

The American Boat & Yacht Council, Inc.

ABYC

Setting Standards for Safer Boating

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S-8 BOAT MEASUREMENT AND WEIGHT

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S-8 BOAT MEASUREMENT AND WEIGHT

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, 2003.

8.1 PURPOSE

This industry conformity standard is intended as a guide to establish uniformity in describing boat dimensions and weight specifications.

8.2 SCOPE

This industry conformity standard applies to all boats.

8.3 DEFINITIONS

Beam, Waterline (BWL) - the maximum distance between the intersection of the hull contour and the side projection of the flotation plane for a specific loading condition. For a multihull, the BWL shall be established for each hull individually. The BWL shall be measured as the distance between two vertical planes parallel to the centerplane of the boat.

Beam, Hull (BH) - includes all structural or integral parts of the boat such as extensions of the hull, hull to deck joints, and bulwarks. It excludes removable parts that can be detached in a non-destructive manner without affecting the integrity of the boat, (e.g., rubbing strakes, fenders, guardrails, and stanchions extending beyond the boat's side). For multihulls, the beam of the hull shall be established accordingly for each hull individually. The BH shall be measured as the distance between two vertical planes parallel to the centerplane of the boat.

Beam, Maximum (Bmax) - includes all structural or integral parts of the boat such as extensions of the hull, hull to deck joints, rubbing strakes and fixed fenders, sheer planks, chainplates, and liferails extending beyond the boat's hull side. The Bmax shall be measured as the distance between two vertical planes parallel to the centerplane of the boat.

Beam, Transom (BM-tran) - the maximum transom width excluding handles and similar fittings and extensions, but including permanently installed rub-rails. The transom beam includes the width of radii at the intersections with the hull sides and chamfers or angles of greater than 45 degrees to the centerline plane of the hull.

Note: *For the purpose of calculating the maximum horsepower of outboard boats, if the transom beam is less than 50% of the maximum beam of the boat, the beam in the after quarter-length of the boat may be used in calculation. (See [ABYC H-26, "Powering of Boats."](#))*

Deadrise - the angle, expressed in degrees and measured athwartship, between a horizontal line and a line formed by a point on the keel baseline and a point on the chine at the transom, or other specified location.

Note: *If the bottom has some special configuration like crowns, variable roundness, pads, etc., give the angular dimension that represents the deadrise along 75% of the half bottom.*

Displacement - the weight of the water displaced by a vessel at a specific loading condition.

Draft (D) - the vertical distance between the waterline and the deepest fixed part of the boat. Drafts for boats with adjustable appendages such as moveable keels, rudders, and propulsion machinery shall be specified with these appendages at their deepest and shallowest position. These dimensions shall be taken at maximum displacement in fresh water.

Freeboard (F) - the vertical distance between the sheerline/deck at the side at a defined lengthwise location, and the flotation plane in any specified loading condition.

Height Above Waterline - the vertical dimension between the design waterline and the highest point of the boat, including all equipment that cannot be readily lowered.

Length, Maximum - length overall (LOA) plus attached bowsprits, pulpits, boomkins (bumpkins), rudders, sails, outboard brackets, handles, railings, and other similar attached extensions. This also includes propulsion equipment in its extended position.

Length Overall (LOA) - the straight line measurement from the foremost part of the boat to the aftermost part of the boat, measured parallel to the centerline and to the design waterline. Integrally formed, molded, or welded components and appendages, such as bow pulpits, swim platforms, attachment structures for the propulsion systems, and structural rub rails installed by the builder are included in the length. Attached bowsprits, pulpits, boomkins (bumpkins), rudders, sails, outboard brackets, handles, railings, and other similar attached extensions are not included in the measurement.

Length, Waterline (LWL) - the horizontal measurement between the forwardmost and aftermost points on a vessel's waterline, measured parallel to the centerline and at its designated displacement.

Weight, Basic (WT, Basic) - includes all permanently attached items as delivered by the manufacturer; exclusions from basic weight are as follows:

- optional equipment
- transom and bracket-mounted outboard engines
- trolling motors