

# No.9 FULL LOAD(HOMO.) CONDITION AT DEP.

PART	S.G.	LOAD. (%)	Weight (MT)	LCG from M.S (+ : AFT)	LCG-MT (T-M)	VCG from B.L.	VCG-MT (T-M)	F.S.M (M-MT)
LIGHTSHIP			12983.00	8.070	104773	16.320	211883	
PROVISIONS			0.00	0.000	0	0.000	0	0
CONSTANT			235.00	49.550	11644	11.670	2742	0
NO.5 CARGO DECK			5880.00	6.480	38088	17.600	103488	
NO.3 CARGO DECK			1372.50	1.31	1796.00	9.83	13498.40	
F.P.T.(C)	1.025	0.0	0.00	-82.140	0	11.540	0	0
NO.1 W.B.TK.(C)	1.025	100.0	132.00	-64.700	-8540	3.010	397	0
NO.2 W.B.TK.(C)	1.025	0.0	0.00	-51.940	0	4.510	0	0
NO.3 W.B.TK.(C)	1.025	0.0	0.00	-36.850	0	3.990	0	0
NO.4 W.B.T.(P)	1.025	0.0	0.00	-20.480	0	4.630	0	0
NO.4 W.B.T.(S)	1.025	0.0	0.00	-20.480	0	4.630	0	0
HEEL T.(P)	1.025	38.2	211.00	-1.430	-302	1.850	390	236
HEEL T.(S)	1.025	41.0	212.00	-1.630	-346	1.860	394	224
NO.5 W.B.T.(P)	1.025	0.0	0.00	17.480	0	3.800	0	
NO.5 W.B.T.(S)	1.025	0.0	0.00	17.530	0	3.810	0	
NO.6 W.B.T.(P)	1.025	0.0	0.00	36.000	0	3.160	0	0
NO.6 W.B.T.(S)	1.025	0.0	0.00	36.760	0	3.780	0	0
NO.1 D.B W.B.T.(P)	1.025	100.0	386.00	-17.880	-6902	1.140	440	0
NO.1 D.B W.B.T.(S)	1.025	100.0	386.00	-17.990	-6944	1.140	440	0
NO.2 D.B W.B.T.(C) ,PERMANENT	1.025	100.0	1417.00	17.960	25449	1.090	1545	0
A.P.T.(P)	1.025	0.0	0.00	83.270	0	9.190	0	0
A.P.T.(S)	1.025	0.0	0.00	83.120	0	9.200	0	0
F.W.T.(P)	1.000	49.0	75.00	33.910	2543	5.760	432	142
F.W.T.(S)	1.000	69.0	75.00	32.140	2411	6.050	454	84
DRINK W.T.(P)	1.000	100.0	101.00	79.750	8055	12.580	1271	77
NO.1 F.O.T.(P)	0.980	90.0	586.00	-41.740	-24460	5.130	3006	723
NO.1 F.O.T.(S)	0.980	90.0	566.00	-42.070	-23812	5.150	2915	669
NO.2 F.O.T.(P)	0.980	85.0	543.00	24.920	13532	3.310	1797	826
NO.2 F.O.T.(S)	0.980	85.0	540.00	24.920	13457	3.310	1787	826
D.O.T.(P)	0.880	90.0	51.00	73.970	3772	11.650	594	54
D.O.T.(S)	0.880	90.0	38.00	73.970	2811	11.700	445	26
Displacement			25789.50	6.090	157025	13.490	347918	3887

## SAILING STATE

DRAUGHT AT A.P	=	9.034 M	*	KMT	=	15.890 M
DRAUGHT AT MIDSHIP	=	8.665 M	*	KG (SOLID)	=	13.490 M
DRAUGHT AT F.P	=	8.296 M	*	GM (SOLID)	=	2.400 M
TRIM( + : BY STERN)	=	0.738 M	*	FREE SURF. CORR.(GGo)	=	0.151 M
			*	GoM (FLUID)	=	2.249 M
DISPLACEMENT	=	25789.50 T	*	KGo ACTUAL (FLUID)	=	13.641 M
DRAUGHT AT LCF : Deq	=	8.722 M	*	TRIM(DIS*A)/(MTC*100)	=	0.738 M
LCB FROM M.S	=	4.734 M	*	FREE SURF. MOM.	=	3887.00 T-M
LCG FROM M.S	=	6.090 M	*	MTC	=	473.830 T-M
TRIM LEVER :A	=	1.356 M	*	LCF FROM M.S	=	13.082 M

## HYDROSTATIC PROPERTIES

Draft	Disp.(MT)	LCB	TPC	LCF	MTC	KMT
8.722	25789.500	4.734	43.600	13.082	473.830	15.890

$$P/I = (I/D) * 100\%$$

D : 6.100 M

I : 5.876 M

draft(A.P): 9.034 M

PROPELLER IMMERSION : 96.3 %

**No.10 ONLY PASSENGERS LOADING AT MID.**

PART	S.G.	LOAD. (%)	Weight (MT)	LCG from M.S (+AFT)	LCG-MT (T-M)	VCG from B.L.	VCG-MT (T-M)	F.S.M (M-MT)
LIGHTSHIP			12983.00	8.070	104773	16.320	211883	
PROVISIONS			0.00	0.000	0	0.000	0	0
CONSTANT			235.00	49.550	11644	11.670	2742	0
NO.5 CARGO DECK			5880.00	6.480	38088	17.600	103488	
NO.3 CARGO DECK			1372.50	1.310	1796	9.830	13498	
F.P.T.(C)	1.025	0.0	0.00	-82.140	0	11.540	0	0
NO.1 W.B.TK.(C)	1.025	100.0	132.00	-64.700	-8540	3.010	397	0
NO.2 W.B.TK.(C)	1.025	0.0	0.00	-51.940	0	4.510	0	0
NO.3 W.B.TK.(C)	1.025	100.0	656.00	-36.850	-24174	3.990	2617	0
NO.4 W.B.T.(P)	1.025	0.0	0.00	-20.480	0	4.630	0	0
NO.4 W.B.T.(S)	1.025	0.0	0.00	-20.480	0	4.630	0	0
HEEL T.(P)	1.025	35.0	193.00	-1.430	-276	1.850	357	236
HEEL T.(S)	1.025	37.0	191.00	-1.630	-311	1.860	355	224
NO.5 W.B.T.(P)	1.025	0.0	0.00	17.480	0	3.800	0	0
NO.5 W.B.T.(S)	1.025	0.0	0.00	17.530	0	3.810	0	0
NO.6 W.B.T.(P)	1.025	0.0	0.00	36.000	0	3.160	0	0
NO.6 W.B.T.(S)	1.025	0.0	0.00	36.760	0	3.780	0	0
NO.1 D.B W.B.T.(P)	1.025	100.0	386.00	-17.880	-6902	1.140	440	0
NO.1 D.B W.B.T.(S)	1.025	100.0	386.00	-17.990	-6944	1.140	440	0
NO.2 D.B W.B.T.(C),PERMANENT	1.025	100.0	1417.00	17.960	25449	1.090	1545	0
A.P.T.(P)	1.025	0.0	0.00	83.270	0	9.190	0	0
A.P.T.(S)	1.025	0.0	0.00	83.120	0	9.200	0	0
F.W.T.(P)	1.000	27.0	41.00	33.880	1389	5.410	222	142
F.W.T.(S)	1.000	38.0	41.00	32.120	1317	5.580	229	84
DRINK W.T.(P)	1.000	55.0	56.00	79.750	4466	11.770	659	77
NO.1 F.O.T.(P)	0.980	61.0	400.00	-41.610	-16644	4.390	1756	723
NO.1 F.O.T.(S)	0.980	64.0	400.00	-41.990	-16796	4.470	1788	669
NO.2 F.O.T.(P)	0.980	37.0	239.00	24.920	5956	2.640	631	826
NO.2 F.O.T.(S)	0.980	38.0	239.00	24.920	5956	2.650	633	826
D.O.T.(P)	0.880	90.0	51.00	73.970	3772	11.650	594	54
D.O.T.(S)	0.880	90.0	38.00	73.970	2811	11.700	445	26
Displacement			25336.50	5.010	126830	13.610	344719	3887

**SAILING STATE**

DRAUGHT AT A.P	=	8.718 M	*	KMT	=	15.911 M
DRAUGHT AT MIDSHIP	=	8.601 M	*	KG (SOLID)	=	13.610 M
DRAUGHT AT F.P	=	8.485 M	*	GM (SOLID)	=	2.301 M
TRIM( + : BY STERN)	=	0.233 M	*	FREE SURF. CORR.(GGo)	=	0.153 M
			*	GoM (FLUID)	=	2.148 M
DISPLACEMENT	=	25336.50 T	*	KGGo ACTUAL (FLUID)	=	13.763 M
DRAUGHT AT LCF : Deq	=	8.619 M	*	TRIM(DIS*A)/(MTC*100)	=	0.233 M
LCB FROM M.S	=	4.578 M	*	FREE SURF. MOM.	=	3887.00 T-M
LCG FROM M.S	=	5.010 M	*	MTC	=	470.359 T-M
TRIM LEVER :A	=	0.432 M	*	LCF FROM M.S	=	13.090 M

**HYDROSTATIC PROPERTIES**

Draft	Disp.(MT)	LCB	TPC	LCF	MTC	KMT
8.619	25336.500	4.578	43.400	13.090	470.359	15.911

$$P/I = (I/D) \times 100\%$$

$$D : 6.100 \text{ M}$$

$$I : 5.560 \text{ M}$$

$$\text{draft(A.P)} : 8.718 \text{ M}$$

$$\text{PROPELLER IMMERSION} : 91.1 \%$$

**No.11 ONLY PASSENGERS LOADING AT ARR.**

PART	S.G.	LOAD. (%)	Weight (MT)	LCG from M.S (+AFT)	LCG-MT (T-M)	VCG from B.L.	VCG-MT (T-M)	F.S.M (M-MT)
LIGHTSHIP			12983.00	8.070	104773	16.320	211883	
PROVISIONS			0.00	0.000	0	0.000	0	0
CONSTANT			235.00	49.550	11644	11.670	2742	0
NO.5 CARGO DECK			5880.00	6.480	38088	17.600	103488	
NO.3 CARGO DECK			1372.50	1.310	1796	9.830	13498	
F.P.T.(C)	1.025	0.0	0.00	-82.140	0	11.540	0	0
NO.1 W.B.TK.(C)	1.025	100.0	132.00	-64.700	-8540	3.010	397	0
NO.2 W.B.TK.(C)	1.025	0.0	0.00	-51.940	0	4.510	0	0
NO.3 W.B.TK.(C)	1.025	100.0	656.00	-36.850	-24174	3.990	2617	0
NO.4 W.B.T.(P)	1.025	0.0	0.00	-20.480	0	4.630	0	0
NO.4 W.B.T.(S)	1.025	0.0	0.00	-20.480	0	4.630	0	0
HEEL T.(P)	1.025	35.0	193.00	-1.430	-276	1.850	357	236
HEEL T.(S)	1.025	37.0	191.00	-1.630	-311	1.860	355	224
NO.5 W.B.T.(P)	1.025	0.0	0.00	17.480	0	3.800	0	0
NO.5 W.B.T.(S)	1.025	0.0	0.00	17.530	0	3.810	0	0
NO.6 W.B.T.(P)	1.025	0.0	0.00	36.000	0	3.160	0	0
NO.6 W.B.T.(S)	1.025	0.0	0.00	36.760	0	3.780	0	0
NO.1 D.B W.B.T.(P)	1.025	100.0	386.00	-17.880	-6902	1.140	440	0
NO.1 D.B W.B.T.(S)	1.025	100.0	386.00	-17.990	-6944	1.140	440	0
NO.2 D.B W.B.T.(C),PERMANENT	1.025	100.0	1417.00	17.960	25449	1.090	1545	0
A.P.T.(P)	1.025	0.0	0.00	83.270	0	9.190	0	0
A.P.T.(S)	1.025	0.0	0.00	83.120	0	9.200	0	0
F.W.T.(P)	1.000	5.0	8.00	33.830	271	5.030	40	142
F.W.T.(S)	1.000	7.0	8.00	32.090	257	5.070	41	84
DRINK W.T.(P)	1.000	10.0	10.00	79.750	798	10.940	109	77
NO.1 F.O.T.(P)	0.980	18.0	115.00	-41.310	-4751	2.830	325	723
NO.1 F.O.T.(S)	0.980	18.0	115.00	-41.760	-4802	2.870	330	669
NO.2 F.O.T.(P)	0.980	0.0	0.00	24.920	0	0.000	0	0
NO.2 F.O.T.(S)	0.980	0.0	0.00	24.920	0	0.000	0	0
D.O.T.(P)	0.880	90.0	51.00	73.970	3772	11.650	594	54
D.O.T.(S)	0.880	90.0	38.00	73.970	2811	11.700	445	26
Displacement			24176.50	5.500	132959	14.050	339646	2235

**SAILING STATE**

DRAUGHT AT A.P	=	8.651 M	* KMT	=	15.960 M
DRAUGHT AT MIDSHIP	=	8.298 M	* KG (SOLID)	=	14.050 M
DRAUGHT AT F.P	=	7.945 M	* GM (SOLID)	=	1.910 M
TRIM( + : BY STERN)	=	0.706 M	* FREE SURF. CORR.(GGo)	=	0.092 M
			* GoM (FLUID)	=	1.818 M
DISPLACEMENT	=	24176.50 T	* KGo ACTUAL (FLUID)	=	14.142 M
DRAUGHT AT LCF : Deq	=	8.351 M	* TRIM(DIS*A)/(MTC*100)	=	0.706 M
LCB FROM M.S	=	4.171 M	* FREE SURF. MOM.	=	2235.00 T-M
LCG FROM M.S	=	5.500 M	* MTC	=	455.084 T-M
TRIM LEVER :A	=	1.329 M	* LCF FROM M.S	=	12.732 M

**HYDROSTATIC PROPERTIES**

Draft	Disp.(MT)	LCB	TPC	LCF	MTC	KMT
8.351	24176.500	4.171	42.800	12.732	455.084	15.960

$$P/I = (I/D) \times 100\%$$

$$D : 6.100 \text{ M}$$

$$I : 5.493 \text{ M}$$

$$\text{draft(A.P)} : 8.651 \text{ M}$$

$$\text{PROPELLER IMMERSION} : 90.0 \%$$

PART		UNIT WEIGHT (TON)	QUANTITY (EA)	WEIGHT (TON)	LCG		KG(VCG)		REMARK
					LCG(M)	M(T-M)	VCG(M)	M(T-M)	
NO. 1	UPPER	30.00	2	60.0	-66.93	-4016	19.20	1152	
	LOWER	30.00	2	60.0	-66.93	-4016	16.00	960	
NO. 2	UPPER	30.00	2	60.0	-66.93	-4016	19.20	1152	
	LOWER	30.00	2	60.0	-66.93	-4016	16.00	960	
NO. 3	UPPER	30.00	2	60.0	-60.66	-3640	19.20	1152	
	LOWER	30.00	2	60.0	-60.66	-3640	16.00	960	
NO. 4	UPPER	30.00	2	60.0	-57.17	-3430	19.20	1152	
	LOWER	30.00	2	60.0	-57.17	-3430	16.00	960	
NO. 5	UPPER	30.00	2	60.0	-54.09	-3245	19.20	1152	
	LOWER	30.00	2	60.0	-54.09	-3245	16.00	960	
NO. 6	UPPER	30.00	2	60.0	-51.02	-3061	19.20	1152	
	LOWER	30.00	2	60.0	-51.02	-3061	16.00	960	
NO. 7	UPPER	30.00	2	60.0	-47.95	-2877	19.20	1152	
	LOWER	30.00	2	60.0	-47.95	-2877	16.00	960	
NO. 8	UPPER	30.00	2	60.0	-44.87	-2692	19.20	1152	
	LOWER	30.00	2	60.0	-44.87	-2692	16.00	960	
NO. 9	UPPER	30.00	2	60.0	-41.80	-2508	19.20	1152	
	LOWER	30.00	2	60.0	-41.80	-2508	16.00	960	
NO. 10	UPPER	30.00	2	60.0	-38.72	-2323	19.20	1152	
	LOWER	30.00	2	60.0	-38.72	-2323	16.00	960	
NO. 11	UPPER	30.00	2	60.0	-35.65	-2139	19.20	1152	
	LOWER	30.00	2	60.0	-35.65	-2139	16.00	960	
NO. 12	UPPER	30.00	2	60.0	-32.58	-1955	19.20	1152	
	LOWER	30.00	2	60.0	-32.58	-1955	16.00	960	
NO. 13	UPPER	30.00	2	60.0	-29.50	-1770	19.20	1152	
	LOWER	30.00	2	60.0	-29.50	-1770	16.00	960	
NO. 14	UPPER	30.00	2	60.0	-26.43	-1586	19.20	1152	
	LOWER	30.00	2	60.0	-26.43	-1586	16.00	960	
NO. 15	UPPER	30.00	2	60.0	-23.35	-1401	19.20	1152	
	LOWER	30.00	2	60.0	-23.35	-1401	16.00	960	
NO. 16	UPPER	30.00	2	60.0	-20.28	-1217	19.20	1152	
	LOWER	30.00	2	60.0	-20.28	-1217	16.00	960	
NO. 17	UPPER	30.00	2	60.0	-17.21	-1033	19.20	1152	
	LOWER	30.00	2	60.0	-17.21	-1033	16.00	960	
NO. 18	UPPER	30.00	2	60.0	-14.13	-848	19.20	1152	
	LOWER	30.00	2	60.0	-14.13	-848	16.00	960	
NO. 19	UPPER	30.00	2	60.0	-11.06	-664	19.20	1152	
	LOWER	30.00	2	60.0	-11.06	-664	16.00	960	
NO. 20	UPPER	30.00	2	60.0	-7.98	-479	19.20	1152	
	LOWER	30.00	2	60.0	-7.98	-479	16.00	960	
NO. 21	UPPER	30.00	2	60.0	-4.91	-295	19.20	1152	
	LOWER	30.00	2	60.0	-4.91	-295	16.00	960	
NO. 22	UPPER	30.00	2	60.0	-1.84	-110	19.20	1152	
	LOWER	30.00	2	60.0	-1.84	-110	16.00	960	
NO. 23	UPPER	30.00	2	60.0	1.24	74	19.20	1152	
	LOWER	30.00	2	60.0	1.24	74	16.00	960	
NO. 24	UPPER	30.00	2	60.0	4.31	259	19.20	1152	
	LOWER	30.00	2	60.0	4.31	259	16.00	960	
NO. 25	UPPER	30.00	2	60.0	7.39	443	19.20	1152	
	LOWER	30.00	2	60.0	7.39	443	16.00	960	
NO. 26	UPPER	30.00	2	60.0	10.46	628	19.20	1152	



## 8. CARGO LOADING(CSM)

### 1) NO.3 DECK

CARGO HEIGHT 4.08M

ITEM	unit W (ton)	Q'TY (n)	WEIGHT (ton)	LCG (m)	L-MOMENT (ton-m)	VCG (m)	V-MOMENT (ton-m)
NO.1 45T TRAILER(CARGO)	56.0	6	336	-25.380	-8528	9.860	3313
NO.2 45T TRAILER(CARGO)	56.0	6	336	-12.580	-4227	9.860	3313
NO.3 45T TRAILER(CARGO)	56.0	3	168	0.220	37	9.860	1656
NO.4 45T TRAILER(CARGO)	56.0	1	56	14.220	796	9.860	552
NO.5 45T TRAILER(CARGO)	56.0	4	224	27.090	6068	9.860	2209
NO.6 45T TRAILER(CARGO)	56.0	4	224	39.890	8935	9.860	2209
NO.7 45T TRAILER(CARGO)	56.0	0	0	0.000	0	9.860	0
SUB TOTAL		24	1344	2.290	3081	9.860	13252

### 3) NO.3 DECK

PACKAGE CARGO HEIGHT 1.6M

ITEM	unit W (ton)	Q'TY (n)	WEIGHT (ton)	LCG (m)	L-MOMENT (ton-m)	VCG (m)	V-MOMENT (ton-m)
NO.1 PACKAGE BOX CARGO	0.5	8	4	-55.960	-224	8.610	34
NO.2 PACKAGE BOX CARGO	0.5	12	6	-50.630	-304	8.610	52
NO.3 PACKAGE BOX CARGO	0.5	5	3	-46.630	-117	8.610	22
NO.4 PACKAGE BOX CARGO	0.5	32	16	-39.970	-640	8.610	138
SUB TOTAL		57	29	-45.090	-1285	8.650	246

### 3) LOADING TOTAL WEIGHT

ITEM	Q'TY (n)	WEIGHT (ton)	LCG (m)	L-MOMENT (ton-m)	VCG (m)	V-MOMENT (ton-m)
NO.3 DECK TRAILER	24	1344.0	2.290	3081	9.860	13252
NO.3 DECK PACKAGE CARGO	57	28.5	-45.090	-1285	8.650	246
TOTAL	24	1372.5	1.310	1796	9.830	13498