NOT MEASUREMENT SENSITIVE

MIL-PRF-63017C(TM)
3 May 2004

SUPERSEDING
MIL-PRF-63017B(TM)
17 July 1997

PERFORMANCE SPECIFICATION MANUALS, TECHNICAL: REQUIREMENTS FOR MUNITION EQUIPMENT AND AMMUNITION DATA SHEETS

This specification is approved for use by the Department of the Army and is available for use by all Departments and Agencies of the Department of Defense.

1. SCOPE.

1.1 Scope. This specification contains detailed requirements for the preparation of data sheet technical manuals for munition equipment and ammunition. No other types or classifications of technical manuals may be prepared using this specification.

Comments, suggestions, or questions on this document should be addressed to: Commander, USAMC Logistics Support Activity, ATTN: AMXLS-AP, Redstone Arsenal, AL 35898-7466 or e-mailed to tmss@logsa.redstone.army.mil. Since this contact information can change, you may want to verify the currency of this address information using the ASSIST Online database at www.dodssp.daps.mil.

AMSC A7524 **AREA TMSS**

DISTRIBUTION STATEMENT A. Approved for public release; distribution is unlimited.

1.2 Examples/Figures. Figures used in this specification are examples only. The text of this document takes precedence over the figures.

2. APPLICABLE DOCUMENTS

2.1 General. The documents listed in this section are specified in sections 3, 4, or 5 of this specification. This section does not include documents cited in other sections of this specification or recommended for additional information or as examples. While every effort has been made to ensure the completeness of this list, document users are cautioned that they must meet all specified requirements documents cited in section 3 of this specification, whether or not they are listed.

2.2 Government documents.

2.2.1 Specifications, standards, and handbooks. The following specifications, standards, and handbooks form a part of this document to the extent specified herein. Unless otherwise specified, the issues of these documents are those cited in the solicitation or contract.

STANDARDS

DEPARTMENT OF DEFENSE

MIL-STD-38784	—	Standard Practices For Manuals, Technical: General Style and Format Requirements.

(Copies of the above standard are available online at http://assist.daps.dla.mil/quicksearch/ or www.dodssp.daps.mil or from the Standardization Document Order Desk, 700 Robbins Avenue, Building 4D, Philadelphia, PA 19111-5094.)

2.2.2 Other Government documents, drawings, and publications. The following other Government documents, drawings, and publications form a part of this document to the extent specified herein. Unless otherwise specified, the issues of these documents are those cited in the solicitation or contract.

DOD 5220.22-M	National Industrial Security Program Operating Manual

(Copies of DOD 5220.22-M are available from the U.S. Government Printing Office, ATTN: Superintendent of Documents, Washington, DC 20402-0001.)

2.3 Order of precedence. In the event of a conflict between the text of this document and the references cited herein, the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

3. REQUIREMENTS

3.1 General. The TM shall conform to the following general requirements:

3.1.1 Style and format. Unless otherwise specified herein, the general style and format of munition equipment and ammunition data sheet technical manuals (TM) shall be prepared in accordance with MIL-STD-38784.

3.1.2 Illustrations. Illustrations shall be integrated with text and shall be used when text alone is not adequate.

3.1.3 Security classification markings. Security classification markings, if applicable, shall be placed on the front cover and title or title block page, in accordance with MIL-STD-38784.

3.1.4 Numbering. All numbering (e.g., paragraph, table, figure, etc.) shall be in accordance with MIL-STD-38784.

3.1.5 Callouts. Callouts on illustrations shall be identified by the item name.

3.1.6 Divisions. The TM shall be divided into volume, chapter, section, and paragraph sequence, as applicable, in accordance with MIL-STD-38784.

3.2 Content and arrangement. The TM shall consist of the following:

3.2.1 Front matter. Front matter shall include the following:

3.2.1.1 Cover. The cover shall contain the publication number, publication type, title, distribution statement, and publication date. See figure 1.

3.2.1.2 List of effective pages. The list of effective pages shall contain the total number of pages in the publication, a complete list of all the pages, and the latest change number of each page. See figure 2.

3.2.1.3 Title block/reporting errors and recommending improvements page. The title block page shall include all the pertinent data as shown in figure 3, as applicable.

3.2.1.4 Reporting of errors. The following reporting of errors paragraph shall be placed on the title block page.

> "**REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS**
> You can help improve this manual. If you find any mistakes, or if you know of a way to improve this publication, please let us know. Mail your letter or DA Form 2028 (Recommended Changes to Publications and Blank Forms) located in the back of this manual directly to: (the address of proponent). You may also send in your recommended changes via electronic mail or by fax. Our e-mail address is (insert e-mail address of proponent). Our fax number is (insert fax number of proponent). A reply will be sent to you."

One filled out copy of DA Form 2028 marked "Sample", and three blank DA Forms 2028 shall be included at the back of every TM. The three blank copies shall be preprinted with the applicable TM number, date, title, and the proponent's address.

3.2.1.5 Table of contents. The table of contents shall be prepared in accordance with MIL-STD-38784. When space permits, the table of contents shall begin below the Reporting Errors and Recommending Improvements statement. If space does not permit, it shall begin on the next page.

3.2.1.6 Introduction. The introduction paragraph shall be placed on the first page after the table of contents. If the table of contents ends on a left-facing page, the reverse right-facing page shall be blank and the introduction paragraph shall begin on the next left-facing page. The introduction paragraph shall include the following statement:

> "This manual is a reference document published as an aid in training, familiarization, and identification of (insert commodity item). This manual is not authorization for requisitioning, stockage, maintenance, or issue of the material described herein."

3.2.2 Data sheets. Information on data sheets (see 6.4.2) shall contain, as applicable, the following information. NOTE: "a" is applicable to ammunition data sheets only; "e" is applicable to munitions equipment data sheets only; no code is applicable to both) (see figures 4 and 5).

a. Photograph or line drawing of the munitions equipment or ammunition item

b. Type classification (a)

c. Use

d. Description

e. Functioning

f. Differences between models

g. Tabulated data

h. Performance (a)

i. Temperature limits (a)

j. Drawings (a)

k. Unit of issue (a)

l. Packing data (a)

m. Shipping and storage data

n. Limitations (a)

o. References (a)

p. Remarks (a)

q. Associated equipment (e)

r. Kits (e)

3.2.2.1 Photograph or line drawing of the munitions equipment or ammunition item. As required by the acquiring activity, a photograph or line drawing of the item shall be included on the data sheet.

3.2.2.2 Type classification. The type classification paragraph shall be the first paragraph of the ammunition data sheet and shall list the type classification (see 6.4.4) of the item.

3.2.2.3 Use. This paragraph shall describe the purpose for which the item is used.

3.2.2.4 Description. The description paragraph shall include the general characteristics, capabilities, and features of the item. Color coding information for ammunition items shall be included, as applicable.

3.2.2.5 Functioning. This paragraph shall include a simple description of how the item functions. The description shall explain what functional affect it has on other components and shall be presented by simple text and illustrations, as appropriate.

3.2.2.6 Differences between models. This paragraph shall identify differences in configuration or models when more than one model is described. Differences shall be clearly identified.

3.2.2.7 Tabulated data. This paragraph shall provide descriptive data of the item and its components. Ammunition items shall have: model, dimensions, weight, color, type of explosive used, packaging, national stock number (NSN), and Department of Defense Ammunition Code (DODAC). Munitions equipment shall have: Ammunition Peculiar Equipment (APE) number, unit of issue, installation data, utilities required, and production capacity.

3.2.2.8 Performance. This paragraph shall present information describing the normal use or operation of the item (e.g., chamber pressure, velocity, maximum range, trace, etc.).

3.2.2.9 Temperature limits. This paragraph shall list the firing and storage temperature limits of the item.

3.2.2.10 Drawings. This paragraph shall list all applicable ammunition drawings, by number only of the ammunition end-item, components, and packaging configurations.

3.2.2.11 Unit of issue. This paragraph shall list the smallest quantity of the item authorized for issue.

3.2.2.12 Packing data. This paragraph shall provide the dimensions (length, width, height, and cube) and weight of a full depot pack configuration of the item.

3.2.2.13 Shipping and storage data. For ammunition items, this paragraph shall list all applicable shipping and storage data such as hazard classification and storage compatibility group, United Nations (UN) identification number and shipping name, and Department of Transportation (DOT) class. For munitions equipment it shall list the physical dimensions, weight, and cube of the equipment.

3.2.2.14 Limitations. This paragraph shall list any restriction, warning, or weakness associated with the item.

3.2.2.15 References. This paragraph shall be a list, citing only publication numbers, of all related technical manuals (TM), field manuals (FM), and supply catalogs (SC).

3.2.2.16 Remarks. This paragraph shall provide any other information deemed pertinent.

3.2.2.17 Associated equipment. This paragraph shall list any additional APE that is used in conjunction with the described munitions equipment.

3.2.2.18 Kits. This paragraph shall list any APE accessory equipment not normally supplied with the end item.

3.2.3 Appendices. Ammunition data sheet TMs shall contain appendices as specified by the acquiring activity. Munitions equipment data sheet TMs shall contain the following appendices.

3.2.3.1 Appendix A - deleted items. This appendix shall appear in all editions subsequent to the first edition. It shall consist of an alphabetical list of all items deleted from this TM as a result of a technical committee action or materiel status record (MSR). On first editions which contain no deleted items, Appendix A shall contain the following statement: "Since this is the first edition, there are no deleted items." (see figure 6).

3.2.3.2 Appendix B - operational index. When specified by the acquiring activity, the TM shall contain an operational appendix. It shall provide a cross-reference between ammunition items and the APE items needed for function testing, inspecting, maintenance, renovation, and demilitarization of the ammunition item. This appendix may consist of one or more sections (see figure 7).

3.2.3.3 Appendix C - Preparation and handling of ammunition peculiar equipment for shipment and storage. When specified by the acquiring activity, the TM shall contain a preparation and handling of APE for shipment and storage appendix. It shall contain an introduction (scope and definitions), general requirements (program requirements, levels of protection, and basic requirements), and detailed requirements section, as applicable, and requirements for checking for and removal of explosive contamination (see figure 8).

3.2.4 Index. As required by the acquiring activity, an alphabetical index shall be prepared in accordance with MIL-STD-38784.

3.3 Classified material. All classified material shall be safeguarded, packaged, and marked in accordance with DOD 5220.22-M.

4. VERIFICATION

4.1 Verification. Verification shall be as specified by the acquiring activity in the contract or order (see 6.2).

5. PACKAGING

5.1 Packaging. For acquisition purposes, the packaging requirements shall be as specified in the contract or order (see 6.2). When actual packaging of material is to be performed by DoD or in-house contractor personnel, these personnel need to contact the responsible packaging activity to ascertain packaging requirements. Packaging requirements are maintained by the Inventory Control Point's packaging activity within the Military Service or Defense Agency, or within the military service's system commands. Packaging data retrieval is available from the managing Military Department's or Defense Agency's automated packaging files, CD-ROM products, or by contacting the responsible packaging activity.

6. NOTES

(This section contains information of a general or explanatory nature that may be helpful, but is not mandatory).

6.1 Intended use. This specification is used to write/acquire munition equipment and ammunition data sheet TMs.

6.2 Acquisition requirements. Acquisition documents should specify the following items:

a. Title, number, and date of this specification.

b. Title and publication number of the technical manual (see 3.2.1.1).

c. Type of reproducible copy desired..

d. Size of TM.

e. Verification requirements (see 4.1).

f. Packaging requirements (see 5.1).

g. Completed Content/Format Selection Summary (Appendix).

6.3 Technical manuals. The requirement for technical manuals should be considered when this specification is applied on a contract. If technical manuals are required, specifications and standards that have been authorized and assigned an Acquisition Management System Control (AMSC) Number must be listed on a separate Contract Data Requirements List (DD Form 1423) which is included as an exhibit to the contract. The technical manuals must be acquired under separate contract line item in the contract.

6.4 Definitions.

6.4.1 Basis of issue. Authority that prescribes the number of items to be issued to an individual, a unit, a military organization, or for a unit piece of equipment.

6.4.2 Data sheet. A complete unit in a TM containing text and illustration(s) to provide reference information on one commodity item (see 3.2.2).

6.4.3 Department of Defense Ammunition Code (DODAC). A code comprised of the Federal Supply Class and the Department of Defense Identification Code (see 3.2.2.8).

6.4.4 Type classification. A designation used by the Army that indicates acceptability for service use (see 3.2.2.2).

6.4.5 Unit of issue. The smallest quantity of the item authorized for issue.

6.5 Acronyms. The following acronyms are used in this specification:

APE — Ammunition Peculiar Equipment
DODAC — Department of Defense Ammunition Code

6.6 Subject term (key word) listing.

APE
DODAC
Explosives
Firing

6.7 Changes from previous issue. Marginal notations are not used in this revision to identify changes with respect to the previous issue due to the extent of the changes.

TM 43-0001-28

TECHNICAL MANUAL

ARMY AMMUNITION DATA SHEETS

FOR ARTILLERY AMMUNITION: GUNS, HOWITZERS, MORTARS, RECOILLESS RIFLES, GRENADE LAUNCHERS, AND ARTILLERY FUZES (FEDERAL SUPPLY CLASS 1310, 1315, 1320, 1390)

DISTRIBUTION STATEMENT A. Approved for public release; distribution is unlimited.

HEADQUARTERS, DEPARTMENT OF THE ARMY

28 APRIL 1994

FIGURE 1. Example of a cover.

TM 43-0001-28

LIST OF EFFECTIVE PAGES

INSERT LATEST CHANGED PAGES. DESTROY SUPERSEDED PAGES.

NOTE The portion of the text affected by the changes is indicated by a vertical line in the outer margins of the page. Changes to illustrations are indicated by a vertical line adjacent to the identification number.

Dates of issue for original and changed pages are:

Original. . . . . 0 . . . . . 28 April 1994
Change . . . . . 1 . . . . . 30 May 1995
Change . . . . . 2 . . . . . 30 August 1996
Change . . . . . 3 . . . . . 31 July 1996
Change . . . . . 4 . . . . . 1 March 199
Change . . . . . 5 . . . . . 4 January 2000
Change . . . . . 6 . . . . . 15 March 2000
Change . . . . . 7 . . . . . 15 September 2000
Change . . . . . 8 . . . . . 30 August 2001
Change . . . . . 9 . . . . . 10 December 2001
Change . . . . . 10 . . . . . 28 February 2003

TOTAL NUMBER OF PAGES IN THIS PUBLICATION IS 875, CONSISTING OF THE FOLLOWING:

Page No.	*Change No.	Page No.	*Change No.	Page No.	*Change No
Cover	0	3-33	0	3-91 thru 3-93	0
A thru C	10	3-34	1	3-94	1
D	8	3-35 thru 3-38	0	3-95 thru 3-97	1
i	9	3-39	9	3-98	1
ii thru iv	10	3-40 and 3-41	0	3-99 thru 3-101	0
v thru vi	7	3-42	1	3-102	1
vii and viii	9	3-43	0	3-103 thru 3-105	0
ix	7	3-44	1	3-106	1
x	0	3-45 thru 3-47	0	3-107 thru 3-109	0
1-1	0	3-48	1	3-110	1
1-2	1	3-49 and 3-50	0	3-111	0
1-3 and 1-4	0	3-51	1	3-112	1
2-1 thru 2-24	0	3-52 thru 3-54	0	3-113 thru 3-115	0
2-24.1 and 2.24.2	9	3-55	1	3-116	1
2-25 thru 2-114	0	3-56 thru 3-58	0	3-117 thru 3-119	0
2-114.1 and 2-114.2	10	3-59	1	3-120	1
2-115 thru 2-120	0	3-60 thru 3-62	0	3-121 thru 3-125	0
2-120.1 thru 2-120.4	10	3-63	1	3-126	1
2-121 thru 2-164	0	3-64 thru 3-66	0	3-127	0
3-1 thru 3-5	0	3-67	1	3-128	1
3-6	1	3-68	0	3-129 thru 3-132	0
3-7	0	3-68.1 thru 3-68.4	8	3-133	1
3-8	1	3-69 and 70	0	3-134 and 3-135	0
3-9 and 3-10	0	3-71	1	3-136	1
3-11	1	3-72 and 3-73	0	3-137 thru 3-139	0
3-12 thru 3-16	0	3-74	1	3-140	1
3-17	1	3-75 and 3-76	2	3-141 thru 3-143	0
3-18 and 3-19	0	3-77	9	3-144	1
3-20 and 3-21	1	3-78	1	3-145 thru 3-147	0
3-22 and 3-23	0	3-79 thru 3-81	0	3-148	1
3-24	1	3-82	1	3-149 thru 3-151	0
3-25 and 3-26	0	3-83 thru 3-85	0	3-152	1
3-27	1	3-86	1	3-153 and 3-154	0
3-28 thru 3-31	0	3-87 thru 3-89	0	3-155 and 3-156	5
3-32	1	3-90	1	3-157	1

*Zero in this column indicates an original page

Change 10 A

FIGURE 2. Example of a list of effective pages.

TM 43-0001-28

TECHNICAL MANUAL

No. 43-0001-28

HEADQUARTERS
DEPARTMENT OF THE ARMY
Washington, DC, *28 April 1994*

Army Ammunition Data Sheets
for
Artillery Ammunition:
Guns, Howitzers, Mortars, Recoilless Rifles,
Grenade Launchers and Artillery Fuzes
(Federal Supply Class 1310, 1315, 1320, 1390)

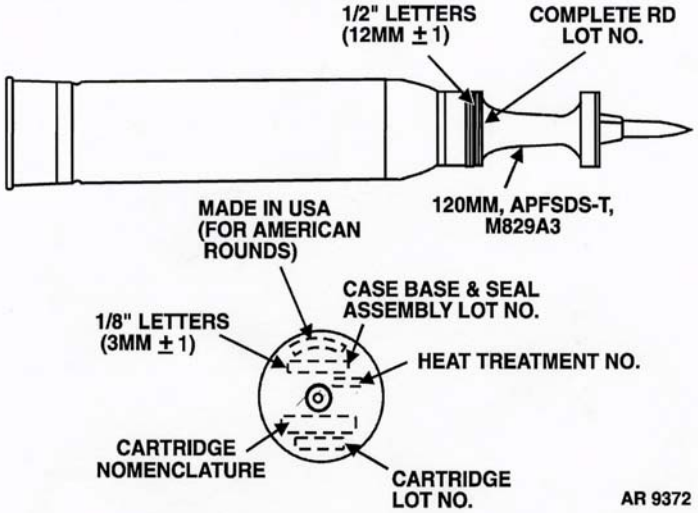
REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS

You can help improve this manual. If you find any mistakes or if you know of a way to improve the procedures, please let us know. Mail your letter or DA Form 2028 (Recommended Changes to Equipment Technical Publications) located in the back of this manual directly to Logistics Support Engineering Division (AMSTA-AR-WEL-S), U.S. Army TACOM, Armament Research, Development and Engineering Center, Picatinny Arsenal, NJ 07806-5000. You may also send in your recommended changes via electronic mail or by fax. Our e-mail address is LSB@PICA.ARMY.MIL. Our fax number is DSN 880-4633, Commercial (973) 724-4633. A reply will be furnished to you.

FIGURE 3. Example of a title block page.

TM 43-0001-28

CARTRIDGE, 120 MILLIMETER: APFSDS-T, M829A3



TYPE CLASSIFICATION:

Scheduled for TC.

USE:

The M829A3 cartridge is a kinetic energy (KE), armor-piercing, fin-stabilized, discarding sabot, fixed round with tracer (APFSDS-T). This antitank round is intended for use in the M256 smooth bore gun and is designed to provide terminal effectiveness over the M829A2 cartridge.

DESCRIPTION:

The M829A3 is a U.S. design/developed 120mm: APFSDS-T cartridge. The complete round contains a propulsion/ignition system and an inert projectile which is similar to the M829A2. The propulsion/ignition system consists of a combustible cartridge case with a metal cartridge case base, the RPD-380 propellant consisting of 19-perforated stick, 7-perforated stick, and 46-perforated hexagonal stick, and M123A1 electric primer containing black powder base charge. The subprojectile assembly consists of a depleted uranium (DU) penetrator with steel windshield fitted to the front, and a six-bladed aluminum fin and tracer assembly fitted to the rear. The projectile consists of the subprojectile combined with a composite material sabot, nylon obturator, rear retaining ring and a molded JRTV seal. The sabot is composed of three 120 degree non-interchangeable segments with internal grooves matching those on the outer surface of the penetrator. The sabot has a silicone rubber (JRTV) seal at the rear to prevent leakage of propellant gases and a front ring to prevent sabot splitting upon muzzle exit. A nylon obturator is used to prevent propellant gases from leaking around the outside of the sabot.

FUNCTIONING:

The M829A3 is loaded and fired from the M256, 120mm in the normal manner. Initiation of the electric primer ignites the propelling charge and combustible case, generating gases which drive the projectile from the gun and ignite the tracer. The silicone seal at the rear of the sabot prevents gas leakage between the sabot segments and the driving forces (gas) propelling the subprojectile downbore. Upon leaving the gun, aerodynamic forces cause the sabot to separate from the subprojectile allowing the subprojectile to continue on a true course to target while the sabot segments fall quickly to earth. Target penetration is effected strictly by the high kinetic energy of the subprojectile impacting the target.

TABULATED DATA:

Complete Round:

Type	Fixed, APFSDS-T
Weight	56 lb (25.4 kg)
Length	38.74 in. (984 mm)
Color	Black w/white markings

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FIGURE 4. Example of an ammunition data sheet.

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TABULATED DATA: - CONTINUED

Components:	
Propellant	RPD-380 19-perforated stick, 7-perforated stick
Primer	M123A1 electric primer
Tracer	Tracer, plug and disc assembly, PN 12525133
DODAC	TBD

PERFORMANCE:

Breach pressure	6038 bar
Chamber pressure	5083 bar
Velocity (normal)	TBD

TEMPERATURE LIMITS:

Firing:	
Lower limit	-25°F (-32°C)
Upper limit	+120°F (+48.9°C)
Storage:	
Lower limit	-45°F (-43°C)
Upper limit	+145°F (+62.8°C)

DRAWINGS:

Assembly	12990829
Container	12990775
Packing and marking	12990737
Packing material	12990738

UNIT OF ISSUE:

Packing	1 round per metal container; 30 metal containers per pallet

*PACKING DATA:

Metal Container:	
Total weight (w/ctg)	77.2 lb (35.02 kg) max
Total explosive weight	17 - 20 lb (7.7 - 9.1 kg)
Dimensions	7.75 x 7.75 x 44.5 in.
Cube	1.55 cu ft

*See DOD Consolidated Ammunition Catalog for complete packing data including NSNs.

SHIPPING AND STORAGE DATA:

DOD hazard class	(08) 1.2
Storage compatibility group	C
Field storage category	A
DOT shipping class	B
DOT designation	CARTRIDGES FOR WEAPONS, INERT PROJECTILE
UNO serial number	0328

LIMITATIONS:

Projectiles are not to be disposed of by burning or detonation.

The M829A3 is a full-service round which may only be fired during war emergency. All peace-time firings are prohibited except at locations having a Nuclear Regulatory Commission (NRC) license and host nation agreement.

WARNING

If the cartridge is damaged to the point where the internal projectile components are visible, the item shall be treated as confidential. The damaged cartridge shall be placed in a container or otherwise covered to prevent exposure. The cartridge shall be returned in a sealed container (as a classified item) to the appropriate ASP for disposition. Should it be determined that the classified components were observed by anyone without a clearance, the individual(s) must be debriefed as soon as possible.

REMARKS:

Loss or unauthorized firing of the M829A3 must be reported to the Safety/Radioactive Waste Office, US Army Joint Munitions Command within 24 hours of the discovery. Telephone reports to DSN 793-2964/2965/2966, CML: 309-782-2964/2965/2966. Non-duty hours call Staff Duty Officer, DSN: 793-1110; CML: 309-782-1110. Follow up with written report to the Radiological Protection Officer (RPO), US Army Joint Munitions Command (AMSJM-SF), Rock Island, IL 61229-6000.

REFERENCES:

TM 9-1300-251-20&P
TM 9-1300-251-34&P

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FIGURE 4. Example of an ammunition data sheet - Continued.

TM 43-0001-47

APE 1028 --- SYSTEM, VACUUM COLLECTION

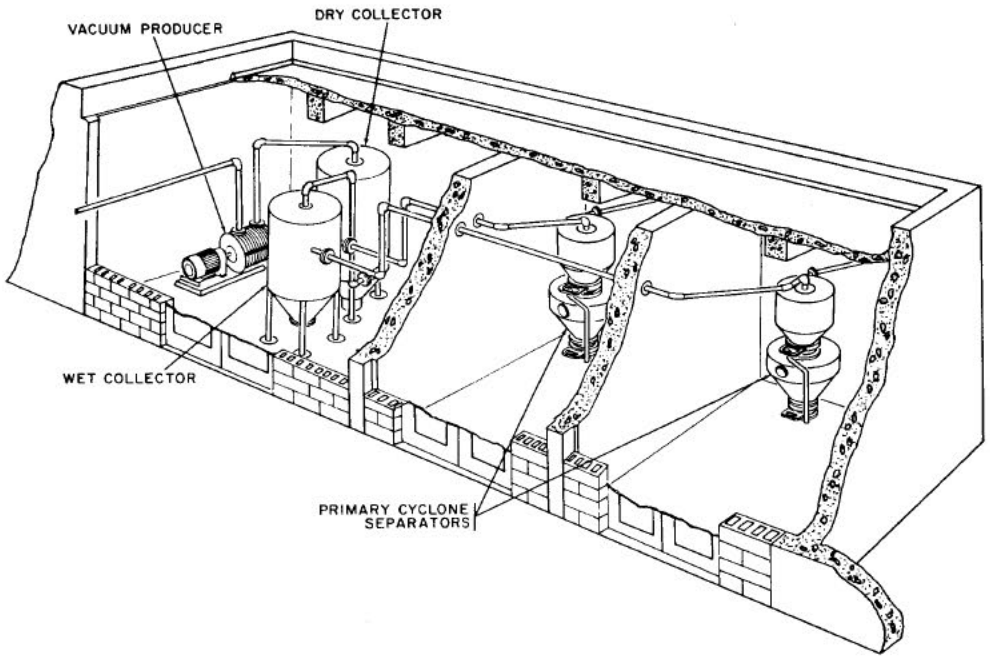

Figure 2-12.

Use:
The vacuum collection system was developed to convey propellant from maintenance operations to a powder collection building.

Description:
The component parts of this system are a vacuum producer; a primary separator and storage hopper; a wet type explosives separator; and a dry type explosives separator. All components are connected by stainless steel piping. This is installed equipment requiring special layouts adaptable to various locations.

Difference Between Difference Between Models:
Original design

Tabulated Data:

APE No.	10280000
Unit of Issue	Each
Installation Data:	
Length	not available
Width	dependent on plant layout
Height	not available
Weight	not available
Utilities Required:	
220 vac, 3 phase, 60 Hz, 27 amp.	

Installation Data:

Length	not available
Width	dependent on plant layout

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FIGURE 5. Example of a munitions equipment data sheet.

Height ..... not available
Weight ..... not available
Utilities Required:
220 vac, 3 phase, 60 Hz, 27 amp.
Production Capacity:
Not applicable.

Shipping Data:
EXHAUSTER
Length ..... 72 in.
Width ..... 36 in.
Height ..... 24 in.
Cube ..... 36 cu. ft.
Weight ..... 2000 lb.
WET COLLECTOR
Length ..... 72 in.
Width ..... 36 in.
Height ..... 36 in.
Cube ..... 54 cu.ft.
Weight ..... 750 lb.
DRY COLLECTOR
Length ..... 108 in.
Width ..... 36 in.
Height ..... 36 in.
Cube ..... 81 cu. ft.
Weight ..... 1000 lb.
HOPPER
Length ..... 84 in.
Width ..... 24 in.
Height ..... 24 in.
Cube ..... 28 cu. ft.
Weight ..... 750 lb.
PIPING
Length ..... 14 ft.
Width ..... 4 ft.
Height ..... 4 ft.
Cube .....224 cu. ft.
Weight ..... 1200 lb.

Associated Equipment:
None.

Kits:
1028E001 KIT, Exhauster, Centrifugal
1028E003 KIT, Control System, Propellant Discharge, Pneumatic

FIGURE 5. Example of a munitions equipment data sheet - Continued.

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APPENDIX A

DELETED ITEMS

The following Ammunition Peculiar Equipment are deleted items. They are not to be used in ammunition operations; they are superseded, obsolete or are no longer required.

APE Number	Items
APE 1005	Primer Press Machine
APE 1006	Debagging Machine
APE 1007	Heat Exchanger
APE 1008	Ammunition Projectile Cart
APE 1008A	Ammunition Complete Round Cart
APE 1008B	Ammunition Small Items Cart
APE 1009M4	Furnace, Deactivation
APE 1012	Flashing Furnace
APE 1013	Explosive Washout Plant
APE 1014	Pickling Unit, 6-Tank
APE 1015	Pickling Unit, 9-Tank
APE 1016	Deactivation Furnace Facility
APE 1017	Washout Facility
APE 1018	Bomb Head Break Off Machine
APE 1019	Propellant Beaker
APE 1020	Bomb Washout Fixture
APE 1023	Paint Spray Booth
APE 1026	Fuze Removing Machine, 37-MM M56 PD Fuze
APE 1027	Priming and Depriming Machine, Fulcrum Lever Type
APE 1030M1	Machine Powered Strapping
APE 1031	Warm Air Makeup System
APE 1033	Marking Machine
APE 1034	Box Repair Machine
APE 1038	Doors, Armor Plate, BSR
APE 1040	Storage Hopper
APE 1041	Pitch in Protective Barricade
APE 1046	Small Arms Brass Storage Tank
APE 1047	Mutilation Machine
APE 1048	Abrasive Blast Machine

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FIGURE 6. Example of a deleted items appendix.

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APPENDIX B

OPERATIONAL INDEX

This appendix contains a cross reference between ammunition items and the APE items needed for function testing, inspecting, maintenance, renovation and demilitarization of the ammunition item.

Section I. SURVEILLANCE FUNCTION TESTS

	Equipment used for test	
Items tested	APE no.	Nomenclature
AMMUNITION FUNCTION TESTING	1937/1905	Shelter, Personnel Protection
BOMB, FIRE FMU 7A/B, FMU 7B/B, and 7C/B: Fuze Assembly, Indicator Assembly, and Cable Assembly	1935	Test Equipment Continuity and function FMU 7A/B Fire Bomb
CAP, BLASTING ELECTRIC	1901 1903 1916M1 1938/1904 1980	Tank, Immersion Table, Testing, Function Oven, Preconditioning Chamber, Low Temperature Universal Resistance Test Instrument
CAP, BLASTING NONELECTRIC; M7 Special: Type 1 (J-1) (PETN or RDX) No. 6 and 8, Instantaneous Tetryl, Type A	1903 1903E005 1916M1 1938/1904	Table, Testing Kit Function Test Nonelectric Blasting Caps Oven, Preconditioning Chamber, Low Temperature
CARTRIDGE, PHOTOFLASH: M112 Series (, 2, and 4 Second Delay) Practice M121 and M124 M112, M112A1, M121 Ctgs	1902M2/1908 1921M2 1921E001	Device Holding, Function Test Measuring Device, Altitude and Drift Device, Photoflash, Cartridge Test Kit, Testing

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FIGURE 7. Example of an operational appendix.

TM 43-0001-47

APPENDIX C

PREPARATION AND HANDLING OF
AMMUNITION PECULIAR EQUIPMENT
FOR SHIPMENT AND STORAGE

Section I. INTRODUCTION

C-1 Scope

a. This appendix contains instructions for the preparation and handling of Ammunition Peculiar Equipment (APE) for shipment and storage. It applies to equipment which has been inspected, tested and determined to be suitable for retention in the APE system. The procedures and methods contained herein provide uniform guidance on the minimum requirements for disassembly, inspection, cleaning, preservation-packaging, packing, marking, blocking, bracing and skidding prior to shipment or storage. Storage requirements include maintenance and surveillance of equipment throughout the storage period.

b. The provisions of this appendix apply to all organizations controlling APE to be shipped, placed in storage, or layed away for future use.

C-2. Definitions

For the purpose of this appendix, the following definitions apply.

a. Cleaning. Cleaning is a process accomplished by a variety of methods and techniques to remove all sludge, chips, abrasives, dirt, rust and other harmful foreign matter.

b. Compressed air, moisture-free. Moisture-free compressed air is obtained by using properly maintained traps, filters and desiccators in the source system.

c. Disassembly. Disassembly means the removal of only those major and minor assemblies and components required to provide access to machine areas for inspection, cleaning, preservation and preparation for shipment.

d. Documentation. Documentation consists of packing lists, inspection and test reports, operating and installation instructions, diagrams of electrical, fluidic, pneumatic and hydraulic systems and utility connections. When specified, the documentation shall include photographs, manufacturing procedures and other required technical data.

e. Equipment, non-serviceable. A type of plant equipment which, due to size or design, cannot be removed economically from its installed position for storage or shipment.

f. Exercising. Periodic operation of a machine under no-load conditions to distribute lubricants or preservatives.

g. Shipping Document. A document prepared on DD Form 1149, Requisition and Invoice/Shipping Document, or DD Form 1348, Single Line Item Requisition System Document, which directs or authorizes movement and transfer of accountability of APE items reportable to AMCCOM.

h. Owning Agency. The organization which has accountability for APE.

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FIGURE 8. Example of a preparation and handling of APE for shipment and storage appendix.

APPENDIX

CONTENT/FORMAT SELECTION SUMMARY FOR MUNITIONS EQUIPMENT AND AMMUNITION DATA SHEETS (TM)

A.1 GENERAL.

A.1.1 Scope. This appendix may be used to tailor out the optional requirements that are not to be contractually imposed in the acquisition of munitions equipment and ammunition data sheet TMs. This appendix is a mandatory part of this specification. The information contained herein is intended for compliance when the Content/Format Selection Summary is completed by the Government.

A.1.2 Application. This appendix is intended to be copied/reproduced, completed, used for contract solicitation, and incorporated into the contract.

A.1.3 Tailoring. The contracting activity should evaluate the individual requirements of this specification to determine the extent to which they are most suitable for the acquisition and modify the requirements to ensure that each achieves the optimal balance between operational needs and cost. Exclusions of sections, paragraphs, or sentences shall be indicated on the Content/Format Selection Summary. When necessary, remarks should be expanded and included on a separate sheet of paper attached to the Summary List. In all cases, tailoring shall be compatible with this specification.

A.1.4 Explanation of columns - content/format selection summary. Column (1), Item no., self explanatory. Column (2) is the type of requirement and column (3) identifies the applicable paragraph in the specification. Column (4) Options Selected, subcolumn (a) “yes”, should be marked with an “X” for each item/requirement applicable to the solicitation/acquisition as written. Column (4), subcolumn (b), “no”, should be marked with an “X” for each item that is not applicable as written, but is applicable as specified in subcolumn (c). Subcolumn (c), Explanation/Remarks is provided for clarity.

A.2 APPLICABLE DOCUMENTS.

This section is not applicable to this appendix.

APPENDIX

CONTENT/FORMAT SELECTION SUMMARY SHEET

EQUIPMENT NAME/NOMENCLATURE _____

CONTRACT NO. _____

NOTE: Applicable requirements are indicated by an "x" in column 4a or explained in column 4b.

(1) Item No.	(2) Requirements	(3) Applicable Paragraph No.	(4)		
			(a)	(b)	©
			Options Selected		Explanation/Remarks
			(yes)	(no)	
1	Appendices	3.2.3			
2	Appendix A	3.2.3.1			
3	Appendix B	3.2.3.2			
4	Appendix C	3.2.3.3			
5	Verification	4.1			
6	Packaging	5.1			

NOTE: The above selected requirements tailoring options identified by an "X" in the Options Selected column 4, subcolumn 4(a) or 4(b), or the explanation provided in the Remarks subcolumn 4© are a mandatory part of this contract.

COMPLETED BY: _____
(authorized signature)

PUBLICATIONS ACTIVITY: _____ DATE: _____

CONCLUDING MATERIAL

Custodian:
Army - TM

Preparing Activity:
Army - TM

Review Activities:
Army: AR, AT, AV, CR, EA, GL, MI

(Project TMSS-A387)

NOTE: The activities listed above were interested in this document as of the date of this document. Since organizations and responsibilities can change, you should verify the currency of the information above using the ASSIST Online database at www.dodssp.daps.mil.