

Load Line calculation

Vabaparda arvutus

Workboat "HABE-1"

HABE-1 - 059 – M&S.1346



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KOOSKOLASTATUD
Transportiamet
Laevade järelvalve üksus
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Workboat "HABE-1

Ship data:
Name HABE-1
Yard Great Britain
Type Workboat
Year of build 1983

Main dimensions:
Length OA 15.86 m
Length moulded 14.19 m
Breadth 5.19 m
Depth moulded 1.85 m

Freeboard calculation was made according to Estonian Transport Administration requirements - "Alla 24-meetrise pikkusega laeva minimaalse vabaparda määramise nõuded" ("Requirements for determination of the minimum freeboard of ship less than 24 meters in length") 2003 with amendments 2016.

1. Length

Length is 96% of the total length of the theoretical waterline. The theoretical waterline is located at 85% of the minimum board height measured from the leading edge of the keel.

85% of the minimum board height = $0.85 \times 1.1.85 = 1.57$ m
Total length of the theoretical waterline = 14.88 m
96% of the total length of the theoretical waterline = 14.19 m

Length L=14.19 m

2. Freeboard

The minimum freeboard - 242 mm

The minimum freeboard height at hull with forecastle shall not be less than: $FV = 55 \times 14.19 = 780$ mm

The minimum freeboard height at the end of the hull planking shall be not less than: $FA = 22 \times 14.19 = 312$ mm.

The minimum freeboard at a distance of $0.25L = 3.55$ m from the point of origin of the hull plating or hanging from the bow shall be not less than: $F_{1/4}L = 35 \times 14.19 = 497$ mm

Freeboard	Required (mm)	Actual (mm)
Mid	242	550
Aft	312	1255
Fwd	780	1462
Fwd at 0.25L (3.55 m)	497	1511

According to Stability booklet HABE-1 - 059-M&S.1348 accept maximum draft equal 1.30 m correspond to freeboard 550 mm.

3. Check freeboard for angle of flooding

According to requirements 3.3 - The angle of flooding of lower edge of the unobstructed opening during the heeling of the deck shall not be less than 25°.

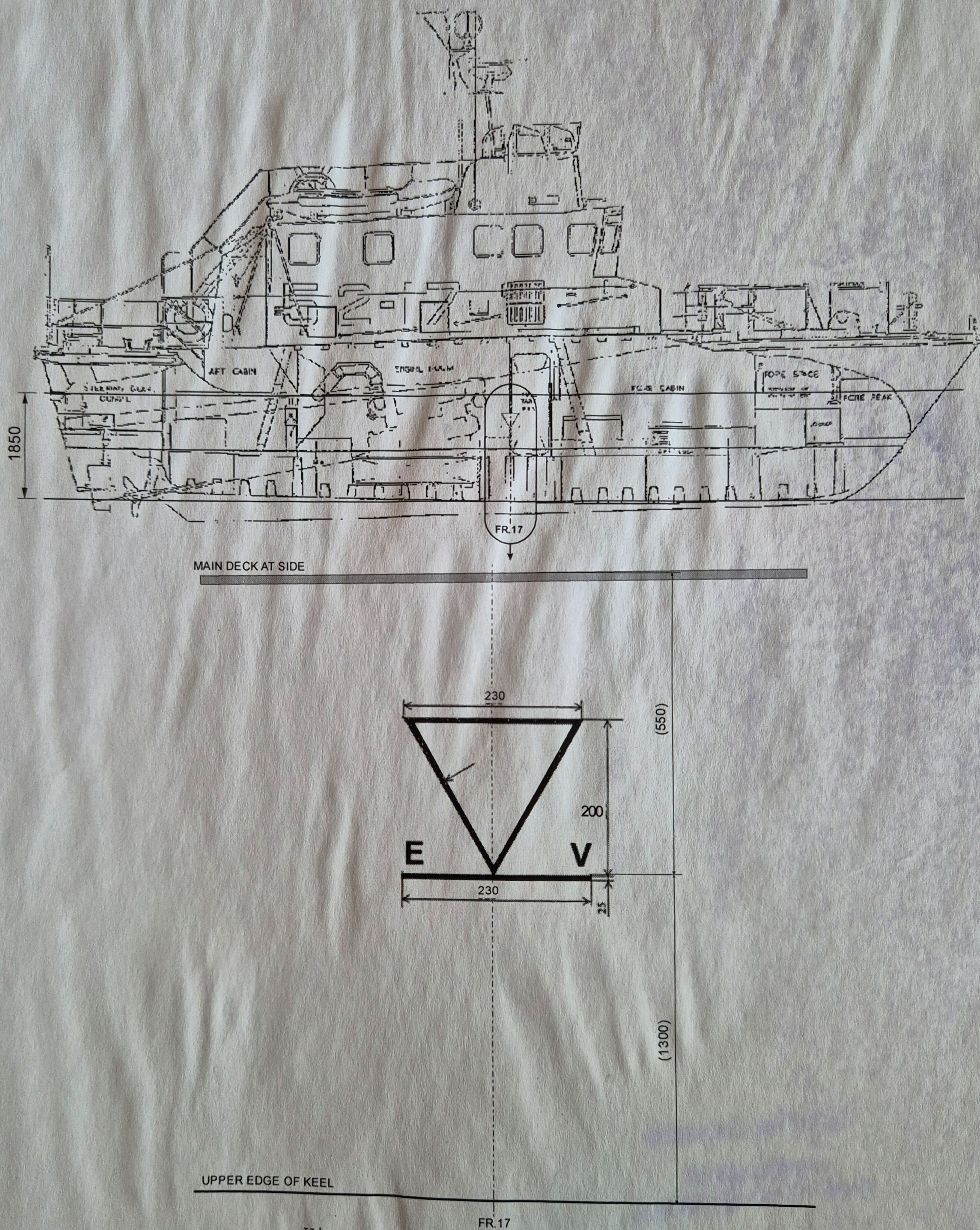
In all loading conditions according to Stability booklet HABE-1 - 059-M&S.1348 the angle of flooding >60 dgr.

4. Conclusion

The present calculation shown that freeboard for this ship is greater than minimum and equal 550 mm

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5. Freeboard marks



View on Sideboard /Portside - mirror/

The letter "E" of the freeboard sign "EV" designated by the Transport Administration shall be placed to the left of the lower vertex of the triangle and the letter "V" to the right of 60 mm. The letters shall be 12 mm thick and 60 mm high. Sign's color - clearly visible from the body color.