

PLAN HISTORY

REV.	DATE	DESCRIPTION	REMARKS
	2026.02.10	ISSUED FOR APPROVAL	

CLASS SURVEYOR

Park Kwang-jun



SHIP NAME	OWNER	HULL NO.	IMO NO.
GNL GRACE	GNL PANAMA S.A.	N 1007	9112246
APPROVED BY M.H. ROH	NAME OF DRAWING LIGHT WEIGHT SURVEY & MEASUREMENT SHIP TYPE : RORO / PASSENGER SHIP		
CHECKED BY S.J. KIM			
DRAWN BY Y.J. LEE			
SCALE -	DATE 2026.02.10	CLASS KR	DWG. NO. PTD2505-003-1
		REV. NO.	



(48957) PANSTAR PLAZA, 30, HAEGWAN-RO, JUNG-GU, BUSAN, KOREA
T:051-240-8238

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1. GENERAL

SHIP NUMBER	:	N1007
SHIP NAME	:	GNL GRACE
OWNER	:	GNL PANAMA S.A.
KIND OF SHIP	:	RORO / PASSENGER SHIP

2. PRINCIPAL PARTICULARS

LENGTH	(O.A)	:	167.00 m
LENGTH	(B.P)	:	156.00 m
BREADTH	(MLD)	:	22.00 m
DEPTH	(MLD)	:	7.60 m

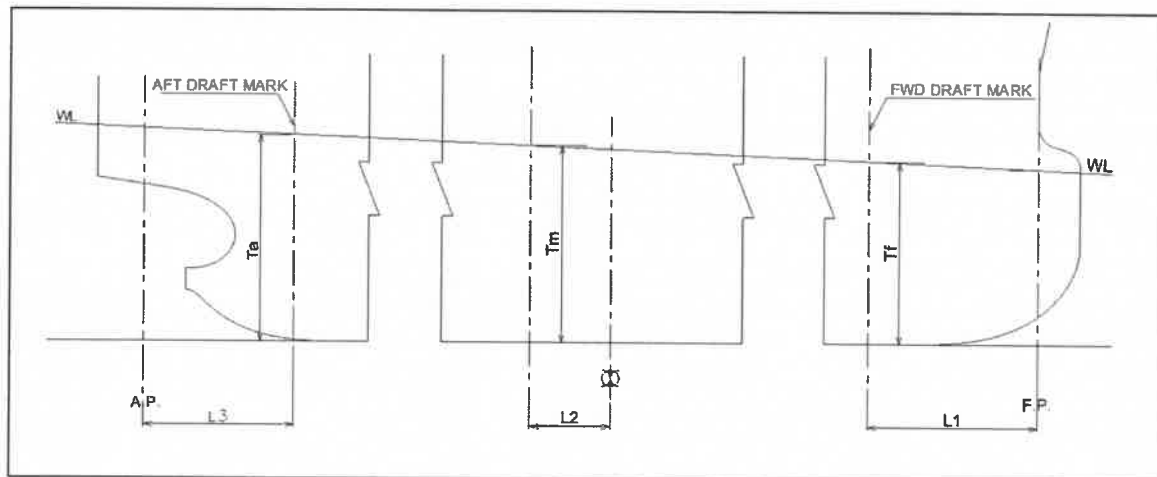
3. TEST CONDITION

DATE	:	10-Feb-2026
PLACE	:	Orient Shipyard
WEATHER	:	CLOUDY
WIND DIRECTION	:	W-N
WIND VELOCITY	:	4.0 M/SEC
SEA CONDITION	:	CALM
TEMPERATURE AT ATMOSPHERE	:	5.0 °C
TEMPERATURE AT SEA WATER	:	11.0 °C
S.G. OF SEA WATER	:	1.025
STATE OF SHIP	:	ALMOST COMPLETED

4. WITNESS

CLASS	:	KR, Surveyor
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5. DRAFT MARK POSITION



L1	:	3.000 M	
L2	:	0.000 M	L2 = draft 3.4m~5.6m : 0.0M / draft 5.6m~6.4m : 0.525M
L3	:	10.800 M	

6. DRAFT & DISPLACEMENT AT TEST CONDITION

NO	ITEM	METHOD	RESULT		
1)	Draft Marks	Draft	AFT	M.S	FWD
		Port	5.420	5.180	4.920
		STBD	5.420	5.180	4.920
		Mean	5.420	5.180	4.920
2)	Trim	FWD - AFT Marks	-0.500		
3)	Draft Correction Factor	LBP 156.00	L3	L2	L1
			10.800	0.000	3.000
		Correction Factor	0.069	0.000	0.019
4)	Draft Correction	2) x 3)	0.035	0.000	-0.010
5)	Draft at A.P, M.S, F.P	1) + 4)	5.455	5.180	4.910
6)	Actual Trim	FWD - AFT at 5)	-0.544		
7)	Mean Draft (dm)	(AFT + FWD) at 5) / 2	5.183		
8)	Deflection	7) - M.S at 5)	0.002		
	(+ : Hogging)				
	(- : Sagging)				
9)	Deflection Corrected Mean Draft (dm δ)	7) - 3/4 x 8)	5.181		
10)	LCF at Mean Draft	Refer to Hydro table	-7.201		
11)	Correction for Trim	10) x 6) / LBP	0.025		
12)	Draft at LCF	9) + 11)	5.206		
13)	Displacement at LCF Draft	Refer to Hydro table	8732.220		
14)	Actual S.G	As Measured	1.0250		
15)	Actual Displacement	13) x 14) / 1.025	8732.220		
16)	MTC at 12)	Refer to Hydro table	172.372		
17)	BG at 12)	6) x 16) x 100 / 13)	-1.074		
18)	LCB at 12)	Refer to Hydro table	-3.896		
19)	LCG at 12)	17) + 18)	-4.970		
20)	KMT at 12)	Refer to Hydro table	11.460		

7. LIGHTWEIGHT CALCULATION

ITEM	WEIGHT (Ton)	LCG (M)	LCG-MT (Ton-M)
TEST CONDITION	8732.220	-4.970	-43399.563
ADD WEIGHT (+)	24.000	-14.480	-347.520
DEDUCTED WEIGHT (-)	1466.084	1.473	2158.833
LIGHTWEIGHT	7290.135	-6.249	-45558.396

8. WEIGHT TO BE ADDED & DEDUCTED

1) Weight to be added

No.	Items	WEIGHT (Ton)	LCG (M)	LCG-MT (Ton-M)
1	LIFE BOAT (80P) (P&S)	24.000	-14.480	-347.520

2) Weight to be deducted

No.	Items	WEIGHT (Ton)	LCG (M)	LCG-MT (Ton-M)	REMARK
NO.7 DECK					
1	RAD.SPACE ARTICLES	0.400	48.570	19.428	
2	WHEEL HOUSE	0.800	51.640	41.312	
3	LOCKER	0.200	49.600	9.920	
4	SPRIN.VALVE ROOM	0.030	49.600	1.488	
5	BATT.RM ARTICLE	0.300	45.050	13.515	
6	ELEC.MACH.RM ARTICLE	0.200	45.050	9.010	
7	AIR CON. RM	0.100	45.300	4.530	
8	OFFICE	0.800	40.000	32.000	
9	LAUNDRY & BATH ROOM	0.500	35.600	17.800	
10	CREW'S ARTICLE	1.650	25.695	42.397	
11	HOSPITAL	0.300	14.400	4.320	
12	CREW'S REST ROOM	0.800	26.400	21.120	
13	MESS ROOM	0.800	20.800	16.640	
14	LOCKER	0.100	17.500	1.750	
15	STEEL BOX	0.300	19.020	5.706	
16	WORKING TOOL	0.100	7.865	0.787	
17	WORKING MATERIAL	0.500	-28.000	-14.000	
18	COMPRESSURE	0.200	-26.420	-5.284	
NO.6 DECK					
19	PASSENGER RM ARTICLE	0.200	52.000	10.400	
20	LOCKER	0.200	50.780	10.156	
21	WATER PURIFIER	0.050	14.200	0.710	
22	LOCKER	0.400	6.330	2.532	
23	PASSENGER RM ARTICLE	0.500	-2.630	-1.315	
24	PASSENGER RM ARTICLE	0.300	-8.325	-2.498	
25	SPARE ROOM	0.030	-18.430	-0.553	
26	ELEC.EQUIP RM ARTICLE	0.100	-22.770	-2.277	
27	DECK STORE	0.300	-24.450	-7.335	
28	CAN OIL	0.200	-27.870	-5.574	
29	VACUUM CLEANER	0.050	-27.870	-1.394	
30	DECK STORE	3.000	-34.380	-103.140	
NO.5 DECK					
30	PASSENGER RM ARTICLE	0.200	52.000	10.400	
31	LOCKER	0.400	47.200	18.880	
32	INFORMATION	2.500	11.100	27.750	
33	LOCKER	0.200	9.630	1.926	
34	DUTY FREE SHOP	2.400	6.050	14.520	
35	VENDING MACHINE	1.500	0.300	0.450	
36	WATER	0.600	-4.200	-2.520	
37	CAFETERIA	0.600	-4.800	-2.880	
38	GOODS	0.800	-9.900	-7.920	
39	CREW'S ARTICLE	0.400	-16.830	-6.732	
40	GALLEY'S ARTICLE	2.500	-17.150	-42.875	
41	STORE	1.800	-19.550	-35.190	
42	GALLEY	3.000	-28.550	-85.650	

No.	Items	WEIGHT (Ton)	LCG (M)	LCG-MT (Ton-M)	REMARK
NO.5 DECK					
43	PROVISION STORE	1.000	-23.200	-23.200	
44	FOODS	2.500	-23.200	-58.000	
45	SHIP'S ARTICLE	0.200	-29.800	-5.960	
46	RESTAURANT	2.500	-39.980	-99.950	
47	LOCKER	0.200	-48.400	-9.680	
48	PASSENGER RM ARTICLE	2.000	-53.200	-106.400	
NO.4 DECK					
49	DECK STORE	0.200	-48.700	-9.740	
50	ROPE	0.400	63.500	25.400	
51	WORKING MATERIAL & TOOLS	5.000	56.836	284.180	
52	LASHING MATERIAL	1.000	45.582	45.582	
53	TRUCK	3.000	26.765	80.295	
54	LASHING MATERIAL	6.000	-11.830	-70.980	
55	WORKING MATERIAL	2.000	-26.360	-52.720	
56	TRASH	3.000	-32.874	-98.622	
57	WORKING MATERIAL	5.000	-51.631	-258.155	
58	SHIPS ARTICLE & ETC	2.500	-55.150	-137.875	
59	DECK STORE	2.000	-54.400	-108.800	
60	WASTE MATERIAL	2.000	-65.860	-131.720	
61	TOILET	0.500	-65.260	-32.630	
62	ROPE	0.400	-73.525	-29.410	
NO.3 DECK					
63	BOSUN STORE	3.000	75.690	227.070	
64	PAINT STORE	3.000	66.400	199.200	
65	DECK STORE	2.000	64.750	129.500	
66	WORKING MATERIAL & TOOLS	1.000	57.261	57.261	
67	LASHING MATERIAL	6.000	-11.830	-70.980	
68	TRASH	0.200	-19.815	-3.963	
69	WORKING MATERIAL	3.000	-30.175	-90.525	
70	WORKING MATERIAL	0.500	-29.460	-14.730	
71	CAN OIL & ROPE	1.000	-71.075	-71.075	
72	ROPE	0.800	-71.645	-57.316	
PARTIAL DECK					
73	SEWAGE TREATMENT RM	0.200	8.770	1.754	
ENGINE ROOM					
74	ENGINE CONTROL ROOM	0.800	-16.800	-13.440	
75	ENGINE RM'S ARTICLE	0.300	-16.000	-4.800	
76	WORK SHOP	10.000	-21.000	-210.000	
77	WORKING MATERIAL	2.000	-21.900	-43.800	
78	SPARE	8.000	-23.465	-187.720	
79	SPARE	2.000	-29.080	-58.160	
80	WORKING MATERIAL	5.000	-29.640	-148.200	
81	SPARE	5.000	-34.320	-171.600	
82	CAN OIL	0.300	-35.530	-10.659	
83	CAN OIL	0.400	-37.060	-14.824	
84	WORKING MATERIAL	2.000	-38.520	-77.040	
85	ENGINE STORE (P)	5.000	-44.000	-220.000	
86	ENGINE STORE(S)	5.000	-44.000	-220.000	
87	WORKING MATERIAL	5.000	-44.590	-222.950	
88	PIPE	0.500	-44.600	-22.300	
89	PIPE	2.000	-28.095	-56.190	
90	EQUIPMENT	0.300	-30.655	-9.197	

No.	Items	WEIGHT (Ton)	LCG (M)	LCG-MT (Ton-M)	REMARK
TANKS					
91	F.P W.B.T (C)	9.248	75.390	697.169	
92	NO.2 D.B.W.B.T (C)	72.847	47.530	3462.430	FULL
93	NO.4 D.B.W.B.T (C)	455.388	13.040	5938.260	FULL
94	HEEL. T (P)	93.708	-0.820	-76.841	
95	HEEL. T (S)	129.465	-0.820	-106.161	
96	F.W.T (C)	31.800	-52.140	-1658.052	
97	D.W.T (C)	38.000	-58.760	-2232.880	
98	NO.2 F.O.T (S)	5.700	37.790	215.403	
99	NO.3 F.O.T (P)	110.200	18.410	2028.782	
100	NO.3 F.O.T (S)	96.900	18.410	1783.929	
101	H.F.O. SETT. T (P)	13.300	-16.970	-225.701	
102	H.F.O. SERV. T (P)	7.600	-16.850	-128.060	
103	D.O.T (C)	25.230	-19.300	-486.939	
104	D.O. SERV. T (P)	2.610	-16.810	-43.874	
105	M/E L.O. SUMP T (P)	8.370	-27.450	-229.757	
106	M/E L.O. SUMP T (S)	8.910	-27.450	-244.580	
107	R/G L.O. SUMP T (P)	7.020	-31.700	-222.534	
108	R/G L.O. SUMP T (S)	7.020	-31.700	-222.534	
109	M/E L.O. STOR. T (P)	11.250	-48.780	-548.775	
110	F.O. SL. T (P)	1.600	-23.030	-36.848	
111	L.O. SL. T (S)	2.100	-22.680	-47.628	
112	B.SEP.O.T (S)	26.300	-37.400	-983.620	
113	B.STOR. T. (C)	75.100	-40.570	-3046.807	
114	F.O. & L.O.W.T (P)	1.500	-23.580	-35.370	
115	F.W.PRESSURE TANK (P)	1.000	-51.600	-51.600	
116	1000-liter tank unit (forecastle)	0.950	62.000	58.900	
117	1000-liter tank unit (stern)	0.950	-65.650	-62.368	
118	Steering gear L.O. tank (P)	0.840	-78.000	-65.520	
119	Steering gear L.O. tank (S)	0.840	-78.000	-65.520	
120	M/E, G/E cooling fresh-water expansion tank (S)	0.700	-28.450	-19.915	
121	EMC'Y GEN. LUB.O.SERV.T. (S)	3.000	-28.450	-85.350	
122	M/E BOILER W.T.	18.000	-29.000	-522.000	
123	SEWAGE TREATMENT T.	9.576	7.700	73.735	
124	LIQUIDS IN PIPES VALVES	40.000	26.390	1055.600	
125	WORKER ON VESSEL (37P)	3.053	-5.000	-15.263	
Total		1466.084	1.473	2158.833	

9. CHANGED THE LIGHTWEIGHT & CENTER OF GRAVITY

1) CHANGED THE LIGHTWEIGHT

OLD LIGHT SHIP WEIGHT	=	7168.700 TON	← OLD LIGHT WEIGHT (JAPAN)
NEW LIGHT SHIP WEIGHT	=	7290.135 TON	
RISE & FALL OF WEIGHT	=	121.435 TON	
RATE OF WEIGHT	=	1.69 %	
OLD LIGHT SHIP WEIGHT * 2%	=	143.374 TON	* Satisfied

2) LCG CHANGED VALUE (" - " AFTER MIDSHIP)

OLD LIGHT SHIP L.C.G	=	-6.950 M	← OLD LIGHT WEIGHT (JAPAN)
NEW LIGHT SHIP L.C.G	=	-6.249 M	
CHANGED OF L.C.G VALUE	=	0.701 M	
L.B.P	=	156.00 M	
L.B.P * 1 %	=	1.560 M	* Satisfied

*** To avoid an inclining test according to CRITERIA ***

CRITERIA (according to MSC/Circ.1158)

* Alteration or Conversion for a ship in service *

- 1) The deviation of L/W should not exceed 2% of the Lightship Weight.
- 2) The deviation of LCG should not exceed 1% of the LCG of the ship.

*** RESULT OF WEIGHT CALCULATION ***

LIGHTWEIGHT	=	7290.135 TON
LCG	=	-6.249 M

* HYDROSTATIC TABLE

HYDROSTATIC TABLE (WITH SHELL AND ALL APPENDAGES)											
DRAUGHT (EXT.)-CEMENT	DISPLA	DIFF.	TPC	MTC	LCB	LCF	XB	TKM	LKM	DISPT. IN FW	DRAUGH (EXT.)
(M)	(T)	(T)	(T-M)	(M)	(M)	(M)	(M)	(M)	(M)	(T)	(M)
5.50	9442	24	24.5	184.0	-4.18	-8.04	3.21	11.40	306.9	9211	5.50
5.49	9417	25	24.5	183.6	-4.17	-8.01	3.20	11.40	306.9	9187	5.49
5.48	9393	24	24.5	183.1	-4.16	-7.98	3.20	11.40	307.0	9164	5.48
5.47	9368	25	24.4	182.7	-4.15	-7.95	3.19	11.41	307.1	9140	5.47
5.46	9344	24	24.4	182.2	-4.14	-7.93	3.19	11.41	307.1	9116	5.46
5.45	9320	24	24.4	181.8	-4.13	-7.90	3.18	11.41	307.2	9092	5.45
5.44	9296	25	24.4	181.4	-4.12	-7.87	3.17	11.41	307.3	9069	5.44
5.43	9271	24	24.3	181.0	-4.11	-7.84	3.17	11.41	307.4	9045	5.43
5.42	9247	24	24.3	180.6	-4.10	-7.81	3.16	11.42	307.4	9021	5.42
5.41	9222	25	24.3	180.1	-4.09	-7.79	3.16	11.42	307.5	8997	5.41
5.40	9198	24	24.3	179.7	-4.08	-7.76	3.15	11.42	307.6	8974	5.40
5.39	9174	24	24.2	179.3	-4.07	-7.73	3.14	11.42	307.7	8950	5.39
5.38	9150	24	24.2	178.9	-4.06	-7.71	3.14	11.42	307.8	8927	5.38
5.37	9126	24	24.2	178.5	-4.05	-7.68	3.13	11.43	307.9	8903	5.37
5.36	9102	24	24.2	178.1	-4.04	-7.65	3.13	11.43	308.0	8880	5.36
5.35	9077	25	24.1	177.7	-4.03	-7.63	3.12	11.43	308.1	8856	5.35
5.34	9053	24	24.1	177.3	-4.03	-7.60	3.12	11.43	308.2	8833	5.34
5.33	9029	24	24.1	176.9	-4.02	-7.57	3.11	11.43	308.3	8809	5.33
5.32	9005	24	24.1	176.5	-4.01	-7.55	3.11	11.43	308.4	8786	5.32
5.31	8981	24	24.0	176.1	-4.00	-7.52	3.10	11.44	308.5	8762	5.31
5.30	8957	24	24.0	175.7	-3.99	-7.50	3.10	11.44	308.6	8739	5.30
5.29	8933	24	24.0	175.3	-3.98	-7.47	3.09	11.44	308.7	8715	5.29
5.28	8909	24	24.0	174.9	-3.97	-7.45	3.09	11.44	308.8	8692	5.28
5.27	8885	24	23.9	174.5	-3.96	-7.42	3.08	11.45	308.9	8669	5.27
5.26	8861	24	23.9	174.1	-3.95	-7.40	3.07	11.45	309.0	8645	5.26
5.25	8837	23	23.9	173.7	-3.94	-7.37	3.06	11.45	309.1	8622	5.25
5.24	8814	24	23.8	173.3	-3.93	-7.35	3.05	11.45	310.1	8599	5.24
5.23	8790	24	23.8	172.9	-3.92	-7.32	3.05	11.46	310.2	8576	5.23
5.22	8766	24	23.8	172.5	-3.91	-7.30	3.04	11.46	310.4	8552	5.22
5.21	8742	24	23.8	172.1	-3.90	-7.27	3.04	11.46	310.6	8529	5.21
5.20	8719	23	23.8	171.7	-3.89	-7.25	3.03	11.46	310.8	8506	5.20
5.19	8695	23	23.8	171.3	-3.88	-7.22	3.02	11.47	311.0	8483	5.19
5.18	8671	23	23.8	170.9	-3.87	-7.20	3.02	11.47	311.2	8460	5.18
5.17	8648	23	23.8	170.5	-3.86	-7.17	3.01	11.47	311.4	8437	5.17
5.16	8624	24	23.7	170.1	-3.85	-7.15	3.00	11.47	311.6	8414	5.16
5.15	8601	23	23.7	169.7	-3.84	-7.13	3.00	11.48	311.8	8391	5.15
5.14	8577	24	23.7	169.3	-3.83	-7.10	3.00	11.48	312.0	8368	5.14
5.13	8553	23	23.7	168.9	-3.82	-7.08	3.00	11.48	312.3	8345	5.13
5.12	8529	23	23.7	168.5	-3.81	-7.05	3.00	11.49	312.5	8322	5.12
5.11	8506	23	23.7	168.1	-3.80	-7.03	3.00	11.49	312.8	8299	5.11
5.10	8483	23	23.7	167.7	-3.79	-7.01	3.00	11.49	313.1	8276	5.10
5.09	8459	24	23.6	167.3	-3.78	-6.98	3.00	11.49	313.3	8253	5.09
5.08	8436	23	23.6	166.9	-3.77	-6.96	3.00	11.50	313.6	8230	5.08
5.07	8412	24	23.6	166.5	-3.77	-6.93	3.00	11.50	313.9	8207	5.07
5.06	8389	23	23.6	166.1	-3.76	-6.91	3.00	11.50	314.2	8184	5.06
5.05	8366	24	23.5	165.7	-3.75	-6.88	3.00	11.51	314.5	8161	5.05
5.04	8341	24	23.5	165.3	-3.74	-6.86	3.00	11.51	314.8	8138	5.04
5.03	8318	23	23.5	164.9	-3.73	-6.83	3.00	11.51	315.1	8115	5.03
5.02	8294	24	23.4	164.5	-3.72	-6.81	3.00	11.52	315.4	8092	5.02
5.01	8271	23	23.4	164.1	-3.72	-6.79	3.00	11.52	315.7	8069	5.01
5.00	8248	23	23.4	163.7	-3.71	-6.76	3.00	11.52	316.0	8046	5.00