This Performance Oriented Packaging (POP) report is for the Proof Charge, 155MM, PXR-6297A1, packed one per PA 103 Square Rim Metal Ammunition Container in accordance with drawing 12902708. This report describes the results of testing conducted on a similar packaging which is used as an analogy for this item.
I. Report Number: DOD POP HMTR/AYD 93-031

II. Title: Performance Oriented Packaging (POP) testing of Charge, Proof, 155 MM, PXR-6297A1, Packed One per PA103 Square Rim Metal Ammunition Container

Drawing Number: 12902708

Author: Raymond J. Siroy

Performing Activity: U.S. Army Armament Research, Development and Engineering Center (ARDEC)

Address: Department of the Army
Commander, U.S. Army ARDEC
Attn: SMCAR-AEP
Picatinny Arsenal, N.J. 07806-5000

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Distribution Statement A.
Approved for public release; distribution is unlimited.
1. DATA SHEET:

a. CONTAINER

Type: Removable head steel drum  
UN Code: 1A2  
Part Number: 9349398  
Spec Number: MIL-C-63461  
Material: Steel  
Capacity: 19.0 liters  
Dimensions:

- Inside Diameter = 6.50 in. min.  
- Outside Diameter = 7.49 in. max.  
  at Flat Side  
- Inside length = 35.06 in. min.  
- Outside Length = 37.99 in. max.  

Closure (Method/Type): Cover shaft is locked into slots on container rim.

Tare Weight: 6.9 kg (15.3 lbs)

b. PRODUCT

Name: Charge, Proof, 155 MM, PXR-6297A1 for HOW M198  
United Nations Proper Shipping Name: Charges, Propelling, for Cannon  
United Nations Number: 0242  
Drawing Number: 12598573  
Physical State: Solid  
United Nations Packing Group: II  
Amount Per Container: 1

2. BACKGROUND, TESTS, AND RESULTS:

The Department of Transportation (DOT) per Code of Federal Regulations (CFR), Title 49, Parts 100-180, dated 1 Oct 92, requires that Hazardous Materials should be packed in a container that passes the Performance Oriented Packaging (POP) tests.
The PA103 Square Rim Metal Ammunition Container reference 1a, is used as the shipping container for the Proof Charge, 155 MM, PXR-6297A1 packed in accordance with drawing 12902708.

Reference the following documents:
b. POP Report DOD POP HMTR/AYD 92-003

Instead of testing the specific container used for the Proof Charge, 155 MM, PXR-6297A1 in accordance with drawing 12902708, the metal container is certified to meet the requirements of the Code of Federal Regulations (CFR), Title 49, based on a previously tested PA116 Square Rim Metal Container which has the following weight and dimensions:

Gross Weight:    75.4 pounds (34.2 kg)
Dimensions:

Inside Diameter = 6.75 in. min.
Outside Diameter = 7.75 in. max.
at Flat Side
   Inside length = 41.50 in. min.
   Outside Length = 44.50 in. max.

Stacking Test, Loose Cargo Test and Four Foot Drops were conducted in accordance with Reference 2b. The results indicated no leakage or spillage of contents from the metal container following any of the tests, thus satisfying the requirements of the 49 CFR. This falls within the guidelines for analogy IAW Variation 3 of Para. 178.601(g)(3) of Reference 2a.

3. CONCLUSION:

Based upon the above POP testing, the following UN POP symbol has been applied to the PA103 Square Rim Metal Container in accordance with drawing 12902708.

\[ \text{UN} \]
\[ 1A2/Y27/S/** \]

USA/DOD/AYD

** Last two digits of year packed.

DTIC QUALITY INSPECTED B