



Setting Standards for Safer Boating

ABYC P-17 July 2018

**Machinery Division Standard
Control Systems Project Technical
Committee**

The ABYC Standards and Technical Information Reports for Small Craft are the product of a consensus of representatives of government, industry and public sectors. It is intended solely as a guide to aid manufacturers and the marine community in the design, construction, equipage and maintenance of small craft.

ABYC reviews each standard at least every five years at which time it may be reaffirmed, revised, or withdrawn. ABYC welcomes any written comments on the standards and Technical information reports.

ABYC P-17

MECHANICAL STEERING SYSTEMS



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NOTE: 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 was developed under procedures accredited as meeting the criteria for American National Standards. 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.

This standard, which is the result of extended and careful consideration of available knowledge and experience on the subject, is intended to provide minimum performance requirements.

ABYC's Project Technical Committee meetings are open to the public. All contact 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", "certify", or "endorse" any item, construction, or proprietary device.

REQUEST FOR INTERPRETATIONS

Upon written request, the Control Systems 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 which might affect it becomes available to the PTC. Persons aggrieved by an interpretation may appeal to the Committee for reinterpretation.

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P-17 MECHANICAL STEERING SYSTEMS

Based on ABYC's assessment of the state of 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 and/or installed after July 31, 2019.

17.1 PURPOSE

This standard is a guide for the design and construction of remote mechanical cable steering systems and the major components thereof, covering design, construction, and installation of steering systems for outboard, inboard, sterndrive, and water jet drive boats.

17.2 SCOPE

This standard applies to engine-mounted and boat-mounted remote mechanical cable steering systems used with single and twin engine installations of outboard engines over 20 hp per engine (15 kW), inboard, sterndrive, and water jet drives.

EXCEPTIONS:

1. Cable over independently mounted pulley steering systems covered by [ABYC P-18, Cable Over Pulley Steering Systems for Outboard Engines](#).
2. Personal watercraft.
3. Jet boats that comply with [ABYC P-23, Mechanical Steering and Propulsion Controls for Jet Boats](#).
4. Bow and/or stern thrusters.

NOTE: Mechanical components of power-assisted steering systems are covered by this standard.

17.3 REFERENCES

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

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

[ABYC H-2, Ventilation of Boats Using Gasoline](#)
[ABYC P-18, Cable Over Pulley Steering Systems for Outboard Engines](#)
[ABYC P-21, Manual Hydraulic Steering Systems](#)
[ABYC P-22, Steering Wheels](#)
[ABYC P-23, Mechanical Steering and Propulsion Controls for Jet Boats](#)
[ABYC TH-12, Outboard Engine Mounting Guide](#)

17.4 DEFINITIONS

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

17.4.1 Drag Link (also known as link rod) - a device in an engine-mounted steering system by which the linear force of the output ram is transmitted to the engine steering arm.

17.4.2 Minimum Retained System Performance - system capability after test(s) such that at least 90% of the engine steering arm travel normally available to each side of the mid-position may be attained by exertion of no more than 20 foot-pounds (27 Nm) of torque at the helm through the wheel or other normal control device.

NOTE: This criteria does not define steering system performance while a boat is underway but is intended to provide quantitative limits for design and testing purposes.

17.4.3 Steering Helm - a mechanism, exclusive of a steering wheel or other means for manual application of controlling force, by which controlling force is fed into a boat steering system cable or other force transmission means.