



ABYC H-27 July 2021

Machinery Division Standard

Hull Piping Project
Technical Committee

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ABYC H-27

SEACOCKS, THRU-HULL FITTINGS, AND DRAIN PLUGS



Origin and Development

ABYC H-27 first appeared in 1972 as H-27, *Seacocks, Through-Hull Connections, Outboard Water Strainers, Water Scoops and Drain Plugs*. Revised editions were published in 1988, 1997, and 2008. In July 2014 H-27 was revised and renamed *Seacocks, Thru-Hull Fittings, and Drain Plugs*. The 2021 revision is the work of the Hull Piping Project Technical Committee.

Hull Piping Project Technical Committee

This list represents the membership at the time the committee was balloted.

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Membership on a committee shall not in and of itself constitute an endorsement of ABYC or any document developed by the committee on which the member serves.

This standard, which is the result of extended and careful consideration of available knowledge and experience on the subject, was developed under procedures accredited as meeting the criteria for American National Standards and is intended to provide minimum performance requirements. The Project Technical Committee that approved the standard was balanced to ensure that individuals from competent and concerned interests have had an opportunity to participate.

ABYC's Project Technical Committee (PTC) meetings are open to the public. All inquiries regarding standards activity, interpretations, or meeting attendance should be directed to the ABYC Technical Department at comments@abycinc.org.

ABYC and its committees do not "approve" or "endorse" any item, construction, or proprietary device.

Request for Interpretations

Upon written request the Hull Piping PTC will render an interpretation of any requirement of the standard. The request for interpretation should be clear and unambiguous. Requests should be presented to the PTC in a manner in which they may be answered in a "Yes" or "No" fashion.

The committee reserves the right to reconsider any interpretation when or if additional information that might affect it becomes available to the PTC. Persons aggrieved by an interpretation may appeal to the committee for reinterpretation.

Summary of Revisions

This list indicates revisions to the standard when compared with the previously published version. It is not intended to be used independently of the standard. It should be used for informational purposes and as a guide to the official requirements contained in this standard. It is the responsibility of the user to read and understand the complete standard.

The main changes in this revision of H-27, *Seacocks, Thru-Hull Fittings, and Drain Plugs* as compared with the previous edition dated 7/14, are:

- Scope and Purpose were combined and revised
- Units of Measure section was added
- Definitions were added
- Requirements from UL 1121 were incorporated

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H-27 SEACOCKS, THRU-HULL FITTINGS, AND DRAIN PLUGS

Based on ABYC's assessment of the existing technology, and the problems associated with achieving the goals of this standard, ABYC recommends compliance with this standard for all boats, associated equipment, and systems manufactured after July 31, 2022.

27.1 SCOPE

This standard applies to the selection of materials, design, construction, and installation of seacocks, thru-hull fittings, drain plugs, and other fittings intended for the passage of water in or out of a boat that penetrate the hull at or below the maximum heeled waterline. This standard applies to all boats.

27.2 UNITS OF MEASURE

Values stated without parentheses are the requirement. Values in parentheses are explanatory or approximate.

27.3 REFERENCES

The following references form a part of this standard. Unless otherwise noted the latest version of the referenced standards shall apply.

27.3.1 ABYC - American Boat & Yacht Council, Inc, 613 Third Street, Suite 10, Annapolis, MD 21403. Phone: (410) 990-4460. Fax: (410) 990-4466. Website: www.abycinc.org

[ABYC E-2, Cathodic Protection](#)

[ABYC E-11, AC and DC Electrical Systems on Boats](#)

[ABYC H-8, Buoyancy in the Event of Flooding/Swamping](#)

[ABYC H-28, Inflatable Boats](#)

[ABYC P-1, Installation of Exhaust Systems for Propulsion and Auxiliary Engines](#)

27.3.2 ASTM - ASTM International, 100 Barr Harbor Drive, PO Box C700, West Conshohocken, PA 19428-2959. Phone (610) 832-9500. Fax: (610) 832-9555. Website: www.astm.org

ANSI/ASTM D638-14, Standard Test Method for Tensile Properties of Plastics

ASTM G154 *Standard Practice for Operating Fluorescent Ultraviolet (UV) Lamp Apparatus for Exposure of Nonmetallic Materials*

ASTM G155 *Standard Practice for Operating Xenon Arc Light Apparatus for Exposure of Non-Metallic Materials*

ASTM 4329, *Standard Practice for Fluorescent Ultraviolet (UV) Lamp Apparatus Exposure of Plastics*

27.3.3 SAE - Society of Automotive Engineers, International, 400 Commonwealth Drive, Warrendale, PA 15096. Phone: (724)-776-4841. Fax: (724)-776-0790. Website: www.sae.org

SAE J30, *Fuel and Oil Hoses*

27.4 DEFINITIONS

For the purposes of this standard, the following definitions apply.

27.4.1 Drain Plug - removable plug that allows the draining of the bilge.

27.4.2 Maximum Heeled Waterline - the level of the water on the hull when the hull is inclined to:

27.4.2.1 for powerboats, an angle of seven degrees, or

27.4.2.2 for sailboats, the level of sheer amidships.

27.4.3 Readily Accessible - capable of being reached quickly and safely for effective use under emergency conditions without the use of tools.

27.4.4 Reinforced Hose - a hose manufactured with a secondary matrix or material to increase the strength and resists crushing and kinking (e.g., hose constructed with a fiber mesh or wire helix).

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