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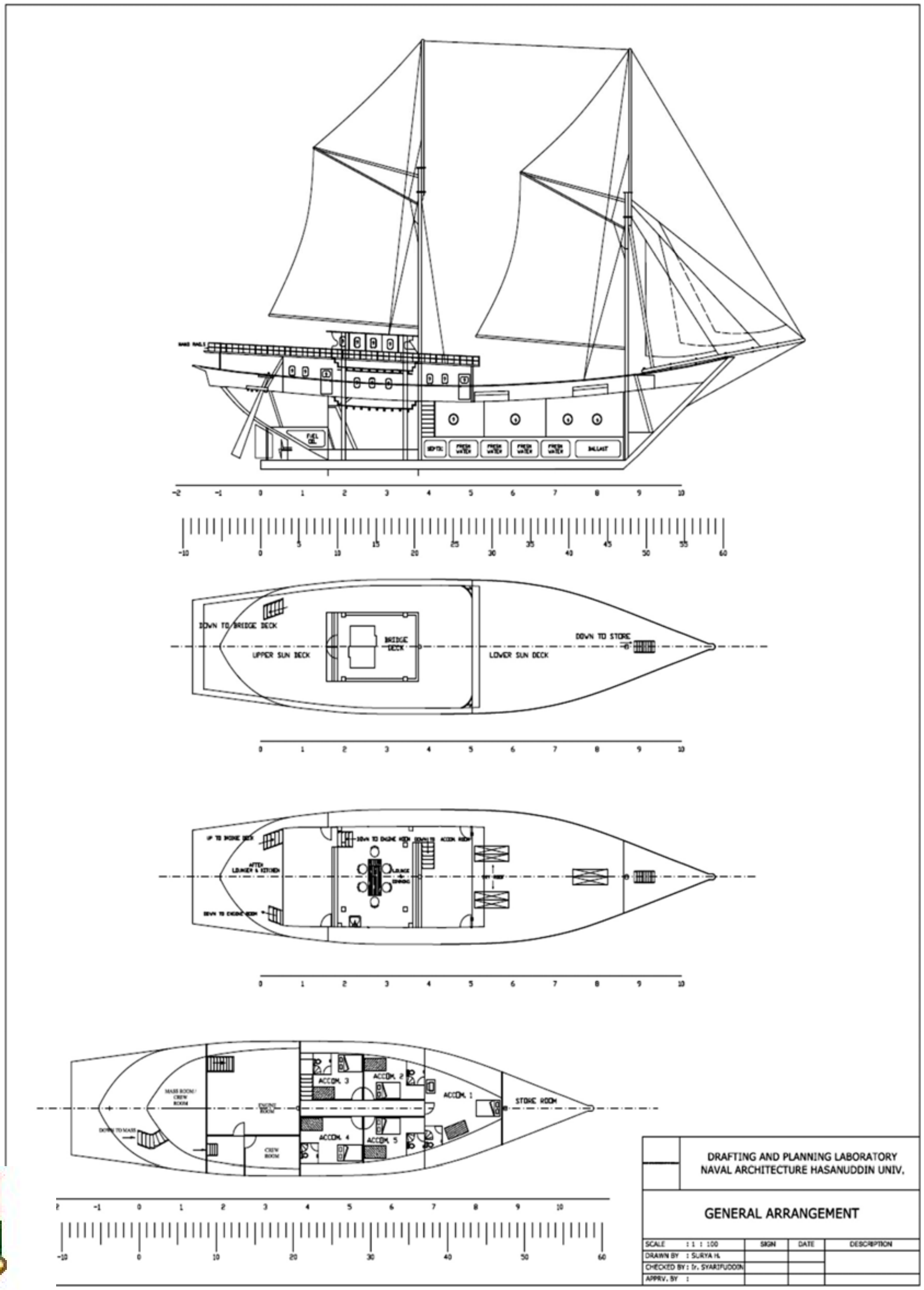
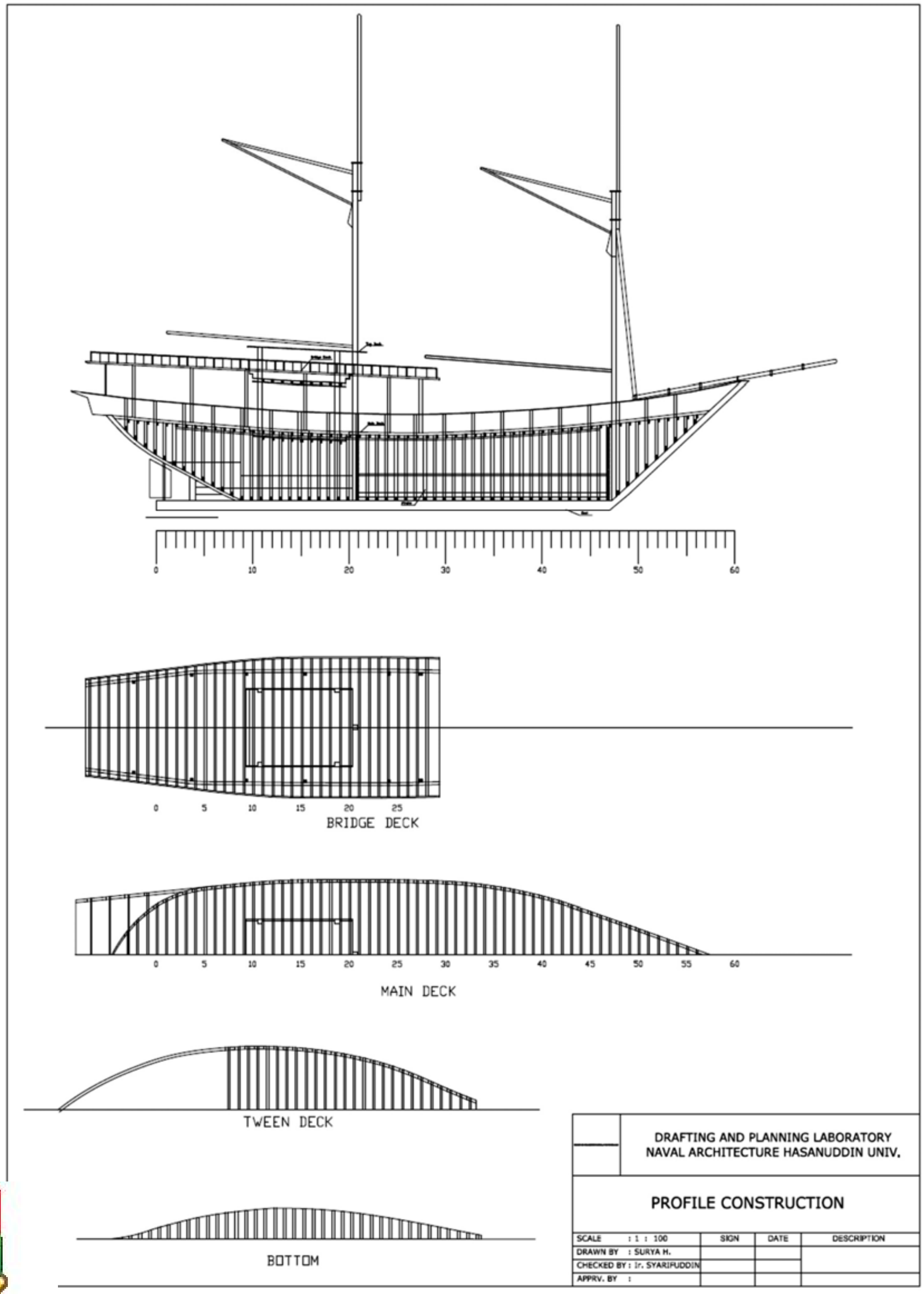
LAMPIRAN

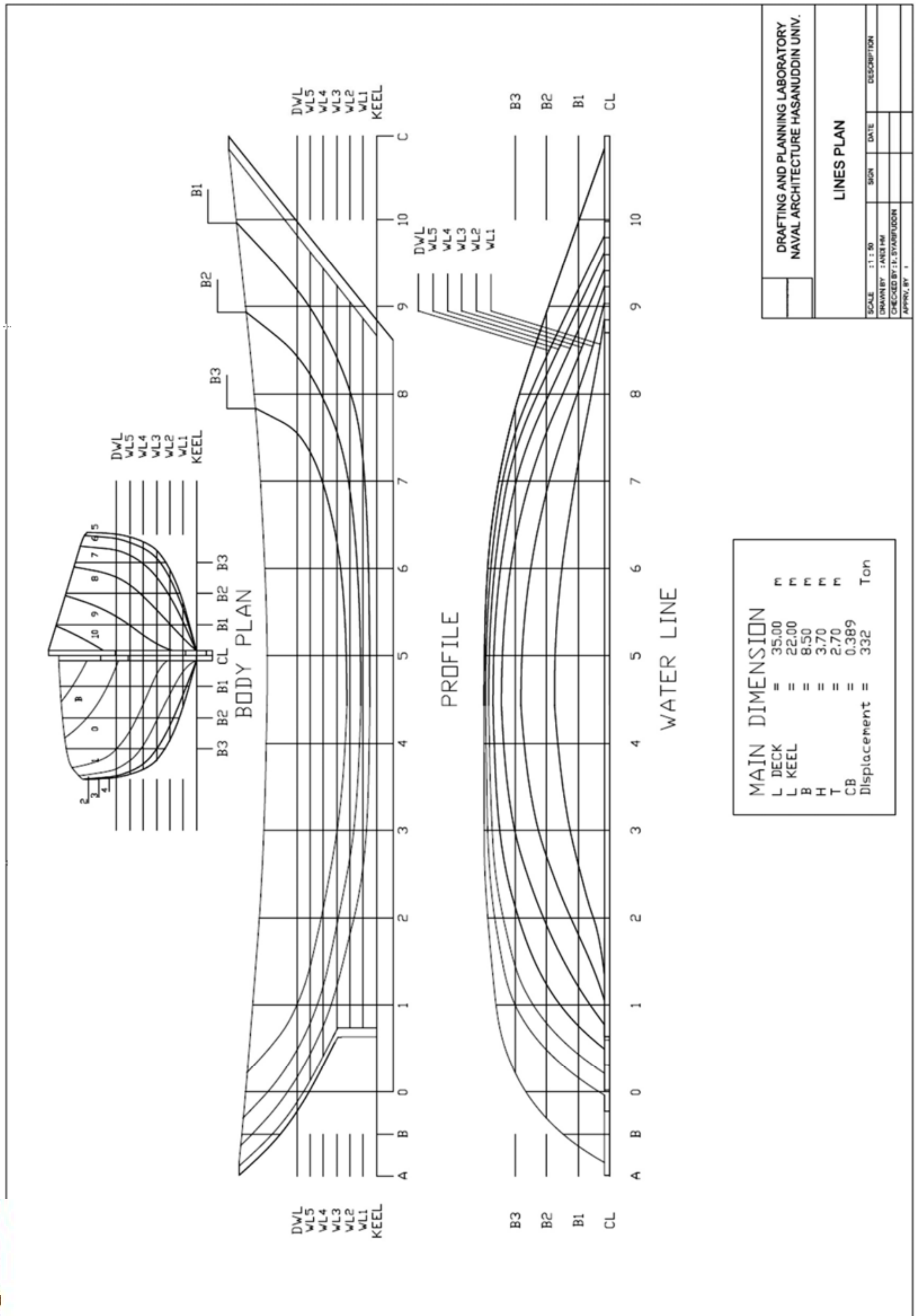
Lampiran 1. Gambar Rencana Umum (General Arrangement) kapal Pinisi



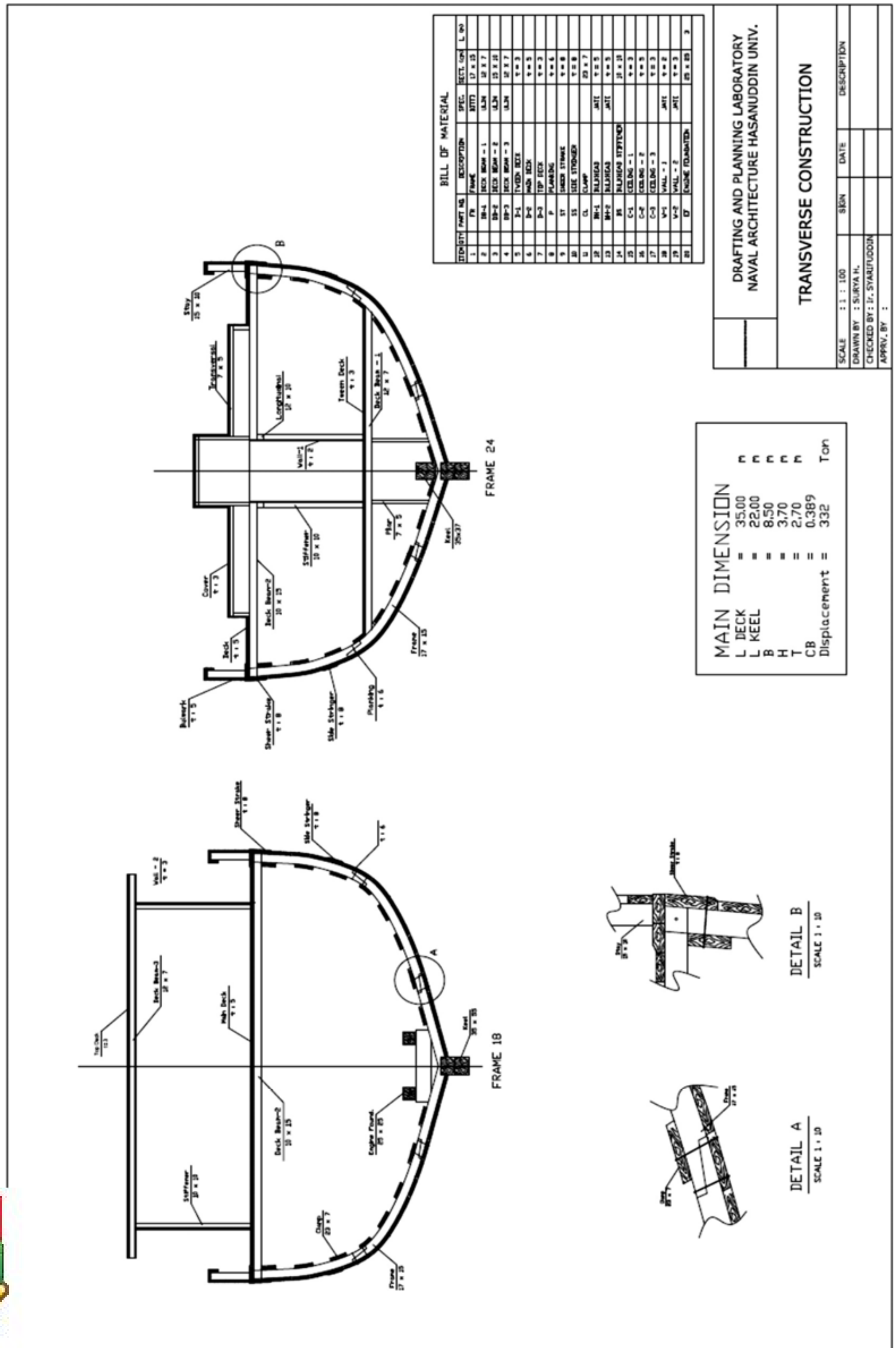
Lampiran 2. Gambar Konstruksi Longitudinal (Profile) kapal Pinisi



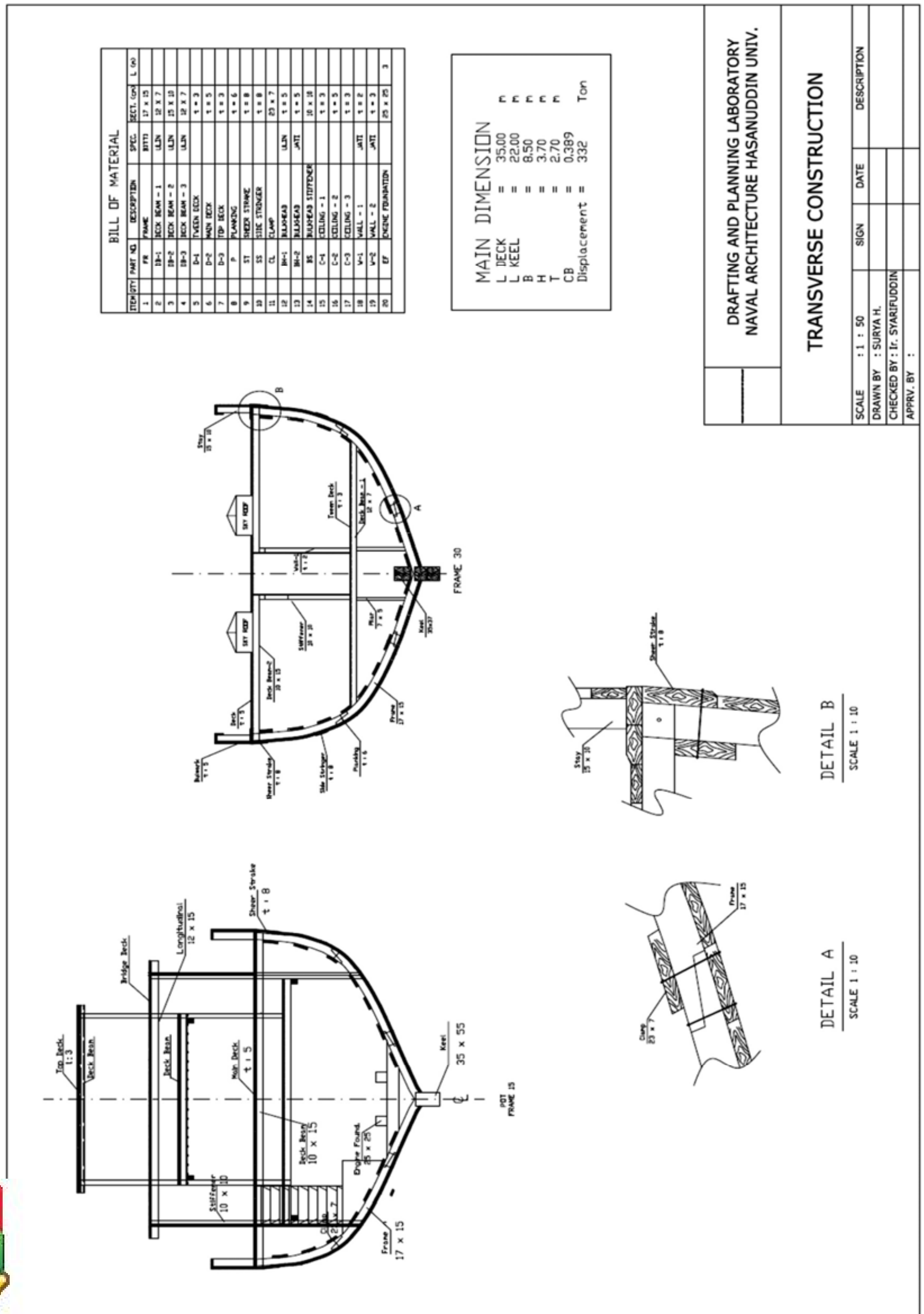
Lampiran 3. Gambar Rencana Garis (Lines Plan) kapal Pinisi



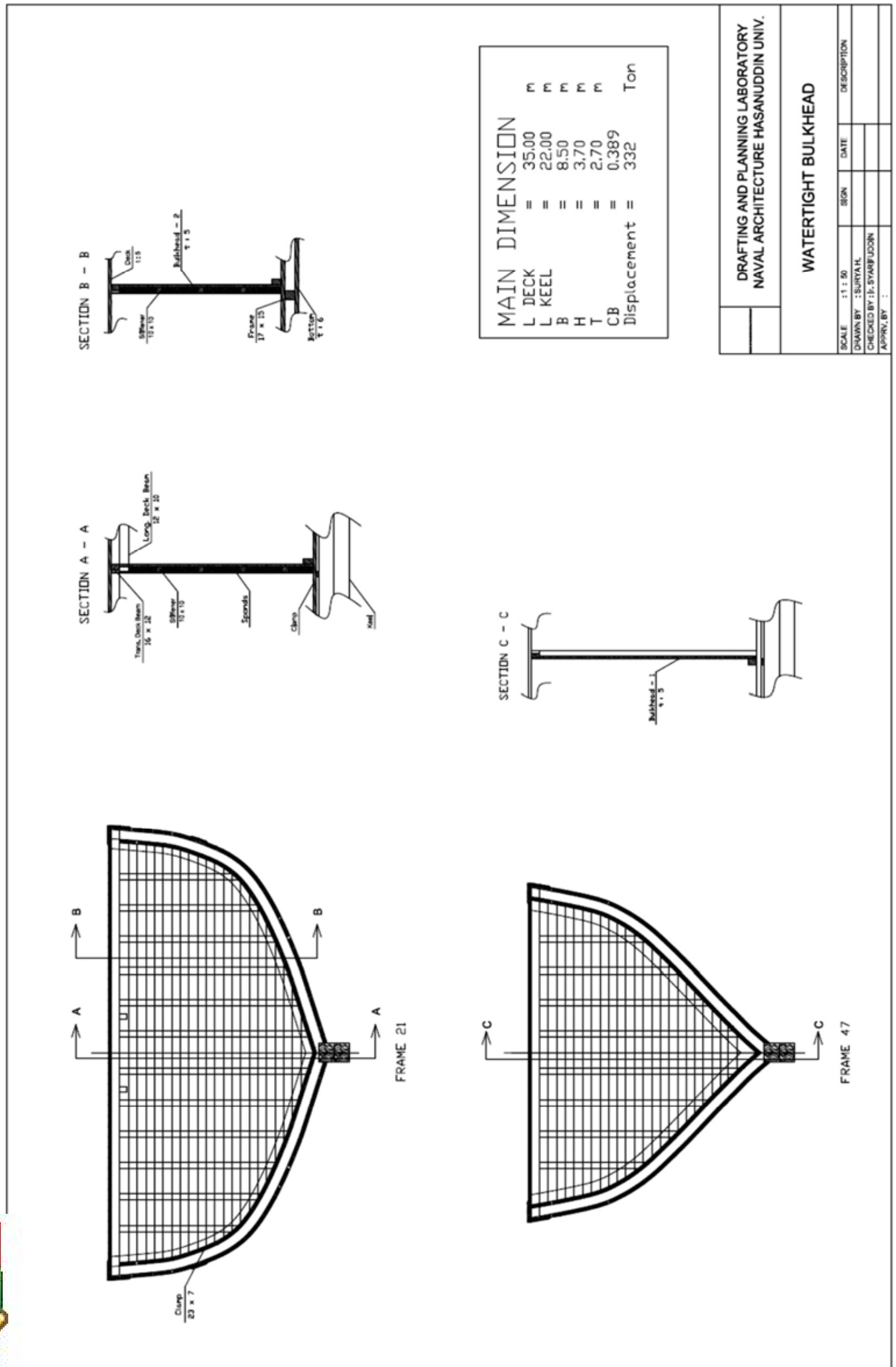
Lampiran 4. Gambar Konstruksi Melintang (Transverse) Frame 18 kapal Pinisi



Lampiran 5. Gambar Konstruksi Melintang (Transverse) Frame 30 kapal Pinisi



Lampiran 6. Gambar Konstruksi Sekat (Bulkhead) kapal Pinisi



Lampiran 7. Dokumentasi kapal Pinisi (objek penelitian)

Gambar 104 Kapal Pinisi proses peluncuran Tradisional

Gambar 105 Lunas dan Lambung kapal Pinisi

Gambar 106 Geladak dan bangunan atas kapal Pinisi

Gambar 107 Struktur midship kapal Pinisi

Gambar 108 Struktur kamar mesin kapal Pinisi

Gambar 109 Struktur akomadasi kapal Pinisi

Lampiran 8. Tabel Perhitungan Berat (W) dan Titik Berat Kapal (LCG)

NO	STRUCTURE COMPONENT	PART NO.	SPEC.	QTT	SCANTLING (mm)	WEIGHT W (ton)	CENTRE OF GRAVITY LCG (m)		STATIC MOMENT W.LCG (ton.m)	
							LCG (m)	VCG (m)	W.LCG (ton.m)	W.VCG (ton.m)
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10] = [7] [8]	[11] = [7] [9]
1	**Frame**	FR -3	Bitti	2	1.545,10 x 170 x 150	0,0583	-1,650	4,509	(0,0962)	0,2629
		FR -2		2	2.222,50 x 170 x 150	0,0839	-1,100	4,304	(0,0923)	0,3610
		FR -1		2	2.829,50 x 170 x 150	0,1068	-0,550	4,042	(0,0587)	0,4316
		FR 0		2	3.237,30 x 170 x 150	0,1222	0,0	3,889	0,0000	0,4751
		FR 1		2	3.691,20 x 170 x 150	0,1393	0,550	3,660	0,0766	0,5098
		FR 2		2	4.102,90 x 170 x 150	0,1548	1,100	3,400	0,1703	0,5265
		FR 3		2	4.410,70 x 170 x 150	0,1665	1,650	3,153	0,2747	0,5248
		FR 4		2	4.785,10 x 170 x 150	0,1806	2,200	2,956	0,3973	0,5338
		FR 5		2	4.815,90 x 170 x 150	0,1818	2,750	2,851	0,4998	0,5182
		FR 6		2	5.310,50 x 170 x 150	0,2004	3,300	2,637	0,6614	0,5285
		FR 7		2	5.521,80 x 170 x 150	0,2084	3,850	2,502	0,8023	0,5214
		FR 8		2	5.747,80 x 170 x 150	0,2169	4,400	2,371	0,9545	0,5143
		FR 9		2	6.029,40 x 170 x 150	0,2275	4,950	2,234	1,1264	0,5083
		FR 10		2	5.997,10 x 170 x 150	0,2263	5,500	2,172	1,2448	0,4916
		FR 11		2	5.995,50 x 170 x 150	0,2263	6,050	2,106	1,3689	0,4765
		FR 12		2	6.002,70 x 170 x 150	0,2265	6,600	2,042	1,4952	0,4626
		FR 13		2	6.029,50 x 170 x 150	0,2276	7,150	1,976	1,6270	0,4496
		FR 14		2	6.061,00 x 170 x 150	0,2287	7,700	1,910	1,7613	0,4369
		FR 15		2	6.092,50 x 170 x 150	0,2299	8,250	1,841	1,8969	0,4233
		FR 16		2	6.109,30 x 170 x 150	0,2306	8,800	1,778	2,0290	0,4099
		FR 17		2	6.147,70 x 170 x 150	0,2320	9,350	1,726	2,1693	0,4005
		FR 18		2	6.161,20 x 170 x 150	0,2325	9,900	1,678	2,3020	0,3902
		FR 19		2	6.182,40 x 170 x 150	0,2333	10,450	1,640	2,4382	0,3827
		FR 20		2	6.200,70 x 170 x 150	0,2340	11,000	1,609	2,5742	0,3765
		FR 21		2	6.315,50 x 170 x 150	0,2383	11,550	1,583	2,7529	0,3772
		FR 22		2	6.425,50 x 170 x 150	0,2425	12,100	1,933	2,9342	0,4687
		FR 23		2	6.425,50 x 170 x 150	0,2425	12,650	1,933	3,0676	0,4687
		FR 24		2	6.425,50 x 170 x 150	0,2425	13,200	1,933	3,2010	0,4687
		FR 25		2	6.425,50 x 170 x 150	0,2425	13,750	1,933	3,3344	0,4687
		FR 26		2	6.425,50 x 170 x 150	0,2425	14,300	1,933	3,4677	0,4687
		FR 27		2	6.205,30 x 170 x 150	0,2342	14,850	1,538	3,4777	0,3602
		FR 28		2	6.187,20 x 170 x 150	0,2335	15,400	1,551	3,5960	0,3620
		FR 29		2	6.166,40 x 170 x 150	0,2327	15,950	1,568	3,7119	0,3649
		FR 30		2	6.142,40 x 170 x 150	0,2318	16,500	1,591	3,8249	0,3687
		FR 31		2	6.112,60 x 170 x 150	0,2307	17,050	1,618	3,9333	0,3733
		FR 32		2	6.086,20 x 170 x 150	0,2297	17,600	1,641	4,0426	0,3769
		FR 33		2	6.075,30 x 170 x 150	0,2293	18,150	1,651	4,1615	0,3785
		FR 34		2	6.030,50 x 170 x 150	0,2276	18,700	1,688	4,2560	0,3842
		FR 35		2	5.978,00 x 170 x 150	0,2256	19,250	1,732	4,3430	0,3908
		FR 36		2	5.920,60 x 170 x 150	0,2234	19,800	1,781	4,4242	0,3980
		FR 37		2	5.854,70 x 170 x 150	0,2210	20,350	1,837	4,4965	0,4059
		FR 38		2	5.782,90 x 170 x 150	0,2182	20,900	1,897	4,5614	0,4140
		FR 39		2	5.697,20 x 170 x 150	0,2150	21,450	1,964	4,6120	0,4223
		FR 40		2	5.599,70 x 170 x 150	0,2113	22,000	2,036	4,6493	0,4303
		FR 41		2	5.492,90 x 170 x 150	0,2073	22,550	2,115	4,6747	0,4385
		FR 42		2	5.379,00 x 170 x 150	0,2030	23,100	2,021	4,6894	0,4103
				2	5.262,90 x 170 x 150	0,1986	23,650	2,295	4,6974	0,4558
				2	5.156,60 x 170 x 150	0,1946	24,200	2,388	4,7096	0,4647
				2	5.067,00 x 170 x 150	0,1912	24,750	2,476	4,7329	0,4735
				2	4.997,40 x 170 x 150	0,1886	25,300	2,557	4,7716	0,4823
				2	5.361,20 x 170 x 150	0,2023	25,850	2,398	5,2303	0,4852
				2	4.573,00 x 170 x 150	0,1726	26,400	2,841	4,5562	0,4903
				2	4.084,20 x 170 x 150	0,1541	26,950	3,108	4,1540	0,4790
				2	3.611,00 x 170 x 150	0,1363	27,500	3,378	3,7477	0,4604

NO	STRUCTURE COMPONENT	PART NO.	SPEC.	QTT	SCANTLING (mm)	WEIGHT W (ton)	CENTRE OF GRAVITY LCG (m)	CENTRE OF GRAVITY VCG (m)	STATIC MOMENT W.LCG (ton.m)	STATIC MOMENT W.VCG (ton.m)
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10] = [7] [8]	[11] = [7] [9]
		FR 51		2	3.147,30 x 170 x 150	0,1188	28,050	3,653	3,3318	0,4339
		FR 52		2	2.690,70 x 170 x 150	0,1015	28,600	3,918	2,9042	0,3979
		FR 53		2	2.203,10 x 170 x 150	0,0831	29,150	4,219	2,4237	0,3508
		FR 54		2	1.738,30 x 170 x 150	0,0656	29,700	4,504	1,9484	0,2955
		FR 55	Bitti	2	1.270,50 x 170 x 150	0,0479	30,250	4,814	1,4504	0,2308
					S.n.1	**11,4558**			**160,4931**	**25,4161**
2	**Deck Beam - 1**	FR 22	Ulin	2	3.327,20 x 120 x 70	0,0581	12,100	1,904	0,7034	0,1107
		FR 23		2	3.327,20 x 120 x 70	0,0581	12,650	1,904	0,7354	0,1107
		FR 24		2	3.327,20 x 120 x 70	0,0581	13,200	1,904	0,7674	0,1107
		FR 25		2	3.327,20 x 120 x 70	0,0581	13,750	1,904	0,7993	0,1107
		FR 26		2	3.327,20 x 120 x 70	0,0581	14,300	1,904	0,8313	0,1107
		FR 27		2	3.435,00 x 120 x 70	0,0600	14,850	1,904	0,8912	0,1143
		FR 28		2	3.401,60 x 120 x 70	0,0594	15,400	1,904	0,9153	0,1132
		FR 29		2	3.275,20 x 120 x 70	0,0572	15,950	1,904	0,9127	0,1090
		FR 30		2	3.218,30 x 120 x 70	0,0562	16,500	1,904	0,9278	0,1071
		FR 31		2	3.147,70 x 120 x 70	0,0550	17,050	1,904	0,9377	0,1047
		FR 32		2	3.088,40 x 120 x 70	0,0540	17,600	1,904	0,9497	0,1027
		FR 33		2	3.064,30 x 120 x 70	0,0535	18,150	1,904	0,9717	0,1019
		FR 34		2	2.967,90 x 120 x 70	0,0519	18,700	1,904	0,9697	0,0987
		FR 35		2	2.858,90 x 120 x 70	0,0500	19,250	1,904	0,9616	0,0951
		FR 36		2	2.736,90 x 120 x 70	0,0478	19,800	1,904	0,9468	0,0910
		FR 37		2	2.602,20 x 120 x 70	0,0455	20,350	1,904	0,9252	0,0866
		FR 38		2	2.453,00 x 120 x 70	0,0429	20,900	1,904	0,8957	0,0816
		FR 39		2	2.288,60 x 120 x 70	0,0400	21,450	1,904	0,8577	0,0761
		FR 40		2	2.109,00 x 120 x 70	0,0368	22,000	1,904	0,8107	0,0702
		FR 41		2	1.914,50 x 120 x 70	0,0335	22,550	1,904	0,7543	0,0637
		FR 42		2	1.703,50 x 120 x 70	0,0298	23,100	1,904	0,6875	0,0567
		FR 43		2	1.476,00 x 120 x 70	0,0258	23,650	1,904	0,6099	0,0491
		FR 44		2	1.249,30 x 120 x 70	0,0218	24,200	1,904	0,5282	0,0416
		FR 45		2	1.031,80 x 120 x 70	0,0180	24,750	1,904	0,4462	0,0343
		FR 46		2	823,50 x 120 x 70	0,0144	25,300	1,904	0,3640	0,0274
					S.n.2	**1,1441**			**20,1005**	**2,1784**
3	**Deck Beam - 2, 3**	FR -3	Ulin	1	1.861,70 x 120 x 70	0,0163	-1,650	7,444	(0,0268)	0,1211
		FR -3		1	2.702,90 x 100 x 150	0,0422	-1,650	5,140	(0,0696)	0,2167
		FR -2		1	3.861,50 x 100 x 150	0,0602	-1,100	5,094	(0,0663)	0,3069
		FR -1		1	4.862,30 x 100 x 150	5,0490	-0,550	4,042	(2,7770)	20,4065
		FR 0		1	4.812,30 x 120 x 70	0,0420	0,0	7,311	0,0000	0,3074
		FR 0		1	5.713,30 x 100 x 150	0,0891	0,0	5,007	0,0000	0,4463
		FR 1		1	6.258,00 x 100 x 150	0,0976	0,550	4,959	0,0537	0,4841
		FR 2		1	6.750,80 x 100 x 150	0,1053	1,100	4,911	0,1158	0,5172
		FR 3		1	6.364,70 x 120 x 70	0,0556	1,650	7,172	0,0917	0,3988
		FR 3		1	7.139,20 x 100 x 150	0,1114	1,650	4,866	0,1838	0,5419
		FR 4		1	7.415,00 x 100 x 150	0,1157	2,200	4,822	0,2545	0,5578
		FR 5		1	7.259,80 x 100 x 150	0,1133	2,750	4,777	0,3114	0,5410
		FR 6		1	6.964,60 x 120 x 70	0,0608	3,300	7,036	0,2008	0,4281
		FR 6		1	7.735,00 x 100 x 150	0,1207	3,300	4,732	0,3982	0,5710
		FR 7		1	7.826,10 x 100 x 150	0,1221	3,850	4,687	0,4700	0,5722
		FR 8		1	7.953,30 x 100 x 150	0,1241	4,400	4,644	0,5459	0,5762
				1	7.265,20 x 120 x 70	0,0635	4,950	6,860	0,3142	0,4354
				1	8.058,00 x 100 x 150	0,1257	4,950	4,601	0,6222	0,5784
				1	8.149,70 x 100 x 150	0,1271	5,500	4,561	0,6992	0,5799
				1	4.858,70 x 120 x 70	0,0424	6,050	8,329	0,2568	0,3535
				1	7.466,60 x 120 x 70	0,0652	6,050	6,825	0,3946	0,4452
				1	4.469,90 x 120 x 70	0,0390	6,050	6,062	0,2362	0,2367
				1	8.232,40 x 100 x 150	0,1284	6,050	4,521	0,7770	0,5806
				1	6.139,20 x 100 x 150	0,0958	6,050	3,729	0,5794	0,3571

NO	STRUCTURE COMPONENT	PART NO.	SPEC.	QTT	SCANTLING (mm)	WEIGHT W (ton)	CENTRE OF GRAVITY LCG (m)	VCG (m)	STATIC MOMENT W.LCG (ton.m)	W.VCG (ton.m)
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10] = [7] [8]	[11] = [7] [9]
		FR 12		1	4.858,70 x 120 x 70	0,0424	6,600	8,329	0,2801	0,3535
		FR 12		1	7.466,60 x 120 x 70	0,0652	6,600	6,825	0,4305	0,4452
		FR 12		1	4.469,90 x 120 x 70	0,0390	6,600	6,062	0,2577	0,2367
		FR 12		1	8.232,40 x 100 x 150	0,1284	6,600	4,521	0,8476	0,5806
		FR 12		1	6.139,20 x 100 x 150	0,0958	6,600	3,729	0,6321	0,3571
		FR 13		1	4.858,70 x 120 x 70	0,0424	7,150	8,329	0,3035	0,3535
		FR 13		1	7.466,60 x 120 x 70	0,0652	7,150	6,825	0,4664	0,4452
		FR 13		1	4.469,90 x 120 x 70	0,0390	7,150	6,062	0,2792	0,2367
		FR 13		1	8.232,40 x 100 x 150	0,1284	7,150	4,521	0,9182	0,5806
		FR 13		1	6.139,20 x 100 x 150	0,0958	7,150	3,729	0,6848	0,3571
		FR 14		1	4.858,70 x 120 x 70	0,0424	7,700	8,329	0,3268	0,3535
		FR 14		1	7.466,60 x 120 x 70	0,0652	7,700	6,825	0,5023	0,4452
		FR 14		1	4.469,90 x 120 x 70	0,0390	7,700	6,062	0,3007	0,2367
		FR 14		1	8.232,40 x 100 x 150	0,1284	7,700	4,521	0,9889	0,5806
		FR 14		1	6.139,20 x 100 x 150	0,0958	7,700	3,729	0,7374	0,3571
		FR 15		1	4.858,70 x 120 x 70	0,0424	8,250	8,329	0,3502	0,3535
		FR 15		1	7.466,60 x 120 x 70	0,0652	8,250	6,825	0,5381	0,4452
		FR 15		1	4.469,90 x 120 x 70	0,0390	8,250	6,062	0,3222	0,2367
		FR 15		1	8.232,40 x 100 x 150	0,1284	8,250	4,521	1,0595	0,5806
		FR 15		1	6.139,20 x 100 x 150	0,0958	8,250	3,729	0,7901	0,3571
		FR 16		1	4.858,70 x 120 x 70	0,0424	8,800	8,329	0,3735	0,3535
		FR 16		1	7.466,60 x 120 x 70	0,0652	8,800	6,825	0,5740	0,4452
		FR 16		1	4.469,90 x 120 x 70	0,0390	8,800	6,062	0,3436	0,2367
		FR 16		1	8.232,40 x 100 x 150	0,1284	8,800	4,521	1,1301	0,5806
		FR 16		1	6.139,20 x 100 x 150	0,0958	8,800	3,729	0,8428	0,3571
		FR 17		1	4.858,70 x 120 x 70	0,0424	9,350	8,329	0,3969	0,3535
		FR 17		1	7.466,60 x 120 x 70	0,0652	9,350	6,825	0,6099	0,4452
		FR 17		1	4.469,90 x 120 x 70	0,0390	9,350	6,062	0,3651	0,2367
		FR 17		1	8.232,40 x 100 x 150	0,1284	9,350	4,521	1,2008	0,5806
		FR 17		1	6.139,20 x 100 x 150	0,0958	9,350	3,729	0,8955	0,3571
		FR 18		1	4.858,70 x 120 x 70	0,0424	9,900	8,329	0,4202	0,3535
		FR 18		1	7.466,60 x 120 x 70	0,0652	9,900	6,825	0,6458	0,4452
		FR 18		1	4.469,90 x 120 x 70	0,0390	9,900	6,062	0,3866	0,2367
		FR 18		1	8.232,40 x 100 x 150	0,1284	9,900	4,521	1,2714	0,5806
		FR 18		1	6.139,20 x 100 x 150	0,0958	9,900	3,729	0,9481	0,3571
		FR 19		1	4.858,70 x 120 x 70	0,0424	10,450	8,329	0,4436	0,3535
		FR 19		1	7.466,60 x 120 x 70	0,0652	10,450	6,825	0,6816	0,4452
		FR 19		1	4.469,90 x 120 x 70	0,0390	10,450	6,062	0,4081	0,2367
		FR 19		1	8.232,40 x 100 x 150	0,1284	10,450	4,521	1,3420	0,5806
		FR 19		1	6.139,20 x 100 x 150	0,0958	10,450	3,729	1,0008	0,3571
		FR 20		1	8.484,20 x 100 x 150	0,1324	11,000	4,307	1,4559	0,5700
		FR 21		1	7.685,50 x 120 x 70	0,0671	11,550	6,663	0,7755	0,4474
		FR 21		1	8.499,20 x 100 x 150	0,1326	11,550	4,358	1,5314	0,5778
		FR 22		1	7.716,80 x 120 x 70	0,0674	12,100	6,587	0,8157	0,4441
		FR 22		1	8.481,10 x 100 x 150	0,1323	12,100	4,283	1,6009	0,5667
		FR 23		1	7.716,80 x 120 x 70	0,0674	12,650	6,587	0,8528	0,4441
		FR 23		1	8.481,10 x 100 x 150	0,1323	12,650	4,283	1,6737	0,5667
		FR 24		1	7.716,80 x 120 x 70	0,0674	13,200	6,587	0,8899	0,4441
		FR 24		1	8.481,10 x 100 x 150	0,1323	13,200	4,283	1,7464	0,5667
		[illegible]		1	7.716,80 x 120 x 70	0,0674	13,750	6,587	0,9269	0,4441
		[illegible]		1	8.481,10 x 100 x 150	0,1323	13,750	4,283	1,8192	0,5667
		[illegible]		1	7.716,80 x 120 x 70	0,0674	14,300	6,587	0,9640	0,4441
		[illegible]		1	8.481,10 x 100 x 150	0,1323	14,300	4,283	1,8920	0,5667
		[illegible]		1	8.430,60 x 120 x 70	0,0736	14,850	6,558	1,0937	0,4830
		[illegible]		1	7.666,20 x 100 x 150	0,1196	14,850	4,354	1,7760	0,5207
		[illegible]		1	8.415,40 x 100 x 150	0,1313	15,400	4,262	2,0217	0,5595
		[illegible]		1	8.384,90 x 100 x 150	0,1308	15,950	4,275	2,0863	0,5592

NO	STRUCTURE COMPONENT	PART NO.	SPEC.	QTT	SCANTLING (mm)	WEIGHT W (ton)	CENTRE OF GRAVITY LCG (m)	CENTRE OF GRAVITY VCG (m)	STATIC MOMENT W.LCG (ton.m)	STATIC MOMENT W.VCG (ton.m)
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10] = [7] [8]	[11] = [7] [9]
		FR 30		1	8.354,90 x 100 x 150	0,1303	16,500	4,293	2,1506	0,5595
		FR 31		1	8.296,60 x 100 x 150	0,1294	17,050	4,315	2,2067	0,5585
		FR 32		1	8.245,20 x 100 x 150	0,1286	17,600	4,322	2,2638	0,5559
		FR 33		1	8.222,80 x 100 x 150	0,1283	18,150	4,339	2,3282	0,5566
		FR 34		1	8.127,50 x 100 x 150	0,1268	18,700	4,363	2,3710	0,5532
		FR 35		1	8.011,00 x 100 x 150	0,1250	19,250	4,388	2,4057	0,5484
		FR 36		1	7.863,60 x 100 x 150	0,1227	19,800	4,415	2,4289	0,5416
		FR 37		1	7.725,20 x 100 x 150	0,1205	20,350	4,442	2,4524	0,5353
		FR 38		1	7.538,20 x 100 x 150	0,1176	20,900	4,473	2,4578	0,5260
		FR 39		1	7.412,50 x 100 x 150	0,1156	21,450	4,505	2,4804	0,5209
		FR 40		1	7.115,20 x 100 x 150	0,1110	22,000	4,539	2,4419	0,5038
		FR 41		1	6.863,20 x 100 x 150	0,1071	22,550	4,577	2,4143	0,4900
		FR 42		1	6.580,60 x 100 x 150	0,1027	23,100	4,617	2,3714	0,4740
		FR 43		1	6.299,10 x 100 x 150	0,0983	23,650	4,658	2,3240	0,4577
		FR 44		1	5.965,50 x 100 x 150	0,0931	24,200	4,707	2,2521	0,4380
		FR 45		1	5.617,20 x 100 x 150	0,0876	24,750	4,758	2,1688	0,4169
		FR 46		1	5.258,50 x 100 x 150	0,0820	25,300	4,812	2,0754	0,3947
		FR 47		1	6.251,30 x 100 x 150	0,0975	25,850	4,823	2,5209	0,4703
		FR 48		1	4.513,90 x 100 x 150	0,0704	26,400	4,922	1,8590	0,3466
		FR 49		1	4.151,10 x 100 x 150	0,0648	26,950	4,978	1,7452	0,3224
		FR 50		1	3.775,50 x 100 x 150	0,0589	27,500	5,035	1,6197	0,2966
		FR 51		1	3.387,80 x 100 x 150	0,0528	28,050	5,092	1,4824	0,2691
		FR 52		1	3.018,50 x 100 x 150	0,0471	28,600	5,150	1,3467	0,2425
		FR 53		1	2.608,10 x 100 x 150	0,0407	29,150	5,212	1,1860	0,2121
		FR 54		1	2.254,80 x 100 x 150	0,0352	29,700	5,266	1,0447	0,1852
		FR 55	Ulin	1	1.871,20 x 100 x 150	0,0292	30,250	5,324	0,8830	0,1554
					S.n.3	**14,1891**			**106,0657**	**66,2479**
4	**Clamp (**	CL-1	Ulin	1	9.915,30 x 230 x 70	0,1660	13,755	0,715	2,2836	0,1187
		CL-2		1	14.909,00 x 230 x 70	0,2496	12,400	0,900	3,0955	0,2247
		CL-3		1	20.512,20 x 230 x 70	0,3435	14,099	1,133	4,8424	0,3891
		CL-4		1	23.296,80 x 230 x 70	0,3901	14,361	1,362	5,6020	0,5313
		CL-5		1	25.535,50 x 230 x 70	0,4276	14,348	1,679	6,1347	0,7179
		CL-6		1	27.755,20 x 230 x 70	0,4647	14,348	2,042	6,6680	0,9490
		CL-7		1	29.971,60 x 230 x 70	0,5018	14,357	2,511	7,2050	1,2601
		CL-8		1	31.638,30 x 230 x 70	0,5298	14,086	3,114	7,4621	1,6496
		CL-9		1	32.762,00 x 230 x 70	0,5486	14,094	3,735	7,7315	2,0489
5	**Tranve**	FR 24	Ulin	2	2.087,90 x 70 x 50	0,0152	13,200	4,358	0,2006	0,0662
		FR 25		2	2.087,90 x 70 x 50	0,0152	13,750	4,358	0,2090	0,0662
		FR 26		2	2.087,90 x 70 x 50	0,0152	14,300	4,358	0,2174	0,0662
		FR 27		2	2.087,90 x 70 x 50	0,0152	14,850	4,358	0,2257	0,0662
		FR 28		2	2.397,70 x 70 x 50	0,0175	15,400	4,556	0,2688	0,0795
		FR 41		2	1.616,60 x 71 x 51	0,0122	22,550	4,394	0,2746	0,0535
		FR 42		2	1.546,70 x 72 x 52	0,0120	23,100	4,977	0,2782	0,0599
		FR 43		2	1.334,50 x 73 x 53	0,0107	23,650	5,019	0,2540	0,0539
		FR 44		2	1.167,70 x 74 x 54	0,0097	24,200	5,067	0,2349	0,0492
		FR 45		2	993,60 x 75 x 55	0,0085	24,750	5,119	0,2110	0,0436
6	**Stiffner**	FR -3	Ulin	2	2.161,00 x 100 x 100	0,0449	-1,650	6,221	-0,0742	0,2796
		FR 0		2	2.161,00 x 100 x 100	0,0449	0,000	6,088	0,0000	0,2736
				2	2.161,00 x 100 x 100	0,0449	1,650	5,938	0,0742	0,2669
				2	2.161,00 x 100 x 100	0,0449	3,300	5,813	0,1483	0,2613
				2	4.175,00 x 100 x 100	0,0868	4,950	8,358	0,4299	0,7258
				2	4.483,10 x 100 x 100	0,0932	6,050	6,013	0,5642	0,5607
				2	4.396,60 x 100 x 100	0,0914	6,050	4,447	0,5533	0,4067
				2	4.483,10 x 100 x 100	0,0932	6,600	6,014	0,6154	0,5608
				2	4.396,60 x 100 x 100	0,0914	6,600	4,358	0,6036	0,3985
				2	4.483,10 x 100 x 100	0,0932	7,150	6,014	0,6667	0,5608

NO	STRUCTURE COMPONENT	PART NO.	SPEC.	QTT	SCANTLING (mm)			WEIGHT W (ton)	CENTRE OF GRAVITY LCG (m)	CENTRE OF GRAVITY VCG (m)	STATIC MOMENT W.LCG (ton.m)	STATIC MOMENT W.VCG (ton.m)
[1]	[2]	[3]	[4]	[5]	[6]			[7]	[8]	[9]	[10] = [7] [8]	[11] = [7] [9]
		FR 13		2	4.396,60 x	100 x	100	0,0914	7,150	4,358	0,6539	0,3985
		FR 14		2	4.483,10 x	100 x	100	0,0932	7,700	6,014	0,7180	0,5608
		FR 14		2	4.396,60 x	100 x	100	0,0914	7,700	4,358	0,7042	0,3985
		FR 15		2	4.483,10 x	100 x	100	0,0932	8,250	6,014	0,7693	0,5608
		FR 15		2	4.396,60 x	100 x	100	0,0914	8,250	4,358	0,7545	0,3985
		FR 16		2	4.483,10 x	100 x	100	0,0932	8,800	6,014	0,8206	0,5608
		FR 16		2	4.396,60 x	100 x	100	0,0914	8,800	4,358	0,8048	0,3985
		FR 17		2	4.483,10 x	100 x	100	0,0932	9,350	6,014	0,8719	0,5608
		FR 17		2	4.396,60 x	100 x	100	0,0914	9,350	4,358	0,8551	0,3985
		FR 18		2	4.483,10 x	100 x	100	0,0932	9,900	6,014	0,9232	0,5608
		FR 18		2	4.725,00 x	100 x	100	0,0983	9,900	4,358	0,9730	0,4283
		FR 19		2	4.483,10 x	100 x	100	0,0932	10,450	6,014	0,9744	0,5608
		FR 19		2	5.021,00 x	100 x	100	0,1044	10,450	4,358	1,0914	0,4551
		FR 22		2	2.161,00 x	100 x	100	0,0449	12,100	5,439	0,5439	0,2445
		FR 25		2	2.161,00 x	100 x	100	0,0449	13,750	5,364	0,6180	0,2411
		FR 27		2	2.161,00 x	100 x	100	0,0449	14,850	5,335	0,6675	0,2398
							S.n.4	**5,8367**			**69,7237**	**19,7551**
7	**Bulkhead Stiffner**	FR 21	Ulin	2	3.435,10 x	100 x	100	0,0715	11,550	2,480	0,8252	0,1772
		FR 21		2	3.254,70 x	100 x	100	0,0677	11,550	2,480	0,7819	0,1679
		FR 21		2	3.067,00 x	100 x	100	0,0638	11,550	2,480	0,7368	0,1582
		FR 21		2	2.831,60 x	100 x	100	0,0589	11,550	2,480	0,6803	0,1461
		FR 21		2	2.544,60 x	100 x	100	0,0529	11,550	2,480	0,6113	0,1313
		FR 21		2	2.169,80 x	100 x	100	0,0451	11,550	2,480	0,5213	0,1119
		FR 21		2	1.217,00 x	100 x	100	0,0253	11,550	2,480	0,2924	0,0628
		FR 21		2	2.075,30 x	100 x	100	0,0432	11,550	2,480	0,4986	0,1071
		FR 21		2	2.744,20 x	100 x	100	0,0571	11,550	2,480	0,6593	0,1416
		FR 21		2	3.224,00 x	100 x	100	0,0671	11,550	2,480	0,7745	0,1663
		FR 21		2	3.499,60 x	100 x	100	0,0728	11,550	2,480	0,8407	0,1805
		FR 21		2	3.662,00 x	100 x	100	0,0762	11,550	2,480	0,8798	0,1889
		FR 21		2	3.783,70 x	100 x	100	0,0787	11,550	2,480	0,9090	0,1952
		FR 21		2	3.878,80 x	100 x	100	0,0807	11,550	2,480	0,9318	0,2001
		FR 21		2	3.922,10 x	100 x	100	0,0816	11,550	2,480	0,9422	0,2023
		FR 21		2	3.952,80 x	100 x	100	0,0822	11,550	2,480	0,9496	0,2039
		FR 47		2	3.642,30 x	100 x	100	0,0758	25,850	2,899	1,9584	0,2196
		FR 47		2	3.077,80 x	100 x	100	0,0640	25,850	2,899	1,6549	0,1856
		FR 47		2	2.523,30 x	100 x	100	0,0525	25,850	2,899	1,3567	0,1522
		FR 47		2	1.932,50 x	100 x	100	0,0402	25,850	2,899	1,0391	0,1165
		FR 47		2	504,50 x	100 x	100	0,0105	25,850	2,899	0,2713	0,0304
		FR 47		2	812,00 x	100 x	100	0,0169	25,850	2,899	0,4366	0,0490
		FR 47		2	1.155,70 x	100 x	100	0,0240	25,850	2,899	0,6214	0,0697
		FR 47		2	1.497,40 x	100 x	100	0,0311	25,850	2,899	0,8051	0,0903
		FR 47		2	1.820,20 x	100 x	100	0,0379	25,850	2,899	0,9787	0,1098
		FR 47		2	2.121,10 x	100 x	100	0,0441	25,850	2,899	1,1405	0,1279
		FR 47		2	2.361,00 x	100 x	100	0,0491	25,850	2,899	1,2695	0,1424
		FR 47		2	2.540,00 x	100 x	100	0,0528	25,850	2,899	1,3657	0,1532
		FR 47		2	2.657,90 x	100 x	100	0,0553	25,850	2,899	1,4291	0,1603
		FR 47		2	2.735,20 x	100 x	100	0,0569	25,850	2,899	1,4707	0,1649
		FR 47		2	2.801,30 x	100 x	100	0,0583	25,850	2,899	1,5062	0,1689
			Ulin	2	3.000,00 x	250 x	250	0,3900	8,250	1,303	3,2175	0,5082
			Ulin	1	24.237,30 x	120 x	100	0,3025	14,470	3,942	4,3769	1,1924
				2	4.950,00 x	120 x	100	0,1236	14,470	3,942	1,7878	0,4870
			Ulin	2	958,70 x	70 x	50	0,0070	12,100	1,348	0,0844	0,0094
				2	958,70 x	70 x	50	0,0070	12,650	1,348	0,0883	0,0094
				2	958,70 x	70 x	50	0,0070	13,200	1,348	0,0921	0,0094
				2	958,70 x	70 x	50	0,0070	13,750	1,348	0,0960	0,0094
				2	958,70 x	70 x	50	0,0070	14,300	1,348	0,0998	0,0094

NO	STRUCTURE COMPONENT	PART NO.	SPEC.	QTT	SCANTLING (mm)	WEIGHT W (ton)	CENTRE OF GRAVITY LCG (m)	VCG (m)	STATIC MOMENT W.LCG (ton.m)	W.VCG (ton.m)
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10] = [7] [8]	[11] = [7] [9]
		FR 27		2	1.032,80 x 70 x 50	0,0075	14,850	1,348	0,1117	0,0101
		FR 28		2	1.031,00 x 70 x 50	0,0075	15,400	1,348	0,1156	0,0101
		FR 29		2	950,00 x 70 x 50	0,0069	15,950	1,348	0,1103	0,0093
		FR 30		2	963,00 x 70 x 50	0,0070	16,500	1,348	0,1157	0,0095
		FR 31		2	958,00 x 70 x 50	0,0070	17,050	1,348	0,1189	0,0094
		FR 32		2	953,00 x 70 x 50	0,0069	17,600	1,348	0,1221	0,0094
		FR 33		2	951,00 x 70 x 50	0,0069	18,150	1,348	0,1257	0,0093
		FR 34		2	943,00 x 70 x 50	0,0069	18,700	1,348	0,1284	0,0093
		FR 35		2	933,00 x 70 x 50	0,0068	19,250	1,348	0,1308	0,0092
		FR 36		2	921,20 x 70 x 50	0,0067	19,800	1,348	0,1328	0,0090
		FR 37		2	914,20 x 70 x 50	0,0067	20,350	1,348	0,1354	0,0090
		FR 38		2	889,70 x 70 x 50	0,0065	20,900	1,348	0,1354	0,0087
		FR 39		2	867,90 x 70 x 50	0,0063	21,450	1,348	0,1355	0,0085
		FR 40		2	839,80 x 70 x 50	0,0061	22,000	1,348	0,1345	0,0082
		FR 41		2	802,80 x 70 x 50	0,0058	22,550	1,348	0,1318	0,0079
		FR 42		2	751,00 x 70 x 50	0,0055	23,100	1,348	0,1263	0,0074
		FR 43		2	676,60 x 70 x 50	0,0049	23,650	1,348	0,1165	0,0066
		FR 44		2	566,90 x 70 x 50	0,0041	24,200	1,348	0,0999	0,0056
		FR 45		2	412,00 x 70 x 50	0,0030	24,750	1,348	0,0742	0,0040
		FR 46		2	213,00 x 70 x 50	0,0016	25,300	1,348	0,0392	0,0021
					S.n.5	**2,6656**			**41,3219**	**6,8789**
11	**Keel**		Ulin	1	25.996,40 x 350 x 550	5,2045	13,154	0,275	68,4597	1,4312
12	**Shoe Keel**		Baja	1	25.996,40 x 350 x 550	4,7579	13,154	0,275	62,5854	1,3084
13	**Inner Keel**		Ulin	1	14.150,00 x 350 x 370	1,9057	18,625	0,814	35,4941	1,5513
14	**Stay**	FR -3~54	Ulin	2	7.000,00 x 150 x 100	0,2184	13,154	4,449	2,8728	0,9717
15	**Cover**									
	a.		Ulin	2	36.939.800,00 x 30	2,3050	18,625	2,009	42,9314	4,6308
	b.			2	133.711.800,00 x 50	13,9060	14,789	4,262	205,6562	59,2675
	c.			1	28.427.100,00 x 30	0,8869	7,949	8,520	7,0502	7,5566
	d.			1	143.848.400,00 x 30	4,4881	4,367	6,913	19,5994	31,0260
	e.			2	22.798.600,00 x 30	1,4226	18,755	0,390	26,6815	0,5548
16	**Sheer Strike**		Ulin	2	11.762.500,00 x 80	1,9573	14,567	3,802	28,5121	7,4416
17	**Side Stringer**		Ulin	2	9.043.300,00 x 80	1,5048	14,567	2,451	21,9208	3,6883
18	**Planking**		Ulin	2	149.645.000,00 x 60	18,6757	14,567	2,193	272,0526	40,9558
19	**Bulwark**		Ulin	2	36.229.800,00 x 50	3,7679	13,200	4,473	49,7363	16,8538
20	**Wall - 1**		Jati	2	20.340.000,00 x 20	0,6102	15,903	3,227	9,7040	1,9691
21	**Wall - 2**		Jati	2	31.563.000,00 x 30	1,2310	8,048	5,372	9,9067	6,6127
22	**Bulkhead - 1**		Jati	1	21.583.700,00 x 50	0,7015	11,550	2,830	8,1020	1,9852
23	**Bulkhead - 2**		Jati	1	15.143.900,00 x 50	0,4922	25,850	3,245	12,7228	1,5971
					S.n.6	**64,0357**			**883,9880**	**189,4019**
24					**S.n.Total**	**99,3270** **S1**			**1281,6929** **S2**	**309,8783** **S3**

Longitudina of Centre Gravity = 2 / S1 = 12,904 m from Frame 0
(2,10) m from midship
Vertical of Centre Gravity= 3 / S1 = 3,120 m
2,57 dari baseline

Berat konstruksi = 99,327 Ton