



HOUSEBOAT PRACTICAL STABILITY WORKSHEET

This checklist can be used by a vessel builder and accredited marine surveyors to record the practical stability testing of a Standard Houseboat during initial survey. It is recommended that the completed report be retained by the surveyor for their records.

A. Vessel details

Vessel name

Owner of vessel

Surveyor name

Measured length L_m (metres)

Pontoon length (metres)

Unique identifier

Builder of vessel

Surveyor identification number

Vessel beam B (metres)

Pontoon depth D (metres)

B. Pre-inclining checks

Is the vessel of an appropriate configuration to undergo the proposed loading?

Yes No

Is a safe means of measuring freeboards provided?

Yes No

Is an inclinometer provided?

Yes No

Please specify type

Is the prevailing wind below 5 knots?

Yes No

Is the water surface oscillating at less than 20mm from trough to peak?

Yes No

Can the vessel be kept clear of the bottom throughout the test?

Yes No

Can mooring lines be kept slack throughout the test?

Yes No

Are the fuel tanks pressed?

Yes No

Actual contents

Total capacity

Are the FW tank(s) pressed?

Yes No

Actual contents

Total capacity

Are the BW Tank(s) pressed?

Yes No

Actual contents

Total capacity

Are the GW tank(s) pressed?

Yes No

Actual contents

Total capacity

Note: Where a tank has not been pressed due to operational limitations, a mass equivalent to the missing contents is to be added in the same longitudinal position as the tank and as close as practicable to the vertical position of the tank in question.

C. Required Deadweight

Maximum number of persons proposed (P)	Maximum Weight required (P x 80kg)	Test weights provided (kg)

Description of weights (eg Sand bags, personnel, water barrels etc)

Note: Test weights may be personnel or masses. Where masses are used, they are to be located at a centre of gravity 1m above the deck. If using personnel for test weights, scales are to be provided in order to confirm each individual’s weight. Additional persons over and above the proposed complement (P) may be needed in order to achieve the required deadweight.

D. Upright freeboard

1. Have the test weights been located in the worst possible vertical position (e.g. upper deck)? Yes No
2. Is the vessel sitting between level trim and a maximum of 2 degrees by the stern? Yes No
3. Is the vessel sitting upright (zero heel)? (if not then re-distribute masses) Yes No

E. Freeboard measurement fwd

Measure freeboard to the fore part of the hull at the top of deck (top of pontoon fwd end)

Fwd Freeboard: mm

F. Freeboard measurement aft

Measure freeboard to the aft part of the hull at the top of deck (top of pontoon aft end)

Aft Freeboard: mm

G. Minimum freeboard and reserve buoyancy

Pontoon Length (m)	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Min F'bd to pontoon top (mm)	400	400	414	429	443	457	471	486	500	514	529	543	557	571	586	600	600	600	600	600

Average Freeboard = (Fwd Freeboard + Aft Freeboard) ÷ 2 F_{ave} mm

Required Freeboard as a function of pontoon length (from table above) F_{req} mm

Ratio of average freeboard to pontoon depth D / F_{ave}

Note: If the freeboard is greater than 0.32D, the reserve buoyancy is deemed to be greater than the required 25%. This is valid for cylindrical, hexagonal and 5 sided pontoons as shown in Schedule 1 of the *DCV Manual for leisure craft in Scheme S*. If it is less than 0.32D, volumetric calculations are to be carried out in accordance with the *DCVM for leisure craft in Scheme S* or CAD.

H. Inclined freeboard / heel

Gradually crowd masses into the worse possible location for heel and trim (should excessive heel or trim be experienced the test is to be aborted and the deadweight decreased accordingly).

Minimum freeboard with forward crowding	<input style="width: 80px;" type="text"/> mm
Heel angle with forward crowding	<input style="width: 80px;" type="text"/> deg
Minimum freeboard with aft crowding	<input style="width: 80px;" type="text"/> mm
Heel angle with aft crowding	<input style="width: 80px;" type="text"/> deg

Note: If masses were offset to heel the vessel upright for the upright freeboard measurement, they are to be moved in the opposite direction for the inclined freeboard. Crowding should be carried out in both the forward and aft directions respectively and the freeboards taken at each condition.

I. Compliance

- Is the reserve buoyancy in the upright condition greater than 25% of the overall volume? Yes No
- Is the average upright freeboard greater than the minimum required freeboard? Yes No
- Is the inclined heel angle less than 7 degrees? Yes No
- Is the inclined freeboard greater than 25% of the upright freeboard? Yes No