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* INCH-POUND *

GGG-C-2794
10 April 1992

SUPERSEDING
MIL-C-1258D
14 February 1983

FEDERAL SPECIFICATION

CUPS, OIL, LUBRICATING, AND OILERS, SELF-FEEDING

This specification is approved by the Commissioner, Federal Supply Service, General Services Administration, for the use of all Federal agencies.

1. SCOPE AND CLASSIFICATION

1.1 Scope. This specification covers oil cups used for lubricating wearing parts of mechanical equipment.

1.2 Classification.

1.2.1 Types and styles. Oil cups are of the following types and styles, as applicable, as specified (see 6.2 and 6.5):

Type A - Screw cap (see table I)
Type B - Spring cap (see table II)
Type C - Cylindrical slotted cap (see table III)
Type D - Hinged cap (see table IV)
Type F - With sight feed (see table V)
Type G - Ball valve (drive), straight (see table VI)

Style 1 - With flange (see figure 6)
Style 2 - Without flange (see figure 6)

Type H - Small elbow (see table VII)

Beneficial comments (recommendations, additions, deletions) and any pertinent
*data which may be of use in improving this document should be addressed to: *
*Commanding Officer (Code 156), Naval Construction Battalion Center, Port *
*Hueneme, CA 93043-5000, by using the Standardization Document Improvement *
*Proposal (DD Form 1426) appearing at the end of this document or by letter. *

FSC 4730

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 document to the extent specified herein. Unless otherwise specified, the issues of these documents are those listed in the issue of the Department of Defense Index of Specifications and Standards (DODISS) and supplement thereto, cited in the solicitation (see 6.2).

Federal Specifications

PPP-B-566 - Boxes, Folding, Paperboard
PPP-B-636 - Boxes, Shipping, Fiberboard

Federal Standards

FED-STD-H28/7 - Screw-Thread Standards for Federal Services Section 7 Pipe Threads - General Purpose
FED-STD-123 - Marking for Shipment (Civil Agencies)

Military Specifications

MIL-B-121 - Barrier Material, Greaseproofed, Waterproofed, Flexible

Military Standards

MIL-STD-105 - Sampling Procedures and Tables for Inspection by Attributes
MIL-STD-129 - Marking for Shipment and Storage
MIL-STD-2073-1 - DOD Materiel Procedures for Development and Application of Packaging Requirements

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

2.2 Non-Government publications. The following document(s) form a part of this document 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 which are current on the date of the solicitation (see 6.2).

ASTM:

ASTM B 633 - Electrodeposited Coatings of Zinc on Iron and Steel
ASTM D 3951 - Practice for Commercial Packaging

(Application for copies should be addressed to ASTM, 1916 Race Street, Philadelphia, PA 19103.)

(Non-Government standards and other publications are normally available from the organizations that prepare or distribute the documents. These documents also may be available in or through libraries or other informational services.)

2.3 Order of precedence. In the event of a conflict between the text of this document and the references cited herein, the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

3. REQUIREMENTS

3.1 Materials. Materials used shall be free from defects which would adversely affect the performance or maintainability of individual components or of the overall assembly. Materials not specified herein shall be of the same quality used for the intended purpose in commercial practice. Unless otherwise specified herein, all equipment, material, and articles incorporated in the work covered by this specification are to be new and fabricated using materials produced from recovered materials to the maximum extent possible without jeopardizing the intended use. The term "recovered materials" means materials which have been collected or recovered from solid waste and reprocessed to become a source of raw materials, as opposed to virgin raw materials. Unless otherwise specified, none of the above shall be interpreted to mean that the use of used or rebuilt products are allowed under this specification.

3.1.1 Body. Body shall be of aluminum, bronze, brass, copper alloy, steel, or optional material, as specified (see tables I through VII, and 6.2).

3.1.2 Transparent reservoirs and sight windows. Transparent reservoirs and sight windows shall be borosilicate glass for high temperatures (225 degrees Fahrenheit (oF)) and medium shock; acrylic for medium temperatures (160oF) and high shock; or polycarbonate for high temperatures (225oF) and high shock resistance (such as required on an 8-inch gun mount), as specified (see 6.2).

3.1.3 Springs. Springs shall be made from music wire or stainless steel spring wire. Springs shall not develop permanent set after having been compressed or bent to extreme working limits.

3.2 Finish. The outside surfaces shall be smooth finished. Unless otherwise specified (see 6.2), steel parts other than stainless shall be zinc coated in accordance with ASTM B 633 to resist corrosion.

3.3 Threads. Threads shall conform to FED-STD-H28/7, American Standard taper pipe threads for general use (National Pipe Thread (NPT)).

3.4 Hexagons. A hexagonal section of proper size to fit a standard open-end wrench shall be provided on the shanks of all types, except types C and G.

3.5 Leakage. The cups shall be so constructed as to prevent leakage of oil, when tested in accordance with 4.4.

3.6 Capacity. When capacity of oil cups is specified herein, the actual capacity shall vary not more than +/-10 percent from the indicated capacity.

3.7 Type A, screw cap. Type A oil cups shall have a cap with a knurled edge, which will screw into the top of the cup base. A hole shall be drilled through the long axis of the base and cup through the center to permit the flow of oil. Type A oil cups shall be similar to figure 1, and shall conform to the capacities and dimensions shown in table I, as specified (see 6.2).

TABLE I. Type A, screw cap, capacities and dimensions.

Features	Nominal oil capacity (ounces)	
	0.2	0.5
Outside diameter (inch, nominal)	0.8125	1.0625
Height overall	As required for capacity	
Shank size (NPT)	1/8	1/4
Size code	01	02
Body material code (see 3.1.1)	BR - Brass BZ - Bronze CU - Copper alloy OP - Optional ST - Steel	

3.8 Type B, spring cap. The cap of the oil cup shall be held in place by a compression spring, and shall seat securely in a conical ring which shall be pressed into the top of the cup. The spring shall be held in place by the conical ring and a steel disk on its bottom. The steel disk shall be provided with an ample opening to permit the passage of oil and it shall be connected to the cap by a steel wire hook, so arranged that the cap will invariably seat itself properly and automatically. The cup shall be of such construction as to assure exclusion of dust under working conditions. The oil cups shall be similar to figure 2, and shall conform to the dimensions shown in table II. The spring shall meet the requirements of 3.1.3.

TABLE II. Type B, spring cap, dimensions.

Features	Size (inches)
Outside diameter (nominal)	0.625
Height overall (nominal)	1.8125
Shank size (NPT)	1/8
Size code	01
Body material code (see 3.1.1)	BR - Brass BZ - Bronze CU - Copper alloy OP - Optional ST - Steel

3.9 Type C, cylindrical slotted cap. The oil cups shall be cylindrical, with a hole in one side of the body for the admission of oil. This hole shall be covered by a revolving cylindrical cap which will make a tight fit on the body, and with one side cut away so that, on turning the cap, the hole in the body will be exposed for filling. The cap shall have a knurled head and be slotted on the top to permit the use of a screwdriver, and a means shall be incorporated in the oil cup to cause the oil hole to be covered upon release of the cap and remain covered against vibration or accidental opening. The cups shall be similar to figure 3, and shall conform to the dimensions shown in table III, as specified (see 6.2).

TABLE III. Type C, cylindrical slotted cap, dimensions.

Features	Size (inches)	
Diameter of cup (nominal)	0.5	0.625
Height overall (nominal)	1.8125	2.5
Shank size (NPT)	1/8	1/4
Size code	01	02
Body material code (see 3.1.1)	AL - Aluminum BR - Brass BZ - Bronze CU - Copper alloy OP - Optional ST - Steel	

3.10 Type D, hinged cap. The oil cups shall have a cap hinged to, and making a dustproof joint, with the body. The body shall be provided with a central tube through which the oil will be siphoned by wick. The oil cups shall be similar to figure 4, and shall conform to the capacities and dimensions shown in table IV, as specified (see 6.2).

TABLE IV. Type D, hinged cap, capacities and dimensions.

Features	Nominal oil capacity (ounces)		
	0.8	1.25	3.5
Outside diameter (inch, nominal)	1.3125	1.5625	2.0625
Height overall	As required for capacity		
Shank size (NPT)	1/4	3/8	1/2
Size code	02	03	04
Body material code (see 3.1.1)	BR - Brass BZ - Bronze CU - Copper alloy OP - Optional ST - Drawn or pressed steel		

3.11 Type F, with sight feeding. The oil cups shall have a clear transparent reservoir and sight window and provision for cutting off the flow of oil without changing the adjustment of the needle valve. The oil cups shall be similar to figure 5, and shall conform to the capacities and dimensions shown in table V, as specified (see 6.2). The transparent material shall be as described in 3.1.2, and as specified (see 6.2).

TABLE V. Type F, with sight feed, capacities and dimensions.

Features	Nominal oil capacity (ounces) 1.0	1.5	2.5	5.0	10.0
Outside diameter (inch, nominal)	1.75	2.0	2.25	2.75	3.25
Height overall (inch, nominal)	5.0625	5.3125	5.875	6.8125	7.8125
Shank size (NPT)	1/4	1/4	3/8	3/8	1/2
Size code	02	03	04	05	06
Body material code (see 3.1.1)	BR - Brass BZ - Bronze OP - Optional SST - Stainless steel				
Sight window and reservoir material code (see 3.1.2)	AC - Acrylic BG - Borosilicate glass PC - Polycarbonate				

3.12 Type G, ball valve (drive) straight or shoulder (oil hole cover). The oil cup shall be similar to style 1 (with flange) or style 2 (without flange) (see figure 6), and shall conform to the dimensions shown in table VI, as specified (see 6.2). The oil filling hole shall be closed by a spring-loaded ball. The spring shall meet the requirements of 3.1.3. The ball shall seat firmly and uniformly and be of oil-resistant material, balls shall not wick oil.

TABLE VI. Type G, ball valve (drive) straight or shoulder (oil hole cover) dimensions.

Size		1	2	3	4	5
Nominal size		0.1875	0.25	0.3125	0.375	0.5
Recommended hole size:	maximum	.189	.252	.314	.377	.502
	minimum	.187	.250	.312	.375	.500
A Flange diameter, style 1:	maximum	.233	.309	.365	.437	.562
	minimum	.202	.278	.335	.406	.531
B Drive length:	maximum	.289	.306	.365	.429	.552
	minimum	.227	.244	.290	.367	.490
C Overall length:	maximum	.331	.352	.400	.500	.617
	minimum	.269	.290	.330	.406	.555
D Drive diameter:	maximum	.193	.255	.318	.380	.505
	minimum	.190	.253	.316	.378	.503
Size code		01	02	03	04	05
Body material code (see 3.1.1)		BR - Brass BZ - Bronze CU - Copper alloy OP - Optional ST - Drawn or pressed steel				

3.13 Type H, small elbow. The end connection of type H oil cups shall be threaded as shown on figure 7. The dimensions, including threading, shall be in accordance with table VII, as specified (see 6.2); however, tolerances shall not include threads. The cover shall be spring-loaded for self-closing. The spring shall meet the requirements of 3.1.3. Type H shall be machined from solid one-piece forgings of material indicated in table VII, and as specified (see 6.2).

TABLE VII. Type H, small elbow dimensions.

Features	Size				
	10 - 32	1/4 - 32	5/16 - 32	1/8 pipe	3/4 - 24
Body diameter (inch, +/-0.125)	0.25	0.25	0.28	0.75	0.41
Overall length (inch, +/-0.125)	0.59	0.59	0.66	0.69	0.75
Overall height (inch, +/-0.0625)	0.75	0.75	0.94	0.97	1.00
Size code	01	02	03	04	05
Body material code (see 3.1.1)	BR - Brass BZ - Bronze CU - Copper alloy OP - Optional ST - Steel				

3.14 Workmanship. Oil cups shall be manufactured in accordance with this specification, pertinent standards, and best commercial practice. Oil cups shall be free of dirt, oil, or any foreign matter, except the material used for preservation. The component parts of the oil cups shall have no pits, rust, loose scale, chips, scraps, splits, cracks, burrs, or other defects that would affect or prevent proper operation.

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 (examinations and tests) 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 this document where such inspections are deemed necessary to ensure supplies and services conform to prescribed requirements.

4.1.1 Responsibility for compliance. All items shall meet all requirements of sections 3 and 5. The inspection set forth in this document shall become a part of the contractor’s overall inspection system or quality program. The absence of any inspection requirements in this document shall not relieve the contractor of the responsibility of ensuring that all products or supplies submitted to the Government for acceptance comply with all requirements of the contract. Sampling inspection, as part of manufacturing operations, is an acceptable practice to ascertain conformance to requirements, however, this does

not authorize submission of known defective material, either indicated or actual, nor does it commit the Government to accept defective material.

4.1.2 Component and material inspection. Components and materials shall be inspected in accordance with all the requirements specified herein and in applicable referenced documents.

4.2 Sampling. Sampling and inspection procedures shall be in accordance with MIL-STD-105. All units of the same type and size offered for delivery at one time shall be considered a lot for the purpose of inspection. If an inspection lot is rejected, the contractor may rework it to correct the defects, or screen out the defective units, and resubmit for a complete reinspection. Resubmitted lots shall be inspected using tightened inspection. Such lots shall be separate from new lots, and shall be clearly identified as reinspected lots. Guidance for inspection level and Acceptable Quality Level (AQL) is provided in 6.4.

4.3 Examination. Each sample, selected in accordance with 4.2, shall be examined for compliance with the requirements specified in section 3 of this document. Any redesign or modification of the contractor's standard product to comply with specified requirements, or any necessary redesign or modification following failure to meet specified requirements shall receive particular attention for adequacy and suitability. This element of inspection shall encompass all visual examinations and dimensional measurements. Noncompliance with any specified requirement or presence of one or more defects preventing or lessening maximum efficiency shall constitute cause for rejection.

4.3.1 Oil capacity. Capacity shall be in accordance with table I, IV, or V, as applicable.

4.4 Functional test. Each of the sample oil cups selected in accordance with 4.2 shall be serviced and filled with oil. The oil cups shall then be examined for proper operation and oil leakage.

4.5 Preparation for delivery inspection. The preservation, packaging, packing, and marking of the item shall be inspected to verify conformance to the requirements of section 5.

5. PREPARATION FOR DELIVERY

5.1 Preservation and packaging. Preservation and packaging shall be level A or commercial as specified (see 6.2).

5.1.1 Level A.

5.1.1.1 Preservative application. Items shall be coated with type P-7 preservative and placed in a heat sealed greaseproof bag conforming to MIL-B-121.

5.1.1.2 Intermediate packaging. Unless otherwise specified (see 6.2), unit packaged items under both 5 pounds and 64 cubic inches shall be intermediate packaged. The intermediate packaging container shall conform to PPP-B-566 or PPP-B-636, class weather-resistant. Box closure shall be in accordance with the box specification.

5.1.2 Commercial. Commercial preservation and packaging shall be in accordance with the requirements of ASTM D 3951.

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

5.2.1 Level A and B. Packing shall be in accordance with MIL-STD-2073-1. Containers shall be selected from table VII, appendix C, for the appropriate level.

5.2.2 Commercial. Commercial packing shall be in accordance with ASTM D 3951.

5.3 Marking.

5.3.1 Military agencies. Shipments to military agencies shall be marked in accordance with MIL-STD-129.

5.3.2 Civil agencies. Shipments to civil agencies shall be marked in accordance with FED-STD-123.

6. NOTES

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

6.1 Intended use.

6.1.1 Type A. Type A is intended for use where an unrestricted flow of heavy oil is required. It is a rugged and inexpensive cup, but cannot be depended upon to supply oil for a considerable period without refilling.

6.1.2 Type B. Type B is of small capacity and allows unrestricted flow of oil and is intended for use as an oil-hole cap rather than an oil cup. Since it is unnecessary to unscrew the cap for filling and the cup is self-closing, type B is more convenient than type A.

6.1.3 Type C. Type C is self-closing and may be used similarly to type B, except that it may be installed in an inclined or horizontal position. The oil cup may be obtained without a spring to render it self-closing.

6.1.4 Type D. Type D requires the insertion of a wick and is intended for use where a slow flow of thin oil is required. It feeds oil to the bearing by capillary action.

6.1.5 Type F. Type F is intended for use where provision for regulating and stopping the flow is required. The flow of oil may be observed through the sight feed window.

6.1.6 Type G. Type G is to be driven or pressed into oil holes or pipes to prevent the entering of foreign matter into the oiling system.

6.1.7 Type H. Type H is used extensively on motors and small machinery which require side oiling.

6.2 Acquisition requirements. Acquisition documents should specify the following:

a. Title, number, and date of this specification.
b. Type and style, if applicable, 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 2.1.1 and 2.2).
d. Body material required (see 3.1.1, and tables I through VII).
e. Reservoir and sight window material required (see 3.1.2 and table V).
f. Coating required, if different (see 3.2).
g. Capacities and dimensions required (see 3.7 through 3.13, and applicable tables).
h. Level of preservation and packaging, and level of packing required (see 5.1 and 5.2).
i. Intermediate packaging required, if different (see 5.1.1.2).

6.3 Data requirements. When this specification is used in an acquisition and data are required to be delivered, the data requirements shall be developed as specified by an approved Data Item Description (DD Form 1664) and delivered in accordance with the approved Contract Data Requirements List (CDRL), incorporated into the contract. When the provisions of DoD Federal Acquisition Regulations (FAR) Supplement, Part 27, Sub-Part 27.475-1 (DD Form 1423) are invoked and the DD Form 1423 is not used, the data should be delivered by the contractor in accordance with the contract or purchase order requirements.

6.4 Sampling procedures.

6.4.1 Sampling for examination. Recommended inspection level is II and AQL is 4.0 (see 4.2).

6.4.2 Sampling for tests. Recommended inspection level is S-3 and AQL is 2.5 (see 4.2).

6.5 Part or identifying number (PIN). The PIN to be used for oil cups applied to this specification is derived from this specification identifier (GGGC2794-), the classification type and style (see 1.2), and from the applicable table, the size code number, the body material code, and the transparent material code (reservoir and sight window).

Examples:

Type F, 10 ounce size, body material of brass, sight window, and reservoir of polycarbonate: GGGC2794-F-06-BR-PC

Type G, style 1, size 2, body material of bronze: GGGC2794-G1-02-BZ

6.6 Cross reference. The cross reference of types, styles, and sizes of this document to the superseded military specifications MIL-C-1258D and MIL-C-1258C is as follows:

MIL-C-1258C	MIL-C-1258D	GGG-C-2794
Type A - Screw cap	Type A - Screw cap	Type A - Screw cap
Size 0.2 oz.	Size code - 01	Size code - 01
Size 0.3 oz.	Deleted	None
Size 0.5 oz.	Size code - 02	Size code - 02
Size 0.8 oz.	Deleted	None
Type B - Spring cap	Type B - Spring cap	Type B - Spring cap
Size - 1/8 NPT	Size code - 01	Size code - 01
Size - 1/4 NPT	Deleted	None
Size - 3/8 NPT	Deleted	None
Type C - Cylindrical slotted cap	Type C - Cylindrical slotted cap	Type C - Cylindrical slotted cap
Size - 1/8 NPT	Size code - 01	Size code - 01
Size - 1/4 NPT	Deleted	Size code - 02
Type D - Hinged cap	Type D - Hinged cap	Type D - Hinged cap
Size 0.8 oz.	Size code - 02	Size code - 02
Size 1.25 oz.	Size code - 03	Size code - 03
Size 1.75 oz.	Deleted	None
Size 2.5 oz.	Deleted	None
Size 3.5 oz.	Size code - 04	Size code - 04
Type E - Glass body	Deleted	None
Type F - Sight feed	Type F - Sight feed	Type F - Sight feed
Size 1 oz.	Size code - 02	Size code - 02
Size 1-1/2 oz.	Size code - 03	Size code - 03
Size 2-1/2 oz.	Size code - 04	Size code - 04
Size 5 oz.	Size code - 05	Size code - 05
Size 10 oz.	Size code - 06	Size code - 06
Type G - Ball valve	Type G - Ball valve	Type G - Ball valve
Size 1	Size code - 01	Size code - 01
Size 2	Size code - 02	Size code - 02
None	Size code - 03	Size code - 03
Size 3	Size code - 04	Size code - 04
Size 4	Size code - 05	Size code - 05
None	Style A	Style 1
None	Style B	Style 2
Type H - Small elbow	Type H - Small elbow	Type H - Small elbow
Size 10 - 32	Size code - 01	Size code - 01
Size 1/4 - 32	Size code - 02	Size code - 02
Size 5/16 - 32	Size code - 03	Size code - 03
Size 1/8 pipe	Size code - 04	Size code - 04
Size 3/8 - 24	Size code - 05	Size code - 05

6.7 Subject term (key word) listing.

Lubrication equipment

MILITARY INTERESTS:

Military Coordinating Activity

Navy - YD

Custodians

Army - ME
Air Force - 99

Review Activities

Air Force - 82
DLA - CS

User Activities

Army - AR
Navy - AS, MC

CIVIL AGENCY COORDINATING ACTIVITY:

GSA - FSS

PREPARING ACTIVITY:

Navy - YD

(Project 4730-0163)

Orders for this publication are to be placed with General Services Administration, acting as an agent for the Superintendent of Documents. See section 2 of this specification to obtain extra copies and other documents referenced herein.