

MIL-C-17376E  
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SUPERSEDING  
MIL-C-17376D  
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MILITARY SPECIFICATION

CAPS AND FLANGES, COMPRESSED-GAS CYLINDER,

GENERAL SPECIFICATION FOR

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

1. SCOPE

1.1 Scope. This specification covers protection caps and mounting  
flanges for compressed-gas cylinder valves.

1.2 Classification. Caps and flanges shall be in accordance with the  
applicable specification sheet as specified (see 6.2 and 6.3).

2. APPLICABLE DOCUMENTS

2.1 The following documents of the issue in effect on date of invitation  
for bids or request for proposal form a part of this specification to the  
extent specified herein:

SPECIFICATIONS

Federal

PPP-B-601  
PPP-B-636  
PPP-B-640

- Boxes, Wood, Cleated-Plywood.  
- Boxes, Shipping, Fiberboard.  
- Boxes, Fiberboard, Corrugated,  
Triple-Wall.

Military

MIL-T-704

- Treatment and Painting of Materiel.

MIL-C-17376E

STANDARDS

Military

- |             |  |
|-------------|--|
| MIL-STD-101 | - Color Code for Pipelines and for Compressed Gas Cylinders.   |
| MIL-STD-105 | - Sampling Procedures and Tables for Inspection by Attributes. |
| MIL-STD-129 | - Marking for Shipment and Storage.                            |

(Copies of specifications and standards required by suppliers in connection with specific procurement functions should be obtained from the procuring activity or as directed by the contracting officer.)

2.2 Other publications. The following documents form a part of this specification to the extent specified herein. Unless otherwise indicated, the issue in effect on date of invitation for bids or request for proposal shall apply.

UNIFORM CLASSIFICATION COMMITTEE, AGENT

Uniform Freight Classification.

(Application for copies should be addressed to the Uniform Classification Committee, ATTN: Tariff Publishing Officer, Room 1106, 222 South Riverside Plaza, Chicago, IL 60606.)

NATIONAL MOTOR FREIGHT TRAFFIC ASSOCIATION, INC., AGENT

National Motor Freight Classification.

(Application for copies should be addressed to the American Trucking Associations, Inc., ATTN: Tariff Order Section, 1616 P Street NW, Washington, DC 20036.)

NATIONAL BUREAU OF STANDARDS

Handbook H28 - Screw-Thread Standards for Federal Services.

(Application for copies should be addressed to the Superintendent of Documents, Government Printing Office, Washington, DC 20402.)

### 3. REQUIREMENTS

3.1 Description. The cylinder caps and mated flanges shall be as specified herein and as specified in the applicable specification sheet.

3.2 Specification sheets. Individual cap and flange requirements shall be detailed in the applicable specification sheets.

3.3 Material. Material shall be as specified herein and as in the applicable specification sheet (see 1.2).

3.4 Cap weight and thickness. The cap shall weigh less than 3-1/2 pounds. The thickness of the cap shall be not less than 0.100 inch. All caps less than 0.134 inch in wall thickness shall be reinforced longitudinally by being hexagonal or octagonal shaped or by having not less than four rolled beads or indentations when cylindrically shaped for adequate protection against impact.

3.5 Threads. Threads shall be in accordance with Handbook H-28.

3.6 Cleaning, treating and painting. Unless otherwise specified herein, the interior and exterior surface of each cap shall be cleaned, treated and painted with a prime coat in accordance with MIL-T-704. When specified (see 6.2), pretreatment shall not be required prior to painting the cleaned cap. When a finish paint coat is specified (see 6.2), the exterior surface of each cap shall be given an additional coat. The finish coat shall be in accordance with MIL-T-704 and the finish color shall conform to MIL-STD-101 for the gas service specified. The flanges shall be treated and painted the same as the cylinder of intended use in accordance with MIL-T-704 and MIL-STD-101.

3.7 Workmanship. All parts of the caps and flanges shall be clean of harmful extraneous material such as sand, dirt, pits, sprues, scale and flux. Rework shall be limited to procedures which do not reduce strength or affect function.

### 4. QUALITY ASSURANCE PROVISIONS

4.1 Responsibility for inspection. Unless otherwise specified in the contract or purchase order, the supplier is responsible for the performance of all inspection requirements as specified herein. Except as otherwise specified in the contract or order, the supplier may use his own or any other facilities suitable for the performance of the inspection

MIL-C-17376E

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.

4.2 Classification of inspection. Inspection shall be classified as follows:

- (a) Quality conformance inspection (see 4.3).
- (b) Inspection of preparation for delivery (see 4.4).

4.3 Quality conformance inspection.

4.3.1 Sampling. Sampling for examination shall be in accordance with MIL-STD-105, level I.

4.3.2 Examination. Samples selected in accordance with 4.3.1 shall be examined for the following defects. AQL shall be 2.5 percent defective.

- 101. Material not as specified.
- 102. Dimensions not as specified.
- 103. Screw threads not as specified.
- 104. Reinforcement not as specified.
- 105. Weight of cap in excess of 3-1/2 pounds.
- 106. Cleaning, treating and painting not as specified.
- 107. Workmanship not as specified.

4.4 Inspection of preparation for delivery.

4.4.1 Quality conformance inspection of pack.

4.4.1.1 Unit of product. For the purpose of inspection, a completed pack prepared for shipment shall be considered a unit of product.

4.4.1.2 Sampling. Sampling for examination shall be in accordance with MIL-STD-105.

4.4.1.3 Examination. Samples selected in accordance with 4.4.1.2 shall be examined for the following defects. AQL shall be 2.5 percent defective.

108. Quantities of caps packaged together not as specified for level A.
109. Containers not as specified for level A or B.
110. Separators and pads not as specified for level A.
111. Gross weight or size exceeds the limitations of the box for level A or B.
112. Strapping not zinc coated for level A.
113. Marking missing, illegible, incorrect, or incomplete.

## 5. PREPARATION FOR DELIVERY

### 5.1 Packaging. Packaging shall be level A or C as specified (see 6.2).

5.1.1 Level A. Unless otherwise specified herein, caps shall be packaged together, in quantities of 12, in a close-fitting box conforming to PPP-B-636, W5c. Fiberboard separators and pads of the same material used for the box shall be provided to prevent the caps from contacting each other. Pads shall be required only when the caps are tiered. When specified (see 6.2), caps shall be individually packaged in close-fitting boxes conforming to PPP-B-636, W6c (see 6.5).

5.1.2 Level C. Caps and flanges shall be packaged in a manner to afford physical and mechanical protection from the supplier to the initial destination. The supplier may use his standard commercial practice when it fulfills these requirements.

### 5.2 Packing. Packing shall be level A, B, or C as specified (see 6.2).

5.2.1 Level A. Caps, packaged as specified in 5.1, shall be packed together in a close-fitting wood box conforming to PPP-B-601, overseas type, style optional, in quantities not to exceed the weight limitation of the container. Box closure and strapping shall be in accordance with the appendix to the box specification (see 6.5).

5.2.2 Level B. Caps, packaged as specified in 5.1, shall be packed together in a close-fitting wood box conforming to PPP-B-601, domestic type, style optional or in fiberboard boxes conforming to PPP-B-636, V3c, V11c, V13c, V15c, or PPP-B-640, class 2, style optional. The gross weight or size of each box shall not exceed the limitations of the applicable box specification. Box closure and strapping shall be in accordance with the appendix to the applicable box specification (see 6.4).

MIL-C-17376E

5.2.3 Level C. Caps and flanges packaged as specified in 5.1, shall be packed in a manner to assure carrier acceptance and safe delivery to destination at lowest ratings in wooden or fiberboard containers complying with Uniform Freight Classification rules or National Motor Freight Classification rules.

5.3 Marking. Packages and shipping containers shall be marked in accordance with MIL-STD-129.

## 6. NOTES

6.1 Intended use. The caps and flanges covered by this specification attached to a cylinder will provide protection for the cylinder valve against damage in shipping, handling and storage.

6.2 Ordering data. Procurement documents should specify the following:

- (a) Title, number, and date of this specification.
- (b) Whether caps or flanges are required and applicable specification sheet and classification number (see 1.2 and 6.4).
- (c) When pretreatment for cap is not required (see 3.6).
- (d) When a finish paint coat is required and the gas service for which cap is intended (see 3.6).
- (e) Level of packaging and level of packing required (see 5.1 and 5.2). Level B packing is intended to provide economical but limited protection and should be specified only when it has been determined the caps will be held in covered storage.
- (f) When caps are to be individually packaged (see 5.1.1).

6.3 Classification changes. Changes in classification of caps between this revision of the specification and the previous edition are as follows:

<u>"D" Revision</u>	<u>"E" Revision</u>
Class 1 - Steel	deleted - on applicable spec. sheet
Class 2 - Malleable iron	deleted - on applicable spec. sheet
Class 3 - Aluminum	deleted
Size - 3-1/8-11 NS-1B(MS39216-1)	deleted - on applicable spec. sheet
Size - 3-1/2-11 NS-1B(MS39216-2)	deleted - on applicable spec. sheet

MIL-C-17376E

6.4 The following specification sheets provide detailed requirements for caps and flanges covered by this general specification.

MIL-C-17376/1

MIL-C-17376/2

MIL-C-17376/3

Cap

Flange-Low Pressure

Flange-High Pressure

6.5 Flanges should be prepared for level C packaging and packing when required.

Custodians:

Army - ME

Navy - SH

Air Force - 68

Preparing activity:

Army - ME

Project No. 8120-0357

Review activity:

Army - MD

★ U. S. GOVERNMENT PRINTING OFFICE: 1973-713-147/1576

User activities:

Navy - YD, MC

STANDARDIZATION DOCUMENT IMPROVEMENT PROPOGAL		Form Approved Budget Bureau No. 22-R255
<p><b>INSTRUCTIONS:</b> This sheet is to be filled out by personnel, either Government or contractor, involved in the use of the specification in procurement of products for ultimate use by the Department of Defense. This sheet is provided for obtaining information on the use of this specification which will insure that suitable products can be procured with a minimum amount of delay and at the least cost. Comments and the return of this form will be appreciated. Fold on lines on reverse side, staple in corner, and send to preparing activity. Comments and suggestions submitted on this form do not constitute or imply authorization to waive any portion of the referenced document(s) or serve to amend contractual requirements.</p>		
<p>SPECIFICATION <b>MIL-C-17376E Caps and Flanges, Compressed-Gas Cylinder, General Specification For</b></p>		
<p>ORGANIZATION</p>		
<p>CITY AND STATE</p>		<p>CONTRACT NUMBER</p>
<p>MATERIAL PROCURED UNDER A</p> <p><input type="checkbox"/> DIRECT GOVERNMENT CONTRACT      <input type="checkbox"/> SUBCONTRACT</p>		
<p>1. HAS ANY PART OF THE SPECIFICATION CREATED PROBLEMS OR REQUIRED INTERPRETATION IN PROCUREMENT USE?</p> <p>A. GIVE PARAGRAPH NUMBER AND WORDING.</p>		
<p>B. RECOMMENDATIONS FOR CORRECTING THE DEFICIENCIES</p>		
<p>2. COMMENTS ON ANY SPECIFICATION REQUIREMENT CONSIDERED TOO RIGID</p>		
<p>3. IS THE SPECIFICATION RESTRICTIVE?</p> <p><input type="checkbox"/> YES      <input type="checkbox"/> NO (If "yes", in what way?)</p>		
<p>4. REMARKS (Attach any pertinent data which may be of use in improving this specification. If there are additional papers, attach to form and place both in an envelope addressed to preparing activity)</p>		
<p>SUBMITTED BY (Printed or typed name and activity - Optional)</p>		<p>DATE</p>

DD FORM 1426

11 Oct 72 (Rev)

REPLACES EDITION OF 1 OCT 64 WHICH MAY BE USED