

Navio Intacto

Floating Status

Draft FP	2.210 m	Heel	zero	GM(Solid)	1.157 m
Draft MS	2.149 m	Equil	Yes	F/S Corr.	0.029 m
Draft AP	2.088 m	Wind	Off	GM(Fluid)	1.128 m
Trim	fwd 0.121/52.680	Wave	No	KMt	6.164 m
LCG	25.673f m	VCG	5.007 m	TPcm	5.65
Displacement	1 048.66 MT	WaterSpgr	1.025		

Loading Summary

Item	Weight (MT)	LCG (m)	TCG (m)	VCG (m)
Light Ship	480.00	24.760f	0.000	3.300
Deadweight	568.66	26.444f	0.000	6.448
Displacement	1 048.66	25.673f	0.000	5.007

Fixed Weight Status

Item	Weight (MT)	LCG (m)	TCG (m)	VCG (m)
LIGHT SHIP	480.00	24.760f	0.000	3.300u
CONTENTORES	504.00	28.160f	0.000	7.070u
Total Fixed:	984.00	26.501f	0.000	5.231u

Tank Status

SALT WATER (SpGr 1.025)

Tank Name	Load (%)	Weight (MT)	LCG (m)	TCG (m)	VCG (m)
CAS_MAQ_LEME	<empty>				
CM	<empty>				
COFER_RE.P	<empty>				
COFER_RE.S	<empty>				
COFERDAME.P	<empty>				
COFERDAME.S	<empty>				
PIQUE_VANTE	<empty>				
TQ_LAST_1.P	<empty>				
TQ_LAST_1.S	<empty>				
TQ_LAST_2.P	<empty>				
TQ_LAST_2.S	<empty>				
TQ_LAST_3.P	<empty>				
TQ_LAST_3.S	<empty>				
TQ_LAT_1.P	<empty>				
TQ_LAT_1.S	<empty>				
TQ_LAT_2.P	<empty>				
TQ_LAT_2.S	<empty>				
TQ_LAT_3.P	<empty>				
TQ_LAT_3.S	<empty>				
TQ_LAT_4.P	<empty>				
TQ_LAT_4.S	<empty>				
TQ_SECO_1.P	<empty>				
TQ_SECO_1.S	<empty>				
TQ_SECO_2.P	<empty>				
TQ_SECO_2.S	<empty>				
TQ_SECO_3.P	<empty>				
TQ_SECO_3.S	<empty>				
TQ_SECO_VANT	<empty>				
TUNEL_1	<empty>				
TUNEL_2	<empty>				
TUNEL_3	<empty>				
TUNEL_4	<empty>				

DIESEL OIL (SpGr 0.870)

Tank Name	Load (%)	Weight (MT)	LCG (m)	TCG (m)	VCG (m)
TQ_DO.P	98.00%	15.93	14.402f	2.525p	1.522
TQ_DO.S	98.00%	15.93	14.402f	2.525s	1.522
TQ_DO_DIARIO	98.00%	7.92	11.999f	0.000	3.932
Subtotals:	98.00%	39.79	13.923f	0.000	2.002

FRESH WATER (SpGr 1.000)

Tank Name	Load (%)	Weight (MT)	LCG (m)	TCG (m)	VCG (m)
TQ_AD.P	98.00%	12.43	11.708f	3.268p	0.957
TQ_AD.S	98.00%	12.43	11.708f	3.268s	0.957
Subtotals:	98.00%	24.87	11.708f	0.000	0.957

All Tanks

	Load (%)	Weight (MT)	LCG (m)	TCG (m)	VCG (m)
Totals:	3.51%	64.66	13.071f	0.000	1.600

Displacer Status

Item	Status	Spgr	Displ (MT)	LCB (m)	TCB (m)	VCB (m)	Eff /Perm
HULL	Intact	1.025	1 048.66	25.682f	0.000	1.162	1.000
SubTotals:			1 048.66	25.682f	0.000	1.162	

Tank Status**SALT WATER (SpGr 1.025)**

Tank Name	Load (%)	Weight (MT)	LCG (m)	TCG (m)	VCG (m)	Sndg (m)
CAS_MAQ_LEME	<empty>					
CM	<empty>					
COFER_RE.P	<empty>					
COFER_RE.S	<empty>					
COFERDAME.P	<empty>					
COFERDAME.S	<empty>					
PIQUE_VANTE	<empty>					
TQ_LAST_1.P	<empty>					
TQ_LAST_1.S	<empty>					
TQ_LAST_2.P	<empty>					
TQ_LAST_2.S	<empty>					
TQ_LAST_3.P	<empty>					
TQ_LAST_3.S	<empty>					
TQ_LAT_1.P	<empty>					
TQ_LAT_1.S	<empty>					
TQ_LAT_2.P	<empty>					
TQ_LAT_2.S	<empty>					
TQ_LAT_3.P	<empty>					
TQ_LAT_3.S	<empty>					
TQ_LAT_4.P	<empty>					
TQ_LAT_4.S	<empty>					
TQ_SECO_1.P	<empty>					
TQ_SECO_1.S	<empty>					
TQ_SECO_2.P	<empty>					
TQ_SECO_2.S	<empty>					
TQ_SECO_3.P	<empty>					
TQ_SECO_3.S	<empty>					
TQ_SECO_VANT	<empty>					
TUNEL_1	<empty>					
TUNEL_2	<empty>					
TUNEL_3	<empty>					

TUNEL_4	<empty>				
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DIESEL OIL (SpGr 0.870)

Tank Name	Load (%)	Weight (MT)	LCG (m)	TCG (m)	VCG (m)	Sndg (m)
TQ_DO.P	98.00%	15.93	14.402f	2.525p	1.522	None
TQ_DO.S	98.00%	15.93	14.402f	2.525s	1.522	None
TQ_DO_DIARIO	98.00%	7.92	11.999f	0.000	3.932	None
Subtotals:	98.00%	39.79	13.923f	0.000	2.002	

FRESH WATER (SpGr 1.000)

Tank Name	Load (%)	Weight (MT)	LCG (m)	TCG (m)	VCG (m)	Sndg (m)
TQ_AD.P	98.00%	12.43	11.708f	3.268p	0.957	None
TQ_AD.S	98.00%	12.43	11.708f	3.268s	0.957	None
Subtotals:	98.00%	24.87	11.708f	0.000	0.957	

All Tanks

	Load (%)	Weight (MT)	LCG (m)	TCG (m)	VCG (m)	Sndg (m)
Totals:	3.51%	64.66	13.071f	0.000	1.600	



Fluid Legend

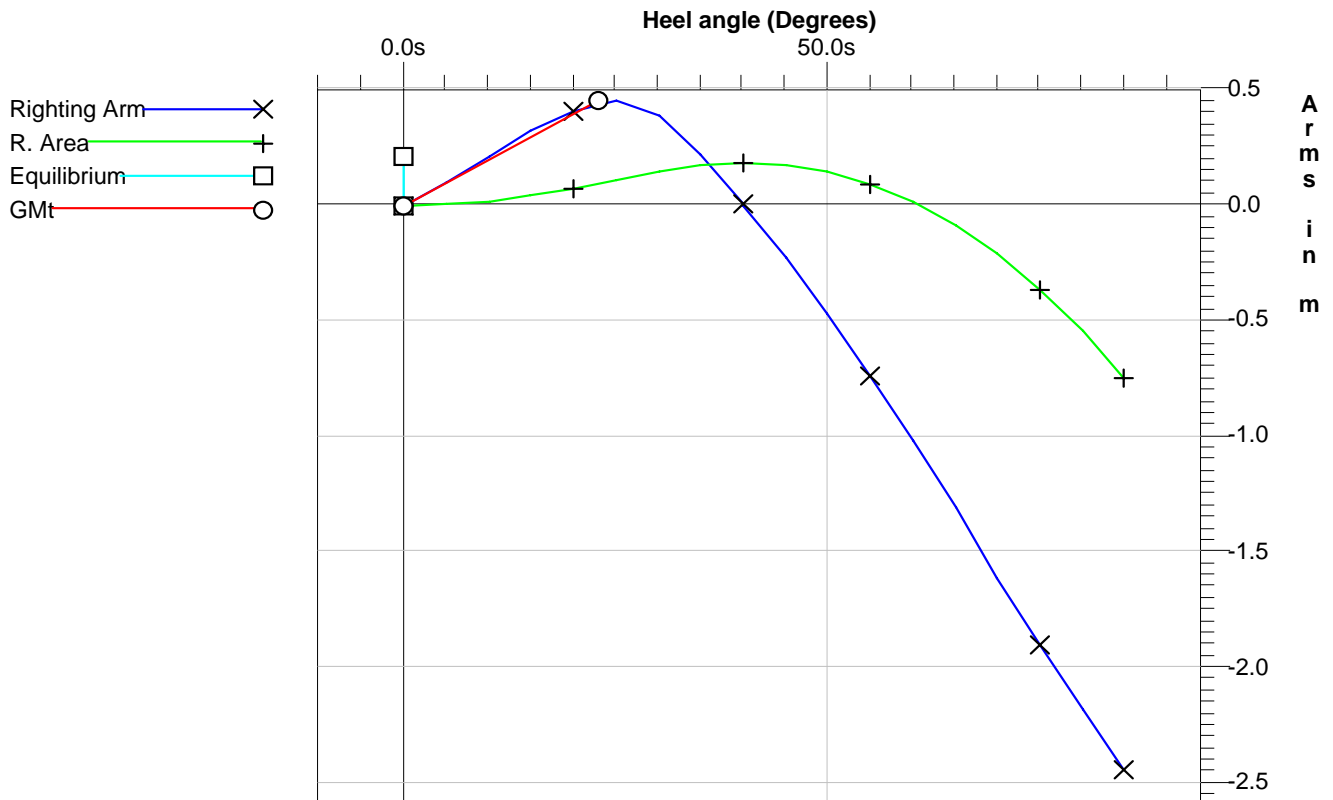
Fluid Name	Legend	Weight (MT)	Load%
DIESEL OIL		39.79	98.00%
FRESH WATER		24.87	98.00%

Righting Arms vs. Heel - CRITERIOS DE ESTABILIDADE INTACTA

Righting Arms vs Heel Angle

Heel Angle (deg)	Trim Angle (deg)	Origin Depth (m)	Righting Arm (m)	Area (m-Rad)	Notes
0.00	0.13f	2.088	0.000	0.000	Equil
5.00s	0.13f	2.081	0.101	0.004	
10.00s	0.12f	2.056	0.208	0.018	
15.00s	0.12f	2.007	0.324	0.041	
20.00s	0.16f	1.928	0.406	0.073	
25.00s	0.22f	1.811	0.452	0.111	
30.00s	0.32f	1.659	0.387	0.148	
35.00s	0.40f	1.507	0.217	0.175	
40.00s	0.42f	1.364	0.006	0.185	
40.13s	0.42f	1.360	0.000	0.185	RaZero
45.00s	0.38f	1.224	-0.223	0.176	
50.00s	0.32f	1.079	-0.472	0.146	
55.00s	0.27f	0.922	-0.737	0.093	
60.00s	0.26f	0.746	-1.014	0.017	
65.00s	0.37f	0.534	-1.309	-0.084	
70.00s	0.56f	0.297	-1.610	-0.212	
75.00s	0.74f	0.066	-1.900	-0.365	
80.00s	0.90f	-0.163	-2.177	-0.543	
85.00s	1.07f	-0.400	-2.439	-0.744	

Righting Arms vs. Heel - CRITERIOS DE ESTABILIDADE INTACTA



CRITERIOS DE ESTABILIDADE INTACTA

Limit	Min/Max	Actual	Margin	Pass
(1) Area from 0.00 deg to 30.00	>0.0550 m-R	0.148	0.093	Yes
(2) Area from 0.00 deg to 40.00	>0.0900 m-R	0.185	0.095	Yes
(3) Area from 30.00 deg to 40.00	>0.0300 m-R	0.037	0.007	Yes
(4) Righting Arm at 30.00 deg	>0.200 m	0.387	0.187	Yes

(5) Absolute Angle at MaxRA	>25.00 deg	25.00	0.00	No
(6) GM at Equilibrium	>0.150 m	1.128	0.978	Yes

Alagamento Casa das Máquina de Leme

Floating Status

Draft FP	2.030 m	Heel	zero	GM(Solid)	1.012 m
Draft MS	2.183 m	Equil	Yes	F/S Corr.	0.030 m
Draft AP	2.337 m	Wind	Off	GM(Fluid)	0.981 m
Trim	aft 0.307/52.680	Wave	No	KMt	6.011 m
LCG	25.325f m	VCG	4.999 m	TPcm	5.40
Displacement	1 051.04 MT	WaterSpgr	1.025		

Loading Summary

Item	Weight (MT)	LCG (m)	TCG (m)	VCG (m)
Light Ship	480.00	24.060f	0.000	3.300
Deadweight	571.04	26.388f	0.000	6.428
Displacement	1 051.04	25.325f	0.000	4.999

Fixed Weight Status

Item	Weight (MT)	LCG (m)	TCG (m)	VCG (m)
LIGHT SHIP	480.00	24.060f	0.000	3.300u
CONTENTORES	504.00	28.160f	0.000	7.070u
Total Fixed:	984.00	26.160f	0.000	5.231u

Tank Status

SALT WATER (SpGr 1.025)

Tank Name	Load (%)	Weight (MT)	LCG (m)	TCG (m)	VCG (m)
CM	<empty>				
COFER_RE.P	<empty>				
COFER_RE.S	<empty>				
COFERDAME.P	<empty>				
COFERDAME.S	<empty>				
PIQUE_VANTE	<empty>				
TQ_LAST_1.P	<empty>				
TQ_LAST_1.S	<empty>				
TQ_LAST_2.P	<empty>				
TQ_LAST_2.S	<empty>				
TQ_LAST_3.P	<empty>				
TQ_LAST_3.S	<empty>				
TQ_LAT_1.P	<empty>				
TQ_LAT_1.S	<empty>				
TQ_LAT_2.P	<empty>				
TQ_LAT_2.S	<empty>				
TQ_LAT_3.P	<empty>				
TQ_LAT_3.S	<empty>				
TQ_LAT_4.P	<empty>				
TQ_LAT_4.S	<empty>				
TQ_SECO_1.P	<empty>				
TQ_SECO_1.S	<empty>				
TQ_SECO_2.P	<empty>				
TQ_SECO_2.S	<empty>				
TQ_SECO_3.P	<empty>				
TQ_SECO_3.S	<empty>				
TQ_SECO_VANT	<empty>				
TUNEL_1	<empty>				
TUNEL_2	<empty>				
TUNEL_3	<empty>				
TUNEL_4	<empty>				

DIESEL OIL (SpGr 0.870)

Tank Name	Load (%)	Weight (MT)	LCG (m)	TCG (m)	VCG (m)
TQ_DO.P	98.00%	16.52	14.400f	2.525p	1.522
TQ_DO.S	98.00%	16.52	14.400f	2.525s	1.522
TQ_DO_DIARIO	97.99%	8.21	11.997f	0.000	3.932
Subtotals:	98.00%	41.25	13.922f	0.000	2.001

FRESH WATER (SpGr 1.000)

Tank Name	Load (%)	Weight (MT)	LCG (m)	TCG (m)	VCG (m)
TQ_AD.P	98.00%	12.89	11.707f	3.268p	0.957
TQ_AD.S	98.00%	12.89	11.707f	3.268s	0.957
Subtotals:	98.00%	25.78	11.707f	0.000	0.957

All Tanks

	Load (%)	Weight (MT)	LCG (m)	TCG (m)	VCG (m)
Totals:	3.56%	67.04	13.070f	0.000	1.600

Displacer Status

Item	Status	Spgr	Displ (MT)	LCB (m)	TCB (m)	VCB (m)	Eff /Perm
HULL	Intact	1.025	1 074.73	24.745f	0.000	1.188	1.000
CAS_MAQ_LEME	Flooded	1.025	-23.69	0.018f	0.000	1.777	0.985
SubTotals:			1 051.04	25.303f	0.000	1.175	

Tank Status

SALT WATER (SpGr 1.025)

Tank Name	Load (%)	Weight (MT)	LCG (m)	TCG (m)	VCG (m)	Sndg (m)
CM	<empty>					
COFER_RE.P	<empty>					
COFER_RE.S	<empty>					
COFERDAME.P	<empty>					
COFERDAME.S	<empty>					
PIQUE_VANTE	<empty>					
TQ_LAST_1.P	<empty>					
TQ_LAST_1.S	<empty>					
TQ_LAST_2.P	<empty>					
TQ_LAST_2.S	<empty>					
TQ_LAST_3.P	<empty>					
TQ_LAST_3.S	<empty>					
TQ_LAT_1.P	<empty>					
TQ_LAT_1.S	<empty>					
TQ_LAT_2.P	<empty>					
TQ_LAT_2.S	<empty>					
TQ_LAT_3.P	<empty>					
TQ_LAT_3.S	<empty>					
TQ_LAT_4.P	<empty>					
TQ_LAT_4.S	<empty>					
TQ_SECO_1.P	<empty>					
TQ_SECO_1.S	<empty>					
TQ_SECO_2.P	<empty>					
TQ_SECO_2.S	<empty>					
TQ_SECO_3.P	<empty>					
TQ_SECO_3.S	<empty>					
TQ_SECO_VANT	<empty>					
TUNEL_1	<empty>					
TUNEL_2	<empty>					
TUNEL_3	<empty>					
TUNEL_4	<empty>					

DIESEL OIL (SpGr 0.870)

Tank Name	Load (%)	Weight (MT)	LCG (m)	TCG (m)	VCG (m)	Sndg (m)
TQ_DO.P	98.00%	16.52	14.400f	2.525p	1.522	None
TQ_DO.S	98.00%	16.52	14.400f	2.525s	1.522	None
TQ_DO_DIARIO	97.99%	8.21	11.997f	0.000	3.932	None
Subtotals:	98.00%	41.25	13.922f	0.000	2.001	

FRESH WATER (SpGr 1.000)

Tank Name	Load (%)	Weight (MT)	LCG (m)	TCG (m)	VCG (m)	Sndg (m)
TQ_AD.P	98.00%	12.89	11.707f	3.268p	0.957	None
TQ_AD.S	98.00%	12.89	11.707f	3.268s	0.957	None
Subtotals:	98.00%	25.78	11.707f	0.000	0.957	

All Tanks

	Load (%)	Weight (MT)	LCG (m)	TCG (m)	VCG (m)	Sndg (m)
Totals:	3.56%	67.04	13.070f	0.000	1.600	



Fluid Legend

Fluid Name	Legend	Weight (MT)	Load%
DIESEL OIL		41.25	98.00%
FRESH WATER		25.78	98.00%

Righting Arms vs. Heel

Righting Arms vs Heel Angle with Damage

Heel Angle (deg)	Trim Angle (deg)	Origin Depth (m)	Righting Arm (m)	Area (m-Rad)	Notes
0.00	0.33a	2.337	0.000	0.000	Equil
5.00s	0.34a	2.330	0.089	0.004	
10.00s	0.36a	2.310	0.186	0.016	
15.00s	0.38a	2.273	0.293	0.037	
20.00s	0.39a	2.221	0.374	0.066	
25.00s	0.39a	2.137	0.420	0.101	
30.00s	0.41a	2.051	0.346	0.135	
35.00s	0.45a	1.977	0.160	0.158	
38.54s	0.51a	1.926	0.002	0.163	RaZero
40.00s	0.55a	1.906	-0.066	0.162	
45.00s	0.70a	1.839	-0.304	0.146	
50.00s	0.89a	1.768	-0.556	0.109	
55.00s	1.08a	1.688	-0.818	0.049	
60.00s	1.26a	1.594	-1.086	-0.034	
65.00s	1.40a	1.480	-1.357	-0.141	
70.00s	1.44a	1.329	-1.634	-0.271	
75.00s	1.32a	1.126	-1.918	-0.426	
80.00s	1.18a	0.912	-2.190	-0.605	
85.00s	1.04a	0.690	-2.447	-0.808	

Righting Arms vs. Heel

