

Tonnage calculation
Mahutavuse arvutus

Workboat "HABE-1"

HABE-1 - 059 – M&S.1349



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KOOSKÕLASTATUD
Transpordiamet
Laevade järelvalve
18. aprill 2023

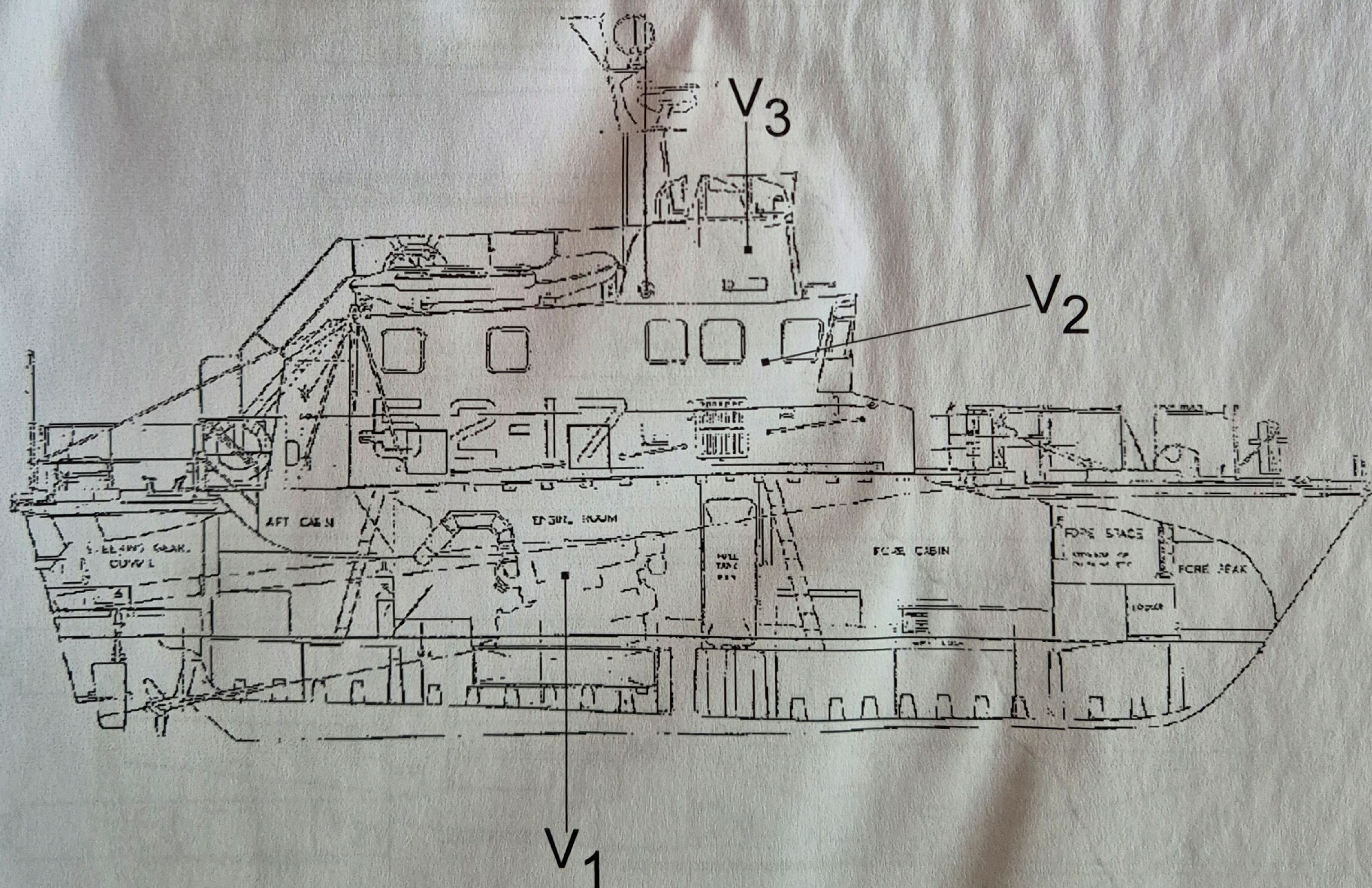
Workboat "HABE-1"

The present calculation was made for ship "HABE-1" in accordance with Estonian Transport Administration requirements - "Alla 24-meetrise kogupikkusega laevadele mõõtekirja väljastamise tingimused", Vastu võetud 11.02.2003 nr 29 ja „Majandus-ja kommunikatsiooniministri 11. veebruari 2003. a määruse nr 29 „Alla 24- meetrise kogupikkusega laevadele mõõtekirja väljastamise tingimused" muutmise", Vastu võetud 23.01.2012 nr 8.

1 MAIN DIMENSIONS

Name.....	HABE-1
Type of ship.....	Workboat
Build.....	1983, Great Britain
Length max, Loa.....	15.86 m.
Length, L.....	14.19 m.
Breadth, B.....	5.19 m.
Depth, D.....	1.85 m.
Draft, d.....	1.30 m.

2 CLOSED SPACES



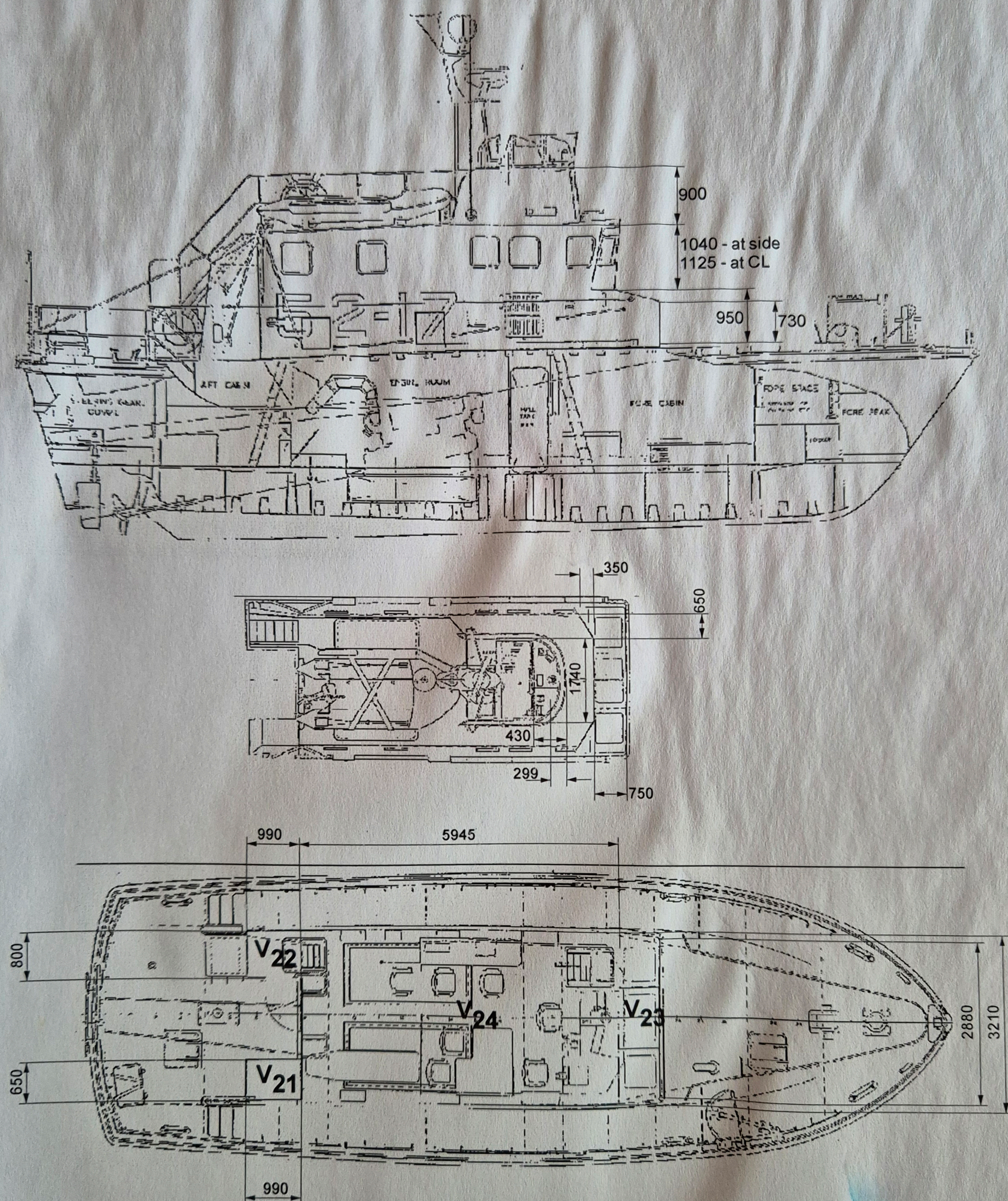
- Volume under Main deck, m³ (was calculated by Stability program):

T, M	D, T	V, CUB.M	XC, M	ZC, M	S, SQ.M	XF, M	IX, : SQ.M*SQ.M	IYF, SQ.M	RB, M	RL, M	ZMB, M	DELTA	ALFA	BETA	OMEGA, SQ.M
2.90	124.3	124.3	-1.01	1.618	0.	0.00	0.	0.	0.00	0.00	1.618	0.817	0.000	0.998	191.

$$V_1 = 124.30 \text{ m}^3$$

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- Volume of closed space above freeboard deck



$$V_{21} = 0.99 \times 0.65 \times 0.90 = 0.58 \text{ m}^3$$

$$V_{22} = 0.99 \times 0.80 \times 0.90 + (1.90 - 0.90) \times 0.99 / 2 \times 0.80 = 1.11 \text{ m}^3$$

$$V_{23} = (0.95 + 0.73) / 2 \times 0.75 \times (3.21 + 2.88) / 2 = 1.92 \text{ m}^3$$

$$V_{24} = 5.95 \times 3.21 \times ((1.04 + 0.95) + (1.13 + 0.95)) / 2 - 0.65 \times 0.35 / 2 \times (1.04 + 0.95) \times 2 = 38.41 \text{ m}^3$$

$$V_2 = V_{21} + V_{22} + V_{23} + V_{24} = 0.58 + 1.11 + 1.92 + 38.41 = 42.02 \text{ m}^3$$

$$V_3 = 1.74 \times 0.30 \times 0.90 = 0.47 \text{ m}^3 < 0.50 \text{ m}^3 - \text{not include in calculation}$$

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3 GROSS TONNAGE

$$GT = (V_1 + V_2) * K_1 = (124.30 + 42.02) * 0.25 = 166.32 * 0.25 = 41.58$$

where

Factor $K_1 = 0.25$

Accept: $GT = 41$

4 NET TONNAGE

$$NT = 0.3 * GT = 0.3 * 41 = 12.30$$

Accept: $NT = 12$

5 CONCLUSION

Accept according to present calculation:

Gross tonnage: $GT = 41$

Net tonnage: $NT = 12$

6 REFERENCE

- LINES PLAN HABE-1 - 059-M&S.1339
- GENERAL ARRANGEMENT w/o No
- Onboard measurements