

Tonnage calculation
Mahutavuse arvutus

Workboat "FREYJA"

FREYJA - 059 – M&S.1340



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KOOSKÕLASTATUD
Transpordiamet
Laevade järelvalve üksus
11. mai 2023.a.

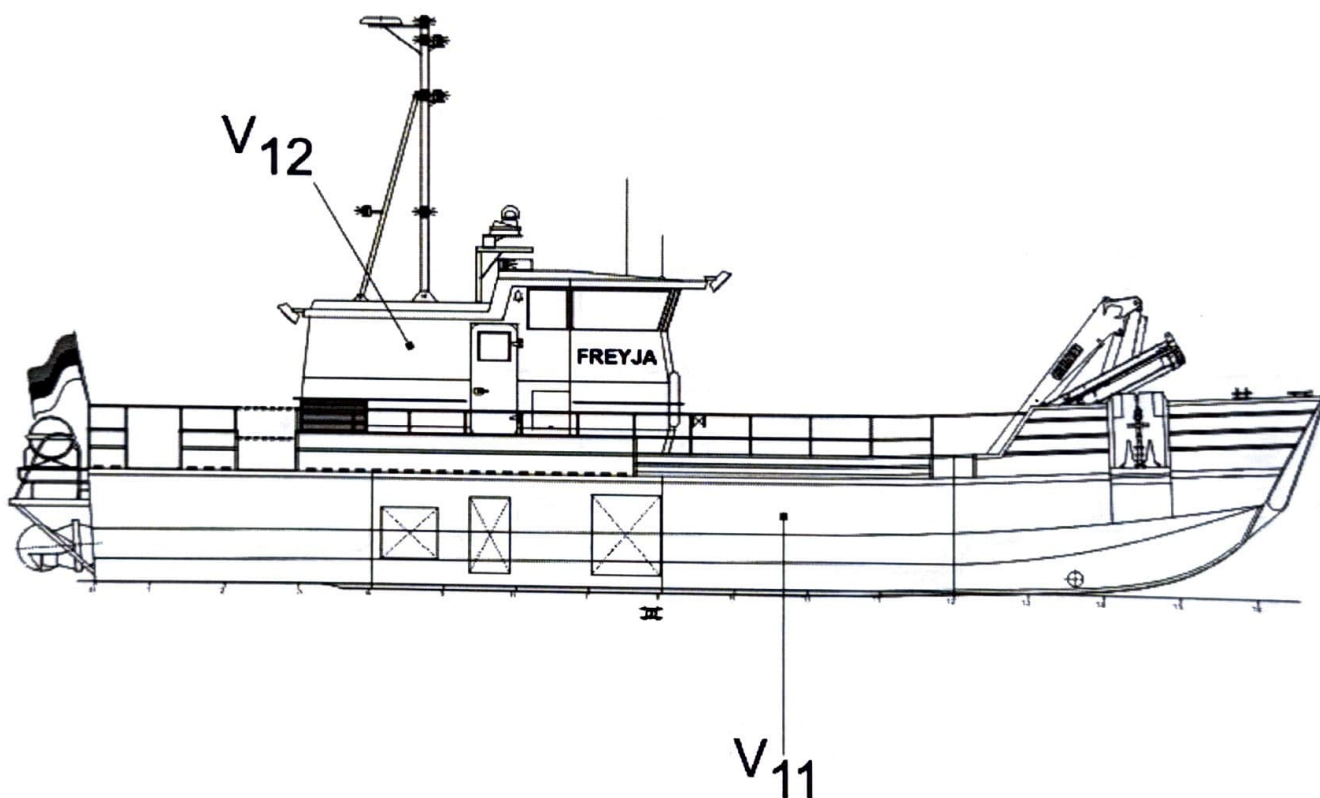
Workboat "FREYJA"

The present calculation was made for ship "FREYJA" 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“ muutmine“, Vastu võetud 23.01.2012 nr 8.

1 MAIN DIMENSIONS

Name.....	FREYJA
Type of ship.....	Workboat
Build.....	1996, Finland
Length max, Loa.....	14.90 m.
Length, L.....	13.63 m.
Breadth, B.....	4.81 m.
Depth, D.....	1.39 m.
Draft, d.....	0.75 m.

2 CLOSED SPACES



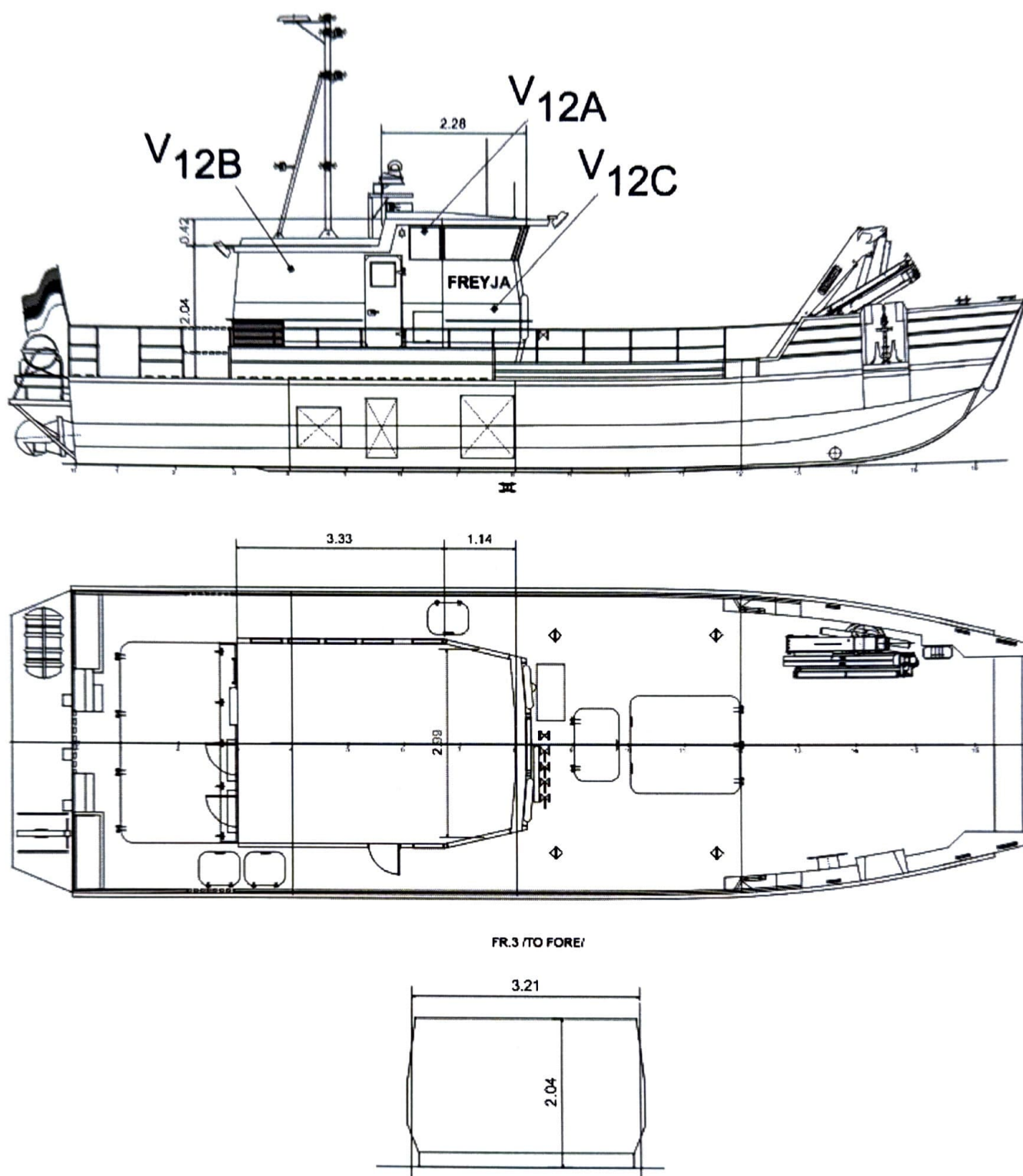
- Volume under Main deck, m³ (was calculated by Stability program):

T, M	D, T	V, CUB.M	XC, M	ZC, M	S, SQ.M	XF, M	IX, : SQ.M*SQ.M	IYF, SQ.M*SQ.M	RB, M	RL, M	ZMB, M
1.60	72.7	72.7	-0.34	0.830	0.	0.00	0.	0.	0.00	0.00	0.830

$$V_1 = 72.70 \text{ m}^3$$

Workboat "FREYJA"

- Volume of closed space above freeboard deck



$$V_{12A} = 2.38 \times 0.42 \times 2.99 = 2.99 \text{ m}^3$$

$$V_{12B} = 3.33 \times 3.21 \times 2.04 - 3.33 \times 0.10 \times 2.04 = 21.13 \text{ m}^3$$

$$V_{12C} = 1.14 \times 2.99 \times 2.04 - 1.14 \times 0.10 \times 2.99 = 6.61 \text{ m}^3$$

$$V_{12} = V_{12A} + V_{12B} + V_{12C} = 2.99 + 21.13 + 6.61 = 30.73 \text{ m}^3$$

Workboat "FREYJA"

3 GROSS TONNAGE

$$GT = (V_1 + V_2) * K_1 = (72.70 + 30.73) * 0.25 = 103.43 * 0.25 = 25.85$$

where

Factor $K_1 = 0.25$

Accept: $GT = 25$

4 NET TONNAGE

$$NT = 0.3 * GT = 0.3 * 25 = 7.50$$

Accept: $NT = 7$

5 CONCLUSION

Accept according to present calculation:

Gross tonnage: $GT = 25$

Net tonnage: $NT = 7$

6 REFERENCE

- LINES PLAN FREYJA - 059-M&S.1339
- GENERAL ARRANGEMENT FREYJA - 059-M&S.1344
- Onboard measurements