

DAFTAR PUSTAKA

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Ikhsan. M. 2010 Tugas Akhir Perencanaan Cadik yang efektif untuk kapal patrol 9 meter untuk operasional di Pantai Selatan

SembiringDwi A.2018 Desain konstruksi Cadik untuk kapal patroli cepat 9 smeter

Lampiran 1. Perhitungan Stabilitas Objek Kapal

Kapal 1

	0	10°	20°	30°	40°	50°	60°	70°	80°	90°
GZ m	0	0.108	0.099	0.089	0.07	0.045	0.017	-0.012	-0.043	-0.073
Area under GZ curve from zero heel m.deg	0	0.6189	1.713	2.643	3.4471	4.0224	4.3344	4.3588	4.0814	3.5002
Displacement t	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002
Draft at FP m	0.404	0.402	0.398	0.393	0.396	0.408	0.436	0.498	0.683	n/a
Draft at AP m	0.404	0.404	0.4	0.395	0.398	0.412	0.444	0.513	0.723	n/a
WL Length m	4.429	4.428	4.427	4.425	4.426	4.431	4.442	4.465	4.418	4.185
Beam max extents on WL m	3.472	0.906	0.942	0.852	0.769	0.722	0.687	0.635	0.607	0.599
Wetted Area m ²	7.006	7.07	7.089	7.229	7.391	7.497	7.561	7.59	7.614	7.631
Waterpl. Area m ²	3.908	2.788	2.904	2.84	2.663	2.563	2.527	2.467	2.408	2.385
Prismatic coeff. (Cp)	0.681	0.681	0.68	0.682	0.691	0.701	0.711	0.715	0.727	0.771
Block coeff. (Cb)	0.157	0.556	0.366	0.289	0.253	0.226	0.209	0.206	0.206	0.216
LCB from zero pt. (+ve fwd) m	2.212	2.211	2.211	2.211	2.212	2.211	2.211	2.211	2.211	2.211
LCF from zero pt. (+ve fwd) m	2.199	2.228	2.228	2.231	2.231	2.232	2.233	2.234	2.235	2.234
Max deck inclination deg	0	10	20	30	40	50	60	70	80	90
Trim angle (+ve by stern) deg	0	0.0219	0.023	0.0249	0.0282	0.0545	0.0972	0.1952	0.5061	90

Kapal 2

	0	10°	20°	30°	40°	50°	60°	70°	80°	90°
GZ m	0.004	0.164	0.182	0.189	0.178	0.151	0.115	0.071	0.025	-0.024
Area under GZ curve from zero heel m.deg	0	0.935	2.739	4.5872	6.4396	8.0925	9.4298	10.3641	10.8457	10.8499
Displacement t	0.8669	0.8669	0.8669	0.8669	0.8668	0.8669	0.8669	0.867	0.867	0.8669
Draft at FP m	0.303	0.315	0.317	0.315	0.32	0.333	0.355	0.397	0.521	n/a
Draft at AP m	0.303	0.278	0.261	0.249	0.243	0.24	0.235	0.229	0.21	n/a
WL Length m	4.542	4.538	4.536	4.533	4.533	4.535	4.536	4.539	4.537	4.498
Beam max extents on WL m	3.471	1.545	1.065	0.911	0.77	0.648	0.574	0.53	0.507	0.5
Wetted Area m ²	6.6	6.676	6.748	6.977	7.159	7.222	7.25	7.268	7.28	7.289
Waterpl. Area m ²	4.287	3.203	3.303	3.092	2.79	2.504	2.302	2.185	2.127	2.119
Prismatic coeff. (Cp)	0.642	0.649	0.513	0.478	0.458	0.445	0.436	0.43	0.427	0.428
Block coeff. (Cb)	0.177	0.339	0.276	0.229	0.214	0.214	0.214	0.213	0.212	0.213
LCB from zero pt. (+ve fwd) m	2.208	2.209	2.21	2.21	2.211	2.211	2.212	2.212	2.211	2.211
LCF from zero pt. (+ve fwd) m	2.183	2.21	2.242	2.249	2.25	2.257	2.262	2.259	2.248	2.231
Max deck inclination deg	0	10.0105	20.0102	30.0075	40.0056	50.0041	60.0028	70.0016	80.0007	90
Trim angle (+ve by stern) deg	0	-0.4678	-0.6956	-0.8142	-0.9549	-1.1625	-1.4943	-2.0914	-3.8744	-90

Kapal 3

	0	10°	20°	30°	40°	50°	60°	70°	80°	90°
GZ m	0	0.091	0.089	0.083	0.067	0.045	0.019	-0.01	-0.04	-0.07
Area under GZ curve from zero heel m.deg	0	0.5156	1.4581	2.3093	3.0686	3.6293	3.9536	4.0039	3.7563	3.2096
Displacement t	1.161	1.161	1.161	1.161	1.161	1.161	1.161	1.161	1.161	1.161
Draft at FP m	0.369	0.354	0.348	0.337	0.333	0.333	0.341	0.34	0.357	n/a
Draft at AP m	0.438	0.452	0.446	0.445	0.453	0.477	0.525	0.663	1.036	n/a
WL Length m	4.916	4.916	4.914	4.911	4.912	4.917	4.93	4.907	4.817	4.757
Beam max extents on WL m	3.47	0.954	0.996	0.866	0.777	0.732	0.689	0.636	0.608	0.599
Wetted Area m ²	7.625	7.65	7.713	7.969	8.18	8.335	8.422	8.157	8.152	8.077
Waterpl. Area m ²	4.41	3.384	3.537	3.313	3.117	2.995	2.889	2.766	2.76	2.822
Prismatic coeff. (Cp)	0.703	0.699	0.697	0.699	0.709	0.719	0.729	0.735	0.754	0.766
Block coeff. (Cb)	0.161	0.539	0.343	0.286	0.253	0.227	0.213	0.212	0.214	0.215
LCB from zero pt. (+ve fwd) m	2.378	2.376	2.376	2.376	2.376	2.375	2.375	2.375	2.374	2.375
LCF from zero pt. (+ve fwd) m	2.366	2.472	2.468	2.484	2.487	2.528	2.53	2.547	2.569	2.544
Max deck inclination deg	0.7993	10.0606	20.0271	30.0173	40.0114	50.0081	60.0056	70.0051	80.0028	90
Trim angle (+ve by stern) deg	0.7993	1.1249	1.1316	1.2372	1.3664	1.6406	2.1088	3.6971	7.7264	90

Kapal 4

	0	10°	20°	30°	40°	50°	60°	70°	80°	90°
GZ m	0	0.077	0.077	0.067	0.046	0.019	-0.01	-0.041	-0.072	-0.1
Area under GZ curve from zero heel m.deg	0	0.4318	1.2426	1.9666	2.5433	2.8735	2.9204	2.6666	2.1021	1.2388
Displacement t	1.638	1.638	1.638	1.638	1.638	1.638	1.638	1.638	1.638	1.638
Draft at FP m	0.467	0.464	0.459	0.459	0.477	0.505	0.553	0.657	0.881	n/a
Draft at AP m	0.466	0.464	0.455	0.453	0.455	0.471	0.509	0.593	0.998	n/a
WL Length m	5.684	5.683	5.68	5.68	5.685	5.694	5.713	5.742	5.528	5.274
Beam max extents on WL m	4.012	1.102	1.075	0.901	0.815	0.758	0.722	0.692	0.66	0.65
Wetted Area m ²	9.286	9.302	9.476	9.884	10.187	10.398	10.537	10.472	10.048	10.036
Waterpl. Area m ²	5.424	4.331	4.385	3.962	3.63	3.46	3.332	3.294	3.234	3.261
Prismatic coeff. (Cp)	0.655	0.654	0.653	0.66	0.672	0.683	0.692	0.699	0.724	0.762
Block coeff. (Cb)	0.15	0.509	0.36	0.303	0.263	0.236	0.218	0.207	0.212	0.22
LCB from zero pt. (+ve fwd) m	2.699	2.699	2.699	2.699	2.7	2.7	2.7	2.701	2.699	2.698
LCF from zero pt. (+ve fwd) m	2.595	2.729	2.736	2.666	2.672	2.718	2.699	2.663	2.682	2.624
Max deck inclination deg	0.0094	10	20	30	40.0003	50.0004	60.0003	70.0002	80.0001	90
Trim angle (+ve by stern) deg	-0.0094	0.0077	-0.0378	-0.0535	-0.2225	-0.3504	-0.4505	-0.6585	1.2093	90

Kapal 5

	0	10°	20°	30°	40°	50°	60°	70°	80°	90°
GZ m	0	0.161	0.159	0.154	0.138	0.113	0.081	0.046	0.009	-0.029
Area under GZ curve from zero heel m.deg	0	0.9149	2.5953	4.1433	5.617	6.8741	7.8473	8.4843	8.7582	8.6596
Displacement t	0.7131	0.7131	0.7131	0.7131	0.7131	0.7131	0.7131	0.7131	0.7131	0.7131
Draft at FP m	0.327	0.325	0.321	0.317	0.315	0.319	0.328	0.354	0.443	n/a
Draft at AP m	0.323	0.33	0.327	0.321	0.321	0.327	0.344	0.384	0.51	n/a
WL Length m	5.698	5.699	5.697	5.694	5.693	5.696	5.704	5.723	5.779	5.489
Beam max extents on WL m	3.921	0.758	0.797	0.718	0.625	0.566	0.534	0.521	0.508	0.5
Wetted Area m ²	6.137	6.058	6.085	6.219	6.372	6.471	6.524	6.544	6.542	6.532
Waterpl. Area m ²	3.593	2.612	2.745	2.703	2.479	2.309	2.2	2.158	2.161	2.19
Prismatic coeff. (Cp)	0.583	0.582	0.58	0.58	0.587	0.593	0.598	0.601	0.6	0.634
Block coeff. (Cb)	0.096	0.386	0.209	0.166	0.151	0.141	0.133	0.125	0.121	0.126
LCB from zero pt. (+ve fwd) m	2.746	2.746	2.745	2.746	2.746	2.746	2.745	2.745	2.745	2.745
LCF from zero pt. (+ve fwd) m	2.667	2.795	2.794	2.794	2.81	2.816	2.831	2.835	2.838	2.837
Max deck inclination deg	0.0398	10.0001	20.0001	30	40	50	60	70	80	90
Trim angle (+ve by stern) deg	-0.0398	0.0541	0.0567	0.0492	0.0556	0.0875	0.1608	0.3007	0.6879	90

Lampiran 2. Pengambilan Data di Lapangan





