



Standard Specification for Tanks, 5 and 10-Gal (20 and 40-L) Lube Oil Dispensing¹

This standard is issued under the fixed designation F670; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ϵ) indicates an editorial change since the last revision or reapproval.

This standard has been approved for use by agencies of the U.S. Department of Defense.

1. Scope

1.1 This specification covers the material, dimensions, and construction of 5 and 10-gal (20 and 40-L) tanks purchased to store and dispense lubricating oils. The tanks are industrial safety cans mounted on a T-bar bracket, complete with drip tray.

1.2 The values stated in inch-pound units are to be regarded as the standard. The values given in parentheses are for information only.

1.3 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.*

1.4 *This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.*

2. Referenced Documents

2.1 *ASTM Standards:*²

[A36/A36M Specification for Carbon Structural Steel](#)

[A108 Specification for Steel Bar, Carbon and Alloy, Cold-Finished](#)

[A164 Specification for Electrodeposited Coatings of Zinc on Steel; Replaced by B 663 \(Withdrawn 1981\)](#)³

[A167 Specification for Stainless and Heat-Resisting Chromium-Nickel Steel Plate, Sheet, and Strip \(Withdrawn 2014\)](#)³

¹ This specification is under the jurisdiction of ASTM Committee F25 on Ships and Marine Technology and is the direct responsibility of Subcommittee F25.03 on Outfitting and Deck Machinery.

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² For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

³ The last approved version of this historical standard is referenced on www.astm.org.

[A308/A308M Specification for Steel Sheet, Terne \(Lead-Tin Alloy\) Coated by the Hot-Dip Process \(Withdrawn 2015\)](#)³

[A569/A569M Specification for Steel, Carbon \(0.15 Maximum, Percent\), Hot-Rolled Sheet and Strip Commercial \(Withdrawn 2000\)](#)³

3. Ordering Information

3.1 Orders for tanks under this specification shall include the following:

3.1.1 Quantity (number),

3.1.2 Size, either 5 or 10 gal (20 or 40 L),

3.1.3 Purchase option for finished tank materials: Terne plate (4.1.3), and

3.1.4 ASTM designation and year of issue.

3.2 If only size, quantity, and ASTM designation are specified and no purchase options are specified, then suppliers shall furnish all stainless steel tanks, brass faucets with flash arrestors, and painted steel mounting columns with bolt-on drip tray assemblies, which include perforated steel tray liners, drain plugs, drilled mounting holes, and mounting bolts.

3.3 Optional packaging/shipping.

3.3.1 If required for shipping, tanks shall be packaged individually in cartons suitable for freight handling.

4. Materials and Manufacture

4.1 *Materials:*

4.1.1 *316 Stainless Steel Sheet* (Specification [A167](#)), minimum thickness 24 gage (0.6 mm) on tank body, 22 gage (0.8 mm) on tank top and bottom; body bracket, filler spout, flash arrestor, vacuum breaker valve and linkage.

4.1.2 *316 Stainless Steel Cast, Wrought, or Forged Flanges*, (for faucet and drain).

4.1.3 *Terne Plate Sheet* (purchase option), minimum thickness 22 gage (0.8 mm) on tank body, top and bottom: body bracket, filler spout (Specification [A308/A308M](#)).

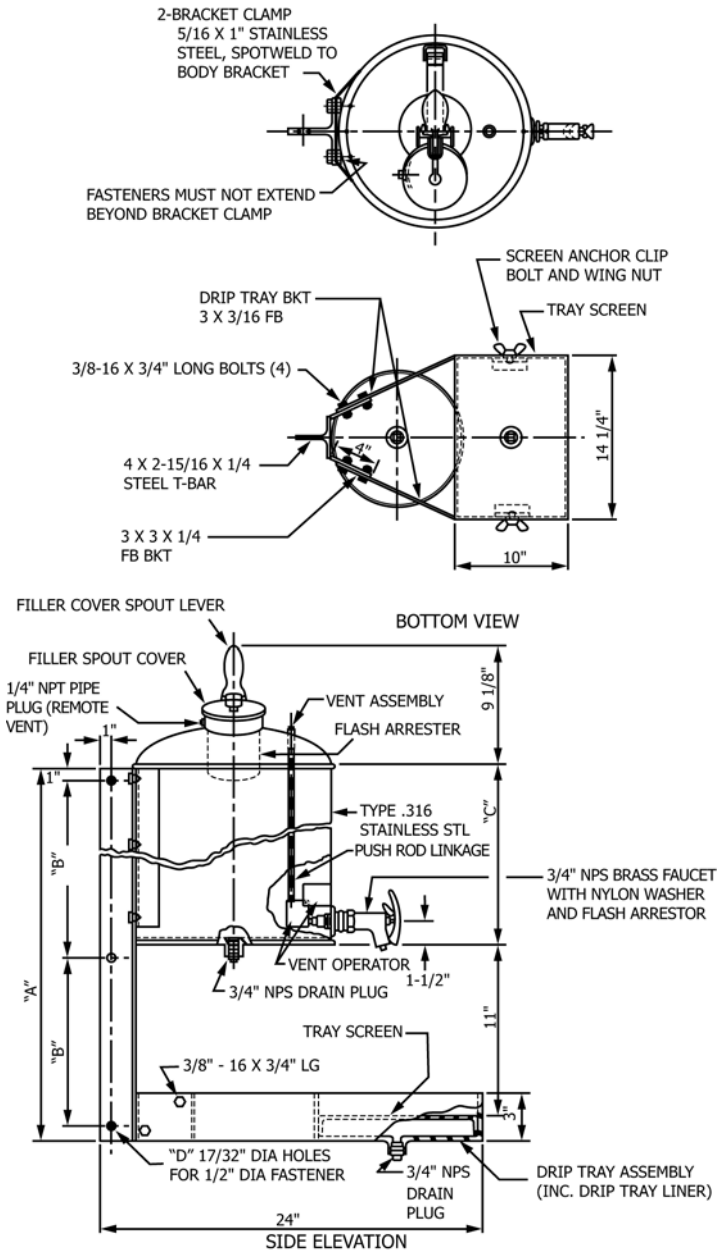
4.1.4 *Mild Steel:*

4.1.4.1 *Bolt-On Column Stand*, T-section, hot-rolled (Specification [A36/A36M](#)); minimum thickness 0.160 in. (4 mm).

4.1.4.2 *Drip Tray Bracket*, round edge, hot-rolled (Specification [A569/A569M](#)).

4.1.4.3 *Drip Tray Assembly*, hot or cold-rolled (Specification [A108](#)).

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Dimensions

Size	A Height, in.	B Bolt Hole Spacing, in.	C Tank Height, in.	D Number of Bolt Holes	Weight, lb	
					Dry	Wet (Water)
5-gal	22 1/2	10 1/2	9 7/8	3	39	81
10-gal	33 3/4	10 1/2	20 7/8	4	49	132

Note 1—Dimensions and construction for guidance only.

Note 2—1 in. = 25.4 mm.

Note 3—1 lb = 0.4536 Kg.

FIG. 1 Dimension of Tank



4.1.4.4 *Drip Tray Liner*, 11-gage (3 mm), zinc-plated (Specification A164).

4.1.4.5 *Filler Spout Cover*, zinc-plated steel (Specification A164).

4.1.4.6 *Drip Tray Drain*, ¾-in. (20 mm) NPS drain.

4.1.5 *Cast Brass*:

4.1.5.1 *Faucet*, lever-lock, self-closing, ¾-in. (20 mm) outside diameter, male threaded.⁴

4.1.5.2 *Drip Tray Drain Plug and Tank Bottom Drain Plug*, ¾-in. (20 mm) NPS.

4.1.6 *Cast Aluminum*, self-closing, spring-action type, one-piece, filler spout cover lever.

4.2 *Manufacture*—All sheet metal seams shall be welded.

5. Dimensions and Weight

5.1 The dimensions in Fig. 1 are recommended nominal dimensions. Weights are estimated and are not critical. Volume of tanks shall be 5 and 10 gal (20 and 40 L), respectively.

⁴Protectoseal 531G, available from The Protectoseal Co., 225 Foster Ave., Bensenville, IL 60106, or equivalent, has been found suitable for this purpose.

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6. Workmanship, Finish, and Appearance

6.1 Workmanship on tank, stand, and drip pan shall be of sufficient quality to prevent dirt accumulation. Welding shall have small, even beading, free of slag and spatter. Surface of all castings shall be of uniform texture, without cracks, pitting, or flashing. Stand and drip tray shall have corners broken and all burrs removed.

6.2 Tank, column, bracket, and tray shall be covered with one coat 1.5 mils (0.05 mm) thick of a zinc rich primer. The stainless steel tank shall have no paint.

7. Testing Methods

7.1 Test each tank by subjecting to an internal air pressure of 5 psi (35 kPa) with no visible seam leakage when subjected to underwater or soap bubble test.

8. Keywords

8.1 lubricating oil tanks; marine; marine storage tanks; marine technology; oil dispensers; ships; tanks