

MIL-C-63189 (AR)
26 February 1982
Superseding
(See 6.5)

MILITARY SPECIFICATION

CONTAINER, DUMMY SHIPPING AND STORAGE, M622

This specification is approved for use by the US Army Armament Research and Development Command and is available for use by all Departments and Agencies of the Department of Defense.

1. SCOPE

1.1 Scope. This specification covers requirements, quality assurance provisions and the preparation for delivery criteria for M622 Dummy Shipping and Storage Containers (see 6.1).

2. APPLICABLE DOCUMENTS

2.1 Government documents.

2.1.1 Specifications and standards. Unless otherwise specified (see 6.2), the following specifications and standards of the issue listed in that issue of the Department of Defense Index of Specifications and Standards (DODISS) specified in the solicitation, form a part of this specification to the extent specified herein.

SPECIFICATIONS

MILITARY

MIL-W-22248	Weldment, Aluminum and Aluminum Alloy
MIL-A-48078	Ammunition, Standard Quality Assurance Provisions, General Specification for

Beneficial comments (recommendations, additions, deletions), and any pertinent data which may be of use in improving this document, should be addressed to: Commander, US Army Armament Research and Development Command, ATTN: DRDAR-QAN-Q, Dover, New Jersey 07801, by using the self-addressed Standardization Document Improvement Proposal (DD Form 1426), appearing at the end of this document, or by letter.

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STANDARDS

MILITARY

MIL-STD-1167	Ammunition Data Cards
MIL-STD-1595	Aerospace Welder Performance Qualification

2.1.2 Other Government documents, drawings and publications. The following other Government documents, drawings, and publications form a part of this specification to the extent specified herein.

DRAWINGS AND PACKAGING DATA SHEETS (see 6.6)

US ARMY ARMAMENT RESEARCH AND DEVELOPMENT COMMAND

9335737	Retainer, Handle, Side
9335740	Tube
9335747	Cover, End, Forward Weldment
9335748	Cradle, Weldment
9335749	Container, Weldment
9335750	Dummy Shipping and Storage Container, M622

(Copies of specifications, standards, handbooks, drawings, and publications required by manufacturers in connection with specific acquisition functions should be obtained from the contracting activity or as directed by the contracting officer.)

2.2 Order of precedence. In the event of a conflict between the text of this specification and the references cited herein, the text of this specification shall take precedence.

3. REQUIREMENTS

3.1 Materials and components. The contractor shall provide objective evidence (see 6.4) that materials and components comply with specifications listed on the applicable drawing (dwg).

3.2 Assembly. The container shall comply with all requirements specified on dwg. 9335750, with all requirements specified herein, and with the requirements of all applicable specifications to the extent specified on the dwg. and herein.

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3.3 Welding. Unless otherwise specified on dwgs., welding shall be performed in accordance with the requirements of MIL-W-22248 by operators currently qualified in accordance with MIL-STD-1595. The contractors welding capability and facilities shall be evaluated and approved by the Government QAR prior to award of contract. Welds shall exhibit characteristics of fusion, penetration and soundness of weld deposit representative of good weld practice. Inspection shall be performed in accordance with 4.5.1.

3.4 Ammunition data cards. Ammunition data cards shall be provided for each assembly in accordance with MIL-STD-1167.

3.5 First article inspection. This specification contains technical provisions for first article inspection (see 4.3). Requirements for submission of first article samples shall be as specified in the contract.

3.6 Workmanship. Requirements for workmanship shall be as indicated on applicable dwgs., in applicable specifications and as specified herein.

3.6.1 Metal characteristics All parts and assemblies shall be free of burrs, cracks, and sharp edges. Threads shall be full and undamaged for the entire minimum length or depth as required by applicable dwgs.

3.6.2 Cleaning and surface preparation. All parts, surfaces and assemblies shall be free of dirt, grease, rust, corrosion, welding flux, scale, unacceptable weld spatter (see 4.5.1), metal filings or shavings or any other foreign matter prior to assembly or application of primers or finish. Cleaning methods shall not be injurious to any of the parts or assemblies, nor shall the parts or assemblies be contaminated by the cleaning agents.

3.6.3 Finish. Paint and finishes shall comply with all applicable dwg. requirements. Prior to the application of any finish, parts and assemblies shall be dry and thoroughly clean and free of dirt, dust or any other foreign material. Unless otherwise specified on dwgs., primary coats shall be thoroughly dry before application of any finished coat. Finish coats shall cover all required surfaces and be continuous with the possible exception of a few light scratches not exposing base metal. Paint shall not appear on any part or area where explicitly excluded by dwg. requirements.

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3.6.4 Marking. Marking shall be as specified on dwgs. and shall be neat and sharply defined.

4. QUALITY ASSURANCE PROVISIONS

4.1 Responsibility for inspection and standard quality assurance provisions. Unless otherwise specified in the contract or purchase order, the contractor is responsible for the performance of all inspection requirements as specified herein. Except as otherwise specified in the contract or purchase order, the contractor may use his own or any other facilities suitable for the performance of the inspection requirements specified herein, unless disapproved by the Government. The Government reserves the right to perform any of the inspections set forth in the specification where such inspections are deemed necessary to assure supplies and services conform to prescribed requirements. Unless otherwise specified herein or in the contract or purchase order, the provisions of MIL-A-48078 shall apply and are hereby made a part of this detail specification.

4.2 Classification of inspection. The inspection requirements specified herein are classified as follows:

1. First Article Inspection (see 4.3).
2. Quality Conformance Inspection (See 4.4).

4.3 First article inspection.

4.3.1 Submission. When the contract requires first article inspection (see 3.5), the contractor shall submit a first article sample as designated by the Contracting Officer for evaluation in accordance with 4.3.2. The first article sample shall consist of the following items in sample quantities as indicated.

<u>Item Identification</u>	<u>Drawing No.</u>	<u>Quantity</u>
Dummy Shipping and Storage Container, M622	9335750	2

4.3.2 Inspections to be performed. The first article quantity submitted in accordance with 4.3.1 shall be subjected to any or all of the requirements of the applicable dwgs. and to the inspections and tests specified in the first article table herein. All fabricated parts and assemblies shall have been manufactured using the same production processes, procedures and equipment which will be

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used in fulfilling the contract. All procured parts and materials shall be obtained from the same source as will be used in regular production.

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FIRST ARTICLE INSPECTION

CLASSIFICATION OF DEFECTS & TESTS

PARAGRAPH 4.3.2.1	TITLE Dummy Shipping and Storage Container, M622	SHEET 1 of 1		DRAWING NUMBER 9335750
CATEGORY	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	AQL OR 100%	NEXT HIGHER ASSEMBLY N.A.
	Classification of Defects and Tests	2	-	PARAGRAPH REFERENCE / INSPECTION METHOD 4.4.2.2 thru 4.4.2.4
NOTES:				

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4.3.3 Inspection equipment. The inspections and tests specified in 4.3.2 shall be accomplished with the gages and test equipment specified in 4.4.4.

4.3.4 Rejection. See MIL-A-48078.

4.4 Quality conformance inspection.

4.4.1 Inspection lot formation. Inspection lots shall comply with lot formation provisions of MIL-A-48078.

4.4.2 Examinations. See MIL-A-48078 and the Quality Conformance Inspection tables herein. Unless otherwise specified, inspection for major defects shall be sampled in accordance with Table I.

TABLE I. Sampling plan for major defects.

LQ = .05		Acceptance No. = 0				Consumers Risk = .10	
<u>Lot Size</u>	<u>Sample Size</u>	<u>Lot Size</u>	<u>Sample Size</u>	<u>Lot Size</u>	<u>Sample Size</u>	<u>Lot Size</u>	<u>Sample Size</u>
1-16	all	28-29	23	52-56	31	132-156	39
17	16	30-31	24	57-62	32	157-191	40
18	17	32-34	25	63-69	33	192-244	41
19-20	18	35-36	26	70-76	34	245-334	42
21	19	37-40	27	77-86	35	335-519	43
22-23	20	41-43	28	87-97	36	520-1120	44
24-25	21	44-47	29	98-112	37	over 1120	45
26-27	22	48-51	30	113-131	38		

QUALITY CONFORMANCE INSPECTION
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CLASSIFICATION OF DEFECTS & TESTS

PARAGRAPH	TITLE	SHEET	I OF	1	DRAWING NUMBER																	
CATEGORY	EXAMINATION OR TEST	AGL OR 100%	REQUIREMENT PARAGRAPH	PARAGRAPH REFERENCE / INSPECTION METHOD	NEXT HIGHER ASSEMBLY																	
4.4.2.1	Commercial and MS Parts				See Below																	
	<p>Objective evidence (see 6.4) will be required for the following components:</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; border-bottom: 1px solid black;">Item</th> <th style="text-align: left; border-bottom: 1px solid black;">Ident.</th> <th style="text-align: left; border-bottom: 1px solid black;">Ref on Dwg</th> </tr> </thead> <tbody> <tr> <td>Bolt</td> <td>MS35764-1068</td> <td>9335750</td> </tr> <tr> <td>Screw</td> <td>MS24630-10</td> <td>"</td> </tr> <tr> <td>Washers, Flat</td> <td>AN960-516</td> <td>"</td> </tr> <tr> <td>Washers, Lock</td> <td>MS35338-45</td> <td>"</td> </tr> <tr> <td>Nut, Hexagon</td> <td>MS35649-2314</td> <td>"</td> </tr> </tbody> </table>	Item	Ident.	Ref on Dwg	Bolt	MS35764-1068	9335750	Screw	MS24630-10	"	Washers, Flat	AN960-516	"	Washers, Lock	MS35338-45	"	Nut, Hexagon	MS35649-2314	"	-	3.1	Visual
Item	Ident.	Ref on Dwg																				
Bolt	MS35764-1068	9335750																				
Screw	MS24630-10	"																				
Washers, Flat	AN960-516	"																				
Washers, Lock	MS35338-45	"																				
Nut, Hexagon	MS35649-2314	"																				

NOTES:

QUALITY CONFORMANCE INSPECTION
CLASSIFICATION OF DEFECTS & TESTS

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PARAGRAPH	TITLE	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	SHEET 1 OF 2		DRAWING NUMBER
				AQL OR 100%	REQUIREMENT PARAGRAPH	
4.4.2.2	Cover, End, Forward Weldment					9335747
CATEGORY						NEXT HIGHER ASSEMBLY 9335750
Major						PARAGRAPH REFERENCE / INSPECTION METHOD
.01.	Improper or incomplete assembly			100%	3.2	Visual
.02.	Location of forward handle retainer from side			Table I	3.2	Gage
.03.	Spacing between forward handle retainers			Table I	3.2	Gage
.04.	Location of top hole of end plate from side			Table I	3.2	Gage
.05.	Pitch diameter of holes (see dwg. 9335744) (5)			Table I	3.2	Gage
.06.	Minor diameter of holes (see dwg. 9335744) (5)			Table I	3.2	Gage
.07.	Depth of holes (see dwg. 9335744) (5)			Table I	3.2	Gage
.08.	Location of center of end plate from top of angle			Table I	3.2	Gage
.09.	Location of spacer from center of forward end plate			Table I	3.2	Gage
.10.	Outside diameter of forward end plate (see dwg. 9335744)			100%	3.2	Gage
.11.	Location of holes in forward end plate (see dwg. 9335744)			100%	3.2	Gage
.112.	Weld quality			100%	3.3	4.5.1
.113.	Weld present in bushing area			100%	3.2	Visual
.114.	Protective finish improper or missing			100%	3.2	Visual
NOTES:						

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CLASSIFICATION OF DEFECTS & TESTS

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PARAGRAPH 4.4.2.2 (cont.)	TITLE Cover, End, Forward Weldment	SHEET 2 OF 2		DRAWING NUMBER 9335747
CATEGORY Major	EXAMINATION OR TEST Materials Poor workmanship	AQL OR 100% 100%	REQUIREMENT PARAGRAPH 3.6	NEXT HIGHER ASSEMBLY 9335750
*115. 116.		PARAGRAPH REFERENCE / INSPECTION METHOD Visual (0.4) Visual		
NOTES: Objective evidence shall be provided for all materials used in fabrication of parts and subassemblies for this weldment.				

DRG:R-QA Form 160 Jul 77 Replaces SARPA-QA Form 2567 Feb 74 Which is Obsolete

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PARAGRAPH	TITLE	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	SHEET 1 OF 2		DRAWING NUMBER
				AQL OR 100%	REQUIREMENT PARAGRAPH	
4.4.2.3	Container Weldment					9335749
CATEGORY						NEXT HIGHER ASSEMBLY 9335750
Major						PARAGRAPH REFERENCE / INSPECTION METHOD
101.	Improper or incomplete assembly			100%	3.2	Visual
102.	Location of tie-down handle retainers from end (2 places)			Table I	3.2	Gage
103.	Spacing between tie-down handle retainers (4 places)			Table I	3.2	Gage
104.	Spacing between tie-down handle retainers (2 places)			Table I	3.2	Gage
105.	Location of 9335737-2 handle retainers from end (2 places)			Table I	3.2	Gage
106.	Spacing between side handle retainers (4 places)			Table I	3.2	Gage
107.	Spacing between 9335737-1 side handle retainers (2 places)			Table I	3.2	Gage
108.	Location of 9335733 skid gussets from end (2 places)			Table I	3.2	Gage
109.	Location of blocks (8 places)			Table I	3.2	Gage
110.	Height of flange			Table I	3.2	Gage
111.	Inside diameter of holes (see dwg. 9335740)			100%	3.2	Gage
112.	Location of holes (see dwg. 9335740)			100%	3.2	Gage
113.	Weld quality			100%	3.3	4.5.1
114.	Weld present in bushing area			100%	3.2	Visual
115.	Protective finish improper or missing			100%	3.2	Visual

NOTES:

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PARAGRAPH 4.4.2.3 (cont.)	TITLE Container Weldment	SHEET 2 OF 2		DRAWING NUMBER 9335749
CATEGORY <u>Major</u> *116. 117.	EXAMINATION OR TEST Materials Poor workmanship	AQL OR 100% - 100%	REQUIREMENT PARAGRAPH 3.1 3.6	NEXT HIGHER ASSEMBLY 9335750 PARAGRAPH REFERENCE /INSPECTION METHOD Visual (6.4) Visual
NOTES: *Objective evidence shall be provided for all materials used in fabrication of parts and subassemblies for this weldment.				

DRDAR-QA Form 160 Jul 77 Replaces SAPPA-QA Form 2567 Feb 74 which is Obsolete

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CLASSIFICATION OF DEFECTS & TESTS

PARAGRAPH	TITLE	SHEET 1 OF 1		DRAWING NUMBER
		NO. OF SAMPLE UNITS	REQUIREMENT PARAGRAPH	
CATEGORY	EXAMINATION OR TEST	AQL OR 100%	PARAGRAPH REFERENCE / INSPECTION METHOD	NEXT HIGHER ASSEMBLY
4.4.2.4	Dummy Shipping & Storage Container, M622			9335750
ajor				N.A.
01.	Improper or incomplete assembly	100%	3.2	Visual
02.	Overall length (max.)	100%	3.2	Gage
03.	Overall height (max.)	100%	3.2	Gage
04.	Overall width (max.)	100%	3.2	Gage
05.	Any skid improperly assembled or missing (4 places)	100%	3.2	Visual
06.	Improper torque of 9317872 screws	100%	3.2	Gage
07.	Identification plate improperly assembled or missing	100%	3.2	Visual
08.	Protective finish improper or missing	100%	3.2	Visual
09.	Marking improper or missing	100%	3.2	Visual
10.	Handles do not rotate freely (10)	100%	3.2	Manual
11.	Poor workmanship	100%	3.6	Visual

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PARAGRAPH	TITLE	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	SHEET 1 OF 1		DRAWING NUMBER
				AQL OR 100%	REQUIREMENT PARAGRAPH	
4.4.2.5	Packaging					See 5.0
CATEGORY						NEXT HIGHER ASSEMBLY
Major						N.A.
101.	Improper packing or packing materials			1 Assy.	5.1	Visual
102.	Assembly not clean, dry and free of dirt and other foreign matter prior to packing			100%	5.1	Visual
103.	Fiberboard container improperly or inadequately supported, packed and secured			100%	5.1	Visual
104.	Wooden box missing, improperly packed or not secured (when required)			100%	5.1	Visual
105.	Marking improper or missing			100%	5.2	Visual
106.	Ammunition data cards not provided			100%	3.4	Visual
107.	Poor workmanship			100%	--	Visual
NOTES:						

DRDAR-QA Form 160 Jul 77 Replaces SARPA-QA Form 2567 Feb 74 Which is Obsolete

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4.4.3 Testing. Testing is described in the first article and quality conformance inspection tables.

4.4.4 Inspection equipment. The inspection equipment required to perform the examinations and tests prescribed herein is described in the "Paragraph Reference/Inspection Method" column in the tables starting with 4.4.2.1. The contractor shall submit for approval inspection equipment designs in accordance with the terms of the contract (see MIL-A-48078 and 6.3).

4.5 Test Methods and Procedures.

4.5.1 Welding quality (see 3.3). Weld quality shall be visually inspected for the requirements of MIL-W-22248 (class 3) with particular attention to the following details.

- (a) Surfaces to be welded shall be free of dirt, grease, oil, paint or other foreign material prior to welding.
- (b) When multiple welds are deposited, each layer shall be thoroughly clean and free of slag and gas pits before deposit of another layer.
- (c) Tack welds, when used, shall be deposited in such a manner as to assure their incorporation into the final weld without causing discontinuity in the deposit.
- (d) Final welds shall be of the fillet size specified on the dwg. and shall be free of discontinuities, overlaps, gas holes, slag, flux, or any other obvious defects representative of poor weld practice. There shall be no weld spatter on functional or machined mating surfaces. Weld spatter, when present on other surfaces shall be removed by chipping, grinding or other commercial practice and the underlying surface refinished to the satisfaction of the Government QAR. Removal of weld spatter shall not puncture, tear or otherwise damage the underlying surface.

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- (e) Dimensional characteristics on dwgs. shall apply after welding. The contractor shall provide all necessary shrinkage controls to assure the finished item complies with dwg. dimensional requirements.

5. PACKAGING

5.1 Packing and marking.

5.1.1 Normal packing. Unless ordered as a spare part, containers shall be prepared and packed in accordance with Packaging Data Sheet (PDS) 9335750, except that an outer wooden box shall not be required.

5.1.2 Spare part packing. When ordered as a spare part, containers shall be prepared and packed in accordance with Packaging Data Sheet (PDS) 9335750, including packing in an outer wooden box.

5.2 Marking. Inner containers and outer wooden boxes shall be marked with the following information.

- a. Item nomenclature
- b. Part or dwg. no.
- c. Manufacturer
- d. Quantity inclosed
- e. Contract or purchase order no.
- f. Date of acceptance

6. NOTES

6.1 Intended use. The item covered by this specification is intended for use as a training item for the M753 Projectile System.

6.2 Ordering data.

6.2.1 Acquisition requirements. Acquisition documents should specify the following:

- a. Title, number and date of this specification
- b. First article inspection, when required (see 3.5).

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6.2.2 Data requirements. When this specification is used in an acquisition which incorporates a DD1423, Contract Data Requirements List (CDRL) the data requirements identified below shall be developed as specified by an approved Data Item Description (DD Form 1664) and delivered in accordance with the approved CDRL incorporated into the contract. When the provisions of DAR 7-104.9 (n) (2) are invoked and the DD Form 1423 is not used, the data specified below shall be delivered by the contractor in accordance with the contract or purchase order requirements. Deliverable data required by this specification is cited in the following paragraphs:

<u>Paragraph no.</u>	<u>Data requirements</u>	<u>Applicable DID no.</u>
(a) 3.4	Data cards	DI-L-1410
(b) 4.4.4	Inspection equipment approval	DI-R-1714 (Tailored)

(Copies of DID's required by contractors in connection with specific acquisition functions should be obtained from the Naval Publications and Forms Center or as directed by the contracting officer.)

6.3 Equipment design approval. Submit equipment designs, as required, to Commander US Army Armament Research and Development Command, ATTN: DRDAR-QAN-I, Dover, New Jersey 07801.

6.4 Objective evidence.

6.4.1 MS Components. A certificate of conformance from the supplier certifying that the item complies with applicable dwg. or specification requirements.

6.4.2 Materials. A statement (certification) supported by test data that all materials produced or purchased by the contractor meets requirements, when such material is controlled by Government or commercial specifications referenced in contractual documents.

6.5 Supersession data. This specification includes the requirements of AR-PD-34 dated 2 October, 1980.

6.6 Drawings and specifications. Drawings and specifications listed in Section 2 of this specification under the heading US Army Armament Research and Development Command (ARRADCOM) may also include drawings and specifications prepared by and identified as Edgewood Arsenal,

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Frankford Arsenal, Rock Island Arsenal or Picatinny Arsenal drawings and specifications. Technical data originally prepared by these activities is now under the cognizance of ARRADCOM.

Custodian:

Army-AR

Preparing activity:

Army-AR

(Project 8140-A547)

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DOCUMENT IDENTIFIER (Number) AND TITLE	
MIL-C-63189 (AR) Container, Dummy Shipping and Storage, M622	
NAME OF ORGANIZATION AND ADDRESS OF SUBMITTER	
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DEPARTMENT OF THE ARMY



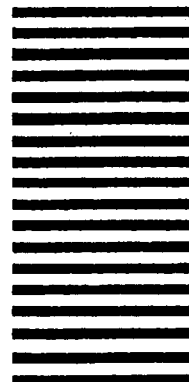
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