### **INCH-POUND**

MIL-C-2439E (AR) AMENDMENT 7 26 March 2001 SUPERSEDING AMENDMENT 6 16 March 1995

### **MILITARY SPECIFICATION**

### CONTAINER, AMMUNITION, FIBER, SPIRALLY WOUND

This amendment forms a part of MIL-C-2439E (AR), dated 25 April 1986, and is approved for use by the U.S. Army Armament, Research, Development and Engineering Center, and is available for use by all Departments and Agencies of the Department of Defense.

### PAGE 2

### 2.1.1, Under "SPECIFICATION, FEDERAL"

Delete "QQ-S-781 – Strapping, Steel and Seals"

## \* 2.1.1, SPECIFICATION, FEDERAL, Delete the following:

"QQ-S-775	Steel Sheets, Zinc Coated (Galvanized) by the Hot Dip Process.
QQ-T-425	Tin Plate (Electrolytic)
UU-C-282	Chipboard
UU-P-31	Paper: General specifications and Methods of Testing
MMM-A-100	Adhesive, Animal Glue
MIL-A-3029	Asphalt, Waterproofing
MIL-B-20390	Board, Ammunition Container
MIL-A-45059	Adhesive for Bonding Chipboard to Template, Tinplate and
Zineplate"	

## \* Add the following:

"A-A-150/	Chipboard
A-A-3001	Adhesive, polyvinyl Acetate emulsion, Wood & plastic
A-A-59209	Paperboard, Ammunition Container"

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#### PAGE 3

\* Delete "MIL-STD-1235 – Single.. ..Inspections by Attributes" and substitute "MIL-STD-1916 DOD preferred methods for Acceptance of Product"

Parenthetical source (for 2.1.1), Delete and substitute the following:

"(Unless otherwise indicated, copies of federal and military specifications, standards and handbooks are available from the Standardizations Documents Order Desk, bldg. 4D, 700 Robbins Avenue Philadelphia, PA 19111-5094.)"

- 2.2 Other publications Under "AMERICAN SOCEITY FOR TESTING AND MATERIALS:" Add "ASTM-D3953 – Strapping, Flat Steel and Seals, Standard Specifications for (DoD Adopted)"
- \* Under AMERICAN SOCIETY FOR TESTING AND MATERIALS, add the following:

"ASTM A527 Steel Sheets, Carbon, Galvanized.

ASTM A624/624M Tin Mill Products, Electrolytic Tin Plate, Single Reduced.

Or

ASTM A626/626M Tin Mill Products, Electrolytic Tin Plate, Double Reduced.

ASTM D449 Asphalt, Waterproofing"

\* Add Section for DRAWINGS as follows:

"DRAWINGS

12987995 - Adhesive"

\* Add Section for OTHER TEST Methods:

"TAPPI T400 – Sampling & Accepting a Single Lot of Paper, Paperboard, Containerboard, or Related Products".

### PAGE 4

\* 3.3 Inner Tube: (in two (2) places), Delete "MMM-A-100" and substitute "A-A-3001"

### PAGE 5

\* 3.5 Assembly, Delete "MMM-A-100" and substitute "A-A-3001"

3.5, Add the following sentence to the end of the paragraph:

"All materials used in the construction of the containers shall be certified in accordance with

the applicable specifications."

### PAGE 6

3.6 Neck ring. Add the following sentence to the end of the paragraph:

"No corrosion or rust products of basic metal are allowed."

#### PAGE 7

3.7.1 Metal for ends. Add the following sentence to the end of paragraph:

"Any material changes to the metal ends mentioned in 3.7.1.1 and 3.7.1.2, shall require approval by the Procuring Agency."

- \* 3.7.1.1 <u>Tinplate</u>, Delete "QQ-T-425" and substitute "ASTM A624/624M or ASTM A626/626M"
- \* 3.7.1.2 Zinc Coated Steel, Delete "QQ-T-775" and substitute "ASTM A527"
  - 3.7.2 Metal end Marking. Delete the sixth sentence ("if necessary, the word...") and substitute:

"If necessary, the word "CONTAINER" may be abbreviated to "CNTNR". "CNTNR" shall

be used for all new tooling. However, if tooling is already in existence with the abbreviation "CONT", it may be used in lieu of "CNTNR". Also, the embossing design shown on the drawing may be shifted circumferentially to provide additional space in the embossing circle."

#### PAGE 8

\* 3.8 Chipboard Spacers, Delete the following:

"MIL-A-45059", "UU-C-282" and "MMM-A-100" and substitute "DRWG # 12987995" , "A-A-1507" and "A-A-3001"

3.11 Resin content (applicable to Type IV containers). Change first sentence as follows:

"Unless otherwise indicated on the drawing, the resin content of the outer, cover and neck tubes shall be 12 percent min., by weight, when immersed in resin (see 6.10)."

### PAGE 9

### 3.13 Workmanship.

Second sentence, Delete: "Surface Scuffing" and substitute "scuffs penetrating the outer layer, gouges, cuts, checks".

After second sentence, add new sentence as follows:

"Scuffs not penetrating the outer layers, shall be permitted on a containers if they are not larger than one inch and there are not more than two scuffs on the container."

#### PAGE 10

4.3.1 Submission. Add the following sentence to the end of the paragraph:

"During production, any changes to the production processes, procedures or equipment which differs from those used to produce first article samples shall require approval by the Procuring Agency."

### PAGE 11

4.3.2.1 Table III. <u>First Article Inspection</u>. At the bottom of table, Delete "inner tubes" and substitute "inner tube material".

### PAGE 12

### 4.3.2.1 Table III. First Article Inspection.

Under "Cover tubes" and outer Tubes", add the following "b. Construction (per applicable figure) (see Note 3)"

Under Requirements paragraph column, for the Cover Tubes and outer tubes, add "3.2".

Under Paragraph Reference/Inspection Method column, for Cover tubes and outer tubes, add "4.5.12"

Under Notes add the following:

"3. The samples which are used for the metal end pull test shall be utilized for the construction test."

### PAGE 13

\* 4.4.2. Examination, Delete "MIL-STD-1235" and substitute "MIL-STD-1916"

### PAGE 15

4.4.2.1 Container Assembly: Delete Minor defect 215 in its entirety.

### PAGE 16

4.4.2.1 Container Assembly.

Delete Minor Defect 218 in its entirety and substitute:

"218 Staple protruding through inner wall, mislocated, missing, broken or improperly clinched (as applicable) 0.65% 3.1 Visual.'

Minor Defect 221 (workmanship). Delete AQL "0.65%" and Substitute AQL "1.5%".

Add Minor Defect 222 as follows:

"222 Crimp on either end of spacer ring assembly faulty or incomplete (when applicable).

0.65% 3.1 Visual/Manual"

### PAGE 20

4.4.3.7, Inner tubes. Delete in its entirety.

Add new paragraph as follows:

"4.4.3.10 <u>Construction</u>. (see 3.2). Major defect – cover tubes an outer tubes from the sample drawn for 4.4.3.3 shall be tested in accordance with 4.5.12."

### PAGE 22

4.5.6.1 <u>Salt Spray test</u>. Add the following sentence to the end of paragraph:

"Test specimens shall show no corrosions or rust products of basic metal at the end of the time period."

4.5.7 <u>Inner tube</u>. Delete "Inner tube" and substitute "Inner tube material (First Article inspection only)".

\* 4.5.7.1, 4.5.7.2, 4.5.7.3, In all three subparagraphs, Delete "UU-P-31" and Substitute "TAPPI T400" and Delete "Inner tubes" and substitute "inner tube material".

#### PAGE 24

Add new paragraph as follows:

"4.5.12 <u>Construction</u>. The walls of the outer tube and the cover tube shall be cross-sectioned by cutting them with a knife or other sharp instrument. The layers of the outer tubes and the cover tube shall then be separated for identification purposes. Observations shall be made to ensure that the materials and construction methods are in accordance with Figure 1 (for Types I, II and III containers) or Figure 2 (for Type IV container) or Figure 3 (for Type V containers) of this specification, whichever is applicable."

### **PAGE 25**

5.2.2.2.1 Strapping. Delete the first sentence and substitute the following:

"Bundles shall be strapped with steel strapping not less than 3/8 inch wide by 0.015 thick, Type 1, regular-duty, finish A or C complying with ASTM-D3953."

### PAGE 26

- 6.2 Ordering Data. Delete paragraph in its entirety and substitute:
  - "6.2 Acquisition requirements. Acquisition documents must specify the following:
  - a. Title, number and date of specification.
  - b. Drawing number of container.
  - c. Type and class of container (1.2)
  - d. Issue of DODISS to be citied in the solicitation and if required, the specific issue of individual documents referenced (see 2.1.1 and 2.2).
    - e. Provisions for submission of first article samples."

### **PAGE 28**

- 6.12 Resin material. Delete in its entirety and substitute:
  - "6.12 <u>Resin material</u>. Boler 1318 and Boler 1633 "Fully Refined Waxes" manufactured by Boler Petroleum Company, 85 Old Eagle School Road, Wayne, PA 19087, have been found satisfactory for use in resin immersion containers."

### **PAGE 29**

\* Note A: Delete "MIL-B-20390" and substitute "A-A-59209"

- \* Note E: Delete "MMM-A-100" and substitute "A-A-3001"
- \* Note G: Delete "MIL-A-45059" and substitute "DRWG # 12987995"
- \* Note H: Delete "MMM-A-100" and substitute "A-A-3001"

### PAGE 30

- \* Note A: Delete "MIL-B-20390" and substitute "A-A-59209"
- \* Note D: Delete "MMM-A-100" and substitute "A-A-3001"
- \* Note F: Delete "MIL-A-45059" and substitute "DRWG # 12987995"

### PAGE 31

- \* Note A: Delete "MIL-B-20390" and substitute "A-A-59209"
- \* Note E: Delete "MMM-A-100" and substitute "A-A-3001"
- \* Note F: Delete "MIL-A-3029" and substitute "ASTM D449"
- \* Note G: Delete "MMM-A-100" and substitute "A-A-3001"

### PAGE 32

- \* Note A: Delete "MIL-B-20390" and substitute "A-A-59209"
- \* Note D: Delete "MMM-A-100" and substitute "A-A-3001"
- \* Note F: Delete "MIL-A-45059" and substitute "DRWG # 12987995"

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