

International 2.4mR Class Association, Technical Committee

$$R = (L + 2d - F + \sqrt{S}) / 2.37 = 2.4$$



2.4mR TC ADVICE 2025

2.4mR WATER TANKS

BACKGROUND

At the 2025 ICA eAGM the availability of measurement equipment was discussed and Hasse Malmsten generously offered to share details of his portable water tank design.

A water tank is required under 2.4mR class rule D.6.1 (c) to determine the waterline length LWL of 2.4mR boats.

2.4mR CLASS RULES extract

D.6 DIMENSIONS FOR CALCULATING THE RATING

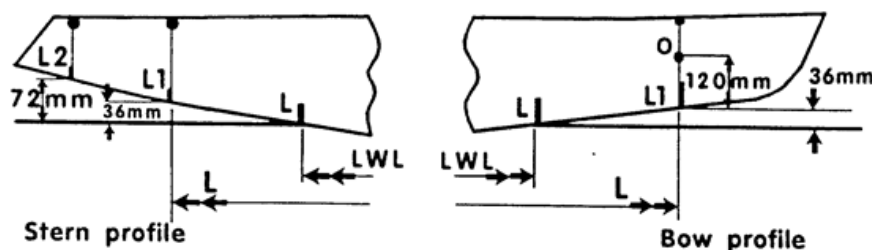
D.6.1 GENERAL

- (a) The rating is calculated according to Part III, Section H, clause H.1
- (b) Determination of waterline, waterline length (LWL), length L, L1 sections and L2 section shall be made according to Measurement Diagrams in Part III, Section H, clause H.4.
- (c) The waterline shall be controlled by placing the boat in a **water tank** and loading it according to H.2. The **official measurer** shall issue a declaration or state on the measurement form that the correct procedure was followed.

H.2 WATERLINE LENGTH LWL

The LWL shall be checked with the boat in racing condition according to C.5.1 and with an extra 35kg lead ballast placed within 100mm from 0.55 x LWL from the bow station. The density of water shall be 1.025.

H.4 MEASUREMENT DIAGRAMS



HASSE MALMSTEN WATER TANK

The water tank comprises a dismantlable timber frame with a waterproof plastic liner.

The timber frame is constructed with 12mm plywood panels on a 100mm x 50mm pine timber frame. The base section is fitted with wheels fixed to the topside of the plywood panel so the tank can be easily levelled with spacers off the floor and moved when upside down and empty of water. The four side panels are bolted to the base section and bolted together so the tank can be disassembled and stored with the side panels on top of the base section like a flat pack.

See photos <https://photos.app.goo.gl/nfqoSagaUy9c93Qz7> for details.

See video <https://photos.app.goo.gl/3qP7zaAo8Yt2wrra9> for operation.

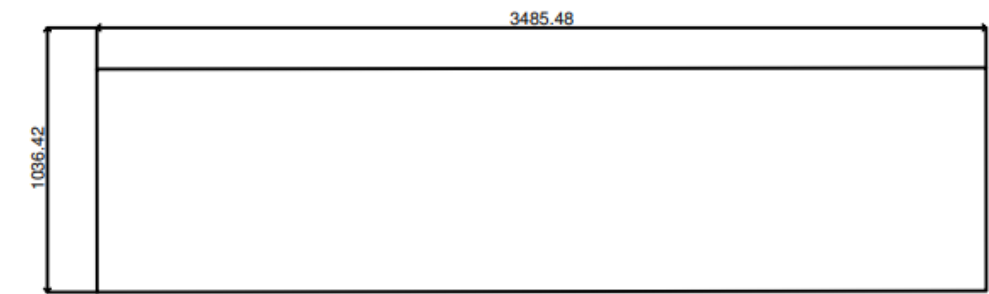
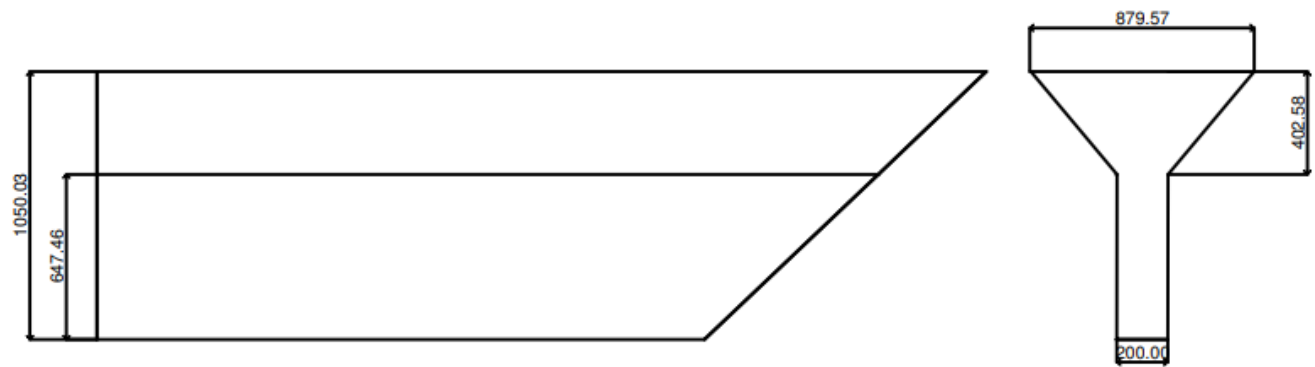
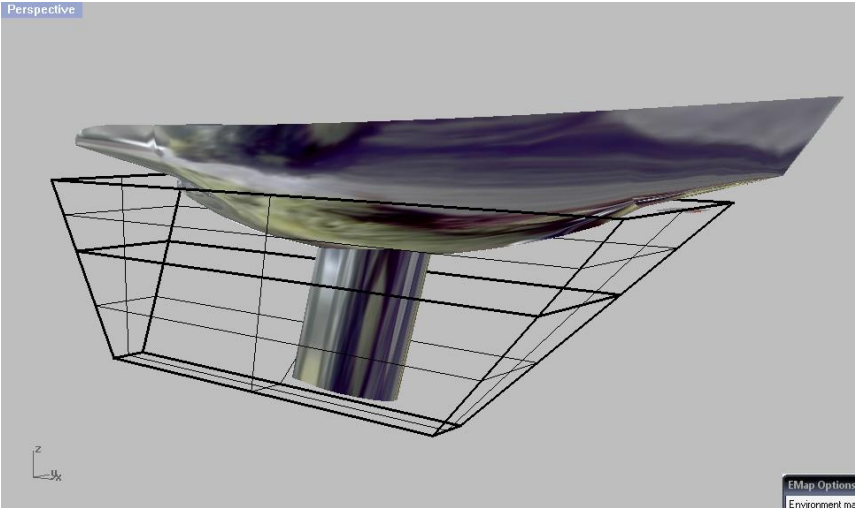
Information on three water tanks attached:

- 1 Hasse Malmsten SWE water tank - dimensions, details and assembly instructions
- 2 Tony Pocklington USA water tank
- 3 Brian Harding GBR water tank

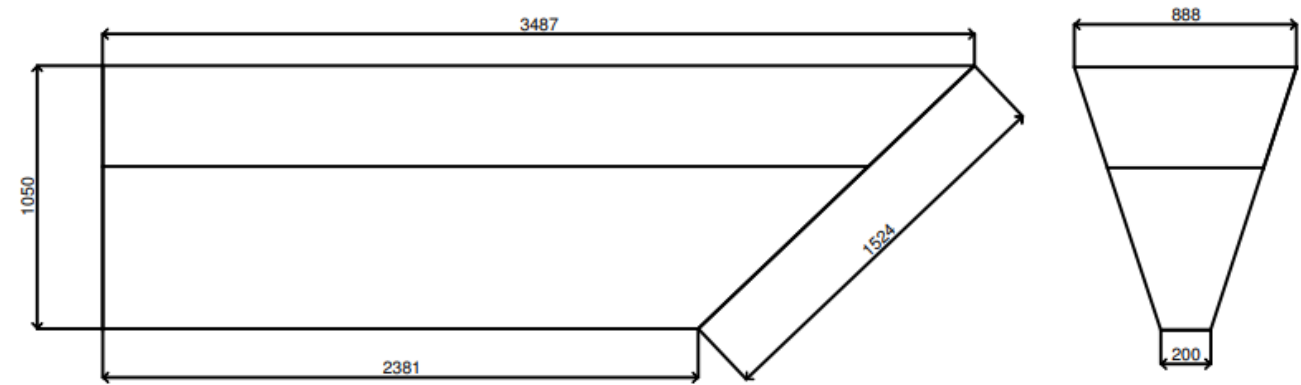
Peter Russell

Chairman of the 2.4mR ICA Technical Committee.

Hasse Malmsten WATER TANK DIMENSIONS



Water Tank minimum volume



Water Tank greater volume

Hasse Malmsten WATER TANK DETAILS



Hasse Malmsten WATER TANK ASSEMBLY INSTRUCTIONS

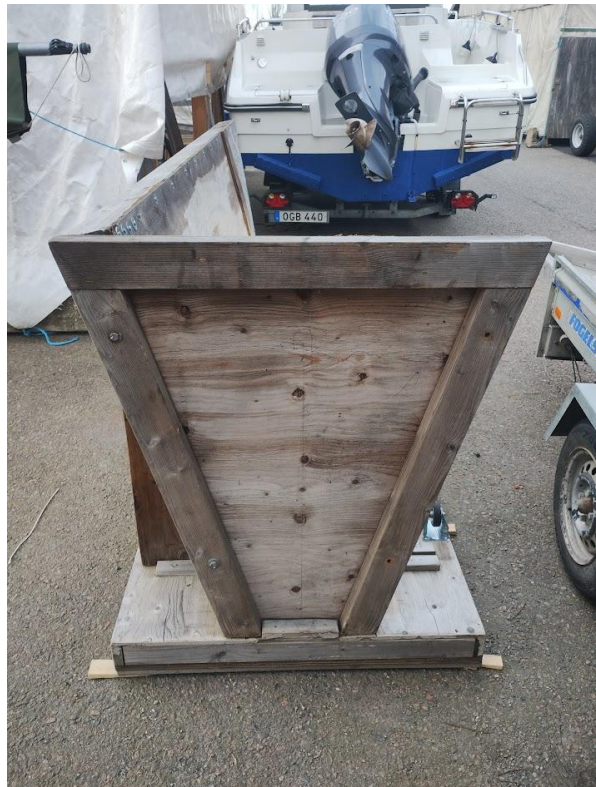
Step 1 level the base section



Step 2 fit one side panel



Step 3 fit one end panel



Step 4 fit the other side and end panels



Step 5 fit the plastic liner and fill with water



Tony Pocklington WATER TANK



2.4mR Class Rule D.9.2 MEASUREMENT MARKS prescribes that - *measurement points shall be fastened to the hull the inner edges of the marks denote the measurement point*



Brian Harding WATER TANK

