

## ***H-5 BOAT LOAD CAPACITY***

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## H-5 BOAT LOAD CAPACITY

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 and/or installed after July 31, 2005.

### 5.1 PURPOSE

This standard is a guide for determining the load capacity of boats.

### 5.2 SCOPE

This standard applies to all boats less than 26 feet in length, including catamarans.

#### EXCEPTIONS:

1. *Personal watercraft*
2. *Canoes and kayaks.* (See [ABYC H-29, Canoes and Kayaks.](#))
3. *Inflatable boats.* (See [ABYC H-28, Inflatable Boats.](#))
4. *Pontoon boats.* (See [ABYC H-35, Powering and Load Capacity of Pontoon Boats.](#))

### 5.3 REFERENCED ORGANIZATIONS

ABYC - American Boat & Yacht Council, Inc., 3069 Solomons Island Road, Edgewater, MD 21037-1416. Phone: 410-956-1050. Fax: 410-956-2737. Website: [www.abycinc.org](http://www.abycinc.org).

CFR - Code Of Federal Regulations. May be obtained from the U.S. Coast Guard, 2100 Second St. S.W., Washington, DC 20593. Phone: 202-593-0001 or from the U.S. Government Printing Office Bookstore: <http://bookstore.gpo.gov>. Also available from ABYC in *Rules and Regulations for Small Craft*.

### 5.4 DEFINITIONS

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

Boat weight: outboard engine – The boat weight includes full permanent fuel tanks, the heaviest production tolerances, and all factory supplied, permanently installed, non-portable appurtenances.

Boat weight: inboard engine or sterndrive – The boat weight includes engine, batteries, full fuel system, the heaviest production tolerances, and factory-supplied, permanently installed, non-portable appurtenances.

Boat weight – Manual or sail powered boats not recommended for use with an outboard engine - The boat

weight includes the heaviest production tolerances, and factory supplied, permanently installed, non-portable appurtenances.

Calculation beam – Widest part of the boat at each station measured at the static float plane. This distance is in inches between the outer sides of the hull, excluding rub rails, fenders, or other extensions.

Calculation length – The horizontal length from the most forward part of the boat below the static float plane to the vertical midpoint of the transom below the static float plane.

Catamaran – A hull with two running surfaces separated by a section that is above the running surfaces.

#### NOTES:

1. *Central pods, are not considered when determining hull type.*

2. *If the line of intersection of the water surface with the boat at rest and loaded to capacity forms a single closed curve, then the boat must also comply with applicable Federal Safety Standards.*

Maximum weight capacity – The maximum load in pounds that a boat may carry. This load includes persons, portable fuel tanks, and all gear not part of the boat's structure, and, if recommended for use with outboard engines, includes outboard engines, controls, and batteries.

Monohull boat – A boat on which the line of intersection of the water surface and the boat at any operating draft forms a single closed curve.

Persons capacity – The maximum load of persons expressed in pounds and in number of persons.

#### Static Float Plane

1. The plane below the most forward point and through which the maximum displacement of a boat exists without water coming aboard, when all openings such as drains, scuppers, centerboard trunks, hull or transom doors are considered sealed. (See [Figure 1.](#))

2. (Alternative) The float plane as defined above may be located above or below the sheer as long as it is equidistant above or below the most forward point and the stern. (See [Figure 2.](#))

#### NOTES:

1. *Scuppers, freeing ports, drains, overboard discharge, and centerboard trunk openings may be located below the*

static float plane. (See [H-5.5.3](#) for requirements for engine well openings.)

2. Ventilation openings may become points of major leakage.

## 5.5 REQUIREMENTS - IN GENERAL

5.5.1 Federal Regulations in Title 33 CFR Part 183 Subpart C, *Safe Loading, Maximum Weight Capacity and Persons Capacity*, shall be complied with by all monohull boats less than 20 feet in length, except sailboats, canoes, kayaks, and inflatable boats.

5.5.2 The builder shall label each boat with a maximum weight capacity and the persons capacity that the boat is designed for, or is intended to accommodate, in accordance with [ABYC S-7 Boat Capacity Labels](#). Lesser values than those determined by this standard may be used at the builder's option.

5.5.3 An opening with its greatest dimension not over three inches is permitted below the static float plane in the engine well for outboard engine control or fuel lines. An opening in the engine well shall be provided with a boot or other means to minimize leakage.

## 5.6 REQUIREMENTS - DETERMINATION OF CAPACITIES

5.6.1 Boats are divided into five categories for the purpose of determining capacities.

- a. Outboard boats over two HP,
- b. Inboard and sterndrive,
- c. Outboard boats two HP or less and manually propelled boats,
- d. Sailboats, and
- e. Sailboard and specialized boats not covered by Title 33 CFR Part 183.

### 5.6.2 Outboard Boats Over two HP

5.6.2.1 Weight Capacity – the weight capacity of outboard boats rated for more than two HP is determined by obtaining the boat's cubic capacity below a static float plane, converting this volume to the weight of water it would displace, subtracting the boat weight, and permitting one pound of weight capacity for each five pounds of remaining displacement. Calculate displacement below the static float plane, and from that, the weight capacity. [Figures 4](#) and [5](#) provide a calculation method for monohulls. [Figures 7](#) and [8](#) provide a calculation method for catamarans.

### 5.6.2.2 Persons Capacity

5.6.2.2.1 The maximum persons pound capacity shall not exceed the maximum weight capacity, less the total weight from [ABYC S-30 Outboard Engine and Related Equipment Weights](#), Table I, for the boat's horsepower capacity rating.

5.6.2.2.2 The persons capacity shall not exceed either of the values determined by the following steps:

5.6.2.2.2.1 The persons capacity shall not exceed the value determined by dividing the quantity of 32, plus the posted persons pound capacity, by 141 and rounding up or down to the nearest whole number.

5.6.2.2.2.2 If the vessel is capable of speeds greater than five mph the number of persons shall not exceed the number of designated occupant positions that are intended for occupancy when the vessel is underway at speeds greater than five mph.

5.6.2.2.3 Boats that are designed for twin engines shall be provided with a persons capacity based on the weight for twin engines.

5.6.2.2.4 For boats with a maximum persons capacity less than 550 pounds, the persons pounds capacity shall be confirmed by the following persons capacity test. If necessary, reduce the persons capacity until freeboard exists.

5.6.2.2.4.1 Place weight for engine and controls from [ABYC S-30 Outboard Engine and Related Equipment Weights](#), Table I on the boat transom so that its center of gravity is on the boat center line three inches above the top of the transom and three inches aft of the transom ( $\pm$  one inch).

5.6.2.2.4.2 If applicable, place weight for battery from [ABYC S-30 Outboard Engine and Related Equipment Weights](#), Table I on the boat bottom, or accommodation floor, in normal position and record the distance forward of the transom to where this weight is located. If a space is marked or constructed for battery location, the battery weight shall be placed in that space.

5.6.2.2.4.3 Place weight for portable tanks from [ABYC S-30 Outboard Engine and Related Equipment Weights](#), Table I on the boat bottom, or accommodation floor, in normal position and record the distance forward of the transom to where this weight is located. If a space is marked or constructed for tank location, that space shall be used to place the tank weight.

5.6.2.2.4.4 Place a test load equal to 60% of the maximum persons capacity so that its center of gravity is located on one side as follows:

Longitudinally - at the midpoint, fore and aft, of the passenger carrying area ( $\pm$  2 inches).

Vertically - at the height of the seat nearest to the longitudinal center of gravity (- zero in. + three in.), but not above the gunwale.

Transversely - at the average outboard extremity of the passenger carrying area where it intersects with test load height ( $\pm$  two inches).

5.6.2.2.4.5 Fill all permanent fuel tanks.

5.6.2.2.4.6 Conduct tests on both port and starboard sides and record the minimum freeboard.

5.6.2.2.4.7 If the boat is equipped with a flying bridge or upper deck designed to be occupied by persons, the persons capacity test shall be conducted on both the upper and lower levels. If the upper deck test results in a lower person capacity, and it is not desired to apply that value to the entire boat, the access to the upper level shall be labeled with a reduced upper level persons capacity in pounds. When a reduced upper level capacity is posted, the persons capacity test must be conducted with 60% of the posted upper level capacity located on one side as required, plus 60% of the remaining boat persons capacity located on the same side on the lower level.

### 5.6.3 Sterndrive and Inboard Boats

5.6.3.1 Maximum Weight Capacity - The maximum weight capacity of inboard boats is determined by obtaining the boat's cubic capacity below a static float plane, converting this volume to the weight of water it would displace, subtracting the boat weight, and permitting one pound of load capacity for each seven pounds of remaining displacement. [Figure 4](#) provides a calculation method for determining monohull displacement below the static float plane and from that the weight capacity. [Figure 9](#) provides a calculation method to determine weight capacity for catamarans. Alternately, this displacement may be determined by actual measurement of water displaced below the static float plane.

#### 5.6.3.2 Persons Capacity

5.6.3.2.1 The maximum persons pound capacity shall not exceed the maximum allowable weight capacity

5.6.3.2.2 The number of persons shall not exceed either of the values determined by the following steps:

5.6.3.2.2.1 The number of persons shall not exceed the value determined by dividing the quantity of 32, plus the posted persons pound capacity, by 141 and rounding up or down to the nearest whole number.

5.6.3.2.2.2 If the vessel is capable of speeds greater than five mph the number of persons shall not exceed the number of designated occupant positions that are intended for occupancy when the vessel is underway at speeds greater than five mph.

5.6.3.3.2 For boats with a maximum persons capacity less than 550 pounds, the pounds of persons capacity shall be confirmed by the following persons capacity test. If necessary, reduce the persons capacity until freeboard exists.

5.6.3.3.2.1 Fill all permanent fuel tanks.

5.6.3.3.2.2 Place test load equal to 60% of the maximum persons capacity so that its center of gravity is located on one side as follows:

Longitudinally - at the midpoint, fore and aft, of the passenger carrying area ( $\pm$  two inches).

Vertically - at the length of the seat nearest to the longitudinal center of gravity (- zero in. + three in.), but not above the gunwale.

Transversely - at the average outboard extremity of the passenger carrying area where it intersects with test load height ( $\pm$  two inches).

5.6.3.3.2.3 Conduct tests on both port and starboard sides, and record the minimum freeboard.

5.6.3.3.3 If the boat is equipped with a flying bridge, or upper deck designed to be occupied by persons, the persons capacity test shall be conducted on both the upper and lower levels. If the upper deck test results in a lower persons capacity, and it is not desired to apply that value to the entire boat, the access to the upper level shall be labeled with a reduced upper level persons capacity in pounds. When a reduced upper level capacity is posted, the persons capacity test must be conducted with 60% of the posted upper level capacity located on one side as required, plus 60% of the remaining boat persons capacity located on the same side on the lower level.

### 5.6.4 Outboard Boats Two HP or Less, and Manually Propelled Boats

5.6.4.1 Maximum Weight Capacity - The maximum weight capacity of outboard boats rated two HP, or less, and manually propelled boats, is determined by obtaining the boat's cubic capacity below a static float plane, converting this volume to the weight of water it would displace, subtracting the weight of the boat, and permitting three pounds of load capacity for each ten pounds of remaining displacement. [Figure 3](#) provides a calculation method for determining monohull boat weight capacity. [Figure 8](#) provides a calculation method to determine the weight capacity for catamarans. Alternately, this displacement may be determined by actual measurement of water displaced below the static float plane.

5.6.4.2 Persons Capacity - The maximum weight capacity shall not exceed 90% of the maximum weight capacity, less 25 pounds if recommended for use with an outboard engine. The number of persons shall not exceed the value determined by dividing the quantity of 32, plus

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the posted persons pound capacity, by 141 and rounding up or down to the nearest whole number.

**NOTE: This category of boat does not require confirmation by a persons capacity test.**

5.6.5 Monohull Sailboats

5.6.5.1 Maximum Weight Capacity - The maximum weight capacity of sailboats without inboard auxiliary power, and with outboard auxiliary power, shall be determined using the procedures for outboard boats. The weight capacity of sailboats with inboard auxiliary power shall be determined using the procedures for inboard and sterndrive boats.

5.6.5.2 Persons Capacity - The maximum weight capacity shall not exceed the maximum weight capacity, and, if recommended for use with an outboard engine, less the outboard engine, controls, portable fuel tanks and battery weights from [ABYC S-30 Outboard Engine and Related Equipment Weights](#) Table I for the boat's horsepower capacity rating. The number of persons shall not exceed the value determined by dividing the quantity of

32, plus the posted persons pound capacity by 141, and rounding up or down to the nearest whole number.

**NOTE: This category of boat does not require confirmation by a persons capacity test.**

5.6.6 Specialized Boats Not Covered by Title 33 CFR Part 183.

5.6.6.1 Maximum Weight Capacity - The maximum weight capacity for specialized boats dependent solely on the buoyancy of the flotation system is determined using the procedures for pontoon boats. (See [ABYC H-35 Powering and Load Capacity of Pontoon Boats.](#))

5.6.6.2 Persons Capacity - The maximum persons pound capacity shall not exceed 90% of the maximum weight capacity, less 25 pounds if recommended for use with an outboard engine. The number of persons shall not exceed the value determined by dividing the quantity of 32, plus the posted persons pound capacity by 141 and rounding up or down to the nearest whole number.

**NOTE: This category of boat does not require confirmation by a persons capacity test.**

**FIGURE 1 - STATIC FLOAT PLANE**

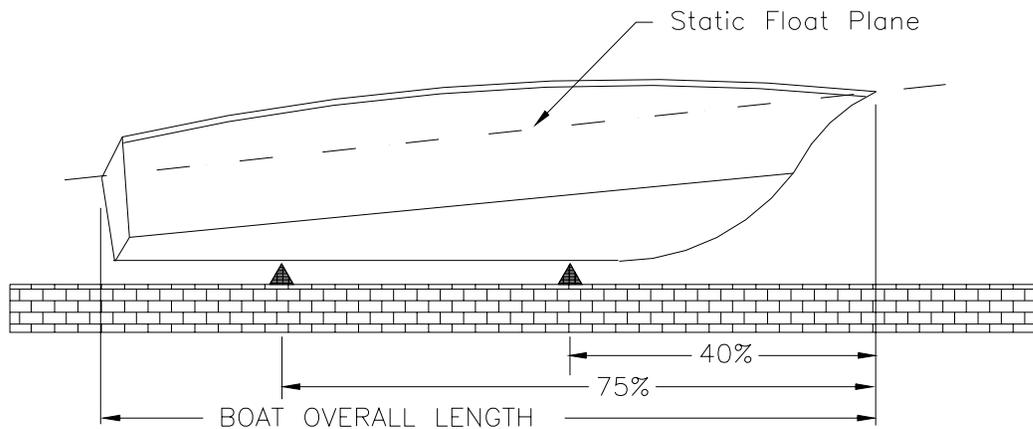


FIGURE 2 - STATIC FLOAT PLANE (ALTERNATIVE)

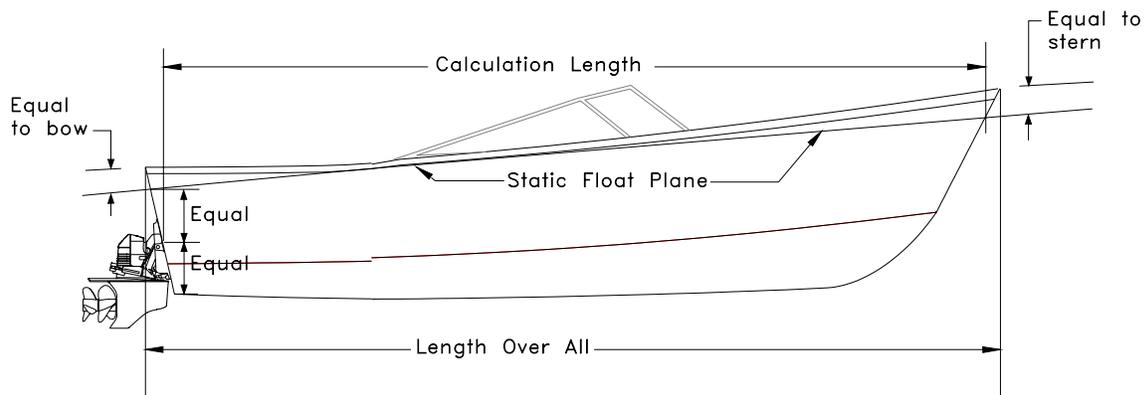


FIGURE 3 - INTERSECTIONS DETERMINATIONS

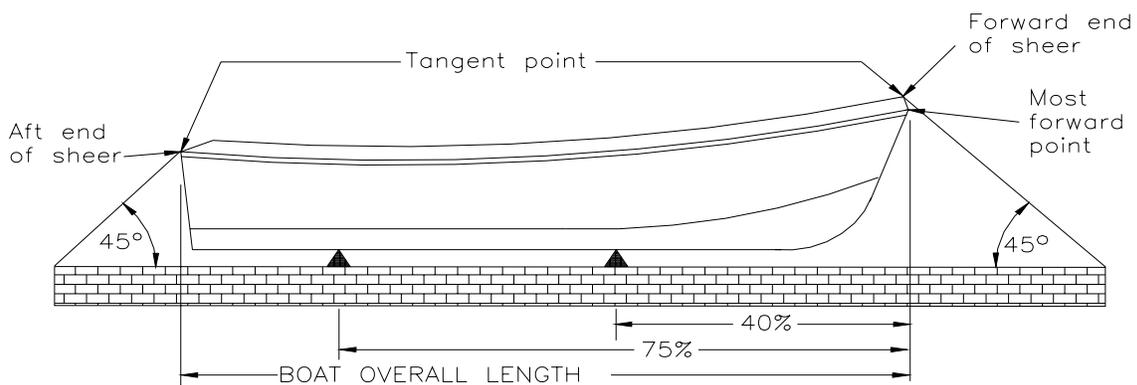
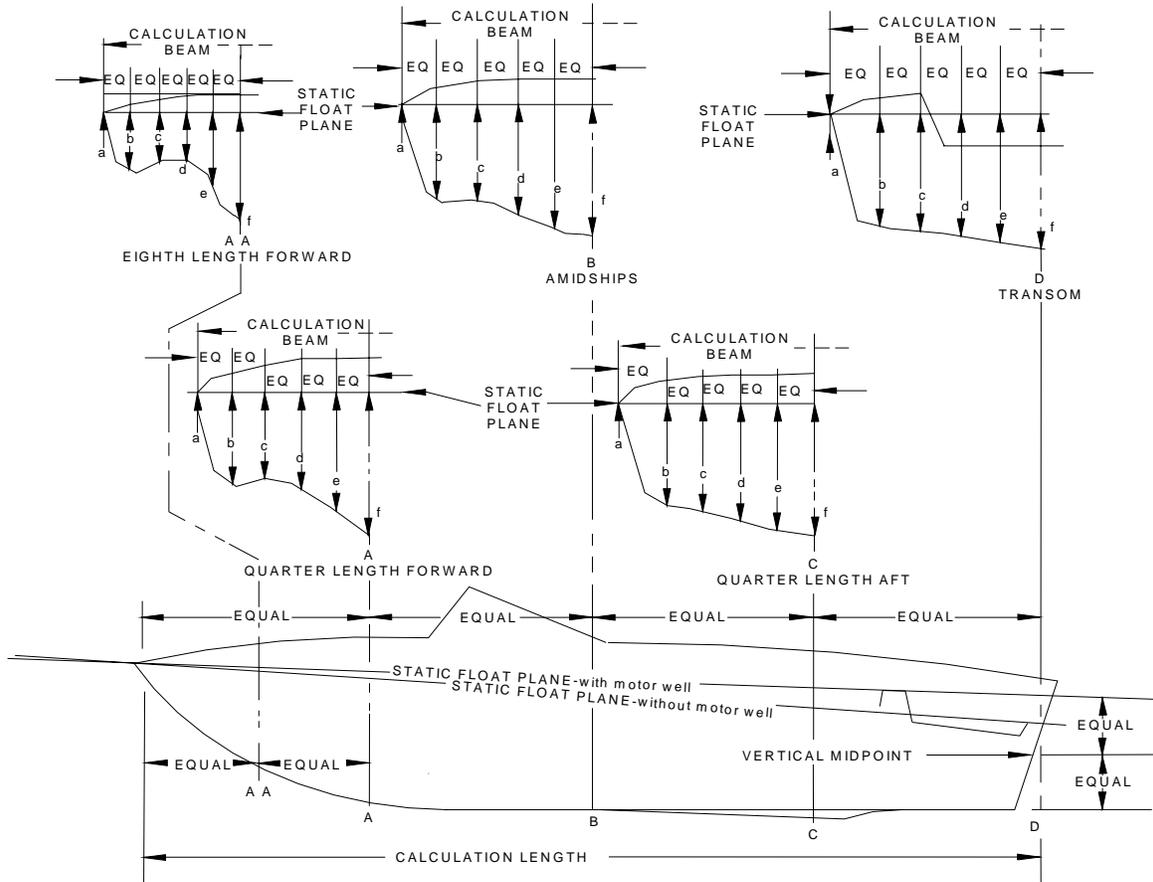


FIGURE 4 - MONOHULL BOAT CAPACITY DATA



**NOTES:**

1. *Engine Well and Extra Volume - If the static float plane is above the bottom of the boat's transom engine cut-out, the volume in cubic inches within the engine well that is below the static float plane must be subtracted. Volume (cubic inches) of the integral structure aft of the transom below the static float plane may be added to the cubic capacity.*
2. *Transverse Sections (AA, A, B, C and D) - These are established at the quarter lengths and at the midpoint of forward quarter length which, except for the transom, are perpendicular to the static float plane.*
3. *Vertical Depths (a, b, c, d, e and f) - These are established below the static float plane in each transverse section at five equidistant intervals between the boat longitudinal centerline and the extreme section width existing below the static float plane.*
4. *Measurements -These are taken to the outside of the hull and recorded in inches with decimal equivalents for fractions.*

**FIGURE 5 - OUTBOARD MONOHULL BOAT WEIGHT CAPACITY WORKSHEET**

The figures used in these examples are taken from the boat dimension drawings in [Figure 4](#). The letters (a, b, c, d, e, and f) have been placed under the dimensions taken from [Figure 4](#) as a further guide for the user of this standard. All dimensions should be converted to decimal numbers before insertion in the formula.

Step 1. Compute Areas of Sections

$$\text{Formula: Area} = \frac{\text{Beam}}{15} (a + 4b + 2c + 4d + 2e + 2f)$$

Area AA (Section Eighth Length Forward):

$$AA = \frac{71.25}{15} (2.63 + 4(11.88) + 2(10.00) + 4(9.75) + 2(13.12) + 2(20.63))$$

$$AA = 839.09 \text{ square inches (two decimal places)}$$

Area A (Section Quarter Length Forward):

$$A = \frac{72.25}{15} (2.75 + 4(19.88) + 2(18.63) + 4(20.37) + 2(26.00) + 2(30.88))$$

$$A = 1516.14 \text{ square inches (two decimal places)}$$

Area B (Section Amidship):

$$B = \frac{72.75}{15} (2.75 + 4(22.37) + 2(23.12) + 4(25.37) + 2(29.37) + 2(31.75))$$

$$B = 1756.62 \text{ square inches (two decimal places)}$$

Area C (Section Quarter Length Aft):

$$C = \frac{72.09}{15} (2.75 + 4(22.25) + 2(23.63) + 4(25.00) + 2(27.25) + 2(29.37))$$

$$C = 1692.91 \text{ square inches (two decimal places)}$$

Area D (Section Aft):

$$D = \frac{60.75}{15} (2.63 + 4(21.25) + 2(22.37) + 4(23.25) + 2(24.58) + 2(25.88))$$

$$D = 1321.47 \text{ square inches (two decimal places)}$$

Step 2. Compute Cubic Capacity

$$\text{Formula: Cubic Capacity of Hull} = \frac{L}{174,600} (16 AA + 13A + 27B + 27C + 9D) + \text{Note 1}$$

$$\text{Cubic Capacity} = \frac{177.75}{174,600} (16(839.09) + 13(1516.14) + 27(1756.62) + 27(1692.91) + 9(1321.47)) + \frac{-4641.3}{1728}$$

$$\text{Cubic Capacity} = 137.9 \text{ cubic feet (one decimal place)}$$

FIGURE 5 - OUTBOARD MONOHULL BOAT WEIGHT CAPACITY WORKSHEET (con't)

Step 3. Compute Maximum Weight Capacity

FOR OUTBOARD BOATS OVER 2 HP	FOR OUTBOARD BOATS 2 HP OR LESS AND MANUALLY PROPELLED
Formula: Capacity = ((Cubic Capacity x 62.4) - (Boat Weight)) x 0.2	Formula: Capacity = ((Cubic Capacity x 62.4) - (Boat Weight)) x 0.3
Capacity = ((137.9 x 62.4) - 355) x 0.2	Capacity = ((_____ x 62.4) - _____) x 0.3
Capacity = 1650 pounds	Capacity = _____ pounds

**NOTES:**

1. If the static float plane is above the boat's transom engine cutout, the volume (in cu. in.) within the engine well which is below the static float plane must be subtracted. Volume (cu. in.) of integral structure aft of the transom below the static float plane may be added to the cubic capacity.

2. The factor 174,600 includes a 5% margin for formula error.

3. Boat weight includes the fuel weight in permanent tanks.

FIGURE 6 - STERNDRIVE AND INBOARD MONOHULL BOAT WEIGHT CAPACITY WORKSHEET

The figures used in these examples are taken from the boat dimension drawings in [Figure 4](#). The letters (a, b, c, d, e, and f) have been placed under the dimensions taken from [Figure 4](#) as a further guide for the user of this standard. All dimensions should be converted to decimal numbers before insertion in the formula.

Step 1. Compute

$$\text{Formula: Area} = \frac{\text{Beam}}{15} (a + 4b + 2c + 4d + 2e + 2f)$$

Area AA (Section Eighth Length Forward):

$$AA = \frac{47.50}{15} (0 + 4(6.62) + 2(11.25) + 4(16.50) + 2(19.00) + 2(25.62))$$

$$AA = 646.70 \text{ square inches (two decimal places)}$$

Area A (Section Quarter Length Forward):

$$A = \frac{70.00}{15} (0 + 4(8.50) + 2(18.87) + 4(25.75) + 2(29.62) + 2(36.62))$$

$$A = 1433.69 \text{ square inches (two decimal places)}$$

Area B (Section Amidship):

$$B = \frac{78.75}{15} (0 + 4(26.25) + 2(29.00) + 4(32.06) + 2(35.50) + 2(38.38))$$

$$B = 2304.75 \text{ square inches (two decimal places)}$$

Area C (Section Quarter Length Aft):

$$C = \frac{77.50}{15} (0 + 4(26.00) + 2(28.35) + 4(30.75) + 2(35.38) + 2(35.62))$$

$$C = 2199.45 \text{ square inches (two decimal places)}$$

**FIGURE 6 - STERNDRIVE AND INBOARD MONOHULL BOAT WEIGHT CAPACITY WORK SHEET (con't)**

Area D (Section Aft):

$$D = \frac{76.25}{15} (0 + 4 (24.94) + 2 (27.44) + 4 (29.56) + 2 (32.12) + 2 (33.19))$$

$$D = 2051.13 \text{ square inches (two decimal places)}$$

Step 2. Compute Cubic Capacity

Formula: Cubic Capacity of Hull =  $\frac{L}{174600} (16AA + 13A + 27B + 27C + 9D) + \text{Note 1}$

$$\text{Cubic Capacity} = \frac{194.20}{174,600} (16(646.70) + 13 (1433.69) + 27 (2304.75) + 27 (2199.45) + 9 (2051.13)) + \frac{0}{1728}$$

$$\text{Cubic Capacity} = 188.0 \text{ cubic feet (one decimal place)}$$

Step 3. Compute Maximum Weight Capacity - Inboard Boats

Formula: Maximum Weight Capacity =  $((\text{Cubic Capacity} \times 62.4) - (\text{Boat Weight})) \div 7$

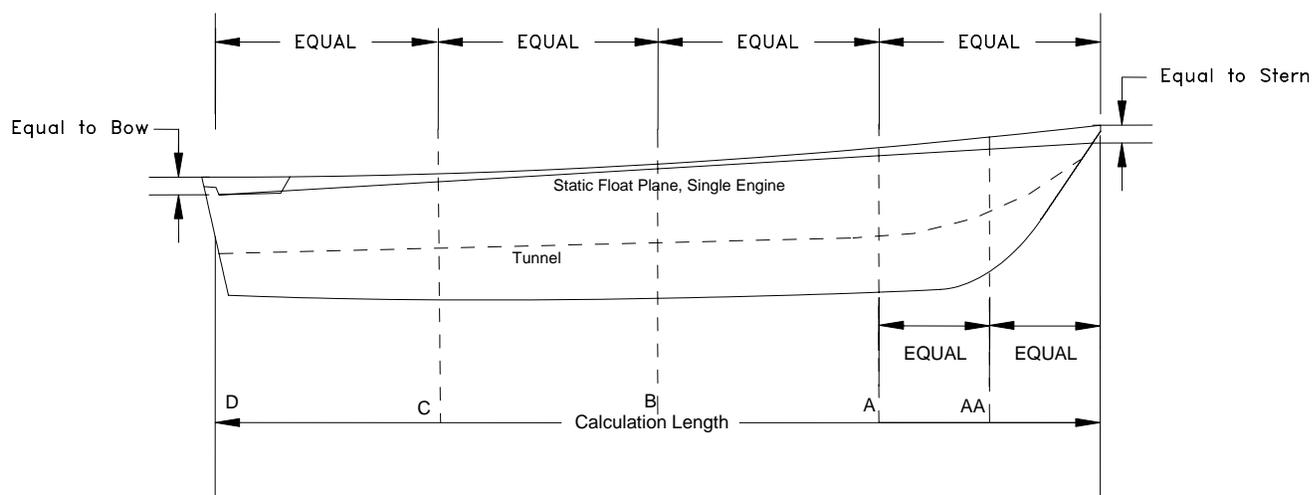
$$\text{Capacity} = ((188.0 \times 62.4) - (1923)) \div 7 = 1401 \text{ pounds (nearest whole number)}$$

**NOTES:**

1. Volume (cu. in.) of integral structure aft of the transom below the static float plane may be added to the cubic capacity.
2. The factor 174,600 includes a 5% margin for formula error.
3. Boat weight includes engine, drive, fuel system, fuel and battery weight.

**FIGURE 7 - CATAMARAN CAPACITY DATA**

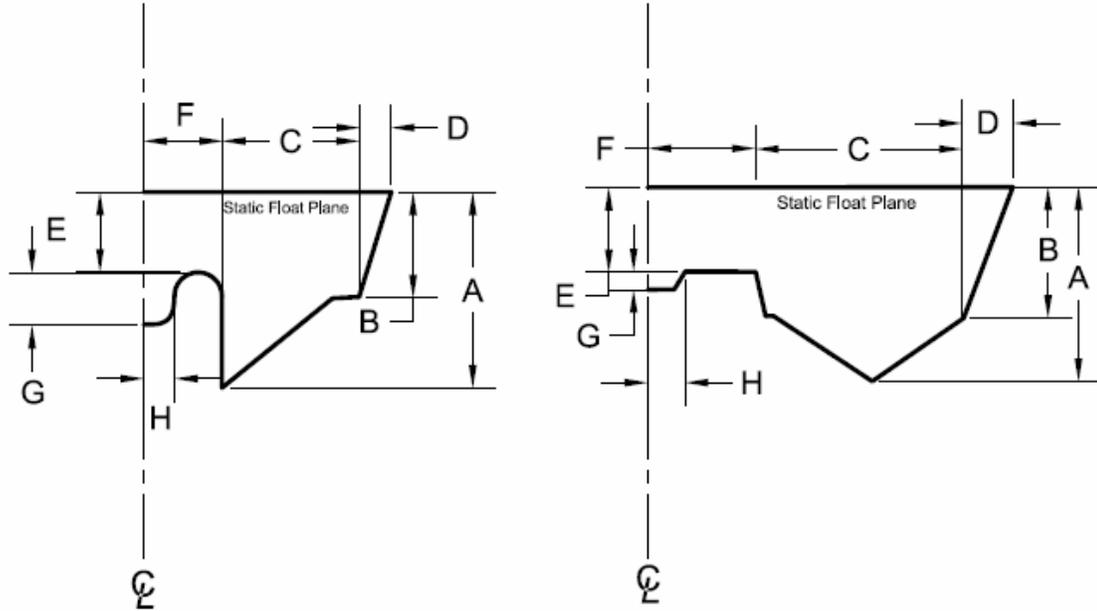
Displacement below the static float plane is determined by calculating one half of the transverse areas in five places in the hull as shown below.



**NOTE:** Aft end of static float plane determined by lowest point of major leakage; i.e., transom access opening or motor well bulkhead.

FIGURE 8 - TRANSVERSE AREA CALCULATION

Transverse areas may be calculated by obtaining values in inches for dimensions A through H as follows:



*Note: Other methods can be used to determine transverse area calculation, such as planimeter, CAD, etc. Data can be recorded using the following format. Numbers are included to aid in understanding the worksheet in [Figure 8](#).*

	A	B	C	D	E	F	G	H
Station AA	22	17	12	9	9	15	2	2
Station A	32	21.5	24	8	13	10	3	3
Station B	33	24	30	6	15	9	4.5	3.5
Station C	32	23	30	5.5	14	9	6	4.5
Station D	31	22	30	5	13	9	7	5.5

**FIGURE 9 - OUTBOARD CATAMARAN BOAT WEIGHT CAPACITY WORKSHEET**

The figures used in these examples are taken from the table in [Figure 7](#), and are from an imaginary power catamaran with the following specifications:

LOA	16'0"
Beam	7'6"
HP	90
Displ	1200 lbs.

Step 1. Compute areas of sections to 2 decimal places, if applicable

Formula: Area = (A+B)C + BD + [(EF) x 2] + [(GH) x 2]

Area	AA	-----Section Eighth Length Forward
	AA =	(22 + 17)12 + (17 x 9) + [(9 x 15) x 2] + [(2 x 2) x 2]
	AA =	468 + 153 + 270 + 8 = 899 square inches
Area	A	-----Section Quarter Length Forward
	A =	(32 + 21.5)24 + (21.5 x 8) + [(13 x 10) x 2] + [(3 x 3) x 2]
	A =	1284 + 172 + 260 + 18 = 1734 square inches
Area	B	-----Section Amidships
	B =	(33 + 24)30 + (24 x 6) + [(15 x 9) x 2] + [(4.5 x 3.5) x 2]
	B =	1710 + 144 + 270 + 31.5 = 2155.5 square inches
Area	C	-----Section Quarter Length Aft
	C =	(32 + 23)30 + (23 x 5.5) + [(14 x 9) x 2] + [(6 x 4.5) x 2]
	C =	1650 + 126.5 + 252 + 54 = 2082.5 square inches
Area	D	-----Section Aft
	D =	(31 + 22)30 + (22 x 5) + [(13 x 9) x 2] + [(7 x 5.5) x 2]
	D =	1590 + 110 + 234 + 77 = 2011 square inches

Step 2 Compute Cubic Capacity

Formula: Cubic Capacity of Hull =  $\frac{L}{174,600} (16AA + 13A + 27B + 27C + 9D) + \text{Note 1}$

Cubic Capacity =  $\frac{L}{174,600} (14,384 + 22,542 + 58,198.5 + 56,227.5 + 18,099)$

Cubic Capacity = 136.3 cubic feet

**FOR OUTBOARD CATAMARANS OVER 2 HP**

Step 3 Compute Maximum Weight Capacity

Formula: Capacity = [(Cubic Capacity x 62.4) - Boat Weight] x 0.2

Capacity = [(136.3 x 62.4) - 1200] x 0.2

Capacity = 1461 pounds

Step 4 Compute persons Capacity

Formula: Persons Capacity = [(Maximum Weight Capacity - Total Weight from [ABYC S-30, Outboard Engine and Related Equipment Weights](#) Table II for horsepower capacity rating) + 32] divided by 141.

Persons Capacity = [(1461 - 540) + 32] / 141 = 7.04 persons = 7 persons or the number of designated occupant positions if the vessel is capable of speeds over 5 mph.

**FOR STERNDRIVE AND INBOARD CATAMARANS**

Step 3. Compute Maximum Weight Capacity

Formula: Maximum Weight Capacity = [(Cubic Capacity x 62.4) – Boat Weight] / 7

Capacity = [(136.3 x 62.4) – 2000] / 7 = 929.3 pounds

Step 4. Compute Persons Capacity

Formula: Persons Capacity = (Maximum Weight Capacity + 32) divided by 141.

Persons Capacity = (929.3 + 32) / 141 = 6.32 persons = 6 persons or the number of designated occupant positions if the vessel is capable of speeds over 5 mph.

\* \* \* \* \*

*Origin and Development of ABYC H-5, Boat Load Capacity*

ABYC H-5 first appeared in 1963 and was updated in 1964, 1965, 1973, 1974, 1981, 1983, 1988 and 1996. The 2004 update is the work of the Hull Performance Project Technical Committee.

\* \* \* \* \*

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