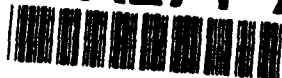


AD-A274 759



ENTATION PAGE

 Form Approved
 OMB No 0704-0188
 Exp Date Jun 30, 1986

1a. REPORT SECURITY CLASSIFICATION Unclassified		1b. RESTRICTIVE MARKINGS None									
2a. SECURITY CLASSIFICATION AUTHORITY N/A		3. DISTRIBUTION / AVAILABILITY OF REPORT Distribution A: Unlimited									
2b. DECLASSIFICATION / DOWNGRADING SCHEDULE N/A		5. MONITORING ORGANIZATION REPORT NUMBER(S) None									
4. PERFORMING ORGANIZATION REPORT NUMBER(S) DOD POP HMTR/AYD 93-031		7a. NAME OF MONITORING ORGANIZATION None									
6a. NAME OF PERFORMING ORGANIZATION Packaging Division, AED	6b. OFFICE SYMBOL (If applicable) SMCAR-AEP	7b. ADDRESS (City, State, and ZIP Code) None									
6c. ADDRESS (City, State, and ZIP Code) US Army Armament Research, Development and Engineering Center Picatinny Arsenal, NJ 07806-5000		9. PROCUREMENT INSTRUMENT 481									
8a. NAME OF FUNDING / SPONSORING ORGANIZATION Packaging Division, AEP	8b. OFFICE SYMBOL (If applicable) SMCAR-AEP	10. SOURCE OF FUNDING NUM <table border="1"> <tr> <td>PROGRAM ELEMENT NO.</td> <td>PROJECT NO.</td> <td>TASK NO.</td> <td>WORK UNIT ACCESSION NO.</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> </tr> </table>		PROGRAM ELEMENT NO.	PROJECT NO.	TASK NO.	WORK UNIT ACCESSION NO.				
PROGRAM ELEMENT NO.	PROJECT NO.	TASK NO.	WORK UNIT ACCESSION NO.								
8c. ADDRESS (City, State, and ZIP Code) US Army Armament Research, Development and Engineering Center Picatinny Arsenal, NJ 07806-5000											

94-01523



11. TITLE (Include Security Classification)
Performance Oriented Packaging (POP) Testing of Charge, Proof, 155MM, PXR-6297A1, Packed one per PA 103 Square Rim Metal Ammunition Container

12. PERSONAL AUTHOR(S)
Raymond J. Siroy

13a. TYPE OF REPORT Final	13b. TIME COVERED FROM _____ TO _____	14. DATE OF REPORT (Year, Month, Day) 93-12-17	15. PAGE COUNT
-------------------------------------	--	--	----------------

16. SUPPLEMENTARY NOTATION

17. COSATI CODES			18. SUBJECT TERMS (Continue on reverse if necessary and identify by block number) 1. Performance Oriented Packaging 2. Ammunition Packaging 3. PA 103 Metal Ammunition Container 4. Packaging
FIELD	GROUP	SUB-GROUP	

19. ABSTRACT (Continue on reverse if necessary and identify by block number)

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.

DISTRIBUTION STATEMENT A

 Approved for public release
 Distribution Unlimited

 DTIC
 ELECTE
 S B D
 JAN 14 1994

94 1 13 016

20. DISTRIBUTION / AVAILABILITY OF ABSTRACT ☐ UNCLASSIFIED/UNLIMITED ☒ SAME AS RPT. ☐ DTIC USERS		21. ABSTRACT SECURITY CLASSIFICATION Unclassified	
22a. NAME OF RESPONSIBLE INDIVIDUAL STEVE RUFFINI		22b. TELEPHONE (Include Area Code) 201-724-2515	22c. OFFICE SYMBOL SMCAR-AEP

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**

Date: December 1993

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:

- a. Code of Federal Regulations, Title 49, Dated Oct. 1 1992.
- 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.

u
n
1A2/Y27/S/**
USA/DOD/AYD

** Last two digits of year packed.

DTIC QUALITY INSPECTED 8

Accession For	
NTIS GRA&I	☒
DTIC TAB	☐
Unannounced	☐
Justification	
By	
Distribution/	
Availability Codes	
Dist	Avail and/or Special
A-1	