
 * INCH-POUND *

A-A-50477C
 June 21, 1993

 SUPERSEDING
 A-A-50477B
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COMMERCIAL ITEM DESCRIPTION

OILERS, HAND, PUMP

The General Services Administration has authorized the use of this commercial item description in preference to Federal Specification GGG-O-591, type II, class A, styles 1 and 5; class B; class C, styles 2, 3, and 4.

Abstract. This CID covers the requirements for hand-operated pump oilers. Configuration of the oiler shall be class A, lever-operated pump oiler, with handle; class B, lever-operated pump oiler, without handle; or class C, plunger-operated pump oiler, with handle, as specified in the contract or order.

Salient characteristics.

1. Class A, lever-operated pump oiler, with handle. Class A oiler shall be similar to figure 1 and shall consist essentially of a body, a washer, handle, spout, and a pump. The body, handle, and spout may be of cold-rolled steel or high density polyethylene (HDPE). The spout shall be style 1, rigid spout; or style 5, flexible spout, as specified in the contract or order. The pump shall be easily removable from the body. The oiler shall comply with the requirements of table I for the size as specified in the contract or order.

TABLE I. Class A oiler dimensions.

* Size,	* Diameter (A)		* Height (B)		* Capacity
* nominal	* minimum	* maximum	* minimum	* maximum	* minimum
* pint	* inches		* inches		* fluid ounces*
* 3/4	* 3	4	* 3	5	* 10
* 1	* 3	4	* 3	5	* 14
* 1-1/2	* 3	4-1/2	* 4	6	* 24
* 2	* 3-1/2	5	* 5	7	* 32
* 4	* 4	6	* 6	8	* 60

 * 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, 621 Pleasant Valley Road, Port Hueneme, CA 93043-4300. *

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2. Class A oiler body. The class A oiler body shall be provided with a top section either of drawn or fabricated seam construction having welded, brazed, or silver-soldered seams. For the 1-1/2 pint and smaller oilers, top section thickness shall be not less than 0.018 inch thick; for the 2 pint and larger oilers, top section thickness shall be not less than 0.025 inch. Lead-tin soldered seams will be acceptable provided the soldered seams are at least 1 inch from the bottom of the body. The can bottom shall be securely fitted to the top section to afford a strong and leakproof joint. The body shall have an opening in the top not less than 1 inch in diameter with threads or other similar connection for receiving the pump unit. The bottom shall be connected to the top section by double-locked seam, or of drawn construction, provided it extends at least 1 inch up the side of the body.
3. Class A oiler pump. The class A oiler pump shall be self-priming and shall function in any position with SAE 8W, 10W, 20W or 30W grade oil or any similar grades that will flow and are ordinarily used for lubricating purposes. The pump parts shall be of metal, linear polyethylene, or equivalent. The pump shall be operated by a conveniently located lever. The pump shall remove at least three-fourths of the oil content of the oiler without its being tilted from the normal upright position.
4. Class A oiler handle. The oiler handle stock thickness shall be not less than 0.032 inch and the edges shall be rolled back at least 180 degrees or otherwise suitably reinforced, or shall be made of flat strip, with rounded edges, not less than 0.062 inch thick.
5. Class A, style 1, rigid oiler spout. Style 1, rigid oiler spout shall be 1-1/2 to 4, 4 to 6, 6 to 9, or 9 to 12 inches in length, as specified in the contract or order. Rigid spout shall be seamless, or have a welded, silver-soldered, or brazed leakproof seam; and shall be not less than 0.017 inch thick. Lead-tin solders will not be acceptable. The spout may or may not be detachable. Spout shall be either straight, bent at the vent end, or angled at the base and bent at the vent end, as specified in the contract or order.
6. Class A, style 5, flexible oiler spout. Style 5, flexible oiler spout shall be 1-1/2 to 4, 4 to 6, 6 to 9, or 9 to 12 inches in length, as specified in the contract or order. Flexible spout shall be detachable with a bayonet-type joint or threaded bushing or fitting at the base end for connecting to the adapter in the discharge and cap of the oiler. The spout fittings shall be standard thread types. The flexible tubing of the spout shall be the manufacturer's standard with brass or steel bushings or fittings. Spout and bushings or fittings shall be joined by commercial solder, silver-solder, brazed, or special epoxy compound forming a strong and leakproof joint. The discharge end spout bushing shall be either a tapered nozzle, a straight ferrule, or a threaded fitting type for attaching hollow wire, needle, or brush tip extensions. The flexible spout shall be suitable in all respects for reaching locations that would otherwise be inaccessible (see figure 6). The outside diameter of tubing shall be not less than 1/4 inch and the inside diameter shall be not less than 3/16 inch.

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7. Class B, pump oiler without handle. Class B oiler, known commercially as pistol-grip oiler, shall be similar to figure 2; and shall be suitable for delivering either a drop or stream of oil, as wanted. The oiler shall be designed and constructed to operate satisfactorily at any temperature from -40 degrees Fahrenheit (oF) to +125oF, and withstand storage temperatures between -80oF to +160oF. Class B oiler shall consist essentially of a body, a washer, a spout, and a pump. The oiler shall be in accordance with table II for the size as specified in the contract or order.

TABLE II. Class B oiler dimensions.

* Size,	* Diameter (A)*		* Height (B)		* Capacity	
* nominal	* minimum	maximum	* minimum	maximum	* minimum	minimum
* pint	* inches		* inches		* fluid ounces	
* 1/4	* 1-1/2	2-1/8	* 3-1/2	5-1/4	* 4	6
* 1/2	* 1-1/2	2	* 4-1/2	8	* 6	10
* 1	* 1-1/2	2-1/2	* 5-1/2	10	* 16	22
* 2	* 1-1/2	2-1/2	* 8	11	* 28	36

* *Note: The maximum diameter applies to the hand grip area. A larger base diameter may be furnished if the base is of the flared design (see optional designs in figure 2).

8. Class B oiler body. The class B oiler body shall be provided with a top section either of one piece or fabricated seam construction having welded, brazed, or silver-soldered seams. Lead-tin soldered seams will be acceptable provided the soldered seams are at least 1 inch from the bottom of the body. The top section and the bottom of the body shall be at least 0.015 inch thick.
9. Class B oiler pump. The oiler pump shall be self-priming and shall function properly at any temperature from -40oF to +125oF. The pump shall function properly in any position with any oil of SAE 8W or 10W grade that will flow readily and is ordinarily used for lubricating purposes. The structural parts of the pump shall be of metal, linear polyethylene, or equivalent. The pump shall be operated by a conveniently placed lever or a plunger with button head. The pump shall be capable of removing at least 90 percent of the oil content of the oiler without its being tilted from the normal upright position.
10. Class B oiler spout. The spout shall be seamless or shall have a welded, silver-soldered, or brazed seam and shall be not less than 0.020 inch thick. The spout shall be either straight or bent, as specified in the contract or order. The discharge end of the spout shall be fitted with a suitable cone-shaped nozzle. When threaded spout cap is provided, the cap shall be manufactured of nylon, polypropylene, or metal; and the fitting of the cap and spout shall afford a strong and leakproof joint. For the 1/4 pint oiler, the length of the spout, including the nozzle fitting, shall be not less than 3 inches in length; for the 1/2 pint oiler, the length of the spout, including the nozzle fitting, shall be not less than 4 inches in length; for the 1 pint and larger oilers, the length of the spout, including the nozzle fitting, shall be not less than 6 inches in length.

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11. Class C, plunger-operated pump oiler, with handle. Class C oiler shall be similar to figure 3, and shall consist essentially of a body, top cap, bottom cap, piston, piston rod, handle, and spout. The class C oiler spout shall be style 2, bent spout; style 3, curved spout; or style 4, flexible metal spout, as specified in the contract or order. The oiler shall be designed to supply lubricants or similar liquids by force feed to gear cases, shock absorbers, track suspension systems, brake fluid master cylinders, and may be used as a suction pump. All parts subject to wear, breakage, or distortion shall be readily accessible for adjustment and repair. When assembled and filled with oil, the pump shall withstand a pressure of 25 pounds applied to the pump handle without leakage at joints or past the piston. The oiler shall be in accordance with table III for the size as specified in the contract or order.

TABLE III. Class C oiler dimensions.

* Pump length *	Capacity *
* minimum *	minimum *
* inches *	* fluid ounces *
* 10 *	* 6 *
* 15 *	* 11 *
* 18 *	* 20 *

12. Class C oiler body. The class C oiler body shall be cylindrical in shape, with an outer diameter not less than 1-1/2 inches, or greater than 2-1/2 inches. The handle end of the body shall be provided with screw-type cap to permit the withdrawal of the piston for disassembly. The other end of the body shall be provided with a screw-type or welded-on-type cap, or swaged body. The wall of the body shall be not less than 0.0475 inch in thickness. The internal surface of the body shall be smooth to minimize wear on the "O" ring or piston cups. The outside central portion of the body shall be either continuously or interruptedly knurled for a minimum of 3-1/2 inches in length.
13. Class C oiler caps. Caps shall be threaded to fit the body, and arranged to provide leakproof joints. They shall be knurled on the outside periphery. A vent hole shall be provided in the cap at the piston end of the oiler if required for proper operation of the oiler. If a vent hole is used, it shall be approximately 1/8 inch in diameter and the piston hole shall be suitably reinforced with a projection or by other suitable method. The bottom cap shall have a spout connection of either 3/8 inch 18 National Pipe Standard Coupling external threads or 1/4 inch 18 National Pipe Thread internal threads, as specified in the contract or order.
14. Class C piston and piston rod. The piston shall be of the flexible rubber "O" ring or cup type, fabricated from material that resists deterioration when subjected to prolonged contact with petroleum base and synthetic oil. The seals and sealing cups shall be replaceable and shall be so constructed as to seal against leakage at 25 pounds per square inch pressure of SAE 10W oil; the piston-rod diameter shall be not less than 0.300 inch.

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15. Class C oiler handle. A handle suitable in all respects for operating the piston shall be provided. The handle shall be smooth-finished hardwood, metal, or plastic. The handle shall be as shown in figure 3 or of the type in which the centerline of the handle at its midpoint, and at right angles to it (including type known commercially as "T" handle or spade type), or of the solid piston-grip type. When the piston is at the end of the discharge stroke, the clearance between the inner grip surface of the handle and the body shall be not less than 7/8 inch.
16. Class C gaskets. Gaskets of cork or other suitable material shall be provided for the end caps and spout connection, where required, to prevent leakage under any test and operating conditions.
17. Class C, style 2, bent spout. Style 2, bent spout shall be made of welded or seamless tubing or HDPE. It shall either be bent at right angles (each leg of angle being not less than 6 inches in length) or in the form of a gooseneck with an overall length of not less than 11 inches. The inside diameter of the spout shall be not less than 3/16 inch (see figure 4).
18. Class C, style 3, curved spout. Style 3, curved spout shall be made of welded or seamless tubing or HDPE. It shall be curved on a 1-1/2 inch minimum radius so that the curved end is offset from the centerline of the piston at its extremity and shall be not less than 3-5/8 inches in length with tip attached (see figure 5). A tip or nozzle shall be fitted at the outer end of the spout. The tip shall be either tapered to approximately 1/4 inch diameter at the small end or it shall be straight and not more than 5/8 inch outside diameter. The inside diameter of the tip shall be not less than 3/16 inch.
19. Class C, style 4, flexible metal spout. Style 4, flexible metal spout shall be manufacturer's standard flexible tubing. It shall be not less than 12 inches in length, and shall be suitable in all respects for reaching locations that would otherwise be inaccessible (see figure 6). Each end of the tubing shall be provided with a fitting securely fastened in place. The fitting on one end shall be threaded for attachment to discharge end cap of the oiler. The fitting on the other end shall be either a tapered nozzle or a straight ferrule. The outside diameter of the spout shall be not less than 1/4 inch and the inside diameter shall be not less than 3/16 inch.
20. Washer. The washer shall be impervious to oil and shall have such oil-sealing qualities so as to prevent leakage at the threaded connection.
21. Oiler finish. Class A and class B oilers shall be polished, brass or copper coated or plated, a coat of clear lacquer or varnish or baked-on enamel finish. Class C oilers shall be finished by a coat of oil-resistant enamel, or coated with metal powder (aluminum, brass, or bronze) in an enamel oil base and baked.
22. Marking. Each oiler shall be marked in a plain and permanent manner with the manufacturer's name or with a trademark of such known character that the source of manufacture may be readily determined.

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Quality assurance provisions.

1. Responsibility for inspection. Unless otherwise specified in the contract, the contractor is responsible for the performance of all inspection requirements as specified herein. Except as otherwise specified in the contract, 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.
2. Classification of inspection. The inspection requirements specified herein are classified as first article inspection and quality conformance inspection.
3. First article inspection. The first article inspection shall be performed on one oiler when a first article sample is specified in the contract or order. This inspection shall include examination and operational test as specified herein.
4. Quality conformance inspection. The quality conformance inspection shall be performed on the sample oiler selected in accordance with the inspection lot and sampling requirements. This inspection shall include examination and operational test as specified herein.
5. Inspection lot. All units of the same style offered to the Government at one time shall be considered a lot for purposes of inspection. The sample unit shall be one complete oiler.
6. Examination. Each sample selected in accordance with the inspection lot and sampling requirements and also the first article shall be examined for compliance with salient characteristic requirements specified herein.

This element of inspection shall encompass all visual examinations and dimensional measurements.

7. Operational test. The test shall be an operational test to ascertain that the oiler performs as specified in the salient characteristic requirements. The testing media shall be 10W oil conforming to SAE J300.

Each pump shall be operated at least 10 times to ascertain satisfactory performance.

Contractor certification. The contractor shall certify and maintain substantiating evidence that the product offered meets the salient characteristics of this CID and that the product conforms to the producer's own drawings, specifications, standards, and quality assurance practices and is the same product sold in the commercial marketplace. The Government reserves the right to require proof of such conformance prior to first delivery and thereafter as may be otherwise provided for under the provisions of the contract.

Metric products. Products manufactured to metric dimensions will be considered on an equal basis with those manufactured using inch-pound units, provided they fall within specified tolerances using conversion tables contained in the latest revision of FED-STD-376, and all other requirements of this CID are met.

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3. Size code. The size of the oiler is identified by a single letter (see table VI). The availability of the size of the oiler relative to the class of the oiler is indicated with an asterisk (*) under the class column in table VI.

TABLE VI. Size code and class availability.

* Size	* Size code	* Class			*
*	*	* A	* B	* C	*
* 1/4 pint	* A	* *	* *	* *	*
* 1/2 pint	* B	* *	* *	* *	*
* 3/4 pint	* C	* *	* *	* *	*
* 1 pint	* D	* *	* *	* *	*
* 1-1/2 pints	* E	* *	* *	* *	*
* 2 pints	* F	* *	* *	* *	*
* 4 pints	* G	* *	* *	* *	*
* 10 inches	* H	* *	* *	* *	*
* 15 inches	* I	* *	* *	* *	*
* 18 inches	* J	* *	* *	* *	*
-----	*-----*	*-----*	*-----*	*-----*	*-----*

4. Cross-referencing of PIN. The PIN of oilers in this CID differs from the previous edition in the following respects:

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Finish number	Finish
1. Polished w/clear lacquer or varnish	Not designated
2. Brass coated or plated w/clear lacquer or varnish	Not designated
3. Copper coated or plated w/clear or varnish	Not designated
4. Lacquer or opaque	Not designated
5. Nickel plated	Not designated
6. Baked on enamel	Not designated
Spout number	Spout length code
1. 3 inches	A - 1-1/2 to 4 inches
2. 4 inches	B - 4 to 6 inches
3. 6 inches	C - 6 to 9 inches
4. 4 to 6 inches	D - 9 to 12 inches
5. 7 to 11 inches	X - Not applicable
6. 12 to 18 inches	
7. 7 inches flex	
8. 13 inches flex	
9. 15 inches flex	
10. 18 inches flex	
11. 11 inches bent	
12. 3-5/8 inches curved	

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Size number	Size code
1. 1/4 pint	A - 1/4 pint
2. 1/2 pint	B - 1/2 pint
3. 3/4 pint	C - 3/4 pint
4. 1 pint	D - 1 pint
5. 1-1/2 pint	E - 1-1/2 pint
6. 2 pint	F - 2 pint
7. 4 pint	G - 4 pint
8. 10 inches	H - 10 inches
9. 15 inches	I - 15 inches
10. 18 inches	J - 18 inches

Class number	Class and spout code
1. Class A	A1 - Class A, rigid spout
2. Class B	A5 - Class A, flexible spout
3. Class C	B0 - Class B, no style spout
	C2 - Class C, bent spout
	C3 - Class C, curved spout
	C4 - Class C, flexible spout

Notes. Purchaser should specify class of oiler, style of spout, length of spout, configuration of spout (i.e., straight, bent, angled), size of oiler, and PIN required for a specific procurement.

FED-STD-376 is available from Standardization Documents Order Desk, Bldg. 4D, 700 Robbins Avenue, Philadelphia, PA 19111-5094.

SAE J300 is available from the Society of Automotive Engineers, Inc., 400 Commonwealth Drive, Warrendale, PA 15096.

MILITARY INTERESTS:

Custodian

Navy - YD

Review Activity

DLA - CS

User Activities

Army - EA, ME

Navy - MC

CIVIL AGENCY COORDINATING ACTIVITY:

GSA - FSS

PREPARING ACTIVITY:

Navy - YD

(Project 4930-0375)