

Lettskips veltestimat steel hull

Prosjekt: Vestvind forlenging bachelor

Date: 10.05.2024

Author: Sandra Lundvane Utimda

*LCG measured from the start of the new part

Part	Material	Length[m]	Breadth[m]	Volume[m ³]	Vekt [tonn]	LCG	AM limit	Prod limit	VOL	LMCM	VMCM	Comment	Factor
SteelHull-CompleteHull	1												
General Panel 1	1.00	10.80	10.80	7.00	0.06	3.63	5.40		11.12	19.60	40.33		
General Panel 2	1.00	10.80	10.80	2.50	0.07	1.51	5.40		9.88	8.16	14.94		
General Panel 3	1.00	10.80	10.80	7.00	0.07	4.23	5.40		8.65	22.86	36.62		
General Panel 4-ice	1.00	10.80	10.80	1.10	0.12	1.14	5.40		7.25	6.18	8.27		
General Panel 4	1.00	10.80	10.80	1.70	0.09	1.20	5.40		6.95	6.74	8.18		
General Panel 5-Inner	1.00	10.80	10.80	2.55	0.08	1.76	5.40		5.85	9.52	10.31		
General Panel 5-Outer	1.00	10.80	10.80	4.45	0.06	2.31	5.40		5.85	12.46	13.50		
General Panel 7-Enclosure	1.00	10.80	10.80	4.33	0.06	2.24	5.40		3.56	12.12	7.98		
General Panel 7-Button	1.00	10.80	10.80	1.39	0.07	0.84	5.40		0.70	4.54	0.58		
General Panel 8	1.00	10.80	10.80	1.78	0.07	1.08	5.40		1.52	5.82	1.64		
General Panel 9-Inner	1.00	10.80	10.80	2.55	0.07	1.54	5.40		1.52	8.33	2.34		
General Panel 9-Enclosure	1.00	10.80	10.80	2.52	0.07	1.52	5.40		1.52	8.22	2.31		
General Panel 10-Midship	1.00	10.80	10.80	1.59	0.08	1.10	5.40		0.80	5.95	0.88		
General Panel 10-Bulwark	1.00	10.80	10.80	1.13	0.08	0.78	5.40		0.96	4.20	0.74		
General Panel 6-Upper	1.00	43.796849.30	10.80	10.80	0.12	4.20	5.40		3.80	22.70	15.98	Measured i rhino	
General Panel 6-Midbel	1.00	542171.28.60	10.80	10.80	0.12	5.20	5.40		0.40	28.11	2.08	Measured i rhino	
General Panel 6-Lower	1.00	23348244.10	10.80	10.80	0.09	1.59	5.40		0.15	8.57	0.24	Measured i rhino	
General Panel 6-Button	1.00	43.796849.30	10.80	10.80	0.09	2.98	5.40		0.00	16.08	0.00	Measured i rhino	
Stivene SD	11.00	10.80	10.80	0.90	0.90	5.40	5.40		11.07	4.88	9.99		
Stivene SD	11.00	10.80	10.80	0.72	0.72	5.40	5.40		8.60	3.91	6.23		
Stivene TD	4.00	10.80	10.80	0.14	0.14	5.40	5.40		5.80	0.77	0.83		

Panel 6-Upper Transverse													
AreaUpper	19					0.291	5.4		11.15	1.57	3.24		
TWSD						1.357	5.4		8.65	7.33	11.73		
TWTD						3.020	5.4		1.8	16.30	11.47		
TWET-ice						1.181	5.4		5.85	6.18	6.91		
TWET-Top						0.967	5.4		3.75	5.22	3.63		
TWET-Side													

Dobbeltbunn	18.00	AreaUpper*2	795721.00			0.08	0.58	5.4		0.90	3.14	0.52	Fyllingfaktor 0.6
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LCG						48.1	5.4		4.6	250.6	221.5		
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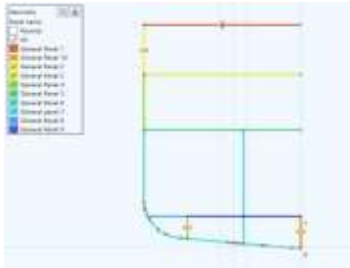
Estimat detaljert						Vekt [tonn]	
Total plater						91.9	
Total stivene lang						1.8	
Total stivene brei						7.4	
Estimert SD 10 % structure						60.1	

NH verider	Length[m]	Vekt per lengde[tonn/m]	Vekt [tonn]
Plater	10.80	4.78	51.6
Stivene	10.80	0.180	1.9
Lign			53.6

For stivene og overbord				Vekt [tonn]
Skrog estimat				120.2
Skrog NH				107.1

*LCG fra starten av innsett del			
Estimat	Vekt	LCG[m]	LCG[m]
09.04.2024	123.00	5.4	4.6
10.05.2024	125.0	5.4	4.6
18.05.2024	120.2	5.4	4.61

NH verider	Plater	Length[m]	Vekt per lengde[tonn/m]	Vekt[tonn]
09.02.2024	Plater	10.80	5.4	116.6
	Stivene	10.80	0.21	4.5
	Total			121.1
10.05.2024	Plater	10.8	4.7	101.8
	Stivene	10.8	0.133	2.9
	Total			104.7
18.05.2024	Plater	10.8	4.78	103.2
	Stivene	10.8	0.18	3.9
	Total			107.1



Length from 0 to 100m	Length CG [tonn/m ³]	Konverteringsfaktor mellom mm ² to m ²	Konverteringsfaktor fra kg til tonn
0.00	0.80	0.000001	0.001

Stivene	Vekt per meter [kg]	Kilde
HP 120x8.0	9.20	https://www.idasnetwork.com/idasubaa/off/forproducts_0133_51_en.pdf
HP 100x10	7.85	
HP 80x6	4.88	
HP 240x10	25.50	
HP 300x10	36.70	
HP 100x9	13.97	
HP 140x9	11.76	
HP 100x8.0	7.6	
HP 100x6.0	6.1	
FP 60x5	3.3	
HP 80x8	6.12	