  6.00  840.
2 FASTEN BOLT [ROLLS] TO SHEETMETAL AT HAND-ROLLER AT
   WORKBENCH 3 SPINS USING FINGERS F 12
   A1 BO G1 A1 BO P1 F6 A0 BO PO A0  12.00  1200.
3 CRANK HAND-ROLLER AT WORKBENCH 3.REUS USING HAND F 12
   A1 BO G1 M6 X0 IO A0  12.00  960.
4 REPLACE SHEETMETAL FROM HAND-ROLLER AT WORKBENCH TO
   CART AT WORKBENCH WITH 4 STEPS F 6
   A1 BO G1 A6 BO P3 A0  6.00  660.'
5 MOVE CART WITH SHEETMETAL FROM WORKBENCH TO LEAFBRAKE
   A1 BO G1 A10 BO P1 A0  1.00  130.

TOTAL TMU 3790.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

33530
File Description ? BEND RADIUS ON FLAT OVAL TO RADIUS CORNERS

Output to line-Printer <Y or N> ? N

(39, 1)
FIT ,W1 F02RC ,M35
BEND 'RADIUS ON FLAT OVAL TO RADIUS CORNERS WITH LEAFBRAKE AT
SHEETMETAL SHOP
PER FLAT OVAL TO RADIUS CORNERS OFG: 4 01-JUL-83
NASSCO SHEETMETAL SHAPE 10
* 18 GAUGE GLAV. SHEETMETAL
* 20X12TO16X12 FLAT OVAL TO RADIUS CORNERS
FITTER BEGINS AT WORKTABLE

1 MOVE VISEGRIPS FROM WORKTABLE TO LEAFBRAKE
   A1 BO G1 A81 BO P1 A0 1.00  840.
2 GRIP ADJUSTMENT ROD ON LEAFBRAKE AT LEAFERAKE USING
VISEGRIPS AT LEAFBRAKE AND ASIDE
   A1 BO G1 A1 BO P3 C1 A1 RO P1 A0 1.00  90.
3 POSITION SHEETMETAL FROM CART AT LEAFERAKE TO
   LEAFBRAKE WITH 4 STEPS F 2
   A1 BO G1 A6 BO P6 A0 2.00  280.
4 OPERATE LEAFBRAKE-LEVER PROCESS F 2
   A1 BO G1 M6 X16 IO A0 74.00  6660.
5 POSITION SHEETMETAL 2 FROM LEAFERAKE TO LEAFBRAKE F 74
   A1 BO G1 A1 BO P6 A0 74.00  17760.
6 OPERATE LEAFBRAKE-LEVER PROCESS F 74
   A1 BO G1 M6 X16 IO A0 74.00  17760.
7 REPLACE SHEETMETAL FROM LEAFBRAKE TO CART AT LEAFBRAKE
   WITH 4 STEPS F 2
   A1 BO G1 A6 BO P3 A0 2.00  220.
8 MOVE CART WITH SHEETMETAL AND VISEGRIPS FROM LEAFBRAKE
   TO WORKTABLE
   A1 BO G1 A81 B3 P1 A0 1.00  870.

TOTAL TMU  27200.

Type D,EM,CT,EW,EX,L,LD,LS,H,T,W <or H for help> ?: 60,730
File Description ? ASSEMBLE FLAT OVAL TO RADIUS CORNERS

Output to line-Printer <Y or N) ? N

(39,1)
FIT .W1
FO2RC .M36
ASSEMBLE SHEETMETAL FOR FLAT OVAL TO RADIUS CORNERS WITH
RIVET GUN AT SHEETMETAL SHOP
PER FLAT OVAL TO RADIUS CORNERS OFG: 4 01-JUL-83
NASSCO SHEETMETAL SHAPE 10
* 18 GAUGE GALV. SHEETMETAL
* 20X12T016X12 FLAT OVAL TO
* RADIUS CORNERS 30' L
FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 2
   A1 BO G1 A6 BO P3 A0 2.00 220.

2 POSITION SHEETMETAL FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 4 STEPS F 2
   A1 BO G1 A6 BO P6 A0 2.00 280.

3 GRIP SHEETMETAL TO SHEETMETAL AT WORKTABLE USING
   VISEGRIPS AT WORKTABLE AND ASIDE F 2
   A1 BO G1 A1 BO P3 C1 A1 BO P1 A0 2.00 180.

4 FASTEN 5-32DRILLBIT FROM WORKTABLE TO DRILLMOTOR WITH 3
   WRIST-TURNS USING CHUCKKEY AND ASIDE
   A1 BO G1 A1 BO P3 F6 A1 BO P1 A0 1.00 140.

5 POSITION DRILLMOTOR FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 2
   A1 BO G1 A1 BO P6 A0 2.00 180.

6 OPERATE DRILLMOTOR AT WORKTABLE PROCESS F 2
   A1 BO G1 M6 X6 IO A0 2.00 230.

7 POSITION RIVET FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 2
   A1 BO G1 A1 BO P6 A0 2.00 180.

8 OPERATE RIVETGUN AT WORKTABLE PROCESS F 2
   A1 BO G1 M6 X3 IO A0 2.00 220.

   TOTAL TMU 1680.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W (or H for help) ?-
TACK WELD FLAT OVAL TO RADIUS CORNERS

output to line-printer <Y or N> ? N

FIT .W11

TACK WELD SHEETMETAL FOR FLAT OVAL TO RADIUS CORNERS WITH
TACK WELDER AT SHEETMETAL SHOP
PER FLAT OVAL TO RADIUS CORNERS

NASSCO SHEETMETAL SHAPE 10
* 18 GAUGE GALV. SHEETMETAL
* 20'X12' TO 16'X12' TO
* RADIUS CORNERS 30' L
* HOLD. CORNERS AND FLAT OVAL COLLAR TO--
* ASSEMBLY WITH VISEGRIPS
* WELD ON F02RC.M38 AT WELD AREA
FITTER BEGINS AT WORKTABLE

1 MOVE CCLAMPS, SHEETMETAL FROM WORKTABLE TO WELDOUT
   A1 BO G1 A54 B3 P1 A0  1.00  600.

2 POSITION SHEETMETAL FROM TABLE AT WELDOUT TO
   SHEETMETAL AT WELDOUT WITH 3 STEPS
   A1 BO G1 A6 BO P6 A0  1.00  140.

3 GRIP SHEETMETAL TO SHEETMETAL2 AT WELDOUT USING
   CCLAMPS AT WELDOUT AND ASIDE PF 20 ( 4 5 6 7 )
   A1 BO G1 (A1 BO P3 C1) A1 BO P1 A0 (20)  1.00  1040.

4 OPERATE TACKWELDER AT WELDOUT PROCESS F 28
   A1 BO G1 M6 X3 IO A0  28.00  3080.

5 MOVE CCLAMPS, SHEETMETAL FROM WELDOUT TO WORKTABLE
   A1 BO G1 A54 B3 P1 A0  1.00  600.

   TOTAL TMU  5460.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?'

67870
Please input file <F02RC.M38> ?

file Description ? WELD FLAT OVAL TO RADIUS CORNERS

Output to line-printer <Y or N> ? N

(39,101)
WELD  W01   F02RC .M38
WELD FLAT OVAL TO RADIUS CORNERS WITH TIG-WELDER AT SHEETMETAL
SHOP WELD BOOTH
PER FLAT OVAL OFG: 4 28-JUL-83
WELDING NASSCO SHEETMETAL SHAPE 10
8 18 GAUGE GALV. SHEETMETAL
* 20X12 TO 16X12 FLAT OVAL TO RADIUS--
* --CIRNERS X 30' LG
* WELD R.C. AND FLAT OVAL CORNERS
* GAS TUNGSTEN ARC WELDING
* WELDING DONE IN WELD AREA BOOTH
* WORK PERFORMED BY WELDOR
* FITTER TRANSPORTS SHEETMETAL
FITTER BEGINS AT WORKTABLE

1 FITTER PLACE SHEETMETAL ASSEMBLY. FROM WORKTABLE TO CART
   AT WORKTABLE WITH 4 STEPS
   A1 BO G1 A6 BO P3 A0 1.00 110.
2 MOVE CART FROM WORKTABLE TO WELDTABLE
   A1 BO G1 A131B3 P1 A0 1.00 1370.
3 PLACE SHEETMETAL ASSEMBLY FROM CART AT WELDTABLE TO
   WELDTABLE WITH 4 STEPS
   A1 BO G1 A6 BO P3 A0 1.00 110.
4 WELDOR PUSH POWER SUPPLY BUTTON FROM OFF AT
   WELDMACHINES TO ON AT WELDMACHINES WITH 16 STEPS
   A3 BO G1 M1 X0 IO A32 1.00 370.
5 WELDOR PUSH GAS-HOOKUP-SWITCH FROM OFF AT WELDMACHINES
   TO ON AT WELDMACHINES
   A1 BO G1 M1 X0 IO A1 1.00 40.
6 WELDOR FASTEN CURRENT SUPPLY HANDLE AT WELDMACHINES 1
   WRIST-TURN USING HAND
   A1 BO G1 A1 BO P1 F3 A0 BO PO A0 1.00 70.
7 WELDOR TURN OUTPUT CONTROL LEVER FROM OFF AT
   WELDMACHINES TO ON AT WELDMACHINES
   A1 BO G1 M3 X0 IO A1 1.00 60.
8 WELDOR POSITION ANTI-SPATTER SPRAY CAN FROM WELDTABLE
   TO SHEETMETAL ASSEMBLY AT WELDTABLE F 4
   A3 B3 G1 A1 BO P6 A0 4.00 560.
9 WELDOR PUSH ANTI-SPATTER2 SPRAY CAN PROCESS F 4
   A1 BO G1 M1 X10 IO A0 4.00 520.
10 WELDOR POSITION WELDROD FROM WELDTABLE TO SHEETMETAL AT
   WELDTABLE
   A1 BO G1 A1 BO P6 A0 1.00 90.
11 FULL WELDHOOD FROM UP AT WELDOR TO DOWN AT WELDOR F IO
   A1 BO G1 M1 X0 IO A1 10.00 400.
12 WELDRO POSITION WELDGUN FROM WELDTABLE TO SHEETMETAL
   ASSEMBLY AT WELDTABLE WITH PARTIAL BEND F 10
   A1 BO G1 A1 B6 P6 A0 10.00 1500.
13 OPERATE WELDING STINGER-BUTTON1 PROCESS F 20
A1 BO G1 M6 X81 IO A0 20.00 17800,
14 PULL WELDHOOD FROM DOWN AT WELDOR TO UP AT WELDOR F 10
   A1 BO G1 M1 X0 IO A1 10.00 400.
15 WELDOR DEBURR WELDED ASSEMBLY AT WELDTABLE 10
   ARM-STROKES USING WIREBRUSH AT WELDTABLE AND ASIDE PF
   20 (4 5 6 7)
   A1 BO G1 (A1 BO P1 C10) A1 BO P1 A0 (20) 1.00 2440.
16 WELDOR REPLACE SHEETMETAL ASSEMBLY FROM WELDTABLE TO
   CART AT WELDTABLE WITH 4 STEPS
   A1 BO G1 A6 BO P3 A0 1.00 110.
17 FITTER MOVE CART FROM WELDTABLE TO WORKTABLE
   A1 BO G1 A130BO P1 A0 1.00 1340.

TOTAL TMU 27290.

File Description ? WELD FLAT OVAL TO RADIUS CORNERS

Output to line-Printer <Y or N> ?
File Description ? RIVET FLAT OVAL TO RADIUS CORNERS

output to line-printer <Y or N> ? N

(39,1)
FIT .w11
FO2RC .M39
RIVET FLAT OVAL TO RADIUS CORNERS WITH RIVET GUN AT SHEETMETAL
SHOP
PER FLAT OVAL TO RADIUS CORNERS OFG: 4 01-JUL-83
NASSCO SHEETMETAL SHAPE 10
* 18 GAUGE GALV. SHEETMETAL
* 20.X12' TO RADIUS CORNERS 30'L
FITTER BEGINS AT WORKTABLE

1 POSITION RIVET-HOLE-GUIDE FROM WORKTABLE TO SHEETMETAL
   AT WORKTABLE WITH 2 STEPS F 2
   A1 BO G1 A3 BO P6 A0 2.00 220.
   2 MARK RIVET HOLES FROM RIVET-HOLE-GUIDE TO SHEETMETAL AT
   WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF
   1 4 ( 4 5 6 7 )
   A1 BO G1 (A1 BO P1 R3) A1 BO P1 A0 (14) 1.00 740.
   3 POSITION DRILLMOTOR FROM WORKTABLE TO SHEETMETAL AT
   WORKTABLE WITH 3 STEPS F 14
   A1 BO G1 A6 BO P6 A0 14.00 1960.
   4 OPERATE DRILLMOTOR AT WORKTABLE PROCESS F 14
   A1 BO G1 M6 X6 IO A0 14.00 1960.
   5 POSITION RIVET FROM WORKTABLE TO SHEETMETAL AT
   WORKTABLE F 14
   A1 BO . G1 A1 BO P6 A0 14.00 1260.
   6 OPERATE RIVETGUN AT WORKTABLE PROCESS F 14
   A1 BO G1 M6 X3 IO A0 14.00 1540.
   7 GRIP SEALANT TO SHEETMETAL AT WORKTABLE USING
   CAULKINGGUN AT WORKTABLE AND ASIDE PF 8 (4 5 6 7 )
   A1 BO G1 (A1 BO P3 C1) A1 BO P1 A0 (8) 1.00 440.
   8 INSPECT SHEETMETAL AT WORKTABLE 9 POINTS
   A0 BO GO A0 BO PO T10 A0 BO PO A0 1.00 100.

   TOTAL TMU  8220,

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?.
**Sheet Metal Shape**: #10

25" x 15" to 20" x 14" Flat to Oval to Radius Covers

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<td>Weld</td>
<td>84150</td>
<td>50 min.</td>
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<tr>
<td><strong>Total TMU</strong></td>
<td>1,63840</td>
<td><strong>98 min.</strong></td>
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Output to line-printer <Y or N> ? N

FIT

MARK OUT FLAT OVAL TO RADIUS CORNERS WITH AWL AT SHEETMETAL SHOP

NASSCO SHEETMETAL SHAPE 10
* 11 GAUGE GALV. SHEETMETAL
* 25'X15' TO 20'X14' RADIUS CORNERS
* 35'4' WITH 4' RADIUS CORNERS
* MARK OUT USING TEMPLATE

FITTER BEGINS AT WORKTABLE

1 POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 2
   A1 BO G1 A1 BO P6 A0 2.00 180.
2 POSITION WEIGHTS FROM WORKTABLE TO TEMPLATE AT WORKTABLE WITH 3 STEPS F 6
   A1 BO G1 A6 BO P6 A0 6.00 840.
3 MARK OUTLINE ON SHEETMETAL FROM TEMPLATE AT WORKTABLE 1 DIGIT USING REDPEN AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7 )
   A1 BO G1 (A1 BO P1 R3) A1 BO P1 A0 (6) 1.00 340.
4 POSITION CPUNCH FROM WORKTABLE TO TEMPLATE AT WORKTABLE F 48
   A1 BO G1 A1 BO P6 A0 48.00 4320.
5 FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE AND ASIDE PF 48 ( 4 5 6 7 )
   A1 BO G1 (A1 BO PO F3) A1 BO P1 A0 (48) 1.00 1960.
6 REPLACE WEIGHTS FROM TEMPLATE TO WORKTABLE WITH 3 STEPS F 4
   A1 BO G1 A6 BO P3 A0 4.00 440.
7 REPLACE TEMPLATE FROM SHEETMETAL TO WORKTABLE F 2
   A1 BO G1 A1 DO P3 A0 2.00 120.
8 MARK CUT LIMES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 10 ( 4 5 6 7 )
   A1 BO G1 (A1 BO P1 R16) A1 BO P1 A0 (10) 1.00 1840.
9 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 86 ( 4 5 6 7 )
   A1 BO G1 (A1 BO P1 R3) A1 BO P1 A0 (36) 1.00 4340.
10 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 ( 4 5 6 7 )
   A1 BO G1 (A1 BO P1 R3) A1 BO P1 A0 (521) 1.00 2640.
11 MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE PF 3 ( 4 5 6 7 )
   A1 PO G1 (A1 BO P1 M32) A1 BO P1 A0 (31) 1.00 1060.
12 MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7 )
   A1 BO G1 (A1 BO P1 R3) A1 BO P1 A0 (6) 1.00 340.
13 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 5
   A1 BO G1 A1 BO P6 A0 5.00 450.
14 MARK SHEETMETAL FROM STRAIGHTEDGES AT WORKTABLE 5 DIGITS
USING AWL AT WORKTABLE AND ASIDE PF 5 (4 5 6 7)
A1 BO G1 (Al BO P1 R16) A1 BO P1 A0 (5) 1.00 940.
15 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT
WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND
ASIDE PF 40 (4 5 6 7)
A1 BO G1 (Al BO P1 R3) A1 BO P1 A0 (40) 1.00 2040.
16 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT
USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 (4 5 6 7)
A1 BO G1 (Al BO P1 R3) A1 BO P1 A0 (52) 1.00 2640.
17 PLACE SHEETMETAL2 FROM WORKTABLE TO CART AT WORKTABLE
WITH 4 STEPS F 2
A1 BO G1 A6 BO P3 A0 2.00 220.
18 MOVE CART WITH SHEETMETAL FROM WORKTABLE TO SMALLSHEAR
A1 BO G1 A67 BO P1 A0 1.00 700.
TOTAL TMU 25410.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?
File Description ? SHEAR SHEETMETAL FOR FLAT OVAL TO RADIUS CORNERS

output to line-printer <Y or N> ? N

(39, 1)
FIT .W11
  SHEAR SHEETMETAL FOR FLAT OVAL TO RADIUS CORNERS WITH
  14 FT. SHEAR AT SHEETMETAL SHOP
  PER FLAT OVAL TO RADIUS CORNERS        OFG: 4 17-MAY-83
  NASSCO SHEETMETAL SHAPE 10
  * 11 GAUGE GALV. SHEETMETAL
  * 25' X15' TO 20. X14' RADIUS CORNERS
  * 35' L WITH 4' RADIUS CORNERS
  * SHEAR 1 1/2' STRIPS FOR RADIUS CORNERS
  FITTER BEGINS AT 14FT., SHEAR

1 POSITION SHEETMETAL FROM CART AT 14FT. SHEAR TO 14FT. SHEAR WITH 4 STEPS F 2
  A1 BO G1 A6 BO P6 A0 2.00 280.

2 PUSH 14FT., SHEAR-FOOTPEDAL PROCESS F 2
  A1 BO G1 M1 X3 IO A0 2.00 120.

3 POSITION SHEETMETAL FROM 14FT. SHEAR TO 14FT. SHEAR F 15
  A1 BO G1 A1 BO P6 A0 15.00 1350.

4 PUSH 14FT., SHEAR-FOOTPEDAL PROCESS F 15
  A1 BO G1 M1 X3 IO A0 15.00 900.

5 REPLACE SHEETMETAL FROM 14FT. SHEAR TO CART AT 14FT. SHEAR WITH 10 STEPS F 2
  A1 HO G1 A16 BO P3 A0 2.00 420.

6 MOVE CART WITH SHEETMETAL FROM 14FT. SHEAR TO WORKTABLE
  A1 BO G1 A81 B3 P1 A0 1.00 870.

TOTAL TMU 3940.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?
FIT .W1 F02RC M52
   CUT RADIUS ON CORNERS FOR FLAT OVAL TO RADIUS CORNERS WITH
SABER SAW AT SHEETMETAL SHOP
PER FLAT OVAL TO RADIUS CORNERS OFG: 4 17-MAY-83
NASSCO SHEETMETAL SHAPE 10
* 11 GAUGE GALV, SHEETMETAL
* 25'X15' TO 20'X14' RADIUS CORNERS
* 35'L WITH 4' RADIUS CORNERS
FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL2 FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 2
   A1 BO G1 A6 BO P3 A0 2.00  220.
2 MOVE SABER-SAW2 FROM TOOLROOM TO WORKTABLE
   A96 BO G1 A96 B3 F1 A0 1.00  1970.
3 FASTEN NUT [SAW BLADE] TO SABER-SAW AT WORKTABLE 4 Wrists-Turns USING ALLEN-WRENCH AT WORKTABLE AND ASIDE PF 2 ( 4 5 6 7 )
   A1 BO G1 (A1 BO P3 F10) A1 BO P1 A0 (2) 1.00  320.
4 OPERATE SABER-SAW PROCESS F 8
   A1 BO G1 M6 X67 IO A0 8.00  6000.
5 FASTEN [FLATTEN] SHEETMETAL AT WORKTABLE 3 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 12 ( 4 5 6 7 )
   A1 BO G1 (A1 BO P0 F6) A1 BO P1 A0 (12) 1.00  880.
6 REPLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS
   A1 BO G1 A6 BO P3 A0 1.00  110.
7 MOVE CART WITH SHEETMETAL FROM WORKTABLE TO 14FTHYDROPRESSBRAKE
   A1 BO G1 A96 BO P1 A0 1.00  990.

TOTAL TMU ,0490.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

14430
File Description ? BEND RADIUS FOR FLAT OVAL TO RADIUS CORNERS

; OUTPUT to line-Printer <Y or N> ? N

( 39, 1)
FIT ..W11
F02RC .M53
BEND RADIUS FOR FLAT OVAL TO RADIUS CORNERS WITH
14 FT, HYUROPRESS-BRAKE AT SHEETMETAL SHOP
PER FLAT OVAL TO RADIUS CORNERS OFG: 4 17-MAY-83
NASSCO SHEETMETAL SHAPE 10'
* 11 GAUGE GALV. SHEETMETAL
* 25'X15' TO 20'X14' RADIUS CORNERS
* 35'L WITH 4' RADIUS CORNERS
FITTER BEGINS AT 14FTHYDROPRESSBRAKE

1 POSITION SHEETMETAL FROM CART AT 14FTHYDROPRESSBRAKE
TO 14FTHYDROPRESSBRAKE WITH 4 STEPS F 2
A1 BO G1 A6 BO P6 A0 2.00 230.

2 PUSH 14FTHYUROPRESSBRAKE-FOOTPEDAL PROCESS F 2
A1 BO G1 M1 X24 IO A0 2.00 540.

3 POSITION SHEETMETAL FROM 14FTHYDROPRESSBRAKE TO
14FTHYDROPRESSBRAKE F 64
A1 BO G1 A1 BO P6 A0 64.00 5760.

4 PUSH 14FTHYDROPESSBRAKE-FOOTPEDAL PROCESS F 64
A1 BO G1 M1 X24 IO A0- 64600 17280.

5 REPLACE SHEETMETAL FROM 14FTHYDROPRESSBRAKE TO CART AT
14FTHYDROPRESSBRAKE WITH 4 STEP'S F 2
A1 BO G1 A6 BO P3 A0 2.00 220.

6 MOVE CART WITH SHEETMETAL FROM 14FTHYDROPRESSBRAKE TO
ROLLER
A1 BO G1 A54 B0 P1 A0 1.00 570.

TOTAL TMU 24650.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

39080
File Description ? FORM RADIUS ON COLLAR CORNERS FOR F.0. TO R.C.

Output to line-printer <Y or N> ? N

(39, 1)

FORM RADIUS ON COLLAR CORNERS FOR FLAT OVAL TO RADIUS CORNERS
WITH ROLLER (ROLL FORMER) AT SHEETMETAL SHOP
PER FLAT OVAL TO RADIUS CORNERS

NASSCO SHEETMETAL SHAPE 10
* 11 GAUGE GALV, SHEETMETAL
* 25.'X15' TO 20'X14' RADIUS CORNERS
* 35'L WITH 4' RADIUS CORNERS
* NEXT OPERATION IN WELD AREA
* SEE F02RC.M55
FITTER BEGINS AT ROLLER

1 PLACE SHEETMETAL FROM CART AT ROLLER TO ROLLER WITH 4 STEPS
   A1 BO G1 A6 BO P3 A0  1.00  110.
2 FASTEN BOLT [ROLLS] TO SHEETMETAL AT ROLLER 3
   WRIST-TURNS USING HAND F 2
   A1 BO G1 A1 BO P1 F6 A0 BO PO A0  2.00  200.
3 PUSH ROLLER-BUTTON PROCESS F 8
   A1 BO G1 M1 X96 IO A0  8.00  7920.
4 PLACE SHEETMETAL FROM ROLLER TO SHEETMETAL AT ROLLER WITH 2 STEP'S F 8
   A1 BO G1 A3 B3 P3 A0  8.00  880.
5 REPLACE SHEETMETAL FROM ROLLER TO CART AT ROLLER WITH 2 STEPS F 9
   A54 BO G1 A3 BO P3 A0  9.00  5490.
6 MOVE CART WITH SHEETMETAL FROM ROLLER TO WORKTABLE
   A1 BO G1 A54 B3 P1 A0  1.00  600.

TOTAL TMU  15200.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?  54280
Please input file <F02RC.M55> ?

File Description ? WELD FLAT OVAL TO RADIUS CORNERS

OutPut to line-printer <Y or N> ? N

(39,101)
WELD .WO1
F02RC .M55
WELD FLAT OVAL TO RADIUS CORNERS WITH ARC (STICK) WELDER AT
SHEETMETAL SHOP WELDING BOOTH
PER FLAT OVAL TO RADIUS CORNERS OFG: 4 21-JUL-83
WELDING NASSCO SHEETMETAL SHAPE 10
* 11 GAUGE GALV, SHEETMETAL
* 25'X15' TO 20'X14' RADIUS CORNERS 35'L
* --WITH 4' RADIUS CORNERS
* WELDING DONE IN WELD BOOTH AREA
* WELDOR PERFORMS THE WORK
* FITTER TRANSPORTS SHEETMETAL
FITTER BEGINS AT WORKTABLE

1 FITTER PLACE SHEETMETAL ASSEMBLY FROM WORKTABLE TO CART
   AT WORKTABLE WITH 4 STEPS F 2
   A1 BO G1 A6 BO P3 A0 2.00 220.
2 FITTER MOVE CART FROM WORKTABLE TO WELDTABLE
   A1 BO G1 A131B3 PI A0 1.00 1370 .
3 PLACE SHEETMETAL ASSEMBLY FROM CART AT WELDTABLE TO
   WELDTABLE WITH 4 STEPS F 2
   A1 BO G1 A6 BO P3 A0 2.00 220.
4 WELDOR PUSH POWER SUPPLY BUTTON FROM OFF AT
   WELDMACHINES TO ON AT WELDMACHINES WITH 16 STEPS
   A3 BO G1 M1 X0 IO A32 1.00 370 .
5 WELDOR TURN CURRENT OUTPUT CONTROL LEVER FROM OFF AT
   WELDMACHINES TO ON AT WELDMACHINES
   A1 BO G1 M3 X0 IO A1 1.00 60.
6 WELDOR POSITION ANTI-SPATTER SPRAY CAN FROM WELDTABLE
   TO SHEETMETAL ASSEMBLY AT WELDTABLE F 3
   A3 B3 G1 A1 BO P6 A0 3.00 1120.
7 WELDOR PUSH ANTI-SPATTER SPRAY CAN PROCESS F 3
   A1 BO G1 M1 X10 IO A0 3.00 1040.
8 WELDOR FASTEN WELDROD TO STINGER1 AT WELDTABLE 1
   WRIST-TURN USING HAND F 42
   A1 BO G1 A1 BO P1 F3 A0 PO PO A0 3/ 42.00 2940.
9 FULL WELDHOOD FROM UP AT WELDOR TO DOWN AT WELDOR F 42
   A1 BO G1 M1 X0 IO A1 42.00 1680 .
10 WELDOR POSITION STINGER1 FROM WELDTABLE TO SHEETMETAL
    ASSEMBLY AT WELDTABLE 4 2
    A1 BO G1 A1 BO P6 A0 42.00 3780.
11 WELDOR OPERATE WELD STINGER-BUTTON2 AT WELDTABLE PTIME
    65 S F 24
    A1 BO G1 M6 X17310 A0 32.00 57920.
12 PUSH WELDHOOD FROM DOWN AT WELDOR TO UP AT WELDOR F 42
    A1 42.00 1680 .
13 WELDOR LOOSEN SLAG FROM SHEETMETAL ASSEMBLY AT
    WELDTABLE 6 STRIKES USING SLAGHAMMER AT WELDTABLE AND
    ASIDE PF 15 ( 4 5 6 7 )
    A1 BO G1 (A1 BO PO L16)A1 BO PI A0 (15) 1.00 2590.
14 WELDOR DEBURR WELDED ASSEMBLY AT WELDTABLE 10
    ARM-STROKES USING WIREBRUSH AT WELDTABLE AND ASIDE PF
    6 3 ( 4 5 6 7 )
    A1 BO G1 ( A1 BO P1 C10 ) A1 BO P1 A0 ( 63 ) 1.00 7600.

15 REPLACE SHEETMETAL ASSEMBLY FROM WELDTABLE TO CART AT
    WELDTABLE WITH 4 STEPS F 2
    A1 BO G1 A6 BO P3 A0 2.00 220.

16 FITTER MOVE CART FROM WELDTABLE TO WORKTABLE
    A1 BO G1 A131BO P1 A0 1.00 1340.

TOTAL TMU 84150.

File Description ? WELD FLAT OVAL TO RADIUS CORNERS

Output. to line-printer <Y or N> ?
Sheet Metal Shape #11

8" x 5" to 5" x 5" x 6"IG SQUARE to FLAT OVAL

FAB 55,980 33 MIN.
MARK OUT 35,220 21 MIN.
WELD 1070 7 MIN.
TOTAL 102,270 61 MIN.
Please input file <FLOVAL.Mo1> ?

File Description ? MARK out FLAT OVAL

Output to line-printer <Y or N> ? N

(3 9, 3)
FIT .WO8  FLOVAL.Mo1)
MARK OUT SHEETMETAL FOR FLAT OVAL WITH-AWL AT SHEETMETAL SHOP
PER FLAT OVAL --OFG 4 -24-MAR-83.

NASSCO SHEETMETAL SHAP #11
* HULL 418
* DRAWING 501-292
* V2-92008
* V6-1951
* 22 'GAUGE GALV, SHEETMETAL
* 8'X5' TO 5'X5' FLAT OVAL X6'L SQ 2 F.O.
* USE TEMPLATE TO MARK OUT 2 HALVES
FITTER BEGINS AT WORKTABLE

1 POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS
   A1 BO G1 A6 BO P6 AO 1.00 140.

2 PLACE 2 WEIGHTS FROM WORKTABLE TO TEMPLATE AT WORKTABLE.
   WITH 4 STEPS F 2
   A1 BO G1 A6 BO P3 A0 2.00 220.

3 MARK OUTLINE FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AND ASIDE PF 9 (4 5 6 7)
   A1 BO G1 (A1 BO P1 R16) A1 BO Pi A0 (9) 1.00 1660.

4 POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 40
   A1 BO G1 A1 BO P6 A0 40.00 3600.

5 FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AND ASIDE PF 40 (4 5 6 7)
   A1 BO G1 (A1 BO P0 F3) A1 BO P1 A0 (40) 1.00 1640.

6 REPLACE 2 WEIGHTS FROM TEMPLATE AT WORKTABLE TO WORKTABLE WITH 3 STEPS'
   A1 PO G1 A6 BO P3 A0 1.00 110.

7 REPLACE TEMPLATE FROM SHEETMETAL AT WORKTABLE TO WORKTABLE WITH 3 STEPS
   A1 BO G1 A6 BO P3 A0 1.00 110.

3 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS
   USING REDPEN AT WORKTABLE AND ASIDE PF 18 (4 5 6 7)
   A1 PO G1 (A1 BO P1 R16 ) A1 BO P1 A0 (18) 1.00 3280.

9 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 5 DIGITS USING BLACKPEN AT WORKTABLE AND ASIDE PF 50 (4 5 6 7 ) F 2
   A1 BO G1 (A1 BO P1 R16 )A1 BO P1 A0 (50) 2.00 18080.

10 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT
    USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 (4 5 6 7)
    A1 BO G1 (A1 BO P1 R3) A1 BO P1 A0 (52) 1.00 2640.

11 MEASURE SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE PF 4(4 5 6 7)
    A1 BO G1 (A1 BO P1 M32) A1 BO P1 A0 (4) 1.00 1400.

12 MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT
USING AWL AT WORKTABLE AND ASIDE PF 4 (4 5 6 7)
   A1 BO G1 (A1 BO P1 R3) A1 BO P1 A0 (4) 1.00  240.
13 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 3
   A1 BO G1 A1 BO P6 A0 3.00  270.
14 MARK LINE FROM STRAIGHTEDGE AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE
   A1 BO G1 A1 BO P1 R3 A1 BO P1 A0 1.00  90.
15 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 1 DIGIT USING REDPEN AT WORKTABLE AND ASIDE PF 5 (4 5 6 7)
   A1 BO G1 (A1 BO P1 R3) A1 BO P1 A0 (5) 1.00  290.
16 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 12 (4 5 6 7)
   A1 BO G1 (A1 BO P1 R3) A1 BO P1 A0 (12) 1.00  640.
17 PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS
   A1 BO G1 A6 BO P3 A0 1.00  110.
18 MOUE CART WITH SHEETMETAL2 FROM WORKTABLE TO SMALLSHEAR
   A1 BO G1 A67 BO P1 A0 1.00  700.

TOTAL TMU 35220.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <0r H for help> ?
Please inPut file <FLOVAL.M02> ?

File Description ? SHEAR SHEETMETAL FOR FLAT OVAL

Output to line-printer <Y or N> ? N

FIT .W08 FLOVAL.M02
 SHEAR SHEETMETAL FOR FLAT OVAL WITH SMALL SHEAR AT SHEETMETAL SHOP
 PER FLAT OVAL OFG: 4 24-MAR-83

NASSCO SHEETMETAL SHAPE #11
 * HULL 418
 * DRAWING 501-292
 * V2-92008
 * U6-1951
 * 22 GAUGE GALV. SHEETMETAL
 * 8'X5' TO S'X'S' F.O. X6'L SQ. TO F.O.
 * SHEAR 2 HALVES AND COLLAR
 FITTER BEGINS AT SMALLSHEAR

1 POSITION SHEETMETAL 2 FROM CART AT SMALLSHEAR TO SMALLSHEAR
   A1 BO G1 A1 BO P6 A0 1.00 90.

2 OPERATE FOOTPEDAL AT SMALLSHEAR PROCESS
   A1 BO G1 M6 X6 IO A0 1.00 140.

3 POSITION SHEETMETAL FROM SMALLSHEAR TO SMALLSHEAR F 10
   A1 BO G1 A1 BO P6 A0 10.00 900.

4 OPERATE FOOTPEDAL AT SMALLSHEAR PROCESS F 10
   A1 BO G1 M6 X6 IO A0 10.00 1400.

5 REPLACE SHEETMETAL FROM SMALLSHEAR TO CART AT SMALLSHEAR WITH 4 STEPS
   A1 BO G1 A6 BO P3 A0 1.00 110.

6 MOVE CART WITH SHEETMETAL FROM SMALLSHEAR TO WORKTABLE
   A1 BO G1 A67 B3 P1 A0 1.00 730.

   TOTAL TMU 3370.

Type D,EM,CT,EW,EX,L,LD,LS,M,TW <or H for help> ?
Please input file <FLOVAL,MO>

File Description: SHEAR RADIUS FOR FLAT OVAL

Output to line-printer <Y or N> ? N

(39, 3)
FIT .WO8 FLOVAL.M03
.SHEAR SHEETMETAL FOR FLAT OVAL WITH UNI-SHEAR AT SHEETMETAL SHOP
PER FLAT OVAL
OFG: 4 25-MAR-83

22 GAUGE GALV, SHEETMETAL
* SHEAR RADIUS CORNERS ON 2 HALVES
FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE
   WITH 4 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 110.

2 MOVE UNISHEAR2 FROM TOOLROOM TO WORKTABLE
   A96 BO G1 A96 B3 P1 A0 1.00 1970.

3 OPERATE UNISHEAR PROCESS F 8
   A1 BO G1 M6 X17310 A0 8.00 14480.

4 CUT CORNERS ON SHEETMETAL AT WORKTABLE 2 CUTS USING
   SNIPS AT WORKTABLE AND ASIDE PF 20 (4 5 6 7)
   A1 BO G1 (A1 BO P3 C3) A1 BO P1 A0 (20) 1.00 1440.

5 FASTEN (FLATTEN) CORNERS ON SHEETMETAL AT WORKTABLE 3
   STRIKES USING HAMMER AND ASIDE PF 12 (4 5 6 7)
   A1 BO G1 (A1 BO PO F6) A1 BO P1 A0 (12) 1.00 880.

6 PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE
   WITH 4 STEPS
   A1 BO G1 A6 BO P3 A0 1.00 110.

7 MOVE CART FROM WORKTABLE TO WORKBENCH
   A1 BO G1 A67 B3 P1 A0 1.00 730.

TOTAL TMU 19720.
Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ? T

please input file <FLOVAL.M04> ?

File Description ? FORM COLLAR FOR FLAT OVAL

Output to line-Printer <Y or N> ? N

(39, 3)
FIT .WO8 FLOVAL.M04
FORM SHEETMETAL FOR FLAT OVAL COLLAR WITH HAND OPERATED ROLLER AT SHEETMETAL SHOP
PER FLAT OVAL OFG: 4 25-MAR-83

NASSCO SHEETMETAL SHAPE #11
* HULL 4B
* DRAWING 501-292
* V2-92008
* V6-1951
* 22 GAUGE GALV. SHEETMETAL
* 8'X5' TO 5'X5'X6'L SQ TO F,O,
* ROLL UP FLAT OVAL RADIUS CORNERS
* HAND OPERATED ROLLER (HAND-ROLLER)
FITTER BEGINS AT WORKBENCH

1 PLACE SHEETMETAL FROM CART AT WORKBENCH TO WORKBENCH WITH 3 STEPS
   A1 BO G1 A6 BO P3 A0  1.00  110.
2 FASTEN BOLT [ROLLS] TO SHEETMETAL WITH HAND-ROLLER AT WORKBENCH 5 SPINS USING FINGERS F 4
   A1 BO G1 A1 BO P1 F10 A0 BO PO A0  4.00  560.
3 CRANK HAND-ROLLER AT WORKBENCH 3 REVS USING HAND F 4
   A1 BO G1 M6 X0 IO A0  4.00  320.
4 LOOSEN BOLT [TOLLS] TO SHEETMETAL WITH HAND-ROLLER AT WORKBENCH 5 SPINS USING FINGERS F 4
   A1 BO G1 A1 BO P1 L10 A0 BO PO A0  4.00  560.
5 REPLACE SHEETMETAL FROM WORKBENCH TO CART AT WORKBENCH WITH 4 STEPS
   A1 BO G1 A6 BO P3 A0  1.00  110.
6 MOVE CART FROM WORKBENCH TO LEAFBRAKE
   A1 BO G1 A10 BO P1 A0  1.00  130.

TOTAL TMU  1790.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ? 24,880
Please input file <FLOVAL 05> ?

file Description ? BEND RADIUS FOR FLAT OVAL

Output to line-Printer <Y or N> ? N

( 39, 3)
FIT .WO8 FLOVAL.MO5
BEND SHEETMETAL FOR FLAT OVAL RADIUS WITH LEAF BRAKE AT
SHEETMETAL SHOP
PER FLAT OVAL OFG: 4 25-MAR-83

NASSCO SHEETMETAL SHAPE #11
* HULL 418
* DRAWING 501-292
* V2-92008
* V6-1951
* 22 GAUGE GLAV. SHEETMETAL
* 8'X8' TO 5'DIA. X9'X XSQ. TO FLAT OVAL
* BEND RADIUS ON 2 PIECES FOR FLAT OVAL
FITTER BEGINS AT LEAFBRAKE

1 PLACE SHEETMETAL FROM CART AT LEAFBRAKE TO LEAFBRAKE
WITH 4 STEPS F 2
A1 BO G1 A6 BO P3 A0 2.00 220.

2 GRIP LEAFBRAKE ADJUSTMENT ROD TO LEAFBRAKE USING
VISERGRIPS AND ASIDE
A81 B3 G1 A81 BO P3 C1 A1 BO P1 A0 1.00 1720.

3 OPERATE LEAFBRAKE-LEVER PROCESS F 80
A1 BO G1 M6 X16 IO A0 80.00 19200.

4 REPLACE SHEETMETAL2 FROM LEAFBRAKE TO CART AT LEAFBRAKE
WITH 4 STEPS F 2
A1 BO G1 A6 BO P3 A0 2.00 220.

5 MOVE CART FROM LEAFBRAKE TO WORKTABLE
A1 BO G1 A81 B3 P1 A0 1.00 870.

TOTAL TMU 22230.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?
Please input file <FLOVAL.M06> ?

File Description ? ASSEMBLE FLAT OVAL

Output to line-printer <Y or N> ? N

(39, 3)
FIT .WO8. FLOVAL.M06
ASSEMBLY SHEETMETAL FOR FLAT OVAL WITH RIVET GUN AT SHEETMETAL SHOP
PER FLAT OVAL OFG: 4 25-MAR-83

NASSCO SHEETMETAL SHAPE #11
* HULL 418
* DRAWING 501-292
* V2-92008
* V6-1951
* 22 GAUGE GALV. SHEETMETAL
* 8'X5'TO 5'X5' F.O. X6'L SQ. TO F.O.
* RIVET 2 HALVES OF SQ TO F.O. TOGETHER
FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS
   A1 B0 G1 A6 B0 P3 A0  1.00  110.

2 FASTEN 5.32DRILL-BIT FROM WORKTABLE TO DRILLMOTOR AT WORKTABLE 3 WRIST-TURNS USING CHUCKKEY AND ASIDE
   A1 B0 G1 A1 B0 P3 F6 A1 B0 P1 A0  1.00  140.

3 POSITION SHEETMETAL FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS
   A1 R0 G1 A6 B0 P6 A0  1.00  140.

4 GRIP SHEETMETAL TO SHEETMETAL AT WORKTABLE USING VISEGRIPS AND ASIDE PF 2 (4 5 6 7 )
   A1 B0 G1 (A1 B0 P3 C1) A1 B0 P1 A0 (2)  1.00  140.

5 OPERATE DRILLMOTOR PROCESS F 2
   A1 B0 G1 H6 X6 IO A0  2.00  280.

6 POSITION RIVETS FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 2
   A1 B0 G1 A1 B0 P6 A0  2.00  180.

7 OPERATE RIVETGUN PROCESS F 2
   A1 B0 G1 M6 X3 IO A0  2.00  220.

TOTAL TMU  1210.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?  48320
Type D,EM,CT,EW,EX,LD,LS,M,T,W <or H for help> ? T

please input file <FLOVAL.M07> ?

File Description ? TACK COLLAR TO FLAT OVAL

Output to line-Printer <Y or N> ? N

(39, 3)
FIT .WO8 FLOVAL.M07
TACK SHEETMETAL FOR FLAT OVAL WITH TACK WELDER AT SHEETMETAL SHOP
PER FLAT OVAL OFG: 4 25-MAR-83

** NASSCO SHEETMETAL SHAPE #11 **
* HULL 418
* DRAWING 501-292-
* V2-92008
* V6-1951
* 22 GAUGE GALV. SHEETMETAL
* 8'X5' TO 5'X5'.F.O. X6'L SQ, TO F.O.
* USE TEMPLATE TO HARK OUT 2 HALVES
* NEXT MOST ANALYSIS FOR WELDING F.O.
* SEE MWELD PROGRAM FOR FLOVAL.MO8 .

FITTER BEGINS AT WORKTABLE

1 MOVE VISEGRIPS, SHEETMETAL2, FROM WORKTABLE TO WELDOUT
   'A1 B0 G1 A54 B3 P1 A0 1.00 600.
2 POSITION SHEETMETAL FROM WELDOUT TABLE TO SHEETMETAL AT WELDOUT TABLE WITH 3 STEPS
   A1 B0 G1 A6 B0 P6 A0 1.00 140.
3 GRIP SHEETMETAL TO SHEETMETAL2 AT WELDOUT USING VISEGRIPS AND ASIDE PF 6 ( 4 5 6 7 )-
   A1 BO G1 (A1 BO P3 C1) A1 BO P1 A0 (6) 1.00 340.
4 OPERATE TACKWELDER PROCESS F 16
   A1 B0 G1 M6 X3 IO A0 16.00 1760.
5 MOVE VISEGRIPS, SHEETMETAL FROM WELDOUT TO WORKTABLE
   A1 B0 G1 A54 B3 P1 A0 1.00 600.

TOTAL TMU 3440.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ? 5/760
File Description ? WELD SQUARE TO FLAT OVAL

Output to line-printer <Y or N> ? N

WELD WELD SQUARE TO FLAT OVAL WITH TIG-WELDER AT SHEETMETAL SHOP
WELDING BOOTH
WELDING NASSCO SHEETMETAL SHAPE 11
HULL 418
DRAWING 501-292
V2-92008
V6-1951
22 GAUGE GALV. SHEETMETAL
8X5 TO 5X5 SQUARE TO FLAT OVAL
WELDING DONE IN WELD AREA BOOTH
GAS TUNGSTEN ARC WELDING
WELDOR PERFORMS WORK
FITTER TRANSPORTS SHEETMETAL
FITTER BEGINS AT WORKTABLE

1 FITTER PLACE SHEETMETAL ASSEMBLY FROM WORKTABLE TO CART
   AT WORKTABLE WITH 4 STEPS
     A1 BO G1 A6 BO P3 A0 1.00 110.
2 FITTER HOVE CART FROM WORKTABLE TO WELDTABLE
   A1 BO G1 A131B3 P1 A0 1.00 1370.
3 PLACE SHEETMETAL ASSEMBLY FROM CART AT WELDTABLE TO
   WELDTABLE WITH 4 STEPS
     A1 BO G1 A6 BO P3 A0 1.00 110.
4 WELDOR PUSH POWER SUPPLY BUTTON FROM OFF AT
   WELDMACHINES TO ON AT WELDMACHINES WITH 16 STEPS
     A3 BO G1 H1 X0 IO A32 1.00 370.
5 WELDOR PUSH GAS-HOOKUP-SWITCH FROM OFF AT WELDMACHINES
   TO ON AT WELDMACHINES
     A1 BO G1 M1 X0 IO A1 1.00 40.
6 WELDOR FASTEN CURRENT SELECTOR HANDLE AT WELDMACHINES 1
   WRIST-TURN USING HAND
     A1 BO G1 A1 BO P1 F3 A0 BO PO A0 1.00 70.
7 WELDOR TURN OUTPUT CONTROL LEVER FROM OFF AT
   WELDMACHINES TO ON AT WELDMACHINES
     A1 HO G1 M3 x0 IO A1 1.00 60.
8 WELDOR POSITION ANTI-SPATTER SPRAY CAN FROM WELDTABLE
   TO SHEETMTAL ASSEMBLY AT WELDTABLE F 2
   A3 B3 G1 A1 BO P6 A0 2.00 280.
9 WELDOR PUSH ANTI-SPATTER2 SPRAY CAN PROCESS F 2
   A1 BO G1 M1 X10 IO A0 2.00 260.
10 WELDOR POSITION WELDROD FROM WELDTABLE TO SHEETMETAL
    ASSEMBLY AT WELDTABLE F 3
    A1 PO G1 A1 BO P6 A0 3.00 270.
11 PULL WELDHOOD FROM UP AT WELDOR TO DOWN AT WELDOR F 3
   A1 RO G1 M1- X0 IO A1 3.00 120.
12 WELDOR POSITION WELDGUN FROM WELDTABLE TO SHEETMETAL
    ASSEMBLY AT WELDTABLE WITH PARTIAL BEND F 3
    A1 BO G1 A1 B6 P6 A0 3.00 450.
13 OPERATE WELD STINGER-BUTTON1 PROCESS F 5
    A1 BO G1 M6 X81 IO A0 5.00 4450.
14 PUSH WELDHOOD FROM DOWN AT WELDOR TO UP AT WELDOR F 3  
A1  BO  G1  M1  X0  IO  A1  3,00  1 2 0.

15 WELDOR DEBURR WELDED ASSEMBLY AT WELDTABLE 1 ARM-STROKE  
USING WIREBRUSH AT WELDTABLE AND ASIDE PF 50 ( 4 5 6 7
)  
A1  BO  G1  (A1  BO  P1  C1)  A1  BO  P1  A0  (50)  1.00  1540.

16 REPLACE SHEETMETAL ASSEMBLY FROM WELDTABLE TO CART AT  
WELDTABLE WITH 4 STEPS  
A1  BO  G1  A6  BO  P3  A0  1.00  110.

17 FITTER HOVE CART FROM WELDTABLE TO WORKTABLE  
A1  BO  G1  A131BO  P1  A0  1.00  1340.

TOTAL TMU  11070.

Type D,EH,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?
Please input file <FLOVAL.KO9>?

File Description: RIVET FLAT OVAL ASSEMBLY

Output to line printer <Y or N>? N

FIT .008

FLOVAL.KO9

RIVET SHEETMETAL FOR FLAT OVAL ASSEMBLY WITH RIVET GUN AT
SHEETMETAL SHOP
PER FLAT OVAL

NASSCO SHEETMETAL SHAPE 111
* HULL 418
* DRAWING 501-292
* 92-92008
* 94-1951
* 22 GAUGE GALV. SHEETMETAL
* 4"x5" TO 5"x5" F.O. X 6' L SPO. TO F.O.
* SEAL SEAMS & RIVET HEADS WITH SEALANT
FITTER BEGINS AT WORKTABLE

1 POSITION RIVET-HOLE-GUIDE FROM WORKTABLE TO SHEETMETAL
AT WORKTABLE WITH 3 STEPS

A1 B0 G1 H6 B0 P6 A0 1.00 140.

2 MARK RIVET HOLES ON SHEETMETAL AT WORKTABLE 1 DIGIT
USING BLACKPEN AT WORKTABLE AND ASIDE PF # (4 5 6 7)
A1 B0 G1 (A1 B0 P1 R3) A1 B0 P1 A0 (B) 1.00 440.

3 OPERATE DRILLMOTOR ON SHEETMETAL AT WORKTABLE PROCESS F
B
A1 B0 G1 H6 X6 TO A0 8.00 1120.

4 POSITION RIVETS FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE F 3
A1 B0 G1 A1 B0 P6 A0 8.00 720.

5 OPERATE RIVET GUN PROCESS F 8
A1 B0 G1 H6 X3 I0 A0 8.00 880.

6 POSITION CAULKING GUN TO SHEETMETAL AT WORKTABLE PF 3 (4 5 6)
A1 B0 G1 (A1 B0 P6 J0) A0 (B) 1.00 580.

7 GRIP SEALANT TO SHEETMETAL AT WORKTABLE USING
CAULKING GUN AND ASIDE PF # (4 5 6 7)
A1 B0 G1 (A1 B0 P3 C1) A1 B0 P1 A0 (4) 1.00 240.

8 INSPECT SHEETMETAL AT WORKTABLE 9 POINTS
A0 B0 C0 A0 B0 P0 T10 A0 B0 P0 A0 1.00 100.

TOTAL THU 4220

Type D:EM,CT,EU,EX,L,D,LS,M,T,W <or H for help>?
Sheet Metal Shape #11

15" x 15" to 12" x 16" x .25" sq. to Flat Our C

<table>
<thead>
<tr>
<th>Task</th>
<th>Hours</th>
<th>Minutes</th>
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<td>Fab</td>
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<tr>
<td>Mark Out</td>
<td>24440</td>
<td>14 min.</td>
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<tr>
<td>Weld</td>
<td>16450</td>
<td>10 min.</td>
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<td>90 min.</td>
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Please input file (FLOVAL.M30) ?

File Description ? MARK OUT SHEETMETAL FOR FLAT OVAL

Output to line-printer <Y or N> ? N

(39, 3)

FIT • Will

FLOVAL.M30
MARK OUT SHEETMETAL FOR FLAT OVAL WITH AWL AT SHEETMETAL SHOP
OFG: 4 14-APR-83

NASSCO SHEETMETAL SHAPE 11
* 18 GAUGE GALV. SHEETMETAL
* 15'X15' TO 12'X10' FLAT OVAL 25' LG
* MARK OUT FLAT OVAL WITH TEMPLATE
FITTER BEGINS AT WORKTABLE

1 POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS F 2
   A1 B0 G1 A3 B0 P6 A0 2.00 220.

2 POSITION WEIGHTS FROM WORKTABLE TO TEMPLATE AT WORKTABLE WITH 2 STEPS F 6
   A1 B0 G1 A3 E0 P6 A0 6.00 660.

3 MARK OUT LINES FROM TEMPLATE TO SHEETMETAL AT WORKTABLE
   5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 20 (4 5 6 7)
   A1 B0 G1 (A1 B0 P1 R16) A1 B0 P1 A0 (20) 1.00 3640.

4 POSITION CPUNCH FROM WORKTABLE TO TEMPLATE AT WORKTABLE
   WITH 1 STEP F 44
   A1 B0 G1 A3 B0 P6 A0 44.00 4840.

5 FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE AND ASIDE PF 44 (4 5 6 7)
   A1 B0 G1 (A1 B0 P0 F3) A1 B0 P1 A0 (44) 1.00 1800.

6 REPLACE WEIGHTS FROM SHEETMETAL AT WORKTABLE TO WORKTABLE WITH 2 STEPS F 6
   A1 B0 G1 A3 B0 P3 A0 6.00 480.

7 REPLACE TEMPLATE FROM SHEETMETAL AT WORKTABLE TO WORKTABLE WITH 2 STEPS F 2
   A1 B0 G1 A3 B0 P3 A0 2.00 160.

8 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 20 (4 5 6 7)
   A1 B0 G1 (A1 B0 P1 R16) A1 B0 P1 A0 (20) 1.00 3640.

9 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 84 (4 5 6 7)
   A1 B0 G1 (A1 B0 P1 R3) A1 P0 P1 A0 (84) 1.00 4240.

10 MARK IDENTIFICATION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE 52 (4 5 6 7)
   A1 B0 G1 A1 B0 P1 R3 A1 B0 P1 A0 1.00 90.

11 MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE F 3
   A1 B0 G1 A1 B0 P1 M32. A1 B0 P1 A0 3.00 1140.

12 MARK DIMENSIONS ON SHEETMETAL 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF 4 (4 5 6 7)
   A1 B0 G1 (A1 B0 P1 R3) A1 B0 P1 A0 (4) 1.00 240.

13 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE WITH 2 STEPS

14 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS
USING REDPEN AT WORKTABLE AND ASIDE PF 3 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P1 R16) A1 B0 P1 A0 (3) 1.00 580.

15 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT
WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND
ASIDE PF 16 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P1 R3) A1 B0 P1 A0 (16) 1.00 840.

16 MARK IDENTIFICATION INFORMATION ON SHEETMETAL AT
WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND
ASIDE PF 16 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P1 R3) A1 B0 P1 A0 (16) 1.00 840.

17 PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE
WITH 4 STEPS F 2
A1 B0 G1 A6 B0 P3 A0 2.00 220.

18 MOVE CART WITH SHEETMETAL FROM WORKTABLE TO SMALLSHEAR
A1 B0 G1 A67 B0 P1 A0 1.00 700.

TOTAL TMU 24440.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?
Please input file <FLOVAL.M31> ? {{

File Description ? SHEAR SHEETMETAL FOR FLAT OVAL

Output to line-Printer <Y or N> ? N

( 39 3)
FIT .W11
FLOVAL.M31
SHEAR SHEETMETAL FOR FLAT OVAL WITH SMALL 8FT. SHEAR AT
SHEETMETAL SHOP
PER FLAT OVAL
OFG: 4 14-APR-83

NASSCO SHEETMETAL SHAPE 11
* 18 GAUGE GALV. SHEETMETAL
* 15'X15' TO 12'X10' FLAT OVAL 25' L
FITTER BEGINS AT SMALLSHEAR

1 POSITION SHEETMETAL FROM CART AT SMALLSHEAR TO
SMALLSHEAR WITH 4 STEPS F 2
    A1 B0 61 A6 R0 P6 A0 2.00 280.

2 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 2
    A1 B0 G1 M1 X6 IO A0 2.00 180.

3 POSITION SHEETMETAL2 FROM SMALLSHEAR TO SMALLSHEAR WITH
3 STEPS F 14
    A1 B0 G1 A6 B0 P6 A0 14.00 1960.

4 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 14
    A1 H0 G1 M1 X6 IO A0 14.00 1260.

5 REPLACE SHEETMETAL2 FROM SMALLSHEAR TO CART AT
SMALLSHEAR WITH 18 STEPS F 2
    A1 B0 G1 A32 B0 P3. A0 2.00 740.

6 MOVE CART WITH SHEETMETAL FROM SMALLSHEAR TO WORKTABLE
    A1 B0 G1 A67 B3 P1 A0 1.00 730.

TOTAL TMU 5150.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?
Please input file <FLOVAL.M32> ?

File Description ? SHEAR RADIUS FOR FLAT OVAL

Output to line-printer <Y or N> ? N

FIT .W11 FLOVAL,M32
SHEAR RADIUS FOR FLAT OVAL WITH UNI-SHEAR AT SHEETMETAL SHOP
PER FLAT OVAL

OFG: 4 14-APR-83
NASSCO SHEETMETAL SHAPE 11
* 18 GAUGE GALV. SHEETMETAL
* 15'X15' TO 12'X10' FLAT OVAL 25' L
FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL2 FROM CART AT WORKTABLE TO WORKTABLE
WITH 4 STEPS F 2
    A1 B0 G1 A6 B0 P3 A0  2.00  220.

2 MOVE UNISHEAR2 FROM TOOLROOM TO WORKTABLE
    A96 B0 G1 A96 B3 P1 A0  1.00  1970.

3 OPERATE UNISHEAR AT WORKTABLE PROCESS F 10
    A1 B0 G1 M6 X173I0 A0  10.00  18100.

4 CUT CORNERS ON SHEETMETAL AT WORKTABLE 2 CUTS USING
   SNIPS AT WORK TABLE AND ASIDE PF 20 ( 4 5 6 7 )
    A1 B0 G1 (A1 B0 P3 C3 )A1 B0 P1 A0 (20)  1.00  1440.

5 FASTEN [FLAT T EN] CORNERS ON SHEETMETAL AT WORKTABLE 3
   STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 20 ( 4
   5 6 7 )
    A1 B0 G1 (A1 B0 P0 F6 )A1 B0 P1 A0 (20)  1.00  1440.

6 REPLACE SHEETMETAL2 FROM WORKTABLE TO CART AT WORKTABLE
   WITH 4 STEPS F 2
    A1 B0 G1 A6 B0 P3 A0  2.00  220.

7 MOVE CART WITH SHEETMETAL2 FROM WORKTABLE TO LAPOUT
    A1 B0 G1 A54 B0 P1 A0  1.00  570.

TOTAL TMU  23960.

TrPe D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?
Please input file <FLOVAL.M33> ?

File Description ? FORM LAP ENDS FOR FLAT OVAL

Output to line-printer <Y or N> ? N

(39,3)
FIT .W11 FLOVAL.M33
FORM LAP ENDS FOR FLAT OVAL WITH LAPOUT MACHINE AT SHEETMETAL
SHOP PER FLAT OVAL

NASSCO SHEETMETAL SHAPE 11
* 18 GAUGE GALV. SHEETMETAL
* 15'X15' TO 12'X10' FLAT OVAL 25'L
FITTER BEGINS AT LAPOUT

1 PLACE SHEETMETAL2 FROM CART AT LAPOUT TO LAPOUT WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0 2.00 220.
2 PUSH LAPOUT-SWITCH PROCESS F 2
   A1 B0 G1 M1 X16 IO A0 2.00 380.
3 PUSH AND GUIDE SHEETMETAL2 THROUGH LAPOUT WITH 3 STEPS F 2
   A6 B0 G1 M1 X0 I3 A0 2.00 220.
4 REPLACE SHEETMETAL2 FROM LAPOUT TO CART AT LAPOUT WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0 2.00 220.
5 MOUE CART WITH SHEETMETAL2 FROM LAPOUT TO HAND-ROLLER
   AT WORKBENCH
   A1 B0 G1 A24 B3 P1 A0 1.00 300.

TOTAL TMU 1340.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

30450
Please input file <FLOVAL.M34> ?

File Description? FORM RADIUS ON COLLAR FOR FLAT OVAL

Output to line-printer <Y or N> ? N

( 39, 3)
FIT .W11  FLOVAL.M34

FORM RADIUS ON COLLAR FOR FLAT OVAL WITH ROLL FORMER (ROLLER) AT
SHEETMETAL SHOP
PER FLAT OVAL

NASSCO SHEETMETAL SHAPE 11
* 18 GAUGE GALV. SHEETMETAL
* 15'X15' TO 12'X10' FLAT OVAL 25'L
FITTER BEGINS AT WORKBENCH

1 POSITION SHEETMETAL2 FROM CART AT WORKBENCH TO
HAND-ROLLER AT WORKBENCH WITH 4 STEPS F 2
A1 B0 G1 A6 B0 F6 A0  2.00  280.

2 FASTEN BOLT [ROLLS] TO SHEETMETAL2 AT HAND-ROLLER AT
WORKBENCH 5 SPINS USING FINGERS F 6
A1 B0 G1 A1 B0 F1 F10 A0 B0 P0 A0  6.00  840.

3 CRANK HAND-ROLLER AT WORKBENCH 3 REVVS USING HAND F 6
A1 B0 G1 M6 X0 I0 A0  6.00  480.

4 REPLACE SHEETMETAL2 FROM HAND-ROLLER AT WORKBENCH TO
CART AT WORKBENCH WITH 4 STEPS F 2
A1 B0 G1 A6 B0 P3 A0  2.00  220.

5 MOVE CART WITH SHEETMETAL2 FROM WORKBENCH TO
CORNICEBRAKE
A1 B0 G1 A32 B0 P1 A0  1.00  350.

TOTAL TMU  2170.

Type D, EM, CT, EW, EX, L, LD, LS, H, T, W <or H for help> ?

32,620
BEND RADIUS FOR FLAT OVAL WITH CORNICE BRAKE AT SHEETMETAL SHOP

FLAT OVAL

NASSCO SHEETMETAL SHAPE 11
* HULL 414
* DRAWING 501-072
* V2-72003
* V6-3941
* 18 GAUGE GALV. SHEETMETAL
* 15'X15' TO 12'X10' FLAT OVAL 25'L

FITTER BEGINS AT CORNICEBRAKE

1 POSITION SHEETMETAL2 FROM CART AT CORNICEBRAKE TO CORNICEBRAKE WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P6 A0  2.00  280.
2 OPERATE CORNICEBRAKE-LEVER PROCESS F 36
   A1 B0 G1 M6 X42 IO A0  36.00  18000.
3 POSITION SHEETMETAL2 FROM CORNICEBRAKE TO CORNICEBRAKE F 2
   A1 B0 G1 A1 B0 P6 A0  2.00  180.
4 OPERATE CORNICEBRAKE-LEVER PROCESS F 36
   A1 B0 G1 M6 X42 IO A0  36.00  18000.
5 REPLACE SHEETMETAL2 FROM CORNICEBRAKE TO CART AT CORNICEBRAKE WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0  2.00  220.
6 MOVE CART WITH SHEETMETAL2 FROM CORNICEBRAKE TO WORKTABLE
   A1 B0 G1 A54 B3 P1 A0  1.00  600.

TOTAL TMU  37280,

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

69900
Please input file <FLOVAL.M36> ?

File Description ? ASSEMBLE FLAT OVAL

Output to line-printer <Y or N> ? N

(39, 3)
FIT .W11 FLOVAL.M36

ASSEMBLE SHEETMETAL PARTS FOR FLAT OVAL WITH RIVET GUN AT
SHEETMETAL SHOP
PER FLAT OVAL OFG: 4 22-APR-83

NASSCO SHEETMETAL SHAPE 11
* HULL 414
* DRAWING 501-072
* V2-72003
* V6-3941
* 18 GAUGE GALV. SHEETMETAL
* 15'X15' TO 12'X10' FLAT OVAL 25' L
* COMPLETE RIVETING AFTER WELDING COLLAR
FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL2 FROM CART AT WORKTABLE TO WORKTABLE
WITH 4 STEPS F 2
A1 B0 G1 A6 B0 P3 A0 2.00 220.

2 POSITION SHEETMETAL2 FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE WITH 2 STEPS
A1 B0 G1 A3 B0 P6 A0 1.00 110.

3 GRIP SHEETMETAL TO SHEETMETAL AT WORKTABLE USING
VISEGRIPS AND ASIDE PF 2 (4 5 6 7)
A1 B0 G1 (A1 B0 P3 C1) A1 B0 F1 A0 (2) 1.00 140.

4 FASTEN 5.32 DRILL-BIT TO DRILLMOTOR AT WORKTABLE WITH 3
WRIST-TURNS USING CHUCKKEY AND ASIDE
A1 B0 G1 A1 B0 P3 F6 A1 B0 P1 A0 1.00 140.

5 OPERATE DRILLMOTOR AT WORKTABLE PROCESS F 2
A1 B0 G1 M6 X6 IO A0 2.00 280.

6 POSITION RIVET FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE F 2
A1 B0 G1 A1 B0 P6 A0 2.00 180.

7 OPERATE RIVETGUN PROCESS F 2
A1 B0 G1 M6 X3 IO A0 2.00 ...

TOTAL TMU 1290.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ? 7/190
Please input file <FLOVAL.M37>  ?

file Description  ? TACK WELD COLLAR TO FLAT OVAL

Output to line-printer <Y or N> ? N

( 39, 3)
FIT .W11 FLOVAL.M37
TACK WELD COLLAR ON FLAT OVAL WITH TACK WELDER AT SHEETMETAL SHOP
PER FLAT OVAL OFG: 4 25-APR-83

NASSCO SHEETMETAL SHAPE 11
* HULL 414
* DRAWING 501-072
* V2-72003
* V6-3941
* 18 GAUGE GALV. SHEETMETAL
* 15'X15' TO 12'X10' FLAT OVAL 25'L
* HOLD COLLAR IN PLACE WITH VISEGRIPII
* AFTER THIS ANALYSIS–MOVE TO WELD AREA
* WELD ASSEMBLY WITH FLOVAL.M38
FITTER BEGINS AT WORKTABLE

1 MOVE SHEETMETAL2, VISEGRIPII, FROM WORKTABLE TO WELDOUT
   A1 B0 G1 A54 B3 F1 A0 1.00 600.

2 POSITION SHEETMETAL2 FROM TABLE AT WELDOUT TO SHEETMETAL2 AT WELDOUT WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P6 A0 2.00 280.

3 GRIP SHEETMETAL2 TO SHEETMETAL2 AT WELDOUT USING VISEGRIPII AT WELDOUT AND ASIDE PF 8 (4 5 6 7)
   A1 B0 G1 (A1 B0 P3 C1 )A1–B0 P1 A0 (8) 1.00 440.

4 OPERATE TACKWELDER AT WELDOUT PROCESS F 20
   A1 B0 G1 M6 X3 IO A0 20.00 2200.

5 MOVE VISEGRIPII, SHEETMETAL2, FROM WELDOUT TO WORKTABLE
   A1 B0 G1 A54 B3 F1 A0 1.00 600.

TOTAL TMU 4120.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ? 75,310
File Description ? WELD FLAT OVAL

Output to line-printer <Y or N> ? N

( 39, 3)
WELD .WO1  FLOVAL.M38
WELD FLAT OVAL WITH TIG-WELDER AT SHEETMETAL SHOP WELDING BOOTH
PER FLAT OVAL OFG: 4  21-JUL-83
WELDING NASSCO SHEETMETAL SHAPE 11
- HULL 414
- DRAWING 501-072
- V2-7203
- V6-3941
- 18 GAUGE GALV. SHEETMETAL
- 15'X15' TO 12'X10' FLAT OVAL 25'LG
- WELDING DONE IN WELD AREA BOOTH
- WELDOR PERFORMS THE WORK
- FITTER TRANSPORT SHEETMETAL ASSEMBLY
FITTER BEGINS AT WORKTABLE

1 FITTER PLACE SHEETMETAL ASSEMBLY FROM WORKTABLE TO CART
AT WORKTABLE WITH 4 STEPS
A1 B0 G1 A6 B0 P3 A0  1.00  110.

2 FITTER MOVE CART FROM WORKTABLE TO WELDTABLE
A1 B0 G1 A131B3 P1 A0  1.00  1370.

3 PLACE SHEETMETAL ASSEMBLY FROM CART AT WELDTABLE TO
WELDTABLE WITH 4 STEPS
A1 B0 G1 A6 B0 P3 A0  1.00  110.

4 WELDOR PUSH POWER SUPPLY BUTTON FROM OFF AT
WELDMACHINES TO ON AT WELDMACHINES WITH 16 STEPS
A3 B0 G1 M1 X0 I0 A32  1.00  370.

5 WELDOR PUSH GAS-HOOKUP-SWITCH FROM OFF AT WELDMACHINES
TO ON AT WELDMACHINES
A1 B0 G1 M1 X0 I0 A1  1.00  40.

6 WELDOR FASTEN CURRENT SELECTOR HANDLE AT WELDMACHINES 1
WRIST-TURN USING HAND
A1 B0 G1 A1 B0 P1 F3 A0 B0 P0 A0  1.00  70.

7 WELDOR TURN OUTPUT CONTROL LEVER FROM OFF AT
WELDMACHINES TO ON AT WELDMACHINES
A1 B0 G1 M3 X0 I0 A1  1.00  60.

8 WELDOR POSITION ANTI-SPATTER SPRAY CAN FROM WELDTABLE
TO SHEETMETAL ASSEMBLY AT WELDTABLE F 5
A3 B3 G1 A1 B0 P6 A0  5.00  700.

9 WELDOR PUSH ANTI-SPATTER2 SPRAY CAN PROCESS F 4
A1 B0 G1 M1 X10 I0 A0  4.00  520.

10 WELDOR POSITION WELDROD FROM WELDTABLE TO SHEETMETAL
ASSEMBLY AT WELDTABLE F 4
A1 B0 G1 A1 B0 P6 A0  4.00  360.

11 PULL WELDHOOD FROM UP AT WELDOR TO DOWN AT WELDOR F 5
A1 B0 G1 M1 X0 I0 A1  5.00  200.

12 WELDOR POSITION WELDGUN FROM WELDTABLE TO SHEETMETAL
ASSEMBLY AT WELDTABLE WITH PARTIAL BEND F 5
A1 B0 G1 A1 B6 P6 A0  5.00  750.

13 OPERATE WELD STINGER-BUTTON1 PROCESS F 10
A1 B0 G1 M6 X81 I0 A0  10.00  8900.

14 PUSH WELDHOOD FROM DOWN AT WELDOR TO UP AT WELDOR F 5
A1 B0 G1 M1 X0 I0 A1  5.00  200.
15 WELDOR DEBURR WELDED ASSEMBLY AT WELDTABLE 10 ARM-STROKES USING WIREBRUSH AT WELDTABLE AND ASIDE PF PF 10 (4 5 6 7) A1 B0 G1 (A1 B0 P1 C10 )A1 B0 P1 A0 (10) 1.00 1240.
16 REPLACE SHEETMETAL ASSEMBLY FROM WELDTABLE TO CART AT WELDTABLE WITH 4 STEPS A1 B0 G1 A6 B0 P3 A0 1.00 110.
17 FITTER MOVE CART FROM WELDTABLE TO WORKTABLE A1 B0 G1 A131B0 P1 A0 1.00 1340.

TOTAL TMU 16450.

Type D, EM, CT, EW, EX, L, LD, LS, T, W <or H for help> ?
Please input file <FLOVAL.M39> ?

File Description ? RIVET FLAT OVAL ASSEMBLY

Output to line-printer <Y or N> ? N

( 39, 3)
FIT

FLOVAL.M39

RIVET SHEETMETAL FOR FLAT OVAL ASSEMBLY WITH RIVET GUN AT
SHEETMETAL SHOP
PER FLAT OVAL

NASSCO SHEETMETAL SHAPE 11
* HULKL 414
* DRAWING 501-072
* V2-72003
* V6-3941
* 18 GAUGE GALV. SHEETMETAL
* 15'X15' TO 12'X10' FLAT OVAL 25'L
* SEAL SEAMS AND RIVETS WITH SEALANT
FITTER BEGINS AT WORKTABLE

1 POSITION RIVET-HOLE-GUIDE FROM WORKTABLE TO SHEETMETAL
AT WORKTABLE WITH 3 STEPS F 2
   A1 B0 G1 A6 B0 P6 A0  2.00  280.

2 MARK RIVET HOLES ON SHEETMETAL FROM RIVET-HOLE-GUIDE AT
WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND
ASIDE PF 32 ( 4 5 6 7 )
   A1 B0 G1 (R1 B0 P1 R3 )A1 B0 P1 A0 (32)  1.00 1640.

3 POSITION DRILLMOTOR FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE WITH 2 STEPS F 32
   A1 B0 G1 A3 B0 P6 A0  32.00 3520.

4 OPERATE DRILLMOTOR AT WORKTABLE PROCESS F 32
   A1 B0 G1 M6 X6 I0 A0  32.00 4480.

5 POSITION RIVET FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE WITH 2 STEPS F 32
   A1 B0 G1 A3 B0 P6 A0  32.00 3520.

6 OPERATE RIVETGUN AT WORKTABLE PROCESS F 32
   A1 B0 G1 M6 X3 I0 A0  32.00 3520.

7 GRIP SEALANT TO SHEETMETAL AT WORKTABLE USING
CAULKINGGUN AND ASIDE PF 10 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P3 C1 )A1 B0 P1 A0 (10)  1.00 540.

8 INSPECT SHEETMETAL AT WORKTABLE 9 POINTS
   A0 B0 G0 A0 B0 P0 T10 A0 B0 P0 A0  1.00 100.

TOTAL TMU  17600,

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ? 92310
**Sheet Metal Shape #11**

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File Description ? MARK OUT FLAT OVAL TO SQUARE CORNER

Output to line-Printer <Y or N> ? N

( 399 1)
FIT .W1
F02SQC.M50

MARK OUT FLAT OVAL TO SQUARE CORNER WITH AWL AT SHEETMETAL SHOP

PER FLAT OVAL          OFG: 4 24-MAY-83
NASSCO SHEETMETAL SHAPE 11
* 11 GAUGE GALV. SHEETMETAL
* 10'X5' SQUARE TO FLAT OVAL
FITTER BEGINS AT WORKTABLE

1 POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS
   A1 B0 G1 A6 B0 P6 A0 1.00 140.

2 PLACE WEIGHTS FROM WORKTABLE TO TEMPLATES AT WORKTABLE WITH 4 STEPS F 6
   A1 B0 G1 A6 B0 P3 A0 6.00 660.

3 MARK OUTLINE FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (6) 1.00 1120.

4 POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS F 32
   A1 B0 G1 A3 B0 P6 A0 32.00 3520.

5 FASTEN CPUNCH TO TEMPLATE AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE AND ASIDE PF 32 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P0 F3 )A1 B0 P1 A0 (32) 1.00 1320.

6 REPLACE WEIGHTS FROM TEMPLATES AT WORKTABLE TO WORKTABLE WITH 3 STEPS F 6
   A1 B0 G1 A6 B0 P3 A0 6.00 660.

7 REPLACE TEMPLATES FROM SHEETMETAL AT WORKTABLE TO WORKTABLE WITH 3 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0 2.00 220.

8 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 18 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (18) 1.00 3280.

3 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AND ASIDE PF 52 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (52) 1.00 2640.

10 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 GO (52) 1.00 2640.

11 MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE F 4
   A1 B0 G1 A1 B0 P1 M32 A1 B0 P1 A0 4.00 1520.

12 MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (4) 1.00 240.

13 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 3
   A1 B0 G1 A1 B0 F6 A0 3.00 270.

14 MARK LINES FROM STRAIGHTEDGE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING BLACKPEN AT WORKTABLE AND ASIDE PF 3 ( 
15 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 3 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 3 (4 5 6 7)
   A1 B0 G1 (A1 B0 P1 R16') A1 B0 P1 A0 (3) 1.00 580.
16 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 14 (4 5 6 7)
   A1 B0 G1 (A1 B0 P1 R10') A1 B0 P1 A0 (3) 1.00 400.
17 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 12 (4 5 6 7)
   A1 B0 G1 (A1 B0 P1 R3') A1 B0 P1 A0 (14) 1.00 740.
18 PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0 2.00 220.
19 MOVE CART FROM WORKTABLE TO 14FT. SHEAR
   A1 B0 G1 A81 B0 P1 A0 1.00 840.

TOTAL TMU 21650.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?
File Description ? SHEAR SHEETMETAL FOR FLAT OVAL TO SQUARE CORNERS

Output to line-printer <Y or N> ? N

( 39, 1) FIT .W11  F02SQC.M51

SHEAR SHEETMETAL FOR FLAT OVAL TO SQUARE CORNERS WITH 14FT.SHEAR
AT SHEETMETAL SHOP

PER FLAT OVAL        OFG: 4 24-MAY-83

NASSCO SHEETMETAL SHAPE 11
* 11 GAUGE GALV. SHEETMETAL
* 10'x5' SQUARE TO FLAT OVAL
* SHEAR 1 1/2' STRIPS FOR RADIUS --
* -- COLLAR ON FLAT OVAL
FITTER BEGINS AT 14FT.SHEAR

1 POSITION SHEETMETAL FROM CART AT 14FT.SHEAR TO
14FT.SHEAR WITH 4 STEPS F 2
    A1 B0 G1 A6 B0 P6 A0   2.00   280.
2 PUSH 14FT.SHEAR-FOOTPEDAL PROCESS F 3
    A1 B0 G1 M1 X3 I0 A0   2.00   120.
3 POSITION SHEETMETAL FROM 14FT.SHEAR TO 14FT.SHEAR WITH
4 STEPS F 13
    A1 B0 G1 A6 B0 P6 A0   13.00   1820.
4 PUSH 14FT.SHEAR-FOOTFKDAL PROCESS F 13
    A1 B0 G1 M1 X3 I0 A0   13.00   780.
5 REPLACE SHEETMETAL FROM 14FT.SHEAR TO CART AT
14FT.SHEAR WITH 4 STEPS F 2
    A1 B0 G1 A6 B0 P3 A0   2.00   220.
6 MOUE CART FROM 14FT.SHEAR TO WORKTABLE
    A1 B0 G1 A81 B3 P1 A0  1.00   870.

TOTAL TMU        4090.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?
File Description ? CUT RADIUS FOR FLAT OVAL TO SQUARE CORNERS

Output to line-printer <Y or N> ? N

( 39, 1)
FIT .W11 F02SQC.M52
CUT RADIUS FOR FLAT OVAL TO SQUARE CORNERS WITH SABER-SAW AT
SHEETMETAL SHOP
PER FLAT OVAL OFG: 4 24-MAY-83
NASSCO SHEETMETAL SHAPE 11
* 1.1 GAUGE GALV. SHEETMETAL
* 10'X5' SQUARE TO FLAT OVAL
* CUT RADIUS & CORNERS WITH SABER SAW
FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE
WITH 4 STEPS F 2
A1 B0 G1 A6 B0 P3 A0 2.00 220.
2 MOVE SABER-SAW2 FROM TOOLROOM TO WORKTABLE
A96 B0 G1 A96 B3 P1 A0 1.00 1970.
3 OPERATE SABER-SAW AT WORKTABLE PROCESS F 4
A1 B0 G1 M6 X67 I0 A0 4.00 3000.
4 PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE
WITH 4 STEPS F 2
A1 B0 G1 A6 B0 P3 A0 2.00 220.
5 MOVE CART FROM WORKTABLE TO 14FTHYDROPRESSBRAKE
A1 B0 G1 A96 B0 P1 A0 1.00 990.

TOTAL TMU 6400.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

10490
File Description ? BEND RADIUS FOR FLAT OVAL TO SQUARE CORNERS

Output to line-Printer <Y or N> ? N

( 39, 1)
FIT .W11 F02SQC.M53

BEND RADIUS FOR FLAT OVAL TO SQUARE CORNERS WITH
14FT. HYDRO-PRESS-BRAKE AT SHEETMETAL SHOP
PER FLAT OVAL OFG: 4 24-MAY-83

NASSCO SHEETMETAL SHAPE 11
* 11 GAUGE GALV. SHEETMETAL
* 100'X5' SQUARE TO FLAT OVAL
* BEND RADIUS FOR FLAT OVAL

FITTER BEGINS AT 14FTHYDROPRESSBRAKE

1 POSITION SHEETMETAL FROM CART AT 14FTHYDROPRESSBRAKE TO 14FTHYDROPRESSBRAKE WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P6 A0 2.00 280.
2 PUSH 14FTHYDROPRESSBRAKE-FOOTPEDAL PROCESS F 2
   A1 B0 G1 M1 X24 I0 A0 2.00 540.
3 POSITION SHEETMETAL FROM 14FTHYDROPRESSBRAKE TO 14FTHYDROPRESSBRAKE F 30
   A1 B0 G1 A1 B0 P6 A0 30.00 2700.
4 PUSH 14FTHYDROPRESSBRAKE-FOOTPEDAL PROCESS F 30
   A1 B0 G1 M1 X24 I0 A0 30.00 3100.
5 REPLACE SHEETMETAL FROM 14FTHYDROPRESSBRAKE TO CART AT 14FTHYDROPRESSBRAKE WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0 2.00 220.
6 MOVE CART FROM 14FTHYDROPRESSBRAKE TO ROLLER
   A1 B0 G1 A54 B0 P1 A0 1.00 570.

TOTAL TMU 12410.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

22,900
File Description ? FORM COLLAR FOR FLAT OVAL TO SQUARE CORNERS

Output to line-printer <Y or N> ? N

1) FIT .W11 F02SQC.M54

FORM COLLAR FOR FLAT OVAL TO SQUARE CORNERS WITH
ROLLER (ROLL FORMER) AT SHEETMETAL SHOP
PER FLAT OVAL

NASSCO SHEETMETAL SHAPE 11
* 11 GAUGE GALV. SHEETMETAL
* 10\'X5\' FLAT OVAL TO SQUARE CORNERS
* ROLL UP RADIUS COLLARS FOR FLAT OVAL
* COMPLETE IN WELD BOOTH AREA
* SEE MWELD....F02SQC.M55

FITTER BEGINS AT ROLLER

1 POSITION SHEETMETAL FROM CART AT ROLLER TO ROLLER WITH
   4 STEPS
   A1 B0 G1 A6 B0 P6 A0 1.00 140.

2 FASTEN BOLT [ROLLS] TO SHEETMETAL AT ROLLER 3
   WRIST-TURNS USING HAND
   A1 B0 G1 A1 B0 P1 F6 A0 B0 P0 A0 1.00 100.

3 PUSH ROLLER-BUTTON PROCESS F 3
   A1 B0 G1 M1 X96 I0 A0 8.00 7920.

4 POSITION SHEETMETAL FROM ROLLER TO SHEETMETAL AT
   ROLLER F 4
   A1 B0 G1 A1 B0 P6 A0 4.00 360.

5 REPLACE SHEETMETAL FROM ROLLER TO CART AT ROLLER WITH
   4 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0 2.00 220.

6 MOVE CART FROM ROLLER TO WORKTABLE
   A1 B0 G1 A54 B3 P1 A0 1.00 600.

TOTAL TMU 9340.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?
FILE DESCRIPTION: WELD SQUARE TO FLAT OVAL

Output to line-printer <Y or N> ? N

(39,101)
WELD W01 F02SQC.M55
WELD SQUARE TO FLAT OVAL WITH ARC (STICK) WELDER AT SHEETMETAL
SHOP WELDING BOOTH
PER SQUARE TO FLAT OVAL
OFG: 4 22-JUL-83
WELDING NASSCO SHEETMETAL SHAPE 11
* 11 GAUGE GALV. SHEETMETAL
* 10X5 SQUARE TO FLAT OVAL 20'L
* WELDING DONE IN WELD AREA BOOTH
* WELDOR PERFORMS THE WORK
* FITTER TRANSPORTS SHEETMETAL
FITTER BEGINS AT WORKTABLE

1 FITTER PLACE SHEETMETAL ASSEMBLY FROM WORKTABLE TO CART
AT WORKTABLE WITH 4 STEPS F 2
A1 B0 G1 A6 B0 P3 A0 2.00 220.

2 FITTER MOVE CART FROM WORKTABLE TO WELDTABLE
A1 B0 G1 A131B3 P1 A0 1.00 1370.

3 PLACE SHEETMETAL ASSEMBLY FROM CART AT WELDTABLE TO
WELDTABLE WITH 4 STEPS F 2
A1 B0 G1 A6 B0 P3 A0 2.00 220.

4 WELDOR PUSH POWER SUPPLY BUTTON FROM OFF AT
WELDMACHINES TO ON AT WELDMACHINES WITH 16 STEPS
A3 B0 G1 M1 X0 I0 A32 1.00 370.

5 WELDOR TURN CURRENT OUTPUT CONTROL LEVER FROM OFF AT
WELDMACHINES TO AT WELDMACHINES
A1 B0 G1 M3 X0 I0 A1 1.00 60.

6 WELDOR POSITION ANTI-SPATTER SPRAY CAN FROM WELDTABLE
TO SHEETMETAL ASSEMBLY AT WELDTABLE F 4
A3 B3 G1 A1 B0 P6 A0 4.00 560.

7 WELDOR PUSH ANTI-SPATTER SPRAY CAN PROCESS F 4
A1 B0 G1 M1 X10 I0 A0 4.00 520.

8 WELDOR FASTEN WELDROD TO STINGER AT WELDTABLE
WRIST-TURN USING, HAND F 12
A1 B0 G1 A1 B0 P1 F3 A0 B0 P0 A0 12.00 340.

9 FULL WELDHOOD FROM UP AT WELDOR TO DOWN AT WELDOR F 12
A1 B0 G1 M1 X0 I0 A1 12.00 480.

10 WELDOR POSITION STINGER FROM WELDTABLE TO SHEETMETAL
ASSEMBLY AT WELDTABLE F 12
A1 B0 G1 A1 B0 P6 A0 12.00 1030.

11 OPERATE WELD STINGER-BUTTON2 AT WELDTABLE F 9
A1 B0 G1 M6 X0 I0 A0 9.00 720.

12 PUSH WELDHOOD FROM DOWN AT WELDOR TO UP AT WELDOR F 12
A1 B0 G1 M1 X0 I0 A1 12.00 430.

13 WELDOR LOOSEN SLAG FROM SHEETMETAL ASSEMBLY AT
WELDTABLE 6 STRIKES USING SLAGHAMMER AT WELDTABLE AND
ASIDE PF 5 (4 5 6 7)
A1 B0 G1 (A1 B0 P0 L16 )A1 B0 P1 A0 (5) 1.00 890.

14 WELDOR DEBURR WELDED ASSEMBLY AT WELDTABLE 10
ARM-STROKES USING WIREBRUSH AT WELDTABLE AND ASIDE PF
18 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 C10 )A1 B0 P1 A0 (18) 1.00 2200.

15 REPLACE SHEETMETAL ASSEMBLY FROM WELDTABLE TO CART A1-
**Sheet Metal Shape #12**

8" x 8" x 20" LG. Ogee Offset Offset 5"

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File Description ? MARK OUT CHEEKS FOR OGEE

Output to line-printer <Y or N> ? N

( 39, 1)
FIT .W11 OGEE .M40
MARK OUT CHEEKS FOR OGEE WITH AWL AT SHEETMETAL SHOP
PER OGEE OFG: 4 12-MAY-83

NASSCO SHEETMETAL SHAPE 12
* 22 GAUGE GALV. SHEETMETAL
* 8'X8'X20'L OGEE / OFFSET 5'
* MARK OUT CHEEKS WITH TEMPLATE.
FITTER BEGINS AT WORKTABLE

1 POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS F 2
   A1 B0 G1 A6 B0 P6 A0 2.00 280.
2 POSITION WEIGHTS FROM WORKTABLE TO TEMPLATES AT WORKTABLE WITH 3 STEPS F 4
   A1 B0 G1 A6 B0 P6 A0 4.00 560.
3 MARK OUTLINE FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7)
   A1 B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (6) 1.00 1120.
4 POSITION CPUNCH FROM WORKTABLE TO TEMPLATE AT WORKTABLE WITH 2 STEPS F 8
   A1 B0 G1 A3 B0 P6 A0 8.00 880.
5 FASTEN CPUNCH TO TEMPLATE AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE AND ASIDE PF 8 ( 4 5 6 7)
   A1 B0 G1 (A1 B0 P0 F3 )A1 B0 P1 A0 (8) 1.00 360.
6 REPLACE WEIGHTS FROM TEMPLATE AT WORKTABLE TO WORKTABLE WITH 2 STEPS F 4
   A1 B0 G1 A3 B0 P3 A0 4.00 320.
7 REPLACE TEMPLATES FROM SHEETMETAL AT WORKTABLE TO WORKTABLE WITH 2 STEPS F 2
   A1 B0 G1 A3 B0 P3 A0 2.00 160.
8 MARK CUT LINE ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7)
   A1 B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (6) 1.00 1120.
9 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 44 ( 4 5 6 7)
   A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (44) 1.00 2240,
10 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 ( 4 5 6 7)
   A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (52) 1.00 2640.

TOTAL TMU 9680.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?
File Description: MARK OUT WRAPPERS FOR Ogee

Output to line-Printer <Y or N>? N

(39, 1)
FIT .W11 Ogee M41
MARK OUT WRAPPERS FOR Ogee OFFSET WITH AWL AT SHEETMETAL SHOP
PER Ogee OFG: 4 12-MAY-83

NASSCO SHEETMETAL SHAPE 12
* 22 GAUGE GALV. SHEETMETAL
* 8'X8'X20'L Ogee OFFSET 5'
* MARK OUT WRAPPERS WITHOUT TEMPLATES
FITTER BEGINS AT WORKTABLE

1 MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING
STEEL-TAPE AT WORKTABLE AND ASIDE PF 4 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 M32) A1 B0 P1 A0 (4) 1.00 1400.

2 MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT
USING AWL AT WORKTABLE AND ASIDE PF 4 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 R3) A1 B0 P1 A0 (4) 1.00 240.

3 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE F 4
A1 B0 G1 A1 B0 P6 A0 4.00 360.

4 MARK SHEETMETAL FROM STRAIGHTEDGE AT WORKTABLE 5 DIGITS
USING AWL AT WORKTABLE AND ASIDE PF 4 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 R16) A1 B0 P1 A0 (4) 1.00 760.

5 POSITION CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL
AT WORKTABLE F 8
A1 B0 G1 A1 B0 P6 A0 8.00 720.

6 MARK SHEETMETAL FROM CORNER TEMPLATE AT WORKTABLE 2
DIGITS USING AWL AT WORKTABLE AND ASIDE PF 8 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 R6) A1 B0 P1 A0 (8) 1.60 680.

7 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS
USING REDPEN AT WORKTABLE AND ASIDE PF 11 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 R16) A1 B0 P1 A0 (11) 1.90 2020.

8 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT
WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND
ASIDE PF 44 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 R3) A1 B0 P1 A0 (44) 1.00 2240.

9 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT
USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 R3) A1 B0 P1 A0 (52) 1.00 2640.

10 PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE
WITH 4 STEPS F 2
A1 B0 G1 A6 B0 P3 A0 2.00 220.

11 MOUE CART WITH SHEETMETAL FROM WORKTABLE TO SMALLSHEAR
A1 B0 G1 A67 B0 P1 A0 1.00 700.

TOTAL TMU 11980.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help>?
File Description ? SHEAR SHEETMETAL FOR OGEES

Output to line-printer <Y or N> ? N

( 39, 1)
FIT .W11
OGEE .M42
. SHEAR SHEETMETAL FOR OGEES OFFSET WITH SMALL 8FT. SHEAR AT
SHEETMETAL SHOP
PER OGEES OFG: 4 12-MAY-83

NASSCO SHEETMETAL SHAPE 12
* 22 GAUGE GALV. SHEETMETAL
* 8'X8'X20'L OGEES OFFSET 5'
* SHEAR 1' SPACER STRIPS FOR PITTSBURGH--
* --LOCKS
FITTER BEGINS AT SMALLSHEAR

1 POSITION SHEETMETAL FROM CART AT SMALLSHEAR TO
SMALLSHEAR WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P6 A0 2.00 280.

2 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 2
   A1 B0 G1 M1 X6 IO A0 2.00 180.

3 POSITION SHEETMETAL FROM SMALLSHEAR TO SMALLSHEAR F 14
   A1 B0 G1 A1 B0 P6 A0 14.00 1.260.

4 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 2
   A1 B0 G1 M1 X6 IO A0 2.00 180.

5 REPLACE SHEETMETAL FROM SMALLSHEAR TO CART AT
SMALLSHEAR WITH 10 STEPS F 2
   A1 B0 G1 A16 B0 P3 A0 2.00 420.

6 MOUE CART WITH SHEETMETAL FROM SMALLSHEAR TO WORKTABLE
   A1 B0 G1 A67 B3 P1 A0 1.00 730.

TOTAL TMU 3050.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help_> ?
File Description ? SHEAR RADIUS ON CHEEKS FOR OGEE

Output to line-printer <Y or N> ? N

( 39, 1)
FIT .W1

SHEAR RADIUS ON CHEEKS FOR OGEE WITH UNI-SHEAR AT SHEETMETAL SHOP

PER OGEE OFG: 4 12-MAY-83

NASSCO SHEETMETAL SHAPE 12
* 22 GAUGE GALV. SHEETMETAL
* 3'X8'X20' L OGEE / OFFSET 5'
* BEND UP ONE CORNER ON CHEEK EDGE--
* --WITH VISEGRIPS FOR EASY ENTRY IN--
--EDGE ROLLING MACHINE
FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE
   WITH 4 STEPS
    A1 B0 G1 A6 B0 P3 A0 1.00 110.
2 MOUE UNISHEAR2 FROM TOOLROOM TO WORKTABLE
    A96 B0 G1 A96 B3 P1 A0 1.00 1970.
3 OPERATE UNISHEAR AT WORKTABLE PROCESS F 8
    A1 B0 G1 M6 X17310 A0 8.00 14480;
4 CUT CORNERS ON SHEETMETAL AT WORKTABLE 2 CUTS USING
   SNIPS AT WORKTABLE AND ASIDE PF 16 ( 4 5 6 7 )
    A1 B0 G1 (A1 B0 P3 C3 )A1 B0 P1 A0 (16) 1.00 1160.
5 FASTEN [FLATTEN] SHEETMETAL CORNERS ON SHEETMETAL AT
   WORKTABLE 3 STRIKES USING HAMMER AT WORKTABLE AND
   ASIDE PF 16 ( 4 5 6 7 )
    A1 B0 G1 (A1 B0 P0 F6 )A1 B0 P1 A0 (16) 1.00 1160,
6 GRIP AND TWIST SHEETMETAL [CHEEK CORNER EDGE] 1 TWIST
   USING VISEGRIPS AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7
    A1 B0 G1 (A1 B0 P3 C1 )A1 B0 P1 A0 (4) 1.00 240.
7 REPLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE
   WITH 4 STEPS F 2
    A1 B0 G1 A6 B0 P3 A0 2.00 220.
8 MOUE CART WITH SHEETMETAL FROM WORKTABLE TO LAYOUT
    A1 B0 G1 A54 B0 P1 A0 1.00 570.

TOTAL TMU  19910,

Type D,EM,CT,EW,EX,L,LB,LS,M,T,W <or H for help> ?
File Description ? FORM LAP ENDS FOR OGEE

Output to line-Printer <Y or N> ? N

( 39, 1)
FIT M1
PER W1
OGEE .M44
FORM LAP ENDS FOR OGEE OFFSET WITH LAPOUT AT SHEETMETAL SHOP
OFG: 4 12-MAY-83
NASSCO SHEETMETAL SHAPE 12
* 22 GAUGE GALV. SHEETMETAL
* 8'X8'X20'L OGEE / OFFSET 5'
FITTER BEGINS AT LAPOUT

1 PLACE SHEETMETAL FROM CART AT LAPOUT TO LAPOUT WITH 4 STEPS F 4
   A1 B0 G1 A6 B0 P3 A0 4.00 440.
2 PUSH LAPOUT-SWITCH PROCESS F 4
   A1 B0 G1 M1 X16 I0 A0 4.00 760.
3 PUSH AND GUIDE SHEETMETAL2 THROUGH LAPOUT WITH 4 STEPS
   A6 B0 G1 M1 X0 I3 A0 1.00 110.
4 REPLACE SHEETMETAL2 FROM LAPOUT TO CART AT LAPOUT WITH
   4 STEPS F 4
   A1 B0 G1 A6 B0 P3 A0 4.00 440.
5 MOVE CART WITH SHEETMETAL FROM LAPOUT TO EDGER
   A1 B0 G1 A16 B0 P1 A0 1.00 190.

   TOTAL TMU  1940.

Type D, EM, CT, EW, EX, L, LU, LS, M, T, W <or H for help> ?

24,900
File Description ? FORM 90 DEGREE EDGE ON CHEEKS FOR OGEE

; Output to line-printer <Y or N> ? N

(39, 1)
FIT 1

OGEE .M45

FORM 90 DEGREE EDGE ON CHEEKS FOR OGEE OFFSET WITH EDGER (ROTARY MACHINE) AT SHEETMETAL SHOP PER OGEE

OFG: 4 12-MAY-83

NASSCO SHEETMETAL SHAPE 12
* 22 GAUGE GALV. SHEETMETAL
* 8'X8'X20'L OGEE / OFFSET 5'
FITTER BEGINS AT EDGER

1 POSITION SHEETMETAL FROM CART AT EDGER TO EDGER WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P6 A0  2.00  280.
2 PUSH EDGER-SWITCH PROCESS F 4
   A1 B0 G1 M1 X42 I0 A0  4.00 1800.
3 PUSH AND GUIDE SHEETMETAL THROUGH EDGER WITH 3 STEPS F 4
   A6 B0 G1 M1 X0 I3 A0  4.00  440.
4 REPLACE SHEETMETAL FROM EDGER TO CART AT EDGER WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0  2.00  220.
5 MOVE CART WITH SHEETMETAL FROM EDGER TO PITTSBURGH
   A1 B0 G1 A16 B0 P1 A0  1.00  190.

TOTAL TMU  2930.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?
File Description ? FORM PITTSBURGH LOCKS FOR OGEE

{ Output to line-Printer <Y or N> ? N

( 39, 1)
FIT .W11 OGEE .M46
FORM PITTSBURGH LOCKS FOR OGEE OFFSET WITH PITTSBURGH MACHINE AT SHEETMETAL SHOP PER OGEE OFG: 4 12-MAY-83
NASSCO SHEETMETAL SHAPE 12
* 22 GAUGE GLAV. SHEETMETAL
* 8'X8'X20'L OGEE / OFFSET 5'
FITTER BEGINS AT PITTSBURGH

1 PLACE SHEETMETAL FROM CART AT PITTSBURGH TO PITTSBURGH WITH 4 STEPS

2 PUSH PITTSBURGH-BUTTON PROCESS F 4

3 PUSH AND GUIDE SHEETMETAL THROUGH PITTSBURGH WITH 3 STEPS F 4

4 REPLACE SHEETMETAL FROM PITTSBURGH TO CART AT PITTSBURGH WITH 4 STEPS

5 MOVE CART WITH SHEETMETAL FROM PITTSBURGH TO WORKTABLE

TOTAL TMU 2660.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?
( 39, 1)
FIT .W11 OEGEE .M47
POSITION SPACERS IN PITTSBURGH LOCKS FOR OEGEE OFFSET WITH HAMMER
AT SHEETMETAL SHOP
PER OEGEE OFG: 4 12-MAY-83
NASSCO SHEETMETAL SHAPE 12
* 22 GAUGE GALV. SHEETMETAL
* 8'X8'X20' OEGEE OFFSET 5'
FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE
   WITH 4 STEPS F 2
   A1 B0 G1 A6 BO P3 A0  2.00  220.

2 FASTEN [FLATTEN] SHEETMETAL AT WORKTABLE 3 STRIKES
   USING HAMMER AT WORKTABLE AND ASIDE PF 8 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 PO F6 )A1 B0 P1 A0 (8)  1.00  600.

3 POSITION SHEETMETAL FROM WORKTABLE TO SHEETMETAL AT
   WORKTABLE F 4
   A1 B0 G1 A1 B0 P6 A0  4.00  360.

4 FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 1 STRIKE
   USING HAMMER AT WORKTABLE AND ASIDE PF 8 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 PO F3 )A1 B0 P1 A0 (8)  1.00  360.

5 PLACE MASKING-TAPE TO SHEETMETAL AT WORKTABLE F 8
   A1 B0 G1 A1 B0 P3 A0  8.00  480.

6 MOVE CART WITH SHEETMETAL FROM WORKTABLE TO ROLLER
   A1 B0 G1 A54 B0 P1 A0  1.00  570.

TOTAL TMU  2590.

Type B,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?
File Description ? FORM RADIUS ON WRAPPERS FOR OGEE

Output to line-printer <Y or N> ? N

(39, 1)
FIT * M48
FORM RADIUS ON WRAPPERS FOR OGEE OFFSET WITH HAND-ROLLER AT SHEETMETAL SHOP
PER OGEE OFG: 4 12-MAY-83
NASSCO SHEETMETAL SHAPE 12
* 22 GAUGE GALV. SHEETMETAL
* 8'X8'X20'L OGEE / OFFSET 5'
FITTER BEGINS AT WORKBENCH

1 PLACE SHEETMETAL FROM FITTER AT WORKBENCH TO HAND-ROLLER AT WORKBENCH WITH 3 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 110.
2 FASTEN BOLT [ROLLS] TO SHEETMETAL AT HAND-ROLLER AT WORKBENCH 5 SPINS USING HAND F 3
   A1 B0 G1 A1 B0 P1 F10 A0 B0 P0 A0 3.00 420.
3 CRANK HAND-ROLLER AT WORKBENCH 3 REVS USING HAND F 6
   A1 B0 G1 M6 X0 I0 A0 6.00 480.
4 POSITION SHEETMETAL [WRAPPERS] FROM HAND-ROLLER AT WORKBENCH TO SHEETMETAL [CHEEK] AT WORKBENCH WITH 3 STEPS
   A1 B0 G1 A6 B3 P6 A0 1.00 170.
5 MOVE SHEETMETAL2 FROM HAND-ROLLER AT WORKBENCH TO WORKTABLE
   A67 B3 G1 A67 B3 P1 A0 1.00 1420.

TOTAL TMU 2600.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

36,680
File Description ? ASSEMBLE CHEEKS AND WRAPPERS FOR OGGEE

| Output to line-printer <Y or N> ? N |

(39, 1)
FIT \W1\ ASSEMBLE CHEEKS AND WRAPPERS FOR OGGEE OFFSET WITH HAMMER AT SHEETMETAL SHOP
PER OGGE OFG: 4 12-MAY-83

NASSCO SHEETMETAL SHAPE 12
* 22 GAUGE GALV. SHEETMETAL
* 8'X8'X20'L OGGEE / OFFSET 5'
* REMOVE SPACER STRIPS FROM PITTSBURGH--
* --LOCKS AFTER ROLLING

FITTER BEGINS AT WORKTABLE
1 REPLACE MASKING-TAPE FROM SHEETMETAL TO WORKTABLE F 8 WITH 2 STEPS
   A1 B0 G1 A3 B0 P3 A0 8.00 640.
2 LOOSEN SHEETMETAL FROM SHEETMETAL AT WORKTABLE 2 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 8 (4 5 6 7 )
   A1 B0 G1 (A1 B0 P0 L6 )A1 B0 P1 A0 (8) 1.00 600.
3 MOVE BARCLAMP2 FROM TOOLROOM TO WORKTABLE
   A96 B0 G1 A96 B3 P1 A0 1.00 1970.
4 POSITION SHEETMETAL FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS F 2
   A1 B0 G1 A3 B0 P6 A0 2.00 220.
5 POSITION BARCLAMP FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS F 6
   A1 B0 G1 A3 B0 P6 A0 6.00 660.
6 FASTEN BARCLAMP TO SHEETMETAL AT WORKTABLE 3 WRIST-TURNS USING HAND F 6
   A1 B0 G1 A1 B0 P1 F6 A0 B0 P0 A0 6.00 ***.
7 POSITION SETTING TOOL FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 16
   A1 B0 G1 A1 B0 P6 A0 16.00 1440.
8 FASTEN SETTING TOOL TO SHEETMETAL AT WORKTABLE 2 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 16 (4 5 6 7 )
   A1 B0 G1 (A1 B0 P0 F6 )A1 B0 P1 A0 (16) 1.00 1160.
9 FASTEN SHEETMETAL TO SHEETMETAL 4 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 16 (4 5 6 7 )
   A1 B0 G1 (A1 B0 P0 F10 )A1 B0 P1 A0 (16) 1.00 1800.
10 LOOSEN BARCLAMP FROM SHEETMETAL AT WORKTABLE 3 WRIST-TURNS USING HAND F 6
    A1 B0 G1 A1 B0 P1 L6 A0 B0 P0 A0 6.00 600.
11 FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 16 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 17 (4 5 6 7 )
    A1 B0 G1 (A1 B0 P0 F32 )A1 B0 P1 A0 (17) 1.00 5650.
12 INSPECT SHEETMETAL AT WORKTABLE 9 POINTS
    A0 B0 GO A0 B0 PO T10 A0 B0 PO A0 1.00 100.

TOTAL TMU 15440.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?
22"x15"x 33". Ogee offset. Offset 8"

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<th>Time</th>
<th>Cost</th>
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Please input file <OGEE.M20> ?

'ile Description ? MARK OUT CHEEKS FOR OGEE

Output to line-printer <Y or N) ? N

( 39, 3)
FIT . wo9

MARK OUT CHEEKS FOR OGEE OFFSET WITH AWL AT SHEETMETAL SHOP
PER OGEE

NASSCO SHEETMETAL SHAPE #12
* HULL 414
* DRAWING 501-062
* v2-1099
* V6-7607
* 18 GAUGE GALV. SHEETMETAL
* 22'X15'X33' L OGEE, OFFSET 8'
* MARK OUT CHEEKS WITH TEMPLATE
FITTER BEGINS AT WORKTABLE

1 POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS F 2
A1 B0 G1 A6 B0 P6 A0 2.00 280.

2 PLACE 2 WEIGHTS FROM WORKTABLE TO TEMPLATE AT WORKTABLE WITH 3 STEPS F 2
A1 B0 G1 A6 B0 P3 A0 2.00 220.

3 MARK OUTLINE FROM TEMPLATES TO SHEETMETAL AT WORKTABLE
5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7)
A1 B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (6) 1.00 1120.

4 POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS F 8
A1 B0 G1 A6 B0 P6 A0 8.00 1120.

5 FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE AND ASIDE PF 8 ( 4 5 6 7)
A1 B0 G1 (A1 B0 P0 F3 )A1 B0 P1 A0 (8) 1.00 360.

6 REPLACE 2 WEIGHTS FROM TEMPLATE AT WORKTABLE TO WORKTABLE WITH 3 STEPS F 2
A1 B0 G1 A6 B0 P3 A0 2.00 220.

7 REPLACE TEMPLATES FROM SHEETMETAL TO WORKTABLE WITH 3 STEPS F 2
A1 B0 G1 A6 B0 P3 A0 2.00 220.

8 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7)
A1 B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (6) 1.00 1120.

9 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 50 ( 4 5 6 7)
A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (50) 1.00 2540.

10 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 50 ( 4 5 6 7)
A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (50) 1.00 2540.

TOTAL TMU 9740.
Please input file <OGEE,M21> ?

File Description ? MARK OUT WRAPPERS FOR OGEE

Output to line-printer <Y or N> ? N

( 39, 3)
FIT .W09
MARK OUT WRAPPERS FOR OGEE WITH AWL AT SHEETMETAL SHOP
PER OGEE OFG: 4 07-APR-83

NASSCO SHEETMETAL SHAPE #12
* HULL 414
* DRAWING 501-062
* V2-1099
* V6-7607
* 18 GAUGE GALV. SHEETMETAL
* 22'X15'X33'L OGEE, OFFSET 8'
* MARK OUT WRAPPERS WITHOUT TEMPLATE
FITTER BEGINS AT WORKTABLE

1 MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING
STEEL-TAPE AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P1 M32 )A1 B0 P1 A0 (4) 1.00 1400.

2 MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT
USING AWL AND ASIDE PF 8 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (8) 1.00 440.

3 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE WITH 3 STEPS F 4
A1 B0 G1 A6 B0 P6 A0 4.00 560.

4 MARK SHEETMETAL FROM STRAIGHTEDGE AT WORKTABLE 5 DIGITS
USING AWL AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (4) 1.00 760.

5 POSITION CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL
AT WORKTABLE WITH 3 STEPS F 8
A1 B0 G1 A6 B0 P6 A0 8.00 1120.

6 MARK CORNERS ON SHEETMETAL AT WORKTABLE 2 DIGITS USING
AWL AND ASIDE PF 8 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P1 R6 )A1 B0 P1 A0 (8) 1.00 680.

7 POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE WITH 3 STEPS F 8
A1 B0 G1 A6 B0 P6 A0 8.00 1120.

8 FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING
HAMMER AT WORKTABLE AND ASIDE PF 8 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P0 F3 )A1 B0 P1 A0 (8) 1.00 360.

9 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE WITH 3 STEPS F 2
A1 B0 G1 A6 B0 P6 A0 2.00 280.

10 MARK LINES FROM STRAIGHTEDGE AT WORKTABLE TO SHEETMETAL
AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE
PF 2 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (2) 1.00 400,

11 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS
USING REDPEN AT WORKTABLE AND ASIDE PF 11 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (11) 1.00 2020.

12 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT
WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND
13 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 ( 4 5 6 7)

14 PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2

15 MOVE CART WITH SHEETMETAL FROM WORKTABLE TO SMALLSHEAR

TOTAL TMU 17340,
Please input file <OGEE.M22> ?

File Description ? SHEAR SHEETMETAL FOR OGEE

Output to line-printer <Y or N> ? N

( 391 3)
FIT w09 OGEE .w09

SHEAR SHEETMETAL FOR OGEE WITH SMALL 8 FT. SHEAR AT SHEETMETAL
SHOP PER OGEE

NASSCO SHEETMETAL SHAPE #12
* HULL 414
* DRAWING 501-062
* V2-1099
* V6-7607
* 18 GAUGE GALV. SHEETMETAL
* 22'X15'X33'L OGEE, OFFSET 8'
* SHEAR 4,1'STRIPS --
  f FOR SPACERS WHEN ROLLING
FITTER BEGINS AT SMALLSHEAR

1 POSITION SHEETMETAL FROM CART AT SMALLSHEAR TO SMALLSHEAR WITH 4 STEPS
  A1 B0 G1 A6 B0 P6 A0 1.00 140.

2 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS
  A1 B0 G1 M1 X6 IO A0 1.00 90.

3 POSITION SHEETMETAL FROM SMALLSHEAR TO SMALLSHEAR WITH 4 STEPS F 8
  A1 B0 G1 A6 B0 P6 A0 8.00 1120.

4 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 8
  A1 B0 G1 M1 X6 IO A0 8.00 720.

5 REPLACE SHEETMETAL FROM SMALLSHEAR TO CART AT SMALLSHEAR WITH 20 STEPS
  A1 B0 G1 A32 B0 P3 A0 1.00 370.

6 MOVE CART WITH SHEETMETAL FROM SMALLSHEAR TO WORKTABLE
  A1 B0 G1 A67 B3 P1 A0 1.00 730.

TOTAL TMU 3170.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?
Please input file <OGEE.M23> ?

File Description ? SHEAR RADIUS ON CHEEKS FOR Ogee

Output to line-printer <Y or N> ? N

( 39, 3)
FIT .w09

SHEAR RADIUS ON CHEEKS FOR Ogee WITH UNI-SHEAR AT SHEETMETAL SHOP
PER Ogee
OFG: 4 O7-APR-83

Nassco Sheetmetal Shape #12
* Hull 414
* Drawing 501-062
* V2-1099
* V6-7607
* 18 Gauge Galv. Sheetmetal
* 22'X15'X33' L Ogee, Offset 8'
* Turn up edge corners on cheeks for edger
Fitter begins at worktable

1 Place Sheetmetal from cart at worktable to worktable with 4 steps F 2
   A1 B0 G1 A6 B0 P3 A0 2.00 220.

2 Grip sheetmetal at worktable-using visegrips and aside
   P F 4 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P3 C1 )A1 B0 P1 A0 (4) 1.00 240.

3 Move unishear2 from toolroom to worktable
   A96 B0 G1 A96 B3 P1 A0 1.00 1970.

4 Operate unishear at worktable process F 4
   A1 B0 G1 M6 X17310 A0 4.00 7240.

5 Cut corners on sheetmetal at worktable with 2 steps 2
   cuts using snips at worktable and aside PF 16 ( 4 5 6 7 )
   A1 B0 G1 (A3 B0 P3 C3 )A1 B0 P1 A0 (16) 1.00 1480.

6 Fasten [flatten] sheetmetal at worktable 2 strikes
   using hammer and aside PF 16 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P0 F6 )A1 B0 P1 A0 (16) 1.00 1160.

7 Grip and twist edges on cheeks at worktable 1 twist
   using visegrips and aside PF 4 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P3 C1 )A1 B0 P1 A0 (4) 1.00 240.

8 Replace sheetmetal2 from worktable to cart at worktable
   with 4 steps F 2
   B0 G1 A6 B0 P3 A0 2.00 2 25.

9 Move cart with sheetmetal2 from worktable to lapout
   A1 B0 G1 A54 B0 P1 A0 1.00 570.

Total TMU 13340.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

16510
Please input file <OGEE.M24>  ?

File Description ? FORM LAP ENDS FOR OGEE

OutPut to line-printer <Y or N> ? N

( 39, 3)

FIT  : w09

OGEE

FORM LAP ENDS FOR OGEE WITH LAPOUT MACHINE AT SHEETMETAL SHOP

OFG: 4 07-APR-83

NASSCO SHEETMETAL SHAPE #12

* HULL 414
* DRAWING 501-062
* V2-1099
* V6-7607
* 18 GAUGE GALV. SHEETMETAL
* 22'X15'X33'L OGEE, OFFSET 8'

FITTER BEGINS AT LAPOUT

1 PLACE SHEETMETAL FROM CART AT LAPOUT TO LAPOUT WITH 4 STEPS F 4
   A1 B0 G1 A6 B0 P3 A0 4.00 440.

2 OPERATE LAPOUT-SWITCH PROCESS F 4
   A1 B0 G1 M6 X16 IO A0 4.00 960.

3 REPLACE SHEETMETAL2 FROM LAPOUT TO CART AT LAPOUT WITH 4 STEPS F 4
   A1 B0 G1 A6 B0 P3 A0 4.00 440.

4 MOUE CART WITH SHEETMETAL FROM LAPOUT TO EDGER
   A1 B0 G1 A16 B0 P1 A0 1.00 190.

TOTAL TMU 2030.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

18,540
Please input file <OGEE,M25> ?

File Description ? FORM 90 DEGREE EDGE ON CHEEKS FOR OGEE

Output to line-printer <Y or N> ? N

( 39, 3)
FIT .W09

FORM 90 DEGREE EDGE ON CHEEKS FOR OGEE WITH EDGER AT SHEETMETAL SHOP
PER OGEE

NASSCO SHEETMETAL SHAPE #12
* HULL 414
* DRAWING 501-062
* V2-1099
* V6-7607
* 18 GAUGE GALV. SHEETMETAL
* 22'X15'X33'L OGEE, OFFSET 8'
* START CHEEKS IN MACHINE--
X WITH PREVIOUSLY CRIMPED EDGE
FITTER BEGINS AT EDGER

1 POSITION SHEETMETAL FROM CART AT EDGER TO EDGER WITH 4 STEPS F 2
A1 B0 G1 A6 B0 P6 A0 2.00 280.

2 OPERATE EDGER-SWITCH PROCESS F 2
A1 B0 G1 M6 X42 IO A0 2.00 1000.

3 PUSH AND GUIDE SHEETMETAL2 THROUGH EDGER WITH 3 STEPS F
4
A6 B0 G1 M1 X0 I3 A0 4.00 440.

4 REPLACE SHEETMETAL FROM EDGER TO CART AT EDGER WITH 4 STEPS F 2
A1 B0 G1 A6 B0 P3 A0 2.00 220.

5 MOVE CART WITH SHEETMETAL FROM EDGER TO PITTSBURGH
A1 B0 G1 A16 B0 P1 A0 1.00 190.

TOTAL TMU 2130.

Type D,EM,CT,EW,EX,L,LD,LS,,M,T,W <or H for help> ?

2,0670
Please input file <OGEE.M26> ?

File Description ? FORM PITTSBURGH LOCK FOR Ogee

Output to line-Printer <Y or N> ? N

( 39, 3)
FIT .W09

FORM PITTSBURGH LOCK FOR Ogee WITH PITTSBURGH MACHINE AT
SHEETMETAL SHOP

PER Ogee

OFG: 4 07-APR-83

NASSCO SHEETMETAL SHAPE #12
* HULL 414
* DRAWING 501-062
* V2-1099
* V6-7607
* 18 GAUGE GALV. SHEETMETAL
* 22'X15'X33' L Ogee? OFFSET 8'
* USE 16 TO 18 GAUGE PITTSBURGH MACHINE
FITTER BEGINS AT PITTSBURGH

1 PLACE SHEETMETAL FROM CART AT PITTSBURGH TO PITTSBURGH
WITH 4 STEPS F 2
A1 B0 G1 A6 B0 P3 A0 2.00 220.

2 PUSH PITTSBURGH-BUTTON PROCESS F 2
A1 B0 G1 M1 X32 I0 A0 22.00 700.

3 PUSH AND GUIDE SHEETMETAL, THROUGH PITTSBURGH WITH 3
STEPS PF 4 ( 4 5 6 7 )
A & B0 G1 ( M1 X0 I3 A0 ) 1.00 230.

4 REPLACE SHEETMETAL FROM PITTSBURGH TO CART AT
PITTSBURGH WITH 4 STEPS F 2
A1 B0 G1 A6 B0 P3 A0 2.00 220.

5 MOVE CART WITH SHEETMETAL FROM PITTSBURGH TO WORKTABLE
A1 B0 G1 A54 B3 P1 A0 1.00 600.

TOTAL TMU 1970.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

22640
Please input file <OGEE.M27>  ?

File Description  ? POSITION SPACERS IN PITTSBURGH LOCKS FOR OGEE

Output to line-printer <Y or N>  ? N

FIT  ,w09  O G E E  w
POSITION SPACERS IN PITTSBURGH LOCKS FOR OGEE WITH HAMMER AT
SHEETMETAL SHOP
PER OGEE
OFG: 4 07-APR-83

NASSCO SHEETMETAL SHAPE #12
  * HULL 414
  * DRAWING 501-062
  * V2-1099
  * V6-7607
  * 18 GAUGE GALV. SHEETMETAL
  * 22'X15'X33'L OGEE, OFFSET 8'
FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE
   WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0  2.00  220.

2 POSITION SHEETMETAL [SPACERS] TO SHEETMETAL [PITTSBURGH
   LOCKS] AT WORKTABLE WITH 3 STEPS F 4
   A1 B0 G1 A6 B0 P6 A0  4.00  560.

3 FASTEN SHEETMETAL [SPACERS] TO SHEETMETAL [PITTSBURGH
   LOCKS] AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE
   AND ASIDE PF 8 ( 4 5 6 7 ).
   A1 B0 G1 (A1 B0 P0 P3 )A1 B0 P1 A0 (8)  1.00  360.

4 PLACE MASKING-TAPE FROM WORKTABLE TO SHEETMETAL
   [SPACERS] AT WORKTABLE WITH 4 STEPS F 8
   A1 B0 G1 A6 B0 P3 A0  8.00  880.

5 FASTEN [FLATTEN] CORNERS ON SHEETMETAL AT WORKTABLE 3
   STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 16 ( 4
   5 6 7 )
   A1 B0 G1 (A1 B0 P0 P6 )A1 B0 P1 A0 (16)  1.00  1160.

6 MOUE SHEETMETAL FROM WORKTABLE TO ROLLER
   A1 B0 G1 A54 B0 P1 A0  1.00  570.

TOTAL TMU  3750.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help>  ? 26390
Please input file <OGEE.M28>

File Description: FORM RADIUS ON WRAPPERS FOR OGEE

Output to line-printer <Y or N> ? N

(39, 3)
FIT

OGEE

FORM RADIUS ON WRAPPERS FOR OGEE WITH ROLL FORMER MACHINE AT SHEETMETAL SHOP

PER OGEE

NASSCO SHEETMETAL SHAPE #12
* HULL 414
* DRAWING 501-062
* V2-1099
* V6-7607
* 18 GAUGE GALV. SHEETMETAL
* 22'X15'X33'L OGEE, OFFSET 8'
* CHECK RADIUS ON WRAPPERS--
* WITH CHEEK RADIUS
FITTER BEGINS AT ROLLER

1 PLACE SHEETMETAL FROM FITTER AT ROLLER TO ROLLER WITH
3 STEPS F 2

A1 B0 G1 A6 B0 P3 A0 2.00 220.

2 FASTEN BOLT [ROLLS] TO SHEETMETAL2 AT ROLLER 3 SPINS USING HAND F 12

A1 B0 G1 A1 B0 P1 F6 A0 B0 PO A0 12.00 1200.

3 PUSH ROLLER-BUTTON AT ROLLER PROCESS F 24

A1 B0 G1 M1 X96 IO A0 24.00 23760.

4 POSITION SHEETMETAL FROM ROLLER TO SHEETMETAL AL-ROLLER WITH 3 STEPS F 10

A1 B0 G1 A6 B3 P6 A0 10.00 1700.

5 MOVE SHEETMETAL FROM ROLLER TO WORKTABLE

A54 B0 G1 A54 B3 P1 A0 1.00 1130.

TOTAL TMU 28010.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

54,400
Please input file <OGEE.M28> ?

File Description ? FORM RADIUS ON WRAPPERS FOR OGEE

Output to line-printer <Y or N> ? N

( 39, 3)
FIT .W09
FORM RADIUS ON WRAPPERS FOR OGEE WITH ROLL FORMER MACHINE AT SHEETMETAL SHOP
PER OGEE

OGEE -

FIT .W09

O G E E

NASSCO SHEETMETAL SHAPE #12
* HULL 414
* DRAWING 501-062
* V2-1099
* V6-7607
* 18 GAUGE GALV. SHEETMETAL
* 22'X15'X33'L OGEE, OFFSET 8'
* CHECK RADIUS ON WRAPPERS--
X WITH CHEEK RADIUS
FITTER BEGINS AT ROLLER

1 PLACE SHEETMETAL FROM FITTER AT ROLLER TO ROLLER WITH 3 STEPS F 2

A1 B0 G1 A6 B0 P3 A0 2.00 220.

2 FASTEN BOLT [ROLLS] TO SHEETMETAL AT ROLLER 3 SPINS USING HAND F 12

A1 B0 G1 A1 B0 F1 F6 A0 B0 PO A0 12.00 1200.

3 PUSH ROLLER-BUTTON AT ROLLER PROCESS F 24

A1 B0 G1 M1 X96 IO A0 24.00 23760.

4 POSITION SHEETMETAL FROM ROLLER TO SHEETMETAL AT ROLLER WITH 3 STEPS F 10

A1 B0 G1 A6 B3 P6 A0 10.00 1700 .

5 MOVE SHEETMETAL FROM ROLLER TO WORKTABLE

A54 B0 G1 A54 B3 P1 A0 1.00 1130,

TOTAL TMU 28010.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W (or H for help) ?
Please input file <OGEE.M29>.

File Description ? ASSEMBLE CHEEKS & WRAPPERS FOR Ogee

Output to line-printer <Y or N> ? N

( 39,3)

FIT .W09 O G E E

ASSEMBLE CHEEKS AND WRAPPERS FOR Ogee WITH HAMMER AT SHEETMETAL

OFG: 4 07-APR-83

PER Ogee

NASSCO SHEETMETAL SHAPE #12
* HULL 414
* DRAWING 501-062
* V-1099
* V6-7607
* 18 GAUGE GALV. SHEETMETAL
* 22'X15'X33' L Ogee, OFFSET 8'
* REMOVE SPACERS FROM PITTSBURGH LOCKS

FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL FROM FITTER AT WORKTABLE TO WORKTABLE WITH 3 STEPS
   A1 B0 G1 A6 R0 P3 A0 1.00 110.
2 REPLACE MASKING-TAPE FROM SHEETMETAL AT WORKTABLE TO WORKTABLE WITH 3 STEPS F 8
   A1 E0 G1 A6 B0 P3 A0 8.00 880.
3 LOOSEN SHEETMETAL [SPACERS] FROM SHEETMETAL [PITTSBURGH LOCKS] AT WORKTABLE 2 STRIKES USING HAMMER AND ASIDE PF 4 (4 5 6 7 )
   A1 B0 G1 (A1 B0 P0 L6 )A1 E0 P1 A0 (4) 1.00 320.
4 POSITION SHEETMETAL [CHEEK] FROM WORKTABLE TO SHEETMETAL [WRAPPER] AT WORKTABLE WITH 3 STEPS F 2
   A1 E0 G1 A6 B0 P6 A0 2.00 280.
5 MOVE BARCLAMP2 FROM TOOLROOM TO WORKTABLE
   A96 B0 G1 A96 B3 P1 A0 1.00 1970.
6 FASTEN BARCLAMP TO SHEETMETAL AT WORKTABLE
   5 WRIST-TURNS USING HAND F 6
   A1 E0 G1 A1 B0 P1 F10 A0 B0 P0 A0 6.00 840.
7 POSITION SETTINGTOOL FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS F 24
   A1 B0 G1 A6 B0 P6 A0 24.00 3360.
8 FASTEN SETTINGTOOL TO SHEETMETAL AT WORKTABLE 2 STRIKES USING HAMMER AND ASIDE PF 24 (4 5 6 7 )
   A1 E0 G1 (A1 B0 P0 F6 )A1 B0 P1 A0 (24) 1.00 1720.
9 FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 3 STRIKES USING HAMMER AND ASIDE PLF 12 (4 5 6 7 )
   A1 B0 G1 A1 B0 P0 F6 A1 E0 P1 A0 1.00 110.
10 LOOSEN BARCLAMP FROM SHEETMETAL AT WORKTABLE 5
    WRIST-TURNS USING HAND PF 6 (4 5 6 7 )
    A1 B0 G1 (A1 B0 P1 L10 )A0 B0 P0 A0 (6) 1.00 740.
11 FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 16 STRIKES USING HAMMER AND ASIDE PF 26 (4 5 6 7 )
    A1 B0 G1 (A1 E0 P0 F32 )A1 B0 P1 A0 (26) 1.00 8620.
12 INSPECT SHEETMETAL AT WORKTABLE 9 POINTS
   A0 B0 G0 A0 E0 P0 T10 A0 E0 P0 A0 1.00 100.
SHEET METAL SHAPE #12

10" 1/2" x 6" 1/2" to 8" x 3" 1/2" x 17" 6" Ogee Offset

<table>
<thead>
<tr>
<th>Task</th>
<th>Time</th>
<th>Notes</th>
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Please input file <OGEE.M01>  

File Description ? MARK OUT CHEEKS FOR OGEE OFFSET

Output to line-printer <Y or N> ? N

( 39, 3)
FIT .W09 O GEE .M01
MARK OUT SHEETMETAL FOR OGEE OFFSET WITH AWL AT SHEETMETAL SHOP
PER OGEE OFG: 4 06-APR-83

NASSCO SHEETMETAL SHAPE #12
* U.S.S. TUSCA
* WORK ORDER 3090-432
* PC. 13
* SKETCH 753
* .060 ALUMINUM
* 10 1/2'X6 1/2' TO 8X3 1/2' OGEE
* OFFSET 17'L
* MARK OUT CHEEKS USING TEMPLATE
FITTER BEGINS AT WORKTABLE

1 PLACE TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS F 2
A1 E0 G1 A3 B0 P3 A0 2.00 160.

2 POSITION 2 WEIGHTS FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS F 2
A1 E0 G1 A3 B0 P6 A0 2.00 220.

3 MARK OUT LINES FROM TEMPLATE TO SHEETMETAL AT WORKTABLE
5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P1 R16 )A1 E0 P1 A0 (6) 1.00 1120.

4 POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS F 8
A1 B0 G1 A6 B0 P6 A0 8.00 1120.

5 FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AND ASIDE PF 8 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P0 F3 )A1 B0 P1 A0 (8) 1.00 360.

6 REPLACE WEIGHTS TEMPLATE AT SHEETMETAL AT WORKTABLE TO WORKTABLE WITH 3 STEPS F-2--
A1 B0 G1 A6 B0 P3 A0 2.00 220.

7 REPLACE TEMPLATE FROM SHEETMETAL AT WORKTABLE TO WORKTABLE WITH 3 STEPS F 2
A1 P0 G1 A6 B0 P3 A0 2.00 220.

8 MARK CUT LINES FROM TEMPLATE TO SHEETMETAL AT WORKTABLE
5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7 )
A1 E0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (6) 1.00 1120.

9 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 82 ( 4 5 6 7 )
A1 B0 G1 (A1 E30 P1 R3 )A1 B0 P1 A0 (82) 1.00 4140.

10 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT
USING BLACKPEN AT WORKTABLE AND ASIDE PF 58 ( 4 5 6 7
A1 B0 G1 (A1 B0 P1 R3 )A1-B0 P1 A0 (58) 1.00 2940.
Type 'D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help>'
Please input File <OGEE.M02>

DESCRIPTION MARK OUT WRAPPERS FOR OGEE

OUTPUT to line-Printer <Y or N> ? N

( 39,3)

FIT .W09

MARK OUT WRAPPERS FOR OGEE OFFSET WITH Awl AT SHEETMETAL SHOP

PER OGEE OFG: 4 06-APR-83

NASSCO SHEETMETAL SHAPE #12

* U.S.S. TUSCA
* WORK ORDER 3090-432
* PC. 13
* SKETCH 753
* .060 Aluminum
* 10 1/2"X6 1/2" TO 8X3 1/2 OGEE
* OFFSET 17' L

* FITTER BEGINS AT WORKTABLE

1. PLACE TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH STEPS F 2

A1 B0 G 1 A6 E0 P3 A0 2.00 220.

2 POSITION 2 WEIGHTS FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 6 STEPS F 2

A1 B0 G1 A6 B0 P6 A0 2.00 280.

5 MARK OUT LINES FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AND ASIDE PF 6 (4 5 6 7).

A1 B0 G1 (A1 B0 P1 R16) A1 B0 P1 A0 (6) 1.00 1120.

4 POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS F 12

A1 B0 G1 A6 E0 P6 A0 12.00 1680.

5 FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AND ASIDE PF 12 (4 5 6 7).

A1 B0 G1 (A1 B0 P0 P3) A1 B0 F1 A0 (12) 1.00 520.

6 REPLACE WEIGHTS FROM TEMPLATE AT WORKTABLE TO WORKTABLE WITH 3 STEPS F 2

A1 E0 G1 A6 B0 P3 A0 2.00 220.

7 REPLACE TEMPLATE FROM SHEETMETAL AT WORKTABLE TO WORKTABLE WITH 3 STEPS F 2

A1 E0 G1 A6 B0 P3 A0 2.00 220.

8 MARK OUT LINES FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 6 (4 5 6 7)

A1 B0 G1 (A1 B0 P1 R16) A1 B0 F1 A0 (6) 1.00 1120.

9 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 51 (4 5 6 7) F 2

A1 B0 G1 (A1 B0 P1 R3) A1 B0 F1 A0 (51) 2.00 5180.

10 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 58 (4 5 6 7)

A1 B0 G1 (A1 B0 F1 R3) A1 B0 P1 A0 (58) 1.00 2940.

11 PLACE SHEETMETAL2 FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS

A1 B0 G1 A6 B0 P3 A0 1.00 110.
12 MOUE CART WITH SHEETMETAL2 FROM WORKTABLE TO SMALLSHEAR

A1  B0  G1  A67  B0  P1  A0  1.00  700.

TOTAL TMU  14310.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?
Please input file <OGEE.M03> ?

File Description ? SHEAR SHEETMETAL FOR OGEE

Output to line-printer (Y or N) ? N

( 39, 3)
FIT .W09 OGEE .M03
SHEAR SHEETMETAL FOR OGEE OFFSET WITH SMALL 8 FT. SHEAR AT SHEETMETAL SHOP
PER OGEE
NASSCO SHEETMETAL SHAPE #12
* U.S.S. TUSCA
* WORK ORDER 3090-432
* PC. 13
* SKETCH 753
* .060 ALUMINUM
* 10 1/2'X6 1/4' TO 8'X3 1/2' OGEE
* OFFSET 17'L
FITTER BEGINS AT SMALLSHEAR

1 POSITION SHEETMETAL FROM CART AT SMALLSHEAR TO
SHELLSHEAR WITH 4 STEPS
   A1 E0 G1 A6 B0 P6 A0 1.00 140.
2 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS
   -A1 B0 G1 M1 X6 I0 A0 1.00 90.
J POSITION SHEETMETAL2 FROM SMALLSHEAR TO SMALLSHEAR WITH
3 STEPS F 11
   A1 B0 G1 A6 B0 P6 A0 11.00 1540.
- 4 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 11
   A1 B0 G1 M1 X6 I0 A0 11.00 990.
J REPLACE SHEETMETAL2 FROM SMALLSHEAR TO CART. AT
SMALLSHEAR WITH 16 STEPS
   A1 B0 G1 A32 B0 P3 A0 1.00 370.
0 MOVE CART WITH SHEETMETAL2 FROM SMALLSHEAR TO WORKTABLE
   A1 B0 B1 A07 B3 P1 A0 1.00 730.

TOTAL TMU 3860.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help>. ?
Please input file <OGEE.M04> ?

File Description ? SHEAR RADIUS FOR OGEE

Output to line-printer <Y or N> ? N

(39, 3)
FIT .W09 OGEE .M04
FROM SHEETMETAL FOR OGEE OFFSET RADIUS WITH LAPOUT MACHINE AT SHEETMETAL SHOP>
PER OGEE OFG: 4 06-APR-83
NASSCO SHEETMETAL SHAPE #12
* U.S.S. TUSCA
* WORK ORDER 3090-432
* PC. 13
* SKETCH 753
* .060 ALUMINUM
* 10 1/2'X6 1/4' TO 8'X3 1/2' OGEE
* OFFSET 17' L
FITTER BEGINS WORKTABLE

1 PLACE SHEETMETAL SHEETMETAL CART AT WORKTABLE TO WORKTABLE WITH 3 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 110.0

2 MOVE UNISHEAR2 FROM TOOLROOM TO WORKTABLE
   A96 B0 G1 A96 B6 P1 A0 1.00 1970.0

3 OPERATE UNISHEAR AT WORKTABLE PROCESS F 5
   A1 B0 G1 M0 X17310 A0 5.00 0950.0

4 FASTEN (FLATTEN) CORNERS ON SHEETMETAL AT WORKTABLE 1
   STRIKE USING HAMMER AND ASIDE P 16 (4 5 6 7)
   A1 B0 G1 (A1 B0 P0 F3 )A1 B0 P1 A0 (10) 1.00 480.0

5 REPLACE SHEETMETAL2 FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 110.0

6 MOVE CART WITH SHEETMETAL2 FROM WORKTABLE TO LAPOUT
   A1 B0 G1 A54 B0 P1 A0 1.00 570.0

TOTAL TMU 12490.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W (or H for help) ?

18350
Output to line-printer <Y or N> ? N

FORM LAPOUT FOR Ogee OFFSET WITH LAPOUT MACHINE AT SHEETMETAL SHOP

* WORK-ORDER 3090-432
* PC. 13
* SKETCH 753
* .060 ALUMINUM
* 10 1/2’X6 1/4’ TO 8’X3 1/2’ Ogee
* OFFSET 17’L
FITTER BEGINS AT LAPOUT

1 PLACE SHEETMETAL2 FROM CART AT LAPOUT TO LAPOUT WITH 4 STEPS F 4
   A1 B0 G1 A6 B0 P3 A0 4.00

2 PUSH LAPOUT SWITCH PROCESS
   A1 B0 G0 M1 X16 I0 4.00 760.

3 REPLACE SHEETMETAL2 FROM LAPOUT TO CART AT LAPOUT WITH
   4 STEPS 4
   A1 B0 G1 A6 B0 P3 A0 4.00 440.

4 MOVE CART WITH SHEETMETAL2 FROM LAPOUT TO WORKBENCH (HAND-ROLLER)
   A1 B0 G1 A24 P1 A0 1.00 300.

TOTAL TMU 1940.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

18,290
Please input file <OGEE.M06>  ?

File Description ? FORM OGEE

Output to line-printer <Y or N> ? N

( 39, 3)
FIT .W09 OGEE 
FORM SHEETMETAL FOR OGEE WITH HAND OPERATED ROLLER AT SHEETMETAL
SHOP
PER OGEE OFG: 4 06-APR-83

NASSCO SHEETMETAL SHAPE #12
* U.S.S. TUSCA
* WORK ORDER 3090-432
* PC. 13
* SKETCH 753
* .060 ALUMINUM
* 10 1/2'X6 1/4' TO 8'X3 1/2'
FITTER BEGINS AT WORKBENCH

1 PLACE SHEETMETAL2 FROM CART AT WORKBENCH TO WORKBENCH
WITH 3 STEPS F 4
A1 E0 G1 A6 D0 F3 A0 4.00 440.

2 FASTEN BOLT [ROLLS] TO SHEETMETAL2 AT HAND-ROLLER 5
SPINS USING HAND F 3
A1 B0 G1 A1 E0 P1 F10 A0 D0 P0 A0 3.00 420,

3 CRANK HAND-ROLLER AT WORKBENCH 3 REV'S USING HAND F 20
A1 30 G1 M6 X0 I0 A0 20.00 1600.

4 REPLACE SHEETMETAL2 FROM HAND-ROLLER AT WORKBENCH TO
CART AT WORKBENCH WITH 4 STEPS
A1 E0 G1 A6 B0 F3 A0 1.00 110.

3 MOVE CART WITH SHEETMETAL2 FROM HAND-ROLLER AT
WORKBENCH TO PED.GRINDER
A1 B0 G1 A32 B0 P1 A0 1.00 350.

TOTAL TMU 2920.

Type D, EM, C, EW, EX, L, LD, LS, H, T, W or H for help ?'

2/10
Please input file <OGEE.M07>  

File Description ? CLEAN OGEE BEFORE WELDING  

Output to line-printer <Y or N> ? N  

( 39, 3)
FIT .W09 OGEE .M07
CLEAN OGEE FOR WELDING WITH PEDESTAL GRINDER AT SHEETMETAL SHOP
PER OGEE OFG: 4 06-APR-83
NASSCO SHEETMETAL SHAPE #12
* U.S.S. TUSCA
* WORK ORDER 3090-432
* PC. 13
* SKETCH 753
* .060 ALUMINUM
* 10 1/2'X6 1/4' TO 8'X3 112' OGEE
* OFFSET 17'L
FITTER BEGINS AT PED.GRINDER

1 PLACE SHEETMETAL2 FROM CART AT PED.GRINDER TO
PED.GRINDER WITH 4 STEPS F 4
A1 E0 G1 A6 B0 F3 A0 4.00 440.

2 PUSH GRINDER-BUTTON PROCESS F 4
A1 E0 G1 M1 X6 I0 A0 4.00 360.

3 REPLACE SHEETMETAL2 FROM PED.GRINDER TO CART AT
PED.GRINDER WITH 4 STEPS
A1 E0 G1 A6 B0 F3 A0 1.00 110.

4 MOUE CART FROM PED.GRINDER TO WORKTABLE
A1 B0 G1 A42 E3 P1 A0 1.00 480.

TOTAL TMU 1390.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help) ?

22,600
Please input file <OGEE.M08>  ?

File Description ? WELD OGEE OFFSET

Output to line-Printer <Y or N> ? N

( 39,101)
WELD .W01  OGEE .M08
WELD OGEE OFFSET WITH TIG-WELDER AT SHEETMETAL SHOP WELDING BOOTH
PER OGEE OFFSET  OFG: 4  21-JUL-83
WELDING NASSCO SHEETMETAL SHAPE 12
* U.S.S. TUSCALOOSA
* WORK ORDER:3090-432 PC
* 13 SK-75
* .060 ALUMINUM 10 1/2X6 1/4T08X3 1/2
* --OGEE OFFSET 17' L WITH 6' RADIUS & 8'-
* --RADIUS
* WELDING DONE IN WELD AREA BOOTH
* WELDOR PERFORMS THE WORK
* FITTER TRANSPORTS SHEETMETAL
FITTER BEGINS AT WORKTABLE

1 FITTER PLACE SHEETMETAL ASSEMBLY FROM WORKTABLE TO CART
   AT WORKTABLE WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0  2.00  220.

2 FITTER MOVE CART FROM WORKTABLE TO WELDTABLE
   A1 B0 G1 A131B3 P1 A0  1.00  1370.

3 PLACE SHEETMETAL ASSEMBLY FROM CART AT WELDTABLE TO
   WELDTABLE WITH 4 STEPS F 2
   A1 B0 G1 A6 E0 P3 A0  2.00  220,

4 WELDOR PUSH POWER SUPPLY BUTTON FROM OFF AT
   WELDMACHINES TO ON AT WELDMACHINES WITH 16 STEPS
   A3 B0 G1 M1 X0 I0 A32  1.00  370.

5 WELDOR PUSH GAS-HOOKUP-SWITCH FROM OFF AT WELDMACHINES
   TO ON AT WELDMACHINES
   A1 B0 G1 M1 X0 I0 A1  1.00  40.

6 WELDOR FASTEN CURRENT SELECTOR HANDLE AT WELDMACHINES 1
   WRIST-TURN USING HAND
   A1 B0 G1 A1 B0 F1 F3 A0 E0 P0 A0  1.00  70.

7 WELDOR TURN OUTPUT CONTROL LEVER FROM OFF AT
   WELDMACHINES TO ON AT WELDMACHINES
   A1 B0 G1 M3 X0 I0 A1  1.00  60.

8 WELDOR POSITION ANTI-SPATTER SPRAY CAN FROM WELDTABLE
   TO SHEETMETAL ASSEMBLY AT WELDTABLE
   A3 B3 G1 A1 E0 P6 A0  1.00  140.

9 WELDOR PUSH ANTI-SPATTER2 SPRAY CAN PROCESS
   A1 E0 G1 M1 X10 I0 A0  1.00  130.

10 WELDOR POSITION WELDROD FROM WELDTABLE TO SHEETMETAL
    ASSEMBLY AT WELDTABLE F 11
    A1 B0 G1 A1 B0 P6 A0  11.00  990.

11 FULL WELDHOOD FROM UP AT WELDOR TO DOWN AT WELDOR F 11
    A1 B0 G1 M1 X0 I0 A1  11.00  440.

12 WELDOR POSITION WELDQUN FROM WELDTABLE TO SHEETMETAL
    ASSEMBLY AT WELDTABLE WITH PARTIAL BEND F 11
    A1 B0 G1 A1 B6 P6 A0  11.00  1650.

13 OPERATE WELD STINGER-BUTTON1 PROCESS F 23
OGEE MO - 8

A1 B0 G1 M6 X81 I0 A0 23.00 204700.
14 PUSH WELDHOOD FROM DOWN AT WELDOR TO UP AT WELDOR F 11
   A1 B0 G1 M1 X0 I0 A1 11.00 440.
15 WELDOR DEBURR WELDED ASSEMBLY AT WELDTABLE 10
   ARM-STROKES USING WIREBRUSH AT WELDTABLE AND ASIDE PF
   23 (4567 )
   A1 B0 G1 (A1 B0 P1 C10 )A1 B0 P1 A0 (23) 1.00 2800.
16 REPLACE SHEETMETAL ASSEMBLY FROM WELDTABLE TO CART AT
   WELDTABLE WITH 4 STEPS
   A1 B0 G1 A6 B0 F3 A0 1.00 110.
17 FITTER MOVE CART FROM WELDTABLE TO WORKTABLE
   A1 E0 G1 A131B0 P1 A0 1.00 1340.

TOTAL TMU 30860.

File Description ? WELD OGEE OFFSET

Output to line-Printer <Y or N> ?
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<th>Task</th>
<th>Hours</th>
<th>Minutes</th>
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FIT, W08 OFFSET, M01
MARK OUT SHEETMETAL FOR OFFSET CHEEKS WITH AWL AT SHEETMETAL SHOP
PER OFFSET OFG: 4 25-MAR-83

HASSCO SHEETMETAL SHAPE No.13
* HULL 418
* DRAWING 501-292
* V2-92008
* VS-1922
* 20 GAUGE GALV. SHEETMETAL
* 1.3'X6'X20 1/2'L (OFFSET 6 1/2')
* MARK CHEEKS USING TEMPLATE
FITTER BEGINS AT WORKTABLE

1 POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS:
   A1 B0 G1 A6 B0 P6 A0

2 PLACE 2 WEIGHT FROM WORKTABLE TO TEMPLATE AT WORKTABLE WITH 4 STEPS:
   A1 B0 G1 A6 B0 P3 A0

3 MARK OUTLINES FROM TEMPLATE TO SHEETMETAL AT WORKTABLE
   5 DIGITS USING AWL AND ASIDE PF 9 (4 5 6 7)
   A1 B0 G1 (A1 P0 P1 R16) A1 B0 P1 A0 (9)

4 POSITION CPUNCH TO SHEETMETAL AT WORKTABLE WITH 4 STEPS
   F = 8
   A1 B0 G1 A6 B0 P6 A0

5 FASTEN CPUNCH TO SHEETMETAL WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE AND ASIDE PF 8 (4 5 6 7)
   A1 F0 G1 (A1 B0 P0 16) A1 B0 P1 A0 (8)

6 REPLACE 2 WEIGHTS FROM TEMPLATE TO WORKTABLE WITH 4 STEPS
   A1 B0 G1 A6 B0 P3 A0

7 REPLACE TEMPLATE FROM SHEETMETAL TO WORKTABLE WITH 3 STEPS
   A1 B0 G1 A6 E0 P3 A0

8 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS
   USING REDPEN AT WORKTABLE AND ASIDE PF 3 (4 5 6 7)
   A1 B0 G1 (A1 P0 P1 R16) A1 B0 P1 A0 (8)

9 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND HOLD PF 42 (4 5 6 7)
   A1 B0 G1 (A1 B0 P1 R3) A0 B0 P0 A0 (42)

10 FITTER MOVE BLACKPEN FROM FITTER TO SHEETMETAL AT WORKTABLE
   A1 B0 G1 A1 B0 P1 A0

11 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT
   USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 (4 5 6 7)
   A1 B0 G1 (A1 B0 P1 R3) A1 B0 P1 A0 (52)
OFFSET M.0 = 1

TOTAL THU 10140.

Type D: EX CT: EW: EX: LS: DI: LS: H: TW <or H for help> ?
Please input file <OFFSET, M02> ?

File Description ? MARK OUT WRAPPERS FOR OFFSET

Output to line printer <Y or N> ? N

( 39, 3)
FIT .008 OFFSET, M02
MARK OUT SHEETMETAL FOR OFFSET WRAPPERS WITH AWL AT SHEETMETAL SHOP PER OFFSET OFG: 4 25-MAR-83
NASSCO SHEETMETAL SHAPE #13.
* HULL 418
* DRAWING 501 292
* V2-92008
* V6 .1922
* 20 GAUGE GALV. SHEETMETAL
* 13'X6'X20 1/2'L OFFSET (OFFSET 6 1/2')
* MARK OUT WRAPPERS WITHOUT TEMPLATE AT
FITTER BEGIN AT WORKTABLE

1 MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING
STEEL-TAPE AT WORKTABLE AND ASIDE PF 9 ( 4 5 6 7 )
A1 BO GI (A1 BO P1 H32 )A1 BO P1 A0 (B) 1.00 7760.

2 MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT
USING AWL AND ASIDE PF 8 ( 4 5 6 7 )
A1 BO GI (A1 BO P1 R3 )A1 BO P1 A0 (B) 1.00 440.

3 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE F 7
A1 BO GI A1 BO P6 A0 7.00 630.

4 MARK LINES FROM STRAIGHTEDGE TO SHEETMETAL AT WORKTABLE
5 DIGITS USING AWL AND ASIDE PF 7 ( 4 5 6 7 )
A1 BO GI (A1 BO P1 R16 )A1 BO P1 A0 (7) 1.00 1300.

5 POSITION CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE F 8
A1 BO GI A1 BO P6 A0 8.00 720.

6 MARK CORNERS FROM CORNER TEMPLATE TO SHEETMETAL AT
WORKTABLE 2 DIGITS USING AWL AND ASIDE PF 8 ( 4 5 6 7 )
A1 BO GI (A1 BO P1 R4 )A1 BO P1 A0 (8) 1.00 680.

7 POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE F 8
A1 BO GI A1 BO P6 A0 0.00 720.

8 FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING
HAMMER AND ASIDE PF 9 ( 4 5 6 7 )
A1 BO GI (A1 BO P0 F3 )A1 BO P1 A0 (G) 1.00 360.

9 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS
USING RED PEN AT WORKTABLE AND ASIDE PF 11 ( 4 5 6 7 )
A1 BO GI (A1 BO P1 R16 )A1 BO P1 A0 (11) 1.00 2020.

10 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT
WORKTABLE 1 DIGIT USING BLACK PEN AND HOLD PF 80 ( 4 5
6 7 )
A1 BO GI (A1 BO P1 R3 )A0 BO P0 A0 (00) 1.00 4020.

11 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT
USING BLACK PEN AND ASIDE PF 52 ( 4 5 6 7 )
A1 BO GI (A1 BO P1 R3 )A1 BO P1 A0 (52) 1.00 2640.
12 PLACE SHEETMETAL2 FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS

A1 R0 G1 A6 B0 P3 A0 1.00 110.

13 MOVE CART WITH SHEETMETAL2 FROM WORKTABLE TO SMALLSHEAR

A1 R0 G1 A67 B0 P1 A0 1.00 700.

TOTAL THU 17100.

Type D, E, M, CT, EW, EX, L, LS, N, T, W <or H for help> ?
Please input file <OFFSET.03>?

File Description: SHEAR SHEETMETAL FOR OFFSET

Output to line printer <Y or N> ? N

( 39, 3)
FIT .008
OFFSET: M03
SHEAR SHEETMETAL FOR OFFSET WITH SMALL SHEAR AT SHEETMETAL SHOP
PER OFFSET
NASSCO SHEETMETAL SHOPTE #13
* HULL 418
* DRAWING 501 292
* V2-92008
* \6-1922
* 20 GAUGE GALV. SHEETMETAL
* 13'X6'X20 1/2'1 OFFSET (OFFSET 6 1/3')
* SHEAR 4-1'STRIPS FOR PITTSHBURGH SPACERS
FITTER BEGINS AT SMALLSHEAR

1 POSITION SHEETMETAL2 FROM CART CART AT SMALLSHEAR TO SMALLSHEAR WITH 4 STEPS
   A1 B0 G1 A6 B0 P6 A0 1.00 140.
2 PUSH FOOTPEDAL. AT SMALLSHEAR PROCESS
   A1 B0 G1 M1 X6 I0 A0 1.00 90.
3 POSITION SHEETMETAL 2 FROM SMALLSHEAR TO SMALLSHEAR F 1 0
   A1 B0 G1 A1 B0 P6 A0 10.00 900.
4 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 10
   A1 B0 G1 M1 X1 I0 A0 10.00 900.
5 REPLACE SHEETMETAL2 FROM SMALLSHEAR TO CART AT SMALLSHEAR WITH 4 STEPS F 4
   A1 B0 G1 A6 B0 P3 A0 4.00 440.
6 MOVE CART WITH SHEETMETAL2 FROM SMALLSHEAR TO WORKTABLE
   A1 80 G1 A67 B3 P1 A0 1.00 730.

TOTAL TMU 3200.

TYPE D:EX, CT: EW, EX: LS, ID: LS, MS: TS, <or H for help>?

700 + 3200 = 3900
File Description ? SHEAR RADIUS & CORNERS FOR OFFSET

Output to line-printer <Y or N> ? N

( 39, 3)
FIT .W11 OFFSET.M04
SHEAR SHEETMETAL FOR OFFSET RADIUS & CORNERS WITH UNI-SHEAR AT SHEETMETAL SHOP
PER OFFSET OFG: 4 08-JUL-83
NASSCO SHEETMETAL SHAPE #13
* HULL 418.
* DRAWING 501-292
* V2-92008
* V6-1922
* L20 GAUGE GLAV. SHEETMETAL
* 13'X6'X20 1/2'L OFFSET (OFFSET 6 1/2')
* BEND EDGE ON CHEEK CORNERS FOR EDGER
FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL2 FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 2
A1 B0 G1 A6 B0 P3 A0 2.00 220,
2 MOVE UNISHEAR2 FROM TOOLROOM TO WORKTABLE
A96 B0 G1 A96 B3 P1 A0 1.00 1970.
3 OPERATE UNISHEAR PROCESS F 5
A1 B0 G1 M6 X173I0 A0 5.00 9050.
4 FASTEN ( FLATTEN ) CORNERS ON SHEETMETAL AT WORKTABLE 3 STRIKES USING HAMMER AND ASIDE PF 16 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P0 F6 )A1 B0 P1 A0 (16) 1.00 1160.
5 GRIP AND TWIST SHEETMETAL [CHEEK EDGE] AT WORKTABLE 1 TWIST USING VISEGRIPS AND ASIDE PF 4 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P3 C1 )A1 P0 P1 A0 (4) 1.00 240.
6 PLACE SHEETMETAL2 FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2
A1 B0 G1 A6 B0 P3 A0 2.00 220.
7 MOVE CART WITH SHEETMETAL2 FROM WORKTABLE TO EDGER
A1 E0 G1 A67 B0 P1 A0 1.00 700.

TOTAL TMU 13560.

Type D, EH, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

17,460
Please input file <OFFSET.+M05> ?

File Description ? FORM 90 DEGREE EDGE ON CHEEKS FOR OFFSET

Output to line-printer <Y or N> ? N

( 39, 3)
FIT .W08
OFFSET.M05
FORM SHEETMETAL FOR 90 DEGREE EDGE ON CHEEKS FOR OFFSET WITH EDGER AT SHEETMETAL SHOP
PER OFFSET

NASSCO SHEETMETAL SHAPE #13
* HULL 418
* DRAWING 501-292
* V2-92008
* V6-1922
* 20 GAUGE GALV. SHEETMETAL
* 13"X6"X20 1/2' L OFFSET (OFFSET 6 1/2')
* BEGIN EDGES AT PREVIOUS BENT UP CORNERS
FITTER BEGINS AT EDGER

PLACE SHEETMETAL2 FROM CART AT EDGER TO EDGER WITH 4 STEPS F 2
A1 B0 G1 A6 B0 P3 A0 2.00 220.

POSITION SHEETMETAL2 FROM EDGER TO EDGER WITH 4 STEPS
A1 B0 G1 A6 B0 P6 A0 1.00 140.

OPERATE EDGER-SWITCH PROCESS F 4
A1 B0 G1 M6 X42 I0 A0 4.00 2000.

PUSH AND GUIDE SHEETMETAL2 THROUGH EDGER AT EDGER WITH 3 STEPS F 4
A6 B0 G1 M1 X0 I3 A0 4.00 440.

REPLACE SHEETMETAL2 FROM EDGER TO CART AT EDGER WITH 4 STEPS F 2
A1 B0 G1 A6 B0 P3 A0 2.00 220.

HOVE CART WITH SHEETMETAL2 FROM EDGER TO PITTSBURGH
A1 B0 G1 A16 B0 P1 A0 1.00 190.

TOTAL TMU 3210.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W (or H for help?) ?

20/670
File Description ? FORM PITTSBURGH LOCKS ON WRAPPER FOR OFFSET

Output to line-printer <Y or N> ? N

( 39, 3)
FIT .W11 OFFSET.M06
FORM SHEETMETAL FOR OFFSET LOCKS WITH PITTSBURGH AT SHEETMETAL
SHOP
PER OFFSET

OFG: 4 08-JUL-83
NASSCO SHEETMETAL SHAPE #13
* HULL 418
* DRAWING 501-292
* V2-92008
* V6-1922
* 20 GAUGE GALV. SHEETMETAL
* 13'X6'X20 1/2'L OFFSET (OFFSET 6 1/2')
* BEFORE ROLLING RADIUS POSITION SPACERS
* POSITION SPACERS IN LOCKS
FITTER BEGINS AT PITTSBURGH

1 PLACE SHEETMETAL FROM CART AT PITTSBURGH TO PITTSBURGH
WITH 4 STEPS F 2
A1 B0 G1 A6 B0 P3 A0 2.00 220.

2 PUSH PITTSBURGH-BUTTON PROCESS F 2
A1 B0 G1 M1 X32 I0 A0 2.00 700.

3 PUSH AND GUIDE SHEETMETAL2 THROUGH PITTSBURGH WITH 4
STEPS F 4
A6 B0 G1 M1 X0 I3 A0 4.00 440.

4 REPLACE SHEETMETAL2 FROM PITTSBURGH TO CART AT
PITTSBURGH WITH 4 STEPS F 2
A1 B0 G1 A6 B0 P3 A0 2.00 0 0 220.

5 MOVE CART WITH SHEETMETAL2 FROM PITTSBURGH TO WORKTABLE
A1 B0 G1 A54 B3 P1 A0 1.00 600.

TOTAL TMU 2180,

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

22850
File Description ? POSITION SPACERS IN PITTSBURGH LOCKS FOR OFFSET

Output to line-printer <Y or N> ? N

( 39, 3)
FIT *W11 OFFSET.M07
POSITION SHEETMETAL FOR SPACERS IN OFFSET PITTSBURGH LOCKS WITH
HAMMER AT SHEETMETAL SHOP
PER OFFSET OFG: 4 08-JUL-83
NASSCO SHEETMETAL SHAPE #13
* HULL 418
* DRAWING 501-292
* V2-92008
* V6-1922
* 20 GAUGE GALV. SHEETMETAL
* 13'X6'X20 1/2'L OFFSET (OFFSET 6 1/2')
* POSITION SPACERS IN PITTS BEFORE ROLLING
FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL2 FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0 2.00 220.

2 FASTEN ( FLATTEN ) SHEETMETAL CORNERS AT WORKTABLE 3 STRIKES USING HAMMER AND ASIDE PF 8 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P0 F6 )A1 B0 P1 A0 (8) 1.00 600.

3 PLACE SHEETMETAL ( SPACERS 1 FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 4
   A1 B0 G1 A1 B0 P3 A0 4.00 240.

4 FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AND ASIDE PF 8 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P0 F3 )A1 B0 P1 A0 (8) 1.00 360.

5 PLACE MASKING TAPE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 4
   A1 B0 G1 A1 B0 P3 A0 4.00 240.

6 MOVE SHEETMETAL2 ( THROAT & HEEL ) FROM WORKTABLE TO HAND-ROLLER AT WORKBENCH
   A1 P0 G1 A67 B3 P1 A0 1.00 730.

TOTAL TMU 2390.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?
File Description: FORM RADIUS ON WRAPPERS FOR OFFSET

Output to line-Printer <Y or N>? N

( 39, 3)
FIT .W11 OFFSET.M08
FORM SHEETMETAL FOR RADIUS ON OFFSET WRAPPERS WITH
HAND OPERATED ROLLER AT SHEETMETAL SHOP
PER OFFSET OFG: 4 08-JUL-83
N ASSCO SHEETMETAL SHAPE #13
* HULL 418
* DRAWING 501-292
* V2-92008
* V6-1922
* 20 GAUGE GALV. SHEETMETAL
* 13’X6’X20 1/2’L OFFSET (OFFSET 6 1/2’)
* ROLL UP RADIUS WITH SPACERS IN PITS.
FIT TER BEGINS AT WORKBENCH

1 PLACE SHEETMETAL2 FROM FITTER AT WORKBENCH TO WORKBENCH
WITH 5 STEPS F 2
A1 B0 G1 A10 B0 P3 A0 2.00 300.

2 FASTEN BOLT (ROLS )TO SHEETMETAL2 AT HAND-ROLLER AT
WORKBENCH 5 SPINS USING HAND F 3
A1 B0 G1 k1 B0 F1 F10 A0 B0 P0 A0 3.00 420.

3 CRANK HAND-ROLLER AT WORKBENCH 3 REVS USING HAND F 10
A1 B0 G1 M6 X0 I0 A0 10.00 800.

4 LOOSEN BOLT (ROLS ) TO SHEETMETAL2 AT HAND-ROLLER AT
WORKBENCH 5 SPINS USING HAND F 2
A1 B0 G1 A1 B0 F1 L10 A1 B0 P0 A0 2.00 280.

5 MOVE SHEETMETAL2 FROM HAND-ROLLER AT WORKBENCH TO
WORKTABLE
A1 B0 G1 A67 B3 P1 A0 1.00 730.

TOTAL TMU 2530.

Type D, EM, CT EW, EX, L, LD, LS, M, T, W <or H for help) ?

27770
Please input file <OFFSET.M09> ?

File Description ? ASSEMBLE OFFSET

Output to line-printer <Y or N> ? N

( 39, 3)
FIT 
OFFSET.M09
ASSEMBLE SHEETMETAL FOR OFFSET WITH HAMMER AT SHEETMETAL SHOP
PER OFFSET
OFG: 4 28-MAR-83
NASSCO SHEETMETAL SHAPE #13
* HULL 418
* Y DRAWING 501-292
* V2-92008
* V6-1933
* 20 GAUGE GALV. SHEETMETAL
* 13'X6'X20 1/2'L OFFSET (OFFSET 6 1/2')
* REMOVE SPACERS FROM PITTSBURGH LOCKS
FITTER BEGINS AT WORKTABLE

1 REPLACE MASKING-TAPE FROM SHEETMETAL AT WORKTABLE AND
ASIDE TO WORKTABLE F 8
A1 B0 G1 A1 B0 F3 A0  8.00  480.

2 LOOSEN SHEETMETAL ( STRIPOS ) FROM SHEETMETAL AT
WORKTABLE 1 STRIKE USING HAMMER AND ASIDE PF 8 ( 4 5 6
7 )
A1 B0 G1 (A1 B0 P0 L3 )A1 B0 F1 A0 (8)  1.00  360.

3 MOVE BARCLAMP2 FROM TOOLROOM TO WORKTABLE
A96 B0 G1 A96 B3 F1 A0  1.00  1970 .

4 POSITION SHEETMETAL FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE WITH 4 STEPS
A1 B0 G1 A6 B0 F6 A0  1.00  140 .

5 FASTEN BARCLAMP TO ELBOW AT WORKTABLE 3 WRIST-CRANKS
USING HAND F 6
A1 B0 G1 A1 B0 F1 F6 A0 B0 P0 A0  6.00  600.

6 FASTEN SHETING TOOL TO SHEETMETAL AT WORKTABLE 1 STRIKE
USING HAMMER AND ASIDE F 25
A1 B0 G1 A1 B0 P0 F3 A1 B0 F1 A0  25.00  2000.

7 FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 3 STRIKES
USING HAMMER AND ASIDE PF 25 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P0 F6 )A1 B0 F1 A0 (25)  1.00  1790 .

8 LOOSEN BARCLAMP FROM SHEETMETAL AT WORKTABLE 3
WRIST-CRANKS USING HAND
A1 B0 G1 B0 P1 L6 A0 B0 P0 A0  1.00  100.

9 FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 16 STRIKES
USING HAMMER AND ASIDE PF 18 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P0 F32 )A1 B0 P1 A0 (18)  1.00  5980.

10 INSPECT SHEETMETAL AT WORKTABLE 9 POINTS
A0 B0 G0 A0 B0 P0 T10 A0 B0 P0 A0  1.00  100.

TOTAL TMU 13520.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?
Sheet Metal Shape

12" x 20" x 36" LG Offset - Offset 8"

Fab.  93510  56 min.

Markout.  12730  8 min.

Total.  116240  70 min.
FILE DESCRIPTION: MARK OUT CHEEKS FOR OFFSET

Output to line-printer <Y or N> ? N

(39, 1)

FIT .W11 OFFSET.M60
MARK OUT CHEEKS FOR OFFSET WITH AWL AT SHEETMETAL SHOP
PER OFFSET OFG: 4 10-MAY-83
NASSCO SHEETMETAL SHAPE 13
* 18 GAUGE GALV. SHEETMETAL
* 12'X20'X36'L OFFSET
* OFFSET 8'
* MARK OUT CHEEKS FOR OFFSET WITH TEMPLATE
FITTER BEGINS AT WORKTABLE

1 POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 2
A1 B0 G1 A1 B0 P6 A0 2.00 180.

2 POSITION WEIGHTS FROM WORKTABLE TO TEMPLATE AT WORKTABLE WITH 3 STEPS F 6
A1 B0 G1 A6 B0 P6 A0 6.00 840.

3 MARK OUTLINE FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 6 (4 5 6 7)
A1 B0 G1 (K1 E0 P1 R16 )A1 B0 P1 A0 (6) 1.00 1120.

4 POSITION CPUNCH FROM WORKTABLE TO TEMPLATE AT WORKTABLE F 8
A1 B0 G1 A1 B0 P6 A0 8.00 720.

5 FASTEN CPUNCH TO SHEETMETAL. A1 WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE AND ASIDE PF 8 (4 5 6 7)
A1 B0 G1 (A1 B0 P0 F3 )A1 B0 P1 A0 (8) 1.00 360.

6 REPLACE WEIGHTS FROM TEMPLATE AT WORKTABLE TO WORKTABLE WITH 3 STEPS F 6
A1 B0 G1 A6 B0 P3 A0 6.00 660.

7 REPLACE TEMPLATE FROM SHEETMETAL AT WORKTABLE TO WORKTABLE F 2
A1 B0 G1 A1 B0 P3 A0 2.00 120.

8 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING RED PEN AT WORKTABLE AND ASIDE PF 6 (4 5 6 7)
A1 E0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (6) 1.00 1120.

9 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACK PEN AT WORKTABLE AND ASIDE PF 44 (4 5 6 7)
A1 E0 G1 (A1 IB0 P1 R3 )A1 B0 P1 A0 (44) 1.00 2240.

10 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACK PEN AT WORKTABLE AND ASIDE PF 52 (4 5 6 7)
A1 B0 G1 (A1 E0 P1 R3 )A1 B0 P1 A0 (52) 1.00 2640.

TOTAL TMU 10000.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?
Output to line-printer <Y or N> ? N

FIT

MARK OUT WRAPPERS FOR OFFSET WITH AWL AT SHEETMETAL SHOP

OFG: 4 10-MAY-83

NASSCO SHEETMETAL SHAPE 13
* 18 GAUGE GALV. SHEETMETAL
* 12'X20'X36'L OFFSET
* OFFSET 8'

* MARK OUT WRAPPERS WITHOUT TEMPLATES
FITTER BEGINS AT WORKTABLE

1 MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING
STEEL-TAPE AT WORKTABLE AND ASIDE PF 6 (4 5 6 7 )
A1 B0 G1 (A1 B0 P1 M32 )A1 B0 P1 A0 (6) 1.00 2080.

2 MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT
USING AWL AT WORKTABLE AND ASIDE PF 4 (4 5 6 7 )
A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (4) 1.00 240.

3 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE E 4
A1 B0 G1 A1 B0 P6 A0 1.00 4.00 360.

4 MARK SHEETMETAL FROM STRAIGHTEDGE AT WORKTABLE 1 DIGIT
USING AWL AT WORKTABLE AND ASIDE PF 4 (4 5 6 7 )
A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (4) 1.00 240.

5 POSITION CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL
AT WORKTABLE F 8
A1 B0 G1 A1 B0 P6 A0 1.00 8.00 720.

6 MARK SHEETMETAL FROM CORNER TEMPLATE AT WORKTABLE 2
DIGITS USING AWL AT WORKTABLE AND ASIDE PF 8 (4 5 6 7 )
A1 B0 G1 (A1 B0 P1 R6 )A1 B0 P1 A0 (8) 1.00 680.

7 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS
USING REDPEN AT WORKTABLE AND ASIDE PF 11 (4 5 6 7 )
A1 B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (11) 1.00 2020.

8 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT
WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND
ASIDE PF 44 (4 5 6 7 )
A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (44) 1.00 2240.

9 MARK IDENTIFICATION ON SHEETMETAL A-f WORKTABLE 1 DIGIT
USING BALCKPEN AT WORKTABLE AND ASIDE PF 52 (4 5 6 7 )
A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (52) 1.00 2640.

10 PLACE SHEETMETAL2 FROM WORKTABLE TO CART AT WORKTABLE
WITH 3 STEPS
A1 B0 G1 A6 B0 P3 A0 1.00 110.

11 MOVE CART WITH SHEETMETAL2 FROM WORKTABLE TO SMALLSHEAR
A1 R0 G1 A67 B0 P1 A0 1.00 700.

TOTAL TMU 12030.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help) ?

700 + 12030 = 1273
File Description ? SHEAR SHEETMETAL FOR OFFSET

Output to line-printer <Y or N> ? N

( 39, 1)
FIT .W11 OFFSET.M62
SHEAR SHEETMETAL FOR OFFSET WITH SMALL 8FT. SHEAR AT SHEETMETAL
SHOP
PER OFFSET
NASSCOS SHEETMETAL SHAPE 13
* 18 GAUGE GALV. SHEETMETAL
* 12’X20’X36’L OFFSET
* OFFSET 8’L
FITTER BEGINS AT SMALLSHEAR

1 POSITION SHEETMETAL2 FROM CART AT SMALLSHEAR TO SMALLSHEAR WITH 4 STEPS F--
   A1 B0 G1 A6 B0 P6 A0 1.00 140. f--
2 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 2
   A1 B0 G1 H1 X6 I0 A0 2.00 180.
3 POSITION SHEETMETAL2 FROM SMALLSHEAR TO SMALLSHEAR F 16
   A1 E0 G1 A1 B0 P6 A0 16.00 1440.
4 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 16
   A1 B0 G1 M1 X6 I0 A0 16.00 1440.
5 REPLACE SHEETMETAL2 FROM SMALLSHEAR TO CART AT SMALLSHEAR WITH 10 STEPS F 2
   A1 B0 G1 A16 B0 P3 A0 2.00 420.
6 MOUE CART WITH SHEETMETAL2 FROM SMALLSHEAR TO WORKTABLE,
   A1 B0 G1 A67 B3 P1 A0 1.00 730.

TOTAL TMU  4350 .

Type D, EM, CT, EW, EX, L, LD, LS M, T, W <or H for help> ? 17080
FIT .W11 OFFSET.M63
SHEAR RADIUS ON CHEEKS FOR OFFSET WITH UNI-SHEAR-AT SHEETMETAL
SHOP OFFSET
NASSCO SHEETMETAL SHAPE 13
* 18 GAUGE GALV. SHEETMETAL
* 12'X20'X36' OFFSET / OFFSET 8'
FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL2 FROM CART AT WORKTABLE TO WORKTABLE
   WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0 2.00 220.

2 MOVE UNISHEAR2 FROM TOOLROOM TO WORKTABLE
   A96 E0 G1 A96 B3 P1 A0 1.00 1970.

3 OPERATE UNISHEAR AT WORKTABLE PROCESS F 12
   A1 R0 G1 M6 X173I0 A0 12.00 21720.

4 CUT CORNERS ON SHEETMETAL AT WORKTABLE 2 CUTS USING
   SNIPS AT WORKTABLE AND ASIDE PF 16 ( 4 5 6 7 )
   A1 B0 G1 (61 B0 P3 C3 )A1 B0 P1 A0 (16) 1.00 1160.

5 FASTEN [FLATTEN] CORNERS ON SHEETMETAL AT WORKTABLE 3
   STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 16 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 F0 F6 )A1 B0 P1 A0 (16) 1.00 1160.

6 GRIP AND TWIST SHEETMETAL [CHEEK EDGE CORNER] 1-TWIST
   USING VISEGRIPS AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P3 C1 )A1 B0 P1 A0 (4) 1.00 240.

7 REPLACE SHEETMETAL2 FROM WORKTABLE TO CART AT WORKTABLE
   WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0 2.00 220.

8 MOVE CART WITH SHEETMETAL2 FROM WORKTABLE TO LAPOUT
   A1 B0 G1 A54 B0 P1 A0 1.00 570.

TOTAL TMU 27260.
File Description ? FORM LAP ENDS ON CHEEKS AND WRAPPERS FOR OFFSET

Output to line-printer (Y or N> ? N

( 39, 1)
FIT .W11
OFFSET.M64
FORM LAP ENDS ON CHEEKS AND WRAPPERS FOR OFFSET WITH
LAPOUT ROTARY MACHINE AT SHEETMETAL SHOP
PER OFFSET

NASSCO SHEETMETAL SHAPE 13
* 18 GAUGE GALV. SHEETMETAL
* 12'X20'X36' L OFFSET / OFFSET 8'
FITTER BEGINS AT LAPOUT

OFG: 4 10-MAY-83

NASSCO SHEETMETAL SHAPE 13
* 18 GAUGE GALV. SHEETMETAL
* 12'X20'X36' L OFFSET / OFFSET 8'
FITTER BEGINS AT LAPOUT

1 PLACE SHEETMETAL2 FROM CART AT LAPOUT TO LAPOUT WITH 4 STEPS F 4
A1 B0 G1 A6 E0 P3 A0 4.00 440.

2 PUSH LAPOUT-SWITCH PROCESS F 4
A1 B0 G1 M1 X16 I0 A0 4.00 760.

3 PUSH AND GUIDE SHEETMETAL2 THROUGH LAPOUT WITH 3 STEPS F 4
A6 B0 G1 M1 X0 I3 A0 4.00 440.

4 REPLACE SHEETMETAL2 FROM LAPOUT TO CART AT LAPOUT.WITH 4 STEPS F 4
A1 B0 G1 A6 E0 P3 A0 4.00 440.

5 MOUE CART WITH SHEETMETAL2 FROM LAPOUT TO EDGER
A1 B0 G1 A16 B0 P1 A0 1.00 190.

TOTAL TMU 2270.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?
File Description ? FORM 90 DEGREE EDGE, ON CHEEKS FOR OFFSET

Output to line-Printer <Y or N> ? N

( 39, 1)
FIT .W11 OFFSET.M65
FORM 90  'DEGREE EDGE ON CHEEKS FOR OFFSET WITH EDGER (ROLL FORMER)
AT SHEETMETAL SHOP
PER OFFSET OFG: 4 08-JUL-83
NASSCO SHEETMETAL SHAPE 13
* 18 GAUGE GALV. SHEETMETAL
* 12'X20'X36' OFFSET / OFFSET 8'
* START CHEEKS THROUGH EDGER MACHINE --
* WITH PREVIOUSLY TURNED UP EDGE --
* -- SEE [OFFSET.M63]
FITTER BEGINS AT EDGER

1 POSITION SHEETMETAL2 FROM CART AT EDGER TO EDGER WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P6 A0 2.00 280.
2 PUSH EDGER-SWITCH PROCESS F 4
   -A1 B0 G1 H1 X42 I0 A0 4.00 1800.
3 PUSH AND GUIDE SHEETMETAL2 THROUGH EDGER WITH 3 STEPS F 4
   A6 B0 G1 M1 X0 I3 A0 4.00 440.
4 REPLACE SHEETMETAL2 FROM EDGER TO CART AT EDGER WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0 2.00 220.
5 MOUE CART WITH SHEETMETAL2 FROM EDGER TO PITTSBURGH
   A1 B0 G1 A16 B0 P1 A0 1.00 190,

TOTAL TMU 2930.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?-

49540
File Description? FORM PITTSBURGH LOCK ON WRAPPERS FOR OFFSET

Output to line-printer <Y or N>? N

(39, 1) FIT "W11 OFFSET.M66
FORM PITTSBURGH LOCK ON WRAPPERS FOR OFFSET WITH
PITTSBURGH MACHINE AT SHEETMETAL SHOP
PER OFFSET OFG: 4 10-MAY-83

NASSCO SHEETMETAL SHAPE 13
* 18 GAUGE GALV. SHEETMETAL
* 12'X20'X36'L OFFSET / OFFSET 8'
FITTER BEGINS AT PITTSBURGH

1 PLACE SHEETMETAL2 FROM CART AT PITTSBURGH TO PITTSBURGH WITH 4 STEPS F 2
   A1 30 G1 A6 B0 P3 A0   2.00   220.
2 PUSH PITTSBURGH-BUTTON PROCESS F 4
   A1 30 G1 M1 X32 I0 A0   4.00  1400.
3 PUSH AND GUIDE SHEETMETAL2 THROUGH PITTSBURGH WITH 3 STEPS F 4
   A6 30 G1 M1 X0 I3 A0   4.00  440.
4 REPLACE SHEETMETAL2 FROM PITTSBURGH TO CART AT
   PITTSBURGH WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0   2.00  220.
5 MOVE CART WITH SHEETMETAL2 FROM PITTSBURGH TO WORKTABLE
   A1 B0 G1 A54 B3 P1 A0   1.00  600.

TOTAL TMU 2880.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help>? 52, 420
POSITION SPACERS IN PITTSBURGH LOCKS FOR OFFSET WITH HAMMER AT SHEETMETAL SHOP PER OFFSET

NASSCO SHEETMETAL SHAPE 13
* 18 GAUGE GALV. SHEETMETAL
* 12'X20'X36'L OFFSET / OFFSET 8'
FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL2 FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0 2.00 220.

2 FASTEN [FLATTEN] SHEETMETAL AT WORKTABLE 3 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 8 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P0 F6 )A1 B0 P1 A0 (8) 1.00 600.

3 POSITION SHEETMETAL FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 4
   A1 B0 G1 A1 B0 F6 A0 4.00 360.

4 FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AND ASIDE PF 8 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P0 F3 )A1 B0 P1 A0 (8) 1.00 360.

5 PLACE MASKING-TAPE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 8
   A1 B0 G1 A1 B0 P3 A0 8.00 480.

6 MOVE SHEETMETAL2 FROM WORKTABLE TO ROLLER
   A1 B0 G1 A54 B0 P1 A0 1.00 570.

TOTAL TMU 2590.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W (or H for help)?

5.5.10
FORM RADIUS ON WRAPPERS FOR OFFSET

Output to line-printer <Y or N> ? N

( 39, 1)
FIT .W11 OFFSET.M68
FORM RADIUS ON WRAPPERS FOR OFFSET WITH ROLLER (ROLL FORMER) AT SHEETMETAL SHOP
OFG: 4 10-MAY-83
PER OFFSET

NASSCO SHEETMETAL SHAPE 13
* 18 GAUGE GALV. SHEETMETAL
* 12'X20'X36'L OFFSET / OFFSET 8'
* ROLL UP WRAPPERS WITH SPACERS IN --
* -- PITTSBURGH LOCKS TO KEEP --
* -- LOCKS FROM FLOATING
FITTER BEGINS AT ROLLER

1 PLACE SHEETMETAL FROM FITTER AT ROLLER TO ROLLER WITH 2 STEPS F 2
   A1 B0 G1 A3 B0 P3 A0 2.00 160.

2 FASTEN BOLT [ROLL] TO SHEETMETAL2 AT ROLLER 3 SPINS USING HAND F 6
   A1 B0 G1 A1 B0 F1 F6 A0 B0 P0 A0 6.00 600.

3 PUSH ROLLER-BUTTON PROCESS F 16
   A1 B0 61 M1 X96 I0 A0 . 16.00 15840.

4 POSITION SHEETMETAL2 FROM ROLLER TO SHEETMETAL2 AT ROLLER WITH 3 STEPS F 8
   A1 B0 G1 A6 B0 P6 A0 8.00 1120.

5 MOVE SHEETMETAL2 FROM ROLLER TO WORKTABLE
   A1 B0 G1 A54 B3 P1 A0 1.00 600.

TOTAL TMU 18320.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W (or H for help) ?

73,330
Please input file <OFFSET.M69> ?

File Description ? ASSEMBLE CHEEKS AND WRAPPERS FOR OFFSET

Output to line-printer <Y or N> ? N

( 39, 1)
FIT .W11 OFFSET.M69
ASSEMBLE CHEEKS AND WRAPPERS FOR OFFSET WITH HAMMER AT SHEETMETAL
SHOP
PER OFFSET OFG: 4 10-MAY-83
    NASSCO SHEETMETAL SHAPE 13
    * 18 GAUGE GALV. SHEETMETAL
    * 12'X20'X36'L OFFSET / OFFSET 8'
    FITTER BEGINS AT WORKTABLE

1 REPLACE MASKING-TAPE FROM SHEETMETAL TO WORKTABLE AT WORKTABLE F 8
   A1 B0 G1 A1 B0 P3 A0 8.00 480.
2 LOOSEN SHEETMETAL [SPACERS] FROM SHEETMETAL [WRAPPERS] AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE AND ASIDE PF 8 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P0 L3 )A1 B0 P1 A0 (8) 1.00 360.
3 MOVE BARCLAMP FROM TOOLROOM TO WORKTABLE
   A96 B0 G1 A96 B3 P1 A0 1.00 1970.
4 POSITION SHEETMETAL FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 2
   A1 B0 G1 A1 B0 F6 A0 2.00 180.
5 POSITION BARCLAMP FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 8
   A1 B0 G1 A1 B0 P6 A0 8.00 720.
6 FASTEN BARCLAMP TO SHEETMETAL AT WORKTABLE 3 WRIST-TURNS USING HAND AND ASIDE PF 8 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 F6 )A1 B0 P1 A0 (8) 1.00 680.
7 POSITION SETTINGTOOL FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 32
   A1 B0 G1 A1 B0 P6 A0 32.00 2880,
8 FASTEN SETTINGTOOL TO SHEETMETAL AT WORKTABLE 2 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 32 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P0 F6. )A1 B0 P1 A0 (32) 1.00 2280.
9 FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 7 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 24 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P0 F16 )A1 B0 P1 A0 (24) 1.00 4120.
10 LOOSEN BARCLAMP FROM SHEETMETAL AT WORKTABLE 3 WRIST-TURNS USING HAND F 8
    A1 B0 G1 A1 B0 P1 L6 A0 B0 P0 A0 8.00 800.
11 FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 16 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 19 ( 4 5 6 7 )
    A1 B0 G1 (A1 B0 P0 F32 )A1 B0 P1 A0 (19) 1.00 6310.
12 INSPECT SHEETMETAL AT WORKTABLE 9 POINTS
    A0 B0 G0 A0 B0 P0 T10 A0 B0 P0 A0. 1.00 100.

94210 Fab 56 Mn. 20880.
10000 M.O 6 Mn. 14 Mn.
12730 M.O 8 Mn. 41 Sec.
- 700 Mn. 70 Mn.
# Sheet Metal Shape #13

14" x 12" x 30" L6 Offset - Offset 10"

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File Description ? MARK OUT CHEEKS OR OFFSET

Output to line-printer <Y or N> ? N

( 39, 1)
FIT .W11
OFFSET.M90
MARK OUT CHEEKS FOR RECTANGULAR OFFSET WITH AWL AT SHEETMETAL
SHOP
PER OFFSET OFG: 4 26-MAY-83

NASSCO SHEETMETAL SHAPE 13
* 11 GAUGE GALV. SHEETMETAL
* 14'X12'X30'L RECTANGULAR OFFSET
* OFFSET 10'
* MARK OUT CHEEKS WITH TEMPLATE
FITTER BEGINS AT WORKTABLE

1 POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE WITH 5 STEPS F 2
A1 B0 G1 A10 B0 F6 A0 2.00 360.

2 POSITION WEIGHTS FROM WORKTABLE TO TEMPLATE AT
WORKTABLE WITH 3 STEPS F 6
A1 B0 G1 A6 B0 F6 A0 6.00 840.

3 MARK OUTLINE FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5
DIGITS USING AWL AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7
A1 B0 G1 (A1 B0 F1 R16 )A1 B0 F1 A6 (6) 1.00 1120.

4 REPLACE WEIGHTS FROM TEMPLATES AT WORKTABLE TO
WORKTABLE WITH.3 STEPS F 6
A1 B0 G1 A6 B0 P3 A0 6.00 660.

5 REPLACE TEMPLATES FROM SHEETMETAL AT WORKTABLE TO
WORKTABLE WITH 5 STEPS F 2
A1 B0 G1 A10 B0 F3 A0 2.00 300.

6 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 1 DIGIT USING
REDPEN AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7
A1 B0 G1 (A1 B0 P1 R3 )A1 B0 F1 A0 (6) 1.00 340.

7 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT
WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND
ASIDE PF 44 ( 4 5 6 7
A1 B0 G1 (A1 B0 F1 R3 )A1 B0 F1 A0 (44) 1.00 2240.

8 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT
USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 ( 4 5 6 7
A1 B0 G1 (A1 B0 F1 R3 )A1 B0 F1 A0 (52) 1.00 2640.

TOTAL TMU 8500.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?
File Description ? MARK OUT WRAPPERS FOR OFFSET

Output to line-printer <Y or N> ? N

39, 1)
FIT .W11 OFFSET.M91
MARK OUT WRAPPERS FOR RECTANGULAR OFFSET WITH AWL AT SHEETMETAL SHOP PER OFFSET

OFG: 4 26-MAY-83

NASSCO SHEETMETAL SHAPE 13
* 11 GAUGE GALV. SHEETMETAL
* 14'X12'X30'L RECTANGULAR OFFSET
* OFFSET 10'
* MARK OUT WRAPPERS WITHOUT TEMPLATE
FITTER BEGINS AT WORKTABLE

1 MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 F1 M32 )A1 B0 F1 A0 (4) 1.00 1400.

2 MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 F1 R3 )A1 B0 F1 A0 (6) 1.00 340.

3 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS F 3
A1 B0 G1 A3 B0 F6 A0 3.00 330.

4 MARK LINES FROM STRAIGHTEDGE TO SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF 3 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 F1 R3 )A1 B0 F1 A0 (3) 1.00 190.

5 POSITION CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS F 8
A1 B0 G1 A6 B0 F6 A0 8.00 1120.

6 MARK SHEETMETAL FROM CORNER TEMPLATES AT WORKTABLE 2 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 8 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 F1 R6 )A1 B0 F1 A0 (8) 1.00 640.

7 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P1 R16 )A1 B0 F1 A0 (6) 1.00 1120.

8 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 44 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 F1 R3 )A1 B0 F1 A0 (44) 1.00 2240.

9 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 F1 R3 )A1 B0 F1 A0 (52) 1.00 2640.

10 PLACE SHEETMETAL2 FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2
A1 B0 G1 A6 B0 P3 A0 2.00 2280.

11 MOVE CART FROM WORKTABLE TO 14FT SHEAR
A1 B0 G1 A81 B0 F1 A0 1.00 840.

TOTAL TMU 11120.
SHEAR CHEEKS AND WRAPPERS FOR OFFSET

Output to line-printer <Y or N> ? N

NASSCO SHEETMETAL SHAPE 13
* 11 GAUGE GALV. SHEETMETAL
* 14'X12'X30' L RECTANGULAR OFFSET
* OFFSET 10'
FITTER BEGINS AT 14FT.SHEAR

1 POSITION SHEETMETAL FROM CART AT 14FT.SHEAR TO
14FT.SHEAR WITH 4 STEPS F 2
A1 B0 G1 A6 B0 P6 A0 2.00 280.

2 PUSH 14FT. SHEAR-FOOTPEDAL PROCESS F 2
A1 B0 G1 M1 X3 I0 A0 2.00 120.

3 POSITION SHEETMETAL2 FROM 14FT.SHEAR TO 14FT.SHEAR WITH
4 STEPS F 16
A1 B0 G1 A6 B0 P6 A0 16.00 2240.

4 PUSH 14FT.SHEAR-FOOTPEDAL PROCESS F 16
A1 B0 G1 M1 X3 I0 A0 16.00 960.

5 REPLACE SHEETMETAL2 FROM 14FT.SHEAR TO CART AT
14FT.SHEAR WITH 4 STEPS F 2
A1 B0 G1 A6 B0 P3 A0 2.00 220.

6 MOVE CART FROM 14FT.SHEAR TO WORKTABLE
A1 B0 G1 A81 B3 P1 A0 1.00 870.

TOTAL TMU 4690.

Type [1,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?
File Description: CUT RADIUSSES AND CORNERS FOR OFFSET

Output to line-printer <Y or N> ? N

(39, 1)
FIT .W11 OFFSET.M93
CUT RADIUSSES AND CORNERS FOR RECTANGULAR OFFSET WITH SABER-SAW
SHEETMETAL SHOP
PER OFFSET OFG: 4 26-MAY-83
NASSCO SHEETMETAL SHAPE 13
* 11 GAUGE GALV. SHEETMETAL
* 14"X12"X30'L RECTANGULAR OFFSET
* OFFSET 10'
* CUT RADIUSSES & CORNERS ON CHEEKS
* CUT CORNERS ON WRAPPERS
FITTER BEGINS AT WORKTABLE

1 POSITION SHEETMETAL2 FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 2
A1. B G1 A6 B0 P6 A0 2.00 200.

2 MOVE SABER-SAW2 FROM TOOLROOM TO WORKTABLE
A96 B0 G1 A96 B3 P1 A0 1.00 1970.

3 FASTEN NUT [SAW-BLADE] TO SABER-SAW AT WORKTABLE WITH 4 STEPS F 3
A1 B0 G1 (A1 B0 P3 F6 )A1 B0 P1 A0 (3) 1.00 340.

4 OPERATE SABER-SAW AT WORKTABLE PROCESS F 12
A1 B0 G1 M6 X67 IO A0 12.00 9000.

5 REPLACE SHEETMETAL2 FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2
A1 B0 G1 A6 B0 P3 A0 2.00 220.

6 MOVE CART FROM WORKTABLE TO ROLLER
A1 B0 G1 A54 B0 P1 A0 1.00 370.

TOTAL TMU 12380.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ? 17070
File Description ? FORM, RADIUSES ON WRAPPERS FOR OFFSET

Output to line-Printer <Y or N> ? N

(39, 1)
FIT .W1

FORM RADIUSES ON WRAPPERS FOR RECTANGULAR OFFSET WITH ROLLER (ROLL FORMER) AT SHEETMETAL SHOP

PER OFFSET

NASSCO SHEETMETAL SHAPE 13
* 11 GAUGE GAL SHEETMETAL
* 14'x12'x30'L RECTANGULAR OFFSET
* OFFSET 10'
* ROLL UP WRAPPER RADIUSES AND CHECK--
  --THEM WITH RADIUSES ON CHEEKS
* COMPLETE IN WELD BOOTH AREA
* SEE MWELD.SEE OFFSET.M95

FITTER BEGINS AT ROLLER

1 PLACE SHEETMETAL2 FROM CART AT ROLLER TO ROLLER WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0 2.00 220.
2 FASTEN BOLT [ROLLS] TO SHEETMETAL2 AT ROLLER 3
   WRIST- Turns USING HAND WITH 2 STEPS F 6
   A1 B0 G1 A1 B0 P1 F6 A0 B0 P0 A0 6.00 600.
3 PUSH ROLLER-BUTTON PROCESS F 16
   A1 B0 G1 M1 X96 I0 A0 16.00 15840.
4 POSITION SHEETMETAL2 FROM ROLLER TO SHEETMETAL2 AT ROLLER WITH 3 STEPS F 8
   A1 B0 G1 A6 B0 F6 A0 8.00 1120.
5 REPLACE SHEETMETAL2 FROM ROLLER TO CART AT ROLLER WITH 2 STEPS F 2
   A1 B0 G1 A3 B0 P3 A0 2.00 160.
6 MOUE CART FROM ROLLER TO WORKTABLE
   A1 B0 G1 A54 B3 P1 A0 1.00 600.

TOTAL TMU 18540.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ? 35, 610
Please input file <OFFSET.M95>?

File Description ? WELD RECTANGULAR OFFSET

Output to line-printer <Y or N> ? N

(39,101)

WELD PER WELDING BOOTH
WELD RECTANGULAR OFFSET WITH ARC (STICK) WELDER AT SHEETMETAL
SHOP WELDING BOOTH
PER RECTANGULAR OFFSET OFG: 4 20-JUL-83
WELDING NASSCO SHEETMETAL SHAPE 13
* 11 GAUGE GALV. SHEETMETAL
* 14'X12'X30' L OFFSET, OFFSET 10'
* WELDING DONE IN WELD BOOT AREA
* WELDOR PERFORMS THE WORK
* FITTER TRANSPORTS SHEETMETAL
FITTER BEGINS AT WORKTABLE

1 FITTER PLACE SHEETMETAL ASSEMBLY FROM WORKTABLE TO CART
AT WORKTABLE WITH 4 STEPS F 2
A1 B0 G1 A6 B0 P3 A0 2.00 220.

2 FITTER MOVE CART FROM WORKTABLE TO WELDTABLE
A1 B0 G1 A131B3 P1 A0 1.00 1370.

3 PLACE SHEETMETAL ASSEMBLY FROM CART AT WELDTABLE TO
WELDTABLE WITH 4 STEPS F 2
A1 B0 G1 A6 B0 P3 A0 2.00 220.

4 WELDOR PUSH POWER SUPPLY BUTTON FROM OFF AT
WELDMACHINES TO ON AT WELDMACHINES WITH 16 STEPS
A3 B0 G1 M1 X0 I0 A32 1.00 370.

5 WELDOR TURN CURRENT OUTPUT CONTROL LEVER FROM OFF AT
WELDMACHINES TO ON AT WELDMACHINES
A1 B0 G1 M3 X0 I0 A1 1.00 60.

6 WELDOR POSITION ANTI-SPATTER SPRAY CAN FROM WELDTABLE
TO SHEETMETAL ASSEMBLY AT WELDTABLE F 4
A3 B3 G1 A1 B0 P6 A0 4.00 560.

7 WELDOR PUSH ANTI-SPATTER SPRAY CAN PROCESS F 4
A1 B0 G1 M1 X10 I0 A0 4.00 520.

8 WELDOR FASTEN WELDROD TO STINGER AT WELDTABLE 1
WELDOR POSITION STINGER FROM WELDTABLE TO SHEETMETAL
ASSEMBLY AT WELDTABLE F 26
A1 B0 G1 A1 B0 P1 F3 A0 B0 P0 A0 26.00 1820.

9 PULL WELDHOOD FROM UP AT WELDOR TO DOWN AT WELDOR F 26
A1 B0 G1 M1 X0 I0 A0 26.00 1040.

10 WELDOR POSITION STINGER1 FROM WELDTABLE TO SHEETMETAL
ASSEMBLY AT WELDTABLE F 26
A1 B0 G1 A1 B0 P6 A0 26.00 2340.

11 WELDOR OPERATE WELD STINGER2 AT WELDTABLE PTIME 65 S F
20
A1 B1 G1 M6 X173I0 A0 20.00 3620.

12 PUSH WELDHOOD FROM DOWN AT WELDOR TO UP AT WELDOR F 26
A1 B0 G1 M1 X0 I0 A1 26.00 1040.

13 WELDOR LOOSEN SLAG FROM SHEETMETAL ASSEMBLY AT
WELDTABLE 6 STRIKES USING SLAGHAMMER AT WELDTABLE AND
ASIDE PF 10 (4 5 6 7)
A1 B0 G1 (A1 B0 P0 L16) A1 B1 P1 A0 (10) 1.00 1740.

14 WELDOR DEBURR WELDED ASSEMBLY AT WELDTABLE 10
ARM-STROKES USING WIREBRUSH AT WELDTABLE AND ASIDE PF
40 (4567)'

REPLACE SHEETMETAL ASSEMBLY FROM WELDTABLE TO CART AT
WELDTABLE WITH 4 STEPS F 2

FITTER MOUE CART FROM WELDTABLE TO WORKTABLE

TOTAL TMU 53900.

File Description ? WELD RECTANGULAR OFFSET

Output to line-printer <Y or N> ?
SHEET METAL SHAPE # 13

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10 Shis
File Description ? MARK OUT CHEEKS FOR OFFSET

Output to line-Printer <Y or N> ? N

(39,1)
FIT  W11 OFFSET.M80
MARK OUT CHEEKS FOR OFFSET WITH AWL AT SHEETMETAL SHOP
PER OFFSET 0FG: 4 11-MAY-83

NASSCO SHEETMETAL SHAPE 13
* 22 GAUGE GALV. SHEETMETAL
* 8'X8'X70'L OFFSET / OFFSET 20'
* MARK OUT CHEEKS FOR OFFSET WITH TEMPLATE
FITTER BEGINS AT WORKTABLE

1 POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS F 2
   A1 B0 G1 A6 B0 P6 A0 2.00 280.
2 POSITION WEIGHTS FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 4 STEPS F 8
   A1 B0 G1 A6 B0 P6 A0 8.00 1120.
3 MARK OUTLINE FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 6 (4 5 6 7)
   A1 B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (6) 1.00 1120.
4 POSITION CPUNCH FROM WORKTABLE TO TEMPLATE AT WORKTABLE WITH 3 STEPS F 8
   A1 B0 G1 A6 B0 P6 A0 8.00 1120.
5 FASTEN CPUNCH TO SHEETMETAL AT WOKRTABLE 1 STRIKE USING HAMMER AND ASIDE PF 8 (4 5 6 7)
   A1 B0 G1 (A1 B0 P0 P3 )A1 B0 P1 A0 (8) 1.00 360.
6 REPLACE WEIGHTS FROM TEMPLATE AT WORKTABLE TO WORKTABLE WITH 3 STEPS F 8
   A1 B0 G1 A6 B0 P3 A0 8.00 880.
7 REPLACE TEMPLATE FROM SHEETMETAL AT WORKTABLE TO WORKTABLE F 2
   A1 B0 G1 A1 B0 P3 A0 2.00 120;
8 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 6 (4 5 6 7)
   A1 B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (6) 1.00 1120.
9 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 44 (4 5 6 7)
   A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (44) 1.00 2240.
10 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 (4 5 6 7)
   A1 B0 G1 (A1 B1 P1 R3 )A1 B0 P1 A0 (52) 1.00 2640.

   TOTAL TMU 11000.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?
File Description: MARK OUT WRAPPERS FOR OFFSET

Output to line-Printer <Y or N> ? N

(39, 1)
FIT .W11
OFFSET.M81
MARK OUT WRAPPERS FOR OFFSET WITH AWL AT SHEETMETAL SHOP
PER OFFSET OGF:4 11-MAY-83
NASSCO SHEETMETAL SHAPE 13
* 22 GAUGE GALV. SHEETMETAL
* 8'X8'X70'L OFFSET / OFFSET 20'
* MARK OUT WRAPPERS FOR OFFSET --
  t -- WITHOUT TEMPLATE
FITTER BEGINS AT WORKTABLE

1 MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING
STEEL-TAPE AT WORKTABLE AND ASIDE PF 4 (4 5 6 7)
  A1 B0 G1 (A1 B0 P1 M32)A1 B0 P1 A0 (4) 1.00 1400.
2 MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT
USING AWL AT WORKTABLE AND ASIDE PF 4 (4 5 6 7)
  A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (4) 1.00 240.
3 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE WITH 3 STEPS F-4
  A1 B0 G1 A6 B0 P6 A0 4.00 560.
4 MARK SHEETMETAL FROM STRAIGHTEDGE AT WORKTABLE 5 DIGITS
USING AWL AT WORKTABLE AND ASIDE PF 4 (4 5 6 7)
  A1 B0 G1 (A1 B0 P1 R16)A1 B0 P1 A0 (4) 1.00 760.
5 POSITION CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL
AT WORKTABLE WITH 3 STEPS F-8
  A1 B0 G1 A6 B0 P6 A0 8.00 1120.
6 MARK SHEETMETAL FROM CORNER TEMPLATE AT WORKTABLE 2
  DIGITS USING AWL AT WORKTABLE AND ASIDE. PF 8 (4 5 6 7)
  A1 B0 G1 (A1 B0 P1 R6)A1 B0 P1 A0 (8) 1.00 680.
7 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 1 DIGIT USING
BLACKPEN AT WORKTABLE AND ASIDE PF 8 (4 5 6 7)
  A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (8) 1.00 440.
8 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT
WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND
ASIDE PF 44 (4 5 6 7)
  A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (4) 1.00 2240.
9 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT
USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 (4 5 6 7)
  A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (52) 1.00 2640.
10 PLACE SHEETMETAL2 FROM WORKTABLE TO CART AT WORKTABLE
  WITH 4 STEPS
    A1 B0 G1 A6 B0 P3 A0 1.00 110.
11 MOUE CART WITH SHEETMETAL2 FROM WORKTABLE TO SMALLSHEAR
    A B0 G1 A67 B0 P1 A0 1.00 7.00

TOTAL TMU 10890.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?
TYPE D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?
File Description? SHEAR CHEEK RADIUS FOR OFFSET

Oput to line-printer <Y or N> ? N

(39, 1) .
FIT .W11 OFFSET.M83

SHEAR CHEEK RADIUS FOR OFFSET WITH UNI-SHEAR AT SHEETMETAL SHOP
PER OFFSET OFG: 4 08-JUL-83

NASSCO SHEETMETAL SHAPE 13
* 22 GAUGE GLAV. SHEETMETAL
* 8'X8'X70' L OFFSET / OFFSET 20'
* BEND UP ONE CORNER ON CHEEK EDGE WITH--
* --VISEGRIPS FOR EASY ENTRY IN EDGE--
* --ROLLING MACHINE

FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL2 FROM CART AT WORKTABLE TO WORKTABLE
   WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0  2.00  220.

2 MOVE UNISHEAR2 FROM TOOLROOM TO WORKTABLE
   A96 B0 G1 A96 B3 P1 A0  1.00  1970.

3 OPERATE UNISHEAR AT WORKTABLE PROCESS F 23
   A1 B0 G1 M6 X17310 A0  23.00  41630.

4 CUT CORNERS ON SHEETMETAL AT WORKTABLE 2 CUTS USING
   SNIPS AT WORKTABLE AND ASIDE PF 16 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P3 C3 )A1 B0 P1 A0 (16)  1.00  1160.

5 FASTEN [FLATTEN] CORNERS ON SHEETMETAL AT WORKTABLE 3
   STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 16 ( 4
   5 6 7 )
   A1 B0 G1 (A1 B0 P0 F6 )A1 B0 P1 A0 (16)  1.00  1160.

6 GRIP AND TWIST SHEETMETAL [CHEEK CORNER EDGE1 AT
   WORKTABLE 1 TWIST USING VISEGRIPS AT WORKTABLE AND
   ASIDE PF 2 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P3 C1 )A1 B0 P1 A0 (2)  1.00  140.

7 REPLACE SHEETMETAL2 FROM WORKTABLE TO CART AT WORKTABLE
   WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0  2.00  220.

8 MOVE CART WITH SHEETMETAL2 FROM WORKTABLE TO LAPOUT
   A1 B0 G1 A54 B0 P1 A0  1.00  570.

   TOTAL TMU  47070.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

52,680
File Description ? FORM LAP ENDS FOR OFFSET

Output to line-printer <Y or N> ? N

( 39, 1 )
FIT .W11
OFFSET.M84
FORM LAP ENDS FOR OFFSET WITH LAPOUT (ROTARY MACHINE) AT
SHEETMETAL SHOP
ER OFFSET
    NASSCO SHEETMETAL SHAPE 13
* 22 GAUGE GALV. SHEETMETAL
* 8'X8'X70' L OFFSET / OFFSET 20'
* FORM LAP END ON ROTARY MACHINE
FITTER BEGINS AT LAPOUT

1 PLACE SHEETMETAL2 FROM CART AT LAPOUT TO LAPOUT WITH 4
STEPS F 4
    A1 B0 G1 A6 B0 P3 A0 4.00 440.
2 PUSH LAPOUT-SWITCH PROCESS F 4
    A1 B0 G1 M1 X16 I0 A0 4.00 760.
3 PUSH AND GUIDE SHEETMETAL2 THROUGH LAPOUT WITH 3 STEPS
STEPS F 4
    A6 B0 G1 M1 X0 13 A0 4.00 440.
4 REPLACE SHEETMETAL2 FROM LAPOUT TO CART AT LAPOUT WITH
STEPS F 4
    A1 B0 G1 A6 B0 P3 A0 4.00 440.
5 MOVE CART WITH SHEETMETAL2 FROM LAPOUT TO EDGER
    A1 B0 G1 A16 B0 P1 A0 1.00 190.

TOTAL TMU 2270.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?
File Description ? FORM 90 DEGREE EDGE ON CHEEKS FOR OFFSET

Output to line-pinter <Y or N> ? N

(39, 1)
FIT .W11 OFFSET .M85
FORM 90 DEGREE EDGE ON CHEEKS FOR OFFSET WITH EDGER (FLANGER) AT
SHEETMETAL SHOP
PER OFFSET OFG:4 11-MAY-83
NASSCO SHEETMETAL SHAPE 13
* 22 GAUGE GALV. SHEETMETAL
* S'X8'X70' L OFFSET / OFFSET 20'
* BEGIN EDGE IN MACHINE WITH PREVIOUSLY--
* --TURNED UP EDGE
* TURN UP WITH VISEGRIPS AT WORKBENCH
FITTER BEGINS AT EDGER

1 POSITION SHEETMETAL2 FROM CART AT EDGER WITH 4
   STEPS F 2
   A1 B0 G1 A6 B0 P6 A0 2.00 280.
2 PUSH EDGER-SWITCH PROCESS F 4
   A1 B0 G1 M1 X42 IO A0 4.00 1800.
3 PUSH AND GUIDE SHEETMETAL2 THROUGH EDGER WITH 3 STEPS F
   4
   A6 B0 G1 M1 X0 I3 A0 4.00 440.
4 REPLACE SHEETMETAL2 FROM EDGER TO CART AT EDGER WITH 4
   STEPS F 4
   A1 B0 G1 A6 B0 P3 A0 4.00 440.
5 MOUE CART WITH SHEETMETAL2 FROM EDGER TO PITTSBURGH
   A1 B0 G1 A16 B0 P1 A0 1.00 190.

TOTAL TMU 3150.

Type D,EM,CT,EW,EX,L,LD,,LS,M,T,W <or H for help> ?
File Description ? FORM PITTSBURGH LOCKS FOR OFFSET

Output to line-printer (Y or N> ? N

( 39, 1)
FIT .W11 OFFSET.M86
FORM PITTSBURGH LOCKS FOR OFFSET WITH PITTSBURGH MACHINE AT
SHEETMETAL SHOP
PER OFFSET OFG:4 08-JUL-83
NASSCO SHEETMETAL SHAPE 13
* 22 GAUGE GALV. SHEETMETAL
* 8'X8'X70' L OFFSET / OFFSET 20'
FITTER BEGINS AT PITTSBURGH

1 PLACE SHEETMETAL2 FROM CART AT PITTSBURGH TO PITTSBURGH
WITH 4 STEPS F 2
A1 B0 G1 A6 B0 P3 A0 2.00 220.
A1 B0 G1 A6 B0 P3 A0 2.00 220.
2 PUSH PITTSBURGH-BUTTON PROCESS F 4
A1 B0 G1 A6 B0 P3 A0 4.00 1400.
A1 B0 G1 A6 B0 P3 A0 4.00 1400.
3 PUSH AND GUIDE SHEETMETAL2 THROUGH PITTSBURGH WITH 3
STEPS F 4
A6 B0 G1 M1 X32 I0 A0 4.00 440.
A6 B0 G1 M1 X32 I0 A0 4.00 440.
4 REPLACE SHEETMETAL2 FROM PITTSBURGH TO CART AT
PITTSBURGH WITH 4 STEPS F 2
A1 B0 G1 A6 B0 P3 A0 2.00 220.
A1 B0 G1 A6 B0 P3 A0 2.00 220.
5 MOVE CART WITH SHEETMETAL2 FROM PITTSBURGH TO WORKTABLE
A1 B0 G1 A54 B3 P1 A0 1.00 600.
A1 B0 G1 A54 B3 P1 A0 1.00 600.

TOTAL TMU 2880.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

60980
Output to line-Printer <Y or N> ? N

(39,1)
FIT .W1 OFFSET.M87
POSITION SPACERS IN PITTSBURGH LOCKS FOR OFFSET WITH HAMMER AT SHEETMETAL SHOP
PER OFFSET OFG:4 11-MAY-83
NASSCO SHEETMETAL SHAPE 13
* 22 GAUGE GALV. SHEETMETAL
* 8'X8'X70' L OFFSET / OFFSET 20'
* PLACE PREVIOUSLY CUT SPACERS IN--
* --PITTSBURGH LOCK TO PROTECT LOCKS--
* WHILE ROLLING
FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL2 FROM CART AT WORKTABLE TO WORKTABLE
WITH 4 STEPS F 2
 A1 B0 G1 A6 B0 P3 A0  2.00  220.
2 FASTEN [FLATTEN] SHEETMETAL CORNERS AT WORKTABLE 3
STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 8 ( 4 5 6 7 )
 A1 B0 G1 (A1 B0 P0 F6 )A1 B0 P1 A0 (8)  1.00  600.
3 POSITION SHEETMETAL [SPACERS] FROM WORKTABLE TO
SHEETMETAL AT WORKTABLE F 8
 A1 B0 G1 A1 B0 P6 A0  8.00  720.
4 FASTEN SHEETMETAL [SPACERS] TO SHEETMETAL [PITTSBURGH
LOCKS3 AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE
AND ASIDE PF 12 ( 4 5 6 7 )
 A1 B0 G1 (A1 B0 P0 F3 )A1 B0 P1 A0 (12)  1.00  520.
5 PLACE MASKING-TAPE FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE WITH 2 STEPS F 8
 A1 B0 G1 A3 B0 P3 A0  8.00  640.
6 MOVE SHEETMETAL2 FROM WORKTABLE TO ROLLER
 A1 B0 G1 A54 B0 P1 A0  1.00  970.

TOTAL TMU  3270.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

-64,250
File Description ? FORM RADIUS ON WRAPPERS FOR OFFSET

Output to line-printer <Y or N> ? N

(39,1)
FIT .W1 OFFSET.M88
FORM RADIUS ON WRAPPERS FOR OFFSET WITH ROLLER (ROLL FORMER) AT
SHEETMETAL SHOP
PER OFFSET OFG:4 08-JUL-83
NASSCO SHEETMETAL SHAPE 13
* 22 GAUGE GALV. SHEETMETAL
* 8'X8'X70' L OFFSET / OFFSET 20'
FITTER BEGINS AT ROLLER

1 PLACE SHEETMETAL2 FROM FITTER AT ROLLER TO ROLLER WITH
   2 STEPS F 2
   A1 B0 G1 A3 B0 P3 A0  2.00  160.
2 FASTEN BOLT [ROLLS] TO SHEETMETAL2 AT ROLLER WITH 3
   SPINS USING HAND WITH 2 STEPS F 6
   A1 B0 G1 A1 B0 P1 F6 A0 B0 P0 A0  6.00  600.
3 PUSH ROLLER-BUTTON PROCESS F 16
   A1 B0 G1 M1 X96 I0 A0  16.00 15840.
4 POSITION SHEETMETAL2 FROM ROLLER TO SHEETMETAL2 AT
   ROLLER WITH 3 STEPS F 8
   A1 B0 G1 A6 B0 P6 A0  8.00 1120,
5 REPLACE SHEETMETAL2 FROM ROLLER TO CART AT ROLLER WITH
   2 STEPS F 2
   A1 B0 G1 A3 B0 P3 A0  2.00  160.
6 MOVE CART WITH SHEETMETAL2 FROM ROLLER TO WORKTABLE
   A1 B0 G1 A54 B3 P1 A0  1.00  600.

TOTAL TMU 18480.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?
File Description ? ASSEMBLE CHEEKS AND WRAPPERS FOR OFFSET

Output to line-printer <Y or N> ? N

(39,1)
FIT .W1 OFFSET.M89
ASSEMBLE CHEEKS AND WRAPPERS FOR OFFSET WITH HAMMER AT SHEETMETAL
SHOP
PER OFFSET OFG:4 11-MAY-83
NASSCO SHEETMETAL SHAPE 13
* 22 GAUGE GALV. SHEETMETAL
* 8'X8'X70'L OFFSET / OFFSET 20'
* USE BAR CLAMP TO HOLD CHEEKS AND--
* --WRAPPERS TOGETHER WHILE SECURING--
* --PITTSBURGH LOCKS
FITTER BEGINS AT WORKTABLE

1 REPLACE MASKING-TAPE FROM SHEETMETAL AT WORKTABLE TO
WORKTABLE WITH 2 STEPS F 8
A1 B0 G1 A3 B0 P3 A0 8.00 640.

2 LOOSEN SHEETMETAL [SPACERS] FROM SHEETMETAL [PITTSBURGH
LOCKS] AT WORKTABLE 2 STRIKES USING HAMMER AT
WORKTABLE AND ASIDE PF 16 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P0 L6 )A1 B0 P1 A0 (16) 1.00 1160.

3 MOVE BARCLAMP2 FROM TOOLROOM TO WORKTABLE

4 POSITION SHEETMETAL FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE WITH 2 STEPS F 2
A96 B0 G1 A96 B3 P1 A0 1.00 1970.

5 POSITION BARCLAMP FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE F 12
A1 B0 G1 A3 B0 P6 A0 3.00 220.

6 FASTEN BARCLAMP TO SHEETMETAL AT WORKTABLE 3
WRIST-URNS USING HAND F 8
A1 B0 G1 A1 B0 P1 F6 A0 B0 P0 A0 8.00 800.

7 POSITION SETTINGTOOL FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE F 38
A1 B0 G1 A1 B0 P6 A0 38.00 3420.

8 FASTEN SETTINGTOOL TO SHEETMETAL AT WORKTABLE 2 STRIKES
USING HAMMER AT WORKTABLE AND ASIDE PF 32 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P0 F6 )A1 B0 P1 A0 (32) 1.00 2280.

9 FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 4 STRIKES
USING HAMMER AT WORKTABLE AND ASIDE PF 24 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P0 F10 )A1 B0 P1 A0 (24) 1.00 2680.

10 LOOSEN BARCLAMP FROM SHEETMETAL AT WORKTABLE 3
WRIST-URNS USING HAND F 8
A1 B0 G1 A1 B0 P1 L6 A0 B0 P0 A0 8.00 800.

11 FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 16 STRIKES
USING HAMMER AT WORKTABLE AND ASIDE PF 36 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P0 F32 )A1 B0 P1 A0 (36) 1.00 11920.

TOTAL TMU 26970.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?
SHEET METAL SHAPE # 13

20" x 13" x 55" LG. OFFSET - OFFSET 12"

FAB.  112850  68 MIN
MARK OUT  21970  13 MIN
TOTAL  134820  81 MIN
Please input file <OFFSET,M40> ?

File Description ? MARK OUT CHEEKS FOR OFFSET

Output to line-printer <Y or N> ? N

(39,3)

FIT .W09 OFFSET.M40
MARK OUT CHEEKS FOR OFFSET WITH AWL AT SHEETMETAL SHOP
PER OFFSET OFG:4 08-APR-83

NASSCO SHEETMETAL SHAPE #13
* HULL 414
* DRAWING 501-062
* V2-1098
* V6-7595
* 18 GAUGE GALV.SHEETMETAL
* 20'X13' X 55'L OFFSET, OFFSET 12'
* MARK OUT CHEEKS USING TEMPLATE
FITTER BEGINS AT WORKTABLE

1 POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS F 2
   A1 B0 G1 A6 B0 P6 A0 2.00 289.

2 POSITION 5 WEIGHTS FROM WORKTABLE TO TEMPLATE AT WORKTABLE WITH 3 STEPS F 10
   A1 B0 G1 A6 B0 P6 A0 10.00 1400.

3 MARK OUTLINES FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AND ASIDE PF 8 (4 5 6 7)
   A1 B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (8) 1.00 1480.

4 POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS F 22
   A1 B0 G1 A3 B0 P6 A0 22.00 2420.

5 FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE AND ASIDE PF 22 (4 5 6 7)
   A1 B0 G1 (A1 B0 P0 P3 )A1 B1 P1 A0 (22) 1.00 920.

6 REPLACE 5 WEIGHTS FROM TEMPLATE AT WORKTABLE TO WORKTABLE WITH 3 STEPS F 10
   A1 B0 G1 A6 B0 P3 A0 10.00 1100.

7 REPLACE TEMPLATE FROM SHEETMETAL AT WORKTABLE TO WORKTABLE WITH 2 STEPS F 2
   A1 B0 G1 A3 B0 P3 A0 2.00 160.

8 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 8 (4 5 6 7)
   A1 B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (8) 1.00 1480.

9 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 36 (4 5 6 7)
   A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (36) 1.00 1840.

10 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 50 (4 5 6 7)

   A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (507) 1.00 2540.

TOTAL TMU 13620.
Please input file <OFFSET.M41) ?

File Description ? MARK OUT WRAPPERS FOR OFFSET

Output to line-printer <Y or N> ? N

(3 9, 3)
FIT .w09
MARK OUT WRAPPERS FOR OFFSET WITH AWL AT SHEETMETAL SHOP
PER OFFSET OFG:4 11-APR-83
NASSCO SHEETMETAL SHAPE #13
* HULL 414
* DRAWING 501-062
* V2-1098
* V6-7595
* 18 GAUGE GALV. SHEETMETAL
* 20'X13'X55'L OFFSET? OFFSET 12'
* MARK OUT WRAPPERS WITHOUT TEMPLATES
FITTER BEGINS AT WORKTABLE
MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING
STEEL-TAPE AT WORKTABLE AND ASIDE F 4
   A1 B0 G1 A1 B0 P1 M32 A1 B0 P1 A0 4.00 1520.
2 MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT
USING AWL AND ASIDE PF 10 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (10) 1.00 540.
POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT
WORKTAB 5
   A1 B0 G1 A1 B0 P6 A0 1.00 90.
4 MARK SHEETMETAL FROM STRAIGHTEDGE AT WORKTABLE 5 DIGITS
USING AWL AND ASIDE PF 5 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (5) 1.00 940.
5 POSITION CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL
AT WORKTABLE F 8
   A1 B0 G1 A1 B0 P6 A0 8.00 720.
6 MARK SHEETMETAL FROM CORNER TEMPLATE TO SHEETMETAL AT
WORKTABLE 2 DIGITS USING AWL AND ASIDE PF 8 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 R6 )A1 B0 P1 A0 (8) 1.00 680.
7 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS
USING REDPEN AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (4) 1.00 760.
8 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT
WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND
ASIDE PF 37 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (37) 1.00 1890.
9 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT
USING BLACKPEN AT WORKTABLE AND ASIDE PF 5 ( 4 5 6 7 )
   A1 B0 G1 (A1 B1 P1 R3 )A1 B0 P1 A0 (5) 1.00 290.
10 PLACE SHEETMTAL2 FROM WORKTABLE TO CART AT WORKTABLE
WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0 2.00 220.
11 MOVE CART WITH SHEETMETAL2 FROM WORKTABLE TO SMALLSHEAR
   A1 B0 G1 A67 B0 P1 A0 1.00 700.
Type D, E, H, C, T, E, W, E, X, L, D, L, S, H, T, W <or H for help> ?
Please input file <OFFSET.M42> ?

File Description ? SHEAR SHEETMETAL FOR OFFSET

Output to line-printer <Y or N> ? N

(39,3)
FIT .W09 OFFSET.M42
SHEAR SHEETMETAL FOR OFFSET WITH SMALL 8 FT. SHEAR AT SHEETMETAL SHOP
PER OFFSET OFG: 4 08-APR-83
NASSCO SHEETMETAL SHAPE #13
* HULL 414
* DRAWING 501-062
* V2-1098
* V6-7595
* 18 GAUGE GALV. SHEETMETAL
* 20'X13'X55'L OFFSET, OFFSET 12'
* 2 FILTERS REQUIRED
* SHEAR SPACER STRIPS
FITTER BEGINS AT SMALLSHEAR

1 POSITION SHEETMETAL2 FROM CART AT SMALLSHEAR TO SMALLSHEAR WITH 4 STEPS F 4
A1 B0 G1 A6 B0 P6 A0 4.00 560.

2 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS
A1 B0 G1 M1 X6 IO A0 1.00 90.

3 POSITION SHEETMETAL2 FROM SMALLSHEAR TO SMALLSHEAR WITH 3 STEPS F 12
A1 B0 G1 A6 B0 P6 A0 12.00 1680.

4 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 12
A1 B0 G1 M1 X6 IO A0 12.00 1080.

5 REPLACE SHEETMETAL2 FROM SMALLSHEAR TO CART AT SMALLSHEAR WITH 10 STEPS F 2
A1 B0 G1 A16 B0 P3 A0 2.00 420.

6 MOVE CART WITH SHEETMETAL2 FROM SMALLSHEAR TO WORKTABLE
A1 B0 G1 A67 B3 P1 A0 1.00 730.

TOTAL TMU 4560.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?
File Description ? SHEAR RADIUS ON CHEEKS FOR OFFSET

output to line-printer <Y or N> ? N

(39, 3)
FIT .W09 OFFSET.M43
SHEAR RADIUS ON CHEEKS FOR OFFSET WITH UNI-SHEAR AT SHEETMETAL SHOP
PER OFFSET

NASSCO SHEETMETAL SHAPE 13
* HULL 414
* DRAWING 501-062
* V2-1098
* V6-7595
* 18 GAUGE GALV. SHEETMETAL
* 20'X13'X55'L OFFSET, OFFSET 12'
* BEND UP EDGE-CORNERS FOR EDGE
FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL2 FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0 2.00  220.
2 MOUE UNISHEAR2 FROM TOOLROOM TO WORKTABLE
   A96 B0 G1 A96 B3 P1 A0 1.00  1970.
3 OPERATE UNISHEAR PROCESS F 17
   A1 B0 G1 M6 X17310 A0 17.00  30770.
4 CUT CORNERS ON SHEETMETAL AT WORKTABLE 2 CUTS USING SNIPS AT WORKTABLE AND ASIDE PF 16 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P3 C3 )A1 B0 P1 A0 (16) 1.00  1160.
5 FASTEN [FLATTEN] CORNERS ON SHEETMETAL AT WORKTABLE 3 STRIKES USING HAMMER AND ASIDE PF 16 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P0 F6 )A1 B0 P1 A0 (16) 1.00  1160.
6 GRIP AND TWIST EDGE CORNERS ON SHEETMETAL AT WORKTABLE 1 TWIST USING VISEGRIPS AND ASIDE PF 4 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P3 C1 )A1 B0 P1 A0 (4) 1.00  240.
7 REPLACE SHEETMETAL2 FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0 2.00  220.
8 MOUE CART WITH SHEETMETAL2 FROM WORKTABLE TO LAPOUT
   A1 B0 G1 A54 B0 P1 A0 1.00  570.

TOTAL TMU 36310.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?
Please input file <OFFSET.M44) ?

File Description ? FORM LAP ENDS FOR OFFSET

Output to line-Printer <Y or N> ? N

(39,3)
FIT .W09 OFFSET.M44
FORM LAP ENDS FOR OFFSET WITH LAPOUT MACHINE AT SHEETMETAL SHOP
PER OFFSET OFG:  4 08-APR-83

NASSCO SHEETMETAL SHAPE #13
* HULL 414
* DRAWING 501-062
* V2-1098
* V6-7595
* 18 GAUGE GALV. SHEETMETAL
* 20'X13'X55'L OFFSET, OFFSET 12'
FITTER BEGINS AT LAPOUT

1 PLACE SHEETMETAL2 FROM CART AT LAPOUT TO LAPOUT WITH 4 STEPS F 4
   A1 B0 G1 A6 B0 P3 A0 4.00 440.
2 OPERATE LAPOUT-SWITCH PROCESS F 4
   A1 B0 G1 M6 X16 IO A0 4.00 960.
3 REPLACE SHEETMETAL2 FROM LAPOUT TO CART AT LAPOUT WITH 4 STEPS F 4
   A1 B0 G1 A6 B0 P3 A0 4.00 440.
4 MOVE CART WITH SHEETMETAL2 FROM LAPOUT TO EDGER
   A1 B0 G1 A16 B0 P1 A0 1.00 190.

TOTAL TMU  2030.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

42,900
Please input file <OFFSET.M45> ?

File Description ? FORM 90 DEGREE EDGE ON CHEEKS FOR OFFSET
Output to line-printer <Y or N> ? N

(3 9, 3)
FIT .W09 OFFSET.M45
FORM 90 DEGREE EDGE ON CHEEKS FOR OFFSET WITH EDGER MACHINE AT
SHEETMETAL SHOP
PER OFFSET OFG: 4 08-APR-83
  NASSCO SHEETMETAL SHAPE #13
  * HULL 414
  * DRAWING 501-062
  * V2-1098
  *(V6-7595
  * 18 GAUGE GALV. SHEETMETAL
  * 20'X13'L OFFSET, OFFSET 12'
  * USE TURNED UP EDGE TO START METAL--
  * THROUGH EDGER
FITTER BEGINS AT EDGER

1 PLACE SHEETMETAL2 FROM CART AT EDGER TO EDGER WITH 4
  STEPS F 2
  A1 B0 G1 A6 B0 P3 A0  2.00  220.
2 PUSH EDGER-SWITCH PROCESS F 4
  A1 B0 G1 M1 X42 IO A0  4.00  1800.
3 PUSH AND GUIDE SHEETMETAL2 THROUGH EDGER WITH 4 STEPS F
  4
  A6 B0 G1 M1 X0 I3 A0  4.00  440.
4 REPLACE SHEETMETAL2 FROM EDGER TO CART AT EDGER WITH 4
  STEPS F 2
  A1 B0 G1 A6 B0 P3 A0  2.00  220.
5 MOVE CART WITH SHEETMETAL2 FROM EDGER TO PITTSBURGH
  A1 B0 G1 A16 B0 P1 A0  1.00  190.

TOTAL TMU 2870.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

45.770
Please input file <OFFSET.M46> ?

File Description ? FORM PITTSBURGH LOCK FOR OFFSET

OutPut to line-printer <Y or N> ? N

(39,3)
FIT .W09 OFFSET.M46
FORM PITTSBURGH LOCK FOR OFFSET WITH PITTSBURGH MACHINE AT
SHEETMETAL SHOP
PER OFFSET OFG: 4 08-APR-83
NASSCO SHEETMETAL SHAPE #13
* HULL 414
* DRAWING 501-062
* V2-1098
* V6-7595
* 18 GAUGE GALV. SHEETMETAL
* 20'X13'X5'5'L OFFSET, OFFSET 12'
* USE 16-18 GAUGE PITTSBURGH MACHINE
FITTER BEGINS AT PITTSBURGH

1 PLACE SHEETMETAL2 FROM CART AT PITTSBURGH TO PITTSBURGH
WITH 4 STEPS F 2
A1 B0 G1 A6 B0 P3 A0 2.00 220.

2 PUSH PITTSBURGH-BUTTON PROCESS F 4
A1 B0 G1 M1 X32 IO A0 4.00 1400.

3 PUSH AND GUIDE SHEETMETAL2 THROUGH PITTSBURGH WITH 4
STEPS F 4
A6 B0 G1 A6 X0 I3 A0 4.00 440.

4 REPLACE SHEETMETAL2 FROM PITTSBURGH TO CART AT
PITTSBURGH WITH 4 STEPS F 2
A1 B0 G1 A6 B0 P3 A0 2.00 220.

5 MOUE CART WITH SHEETMETAL2 FROM PITTSBURGH TO WORKTABLE
A1 B0 G1 A54 B3 P1 A0 1.00 600.

TOTAL TMU 2880.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

48,650
Please input file <OFFSET.M47> ?

File Description ? POSITION SPACERS FOR OFFSET

Output to line-printer <Y or N> ? N

(39,3)
FIT .W09 OFFSET.M47
POSITION SPACERS FOR OFFSET WITH HAMMER AT SHEETMETAL SHOP
PER OFFSET OFG: 4 08-APR-83

NASSCO SHEETMETAL SHAPE #13
* HULL 414
* DRAWING 501-062
* V2-1098
* V6-7595
* 18 GAUGE GALV. SHEETMETAL
* 20'X13'X55'L OFFSET, OFFSET 12
* PROTECT PITTSBURGH LOCKS WITH SPACERS -
* BEFORE ROLLING
FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL2 FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0 2.00 220.

2 FASTEN SHEETMETAL TO WORKTABLE 3 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 16 (4 5 6 7)
   A1 B0 (A1 B0 PO P6 )A1 B0 P1 A0 (16) 1.00 1160.

3 POSITION SHEETMETAL [SPACERS] TO SHEETMETAL [PITTSBURGH LOCK] AT WORKTABLE WITH 3 STEPS F 8
   A1 B0 G1 A6 B0 P6 A0 8.00 1120.

4 FASTEN SHEETMETAL [SPACERS] TO SHEETMETAL [PITTSBURGH LOCKI] AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE AND ASIDE PF 16 (4 5 6 7)
   A1 B0 G1 (A1 B0 PO P3 )A1 B0 P1 A0 (16) 1.00 680.

5 PLACE MASKING-TAPE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 4 STEPS F 16
   A1 B0 G1 A6 B0 P3 A0 16.00 1760.

6 MOVE SHEETMETAL2 FROM WORKTABLE TO ROLLER
   A1 B0 G1 A54 B0 P1 A0 1.00 570.

TOTAL TMU 5510.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

54/160
Please input file <OFFSET.M48> ?

File Description ? FORM RADIUS ON WRAPPERS FOR OFFSET

Output to line-printer <Y or N> ? N

(39,3)
FIT .W09 OFFSET.M48
FORM RADIUS ON WRAPPERS FOR OFFSET WITH ROLL FORMER (ROLLER) AT
SHEETMETAL SHOP
PER OFFSET OFG: 4 08-APR-83
NASSCO SHEETMETAL SHAPE #13
* HULL 414
* DRAWING 501-062
* V2-1098
* V6-7595
* 18 GAUGE GALV. SHEETMETAL
* 20'X13'X55' L OFFSET, OFFSET 12'
* CHECK RADIUS ON WRAPPERS WITH
* RADIUS ON CHEEK
FITTER BEGINS AT ROLLER

1 PLACE SHEETMETAL2 FROM FITTER AT ROLLER TO ROLLER WITH
3 STEPS F 4
   A1 B0 G1 A6 B0 P3 A0 4.00 440.
2 FASTEN BOLT [ROLLS] TO SHEETMETAL2 AT ROLLER 6 SPINS
USING HAND WITH 2 STEPS F 10
   A1 B0 G1 A1 B0 P1 F10 A0 B0 PO A0 10.00 1400.
3 PUSH ROLLER-BUTTON PROCESS F 16
   A1 B0 G1 M1 X96 IO A0 16.00 15840.
4 POSITION SHEETMETAL2 [WRAPPERS] FROM ROLLER TO
SHEETMETAL2 [CHEEK] AT ROLLER WITH 3 STEPS F 8
   A1 B0 G1 A6 B0 P6 A0 8.00 1120.
5 MOVE SHEETMETAL2 FROM ROLLER TO WORKTABLE
   A1 B0 G1 A54 B3 P1 A0 1.00 600.

TOTAL TMU 19400. -

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?
Please input file <OFFSET.M49> ?

File Description ? ASSEMBLE CHEEKS AND WRAPPERS FOR OFFSET

Output to line-printer <Y or N>? N

FIT

OFFSET.M49

ASSEMBLE CHEEKS AND WRAPPERS FOR UPPSET WITH HAMMER AT SHEETMETAL

FIT

UPPSET

= ASSEMBLE CHEEKS AND WRAPPERS FOR UPPSET WITH HAMMER AT SHEETMETAL

PLACE SHEETMETAL FROM PITTSBURGH FITTER AT WORKTABLE TO WORKTABLE

1 REPLACE MASKING-TAPE FROM SHEETMETAL AT WORKTABLE TO WORKTABLE WITH 3 STEPS F 18

2 LOOSEN SHEETMETAL [SPACERS] FROM SHEETMETAL [PITTSBURGH LOCKS] AT WORKTABLE-1-STRIKE USING HAMMER AT WORKTABLE "AND ASIDE PF 16 (4 5 6 7 )

3 MOUE BARCLAMP2 FROM TOOLROOM TO WORKTABLE

4 REPLACE MASKING-TAPE FROM SHEETMETAL AT WORKTABLE TO WORKTABLE WITH 3 STEPS F 18

5 MOUE BARCLAMP TO SHEETMETAL AT WORKTABLE WITH 3 STEPS F 18

6 FASTEN BARCLAMP TO SHEETMETAL AT WORKTABLE WITH 2 STEPS F 24 "WWRIST-TURNS USING HAND PF 6 (4 5 6 7 )

7 INSECT SHEETMETAL AT WORKTABLE 9 POINTS

8 FASTEN SETTINGTOOL TO SHEETMETAL AT WORKTABLE 2 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 16 (4 5 6 7 )

9 FASTEN SETTINGTOOL TO SHEETMETAL AT WORKTABLE 7 STRIKES USING HAMMER AT WORKTABLE 2 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 16 (4 5 6 7 )

10 FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 16 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 16 (4 5 6 7 )

11 INSECT SHEETMETAL AT WORKTABLE 9 POINTS

12 INSECT SHEETMETAL AT WORKTABLE 17 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 16 (4 5 6 7 )
AO BO GO AO BO PO T10 AO BO PO AO 1.00 100.
OFFSET M.P.

TOTAL THU 39290.

Type D, EM, CT, EW, EX, L, LD, LS, H, T, W (or H for help) ? 112,850
**Sheet Metal Shape # 13**

18" x 12" x 46" lg. Offset - Offset 24".

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File Description ? MARK OUR CHEEKS FOR RECTANGULAR OFFSET

Output to line-printer <Y or N> ? N

( 39, 1)
FIT .W11 OFFSET.M01
MARK OUT CHEEKS FOR RECTANGULAR OFFSET WITH AWL AT SHEETMETAL SHOP
PER OFFSET OFG: 4 26-MAY-83

NASSCO SHEETMETAL SHAPE 13
* 11 GAUGE GALV. SHEETMETAL
* 18'X12'X60'L RECTANGULAR OFFSET
* OFFSET 24
* MARK OUT CHEEKS WITH TEMPLATE
FITTER BEGINS AT WORKTABLE

1 POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE WITH 5 STEPS F 2
A1 B0 G1 A10 B0 P6 A0 2.00 360.

2 POSITION WEIGHTS FROM WORKTABLE TO TEMPLATE AT
WORKTABLE WITH 3 STEPS F 6
A1 B0 G1 A6 B0 P6 A0 6.00 840.

3 MARK OUTLINE FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5
DIGITS USING AWL AT WORKTABLE AND ASIDE PF 6 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (6) 1.00 1120.

4 REPLACE WEIGHTS FROM TEMPLATE AT WORKTABLE TO WORKTABLE
WITH 3 STEPS F 6
A1 B0 G1 A6 B0 P3 A0 6.00 660.

5 REPLACE TEMPLATE FROM SHEETMETAL AT WORKTABLE TO
WORKTABLE WITH 5 STEPS F 2
A1 B0 G1 A10 B0 P3 A0 2.00 300.

6 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS
USING REDPEN AT WORKTABLE AND ASIDE PF 6 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (6) 1.00 1120.

7 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT
WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND
ASIDE PF 44 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (44) 1.00 2240.

8 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT
USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (52) 1.00 2640.

TOTAL TMU 9280.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?
File Description
MARK OUT WRAPPERS FOR OFFSET

output to line-printer <Y or N> ? N

(39,1)
FIT .W11
MARK OUT WRAPPERS FOR RECTANGULAR OFFSET WITH AWL AT SHEETMETAL
SHOP
PER OFFSET OFG: 4 26-MAY-83

NASSCO SHEETMETAL SHAPE 13
* 11 GAUGE GALV. SHEETMETAL
* 18'X12'X60'L RECTANGULAR OFFSET
* OFFSET 24'
* MARK OUT WRAPPERS WITHOUT TEMPLATE
FITTER BEGINS AT WORKTABLE

1 MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING
STEEL-TAPE AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P1 M32 )A1 B0 P1 A0 (4) 1.00 1400.
2 MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT
USING AWL AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (6) 1.00 340.
3 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE WITH 3 STEPS F 3
A1 B0 G1 A6 B0 P6 A0 3.00 420.
4 MARK LINES FROM STRAIGHTEDGE LTO SHEETMETAL AT
WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF
3 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (3) 1.00 580.
5 POSITION CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL
AT WORKTABLE WITH 2 STEPS F 8
A1 B0 G1 A3 B0 P6 A0 8.00 880.
6 MARK SHEETMETAL FROM CORNER TEMPLATE AT WORKTABLE 2
DIGITS USING AWL AT WORKTABLE AND ASIDE PF 8 ( 4 5 6 7
A1 B0 G1 (A1 B0 P1 R6 )A1 B0 P1 A0 (8) 1.00 680.
7 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS
USING REDPEN AT WORKTABLE AND ASIDE PF 11 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (11) 1.00 2020.
8 MARK CINSTRUCTION INFORMATION ON SHEETMETAL AT
WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND
ASIDE PF 44 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (44) 1.00 2240.
9 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT
USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 ( 4 5 6 7
A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (52) 1.00 2640.
10 PLACE SHEETMETAL2 FROM WORKTABLE TO CART AT WORKTABLE
WITH 4 STEPS F 2
A1 B0 G1 A6 B0 P3 A0 2.00 220.
11 MOUE CART FROM WORKTABLE TO 14FT.SHEAR
A1 B0 G1 A81 B0 P1 A0 1.00 840.

TOTAL TMU 12260.
File Description ? SHEAR SHEETMETAL FOR OFFSET

Output to line-printer <Y or N> ? N

(39,1)
FIT .W11
OFFSET.M03
SHEAR SHEETMETAL FOR RECTANGULAR OFFSET WITH 14FT. SHEAR AT SHEETMETAL SHOP
PER OFFSET
NASSCO SHEETMETAL SHAPE 13
* 11 GAUGE GALV. SHEETMETAL
* 18"X12"X46'L RECTANGULAR OFFSET
* OFFSET 24'
FITTER BEGINS AT 14FT.SHEAR

1 POSITION SHEETMETAL2 FROM CART AT 14FT.SHEAR TO 14FT.SHEAR WITH 4 STEPS F 2
A1 B0 G1 A6 B0 P6 A0 2.00 280.
2 PUSH 14FT.SHEAR-FOOTPEDAL PROCESS F 2
A1 B0 G1 M1 X3 IO A0 2.00 120.
3 POSITION SHEETMETAL2 FROM 14FT.SHEAR TO 14FT.SHEAR WITH 3 STEPS F 16
A1 B0 G1 A6 B0 P6 A0 16.00 2240.
4 PUSH 14FT.SHEAR-FOOTPEDAL PROCESS F 16
A1 B0 G1 M1 X3 IO A0 16.00 960.
5 REPLACE SHEETMETAL FROM 14FT.SHEAR TO CART AT 14FT.SHEAR WITH 10 STEPS F 2
A1 B0 G1 A16 B0 P3 A0 2.00 420.
6 MOVE CART FROM 14FT.SHEAR TO WORKTABLE
A1 B0 G1 A81 B3 P1 A0 1.00 870.

TOTAL TMU 4890.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?
OFFSET.M04

File Description: CUT RADIUS ON CHEEKS FOR OFFSET

output to line-printer <Y or N> ? N

(39,1)
FIT .W11
OFFSET.M04
CUT RADIUS ON CHEEKS FOR RECTANGULAR OFFSET WITH SABER-SAW AT SHEETMETAL SHOP PER OFFSET OFG: 4 26-MAY-83
NASSCO SHEETMETAL SHAPE 13
* 11 GAUGE GALV. SHEETMETAL
* 18'X12'X60'L RECTANGULAR OFFSET
* OFFSET 24'
* CUT RADIUSES & CORNERS ON CHEEKS
* CUT CORNERS ON WRAPPERS
FITTER BEGINS AT WORKTABLE

1 POSITION SHEETMETAL2 FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEP'S F 2
   A1 B0 G1 A6 B0 P6 A0 2.00 280.
2 MOUE SABER-SAW2 FROM TOOLROOM TO WORKTABLE
   A96 B0 G1 A96 B3 P1 A0 1.00 1970.
3 FASTEN NUT (SAW-BLADE) TO SABER-SAW AT WORKTABLE 3
   WRIST-TURNS USING CHUCKKEY AT WORKTABLE AND ASIDE F 4
   A1 B0 G1 A1 B0 P3 F6 A1 B0 P1 A0 4.00 560.
4 OPERATE SABER-SAW AT WORKTABLE PROCESS F 20
   A1 B0 G1 M6 X67 IO A0 20100 15000.
5 REPLACE SHEETMETAL2 FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0 2.00 220.
6 MOUE CART FROM WORKTABLE TO ROLLER
   A1 B0 G1 A54 B0 P1 A0 1.00 570.

TOTAL TMU 18600.

Type D, EM, CT, EX, T, W <or H for help> ?

23490
File Description ? FORM RADIUS ON WRAPPERS FOR OFFSET

output to line-printer <Y or N> ? N

(3 9, 1)
FIT .W11 OFFSET.MO5
FORM RADIUS ON WRAPPERS FOR RECTANGULAR OFFSET WITH
ROLLER (ROLL FORMER) AT SHEETMETAL SHOP
PER OFFSET. OFG: 4 26-MAY-83
NASSCO SHEETMETAL SHAPE 13
* 11 GAUGE GALV. SHEETMETAL
* 18'x12'x60'L RECTANGULAR OFFSET
* OFFSET.24'
* ROLL-UP WRAPER RADIUSES AND --
* CHECK THEM WITH RADIUSES ON CHEEKS
* COMPLETE IN WELD BOOTH AREA
* SEE MWELD...SEE OFFSET.MO6
FITTER BEGINS AT ROLLER

1 PLACE SHEETMETAL2 FROM CART AT ROLLER TO ROLLER WITH 4
STEPS F 2
   A1 B0 G1 A6 B0 P3 A0 2.00 220.
2 FASTEN BOLT [ROLLS] TO SHEETMETAL2 AT ROLLER 3 SPINS
   USING HAND WITH 2 STEPS F 6
   A1 B0 G1 A1 B0 P1 F6 A0 B0 PO A0 6.00 600.
3 PUSH ROLLER-BUTTON PROCESS F 16
   A1 B0 G1 M1 X96 IO A0 16.00 15840.
4 POSITION SHEETMETAL FROM ROLLER TO SHEETMETAL AT
   ROLLER WITH 3 STEPS F 8
   A1 B0 G1 A6 B0 P6 A0 8.00 1120.
5 PLACE SHEETMETAL2 FROM ROLLER TO CART AT ROLLER WITH 10
   STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 210.
6 MOVE CART FROM ROLLER TO WORKTABLE
   A1 B0 G1 A54 B3 P1 A0 1.00 600.

TOTAL TMU 18590.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?
Please input file <OFFSET.M06> ?

file Description ? WELD OFFSET

Output to line-printer <Y or N> ? N

(39,101)
WELD .W01 OFFSET.M06
WELD OFFSET WITH ARC (STICK) WELDER AT SHEETMETAL SHOP
WELDING BOOTH
PER OFFSET
OFG: 4 21-JUL-83

WELDING NASSCO SHEETMETAL SHAPE 13
*11 GAUGE GALV. SHEETMETAL
* 18X12X60' RECTANGULAR OFFSET, OFFSET 24'
* WELDING DONE IN WELD BOOTH AREA
* WELDOR PERFORMS WORK
* FITTER TRANSPORTS SHEETMETAL
FITTER BEGINS AT WORKTABLE

1 FITTER PLACE SHEETMETAL ASSEMBLY FROM WORKTABLE TO CART
   AT WORKTABLE WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0  2.00  220.

2 FITTER MOVE CART FROM WORKTABLE TO WELDTABLE
   A1 B0 G1 A131B3 P1 A0  1.00  1370.

3 PLACE SHEETMETAL ASSEMBLY FROM CART AT WELDTABLE TO
   WELDTABLE WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0  2.00  220.

4 WELDOR PUSH POWER SUPPLY BUTTON FROM OFF AT
   WELDMACHINES TO ON AT WELDMACHINES WITH 16 STEPS
   A3 B0 G1 M1 X0 IO A32  1.00  370.

5 WELDOR TURN CURRENT OUTPUT CONTROL LEVER FROM OFF AT
   WELDMACHINES TO ON AT WELDMACHINES
   A1 B0 G1 M3 X0 IO A1  1.00  60.

6 WELDOR POSITION ANTI-SPATTER SPRAY CAN FROM WELDTABLE
   TO SHEETMETAL ASSEMBLY AT WELDTABLE F 8
   A3 B3 G1 A1 B0 P6 A0  8.00  1120.

7 WELDOR PUSH ANTI-SPATTER2 SPRAY CAN PROCESS F 8
   A1 B0 G1 M1 X10 IO A0  8.00  1040.

8 WELDOR FASTEN WELDROD TO STINGER1 AT WELDTABLE 1
   WRIST-TURN USING HAND F 53
   A1 B0 G1 A1 B0 P1 F3 A0 B0 P0 A0  53.00  3710.

9 FULL WELDHOOD FROM UP AT
   WELDOR TO DOWN AT WELDOR F 53
   A1 B0 G1 M1 X0 IO A1  53.00  2120.

10 WELDOR POSITION STINGER1 FROM WELDTABLE TO SHEETMETAL
    ASSEMBLY AT WELDTABLE F 53
   A1 B0 G1 A1 B0 P6 A0  53.00  4770.

11 WELDOR OPERATE WELD STINGER1 AT WELDTABLE PTIME 65 S F
    40
   A1 B0 G1 M6 X17310 A0  40.00  72400.

12 PUSH WELDHOOD FROM DOWN AT WELDOR TO UP AT WELDOR F 53
   A1 B0 G1 M1 X0 IO A1  53.00  2120.

13 WELDOR LOOSEN SLAG FROM SHEETMETAL ASSEMBLY AT
   WELDTABLE 6 STRIKES USING SLAGHAMMER AT WELDTABLE AND
   ASIDE PF 20 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 PO L16 )A1 B0 P1 A0 (20)  1.00  3440.

14 WELDOR DEBURR WELDED ASSEMBLY AT WELDTABLE 10
OFFSET M.C. 6

ARM-STROKES USING WIREBRUSH AT WELDTABLE AND ASIDE PF
80 (4567)
A1 B0 G1 (A1 B0 P1 C10 )A1 B0 P1 A0 (80)  1.00  9640.
15 REPLACE SHEETMETAL ASSEMBLY FROM WELDTABLE TO CART AT
WELDTABLE WITH 4 STEPS F 2
A1 B0 G1 A6 B0 P3 A0  2.00  220.
16 FITTER MOVE CART FROM WELDTABLE TO WORKTABLE
A1 B0 G1 A131B0 P1 A0  1.00  1340.

TOTAL TMU 104160.

File Description ? WELD OFFSET
output to line-Printer <Y or N> ?
**MARK OUT CHECKS FOR RECTANGLE OFFSET**

**ACTIVITY:** MARK

**OBJECT:** SHEETMETAL

* 11 GAUGE GALV. 18" X 12" 60" L" OFFSET OFFSET

* 24" MARK OUT CHECKS WITH TEMPLATE

**TOOL:** AWL

**SIZE/CAPACITY:**

**WORK AREA ORIGIN:** Shop

**UNIT PER OFFSET:** 24

**OPERATOR:** * BEGINS:

---

**NO.** | **KEYWORD / METHOD DESCRIPTION**
---|---
1 | Position template from workable to sheetmetal at workable F-2
2 | Position weights from workable to template at workable with 3 steps F-6
3 | Mark outline from template to sheetmetal at workable 5 digits using awl at workable and aside pf-6
4 | Replace weights from template to workable at workable with 3 steps F-6
5 | Replace template from sheetmetal to workable at workable F-2
6 | Mark cut lines on sheetmetal at workable 5 digits using red pen at workable and aside pf-6
7 | Mark construction information on sheetmetal at workable 1 digit using blackpen at workable and aside pf-47
8 | Mark identification on sheetmetal at workable 1 digit using blackpen at workable and aside pf-52
Sheetmetal Riveted (Temporarily) Flange

20" x 20" Flange

Rivet Flange Total t/mus 5400 3 min.
FIT .W12 FLANGE.M10

RIVET FlANGE ON VENT DUCT WITH RIVET-GUN AT SHEETMETAL SHOP

RIVET TEMPORARILY FOR SHIPPING AND FITTING
* 20'X20' GALV. FLANGE
* ATTACH FLANGE TO VENT DUCT TEMPORARILY--
* --FOR SHIPPING AND PRELIMINARY FITTING
FITTER BEGINS AT WORKTABLE

1 MOVE FLANGE FROM FLANGEAREA TO WORKTABLE
   A152B0 G1 A152B3 P1 A0 1.00 3090.

2 POSITION FLANGE 'FROM WORKTABLE TO SHEETMETAL AT WORKTABLE
   A1 B0 G1 A1 B0 P6 A0 1.00 90.

3 FASTEN 5-32DRILLBIT TO DRILLMOTOR AT WORKTABLE
   3 DRILLMOTOR AT WORKTABLE 3
   WRIST-TURNS USING CHUCKKEY AT WORKTABLE AND ASIDE
   A1 B0 G1 A1 B0 P3 F6 A1 B0 P1 A0 1.00 140.

4 POSITION DRILLMOTOR FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 4
   A1 B0 G1 A1 B0 P6 A0 4.00 360.

5 OPERATE DRILLMOTOR AT WORKTABLE PROCESS F 4
   A1 B0 G1 M6 X6 IO A0 4.00 560.

6 POSITION RIVET FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 4
   A1 B3 G1 A1 B0 P6 A0 4.00 360.

7 POSITION RIVETGUN FROM WORKTABLE TO RIVET AT WORKTABLE F 4
   A1 B0 G1 A1 B0 P6 A0 4.00 360.

8 OPERATE RIVETGUN AT WORKTABLE PROCESS F 4
   A1 B0 G1 M6 X3 IO A0 4.00 440.

TOTAL TMU 5400.

Type D,EM,CT,EX,T,W <or H for help> ?
Sheetmetal (Temporarily) Riveted Flange

8" x 6" Flange

Rivit Flange total TMU. 5400 3min
FIT .W12 FLANGE.M01

RIVET FLANGE ON VENT DUCT WITH RIVET-GUN AT SHEETMETAL SHOP

PER FLANGE OFG: 4 28-JUN-83

RIVET TEMPORARILY FOR SHIPPING AND FITTING
* 8'X6' GALV. FLANGE
* ATTACH FLANGE TO VENT DUCT TEMPORARILY--
* --FOR SHIPPING AND PRELIMINARY FITTING

FITTER BEGINS AT WORKTABLE

1 MOVE FLANGE FROM FLANGE AREA TO WORKTABLE
   A152B0 G1 A152B3 P1 A0 1.00 3090.

2 POSITION FLANGE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE
   A1 B0 G1 A1 B0 P6 A0 1.00 90.

3 FASTEN 5-32DRILLBIT TO DRILLMOTOR AT WORKTABLE 3
   WRIST-TURNS USING CHUCKKEY AT WORKTABLE AND ASIDE
   A1 B0 G1 A1 B0 P3 F6 A1 B0 P1 A0 1.00 140.

4 POSITION DRILLMOTOR FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 4
   A1 B0 G1 A1 B0 P6 A0 4.00 360.

5 OPERATE DRILLMOTOR AT WORKTABLE PROCESS F 4
   A1 B0 G1 H6 X6 IO A0 4.00 560.

6 POSITION RIVET FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 4
   -A1 B0 G1 A1 B0 P6 A0 4.00 360.

7 POSITION RIVETGUN FROM WORKTABLE TO RIVET AT WORKTABLE F4
   A1 B0 G1 A1 B0 P6 A0 4.00 360.

8 OPERATE RIVETGUN AT WORKTABLE PROCESS F 4
   A1 B0 G1 M6 X3 IO A0 4.00 440.

TOTAL TMU 5400.
12" x 15" to 21" x 24" BELLMOUTH

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Please input file <BMOUTH>M30> ?

File Description ? MARK OUT SHEETMETAL FOR BELLMOUTH

Output to line-printer (Y or N)? N

FIT ( 39,101)

BMOUTH.M30 MARK OUT SHEETMETAL FOR BELLMOUTH WITH AWL AT SHEETMETAL SHOP

PER BELLMOUTH OFG: 4 28-JUN-83

NASSCO SHEETMETAL SHAPE 14
* 20 GAUGE GALV. SHEETMETAL
* 12'X15' TO 21'X24' BELLMOUTH
* MARK OUT WITH TEMPLATE
* CENTER PUNCH BOLT HOLES
FITTER BEGINS AT WORKTABLE

1 POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 4
   A1 B0 G1 A1 B0 P6 A0 4.00 360.

2 POSITION WEIGHT FROM WORKTABLE TO TEMPLATE AT WORKTABLE WITH 3 STEPS F 4
   A1 B0 G1 A6 B0 P6 A0 4.00 560.

3 MARK LINES ON SHEETMETAL A1- WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 12 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (12) 1.00 2200.

4 POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 12
   A1 B0 G1 A1 B0 P6 A0 12.00 1080.

5 FASTEN CPUNCH TO SHEETMETAL A-f WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE AND ASIDE PF 12 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 PO F3 )A1 B0 P1 A0 (12) 1.00 520.

6 REPLACE WEIGHTS FROM TE AT WORKTABLE TO WORKTABLE WITH 3 ST 3 STEPS F 4
   A1 B0 G1 A6 B0 F3 A0 4.00 440.

7 REPLACE TEMPLATE FROM SHEETMETAL AT WORKTABLE TO WORKTABLE F 4
   A1 B0 G1 A1 B0 F3 A0 4.00 240.

8 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 12 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (12) 1.00 2200.

9 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 40 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (40) 1.00 2040.

10 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE
   A1 B0 G1 A1 B0 P1 R3 A1 B0 P1 A0 1.00 90.

TOTAL TMU 9730.

File Description ? MARK OUT SHEETMETAL FOR BELLMOUTH

Output to line-printer (<Y or N)?
File Description ? MARK OUT 2X2 WIRE MESH FOR BELLMOUTH

Output to line-printer <Y or N> ? N

FIT .W12
BMOUTH.M31
MARK OUT 2X2 WIRE MESH FOR BELLMOUTH WITH BLACK-PEN AT SHEETMETAL SHOP
PER BELLMOUTH
OFG: 4 28-JUN-83
NASSCO SHEETMETAL SHAPE 14
* 20 GAUGE GALV. SHEETMETAL
* 12'X15' TO 21'X24' BELLMOUTH
FITTER BEGINS AT WORKTABLE

1 MOVE COMPOUND CUTTER SNIPS FROM TOOLROOM TO FLANGE AREA
   A96 B0 G1 A152B0 P1 A0 1.00 2500.

2 CUT SHEETMETAL [2X2 WIRE MESH] AT FLANGEAREA 1 CUT
   USING SNIPS AT FLANGEAREA AND ASIDE PF 20 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P3 C1 )A1 B0 P1 A0 (20) 1.00 040.

3 MOVE SHEETMETAL [2X2 WIRE MESH] AND SNIPS TO WORKTABLE
   A152B3 G1 A1 B0 P1 A0 1.00 1580.

4 MEASURE DIMENSIONS ON SHEETMETAL [2X2 WIRE MESH] AT
   WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE PF 4
   ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 M32 )A1 B0 P1 A0 (4) 1.00 1400.

5 MARK DIMENSIONS ON SHEETMETAL [2X2 WIRE MESH] AT
   WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND
   ASIDE PF 4 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 F1 R3 )A1 B0 P1 A0 (4) 1.00 240.

6 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL WIRE
   MESH AT WORKTABLE F 2
   A1 B0 G1 A1 B0 P6 A0 2.00 180.

7 MARK LINES ON SHEETMETAL [2X2 WIRE MESH] AT WORKTABLE 5
   DIGITS USING BLACKPEN AT WORKTABLE AND ASIDE PF 2 ( 4
   5 6 7 )
   A1 B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (2) 1.00 400.

TOTAL TMU 7340.

Type D,EM,CT,EX,T,W <or H for help>  ? 17,070
MARK OUT SCREEN FRAME FOR BELLMOUTH

Output to line-Printer <Y or N> ? N

FIT .W12
BMOUTH.M32

MARK OUT SCREEN FRAME FOR BELLMOUTH WITH AWL AT SHEETMETAL SHOP

PER BELLMOUTH

NASSCO SHEETMETAL SHAPE 14
* 20 GAUGE GALV. SHEETMETAL
* 12 'X13' TO 21'X24' BELLMOUTH
* MARK OUT WITHOUT TEMPLATE
* CENTER PUNCH BEND LINES

FITTER BEGINS AT WORKTABLE

1. MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING
STEEL-TAPE AT WORKTABLE AND ASIDE PF 5 (4 5 6 7)
   A1 B0 G1 (A1 B0 P1 M32 )A1 B0 P1 A0 (5) 1.00 1740,
2. MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT
   USING AWL AT WORKTABLE AND ASIDE PF 9 (4 5 6 7)
   A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (9) 1.00 490.
3. POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT
   WORKTABLE F 2
   A1 B0 G1 A1 B0 P6 A0 2.00 180.
4. MARK LINE FROM STRAIGHTEDGE TO SHEETMETAL AT WORKTABLE
   5 DIGITS USING AWL AT WORKTABLE AND ASIDE F 2
   A1 B0 G1 A1 B0 P1 R16 A1 B0 P1 A0 2.00 440.
5. POSITION SQUARE FROM WORKTABLE TO SHEETMETAL AT
   WORKTABLE F 8
   A1 B0 G1 A1 B0 F6 A0 8.00 720.
6. MARK LINES FROM SQUARE 45 DEGREES ON SHEETMETAL AT
   WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE F
   8
   A1 B0 G1 A0 B0 (F1 A1 R16 )A1 B0 P1 A0 (45) 8.00 65120.
7. POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT
   WORKTABLE F 8
   A1 B0 G1 A1 B0 P6 A0 8.00 720.
8. FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING
   HAMMER AT WORKTABLE AND ASIDE PF 8 (4 5 6 7)
   A1 B0 G1 (A1 B0 P0 F3 )A1 B0 P1 A0 (8) 1.00 360.
9. MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS
   USING REDPEN AT WORKTABLE AND ASIDE
   A1 B0 G1 A1 B0 P1 R16 A1 B0 P1 A0 1.00 220.
10. MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT
    WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND
    ASIDE PF 16 (4 5 6 7)
     A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (16) 1.00 840.
11. MARK IDENTIFICATION INFORMATION ON SHEETMETAL AT
    WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND
    ASIDE PF 26 (4 5 6 7)
     A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (26) 1.00 1340.
12. PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE
    WITH 4 STEPS F 2
    A1 B0 G1 A6 B0 F3 A0 2.00 220.
13. MOVE CART FROM WORKTABLE TO SMALLSHEAR
    A1 B0 G1 A67 B0 P1 A0 1.00 700.
file Description ? MARK OUT SCREEN FRAME FOR BELLMOUTH
Output to line-printer <Y or N> ?
SHEAR SHEETMETAL FOR BELLMOUTH

PER BELLMOUTH

NASSCO SHEETMETAL SHAPE 14
* 20 GAUGE GALV. SHEETMETAL
* 12'X15' TO 21'X24' BELLMOUTH
FITTER BEGINS AT SMALLSHEAR

1 POSITION SHEETMETAL FROM CART AT SMALLSHEAR TO SMALLSHEAR WITH 4 STEPS F 3
A1 B0 G1 A6 B0 F6 A0 3.00 420.

2 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS
A1 B0 G1 M1 X6 IO A0 1.00 90.

3 POSITION SHEETMETAL FROM SMALLSHEAR TO SMALLSHEAR F 8
A1 B0 G1 A1 B0 P6 A0 8.00 720.

4 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 8
A1 B0 G1 M1 X6 IO A0 8.00 720.

5 REPLACE SHEETMETAL FROM SMALLSHEAR TO CART AT SMALLSHEAR WITH 10 STEPS F 2
A1 B0 G1 A16 B0 P3 A0 2.00 420.

6 MOVE CART FROM SMALLSHEAR TO WORKTABLE
A1 B0 G1 A67 B3 P1 A0 1.00 730.

TOTAL TMU 3100.

TOTAL TMU 3100.
File Description ? SHEAR SHEETMETAL RADIUS FOR BELLMOUTH

Output to line-printer <Y or N> ? N

(39,101)
FIT .W12
BMTOUTH.M34
SHEAR RADIUS FOR BELLMOUTH WITH UNI-SHEAR AT SHEETMETAL SHOP
PER BELLMOUTH OFG: 4 29-JUN-83
NASSCO SHEETMETAL SHAPE 14
* 20 GAUGE GALV. SHEETMETAL
* 12'X15' TO 21'X24'
FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL2 FROM CART AT WORKTABLE TO WORKTABLE
WITH 4 STEPS F 2
A1 B0 G1 A6 B0 P3 A0 2.00 220,

2 MOUE UNISHEAR2 FROM TOOLROOM TO WORKTABLE
A96 B0 G1 A96 B3 P1 A0 1.00 1970.

3 POSITION UNISHEAR FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE F 8
A1 B0 G1 A1 B0 P6 A0 8.00 720.

4 OPERATE UNISHEAR AT WORKTABLE PROCESS F 8
A1 B0 G1 M6 X17310 A0 8.00 14480,

5 PLACE SNIPS FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F
A1 B0 G1 A1 B0 F3 A0 4.00 240.

6 CUT 45DEGREE CORNERS ON SHEETMETAL AT WORKTABLE 2 CUTS
USING SNIPS AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P3 C3 )A1 B0 P1 A0 (4) 1.00 320.

7 REPLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE
WITH 4 STEPS F 2
A1 B0 G1 A6 B0 F3 A0 2.00 220.

8 MOUE CART FROM WORKTABLE TO ROLLER
A1 B0 G1 A54 B0 F1 A0 1.00 570.

TOTAL TMU 18740.

File Description ? SHEAR SHEETMETAL RADIUS FOR BELLMOUTH

Output to line-printer <Y or N> ?
File Description ? FORM RADIUS FOR BELLMOUTH

Output to line-printer <Y or N> ? N

(39,101)
FIT .W12 BMOUTH.M35
FORM RADIUS FOR BELLMOUTH WITH HAND OPERATED ROLLER AT SHEETMETAL
SHOP
PER BELLMOUTH OFG: 4 29-JUN-83
NASSCO SHEETMETAL SHAPE 14
* 20 GAUGE GALV. SHEETMETAL
* 12 'X15' TO 21'X24' BELLMOUTH
* CHECK RADIUS WITH TEMPLATE
FITTER BEGINS AT WORKBENCH

1 POSITION SHEETMETAL2 FROM CART AT WORKBENCH TO
HAND-ROLLER AT WORKBENCH WITH 4 STEPS F 4
   A1 B0 G1 A6 B0 F6 A0 4.00 560.
2 FASTEN BOLT [ROLLS] TO SHEETMETAL AT HAND-ROLLER AT
WORKBENCH 3 SPINS USING FINGERS AT WORKBENCH F 2
   A1 B0 G1 A1 B0 P1 F6 A0 B0 P0 A0 2.00 200.
3 CRANK HAND-ROLLER AT WORKBENCH 3 REV F 16
   A1 B0 G1 M6 X0 IO A0 16.00 1280.
4 PLACE SHEETMETAL FROM HAND-ROLLER AT WORKBENCH TO
SHEETMETAL2 [CHECK RADIUS] AT WORKBENCH F 4
   A1 B0 G1 A1 B0 P3 A0 4.00 240.
5 REPLACE SHEETMETAL FROM WORKBENCH TO CART AT WORKBENCH
WITH 4 STEPS F 4
   A1 B0 G1 A6 B0 P3 A0 4.00 440.
6 MOVE CART FROM WORKBENCH TO LEAFBRAKE
   A1 B0 G1 A10 B0 P1 A0 1.00 130.

TOTAL TMU 2850.

File Description ? FORM RADIUS FOR BELLMOUTH

Output to line-printer <Y or N> ?
BEND SHEETMETAL FOR BELLMOUTH

 Defines:

 BEND SHEETMETAL FOR BELLMOUTH

 Specifications:

 NASSCO SHEETMETAL SHAPE 14
 20 GAUGE GALV. SHEETM
 12'X15' TO 21'X24' BELLMOUTH
 BEND FRAME AS INDICATED
 KINK UP FLANGE ON BELLMOUTH SECTIONS

 FITTER BEGINS AT LEAFBRAKE

 1 POSITION SHEETMETAL FROM CART AT LEAFBRAKE TO
 LEAFBRAKE WITH 4 STEPS
 A1 B0 G1 A6 B0 P6 A0 1.00 140.

 2 OPERATE LEAFBRAKE-LEVER PROCESS
 A1 B0 G1 M6 X16 I0 A0 1.00 240.

 3 POSITION SHEETMETAL FROM LEAFBRAKE TO LEAFBRAKE F 7
 A1 B0 G1 A1 B0 P6 A0 7.00 630.

 4 OPERATE LEAFBRAKE-LEVER PROCESS F 7
 A1 B0 G1 M6 X16 I0 A0 7.00 1680.

 5 REPLACE SHEETMETAL FROM LEAFBRAKE TO CART AT LEAFBRAKE
 F5
 A1 B0 G1 A1 B0 P3 A0 5.00 300.

 6 HOVE CART FROM LEAFBRAKE TO SPOTWELDER
 A1 B0 G1 A54 B0 P1 A0 1.00 570.

 TOTAL TMU 3560.
WELD SCREEN ASSEMBLY FOR BELLMOUTH WITH SPOT WELDER AT SHEETMETAL SHOP
PER BELLMOUTH OFG: 4 29-JUN-83

NASSCO SHEETMETAL SHAPE 14
* 20 GAUGE GALV. SHEETMETAL
* 12'X15' TO 21'X24' BELLMOUTH
* SPOT WELDING MACHINE REQUIRESS THE--
* --ASSISTANCE OF A DESIGNATED OPERATOR
FITTER BEGINS AT SPOTWELDER

<table>
<thead>
<tr>
<th>Step</th>
<th>Action</th>
<th>Time (Min)</th>
<th>Total Time (Min)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Position SHEETMETAL [FRAME] from CART at SPOTWELDER to SPOTWELDER with 4 STEPS</td>
<td>1.00</td>
<td>140.</td>
</tr>
<tr>
<td>2</td>
<td>Position SHEETMETAL [2X2 WIRE MESH] from SPOTWELDER to SHEETMETAL [FRAME] at SPOTWELDER with 4 STEPS</td>
<td>1.00</td>
<td>140.</td>
</tr>
<tr>
<td>3</td>
<td>Move VISEGRIPS from WORKTABLE to SPOTWELDER</td>
<td>1.00</td>
<td>1130.</td>
</tr>
<tr>
<td>4</td>
<td>Grip SHEETMETAL to SHEETMETAL at SPOTWELDER using VISEGRIPS at SPOTWELDER and ASIDE P5 (4 5 6 7)</td>
<td>1.00</td>
<td>290.</td>
</tr>
<tr>
<td>5</td>
<td>Position SHEETMETAL from SPOTWELDER to SPOTWELDER F50</td>
<td>50.00</td>
<td>4500.</td>
</tr>
<tr>
<td>6</td>
<td>Operate SPOTWELDER FOOTPEDAL PROCESS F50</td>
<td>50.00</td>
<td>7000.</td>
</tr>
<tr>
<td>7</td>
<td>Replace SHEETMETAL from SPOTWELDER to CART at SPOTWELDER with 4 STEPS</td>
<td>50.00</td>
<td>7000.</td>
</tr>
<tr>
<td>8</td>
<td>Move VISEGRIPS from SPOTWELDER to WORKTABLE</td>
<td>1.00</td>
<td>110.</td>
</tr>
<tr>
<td>9</td>
<td>Move CART from SPOTWELDER to WELDOUT</td>
<td>1.00</td>
<td>1010.</td>
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</table>

TOTAL TMU 14920.
TACK WELD SHEETMETAL BELLMOUTH

OFG: 4  29-JUN-83

NASSCO SHEETMETAL SHAPE 14
* 20 GAUGE GALV. SHEETMETAL
* 12'X15' TO 21'X24' BELLMOUTH
* TACK WELD CORNER EDGES
FITTER BEGINS AT WELDOUT

1. PLACE SHEETMETAL FROM CART AT WELDOUT TO TABLE AT
   WELDOUT WITH 4 STEPS F 2
   A1 0 G1 A6 B0 P3 A0  2.00   220.

2. MOVE VISEGRIPS FROM WORKTABLE TO WELDOUT
   A54 B3 G1 A54 B3 P1 A0  1.00   1160.

3. GRIP SHEETMETAL TO SHEETMETAL AT T AT WELDOUT USING
   VISEGRIPS AT WELDOUT AND ASIDE PF 8 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P3 C1 )A1 B0 P1 A0 (8)  1.00   440.

4. POSITION TAKWELDER FROM WELDOUT TO SHEETMETAL AT
   WELDOUT F 20
   A1 B0 G1 A1 B0 P6 A0  20.00   1800.

5. OPERATE TACKWELDER AT WELDOUT PROCESS F 20
   A1 B0 G1 M6 X3 I0 A0  20.00   2200.

6. REPLACE SHEETMETAL FROM TABLE AT WELDOUT TO CART AT
   WELDOUT WITH 4 STEPS
   A1 B0 G1 A6 B0 P3 A0  1.00   110.

7. MOVE CART FROM WELDOUT TO WORKTABLE
   A1 B0 G1 A54 B3 P1 A0  1.00   600.

TOTAL TMU 6530.

File Description ? TACK WELD SHEETMETAL BELLMOUTH

Output to line-printer <Y or N> ?
File Description: WELD BELLMOUTH

Output to line-printer <Y or N>? N

WELD  .W01    BOUTH.M39
WELD BELLMOUTH WITH TIG-WELDER AT SHEETMETAL SHOP WELDING BOOTH

PER BELLMOUTH
WELDING NASSCO SHEETMETAL SHAPE 14
* 20 GAUGE GALV. SHEETMETAL
* 12'X15' TO 21'X24'
* WELD SHEETMETAL IN WELD AREA BOOTH
* WELDOR PERFORMS THE WORK
* FITTER TRANSPORTS SHEETMETAL
FITTING BEGINS AT WORKTABLE

1 FITTER PLACE SHEETMETAL ASSEMBLY FROM WORKTABLE TO CART
   AT WORKTABLE WITH 4 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 110.

2 FITTER MOVE CART FROM WORKTABLE TO WELDTABLE
   A1 B0 G1 A13IB3 P1 A0 1.00 1370.

3 PLACE SHEETMETAL ASSEMBLY FROM CART AT WELDTABLE TO
   WELDTABLE WITH 4 STEPS
   A1 B0 G1 A6 B0 F3 A0 1.00 110.

4 WELDOR PUSH POWER SUPPLY BUTTON FROM OFF AT
   WELDMACHINES TO ON AT WELDMACHINES WITH 16 STEPS
   A3 B0 G1 M1 X0 IO A32 1.00 370.

5 WELDOR PUSH GAS-HOOKUP-SWITCH FROM OFF AT WELDMACHINES
   TO ON AT WELDMACHINES
   A1 B0 G1 M1 X0 IO A1 1.00 40.

6 WELDOR FASTEN CURRENT SELECTOR HANDLE AT WELDMACHINES 1
   WRIST-TURN USING HAND
   A1 B0 G1 A1 B0 P1 F3 A0 B0 P0 A0 1.00 70.

7 WELDOR TURN OUTPUT CONTROL LEVER FROM OFF AT
   WELDMACHINES TO ON AT WELDMACHINES
   A1 B0 G1 M3 X0 IO A1 1.00 60.

8 WELDOR POSITION ANTI-SPATTER SPRAY CAN FROM WELDTABLE
   TO SHEETMETAL ASSEMBLY AT WELDTABLE F 4
   A3 B3 G1 A1 B0 P6 A0 4.00 560.

9 WELDOR PUSH ANTI-SPATTER2 SPRAY CAN PROCESS F 4
   A1 B0 G1 M1 X10 IO A0 4.00 520.

10 WELDOR POSITION WELDROD FROM WELDTABLE TO SHEETMETAL
    ASSEMBLY AT WELDTABLE F 4
    A1 B0 G1 A1 B0 P6 A0 4.00 360.

11 FULL WELDHOOD FROM UP AT WELDOR TO DOWN AT WELDOR F 4
    A1 B0 G1 M1 X0 IO A1 4.00 160.

12 WELDOR POSITION WELDINGUN FROM WELDTABLE TO SHEETMETAL
    ASSEMBLY AT WELDTABLE WITH PARTIAL BEND F 4
    A1 B0 G1 A1 B6 P6 A0 4.00 600.

13 OPERATE WELD STINGER-BUTTON1 PROCESS F 10
    A1 B0 G1 M6 X81 IO A0 10.00 8900.

14 PUSH WELDHOOD FROM DOWN AT WELDOR TO UP AT WELDOR F 4
    A1 B0 G1 M1 X0 IO A1 4.00 160.

WELDOR DEBURR WELDED ASSEMBLY AT WELDTABLE 10
ARM-STROKES USING WIREBRUSH A1- WELDTABLE AND-ASIDE PF
1 0 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 C10 )A1 B0 P1 A0 (10) 1.00 1240.
16 REPLACE SHEETMETAL ASSEMBLY FROM WELDTABLE TO CART AT WELDTABLE WITH 4 STEPS

A1 B0 G1 A6 B0 P3 A0 1.00 110.

17 FITTER MOUE CART FROM WELDTABLE TO WORKTABLE

A1 B0 G1 A131B0 P1 A0 1.00 1340.

TOTAL TMU 16080.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?
File Description ASSEMBLE BELLMOUTH

Output to line-printer <Y or N> ? N

FIT W12 BMOUTH.M40

ASSEMBLE BELLMOUTH WITH DRILLMOTOR AT SHEETMETAL SHOP

PER BELLMOUTH OFG: 4 29-JUN-83

NASSCO SHEETMETAL SHAPE 14
* 20 GAUGE GALV. SHEETMETAL
* 12'X15' TO 2X24' BELLMOUTH
* BOLT SCREEN FRAME TO BELLMOUTH
* GRIND WELDS SMOOTH
FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 110.0

2 PLACE SHEETMETAL [BELLMOUTH] TO SHEETMETAL [SCREEN FRAME] AT WORKTABLE
   A1 B0 G1 A1 B0 P3 A0 1.00 60.0

3 FASTEN 5-32DRILLBIT PILOT TO DRILLMOTOR AT WORKTABLE 3 WRIST-TURNS USING HAND AT WORKTABLE'
   A1 B0 G1 A1 B0 P1 F6 A0 B0 PO A0 1.00 100.0

4 PLACE VISEGRIPS FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 4
   A1 B0 G1 A1 B0 P3 A0 4.00 240.0

5 GRIP SHEETMETAL TO SHEETMETAL AT WORKTABLE USING VISEGRIPS AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P3 C1 )A1 B0 P1 A0 (4) 1.00 240.0

6 POSITION DRILLMOTOR FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 12
   A1 B0 G1 A1 B0 P6 A0 12.00 1080.0

7 OPERATE DRILLMOTOR AT WORKTABLE PROCESS F 12
   A1 B0 G1 M6 X6 IO A0 12.00 1680.0

8 LOOSEN 5-32DRILLBIT FROM DRILLMOTOR AT WORKTABLE 3 WRIST-TURNS USING CHUCKKEY AT WORKTABLE AND ASIDE
   A1 B0 G1 A1 B0 P3 L6 A1 B0 P1 A0 1.00 140.0

9 FASTEN 5.16DRILL-BIT TO DRILLMOTOR AT WORKTABLE 3 WRIST-TURNS USING CHUCKKEY AT WORKTABLE AND ASIDE
   A1 B0 G1 A1 B0 P3 F6 A1 B0 P1 A0 1.00 140.0

10 POSITION DRILLMOTOR FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 12
    A1 B0 G1 A1 B0 F6 A0 12.00 1080.0

11 OPERATE DRILLMOTOR AT WORKTABLE PROCESS F 12
   A1 B0 G1 M6 X6 IO A0 12.00 1680.0

12 POSITION 1 / 4'BOLT AND-NUT FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 12
   A1 B0 G1 A1 B0 P6 A0 12.00 1080.0

13 FASTEN BOLT TO SHEETMETAL [NUT] AT WORKTABLE 10 WRIST-TURNS USING WRENCH AT WORKTABLE AND ASIDE PF 12 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P3 F24 )A1 B0 F1 A0 (12) 1.00 3400.0

14 MOVE GRINDER FROM TOOLROOM TO WORKTABLE
   A96 B0 G1 A96 B3 P1 A0 1.00 1970.0

15 POSITION GRINDER FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 4
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<th>Line</th>
<th>Description</th>
<th>TMU</th>
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<tr>
<td>16</td>
<td>OPERATE GRINDER AT WORKTABLE PT 7 S F 4</td>
<td>360</td>
</tr>
<tr>
<td>17</td>
<td>INSPECT SHEETMETAL AT WORKTABLE 9 POINTS</td>
<td>960</td>
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<td>TOTAL TMU</td>
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File Description ? ASSEMBLE BELLMOUTH

Output to line-printer (Y or N> ?
SHEETMETAL BELMOUTH

6" x 8" to 10 1/2" x 12 1/2" BELMOUTH

<p>| | | |</p>
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<tr>
<td>FAB</td>
<td>746.30</td>
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<tr>
<td>MARK OUT</td>
<td>26040</td>
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<tr>
<td>WELD</td>
<td>12080</td>
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<tr>
<td>TOTAL TMU</td>
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<td>78</td>
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</table>
MARK OUT SHEETMETAL FOR BELLMOUTH

Output to line-printer <Y or N> ? N

FIT .W12

MARK OUT SHEETMETAL FOR BELLMOUTH WITH AWL AT SHEETMETAL SHOP

PER BELLMOUTH OFG: 4 24-JUN-83

NASSCO SHEETMETAL BELLMOUTH
* 20 GAUGE GALV. SHEETMETAL
* 6'X8' TO 10 1/2'X 12 1/2' BELLMOUTH
* MARK OUT WITH TEMPLATE
* CENTER PUNCH BOLT HOLES

FITTER BEGINS AT WORKTABLE

1 POSITION TEMPLATE TO SHEETMETAL AT WORKTABLE F 4
A1 B0 G1 A1 B0 P6 A0 4.00 360.

2 POSITION WEIGHT FROM WORKTABLE TO TEMPLATE AT WORKTABLE WITH 3 STEPS F 4
A1 B0 G1 A6 B0 P6 A0 4.00 560.

3 MARK LINES ON SHEETMETAL FROM TEMPLATE AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 12 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P1 R16 )A1 B0 F1 A0 (12) 1.00 2200.

4 POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 4
A1 B0 G1 A1 B0 P6 A0 4.00 360.

5 FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 PO F3 )A1 B0 F1 A0 (4) 1.00 200.

6 REPLACE WEIGHTS FROM TEMPLATE AT WORKTABLE TO WORKTABLE WITH 3 STEPS F 4
A1 B0 G1 A6 B0 P3 A0 4.00 440.

7 REPLACE TEMPLATE FROM SHEETMETAL AT WORKTABLE TO WORKTABLE F 4
A1 B0 G1 A1 B0 P3 A0 4.00 240.

8 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 12 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (12) 1.00 2200.

9 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 40 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (40) 1.00 2040.

10 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE
A1 B0 G1 A1 B0 P1 R3 A1 B0 F1 A0 1.00 90.

TOTAL TMU 8690.
MARK OUT 2X2 WIRE MESH FOR BELLMOUTH

Output to line-printer <Y or N> ? N

FIT .W12

MARK OUT 2X2 WIRE MESH FOR BELLMOUTH WITH BLACK-FEN AT SHEETMETAL

SHOP

PER BELLMOUTH

NASSCO SHEETMETAL SHAPE 14
* 20 GAUGE GALV. SHEETMETAL
* 6'X8' TO 10 1/2'X 12 1/2' BELLMOUTH
* MARK OUT WITHOUT TEMPLATE
* CUT 1/2'X 1/2' HARDWARE CLOTH FROM ROLL

FITTER BEGINS AT FLANGE AREA

1 MOVE COMPOUND CUTTER SNIPS FROM TOOLROOM TO FLANGE AREA
   A152B0 G1 A152B0 F1 A0 1.00 3060.

2 CUT SHEETMETAL [2X2 WIRE MESH3 AT FLANGE AREA] 1 CUT
   USING SNIPS AT FLANGE AREA AND ASIDE PF 20 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P3 C1 )A1 B0 P1 A0 (20) 1.00 1040.

3 MOVE SNIPS AND SHEETMETAL [2X2 WIRE MESH] FROM
   FLANGE AREA TO WORKTABLE
   A1 B0 G1 A152B3 P1 A0 1.00 1580.

4 MEASURE DIMENSIONS ON SHEETMETAL [2X2 WIRE MESH] AT
   WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE PF 4
   ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 M32 )A1 B0 P1 A0 (4) 1.00 1400.

5 MARK DIMENSIONS ON SHEETMETAL [292 WIRE MESH] AT
   WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND
   ASIDE PF 4 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (4) 1.00 240.

6 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL
   [WIRE MESH] AT WORKTABLE F 2.
   A1 B0 G1 A1 B0 P6 A0 2.00 180.

7 MARK LINES ON SHEETMETAL [2X2 WIRE MESH] AT WORKTABLE 5
   DIGITS USING BLACKPEN AT WORKTABLE AND ASIDE PF 2 ( 4
   5 6 7 )
   A1 B0 G1 (A1 B0 F1 R16 )A1 B0 P1 A0 (2) 1.00 400.

TOTAL TMU 7900.
MARK OUT SCREEN FRAME FOR BELLMOH

Per Bellmouth

NASSCO SHEETMETAL SHAPE 14
* 20 GAUGE GALV. SHEETMETAL
* 6'X8' TO 10 1/2'X12 1/2'
* MARK OUT WITHOUT TEMPLATE
* CENTER PUNCH BEND LINES
FITTER BEGINS AT WORKTABLE

1 MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING
STEEL-TAPE AT WORKTABLE AND ASIDE PF 5 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 M32 )A1 B0 P1 A0 (5) 1.00 1740,
2 MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT
USING AWL AT WORKTABLE AND ASIDE PF 9 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (9) 1.00 490.
3 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE F 2
--A1 B0 G1 A1 B0 P6 A0 2.00 180.
4 MARK LINE ON SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL
AT WORKTABLE AND ASIDE F 2
A1 B0 G1 A1 B0 P1 R16 A1 B0 P1 A0 2.00 440.
5 POSITION SQUARE FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE F 8
A1 B0 G1 A1 B0 P6 A0 8.00 720.
6 MARK LINES FROM SQUARE [45 DEGREES] TO SHEETMETAL AT
WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF
8 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (8) 1.00 1480.
7 POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE F 8
A1 B0 G1 A1 B0 P6 A0 8.00 720.
8 FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING
HAMMER AT WORKTABLE AND ASIDE PF 8 (4 5 6 7)
A1 B0 G1 (A1 B0 P0 F3 )A1 B0 P1 A0 (8) 1.00 360.
9 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS
USING REDPEN AT WORKTABLE AND ASIDE
A1 B0 G1 A1 B0 P1 R16 A1 B0 P1 A0 1.00 220.
10 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT
WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND
ASIDE PF 16 (4 5 6 7)
A1 B0 G1 (A1 B0 F1 R3 )A1 B0 P1 A0 (16) 1.00 840.
11 MARK IDENTIFICATION INFORMATION ON SHEETMETAL AT
WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND
ASIDE PF 26 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 R3 )A1 B0 F1 A0 (26) 1.00 1340.
12 PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE
WITH 4 STEPS F 2
A1 B0 G1 A6 B0 P3 A0 2.00 220.
13 MOVE CART FROM WORKTABLE TO SMALLSHEAR
A1 B0 G1 A6 B0 P1 A0 1.00 700,
File Description ? MARK OUT SCREEN FRAME' FOR BELLMOH
Output to line-printer <Y or N> ?
File Description ? SHEAR SHEETMETAL FOR BELLMOUTH

Output to line-printer <Y or N> ? N

( 39, 101) FIT .W12 B MOUTH.MO4
SHEAR SHEETMETAL FOR BELLMOUTH WITH SMALL 8FT. SHEAR AT
SHEETMETAL SHOP
PER BELLMOUTH OFG: 4 28-JUN-83
NASSCO SHEETMETAL SHAPE 14
* 20 GAUGE GALV. SHEETMETAL
* 6'X8' TO 10 1/2'X12 1/2' BELLMOUTH
FITTER BEGINS AT SMALLSHEAR

1 POSITION SHEETMETAL FROM CART AT SMALLSHEAR TO
SMALLSHEAR WITH 4 STEPS F 3
A1 B0 G1 A6 B0 P6 A0 3.00 420.
2 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS
A1- B0 G1 M1 X6 IO A0 1.00 90.
3 POSITION SHEETMETAL FROM SMALLSHEAR TO SMALLSHEAR F 8
A1 B0 G1 A1 B0 P6 A0 8.00 720.
4 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 8
A1 B0 G1 M1 X6 IO A0 8.00 720.
5 REPLACE SHEETMETAL FROM SMALLSHEAR TO CART AT
SMALLSHEAR WITH 10 STEPS F 2
A1 B0 G1 A16 B0 P3 A0 2.00 420.
6 MOUE CART FROM SMALLSHEAR TO WORKTABLE
. A1 B0 G1 A67 B3 P1 A0 1.00 730.

TOTAL TMU 3100.

File Description ? SHEAR SHEETMETAL FOR BELLMOUTH

Output to line-printer <Y or N> ?
File Description: SHEAR SHEETMETAL RADIUS FOR BELLMOUTH

Output to line-printer (<Y or N>)? N

File Description: SHEAR SHEETMETAL RADIUS FOR BELLMOUTH

Output to line-printer (<Y or N>)?

FIT .W12

SHEAR SHEETMETAL RADIUS FOR BELLMOUTH WITH UNI-SHEAR AT SHEETMETAL SHOP PER BELLMOUTH

NASSCO SHEETMETAL SHAPE 14
* 20 GAUGE GALV. SHEETMETAL
* 6'X8' TO 10 1/2' X 12 1/2' BELLMOUTH
* CUT 45 DEGREE MITER CUTS IN FRAME--
x --BEFORE BENDING
FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0 2.00 220.
2 MOUE UNISHEAR2 FROM TOOLROOM TO WORKTABLE
   A96 B0 G1 A96 B3 P1 A0 1.00 1970.
3 POSITION UNISHEAR FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 8
   A1 B0 G1 A1 B0 P6 A0 8.00 720.
4 OPERATE UNISHEAR AT WORKTABLE PROCESS F 8
   A1 B0 G1 M6 X17310 A0 8.00 14480.
5 PLACE SNIPS FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F
   A1 B0 G1 A1 B0 P3 A0 4.00 240.
6 CUT 45 DEGREE CORNERS ON SHEETMETAL AT WORKTABLE 2 CUTS USING SNIPS AT WORKTABLE AND ASIDE F 4
   A1 B0 G1 A0 B0 (P3 A1 C3 )A1 B0 P1 A0 (45) 4.00 12760.
7 REPLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0 2.00 220.
8 MOUE CART FROM WORKTABLE TO ROLLER
   A1 B0 G1 A54 B0 P1 A0 1.00 570.

TOTAL TMU 31180.

File Description: SHEAR SHEETMETAL RADIUS FOR BELLMOUTH

Output to line-printer (<Y or N>)?
File Description ? FORM RADIUS FOR BELLMOUTH

Output to line-printer <Y or N> ? N

%Invalid command.

Output to line-printer <Y or N> ? N

(39, 101)
FIT .W12 BMOUTH.M06
FORM RADIUS FOR BELLMOUTH WITH HAND OPERATED ROLLER AT SHEETMETAL SHOP
PER BELLMOUTH OFG: 4 28-JUN-83
NASSCO SHEETMETAL SHAPE 14
* 20 GAUGE GALV. SHEETMETAL
* 6'X8' TO 10 1/2' X 12 1/2' BELLMOUTH
* CHECK RADIUS WITH TEMPLATE
FITTER BEGINS AT WORKBENCH

1 POSITION SHEETMETAL2 FROM CART AT WORKBENCH TO HAND-ROLLER AT WORKBENCH WITH 4 STEPS F 4
A1 B0 G1 A6 B0 P6 A0 4.00 560.

2 FASTEN BOLT [ROLLS] TO SHEETMETAL2 AT HAND-ROLLER AT WORKBENCH 3 SPINS USING FINGERS AT WORKBENCH F 2
A1 B0 G1 A1 B0 P1 F6 A0 BO PO A0 2.00 200.

3 CRANK HAND-ROLLER AT WORKBENCH 3 REV S 16
A1 B0 G1 M6 X0 IO A0 16.00 1280.

4 PLACE SHEETMETAL2 FROM HAND-ROLLER AT WORKBENCH TO SHEETMETAL [CHECK RADIUS] AT WORKBENCH F 4
A1 B0 G1 A67 B3 P3 A0 4.00 3000.

5 REPLACE SHEETMETAL2 FROM WORKBENCH TO CART AT WORKBENCH WITH 4 STEPS F 4
A67 B3 G1 A6 B0 P3 A0 4.00 3200.

6 MOUE CART FROM WORKBENCH TO LEAFBRAKE
A1 B0 G1 A10 B0 P1 A0 1.00 130.

TOTAL TMU 8370.

File Description ? FORM RADIUS FOR BELLMOUTH

Output to line-printer <Y or N> ? 42650
**File Description ? BEND SHEETMETAL FOR BELLMOUTH**

Output to line-printer <Y or N> ? N

( 39, 101)

FIT .W12 BMOUTH.M07

**BEND SHEETMETAL FOR BELLMOUTH WITH LEAFBRAKE AT SHEETMETAL SHOP**

**PER BELLMOUTH**

- NASCO SHEETMETAL SHAPE 14
- 20 GAUGE GALV. SHEETMETAL
- 6'X8' TO 10 1/2'X12 1/2' BELLMOUTH
- BEND FRAME UP AS INDICATED
- KINK UP FLANGE ON BELLMOUTH SECTIONS

FITTER BEGINS AT LEAFBRAKE

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<th>Action</th>
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<th>B0</th>
<th>G1</th>
<th>A6</th>
<th>B0</th>
<th>P6</th>
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<td>OPERATE LEAFBRAKE-LEVER PROCESS ---</td>
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<td>G1</td>
<td>M6</td>
<td>X16</td>
<td>I0</td>
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<td>POSITION SHEETMETAL2 FROM LEAFBRAKE TO LEAFBRAKE F 7</td>
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<td>B0</td>
<td>G1</td>
<td>A1</td>
<td>B0</td>
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<td>OPERATE LEAFBRAKE-LEVER PROCESS F 7</td>
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<td>B0</td>
<td>G1</td>
<td>M6</td>
<td>X16</td>
<td>I0</td>
<td>A0</td>
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<td>REPLACE SHEETMETAL FROM LEAFBRAKE TO CART AT LEAFBRAKE F 5</td>
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<td>6</td>
<td>MOVE CART FROM LEAFBRAKE TO SPOTWELDER A1 B0 G1 A54 B0 P1 A0</td>
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**TOTAL TMU** 3560.

File Description ? BEND SHEETMETAL FOR BELLMOUTH

Output to line-printer <Y or N> ? 46,210
File Description ? SPOT WELD SCREEN ASSEMBLY FOR BELLMOUTH

Output to line-printer <Y or N> ? N

(39,101)
FIT .W12 BMOUTH.M08
WELD SCREEN ASSEMBLY FOR BELLMOUTH WITH SPOT WELDER AT SHEETMETAL
SHOP
PER BELLMOUTH
OFG: 4 28-JUN-83

NASSCO SHEETMETAL SHAPE 14
* 20 GAUGE GALV. SHEETMETAL
* 6'X8' TO 10 1/2'X12 1/2' BELLMOUTH
* SPOT WELDING MACHINE REQUIRES THE--
* --ASSISTANCE OF A DESIGNATED OPERATOR
FITTER BEGINS AT SPOTWELDER

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<tr>
<td>1</td>
<td>POSITION SHEETMETAL2 [FRAME] FROM CART AT SPOTWELDER TO SPOTWELDER WITH 4 STEPS (1.00 140)</td>
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<td>2</td>
<td>MOVE SHEETMETAL2 [1 / 2'X1 / 2' HARDWARE CLOTH] FROM SPOTWELDER TO SHEETMETAL [FRAME] AT SPOTWELDER WITH 4 STEPS (1.00 170)</td>
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<td>3</td>
<td>MOVE VISEGRIPS FROM WORKTABLE TO SPOTWELDER (1.00 570)</td>
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<tr>
<td>4</td>
<td>MOVE VISEGRIPS FROM SPOTWELDER TO WORKTABLE (1.00 290)</td>
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<tr>
<td>5</td>
<td>MOVE VISEGRIPS FROM SPOTWELDER TO SHEETMETAL AT SPOTWELDER USING 5 STEPS (1.00 110)</td>
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<tr>
<td>6</td>
<td>MOVE CART FROM SPOTWELDER TO WELDOUT (1.00 480)</td>
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<td>7</td>
<td>MOVE VISEGRIPS FROM SPOTWELDER TO WORKTABLE (1.00 1010)</td>
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TOTAL TMU 14270.

File Description ? SPOT WELD SCREEN ASSEMBLY FOR BELLMOUTH

Output to line-printer <Y or N> ?-
File Description ? TACK WELD SHEETMETAL BELLMOUTH

Output to line-Printer <Y or N> ? N

( 39, 101) FIT .W12 BMOUTH.M09
TACK WELD SHEETMETAL BELLMOUTH WITH TACK WELDER AT SHEETMETAL
SHOP
PER BELLMOUTH OFG: 4 28-JUN-83
NASSCO SHEETMETAL SHAPE 14
* 20 GAUGE GALV. SHEETMETAL
* 6'X8' TO 10 1/2'X12 1/2' BELLMOUTH
* TACK WELD CORNER EDGES
* COMPLETE WELDING AT WELD BOOTH
* SEE BMOUTH.M10
FITTER BEGINS AT WELDOUT

1 PLACE SHEETMETAL2 FROM CART AT WELDOUT TO TABLE AT WELDOUT WITH 4 STEPS F 2
A1 B0 G1 A6 B0 P3 A0 2.00 220.

2 MOVE VISEGRIPS FROM WORKTABLE TO WELDOUT
A54 B3 G1 A54 B3 P1 A0 1.00 1160.

3 GRIP SHEETMETAL2 TO SHEETMETAL2 AT TABLE AT WELDOUT USING VISEGRIPS AT WELDOUT TABL AND ASIDE PF 8 (4 5 6 7)
A1 B0 G1 (A1 B0 P3 C1) A1 B0 P1 A0 (8) 1.00 440.

4 POSITION TACKWELDER FROM WELDOUT TO SHEETMETAL AT WELDOUT TABLE F 20
A1 B0 G1 A1 B0 P6 A0 20.00 1800.

5 OPERATE TACKWELDER AT WELDOUT PROCESS F 20
A1 B0 G1 M6 X3 IO A0 20.00 2200.

6 REPLACE SHEETMETAL2 FROM TABLE AT WELDOUT TO CART AT WELDOUT WITH 4 STEPS
A1 B0 G1 A6 B0 P3 A0 1.00 110.

7 MOVE CART FROM WELDOUT TO WORKTABLE
A1 B0 G1 A54 B3 P1 A0 1.00 600.

TOTAL TMU 6530.

File Description ? TACK WELD SHEETMETAL BELLMOUTH

Output to line-Printer <Y or N> ?

67,010
File Description ? WELD BELLMOUTH

Output to line-printer <Y or N> ? N

( 39, 3)    BLMOUTH.M10
WELD BELLMOUTH WITH TIG-WELDER AT SHEETMETAL SHOP WELDING BOOTH
PER BELLMOUTH OFG: 4 18-JUL-83
WELDING NASSCO SHEETMETAL SHAPE 14
  * 20 GAUGE GALV. SHEETMETAL
  * 6'X8' TO 10 1/2 X 12 1/2'
  * WELDOR PERFORMS THE WORK
  * FITTER TRANSPORTS SHEETMETAL
  * WELD SHEETMETAL A-T WELD AREA BOOTH
FITTER BEGINS AT WORKTABLE

1 FITTER PLACE SHEETMETAL ASSEMBLY FROM WORKTABLE TO CART
   AT WORKTABLE WITH 4 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 110.

2 FITTER MOVE CART FROM WORKTABLE TO WELDTABLE
   A1 B0 G1 A131B3 P1 A0 1.00 1370.

3 PLACE SHEETMETAL ASSEMBLY FROM CART AT WELDTABLE TO
   WELDTABLE WITH 4 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 110.

4 WELDOR PUSH POWER SUPPLY BUTTON FROM OFF AT
   WELDMACHINES TO ON AT WELDMACHINES WITH 16 STEPS
   A3 B0 G1 M1 X0 IO A32 1.00 370.

5 WELDOR PUSH GAS-HOOKUP-SWITCH FROM OFF AT WELDMACHINES
   TO ON AT WELDMACHINES
   A1 B0 G1 M1 X0 IO A1 1.00 40.

6 WELDOR FASTEN CURRENT SELECTOR HANDLE AT WELDMACHINES 1
   WRIST-TURN USING HAND
   A1 B0 G1 A1 B0 P1 F3 A0 B0 PO A0 1.00 70.

7 WELDOR TURN OUTPUT CONTROL LEVER FROM OFF AT
   WELDMACHINES TO ON AT WELDMACHINES
   A1 B0 G1 M3 X0 IO A1 1.00 60.

8 WELDOR POSITION ANTI-SPATTER SPRAY CAN FROM WELDTABLE
   TO SHEETMETAL ASSEMBLY AT WELDTABLE F 4
   A3 B3 G1 A1 B0 P6 A0 4.00 560.

9 WELDOR PUSH ANTI-SPATTER2 SPRAY CAN PROCESS F 4
   A1 B0 G1 M1 X10 IO A0 4.00 520.

10 WELDOR POSITION WELDROD FROM WELDTABLE TO SHEETMETAL
    ASSEMBLY AT WELDTABLE F 4
   A1 B0 G1 A1 B0 P6 A0 4.00 360.

11 PULL WELDHOOD FROM UP AT WELDOR TO DOWN AT WELDOR F 4
   A1 B0 G1 M1 X0 IO A1 4.00 160.

12 WELDOR POSIT-ION WELDGUN FROM WELDTABLE TO SHEETMETAL
   ASSEMBLY AT WELDTABLE WITH PARTIAL BEND F 5
   A1 B0 G1 A1 B6 P6 A0 5.00 750.

13 OPERATE WELD STINGER-BUTTON1 PROCESS F 5
   A1 B0 G1 M6 X81 IO A0 5.00 4450.

14 PUSH WELDHOOD FROM DOWN AT WELDOR TO UP AT WELDOR F 4
   A1 B0 G1 M1 X0 IO A1 4.00 160.

15 WELDOR DEBURR WELDED ASSEMBLY AT WELDTABLE 1 ARM-STROKE
   USING WIREBRUSH AT WELDTABLE AND ASIDE PF 50 ( 4 5 6 7
   A1 B0 G1 (A1 B0 P1 C1 )A1 B0 P1 A0 (50) 1.00 1540.
16 REPLACE SHEETMETAL ASSEMBLY FROM WELDTABLE TO CART AT WELDTABLE WITH 4 STEPS
   A1 B0 G1 A6 B0 P3 A0  1.00  110.

17 FITTER MOUE CART FROM WELDTABLE TO WORKTABLE
   A1 B0 G1 A131B0 P1 A0  1.00  1340.

TOTAL TMU  12080.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?
File Prescription ? ASSEMBLE BELLMOUTH

Output to line-printer <Y or N> ? N

FIT .W12 BMOUTH.M11

PER BELLMOUTH OFG: 4 28-JUN-83

NASSCO SHEETMETAL SHAPE 14
* 20 GAUGE GALV. SHEETMETAL
* 6'X8' TO 10 1/2'X12 1/2' BELLMOUTH
* BOLT SCREEN FRAME TO BELLMOUTH
* GRIND WELDS SMOOTH

FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL2 FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS
       A1 B0 G1 A6 B0 P3 A0 1.00 110.

2 PLACE SHEETMETAL [BELLMOUTH] TO SHEETMETAL [SCREEN FRAME] AT WORKTABLE
       A1 B0 G1 A1 B0 P3 A0 1.00 60.

3 FASTEN 5-32DRILLBIT [PILOT] TO DRILLMOTOR AT WORKTABLE
   3 WRIST-TURNS USING CHUCKKEY AT WORKTABLE AND ASIDE
       A1 B0 G1 A1 B0 P3 P6 A1 B0 P1 A0 1.00 140.

4 PLACE VISEGRIPS FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 4
       A1 B0 G1 A1 B0 P3 A0 4.00 240.

5 GRIP SHEETMETAL TO SHEETMETAL AT WORKTABLE USING VISEGRIPS AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )
       A1 B0 G1 (A1 B0 P3 C1 )A1 B0 P1 A0 (4) 1.00 240.

6 POSITION DRILLMOTOR FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 4
       A1 B0 G1 A1 B0 P6 A0 4.00 360.

7 OPERATE DRILLMOTOR AT WORKTABLE PROCESS F 4
       A1 B0 G1 M6 X6 IO A0 4.00 560.

8 LOOSEN 5-32DRILLBIT FROM DRILLMOTOR AT WORKTABLE 3 WRIST-TURNS USING CHUCKKEY AT WORKTABLE AND ASIDE
       A1 B0 G1 A1 B0 P3 L6 A1 B0 P1 A0 1.00 140.

9 FASTEN 5.16DRILL-BIT TO DRILLMOTOR AT WORKTABLE 3 WRIST-TURNS USING CHUCKKEY AT WORKTABLE AND ASIDE
       A1 B0 G1 A1 B0 P3 F6 A1 B0 P1 A0 1.00 140.

10 POSITION DRILLMOTOR FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 4
       A1 B0 G1 A1 B0 P6 A0 4.00 360.

11 OPERATE DRILLMOTOR AT WORKTABLE PROCESS F 4
       A1 B0 G1 M6 X6 IO A0 4.00 560.

12 POSITION 1 / 4' BOLT AND NUT FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 4
       A1 B0 G1 A1 B0 P6 A0 4.00 360.

13 FASTEN BOLT TO SHEETMETAL [NUT] AT WORKTABLE 10 WRIST-TURNS USING WRENCH AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )
       A1 B0 G1 (A1 B0 P3 F24 )A1 B0 P1 A0 (4) 1.00 1160.

14 MOVE GRINDER FROM TOOLROOM TO WORKTABLE
       A96 B0 G1 A96 B3 P1 A0 1.00 1970.

15 POSITION GRINDER FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 4
4.00  360.

16 PUSh BUTTON ON GRINDER AT WORKTABLE PT 7 S F 4
A1 B0 G1 H1 X16 IO A0  4.00  760.

17 INSPECT SHEETMETAL AT WORKTABLE 9 POINTS
A0 B0 GO A0 B0 PO T10 A0 B0 PO A0  1.00  100.

TOTAL TMU  7620.

File Description ? ASSEMBLE BELLMOUTH
Output; to line-Printer <Y or N> ?

74,630
Sheet Metal Riveted Joint

8" x 6" x 35" LG. RIVED JOINT

Total TMs: 17880 11 Min.
File Description: RIVET SHEETMETAL JOINT

Output to line-printer <Y or N>? N

FIT .W11 RVTJNT .M01

RIVET SHEETMETAL FOR JOINT WITH RIVET GUN AT SHEETMETAL SHOP

PER RIVET JOINT

RIVETED JOINT ONLY
* 20 GAUGE GALV. SHEETMETAL
* 8'X6'X35' L RIVETED JOINT

FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS
   A1 B0 G1 A3 B0 P3 A0 1.00 80.

2 PLACE SHEETMETAL FROM WORKTABLE TO WORKTABLE [TURNOVER] AT WORKTABLE
   A1 B0 G1 A1 B0 P3 A0 1.00 60.

3 PLACE RIVET-HOLE-GUIDE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 4
   A1 B0 G1 A1 B0 P3 A0 4.00 240.

4 MARK SHEETMETAL FROM RIVET-HOLE-GUIDE AT WORKTABLE 1
   DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 22 (4 5 6 7)
   A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (22) 1.00 1140.

5 FASTEN 5-32 DRILLBIT AT WORKTABLE 3 WRIST-TURNS USING CHUCKKEY AT WORKTABLE AND ASIDE
   A1 B0 G1 A1 B0 P3 F6 A1 B0 F1 A0 1.00 140.

6 POSITION DRILLMOTOR FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 22
   A1 B0 G1 A1 B0 P6 A0 22.00 1980.

7 OPERATE DRILLMOTOR PROCESS F 22
   A1 B0 G1 M6 X6-10-A0 22,00 3080.

8 POSITION RIVET FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 22
   A1 B0 G1 A1 B0 P6 A0 22.00 1980.

9 POSITION RIVETGUN FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 22
   A1 B0 G1 A1 B0 P6 A0 22.00 1980.

10 OPERATE RIVETGUN PROCESS F 22
   A1 B0 G1 M6 X3 I0 A0 22.00 2420.

11 LOCATION CAULKING GUN FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 26
   A1 B0 G1 A1 B0 P6 A0 26.00 2340.

12 GRIP SEALANT TO RIVET AT WORKTABLE USING CAULKING GUN AT WORKTABLE AND ASIDE F 26
   A1 B0 G1 A1 B0 P3 C1 A1 B0 P1 A0 26.00 2340.

13 - INSPECT SHEETMETAL AT WORKTABLE 9 POINTS
   A0 B0 GO A0 B0 P0 T10 A0 B0 P0 A0 1.00

TOTAL TMU 17880.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help>. ?
## MOST® COMPUTER SYSTEMS

**Title and Method Description Sheet**

**Title**: RIVIT SHEET/METAL Joint

**Activity**: RIVIT

**Object**: SHEET/METAL

**Product/Equipment**: MASSISCO RIVETED Joint

**Special Conditions**: *

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<td>COMBINED SUB-OP.</td>
<td>Title Sheet</td>
<td>YES</td>
</tr>
</tbody>
</table>

**Size/Capacity**: SHOP

**Work Area Origin**: SHOP

**Work Area Number**: 100-4-4

**Unit, Rep., Rivet Joint**: 100-4-4 SUB-OP. CFG. 4

**Operator**: * BEGINS:

**Date Filed**

<table>
<thead>
<tr>
<th>No.</th>
<th>Keyword/ Method Description</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>PLACE SHEET/METAL FROM WORKABLE TO SHEET/METAL AT WORKABLE</td>
</tr>
<tr>
<td>2</td>
<td>PLACE SHEET/METAL FROM WORKABLE TO WORKABLE (FOR SALE) AT WORKABLE F-6</td>
</tr>
<tr>
<td>3</td>
<td>PLACE RIVET HOLE GUIDE FROM WORKABLE TO SHEET/METAL AT WORKABLE F-4</td>
</tr>
<tr>
<td>4</td>
<td>MARK SHEET/METAL FROM RIVET HOLE GUIDE AT WORKABLE</td>
</tr>
<tr>
<td>5</td>
<td>DASH USING BLACK PEN AT WORKABLE AND ASIDE P. F. 26</td>
</tr>
<tr>
<td>6</td>
<td>EASIER END DILL-BIT FROM WORKABLE TO DRILL MOWER AT WORKABLE 3 WRIST-TECH USING CHERRY AT WORKABLE AND ASIDE</td>
</tr>
<tr>
<td>7</td>
<td>POSITION DRILL MOWER FROM WORKABLE TO SHEET/METAL AT WORKABLE F-22</td>
</tr>
<tr>
<td>8</td>
<td>OPERATE DRILL MOWER AT WORKABLE PROCESS F-22</td>
</tr>
<tr>
<td>9</td>
<td>POSITION RIVET FROM WORKABLE TO SHEET/METAL AT WORKABLE F-22</td>
</tr>
<tr>
<td>10</td>
<td>OPERATE RIVET GUN AT WORKABLE PROCESS F-22</td>
</tr>
<tr>
<td>11</td>
<td>POSITION CAULKING GUN FROM WORKABLE TO SHEET/METAL AT WORKABLE F-26</td>
</tr>
<tr>
<td>12</td>
<td>GRIP SEALANT TO RIVET AT WORKABLE USING CAULKING GUN AT WORKABLE AND ASIDE F-26</td>
</tr>
<tr>
<td>13</td>
<td>INSPECT SHEET/METAL AT WORKABLE 2 POINTS</td>
</tr>
</tbody>
</table>
SHEET METAL RIVITED JOINT

19" x 14" x 41" LG. RIVITED JOINT

Total Tmu. 41440 24 Min.
File Description ? RIVET SHEETMETAL JOINT

Output to line-Printer <Y or N> ? N

( 39, 1) RIVET SHEETMETAL FOR JOINT WITH RIVET GUN AT SHEETMETAL SHOP PER RIVET JOINT

FIT .W11

RIVETED JOINT ONLY
* 18 GAUGE GALV. SHEETMETAL
* 1119'X14'X41'-L RIVETED JOINT
FITTER BEGINS AT WORKTABLE

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
<th>Material</th>
<th>Time (tmu)</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>POSITION SHEETMETAL FROM WORKTABLE TO SHEETMETAL AT WORKTABLE</td>
<td>A1 B0 G1 A1 B0 P6 A0</td>
<td>1.00 90.0</td>
</tr>
<tr>
<td>2</td>
<td>PLACE SHEETMETAL FROM WORKTABLE TO WORKTABLE [TURN OVER] AT WORKTABLE F 6</td>
<td>A1 B0 G1 A1 B0 P3 A0</td>
<td>6.00 360.0</td>
</tr>
<tr>
<td>3</td>
<td>PLACE RIVET-HOLE-GUIDE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 4</td>
<td>A1 B0 G1 A1 B0 P3 A0</td>
<td>4.00 240.0</td>
</tr>
<tr>
<td>4</td>
<td>MARK SHEETMETAL FROM RIVET-HOLE-GUIDE AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 53 (4 5 6 7)</td>
<td>A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (53)</td>
<td>1.00 2690.0</td>
</tr>
<tr>
<td>5</td>
<td>FASTEN 5-32DRILLBIT FROM WORKTABLE TO DRILLMOTOR AT WORKTABLE 3 WRIST-TURNS USING CHUCKKEY AT WORKTABLE AND ASIDE</td>
<td>A1 B0 G1 A1 B0 P3 F6 A1 B0 P1 A0</td>
<td>1.00 140.0</td>
</tr>
<tr>
<td>6</td>
<td>POSITION DRILLMOTOR FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 53</td>
<td>A1 B0 G1 A1 B0 P6 A0</td>
<td>53.00 4770.0</td>
</tr>
<tr>
<td>7</td>
<td>OPERATE DRILLMOTOR PROCESS F 53</td>
<td>A1 B0 G1 H6 X6 IO A0</td>
<td>53.00 7420.0</td>
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<tr>
<td>8</td>
<td>POSITION RIVET FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 53</td>
<td>A1 B0 G1 A1 B0 P6 A0</td>
<td>53.00 4770.0</td>
</tr>
<tr>
<td>9</td>
<td>POSITION RIVETGUN FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 53</td>
<td>A1 B0 G1 A1 B0 P6 A0</td>
<td>53.00 4770.0</td>
</tr>
<tr>
<td>10</td>
<td>OPERATE RIVETGUN PROCESS F 53</td>
<td>A1 B0 G1 M6 X3 IO A0</td>
<td>53.00 5830.0</td>
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<tr>
<td>11</td>
<td>POSITION CAULKINGGUN FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 57</td>
<td>A1 B0 G1 A1 B0 P6 A0</td>
<td>57.00 5130.0</td>
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<tr>
<td>12</td>
<td>GRIP SEALANT TO RIVET AT WORKTABLE USING CAULKINGGUN AT WORKTABLE AND ASIDE F 57</td>
<td>A1 B0 G1 A1 B0 P3 C1 A1 B0 P1 A0</td>
<td>57.00 5130.0</td>
</tr>
<tr>
<td>13</td>
<td>INSPECT SHEETMETAL AT WORKTABLE 9 POINTS</td>
<td>A0 B0 GO A0 R0 P0 T10 A0 B0 P0 A0</td>
<td>1.00 100.0</td>
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</tbody>
</table>

TOTAL TMU 41440.0

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> . ?
<table>
<thead>
<tr>
<th>Description</th>
<th>Time</th>
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</thead>
<tbody>
<tr>
<td>FAB</td>
<td>5,052</td>
</tr>
<tr>
<td>MARK OUT</td>
<td>12,750</td>
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<tr>
<td>Total Time</td>
<td>63,270</td>
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</tbody>
</table>
File Description ? MARK OUT ACCESS COVER AND BACK-UP PLATES

Output to line-Printer <Y or N> ? N

\[ 39, 1 \]

FIT  \[ ACOVER.MOL \]
MARK OUT .ACCESS COVER AND BACK-UP PLATES WITH AWL AT SHEETMETAL

SHOP
PER COVER AND PLATE
OFG: 4 26-MAY-83
NASSCO SHEETMETAL ACCESS COVER AND BACK-UP PLATE
* 11 GAUGE GALV. SHEETMETAL
* ACCESS COVER 6'X12'X10'X4'
* MARK OUT ACCESS COVER WITH TEMPLATE
* MARK OUT BACK-UP STRIPS WITHOUT TEMPLATE
FITTER BEGINS AT WORKTABLE

1 MOVE 11 GAUGE SHEETMETAL SCRAP FROM SCRAPBIN TO WORKTABLE
   A152B3 G1 A152B3 P1 A0 1.00 3120.

2 POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 5 STEPS
   A1 B0 G1 A10 B0 P6 A0 1.00 180.

3 POSITION WEIGHT FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS F 2
   A1 B0 G1 A6 B0 P6 A0 2.00 280.

4 MARK OUTLINE FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7
   A1 B0 G1 (A1 B0 P0 P1 R16 )A1 B0 P1 A0 (4) 1.00 760.

5 POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS F 13
   A1 B0 G1 A3 B0 P6 A0 13.00 1430.

6 FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE AND ASIDE PF 13 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P0 P3 )A1 B0 P1 A0 (13) 1.00 560.

7 REPLACE WEIGHT FROM TEMPLATE AT WORKTABLE TO WORKTABLE WITH 3 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0 2.00 220.

8 REPLACE TEMPLATE FROM SHEETMETAL AT WORKTABLE TO WORKTABLE ATIH 5 STEPS
   A1 B0 G1 A10 B0 P3 A0 1.00 150.

9 MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 M32 )A1 B0 P1 A0 (6) 1.00 2080.

10 MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7 )
    A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (6) 1.00 340.

11 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 1 DIGIT USING REDPEN AT WORKTABLE AND ASIDE PF 10 ( 4 5 6 7 )
    A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (10) 1.00 540.

12 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 13 ( 4 5 6 7 )
    A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (13) 1.00 690.

13 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 26 ( 4 5 6 7 )
14 PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2
A1 B0 G1 A6 B0 P3 A0  2.00  220.
15 MOUE CART FROM WORKTABLE TO 14FT. SHEAR
A1 B0 G1 A81 B0 P1 A0  1.00  840.

TOTAL TMU  12750.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

127.50
File Description ? SHEAR SHEETMETAL FOR ACCESS COVER

Output to line-printer <Y or N> ? N

( 39, 1)
FIT  W1

ACOVER.M02
SHEAR SHEETMETAL FOR ACCESS COVER WITH 14FT. SHEAR AT SHEETMETAL SHOP
PER COVER
OFG: 4 26-MAY-83

NASSCO SHEETMETAL ACCESS COVER
* 11 GAUGE GALV. SHEETMETAL
* ACCESS COVER 6'X12'X10'X4'
* SHEAR BACK-UP PLATES AND ACCESS COVER
FITTER BEGINS AT 14FT. SHEAR

1 POSITION SHEETMETAL FROM CART AT 14FT. SHEAR TO
14FT.SHEAR WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P6 A0 2.00 280.
2 PUSH 14FT.SHEAR-FOOTPEDAL PROCESS F 2
   A1 B0 G1 M1 X3 I0 A0 2.00 120.
3 POSITION SHEETMETAL FROM 14FT.SHEAR TO 14FT.SHEAR WITH
2 STEPS F 9
   A1 B0 G1 A3 B0 P6 A0 9.00 990.
4 PUSH 14FT.SHEAR-FOOTPEDAL PROCESS F 9
   A1 B0 G1 M1 X3 I0 A0 9.00 540.
5 REPLACE SHEETMETAL FROM 14FT.SHEAR TO CART AT
14FT.SHEAR WITH 10 STEPS F 2
   A1 B0 G1 A16 B0 P3 A0 2.00 420.
6 MOUE CART FROM 14FT.SHEAR TO WORKTABLE
   A1 B0 G1 A81 B3 P1 A0 1.00 870.

TOTAL TMU 3220.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?
File Description ? SHEAR ACCESS HOLE FOR ACCESS COVER

output to line-printer <Y or N> ? N

( 39, 1)
FIT .W11 ACOVER.M03
SHEAR ACCESS HOLE FOR ACCESS COVER WITH UNI-SHEAR AT SHEETMETAL SHOP
PER ACCESS COVER OFG: 4 27-MAY-83
NASSCO SHEETMETAL ACCESS COVER AND BACK-UP PLATES
* 11 GAUGE GALV. SHEETMETAL
* ACCESS COVER 6'X12'X10'X4'
* PUNCH OUT HOLE FOR UNI-SHEAR ACCESS
FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL2 FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0 2.00 220.

2 MOVE UNISHEAR2 FROM TOOLROOM TO WORKTABLE
   A96 B0 G1 A96 B3 P1 A0 1.00 1970.

3 PLACE CHISEL FROM WORKTABLE TO SHEETMETAL AT WORKTABLE AND ASIDE F 4
   A1 B0 G1 A1 B0 P3 A0 4.00 240.

4 FASTEN CHISEL TO SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P0 F3 )A1 B0 P1 A0 (4) 1.00 200.

5 POSITION UNISHEAR FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS
   A1 B0 G1 A6 B0 P6 A0 1.00 140.

6 OPERATE UNISHEAR AT WORKTABLE PROCESS F 4
   A1 B0 G1 M6 X173I0 A0 4.00 7240.

7 REPLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0 2.00 220.

8 MOVE CART FROM WORKTABLE TO SPOTWELDER
   A1 B0 G1 A54 B0 P1 A0 1.00 570.

TOTAL TMU 10800.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

14020
File Description ? SPOTWELD SHEETMETAL FOR ACCESS COVER

output to line-printer <Y or N> ? N

( 39, 1)
FIT .W11 ACOVER.MO4
WELD (SPOT) SHEETMETAL FOR ACCESS COVER WITH SPOT WELDER AT SHEETMETAL SHOP
PER ACCESS COVER OFG: 4 27-MAY-83
NASSCO SHEETMETAL ACCESS COVER AND BACK-UP PLATES
* 11 GAUGE GALV. SHEETMETAL
* ACCESS COVER 6'X12'X10'X4'
* SPOT WELD BACK-UP STRIPS TO --
* -- SHEETMETAL ACCESS HOLE
FITTER BEGINS AT SPOTWELDER

1 MOUE VISEGRIPS FROM WORKTABLE TO SPOTWELDER
   A54 B3 G1 A54 B0 P1 A0 1.00 1130.
2 POSITION SHEETMETAL FROM CART AT SPOTWELDER TO SPOTWELDER WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P6 A0 2.00 280.
3 GRIP SHEETMETAL [BACK-UP PLATES] AT SPOTWELDER TO SHEETMETAL AT SPOTWELDER USING VISEGRIPS AT SPOTWELDER AND ASIDE PF 7 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P3 C1 )A1 B0 P1 A0 (7) 1.00 390.
4 POSITION SHEETMETAL FROM SPOTWELDER TO SPOTWELDER WITH 2 STEPS F 19
   A1 B0 G1 A3 B0 P6 A0 19.00 2090.
5 OPERATE SPOTWELDER-FOOTPEDAL PROCESS F 19
   A1 B0 G1 M6 X6 I0 A0 19.00 2660.
6 REPLACE SHEETMETAL2 FROM SPOTWELDER TO CART AT SPOTWELDER WITH 4 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 110.
7 MOUE CART FROM SPOTWELDER TO WORKTABLE
   A1 B0 G1 A54 B3 P1 A0 1.00 600.

TOTAL TMU 7260.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ? 

21,280
File Description: DRILL AND TAP SHEETMETAL FOR ACCESS COVER

Output to line-printer <Y or N> ? N

( 39, 1)
FIT .W11 ACOVER.M05
TAP AND DRILL SHEETMETAL FOR ACCESS COVER WITH TAP AT SHEETMETAL SHOP
PER ACCESS COVER OFG: 4 27-MAY-83
NASSCO SHEETMETAL ACCESS COVER AND BACK-UP PLATES
* 11 GAUGE GALV. SHEETMETAL
* ACCESS COVER 6'X12'X10'X4'
* DRILL OUT ACCESS COVER WITH OVER SIZE--
* --BIT 5/16 AFTER TAPING BACK-UP PLATES
FITTER BEGINS AT WORKTABLE

1 POSITION SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P6 A0 2.00 280.
2 POSITION SHEETMETAL [ACCESS COVER] TO SHEETMETAL [ACCESS HOLE] AT WORKTABLE WITH 2 STEPS
   A1 B0 G1 A3 B0 P6 A0 1.00 110.
3 FASTEN 7.32DRILL-BIT TO DRILLMOTOR AT WORKTABLE 3 WRIST-TURNS USING CHUCKKEY AT WORKTABLE AND ASIDE
   A1 B0 G1 A1 B0 P3 F6 A1 B0 P1 A0 1.00 140.
4 POSITION DRILLMOTOR FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS F 4
   A1 B0 G1 A6 B0 P6 A0 4.00 560.
5 OPERATE DRILLMOTOR AT WORKTABLE PROCESS F 4
   A1 B0 G1 M6 X6 I0 A0 4.00 560.
6 MOVIE TAPINGMOTOR FROM TOOLROOM TO WORKTABLE
   A96 B0 G1 A96 B3 P1 A0 1.00 1970.
7 FASTEN 1.4TAP TO TAPINGMOTOR AT WORKTABLE 3 WRIST-TURNS USING CHUCKKEY AND ASIDE
   A1 B0 G1 A1 B0 P3 F6 A1 B0 P1 A0 1.00 140.
8 POSITION TAPINGMOTOR FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 4
   A1 B0 G1 A1 B0 P6 A0 4.00 360.
9 OPERATE DRILLMOTOR [TAPINGMOTOR] AT WORKTABLE PROCESS F 4
   A1 B0 G1 M6 X6 I0 A0 4.00 560.
10 POSITION BOLT FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 4
    A1 B0 G1 A1 B0 P6 A0 4.00 360.
11 FASTEN BOLT TO SHEETMETAL AT WORKTABLE 10 WRIST-TURNS USING WRENCH AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )
    A1 B0 G1 (A1 B0 P3 F24 )A1 B0 P1 A0 (4) 1.00 1160.
12 POSITION DRILLMOTOR FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 9
    A1 B0 G1 A1 B0 P6 A0 9.00 810.
13 OPERATE DRILLMOTOR AT WORKTABLE PROCESS F 9
    A1 B0 G1 M6 X6 I0 A0 9.00 1260.
14 LOOSEN BOLT FROM SHEETMETAL AT WORKTABLE 10 WRIST-TURNS USING WRENCH AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )
    A1 B0 G1 (A1 B0 P3 L24 )A1 B0 P1 A0 (4) 1.00 1160.
15 REPLACE SHEETMETAL [ACCESS COVER] FROM SHEETMETAL AT WORKTABLE TO SHEETMETAL [ASSEMBLY] AT WORKTABLE WITH 2
STEPS

16 OPERATE DRILLMOTOR [TAPINGMOTOR] AT WORKTABLE PROCESS F 9

17 LOOSEN 7.32DRILL-BIT FROM DRILLMOTOR AT WORKTABLE 3
WRIST-TURNS USING CHUCKKEY AT WORKTABLE AND ASIDE
A1 B0 G1 M6 X6 I0 A0 9.00 1260.

18 FASTEN 5.16DRILL-BIT TO DRILLMOTOR AT WORKTABLE 3
WRIST-TURNS USING CHUCKKEY AT WORKTABLE AND ASIDE
A1 B0 G1 A1 B0 P3 L6 A1 B0 P1 A0 1.00 140.

19 POSITION DRILLMOTOR FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE WITH 2 STEPS F 13
A1 B0 G1 A3 B0 P6 A0 13.00 1430.

20 OPERATE DRILLMOTOR AT WORKTABLE PROCESS F 13
A1 B0 G1 M6 X6 I0 A0 13.00 1820.

TOTAL TMU 14300.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?
CUT GASKET FOR ACCESS COVER

PER ACCESS COVER OFG: 4 27-MAY-83

NASSCO SHEETMETAL ACCESS COVER AMD BACK-UP PLATES
* 1 GAUGE GALV. SHEETMETAL
* ACCESS COVER 6'x12'x10'x4'
* PUNCH OUT BOLT HOLES
FITTER BEGINS AT WORKTABLE

1 MOVE SHEETMETAL [ACCESS COVER] , BLACKPEN [INK PEN] , FROM WORKTABLE TO GASKET-CUTTING-TABLE
   A1 B0 G1 A152B0 P1 A0 1.00 1550.
2 MOUE UTILITY-KNIFE , 3 / 8HOLE PUNCH , MALLET , FROM TOOLROOM TO GASKET-CUTTING-TABLE-
   A96 B0 G1 A96 B0 P1 A0 1.00 1940.
3 PLACE RUBBER FROM SHELF AT GASKET-CUTTING-TABLE TO GASKET-CUTTING-TABLE WITH 3 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 110.
4 PLACE SHEETMETAL2 [ACCESS COVER] FROM GASKET-CUTTING-TABLE TO RUBBER AT GASKET-CUTTING-TABLE WITH 3 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 110.
5 CUT RUBBER FROM SHEETMETAL [ACCESS COVER] AT GASKET-CUTTING-TABLE 1 CUT USING UTILITY-KNIFE AT GASKET-CUTTING-TABLE AND ASIDE PF 4 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P3 C1 )A1 B0 P1 A0 (4) 1.00 240.
6 REPLACE SHEETMETAL FROM RUBBER AT GASKET-CUTTING-TABLE TO GASKET-CUTTING-TABLE WITH 2 STEPS
   A1 B0 G1 A3 B0 P3 A0 1.00 80.
7 POSITION 3 / 8HOLE PUNCH FROM GASKET-CUTTING-TABLE TO RUBBER AT GASKET-CUTTING-TABLE F 13
   A1 B0 G1 A1 B0 P6 A0 13.00 1170.
8 FASTEN HOLE PUNCH TO RUBBER AT GASKET-CUTTING-TABLE 2 STRIKES USING MALLET AT GASKET-CUTTING-TABLE AND ASIDE PF 13 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P0 F6 )A1 B0 P1 A0 (13) 1.00 950.
9 MOVE SHEETMETAL [ACCESS PLATE] , RUBBER , FROM GASKET-CUTTING-TABLE TO WORKTABLE
   A1 B0 G1 A152B3 P1 A0 1.00 1580.
10 MOVE UTILITY-KNIFE , MALLET , HOLE PUNCH , FROM GASKET-CUTTING-TABLE TO TOOLROOM
   A152B0 G1 A96 B0 P1 A0 1.00 2500.

TOTAL TMU 10230.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ? 45,810
DEBBURR ACCESS HOLE AND ACCESS COVER WITH FILE AT SHEETMETAL SHOP

PER ACCESS COVER

NASSCO SHEETMETAL ACCESS COVER AND BACK-UP PLATES

* 11 GAUGE GALV. SHEETMETAL
* ACCESS COVER 6'X12'X10'X4'
* GLUE GASKET TO ACCESS COVER

FITTER BEGINS AT WORKTABLE

1 MOVE GLUE AND BRUSH FROM TOOLROOM TO WORKTABLE
   A96 B0 G1 A96 B3 P1 A0 1.00 1970.

2 DEBBURR SHEETMETAL [ACCESS COVER] AT WORKTABLE 1
   ARM-STROKE USING FILE AT WORKTABLE AND ASIDE PF 15 (4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 C1 )A1 B0 P1 A0 (15) 1.00 490.

3 DEBBURR SHEETMETAL [ACCESS HOLE] AT WORKTABLE 1
   ARM-STROKE USING FILE AT WORKTABLE AND ASIDE PF 15 (4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 C1 )A1 B0 P1 A0 (15) 1.00 490.

4 GRIP GLUE TO RUBBER2 AT WORKTABLE 1 SQUARE FEET USING
   BRUSH AND ASIDE
   A1 B0 G1 A1 B0 P3 C1 A1 B0 P1 A0 1.00 90.

5 PLACE SHEETMETAL [ACCESS COVER] FROM WORKTABLE TO
   SHEETMETAL [ACCESS HOLE] AT WORKTABLE WITH 4 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 110.

6 POSITION BOLT FROM WORKTABLE TO SHEETMETAL AT WORKTABLE
   10 WRIST-TURNS USING WRENCH AND ASIDE PF 4 (4 5 6 7 )
   A1 B0 G1 (A1 B0 P6 A0 ) 1.00 300.

7 FASTEN BOLT TO SHEETMETAL AT WORKTABLE 10 WRIST-TURNS
   USING WRENCH AT WORKTABLE AND ASIDE PF 4 (4 5 6 7 )
   A1 B0 G1 (A1 B0 P3 F24 )A1 B0 P1 A0 (4) 1.00 1160.

8 INSPECT SHEETMETAL AT WORKTABLE 9 POINTS
   A0 B0 GO A0 B0 PO T10 A0 B0 P0 A0 1.00 100.

TOTAL TMU 4710.
SHEET METAL ACCESS COVER & BACKUP

20" x 30" x 25" x 15" ACCESS COVER & BACKUP

**Fabrication (Fab)**: 82120  53 min.
**Mark Out**: 17530  11 min.
**Total Time**: 106,550  64 min.
File Description ? MARK OUT ACCESS COVER AND BACK UP PLATES

Output to line-printer <Y or N> ? N

( 39, 1)
FIT .W11
ACOVER.M20
MARK OUT ACCESS COVER AND BACK UP PLATES WITH AWL AT SHEETMETAL
SHOP
PER ACCESS COVER
OFG: 4 27-MAY-83
NASSCO SHEETMETAL ACCESS COVER AND BACK UP PLATES
* 11 GAUGE GALV. SHEETMETAL
* ACCESS COVER 20'X30'X25'X15'
* MARK OUT USING TEMPLATE
FITTER BEGINS AT WORKTABLE

1 MOUE 11GAUGE SHEETMETALSCRAP FROM SCRAPBIN TO WORKTABLE
   A152B3 G1 A152B3 P1 A0 1.00 3120,

2 POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT
   WORKTABLE WITH 5 STEPS
   A1 B0 G1 A10 B0 P6 A0 1.00 180:

3 POSITION WEIGHTS FROM WORKTABLE TO SHEETMETAL AND
   TEMPLATE AT WORKTABLE WITH 3 STEPS F 2
   A1 B0 G1 A6 B0 P6 A0 2.00 280.

4 MARK OUTLINE FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5
   DIGITS USING AWL AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7
   )
   A1 B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (4) 1.00 760.

5 POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT
   WORKTABLE WITH 2 STEPS F 37
   A1 B0 G1 A3 B0 P6 A0 37.00 4070.

6 FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING
   HAMMER AT WORKTABLE AND ASIDE PF 34 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P0 F3 )A1 B0 P1 A0 (34) 1.00 1400,

7 REPLACE WEIGHTS FROM TEMPLATE AT WORKTABLE TO WORKTABLE
   WITH 3 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0 2.00 220,

8 REPLACE TEMPLATE FROM SHEETMETAL AT WORKTABLE TO
   WORKTABLE WITH 5 STEPS
   A1 B0 G1 A10 B0 P3 A0 1.00 150.

9 MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING
   STEEL-TAPE AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 M32 )A1 B0 P1 A0 (6) 1.00 2080.

10 MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT
    USING AWL AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7 )
    A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (6) 1.00 340.

11 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING
    REDPEN N AT WORKTABLE AND ASIDE PF 10 ( 4 5 6 7 )
    A1 B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (10) 1.00 1840.

12 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT
   WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND
   ASIDE PF 13 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (13) 1.00 690.

13 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT
   USING BLACKPEN AT WORKTABLE AND ASIDE PF 25 ( 4 5 6 7
   )
   A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (26) 1.00 1340.

14 PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE
WITH 4 STEPS F 2

A1  B0  G1  A6  B0  P3  A0  2.00  220.

15 MOUE CART FROM WORKTABLE TO 14FT.SHEAR
A1  B0  G1  A81  B0  P1  A0  1.00  840.

TOTAL TMU  17530.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?
File Description ? SHEAR SHEETMETAL FOR ACCESS COVER

Output to line-printer <y or N> ? N

( 39, 1)
FIT .W11 ACOVER.M21

SHEAR SHEETMETAL FOR ACCESS COVER WITH 14FT. SHEAR AT SHEETMETAL SHOP

PER ACCESS COVER OFG: 4 27-MAY-83

NASSCO SHEETMETAL ACCESS COVER AND BACK-UP PLATES
* 11 GAUGE GALV. SHEETMETAL
* ACCESS COVER 20'X30'X25'X15'
* SHEAR ACCESS COVER AND BACK-UP PLATES
FITTER BEGINS AT 14FT.SHEAR

1 POSITION SHEETMETAL FROM CART AT 14FT.SHEAR TO 14FT.SHEAR WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P6 A0 2.00 280.

2 PUSH 14FT.SHEAR-FOOTPEDAL PROCESS F 2
   A1 B0 G1 M1 X3 I0 A0 2.00 120.

3 POSITION SHEETMETAL FROM 14FT.SHEAR TO 14FT.SHEAR WITH 2 STEPS F 9
   A1 B0 G1 A3 B0 P6 A0 9.00 990.

4 PUSH 14FT.SHEAR-FOOTPEDAL PROCESS F 9
   A1 B0 G1 M1 X3 I0 A0 9.00 540.

5 REPLACE SHEETMETAL FROM 14FT.SHEAR TO CART AT 14FT.SHEAR WITH 10 STEPS F 2
   A1 B0 G1 A16 B0 P3 A0 2.00 420.

6 MOVE CART FROM 14FT.SHEAR TO WORKTABLE
   A1 B0 G1 A81 B3 P1 A0 1.00 870.

TOTAL TMU 3220.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?
File Description ? SHEAR ACCESS HOLE FOR ACCESS COVER

Output to line-Printer <Y or N> ? N

{ 39, 1 }
FIT  W1
ACOVER.M22
SHEAR ACCESS HOLE FOR ACCESS COVER WITH UNI-SHEAR AT SHEETMETAL
SHOP
PER ACCESS COVER OFG: 4 27-MAY-83

NASSCO SHEETMETAL ACCESS COVER AND BACK-UP PLATES
* 11 GAUGE GALV. SHEETMETAL
* ACCESS COVER 30'X20'X25'X15'
* PUNCH HOLE IN SHEETMETAL WITH CHISEL --
t--FOR ACCESS WITH UNI-SHEAR
FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0 2.00 220.
2 MOVE UNISHEAR2 FROM TOOLROOM TO WORKTABLE
   A96B0 G1 A96B3 P1 A0 1.00 1970.
3 PLACE CHISEL FROM WORKTABLE TO SHEETMETAL AT WORKTABLE AND ASIDE WITH 2 STEPS F 4
   A1 B0 G1 A3 B0 P3 A0 4.00 320.
4 FASTEN CHISEL TO SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P0 F3 )A1 B0 P1 A0 (4) 1.00 200.
5 POSITION UNISHEAR FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS
   A1 B0 G1 A3 B0 P6 A0 1.00 110.
6 OPERATE UNISHEAR AT WORKTABLE PROCESS F 7
   A1 B0 G1 M6 X173I0 A0 7.00 12670.
7 REPLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0 2.00 220.
8 MOVE CART FROM WORKTABLE TO SPOTWELDER
   A1 B0 G1 A54 B0 P1 A0 1.00 570.

   TOTAL TMU 16280.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?
FIT

W1

ACOVER.M23

WELD SHEETMETAL FOR ACCESS COVER WITH SPOT WELDER A-f SHEETMETAL

SHOP

PER ACCESS COVER

OFG: 4 27-MAY-83

NASSCO SHEETMETAL ACCESS COVER AND BACK-UP PLATES
* 11 GAUGE GALV. SHEETMETAL
* ACCESS COVER 20'X30'X25'15'
* SPOT WELD BACK-UP PLATES TO ACCESS HOLE

FITTER BEGINS AT WORKTABLE

1 MOVE VISEGRIPS FROM WORKTABLE TO SPOTWELDER
   A1 B0 G1 A54 B0 P1 A0 1.00 570.

2 POSITION SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 4
   A54 B3 G1 A6 B0 P6 A0 4.00 2800.

3 GRIP SHEETMETAL [BACK-UP PLATES] TO SHEETMETAL [ACCESS HOLE] AT SPOTWELDER USING VISEGRIPS AND ASIDE
   P F 7 (4567) A54 B0 G1 (A1 B0 P3 C1 )A1 B0 P1 A0 (7) 1.00 920.

4 POSITION SHEETMETAL FROM SPOTWELDER TO SPOTWELDER WITH 1 STEP F 64
   A1 B0 G1 A3 B0 P6 A0 64.00 7040.

5 OPERATE SPOTWELDER-FOOTPEDAL PROCESS F 64
   A1 B0 G1 M6 X6 IO A0 64.00 8960.

6 REPLACE SHEETMETAL2 FROM SPOTWELDER TO CART AT SPOTWELDER WITH 4 STEPS F 2
   A1 B0 G1 A6 B0 P3 A0 2.00 220.

7 MOVE CART FROM SPOTWELDER TO WORKTABLE
   A1 B0 G1 A54 B3 P1 A0 1.00 600.

TOTAL TMU 21110.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

40610
FIT .W1

TAP AND DRILL SHEETMETAL FOR ACCESS COVER WITH TAP AT SHEETMETAL

SHOP

PER ACCESS COVER

OFG: 4 27-MAY-83

NASSCO SHEETMETAL ACCESS COVER AND BACK-UP PLATES

* 11 GAUGE GALV. SHEETMETAL
* ACCESS COVER 20' X 30' X 25' X 15'
* DRILL OUT ACCESS COVER WITH OVERRSIZE--
* --DRILL BIT (5/16) AFTER TAPPING--
* --BACK-UP PLATES

FITTER BEGINS AT WORKTABLE

1 POSITION SHEETMETAL FROM CART AT WORKTABLE TO

WORKTABLE WITH 4 STEPS F 2

A1 B0 G1 A6 B0 P6 A0 2.00 280

2 POSITION SHEETMETAL [ACCESS COVER] TO SHEETMETAL

[ACCESS HOLE] AT WORKTABLE WITH 4 STEPS

A1 B0 G1 A6 B0 P6 A0 1.00 140

3 FASTEN 7.32DRILL-BIT 70 DRILLMOTOR AT WORKTABLE 3

WRIST-TURNS USING CHUCKKEY AT WORKTABLE AND ASIDE

A1 B0 G1 A1 B0 P3 F6 A1 B0 P1 A0 1.00 140

4 POSITION DRILLMOTOR FROM WORKTABLE TO SHEETMETAL AT

WORKTABLE WITH 4 STEPS F 4

A1 B0 G1 A6 B0 P6 A0 4.00 560

5 OPERATE DRILLMOTOR AT WORKTABLE PROCESS F 4

A1 B0 G1 M6 X6 I0 A0 4.00 560

6 MOVE TAPINGMOTOR FROM TOOLROOM TO WORKTABLE

A96 B0 G1 A96 B3 P1 A0 1.00 1970

7 FASTEN 1.4TAP TO TAPINGMOTOR AT WORKTABLE 3 WRIST-TURNS

USING CHUCKKEY AT WORKTABLE AND ASIDE

A1 B0 G1 A1 B0 P3 F6 A1 B0 P1 A0 1.00 140

8 POSITION TAPINGMOTOR FROM WORKTABLE TO SHEETMETAL AT

WORKTABLE WITH 1 STEP F 4

A1 B0 G1 A3 B0 P6 A0 4.00 440

9 OPERATE DRILLMOTOR [TAPINGMOTOR] AT WORKTABLE PROCESS F

4

A1 B0 G1 M6 X6 I0 A0 4.00 560

10 POSITION BOLT FROM WORKTABLE TO SHEETMETAL AT WORKTABLE

F 4

A1 B0 G1 A1 B0 P6 A0 4.00 360

11 FASTEN BOLT TO SHEETMETAL AT WORKTABLE 10 WRIST-TURNS

USING WRENCH AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )

A1 B0 G1 (A1 B0 P3 F24 )A1 B0 P1 A0 (4) 1.00 1160

12 POSITION DRILLMOTOR FROM WORKTABLE TO SHEETMETAL AT

WORKTABLE WITH 2 STEPS F 29

A1 B0 G1 A3 B0 P6 A0 29.00 3190

13 OPERATE DRILLMOTOR AT WORKTABLE PROCESS F 29

A1 B0 G1 M6 X6 I0 A0 29.00 4030

14 LOOSEN BOLT FROM SHEETMETAL AT WORKTABLE 10 WRIST-TURNS

USING WRENCH AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )

A1 B0 G1 (A1 B0 P3 L24 )A1 B0 P1 A0 (4) 1.00 1160

15 REPLACE SHEETMETAL [ACCESS COVER] FROM WORKTABLE TO


SHEETMETAL [ASSEMBLY] AT WORKTABLE WITH 2 STEPS

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
<th>Time</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>16</td>
<td>Operate Drillmotor [TapingMotor] at Worktable Process F 29</td>
<td>1.00</td>
<td>80.</td>
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<td>17</td>
<td>Loosen 7.32 Drill-bit from Drillmotor at Worktable 3 Wrist-turns using Chuckkey at Worktable and Aside</td>
<td>29.00</td>
<td>4060.</td>
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<tr>
<td>18</td>
<td>Fasten 5.16 Drill-bit from Worktable to Drillmotor 3 Wrist-turns using Chuckkey at Worktable and Aside</td>
<td>1.00</td>
<td>140.</td>
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<tr>
<td>19</td>
<td>Position Drillmotor from Worktable to Sheetmetal at Worktable F 29</td>
<td>29.00</td>
<td>2610.</td>
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<tr>
<td>20</td>
<td>Operate Drillmotor at Worktable Process F 29</td>
<td>29.00</td>
<td>4060.</td>
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**Total TMU**: 23810.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

66420
File Description ? CUT GASKET FOR ACCESS COVER

Output to line-printer <Y or N> ? N

( 39, 1)
FIT .W11
ACOVER.M25
CUT GASKET FOR ACCESS COVER WITH UTILITY-KNIFE AT SHEETMETAL SHOP

PER ACCESS COVER

OFG: 4 27-MAY-83

NASSCO SHEETMETAL ACCESS COVER AND BACK-UP PLATES

* 11 GAUGE GALV. SHEETMETAL
* ACCESS COVER 20'X30'X25'X15'
* PUNCH OUT BOLT HOLES
FITTER BEGINS AT WORKTABLE

1 MOVE BLACKPEN [INK PEN], SHEETMETAL [ACCESS COVER] FROM WORKTABLE TO GASKET-CUTTING-TABLE
   A1 B0 G1 A152B0 P1 A0 1.00 1550.

2 MOVE UTILITY-KNIFE , 3/8 HOLE PUNCH , MALLET FROM TOOLROOM TO GASKET-CUTTING-TABLE
   A96 B0 G1 A96 B0 P1 A0 1.00 1940.

3 PLACE RUBBER FROM SHELF AT GASKET-CUTTING-TABLE TO GASKET-CUTTING-TABLE WITH 3 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 110.

4 PLACE SHEETMETAL [ACCESS COVER] FROM GASKET-CUTTING-TABLE TO RUBBER AT GASKET-CUTTING-TABLE WITH 3 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 110.

5 CUT RUBBER AT GASKET-CUTTING-TABLE 1 CUT USING UTILITY-KNIFE AND ASIDE PF 4 (4 5 6 7)
   A1 B0 G1 (A1 B0 P3 C1 )A1 B0 P1 A0 (4) 1.00 240.

6 REPLACE SHEETMETAL FROM RUBBER AT GASKET-CUTTING-TABLE TO GASKET-CUTTING-TABLE WITH 2 STEPS
   A1 B0 G1 A3 B0 P3 A0 1.00 80.

7 POSITION 3/8 HOLE-PUNCH FROM GASKET-CUTTING-TABLE TO RUBBER AT GASKET-CUTTING-TABLE F 33
   A1 B0 G1 A1 B0 P6 A0 33.00 2970.

8 FASTEN HOLE PUNCH TO RUBBER AT GASKET-CUTTING-TABLE 2 STRIKES USING MALLET AT GASKET-CUTTING-TABLE AND ASIDE PF 33 (4 5 6 7)
   A1 B0 G1 (A1 B0 P0 F6 )A1 B0 P1 A0 (33) 1.00 2350.

9 MOVE SHEETMETAL [ACCESS PLATE] AND RUBBER FROM GASKET-CUTTING-TABLE TO WORKTABLE
   A1 B0 G1 A152B3 P1 A0 1.00 1580.

10 MOVE HOLE-PUNCH , UTILITY-KNIFE AND MALLET FROM GASKET-CUTTING-TABLE TO TOOLROOM
    A152B0 G1 A96 B0 P1 A0 1.00 2500.

TOTAL TMU 13430,

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ? 79850
DEBURR ACCESS HOLE AND COVER

Output to line-printer <Y or N> ? N

FIT • W11

DEBURR ACCESS HOLE AND COVER WITH FILE AT SHEETMETAL SHOP

PER ACCESS COVER

NASSCO SHEETMETAL ACCESS COVER AND BACK-UP PLATES
* 11 GAUGE GALV. SHEETMETAL
* ACCESS COVER 20'X30'X25'X15'
* GLUE GASKET TO ACCESS PLATE

FITTER BEGINS AT WORKTABLE

1 MOVE GLUE, BRUSH FROM TOOLROOM TO WORKTABLE
A96 B0 G1 A96 B3 P1 A0 1.00 1970.

2 DEBURR SHEETMETAL [ACCESS COVER] AT WORKTABLE 1
ARM-STROKE USING FILE AT WORKTABLE AND ASIDE PF 40 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P1 C1 )A1 B0 P1 A0 (40) 1.00 1240.

3 DEBURR SHEETMETAL [ACCESS HOLE] AT WORKTABLE 1
ARM-STROKE USING FILE AT WORKTABLE AND ASIDE PF 40 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P1 C1 )A1 B0 P1 A0 (40) 1.00 1240.

4 MOVE RUBBER FROM GASKET-CUTTING-TABLE TO WORKTABLE
A152B0 G1 A152B3 P1 A0 1.00 3090.

5 GRIP GLUE TO RUBBER AT WORKTABLE 2 SQUARE FEET USING
BRUSH AND ASIDE
A1 B0 G1 A1 B0 P3 C1 A1 B0 P1 A0 1.00 90.

6 PLACE SHEETMETAL [ACCESS COVER] FROM WORKTABLE TO
SHEETMETAL [ACCESS HOLE] AT WORKTABLE WITH 2 STEPS
A1 B0 G1 A3 B0 P3 A0 1.00 80.

7 POSITION BOLT FROM WORKTABLE TO SHEETMETAL AT WORKTABLE
10 WRIST-TURNS USING WRENCH AT WORKTABLE AND ASIDE PF
4 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P6 A0 ) 1.00 300.

8 FASTEN BOLT TO SHEETMETAL AT WORKTABLE 10 WRIST-TURNS
USING WRENCH AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P3 F24 )A1 B0 P1 A0 (4) 1.00 1160.

9 INSPECT SHEETMETAL AT WORKTABLE 9 POINTS
A0 B0 GO A0 B0 P0 T10 A0 B0 P0 A0 1.00 100.

TOTAL TMU 9270.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

89/20
SHEET METAL BLANK END

8" x 6" BLANK END PIECE

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<th>Task</th>
<th>Time</th>
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<td>Fit</td>
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</table>
File Description ? HARK OUT BLANK END

Output to line-printer <Y or N> ? N

( 39, 1)
FIT  * M11
BLKEND.M01
MARK OUT BLANK END WITH AWL AT SHEETMETAL SHOP
PER BLANK END  OFG: 4 31-MAY-83
NASSCO SHEETMETAL BLANK END
* 20 GAUGE GALV. SHEETMETAL
* 8'X6' BLANK END PIECE
* MARK OUT WITHOUT TEMPLATE
FITTER BEGINS AT WORKTABLE

1 MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING
STEEL-TAPE AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P1 M32 )A1 B0 P1 A0 (4) 1.00 1400.
2 MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT
USING AWL AT WORKTABLE AND ASIDE PF 12 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (12) 1.00 640.
3 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE F 6
A1 B0 G1 A1 B0 P6 A0 6.00 540.
4 MARK LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING
AWL AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (6) 1.00 1120.
5 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 2 DIGITS
USING REDPEN AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P1 R6 )A1 B0 P1 A0 (4) 1.00 360.
6 PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE
WITH 4 STEPS
A1 B0 G1 A6 B0 P3 A0 1.00 110,
7 MOVE CART FROM WORKTABLE TO SMALLSHEAR
A1 B0 G1 A67 B0 P1 A0 1.00 700.

TOTAL TMU 4870.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?
Output to line-printer <Y or N> ? N

( 39, 1)
FIT  *W11 BLKEND.M02

SHEAR SHEETMETAL FOR BLANK END WITH SMALL 8FT. SHEAR AT SHEETMETAL SHOP
PER BLANK END OFG: 4 06-JUL-83
NASSCO SHEETMETAL BLANK END
* 20 GAUGE GALV. SHEETMETAL
* 8'x6' BLANK END PIECE
FITTER BEGINS AT SMALLSHEAR

1 POSITION SHEETMETAL FROM CART AT SMALLSHEAR TO SMALLSHEAR WITH 4 STEPS
   A1 B0 G1 A6 B0 P6 A0 1.00 140.
2 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS
   A1 B0 G1 M1 X6 I0 A0 1.00 90.
3 POSITION SHEETMETAL FROM SMALLSHEAR TO SHALLSHEAR
   A1 B0 G1 A1 B0 P6 A0 1.00 90.
4 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS
   A1 B0 G1 M1 X6 I0 A0 1.00 90.
5 REPLACE SHEETMETAL FROM SMALLSHEAR TO CART AT SMALLSHEAR WITH 4 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 110.
6 MOVE CART FROM SMALLSHEAR TO LEAFBRAKE [NOTCH PUNCH]
   A1 B0 G1 A42 B0 P1 A0 1.00 450.

   TOTAL TMU 970.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?
SHEAR CORNERS FOR BLANK END WITH NOTCH PUNCH AT SHEETMETAL SHOP

PER BLANK END OFG: 4 06-JUL-83

NASSCO SHEETMETAL BLANK END
* 20 GAUGE GALV. SHEETMETAL
* 8'X6' BLANK END PIECE
FITTER BEGINS AT LEAFBRAKE

1 POSITION SHEETMETAL FROM CART AT LEAFBRAKE [NOTCH PUNCH] TO LEAFBRAKE [NOTCH PUNCH] WITH 4 STEPS
   A1 B0 G1 A6 B0 P6 A0 1.00 140.
2 OPERATE [NOTCH PUNCH] LEAFBRAKE-LEVER PROCESS
   A1 B0 G1 M6 X16 I0 A0 1.00 240.
3 POSITION SHEETMETAL FROM LEAFBRAKE [NOTCH PUNCH] TO LEAFBRAKE [NOTCH PUNCH] WITH 3 STEPS F 3
   A1 B0 G1 A6 B0 P6 A0 3.00 420.
4 OPERATE [NOTCH PUNCH] LEAFBRAKE-LEVER PROCESS F 3
   A1 B0 G1 M6 X16 I0 A0 3.00 720.
5 REPLACE SHEETMETAL2 FROM LEAFBRAKE [NOTCH PUNCH] TO CART AT LEAFBRAKE [NOTCH PUNCH] WITH 4 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 110.
6 MOVE CART FROM LEAFBRAKE [NOTCH PUNCH] TO LEAFBRAKE WITH 5 STEPS
   A1 B0 G1 A10 B0 P1 A0 1.00 130.

TOTAL TMU 1760.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ? E730
FIT .W11  BLKEND.M04

BEND PARTIAL BENDS FOR BLANK END WITH LEAFBRAKE AT SHEETMETAL

20 GAUGE GALV. SHEETMETAL
8'X6' BLANK END PIECE
BEND FLANGES UP 45 DEGREES PARTIAL BEND
COMPLETE BENDS TO 90DEGREES ON PANBRAKE
FITTER BEGINS AT LEAFBRAKE

1 POSITION SHEETMETAL2 FROM CART AT LEAFBRAKE TO
LEAFBRAKE WITH 4 STEPS
A1 B0 G1 A6 B0 P6 A0 1.00 140.

2 OPERATE LEAFBRAKE-LEVER PROCESS
A1 B0 G1 M6 X16 I0 A0 1.00 240.

3 POSITION SHEETMETAL2 FROM LEAFBRAKE TO LEAFBRAKE F 3
A1 B0 G1 A1 B0 P6 A0 3.00 270.

4 OPERATE LEAFBRAKE-LEVER PROCESS F 3
A1 B0 G1 H6 X16 I0 A0 3.00 720.

9 REPLACE SHEETMETAL FROM LEAFBRAKE TO CART AT LEAFBRAKE
WITH 4 STEPS
A1 B0 G1 A6 B0 P3 A0 1.00 110.

6 MOVE CART FROM LEAFBRAKE TO PANBRAKE
A1 B0 G1 A42 B0 P1 A0 1.00 450.

TOTAL TMU 1930.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <orH for help> ?

4660
File Description ? BEND SHEETMETAL UP 90 DEGREES FOR BLANK END

Output to line-printer <Y or N> ? N

( 39, 1)
FIT .W11  BLKEND.M05
BEND SHEETMETAL UP 90 DEGREES FOR BLANK END WITH PANBRAKE AT SHEETMETAL SHOP
PER BLANK END
OFG: 4 06-JUL-83
NASSCG SHEETMETAL BLANK END
* 20 GAUGE GALV. SHEETMETAL
* 8'X6' BLANK END PIECE
* COMPLETE 90 DEGREE BENDS ON FLANGES
FITTER BEGINS AT PANBRAKE

1 POSITION SHEETMETAL FROM CART AT PANBRAKE TO PANBRAKE WITH 4 STEPS
   A1 B0 G1 A6 B0 P6 A0 1.00 140.
2 FASTEN NUT [JAWS] TO SHEETMETAL AT PANBRAKE 3 WRIST-TURNS USING WRENCH AT PANBRAKE AND ASIDE F 2
   A1 B0 G1 A1 B0 P3 F6 A1 B0 P1 A0 2.00 280.
3 OPERATE PANBRAKE-LEVER PROCESS
   A1 B0 G1 M6 X96 I0 A0 1.00 1040.
4 POSITION SHEETMETAL FROM PANBRAKE TO PANBRAKE F 3
   A1 B0 G1 A1 B0 P6 A0 3.00 270.
5 OPERATE PANBRAKE-LEVER PROCESS F 3
   A1 B0 G1 M6 X96 I0 A0 3.00 3120.
6 REPLACE SHEETMETAL FROM PANBRAKE TO CART AT PANBRAKE WITH 4 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 110.
7 MOVE CART FROM PANBRAKE TO WORKTABLE
   A1 B0 G1 A54 B3 P1 A0 1.00 600.

TOTAL TMU 5560 .

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?
**20" x 14" BLANK END PIECE**

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<thead>
<tr>
<th>Task</th>
<th>Quantity</th>
<th>Time</th>
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MARK OUT BLANK END

PER BLANK END OFG: 4 31-MAY-83

NASSCO SHEETMETAL BLANK END
* 18 GAUGE GALV. SHEETMETAL
* 20'X14' BALNK END PIECE
* MARK OUT WITHOUT TEMPLATE
FITTER BEGINS AT WORKTABLE

1 MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING
STEEL-TAPE AT WORKTABLE AND ASIDE PF 4 ( 4567 )
A1 B0 G1 (A1 B0 P1 M32 )A1 B0 P1 A0 (4) 1.00 1400.

2 MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT
USING AWL AT WORKTABLE AND ASIDE PF 12 ( 4567 )
A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (12) 1.00 640.

3 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE WITH 2 STEPS F 6
A1 B0 G1 A3 B0 P6 A0 6.00 660.

4 MARK LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING
AWL AT WORKTABLE AND ASIDE PF 6 ( 4567 )
A1 B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (6) 1.00 1120.

5 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 2 DIGITS
USING REDPEN AT WORKTABLE AND ASIDE PF 6 ( 4567 )
A1 B0 G1 (A1 B0 P1 R6 )A1 B0 P1 A0 (6) 1.00 520.

6 PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE
WITH 4 STEPS
A1 B0 G1 A6 B0 P3 A0 1.00 110.

7 MOUE CART FROM WORKTABLE TO SMALLSHEAR
A1 B0 G1 A67 B0 P1 A0 1.00 700.

TOTAL TMU 5150.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?
File Description ? SHEAR SHEETMETAL FOR BLANK END

Output to line-printer <Y or N> ? N

( 39, 1)
FIT ___.W11__ BLKEND.M21
SHEAR SHEETMETAL FOR BLANK END WITH SMALL 8FT. SHEAR AT
SHEETMETAL SHOP
PER BLANK END OFG: 4 06-JUL-83

NASSCO SHEETMETAL BLANK END
* 18 GAUGE GALV. SHEETMETAL
* 20'X14' BLANK END
FITTER BEGINS AT SMALLSHEAR

1 POSITION SHEETMETAL FROM CART AT SMALLSHEAR TO
SMALLSHEAR WITH 4 STEPS
   A1 B0 G1 A6 B0 P6 A0  1.00  140.

2 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS
   A1 B0 G1 M1 X6 I0 A0  1.00  90.

3 POSITION SHEETMETAL FROM SMALLSHEAR TO SMALLSHEAR
   A1 B0 G1 A1 B0 P6 A0  1.00  90.

4 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS
   A1 B0 G1 M1 X6 I0 A0  1.00  90.

5 REPLACE SHEETMETAL FROM SMALLSHEAR TO SMALLSHEAR WITH
   4 STEPS
   A1 B0 G1 A6 B0 P3 A0  1.00  110.

6 MOUE CART FROM SMALLSHEAR TO LEAFBRAKE [NOTCH PUNCH]
   A1 B0 G1 A42 B0 P1 A0  1.00  490.

   TOTAL TMU  970.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?
SHEAR CORNERS FOR BLANK END WITH NOTCH PUNCH AT SHEETMETAL SHOP
PER BLANK END OFG: 4 31-MAY-83
NASSCO SHEETMETAL BLANK END
* 18 GAUGE GALV. SHEETMETAL
* 20'X14' BLANK END PIECE
FITTER BEGINS AT LEAFBRAKE

1 POSITION SHEETMETAL FROM CART AT LEAFBRAKE [NOTCH PUNCH] TO LEAFBRAKE [NOTCH PUNCH] WITH 4 STEPS
   A1 B0 G1 A6 B0 P6 A0 1.00  140.

2 OPERATE LEAFBRAKE-LEVER [NOTCH PUNCH] PROCESS
   A1 B0 G1 M6 X16 I0 A0 1.00  240.

3 POSITION SHEETMETAL2 FROM LEAFBRAKE [NOTCH PUNCH] TO LEAFBRAKE [NOTCH PUNCH] WITH 3 STEPS F 3
   A1 B0 G1 A6 B0 P6 A0 3.00  420.

4 OPERATE LEAFBRAKE-LEVER [NOTCH PUNCH] PROCESS F 3
   A1 B0 G1 M6 X16 I0 A0 3.00  720.

5 REPLACE SHEETMETAL FROM LEAFBRAKE [NOTCH PUNCH] TO CART AT LEAFBRAKE [NOTCH PUNCH] WITH 4 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00  110.

6 MOVE CART FROM LEAFBRAKE [NOTCH PUNCH] TO LEAFBRAKE WITH 5 STEPS
   A1 B0 G1 A10 B0 P1 A0 1.00  130.

TOTAL TMU  1760.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?
File Description ? BEND PARTIAL BENDS FOR BLANK END

Output to line-printer <Y or N> ? N

( 39, 1)
FIT .W11  BLKEND.M23
BEND PARTIAL BENDS FOR BLANK END WITH LEAFBRAKE AT SHEETMETAL SHOP PER BLANK END OFG: 4 06-JUL-83
NASSCO SHEETMETAL BLANK END
* 18 GAUGE GALV. SHEETMETAL
* 20'X14' BLANK END PIECE
* BEND FLANGES UP 45 DEGREES PARTIAL BEND
* COMPLETE BENDS TO 90DEGREES ON PAN BRAKE
FITTER BEGINS AT LEAFBRAKE .

1 POSITION SHEETMETAL FROM CART AT LEAFBRAKE TO LEAFBRAKE WITH 4 STEPS
   A1 B0 G1 A6 B0 P6 A0 1.00 140.
2 OPERATE LEAFBRAKE-LEVER PROCESS
   A1 B0 G1 M6 X16 I0 A0 1.00 240.
3 POSITION SHEETMETAL FROM LEAFBRAKE TO LEAFBRAKE F 3
   A1 B0 G1 A1 B0 P6 A0 3.00 270.
4 OPERATE LEAFBRAKE-LEVER PROCESS F 3
   A1 B0 G1 M6 X16 I0 A0 3.00 720.
5 REPLACE SHEETMETAL FROM LEAFBRAKE TO CART AT LEAFBRAKE WITH 4 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 110.
6 MOVE CART FROM LEAFBRAKE TO PANBRAKE
   A1 B0 G1 A42 B0 P1 A0 1.00 450.

TOTAL TMU 1930.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

9660
File Description ? BEND SHEETMETAL UP 90 DEGREES FOR BLANK END

Output to line-printer <Y or N> ? N

( 39, 1)
FIT .W11 BLKEND.M24
BEND SHEETMETAL UP 90 DEGREES FOR BLANK END WITH FAN-BRAKE AT SHEETMETAL SHOP
PER BLANK END OFG: 4 06-JUL-83
NASSCO SHEETMETAL BLANK END
* 18 GAUGE GALV. SHEETMETAL
* 20'X14' BLANK END PIECE
* COMPLETE 90 DEGREE BENDS ON FLANGES
FITTER BEGINS AT PANBRAKE

1 POSITION SHEETMETAL FROM CART AT PANBRAKE TO PANBRAKE
   WITH 4 STEPS
   A1 B0 G1 A6 B0 P6 A0 1.00 140.
2 FASTEN NUT [JAWS] TO SHEETMETAL AT PANBRAKE 3
   WRIST-TURNS USING WRENCH AT PANBRAKE AND ASIDE F 3
   A1 B0 G1 A1 B0 P3 F6 A1 B0 P1 A0 3.00 420.
3 OPERATE PANBRAKE-LEVER PROCESS
   A1 B0 G1 M6 X96 I0 A0 1.00 1040.
4 POSITION SHEETMETAL2 FROM PANBRAKE TO PANBRAKE WITH 2
   STEPS F 3
   A1 B0 G1 A3 B0 P6 A0 3.00 330.
5 OPERATE PANBRAKE-LEVER PROCESS F 3
   A1 B0 G1 M6 X96 I0 A0 3.00 3120.
6 REPLACE SHEETMETAL FROM PANBRAKE TO CART AT PANBRAKE
   WITH 4 STEPS
   A1 B0 G1 A6 B0 P3 A0 1.00 110.
7 MOVE CART FROM PANBRAKE TO WORKTABLE
   A1 B0 G1 AS4 B3 P1 A0 1.00 600.

TOTAL TMU 5760.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?
# Sheetmetal Bracket

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<th>Quantity</th>
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<td>Mark out</td>
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File Description ? MARK OUT SHEETMETAL FOR BRACKET

Output to line-Printer <Y or N> ? N

( 39,101)
FIT .W12 BRACKT.M01
MARK OUT SHEETMETAL FOR BRACKET WITH-AWL AT SHEETMETAL SHOP
PER-BRACKET OFG: 4 23-JUN-83
NASSCO SHEETMETAL BRACKET
* 16 GAUGE GALV. SHEETMETAL
* 4'X8' BRACKET
* MARK OUT WITHOUT TEMPLATE
FITTER BEGINS AT WORKTABLE

1 MOVE SHEETMETALSCRAP FROM SCRAPBIN TO WORKTABLE
A54 B6 G1 A54 B3 P1 A0 1.00 1190.

2 MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING
STEEL-TAPE AT WORKTABLE AND ASIDE F 4
A1 B0 G1 A1 B0 P1 M32 A1 B0 P1 A0 4.00 1520.

3 MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT
USING AWL AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE
AND ASIDE PF 6 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (6) 1.00 340.

4 POSITION SQUARE FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE F 3
A1 B0 G1 A1 B0 P6 A0 3.00 270.

5 MARK SHEETMETAL FROM SQUARE AT WORKTABLE 5 DIGITS USING
AWL AT WORKTABLE AND ASIDE PF 3 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (3) 1.00 580.

6 POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE F 2
A1 B0 G1 A1 B0 P6 A0 2.00 180.

7 FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING
HAMMER AT WORKTABLE AND ASIDE PF 2 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P0 F3 )A1 B0 P1 A0 (2) 1.00 120.

8 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS
USING REDPEN AT WORKTABLE AND ASIDE PF 2 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (2) 1.00 400.

9 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT
WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND
ASIDE PF 2 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (2) 1.00 140.

10 MOVE SHEETMETAL FROM WORKTABLE TO SMALLSHEAR
A1 B0 G1 A67 B0 P1 A0 1.00 700.

TOTAL TMU 5440.
FIT .012 BRACKT.M02
SHEAR SHEETMETAL FOR BRACKET WITH SMALL 8FT. SHEAR AT SHEETMETAL SHOP

PER BRACKET OFG: 4 23-JUN-83
NASSCO SHEETMETAL BRACKET
* 16 GAUGE GALV. SHEETMETAL
* 4'X8' BRACKET
FITTER BEGINS AT SMALLSHEAR

1 POSITION SHEETMETAL FROM FITTER AT SMALLSHEAR TO SMALLSHEAR
A1 B0 G1 A1 B0 P6 A0 1.00 90.

2 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS
A1 B0 G1 M1 X6 I0 A0 1.00 90.

3 POSITION SHEETMETAL FROM SMALLSHEAR TO SMALLSHEAR
A1 B0 G1 A1 B0 P6 A0 1.00 90.

4 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS
A1 B0 G1 M1 X6 I0 A0 1.00 90.

5 MOVESHEETMETAL2 FROM SMALLSHEAR TO LEAFBRAKE
A1 B0 G1 A42 B0 P1 A0 1.00 450.

TOTAL TMU 810.
File Description ? BEND SHEETMETAL UP 90 DEGREES

Output to line-Printer <Y or N> ? N

(39,101)
FIT .W12  BRACKT.M03
BEND SHEETMETAL UP 90 DEGREES WITH LEAFBRAKE AT SHEETMETAL SHOP
PER BRACKET OFG: 4 23-JUN-83

NASSCO SHEETMETAL BRACKET
* 16 GAUGE GALV. SHEETMETAL
* 4'X8' BRACKET
* BEND SHEETMETAL 90 DEGREES
FITTER BEGINS AT LEAFBRAKE

1 POSITION SHEETMETAL FROM FITTER AT LEAFBRAKE TO LEAFBRAKE
   A1 B0 G1 A1 B0 P6 A0  1.00   90.

2 OPERATE LEAFBRAKE-LEVER PROCESS
   A1 B0 G1 M6 X16 I0 A0  1.00  240.

3 MOVE SHEETMETAL FROM LEAFBRAKE TO WORKTABLE
   A1 B0 G1 A81 B3 P1 A0  1.00  870.

   TOTAL TMU 1200.

File Description ? BEND SHEETMETAL UP 90 DEGREES

Output to line-printer <Y or N> ? C
RIVET BRACKET TO VENT DUCT

FIT .W12
BRACKET M04
RIVET BRACKET TO VENT DUCT WITH RIVET GUN AT SHEETMETAL SHOP
OFG: 4 24-JUN-83

NASSCO SHEETMETAL BRACKET
* 16 GAUGE GALV. SHEETMETAL
* 4'X8' BRACKET
FITTER BEGINS AT WORKTABLE

1 POSITION SHEETMETAL [BRACKETS] FROM FITTER AT WORKTABLE TO SHEETMETAL [VENT DUCT] AT WORKTABLE
   A1 B0 G1 A1 B0 P6 A0  1.00  90.

2 FASTEN 5-32 DRILLBIT TO DRILLMOTOR AT WORKTABLE
   WRIST-TURNS USING CHUCKKEY AT WORKTABLE AND ASIDE
   A1 B0 G1 A1 B0 P3 F6 A1 B0 P1 A0  1.00  140.

3 POSITION DRILLMOTOR TO SHEETMETAL AT WORKTABLE F 8
   A1 B0 G1 A1 B0 P6 A0  8.00  720.

4 OPERATE DRILLMOTOR AT WORKTABLE PROCESS F 8
   A1 B0 G1 M6 X6 I0 A0  8.00  1120.

5 POSITION RIVET FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 8
   A1 B0 G1 A1 B0 P6 A0  8.00  720.

6 POSITION RIVETGUN TO SHEETMETAL AT WORKTABLE F 8
   A1 B0 G1 A1 B0 P6 A0  8.00  720.

7 OPERATE RIVETGUN AT WORKTABLE PROCESS F 8
   A1 B0 G1 M6 X3 I0 A0  8.00  880.

TOTAL TMU 4390.

RIVET BRACKET TO VENT DUCT

6400
**Sheet Metal Bracket**

**6" x 8" Bracket**

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File Description ? MARK OUT SHEETMETAL FOR BRACKET

Output to line-printer <Y or N> ? N

( 39,101)
FIT  • W12  BRACKET.M20
MARK OUT SHEETMETAL FOR BRACKET WITH AWL AT SHEETMETAL SHOP
PER BRACKET  OFG: 4  23-JUN-83
NASSCO SHEETMETAL BRACKET
* 16 GAUGE GALV. SHEETMETAL
* 12'X8' BRACKET
FITTER BEGINS AT WORKTABLE

1 MOVE SHEETMETALSCRAP FROM SCRAPBIN TO WORKTABLE
   A54 B6 G1 A54 B3 P1 A0 1.00 1190.

2 MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING
   STEEL-TAPE AT WORKTABLE AND ASIDE F 4
   A1 B0 G1 A1 B0 P1 M32 A1 B0 P1 A0 4.00 1520.

3 MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT
   USING AWL AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (6) 1.00 340.

4 POSITION SQUARE FROM WORKTABLE TO SHEETMETAL AT
   WORKTABLE F 3
   A1 B0 G1 A1 B0 P6 A0 3.00 270.

5 MARK SHEETMETAL FROM SQUARE AT WORKTABLE 5 DIGITS USING
   AWL AT WORKTABLE AND ASIDE PF 3 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (3) 1.00 580.

6 POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT
   WORKTABLE F 2
   A1 B0 G1 A1 B0 P6 A0 2.00 180.

7 FASTEN CPUNCH AT WORKTABLE 1 STRIKE USING HAMMER AT
   WORKTABLE AND ASIDE PF 2 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P0 F3 )A1 B0 P1 A0 (2) 1.00 120.

8 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS
   USING REDPEN AT WORKTABLE AND ASIDE PF 2 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (2) 1.00 400.

9 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT
   WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND
   ASIDE PF 2 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (2) 1.00 140.

10 MOVE SHEETMETAL FROM WORKTABLE TO SMALLSHEAR
    A1 B0 G1 A67 B0 P1 A0 1.00 700.

TOTAL TMU  5440.

File Description ? MARK OUT SHEETMETAL FOR BRACKET

Output to line-printer <Y or N> ?
File Description ? SHEAR SHEETMETAL FOR VENT DUCT

Output to line-Printer <Y or N> ? N

( 39,101)FIT .W12BRACKT.M21
SHEAR SHEETMETAL FOR VENT DUCT WITH SMALL 8FT. SHEAR AT
SHEETMETAL SHOP
PER BRACKET OFG: 4 23-JUN-83
NASSCO SHEETMETAL BRACKET
* 16 GAUGE GALV. SHEETMETAL
* 12'X8' BRACKET
FITTER BEGINS AT SMALLSHEAR

1 POSITION SHEETMETAL FROM FITTER AT SMALLSHEAR TO
SMALLSHEAR
A1 B0 G1 A1 B0 P6 A0 1.00 90.

2 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS
A1 B0 G1 M1 X6 I0 A0 1.00 90.

3 POSITION SHEETMETAL FROM SMALLSHEAR TO SMALLSHEAR
A1 B0 G1 A1 B0 P6 A0 1.00 90.

4 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS
A1 B0 G1 M1 X6 I0 A0 1.00 90.

5 MOVE SHEETMETAL FROM SMALLSHEAR TO LEAFBRAKE
A1 B0 G1 A42 B0 P1 A0 1.00 450.

TOTAL TMU 810.

File Description ? SHEAR SHEETMETAL FOR VENT DUCT

Output to line-printer <Y or N> ?
FIT .W12  BRACKT.M22
BEND SHEETMETAL FOR BRACKET WITH LEAFBRAKE AT SHEETMETAL SHOP
PER BRACKET OFG: 4  23-JUN-83
NASSCO SHEETMETAL BRACKET
* 16 GAUGE GALV. SHEETMETAL
* 12'X8' BRACKET
FITTER BEGINS AT LEAFBRAKE

1 POSITION SHEETMETAL FROM FITTER AT LEAFBRAKE TO LEAFBRAKE
   A1  B0  G1  A1  B0  P6  A0  1.00  90.
2 OPERATE LEAFBRAKE-LEVER PROCESS
   A1  B0  G1  M6  X16  I0  A0  1.00  240.
3 MOVE SHEETMETAL FROM LEAFBRAKE TO WORKTABLE
   A1  B0  G1  A81  B3  P1  A0  1.00  870.

   TOTAL TMU 1200.

File Description ? BEND SHEETMETAL FOR BRACKET

Output to line-Printer <Y or N> ? 
FIT  W12

RIVET BRACKET ON VENT DUCT WITH RIVETGUN AT SHEETMETAL SHOP

PER BRACKET

NASSCO SHEETMETAL BRACKET
* 16 GAUGE GALV. SHEETMETAL
* 12'X5' BRACKET
FITTER BEGINS AT WORKTABLE

1 POSITION SHEETMETAL BRACKET FROM FITTER AT WORKTABLE TO
SHEETMETAL VENT DUCT AT WORKTABLE
A1 B0 G1 A1 B0 P6 A0 1.00 90.

2 FASTEN 5-32DRILLBIT TO DRILLMOTOR AT WORKTABLE 3
WRIST-TURNS USING CHUCKKEY AT WORKTABLE AND ASIDE
A1 B0 G1 A1 B0 P3 F6 A1 B0 P1 A0 1.00 140.

3 POSITION DRILLMOTOR FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE F 8
A1 B0 G1 A1 B0 P6 A0 8.00 720.

4 OPERATE DRILLMOTOR AT WORKTABLE PROCESS F 8
A1 B0 G1 M6 X6 I0 A0 8.00 1120.

5 POSITION RIVET FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE F 8
A1 B0 G1 A1 B0 F6 A0 8.00 720.

6 POSITION RIVETGUN FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE F 8
A1 B0 G1 A1 B0 P6 A0 8.00 720.

7 OPERATE RIVETGUN AT WORKTABLE PROCESS F 8
A1 B0 G1 M6 X3 I0 A0 8.00 880.

TOTAL TMU 4390.

File Description.? RIVET BRACKET TO VENT DUCT

Output to line-Printer <Y or N> ? 6400
SHEET METAL, BALANCE DAMPER

6" X 8" BALANCE DAMPER

FAB 20,870 12 MIN.
MARK OUT 11,270 6 MIN.
TOTAL TIME 32,140 19 MIN.
NASSCO SHEETMETAL BALANCE DAMPER
* 20 GAUGE GALV. SHEETMETAL
* 6'X8' DAMPER BLADE
* MARK OUT WITHOUT TEMPLATE
FITTER BEGINS AT WORKTABLE

1 MOVE SHEETMETALSCRAP FROM SCRAPBIN TO WORKTABLE
   A152B3 G1 A152B3 F1 A0 1.00 3120.

2 MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING
   STEEL-TAPE AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 M32 )A1 B0 P1 A0 (4) 1.00 1400.

3 MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT
   USING AWL AT WORKTABLE AND ASIDE PF 12 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (12) 1.00 640.

4 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT
   WORKTABLE F 7
   A1 B0 G1 A1 B0 P6 A0 7.00 630.

9 MARK LINES ON SHEETMETAL FROM STRAIGHTEDGE TO
   SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT
   WORKTABLE AND ASIDE PF 7 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (7) 1.00 1300.

6 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS
   USING REPPEN AT WORKTABLE AND ASIDE PF 2 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (2) 1.00 400.

7 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT
   WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND
   ASIDE PF 8 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (8) 1.00 440.

8 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT
   USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 ( 4 5 6 7 )
   A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (52) 1.00 1,640.

9 MOVE SHEETMETAL FROM WORKTABLE TO SMALLSHEAR
   A1 B0 G1 A67 B0 P1 A0 1.00 700.

TOTAL TMU 11270.
File Description ? SHEAR SHEETMETAL FOR BALANCE DAMPER

Output to line-printer <Y or N> ? N

( 39, 1)
FIT .W11 BDAMP .M02
SHEAR SHEETMETAL FOR BALANCE DAMPER WITH SMALL 8FT. SHEAR AT
SHEETMETAL SHOP
PER DAMPER OFG: 4 22-JUN-83
NASSCO SHEETMETAL BALANCE DAMPER
* 20 GAUGE GALV. SHEETMETAL
* 6'X8' DAMPER BLADE
* SHEAR MITERS ON ENDS
FITTER BEGINS AT SMALLSHEAR

1 POSITION SHEETMETAL FROM FITTER AT SMALLSHEAR TO SMALLSHEAR
   A1 B0 G1 A1 B0 P6 A0 1.00 90.
2 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS
   A1 B0 G1 M1 X6 I0 A0 1.00 90.
3 POSITION SHEETMETAL FROM SMALLSHEAR TO SMALLSHEAR F 5
   A1 B0 G1 A1 B0 P6 A0 5.00 450.
4 OPERATE FOOTPEDAL AT SMALLSHEAR PROCESS. F 5
   A1 B0 G1 M6 X6 I0 A0 5.00 700.
5 MOVE SHEETMETAL FROM SMALLSHEAR TO WORKTABLE
   A1 B0 G1 A67 B3 P1 A0 1.00 730.

TOTAL TMU 2060.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?
File Description ? BEND SHEETMETAL FOR BALANCE DAMPER

Output to line-printer <Y or N> ? N

( 39, 1)
FIT .W11
BDAMP .MO3
BEND SHEETMETAL FOR BALANCE DAMPER WITH LEAFBRAKE AT SHEETMETAL SHOP PER DAMPER OFG: 4 22-JUN-83
NASSCO SHEETMETAL BALANCE DAMPER
* 20 GAUGE GALV. SHEETMETAL
* 6'X8' BALANCE DAMPER
* BEND DAMPER BLADE OVER 190--
* --DEGREES FOR HEMMED EDGE
FITTER BEGINS AT LEAFBRAKE

1 POSITION SHEETMETAL FROM FITTER AT LEAFBRAKE TO LEAFBRAKE
   A1 B0 G1 A1 B0 P6 A0 1.00 90.

2 OPERATE LEAFBRAKE-LEVER PROCESS
   A1 B0 G1 M6 X16 I0 A0 1.00 240.

3 POSITION SHEETMETAL FROM LEAFBRAKE TO LEAFBRAKE F 3
   A1 B0 G1 A1 B0 I6 A0 3.00 270.

4 OPERATE LEAFBRAKE-LEVER PROCESS F 3
   A1 B0 G1 M6 X16 I0 A0 3.00 720.

5 MOVE SHEETMETAL FROM LEAFBRAKE TO WORKTABLE
   A1 B0 G1 A81 B3 P1 A0 1.00 870.

TOTAL TMU 2190.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

4250
Output to line-printer <Y or N> ? N

( 39, 1)
FIT 1 W1   BDAMP .M04

DRILL SHEETMETAL FOR BALANCE DAMPER WITH DRILLMOTOR AT SHEETMETAL
SHOP PER DAMPER  OFG: 4  22-JUN-83

NASSCO SHEETMETAL BALANCE DAMPER
* 20 GAUGE GALV. SHEETMETAL
* 6'X8' BALANCE DAMPER
* HOLES IN VENT DUCT AND DAMPER BLADE--
* --FOR DAMPER PARTS
FITTER BEGINS AT WORKTABLE

1 MOVE DAMPERPARTS FROM STORAGEBIN TO WORKTABLE
   A81 B0 G1 A81 B3 P1 A0  1.00  1670.
2 MEASURE DIMENSIONS ON SHEETMETAL [VENT DUCT] AT
   WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE PF 4
   ( 4 5 6 7 )
      A1 B0 G1 (A1 B0 P1 M32 )A1 B0 P1 A0 (4)  1.00  1400.
3 MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT
   USING AWL AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )
      A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (4)  1.00  240.
4 POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT
   WORKTABLE F 2
      A1 B0 G1 A1 B0 P6 A0  2.00  180.
5 FASTEN CPUNCH TO SHEETMETAL [VENT DUCT] AT WORKTABLE 1
   STRIKE USING HAMMER AT WORKTABLE AND ASIDE PF 2 ( 4 5 6 7 )
      A1 B0 G1 (A1 B0 P0 F3 )A1 B0 P1 A0 (2)  1.00  120.
6 FASTEN 5-32DRILLBIT TO DRILLMOTOR AT WORKTABLE 3
   WRIST-TURNS USING CHUCKKEY AT WORKTABLE AND ASIDE
      A1 B0 G1 A1 B0 P3 F6 A1 B0 P1 A0  1.00  140.
7 POSITION DRILLMOTOR FROM WORKTABLE TO SHEETMETAL AT
   WORKTABLE F 2
      A1 B0 G1 A1 B0 P6 A0  2.00  180.
8 OPERATE DRILLMOTOR AT WORKTABLE PROCESS F 2
      A1 B0 G1 M6 X6 I0 A0  2.00  280.
9 LOOSEN 5-32DRILLBIT FROM DRILLMOTOR AT WORKTABLE 3
   WRIST-TURNS USING CHUCKKEY AT WORKTABLE AND ASIDE
      A1 B0 G1 A1 B0 P3 L6 A1 B0 P1 A0  1.00  140.
10 FASTEN 1-2DRILLBIT TO DRILLMOTOR AT WORKTABLE 3
    WRIST-TURNS USING CHUCKKEY AT WORKTABLE AND ASIDE
      A1 B0 G1 A1 B0 P3 F6 A1 B0 P1 A0  1.00  140.
11 POSITION DRILLMOTOR FROM WORKTABLE TO SHEETMETAL AT
    WORKTABLE F 2
      A1 B0 G1 A1 B0 P6 A0  2.00  180.
12 OPERATE DRILLMOTOR AT WORKTABLE PROCESS F 2
      A1 B0 G1 M6 X6 I0 A0  2.00  280.
13 LOOSEN SHEETMETAL SCREWS FROM DAMPERPARTS AT WORKTABLE
    5 WRIST-TURNS USING CHUCKKEY AT WORKTABLE AND ASIDE PF
    4 ( 4 5 6 7 )
      A1 B0 G1 (A1 B0 P3 L10 )A1 B0 P1 A0 (4)  1.00  600.
14 PLACE DAMPERPARTS FROM WORKTABLE TO SHEETMETAL AT
   WORKTABLE F 2
15 POSITION SHEETMETAL DAMPERBLADE FROM WORKTABLE TO DAMPERPARTS AT WORKTABLE
   A1 B0 G1 A1 B0 P3 A0 2.00 120.
16 MARK RIVET HOLES FROM DAMPERPARTS TO SHEETMETAL [VENT DUCT] AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF 6 (4 5 6 7 )
   A1 B0 G1 A1 B0 P6 A0 1.00 90.
17 MARK SCREW HOLES FROM DAMPERPARTS TO SHEETMETAL DAMPERBLADE AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF 4 (4 5 6 7 )
   A1 B0 G1 A1 B0 P1 R3 A1 B0 P1 A0 (6) 1.00 340.
18 REPLACE SHEETMETAL DAMPERBLADE FROM SHEETMETAL [VENT DUCT] AT WORKTABLE TO WORKTABLE
   A1 B0 G1 A1 B0 P3 A0 1.00 60.
19 REPLACE DAMPERPARTS FROM SHEETMETAL [VENT DUCT] AT WORKTABLE TO WORKTABLE
   A1 B0 G1 A1 B0 P3 A0 1.00 60.
20 POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL [VENT DUCT] AT WORKTABLE F 6
   A1 B0 G1 A1 B0 P6 A0 6.00 540.
21 FASTEN CPUNCH TO SHEETMETAL [VENT DUCT] AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE AND ASIDE PF 6 (4 5 6 7 )
   A1 B0 G1 A1 B0 P0 F3 A1 B0 P1 A0 (6) 1.00 280.
22 POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL DAMPERBLADE AT WORKTABLE F 6
   A1 B0 G1 A1 B0 P6 A0 6.00 540.
23 FASTEN CPUNCH TO SHEETMETAL DAMPERBLADE AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE AND ASIDE PF 4 (4 5 6 7 )
   A1 B0 G1 A1 B0 P0 F3 A1 B0 P1 A0 (6) 1.00 200.
24 LOOSEN 1-2DRILLBIT FROM DRILLMOTOR AT WORKTABLE 3 WRIST-TURNS USING CHUCKKEY AT WORKTABLE AND ASIDE
   A1 B0 G1 A1 B0 P3 L6 A1 B0 P1 A0 1.00 140.
25 FASTEN 7.32DRILL-BIT TO DRILLMOTOR AT WORKTABLE 3 WRIST-TURNS USING CHUCKKEY AT WORKTABLE AND ASIDE
   A1 B0 G1 A1 B0 P3 F6 A1 B0 P1 A0 1.00 140.
26 POSITION DRILLMOTOR TO SHEETMETAL [DAMPERBLADE] AT WORKTABLE F 4
   A1 B0 G1 A1 B0 P6 A0 4.00 360.
27 OPERATE DRILLMOTOR PROCESS F 4
   A1 B0 G1 M6 X6 I0 A0 4.00 560.
28 PLACE FILE TO SHEETMETAL AT WORKTABLE F 4
   A1 B0 G1 A1 B0 P3 A0 4.00 240.
29 LOOSEN 7.32DRILL-BIT FROM DRILLMOTOR AT WORKTABLE 3 WRIST-TURNS USING CHUCKKEY AT WORKTABLE AND ASIDE PF 6 (4 5 6 7 )
   A1 B0 G1 A1 B0 P3 L6 A1 B0 P1 A0 (6) 1.00 640.
30 FASTEN 5-32DRILLBIT TO DRILLMOTOR AT WORKTABLE 3 WRIST-TURNS USING CHUCKKEY AT WORKTABLE AND ASIDE
   A1 B0 G1 A1 B0 P3 F6 A1 B0 P1 A0 1.00 140.
31 POSITION DRILLMOTOR TO SHEETMETAL AT WORKTABLE [VENT DUCT] F 6
   A1 B0 G1 A1 B0 P6 A0 6.00 540.
32 OPERATE DRILLMOTOR PROCESS F 6
   A1 B0 G1 M6 X6 I0 A0 6.00 840.
33 POSITION FILE TO SHEETMETAL AT WORKTABLE F 4
   A1 B0 G1 A1 B0 P6 A0 4.00 360.
34 DEBURR SHEETMETAL AT WORKTABLE 5 ARM-STROKES USING FILE
AT WORKTABLE AND ASIDE PF 4 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 C6 )A1 B0 P1 A0 (4) 1.00

TOTAL TMU 12340.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?
ASSEMBLE BALANCE DAMPER

Output to line-printer <Y or N> ? N

( 39, 1)
FIT .61

ASSEMBLE BALANCE DAMPER WITH SCREWDRIVER AT SHEETMETAL SHOP

PER DAMPER

NASSCO SHEETMETAL BALANCE DAMPER
* 20 GAUGE GALV. SHEETMETAL
* 6'X8' BALANCE DAMPER
* RIVET DAMPER QUADRANT TO VENT DUCT

FITTER BEGINS AT WORKTABLE

1 PLACE DAMPER PART FROM WORKTABLE TO SHEETMETAL [VENT DUCT] AT WORKTABLE F 2.
   A1 B0 G1 A1 B0 P3 A0 2.00 120.

2 PLACE SHEETMETAL [DAMPER BLADE] FROM WORKTABLE TO DAMPER PARTS AT WORKTABLE
   A1 B0 G1 A1 B0 P3 A0 1.00 60.

3 POSITION SHEETMETAL [SCREWS] FROM WORKTABLE TO DAMPER PARTS AT WORKTABLE F 4
   A1 B0 G1 A1 B0 P6 A0 4.00 360.

4 POSITION SCREWDRIVER FROM WORKTABLE TO SHEETMETAL [SCREWS] AT WORKTABLE F 4
   A1 B0 G1 A1 B0 P6 A0 4.00 360.

5 FASTEN SHEETMETAL SCREWS TO DAMPER PARTS AT WORKTABLE 5 WRIST-TURNS USING SCREWDRIVER AT WORKTABLE AND ASIDE PER 4 (4 5 6 7)
   A1 B0 G1 (A1 B0 P3 F10 )A1 B0 P1 A0 (4) 1.00 600.

6 POSITION RIVET FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 6
   A1 B0 G1 A1 B0 P6 A0 6.00 540.

7 POSITION RIVETGUN FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 6
   A1 B0 G1 A1 B0 P6 A0 6.00 540.

8 OPERATE RIVETGUN AT WORKTABLE PROCESS F 4
   A1 B0 G1 M6 X3 I0 A0 4.00 440.

9 POSITION CAULKINGGUN FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 8
   A1 B0 G1 A1 B0 P6 A0 8.00 720.

10 GRIP SEALANT TO SHEETMETAL AT WORKTABLE USING CAULKINGGUN AT WORKTABLE AND ASIDE PF 8 (4 5 6 7)
    A1 B0 G1 (A1 B0 P3 C1 )A1 B0 P1 A0 (8) 1.00 440.

11 INSPECT SHEETMETAL AT WORKTABLE 9 POINTS
   A0 B0 G0 A0 B0 P0 T10 A0 B0 P0 A0 1.00 100.

   TOTAL TMU 4280.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

20870
### WORKPLACES:

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### TOOLS:

- STINGER1: WELDTABLE
- STINGER2: WELDTABLE
- WOODBLOCKS: WELDTABLE
- WIREBRUSH: WELDTABLE
- WEIGHTS: WELDTABLE
- WELDUN: WELDTABLE
- WELDROD: WELDTABLE
- ANTI-SPATTER: WELDTABLE
- SLAGHAMMER: WELDTABLE
- PLIERS: WELDTABLE
- SMALLBRUSH: WELDTABLE
- FOXTAIL: WELDTABLE
- GROUNDCLAMPS: WELDTABLE
- WIRECUTTERS: WELDTABLE
- PAPER: WELDTABLE
- PEN: WELDTABLE
- RODS: TOOLROOM
- WIRE: TOOLROOM
- WELDROOD: WELDOR
OBJECTS:
S.M. ASSEMBLY
ASSEMBLY
CART

EQUIPMENT:
VENTHOSE1
VENTHOSE2
STINGER-BUTTON2
STINGER-BUTTON1
ANTI-SPATTER2
LEVER
CRANK
MIG-SWITCH
TIG-SWITCH
GAS-HOOKUP-SWITCH
BUTTON
POWER-SUPPLY-SWITCH
SWITCH

OPERATORS:
WELDOR
FITTER

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Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?
File Description: FIT AREA WITH SECOND SEAM WELDER EXPANSION

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ? L

Output to line-printer <Y or N> ? N

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--- WELDOUT ! ! WORKTABLE (X) ! SPOTWELDER ! ! SCRAPBIN !

--- FLANGEAREA ! ! DRILLPRESS ! ! PED, GRINDER ! ! 14FT.SHEAR

--- GASKET-CUTTING-TABLE ! ! ROLLER ! ! LAPOUT ! ! HYDROPRESS !

--- PANBRAKE ! ! NIBBLER ! ! PITTSBURGH ! ! SMALLSHEAR ! ! SEAMWELDER !

--- CORNICEBRAKE ! ! EDGER !

--- SHEETMETAL-STORAGE!

--- STORAGEBIN ! WORKBENCH ! 14FTHYDROPRESSBRAKE ! PLASMA-ARC !

--- LEAFBRAKE ! ! BARFOLDER ! TOOLROOM ! MARKOUT-STOREAGE ! ! MARKOUT!

Name

Location

Body/Frag/PT

WORKPLACES:
WORKTABLE 15,19 12,2 PBEND
14FTHYDROPRESSBRAKE 30,3 19,2 PBEND
WELDOUT 0,19 10,2 PBEND
DRILLPRESS 15,16 13,2 PBEND
PANBRAKE 5,10 11,2 PBEND
CORNICEBRAKE 10,7 15,2 PBEND
LEAFBRAKE 4,1 12,2 PBEND
WORKBENCH 18,4 11,2 PBEND
SMALLSHEAR 40,10 10,2 PBEND
PITTSBURGH 27,10 12,2 PBEND
LAPOUT 32,13 8,2 PBEND
SCRAPBIN 61,19 10,2 BEND
TOOLROOM 30,0 11,2 PBEND
ROLLER 23,13 8,2 PBEND
EDGER 30,7 7,2 PBEND
NIBBLER 17,10 9,2 PBEND
FLANGEAREA 0,16 12,2 PBEND
PLASMA-ARC 50,3 12,2 PBEND
HYDROPRESS 42,13 15,2 PBEND
SPOTWELDER 35,19 13,2 PBEND
GASKET-CUTTING-TABLE 0,13 21,2 PBEND
BARFOLDER  17,1  12,2
14FT.SHEAR  55,16  10,2
PED.GRINDER  30,16  15,2
STORAGEBIN  0,4  10,2
MARKOUT- STORAGE  41,0  17,2
MARKOUT  62,0  9,2  PBEND
SHEETMETAL- STORAGE  52,6  19,2
SEAMWELDER  55,10  15,2  PBEND

TOOLS:
AWL  WORKTABLE
SETTINGTOOL  WORKTABLE
CPUNCH  WORKTABLE
SCREWDRIVER  WORKTABLE
GLOVES  WORKTABLE
SNIPES  WORKTABLE
BLACKPEN  WORKTABLE
CCLAMPS  WORKTABLE
SQUARE  WORKTABLE
MARKINGGAUGE  WORKTABLE
STEELTAPE  WORKTABLE
DIVIDERS  WORKTABLE
HANDFORMER  WORKTABLE
TEMPLATE  WORKTABLE
CHISEL  WORKTABLE
VISEGRIPS  WORKTABLE
RIVET-HOLE-GUIDE  WORKTABLE
HAMMER  WORKTABLE
CAULKINGGUN  WORKTABLE
BARCLAMP  WORKTABLE
FILE  WORKTABLE
1-4DRILLBIT  WORKTABLE
1-2DRILLBIT  WORKTABLE
5-32DRILLBIT  WORKTABLE
SKETCH  WORKTABLE
7.32DRILL-BIT  WORKTABLE
5.16DRILL-BIT  WORKTABLE
1.4TAP  WORKTABLE
CHUCKKEY  WORKTABLE
9.16WRENCH  WORKTABLE
MASKING-TAFE  WORKTABLE
SAW-BLADES  WORKTABLE
15.16WRENCH  PANBRAKE
FORMINGSTAKES  WORKBENCH
BARCLAMP2  TOOLROOM
DRILLBIT  TOOLROOM
UTILITY-KNIFE  TOOLROOM
GRINDER  TOOLROOM
SABER-SAW2  TOOLROOM
SAW-BLADES2  TOOLROOM
UNISHEAR2  TOOLROOM
1-4PUNCH  PLASMA-ARC
3-8PUNCH  PLASMA-ARC
7-16PUNCH  PLASMA-ARC
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CLAMP  PLASMA-ARC
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Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ? L
S%Invalid command.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ? L
Output to line-printer <Y or N> ? N

F I T W 1 4 (39,101)

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! WELDOUT ! ! WORKTABLE (X) ! SPOTWELDER ! ! SCRAPBIN!
----------- -------------- -----------------
! FLANGEAREA! ! DRILLPRESS ! ! PED.GRINDER ! !14FT.SHEAR
----------- -------------- -----------------
! GASKET-CUTTING-TABLE! ! ROLLER!! LAPOUT! ! HYDROPRESS !
----------- -------------- -----------------
! PANBRAKE ! ! NIBBLER!! PITTSBURGH!! SMALLSHEAR ! SEAMWELDER !
----------- -------------- -----------------
! CORNICEBRAKE ! ! EDGER! ! SHEETMETAL- STORAGE!
----------- -------------- -----------------
! STORAGEBIN ! WORKBENCH! ! !14FT. HYDROPRESSBRAKE! PLASMA-ARC!
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! LEAFBRAKE ! ! BARFOLDER ! ! TOOLROOM! ! MARKOUT- STORAGE! ! MARKOUT!

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CPUNCH WORKTABLE
SCREW DRIVER WORKTABLE
GLOVES WORKTABLE
SNIPES WORKTABLE
BLACK PEN WORKTABLE
CCLAMPS WORKTABLE
SQUARE WORKTABLE
MARKING GAUGE WORKTABLE
STEEL TAPE WORKTABLE
DIVIDERS WORKTABLE
HANDFORMER WORKTABLE
TEMPLATE WORKTABLE
CHISEL WORKTABLE
VISEGRIPS WORKTABLE
RIVET-HOLE-GUIDE WORKTABLE
HAMMER WORKTABLE
CAULKING GUN WORKTABLE
BARCLAMP WORKTABLE
FILE WORKTABLE
1-4DRILL BIT WORKTABLE
1-2DRILL BIT WORKTABLE
5-32DRILL BIT WORKTABLE
SKETCH WORKTABLE
7.32 DRILL-BIT WORKTABLE
5.16 DRILL-BIT WORKTABLE
1.4 TAP WORKTABLE
CHUCK KEY WORKTABLE
9.16 WRENCH WORKTABLE
MASKING TAPE WORKTABLE
SAW-BLADES WORKTABLE
15.16 WRENCH PAN BRAKE
FORMING STAKES WORKBENCH
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DRILL BIT TOOLROOM
UTILITY-KNIFE TOOLROOM
GRINDER TOOLROOM
SABER-SAW TOOLROOM
SAW-BLADES2 TOOLROOM
UNISHEAR TOOLROOM
1-4 PUNCH PLASMA-ARC
3-8 PUNCH PLASMA-ARC
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3-4 PUNCH PLASMA-ARC
CLAMP PLASMA-ARC
STRIPER PLASMA-ARC
DIE PLASMA-ARC
ALLEN WRENCH SEAM WELDER
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DAMPERPARTS2 WORKTABLE
RIVETS: F WORKTABLE
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BOLTS TOOLROOM
GLUE TOOLROOM
FLANGES FLANGEAREA
TAPE-CONTAINER PLASMA-ARC
COMPUTER-TAPE PLASMA-ARC
RUBBER GASKET-CUTTING-TABLE
DAMPERPARTS STORAGEBIN
CART MARKOUT-STORAGE
SHEETMETAL2:F MARKOUT-STORAGE
S.M.CART SHEETMETAL-STORAGE
GAUGED-SHEETMETAL SHEETMETAL-STORAGE
PANEL-LIGHTS SEAMWELDER

EQUIPMENT:
RIVETGUN WORKTABLE 1.5 S
DRILL MOTOR WORKTABLE 2 S
UNISHEAR WORKTABLE 66 S
SABER-SAW WORKTABLE 24 S
14FT HYDROPRESSBRAKE-FOOTPEDAL 14FT HYDROPRESSBRAKE 9.5 S
TACKWELDER WELDOUT 1 S
DRILLPRESS-BUTTON DRILL PRESS 3.2 S
PANBRAKE-LEVER PANBRAKE 32 S
CORNICE BRAKE-LEVER CORNICE BRAKE 17 S
LEAF BRAKE-LEVER LEAF BRAKE 7 S
EASY EDGER WORKBENCH 30 S
HAND-ROLLER WORKBENCH
FOOTPEDAL SMALLSHEAR 2 S
PITTSBURGH-BUTTON PITTSBURGH 10 S
LAPOUT-SWITCH LAPOUT 5 S
TAPINGMOTOR TOOLROOM
ROLLER-BUTTON ROLLER 37 S
EDGER-SWITCH EDGER 17 S
NIBBLER-BUTTON NIBBLER 31 S
TOOLLOCK-SWITCH PLASMA-ARC
SPOTWELDER-FOOTPEDAL SPOTWELDER 2 S
BARFOLDER-LEVER GASKET-CUTTING-TABLE 5.8 S
14FT SHEAR-FOOTPE'DALL 14FT SHEAR 1.4 S
CARRIAGE-SPEED-SWITCH SEAMWELDER
VOLTAGE-METER-SWITCH SEAMWELDER
AMP-METER-SWITCH SEAMWELDER
ON-OFF-SWITCH SEAMWELDER
CARRIAGE-STOP SEAMWELDER
WIRE-FEED-SWITCH SEAMWELDER
CENTERING-DEVICE SEAMWELDER
CLAMPING-DEVICE-FOOT-SWITCH SEAMWELDER
CARRIAGE-TRACK SEAMWELDER
SEQUENCE-START-SWITCH SEAMWELDER 1 M
SEAMWELDER- LATCH SEAMWELDER
TORCH-UP-AND-DOWN-SWITCH SEAMWELDER

OPERATORS:
FITTER WORKTABLE 28, 20 B

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<td>SHEAR SHEETMETAL FOR ACCESS COVER</td>
<td>&lt;33&gt;</td>
<td>27-May-8</td>
</tr>
<tr>
<td>ACOVER.M20</td>
<td>MARK OUT ACCESS COVER AND BACK UP PLATES</td>
<td>&lt;33&gt;</td>
<td>27-May-8</td>
</tr>
<tr>
<td>ACOVER.M07</td>
<td>BEBURR ACCESS HOLE AND ACCESS COVER</td>
<td>&lt;33&gt;</td>
<td>27-May-8</td>
</tr>
<tr>
<td>ACOVER.M06</td>
<td>CUT GASKET FOR ACCESS COVER</td>
<td>&lt;33&gt;</td>
<td>27-May-8</td>
</tr>
<tr>
<td>ACOVER.M05</td>
<td>DRILL AND TAP SHEETMETAL FOR ACCESS COVER</td>
<td>&lt;33&gt;</td>
<td>27-May-8</td>
</tr>
<tr>
<td>ACOVER.M04</td>
<td>SPOTWELD SHEETMETAL FOR ACCESS COVER</td>
<td>&lt;33&gt;</td>
<td>27-May-8</td>
</tr>
<tr>
<td>ACOVER.M03</td>
<td>SHEAR ACCESS HOLE FOR ACCESS COVER</td>
<td>&lt;33&gt;</td>
<td>27-May-8</td>
</tr>
<tr>
<td>ACOVER.M02</td>
<td>SHEAR SHEETMETAL FOR ACCESS COVER</td>
<td>&lt;33&gt;</td>
<td>26-May-8</td>
</tr>
<tr>
<td>ACOVER.M01</td>
<td>MARK OUT ACCESS COVER AND BACK-UP PLATES</td>
<td>&lt;33&gt;</td>
<td>26-May-8</td>
</tr>
<tr>
<td>BARB .001</td>
<td>MARK OUT TRANSFORMER</td>
<td>&lt;33&gt;</td>
<td>26-Jul-8</td>
</tr>
<tr>
<td>BDAMP .005</td>
<td>ASSEMBLE BALANCE DAMPER</td>
<td>&lt;33&gt;</td>
<td>23-Jun-8</td>
</tr>
<tr>
<td>BDAMP .004</td>
<td>DRILL SHEETMETAL FOR BALANCE DAMPER</td>
<td>&lt;33&gt;</td>
<td>22-Jun-8</td>
</tr>
<tr>
<td>BDAMP .003</td>
<td>BEND SHEETMETAL FOR BALANCE DAMPER</td>
<td>&lt;33&gt;</td>
<td>22-Jun-8</td>
</tr>
<tr>
<td>BDAMP .002</td>
<td>SHEAR SHEETMETAL FOR BALANCE DAMPER</td>
<td>&lt;33&gt;</td>
<td>22-Jun-8</td>
</tr>
<tr>
<td>BDAMP .001</td>
<td>MARK OUT BALANCE DAMPER</td>
<td>&lt;33&gt;</td>
<td>22-Jun-8</td>
</tr>
<tr>
<td>BLKEND.M24</td>
<td>BEND SHEETMETAL UP 90 DEGREES FOR BLANK END</td>
<td>&lt;33&gt;</td>
<td>6-Jul-8</td>
</tr>
<tr>
<td>BLKEND.M23</td>
<td>BEND PARTIAL BENDS FOR BLANK END</td>
<td>&lt;33&gt;</td>
<td>6-Jul-8</td>
</tr>
<tr>
<td>BLKEND.M22</td>
<td>SHEAR CORNERS FOR BLANK END</td>
<td>&lt;33&gt;</td>
<td>31-May-8</td>
</tr>
<tr>
<td>BLKEND.M21</td>
<td>SHEAR SHEETMETAL FOR BLANK END</td>
<td>&lt;33&gt;</td>
<td>6-Jul-8</td>
</tr>
<tr>
<td>BLKEND.M20</td>
<td>MARK OUT BLANK END</td>
<td>&lt;33&gt;</td>
<td>31-May-8</td>
</tr>
<tr>
<td>BLKEND.M05</td>
<td>BEND SHEETMETAL UP 90 DEGREES FOR BLANK END</td>
<td>&lt;33&gt;</td>
<td>6-Jul-8</td>
</tr>
<tr>
<td>BLKEND.M04</td>
<td>BEND PARTIAL BENDS FOR BLANK END</td>
<td>&lt;33&gt;</td>
<td>31-May-8</td>
</tr>
<tr>
<td>BLKEND.M03</td>
<td>SHEAR CORNERS FOR BLANK END</td>
<td>&lt;33&gt;</td>
<td>6-Jul-8</td>
</tr>
<tr>
<td>BLKEND.de</td>
<td>SHEAR SHEETMETAL FOR BLANK END</td>
<td>&lt;33&gt;</td>
<td>6-Jul-8</td>
</tr>
<tr>
<td>BLKEND.M01</td>
<td>MARK OUT BLANK END</td>
<td>&lt;33&gt;</td>
<td>31-May-8</td>
</tr>
<tr>
<td>FIT .W11</td>
<td>ASSEMBLY AREA (EXPANDED 4-12-83)</td>
<td>&lt;33&gt;</td>
<td>5-May-8</td>
</tr>
<tr>
<td>F02RC .003</td>
<td>FORM RADIUS ON COLLAR CORNERS FOR F.O. TO R.C.</td>
<td>&lt;33&gt;</td>
<td>17-May-8</td>
</tr>
<tr>
<td>F02RC .002</td>
<td>BEND RADIUS FOR FLAT OVAL TO RADIUS CORNERS</td>
<td>&lt;33&gt;</td>
<td>17-May-8</td>
</tr>
<tr>
<td>F02RC .001</td>
<td>FORM RADIUS ON COLLARS FOR F.O. TO R.C.</td>
<td>&lt;33&gt;</td>
<td>17-May-8</td>
</tr>
<tr>
<td>F02RC .000</td>
<td>CUT RADIUS ON CORNERS FOR FLAT OVAL TO RADIUS CORNERS</td>
<td>&lt;33&gt;</td>
<td>17-May-8</td>
</tr>
<tr>
<td>F02RC .005</td>
<td>SHEAR SHEETMETAL FOR FLAT OVAL TO RADIUS CORNERS</td>
<td>&lt;33&gt;</td>
<td>17-May-8</td>
</tr>
<tr>
<td>F02RC .004</td>
<td>MARK OUT FLAT OVAL TO RADIUS CORNERS</td>
<td>&lt;33&gt;</td>
<td>17-May-8</td>
</tr>
<tr>
<td>F02RC .003</td>
<td>RIVET FLAT OVAL TO RADIUS CORNERS</td>
<td>&lt;33&gt;</td>
<td>1-Jul-8</td>
</tr>
<tr>
<td>F02RC .002</td>
<td>TACK WELD FLAT OVAL TO RADIUS CORNERS</td>
<td>&lt;33&gt;</td>
<td>1-Jul-8</td>
</tr>
<tr>
<td>F02RC .001</td>
<td>ASSEMBLE FLAT OVAL TO RADIUS CORNERS</td>
<td>&lt;33&gt;</td>
<td>1-Jul-8</td>
</tr>
<tr>
<td>F02RC .000</td>
<td>BEND RADIUS ON FLAT OVAL TO RADIUS CORNERS</td>
<td>&lt;33&gt;</td>
<td>1-Jul-8</td>
</tr>
<tr>
<td>F02RC .005</td>
<td>FORM LAP ENDS FOR FLAT OVAL TO RADIUS CORNERS</td>
<td>&lt;33&gt;</td>
<td>9-May-8</td>
</tr>
<tr>
<td>F02RC .004</td>
<td>SHEAR RADIUS ON FLAT OVAL TO RADIUS CORNERS</td>
<td>&lt;33&gt;</td>
<td>9-May-8</td>
</tr>
<tr>
<td>F02RC .003</td>
<td>SHEAR SHEETMETAL FOR FLAT OVAL TO RADIUS CORNERS</td>
<td>&lt;33&gt;</td>
<td>9-May-8</td>
</tr>
<tr>
<td>F02RC .002</td>
<td>MARK OUT FLAT OVAL TO RADIUS CORNERS</td>
<td>&lt;33&gt;</td>
<td>1-Jul-8</td>
</tr>
<tr>
<td>F02RC .001</td>
<td>RIVET FLAT OVAL TO RADIUS CORNERS</td>
<td>&lt;33&gt;</td>
<td>1-Jul-8</td>
</tr>
<tr>
<td>F02RC .000</td>
<td>TACK WELD FLAT OVAL TO RADIUS CORNERS</td>
<td>&lt;33&gt;</td>
<td>1-Jul-8</td>
</tr>
<tr>
<td>F02RC .005</td>
<td>ASSEMBLE FLAT OVAL TO RADIUS CORNERS</td>
<td>&lt;33&gt;</td>
<td>6-May-8</td>
</tr>
<tr>
<td>F02RC .004</td>
<td>BEND SHEETMETAL FOR FLAT OVAL TO RADIUS CORNERS</td>
<td>&lt;33&gt;</td>
<td>6-May-8</td>
</tr>
<tr>
<td>F02RC .003</td>
<td>ROLL UP FLAT OVAL AND RADIUS CORNERS</td>
<td>&lt;33&gt;</td>
<td>5-Mar-8</td>
</tr>
<tr>
<td>F02RC .002</td>
<td>FORM LAP ENDS FOR FLAT OVAL TO RADIUS CORNERS</td>
<td>&lt;33&gt;</td>
<td>1-Jul-8</td>
</tr>
</tbody>
</table>
TRANSF.M01 MARK OUT TRANSFORMER
VNELBO.M49 DEBURR ACCESS COVER & ACCESS HOLE
VNELBO.M48 CUT RUBBER GASKET FOR ACCESS PLATE
VNELBO.M47 TAP BOLT HOLES PLATE
VNELBO.M46 RIVET VANE TRACK & THROAT & HEEL LAPS
VNELBO.M45 ASSEMBLE ELBOW WITH VANE TRACK
VNELBO.M44 TACK WELD VANE TURNS TO VANE TRACK
VNELBO.M43 SPOT WELD BACK UP PLATES TO ACCESS OPENING
VNELBO.M42 FORM RADIUS ON VANES FOR ELBOW WITH VANE TRACK
VNELBO.M41 BEND THROAT, HEEL & VANES FOR ELBOW
VNELBO.M40 POSITION SPACERS IN PITTSBURGH LOCK
VNELBO.M39 FORM PITTSBURGH LOCK ON VANE TRACK ELBOW
VNELBO.M38 LAP OUT VANED ELBOW
VNELBO.M37 SHEAR CHEEKS & ACCESS WITH UNI-SHEAR
VNELBO.M36 SHEAR CHEEKS, THROAT, HEEL, AND VANE TRACK
VNELBO.M35 SHEAR 11 GAUGE SHEETMETAL ACCESS COVER & PLATE
VNELBO.M34 MARK OUT ACCESS COVER AND BACK UP PLATES
VNELBO.M33 MARK OUT VANE TRACK & VANES FOR ELBOW
VNELBO.M32 LAYOUT 1/2 THROAT & HEEL WITHOUT TEMPLATES
VNELBO.M31 MARK OUT 1/2 THROAT, HEEL FOR 22X12 V.T. ELBOW
VNELBO.M30 MARK OUT CHEEKS FOR 22'X12' VANE TRACK ELBOW
VNELBO.M29 ASSEMBLE END PIECE TO ELBOW WITH VANE TRACK
VNELBO.M19 DRILL & TAP--MAKE GASKET FOR ACCESS PLATE
VNELBO.M18 TACK WELD VANE TRACK TO ELBOW
VNELBO.M17 ASSEMBLE CHEEKS, THROAT & HEEL FOR VANE TRACK ELBOW
VNELBO.M16 SPOT WELD ACCESS COVER TO BACK UP PLATE
VNELBO.M15 TACK WELD VANE TRACK ASSEMBLY FOR ELBOW
VNELBO.M13 BEND THROAT, HEEL XI END PIECE FOR VANE ELBOW
VNELBO.M12 BEND TURN VANES FOR ELBOW WITH VANE TRACK
VNELBO.M11 BEND END PIECE & FLATTEN HEMMED EDGE ON VANE TURNS
VNELBO.M10 FORM PITTSBURGH LOCK ON VANE TRACK ELBOW
VNELBO.M09 LAP OUT VANE ELBOW
VNELBO.M08 BEND HEMMED EDGE ON VANE ELBOW
VNELBO.M07 SHEAR VANE ELBOW CHEEKS WITH UNI-SHEAR
VNELBO.M06 SHEAR 90 DEGREE ELBOW WITH VANE TRACK
VNELBO.M05 SHEAR SHEETMETAL FOR ACCESS COVER
VNELBO.M04 MARK OUT TURN VANES & END PIECE
VNELBO.M03 MARK ACCESS COVER & BACK UP PLATE
VNELBO.M02 MARK OUT THROAT & HEEL FOR VANE TRACK ELBOW
VNELBO.M01 MARK OUT CHEEKS FOR VANE TRACK ELBOW
WELD .WO1 SHEETMETAL SHOP WELDING BOOTH.

%THIS DIRECTORY HAS AN INTERNAL STRUCTURAL ERROR.
%PLEASE REPAIR IT WITH FIXDIR!

Operation (DE, PD, CP, H, or EX) ?
STRGHT.M42 CUT LAP CORNERS ON STRAIGHT SECTION  < 33>  7-Jul-83
STRGHT.M41 SHEAR SHEETMETAL FOR STRAIGHT SECTION  < 33>  7-Apr-83
STRGHT.M40 MARK OUT STRAIGHT SECTION  < 33>  7-Apr-83
STRGHT.M35 ASSEMBLE STRAIGHT SECTION  < 33>  7-Jul-83
STRGHT.M34 BEND 90DEGREE BEND IN STRAIGHT SECTION  < 33>  25-Apr-83
STRGHT.M33 FORM PITTSBURGH EDGE ON STRAIGHT SECTION  < 33>  25-Apr-83
STRGHT.M32 CUT CORNERS FOR STRAIGHT SECTION  < 33>  25-Apr-83
STRGHT.M31 SHEAR SHEETMETAL FOR 12'X8' STRAIGHT SECTION  < 33>  7-Jul-83
STRGHT.M30 MARK OUT STRAIGHT SECTION  < 33>  28-Mar-83
STRGHT.M16 ASSEMBLE 11' STRAIGHT SECTION  < 33>  6-Jul-83
STRGHT.M15 BEND 11' STRAIGHT SECTION  < 33>  10-Mar-83
STRGHT.M14 FORM PITTSBURGH ON 11' STRAIGHT SECTION  < 33>  10-Mar-83
STRGHT.M13 LAPOUT 11' STRAIGHT SECTION  < 33>  10-Mar-83
STRGHT.M12 CUT 11' STRAIGHT SECTION CORNERS  < 33>  10-Mar-83
STRGHT.M11 SHEAR 11' STRAIGHT SECTION  < 33>  10-Mar-83
STRGHT.M10 MARK OUT 11' STRAIGHT SECTION (TOP PIECE)  < 33>  10-Mar-83
STRGHT.M09 MARK OUT 11' STRAIGHT (BOTTOM & SIDES)  < 33>  10-Mar-83
STRGHT.M08 ASSEMBLE STRAIGHT PIECE  < 33>  7-Jul-83
STRGHT.M07 BEND STRAIGHT PIECE  < 33>  4-Mar-83
STRGHT.M06 FORM PITTSBURGH ON STRAIGHT PIECE  < 33>  4-Mar-83
STRGHT.M05 FORM LAP OUT FOR STRAIGHT PIECE  < 33>  4-Mar-83
STRGHT.M04 CUT CORNERS ON STRAIGHT PIECE  < 33>  7-Jul-83
STRGHT.M03 SHEAR OUTLINES OF STRAIGHT PIECE  < 33>  7-Jul-83
STRGHT.M02 MARK OUT STRAIGHT SECTION  < 33>  4-Mar-83
STRGHT.M01 MAKE READY SHEETMETAL FOR MARK OUT (STRAIGHT)  < 33>  3-Mar-83
TRANSF.M98 ASSEMBLE TRANSFORMER  < 33>  6-Jul-83
TRANSF.M97 BEND LAPAP ENDS FOR TRANSFORMER  < 33>  22-Jun-83
TRANSF.M96 BEND SHEETMETAL FOR TRANSFORMER  < 33>  22-Jun-83
TRANSF.M95 FORM PITTSBURGH LOCK FOR TRANSFORMER  < 33>  22-Jun-83
TRANSF.M94 FORM LAP END FOR TRANSFORMER  < 33>  22-Jun-83
TRANSF.M93 SHEAR UNEVEN END OF TRANSFORMER  < 33>  21-Jun-83
TRANSF.M92 SHEAR SHEETMETAL FOR TRANSFORMER  < 33>  21-Jun-83
TRANSF.M91 MARK OUT SHEETMETAL TOP FOR TRANSFORMER  < 33>  21-Jun-83
TRANSF.M90 MARK OUT SHEETMETAL FOR TRANSFORMER  < 33>  1-Jul-83
TRANSF.M74 WELD TRANSFORMER  < 33>  19-Jul-83
TRANSF.M68 DEBURR ACCESS HOLE AND COVER FOR TRANSFORMER  < 33>  12-Apr-83
TRANSF.M67 TAP SHEETMETAL BACK-UP PLATES FOR TRANSFORMER  < 33>  12-Apr-83
TRANSF.M66 CUT ACCESS PLATE GASKET FOR TRANSFORMER  < 33>  12-Apr-83
TRANSF.M65 SPOT WELD BACK-UP PLATES TO TRANSFORMER  < 33>  11-Apr-83
TRANSF.M64 BEND SHEETMETAL FOR TRANSFORMER  < 33>  12-Apr-83
TRANSF.M63 CUT SHEETMETAL FOR TRANSFORMER  < 33>  12-Apr-83
TRANSF.M62 SHEAR SHEETMETAL FOR TRANSFORMER  < 33>  12-Apr-83
TRANSF.M61 MARK OUT ACCESS COVER FOR TRANSFORMER  < 33>  11-Apr-83
TRANSF.M60 MARK OUT TRANSFORMER TOP AND BOTTOM  < 33>  11-Apr-83
TRANSF.M54 WELD TRANSFORMER  < 33>  21-Jul-83
TRANSF.M27 ASSEMBLE TRANSFORMER (GREATER THAN 100' SIZE)  < 33>  21-Mar-83
TRANSF.M26 FORM TRANSFORMER AT CORNICE BRAKE  < 33>  18-Mar-83
TRANSF.M25 FORM PITTSBURGH LOCK & Edge ON TRANSFORMER  < 33>  18-Mar-83
TRANSF.M24 FORM LAP OUT ON TRANSFORMER  < 33>  18-Mar-83
TRANSF.M23 CUT CORNERS ON TRANSFORMER  < 33>  18-Mar-83
TRANSF.M22 SHEAR TRANSFORMER AT 8 FT. SHEAR  < 33>  21-Mar-83
TRANSF.M21 MARK OUT TOP SECTION OF TRANSFORMER  < 33>  21-Mar-83
TRANSF.M20 MARK OUT BOTTOM SECTION OF TRANSFORMER  < 33>  21-Mar-83
TRANSF.M08 ASSEMBLE TRANSFORMER  < 33>  9-Mar-83
TRANSF.M07 BEND TRANSFORMER  < 33>  9-Mar-83
TRANSF.M06 FORM PITTSBURGH LOCK ON TRANSFORMER  < 33>  9-Mar-83
TRANSF.M05 FORM TRANSFORMER LAP  < 33>  9-Mar-83
TRANSF.M04 SHEAR TRANSFORMER ENDS  < 33>  8-Mar-83
TRANSF.M03 SHEAR TRANSFORMER OUT LINES  < 33>  8-Mar-83
TRANSF.M02 MARK OUT TRANSFORMER (TOP)  < 33>  8-Mar-E
OGEE .M26 FORM PITTSBURGH LOCK FOR OGEE
OGEE .M25 FORM 90 DEGREE EDGE ON CHEEKS FOR OGEE
OGEE .M24 FORM LAP ENDS FOR OGEE
OGEE .M23 SHEAR RADIUS ON CHEEKS FOR OGEE
OGEE .M22 SHEAR SHEETMETAL FOR OGEE
OGEE .M21 MARK OUT WRAPPERS FOR OGEE
OGEE .M20 MARK OUT CHEEKS FOR OGEE
OGEE .M07 CLEAN OGEE BEFORE WELDING
OGEE .M06 FORM OGEE
OGEE .M05 FORM LAPOUT FOR OGEE
OGEE .M04 SHEAR RADIUS FOR OGEE
OGEE .M03 SHEAR SHEETMETAL FOR OGEE
OGEE .M02 MARK OUT WRAPPERS FOR OGEE
OGEE .M01 MARK OUT CHEEKS FOR OGEE OFFSET
OS2RND.M10 WELD OFFSET SQUARE TO ROUND
OS2RND.M09 RIVET OFFSET SQUARE TO ROUND
OS2RND.M08 TACK WLD COLLAR TO OFFSET SQUARE TO ROUND
OS2RND.M07 ASSEMBLE OFFSET SQUARE TO ROUND
OS2RND.M06 BEND LAP ENDS FOR OFFSET SQUARE TO ROUND
OS2RND.M05 FORM COLLAR FOR OFFSET SQUARE TO ROUND
OS2RND.M04 BEND RADIUS FOR OFFSET SQUARE TO ROUND
OS2RND.M03 SHEAR RADIUS FOR OFFSET SQUARE TO ROUND
OS2RND.M02 SHEAR OFFSET SQUARE TO ROUND
OS2RND.M01 MARK OUT OFFSET SQUARE TO ROUND
OS2RND.M29 WELD OFFSET SQUARE TO ROUND
PSWELD.W02 STUD GUN WELDING
PSWELD.W01 STUD GUN WELD
RCT2RC.M39 WELD RECTANGULAR TO RADIUS CORNERS
RCT2RC.M10 WELD RECTANGULAR TO RADIUS CORNERS
RO2RO .M25 WELD ROUND TO ROUND
RO2RO .M07 WELD ROUND TO ROUND
RO2RO .M06 TACK WELD ROUND TO ROUND
RO2RO .M05 FORM ROUND TO ROUND WITH ROLLER (ROLL FORMER)
RO2RO .M04 SHEAR ROUND TO ROUND WITH UNI-SHEAR
RO2RO .M03 SHEAR ROUND TO ROUND (8 FT. SHEAR)
RO2RO .M02 MARK OUT ROUND TO ROUND
RO2RO .M01 MAKE READY SHEETMETAL FOR MARK OUT (RO2RO)
SQ2FO .M08 WELD SQUARE TO FLAT OVAL
SQ2RND.M38 RIVET SQUARE TO ROUND
SQ2RND.M36 TACK WELD SQUARE TO ROUND
SQ2RND.M35 ASSEMBLE SQUARE TO ROUND
SQ2RND.M34 BEND RADIUS FOR SQUARE TO ROUND
SQ2RND.M33 FORM COLLAR FOR SQUARE TO ROUND
SQ2RND.M32 SHEAR RADIUS FOR SQUARE TO ROUND
SQ2RND.M31 SHEAR 22 GAUGE SHEETMETAL FOR SQUARE TO ROUND
SQ2RND.M30 MARK OUT SQUARE TO ROUND
SQ2RND.M09 RIVET SQUARE TO ROUND (#3)
SQ2RND.M08 TACK WELD COLLAR TO SQUARE TO ROUND (#3)
SQ2RND.M07 ASSEMBLE SQUARE TO ROUND (#3)
SQ2RND.M06 FORM SQUARE TO ROUND DIAMETER
SQ2RND.M05 FORM SQUARE TO ROUND (#3) RADIUS
SQ2RND.M04 SHEAR SQUARE TO ROUND RADIUS LINES & CORNERS
SQ2RND.M03 SHEAR OUTLINE OF SQUARE TO ROUND (#3)
SQ2RND.M02 MARK OUT SQUARE TO ROUND (#3)
SQ2RND.M01 MAKE READY SHEETMETAL FOR MARK OUT (SQ2RND)
STRGHT.M74 WELD STRAIGHT SECTION
STRGHT.M46 ASSEMBLE TOP TO BOTTOM OF STRAIGHT SECTION
STRGHT.M45 BEND UP 90 DEGREE SIDES ON STRAIGHT SECTION
STRGHT.M44 FORM PITTSBURGH LOCKS ON STRAIGHT SECTION
STRGHT.M43 FORM LAP END OFFSET ON STRAIGHT SECTION
FLOVAL.M09 RIVET FLAT OVAL ASSEMBLY
FLOVAL.M07 TACK COLLAR TO FLAT OVAL
FLOVAL.M06 ASSEMBLE FLAT OVAL
FLOVAL.M05 BEND RADIUS FOR FLAT OVAL
FLOVAL.M04 FORM COLLAR FOR FLAT OVAL
FLOVAL.M03 SHEAR RADIUS FOR FLAT OVAL
LOVAL.M02 SHEAR SHEETMETAL FOR FLAT OVAL
FLOVAL.M01 MARK OUT FLAT OVAL
F02RC.M38 WELD FLAT OVAL TO RADIUS CORNERS
F02RC.M10 WELD FLAT OVAL TO RADIUS CORNERS
GELBOW.M25 WELD 5 GORED ELBOW
GELBOW.M06 WELD 5 GORED ELBOW
GELBOW.M05 ASSEMBLE 5 GORED ELBOW
GELBOW.M04 FORM 12' DIAMETER ON ELBOW GORES
GELBOW.M03 SHEAR RADIUS FOR 5 GORED ELBOW
GELBOW.M02 SHEAR SHEETMETAL FOR 5 GORED ELBOW
GELBOW.M01 MARK OUT 5 GORED ELBOW
MARKOT.W02 MARK OUT AREA (10'X4') 2ND PHASE
MARKOT.W01 MARK OUT AREA (10'X4')
MARKOT.M01 TRANSPORT FOR MARK OUT
MARKOT.M00 SET UP SHEETMETAL (1 SHEET) FOR MARK OUT
MSRING.W03 MACHINE SHOP MANHOLE-RING
MSRING.W01 MSRING (2)
OFFSET.M61 MARK OUT WRAPPERS FOR OFFSET
OFFSET.M60 MARK OUT CHEEKS FOR OFFSET
OFFSET.M49 ASSEMBLE CHEEKS AND WRAPPERS FOR OFFSET
OFFSET.M48 FORM RADIUS ON WRAPPERS FOR OFFSET
OFFSET.M47 POSITION SPACERS FOR OFFSET
OFFSET.M46 FORM PITTSBURGH LOCK FOR OFFSET
OFFSET.M45 FORM 90 DEGREE EDGE ON CHEEKS FOR OFFSET
OFFSET.M44 FORM LAP ENDS FOR OFFSET
OFFSET.M43 SHEAR RADIUS ON CHEEKS FOR OFFSET
OFFSET.M42 SHEAR SHEETMETAL FOR OFFSET
OFFSET.M41 MARK OUT WRAPPERS FOR OFFSET
OFFSET.M40 MARK OUT CHEEKS FOR OFFSET
OFFSET.M32 RIVET ASSEMBLY
OFFSET.M31 ASSEMBLE OFFSET
OFFSET.M30 FORM RADIUS ON WRAPPERS FOR OFFSET
OFFSET.M29 POSITION SPACERS IN PITTSBURGH LOCKS FOR OFFSET
OFFSET.M28 BEND 90 DEGREE BENDS IN STRAIGHT FOR OFFSET
OFFSET.M27 FORM PITTSBURGH LOCKS FOR OFFSET
OFFSET.M26 FORM 90 DEGREE EDGE ON CHEEK RADIUS FOR OFFSET
OFFSET.M25 FORM LAYOUT ON OFFSET
OFFSET.M24 SHEAR RADIUS ON CHEEKS FOR OFFSET
OFFSET.M23 SHEAR SHEETMETAL FOR OFFSET
OFFSET.M22 MARK OUT STRAIGHT SECTION FOR OFFSET
OFFSET.M21 MARK OUT WRAPPERS FOR OFFSET
OFFSET.M20 MARK OUT CHEEKS FOR OFFSET
OFFSET.M09 ASSEMBLE OFFSET
OFFSET.M08 FORM RADIUS ON WRAPPERS FOR OFFSET
OFFSET.M07 POSITION SPACERS IN PITTSBURGH LOCKS FOR OFFSET
OFFSET.M06 FORM PITTSBURGH LOCKS ON WRAPPER FOR OFFSET
OFFSET.M05 FORM 90 DEGREE EDGE ON CHEEKS FOR OFFSET
OFFSET.M04 SHEAR RADIUS & CORNERS FOR OFFSET
OFFSET.M03 SHEAR SHEETMETAL FOR OFFSET
OFFSET.M02 MARK OUT WRAPPERS FOR OFFSET
OFFSET.M01 MARK OUT CHEEKS FOR OFFSET
GEE.M29 ASSEMBLE CHEEKS & WRAPPERS FOR OGEE
OGEE.M28 FORM RADIUS ON WRAPPERS FOR OGEE
OGEE.M27 POSITION SPACERS IN PITTSBURGH LOCKS FOR OGEE
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<td>OFFSET.M95</td>
<td>WELD RECTANGULAR OFFSET                                                     &lt;33&gt;</td>
<td>20-Jul-8</td>
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</tr>
<tr>
<td>OFFSET.M06</td>
<td>WELD OFFSET                                                                &lt;33&gt;</td>
<td>21-Jul-8</td>
<td></td>
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<tr>
<td>OGE     .M08</td>
<td>WELD OGE OFFSET                                                            &lt;33&gt;</td>
<td>21-Jul-8</td>
<td></td>
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<tr>
<td>OSQ2RN,M72</td>
<td>WELD OFFSET SQUARE TO ROUND                                                 &lt;33&gt;</td>
<td>19-Jul-8</td>
<td></td>
</tr>
<tr>
<td>RCT2RC,M55</td>
<td>WELD RECTANGULAR TO RADIUS CORNERS                                          &lt;33&gt;</td>
<td>20-Jul-8</td>
<td></td>
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<tr>
<td>R02RO,M44</td>
<td>WELD ROUND TO ROUND                                                         &lt;33&gt;</td>
<td>20-Jul-8</td>
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<tr>
<td>SQ2RND,M55</td>
<td>WELD SQUARE TO ROUND                                                        &lt;33&gt;</td>
<td>21-Jul-8</td>
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</tr>
<tr>
<td>SQ2RND,M37</td>
<td>WELD SQUARE TO ROUND                                                        &lt;33&gt;</td>
<td>20-Jul-8</td>
<td></td>
</tr>
<tr>
<td>SQ2RND,M09</td>
<td>WELD SQUARE TO ROUND                                                        &lt;33&gt;</td>
<td>6-Jul-8</td>
<td></td>
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<tr>
<td>STRGHT,H94</td>
<td>WELD STRAIGHT SECTION                                                       &lt;33&gt;</td>
<td>19-Jul-8</td>
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<tr>
<td>STRGHT,H84</td>
<td>WELD STRAIGHT SECTION                                                       &lt;33&gt;</td>
<td>21-Jul-8</td>
<td></td>
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<tr>
<td>STRGHT,M45</td>
<td>WELD STAINLESS STEEL STRAIGHT SECTION                                       &lt;33&gt;</td>
<td>27-Jul-8</td>
<td></td>
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<tr>
<td>STRGHT.M44</td>
<td>WELD STAINLESS STEEL FOR STRAIGHT SECTION                                  &lt;33&gt;</td>
<td>7-Jul-8</td>
<td></td>
</tr>
<tr>
<td>STRGHT,M43</td>
<td>FORM LAPENDS FOR STRAIGHT SECTION                                           &lt;33&gt;</td>
<td>7-Jul-8</td>
<td></td>
</tr>
<tr>
<td>TRANSF.M82</td>
<td>CUT SHEETMETAL FOR OFFSET TRANSFORMER</td>
<td>6-JUL-8</td>
<td></td>
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<tr>
<td>TRANSF.M81</td>
<td>SHEAR SHEETMETAL FOR OFFSET TRANSFORMER</td>
<td>6-JUL-8</td>
<td></td>
</tr>
<tr>
<td>TRANSF.M80</td>
<td>MARK OUT SHEETMETAL FOR OFFSET TRANSFORMER</td>
<td>20-MAR-8</td>
<td></td>
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<tr>
<td>TRANSF.M73</td>
<td>BEND SHEETMETAL FOR OFFSET TRANSFORMER</td>
<td>19-MAY-8</td>
<td></td>
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<tr>
<td>TRANSF.M72</td>
<td>CUT SHEETMETAL FOR OFFSET TRANSFORMER</td>
<td>19-MAY-8</td>
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</tr>
<tr>
<td>TRANSF.M71</td>
<td>SHEAR SHEETMETAL FOR OFFSET TRANSFORMER</td>
<td>19-MAY-8</td>
<td></td>
</tr>
<tr>
<td>TRANSF.M70</td>
<td>MARK OUT TRANSFORMER</td>
<td>18-MAY-8</td>
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<tr>
<td>TRANSF.M53</td>
<td>BEND SHEETMETAL FOR TRANSFORMER</td>
<td>26-JUL-8</td>
<td></td>
</tr>
<tr>
<td>TRANSF.M52</td>
<td>CUT SHEETMETAL FOR TRANSFORMER</td>
<td>26-JUL-8</td>
<td></td>
</tr>
<tr>
<td>TRANSF.M51</td>
<td>SHEAR SHEETMETAL FOR TRANSFORMER</td>
<td>26-JUL-8</td>
<td></td>
</tr>
<tr>
<td>TRANSF.M50</td>
<td>MARK OUT TRANSFORMER</td>
<td>26-JUL-8</td>
<td></td>
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<tr>
<td>TRANSF.M47</td>
<td>ASSEMBLE TRANSFORMER</td>
<td>7-JUL-8</td>
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<tr>
<td>TRANSF.M46</td>
<td>BEND SHEETMETAL FOR TRANSFORMER</td>
<td>7-JUL-8</td>
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<tr>
<td>TRANSF.M45</td>
<td>BEND SHEETMETAL FOR TRANSFORMER</td>
<td>6-JUL-8</td>
<td></td>
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<tr>
<td>TRANSF.M44</td>
<td>FORM PITTSBURGH LOCK FOR TRANSFORMER</td>
<td>7-JUL-8</td>
<td></td>
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<tr>
<td>TRANSF.M43</td>
<td>FORM LAP ENDS FOR RECT. TO RECT. TRANSFORMER</td>
<td>7-JUL-8</td>
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<tr>
<td>TRANSF.M42</td>
<td>CUT CORNERS FOR RECT. TO RECT. TRANSFORMER</td>
<td>6-JUL-8</td>
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<tr>
<td>TRANSF.M41</td>
<td>SHEAR SHEETMETAL FOR RECT. TO RECT. TRANSFORMER</td>
<td>6-JUL-8</td>
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<tr>
<td>TRANSF.M40</td>
<td>MARK OUT RECTANGULAR TO RECTANGULAR TRANSFORMER</td>
<td>18-MAY-8</td>
<td></td>
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<tr>
<td>TRANSF.M37</td>
<td>ASSEMBLE TRANSFORMER</td>
<td>18-MAY-8</td>
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<tr>
<td>TRANSF.M36</td>
<td>BEND LAP ENDS FOR TRANSFORMER</td>
<td>12-JUL-8</td>
<td></td>
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<tr>
<td>TRANSF.M35</td>
<td>BEND SHEETMETAL FOR TRANSFORMER</td>
<td>11-JUL-8</td>
<td></td>
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<tr>
<td>TRANSF.M34</td>
<td>FORM PITTSBURGH LOCK FOR TRANSFORMER</td>
<td>11-JUL-8</td>
<td></td>
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<tr>
<td>TRANSF.M33</td>
<td>FORM LAP ENDS FOR TRANSFORMER</td>
<td>18-MAY-8</td>
<td></td>
</tr>
<tr>
<td>TRANSF.M32</td>
<td>CUT CORNERS FOR TRANSFORMER</td>
<td>18-MAY-8</td>
<td></td>
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<tr>
<td>TRANSF.M31</td>
<td>SHEAR SHEETMETAL FOR TRANSFORMER</td>
<td>18-MAY-8</td>
<td></td>
</tr>
<tr>
<td>TRANSF.M30</td>
<td>MARK OUT TRANSFORMER</td>
<td>18-MAY-8</td>
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*eparation (DE, PD, CP, H, or EX)"?
RODUCT.M33  FORM LAP SEAM ON ROUND DUCT  < 33> 31-May-83
RODUCT.M32  CUT CORNERS FOR ROUND DUCT  < 33> 31-May-83
RODUCT.M31  SHEAR SHEETMETAL FOR ROUND DUCT SECTION  < 33> 31-May-83
RODUCT.M30  MARK OUT ROUND DUCT SECTION  < 33> 31-May-83
RODUCT.M25  RIVET ROUND DUCT SECTION  < 33> 31-May-83
RODUCT.M24  FORM ROUND DIAMETER FOR ROUND DUCT  < 33> 1-Jun-83
RODUCT.M23  FORM LAP SEAM ON ROUND DUCT  < 33> 31-May-83
RODUCT.M22  CUT CORNERS FOR ROUND DUCT  < 33> 31-May-83
RODUCT.M21  SHEAR SHEETMETAL FOR ROUND DUCT  < 33> 31-May-83
RODUCT.M20  MARK OUT ROUND DUCT SECTION  < 33> 31-May-83
RODUCT.M19  RIVET ROUND DUCT SECTION  < 33> 31-May-83
RODUCT.M18  FORM ROUND DIAMETER FOR ROUND DUCT  < 33> 31-May-83
RODUCT.M17  FORM LAP SEAM ON ROUND DUCT  < 33> 31-May-83
RODUCT.M16  CUT CORNERS FOR ROUND DUCT  < 33> 31-May-83
RODUCT.M15  SHEAR SHEETMETAL FOR ROUND DUCT  < 33> 31-May-83
RODUCT.M14  FORM ROUND DIAMETER FOR ROUND DUCT  < 33> 31-May-83
RODUCT.M13  FORM LAP SEAM ON ROUND DUCT  < 33> 31-May-83
RODUCT.M12  CUT CORNERS FOR ROUND DUCT SECTION  < 33> 31-May-83
RODUCT.M11  SHEAR SHEETMETAL FOR ROUND DUCT SECTION  < 33> 31-May-83
RODUCT.M10  MARK OUT ROUND DUCT SECTION  < 33> 31-May-83
RODUCT.M09  RIVET ROUND DUCT SECTION  < 33> 1-Jun-83
RODUCT.M08  FORM ROUND DIAMETER FOR ROUND DUCT  < 33> 31-May-83
RODUCT.M07  FORM LAP SEAM ON ROUND DUCT  < 33> 1-Jun-83
RODUCT.M06  CUT CORNERS FOR ROUND DUCT  < 33> 31-May-83
RODUCT.M05  SHEAR SHEETMETAL FOR ROUND DUCT  < 33> 31-May-83
RODUCT.M04  FORM ROUND DIAMETER FOR ROUND DUCT  < 33> 31-May-83
RODUCT.M03  FORM LAP SEAM ON ROUND DUCT  < 33> 31-May-83
RODUCT.M02  SHEAR SHEETMETAL FOR ROUND DUCT  < 33> 31-May-83
RODUCT.M01  MARK OUT ROUND DUCT  < 33> 1-Jun-83
RVTJNT.M02  RIVET SHEETMETAL:JOINT  < 33> 16-May-83
RVTJNT.M01  RIVET SHEETMETAL:JOINT  < 33> 16-May-83
SQ2RND.M54  FORM COLLAR FOR SQUARE TO ROUND  < 33> 25-Mar-83
SQ2RND.M53  BEND RADIUS FOR SQUARE TO ROUND  < 33> 25-Mar-83
SQ2RND,M52  CUT RADIUS FOR SQUARE TO ROUND  < 33> 25-Mar-83
SQ2RND,M51  SHEAR SHEETMETAL FOR SQUARE TO ROUND  < 33> 25-Mar-83
SQ2RND,M50  MARK OUT SHEETMETAL FOR SQUARE TO ROUND  < 33> 25-Mar-83
STRGHT.M93  BEND SHEETMETAL FOR STRAIGHT SECTION  < 33> 24-May-83
STRGHT.M92  CUT SHEETMETAL FOR STRAIGHT SECTION  < 33> 24-May-83
STRGHT.M91  SHEAR SHEETMETAL FOR STRAIGHT SECTION  < 33> 24-May-83
STRGHT.M90  MARK OUT SHEETMETAL FOR STRAIGHT SECTION  < 33> 24-May-83
STRGHT.M83  BEND SHEETMETAL FOR STRAIGHT SECTION  < 33> 24-May-83
STRGHT.M82  CUT SHEETMETAL FOR STRAIGHT SECTION  < 33> 24-May-83
STRGHT.M81  SHEAR SHEETMETAL FOR STRAIGHT SECTION  < 33> 24-May-83
STRGHT.M80  MARK OUT SHEETMETAL FOR STRAIGHT SECTION  < 33> 24-May-83
STRGHT.M73  BEND SHEETMETAL FOR STRAIGHT SECTION  < 33> 24-May-83
STRGHT.M72  CUT CORNERS FOR STRAIGHT SECTION  < 33> 24-May-83
STRGHT.M71  SHEAR SHEETMETAL FOR STRAIGHT SECTION  < 33> 8-Jul-83
STRGHT.M70  MARK OUT STRAIGHT SECTION  < 33> 8-Jul-83
STRGHT.M66  ASSEMBLE STRAIGHT SECTION  < 33> 8-Jul-83
STRGHT.M65  BEND SHEETMETAL FOR STRAIGHT SECTION  < 33> 8-Jul-83
STRGHT.M64  FORM PITTSBURGH ON STRAIGHT SECTION  < 33> 8-Jul-83
STRGHT.M63  FORM LAP ENDS FOR STRAIGHT SECTION  < 33> 8-Jul-83
STRGHT.M62  CUT SHEETMETAL FOR STRAIGHT SECTION  < 33> 8-Jul-83
STRGHT.M61  SHEAR SHEETMETAL FOR STRAIGHT SECTION  < 33> 8-Jul-83
STRGHT.M60  MARK OUT SHEETMETAL FOR STRAIGHT SECTION  < 33> 8-Jul-83
STRGHT.M56  ASSEMBLE STRAIGHT SECTION  < 33> 8-Jul-83
STRGHT.M55  BEND SHEETMETAL FOR STRAIGHT SECTION  < 33> 8-Jul-83
STRGHT.M54  FORM PITTSBURGH, ON STRAIGHT SECTION  < 33> 8-Jul-83
STRGHT.M53  FORM LAP END ON STRAIGHT SECTION  < 33> 8-Jul-83
STRGHT.M52  CUT SHEETMETAL FOR STRAIGHT SECTION  < 33> 8-Jul-83
STRGHT.M51  SHEAR SHEETMETAL FOR STRAIGHT SECTION  < 33> 8-Jul-83
STRGHT.M50  MARK OUT SHEETMETAL FOR STRAIGHT SECTION  < 33> 8-Jul-83
TRANSF.M87  ASSEMBLE OFFSET TRANSFORMER  < 33> 8-Jul-83
TRANSF.M86  BEND LAP ENDS FOR OFFSET TRANSFORMER  < 33> 8-Jul-83
TRANSF.M85  BEND SHEETMETAL FOR OFFSET TRANSFORMER  < 33> 8-Jul-83
TRANSF.M84  FORM PITTSBURGH LOCK FOR OFFSET TRANSFORMER  < 33> 8-Jul-83
TRANSF.M83  FORM LAP ENDS FOR OFFSET TRANSFORMER  < 33> 8-Jul-83
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OSQ2RN.M30
OSQ2RN.M28
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OSQ2RN.M27
ASSEMBLE SQUARE TO ROUND OFF CENTER <33> 12-May-8
OSQ2RN.M26
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<33> 12-May-8
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SQ2RN.M24
FORM COLLAR FOR SQUARE TO ROUND OFF CENTER <33> 11-May-8
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SHEAR RADIUS FOR SQUARE TO ROUND OFF CENTER <33> 11-May-8
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RCT2RC.M53
BEND RADIUS FOR RECTANGULAR TO RADIUS CORNERS <33> 17-May-8
RCT2RC.M52
CUT RADIUS FOR RECTANGULAR TO RADIUS CORNERS <33> 17-May-8
RCT2RC.M51
SHEAR SHEETMETAL FOR RECTANGULAR TO RADIUS CORNERS <33> 17-May-8
RCT2RC.M50
MARK OUT RECTANGULAR TO RADIUS CORNERS <33> 17-May-8
RCT2RC.M40
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RCT2RC.M36
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RCT2RC.M35
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RCT2RC.M34
BEND RADIUS FOR RECTANGULAR TO RADIUS CORNERS <33> 17-May-8
RCT2RC.M33
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RCT2RC.M30
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RCT2RC.M11
RIVET RECTANGULAR TO RADIUS CORNERS <33> 13-May-8
RCT2RC.M09
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RCT2RC.M08
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RCT2RC.M07
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RCT2RC.M06
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RCT2RC.M05
FORM LAP ENDS ON RECTANGULAR TO RADIUS CORNERS <33> 13-May-8
RCT2RC.M04
FORM RADIUS FOR RECTANGULAR TO RADIUS CORNERS <33> 13-May-8
RCT2RC.M03
SHEAR RADIUS FOR RECTANGULAR TO RADIUS CORNERS <33> 13-May-8
RCT2RC.M02
SHEAR SHEETMETAL FOR RECTANGULAR TO RADIUS CORNERS <33> 13-May-8
RCT2RC.M01
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R02RO.M42
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RODUCT.M51
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RODUCT.M50
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RODUCT.M45
RIVET RODU DUCT SECTION <33> 1-JUN-8
RODUCT.M44
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RODUCT.M43
FORM LAP EAN ON ROUND DUCT <33> 1-JUN-8
RODUCT.M42
CUT CORNES FOR ROUND DUCT <33> 1-JUN-8
RODUCT.M41
SHEAR SHEETMETAL FOR ROUND <33> 1-Jun-8
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MARK OUT FOUND DUCT <33> 26-JUL-8
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F02RC .402 SHEAR SHEETMETAL FOR FLAT OVAL TO RADIUS CORNERS < 33> 5-May-8
F02RQ .454 FORM COLLAR FOR FLAT OVAL TO SQUARE CORNERS < 33> 24-May-8
F02RQ .533 BEND RADIUS FOR FLAT OVAL TO SQUARE CORNERS < 33> 24-May-8
F02RQ .552 CUT RADIUS FOR FLAT OVAL TO SQUARE CORNERS < 33> 24-May-8
F02RQ .551 SHEAR SHEETMETAL FOR FLAT OVAL TO SQUARE CORNERS < 33> 24-May-8
F02RQ .550 MARK OUT FLAT OVAL TO SQUARE CORNER < 33> 24-May-8
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G686 .23 FORM SHEETMETAL FOR 5 GORED ELBOW < 33> 24-May-8
G686 .22 SHEAR SHEETMETAL FOR 5 GORED ELBOW < 33> 23-May-8
G686 .21 SHEAR SHEETMETAL FOR 5 GORED ELBOW < 33> 23-May-8
G686 .20 MARK OUT 5 GORED ELBOW < 33> 23-May-8
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OFFSET .93 CUT RADIUSES AND CORNERS FOR OFFSET < 33> 26-May-8
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OFFSET .90 MARK OUT CHEEKS FOR OFFSET < 33> 26-May-8
OFFSET .89 ASSEMBLE CHEEKS AND WRAPPERS FOR OFFSET < 33> 8-Jul-8
OFFSET .88 FORM RADIUS ON WRAPPERS FOR OFFSET < 33> 11-May-8
OFFSET .87 POSITION SPACERS IN PITTSBURGH LOCKS FOR OFFSET < 33> 11-May-8
OFFSET .86 FORM PITTSBURGH LOCKS FOR OFFSET < 33> 8-Jul-8
OFFSET .85 FORM 90 DEGREE EDGE ON CHEEKS FOR OFFSET < 33> 11-May-8
OFFSET .84 FORM LIP ENDS FOR OFFSET < 33> 11-May-8
OFFSET .83 SHEAR CHEEK RADIUS FOR OFFSET < 33> 8-Jul-8
OFFSET .82 SHEAR SHEETMETAL FOR OFFSET < 33> 11-May-8
OFFSET .81 MARK OUT WRAPPERS FOR OFFSET < 33> 11-May-8
OFFSET .80 MARK OUT CHEEKS FOR OFFSET < 33> 11-May-8
OFFSET .79 ASSEMBLE CHEEKS AND WRAPPERS FOR OFFSET < 33> 10-May-8
OFFSET .78 FORM RADIUS ON WRAPPERS FOR OFFSET < 33> 10-May-8
OFFSET .77 POSITION SPACERS IN PITTSBURGH LOCKS FOR OFFSET < 33> 10-May-8
OFFSET .76 FORM PITTSBURGH LOCK ON WRAPPERS FOR OFFSET < 33> 10-May-8
OFFSET .75 FORM 90 DEGREE EDGE ON CHEEKS FOR OFFSET < 33> 10-May-8
OFFSET .74 FORM LIP ENDS ON CHEEKS AND WRAPPERS FOR OFFSET < 33> 10-May-8
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OFFSET .70 MARK OUT CHEEKS FOR OFFSET < 33> 10-May-8
OFFSET .69 FORM RADIUS ON WRAPPERS FOR OFFSET < 33> 26-May-8
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OFFSET .67 FORM RADIUS ON WRAPPERS FOR OFFSET < 33> 26-May-8
OFFSET .66 FORM PITTSBURGH LOCK ON WRAPPERS FOR OFFSET < 33> 26-May-8
OFFSET .65 FORM 90 DEGREE EDGE ON CHEEKS FOR OFFSET < 33> 26-May-8
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OFFSET .63 SHEAR RADIUS ON CHEEKS FOR OFFSET < 33> 12-May-8
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DGEE .M41 MARK OUT WRAPPERS FOR OGE < 33> 12-May-8
DGEE .M40 MARK OUT CHEEKS FOR OGE < 33> 12-May-8
OSQ2RN .M74 FORM COLLAR FOR SQUARE TO ROUND OFF CENTER < 33> 25-May-8
OSQ2RN .M73 BEND RADIUS FOR SQUARE TO ROUND OFF CENTER < 33> 25-May-8
OSQ2RN .M72 CUT RADIUS FOR SQUARE TO ROUND OFF CENTER < 33> 25-May-8
OSQ2RN&M71 SHEAR SHEETMETAL FOR SQUARE TO ROUND OFF CENTER < 33> 25-May-8