

INCH POUND

MIL-C-10464F
14 February 1990
SUPERSEDING
MIL-C-10464E
6 June 1974

MILITARY SPECIFICATION

CANS, HERMETIC SEALING, METAL, LIGHT GAGE,
TEAR-STRIP TYPE

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

1. SCOPE

1.1 Scope. This specification covers the requirements and quality assurance provisions for the manufacture of integral tear strip, hermetically sealed, light gage metal cans for packing of ammunition and pyrotechnic items (see 6.1).

1.2 Classification. The metal cans shall be of the following types as specified (see 6.2):

Type I - Round
Type II - Rectangular

2. APPLICABLE DOCUMENTS

2.1 Government documents.

2.1.1 Specifications, standards and handbooks. The following specifications, standards and handbooks form a part of this specification to the extent specified herein. Unless otherwise specified, the issues of these documents shall be those listed in the issue of the Department of Defense Index of Specifications and Standards (DODISS) and supplement thereto, cited in the solicitation.

Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to: Commander, U.S. Army Armament, Munitions, and Chemical Command, Attn. AMSMC-QA, Picatinny Arsenal, New Jersey 07806-5000 by using the self-addressed Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

AMSC N/A

FSC 8140

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

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SPECIFICATIONS

FEDERAL

- QQ-P-416 - Plating, Cadmium (Electrodeposited)
- QQ-S-571 - Solder; Tin Alloy, Lead-Tin Alloy, and Lead Alloy
- QQ-T-425 - Tinplate (Electrolytic)
- QQ-W-461 - Wire, Steel, Carbon, (Round, Bare and Coated)
- TT-E-516 - Enamel, Lusterless, Quick Drying Styrenated Alkyd Type
- PPP-B-636 - Box, Shipping, Fiberboard

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- MIL-P-11414 - Primer Coating, Lacquer, Rust Inhibiting
- MIL-F-14256 - Flux, Soldering, Liquid (Rosin-Base)
- MIL-P-19602 - Primer, Size Coating, Baking for Roller Coat Application
- MIL-E-19603 - Enamel, Baking for Roller Coat Application
- MIL-A-48078 - Ammunition, Standard Quality Assurance Provisions, General Specification for
- MIL-A-70625 - Automated Acceptance Inspection Equipment for Non-Electronic Components, Design, Testing and Approval of

STANDARDS

FEDERAL

- FED-STD-141 - Paint, Varnish, Lacquer and Related Materials; Method of Inspection, Sampling and Testing

MILITARY

- MIL-STD-109 - Quality Assurance Terms and Definitions
- MIL-STD-129 - Marking for Shipment and Storage

(Unless otherwise indicated, copies of federal and military specifications, standards, and handbooks are available from Military Specifications and Standards, Bldg. 4D, 700 Robbins Avenue, Philadelphia, PA 19111-5094.)

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2.2 Non-government publications. The following document forms a part of this specification to the extent specified herein. Unless otherwise specified, the issues of the documents which are DoD adopted are those listed in the issue of the DODISS cited in the solicitation. Unless otherwise specified, the issues of documents not listed in the DODISS are the issues of the documents cited in the solicitation (see 6.2).

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM-B633-85

- Specification for Electrodeposited Coatings of Zinc on Iron and Steel

(Application for copies of ASTM publications should be addressed to the American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103.)

2.3 Order of precedence. In the event of a conflict between the text of this specification and the references cited herein (except for related associated detail specifications, specification sheets or MS standards), the text of this specification shall take precedence. Nothing in this specification, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

3. REQUIREMENTS

3.1 Material.

3.1.1 Materials and parts. Materials and parts shall be in accordance with applicable drawings and specifications. When drawings are not available, dimensions shall be furnished as directed by the contract or purchase order in accordance with Figure 1 (see 6.2).

3.1.2 Lining compound. The lining compound shall be the type which provides an air tight seal for dry pack contents. The compound shall provide a seal which meets the air pressure test requirements of 3.7. The compound shall be uniformly applied to all sealing surfaces of the ends.

3.1.3 Soldering. The solder metal used to fabricate containers under this specification shall conform to the Sn compositions of QQ-S-571. With the approval of the procuring activity, other solder metal may be used.

3.1.3.1 Soldering flux. The flux used for soldering shall conform to MIL-F-14256, Type W. If other fluxes are needed to be compatible with the manufacturing process, they may be used with approval of the procuring activity.

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3.2 Body and ends. Body and ends shall be fabricated from electrolytic tin plate conforming to QQ-T-425, Class 100 or better. Can ends shall be fabricated from the same gage as the bodies to which they are to be attached. Both ends of the body shall be flanged for double seaming provided the beading does not interfere with the attachment of the key (see 6.2).

3.3 Interior supports. Interior supports shall be made, coated, if required, and inserted as specified on the applicable drawings.

3.4 Key. Unless a commercial type key is specified in the contract or order (see 6.2), the key shall be manufactured from steel wire approximately 0.1055 to 0.135 inch in diameter. Fabrication shall be such that the key can be easily removed from the can by hand and will satisfactorily remove the tear strip from the can when operated by hand. The overall length of the head of the key shall be 1-1/4 inches minimum for cans having an inside diameter of 2.5 inches and larger. The overall length of the head of the key shall be 7/8 inch minimum for cans having an outside diameter less than 2.5 inches. The key shall be constructed in a manner which will allow not more than 90-degree twist in the shank of any key. The key shall be fabricated so that a minimum spacing of 1/16 inch is maintained between the can, after seaming of end, and the head of the key when key is in position on tongue of tear strip. The key shall be coated in accordance with Type I of ASTM-B633-85 with a minimum thickness of 0.00050 inches or Type II, Class 2 of QQ-P-416 before or after forming. Alternatively, when specified, the key may be coated with a corrosion resistant coating.

3.5 Handles. (applicable to Type II only). Unless otherwise specified, handles shall be fabricated from galvanized wire conforming to Grade 1020, Finish 5, Class 1, Medium temper of QQ-W-461.

3.6 Cleat. (applicable to Type II only). Each cleat shall be fabricated as shown on applicable drawings.

3.7 Air pressure. Each can body, with the key end seamed in place by the can manufacturer, shall be capable of withstanding a minimum internal air pressure of 3 pounds per square inch in excess of outside pressure for a minimum of 15 seconds or an equivalent test which will assure that no leakage will occur.

3.8 Tear strip. The body shall be provided with a tear strip formed by two or more scores on the inside surface of the can. A herring bone score pattern may be added between scores to assure complete removal of tear strip (see 6.2). The tongue of the tear strip shall be tapered and centered between the score lines and shall be free of solder for a minimum length of 5/16 inch to permit

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free entrance into the key and a firm hold. The minimum depth of the score shall be such that when the strip is tested it shall tear evenly and straight and shall leave no jagged edges on the body. When the welded body seam passes across the tear strip it shall be made so as to permit clean removal of the tear strip.

3.9 Seams. Side seams shall be either soldered or welded. The ends shall be attached by means of a double seam with minimum overlaps as shown on Figure 3. Can end opposite that shown on drawing with flange extended shall be seamed in place by the can manufacturer.

3.9.1 Soldered. The body shall be lock-seamed the entire length, except for a lap seam at each end to facilitate flanging and removal of the tear strip when tested as specified in 4.5.3. Lap seam at tear strip end shall be continuous from body end through tear strip as indicated on Figure 2, or alternatively may include a segment of lock seam between tear strip and end of body. Also, lap seam may be located only at extreme end of body, utilizing a lock seam through tear strip provided that end of tear strip opposite tongue is slit completely through metal sheet at location of score lines for distance of approximately 1/8 inch from end of width to hook of seam to facilitate final break of tear strip upon removal. The lock and lap seams shall be soldered the entire length, internally or externally (see 3.1.3 and Figure 2).

3.9.2 Welded. The body shall be seamed the entire length by overlapping the body blank edges and applying a continuous electrical resistance seam weld. Alternatively, there may be a skip in the weld at the tear strip and the seam completed by soldering in accordance with 3.9.1. The welded seam shall be capable of bending without breakage.

3.9.3 End seams. Both ends of can shall be seamed in place as depicted in Figure 3.

3.10 Attachment of key.

3.10.1 Type I container. The key shall be attached to one end of the can by soldering or welding in a manner which insures easy removal by hand. Unless otherwise specified, the key shall be attached to the end of the can which is seamed in place by the can manufacturer.

3.10.2 Type II container. The key shall be attached as specified in 3.10.1 unless otherwise specified on the applicable drawing.

3.11 Attachment of handle and handle cleat. (applicable to Type II only). The handle shall be inserted in the handle cleat and then the handle cleat attached to the can by projection welding in a location as shown on the applicable drawing.

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3.12 Coating. The exterior of the cans, excluding side seam and key soldering or welding area, shall be completely roller coated using a primer in accordance with MIL-P-19602 and Class 2 enamel of MIL-E-19603. The color of the coating shall be black unless otherwise specified (see 6.2). Alternatively, the cans may be coated with an enamel complying with TT-E-516. A primer in accordance with MIL-P-11414 may be used prior to the application of the enamel if required for compliance with the salt spray test. After the can has been fabricated, the side seam and key soldering or welding areas shall be coated by the can manufacturer with an enamel or lacquer of the same color and gloss specified for the can.

3.13 Salt spray.

3.13.1 First article sample. The coated cans shall show no rust on the exterior painted areas or show any substantial loss of adhesion or removal of the film under the following conditions.

3.13.1.1 Body and ends. Expose to a 168 hour salt spray, except that bare key attachment areas shall be exposed for 48 hours.

3.13.1.2 Side seam area. Expose bare area to a 48 hour salt spray.

3.13.1.3 Key. The bare key shall withstand a 48 hour salt spray test.

3.13.2 Production lots. Unless otherwise specified, the metal shall not rust on the exterior painted areas or show any substantial loss of adhesion or removal of the film when exposed to a 24 hour salt spray.

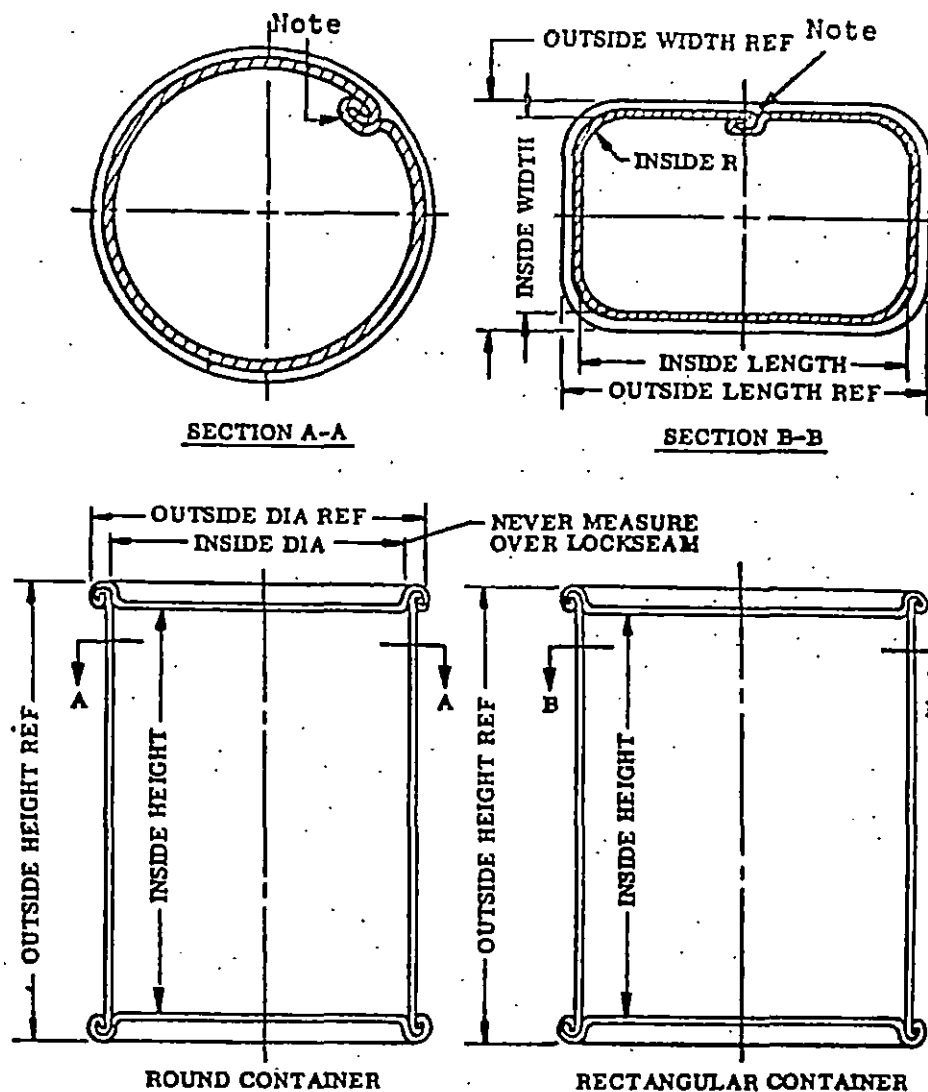
3.14 Can labeling. When lithographing with ink or silk screening with enamel is specified on the drawing, the marking shall be with white letters and figures on a black background (see 6.2).

3.15 Manufacturer's marking. Unless otherwise specified, the can manufacturer's name, initials, or symbol shall be embossed, stamped, or permanently marked on the end of the can which is seamed in place by the can manufacturer (see 6.2).

3.16 First article inspection. This specification contains technical provisions for first article inspection. Requirements for the submission of first article samples by the contractor shall be as specified in the contract.

3.17 Workmanship. All parts and assemblies shall be fabricated in a thorough workmanlike manner. They shall be free of burrs, chips, sharp edges, surface defects, dirt, grease, rust, corrosion products and other foreign matter. The cleaning method used shall not be injurious to any part nor shall the parts be contaminated by the cleaning agent.

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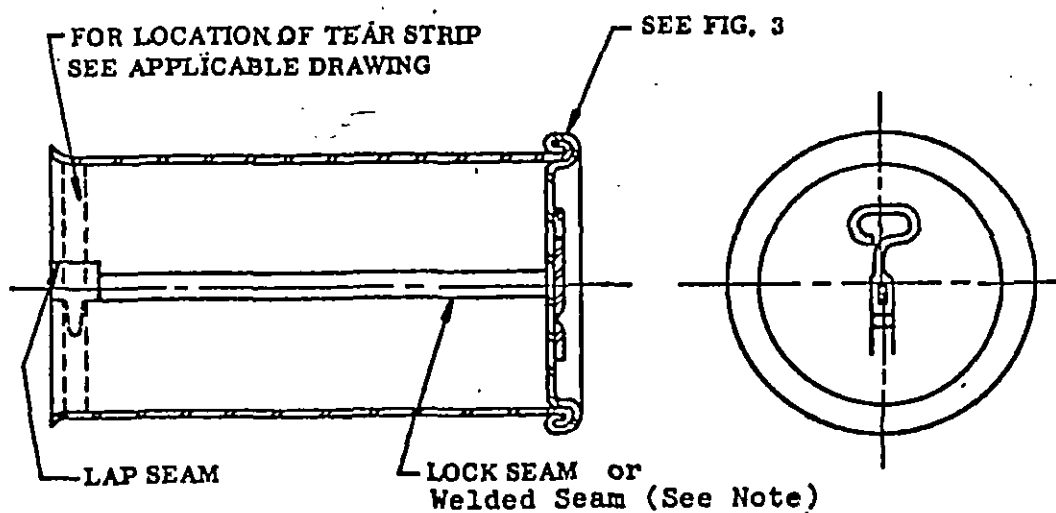


OTHER REQUIREMENTS
VOLUME, TYPE AND GAGE,
MATERIAL AND COATING

FIGURE 1. INFORMATION TO BE INCLUDED IN PROCUREMENT DOCUMENTS
WHEN DRAWING OF CONTAINER IS NOT AVAILABLE

NOTE: Simple Overlap Replaces Lock Seam
When Welding Construction Is Used.

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TYPICAL ASSEMBLY, TYPE I

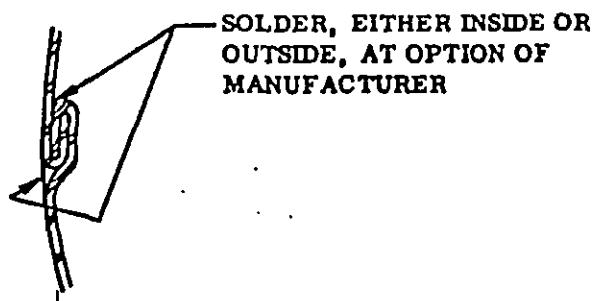
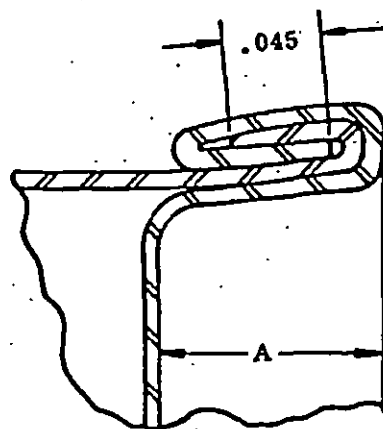


FIGURE 2. TYPICAL LOCK SEAM

NOTE: Simple Overlap Replaces Lock Seam.
When Welding Construction Is Used.

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MINIMUM OVERLAP DIMENSION OF
DOUBLE SEAM, TO BE OBTAINED
WITH 1/8-INCH NOMINAL PANEL
DEPTH (A) OR GREATER.

FIGURE 3. DOUBLE SEAM REQUIREMENTS

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4. QUALITY ASSURANCE PROVISIONS

4.1 Responsibility for inspection. 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. Reference shall be made to MIL-STD-109 in order to define terms used herein.

4.1.1 Responsibility for compliance. All items must meet all requirements of Sections 3 and 5. The inspection set forth in this specification shall become a part of the contractor's overall inspection system or quality program. The absence of any inspection requirements in the specification shall not relieve the contractor of the responsibility of assuring that all products or supplies submitted to the Government for acceptance comply with all requirements of the contract. Sampling in quality conformance does not authorize submission of known defective material, either indicated or actual, nor does it commit the Government to acceptance of defective material.

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

- a. First article inspection (see 4.3)
- b. Quality conformance inspection (see 4.4)

4.3 First article inspection.

4.3.1 Submission. The contractor shall submit a first article sample as designated by the Contracting Officer for evaluation in accordance with the provisions of 4.3.2. The first article sample shall consist of thirty-five (35) assemblies, with the closure end unassembled and twenty-five (25) each of every subassembly and component.

4.3.2 Inspections to be performed. See MIL-A-48078 and Table I specified herein.

4.3.3 Rejection. See MIL-A-48078.

TABLE I. First article inspection
CLASSIFICATION OF CHARACTERISTICS

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PARAGRAPH	TITLE	Assemblies and Components	SHEET 1 OF 1		DRAWING NUMBER	
			CONFORMANCE CRITERIA	REQUIREMENT PARAGRAPH	As applicable	NEXT HIGHER ASSEMBLY
CLASSIFICATION	EXAMINATION OR TEST		INSPECTION METHOD REFERENCE			
	<u>Components (other than unassembled end)</u> Examination for defects	25	3.1	4.4.2.1		
	<u>Unassembled end</u> Examination for defects	25	3.1	4.4.2.2		
	<u>Assemblies</u>					
	a) Examination for defects	35	3.1	4.4.2.3		
	b) Air pressure test	35	3.7	4.5.1		
	c) Tear strip test (see Note)	5	3.8	4.5.2		
	d) Soldered seam test	5	3.9.1	4.5.3		
	e) Attachment of key (see Note)	5	3.10	4.5.4		
	f) Attachment of handle end and handle cleats (see Note)	5	3.11	4.5.5		
	g) Salt spray test	15	3.13.1	4.5.6		
	h) weld seam test	15	3.9.2	4.5.7		
NOTES:						
The same samples may be used for the tests noted (i.e. tests "c" thru "f")						

AMSMC Form 1570a, 1 Jul 89

Replaces AMSMC Form 1570a, 1 Apr 85, which may not be used.

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4.4 Quality conformance inspection.

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

4.4.2 Examination and tests.

a. Classification of characteristics. Quality conformance examinations and tests are specified in the following Classification of Characteristics paragraphs. The contractor's quality program or detailed inspection system shall provide assurance of compliance of all characteristics with the applicable drawing and specification requirements utilizing as a minimum the conformance criteria specified herein. When 0-1 inspection is specified herein, see 6.5 for guidance concerning use of sampling tables.

b. Alternative inspection provisions. Alternative inspection procedures, methods, or equipment, such as statistical process control, tool control, other types of sampling procedures, etc., may be used by the contractor when they provide, as a minimum, the level of quality assurance required by the provisions specified herein. Prior to applying such alternative procedures, methods, or equipment, the contractor shall describe them in a written proposal submitted to the Government for evaluation and approval (see 6.6). When required, the contractor shall demonstrate that the effectiveness of the proposed alternative(s) is equal to or better than the specified quality assurance provisions herein. In cases of dispute as to whether the contractor's proposed alternative(s) provide equal assurance, the provisions of this specification shall apply. All approved alternative inspection provisions shall be specifically incorporated into the contractor's quality program or detailed inspection system, as applicable.

QUALITY CONFORMANCE INSPECTION
CLASSIFICATION OF CHARACTERISTICS

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PARAGRAPH	TITLE	EXAMINATION OR TEST	CONFORMANCE CRITERIA	SHEET OF	DRAWING NUMBER	
					Applicable drawing	NEXT HIGHER ASSEMBLY
CLASSIFICATION					REQUIREMENT PARAGRAPH	INSPECTION METHOD REFERENCE
4.4.2.1	Component					
<u>Critical</u>	None defined					
<u>Major</u> 101	Dimension incorrect	0-1, Level III		3.1		Gage
<u>Minor</u> 201	Evidence of poor workmanship	0-1, Level V		3.17		Visual
NOTES:						

AMSMC Form 1570a, 1 Jul 89

Replaces AMSMC Form 1570a, 1 Apr 85, which may not be used.

**QUALITY CONFORMANCE INSPECTION
CLASSIFICATION OF CHARACTERISTICS**

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PARAGRAPH	TITLE	SHEET 1 OF 1		DRAWING NUMBER
4.4.2.2	Unassembled End			Applicable drawing NEXT HIGHER ASSEMBLY
CLASSIFICATION	EXAMINATION OR TEST	CONFORMANCE CRITERIA	REQUIREMENT PARAGRAPH	INSPECTION METHOD REFERENCE
<u>Critical</u>	None defined			
<u>Major</u> 101	Dimension incorrect	0-1, Level III	3.1	Gage
102	Circumferential discontinuity of lining compound	0-1, Level III	3.1.2	Visual
103	Assembly distorted	0-1, Level III	3.1	Visual
<u>Minor</u> 201	Protective coating incomplete (in excess of 1/4 inch square cumulative), incorrect or excessive glow	0-1, Level V	3.12	Visual/Measure
202	Evidence of poor workmanship	0-1, Level V	3.17	Visual
NOTES:				

AMSMC Form 1570a, 1 Jul 89

Replaces AMSMC Form 1570a, 1 Apr 85, which may not be used.

**QUALITY CONFORMANCE INSPECTION
CLASSIFICATION OF CHARACTERISTICS**

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PARAGRAPH	TITLE	EXAMINATION OR TEST	CONFORMANCE CRITERIA	SHEET 1 OF 1	DRAWING NUMBER	
					Applicable drawing	NEXT HIGHER ASSEMBLY
CLASSIFICATION					REQUIREMENT PARAGRAPH	INSPECTION METHOD REFERENCE
4.4.2.3	Assembly with one open end					
<u>Critical</u>	None defined					
<u>Major</u>						
101	Dimension incorrect	0-1, Level III	3.1		Gage	
102	End seam	0-1, Level III	3.1		Gage	
103	Part missing or incorrectly assembled	0-1, Level III	3.1		Visual	
104	Soldering loose, spattered or excessive	0-1, Level III	3.9		Visual	
105	Assembly distorted	0-1, Level III	3.1		Visual	
<u>Minor</u>						
201	Protective coating incomplete (in excess of 1.4 inch square, cumulative incorrect or excessive glow evidence of poor workmanship)	0-1, Level V	3.12		Visual/Measure	
202		0-1, Level V	3.17		Visual	
NOTES:						

AMSMC Form 1570a, 1 Jul 89

Replaces AMSMC Form 1570a, 1 Apr 85, which may not be used.

QUALITY CONFORMANCE INSPECTION

CLASSIFICATION OF CHARACTERISTICS

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PARAGRAPH	TITLE	SHEET 1 OF 1	DRAWING NUMBER
4.4.2.4	Packaging		Applicable drawing NEXT HIGHER ASSEMBLY
CLASSIFICATION	EXAMINATION OR TEST	CONFORMANCE CRITERIA	REQUIREMENT PARAGRAPH
<u>Critical</u>	None defined		
<u>Major</u> 101	Bulging or distortion of the containers (when packed)	0-1, Level III	5.2 Visual
102	Loose strapping	0-1, Level III	5.2 Visual
103	Marking missing, incomplete or incorrect	0-1, Level III	5.3 Visual
<u>Minor</u>	None defined		
NOTES:			

AMSMC Form 1570a, 1 Jul 89

Replaces AMSMC Form 1570a, 1 Apr 85, which may not be used.

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4.4.3 Testing.

4.4.3.1 Sampling. Tests 4.5.2 through 4.5.5 shall be performed in sequence using the same samples.

Table II. Test sampling

<u>Test</u>	<u>Requirement Paragraph</u>	<u>Classification of Defects</u>	<u>Inspection Level</u>	<u>Accp't</u>	<u>Test Para.</u>
Air pressure	3.7	Major	100%		4.5.1
Attachment of key	3.10	Major	III	0-1	4.5.2
Tear strip test	3.8	Major	III	0-1	4.5.3
Soldered seam test	3.9.1	Major	III	0-1	4.5.4
Attachment of handle/handle cleat	3.11	Major	III	0-1	4.5.5

4.4.3.2 Salt spray test. (see 3.13) Major defect - Eight (8) cans shall be selected from each eight (8) hour production shift (or from lots containing 10,000 cans or less) and tested in accordance with 4.5.6. Failure of any sample to meet the applicable requirement shall be cause for rejection of the lot.

4.4.3.3 Seam weld test. (see 3.9.2) Major defect - Eight (8) cans shall be selected from each eight (8) hour production shift (or from lots containing 10,000 cans or less) and tested in accordance with 4.5.7. Failure of any sample to meet the applicable requirement shall be cause for rejection of the lot.

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 and 4.5. The contractor shall submit for approval inspection equipment designs in accordance with the terms of the contract. When Automated Acceptance Inspection Equipment is to be used, the provisions of MIL-A-70625 shall apply. See Section 6 of MIL-A-48078 and 6.3 herein.

4.5 Methods of inspection. (see 6.4)

4.5.1 Air pressure test. The contractor shall test each can body with welded key or handle attached, in the lot on equipment capable of performing the required test consistently. The equipment shall be provided with a satisfactory means for applying and maintaining the required air pressure during the test and for showing evidence of any leakage. The equipment shall be checked with suitable standard at least twice each 8 hour shift and immediately after each down time period to determine if the test is being applied in the proper manner. If at any time the testing operation is found to be improper, all can bodies and covers tested subsequent to the last satisfactory check point shall be rejected. These rejected can bodies may be screened, retested and resubmitted if desired by the contractor.

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4.5.2 Attachment of key test. Manually remove the key attached to each representative sample can to ensure that the applicable requirements are met. Remove the key by lifting the head of the key through an arc in the direction of the tab.

4.5.3 Tear strip test. Attach the key to the tear strip tongue and rotate in a clockwise direction. The score of the representative system shall meet the applicable requirements.

4.5.4 Soldered seam test. Section the representative sample cans to determine if the applicable requirements have been complied with. Both ends of the representative samples submitted for examination shall be seamed.

4.5.5 Attachment of handle and handle cleats test. (applicable to Type II only). Test the handle and handle cleats, attached to the representative sample cans, for conformity to the requirements of the applicable drawings, for security of attachment of the cleat to the can and for satisfactory butt welding of the handle ends. Perform this test by slowly applying a static load, as specified on the applicable drawing, for a period of one (1) minute through a bearing surface 2 1/2 inches wide affixed to the handle in such a manner that the direction of pull is at a right angle to the surface of the cover.

4.5.6 Salt spray test.

4.5.6.1 First article lot. Prior to production, the representative sample cans and cover ends shall be subjected to the required salt spray test in accordance with Method 6061 of FED-STD-141. When no concentration is specified, 20 percent salt solution shall be used (see 6.2). After removal from the test chamber and thorough flushing with tap water, the test samples shall be air dried 8 hours minimum before inspection.

4.5.6.2 Production lot. Subject the representative sample cans to the required salt spray test in accordance with 4.5.6.1. The test shall be performed by the contractor in the presence of the Government inspector. If any sample can fails to comply with the applicable requirements, the production lot shall be rejected without further test.

4.5.7 Weld seam test. From the sample cans selected, prepare specimens of sufficient size to permit manual folding or bending of the weld creating 90 degree bends throughout the length of seam. Folding or bending in direction of the weld will be performed a minimum of three times in opposite directions. Additionally, the

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top and bottom edges shall withstand manual curling (270 to 300 degrees) without evidence of breaking. Diagonal pliers, or substantial equivalent capable of performing said operation, may be used provided satisfactory performance is assured.

5. PACKAGING

5.1 Preservation. Not applicable.

5.2 Packing.

5.2.1 Level A. Metal cans and unassembled ends shall be packed in V3c or better weather resistant fiber boxes conforming to PPP-B-636. Each layer of cans shall be separated by a plain fiberboard pad constructed from the same fiberboard as the box. Closure of the boxes shall be in accordance with the box specification requirements.

5.2.2 Level B. Packing shall be the same as Level A except Type CF, Domestic Class boxes shall be used. Closure shall be in accordance with the appendix of the fiber box specification.

5.2.3 Level C. Metal cans and unassembled ends that require overpacking by the carrier shall be packed in exterior type shipping containers in a manner that will ensure safe transportation at the lowest rate to the point of delivery and shall meet as a minimum, the requirements of the rules and regulations applicable to the mode of transportation selected.

5.3 Marking. Lot number of the contents shall be plainly marked on each shipping container. In addition to any special marking required by the contract or purchase order (see 6.2) shipments shall be marked in accordance with MIL-STD-129.

6. NOTES

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

6.1 Intended use. The cans procured under this specification are intended for use in packing fuzes, signals and other ammunition and pyrotechnic items.

6.2 Acquisition requirements. Acquisition documents shall specify the following:

- a. Title, number and date of this specification.
- b. Type of can required (see 1.2).
- c. Issue of DODISS to be cited in the solicitation, and if required, the specific issue of individual documents referenced (see 2.2).

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- e. Type of can end (plain or ribbed) (see 3.2).
- f. When a commercial type key is required (see 3.4).
- g. When alternative coating of key is required (see 3.4).
- h. Pattern of tear strip (plain or herring bone; see 3.8).
- i. Color of coating if different from 3.12.
- j. Salt spray test requirements (see 3.13).
- k. When salt spray test exposure for First Article Inspection is other than 168 hours (see 3.13).
- l. Can labeling, if different from 3.14.
- m. If manufacturer's marking is not required (see 3.15).
- n. Provisions for submission of First Article samples (see 4.3.1).
- o. Concentration of sodium chloride (salt) solution (see 4.5.6.1).
- p. Level of packing required (see 5.2).
- q. Special marking, when required (see 5.3).

6.3 Submission of inspection equipment for design approvals.

See MIL-A-48078. Submit designs as required to: Commander, US Army Armament Research, Development and Engineering Center, ATTN: AMSMC-QAR-I (D), Picatinny Arsenal, NJ 07806-5000. This address will be specified on the Contract Data Requirements List, DD Form 1423 in the contract. Unless otherwise specified, data item DI-R-1714 will apply.

6.4 Approval of equivalent test methods. Prior approval of the Contracting Officer is required for use of equivalent test methods. A description of the proposed method should be submitted through the Contracting Officer to: Commander, US Army Armament Research, Development and Engineering Center, ATTN: AMSMC-QAR-Q (D), Picatinny Arsenal, NJ 07806-5000. This description should include but not be limited to the accuracy and precision of the method, test data demonstrating the accuracy and precision, and drawings of any special equipment required.

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6.5 0-1 Attributes plans. Table III below contains a selection of 0-1 plans, indexed by Inspection Levels and Lot Size. The Lot Size ranges are identical to those of MIL-STD-105. The Inspection Level indices are new, but can be related to the standard in that comparable consumer risk levels are maintained. Levels II and III are recommended for most major characteristics; levels IV and V for minors. Such usage would be consistent with past and current spec practices. Level I is intended for use where there must be extremely low risk of accepting nonconforming product. Level VI should only be used where a high risk of accepting nonconforming product must be tolerated.

Table III. Attribute plans.

<u>Lot Size</u>	<u>I</u>	<u>II</u>	<u>III</u>	<u>IV</u>	<u>V</u>	<u>VI</u>
2 to 8	*	*	*	*	5	3
9 to 15	*	*	*	13	5	3
16 to 25	*	*	*	13	5	3
26 to 50	*	*	32	13	5	3
51 to 90	*	*	32	13	12	4
91 to 150	*	125	32	13	12	5
151 to 280	*	125	32	30	14	6
281 to 500	*	125	32	30	17	7
501 to 1200	*	125	74	35	20	9
1201 to 3200	1250	125	74	43	24	10
3201 to 10000	1250	125	87	50	30	10
10001 to 35000	1250	296	109	61	36	10
35001 to 150000	1250	296	124	74	40	10
150001 to 500000	1250	346	156	91	40	10
500001 and over	1250	431	187	102	40	10

* = 100% inspection

6.6 Submission of alternative inspection provisions. Proposed alternative inspection provisions should be submitted by the contractor to the procuring contracting officer for evaluation and approval by the technical activity responsible for preparation of this specification.

6.7 Subject term (key word) listing.

Ammunition
Can
Packing
Sealing, Hermetic

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

Custodian:
Army - AR

Preparing activity:
Army - AR

Review activities:
Army - AR
Navy - OS

(Project 8140-O783)

STANDARDIZATION DOCUMENT IMPROVEMENT PROPOSAL

INSTRUCTIONS

1. The preparing activity must complete blocks 1, 2, 3, and 8. In block 1, both the document number and revision letter should be given.
2. The submitter of this form must complete blocks 4, 5, 6, and 7.
3. The preparing activity must provide a reply within 30 days from receipt of the form.

NOTE: This form may not be used to request copies of documents, nor to request waivers, or clarification of requirements on current contracts. Comments submitted on this form do not constitute or imply authorization to waive any portion of the referenced document(s) or to amend contractual requirements.

I RECOMMEND A CHANGE:		1. DOCUMENT NUMBER MIL-C-10464F	2. DOCUMENT DATE (YYMMDD) 900214
3. DOCUMENT TITLE Cans, Hermetic Sealing, Metal, Light Gage, Tear-Strip Type			
4. NATURE OF CHANGE (Identify paragraph number and include proposed rewrite, if possible. Attach extra sheets as needed.)			
5. REASON FOR RECOMMENDATION			
6. SUBMITTER			
a. NAME (Last, First, Middle Initial)		b. ORGANIZATION	
c. ADDRESS (Include Zip Code)		d. TELEPHONE (Include Area Code) (1) Commercial (2) DSN (If applicable)	7. DATE SUBMITTED (YYMMDD)
8. PREPARING ACTIVITY			
a. NAME Commander, Indian Head Division Naval Surface Warfare Center		b. TELEPHONE (Include Area Code) (1) Commercial 301-744-4700 (2) DSN 354-4700	
c. ADDRESS (Include Zip Code) Standardization Team (Code 840M) 101 Strauss Avenue Indian Head, MD 20640-5035		IF YOU DO NOT RECEIVE A REPLY WITHIN 45 DAYS, CONTACT: Defense Standardization Program Office, Attn: DLSC-LM 8725 John J. Kingman Road, Suite 2533 Fort Belvoir, VA 22060-6221 Telephone (703) 767-6888 DSN 427-6888	