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LAMPIRAN

1 Stepped V Tahanan 1 Stepped V Kondisi Even Keel

Speed (kn)	Froude No. Lwl	Froude No. Volume	Wyman Resistance (kN)	Wyman power (hp)
0	0	0	--	--
1	0.039	0.104	0.1	0.081
2	0.078	0.209	0.4	0.646
3	0.117	0.313	0.8	2.18
4	0.156	0.418	1.5	5.168
5	0.195	0.522	2.3	10.093
6	0.234	0.627	3.4	17.441
7	0.273	0.731	4.6	27.695
8	0.312	0.836	6	41.341
9	0.351	0.94	7.6	58.863
10	0.39	1.045	9.4	80.744
11	0.429	1.149	11.3	107.471
12	0.467	1.254	13.5	139.526
13	0.506	1.358	15.8	177.395
14	0.545	1.463	18.4	221.562
15	0.584	1.567	21.1	272.512
16	0.623	1.672	22.7	313.505
17	0.662	1.776	23.9	349.767
18	0.701	1.881	24.9	386.846
19	0.74	1.985	25.9	424.597
20	0.779	2.089	26.8	462.89
21	0.818	2.194	27.7	501.606
22	0.857	2.298	28.5	540.639
23	0.896	2.403	29.2	579.895
24	0.935	2.507	29.9	619.29
25	0.974	2.612	30.6	658.747
26	1.013	2.716	31.1	698.2
27	1.052	2.821	31.7	737.59
28	1.091	2.925	32.2	776.864
29	1.13	3.03	32.6	815.976
30	1.169	3.134	33	854.885
31	1.208	3.239	33.4	893.555
32	1.247	3.343	33.8	931.955
33	1.286	3.448	34.1	970.059
34	1.324	3.552	34.4	1007.842
35	1.363	3.657	34.6	1045.285
36	1.402	3.761	34.9	1082.37
37	1.441	3.866	35.1	1119.083
38	1.48	3.97	35.3	1155.411
39	1.519	4.075	35.4	1191.343
40	1.558	4.179	35.6	1226.873

Tahanan 1 Stepped V Kondisi Trim 1°

Speed (kn)	Froude No. Lwl	Froude No. Volume	Wyman Resistance (kN)	Wyman power (hp)
0	0	0	--	--
1	0.039	0.117	0	0.041
2	0.078	0.234	0.2	0.331
3	0.118	0.351	0.4	1.116
4	0.157	0.469	0.8	2.645
5	0.196	0.586	1.2	5.165
6	0.235	0.703	1.7	8.925
7	0.274	0.82	2.3	14.173
8	0.313	0.937	3.1	21.156
9	0.353	1.054	3.9	30.123
10	0.392	1.171	4.8	41.321
11	0.431	1.289	5.8	54.998
12	0.47	1.406	6.9	71.403
13	0.509	1.523	8.1	90.783
14	0.548	1.64	9.4	113.385
15	0.588	1.757	10.8	139.459
16	0.627	1.874	11.6	159.387
17	0.666	1.991	12.1	177.78
18	0.705	2.109	12.7	196.581
19	0.744	2.226	13.2	215.717
20	0.783	2.343	13.6	235.121
21	0.823	2.46	14.1	254.735
22	0.862	2.577	14.5	274.505
23	0.901	2.694	14.8	294.382
24	0.94	2.811	15.2	314.325
25	0.979	2.929	15.5	334.294
26	1.019	3.046	15.8	354.257
27	1.058	3.163	16.1	374.184
28	1.097	3.28	16.3	394.048
29	1.136	3.397	16.5	413.826
30	1.175	3.514	16.8	433.498
31	1.214	3.631	16.9	453.045
32	1.254	3.749	17.1	472.453
33	1.293	3.866	17.3	491.707
34	1.332	3.983	17.4	510.796
35	1.371	4.1	17.6	529.71
36	1.41	4.217	17.7	548.441
37	1.449	4.334	17.8	566.981
38	1.489	4.451	17.9	585.323
39	1.528	4.569	17.9	603.464
40	1.567	4.686	18	621.399

Tahanan 1 Stepped V Kondisi Trim 2°

Speed (kn)	Froude No. Lwl	Froude No. Volume	Wyman Resistance (kN)	Wyman power (hp)
0	0	0	--	--
1	0.046	0.134	0	0.029
2	0.091	0.269	0.1	0.229
3	0.137	0.403	0.3	0.774
4	0.182	0.537	0.5	1.834
5	0.228	0.672	0.8	3.583
6	0.274	0.806	1.2	6.191
7	0.319	0.94	1.6	9.831
8	0.365	1.075	2.1	14.675
9	0.41	1.209	2.7	20.894
10	0.456	1.343	3.3	28.662
11	0.502	1.478	4	38.149
12	0.547	1.612	4.8	49.528
13	0.593	1.746	5.6	62.97
14	0.639	1.881	6	72.456
15	0.684	2.015	6.3	81.951
16	0.73	2.149	6.6	91.669
17	0.775	2.284	6.9	101.562
18	0.821	2.418	7.2	111.587
19	0.867	2.553	7.4	121.705
20	0.912	2.687	7.6	131.885
21	0.958	2.821	7.8	142.097
22	1.003	2.956	8	152.316
23	1.049	3.09	8.2	162.519
24	1.095	3.224	8.3	172.689
25	1.14	3.359	8.5	182.809
26	1.186	3.493	8.6	192.863
27	1.231	3.627	8.7	202.842
28	1.277	3.762	8.8	212.733
29	1.323	3.896	8.9	222.529
30	1.368	4.03	9	232.221
31	1.414	4.165	9	241.805
32	1.459	4.299	9.1	251.275
33	1.505	4.433	9.2	260.626
34	1.551	4.568	9.2	269.856
35	1.596	4.702	9.2	278.963
36	1.642	4.836	9.3	287.943
37	1.688	4.971	9.3	296.796
38	1.733	5.105	9.3	305.521
39	1.779	5.239	9.3	314.118
40	1.824	5.374	9.4	322.586

Tahanan 1 Stepped V Kondisi Trim 3°

Speed (kn)	Froude No. Lwl	Froude No. Volume	Wyman Resistance (kN)	Wyman power (hp)
0	0	0	--	--
1	0.063	0.145	0.1	0.048
2	0.126	0.29	0.2	0.382
3	0.189	0.436	0.5	1.289
4	0.253	0.581	0.9	3.055
5	0.316	0.726	1.4	5.966
6	0.379	0.871	2	10.31
7	0.442	1.016	2.7	16.372
8	0.505	1.161	3.5	24.439
9	0.568	1.307	4.5	34.796
10	0.631	1.452	5.2	44.57
11	0.694	1.597	5.6	52.829
12	0.758	1.742	5.9	61.342
13	0.821	1.887	6.2	70.034
14	0.884	2.032	6.5	78.84
15	0.947	2.178	6.8	87.706
16	1.01	2.323	7	96.587
17	1.073	2.468	7.2	105.447
18	1.136	2.613	7.4	114.256
19	1.199	2.758	7.5	122.988
20	1.263	2.904	7.6	131.625
21	1.326	3.049	7.7	140.149
22	1.389	3.194	7.8	148.55
23	1.452	3.339	7.9	156.816
24	1.515	3.484	8	164.941
25	1.578	3.629	8	172.919
26	1.641	3.775	8.1	180.747
27	1.705	3.92	8.1	188.422
28	1.768	4.065	8.1	195.943
29	1.831	4.21	8.1	203.309
30	1.894	4.355	8.1	210.52
31	1.957	4.5	8.1	217.579
32	2.02	4.646	8.1	224.486
33	2.083	4.791	8.1	231.243
34	2.146	4.936	8.1	237.853
35	2.21	5.081	8.1	244.318
36	2.273	5.226	8.1	250.64
37	2.336	5.372	8	256.823
38	2.399	5.517	8	262.87
39	2.462	5.662	8	268.783
40	2.525	5.807	8	274.566

Tahanan 1 Stepped V Kondisi Trim 4°

Speed (kn)	Froude No. Lwl	Froude No. Volume	Wyman Resistance (kN)	Wyman power (hp)
0	0	0	--	--
1	0.073	0.153	0.1	0.053
2	0.145	0.306	0.2	0.424
3	0.218	0.459	0.6	1.432
4	0.291	0.612	1	3.394
5	0.364	0.765	1.5	6.629
6	0.436	0.919	2.2	11.454
7	0.509	1.072	3	18.189
8	0.582	1.225	3.9	27.151
9	0.654	1.378	4.5	34.584
10	0.727	1.531	4.8	41.604
11	0.8	1.684	5.1	48.83
12	0.872	1.837	5.4	56.186
13	0.945	1.99	5.7	63.608
14	1.018	2.143	5.9	71.047
15	1.091	2.296	6.1	78.462
16	1.163	2.449	6.2	85.82
17	1.236	2.602	6.4	93.096
18	1.309	2.756	6.5	100.27
19	1.381	2.909	6.6	107.328
20	1.454	3.062	6.6	114.257
21	1.527	3.215	6.7	121.049
22	1.599	3.368	6.7	127.7
23	1.672	3.521	6.8	134.204
24	1.745	3.674	6.8	140.56
25	1.818	3.827	6.8	146.767
26	1.89	3.98	6.8	152.825
27	1.963	4.133	6.8	158.736
28	2.036	4.286	6.8	164.5
29	2.108	4.44	6.8	170.12
30	2.181	4.593	6.8	175.599
31	2.254	4.746	6.8	180.939
32	2.327	4.899	6.7	186.145
33	2.399	5.052	6.7	191.218
34	2.472	5.205	6.7	196.162
35	2.545	5.358	6.7	200.981
36	2.617	5.511	6.6	205.679
37	2.69	5.664	6.6	210.258
38	2.763	5.817	6.6	214.723
39	2.835	5.97	6.5	219.076
40	2.908	6.124	6.5	223.322

1 Stepped U

Tahanan 1 Stepped U Kondisi Even Keel

Speed (kn)	Froude No. Lwl	Froude No. Volume	Wyman Resistance (kN)	Wyman power (hp)
0	0.000	0.000	--	--
1	0.039	0.104	0.1	0.081
2	0.078	0.209	0.4	0.645
3	0.117	0.313	0.8	2.177
4	0.156	0.418	1.5	5.161
5	0.195	0.522	2.3	10.081
6	0.234	0.627	3.4	17.419
7	0.273	0.731	4.6	27.661
8	0.312	0.836	6.0	41.290
9	0.351	0.940	7.6	58.790
10	0.390	1.045	9.4	80.645
11	0.429	1.149	11.3	107.339
12	0.467	1.254	13.5	139.355
13	0.506	1.358	15.8	177.178
14	0.545	1.463	18.3	221.291
15	0.584	1.567	21.0	272.178
16	0.623	1.672	22.7	313.121
17	0.662	1.776	23.8	349.338
18	0.701	1.881	24.9	386.372
19	0.740	1.985	25.9	424.077
20	0.779	2.090	26.8	462.323
21	0.818	2.194	27.7	500.992
22	0.857	2.299	28.5	539.977
23	0.896	2.403	29.2	579.185
24	0.935	2.508	29.9	618.532
25	0.974	2.612	30.5	657.941
26	1.013	2.717	31.1	697.346
27	1.052	2.821	31.6	736.687
28	1.091	2.926	32.1	775.913
29	1.130	3.030	32.6	814.977
30	1.169	3.135	33.0	853.838
31	1.208	3.239	33.4	892.461
32	1.247	3.344	33.7	930.814
33	1.286	3.448	34.0	968.871
34	1.324	3.553	34.3	1006.609
35	1.363	3.657	34.6	1044.006
36	1.402	3.762	34.8	1081.045
37	1.441	3.866	35.0	1117.713
38	1.480	3.971	35.2	1153.996
39	1.519	4.075	35.4	1189.885
40	1.558	4.180	35.5	1225.371

Tahanan 1 Stepped U Kondisi Trim 1°

Speed (kn)	Froude No. Lwl	Froude No. Volume	Wyman Resistance (kN)	Wyman power (hp)
0	0	0	--	--
1	0.039	0.117	0	0.041
2	0.078	0.234	0.2	0.329
3	0.118	0.352	0.4	1.11
4	0.157	0.469	0.8	2.631
5	0.196	0.586	1.2	5.139
6	0.235	0.703	1.7	8.881
7	0.274	0.821	2.3	14.103
8	0.313	0.938	3.1	21.051
9	0.353	1.055	3.9	29.973
10	0.392	1.172	4.8	41.116
11	0.431	1.29	5.8	54.725
12	0.47	1.407	6.9	71.048
13	0.509	1.524	8.1	90.332
14	0.548	1.641	9.3	112.822
15	0.588	1.759	10.7	138.766
16	0.627	1.876	11.5	158.596
17	0.666	1.993	12.1	176.897
18	0.705	2.11	12.6	195.604
19	0.744	2.228	13.1	214.645
20	0.783	2.345	13.6	233.953
21	0.823	2.462	14	253.47
22	0.862	2.579	14.4	273.141
23	0.901	2.697	14.8	292.92
24	0.94	2.814	15.1	312.763
25	0.979	2.931	15.4	332.634
26	1.019	3.048	15.7	352.498
27	1.058	3.165	16	372.325
28	1.097	3.283	16.2	392.091
29	1.136	3.4	16.5	411.77
30	1.175	3.517	16.7	431.344
31	1.214	3.634	16.9	450.795
32	1.254	3.752	17	470.106
33	1.293	3.869	17.2	489.264
34	1.332	3.986	17.3	508.259
35	1.371	4.103	17.5	527.079
36	1.41	4.221	17.6	545.717
37	1.449	4.338	17.7	564.164
38	1.489	4.455	17.8	582.416
39	1.528	4.572	17.9	600.466
40	1.567	4.69	17.9	618.312

Tahanan 1 Stepped U Kondisi Trim 2°

Speed (kn)	Froude No. Lwl	Froude No. Volume	Wyman Resistance (kN)	Wyman power (hp)
0	0	0	--	--
1	0.046	0.134	0	0.029
2	0.091	0.269	0.1	0.228
3	0.137	0.403	0.3	0.77
4	0.182	0.538	0.5	1.824
5	0.228	0.672	0.8	3.563
6	0.274	0.807	1.2	6.156
7	0.319	0.941	1.6	9.776
8	0.365	1.076	2.1	14.592
9	0.41	1.21	2.7	20.777
10	0.456	1.345	3.3	28.501
11	0.502	1.479	4	37.935
12	0.547	1.614	4.8	49.249
13	0.593	1.748	5.6	62.616
14	0.639	1.883	6	72.049
15	0.684	2.017	6.3	81.491
16	0.73	2.152	6.6	91.155
17	0.775	2.286	6.9	100.992
18	0.821	2.42	7.1	110.96
19	0.867	2.555	7.4	121.022
20	0.912	2.689	7.6	131.144
21	0.958	2.824	7.8	141.299
22	1.003	2.958	8	151.46
23	1.049	3.093	8.1	161.607
24	1.095	3.227	8.3	171.719
25	1.14	3.362	8.4	181.782
26	1.186	3.496	8.6	191.78
27	1.231	3.631	8.7	201.702
28	1.277	3.765	8.8	211.538
29	1.323	3.9	8.8	221.279
30	1.368	4.034	8.9	230.917
31	1.414	4.169	9	240.447
32	1.459	4.303	9.1	249.863
33	1.505	4.438	9.1	259.162
34	1.551	4.572	9.2	268.341
35	1.596	4.706	9.2	277.396
36	1.642	4.841	9.2	286.326
37	1.688	4.975	9.2	295.129
38	1.733	5.11	9.3	303.805
39	1.779	5.244	9.3	312.354
40	1.824	5.379	9.3	320.774

Tahanan 1 Stepped U Kondisi Trim 3°

Speed (kn)	Froude No. Lwl	Froude No. Volume	Wyman Resistance (kN)	Wyman power (hp)
0	0	0	--	--
1	0.063	0.145	0.1	0.048
2	0.126	0.29	0.2	0.383
3	0.189	0.435	0.5	1.293
4	0.253	0.58	0.9	3.065
5	0.316	0.725	1.4	5.987
6	0.379	0.871	2	10.345
7	0.442	1.016	2.7	16.428
8	0.505	1.161	3.6	24.523
9	0.568	1.306	4.5	34.916
10	0.631	1.451	5.2	44.723
11	0.694	1.596	5.6	53.01
12	0.758	1.741	5.9	61.553
13	0.821	1.886	6.3	70.275
14	0.884	2.031	6.6	79.111
15	0.947	2.176	6.8	88.007
16	1.01	2.322	7	96.919
17	1.073	2.467	7.2	105.81
18	1.136	2.612	7.4	114.649
19	1.199	2.757	7.5	123.411
20	1.263	2.902	7.7	132.077
21	1.326	3.047	7.8	140.631
22	1.389	3.192	7.9	149.06
23	1.452	3.337	7.9	157.355
24	1.515	3.482	8	165.508
25	1.578	3.627	8	173.514
26	1.641	3.772	8.1	181.368
27	1.705	3.918	8.1	189.07
28	1.768	4.063	8.1	196.616
29	1.831	4.208	8.2	204.008
30	1.894	4.353	8.2	211.244
31	1.957	4.498	8.2	218.327
32	2.02	4.643	8.2	225.258
33	2.083	4.788	8.2	232.038
34	2.146	4.933	8.1	238.671
35	2.21	5.078	8.1	245.158
36	2.273	5.223	8.1	251.502
37	2.336	5.368	8.1	257.706
38	2.399	5.514	8	263.774
39	2.462	5.659	8	269.707
40	2.525	5.804	8	275.51

Tahanan 1 Stepped U Kondisi Trim 4°

Speed (kn)	Froude No. Lwl	Froude No. Volume	Wyman Resistance (kN)	Wyman power (hp)
0	0	0	--	--
1	0.073	0.153	0.1	0.053
2	0.145	0.306	0.2	0.427
3	0.218	0.459	0.6	1.44
4	0.291	0.612	1	3.413
5	0.364	0.765	1.5	6.666
6	0.436	0.918	2.2	11.519
7	0.509	1.071	3	18.292
8	0.582	1.224	4	27.305
9	0.654	1.376	4.5	34.781
10	0.727	1.529	4.9	41.84
11	0.8	1.682	5.2	49.108
12	0.872	1.835	5.5	56.505
13	0.945	1.988	5.7	63.97
14	1.018	2.141	5.9	71.451
15	1.091	2.294	6.1	78.908
16	1.163	2.447	6.3	86.308
17	1.236	2.6	6.4	93.625
18	1.309	2.753	6.5	100.84
19	1.381	2.906	6.6	107.938
20	1.454	3.059	6.7	114.907
21	1.527	3.212	6.7	121.738
22	1.599	3.365	6.8	128.426
23	1.672	3.518	6.8	134.967
24	1.745	3.671	6.8	141.36
25	1.818	3.824	6.8	147.602
26	1.89	3.977	6.9	153.695
27	1.963	4.129	6.9	159.638
28	2.036	4.282	6.9	165.435
29	2.108	4.435	6.8	171.088
30	2.181	4.588	6.8	176.598
31	2.254	4.741	6.8	181.968
32	2.327	4.894	6.8	187.203
33	2.399	5.047	6.8	192.305
34	2.472	5.2	6.7	197.278
35	2.545	5.353	6.7	202.124
36	2.617	5.506	6.7	206.849
37	2.69	5.659	6.6	211.454
38	2.763	5.812	6.6	215.944
39	2.835	5.965	6.6	220.322
40	2.908	6.118	6.5	224.592

1 Stepped W

Tahanan 1 Stepped W Kondisi Even Keel

Speed (kn)	Froude No. Lwl	Froude No. Volume	Wyman Resistance (kN)	Wyman power (hp)
0	0	0	--	--
1	0.039	0.105	0.1	0.079
2	0.078	0.21	0.4	0.632
3	0.117	0.315	0.8	2.133
4	0.156	0.419	1.5	5.055
5	0.195	0.524	2.3	9.873
6	0.234	0.629	3.3	17.061
7	0.273	0.734	4.5	27.092
8	0.312	0.839	5.9	40.441
9	0.351	0.944	7.4	57.581
10	0.39	1.049	9.2	78.986
11	0.429	1.153	11.1	105.131
12	0.467	1.258	13.2	136.488
13	0.506	1.363	15.5	173.533
14	0.545	1.468	18	216.738
15	0.584	1.573	20.6	266.578
16	0.623	1.678	22.2	306.679
17	0.662	1.783	23.3	342.151
18	0.701	1.887	24.4	378.423
19	0.74	1.992	25.4	415.352
20	0.779	2.097	26.3	452.811
21	0.818	2.202	27.1	490.684
22	0.857	2.307	27.9	528.868
23	0.896	2.412	28.6	567.269
24	0.935	2.517	29.3	605.806
25	0.974	2.621	29.9	644.404
26	1.013	2.726	30.5	682.999
27	1.052	2.831	31	721.531
28	1.091	2.936	31.5	759.95
29	1.13	3.041	31.9	798.21
30	1.169	3.146	32.3	836.271
31	1.208	3.251	32.7	874.1
32	1.247	3.355	33	911.664
33	1.286	3.46	33.3	948.938
34	1.324	3.565	33.6	985.899
35	1.363	3.67	33.9	1022.526
36	1.402	3.775	34.1	1058.804
37	1.441	3.88	34.3	1094.717
38	1.48	3.985	34.5	1130.254
39	1.519	4.089	34.7	1165.404
40	1.558	4.194	34.8	1200.16

Tahanan 1 Stepped W Kondisi Trim 1°

Speed (kn)	Froude No. Lwl	Froude No. Volume	Wyman Resistance (kN)	Wyman power (hp)
0	0	0	--	--
1	0.039	0.118	0	0.04
2	0.078	0.235	0.2	0.322
3	0.118	0.353	0.4	1.086
4	0.157	0.471	0.7	2.573
5	0.196	0.588	1.2	5.026
6	0.235	0.706	1.7	8.685
7	0.274	0.824	2.3	13.791
8	0.313	0.941	3	20.586
9	0.353	1.059	3.8	29.312
10	0.392	1.177	4.7	40.208
11	0.431	1.294	5.6	53.517
12	0.47	1.412	6.7	69.479
13	0.509	1.53	7.9	88.337
14	0.548	1.647	9.1	110.33
15	0.588	1.765	10.5	135.701
16	0.627	1.883	11.2	155.093
17	0.666	2.001	11.8	172.99
18	0.705	2.118	12.3	191.284
19	0.744	2.236	12.8	209.905
20	0.783	2.354	13.3	228.787
21	0.823	2.471	13.7	247.872
22	0.862	2.589	14.1	267.109
23	0.901	2.707	14.4	286.451
24	0.94	2.824	14.8	305.856
25	0.979	2.942	15.1	325.288
26	1.019	3.06	15.4	344.713
27	1.058	3.177	15.6	364.103
28	1.097	3.295	15.9	383.431
29	1.136	3.413	16.1	402.677
30	1.175	3.53	16.3	421.818
31	1.214	3.648	16.5	440.839
32	1.254	3.766	16.7	459.724
33	1.293	3.883	16.8	478.459
34	1.332	4.001	17	497.034
35	1.371	4.119	17.1	515.439
36	1.41	4.236	17.2	533.665
37	1.449	4.354	17.3	551.705
38	1.489	4.472	17.4	569.553
39	1.528	4.589	17.5	587.205
40	1.567	4.707	17.5	604.657

Tahanan 1 Stepped W Kondisi Trim 2°

Speed (kn)	Froude No. Lwl	Froude No. Volume	Wyman Resistance (kN)	Wyman power (hp)
0	0	0	--	--
1	0.046	0.135	0	0.028
2	0.091	0.27	0.1	0.223
3	0.137	0.405	0.3	0.752
4	0.182	0.54	0.5	1.782
5	0.228	0.675	0.8	3.48
6	0.274	0.81	1.2	6.013
7	0.319	0.945	1.6	9.549
8	0.365	1.08	2.1	14.254
9	0.41	1.215	2.6	20.296
10	0.456	1.35	3.2	27.84
11	0.502	1.485	3.9	37.055
12	0.547	1.62	4.6	48.108
13	0.593	1.755	5.5	61.165
14	0.639	1.89	5.8	70.379
15	0.684	2.025	6.2	79.602
16	0.73	2.16	6.5	89.042
17	0.775	2.295	6.7	98.651
18	0.821	2.43	7	108.388
19	0.867	2.565	7.2	118.217
20	0.912	2.7	7.4	128.105
21	0.958	2.835	7.6	138.024
22	1.003	2.97	7.8	147.95
23	1.049	3.105	8	157.861
24	1.095	3.24	8.1	167.739
25	1.14	3.375	8.2	177.569
26	1.186	3.51	8.4	187.335
27	1.231	3.645	8.5	197.027
28	1.277	3.78	8.6	206.635
29	1.323	3.915	8.6	216.15
30	1.368	4.05	8.7	225.565
31	1.414	4.185	8.8	234.874
32	1.459	4.32	8.8	244.072
33	1.505	4.455	8.9	253.156
34	1.551	4.59	8.9	262.121
35	1.596	4.725	9	270.966
36	1.642	4.86	9	279.689
37	1.688	4.995	9	288.289
38	1.733	5.13	9.1	296.764
39	1.779	5.265	9.1	305.114
40	1.824	5.4	9.1	313.339

Tahanan 1 Stepped W Kondisi Trim 3°

Speed (kn)	Froude No. Lwl	Froude No. Volume	Wyman Resistance (kN)	Wyman power (hp)
0	0	0	--	--
1	0.063	0.145	0.1	0.047
2	0.126	0.291	0.2	0.378
3	0.189	0.436	0.5	1.275
4	0.253	0.582	0.9	3.021
5	0.316	0.727	1.4	5.901
6	0.379	0.873	2	10.197
7	0.442	1.018	2.7	16.192
8	0.505	1.164	3.5	24.171
9	0.568	1.309	4.4	34.415
10	0.631	1.454	5.1	44.081
11	0.694	1.6	5.5	52.249
12	0.758	1.745	5.9	60.67
13	0.821	1.891	6.2	69.266
14	0.884	2.036	6.5	77.976
15	0.947	2.182	6.7	86.744
16	1.01	2.327	6.9	95.528
17	1.073	2.473	7.1	104.291
18	1.136	2.618	7.3	113.003
19	1.199	2.763	7.4	121.64
20	1.263	2.909	7.5	130.182
21	1.326	3.054	7.7	138.613
22	1.389	3.2	7.7	146.921
23	1.452	3.345	7.8	155.097
24	1.515	3.491	7.9	163.133
25	1.578	3.636	7.9	171.024
26	1.641	3.782	8	178.766
27	1.705	3.927	8	186.356
28	1.768	4.072	8	193.794
29	1.831	4.218	8	201.08
30	1.894	4.363	8	208.212
31	1.957	4.509	8	215.194
32	2.02	4.654	8	222.025
33	2.083	4.8	8	228.708
34	2.146	4.945	8	235.245
35	2.21	5.091	8	241.639
36	2.273	5.236	8	247.892
37	2.336	5.381	8	254.008
38	2.399	5.527	7.9	259.988
39	2.462	5.672	7.9	265.837
40	2.525	5.818	7.9	271.556

Tahanan 1 Stepped W Kondisi Trim 4°

Speed (kn)	Froude No. Lwl	Froude No. Volume	Wyman Resistance (kN)	Wyman power (hp)
0	0	0	--	--
1	0.073	0.153	0.1	0.053
2	0.145	0.307	0.2	0.421
3	0.218	0.46	0.5	1.421
4	0.291	0.613	1	3.368
5	0.364	0.766	1.5	6.578
6	0.436	0.92	2.2	11.366
7	0.509	1.073	3	18.049
8	0.582	1.226	3.9	26.942
9	0.654	1.38	4.4	34.318
10	0.727	1.533	4.8	41.283
11	0.8	1.686	5.1	48.454
12	0.872	1.839	5.4	55.753
13	0.945	1.993	5.6	63.118
14	1.018	2.146	5.8	70.5
15	1.091	2.299	6	77.857
16	1.163	2.453	6.2	85.159
17	1.236	2.606	6.3	92.379
18	1.309	2.759	6.4	99.498
19	1.381	2.912	6.5	106.501
20	1.454	3.066	6.6	113.377
21	1.527	3.219	6.6	120.117
22	1.599	3.372	6.7	126.716
23	1.672	3.526	6.7	133.17
24	1.745	3.679	6.7	139.477
25	1.818	3.832	6.8	145.637
26	1.89	3.985	6.8	151.648
27	1.963	4.139	6.8	157.513
28	2.036	4.292	6.8	163.233
29	2.108	4.445	6.8	168.81
30	2.181	4.599	6.7	174.246
31	2.254	4.752	6.7	179.545
32	2.327	4.905	6.7	184.711
33	2.399	5.058	6.7	189.745
34	2.472	5.212	6.6	194.651
35	2.545	5.365	6.6	199.433
36	2.617	5.518	6.6	204.095
37	2.69	5.672	6.5	208.639
38	2.763	5.825	6.5	213.069
39	2.835	5.978	6.5	217.389
40	2.908	6.131	6.4	221.601

1 Stepped 2-U

Tahanan 1 Stepped 2-U Kondisi Even Keel

Speed (kn)	Froude No. Lwl	Froude No. Volume	Wyman Resistance (kN)	Wyman power (hp)
0	0	0	--	--
1	0.039	0.105	0.1	0.079
2	0.078	0.21	0.4	0.633
3	0.117	0.315	0.8	2.135
4	0.156	0.419	1.5	5.061
5	0.195	0.524	2.3	9.886
6	0.234	0.629	3.3	17.082
7	0.273	0.734	4.5	27.126
8	0.312	0.839	5.9	40.491
9	0.351	0.944	7.4	57.653
10	0.39	1.048	9.2	79.085
11	0.429	1.153	11.1	105.262
12	0.467	1.258	13.2	136.659
13	0.506	1.363	15.5	173.749
14	0.545	1.468	18	217.009
15	0.584	1.573	20.6	266.911
16	0.623	1.677	22.3	307.062
17	0.662	1.782	23.4	342.579
18	0.701	1.887	24.4	378.896
19	0.74	1.992	25.4	415.871
20	0.779	2.097	26.3	453.377
21	0.818	2.202	27.1	491.297
22	0.857	2.306	27.9	529.528
23	0.896	2.411	28.6	567.978
24	0.935	2.516	29.3	606.563
25	0.974	2.621	29.9	645.209
26	1.013	2.726	30.5	683.852
27	1.052	2.831	31	722.432
28	1.091	2.935	31.5	760.899
29	1.13	3.04	32	799.207
30	1.169	3.145	32.4	837.316
31	1.208	3.25	32.7	875.191
32	1.247	3.355	33.1	912.803
33	1.286	3.46	33.4	950.123
34	1.324	3.564	33.7	987.13
35	1.363	3.669	33.9	1023.803
36	1.402	3.774	34.1	1060.126
37	1.441	3.879	34.4	1096.084
38	1.48	3.984	34.5	1131.666
39	1.519	4.089	34.7	1166.86
40	1.558	4.193	34.8	1201.659

Tahanan 1 Stepped 2-U Kondisi Trim 1°

Speed (kn)	Froude No. Lwl	Froude No. Volume	Wyman Resistance (kN)	Wyman power (hp)
0	0	0	--	--
1	0.039	0.118	0	0.04
2	0.078	0.235	0.2	0.321
3	0.118	0.353	0.4	1.085
4	0.157	0.471	0.7	2.571
5	0.196	0.588	1.2	5.022
6	0.235	0.706	1.7	8.677
7	0.274	0.824	2.3	13.779
8	0.313	0.942	3	20.569
9	0.353	1.059	3.8	29.286
10	0.392	1.177	4.7	40.173
11	0.431	1.295	5.6	53.47
12	0.47	1.412	6.7	69.419
13	0.509	1.53	7.9	88.26
14	0.548	1.648	9.1	110.235
15	0.588	1.765	10.5	135.584
16	0.627	1.883	11.2	154.959
17	0.666	2.001	11.8	172.841
18	0.705	2.118	12.3	191.119
19	0.744	2.236	12.8	209.724
20	0.783	2.354	13.3	228.589
21	0.823	2.472	13.7	247.658
22	0.862	2.589	14.1	266.879
23	0.901	2.707	14.4	286.204
24	0.94	2.825	14.8	305.592
25	0.979	2.942	15.1	325.007
26	1.019	3.06	15.4	344.415
27	1.058	3.178	15.6	363.789
28	1.097	3.295	15.9	383.101
29	1.136	3.413	16.1	402.329
30	1.175	3.531	16.3	421.454
31	1.214	3.648	16.5	440.459
32	1.254	3.766	16.6	459.327
33	1.293	3.884	16.8	478.047
34	1.332	4.002	16.9	496.605
35	1.371	4.119	17.1	514.994
36	1.41	4.237	17.2	533.204
37	1.449	4.355	17.3	551.229
38	1.489	4.472	17.4	569.062
39	1.528	4.59	17.4	586.699
40	1.567	4.708	17.5	604.135

Tahanan 1 Stepped 2-U Kondisi Trim 2°

Speed (kn)	Froude No. Lwl	Froude No. Volume	Wyman Resistance (kN)	Wyman power (hp)
0	0	0	--	--
1	0.046	0.135	0	0.028
2	0.091	0.269	0.1	0.226
3	0.137	0.404	0.3	0.762
4	0.182	0.539	0.5	1.806
5	0.228	0.673	0.8	3.527
6	0.274	0.808	1.2	6.095
7	0.319	0.943	1.6	9.679
8	0.365	1.078	2.1	14.447
9	0.41	1.212	2.7	20.571
10	0.456	1.347	3.3	28.217
11	0.502	1.482	4	37.557
12	0.547	1.616	4.7	48.76
13	0.593	1.751	5.5	61.994
14	0.639	1.886	5.9	71.332
15	0.684	2.02	6.2	80.681
16	0.73	2.155	6.5	90.248
17	0.775	2.29	6.8	99.987
18	0.821	2.424	7.1	109.857
19	0.867	2.559	7.3	119.818
20	0.912	2.694	7.5	129.84
21	0.958	2.829	7.7	139.894
22	1.003	2.963	7.9	149.954
23	1.049	3.098	8.1	160
24	1.095	3.233	8.2	170.012
25	1.14	3.367	8.3	179.974
26	1.186	3.502	8.5	189.873
27	1.231	3.637	8.6	199.697
28	1.277	3.771	8.7	209.435
29	1.323	3.906	8.8	219.079
30	1.368	4.041	8.8	228.621
31	1.414	4.176	8.9	238.056
32	1.459	4.31	9	247.379
33	1.505	4.445	9	256.585
34	1.551	4.58	9.1	265.672
35	1.596	4.714	9.1	274.637
36	1.642	4.849	9.1	283.478
37	1.688	4.984	9.2	292.194
38	1.733	5.118	9.2	300.784
39	1.779	5.253	9.2	309.248
40	1.824	5.388	9.2	317.585

Tahanan 1 Stepped 2-U Kondisi Trim 3°

Speed (kn)	Froude No. Lwl	Froude No. Volume	Wyman Resistance (kN)	Wyman power (hp)
0	0	0	--	--
1	0.063	0.145	0.1	0.048
2	0.126	0.29	0.2	0.386
3	0.189	0.435	0.5	1.302
4	0.252	0.579	0.9	3.087
5	0.315	0.724	1.4	6.029
6	0.378	0.869	2	10.417
7	0.442	1.014	2.7	16.543
8	0.505	1.159	3.6	24.693
9	0.568	1.304	4.5	35.159
10	0.631	1.449	5.2	45.081
11	0.694	1.593	5.6	53.438
12	0.757	1.738	6	62.054
13	0.82	1.883	6.3	70.85
14	0.883	2.028	6.6	79.762
15	0.946	2.173	6.9	88.736
16	1.009	2.318	7.1	97.726
17	1.072	2.463	7.3	106.695
18	1.135	2.608	7.4	115.612
19	1.198	2.752	7.6	124.453
20	1.261	2.897	7.7	133.196
21	1.325	3.042	7.8	141.827
22	1.388	3.187	7.9	150.333
23	1.451	3.332	8	158.703
24	1.514	3.477	8.1	166.93
25	1.577	3.622	8.1	175.009
26	1.64	3.766	8.2	182.936
27	1.703	3.911	8.2	190.708
28	1.766	4.056	8.2	198.325
29	1.829	4.201	8.2	205.785
30	1.892	4.346	8.2	213.088
31	1.955	4.491	8.2	220.237
32	2.018	4.636	8.2	227.233
33	2.081	4.78	8.2	234.077
34	2.145	4.925	8.2	240.772
35	2.208	5.07	8.2	247.32
36	2.271	5.215	8.2	253.724
37	2.334	5.36	8.1	259.987
38	2.397	5.505	8.1	266.112
39	2.46	5.65	8.1	272.103
40	2.523	5.794	8.1	277.961

Tahanan 1 Stepped 2-U Kondisi Trim 4°

Speed (kn)	Froude No. Lwl	Froude No. Volume	Wyman Resistance (kN)	Wyman power (hp)
0	0	0	--	--
1	0.073	0.152	0.1	0.054
2	0.145	0.305	0.3	0.435
3	0.218	0.457	0.6	1.468
4	0.291	0.61	1	3.48
5	0.364	0.762	1.6	6.797
6	0.436	0.915	2.3	11.745
7	0.509	1.067	3.1	18.65
8	0.582	1.22	4	27.839
9	0.654	1.372	4.6	35.461
10	0.727	1.525	4.9	42.658
11	0.8	1.677	5.3	50.068
12	0.872	1.829	5.6	57.61
13	0.945	1.982	5.8	65.221
14	1.018	2.134	6	72.848
15	1.091	2.287	6.2	80.451
16	1.163	2.439	6.4	87.995
17	1.236	2.592	6.5	95.455
18	1.309	2.744	6.6	102.811
19	1.381	2.897	6.7	110.048
20	1.454	3.049	6.8	117.153
21	1.527	3.201	6.9	124.117
22	1.599	3.354	6.9	130.936
23	1.672	3.506	6.9	137.606
24	1.745	3.659	7	144.123
25	1.818	3.811	7	150.487
26	1.89	3.964	7	156.699
27	1.963	4.116	7	162.759
28	2.036	4.269	7	168.669
29	2.108	4.421	7	174.432
30	2.181	4.574	7	180.049
31	2.254	4.726	6.9	185.525
32	2.327	4.878	6.9	190.862
33	2.399	5.031	6.9	196.064
34	2.472	5.183	6.9	201.134
35	2.545	5.336	6.8	206.075
36	2.617	5.488	6.8	210.892
37	2.69	5.641	6.8	215.587
38	2.763	5.793	6.7	220.165
39	2.835	5.946	6.7	224.629
40	2.908	6.098	6.6	228.982

2 Stepped V

Tahanan 2 Stepped V Kondisi Even Keel

Speed (kn)	Froude No. Lwl	Froude No. Volume	Wyman Resistance (kN)	Wyman power (hp)
0	0	0	--	--
1	0.039	0.107	0.1	0.07
2	0.078	0.214	0.3	0.561
3	0.117	0.321	0.7	1.892
4	0.156	0.428	1.3	4.485
5	0.195	0.535	2	8.76
6	0.234	0.642	2.9	15.137
7	0.273	0.749	4	24.037
8	0.312	0.856	5.2	35.881
9	0.351	0.963	6.6	51.088
10	0.39	1.07	8.1	70.079
11	0.429	1.177	9.8	93.275
12	0.467	1.284	11.7	121.097
13	0.506	1.391	13.7	153.964
14	0.545	1.498	15.9	192.297
15	0.584	1.605	18.3	236.517
16	0.623	1.712	19.7	272.096
17	0.662	1.818	20.7	303.568
18	0.701	1.925	21.6	335.749
19	0.74	2.032	22.5	368.514
20	0.779	2.139	23.3	401.749
21	0.818	2.246	24	435.351
22	0.857	2.353	24.7	469.229
23	0.896	2.46	25.4	503.3
24	0.935	2.567	26	537.491
25	0.974	2.674	26.5	571.737
26	1.013	2.781	27	605.979
27	1.052	2.888	27.5	640.166
28	1.091	2.995	27.9	674.253
29	1.13	3.102	28.3	708.198
30	1.169	3.209	28.7	741.968
31	1.208	3.316	29	775.53
32	1.247	3.423	29.3	808.859
33	1.286	3.53	29.6	841.93
34	1.324	3.637	29.8	874.722
35	1.363	3.744	30.1	907.219
36	1.402	3.851	30.3	939.406
37	1.441	3.958	30.4	971.27
38	1.48	4.065	30.6	1002.799
39	1.519	4.172	30.7	1033.986
40	1.558	4.279	30.9	1064.822

Tahanan 2 Stepped V Kondisi Trim 1°

Speed (kn)	Froude No. Lwl	Froude No. Volume	Wyman Resistance (kN)	Wyman power (hp)
0	0	0	--	--
1	0.039	0.123	0	0.031
2	0.078	0.245	0.1	0.251
3	0.118	0.368	0.3	0.846
4	0.157	0.49	0.6	2.005
5	0.196	0.613	0.9	3.916
6	0.235	0.735	1.3	6.767
7	0.274	0.858	1.8	10.746
8	0.313	0.98	2.3	16.04
9	0.353	1.103	3	22.839
10	0.392	1.225	3.7	31.329
11	0.431	1.348	4.4	41.698
12	0.47	1.47	5.3	54.136
13	0.509	1.593	6.2	68.829
14	0.548	1.715	7.2	85.966
15	0.588	1.838	8.2	105.734
16	0.627	1.96	8.8	120.843
17	0.666	2.083	9.3	134.788
18	0.705	2.205	9.7	149.042
19	0.744	2.328	10.1	163.55
20	0.783	2.45	10.4	178.263
21	0.823	2.573	10.7	193.133
22	0.862	2.695	11.1	208.122
23	0.901	2.818	11.3	223.192
24	0.94	2.94	11.6	238.312
25	0.979	3.063	11.8	253.453
26	1.019	3.185	12.1	268.588
27	1.058	3.308	12.3	283.696
28	1.097	3.43	12.5	298.756
29	1.136	3.553	12.6	313.752
30	1.175	3.675	12.8	328.666
31	1.214	3.798	12.9	343.486
32	1.254	3.92	13.1	358.201
33	1.293	4.043	13.2	372.799
34	1.332	4.165	13.3	387.272
35	1.371	4.288	13.4	401.612
36	1.41	4.41	13.5	415.813
37	1.449	4.533	13.6	429.869
38	1.489	4.656	13.6	443.776
39	1.528	4.778	13.7	457.53
40	1.567	4.901	13.8	471.127

Tahanan 2 Stepped V Kondisi Trim 2°

Speed (kn)	Froude No. Lwl	Froude No. Volume	Wyman Resistance (kN)	Wyman power (hp)
0	0	0	--	--
1	0.046	0.148	0	0.016
2	0.091	0.296	0.1	0.128
3	0.137	0.444	0.2	0.433
4	0.182	0.592	0.3	1.026
5	0.228	0.74	0.5	2.005
6	0.274	0.888	0.7	3.464
7	0.319	1.036	0.9	5.501
8	0.365	1.184	1.2	8.212
9	0.41	1.332	1.5	11.692
10	0.456	1.48	1.9	16.039
11	0.502	1.628	2.3	21.348
12	0.547	1.776	2.7	27.715
13	0.593	1.924	3.1	35.237
14	0.639	2.072	3.4	40.545
15	0.684	2.22	3.5	45.859
16	0.73	2.368	3.7	51.297
17	0.775	2.516	3.9	56.833
18	0.821	2.664	4	62.442
19	0.867	2.812	4.2	68.105
20	0.912	2.96	4.3	73.801
21	0.958	3.108	4.4	79.516
22	1.003	3.256	4.5	85.234
23	1.049	3.404	4.6	90.944
24	1.095	3.552	4.7	96.635
25	1.14	3.7	4.7	102.297
26	1.186	3.848	4.8	107.924
27	1.231	3.996	4.9	113.508
28	1.277	4.144	4.9	119.043
29	1.323	4.292	5	124.524
30	1.368	4.44	5	129.948
31	1.414	4.588	5.1	135.311
32	1.459	4.736	5.1	140.61
33	1.505	4.884	5.1	145.843
34	1.551	5.032	5.2	151.008
35	1.596	5.18	5.2	156.104
36	1.642	5.328	5.2	161.129
37	1.688	5.476	5.2	166.083
38	1.733	5.624	5.2	170.966
39	1.779	5.772	5.2	175.776
40	1.824	5.92	5.2	180.515

Tahanan 2 Stepped V Kondisi Trim 3°

Speed (kn)	Froude No. Lwl	Froude No. Volume	Wyman Resistance (kN)	Wyman power (hp)
0	0	0	--	--
1	0.074	0.163	0	0.039
2	0.149	0.325	0.2	0.316
3	0.223	0.488	0.4	1.066
4	0.297	0.651	0.7	2.526
5	0.372	0.813	1.1	4.933
6	0.446	0.976	1.6	8.525
7	0.521	1.139	2.2	13.537
8	0.595	1.301	2.9	20.207
9	0.669	1.464	3.2	25.04
10	0.744	1.626	3.5	30.07
11	0.818	1.789	3.7	35.236
12	0.892	1.952	3.9	40.485
13	0.967	2.114	4.1	45.771
14	1.041	2.277	4.2	51.059
15	1.116	2.44	4.4	56.322
16	1.19	2.602	4.5	61.537
17	1.264	2.765	4.5	66.686
18	1.339	2.928	4.6	71.757
19	1.413	3.09	4.7	76.739
20	1.487	3.253	4.7	81.625
21	1.562	3.416	4.8	86.409
22	1.636	3.578	4.8	91.088
23	1.711	3.741	4.8	95.66
24	1.785	3.903	4.8	100.124
25	1.859	4.066	4.8	104.48
26	1.934	4.229	4.8	108.727
27	2.008	4.391	4.8	112.868
28	2.082	4.554	4.8	116.903
29	2.157	4.717	4.8	120.834
30	2.231	4.879	4.8	124.665
31	2.305	5.042	4.8	128.396
32	2.38	5.205	4.8	132.03
33	2.454	5.367	4.8	135.57
34	2.529	5.53	4.7	139.018
35	2.603	5.693	4.7	142.378
36	2.677	5.855	4.7	145.65
37	2.752	6.018	4.7	148.839
38	2.826	6.181	4.6	151.946
39	2.9	6.343	4.6	154.975
40	2.975	6.506	4.6	157.927

Tahanan 2 Stepped V Kondisi Trim 4°

Speed (kn)	Froude No. Lwl	Froude No. Volume	Wyman Resistance (kN)	Wyman power (hp)
0	0	0	--	--
1	0.085	0.171	0.1	0.044
2	0.171	0.342	0.2	0.354
3	0.256	0.513	0.5	1.194
4	0.341	0.684	0.8	2.831
5	0.427	0.855	1.3	5.529
6	0.512	1.026	1.8	9.554
7	0.597	1.197	2.5	15.106
8	0.683	1.368	2.8	19.235
9	0.768	1.539	3	23.55
10	0.853	1.709	3.2	27.98
11	0.939	1.88	3.4	32.469
12	1.024	2.051	3.6	36.972
13	1.109	2.222	3.7	41.456
14	1.195	2.393	3.8	45.895
15	1.28	2.564	3.9	50.269
16	1.365	2.735	4	54.564
17	1.451	2.906	4	58.769
18	1.536	3.077	4.1	62.878
19	1.621	3.248	4.1	66.886
20	1.707	3.419	4.1	70.788
21	1.792	3.59	4.1	74.586
22	1.877	3.761	4.1	78.277
23	1.963	3.932	4.1	81.863
24	2.048	4.103	4.1	85.346
25	2.134	4.274	4.1	88.726
26	2.219	4.445	4.1	92.006
27	2.304	4.616	4.1	95.19
28	2.39	4.787	4.1	98.279
29	2.475	4.958	4	101.276
30	2.56	5.128	4	104.184
31	2.646	5.299	4	107.006
32	2.731	5.47	4	109.745
33	2.816	5.641	3.9	112.404
34	2.902	5.812	3.9	114.986
35	2.987	5.983	3.9	117.493
36	3.072	6.154	3.9	119.928
37	3.158	6.325	3.8	122.294
38	3.243	6.496	3.8	124.593
39	3.328	6.667	3.8	126.828
40	3.414	6.838	3.7	129.001

2 Stepped U

Tahanan 2 Stepped U Kondisi Even Keel

Speed (kn)	Froude No. Lwl	Froude No. Volume	Wyman Resistance (kN)	Wyman power (hp)
0	0	0	--	--
1	0.039	0.107	0.1	0.07
2	0.078	0.214	0.3	0.561
3	0.117	0.321	0.7	1.893
4	0.156	0.428	1.3	4.487
5	0.195	0.535	2	8.763
6	0.234	0.642	2.9	15.143
7	0.273	0.749	4	24.047
8	0.312	0.856	5.2	35.895
9	0.351	0.963	6.6	51.109
10	0.39	1.07	8.1	70.108
11	0.429	1.177	9.8	93.313
12	0.467	1.284	11.7	121.146
13	0.506	1.391	13.7	154.027
14	0.545	1.497	15.9	192.376
15	0.584	1.604	18.3	236.614
16	0.623	1.711	19.7	272.207
17	0.662	1.818	20.7	303.692
18	0.701	1.925	21.6	335.886
19	0.74	2.032	22.5	368.665
20	0.779	2.139	23.3	401.913
21	0.818	2.246	24	435.529
22	0.857	2.353	24.7	469.42
23	0.896	2.46	25.4	503.505
24	0.935	2.567	26	537.71
25	0.974	2.674	26.5	571.97
26	1.013	2.781	27	606.226
27	1.052	2.888	27.5	640.427
28	1.091	2.995	27.9	674.527
29	1.13	3.102	28.3	708.487
30	1.169	3.209	28.7	742.27
31	1.208	3.316	29	775.846
32	1.247	3.423	29.3	809.188
33	1.286	3.53	29.6	842.272
34	1.324	3.637	29.8	875.079
35	1.363	3.744	30.1	907.589
36	1.402	3.851	30.3	939.789
37	1.441	3.958	30.5	971.665
38	1.48	4.065	30.6	1003.208
39	1.519	4.172	30.8	1034.407
40	1.558	4.279	30.9	1065.256

Tahanan 2 Stepped U Kondisi Trim 1°

Speed (kn)	Froude No. Lwl	Froude No. Volume	Wyman Resistance (kN)	Wyman power (hp)
0	0	0	--	--
1	0.039	0.123	0	0.031
2	0.078	0.245	0.1	0.251
3	0.118	0.368	0.3	0.846
4	0.157	0.491	0.6	2.005
5	0.196	0.613	0.9	3.916
6	0.235	0.736	1.3	6.767
7	0.274	0.859	1.8	10.746
8	0.313	0.981	2.3	16.04
9	0.353	1.104	2.9	22.839
10	0.392	1.227	3.6	31.329
11	0.431	1.349	4.4	41.698
12	0.47	1.472	5.2	54.136
13	0.509	1.595	6.1	68.829
14	0.548	1.717	7.1	85.966
15	0.588	1.84	8.2	105.734
16	0.627	1.963	8.8	120.843
17	0.666	2.085	9.2	134.788
18	0.705	2.208	9.6	149.042
19	0.744	2.331	10	163.55
20	0.783	2.453	10.3	178.263
21	0.823	2.576	10.7	193.133
22	0.862	2.699	11	208.122
23	0.901	2.821	11.3	223.192
24	0.94	2.944	11.5	238.312
25	0.979	3.067	11.8	253.453
26	1.019	3.19	12	268.588
27	1.058	3.312	12.2	283.696
28	1.097	3.435	12.4	298.756
29	1.136	3.558	12.5	313.752
30	1.175	3.68	12.7	328.666
31	1.214	3.803	12.8	343.486
32	1.254	3.926	13	358.201
33	1.293	4.048	13.1	372.799
34	1.332	4.171	13.2	387.272
35	1.371	4.294	13.3	401.612
36	1.41	4.416	13.4	415.813
37	1.449	4.539	13.5	429.869
38	1.489	4.662	13.5	443.776
39	1.528	4.784	13.6	457.53
40	1.567	4.907	13.7	471.127

Tahanan 2 Stepped U Kondisi Trim 2°

Speed (kn)	Froude No. Lwl	Froude No. Volume	Wyman Resistance (kN)	Wyman power (hp)
0	0	0	--	--
1	0.046	0.149	0	0.016
2	0.091	0.297	0.1	0.125
3	0.137	0.446	0.2	0.421
4	0.182	0.595	0.3	0.999
5	0.228	0.743	0.5	1.95
6	0.274	0.892	0.7	3.37
7	0.319	1.041	0.9	5.352
8	0.365	1.189	1.2	7.989
9	0.41	1.338	1.5	11.375
10	0.456	1.487	1.8	15.604
11	0.502	1.635	2.2	20.769
12	0.547	1.784	2.6	26.964
13	0.593	1.933	3.1	34.282
14	0.639	2.081	3.3	39.446
15	0.684	2.23	3.4	44.615
16	0.73	2.379	3.6	49.906
17	0.775	2.527	3.8	55.292
18	0.821	2.676	3.9	60.749
19	0.867	2.825	4	66.258
20	0.912	2.973	4.2	71.8
21	0.958	3.122	4.3	77.36
22	1.003	3.271	4.4	82.923
23	1.049	3.419	4.5	88.478
24	1.095	3.568	4.5	94.015
25	1.14	3.717	4.6	99.524
26	1.186	3.865	4.7	104.998
27	1.231	4.014	4.7	110.43
28	1.277	4.163	4.8	115.815
29	1.323	4.311	4.8	121.148
30	1.368	4.46	4.9	126.425
31	1.414	4.609	4.9	131.642
32	1.459	4.757	5	136.798
33	1.505	4.906	5	141.889
34	1.551	5.055	5	146.914
35	1.596	5.204	5	151.871
36	1.642	5.352	5	156.76
37	1.688	5.501	5.1	161.58
38	1.733	5.65	5.1	166.33
39	1.779	5.798	5.1	171.01
40	1.824	5.947	5.1	175.621

Tahanan 2 Stepped U Kondisi Trim 3°

Speed (kn)	Froude No. Lwl	Froude No. Volume	Wyman Resistance (kN)	Wyman power (hp)
0	0	0	--	--
1	0.074	0.163	0	0.04
2	0.149	0.325	0.2	0.317
3	0.223	0.488	0.4	1.071
4	0.297	0.65	0.7	2.539
5	0.372	0.813	1.1	4.958
6	0.446	0.975	1.7	8.568
7	0.521	1.138	2.3	13.606
8	0.595	1.3	2.9	20.309
9	0.669	1.463	3.2	25.166
10	0.744	1.625	3.5	30.222
11	0.818	1.788	3.7	35.415
12	0.892	1.95	3.9	40.69
13	0.967	2.113	4.1	46.002
14	1.041	2.275	4.3	51.318
15	1.116	2.438	4.4	56.607
16	1.19	2.6	4.5	61.848
17	1.264	2.763	4.6	67.023
18	1.339	2.925	4.6	72.12
19	1.413	3.088	4.7	77.127
20	1.487	3.25	4.8	82.037
21	1.562	3.413	4.8	86.846
22	1.636	3.575	4.8	91.549
23	1.711	3.738	4.8	96.144
24	1.785	3.9	4.9	100.631
25	1.859	4.063	4.9	105.008
26	1.934	4.225	4.9	109.277
27	2.008	4.388	4.9	113.438
28	2.082	4.55	4.9	117.494
29	2.157	4.713	4.9	121.445
30	2.231	4.875	4.8	125.295
31	2.305	5.038	4.8	129.045
32	2.38	5.2	4.8	132.698
33	2.454	5.363	4.8	136.255
34	2.529	5.525	4.8	139.721
35	2.603	5.688	4.7	143.097
36	2.677	5.85	4.7	146.387
37	2.752	6.013	4.7	149.592
38	2.826	6.175	4.7	152.715
39	2.9	6.338	4.6	155.758
40	2.975	6.5	4.6	158.725

Tahanan 2 Stepped U Kondisi Trim 4°

Speed (kn)	Froude No. Lwl	Froude No. Volume	Wyman Resistance (kN)	Wyman power (hp)
0	0	0	--	--
1	0.085	0.171	0.1	0.044
2	0.171	0.342	0.2	0.355
3	0.256	0.513	0.5	1.199
4	0.341	0.683	0.8	2.842
5	0.427	0.854	1.3	5.55
6	0.512	1.025	1.9	9.591
7	0.597	1.196	2.5	15.164
8	0.683	1.367	2.8	19.309
9	0.768	1.538	3	23.641
10	0.853	1.708	3.3	28.088
11	0.939	1.879	3.4	32.594
12	1.024	2.05	3.6	37.114
13	1.109	2.221	3.7	41.616
14	1.195	2.392	3.8	46.071
15	1.28	2.563	3.9	50.462
16	1.365	2.733	4	54.774
17	1.451	2.904	4	58.996
18	1.536	3.075	4.1	63.12
19	1.621	3.246	4.1	67.143
20	1.707	3.417	4.1	71.061
21	1.792	3.588	4.1	74.873
22	1.877	3.758	4.1	78.578
23	1.963	3.929	4.1	82.178
24	2.048	4.1	4.1	85.674
25	2.134	4.271	4.1	89.067
26	2.219	4.442	4.1	92.36
27	2.304	4.613	4.1	95.556
28	2.39	4.783	4.1	98.657
29	2.475	4.954	4.1	101.665
30	2.56	5.125	4	104.585
31	2.646	5.296	4	107.418
32	2.731	5.467	4	110.168
33	2.816	5.638	4	112.837
34	2.902	5.809	3.9	115.428
35	2.987	5.979	3.9	117.945
36	3.072	6.15	3.9	120.39
37	3.158	6.321	3.8	122.765
38	3.243	6.492	3.8	125.072
39	3.328	6.663	3.8	127.316
40	3.414	6.834	3.8	129.497

2 Stepped W

Tahanan 2 Stepped W Kondisi Even Keel

Speed (kn)	Froude No. Lwl	Froude No. Volume	Wyman Resistance (kN)	Wyman power (hp)
0	0	0	--	--
1	0.039	0.107	0.1	0.068
2	0.078	0.215	0.3	0.547
3	0.117	0.322	0.7	1.847
4	0.156	0.43	1.3	4.378
5	0.195	0.537	2	8.551
6	0.234	0.644	2.9	14.775
7	0.273	0.752	3.9	23.463
8	0.312	0.859	5.1	35.023
9	0.351	0.967	6.4	49.867
10	0.39	1.074	7.9	68.404
11	0.429	1.181	9.6	91.046
12	0.467	1.289	11.4	118.203
13	0.506	1.396	13.4	150.284
14	0.545	1.504	15.5	187.701
15	0.584	1.611	17.8	230.864
16	0.623	1.718	19.2	265.593
17	0.662	1.826	20.2	296.313
18	0.701	1.933	21.1	327.725
19	0.74	2.041	22	359.707
20	0.779	2.148	22.7	392.147
21	0.818	2.255	23.5	424.946
22	0.857	2.363	24.1	458.015
23	0.896	2.47	24.8	491.271
24	0.935	2.578	25.3	524.645
25	0.974	2.685	25.9	558.072
26	1.013	2.792	26.4	591.496
27	1.052	2.9	26.8	624.866
28	1.091	3.007	27.3	658.138
29	1.13	3.115	27.6	691.272
30	1.169	3.222	28	724.235
31	1.208	3.329	28.3	756.995
32	1.247	3.437	28.6	789.527
33	1.286	3.544	28.9	821.807
34	1.324	3.652	29.1	853.816
35	1.363	3.759	29.3	885.537
36	1.402	3.866	29.5	916.954
37	1.441	3.974	29.7	948.056
38	1.48	4.081	29.9	978.832
39	1.519	4.189	30	1009.273
40	1.558	4.296	30.1	1039.373

Tahanan 2 Stepped W Kondisi Trim 1°

Speed (kn)	Froude No. Lwl	Froude No. Volume	Wyman Resistance (kN)	Wyman power (hp)
0	0	0	--	--
1	0.039	0.123	0	0.03
2	0.078	0.247	0.1	0.243
3	0.118	0.37	0.3	0.821
4	0.157	0.493	0.6	1.946
5	0.196	0.616	0.9	3.801
6	0.235	0.74	1.3	6.568
7	0.274	0.863	1.7	10.43
8	0.313	0.986	2.3	15.569
9	0.353	1.11	2.9	22.167
10	0.392	1.233	3.5	30.407
11	0.431	1.356	4.3	40.472
12	0.47	1.479	5.1	52.544
13	0.509	1.603	6	66.805
14	0.548	1.726	6.9	83.438
15	0.588	1.849	7.9	102.625
16	0.627	1.973	8.5	117.29
17	0.666	2.096	8.9	130.825
18	0.705	2.219	9.3	144.66
19	0.744	2.342	9.7	158.742
20	0.783	2.466	10	173.021
21	0.823	2.589	10.4	187.455
22	0.862	2.712	10.6	202.003
23	0.901	2.836	10.9	216.63
24	0.94	2.959	11.2	231.306
25	0.979	3.082	11.4	246.001
26	1.019	3.205	11.6	260.691
27	1.058	3.329	11.8	275.355
28	1.097	3.452	12	289.973
29	1.136	3.575	12.2	304.527
30	1.175	3.699	12.3	319.003
31	1.214	3.822	12.5	333.387
32	1.254	3.945	12.6	347.669
33	1.293	4.068	12.7	361.838
34	1.332	4.192	12.8	375.885
35	1.371	4.315	12.9	389.804
36	1.41	4.438	13	403.587
37	1.449	4.562	13.1	417.23
38	1.489	4.685	13.1	430.728
39	1.528	4.808	13.2	444.078
40	1.567	4.931	13.3	457.276

Tahanan 2 Stepped W Kondisi Trim 2°

Speed (kn)	Froude No. Lwl	Froude No. Volume	Wyman Resistance (kN)	Wyman power (hp)
0	0	0	--	--
1	0.046	0.15	0	0.015
2	0.091	0.301	0.1	0.117
3	0.137	0.451	0.2	0.395
4	0.182	0.601	0.3	0.935
5	0.228	0.752	0.4	1.827
6	0.274	0.902	0.6	3.157
7	0.319	1.052	0.8	5.013
8	0.365	1.202	1.1	7.483
9	0.41	1.353	1.4	10.654
10	0.456	1.503	1.7	14.615
11	0.502	1.653	2.1	19.453
12	0.547	1.804	2.4	25.255
13	0.593	1.954	2.9	32.109
14	0.639	2.104	3.1	36.946
15	0.684	2.255	3.2	41.788
16	0.73	2.405	3.4	46.743
17	0.775	2.555	3.5	51.788
18	0.821	2.705	3.7	56.899
19	0.867	2.856	3.8	62.059
20	0.912	3.006	3.9	67.25
21	0.958	3.156	4	72.457
22	1.003	3.307	4.1	77.668
23	1.049	3.457	4.2	82.871
24	1.095	3.607	4.3	88.056
25	1.14	3.758	4.3	93.216
26	1.186	3.908	4.4	98.343
27	1.231	4.058	4.4	103.431
28	1.277	4.208	4.5	108.475
29	1.323	4.359	4.5	113.47
30	1.368	4.509	4.6	118.412
31	1.414	4.659	4.6	123.299
32	1.459	4.81	4.6	128.128
33	1.505	4.96	4.7	132.896
34	1.551	5.11	4.7	137.603
35	1.596	5.261	4.7	142.246
36	1.642	5.411	4.7	146.825
37	1.688	5.561	4.7	151.34
38	1.733	5.712	4.8	155.789
39	1.779	5.862	4.8	160.172
40	1.824	6.012	4.8	164.49

Tahanan 2 Stepped W Kondisi Trim 3°

Speed (kn)	Froude No. Lwl	Froude No. Volume	Wyman Resistance (kN)	Wyman power (hp)
0	0	0	--	--
1	0.074	0.163	0	0.039
2	0.149	0.326	0.2	0.313
3	0.223	0.489	0.4	1.058
4	0.297	0.651	0.7	2.507
5	0.372	0.814	1.1	4.897
6	0.446	0.977	1.6	8.461
7	0.521	1.14	2.2	13.436
8	0.595	1.303	2.9	20.057
9	0.669	1.466	3.2	24.855
10	0.744	1.628	3.5	29.848
11	0.818	1.791	3.7	34.977
12	0.892	1.954	3.9	40.187
13	0.967	2.117	4.1	45.435
14	1.041	2.28	4.2	50.684
15	1.115	2.443	4.3	55.909
16	1.19	2.605	4.4	61.085
17	1.264	2.768	4.5	66.197
18	1.339	2.931	4.6	71.23
19	1.413	3.094	4.6	76.176
20	1.487	3.257	4.7	81.026
21	1.562	3.42	4.7	85.776
22	1.636	3.583	4.8	90.421
23	1.71	3.745	4.8	94.96
24	1.785	3.908	4.8	99.391
25	1.859	4.071	4.8	103.715
26	1.934	4.234	4.8	107.931
27	2.008	4.397	4.8	112.042
28	2.082	4.56	4.8	116.048
29	2.157	4.722	4.8	119.951
30	2.231	4.885	4.8	123.753
31	2.305	5.048	4.8	127.457
32	2.38	5.211	4.7	131.065
33	2.454	5.374	4.7	134.579
34	2.528	5.537	4.7	138.003
35	2.603	5.699	4.7	141.337
36	2.677	5.862	4.7	144.586
37	2.752	6.025	4.6	147.752
38	2.826	6.188	4.6	150.837
39	2.9	6.351	4.6	153.843
40	2.975	6.514	4.5	156.774

Tahanan 2 Stepped W Kondisi Trim 4°

Speed (kn)	Froude No. Lwl	Froude No. Volume	Wyman Resistance (kN)	Wyman power (hp)
0	0	0	--	--
1	0.085	0.171	0.1	0.044
2	0.171	0.342	0.2	0.352
3	0.256	0.513	0.5	1.19
4	0.342	0.684	0.8	2.82
5	0.427	0.856	1.3	5.507
6	0.512	1.027	1.8	9.517
7	0.598	1.198	2.5	15.035
8	0.683	1.369	2.8	19.143
9	0.769	1.54	3	23.436
10	0.854	1.711	3.2	27.843
11	0.939	1.882	3.4	32.308
12	1.025	2.053	3.6	36.787
13	1.11	2.225	3.7	41.247
14	1.196	2.396	3.8	45.662
15	1.281	2.567	3.9	50.012
16	1.366	2.738	3.9	54.283
17	1.452	2.909	4	58.465
18	1.537	3.08	4	62.551
19	1.623	3.251	4.1	66.536
20	1.708	3.422	4.1	70.417
21	1.793	3.594	4.1	74.192
22	1.879	3.765	4.1	77.863
23	1.964	3.936	4.1	81.428
24	2.05	4.107	4.1	84.89
25	2.135	4.278	4.1	88.251
26	2.22	4.449	4.1	91.512
27	2.306	4.62	4.1	94.677
28	2.391	4.791	4	97.748
29	2.477	4.962	4	100.727
30	2.562	5.134	4	103.618
31	2.647	5.305	4	106.424
32	2.733	5.476	4	109.147
33	2.818	5.647	3.9	111.79
34	2.904	5.818	3.9	114.356
35	2.989	5.989	3.9	116.848
36	3.074	6.16	3.8	119.269
37	3.16	6.331	3.8	121.62
38	3.245	6.503	3.8	123.905
39	3.331	6.674	3.8	126.127
40	3.416	6.845	3.7	128.286

2 Stepped 2-U

Tahanan 2 Stepped 2-U Kondisi Even Keel

Speed (kn)	Froude No. Lwl	Froude No. Volume	Wyman Resistance (kN)	Wyman power (hp)
0	0	0	--	--
1	0.039	0.107	0.1	0.069
2	0.078	0.215	0.3	0.552
3	0.117	0.322	0.7	1.861
4	0.156	0.429	1.3	4.412
5	0.195	0.536	2	8.617
6	0.234	0.644	2.9	14.891
7	0.273	0.751	3.9	23.646
8	0.312	0.858	5.1	35.296
9	0.351	0.965	6.5	50.256
10	0.39	1.073	8	68.938
11	0.429	1.18	9.7	91.756
12	0.467	1.287	11.5	119.124
13	0.506	1.394	13.5	151.456
14	0.545	1.502	15.7	189.165
15	0.584	1.609	18	232.665
16	0.623	1.716	19.4	267.664
17	0.662	1.823	20.4	298.623
18	0.701	1.931	21.3	330.281
19	0.74	2.038	22.1	362.512
20	0.779	2.145	22.9	395.205
21	0.818	2.253	23.6	428.26
22	0.857	2.36	24.3	461.586
23	0.896	2.467	25	495.102
24	0.935	2.574	25.5	528.737
25	0.974	2.682	26.1	562.424
26	1.013	2.789	26.6	596.109
27	1.052	2.896	27	629.739
28	1.091	3.003	27.5	663.27
29	1.13	3.111	27.9	696.663
30	1.169	3.218	28.2	729.882
31	1.208	3.325	28.5	762.898
32	1.247	3.432	28.8	795.684
33	1.286	3.54	29.1	828.216
34	1.324	3.647	29.3	860.475
35	1.363	3.754	29.6	892.442
36	1.402	3.861	29.8	924.105
37	1.441	3.969	29.9	955.449
38	1.48	4.076	30.1	986.465
39	1.519	4.183	30.2	1017.144
40	1.558	4.291	30.4	1047.478

Tahanan 2 Stepped 2-U Kondisi Trim 1°

Speed (kn)	Froude No. Lwl	Froude No. Volume	Wyman Resistance (kN)	Wyman power (hp)
0	0	0	--	--
1	0.039	0.123	0	0.031
2	0.078	0.246	0.1	0.245
3	0.118	0.369	0.3	0.828
4	0.157	0.492	0.6	1.962
5	0.196	0.616	0.9	3.832
6	0.235	0.739	1.3	6.621
7	0.274	0.862	1.7	10.514
8	0.313	0.985	2.3	15.695
9	0.353	1.108	2.9	22.347
10	0.392	1.231	3.6	30.654
11	0.431	1.354	4.3	40.8
12	0.47	1.477	5.1	52.97
13	0.509	1.601	6	67.347
14	0.548	1.724	7	84.114
15	0.588	1.847	8	103.457
16	0.627	1.97	8.6	118.241
17	0.666	2.093	9	131.885
18	0.705	2.216	9.4	145.832
19	0.744	2.339	9.8	160.028
20	0.783	2.462	10.1	174.424
21	0.823	2.586	10.4	188.974
22	0.862	2.709	10.7	203.64
23	0.901	2.832	11	218.386
24	0.94	2.955	11.3	233.18
25	0.979	3.078	11.5	247.995
26	1.019	3.201	11.7	262.804
27	1.058	3.324	11.9	277.587
28	1.097	3.447	12.1	292.323
29	1.136	3.57	12.3	306.995
30	1.175	3.694	12.4	321.588
31	1.214	3.817	12.6	336.09
32	1.254	3.94	12.7	350.487
33	1.293	4.063	12.8	364.771
34	1.332	4.186	12.9	378.932
35	1.371	4.309	13	392.963
36	1.41	4.432	13.1	406.859
37	1.449	4.555	13.2	420.612
38	1.489	4.679	13.3	434.219
39	1.528	4.802	13.3	447.677
40	1.567	4.925	13.4	460.982

Tahanan 2 Stepped 2-U Kondisi Trim 2°

Speed (kn)	Froude No. Lwl	Froude No. Volume	Wyman Resistance (kN)	Wyman power (hp)
0	0	0	--	--
1	0.046	0.149	0	0.015
2	0.091	0.298	0.1	0.123
3	0.137	0.447	0.2	0.415
4	0.182	0.596	0.3	0.984
5	0.228	0.745	0.4	1.921
6	0.274	0.894	0.6	3.32
7	0.319	1.043	0.9	5.272
8	0.365	1.192	1.1	7.869
9	0.41	1.341	1.4	11.204
10	0.456	1.49	1.8	15.369
11	0.502	1.64	2.2	20.457
12	0.547	1.789	2.6	26.558
13	0.593	1.938	3	33.767
14	0.639	2.087	3.2	38.853
15	0.684	2.236	3.4	43.945
16	0.73	2.385	3.6	49.156
17	0.775	2.534	3.7	54.461
18	0.821	2.683	3.9	59.837
19	0.867	2.832	4	65.263
20	0.912	2.981	4.1	70.721
21	0.958	3.13	4.2	76.197
22	1.003	3.279	4.3	81.677
23	1.049	3.428	4.4	87.149
24	1.095	3.577	4.5	92.602
25	1.14	3.726	4.5	98.028
26	1.186	3.875	4.6	103.42
27	1.231	4.024	4.7	108.771
28	1.277	4.173	4.7	114.075
29	1.323	4.322	4.8	119.328
30	1.368	4.471	4.8	124.525
31	1.414	4.62	4.9	129.664
32	1.459	4.77	4.9	134.742
33	1.505	4.919	4.9	139.757
34	1.551	5.068	4.9	144.706
35	1.596	5.217	5	149.589
36	1.642	5.366	5	154.405
37	1.688	5.515	5	159.152
38	1.733	5.664	5	163.831
39	1.779	5.813	5	168.441
40	1.824	5.962	5	172.982

Tahanan 2 Stepped 2-U Kondisi Trim 3°

Speed (kn)	Froude No. Lwl	Froude No. Volume	Wyman Resistance (kN)	Wyman power (hp)
0	0	0	--	--
1	0.074	0.161	0	0.041
2	0.149	0.323	0.2	0.331
3	0.223	0.484	0.4	1.116
4	0.298	0.646	0.8	2.646
5	0.372	0.807	1.2	5.169
6	0.446	0.968	1.7	8.931
7	0.521	1.13	2.3	14.183
8	0.595	1.291	3.1	21.171
9	0.669	1.453	3.4	26.229
10	0.744	1.614	3.7	31.497
11	0.818	1.775	3.9	36.908
12	0.893	1.937	4.1	42.405
13	0.967	2.098	4.3	47.942
14	1.041	2.26	4.4	53.481
15	1.116	2.421	4.6	58.992
16	1.19	2.582	4.7	64.454
17	1.265	2.744	4.8	69.847
18	1.339	2.905	4.8	75.157
19	1.413	3.067	4.9	80.375
20	1.488	3.228	5	85.492
21	1.562	3.389	5	90.502
22	1.636	3.551	5	95.403
23	1.711	3.712	5.1	100.191
24	1.785	3.874	5.1	104.866
25	1.86	4.035	5.1	109.427
26	1.934	4.196	5.1	113.875
27	2.008	4.358	5.1	118.211
28	2.083	4.519	5.1	122.437
29	2.157	4.681	5.1	126.554
30	2.231	4.842	5	130.565
31	2.306	5.003	5	134.472
32	2.38	5.165	5	138.278
33	2.455	5.326	5	141.985
34	2.529	5.488	5	145.596
35	2.603	5.649	4.9	149.114
36	2.678	5.81	4.9	152.541
37	2.752	5.972	4.9	155.88
38	2.827	6.133	4.9	159.135
39	2.901	6.295	4.8	162.306
40	2.975	6.456	4.8	165.397

Tahanan 2 Stepped 2-U Kondisi Trim 4°

Speed (kn)	Froude No. Lwl	Froude No. Volume	Wyman Resistance (kN)	Wyman power (hp)
0	0	0	--	--
1	0.085	0.169	0.1	0.047
2	0.171	0.339	0.2	0.375
3	0.256	0.508	0.5	1.264
4	0.342	0.678	0.9	2.997
5	0.427	0.847	1.4	5.854
6	0.513	1.016	2	10.115
7	0.598	1.186	2.6	15.976
8	0.683	1.355	2.9	20.341
9	0.769	1.525	3.2	24.902
10	0.854	1.694	3.4	29.585
11	0.94	1.863	3.6	34.328
12	1.025	2.033	3.8	39.087
13	1.11	2.202	3.9	43.825
14	1.196	2.372	4	48.515
15	1.281	2.541	4.1	53.136
16	1.367	2.711	4.2	57.673
17	1.452	2.88	4.2	62.116
18	1.538	3.049	4.3	66.456
19	1.623	3.219	4.3	70.689
20	1.708	3.388	4.3	74.812
21	1.794	3.558	4.4	78.822
22	1.879	3.727	4.4	82.721
23	1.965	3.896	4.4	86.508
24	2.05	4.066	4.4	90.186
25	2.135	4.235	4.3	93.756
26	2.221	4.405	4.3	97.22
27	2.306	4.574	4.3	100.581
28	2.392	4.743	4.3	103.843
29	2.477	4.913	4.3	107.008
30	2.563	5.082	4.3	110.078
31	2.648	5.252	4.2	113.058
32	2.733	5.421	4.2	115.95
33	2.819	5.59	4.2	118.758
34	2.904	5.76	4.1	121.483
35	2.99	5.929	4.1	124.13
36	3.075	6.099	4.1	126.701
37	3.161	6.268	4	129.199
38	3.246	6.438	4	131.626
39	3.331	6.607	4	133.985
40	3.417	6.776	4	136.279

3 Stepped V

Tahanan 3 Stepped V Kondisi Even Keel

Speed (kn)	Froude No. Lwl	Froude No. Volume	Wyman Resistance (kN)	Wyman power (hp)
0	0	0	--	--
1	0.039	0.108	0.1	0.065
2	0.078	0.217	0.3	0.522
3	0.117	0.325	0.7	1.762
4	0.156	0.433	1.2	4.176
5	0.195	0.541	1.9	8.156
6	0.234	0.65	2.7	14.094
7	0.273	0.758	3.7	22.38
8	0.312	0.866	4.8	33.407
9	0.351	0.974	6.1	47.566
10	0.39	1.083	7.6	65.249
11	0.429	1.191	9.2	86.846
12	0.467	1.299	10.9	112.75
13	0.506	1.407	12.8	143.352
14	0.545	1.516	14.8	179.043
15	0.584	1.624	17	220.215
16	0.623	1.732	18.4	253.341
17	0.662	1.84	19.3	282.644
18	0.701	1.949	20.1	312.607
19	0.74	2.057	20.9	343.114
20	0.779	2.165	21.7	374.058
21	0.818	2.273	22.4	405.344
22	0.857	2.382	23	436.887
23	0.896	2.49	23.6	468.61
24	0.935	2.598	24.2	500.444
25	0.974	2.706	24.7	532.329
26	1.013	2.815	25.2	564.211
27	1.052	2.923	25.6	596.042
28	1.091	3.031	26	627.779
29	1.13	3.139	26.4	659.385
30	1.169	3.248	26.7	690.827
31	1.208	3.356	27	722.076
32	1.247	3.464	27.3	753.107
33	1.286	3.572	27.5	783.898
34	1.324	3.681	27.8	814.431
35	1.363	3.789	28	844.688
36	1.402	3.897	28.2	874.656
37	1.441	4.005	28.3	904.324
38	1.48	4.114	28.5	933.68
39	1.519	4.222	28.6	962.717
40	1.558	4.33	28.7	991.428

Tahanan 3 Stepped V Kondisi Trim 1°

Speed (kn)	Froude No. Lwl	Froude No. Volume	Wyman Resistance (kN)	Wyman power (hp)
0	0	0	--	--
1	0.039	0.125	0	0.027
2	0.078	0.251	0.1	0.215
3	0.118	0.376	0.3	0.725
4	0.157	0.502	0.5	1.718
5	0.196	0.627	0.8	3.355
6	0.235	0.753	1.1	5.798
7	0.274	0.878	1.6	9.206
8	0.313	1.004	2	13.742
9	0.353	1.129	2.6	19.567
10	0.392	1.254	3.2	26.84
11	0.431	1.38	3.8	35.725
12	0.47	1.505	4.6	46.38
13	0.509	1.631	5.4	58.968
14	0.548	1.756	6.2	73.65
15	0.588	1.882	7.1	90.587
16	0.627	2.007	7.7	103.531
17	0.666	2.133	8	115.478
18	0.705	2.258	8.4	127.69
19	0.744	2.383	8.7	140.12
20	0.783	2.509	9	152.725
21	0.823	2.634	9.3	165.465
22	0.862	2.76	9.6	178.307
23	0.901	2.885	9.8	191.218
24	0.94	3.011	10.1	204.172
25	0.979	3.136	10.3	217.143
26	1.019	3.262	10.5	230.111
27	1.058	3.387	10.7	243.054
28	1.097	3.512	10.8	255.957
29	1.136	3.638	11	268.804
30	1.175	3.763	11.1	281.582
31	1.214	3.889	11.2	294.279
32	1.254	4.014	11.4	306.885
33	1.293	4.14	11.5	319.392
34	1.332	4.265	11.6	331.792
35	1.371	4.391	11.6	344.077
36	1.41	4.516	11.7	356.244
37	1.449	4.641	11.8	368.287
38	1.489	4.767	11.8	380.201
39	1.528	4.892	11.9	391.985
40	1.567	5.018	11.9	403.634

Tahanan 3 Stepped V Kondisi Trim 2°

Speed (kn)	Froude No. Lwl	Froude No. Volume	Wyman Resistance (kN)	Wyman power (hp)
0	0	0	--	--
1	0.046	0.159	0	0.01
2	0.091	0.318	0	0.083
3	0.137	0.477	0.1	0.281
4	0.182	0.636	0.2	0.666
5	0.228	0.795	0.3	1.3
6	0.274	0.954	0.4	2.247
7	0.319	1.113	0.6	3.568
8	0.365	1.273	0.8	5.326
9	0.41	1.432	1	7.584
10	0.456	1.591	1.2	10.403
11	0.502	1.75	1.5	13.846
12	0.547	1.909	1.7	17.976
13	0.593	2.068	2	22.855
14	0.639	2.227	2.2	26.298
15	0.684	2.386	2.3	29.744
16	0.73	2.545	2.4	33.271
17	0.775	2.704	2.5	36.862
18	0.821	2.863	2.6	40.5
19	0.867	3.022	2.7	44.173
20	0.912	3.181	2.8	47.867
21	0.958	3.34	2.8	51.574
22	1.003	3.499	2.9	55.283
23	1.049	3.659	3	58.986
24	1.095	3.818	3	62.677
25	1.14	3.977	3.1	66.35
26	1.186	4.136	3.1	69.999
27	1.231	4.295	3.2	73.621
28	1.277	4.454	3.2	77.211
29	1.323	4.613	3.2	80.766
30	1.368	4.772	3.3	84.284
31	1.414	4.931	3.3	87.763
32	1.459	5.09	3.3	91.2
33	1.505	5.249	3.3	94.594
34	1.551	5.408	3.3	97.944
35	1.596	5.567	3.4	101.249
36	1.642	5.726	3.4	104.508
37	1.688	5.885	3.4	107.721
38	1.733	6.044	3.4	110.888
39	1.779	6.204	3.4	114.008
40	1.824	6.363	3.4	117.082

Tahanan 3 Stepped V Kondisi Trim 3°

Speed (kn)	Froude No. Lwl	Froude No. Volume	Wyman Resistance (kN)	Wyman power (hp)
0	0	0	--	--
1	0.074	0.185	0	0.018
2	0.149	0.37	0.1	0.147
3	0.223	0.554	0.2	0.496
4	0.297	0.739	0.3	1.175
5	0.372	0.924	0.5	2.294
6	0.446	1.109	0.8	3.964
7	0.521	1.293	1	6.295
8	0.595	1.478	1.4	9.397
9	0.669	1.663	1.5	11.644
10	0.744	1.848	1.6	13.983
11	0.818	2.033	1.7	16.386
12	0.892	2.217	1.8	18.826
13	0.967	2.402	1.9	21.284
14	1.041	2.587	2	23.744
15	1.116	2.772	2	26.191
16	1.19	2.957	2.1	28.616
17	1.264	3.141	2.1	31.01
18	1.339	3.326	2.1	33.368
19	1.413	3.511	2.2	35.685
20	1.487	3.696	2.2	37.957
21	1.562	3.88	2.2	40.182
22	1.636	4.065	2.2	42.358
23	1.711	4.25	2.2	44.484
24	1.785	4.435	2.2	46.56
25	1.859	4.62	2.3	48.585
26	1.934	4.804	2.3	50.56
27	2.008	4.989	2.3	52.486
28	2.082	5.174	2.3	54.362
29	2.157	5.359	2.2	56.19
30	2.231	5.543	2.2	57.972
31	2.305	5.728	2.2	59.707
32	2.38	5.913	2.2	61.397
33	2.454	6.098	2.2	63.043
34	2.529	6.283	2.2	64.646
35	2.603	6.467	2.2	66.208
36	2.677	6.652	2.2	67.73
37	2.752	6.837	2.2	69.213
38	2.826	7.022	2.2	70.658
39	2.9	7.207	2.1	72.066
40	2.975	7.391	2.1	73.439

Tahanan 3 Stepped V Kondisi Trim 4°

Speed (kn)	Froude No. Lwl	Froude No. Volume	Wyman Resistance (kN)	Wyman power (hp)
0	0	0	--	--
1	0.085	0.201	0	0.017
2	0.171	0.402	0.1	0.135
3	0.256	0.602	0.2	0.454
4	0.341	0.803	0.3	1.077
5	0.427	1.004	0.5	2.103
6	0.512	1.205	0.7	3.634
7	0.597	1.406	1	5.746
8	0.683	1.607	1.1	7.317
9	0.768	1.807	1.2	8.958
10	0.853	2.008	1.2	10.643
11	0.939	2.209	1.3	12.351
12	1.024	2.41	1.4	14.064
13	1.109	2.611	1.4	15.77
14	1.195	2.812	1.4	17.458
15	1.28	3.012	1.5	19.122
16	1.365	3.213	1.5	20.756
17	1.451	3.414	1.5	22.355
18	1.536	3.615	1.5	23.918
19	1.621	3.816	1.6	25.443
20	1.707	4.017	1.6	26.927
21	1.792	4.217	1.6	28.372
22	1.877	4.418	1.6	29.776
23	1.963	4.619	1.6	31.14
24	2.048	4.82	1.6	32.465
25	2.134	5.021	1.6	33.75
26	2.219	5.222	1.6	34.998
27	2.304	5.422	1.6	36.209
28	2.39	5.623	1.5	37.384
29	2.475	5.824	1.5	38.524
30	2.56	6.025	1.5	39.631
31	2.646	6.226	1.5	40.704
32	2.731	6.427	1.5	41.746
33	2.816	6.627	1.5	42.758
34	2.902	6.828	1.5	43.74
35	2.987	7.029	1.5	44.693
36	3.072	7.23	1.5	45.62
37	3.158	7.431	1.5	46.52
38	3.243	7.632	1.4	47.394
39	3.328	7.832	1.4	48.244
40	3.414	8.033	1.4	49.071

3 Stepped U

Tahanan 3 Stepped U Kondisi Even Keel

Speed (kn)	Froude No. Lwl	Froude No. Volume	Wyman Resistance (kN)	Wyman power (hp)
0	0	0	--	--
1	0.039	0.108	0.1	0.065
2	0.078	0.217	0.3	0.52
3	0.117	0.325	0.7	1.755
4	0.156	0.433	1.2	4.161
5	0.195	0.542	1.9	8.126
6	0.234	0.65	2.7	14.042
7	0.273	0.758	3.7	22.298
8	0.312	0.867	4.8	33.285
9	0.351	0.975	6.1	47.392
10	0.39	1.083	7.5	65.009
11	0.429	1.191	9.1	86.527
12	0.467	1.3	10.9	112.336
13	0.506	1.408	12.7	142.825
14	0.545	1.516	14.8	178.385
15	0.584	1.625	17	219.406
16	0.623	1.733	18.3	252.411
17	0.662	1.841	19.2	281.606
18	0.701	1.95	20.1	311.459
19	0.74	2.058	20.9	341.854
20	0.779	2.166	21.6	372.684
21	0.818	2.275	22.3	403.855
22	0.857	2.383	22.9	435.282
23	0.896	2.491	23.5	466.889
24	0.935	2.6	24.1	498.606
25	0.974	2.708	24.6	530.374
26	1.013	2.816	25.1	562.139
27	1.052	2.925	25.5	593.853
28	1.091	3.033	25.9	625.473
29	1.13	3.141	26.3	656.963
30	1.169	3.25	26.6	688.289
31	1.208	3.358	26.9	719.424
32	1.247	3.466	27.2	750.341
33	1.286	3.574	27.4	781.019
34	1.324	3.683	27.7	811.44
35	1.363	3.791	27.9	841.586
36	1.402	3.899	28.1	871.444
37	1.441	4.008	28.2	901.002
38	1.48	4.116	28.4	930.251
39	1.519	4.224	28.5	959.181
40	1.558	4.333	28.6	987.787

Tahanan 3 Stepped U Kondisi Trim 1°

Speed (kn)	Froude No. Lwl	Froude No. Volume	Wyman Resistance (kN)	Wyman power (hp)
0	0	0	--	--
1	0.039	0.126	0	0.027
2	0.078	0.252	0.1	0.215
3	0.118	0.378	0.3	0.725
4	0.157	0.504	0.5	1.718
5	0.196	0.629	0.8	3.355
6	0.235	0.755	1.1	5.798
7	0.274	0.881	1.5	9.206
8	0.313	1.007	2	13.742
9	0.353	1.133	2.5	19.567
10	0.392	1.259	3.1	26.84
11	0.431	1.385	3.8	35.725
12	0.47	1.511	4.5	46.38
13	0.509	1.636	5.3	58.968
14	0.548	1.762	6.1	73.65
15	0.588	1.888	7	90.587
16	0.627	2.014	7.5	103.531
17	0.666	2.14	7.9	115.478
18	0.705	2.266	8.2	127.69
19	0.744	2.392	8.6	140.12
20	0.783	2.518	8.9	152.725
21	0.823	2.643	9.1	165.465
22	0.862	2.769	9.4	178.307
23	0.901	2.895	9.6	191.218
24	0.94	3.021	9.9	204.172
25	0.979	3.147	10.1	217.143
26	1.019	3.273	10.3	230.111
27	1.058	3.399	10.4	243.054
28	1.097	3.525	10.6	255.957
29	1.136	3.65	10.7	268.804
30	1.175	3.776	10.9	281.582
31	1.214	3.902	11	294.279
32	1.254	4.028	11.1	306.885
33	1.293	4.154	11.2	319.392
34	1.332	4.28	11.3	331.792
35	1.371	4.406	11.4	344.077
36	1.41	4.532	11.5	356.244
37	1.449	4.657	11.5	368.287
38	1.489	4.783	11.6	380.201
39	1.528	4.909	11.7	391.985
40	1.567	5.035	11.7	403.634

Tahanan 3 Stepped U Kondisi Trim 2°

Speed (kn)	Froude No. Lwl	Froude No. Volume	Wyman Resistance (kN)	Wyman power (hp)
0	0	0	--	--
1	0.046	0.161	0	0.01
2	0.091	0.323	0	0.076
3	0.137	0.484	0.1	0.257
4	0.182	0.646	0.2	0.608
5	0.228	0.807	0.3	1.188
6	0.274	0.969	0.4	2.052
7	0.319	1.13	0.5	3.259
8	0.365	1.292	0.7	4.865
9	0.41	1.453	0.9	6.927
10	0.456	1.615	1.1	9.502
11	0.502	1.776	1.3	12.647
12	0.547	1.938	1.6	16.419
13	0.593	2.099	1.9	20.875
14	0.639	2.261	2	24.02
15	0.684	2.422	2.1	27.168
16	0.73	2.584	2.2	30.39
17	0.775	2.745	2.3	33.669
18	0.821	2.907	2.4	36.993
19	0.867	3.068	2.5	40.347
20	0.912	3.23	2.5	43.722
21	0.958	3.391	2.6	47.107
22	1.003	3.553	2.7	50.495
23	1.049	3.714	2.7	53.877
24	1.095	3.876	2.8	57.249
25	1.14	4.037	2.8	60.604
26	1.186	4.199	2.9	63.937
27	1.231	4.36	2.9	67.245
28	1.277	4.522	2.9	70.524
29	1.323	4.683	2.9	73.771
30	1.368	4.845	3	76.985
31	1.414	5.006	3	80.162
32	1.459	5.168	3	83.301
33	1.505	5.329	3	86.401
34	1.551	5.491	3.1	89.461
35	1.596	5.652	3.1	92.48
36	1.642	5.813	3.1	95.457
37	1.688	5.975	3.1	98.392
38	1.733	6.136	3.1	101.285
39	1.779	6.298	3.1	104.134
40	1.824	6.459	3.1	106.942

Tahanan 3 Stepped U Kondisi Trim 3°

Speed (kn)	Froude No. Lwl	Froude No. Volume	Wyman Resistance (kN)	Wyman power (hp)
0	0	0	--	--
1	0.074	0.188	0	0.017
2	0.149	0.375	0.1	0.134
3	0.223	0.563	0.2	0.453
4	0.297	0.75	0.3	1.073
5	0.372	0.938	0.5	2.096
6	0.446	1.126	0.7	3.622
7	0.521	1.313	1	5.751
8	0.595	1.501	1.2	8.585
9	0.669	1.688	1.4	10.639
10	0.744	1.876	1.5	12.776
11	0.818	2.063	1.6	14.971
12	0.892	2.251	1.7	17.201
13	0.967	2.439	1.7	19.447
14	1.041	2.626	1.8	21.693
15	1.116	2.814	1.8	23.929
16	1.19	3.001	1.9	26.145
17	1.264	3.189	1.9	28.333
18	1.339	3.377	2	30.487
19	1.413	3.564	2	32.604
20	1.487	3.752	2	34.679
21	1.562	3.939	2	36.712
22	1.636	4.127	2	38.7
23	1.711	4.314	2	40.643
24	1.785	4.502	2.1	42.539
25	1.859	4.69	2.1	44.39
26	1.934	4.877	2.1	46.194
27	2.008	5.065	2.1	47.954
28	2.082	5.252	2.1	49.668
29	2.157	5.44	2.1	51.338
30	2.231	5.628	2	52.966
31	2.305	5.815	2	54.551
32	2.38	6.003	2	56.095
33	2.454	6.19	2	57.599
34	2.529	6.378	2	59.064
35	2.603	6.565	2	60.491
36	2.677	6.753	2	61.882
37	2.752	6.941	2	63.237
38	2.826	7.128	2	64.557
39	2.9	7.316	2	65.843
40	2.975	7.503	1.9	67.098

Tahanan 3 Stepped U Kondisi Trim 4°

Speed (kn)	Froude No. Lwl	Froude No. Volume	Wyman Resistance (kN)	Wyman power (hp)
0	0	0	--	--
1	0.085	0.204	0	0.015
2	0.171	0.408	0.1	0.123
3	0.256	0.611	0.2	0.416
4	0.341	0.815	0.3	0.987
5	0.427	1.019	0.4	1.928
6	0.512	1.223	0.6	3.331
7	0.597	1.426	0.9	5.267
8	0.683	1.63	1	6.706
9	0.768	1.834	1.1	8.211
10	0.853	2.038	1.1	9.755
11	0.939	2.241	1.2	11.32
12	1.024	2.445	1.2	12.89
13	1.109	2.649	1.3	14.453
14	1.195	2.853	1.3	16.001
15	1.28	3.057	1.4	17.526
16	1.365	3.26	1.4	19.023
17	1.451	3.464	1.4	20.49
18	1.536	3.668	1.4	21.922
19	1.621	3.872	1.4	23.319
20	1.707	4.075	1.4	24.68
21	1.792	4.279	1.4	26.004
22	1.877	4.483	1.4	27.291
23	1.963	4.687	1.4	28.541
24	2.048	4.89	1.4	29.755
25	2.134	5.094	1.4	30.934
26	2.219	5.298	1.4	32.077
27	2.304	5.502	1.4	33.187
28	2.39	5.705	1.4	34.264
29	2.475	5.909	1.4	35.309
30	2.56	6.113	1.4	36.323
31	2.646	6.317	1.4	37.307
32	2.731	6.521	1.4	38.262
33	2.816	6.724	1.4	39.189
34	2.902	6.928	1.4	40.089
35	2.987	7.132	1.4	40.963
36	3.072	7.336	1.3	41.812
37	3.158	7.539	1.3	42.637
38	3.243	7.743	1.3	43.439
39	3.328	7.947	1.3	44.218
40	3.414	8.151	1.3	44.975

3 Stepped W

Tahanan 3 Stepped W Kondisi Even Keel

Speed (kn)	Froude No. Lwl	Froude No. Volume	Wyman Resistance (kN)	Wyman power (hp)
0	0	0	--	--
1	0.039	0.109	0.1	0.063
2	0.078	0.218	0.3	0.506
3	0.117	0.326	0.7	1.707
4	0.156	0.435	1.2	4.046
5	0.195	0.544	1.8	7.902
6	0.234	0.653	2.6	13.655
7	0.273	0.762	3.6	21.684
8	0.312	0.871	4.7	32.368
9	0.351	0.979	5.9	46.086
10	0.39	1.088	7.3	63.219
11	0.429	1.197	8.9	84.144
12	0.467	1.306	10.6	109.242
13	0.506	1.415	12.4	138.892
14	0.545	1.524	14.4	173.472
15	0.584	1.632	16.5	213.363
16	0.623	1.741	17.8	245.459
17	0.662	1.85	18.7	273.85
18	0.701	1.959	19.5	302.881
19	0.74	2.068	20.3	332.439
20	0.779	2.176	21	362.42
21	0.818	2.285	21.7	392.732
22	0.857	2.394	22.3	423.294
23	0.896	2.503	22.9	454.03
24	0.935	2.612	23.4	484.873
25	0.974	2.721	23.9	515.767
26	1.013	2.829	24.4	546.657
27	1.052	2.938	24.8	577.497
28	1.091	3.047	25.2	608.246
29	1.13	3.156	25.5	638.869
30	1.169	3.265	25.9	669.333
31	1.208	3.374	26.2	699.609
32	1.247	3.482	26.4	729.675
33	1.286	3.591	26.7	759.508
34	1.324	3.7	26.9	789.091
35	1.363	3.809	27.1	818.407
36	1.402	3.918	27.3	847.443
37	1.441	4.026	27.5	876.187
38	1.48	4.135	27.6	904.63
39	1.519	4.244	27.7	932.763
40	1.558	4.353	27.8	960.581

Tahanan 3 Stepped W Kondisi Trim 1°

Speed (kn)	Froude No. Lwl	Froude No. Volume	Wyman Resistance (kN)	Wyman power (hp)
0	0	0	--	--
1	0.039	0.127	0	0.026
2	0.078	0.253	0.1	0.206
3	0.118	0.38	0.3	0.696
4	0.157	0.507	0.5	1.649
5	0.196	0.634	0.7	3.22
6	0.235	0.76	1.1	5.564
7	0.274	0.887	1.5	8.835
8	0.313	1.014	1.9	13.189
9	0.353	1.141	2.4	18.779
10	0.392	1.267	3	25.759
11	0.431	1.394	3.6	34.286
12	0.47	1.521	4.3	44.512
13	0.509	1.648	5	56.593
14	0.548	1.774	5.9	70.684
15	0.588	1.901	6.7	86.938
16	0.627	2.028	7.2	99.361
17	0.666	2.155	7.6	110.827
18	0.705	2.281	7.9	122.547
19	0.744	2.408	8.2	134.477
20	0.783	2.535	8.5	146.574
21	0.823	2.662	8.8	158.801
22	0.862	2.788	9	171.125
23	0.901	2.915	9.3	183.516
24	0.94	3.042	9.5	195.949
25	0.979	3.169	9.7	208.397
26	1.019	3.295	9.8	220.842
27	1.058	3.422	10	233.265
28	1.097	3.549	10.2	245.648
29	1.136	3.676	10.3	257.977
30	1.175	3.802	10.4	270.24
31	1.214	3.929	10.6	282.426
32	1.254	4.056	10.7	294.525
33	1.293	4.182	10.8	306.528
34	1.332	4.309	10.9	318.428
35	1.371	4.436	10.9	330.219
36	1.41	4.563	11	341.896
37	1.449	4.689	11.1	353.453
38	1.489	4.816	11.1	364.888
39	1.528	4.943	11.2	376.197
40	1.567	5.07	11.2	387.377

Tahanan 3 Stepped W Kondisi Trim 2°

Speed (kn)	Froude No. Lwl	Froude No. Volume	Wyman Resistance (kN)	Wyman power (hp)
0	0	0	--	--
1	0.046	0.166	0	0.008
2	0.091	0.333	0	0.064
3	0.137	0.499	0.1	0.215
4	0.182	0.665	0.1	0.51
5	0.228	0.832	0.2	0.996
6	0.274	0.998	0.3	1.721
7	0.319	1.164	0.5	2.732
8	0.365	1.33	0.6	4.078
9	0.41	1.497	0.7	5.807
10	0.456	1.663	0.9	7.965
11	0.502	1.829	1.1	10.602
12	0.547	1.996	1.3	13.764
13	0.593	2.162	1.6	17.5
14	0.639	2.328	1.7	20.136
15	0.684	2.495	1.8	22.775
16	0.73	2.661	1.8	25.476
17	0.775	2.827	1.9	28.225
18	0.821	2.993	2	31.011
19	0.867	3.16	2.1	33.823
20	0.912	3.326	2.1	36.652
21	0.958	3.492	2.2	39.49
22	1.003	3.659	2.2	42.33
23	1.049	3.825	2.3	45.166
24	1.095	3.991	2.3	47.992
25	1.14	4.158	2.4	50.805
26	1.186	4.324	2.4	53.599
27	1.231	4.49	2.4	56.372
28	1.277	4.656	2.4	59.121
29	1.323	4.823	2.5	61.843
30	1.368	4.989	2.5	64.537
31	1.414	5.155	2.5	67.2
32	1.459	5.322	2.5	69.832
33	1.505	5.488	2.5	72.431
34	1.551	5.654	2.6	74.996
35	1.596	5.821	2.6	77.527
36	1.642	5.987	2.6	80.023
37	1.688	6.153	2.6	82.483
38	1.733	6.319	2.6	84.908
39	1.779	6.486	2.6	87.297
40	1.824	6.652	2.6	89.65

Tahanan 3 Stepped W Kondisi Trim 3°

Speed (kn)	Froude No. Lwl	Froude No. Volume	Wyman Resistance (kN)	Wyman power (hp)
0	0	0	--	--
1	0.074	0.194	0	0.014
2	0.149	0.387	0.1	0.111
3	0.223	0.581	0.1	0.375
4	0.297	0.774	0.3	0.89
5	0.372	0.968	0.4	1.738
6	0.446	1.161	0.6	3.003
7	0.521	1.355	0.8	4.769
8	0.595	1.548	1	7.119
9	0.669	1.742	1.1	8.822
10	0.744	1.935	1.2	10.595
11	0.818	2.129	1.3	12.415
12	0.892	2.322	1.4	14.264
13	0.967	2.516	1.4	16.127
14	1.041	2.709	1.5	17.99
15	1.115	2.903	1.5	19.845
16	1.19	3.096	1.6	21.682
17	1.264	3.29	1.6	23.496
18	1.339	3.483	1.6	25.283
19	1.413	3.677	1.7	27.038
20	1.487	3.871	1.7	28.76
21	1.562	4.064	1.7	30.446
22	1.636	4.258	1.7	32.095
23	1.71	4.451	1.7	33.706
24	1.785	4.645	1.7	35.279
25	1.859	4.838	1.7	36.813
26	1.934	5.032	1.7	38.31
27	2.008	5.225	1.7	39.769
28	2.082	5.419	1.7	41.191
29	2.157	5.612	1.7	42.576
30	2.231	5.806	1.7	43.926
31	2.305	5.999	1.7	45.24
32	2.38	6.193	1.7	46.521
33	2.454	6.386	1.7	47.768
34	2.528	6.58	1.7	48.983
35	2.603	6.773	1.7	50.167
36	2.677	6.967	1.7	51.32
37	2.752	7.16	1.6	52.444
38	2.826	7.354	1.6	53.539
39	2.9	7.548	1.6	54.606
40	2.975	7.741	1.6	55.646

Tahanan 3 Stepped W Kondisi Trim 4°

Speed (kn)	Froude No. Lwl	Froude No. Volume	Wyman Resistance (kN)	Wyman power (hp)
0	0	0	--	--
1	0.085	0.208	0	0.014
2	0.171	0.416	0.1	0.11
3	0.256	0.624	0.1	0.37
4	0.342	0.832	0.3	0.877
5	0.427	1.039	0.4	1.713
6	0.512	1.247	0.6	2.96
7	0.598	1.455	0.8	4.676
8	0.683	1.663	0.9	5.954
9	0.769	1.871	0.9	7.289
10	0.854	2.079	1	8.66
11	0.939	2.287	1.1	10.048
12	1.025	2.495	1.1	11.441
13	1.11	2.703	1.1	12.829
14	1.196	2.91	1.2	14.202
15	1.281	3.118	1.2	15.555
16	1.366	3.326	1.2	16.883
17	1.452	3.534	1.2	18.184
18	1.537	3.742	1.3	19.454
19	1.623	3.95	1.3	20.694
20	1.708	4.158	1.3	21.901
21	1.793	4.366	1.3	23.075
22	1.879	4.574	1.3	24.217
23	1.964	4.781	1.3	25.326
24	2.05	4.989	1.3	26.402
25	2.135	5.197	1.3	27.448
26	2.22	5.405	1.3	28.462
27	2.306	5.613	1.3	29.446
28	2.391	5.821	1.3	30.401
29	2.477	6.029	1.3	31.328
30	2.562	6.237	1.2	32.227
31	2.647	6.445	1.2	33.1
32	2.733	6.653	1.2	33.946
33	2.818	6.86	1.2	34.769
34	2.904	7.068	1.2	35.567
35	2.989	7.276	1.2	36.342
36	3.074	7.484	1.2	37.095
37	3.16	7.692	1.2	37.826
38	3.245	7.9	1.2	38.537
39	3.331	8.108	1.2	39.228
40	3.416	8.316	1.2	39.899

3 Stepped 2-U

Tahanan 3 Stepped 2-U Kondisi Even Keel

Speed (kn)	Froude No. Lwl	Froude No. Volume	Wyman Resistance (kN)	Wyman power (hp)
0	0	0	--	--
1	0.039	0.109	0.1	0.063
2	0.078	0.218	0.3	0.507
3	0.117	0.326	0.7	1.71
4	0.156	0.435	1.2	4.053
5	0.195	0.544	1.8	7.916
6	0.234	0.653	2.6	13.679
7	0.273	0.762	3.6	21.721
8	0.312	0.87	4.7	32.424
9	0.351	0.979	5.9	46.166
10	0.39	1.088	7.3	63.328
11	0.429	1.197	8.9	84.289
12	0.467	1.306	10.6	109.43
13	0.506	1.414	12.4	139.131
14	0.545	1.523	14.4	173.771
15	0.584	1.632	16.5	213.731
16	0.623	1.741	17.8	245.882
17	0.662	1.849	18.7	274.322
18	0.701	1.958	19.5	303.403
19	0.74	2.067	20.3	333.012
20	0.779	2.176	21	363.044
21	0.818	2.285	21.7	393.409
22	0.857	2.393	22.4	424.023
23	0.896	2.502	22.9	454.812
24	0.935	2.611	23.5	485.709
25	0.974	2.72	24	516.655
26	1.013	2.829	24.4	547.599
27	1.052	2.937	24.8	578.492
28	1.091	3.046	25.2	609.295
29	1.13	3.155	25.6	639.97
30	1.169	3.264	25.9	670.486
31	1.208	3.373	26.2	700.815
32	1.247	3.481	26.5	730.933
33	1.286	3.59	26.7	760.817
34	1.324	3.699	27	790.451
35	1.363	3.808	27.2	819.817
36	1.402	3.917	27.3	848.903
37	1.441	4.025	27.5	877.697
38	1.48	4.134	27.7	906.189
39	1.519	4.243	27.8	934.371
40	1.558	4.352	27.9	962.237

Tahanan 3 Stepped 2-U Kondisi Trim 1°

Speed (kn)	Froude No. Lwl	Froude No. Volume	Wyman Resistance (kN)	Wyman power (hp)
0	0	0	--	--
1	0.039	0.127	0	0.026
2	0.078	0.254	0.1	0.204
3	0.118	0.381	0.3	0.69
4	0.157	0.508	0.5	1.635
5	0.196	0.635	0.7	3.193
6	0.235	0.762	1.1	5.517
7	0.274	0.888	1.5	8.76
8	0.313	1.015	1.9	13.077
9	0.353	1.142	2.4	18.619
10	0.392	1.269	3	25.54
11	0.431	1.396	3.6	33.994
12	0.47	1.523	4.3	44.133
13	0.509	1.65	5	56.112
14	0.548	1.777	5.8	70.082
15	0.588	1.904	6.7	86.198
16	0.627	2.031	7.1	98.516
17	0.666	2.158	7.5	109.884
18	0.705	2.285	7.8	121.505
19	0.744	2.412	8.1	133.332
20	0.783	2.538	8.4	145.326
21	0.823	2.665	8.7	157.449
22	0.862	2.792	8.9	169.669
23	0.901	2.919	9.2	181.955
24	0.94	3.046	9.4	194.281
25	0.979	3.173	9.6	206.624
26	1.019	3.3	9.8	218.963
27	1.058	3.427	9.9	231.28
28	1.097	3.554	10.1	243.557
29	1.136	3.681	10.2	255.782
30	1.175	3.808	10.4	267.941
31	1.214	3.935	10.5	280.023
32	1.254	4.062	10.6	292.018
33	1.293	4.188	10.7	303.919
34	1.332	4.315	10.8	315.718
35	1.371	4.442	10.8	327.409
36	1.41	4.569	10.9	338.986
37	1.449	4.696	11	350.445
38	1.489	4.823	11	361.783
39	1.528	4.95	11.1	372.995
40	1.567	5.077	11.1	384.08

Tahanan 3 Stepped 2-U Kondisi Trim 2°

Speed (kn)	Froude No. Lwl	Froude No. Volume	Wyman Resistance (kN)	Wyman power (hp)
0	0	0	--	--
1	0.046	0.165	0	0.008
2	0.091	0.331	0	0.066
3	0.137	0.496	0.1	0.222
4	0.182	0.662	0.2	0.527
5	0.228	0.827	0.2	1.028
6	0.274	0.992	0.3	1.777
7	0.319	1.158	0.5	2.822
8	0.365	1.323	0.6	4.212
9	0.41	1.489	0.8	5.998
10	0.456	1.654	1	8.227
11	0.502	1.819	1.2	10.95
12	0.547	1.985	1.4	14.217
13	0.593	2.15	1.6	18.075
14	0.639	2.316	1.7	20.798
15	0.684	2.481	1.8	23.523
16	0.73	2.647	1.9	26.313
17	0.775	2.812	2	29.153
18	0.821	2.977	2.1	32.03
19	0.867	3.143	2.1	34.935
20	0.912	3.308	2.2	37.857
21	0.958	3.474	2.3	40.788
22	1.003	3.639	2.3	43.721
23	1.049	3.804	2.4	46.65
24	1.095	3.97	2.4	49.569
25	1.14	4.135	2.4	52.474
26	1.186	4.301	2.5	55.36
27	1.231	4.466	2.5	58.224
28	1.277	4.631	2.5	61.063
29	1.323	4.797	2.6	63.875
30	1.368	4.962	2.6	66.657
31	1.414	5.128	2.6	69.408
32	1.459	5.293	2.6	72.127
33	1.505	5.458	2.6	74.811
34	1.551	5.624	2.6	77.46
35	1.596	5.789	2.7	80.074
36	1.642	5.955	2.7	82.652
37	1.688	6.12	2.7	85.193
38	1.733	6.286	2.7	87.698
39	1.779	6.451	2.7	90.165
40	1.824	6.616	2.7	92.596

Tahanan 3 Stepped 2-U Kondisi Trim 3°

Speed (kn)	Froude No. Lwl	Froude No. Volume	Wyman Resistance (kN)	Wyman power (hp)
0	0	0	--	--
1	0.074	0.192	0	0.015
2	0.149	0.384	0.1	0.117
3	0.223	0.576	0.2	0.393
4	0.297	0.768	0.3	0.932
5	0.372	0.96	0.4	1.821
6	0.446	1.152	0.6	3.147
7	0.521	1.344	0.8	4.997
8	0.595	1.536	1.1	7.46
9	0.669	1.728	1.2	9.244
10	0.744	1.92	1.3	11.101
11	0.818	2.112	1.4	13.009
12	0.892	2.304	1.4	14.947
13	0.967	2.496	1.5	16.898
14	1.041	2.688	1.6	18.851
15	1.115	2.88	1.6	20.794
16	1.19	3.072	1.6	22.719
17	1.264	3.264	1.7	24.62
18	1.339	3.456	1.7	26.493
19	1.413	3.648	1.7	28.332
20	1.487	3.841	1.7	30.136
21	1.562	4.033	1.8	31.902
22	1.636	4.225	1.8	33.63
23	1.71	4.417	1.8	35.318
24	1.785	4.609	1.8	36.966
25	1.859	4.801	1.8	38.574
26	1.934	4.993	1.8	40.143
27	2.008	5.185	1.8	41.671
28	2.082	5.377	1.8	43.161
29	2.157	5.569	1.8	44.613
30	2.231	5.761	1.8	46.027
31	2.305	5.953	1.8	47.405
32	2.38	6.145	1.8	48.747
33	2.454	6.337	1.8	50.054
34	2.528	6.529	1.8	51.327
35	2.603	6.721	1.7	52.567
36	2.677	6.913	1.7	53.776
37	2.752	7.105	1.7	54.953
38	2.826	7.297	1.7	56.1
39	2.9	7.489	1.7	57.218
40	2.975	7.681	1.7	58.308

Tahanan 3 Stepped 2-U Kondisi Trim 4°

Speed (kn)	Froude No. Lwl	Froude No. Volume	Wyman Resistance (kN)	Wyman power (hp)
0	0	0	--	--
1	0.11	0.205	0	0.031
2	0.22	0.411	0.1	0.251
3	0.329	0.616	0.3	0.848
4	0.439	0.821	0.6	2.011
5	0.549	1.026	0.9	3.927
6	0.659	1.232	1.2	6.02
7	0.769	1.437	1.3	7.862
8	0.878	1.642	1.4	9.767
9	0.988	1.848	1.5	11.697
10	1.098	2.053	1.6	13.624
11	1.208	2.258	1.6	15.527
12	1.318	2.463	1.7	17.394
13	1.427	2.669	1.7	19.215
14	1.537	2.874	1.7	20.983
15	1.647	3.079	1.8	22.695
16	1.757	3.285	1.8	24.349
17	1.867	3.49	1.8	25.945
18	1.976	3.695	1.8	27.483
19	2.086	3.9	1.8	28.963
20	2.196	4.106	1.8	30.388
21	2.306	4.311	1.8	31.759
22	2.416	4.516	1.7	33.078
23	2.525	4.722	1.7	34.346
24	2.635	4.927	1.7	35.567
25	2.745	5.132	1.7	36.741
26	2.855	5.338	1.7	37.871
27	2.965	5.543	1.7	38.96
28	3.074	5.748	1.7	40.008
29	3.184	5.953	1.6	41.018
30	3.294	6.159	1.6	41.991
31	3.404	6.364	1.6	42.93
32	3.514	6.569	1.6	43.836
33	3.624	6.775	1.6	44.71
34	3.733	6.98	1.6	45.555
35	3.843	7.185	1.5	46.37
36	3.953	7.39	1.5	47.158
37	4.063	7.596	1.5	47.92
38	4.173	7.801	1.5	48.658
39	4.282	8.006	1.5	49.371
40	4.392	8.212	1.5	50.062

