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ATBBG P-2044

SUBJECT. Report of Project Nr 2044, Evaluation of Truck,
1/4-Ton, 4x4, M422

4. BACKGROUND.

a. In 1953, an earlier version of the M422 was evaluated by Board Nr 2, OCAFF for possible uses in the type field Army. The vehicle was found to be unsuitable as a replacement for the then standard Army 1/4-ton because of: inadequate cargo area, incompatibility with the M100 1/4-ton trailer, insufficient cruising range, and insufficient interchangeability of parts with Army vehicles. Chief of Army Field Forces recommended that no further consideration be given to the vehicle in its (then) present form for Army Field Forces use (reference 2a).

b. In 1957, Truck, Utility, 1/4-Ton, 4x4, Lightweight, M422, was adopted and type classified as standard type for US Marine Corps only (reference 2b) and Department of the Army requested that two early production versions be made available to the US Army for automotive and airdrop testing (reference 2c).

c. Tentative reports of Engineering tests of the M422 conducted at Aberdeen Proving Ground and Yuma Test Station (references 2d, e, and f) indicate that:

(1) The transmission, transfer case, and front and rear differentials exceeded the critical temperature limit in full-loading cooling tests.

(2) Service brake shoes wore excessively.

(3) Oil consumption was excessive.

(4) Differential and body brackets lacked sufficient durability.

d. M422 1/4-ton truck pilot nr 7 was delivered to this board for evaluation in May 1959.

e. Priority of this project is unknown.

5. SUMMARY OF TESTS. Tests were conducted in the vicinity of Fort Knox, Kentucky, by Major Robert H. Harrington, Armor, in conformance with the plan of test referenced in paragraph 2g.

a. Test Nr 1 - Preoperational Inspection and Physical Characteristics.

(1) Routine adjustments were performed on the test item during an initial technical inspection, none of which was of significant importance.

(2) Principal physical characteristics of the M422 were:

Curb Weight	1,795 lb
Over-all height	60.5 in
Lowest operable height (over steering wheel)	53 in
Over-all length	107 in
Over-all width	60 in
Tread	52.25 in (front and rear)
Wheel base	64.63 in
Angle of approach	60.4°
Angle of departure	49.4°
Ground clearance (no load)	9.5 in

b. Test Nr 2 - Road Mobility.

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(1) The test vehicle and an M151 1/4-ton truck, both loaded to highway rating, were operated at 20 mph and then 30 mph over a 20-mile road course containing straight level stretches, curves, and grades up to and including 20 percent. Average times were as follows:

	<u>M422</u>	<u>M151</u>
20 mph	58 min	60 min
30 mph	41 min	41 min

(2) Minimum turning radii for the vehicles carrying highway payload were measured as shown below.

	<u>M422</u>	<u>M151</u>
Right	15.9 feet	18.7 feet
Left	15.6 feet	18.8 feet

(3) Average road distances required for the vehicles to reach the speeds indicated from a standing start were as follows:

<u>Speed</u>	<u>Distance, Highway Payload</u>		<u>Distance, Highway Pay- load and Highway Towed Load</u>	
	<u>M422</u>	<u>M151</u>	<u>M422</u>	<u>M151</u>
10 mph	17.4 ft	17.6 ft	21.3 ft	27.0 ft
20 mph	70.7 ft	61.7 ft	102.1 ft	161.2 ft
30 mph	199.5 ft	261.7 ft	264.6 ft	381.2 ft
40 mph	476.5 ft	599.0 ft		

(4) Average road distances required to bring the vehicles to a halt from the speeds indicated were as follows:

<u>Speed</u>	<u>Distance, Highway Payload</u>		<u>Distance, Highway Payload and Highway Towed Load</u>	
	<u>M422</u>	<u>M151</u>	<u>M422</u>	<u>M151</u>
10 mph	7.7 ft	9.8 ft	8.6 ft	8.6 ft
20 mph	18.5 ft	18.8 ft	26.7 ft	32.4 ft
30 mph	39.0 ft	44.6 ft	50.1 ft	72.4 ft
40 mph	57.1 ft	75.9 ft		

(5) No difficulties were experienced with the M422 in operating in convoy from Fort Knox, Kentucky to Fort Campbell, Kentucky and return, a total distance of approximately 300 miles.

(6) No difficulties peculiar to the M422 were noted while driving the vehicle at night in convoy and using the signal blackout markers only. However, the M422 is not equipped with a blackout driving light.

(7) Observations made during road mobility tests of the M422 which relate to the vehicle's performance were:

(a) The steering was more sensitive than on the M151.

(b) Attempting to stop the M422 by brake application from a speed in excess of 30 mph, particularly while towing a trailer, was dangerous. The vehicle swerved excessively. This situation was not attributable to incorrect brake adjustment or wheel alignment.

(c) The windshield was practically ineffective while driving through rain. The driver required assistance to keep the inside of the windshield clear enough to see the road.

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(d) Lack of a blackout driving light handicaps the vehicle considerably during movements in darkness.

(8) The M422 was considered unsatisfactory with respect to road mobility.

c. Test Nr 3 - Cross-Country Mobility.

(1) The M422 and an M151 without, and then with, towed load were operated over a 4-mile muddy cross-country course and a 4-mile dry cross-country course. Average times were as follows:

<u>Condition of Course</u>	<u>Time (min)</u>	
	<u>M422</u>	<u>M151</u>
Muddy w/o towed load	25.0	23.4
Muddy w/towed load	23.0	23.3
Dry w/o towed load	22.0	21.0
Dry w/towed load	22.6	22.5

(2) Both vehicles negotiated longitudinal dirt slopes up to 50 percent without difficulty. Neither vehicle's parking brake would hold on a 50 percent slope while towing a trailed load. Dirt side slopes up to 40 percent were negotiated without difficulty.

(3) The test and control vehicles were substantially equal in cross-country performance. The shorter wheelbase, lighter weight, and slightly higher ground clearance of the M422 did not affect relative performance to any measurable extent.

(4) It was noted that the underbody components of the M422 were much more vulnerable to damage from ground contact than corresponding components of the M151. This condition also hindered cross-country operations. In addition, the inboard brakes on the M422 collected mud and abrasive material to a much greater extent than the conventional brakes on the M151 and required frequent relining.

d. Test Nr 4 - Fuel and Oil Consumption.

(1) Fuel consumption in miles per gallon on hard surface roads for the M422 and M151 was:

	<u>M422</u>	<u>M151</u>
With towed load	18.6	18.2
Without towed load	20.1	21.4

(2) Fuel consumption in miles per gallon on cross-country courses for the M422 and M151 was:

	<u>M422</u>	<u>M151</u>
With towed load	12.7	12.2
Without towed load	14.9	15.8

(3) Usable fuel capacity measured with the vehicles on level ground was 12 gallons for the M422 and 17 gallons for the M151.

(4) Oil used in miles of operation indicated (including oil changes) and average oil consumption in miles per quart for the M422 and M151 were:

	<u>Miles</u>	<u>Qt</u>	<u>MPQ</u>
M422	5,412	20.5	264
M151	15,912	32.0	497

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(5) Over-all fuel consumption was 15.6 miles per gallon for the M422 and 15.2 miles per gallon for the M151.

(6) Five quarts of oil were consumed in the last 552 miles of vehicle operation (110 miles per quart). This was considered excessive.

e. Test Nr 5 - Compatibility With Related Equipment.

(1) The M422 was used to tow the M100 and M100C 1/4-ton trailer loaded with sufficient payload to achieve a gross weight of 1,500 lbs. The deep water fording kit issued with the vehicle was installed. Radios were installed.

(2) The vehicle was not compatible with the M100 1/4-ton trailer because of the difference in tread width which measured 52.5 inches in the rear of the M422 - center to center - and 49 inches center to center on the trailer. Further, the pintle height of the M422 measured 20-1/4 inches and the lunette eye height of the M100 1/4-ton trailer 27 inches. However, the vehicle towed the M100C 1/4-ton trailer on and off roads without difficulty.

(3) The M422 was compatible with the deep water fording kit.

(4) The M422 was compatible with the AN/VRC-10 and an AN/VRQ-3 radios.

(5) Towing and lifting devices were considered inadequate for recovery purposes.

f. Test Nr 6 - Security.

(1) Maximum distances at which engine noises of the M422 and the M151 could be heard at night under the conditions indicated were:

	<u>M422</u> <u>(Yd)</u>	<u>M151</u> <u>(Yd)</u>
Moving	700	800
Acceleration	880	880

(2) The blackout markers on both vehicles were visible to the naked eye up to 880 yards distance, beyond which terrain configuration precluded further testing.

g. Test Nr 7 - Fording.

(1) The M422 was operated without difficulty for 30 minutes in a hard bottomed stream with a water depth of approximately 20 inches. The following were noted:

(a) At 5 mph no appreciable spray or splash was created.

(b) Engine and brake operation were not affected.

(c) Water entered the right front wheel assembly through a hole in steering knuckle boot.

(2) The M422 with deep water fording kit installed was operated for 15 minutes in a hard bottomed stream with a water depth of approximately 3 feet. No difficulty was encountered until the air intake hose upper clamp assembly slipped off of the windshield and fell in the water. Water was then sucked into the engine.

h. Test Nr 8 - Stowage.

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(1) Stowage provisions for the on-vehicle equipment furnished were adequate. However, the equipment furnished was limited to a jack and lug wrench.

(2) There was no provision for stowage of small tools such as a screwdriver, pliers, adjustable wrench, etc, which are furnished with Army 1/4-ton trucks. Also there was no provision for stowage of a spare tire, gasoline or water can, and pioneer tools (axe and shovel). Stowage provisions for most, if not all, of these items is considered essential on 1/4-ton trucks for Army use.

(3) Aside from the considerations discussed in paragraph (2), above, the test vehicle was considered adequate to accommodate the personnel and equipment called for in use of the vehicle as a command vehicle (inclosure 3). The test vehicle was considered inadequate for accommodation of personnel and equipment required in use of the vehicle as a reconnaissance platoon scout vehicle (inclosure 4). The loadings shown by both inclosures are common to all Army divisional units and are considered typical.

(4) Usable cargo areas of the M422 and M151 vehicles are compared below:

	<u>M422</u> <u>(inches)</u>	<u>M151</u> <u>(inches)</u>
Inside length of body (cargo space)	30	36
Inside width of body (cargo space)	41.5	41.5
Height of side panels	12.5	12.25
Total cargo space (cubic inches)	15,590	18,310
Total cargo space (cubic feet)	9.0	10.6

i. Test Nr 9 - Ease of Operation, Crew Safety and Comfort.

(1) A driver with long legs must straddle the steering wheel while driving.

(2) Vision for a tall driver was restricted by the low windshield.

(3) The manually controlled windshield wiper on the front passenger seat side was unduly time consuming to operate considering that the passenger is also the vehicle commander and often a formation commander with numerous other duties.

j. Test Nr 10 - Radio Suitability.

(1) Lack of a 100-amp generator kit compatible with the test vehicle precluded mounting the AN/GRC-19 radio set and conducting radio transmissions during mobile operations. The following alternate method was employed. An AN/GRC-19 radio set on a stationary mount was connected to the vehicle electrical system with batteries at full charge. The radio set was then operated from the vehicle batteries on a 1 to 3 transmit/receive ratio until the batteries were discharged to the point where reception ceased and it became necessary to use a slave cable to start the vehicle. The engine was then started with the slave cable and the radio set operated at the same transmit/receive ratio until the batteries were restored to normal charge.

(2) The following observations were made during radio operations:

(a) The batteries were drained as indicated above in 4 hours 17 minutes. After 2 hours 16 minutes the charge was insufficient to permit transmissions.

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(b) After approximately 3-1/2 hours of engine operation, during which the radio set was operated on a 1 to 3 transmit/receive basis, the vehicle generator system had recharged the batteries to a degree permitting self starting of the engine.

(c) Maximum battery temperature during recharging was 80°F.

(d) The vehicle generator system was not considered adequate to provide the power required to operate the AN/GRC-19 radio set on a "continual-use" basis.

(e) Although the AN/GRC-19 radio set was not mounted in the test vehicle during test operations, other radio sets were mounted during mobile operations, including fording. No adverse effects on radios due to washing or fording were noted.

(f) Over-all findings as to radio suitability of the test vehicle are inconclusive in the absence of a compatible 100-ampere generator kit.

k. Test Nr 11 - Maintenance.

(1) Average man-hours required to perform maintenance operations were:

<u>Interval</u>	<u>Personnel Utilized</u>	<u>Time</u>
Daily	Driver	20 min
Quarterly	Driver and mechanic	4 hr

(2) Parts used are listed in inclosure 4.

(3) Man-hours expended in unscheduled (break-down) maintenance throughout testing were as follows:

2d echelon	78 man-hours
Field maintenance	182.5 man-hours

(4) Design deficiencies which were prejudicial to maintenance were:

(a) Fuel tank filler opening not compatible with all standard fuel hose nozzles (par 17b inclosure 1).

(b) The left intake manifold heat tube assembly interfered with the carburetor throttle control lever.

(c) Fuel tank filler neck rubbed against the right longitudinal frame member.

(5) The vehicle was considered to be unsatisfactory because of excessive maintenance requirements.

m. Test Nr 12 - Durability and Reliability.

(1) The following tabulation breaks down by category the mileage accumulated on the M422.

Hard Surface Roads

Rated Payload and Towed Load	1,716
Rated Payload Only	1,616
No Load	* 778
Total	4,110

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Gravel or Dirt Roads

Rated Payload and Towed Load	167
Rated Payload Only	46
No Load	<u>0</u>
Total	213

Cross Country

Rated Payload and Towed Load	514
Rated Payload Only	794
No Load	<u>152</u>
Total	1,460
Grand Total	5,783

* Includes 345 miles showing on odometer when received.

(?) Breakdowns and failures which made the vehicle inoperable or operation of the vehicle inadvisable occurred at the odometer mileages indicated.

<u>Cause of Breakdown</u>	<u>Odometer Mileage</u>
Left rear suspension arm bent during cross-country operations, resulting in misaligned left rear wheel	2,532
Brakes failed to stop vehicle without first pumping brake pedal several times. All wheel brake linings were worn down to the rivet heads and the wheel brake drums scored.	2,945 4,133

<u>Cause of Breakdown</u>	<u>Odometer Mileage</u>
Looseness between fan shaft and fan shaft bearing from excess wear resulted in an unusual noise.	3,364 (first detected at 2,945)
Clutch would not engage because of broken clutch release yoke shaft coupling.	3,464
Right rear fuel tank strap bracket broke and left rear fuel tank strap bracket cracked.	3,766
The rear differential front end bracket buckled during off-road operation.	3,839
Air intake hose upper clamp bracket (of deep water fording kit) slipped out of position, allowing the hose to fall into a stream being forded. Water was sucked into engine.	3,849
Clutch release bearing was corroded and binding and three pressure spring release levers had worn excessively.	4,067
Rear differential assembly was unusually noisy because of excessive backlash and incorrect mating of pinion and ring gear.	4,205
Fan idler pulley excessively worn.	4,793

(3) Maintenance time for 5,783 miles of operation works out to 0.0052 man-hours of scheduled maintenance per mile of vehicle operation (193 miles per man-hour) and 0.045 man-hours of unscheduled maintenance per mile of vehicle operation (22.2 miles per man-hour). Total maintenance time per mile of vehicle operation was 0.050 man-hours (20 miles per man-hour). Times exclude man-hours spent by the manufacturer in repair of the vehicle.

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(4) Based on frequency of repair or replacement, durability of the following parts, components, or assemblies is considered inadequate.

- (a) Clutch (See par 2, 14, inclosure 1)
- (b) Fan shaft and bearing (See par 3, inclosure 1)
- (c) Transmission-Transfer Assy (See par 5, 6, 17, inclosure 1)
- (d) Front steering knuckle boot (See par 7, inclosure 1)
- (e) Rear wheel drive shaft (See par 8, inclosure 1)
- (f) Brakes (See par 9, inclosure 1)
- (g) Frame and brackets (See par 10, 18, inclosure 1)
- (h) Body (See par 12, inclosure 1)

(5) The vehicle was unsatisfactory with respect to durability and reliability.

n. All deficiencies noted during testing are listed in inclosure 1.

o. Tests to determine the suitability of the test vehicle for aerial delivery, air transportability, and helicopter transport (tests nr 12, 13, and 14 of the plan of test, reference 2g) are scheduled to be conducted by US

Army Airborne and Electronics Board with a new vehicle when available. A separate report will be submitted by the US Army Airborne and Electronics Board when these tests have been completed.

6. DISCUSSION.

a. The M422 1/4-ton truck is approximately 500 pounds lighter than the Army's M151 1/4-ton and is 25 inches shorter over-all. Differences in width and height (windshield lowered) are not significant. Wheelbase of the M422 is 20 inches shorter.

(1) Despite sizable differences in weight and wheelbase, the M422 and M151 are substantially equal in cross-country mobility.

(2) The M422's advantage in over-all length would be reduced by at least 8 inches if a spare tire, which is an Army requirement, were mounted on the rear panel and no other location is practical.

(3) The M422's advantage in over-all length is further compromised because it is achieved in part by a 6-inch reduction in length of the cargo compartment as compared to the M151, which itself has only marginal cargo capacity for tactical loads.

b. Weight reduction, per se, offers the user no tangible advantage. As to compactness, the net saving in over-all length (on the order of 17 inches if a spare tire is added to the M422) is not considered sufficient to warrant Army use of the M422 for special applications.

7. CONCLUSION. US Army Armor Board concludes that the Truck, Utility, 1/4-Ton, 4x4, Lightweight, M422, does not, even if modified to correct all deficiencies, offer any promise of becoming an efficient and acceptable replacement for the standard Army 1/4-ton truck for special applications when a compact, lightweight truck would be of use.

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8. RECOMMENDATION. US Army Armor Board recommends that no further consideration be given to Army use of Truck, Utility, 1/4-Ton, 4x4, Lightweight, M422.

5 Incl

1. Deficiency and Remarks
2. Parts Expended
3. Photograph 59-2508
4. Photograph 59-2513
5. Coordination

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ANDREW J. BOYLE
Colonel, Armor
President

DEFICIENCIES AND REMARKS

DEFICIENCY

REMARKS

SECTION 1

Deficiencies in this section are major in nature.

1. Engine. Excessive engine oil consumption was evidenced. See par 5d(6), main body of report.

2. Clutch.

a. The clutch release bearing was corroded and the three pressure spring release levers had worn excessively. Deficiency Report Nr 33*

b. The clutch foot pedal would not return to the released position. Deficiency Report Nr 46

3. Cooling System.

a. There was excessive looseness between the fan shaft and the bearing. Deficiency Report Nr 4, 17, and 34

b. There was excessive looseness between the fan idler shaft and the bearing. Deficiency Report Nr 34

4. Electrical System. The vehicle was not equipped with a blackout driving light. See par 5b(6), main body of report.

5. Transmission. The high speed inner synchronizer excessively worn. Deficiency Report Nr 39

*Deficiency reports are referenced in full by paragraph 2h, main body of report.

Incl 1

DEFICIENCY

REMARKS

6. Transfer. The intermediate shaft of the transfer was broken and was pitted and worn. Also both thrust washers for the intermediate gear were excessively worn.

Deficiency Report
Nr 41

7. Front Axle. Holes developed repeatedly in the right front steering knuckle boot.

Deficiency Report
Nr 13, 27, and 40

8. Rear Axle.

a. A worn pinion seal allowed dirt and water to enter and damage the differential assembly.

Deficiency Report
Nr 20

b. The right rear axle outer universal joint spider bearing surface was excessively worn.

Deficiency Report
Nr 22

c. The rear differential front end bracket buckled.

Deficiency Report
Nr 30

d. An excessive amount of backlash and incorrect contact between the pinion gear and ring gear of the rear differential required replacement of the differential assembly.

Deficiency Report
Nr 42

9. Brakes.

a. All wheel brake shoe and lining assemblies required replacement repeatedly.

Deficiency Report
Nr 5, 21, and 37

b. Sudden application of brakes was dangerous at speeds greater than 30 mph.

See par 5b(7)(b)

c. The brake shoe retracting spring in the left front wheel was broken.

Deficiency Report
Nr 47

DEFICIENCY

REMARKS

10. Frame and Brackets.

- a. The rear differential carrier bracket cracked twice.
- b. The rear differential carrier front support bracket cracked.
- c. The frame longitudinal number cracked repeatedly adjacent to the left and right towing pintle mount reinforcements.
- d. Poor design of frame and underbody afforded scanty protection for the brackets, drive shafts, and brakes so that they were subjected to shock loads from ground contact while operating cross-country.

Deficiency Reports
Nr 16 and 35

Deficiency Reports
Nr 28 and 43

Deficiency Reports
Nr 31, 44, and 45

See par 5c(4), main
body of report.

11. Springs and Shock Absorbers. The left rear suspension arm bent.

Deficiency Report
Nr 3

12. Body.

- a. Cracks developed in the left rear wheel well, the firewall directly beneath the steering column, and the right front body to frame bracket.
- b. The windshield was practically ineffective while driving through rain because rain hit both sides and the driver required assistance to keep his side clear enough to see the road.

Deficiency Reports
Nr 14, 24, and 48

See par 5b(7)(c), main
body of report.

SECTION II

Deficiencies in this section are relatively minor in nature.

DEFICIENCY

REMARKS

13. Engine. The left intake manifold heat tube assembly interfered with the carburetor throttle control lever.

Deficiency Report
Nr 8

14. Clutch. The clutch release yoke shaft coupling broke.

Deficiency Report
Nr 18

15. Fuel System.

a. The fuel tank filler neck rubbed against the right longitudinal member of the frame.

Deficiency Report
Nr 15

b. The fuel tank filler opening is not compatible with all standard fuel hose nozzles.

Deficiency Report
Nr 36

16. Electrical System.

a. The starting motor operating cable broke.

Deficiency Report
Nr 7

b. The carburetor throttle control cable rubbed through the insulation of the generator charge regulator output cable.

Deficiency Report
Nr 10

c. The starting motor operating cable housing slipped out of the support bracket.

Deficiency Report
Nr 19

17. Transfer. The plain encased seal on the transfer case rear output shaft failed.

Deficiency Report
Nr 25

18. Frame and Brackets.

a. Various frame brackets and gussets buckled and cracked.

Deficiency Reports
Nr 9, 12, 23, and 29

DEFICIENCY

- b. Bolt holes in rear differential carrier bracket were elongated.
- 19. Fording Kits. The air intake hose upper clamp bracket assembly slips easily out of its intended position.
- 20. Miscellaneous Body Parts. Manually operated windshield wiper was unduly time-consuming.
- 21. Miscellaneous.
 - a. Vehicle has no provisions for stowage of pioneer tools, spare tire, water or fuel can, and various small tools furnished with Army 1/4-ton trucks.
 - b. Leg room for driver is restricted in the vehicle.
 - c. Driver's vision is obstructed by low windshield.

REMARKS

- Deficiency Report Nr 38
- Deficiency Report Nr 32
- See par 5i(3), main body of report
- See par 5h(2), main body of report.
- See par 5i(1), main body of report.
- See par 5i(2), main body of report.

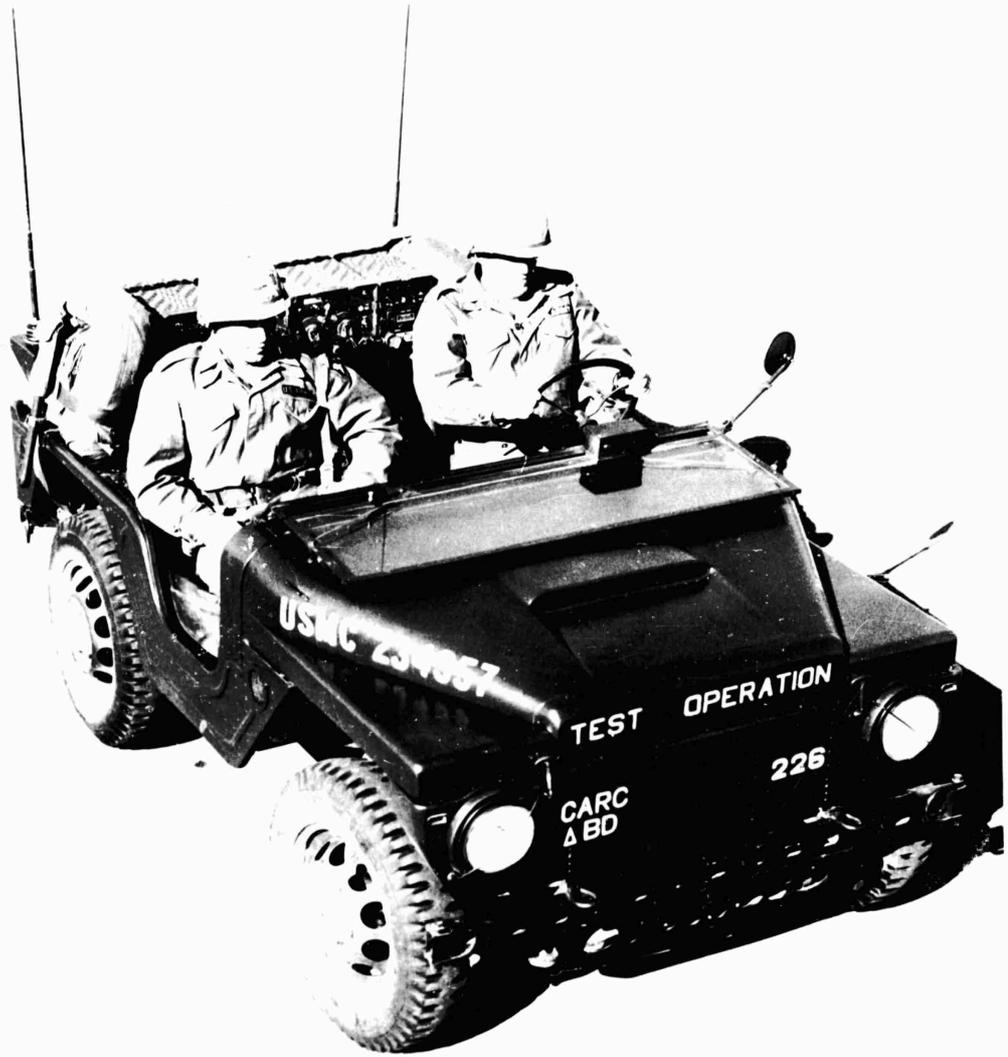
Parts Expended in Maintaining M422 Pilot Nr 7

<u>Group</u>	<u>Stock Nr</u>	<u>Nomenclature</u>	<u>Qty</u>	<u>Mileage</u>
0105.1	7979455	Seal-Engine Front Cover Oil	1	3473
0201	8343673	Disc Assembly-Clutch Driven	1	4061
	8343674	Plate Assembly-Clutch Pressure	1	4067
	10872550	Spring, Helical, Com- pression (clutch pressure)	1	5770
0202	710203	Bearing-Clutch Release	1	4067
	7979454	Seal-Clutch Release Shaft Yoke	1	4067
	8757164	Yoke-Clutch Release	1	4067
0312	8761655	Control Assembly- Carburetor Throttle	1	4067
0505	8757143	Shaft and Bearing Assembly-Fan	1	3364
	"	" " " "	1	16
	"	" " " "	1	714
	"	" " " "	1	699
0603	8761660	Cable Assembly-Starting Motor Operating	1	3473
	"	" " " "	1	329

Incl 2

<u>Group</u>	<u>Stock Nr</u>	<u>Nomenclature</u>	<u>Qty</u>	<u>Mileage</u>
0605	2920-571-6731	Plug-spark	4	1863
0802.7	8761753	Seal, Plain Encased	1	3766
	"	" " "	1	2004
0900	5-121X	Universal Joint-Assembly	2	3802
1004	8757134	Knuckle-Steering-Right	1	4067
	8757433	Boot-Steering Knuckle	1	
	"	" " "	1	
	8761826	Anchor-Steering Knuckle Boot Sleeve	2	
1006	8757152	Joint Assembly, Front Wheel Universal	1	
	10872544	Shaft-Front Wheel Drive- Assembly	1	4067
1100	2520-028-3434	Universal joint	1	3490
1102	8757140	Differential Assembly- Rear Axle-With Brakes	1	
1104.1	500048	SEAL, Plain Encased (Axle Shaft Hub)	2	
1202	8757121	Brake Assembly-Front- Left	1	3473
	"	" " " "	1	662
1202	8757122	Brake Assembly-Front- Right	1	3473
	"	" " " "	1	662

<u>Group</u>	<u>Stock Nr</u>	<u>Nomenclature</u>	<u>Qty</u>	<u>Mileage</u>
	8757123	Brake Assembly-Rear-Left	1	3473
	"	" " " "	1	662
	8757124	Brake Assembly-Rear-Right	1	3473
	"	" " " "	1	662
1311	705818	Cone-Front Wheel Bearing-Outer	1	
	707092	Cup-Front Wheel Bearing-Outer	1	
	712179	Cup-Front Wheel Bearing-Inner	1	
	7409786	Cone-Front Wheel Bearing-Inner	1	
	7985071	Seal-Front Wheel Bearing (Outer) Oil	2	
	8761916	Drum-Brake (Front and Rear)	4	3473
	"	" " "	1	662
	"	" " "	4	
2202	C4258M1170	Wiper Assembly-Windshield-(Hand Operated)	1	
		Spring Brake-Left Front	1	5770



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PHOTO NR59-2508 FT KNOX, KY

TRUCK, 1/4-TON, 4X4, M422 EQUIPPED AND MANNED FOR USE AS
PLATOON LEADER'S VEHICLE RECONNAISSANCE PLATOON.

Incl 3



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PHOTO NR59-2513 FT KNOX, KY

TRUCK, 1/4-TON, 4X4, M422 EQUIPPED AND MANNED FOR USE AS SCOUT SECTION VEHICLE, RECONNAISSANCE PLATOON. NOTE THAT OVE FOR WHICH THERE ARE NO PROVISIONS FOR VEHICULAR STOWAGE IS DISPLAYED IN FRONT OF TRUCK.

Incl 4

COORDINATION

The following shows the coordination of the tentative report of Project Nr 2044, Evaluation of Truck, 1/4-Ton, 4x4, M422 with agencies outside USCONARC.

1. UNITED KINGDOM. ". . . 'No comment.'"
2. CANADA. ". . . 'no comment'"
3. UNITED STATES MARINE CORPS. No comments received prior to expiration of suspense date.

Incl 5