MIL-C-38373B AMENDMENT 2 21 October 1985 SUPERSEDING AMENDMENT 1 20 Jan 1978

#### MILITARY SPECIFICATION

## CAP, FLUID TANK FILLER

This amendment forms a part of Military Specification MIL-C-38373B, dated 1 Jul 1975, and is approved for use by all Departments and Agencies of the Department of Defense.

#### PAGE 1

\*2.1, Under SPECIFICATION, MILITARY: Delete "MIL-D-1000" and substitute "DOD-D-1000."

## PAGE 2

\*2.1, Under STANDARDS, MILITARY: Add.

"MIL-STD-1757

Lightning Qualification Test Techniques for Aerospace Vehicles and Hardware.

MS24665

Pin Cotter (Split)."

Delete "125 KSI FTU, 60 KSI FTU and 30 KSI FTU."

Delete 3.1 and substitute:

- 3.1: Qualification. The cap unit furnished under this specification shall be a product qualified per paragraph 6.3 of this specification.
- \*3.2: Delete and substitute.
  - "3.2 Components. The cap unit shall consist of a cap and a gasket or sealing device. For 3-inch, type III, class A caps, one MS24665-298 cotter pin for lanyard attachment is also included."

# PAGE 3

- \*3.5.1, Delete and substitute:
  - "3.5.1 Lightning safety. The cap, mounted in a standard MS27379 adapter, shall withstand a direct lightning strike as described in MIL-STD-1757A, zone 1B, test method TO2, and without losing its sealing function (3 inch size type III only)."

## PAGE 4

- 3.5.6: Delete and substitute.
  - "3.5.6 Cap attachment provisions (see 6.4.2). The cap shall incorporate provisions for attachment of a beaded chain or polyurethane lanyard as follows:

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

- a. Type III class A caps Polyurethane lanyard in accordance with MS27380 with lanyard-to-cap attachment provisions as shown on figure 5.
- b. Type I and II caps Weldless beaded chain in accordance with RR-C-271, type II, class 5, with chain-to-cap attachment provisions to meet the requirements specified herein.

The cap attachment provisions shall be designed to withstand a 40-pound pull (see 4.6.13)."

- 3.5.6.1: Delete and substitute.
  - "3.5.6.1 Replacement of chain or lanyard. The time required to remove and replace the chain or lanyard shall not exceed 5 minutes using standard tools. It shall be possible to accomplish this replacement without disturbing the factory adjustment of the latching mechanism. For type III class A caps, the lanyard-to-cap attachment shall be by means of an MS24665-298 cotter pin as shown on figure 5."

Add FIGURE 5: Figure 5 forms page 4 of this amendment.

- 3.5.6.2: Delete.
- 3.5.6.3: Delete.

PAGE 6

\*3.7, Delete "MIL-D-1000" and substitute "DOD-D-1000."

PAGE 20

4.6.12: Delete and substitute.

"4.6.12 Accelerated corrosion and water absorption. A cap unit shall be immersed in distilled water at a temperature not less than 70°F for 48 hours. Immediately after removal from the water, the functional tests of 4.6.2.1 shall be conducted. If no discrepancies are noted the cap shall then be immersed in a solution consisting of 2 1/2 percent by weight of sodium chloride in distilled water. After immersion, the solution shall be drained, and the unit shall be heated in an oven to a temperature of 125° to 130°F for a period of not less than 1 hour. The immersion and heating cycle shall be repeated 50 times. Immediately after completing the immersion cycles, the cap unit shall be disassembled and washed out with warm water to remove all salt accumulations, after which the unit shall be dried and subjected to the tests specified in 4.6.2, 4.6.3, and 4.6.15."

Add:

"4.6.13.1 Chain or lanyard replacement test. Removal and replacement of the chain or lanyard without disturbing the cap attachment or adjustment functions shall be demonstrated. The time required for this removal and replacement shall not exceed 5 minutes. Both the cap and the adapter ends shall be removed and replaced without visible damage to the lanyard or chain during reattachment. The lanyard or chain being reinstalled may be a new unit."

\*4.6.14.1: Delete and substitute.

"4.6.14.1 Test set-up. The cap and adapter shall be mounted on a test chamber similar to that shown in figure 4. The lanyard of the cap attachment assembly shall be included in the test. The adapter opening in the test chamber shall be a minimum of 4.25 inches. The test shall be done in accordance with test method TO3, MIL-STD-1757, zone 1B."

PAGE 23

Paragraphs 4.6.14.2, 4.6.14.3, 4.6.14.4. Delete in their entirety.

PAGE 24

6.2.d: Add note.

"NOTE: Attachment lanyards or chains are not included as part of cap assembly. One each MS24665-298 cotter pin will be furnished with all type III class A caps. During shipment the cotter pin will be attached to the cap along with a shipping tag in accordance with figure 6."

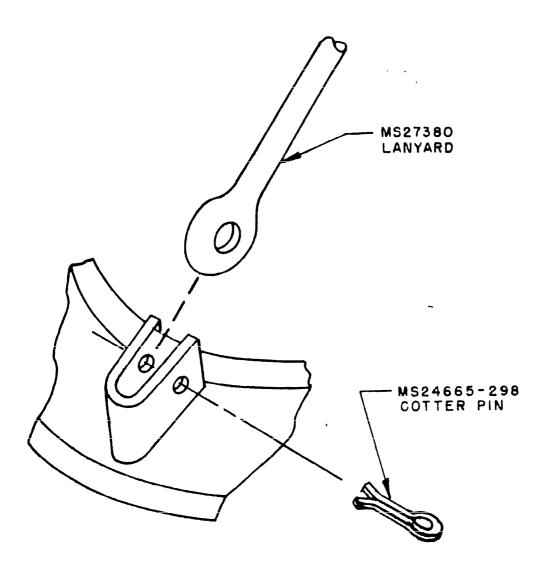
\*Add Figure 6: Figure 6 forms page 5 of this amendment.

6.3: Delete and substitute.

\*6.3 Qualification.

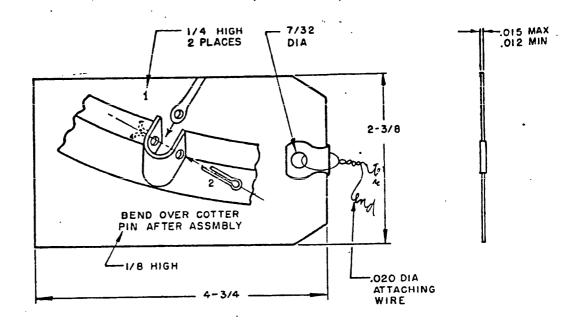
Add:

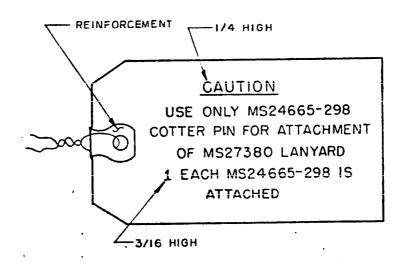
6.3.1 Testing. Manufacturers who have furnished production quantities of the same cap to the government, providing the caps were satisfactorily in service, do not require requalification. However, neither these manufacturers nor distributors are relieved of their contractual obligations for caps that meet the requirements of this specification. Manufacturers who have not furnished production quantities of the same cap to the government or whose caps have not exhibited satisfactory performance in service, must qualify in accordance with section 4.3. A government representative must witness all the required examination and tests. Three(3) copies of the test report and three(3) copies of the manufacturer's drawings must be forwarded for final approval to the Office of Primary Responsibility. The costs for all examinations and tests, as well as the printing and distribution of the report, shall be borne by the applicant.



# INVERTED VIEW

FIGURE 5. Lanyard-to-cap attachment.





### NOTES:

- 1. TAG TO BE RED IN COLOR WITH BLACK LINE AND LETTERS.
- 2. SUGGESTED SOURCE OF SUPPLY: DENNISON MFG CO
  77 FORD AVE
  FRAMINGHAM, MASS (01701)

FIGURE 6. Lanyard attachment instruction tag.

- \*6.3.2 Office of primary responsibility (OPR). Questions or comments on the technical content of this specification and qualification reports should be addressed to: SA-ALC/MMIRCC

  Kelly AFB, TX 78241

  (512) 925-6277
- 6.4.2: Delete and substitute.
  - "6.4.2 <u>Cap attachment</u>. The cap attachment provisions secures the cap to the adapter to prevent loss or damage to the caps when the cap is disengeged from the adapter during aircraft servicing."

PAGE 25

- \*6.5: Delete in its entirety and substitute:
  - "6.5 International standardization. Certain provisions of this specification are the subject of international standardization agreements ASCC AIR STD 17/11 and NATO STANAGS 3212 and 3294. When amendment, revision, or cancellation of this specification is proposed which will modify the international agreement concerned, the preparing activity will take appropriate action through international standardization channels including departmental standardization offices to change the agreement or make other appropriate accommodations."
  - 6.6: Delete in its entirety and substitute:
- \* "The margins of this amendment are marked with an asterisk or vertical lines to indicate where changes (additions, modifications corrections, deletions) from the previous amendment were made. This was done as a convenience only and the Government assumes no liability whatsoever for any inaccuracies in these notations. Bidders and contractors are cautioned to evaluate the requirements of this document based on the entire content irrespective of the marginal notations and relationship to the last previous amendment."

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Preparing activity:
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(Project 1560-0134)