PRELIMINARY INTACT STABILITY BOOKLET OF ROOSTERFISH BOAT-RF-230CP

A		
0	03.01.2021	Issued as per general specifications and requirements.
REV.	**DATE**	**REVISION MEMORANDUM**

IMO NO	TBD	DATE	03.01.2021
HULL NO	TBD	BOAT TYPE	COASTAL PANGA
CALCULATED BY	BADRUL	NAME OF CALCULATION	PRELIMINARY INTACT STABILITY BOOKLET
CHECKED BY	SHAWN		
RoosterFish 3D Engineered Boat Kits Green | Easy to Build | Global Delivery		DOCUMENT NO.	RF-230CP -02
		REV:	0

GENERAL PRECAUTIONS AGAINST CAPSIZING

Compliance with given stability criteria does not ensure immunity against capsizing regardless of the circumstances or absolve the Captain from his responsibilities. Captains should therefore exercise prudence and good seamanship having regard to the season of the year, weather forecasts and the navigational zone and should take the appropriate action as to speed and course warranted by the prevailing circumstances.

Care should be taken to ensure that the gears allocated to the ship are capable of being stowed so that compliance with the stability criteria can be achieved. If necessary the amount should be limited to the extent that ballast weight may be required.

In determining the sequence of tanks from which fuel oil and fresh water is to be consumed and those into which water ballast may be admitted during the voyage, the Captain must ensure, prior to departure, that the required minimum stability criteria will be maintained throughout the voyage after making due allowance for free surface effects as may be appropriate.

Before a voyage commence care should be taken to ensure that the gears and sizeable piece of equipment have been properly stowed or lashed so as to minimize the possibility of both longitudinal and lateral shifting while at sea, under the effect of acceleration caused by rolling and pitching.

Asymmetrical loading distribution must be avoid and care should be taken to minimize boat's heel in all operating conditions as excessive heeling may result should the boat sustain damage when in a less favorable condition.

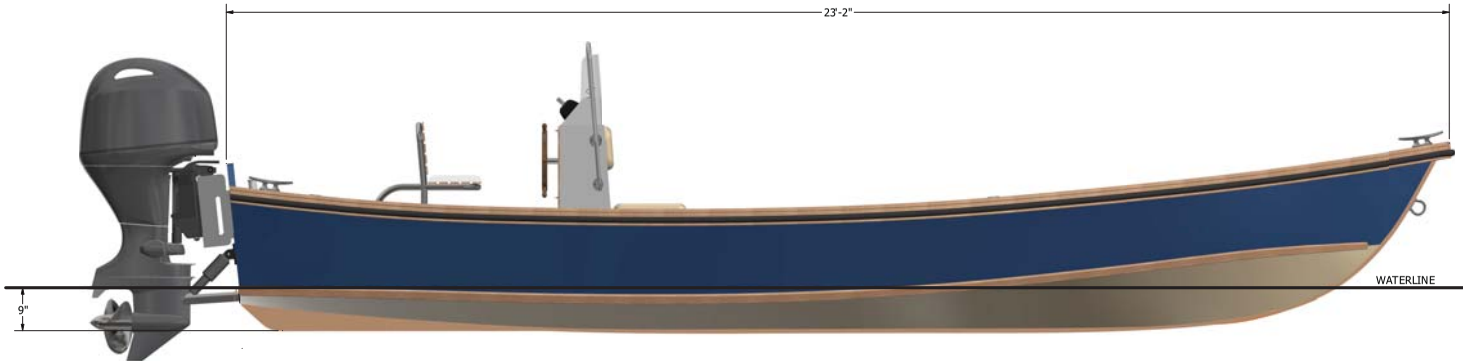
Captain should note that stability can be adversely affected by such influences as beam wind on boats with large windage area, icing on top sides and deck cargo, water trapped on deck and in deck cargo, rolling characteristics and following seas.

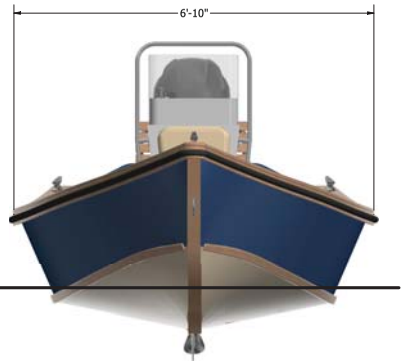
Access openings such as hatches, on the decks are to be secured, closed at all times when the vessel is underway. The captain must not start filling of all the tanks together. Either first fills the port and starboard tanks when these are required to be filled.

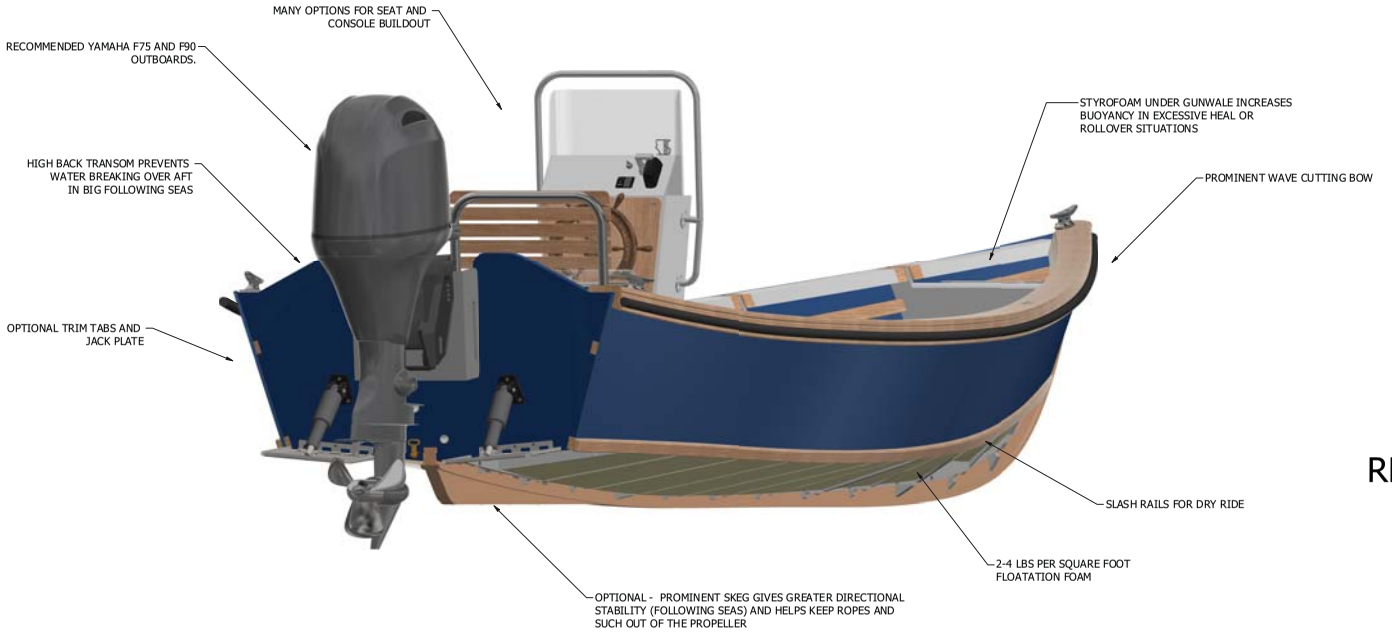
GENERAL PARTICULARS

Boat Type	Coastal Panga
Hull No.	TBA
Name of Vessel	TBA
Owner's Name & Address	RoosterFish, United States
IMO Number	TBA
Official Number	TBA
Port of Registry	TBA
International Call Sign	TBA
Flag	TBA
Year of Built	TBA
Principal Dimensions:-	
Length OA	23'-2"
Breadth (Mld.)	6'-10"
Depth (Mld.)	2'-4.5"
Draft SLWL	13.4"
Passengers	8Pax.
Gross Tonnage	TBA
Speed	29 knots
Engine Power	1 x 90 HP (Outboard)
Classification	TBA

GENERAL ARRANGEMENT







RF-230 CP DIMENSIONS & HIGHLIGHTS

DRAWN SHAWN GRAY	7/13/2019	ROOSTERFISH MARKETING LLC.
CHECKED		
QA		TITLE RF-230CP COASTAL PANGA
MFG		
APPROVED		SIZE D / DWG NO RF-230CP- CONST DWGS / REV 0
		SCALE 1/15 / SHEET 2 OF 13

COORDINATE SYSTEM

Origin of the computer model is at AP (Aft extreme of the boat) / Baseline

Longitudinal positions marked fore/aft (of origin) (+: fore, -: aft)

Transverse positions marked s/p (starboard/port) (+: stbd, -: port)

Vertical positions positive upwards (from Baseline) (+: Above Keel)

Standard Abbreviations and Symbols

AP Aft Perpendicular
BG Longitudinal distance between Center of Buoyancy and Center of Gravity
BMO Height of Initial Transverse center above Center of Buoyancy
Δ Displacement in metric tons (t)
LOA Length over all of ship
LBP Length Between Perpendiculars.
B Breadth Moulded
D Depth
D Mean draft from Base Line
FSC Free Surface correction
GM Transverse metacentric height (m)
GZ Righting level (m)
LCF Longitudinal center of floatation
VCB Vertical center of buoyancy over base line (m)
KB Distance between Keel to Center of Buoyancy
LCG Longitudinal center of gravity from aft end or midship
VCG Vertical center of gravity over base line (m)
KG Distance between Keel to Center of Gravity
KG' KG corrected for free surface effects (m)
KM Transverse metacentric height (m)
θ Angle of heel (deg.)
MCT Moment to change trim one cm (t/m).
TPC Tons per cm immersion

Conversion Table

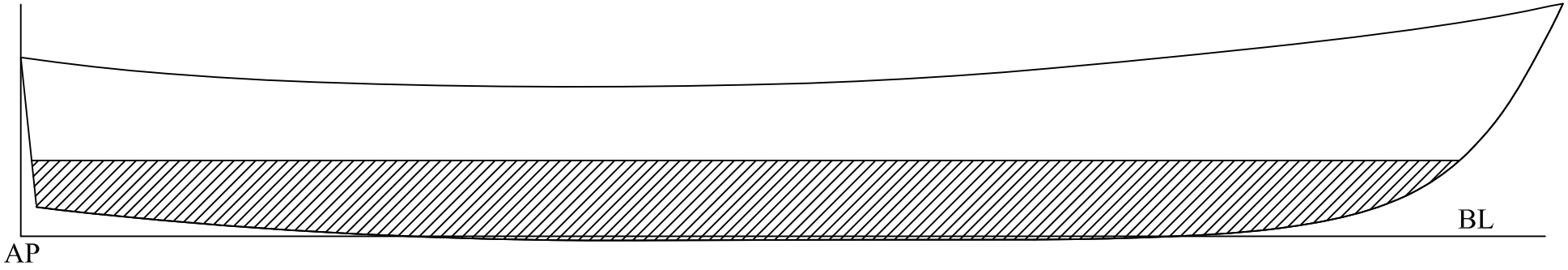
The following Conversion Table may be used to convert from British Units to Metric Units and vice-versa.

Multiply by	**To convert**	**From To obtain**	
0.03937	Millimeters	Inches	25.4
0.3937	Centimeters	Inches	2.54
3.2808	Meters	Feet	0.3048
2.2046	Kilograms	Pounds	0.45359
0.009842	Kilograms	Tons (2240 Lbs)	1016.047
0.9842	Tonnes	Tons (2240 Lbs)	1.016
2.4998	Tonnes per Cm (Immersion)	Tonnes per Inch (Immersion)	0.4
8.2014	Moment to Change Trim by One Cm [Tonne-Meters]	Moment to Change Trim by One Inch [Ton-Feet]	0.122
187.9767	Meter-Radians	Foot-Degrees	0.0053
	To obtain	**To convert from**	**Multiply by**

RELATION BETWEEN WEIGHT & VOLUME

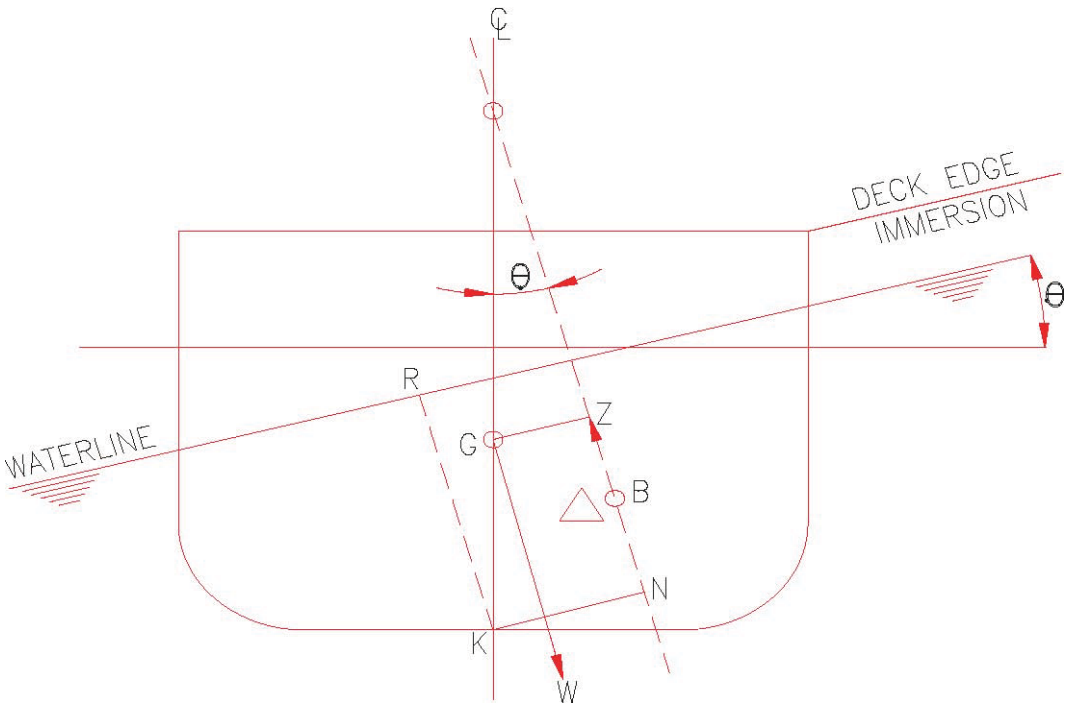
1000 Cubic Millimeters = 1 Cubic Centimeter
1 Cubic Centimeter of Fresh Water [S.G. = 1.0] = 1 gram
1 Cubic Meter of Fresh Water [S.G. = 1.0] = 1 Tonne
1 Cubic Meter of Salt Water [S.G. = 1.025] = 1.025 Tonnes
1 Tonne of Salt Water [S.G. 1.025] = 0.975 Cubic Meter

Buoyant Hull Definition



Shaded Area of the Buoyancy Portion.

KN Curve Concept Diagram



Righting Lever:

GZ =KN -KG Sin Θ

Notations:

GZ = Righting Lever (measured from G)
KN = Lever (measured from K)
KG = Centre of Gravity above Keel (see note)
KR = Waterline Radius
Θ = Angle of Heel
G = Centre of Gravity
B = Centre of Buoyancy
K = Keel M = Metacentre

Note:

For simplifying manual calculations, the above equation may be used to calculate GZ values using the KG duly corrected for Free Surface Effects. However, in this booklet, for greater accuracy, the actual righting arms GZ in each condition are computed by including the effect of variation of the Centre of gravity of tank contents with heel and trim.

Notes Showing Use of Cross Curves

The purpose of the Cross-Curve is to enable Statical Stability Curves to be drawn for the ship in any sailing condition.

Righting Lever:

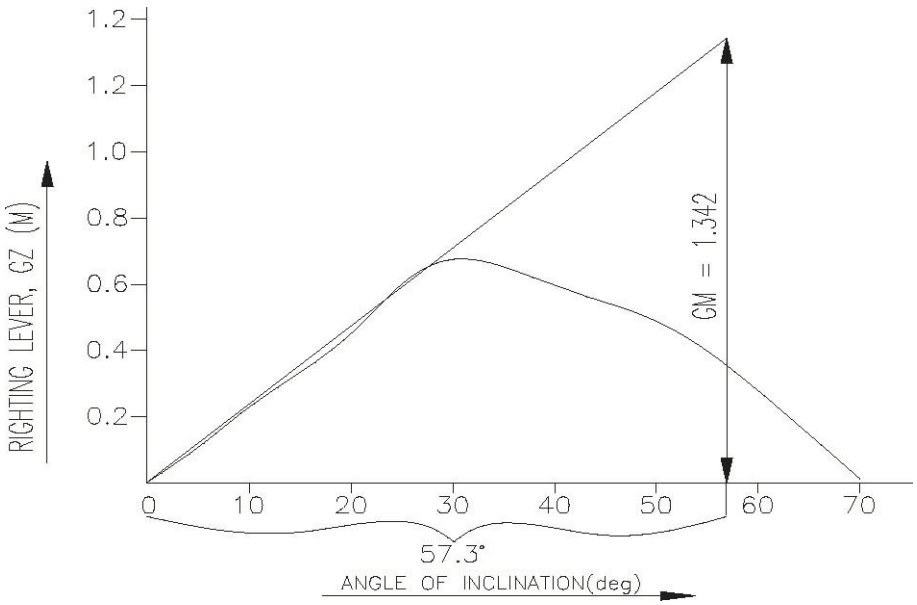
GZ = KN - KGc x SinA

Where

KN = Cross Curve Ordinate in meters

A = Angle of Inclination

Heel Angle,A	**0º**	**5º**	**10º**	**20º**	**30º**	**40º**	**50º**	**60º**	**70º**
Sin A	0.000	0.087	0.174	0.342	0.500	0.643	0.766	0.866	0.940
KGc x Sin A (M)	0.000	0.315	0.629	1.238	1.809	2.327	2.772	3.134	3.402
KN (M)	0.000	0.421	0.857	1.688	2.349	2.923	3.259	3.411	3.414
GZ (M)	0.000	0.106	0.228	0.45	0.675	0.596	0.487	0.277	0.012



Notes on Use of Free Surface Moments

Provided a tank is completely filled with liquid no movement of the liquid is possible and the effect on the ship's stability is precisely the same as if the tank contained solid materials.

If a quantity of liquid is withdrawn from the tank, immediately the situation changes completely and the stability of the ship is adversely affected by what is known as the "Free Surface Effects". This adverse effect on stability is referred to as a "Loss in GM" or as a "Virtual Rise in VCG" and is calculated as follows:

$$\text{Loss in GM (Due to Free Surface Moment)} = \frac{\text{Free Surface Moment (tonne-metres)}}{\text{Displacement of Vessel (tonnes)}}$$

In this booklet, the "actual" or "true" righting arms (GZ) in each condition are computed by including the effect of the CG variation of tank contents with heel & trim.

However, for simplifying any manual calculations the maximum free surface moment for each slack tank may be used.

In case the tank is filled with a new liquid other than it was originally meant for, the loss in GM due to Free Surface Effects:

$$\frac{\text{Free Surface Moment (Tonnes-Meters)}}{\text{Displacement of Vessel (Tonnes)}} \times \frac{\text{Specific Gravity of New Liquid}}{\text{Specific Gravity of Original Liquid}}$$

Note:
The "Free Surface Effects" of all FO, FO Day Service, FW, LO & WB Tanks with the possibility of being slack should be taken into account in loading condition.

Operational procedures before and in heavy weather

- Reliance on automatic steering may be dangerous as this prevents ready changes to course which may be needed in bad weather.
- In all conditions of loading necessary care should be taken to maintain a seaworthy freeboard.
- In severe weather, the speed of the ship should be reduced if excessive rolling, propeller emergency, shipping of water on deck or heavy slamming occurs. Six heavy slammings or 25 propeller emergences during 100 pitching motions should be considered dangerous.
- Special attention should be paid when a boat is sailing in following or quartering seas because dangerous phenomena such as parametric resonance, broaching to, reduction of stability on the wave crest, and excessive rolling may occur singularly, in sequence or simultaneously in a multiple combination, creating a threat of capsize. Particularly dangerous is the situation when the wave length is of the order of 1,0 to 1,5 ship's length. A ship's speed and/or course should be altered appropriately to avoid the above-mentioned phenomena.
- Water trapping in deck wells should be avoided. If freeing ports are not sufficient for the drainage of the well, the speed of the ship should be reduced or the course change, or both. Freeing ports provided with closing appliances should always be capable of functioning and are not to be locked.
- Captains should be aware that steep or breaking waves may occur in certain areas, or in certain wind and current combinations (river estuaries, shallow water areas, funnel shaped bays, etc.). These waves are particularly dangerous, especially for small ships.
- Use of operational guidelines for avoiding dangerous situations in severe weather conditions or an on-board computer based system is recommended. The method should be simple to use.

STABILITY CRITERIA FOR GENERAL LOADING

STATUTORY STABILITY REQUIREMENTS

The stability of the vessel for all operational condition of loading will conform to the Criteria recommended by ISO 12217-1:2002 Code on Intact Stability & European Union (EU)-Classification of Inland Waterway Ships; as Specific Requirements Applicable to Passenger Boat-Stability-Article15.03 Code on Intact Stability.

Code	Criteria
ISO 12217-1:2002(E)	6.2 Offset load test - equilibrium with heel arm
	6.3.2 Rolling in beam waves and wind
	6.3.3 Resistance to waves (Value of GZ)
	6.3.3 Resistance to waves (Value of RM)
	6.4 Heel due to wind action (Categories C and D only)
	6.2 Offset load test - equilibrium with heel arm

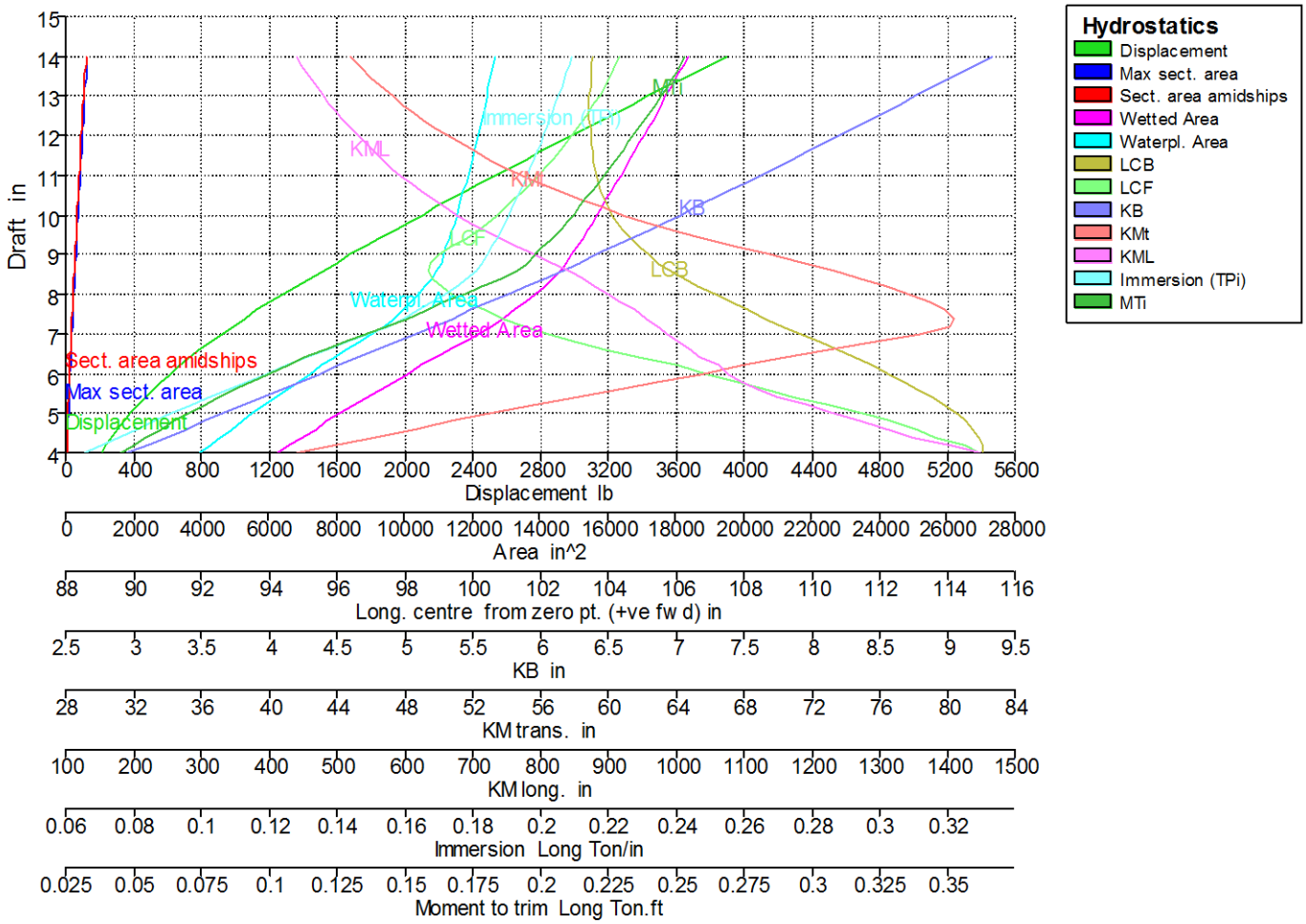
Code	**Criteria**
EU Passenger Vessels-Stability-Article15	3.(a)i: Angle of max GZ
	3.(a)ii:Value of max. GZ
	3.(b): Angle of downflooding
	3.(c): GZ area between limits
	3.(d): Initial GMt
	3.(e): Angle of equilibrium - multiple heeling arms

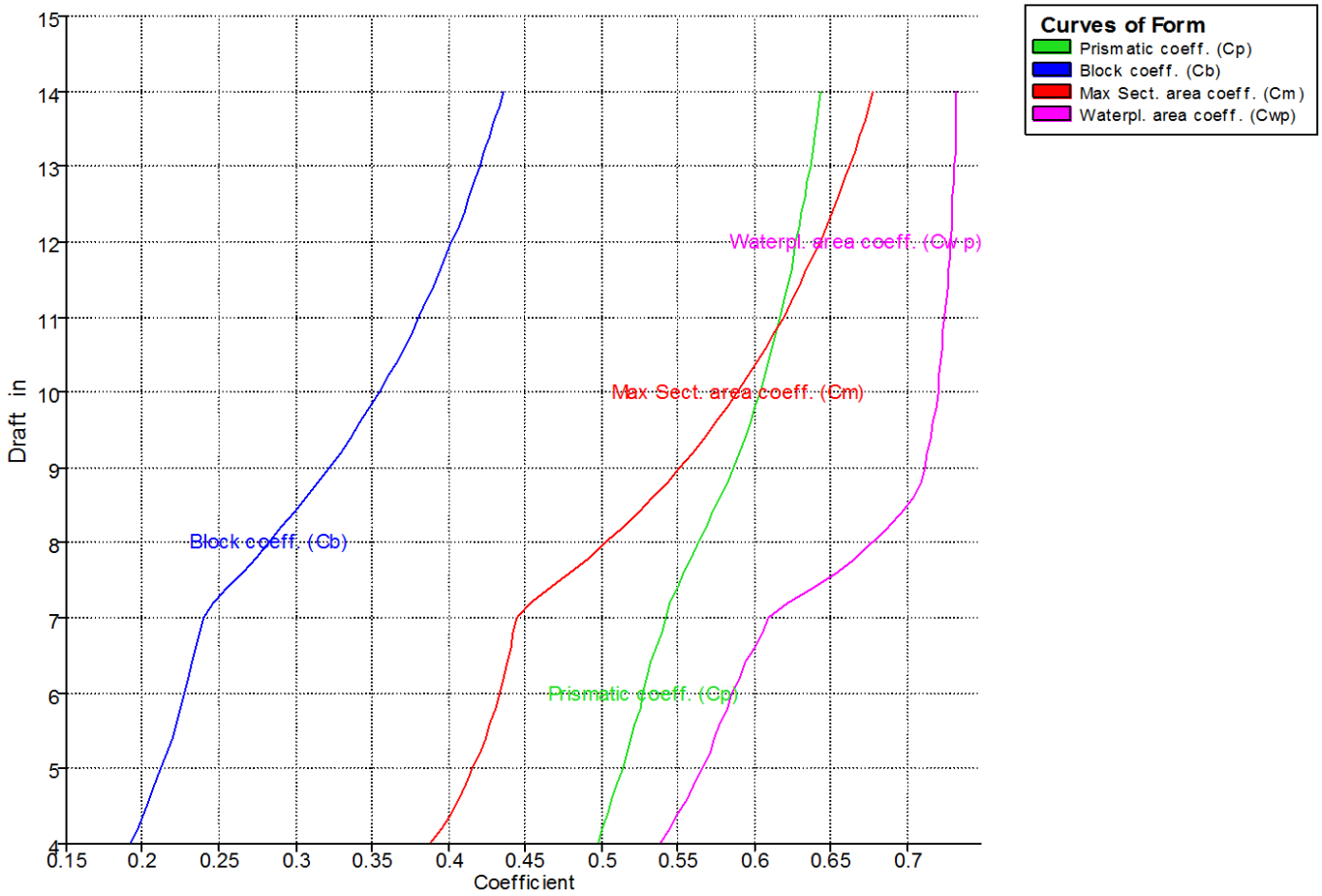
Hydrostatics

Hydrostatics
Damage Case - Intact

Fixed Trim = 0 in (+ve by stern)
Specific gravity = 1.025; (Density = 0.03703 lb/in^3)

Draft Amidships in	Displacement lb	Wetted Area in^2	Waterpl. Area in^2	LCB from zero pt. (+ve fwd) in	LCF from zero pt. (+ve fwd) in	KB in	BMt in	BML in	KMt in	KML in	Immersion (TPi) Long Ton/in	MTi Long Ton.ft
4.00	208.8	6236.92	3969.03	115.04	114.94	2.96	38.70	1447.27	41.66	1450.23	0.066	0.045
4.20	239.4	6597.81	4277.05	115.02	114.52	3.10	40.83	1402.18	43.93	1405.28	0.071	0.050
4.40	272.2	6985.36	4586.48	114.91	113.63	3.25	42.99	1344.44	46.24	1347.69	0.076	0.055
4.60	307.3	7354.05	4904.74	114.74	113.14	3.39	45.17	1310.96	48.56	1314.35	0.081	0.060
4.80	344.8	7740.66	5223.43	114.52	112.27	3.53	47.37	1264.65	50.90	1268.19	0.086	0.065
5.00	384.7	8103.83	5540.71	114.24	111.43	3.67	49.59	1226.25	53.26	1229.92	0.092	0.071
5.20	426.9	8496.57	5871.94	113.93	110.54	3.82	51.84	1192.84	55.65	1196.66	0.097	0.076
5.40	471.5	8886.28	6184.76	113.55	109.46	3.96	54.12	1146.89	58.07	1150.84	0.102	0.081
5.60	518.6	9275.69	6514.56	113.15	108.69	4.10	56.42	1117.07	60.52	1121.17	0.108	0.087
5.80	568.1	9678.95	6859.58	112.72	107.81	4.24	58.75	1092.51	62.98	1096.74	0.113	0.093
6.00	620.2	10076.33	7206.55	112.27	106.92	4.38	61.09	1071.80	65.47	1076.17	0.119	0.100
6.20	674.9	10488.31	7572.03	111.79	106.00	4.52	63.47	1058.59	67.98	1063.11	0.125	0.107
6.40	732.2	10907.37	7916.61	111.29	104.89	4.66	65.87	1029.98	70.52	1034.64	0.131	0.113
6.60	792.2	11334.17	8288.71	110.77	103.90	4.79	68.30	1015.40	73.09	1020.19	0.137	0.121
6.80	855.0	11750.79	8655.13	110.23	103.04	4.93	70.75	998.42	75.68	1003.36	0.143	0.128
7.00	920.5	12167.99	9022.98	109.69	102.26	5.07	73.24	981.47	78.31	986.54	0.149	0.135
7.20	988.7	12574.54	9380.92	109.15	101.50	5.21	74.98	967.32	80.20	972.53	0.155	0.143
7.40	1059	12924.95	9675.46	108.62	100.93	5.35	75.00	949.89	80.35	955.24	0.160	0.151
7.60	1132	13257.91	9949.66	108.11	100.35	5.49	74.36	934.06	79.85	939.55	0.164	0.159
7.80	1207	13572.11	10180.85	107.61	99.79	5.63	73.32	910.33	78.95	915.96	0.168	0.165
8.00	1283	13859.86	10404.69	107.13	99.36	5.76	71.93	894.04	77.70	899.80	0.172	0.172
8.20	1361	14128.22	10606.82	106.67	99.09	5.90	70.54	875.74	76.44	881.64	0.175	0.179
8.40	1440	14380.68	10789.66	106.24	98.82	6.03	68.89	858.02	74.92	864.05	0.178	0.185
8.60	1520	14578.90	10948.33	105.85	98.70	6.16	67.25	837.76	73.41	843.92	0.181	0.191
8.80	1602	14780.57	11073.04	105.49	98.75	6.29	65.28	813.37	71.57	819.66	0.183	0.196
9.00	1684	14930.90	11156.69	105.17	99.05	6.42	62.99	784.17	69.41	790.58	0.184	0.198
9.20	1767	15088.53	11238.73	104.89	99.37	6.54	60.92	757.20	67.46	763.74	0.186	0.201
9.40	1851	15250.69	11328.48	104.65	99.85	6.67	58.99	736.88	65.65	743.55	0.187	0.205
9.60	1935	15395.17	11400.91	104.45	100.15	6.79	57.14	713.40	63.93	720.19	0.188	0.207
9.80	2020	15539.79	11473.09	104.27	100.45	6.91	55.44	691.56	62.35	698.48	0.190	0.210
10.00	2105	15683.82	11545.08	104.12	100.74	7.03	53.88	671.22	60.91	678.25	0.191	0.212
10.20	2191	15825.81	11611.22	104.00	101.00	7.15	52.37	651.89	59.53	659.04	0.192	0.214
10.40	2277	15964.58	11676.18	103.89	101.25	7.27	50.96	633.92	58.24	641.19	0.193	0.217
10.60	2364	16103.19	11741.14	103.80	101.49	7.39	49.65	617.13	57.05	624.52	0.194	0.219
10.80	2451	16241.36	11806.11	103.72	101.74	7.51	48.44	601.40	55.95	608.91	0.195	0.221
11.00	2538	16376.54	11866.00	103.65	101.95	7.63	47.26	586.25	54.88	593.88	0.196	0.224
11.20	2626	16511.49	11924.78	103.60	102.15	7.74	46.15	571.93	53.89	579.67	0.197	0.226
11.40	2715	16646.55	11983.64	103.56	102.35	7.86	45.11	558.46	52.97	566.32	0.198	0.228
11.60	2804	16785.79	12045.26	103.52	102.59	7.97	44.13	546.54	52.11	554.52	0.199	0.230
11.80	2893	16921.57	12100.56	103.50	102.76	8.09	43.20	534.06	51.29	542.15	0.200	0.232
12.00	2983	17054.56	12153.41	103.48	102.91	8.20	42.30	522.01	50.51	530.21	0.201	0.234
12.20	3073	17192.93	12212.00	103.46	103.12	8.32	41.46	511.95	49.78	520.27	0.202	0.237
12.40	3164	17325.88	12265.46	103.46	103.28	8.43	40.66	501.21	49.10	509.65	0.203	0.239
12.60	3255	17458.18	12319.22	103.45	103.44	8.55	39.91	491.18	48.45	499.72	0.204	0.241
12.80	3347	17588.31	12370.04	103.46	103.58	8.66	39.18	481.44	47.83	490.10	0.204	0.242
13.00	3438	17716.29	12423.66	103.46	103.75	8.77	38.48	472.80	47.25	481.58	0.205	0.245
13.20	3531	17844.41	12473.67	103.47	103.88	8.89	37.82	463.77	46.71	472.65	0.206	0.246
13.40	3623	17972.74	12523.70	103.48	104.00	9.00	37.19	455.14	46.19	464.14	0.207	0.248
13.60	3716	18099.90	12571.65	103.50	104.11	9.11	36.59	446.72	45.70	455.84	0.208	0.250
13.80	3809	18226.92	12618.71	103.51	104.22	9.22	36.01	438.60	45.23	447.82	0.209	0.252
14.00	3903	18354.90	12665.82	103.53	104.32	9.34	35.46	430.83	44.79	440.16	0.209	0.253

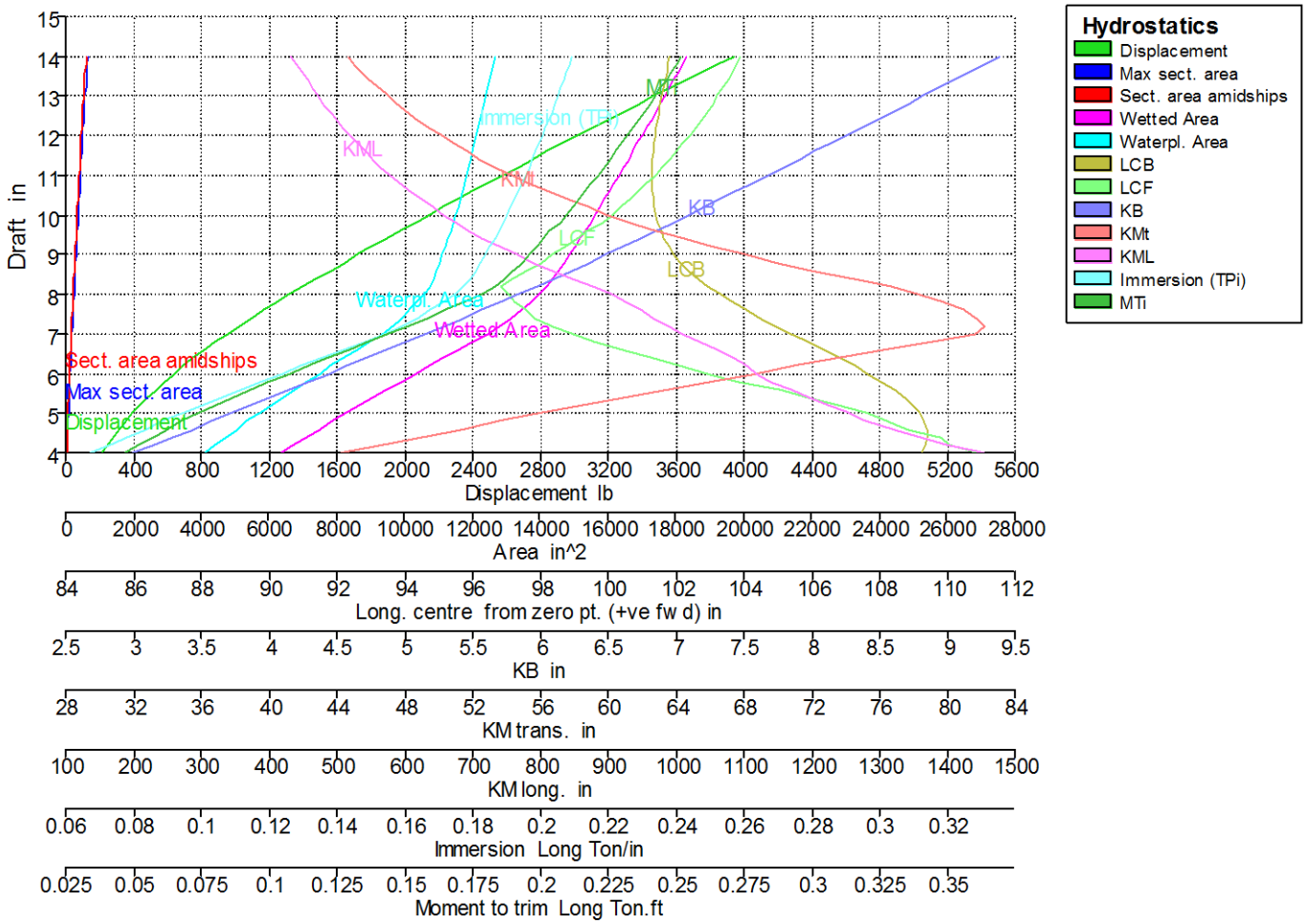

Hydrostatics
Displacement
Max sect. area
Sect. area amidships
Wetted Area
Waterpl. Area
LCB
LCF
KB
KMt
KML
Immersion (TPi)
MTi
Draft in
Sect. area amidships
Max sect. area
Displacement
KML
Immersion (TPi)
KMt
MTi
KB
LCF
LCB
Waterpl. Area
Wetted Area
Displacement lb
Area in^2
Long. centre from zero pt. (+ve fw d) in
KB in
KM trans. in
KM long. in
Immersion Long Ton/in
Moment to trim Long Ton.ft

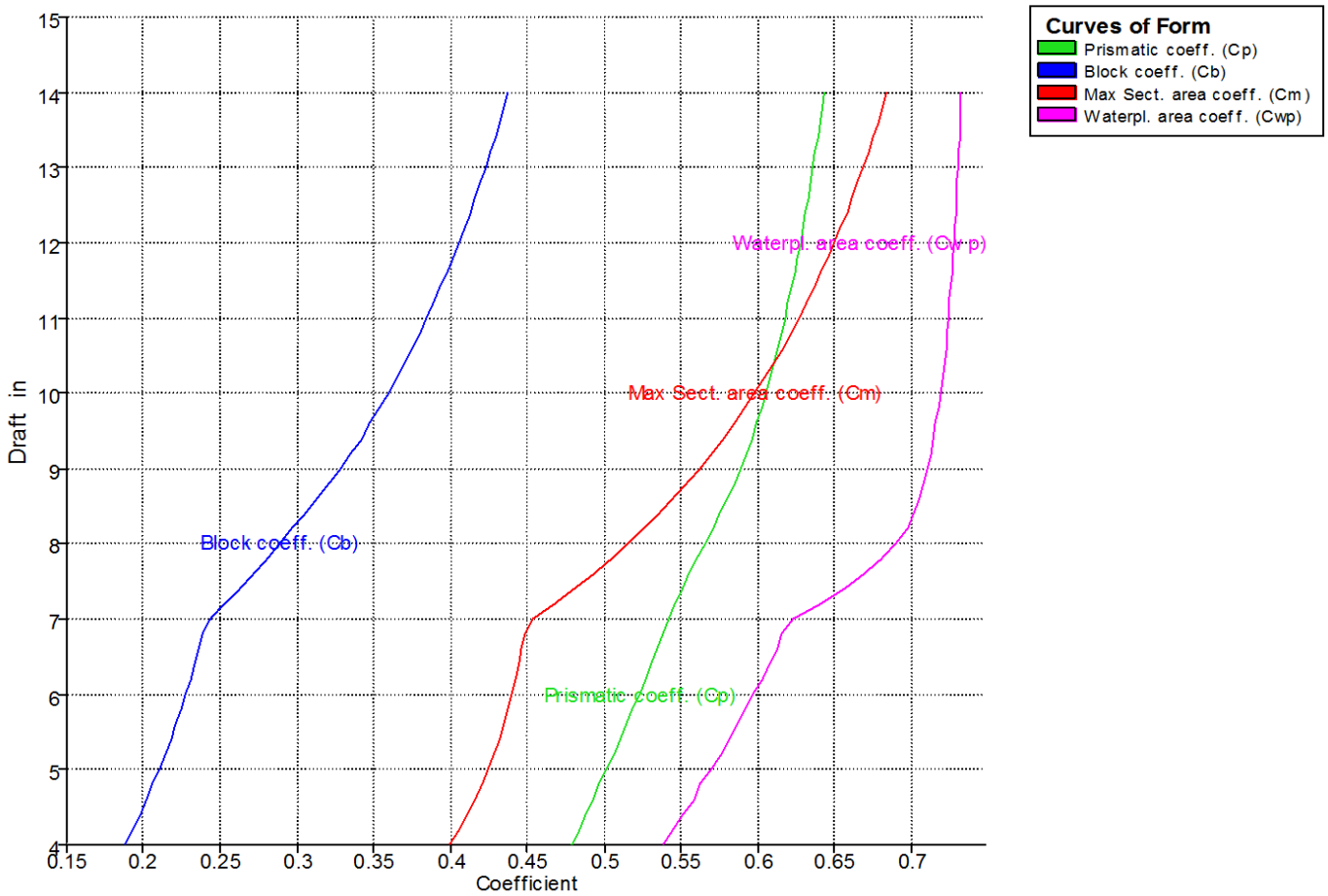

Curves of Form
Prismatic coeff. (Cp)
Block coeff. (Cb)
Max Sect. area coeff. (Cm)
Waterpl. area coeff. (Cwp)
Draft in
Waterpl. area coeff. (Cwp)
Max Sect. area coeff. (Cm)
Block coeff. (Cb)
Prismatic coeff. (Cp)
Coefficient

Hydrostatics
Damage Case - Intact

Fixed Trim = 1 in (+ve by stern)
Specific gravity = 1.025; (Density = 0.03703 lb/in^3)

Draft Amidships in	Displacement lb	Wetted Area in^2	Waterpl. Area in^2	LCB from zero pt. (+ve fwd) in	LCF from zero pt. (+ve fwd) in	KB in	BMt in	BML in	KMt in	KML in	Immersion (TPi) Long Ton/in	MTi Long Ton.ft
4.00	215.2	6362.56	4086.98	109.22	110.93	3.00	41.22	1450.67	44.22	1453.66	0.068	0.047
4.20	246.7	6729.29	4405.73	109.38	110.08	3.15	43.40	1397.80	46.55	1400.94	0.073	0.052
4.40	280.5	7119.30	4727.08	109.43	109.79	3.29	45.61	1358.19	48.90	1361.47	0.078	0.057
4.60	316.7	7497.88	5058.61	109.42	108.86	3.44	47.83	1318.93	51.27	1322.35	0.084	0.063
4.80	355.3	7887.42	5378.45	109.32	108.15	3.58	50.09	1273.64	53.67	1277.21	0.089	0.068
5.00	396.5	8294.40	5728.18	109.17	107.61	3.72	52.35	1251.10	56.08	1254.81	0.095	0.074
5.20	440.2	8678.81	6066.61	108.97	106.75	3.87	54.65	1220.28	58.52	1224.14	0.100	0.081
5.40	486.4	9083.96	6415.90	108.72	105.88	4.01	56.97	1191.34	60.98	1195.34	0.106	0.087
5.60	535.3	9477.92	6764.54	108.43	105.07	4.15	59.31	1165.29	63.46	1169.43	0.112	0.094
5.80	586.6	9905.52	7119.61	108.08	103.83	4.30	61.69	1135.33	65.99	1139.62	0.118	0.100
6.00	640.7	10314.66	7481.59	107.69	102.99	4.44	64.10	1114.70	68.54	1119.13	0.124	0.107
6.20	697.5	10743.02	7858.17	107.27	102.05	4.58	66.54	1097.89	71.12	1102.46	0.130	0.115
6.40	757.1	11159.73	8226.95	106.83	101.26	4.72	69.01	1077.26	73.74	1081.97	0.136	0.122
6.60	819.3	11582.44	8603.32	106.37	100.41	4.86	71.53	1056.78	76.39	1061.63	0.142	0.130
6.80	884.4	12017.90	8963.42	105.91	99.62	5.01	74.08	1029.10	79.09	1034.10	0.148	0.137
7.00	952.1	12430.33	9325.06	105.43	98.99	5.15	76.48	1005.75	81.63	1010.89	0.154	0.144
7.20	1022	12801.52	9638.19	104.97	98.38	5.29	76.94	984.26	82.23	989.54	0.159	0.151
7.40	1095	13138.07	9911.12	104.52	97.88	5.43	76.36	962.75	81.78	968.17	0.164	0.158
7.60	1169	13443.41	10154.01	104.08	97.56	5.57	75.36	941.01	80.92	946.57	0.168	0.165
7.80	1245	13734.65	10379.46	103.67	97.24	5.70	74.04	920.90	79.75	926.59	0.172	0.172
8.00	1323	13956.90	10570.18	103.30	97.07	5.84	72.41	898.46	78.25	904.30	0.175	0.178
8.20	1402	14209.86	10734.43	102.94	96.85	5.97	70.67	871.28	76.64	877.24	0.177	0.183
8.40	1482	14393.93	10846.74	102.62	97.18	6.10	68.27	840.97	74.38	847.07	0.179	0.187
8.60	1562	14547.95	10943.62	102.35	97.59	6.23	65.83	811.13	72.07	817.36	0.181	0.190
8.80	1644	14710.92	11038.73	102.12	98.00	6.36	63.64	783.52	70.00	789.88	0.182	0.193
9.00	1726	14863.86	11122.11	101.94	98.39	6.49	61.49	757.25	67.98	763.73	0.184	0.196
9.20	1808	15022.73	11202.12	101.78	98.74	6.61	59.53	731.96	66.14	738.57	0.185	0.199
9.40	1892	15176.58	11281.69	101.65	99.07	6.73	57.73	708.45	64.47	715.18	0.187	0.201
9.60	1975	15326.24	11354.90	101.55	99.37	6.85	56.02	686.16	62.87	693.01	0.188	0.203
9.80	2060	15484.15	11437.67	101.47	99.80	6.98	54.40	669.80	61.37	676.77	0.189	0.207
10.00	2145	15628.80	11510.25	101.41	100.11	7.09	52.90	651.07	60.00	658.16	0.190	0.210
10.20	2230	15773.21	11582.46	101.36	100.40	7.21	51.52	633.46	58.74	640.67	0.191	0.212
10.40	2316	15912.16	11647.44	101.33	100.65	7.33	50.17	616.44	57.51	623.77	0.193	0.214
10.60	2403	16050.59	11711.63	101.31	100.90	7.45	48.91	600.40	56.36	607.84	0.194	0.217
10.80	2490	16190.52	11776.42	101.30	101.14	7.57	47.74	585.54	55.30	593.10	0.195	0.219
11.00	2577	16329.06	11841.25	101.30	101.39	7.68	46.64	571.58	54.32	579.26	0.196	0.221
11.20	2665	16465.08	11901.74	101.31	101.60	7.80	45.58	558.16	53.38	565.95	0.197	0.223
11.40	2754	16598.94	11960.47	101.32	101.80	7.91	44.57	545.35	52.48	553.26	0.198	0.226
11.60	2842	16733.80	12019.22	101.34	102.00	8.03	43.62	533.25	51.65	541.28	0.199	0.228
11.80	2932	16869.09	12078.02	101.36	102.20	8.14	42.73	521.81	50.88	529.95	0.200	0.230
12.00	3021	17006.80	12138.15	101.39	102.42	8.26	41.88	511.66	50.14	519.91	0.201	0.232
12.20	3111	17139.47	12191.39	101.42	102.58	8.37	41.06	500.82	49.43	509.18	0.202	0.234
12.40	3202	17272.38	12244.38	101.46	102.73	8.48	40.29	490.46	48.77	498.94	0.202	0.236
12.60	3293	17411.26	12303.13	101.50	102.95	8.60	39.55	481.89	48.15	490.48	0.203	0.239
12.80	3384	17543.42	12355.68	101.54	103.09	8.71	38.86	472.36	47.57	481.06	0.204	0.241
13.00	3476	17674.74	12406.70	101.58	103.23	8.82	38.18	463.37	47.00	472.19	0.205	0.242
13.20	3568	17804.56	12457.23	101.63	103.37	8.93	37.54	454.81	46.47	463.74	0.206	0.244
13.40	3660	17933.93	12511.39	101.67	103.54	9.05	36.92	447.41	45.97	456.45	0.207	0.247
13.60	3753	18062.04	12561.37	101.72	103.67	9.16	36.34	439.45	45.50	448.61	0.208	0.248
13.80	3846	18189.98	12610.85	101.77	103.79	9.27	35.78	431.80	45.05	441.07	0.208	0.250
14.00	3940	18316.49	12657.86	101.82	103.90	9.38	35.24	424.26	44.62	433.64	0.209	0.252

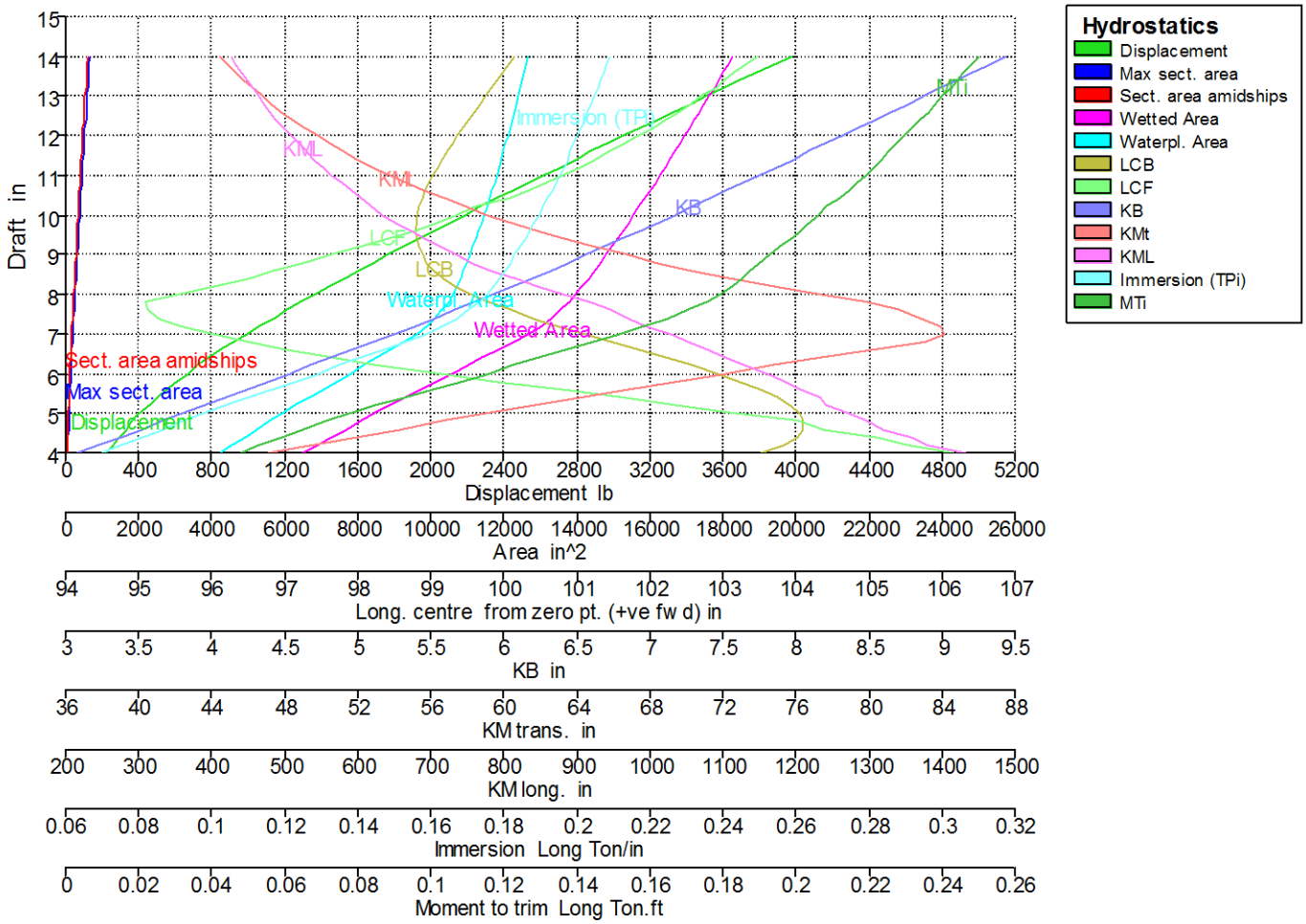

Hydrostatics
Displacement
Max sect. area
Sect. area amidships
Wetted Area
Waterpl. Area
LCB
LCF
KB
KMt
KML
Immersion (TPi)
MTi
Draft in
Displacement lb
Area in^2
Long. centre from zero pt. (+ve fw d) in
KB in
KM trans. in
KM long. in
Immersion Long Ton/in
Moment to trim Long Ton.ft

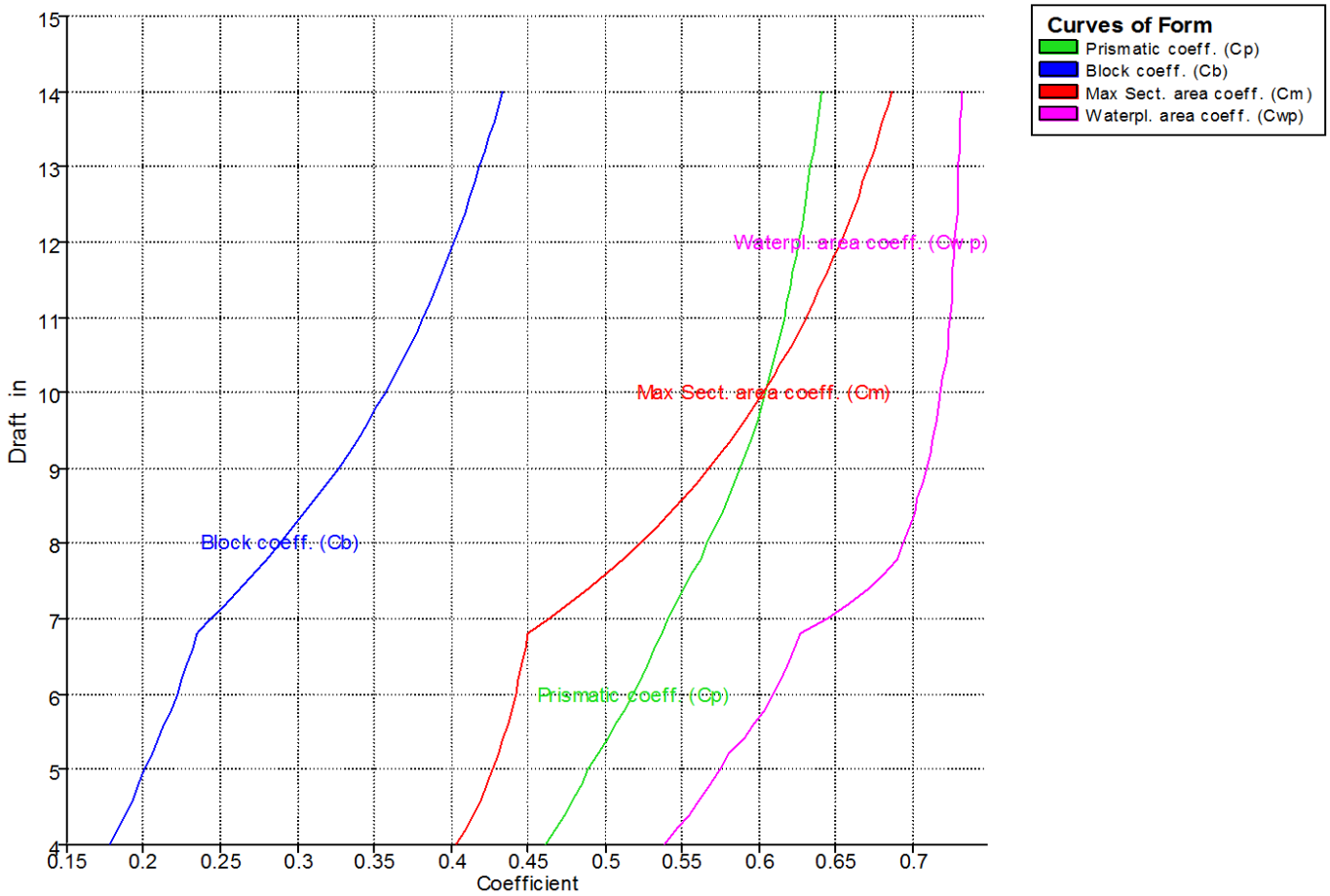

Curves of Form
Prismatic coeff. (Cp)
Block coeff. (Cb)
Max Sect. area coeff. (Cm)
Waterpl. area coeff. (Cwp)
Draft in
Coefficient

Hydrostatics
Damage Case - Intact

Fixed Trim = 2 in (+ve by stern)
Specific gravity = 1.025; (Density = 0.03703 lb/in^3)

Draft Amidships in	Displacement lb	Wetted Area in^2	Waterpl. Area in^2	LCB from zero pt. (+ve fwd) in	LCF from zero pt. (+ve fwd) in	KB in	BMt in	BML in	KMt in	KML in	Immersion (TPi) Long Ton/in	MTi Long Ton.ft
4.00	224.7	6508.52	4229.36	103.53	106.16	3.08	43.98	1428.59	47.06	1431.62	0.070	0.048
4.20	257.2	6896.94	4553.89	103.83	105.53	3.23	46.23	1376.36	49.45	1379.54	0.075	0.053
4.40	292.2	7287.33	4897.09	104.01	105.13	3.37	48.48	1354.69	51.86	1358.02	0.081	0.059
4.60	329.7	7681.16	5235.86	104.10	104.39	3.52	50.77	1315.05	54.29	1318.52	0.087	0.065
4.80	369.8	8085.34	5585.04	104.11	104.02	3.66	53.07	1292.23	56.74	1295.85	0.092	0.072
5.00	412.4	8490.14	5942.81	104.05	103.11	3.81	55.41	1266.04	59.21	1269.81	0.098	0.078
5.20	457.7	8893.77	6293.24	103.92	102.35	3.95	57.76	1236.10	61.71	1240.02	0.104	0.085
5.40	505.8	9322.32	6678.86	103.75	101.64	4.10	60.14	1228.58	64.24	1232.64	0.110	0.093
5.60	556.6	9735.62	7043.71	103.52	100.82	4.24	62.55	1203.19	66.79	1207.39	0.116	0.100
5.80	610.2	10161.08	7424.26	103.24	99.92	4.39	65.00	1183.01	69.39	1187.36	0.123	0.108
6.00	666.5	10575.21	7794.50	102.93	99.20	4.53	67.49	1157.61	72.02	1162.10	0.129	0.116
6.20	725.6	11013.68	8160.28	102.59	98.24	4.68	70.04	1123.74	74.71	1128.38	0.135	0.122
6.40	787.4	11429.43	8530.12	102.22	97.65	4.82	72.63	1097.55	77.44	1102.33	0.141	0.130
6.60	851.9	11855.12	8908.38	101.86	97.02	4.96	75.26	1073.77	80.22	1078.70	0.147	0.137
6.80	919.3	12272.05	9277.66	101.48	96.51	5.11	77.95	1047.35	83.05	1052.42	0.153	0.144
7.00	989.3	12653.93	9604.44	101.11	96.03	5.25	78.88	1022.94	84.12	1028.16	0.159	0.152
7.20	1061	13002.57	9868.59	100.75	95.59	5.39	78.51	991.12	83.90	996.47	0.163	0.158
7.40	1135	13311.37	10111.41	100.40	95.29	5.53	77.39	966.01	82.91	971.51	0.167	0.165
7.60	1211	13553.01	10321.80	100.09	95.13	5.67	75.98	938.86	81.64	944.50	0.171	0.171
7.80	1288	13803.03	10500.67	99.79	95.10	5.80	74.09	910.96	79.89	916.74	0.174	0.176
8.00	1366	13975.06	10611.97	99.53	95.56	5.94	71.29	874.58	77.22	880.49	0.175	0.179
8.20	1445	14148.87	10717.69	99.33	96.04	6.07	68.71	841.32	74.77	847.36	0.177	0.182
8.40	1525	14316.59	10817.40	99.17	96.51	6.19	66.33	810.35	72.52	816.52	0.179	0.185
8.60	1605	14488.05	10898.39	99.05	96.81	6.32	64.04	777.18	70.36	783.47	0.180	0.187
8.80	1687	14647.75	10990.74	98.95	97.25	6.45	61.98	751.51	68.42	757.93	0.182	0.190
9.00	1768	14804.22	11078.97	98.88	97.67	6.57	60.04	727.69	66.61	734.23	0.183	0.193
9.20	1851	14955.78	11161.07	98.83	98.05	6.69	58.18	705.42	64.87	712.09	0.185	0.196
9.40	1934	15107.65	11243.33	98.81	98.42	6.81	56.48	684.85	63.29	691.64	0.186	0.199
9.60	2017	15265.55	11324.53	98.80	98.78	6.93	54.93	665.33	61.86	672.24	0.187	0.201
9.80	2101	15412.30	11394.96	98.80	99.07	7.05	53.38	645.90	60.43	652.93	0.188	0.204
10.00	2186	15558.38	11465.06	98.82	99.35	7.17	51.96	627.75	59.12	634.90	0.190	0.206
10.20	2271	15705.64	11535.74	98.84	99.63	7.29	50.63	611.00	57.92	618.26	0.191	0.208
10.40	2357	15861.57	11618.81	98.88	100.06	7.40	49.40	599.24	56.80	606.63	0.192	0.212
10.60	2443	15999.67	11683.42	98.93	100.32	7.52	48.19	584.32	55.70	591.82	0.193	0.214
10.80	2530	16139.67	11748.96	98.98	100.55	7.63	47.06	570.39	54.69	578.01	0.194	0.217
11.00	2617	16277.68	11813.27	99.04	100.80	7.75	46.00	557.07	53.75	564.80	0.195	0.219
11.20	2705	16418.37	11877.66	99.10	101.03	7.86	45.01	544.52	52.87	552.37	0.196	0.221
11.40	2793	16553.59	11937.80	99.16	101.25	7.98	44.04	532.46	52.02	540.42	0.197	0.223
11.60	2882	16687.59	11996.45	99.23	101.45	8.09	43.13	520.95	51.22	529.02	0.198	0.226
11.80	2971	16821.21	12055.14	99.30	101.65	8.20	42.26	510.06	50.47	518.25	0.199	0.228
12.00	3060	16955.61	12113.84	99.37	101.85	8.32	41.45	499.73	49.76	508.03	0.200	0.230
12.20	3150	17090.22	12171.77	99.44	102.05	8.43	40.67	489.86	49.10	498.27	0.201	0.232
12.40	3241	17222.06	12225.56	99.52	102.21	8.54	39.92	480.16	48.46	488.69	0.202	0.234
12.60	3331	17357.86	12282.27	99.60	102.41	8.66	39.20	471.64	47.86	480.28	0.203	0.236
12.80	3422	17490.73	12335.38	99.67	102.56	8.77	38.52	462.66	47.29	471.41	0.204	0.238
13.00	3514	17623.84	12388.22	99.75	102.71	8.88	37.88	454.03	46.76	462.90	0.205	0.240
13.20	3606	17761.09	12445.13	99.83	102.91	8.99	37.26	446.83	46.25	455.80	0.206	0.243
13.40	3698	17891.41	12494.58	99.91	103.03	9.10	36.66	438.72	45.76	447.81	0.207	0.244
13.60	3791	18021.54	12544.74	99.99	103.17	9.22	36.08	431.12	45.30	440.32	0.207	0.246
13.80	3884	18151.76	12595.51	100.06	103.30	9.33	35.54	423.97	44.86	433.28	0.208	0.248
14.00	3978	18280.04	12649.10	100.14	103.47	9.44	35.02	417.65	44.46	427.08	0.209	0.250

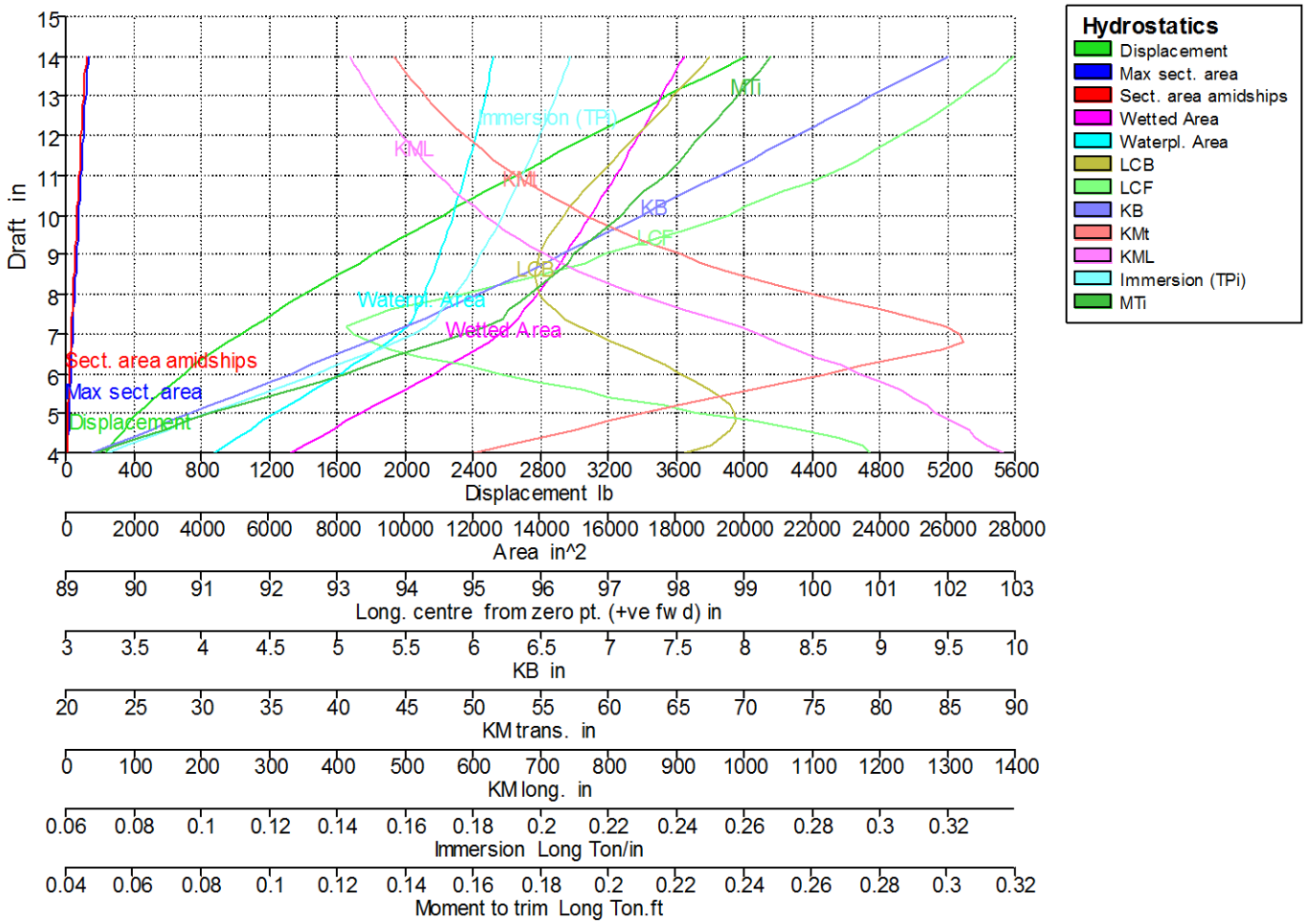

Hydrostatics
Displacement
Max sect. area
Sect. area amidships
Wetted Area
Waterpl. Area
LCB
LCF
KB
KMt
KML
Immersion (TPi)
MTi
Draft in
Sect. area amidships
Max sect. area
Displacement
KML
KMt
LCF
LCB
Waterpl. Area
Wetted Area
Immersion (TPi)
KB
MTi
Displacement lb
Area in^2
Long. centre from zero pt. (+ve fw d) in
KB in
KM trans. in
KM long. in
Immersion Long Ton/in
Moment to trim Long Ton.ft

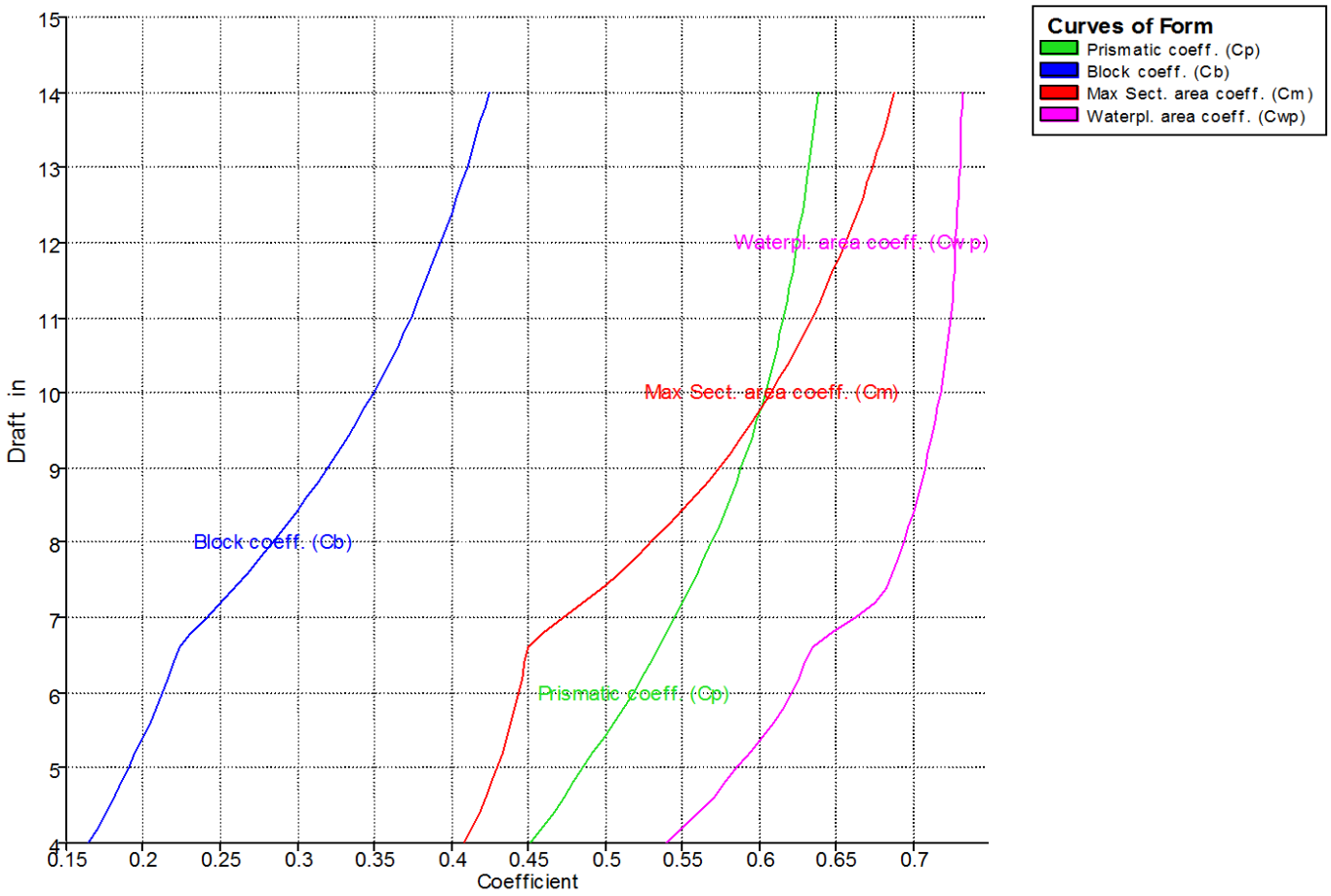

Curves of Form
Prismatic coeff. (Cp)
Block coeff. (Cb)
Max Sect. area coeff. (Cm)
Waterpl. area coeff. (Cwp)
Draft in
Waterpl. area coeff. (Cwp)
Max Sect. area coeff. (Cm)
Block coeff. (Cb)
Prismatic coeff. (Cp)
Coefficient

Hydrostatics
Damage Case - Intact

Fixed Trim = 3 in (+ve by stern)
Specific gravity = 1.025; (Density = 0.03703 lb/in^3)

Draft Amidships in	Displacement lb	Wetted Area in^2	Waterpl. Area in^2	LCB from zero pt. (+ve fwd) in	LCF from zero pt. (+ve fwd) in	KB in	BMt in	BML in	KMt in	KML in	Immersion (TPi) Long Ton/in	MTi Long Ton.ft
4.00	237.7	6656.93	4383.57	98.12	100.86	3.20	46.96	1378.93	50.15	1382.02	0.072	0.049
4.20	271.6	7063.90	4729.42	98.51	100.74	3.34	49.26	1355.66	52.60	1358.90	0.078	0.055
4.40	307.8	7486.31	5091.75	98.66	100.39	3.49	51.63	1337.16	55.12	1340.55	0.084	0.062
4.60	346.8	7911.27	5468.08	98.81	99.85	3.64	53.99	1329.52	57.62	1333.06	0.090	0.069
4.80	388.6	8308.33	5824.35	98.88	99.12	3.78	56.36	1301.23	60.14	1304.92	0.096	0.076
5.00	433.1	8725.43	6197.87	98.87	98.27	3.93	58.77	1279.25	62.70	1283.08	0.102	0.083
5.20	480.4	9153.56	6580.27	98.80	97.81	4.07	61.21	1266.88	65.28	1270.86	0.109	0.091
5.40	530.5	9579.65	6961.25	98.67	97.01	4.22	63.69	1243.21	67.90	1247.34	0.115	0.099
5.60	583.5	10009.92	7345.94	98.49	96.62	4.37	66.21	1226.27	70.58	1230.55	0.121	0.107
5.80	639.3	10439.54	7725.78	98.30	95.95	4.51	68.79	1198.21	73.29	1202.63	0.128	0.115
6.00	697.9	10853.60	8095.98	98.08	95.43	4.66	71.41	1166.71	76.06	1171.28	0.134	0.122
6.20	759.2	11276.94	8474.98	97.85	94.88	4.80	74.08	1138.56	78.88	1143.28	0.140	0.130
6.40	823.4	11705.75	8831.37	97.60	94.25	4.94	76.81	1098.11	81.74	1102.97	0.146	0.136
6.60	890.2	12126.66	9209.87	97.33	93.79	5.09	79.59	1072.01	84.67	1077.02	0.152	0.143
6.80	959.7	12507.27	9539.24	97.06	93.50	5.23	80.91	1043.57	86.13	1048.72	0.158	0.150
7.00	1031	12808.28	9818.43	96.82	93.26	5.37	80.52	1016.87	85.89	1022.17	0.162	0.157
7.20	1105	13110.65	10060.08	96.58	93.15	5.51	79.38	989.36	84.89	994.80	0.166	0.164
7.40	1180	13351.20	10232.69	96.36	93.42	5.65	77.16	953.35	82.80	958.93	0.169	0.169
7.60	1256	13542.64	10345.22	96.20	93.78	5.78	74.30	905.51	80.07	911.23	0.171	0.171
7.80	1333	13732.43	10465.21	96.08	94.36	5.92	71.57	871.24	77.48	877.09	0.173	0.174
8.00	1411	13908.62	10570.92	96.00	94.85	6.04	69.01	836.28	75.05	842.26	0.175	0.177
8.20	1490	14080.64	10671.01	95.95	95.31	6.17	66.62	804.19	72.79	810.31	0.176	0.180
8.40	1569	14252.43	10772.34	95.93	95.78	6.30	64.48	775.47	70.77	781.71	0.178	0.183
8.60	1650	14413.49	10863.88	95.93	96.22	6.42	62.34	749.49	68.75	755.86	0.180	0.185
8.80	1730	14574.29	10955.33	95.96	96.65	6.54	60.40	725.58	66.94	732.07	0.181	0.188
9.00	1812	14745.83	11035.90	96.00	96.95	6.66	58.64	699.37	65.30	705.98	0.182	0.190
9.20	1894	14897.35	11118.57	96.05	97.33	6.78	56.89	678.91	63.67	685.64	0.184	0.193
9.40	1976	15048.29	11200.33	96.11	97.71	6.90	55.28	659.91	62.18	666.77	0.185	0.196
9.60	2060	15199.53	11282.21	96.18	98.09	7.02	53.80	642.27	60.81	649.24	0.187	0.198
9.80	2144	15348.90	11361.59	96.26	98.45	7.13	52.40	625.67	59.53	632.76	0.188	0.201
10.00	2228	15493.32	11434.67	96.35	98.77	7.25	51.03	609.82	58.28	617.03	0.189	0.204
10.20	2313	15646.14	11506.64	96.44	99.04	7.37	49.77	594.29	57.13	601.62	0.190	0.206
10.40	2398	15792.58	11577.06	96.54	99.32	7.48	48.60	579.47	56.07	586.91	0.191	0.209
10.60	2484	15938.47	11645.50	96.64	99.58	7.60	47.49	565.30	55.08	572.85	0.193	0.211
10.80	2571	16089.68	11720.74	96.74	99.96	7.71	46.39	555.21	54.10	562.88	0.194	0.214
11.00	2658	16228.39	11785.67	96.85	100.21	7.82	45.37	542.86	53.19	550.64	0.195	0.217
11.20	2745	16366.88	11850.21	96.96	100.46	7.94	44.41	531.08	52.35	538.97	0.196	0.219
11.40	2833	16505.54	11914.57	97.08	100.70	8.05	43.52	519.87	51.56	527.88	0.197	0.221
11.60	2922	16640.74	11974.18	97.19	100.91	8.16	42.64	508.87	50.80	517.00	0.198	0.223
11.80	3011	16776.19	12032.67	97.30	101.11	8.28	41.80	498.48	50.07	506.72	0.199	0.226
12.00	3100	16910.35	12091.27	97.42	101.31	8.39	41.01	488.64	49.39	496.99	0.200	0.228
12.20	3190	17044.24	12149.89	97.53	101.51	8.50	40.26	479.29	48.75	487.75	0.201	0.230
12.40	3280	17178.17	12208.55	97.64	101.71	8.61	39.55	470.39	48.16	478.96	0.202	0.232
12.60	3371	17309.59	12262.43	97.75	101.87	8.72	38.85	461.56	47.57	470.25	0.203	0.234
12.80	3462	17441.34	12316.15	97.86	102.04	8.84	38.19	453.13	47.02	461.93	0.204	0.236
13.00	3553	17576.76	12373.11	97.97	102.24	8.95	37.56	445.81	46.50	454.72	0.205	0.238
13.20	3645	17709.54	12426.28	98.08	102.39	9.06	36.96	437.97	46.02	447.00	0.205	0.240
13.40	3737	17842.39	12479.00	98.19	102.54	9.17	36.39	430.40	45.56	439.54	0.206	0.242
13.60	3830	17978.57	12533.77	98.30	102.73	9.28	35.83	423.98	45.11	433.23	0.207	0.244
13.80	3923	18108.09	12582.29	98.40	102.84	9.39	35.30	416.63	44.69	425.99	0.208	0.246
14.00	4016	18238.98	12632.24	98.51	102.97	9.50	34.79	409.86	44.29	419.33	0.209	0.248

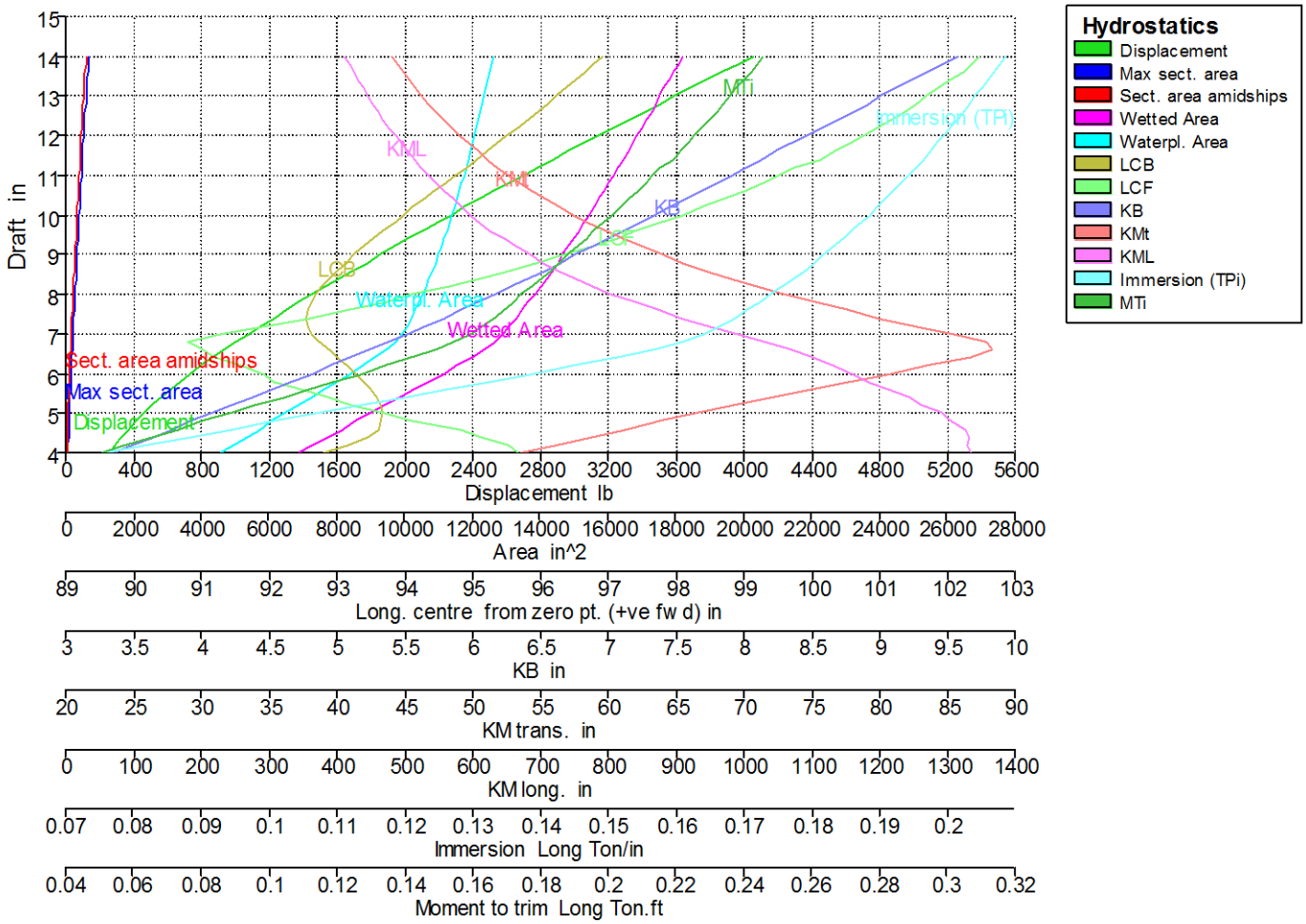

Hydrostatics
Displacement
Max sect. area
Sect. area amidships
Wetted Area
Waterpl. Area
LCB
LCF
KB
KMt
KML
Immersion (TPi)
MTi
Draft in
Sect. area amidships
Max sect. area
Displacement
Immersion (TPi)
KML
KMt
KB
LCF
LCB
Waterpl. Area
Wetted Area
Displacement lb
Area in^2
Long. centre from zero pt. (+ve fw d) in
KB in
KM trans. in
KM long. in
Immersion Long Ton/in
Moment to trim Long Ton.ft

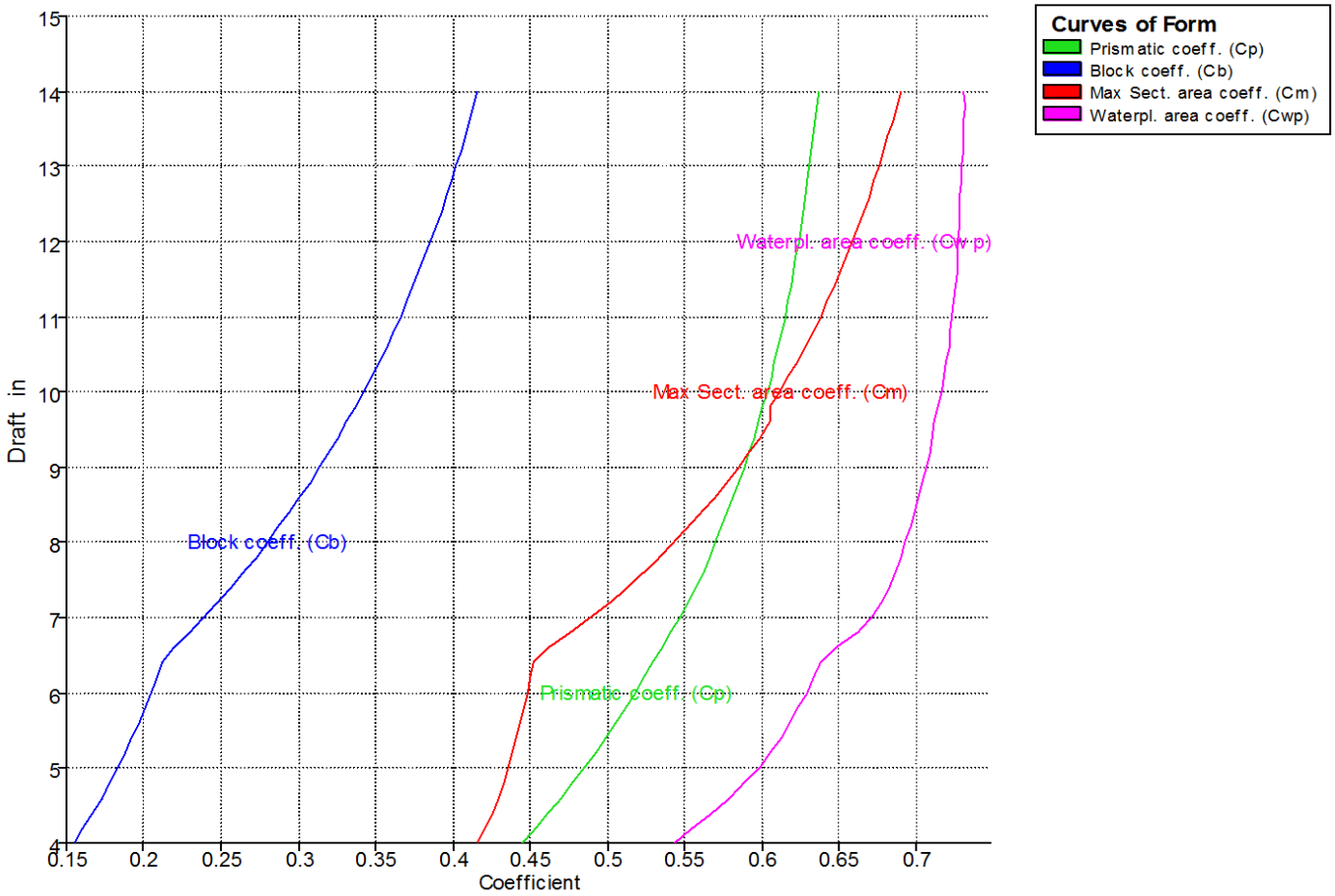

Curves of Form
Prismatic coeff. (Cp)
Block coeff. (Cb)
Max Sect. area coeff. (Cm)
Waterpl. area coeff. (Cwp)
Draft in
Waterpl. area coeff. (Cwp)
Max Sect. area coeff. (Cm)
Block coeff. (Cb)
Prismatic coeff. (Cp)
Coefficient

Hydrostatics
Damage Case - Intact

Fixed Trim = 4 in (+ve by stern)
Specific gravity = 1.025; (Density = 0.03703 lb/in^3)

Draft Amidships in	Displacement lb	Wetted Area in^2	Waterpl. Area in^2	LCB from zero pt. (+ve fwd) in	LCF from zero pt. (+ve fwd) in	KB in	BMt in	BML in	KMt in	KML in	Immersion (TPi) Long Ton/in	MTi Long Ton.ft
4.00	254.6	6867.17	4581.58	92.81	95.66	3.35	50.23	1332.25	53.57	1335.43	0.076	0.051
4.20	289.9	7281.67	4948.31	93.16	95.54	3.50	52.64	1326.96	56.13	1330.28	0.082	0.058
4.40	328.1	7712.25	5338.37	93.44	95.13	3.64	55.06	1329.50	58.69	1332.97	0.088	0.065
4.60	369.1	8145.31	5719.53	93.63	94.83	3.79	57.49	1322.07	61.28	1325.68	0.095	0.073
4.80	412.7	8573.29	6100.47	93.64	94.08	3.94	60.01	1301.07	63.93	1304.84	0.101	0.081
5.00	459.3	9014.42	6496.79	93.67	93.68	4.08	62.54	1290.38	66.61	1294.30	0.107	0.089
5.20	508.8	9426.91	6867.10	93.65	93.20	4.23	65.11	1258.30	69.33	1262.36	0.114	0.096
5.40	561.0	9863.57	7262.36	93.58	92.90	4.38	67.74	1242.19	72.11	1246.41	0.120	0.105
5.60	616.2	10275.04	7633.27	93.50	92.51	4.52	70.42	1208.56	74.93	1212.92	0.126	0.112
5.80	674.1	10698.49	8012.74	93.40	92.06	4.67	73.16	1178.13	77.81	1182.64	0.132	0.119
6.00	734.9	11128.46	8397.79	93.28	91.94	4.81	75.94	1156.13	80.74	1160.79	0.139	0.127
6.20	798.5	11555.64	8776.11	93.15	91.56	4.95	78.77	1125.73	83.71	1130.54	0.145	0.135
6.40	864.9	11976.79	9153.20	93.01	91.21	5.10	81.64	1095.94	86.73	1100.89	0.151	0.142
6.60	933.8	12316.89	9483.12	92.89	91.03	5.24	83.07	1064.93	88.30	1070.03	0.157	0.149
6.80	1005	12655.12	9739.77	92.75	90.79	5.38	82.49	1025.92	87.86	1031.17	0.161	0.155
7.00	1078	12881.28	9919.78	92.64	91.28	5.52	80.01	985.18	85.52	990.57	0.164	0.159
7.20	1152	13084.77	10061.20	92.57	91.94	5.65	77.08	942.54	82.72	948.07	0.166	0.163
7.40	1227	13278.78	10191.50	92.55	92.59	5.79	74.29	903.21	80.07	908.88	0.168	0.166
7.60	1303	13467.31	10314.52	92.58	93.19	5.91	71.69	867.22	77.59	873.02	0.171	0.169
7.80	1380	13648.87	10428.64	92.63	93.75	6.04	69.18	834.06	75.22	839.99	0.172	0.173
8.00	1457	13835.80	10523.06	92.70	94.09	6.17	66.86	796.66	73.02	802.72	0.174	0.174
8.20	1536	14012.00	10629.79	92.78	94.65	6.29	64.64	771.22	70.92	777.41	0.176	0.178
8.40	1615	14183.20	10730.16	92.89	95.12	6.41	62.65	744.78	69.05	751.09	0.177	0.180
8.60	1695	14348.19	10822.17	93.00	95.54	6.53	60.71	719.87	67.23	726.30	0.179	0.183
8.80	1775	14510.09	10910.37	93.13	95.94	6.65	58.89	696.80	65.53	703.35	0.180	0.185
9.00	1856	14670.88	11001.55	93.26	96.37	6.77	57.23	676.64	63.99	683.32	0.182	0.188
9.20	1938	14828.08	11088.63	93.40	96.78	6.88	55.65	657.69	62.53	664.49	0.183	0.191
9.40	2020	14979.69	11169.36	93.54	97.15	7.00	54.12	639.73	61.11	646.65	0.185	0.194
9.60	2103	15141.22	11239.61	93.69	97.39	7.11	52.71	619.62	59.81	626.65	0.186	0.195
9.80	2187	15293.58	11323.43	93.84	97.74	7.23	51.41	604.75	58.64	611.90	0.187	0.198
10.00	2271	15440.32	11399.81	93.99	98.08	7.34	50.15	590.20	57.49	597.46	0.188	0.201
10.20	2356	15584.53	11472.81	94.14	98.40	7.46	48.93	576.38	56.39	583.76	0.190	0.204
10.40	2441	15729.08	11545.97	94.29	98.72	7.57	47.80	563.43	55.37	570.93	0.191	0.206
10.60	2527	15879.78	11617.77	94.45	99.02	7.68	46.75	550.79	54.43	558.40	0.192	0.209
10.80	2613	16024.39	11685.25	94.60	99.28	7.80	45.74	538.19	53.54	545.92	0.193	0.211
11.00	2700	16164.94	11748.03	94.76	99.51	7.91	44.76	526.06	52.66	533.90	0.194	0.213
11.20	2787	16306.07	11810.92	94.91	99.74	8.02	43.83	514.63	51.85	522.58	0.195	0.215
11.40	2875	16456.04	11886.88	95.06	100.12	8.13	42.96	507.11	51.09	515.17	0.197	0.219
11.60	2963	16594.51	11951.49	95.22	100.36	8.24	42.14	497.15	50.38	505.33	0.198	0.221
11.80	3052	16729.87	12011.55	95.37	100.58	8.36	41.34	487.33	49.69	495.63	0.199	0.223
12.00	3141	16863.25	12069.52	95.52	100.77	8.47	40.57	477.83	49.04	486.23	0.200	0.226
12.20	3231	16999.27	12127.56	95.67	100.97	8.58	39.85	468.80	48.42	477.32	0.200	0.228
12.40	3321	17133.47	12186.09	95.82	101.17	8.69	39.16	460.31	47.84	468.94	0.201	0.230
12.60	3411	17267.63	12244.65	95.96	101.37	8.80	38.50	452.21	47.30	460.95	0.202	0.232
12.80	3502	17398.62	12299.42	96.10	101.54	8.91	37.86	444.21	46.77	453.06	0.203	0.234
13.00	3593	17529.37	12353.04	96.24	101.71	9.02	37.25	436.48	46.26	445.45	0.204	0.236
13.20	3685	17661.02	12406.70	96.38	101.87	9.13	36.66	429.10	45.79	438.18	0.205	0.238
13.40	3777	17792.94	12460.35	96.52	102.03	9.24	36.11	422.03	45.34	431.22	0.206	0.240
13.60	3870	17928.75	12517.00	96.65	102.23	9.35	35.58	415.88	44.92	425.18	0.207	0.242
13.80	3962	18059.81	12567.32	96.78	102.36	9.46	35.06	409.03	44.51	418.44	0.208	0.244
14.00	4056	18190.26	12616.16	96.91	102.48	9.57	34.56	402.32	44.12	411.84	0.209	0.246

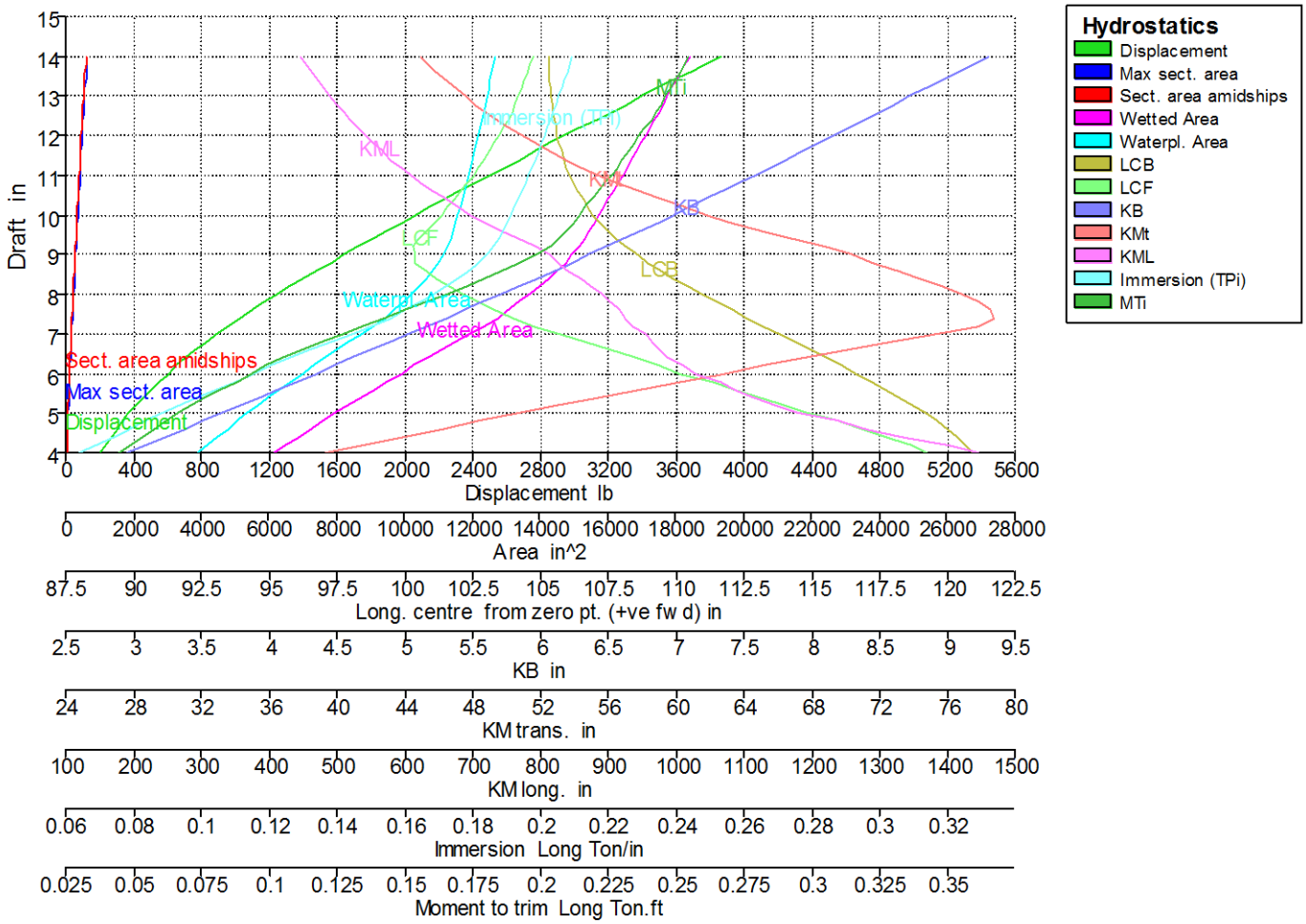

Hydrostatics
Displacement
Max sect. area
Sect. area amidships
Wetted Area
Waterpl. Area
LCB
LCF
KB
KMt
KML
Immersion (TPi)
MTi
Draft in
Displacement lb
Area in^2
Long. centre from zero pt. (+ve fw d) in
KB in
KM trans. in
KM long. in
Immersion Long Ton/in
Moment to trim Long Ton.ft

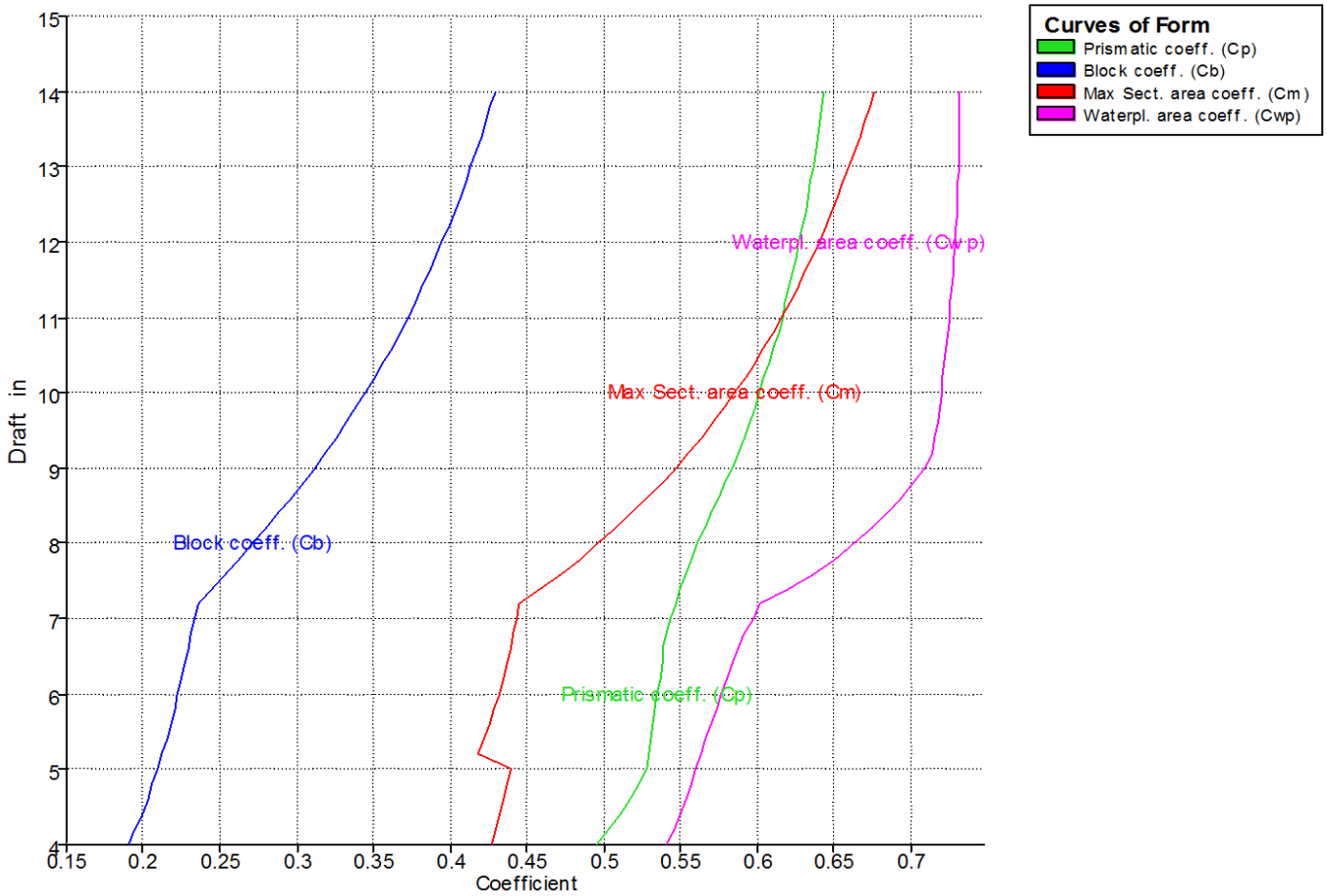

Curves of Form
Prismatic coeff. (Cp)
Block coeff. (Cb)
Max Sect. area coeff. (Cm)
Waterpl. area coeff. (Cwp)
Draft in
Coefficient

Hydrostatics
Damage Case - Intact

Fixed Trim = -1 in (+ve by stern)
Specific gravity = 1.025; (Density = 0.03703 lb/in^3)

Draft Amidships in	Displacement lb	Wetted Area in^2	Waterpl. Area in^2	LCB from zero pt. (+ve fwd) in	LCF from zero pt. (+ve fwd) in	KB in	BMt in	BML in	KMt in	KML in	Immersion (TPi) Long Ton/in	MTi Long Ton.ft
4.00	205.2	6139.85	3872.31	120.92	119.23	2.95	36.42	1443.22	39.37	1446.16	0.064	0.044
4.20	234.9	6495.07	4170.93	120.67	118.67	3.09	38.52	1397.10	41.61	1400.18	0.069	0.049
4.40	266.9	6864.48	4467.98	120.37	117.76	3.23	40.62	1332.36	43.86	1335.59	0.074	0.053
4.60	301.1	7209.12	4760.70	120.03	116.92	3.38	42.76	1278.83	46.14	1282.19	0.079	0.058
4.80	337.6	7588.55	5070.78	119.63	115.98	3.52	44.92	1233.84	48.43	1237.34	0.084	0.062
5.00	376.2	7959.01	5359.93	119.19	114.85	3.65	47.11	1176.55	50.77	1180.19	0.089	0.066
5.20	417.1	8345.90	5676.97	118.72	113.95	3.79	49.33	1140.64	53.12	1144.42	0.094	0.071
5.40	460.3	8712.04	5993.00	118.23	113.07	3.93	51.57	1110.90	55.50	1114.82	0.099	0.077
5.60	505.9	9105.00	6320.16	117.73	112.16	4.07	53.82	1082.73	57.89	1086.79	0.104	0.082
5.80	553.9	9482.47	6649.02	117.20	111.34	4.21	56.11	1061.09	60.31	1065.28	0.110	0.088
6.00	604.3	9895.01	6972.50	116.66	110.18	4.34	58.41	1026.43	62.75	1030.76	0.115	0.093
6.20	657.2	10280.32	7307.40	116.10	109.30	4.48	60.73	1004.97	65.21	1009.44	0.121	0.099
6.40	712.5	10679.38	7644.02	115.54	108.47	4.62	63.08	983.39	67.69	988.00	0.126	0.105
6.60	770.5	11086.03	8002.75	114.98	107.54	4.75	65.44	970.74	70.20	975.48	0.132	0.112
6.80	831.1	11489.75	8362.18	114.40	106.66	4.89	67.83	959.23	72.72	964.12	0.138	0.120
7.00	894.4	11910.03	8735.64	113.82	105.72	5.03	70.23	950.39	75.26	955.41	0.144	0.127
7.20	960.4	12336.85	9091.77	113.24	104.76	5.16	72.65	931.81	77.82	936.97	0.150	0.134
7.40	1029	12709.23	9413.81	112.65	104.03	5.30	73.42	920.64	78.72	925.93	0.156	0.142
7.60	1100	13057.77	9707.69	112.07	103.30	5.44	73.11	910.49	78.55	915.92	0.160	0.150
7.80	1173	13374.93	9966.13	111.50	102.72	5.57	72.28	897.03	77.86	902.60	0.165	0.158
8.00	1247	13680.78	10210.15	110.95	102.13	5.71	71.11	884.76	76.82	890.46	0.169	0.166
8.20	1324	13971.22	10427.91	110.43	101.64	5.84	69.85	868.66	75.69	874.49	0.172	0.173
8.40	1402	14247.15	10632.53	109.92	101.14	5.97	68.42	853.26	74.39	859.22	0.176	0.179
8.60	1481	14505.36	10816.86	109.44	100.78	6.10	67.02	835.72	73.12	841.81	0.179	0.186
8.80	1562	14750.32	10986.22	108.98	100.42	6.23	65.47	819.20	71.70	825.43	0.182	0.192
9.00	1644	14948.46	11146.97	108.56	100.38	6.36	63.92	806.45	70.28	812.81	0.184	0.199
9.20	1727	15153.70	11279.20	108.17	100.30	6.49	62.29	787.36	68.78	793.84	0.186	0.204
9.40	1811	15310.14	11357.17	107.81	100.55	6.61	60.23	761.00	66.85	767.60	0.188	0.207
9.60	1895	15448.53	11433.29	107.49	100.81	6.74	58.29	736.35	65.03	743.09	0.189	0.210
9.80	1980	15597.15	11508.14	107.21	101.09	6.86	56.51	713.52	63.38	720.37	0.190	0.212
10.00	2066	15738.18	11575.89	106.96	101.35	6.98	54.83	691.61	61.81	698.59	0.191	0.215
10.20	2152	15876.65	11640.89	106.74	101.60	7.10	53.24	671.08	60.34	678.18	0.192	0.217
10.40	2238	16015.37	11705.93	106.55	101.85	7.22	51.77	651.99	59.00	659.21	0.194	0.219
10.60	2325	16155.00	11770.99	106.38	102.09	7.34	50.42	634.18	57.76	641.51	0.195	0.221
10.80	2413	16290.97	11830.78	106.23	102.30	7.46	49.11	617.10	56.57	624.56	0.196	0.224
11.00	2500	16429.99	11892.72	106.09	102.54	7.58	47.88	602.02	55.46	609.60	0.197	0.226
11.20	2589	16566.18	11950.99	105.98	102.74	7.70	46.73	586.71	54.43	594.41	0.198	0.228
11.40	2677	16702.56	12008.99	105.87	102.92	7.81	45.66	572.24	53.47	580.05	0.199	0.230
11.60	2767	16842.14	12068.95	105.78	103.15	7.93	44.63	559.80	52.55	567.73	0.200	0.233
11.80	2856	16973.99	12121.57	105.70	103.30	8.05	43.65	546.36	51.69	554.40	0.200	0.235
12.00	2946	17107.04	12175.96	105.63	103.46	8.16	42.73	534.13	50.89	542.28	0.201	0.237
12.20	3036	17240.81	12230.00	105.57	103.63	8.28	41.86	522.52	50.14	530.80	0.202	0.239
12.40	3127	17371.22	12286.09	105.52	103.83	8.39	41.03	512.30	49.42	520.68	0.203	0.241
12.60	3218	17499.18	12336.09	105.47	103.96	8.50	40.24	501.41	48.75	509.91	0.204	0.243
12.80	3310	17627.35	12386.11	105.43	104.08	8.62	39.49	491.07	48.11	499.68	0.205	0.245
13.00	3402	17755.70	12436.15	105.40	104.21	8.73	38.78	481.23	47.51	489.96	0.206	0.246
13.20	3494	17883.83	12485.54	105.37	104.33	8.85	38.10	471.81	46.95	480.65	0.206	0.248
13.40	3587	18011.31	12532.62	105.34	104.44	8.96	37.45	462.61	46.41	471.56	0.207	0.250
13.60	3680	18139.57	12579.74	105.32	104.54	9.07	36.83	453.83	45.90	462.90	0.208	0.252
13.80	3773	18268.60	12626.88	105.30	104.64	9.18	36.24	445.45	45.42	454.63	0.209	0.253
14.00	3867	18398.34	12674.08	105.29	104.74	9.30	35.68	437.45	44.97	446.74	0.210	0.255

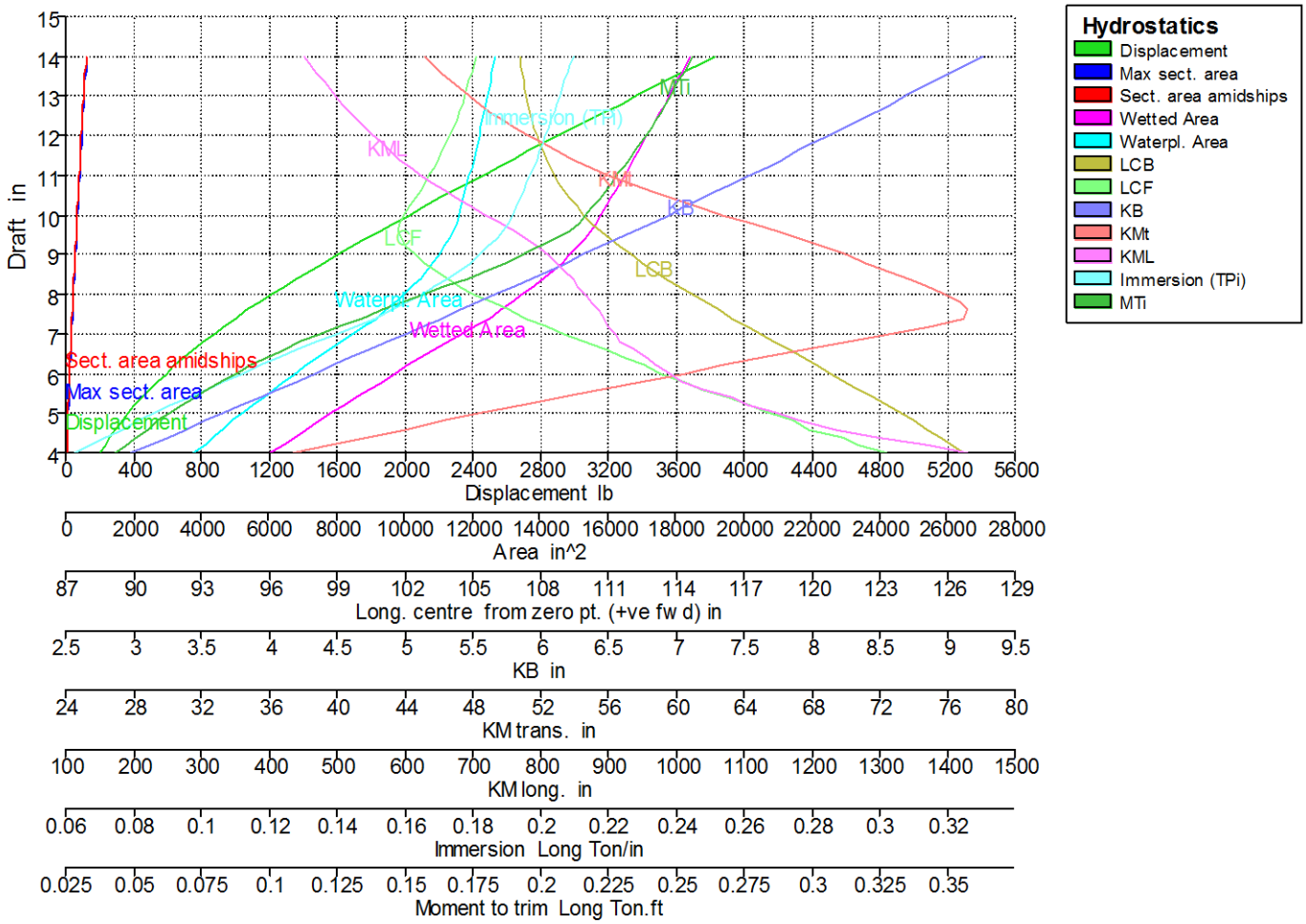

Hydrostatics
Displacement
Max sect. area
Sect. area amidships
Wetted Area
Waterpl. Area
LCB
LCF
KB
KMt
KML
Immersion (TPi)
MTi
Draft in
Displacement lb
Area in^2
Long. centre from zero pt. (+ve fw d) in
KB in
KM trans. in
KM long. in
Immersion Long Ton/in
Moment to trim Long Ton.ft

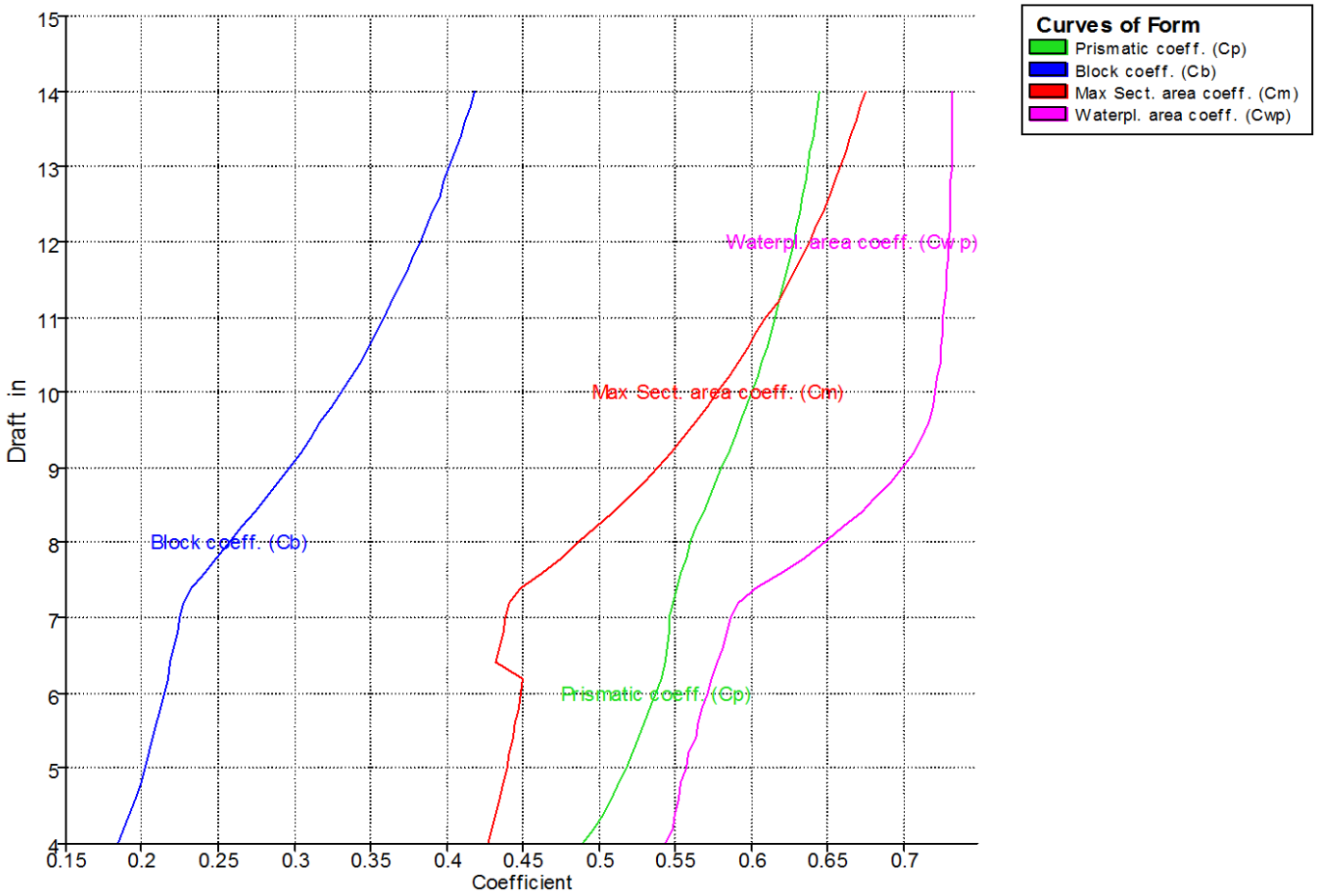

Curves of Form
Prismatic coeff. (Cp)
Block coeff. (Cb)
Max Sect. area coeff. (Cm)
Waterpl. area coeff. (Cwp)
Draft in
Coefficient

Hydrostatics
Damage Case - Intact

Fixed Trim = -2 in (+ve by stern)
Specific gravity = 1.025; (Density = 0.03703 lb/in^3)

Draft Amidships in	Displacement lb	Wetted Area in^2	Waterpl. Area in^2	LCB from zero pt. (+ve fwd) in	LCF from zero pt. (+ve fwd) in	KB in	BMt in	BML in	KMt in	KML in	Immersion (TPi) Long Ton/in	MTi Long Ton.ft
4.00	203.9	6049.30	3792.52	126.76	123.30	2.98	34.40	1427.15	37.38	1430.08	0.063	0.044
4.20	233.0	6401.41	4087.10	126.25	122.05	3.12	36.44	1370.15	39.56	1373.22	0.068	0.048
4.40	264.3	6747.14	4355.57	125.73	121.38	3.26	38.51	1295.11	41.77	1298.32	0.072	0.051
4.60	297.6	7119.10	4641.42	125.15	119.91	3.39	40.62	1232.17	44.01	1235.52	0.077	0.055
4.80	333.0	7475.92	4922.61	124.56	119.17	3.53	42.76	1178.59	46.28	1182.08	0.081	0.059
5.00	370.6	7837.00	5228.59	123.96	118.13	3.66	44.91	1143.48	48.57	1147.10	0.086	0.064
5.20	410.4	8198.01	5520.43	123.34	117.28	3.80	47.09	1100.75	50.89	1104.51	0.091	0.068
5.40	452.5	8575.39	5840.96	122.74	116.34	3.93	49.29	1079.64	53.22	1083.54	0.097	0.073
5.60	496.8	8951.11	6136.15	122.11	115.17	4.07	51.51	1038.17	55.58	1042.21	0.101	0.077
5.80	543.3	9326.63	6439.49	121.48	114.41	4.20	53.75	1005.50	57.95	1009.67	0.106	0.082
6.00	592.3	9709.28	6771.03	120.85	113.37	4.33	56.01	987.95	60.34	992.25	0.112	0.088
6.20	643.6	10091.82	7091.22	120.23	112.62	4.47	58.29	966.11	62.75	970.55	0.117	0.093
6.40	697.3	10481.81	7433.01	119.61	111.69	4.60	60.58	952.90	65.18	957.48	0.123	0.100
6.60	753.6	10871.43	7765.83	118.99	110.92	4.74	62.89	935.85	67.62	940.55	0.128	0.106
6.80	812.4	11275.96	8092.25	118.38	110.02	4.87	65.21	912.79	70.08	917.63	0.134	0.111
7.00	873.6	11681.14	8452.77	117.76	109.10	5.01	67.56	905.25	72.56	910.23	0.140	0.119
7.20	937.5	12079.32	8807.56	117.14	108.29	5.14	69.92	895.46	75.06	900.57	0.146	0.126
7.40	1004	12480.54	9163.08	116.52	107.38	5.28	71.70	889.80	76.97	895.04	0.151	0.134
7.60	1073	12838.83	9458.54	115.90	106.62	5.41	71.76	880.72	77.16	886.10	0.156	0.142
7.80	1144	13170.14	9727.92	115.30	105.84	5.54	71.15	870.47	76.69	875.98	0.161	0.149
8.00	1217	13492.05	9985.76	114.71	105.04	5.68	70.19	861.18	75.86	866.83	0.165	0.157
8.20	1292	13789.25	10215.32	114.13	104.38	5.81	69.02	848.58	74.82	854.36	0.169	0.164
8.40	1368	14093.09	10452.10	113.57	103.88	5.94	67.76	843.97	73.70	849.88	0.173	0.173
8.60	1447	14359.63	10651.60	113.03	103.38	6.07	66.39	830.47	72.46	836.51	0.176	0.180
8.80	1526	14620.85	10842.63	112.51	102.85	6.20	64.97	817.75	71.16	823.92	0.179	0.187
9.00	1607	14864.14	11015.29	112.01	102.47	6.32	63.60	802.94	69.92	809.24	0.182	0.194
9.20	1689	15102.07	11176.83	111.54	102.08	6.45	62.17	788.65	68.62	795.07	0.185	0.200
9.40	1773	15317.92	11317.10	111.09	101.83	6.58	60.73	772.50	67.30	779.05	0.187	0.206
9.60	1857	15484.84	11445.48	110.67	101.67	6.70	59.26	756.21	65.96	762.89	0.189	0.211
9.80	1942	15650.75	11534.33	110.28	101.77	6.82	57.58	734.83	64.40	741.63	0.191	0.214
10.00	2028	15786.68	11603.68	109.93	101.98	6.95	55.78	712.09	62.73	719.02	0.192	0.217
10.20	2114	15929.32	11671.00	109.61	102.21	7.07	54.13	690.68	61.20	697.73	0.193	0.219
10.40	2201	16072.89	11739.39	109.32	102.50	7.19	52.60	671.60	59.79	678.76	0.194	0.222
10.60	2288	16209.68	11798.50	109.06	102.70	7.31	51.14	652.02	58.45	659.31	0.195	0.224
10.80	2375	16346.11	11856.61	108.83	102.89	7.43	49.78	633.61	57.20	641.02	0.196	0.226
11.00	2463	16482.74	11914.46	108.62	103.08	7.55	48.51	616.31	56.05	623.84	0.197	0.228
11.20	2552	16624.80	11978.09	108.44	103.33	7.66	47.32	601.74	54.98	609.39	0.198	0.231
11.40	2641	16757.80	12031.77	108.27	103.49	7.78	46.18	586.20	53.96	593.96	0.199	0.233
11.60	2730	16890.05	12086.08	108.11	103.65	7.90	45.11	571.81	53.00	579.69	0.200	0.235
11.80	2820	17023.06	12141.23	107.98	103.83	8.01	44.11	558.46	52.12	566.46	0.201	0.237
12.00	2910	17153.39	12198.91	107.85	104.03	8.13	43.16	546.53	51.29	554.64	0.202	0.239
12.20	3000	17281.56	12249.49	107.74	104.16	8.24	42.25	533.98	50.49	542.21	0.203	0.241
12.40	3091	17409.56	12299.66	107.64	104.29	8.36	41.39	522.07	49.75	530.41	0.203	0.243
12.60	3183	17537.69	12349.83	107.54	104.41	8.47	40.58	510.79	49.05	519.24	0.204	0.245
12.80	3274	17667.98	12398.90	107.46	104.55	8.59	39.81	499.93	48.40	508.50	0.205	0.246
13.00	3366	17796.36	12446.72	107.38	104.66	8.70	39.08	489.52	47.77	498.21	0.206	0.248
13.20	3459	17924.98	12493.84	107.31	104.76	8.81	38.37	479.55	47.19	488.35	0.207	0.250
13.40	3551	18054.34	12540.98	107.24	104.86	8.93	37.71	470.06	46.63	478.97	0.207	0.251
13.60	3644	18184.50	12588.18	107.18	104.97	9.04	37.08	461.01	46.11	470.03	0.208	0.253
13.80	3738	18314.90	12633.87	107.13	105.05	9.15	36.47	452.21	45.62	461.35	0.209	0.255
14.00	3832	18445.82	12678.84	107.08	105.14	9.26	35.89	443.74	45.15	452.99	0.210	0.256

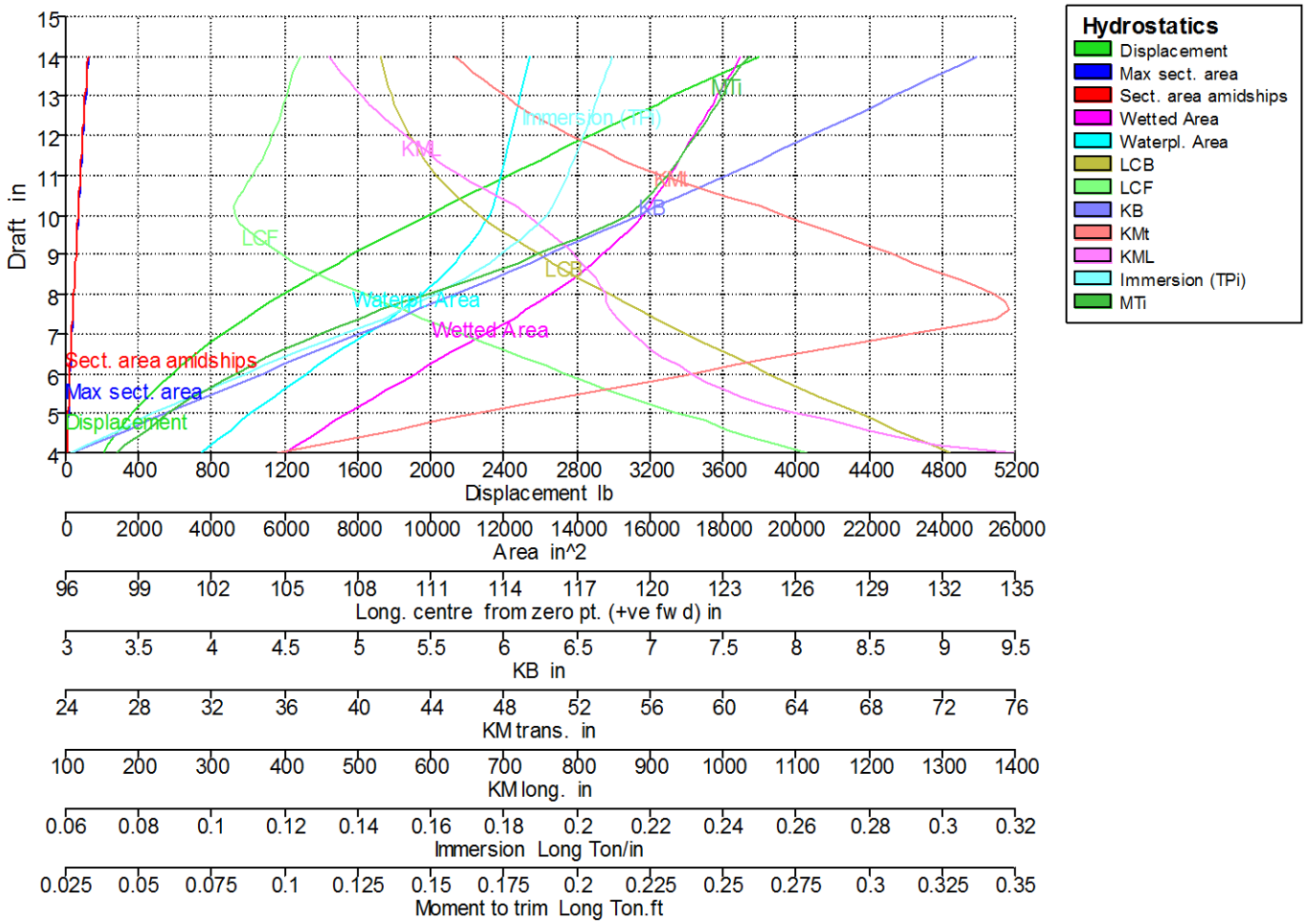

Hydrostatics
Displacement
Max sect. area
Sect. area amidships
Wetted Area
Waterpl. Area
LCB
LCF
KB
KMt
KML
Immersion (TPi)
MTi
Draft in
Displacement lb
Area in^2
Long. centre from zero pt. (+ve fw d) in
KB in
KM trans. in
KM long. in
Immersion Long Ton/in
Moment to trim Long Ton.ft

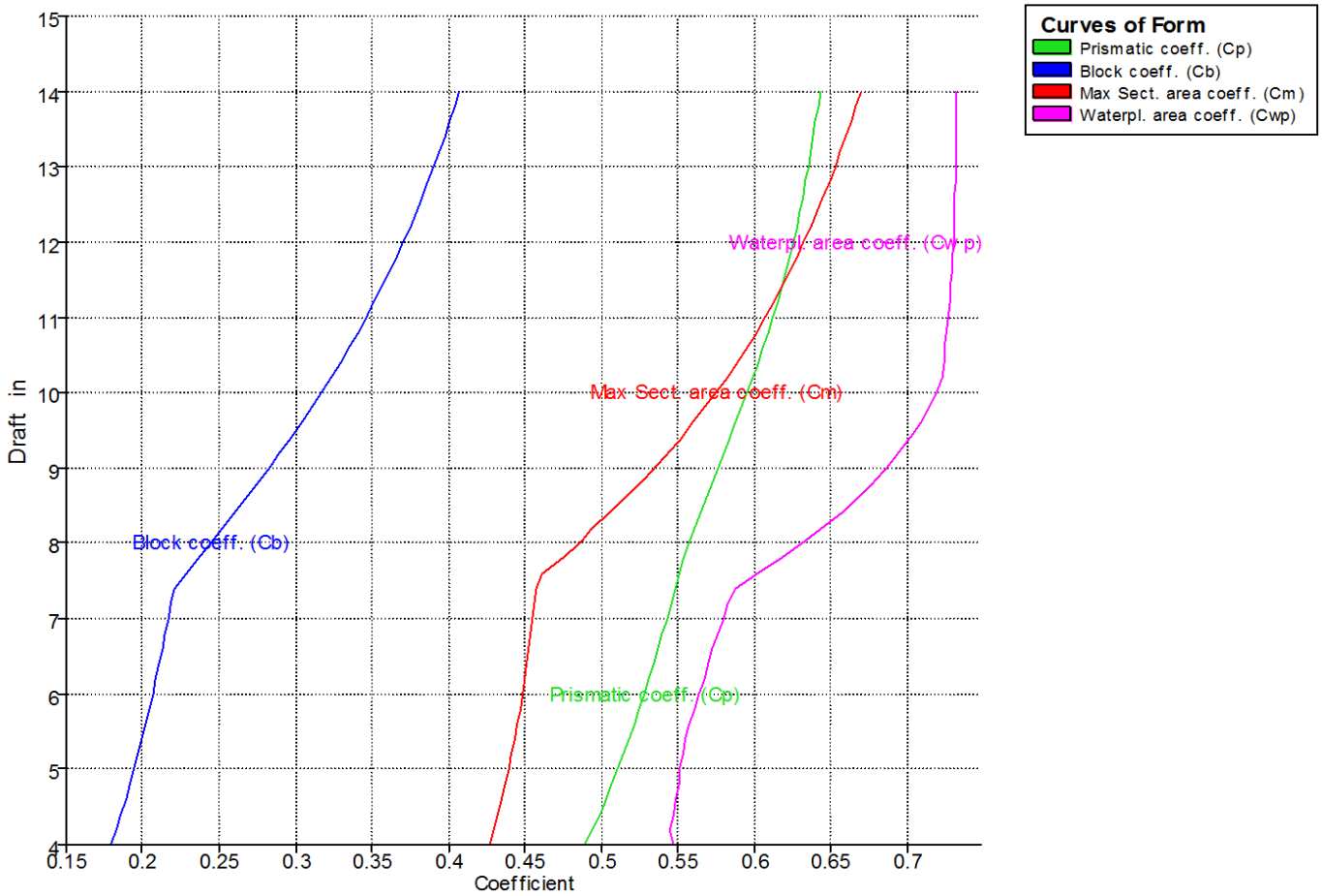

Curves of Form
Prismatic coeff. (Cp)
Block coeff. (Cb)
Max Sect. area coeff. (Cm)
Waterpl. area coeff. (Cwp)
Draft in
Coefficient

Hydrostatics
Damage Case - Intact

Fixed Trim = -3 in (+ve by stern)
Specific gravity = 1.025; (Density = 0.03703 lb/in^3)

Draft Amidships in	Displacement lb	Wetted Area in^2	Waterpl. Area in^2	LCB from zero pt. (+ve fwd) in	LCF from zero pt. (+ve fwd) in	KB in	BMt in	BML in	KMt in	KML in	Immersion (TPi) Long Ton/in	MTi Long Ton.ft
4.00	204.8	5990.60	3737.96	132.35	126.46	3.04	32.62	1394.64	35.66	1397.57	0.062	0.043
4.20	233.2	6336.88	3977.12	131.62	125.35	3.17	34.65	1289.00	37.82	1292.08	0.066	0.045
4.40	263.7	6680.90	4261.37	130.84	124.18	3.31	36.70	1238.69	40.00	1241.90	0.070	0.049
4.60	296.3	7019.29	4538.85	130.06	123.14	3.44	38.76	1191.96	42.19	1195.30	0.075	0.053
4.80	330.9	7379.86	4823.70	129.28	122.32	3.57	40.86	1145.63	44.43	1149.12	0.080	0.057
5.00	367.7	7737.67	5095.01	128.53	121.05	3.70	42.97	1091.85	46.67	1095.47	0.084	0.060
5.20	406.4	8108.98	5387.92	127.77	120.08	3.83	45.12	1053.96	48.94	1057.71	0.089	0.064
5.40	447.4	8454.29	5677.17	127.03	119.18	3.96	47.28	1021.02	51.23	1024.90	0.094	0.068
5.60	490.6	8812.50	5979.19	126.30	118.23	4.09	49.46	997.67	53.55	1001.69	0.099	0.073
5.80	536.0	9189.26	6287.81	125.58	117.39	4.22	51.66	973.02	55.87	977.17	0.104	0.078
6.00	583.7	9549.88	6597.99	124.88	116.55	4.35	53.87	953.76	58.21	958.04	0.109	0.083
6.20	633.7	9937.22	6917.99	124.19	115.70	4.48	56.09	934.89	60.57	939.30	0.114	0.089
6.40	686.1	10313.26	7226.97	123.51	114.72	4.61	58.34	911.22	62.94	915.77	0.119	0.094
6.60	740.8	10695.14	7548.56	122.83	113.98	4.74	60.60	895.41	65.34	900.09	0.125	0.099
6.80	798.0	11081.20	7889.15	122.16	113.10	4.88	62.87	885.63	67.74	890.44	0.130	0.106
7.00	857.6	11470.61	8222.54	121.50	112.35	5.01	65.16	873.09	70.16	878.04	0.136	0.112
7.20	919.7	11861.51	8560.32	120.85	111.56	5.14	67.47	861.10	72.60	866.18	0.142	0.119
7.40	984.5	12272.61	8911.85	120.21	110.65	5.27	69.73	851.90	74.99	857.11	0.147	0.126
7.60	1052	12624.50	9207.31	119.57	109.86	5.40	70.28	841.07	75.68	846.41	0.152	0.133
7.80	1121	12965.16	9489.98	118.95	108.94	5.53	69.91	835.71	75.44	841.19	0.157	0.140
8.00	1192	13293.87	9759.07	118.33	108.33	5.67	69.17	834.72	74.83	840.32	0.161	0.149
8.20	1265	13597.71	9997.45	117.73	107.56	5.80	68.09	826.56	73.88	832.30	0.165	0.157
8.40	1340	13900.07	10236.64	117.14	106.76	5.92	66.95	820.19	72.87	826.05	0.169	0.165
8.60	1417	14174.75	10444.78	116.56	106.09	6.05	65.59	810.06	71.64	816.06	0.173	0.172
8.80	1495	14452.36	10653.32	116.00	105.42	6.18	64.29	801.40	70.47	807.52	0.176	0.180
9.00	1575	14709.24	10841.47	115.45	104.87	6.31	63.00	790.21	69.30	796.45	0.179	0.187
9.20	1655	14952.53	11013.28	114.92	104.37	6.43	61.65	778.10	68.08	784.48	0.182	0.193
9.40	1738	15193.98	11182.19	114.40	103.89	6.56	60.34	766.85	66.89	773.35	0.185	0.200
9.60	1821	15418.43	11330.83	113.91	103.53	6.68	59.04	753.48	65.72	760.10	0.187	0.206
9.80	1906	15635.90	11470.09	113.44	103.17	6.80	57.72	740.36	64.52	747.11	0.190	0.212
10.00	1991	15801.00	11591.64	113.01	103.02	6.92	56.40	726.38	63.32	733.25	0.192	0.217
10.20	2077	15984.32	11694.91	112.59	102.93	7.05	55.01	709.89	62.06	716.88	0.193	0.221
10.40	2164	16134.12	11760.17	112.20	103.06	7.17	53.40	688.74	60.56	695.85	0.194	0.224
10.60	2251	16266.21	11823.84	111.85	103.32	7.29	51.87	669.76	59.16	677.00	0.195	0.227
10.80	2339	16404.38	11883.74	111.54	103.48	7.41	50.46	650.53	57.86	657.89	0.196	0.229
11.00	2427	16540.70	11942.43	111.25	103.68	7.52	49.14	632.73	56.66	640.20	0.197	0.231
11.20	2516	16673.26	11996.97	110.98	103.85	7.64	47.88	615.69	55.52	623.28	0.198	0.233
11.40	2605	16804.89	12055.13	110.74	104.06	7.76	46.70	600.78	54.46	608.49	0.199	0.235
11.60	2694	16935.56	12109.13	110.52	104.22	7.87	45.60	585.57	53.47	593.40	0.200	0.237
11.80	2784	17065.70	12162.19	110.32	104.37	7.99	44.56	571.16	52.55	579.10	0.201	0.239
12.00	2875	17193.97	12212.34	110.14	104.50	8.11	43.57	557.29	51.67	565.36	0.202	0.241
12.20	2965	17322.39	12262.54	109.97	104.63	8.22	42.64	544.21	50.85	552.39	0.203	0.243
12.40	3056	17451.67	12312.75	109.81	104.76	8.34	41.75	531.85	50.09	540.14	0.204	0.245
12.60	3148	17581.18	12362.16	109.67	104.87	8.45	40.92	520.05	49.37	528.46	0.204	0.246
12.80	3239	17710.00	12409.44	109.54	104.98	8.56	40.12	508.65	48.68	517.18	0.205	0.248
13.00	3331	17839.48	12456.76	109.41	105.08	8.68	39.37	497.84	48.04	506.48	0.206	0.250
13.20	3424	17971.53	12502.53	109.30	105.19	8.79	38.65	487.37	47.43	496.12	0.207	0.251
13.40	3517	18102.94	12548.94	109.19	105.29	8.90	37.96	477.49	46.87	486.35	0.207	0.253
13.60	3610	18234.43	12593.89	109.09	105.37	9.02	37.31	467.92	46.33	476.90	0.208	0.254
13.80	3703	18346.51	12642.84	109.00	105.50	9.13	36.69	459.66	45.82	468.76	0.209	0.256
14.00	3797	18479.90	12694.72	108.92	105.66	9.24	36.10	452.34	45.34	461.55	0.210	0.259

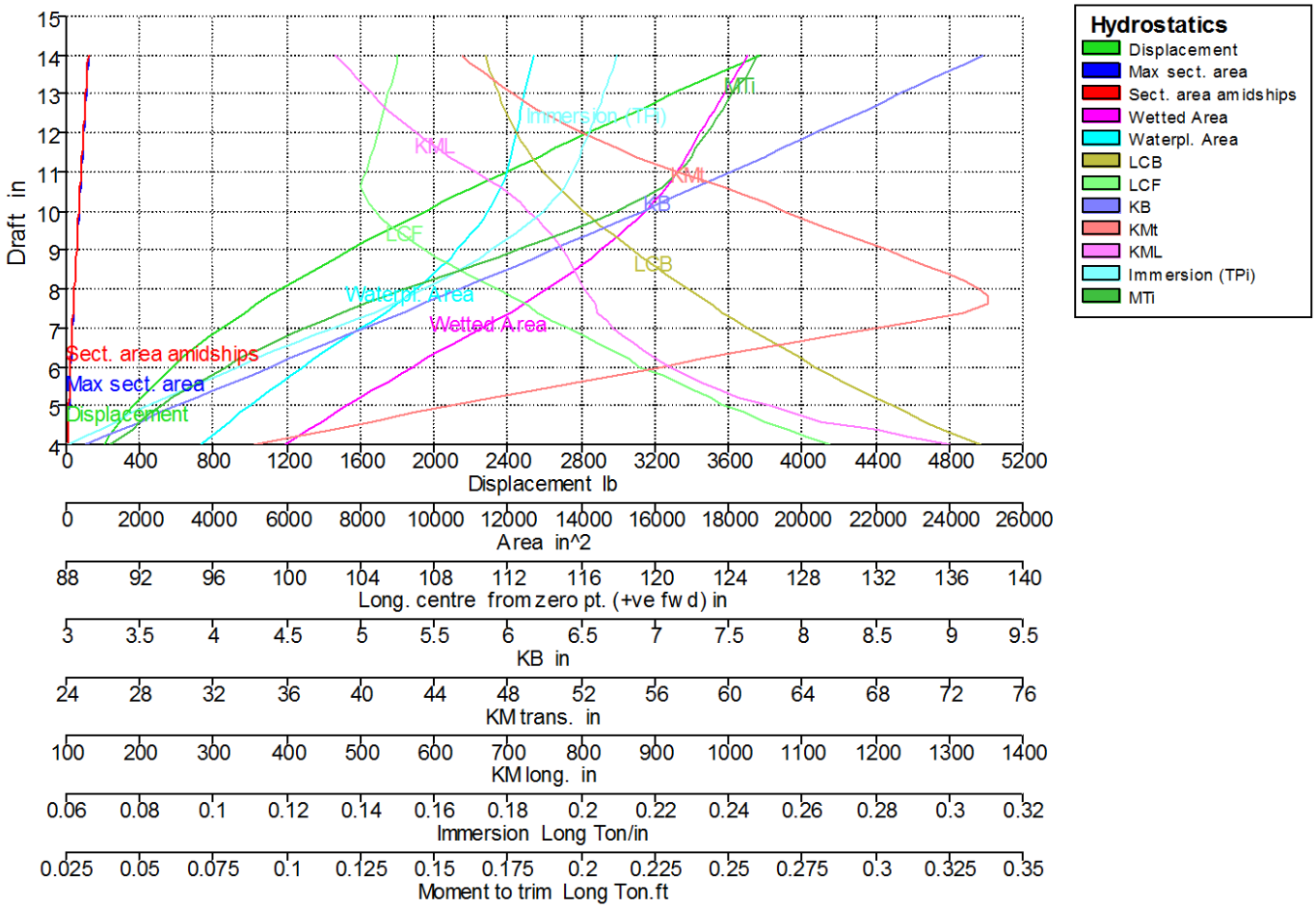

Hydrostatics
Displacement
Max sect. area
Sect. area amidships
Wetted Area
Waterpl. Area
LCB
LCF
KB
KMt
KML
Immersion (TPi)
MTi
Draft in
Displacement lb
Area in^2
Long. centre from zero pt. (+ve fw d) in
KB in
KM trans. in
KM long. in
Immersion Long Ton/in
Moment to trim Long Ton.ft

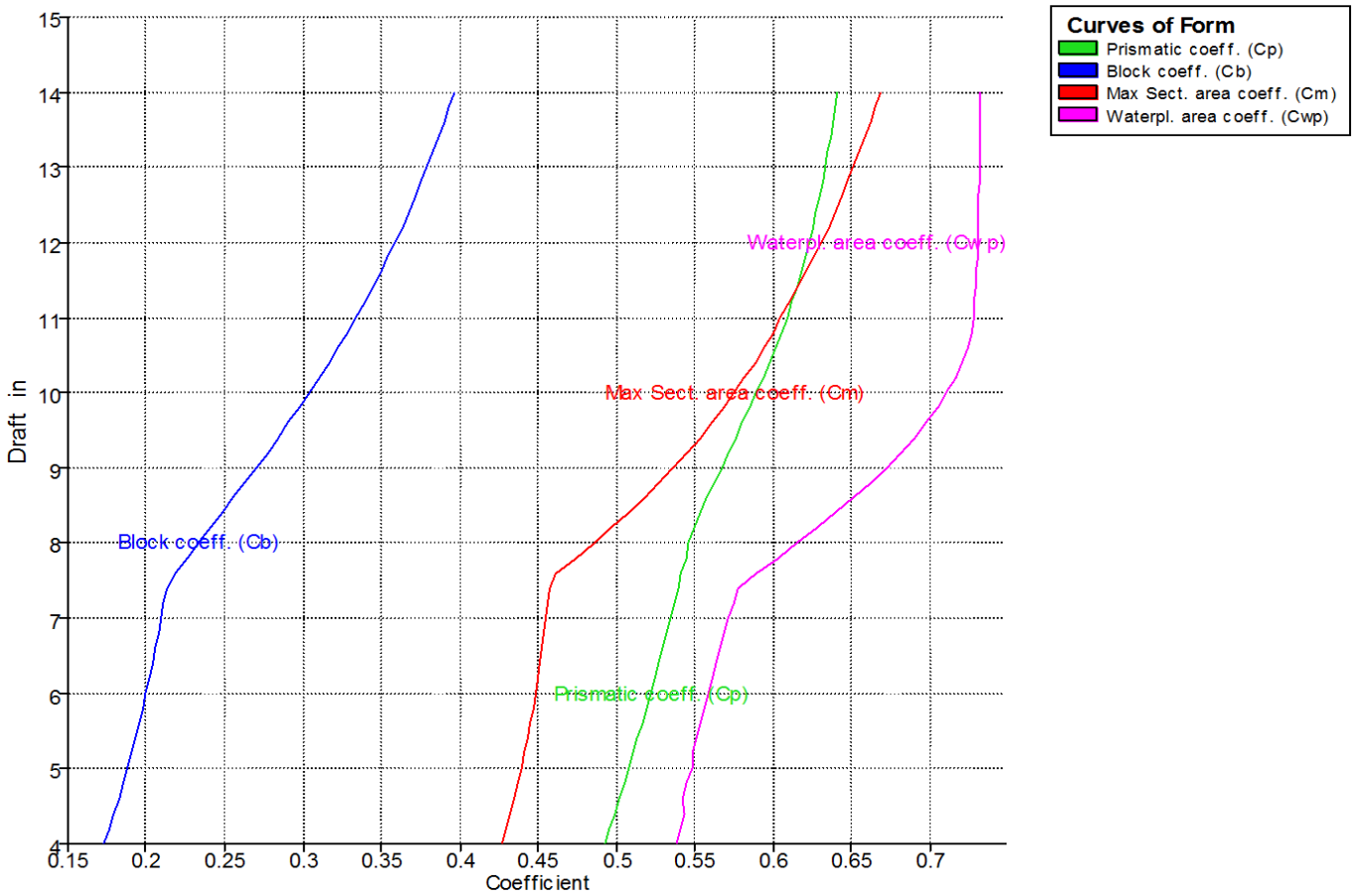

Curves of Form
Prismatic coeff. (Cp)
Block coeff. (Cb)
Max Sect. area coeff. (Cm)
Waterpl. area coeff. (Cwp)
Draft in
Coefficient

Hydrostatics
Damage Case - Intact

Fixed Trim = -4 in (+ve by stern)
Specific gravity = 1.025; (Density = 0.03703 lb/in^3)

Draft Amidships in	Displacement lb	Wetted Area in^2	Waterpl. Area in^2	LCB from zero pt. (+ve fwd) in	LCF from zero pt. (+ve fwd) in	KB in	BMt in	BML in	KMt in	KML in	Immersion (TPi) Long Ton/in	MTi Long Ton.ft
4.00	207.2	5945.52	3648.96	137.70	129.58	3.13	31.16	1298.28	34.29	1301.24	0.060	0.040
4.20	235.3	6281.85	3920.25	136.66	128.30	3.25	33.13	1242.98	36.38	1246.07	0.065	0.044
4.40	265.2	6610.01	4187.17	135.61	127.25	3.38	35.13	1197.68	38.50	1200.90	0.069	0.048
4.60	297.1	6970.71	4441.17	134.71	125.98	3.51	37.16	1123.01	40.66	1126.37	0.073	0.050
4.80	331.0	7301.19	4710.22	133.77	124.94	3.63	39.22	1081.60	42.84	1085.09	0.078	0.054
5.00	366.9	7654.22	5000.54	132.85	123.72	3.76	41.29	1051.41	45.05	1055.03	0.083	0.058
5.20	404.9	7997.37	5267.87	131.97	123.06	3.88	43.39	1009.46	47.27	1013.22	0.087	0.061
5.40	445.0	8341.47	5556.29	131.12	122.13	4.01	45.51	985.81	49.51	989.69	0.092	0.066
5.60	487.2	8710.35	5852.57	130.30	121.25	4.14	47.64	960.11	51.77	964.12	0.097	0.070
5.80	531.7	9054.01	6145.27	129.51	120.44	4.26	49.78	937.71	54.04	941.85	0.102	0.075
6.00	578.3	9435.83	6453.29	128.73	119.21	4.39	51.95	917.85	56.34	922.12	0.107	0.080
6.20	627.1	9797.27	6749.42	127.96	118.56	4.52	54.13	895.61	58.64	900.01	0.112	0.084
6.40	678.2	10156.09	7059.64	127.22	117.76	4.65	56.33	881.30	60.97	885.83	0.117	0.090
6.60	731.7	10548.71	7380.84	126.49	116.93	4.77	58.54	867.59	63.31	872.25	0.122	0.095
6.80	787.5	10913.39	7694.68	125.79	116.14	4.90	60.76	851.80	65.66	856.60	0.127	0.101
7.00	845.7	11297.77	8014.90	125.09	115.33	5.03	63.00	837.98	68.02	842.90	0.132	0.106
7.20	906.3	11686.16	8352.55	124.40	114.40	5.16	65.25	828.67	70.40	833.72	0.138	0.113
7.40	969.4	12074.56	8681.84	123.73	113.66	5.29	67.52	816.97	72.80	822.15	0.144	0.119
7.60	1035	12442.49	8999.76	123.07	113.04	5.42	68.70	814.73	74.11	820.04	0.149	0.126
7.80	1103	12783.13	9275.62	122.43	112.21	5.55	68.58	807.12	74.11	812.56	0.153	0.133
8.00	1172	13090.85	9525.52	121.80	111.45	5.68	67.97	798.67	73.64	804.24	0.157	0.140
8.20	1244	13401.23	9774.01	121.18	110.57	5.80	67.05	793.96	72.84	799.66	0.162	0.148
8.40	1317	13692.80	10004.92	120.57	109.79	5.93	66.01	787.79	71.93	793.62	0.165	0.156
8.60	1392	13976.15	10219.85	119.97	109.04	6.06	64.74	781.07	70.79	787.03	0.169	0.163
8.80	1468	14262.77	10441.65	119.38	108.22	6.18	63.54	776.74	69.72	782.81	0.173	0.171
9.00	1546	14528.09	10638.79	118.80	107.50	6.31	62.27	769.10	68.57	775.30	0.176	0.178
9.20	1626	14783.58	10823.17	118.23	106.88	6.43	60.97	760.36	67.39	766.69	0.179	0.186
9.40	1707	15043.61	11011.46	117.67	106.28	6.55	59.74	753.99	66.29	760.45	0.182	0.193
9.60	1789	15281.85	11173.85	117.14	105.73	6.67	58.50	743.37	65.17	749.95	0.185	0.200
9.80	1872	15518.15	11332.69	116.62	105.20	6.80	57.28	733.31	64.07	740.01	0.187	0.206
10.00	1957	15738.73	11473.93	116.12	104.80	6.92	56.10	721.21	63.01	728.04	0.190	0.212
10.20	2042	15958.54	11611.96	115.63	104.46	7.04	54.90	711.27	61.93	718.21	0.192	0.218
10.40	2129	16155.32	11725.93	115.17	104.19	7.16	53.71	697.52	60.87	704.59	0.194	0.223
10.60	2216	16303.25	11830.11	114.74	104.02	7.28	52.50	683.78	59.77	690.97	0.196	0.228
10.80	2304	16457.22	11901.68	114.34	104.11	7.40	51.14	666.09	58.53	673.40	0.197	0.231
11.00	2392	16584.01	11963.59	113.96	104.28	7.51	49.75	648.68	57.25	656.11	0.198	0.233
11.20	2481	16717.48	12019.75	113.62	104.42	7.63	48.45	630.95	56.07	638.49	0.199	0.235
11.40	2570	16848.48	12073.72	113.30	104.58	7.75	47.23	614.00	54.97	621.66	0.200	0.237
11.60	2660	16977.98	12125.32	113.01	104.72	7.86	46.08	597.85	53.94	605.64	0.200	0.239
11.80	2750	17106.83	12175.45	112.74	104.85	7.98	45.00	582.53	52.97	590.44	0.201	0.241
12.00	2840	17236.75	12225.64	112.49	104.98	8.09	43.98	568.12	52.07	576.14	0.202	0.243
12.20	2931	17367.40	12275.85	112.26	105.10	8.21	43.02	554.53	51.22	562.67	0.203	0.244
12.40	3022	17497.17	12323.66	112.05	105.21	8.32	42.11	541.44	50.43	549.69	0.204	0.246
12.60	3113	17627.34	12370.95	111.85	105.31	8.44	41.24	529.00	49.68	537.36	0.205	0.248
12.80	3205	17758.69	12418.29	111.67	105.41	8.55	40.43	517.22	48.97	525.70	0.205	0.249
13.00	3297	17890.95	12465.61	111.49	105.51	8.66	39.66	506.04	48.32	514.64	0.206	0.251
13.20	3390	18005.09	12515.07	111.33	105.64	8.78	38.92	496.21	47.69	504.93	0.207	0.253
13.40	3483	18138.88	12567.24	111.18	105.80	8.89	38.22	487.42	47.10	496.25	0.208	0.256
13.60	3576	18263.09	12611.28	111.04	105.87	9.00	37.55	477.25	46.55	486.19	0.208	0.257
13.80	3669	18388.77	12652.20	110.91	105.95	9.12	36.91	467.17	46.02	476.22	0.209	0.258
14.00	3763	18512.64	12694.10	110.79	106.00	9.23	36.30	457.66	45.53	466.83	0.210	0.260

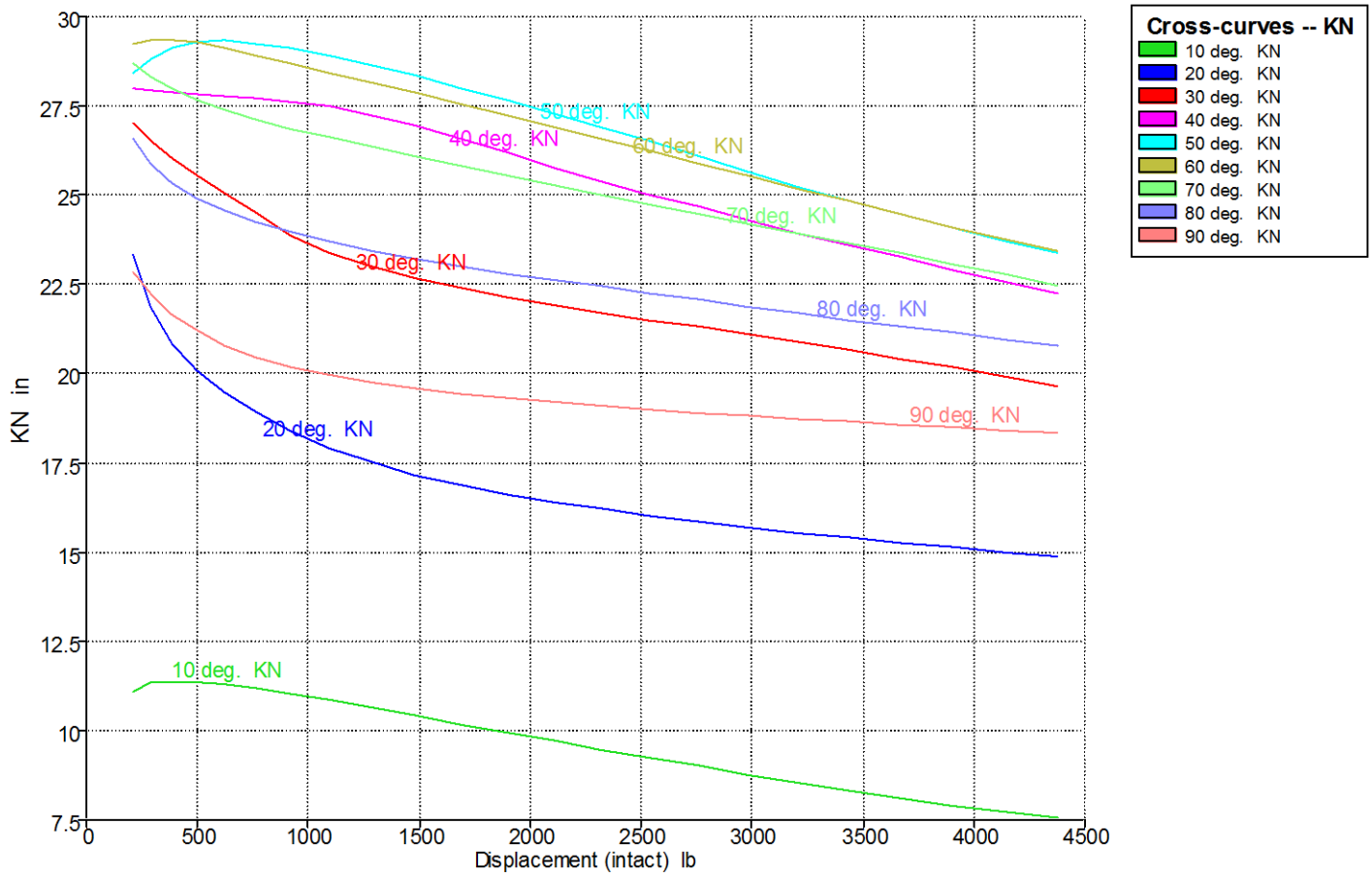

Hydrostatics
Displacement
Max sect. area
Sect. area amidships
Wetted Area
Waterpl. Area
LCB
LCF
KB
KMt
KML
Immersion (TPi)
MTi
Draft in
Sect. area amidships
Max sect. area
Displacement
Immersion (TPi)
KML
KMt
KB
LCF
LCB
Waterpl. Area
Wetted Area
Displacement lb
Area in^2
Long. centre from zero pt. (+ve fwd) in
KB in
KM trans. in
KM long. in
Immersion Long Ton/in
Moment to trim Long Ton.ft


Curves of Form
Prismatic coeff. (Cp)
Block coeff. (Cb)
Max Sect. area coeff. (Cm)
Waterpl. area coeff. (Cwp)
Draft in
Waterpl. area coeff. (Cwp)
Max Sect. area coeff. (Cm)
Block coeff. (Cb)
Prismatic coeff. (Cp)
Coefficient

KN Calculation

KN Calculation
Damage Case - Intact

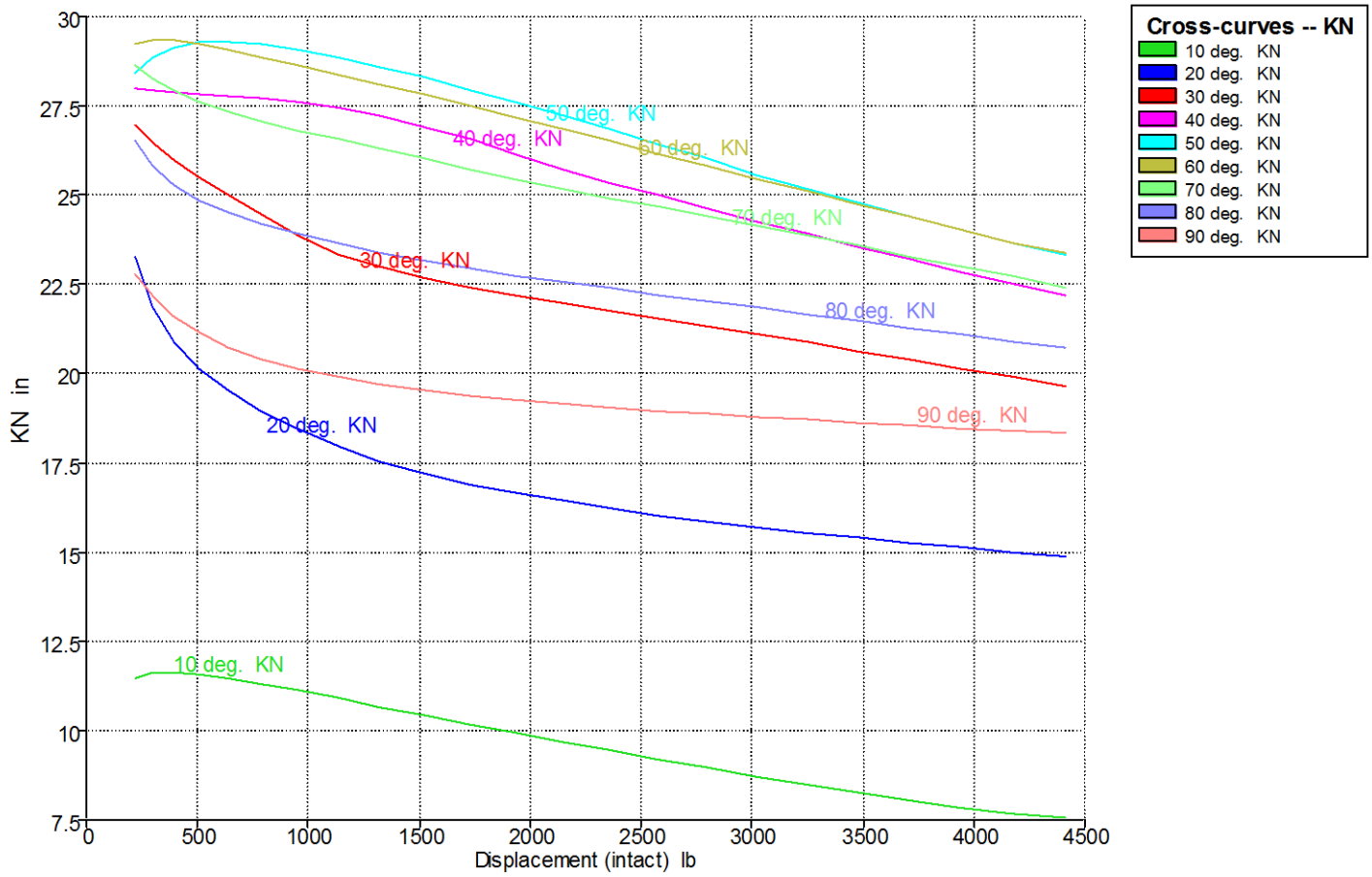
Fixed Trim = 0 in (+ve by stern)
Specific gravity = 1.025; (Density = 0.03703 lb/in^3)
VCG = 0 in; TCG = 0 in



Displacement (intact) lb	Draft Amidships in	LCG in	KN 10.0 deg. Starb.	KN 20.0 deg. Starb.	KN 30.0 deg. Starb.	KN 40.0 deg. Starb.	KN 50.0 deg. Starb.	KN 60.0 deg. Starb.	KN 70.0 deg. Starb.	KN 80.0 deg. Starb.	KN 90.0 deg. Starb.
208.1	4.00	117.48	11.10	23.31	27.00	28.00	28.41	29.22	28.68	26.60	22.86
288.7	4.50	117.28	11.33	21.89	26.51	27.95	28.82	29.36	28.31	25.88	22.25
384.0	5.00	116.70	11.36	20.86	26.02	27.89	29.14	29.36	27.99	25.34	21.67
494.0	5.50	115.82	11.34	20.09	25.54	27.83	29.30	29.27	27.69	24.91	21.20
619.5	6.00	114.74	11.27	19.47	25.04	27.77	29.33	29.11	27.41	24.56	20.81
761.1	6.50	113.50	11.17	18.93	24.53	27.72	29.26	28.91	27.14	24.27	20.48
919.7	7.00	112.17	11.02	18.39	23.90	27.64	29.12	28.68	26.87	23.99	20.20
1095	7.50	110.84	10.84	17.92	23.37	27.48	28.91	28.44	26.62	23.72	19.95
1282	8.00	109.60	10.64	17.52	22.99	27.25	28.65	28.17	26.35	23.46	19.74
1479	8.50	108.52	10.41	17.18	22.68	26.95	28.35	27.89	26.08	23.23	19.57
1683	9.00	107.64	10.18	16.89	22.40	26.60	28.02	27.58	25.81	23.02	19.43
1892	9.50	107.02	9.95	16.63	22.14	26.18	27.67	27.26	25.54	22.82	19.31
2104	10.00	106.60	9.71	16.41	21.91	25.75	27.30	26.92	25.26	22.62	19.20
2319	10.50	106.32	9.47	16.21	21.71	25.38	26.91	26.58	24.99	22.44	19.09
2538	11.00	106.13	9.23	16.02	21.50	25.03	26.51	26.24	24.72	22.26	19.00
2759	11.50	106.02	8.99	15.85	21.30	24.67	26.09	25.89	24.46	22.07	18.90
2982	12.00	105.95	8.76	15.69	21.09	24.30	25.64	25.53	24.19	21.89	18.81
3209	12.50	105.93	8.52	15.54	20.87	23.94	25.22	25.18	23.92	21.70	18.73
3438	13.00	105.94	8.29	15.40	20.65	23.59	24.85	24.82	23.64	21.51	18.64
3669	13.50	105.97	8.07	15.26	20.42	23.25	24.48	24.46	23.36	21.32	18.56
3902	14.00	106.01	7.88	15.13	20.18	22.91	24.10	24.08	23.07	21.14	18.49
4138	14.50	106.06	7.71	15.00	19.93	22.58	23.74	23.74	22.78	20.95	18.41
4376	15.00	106.12	7.56	14.87	19.67	22.24	23.38	23.42	22.49	20.77	18.35

KN Calculation
Damage Case - Intact

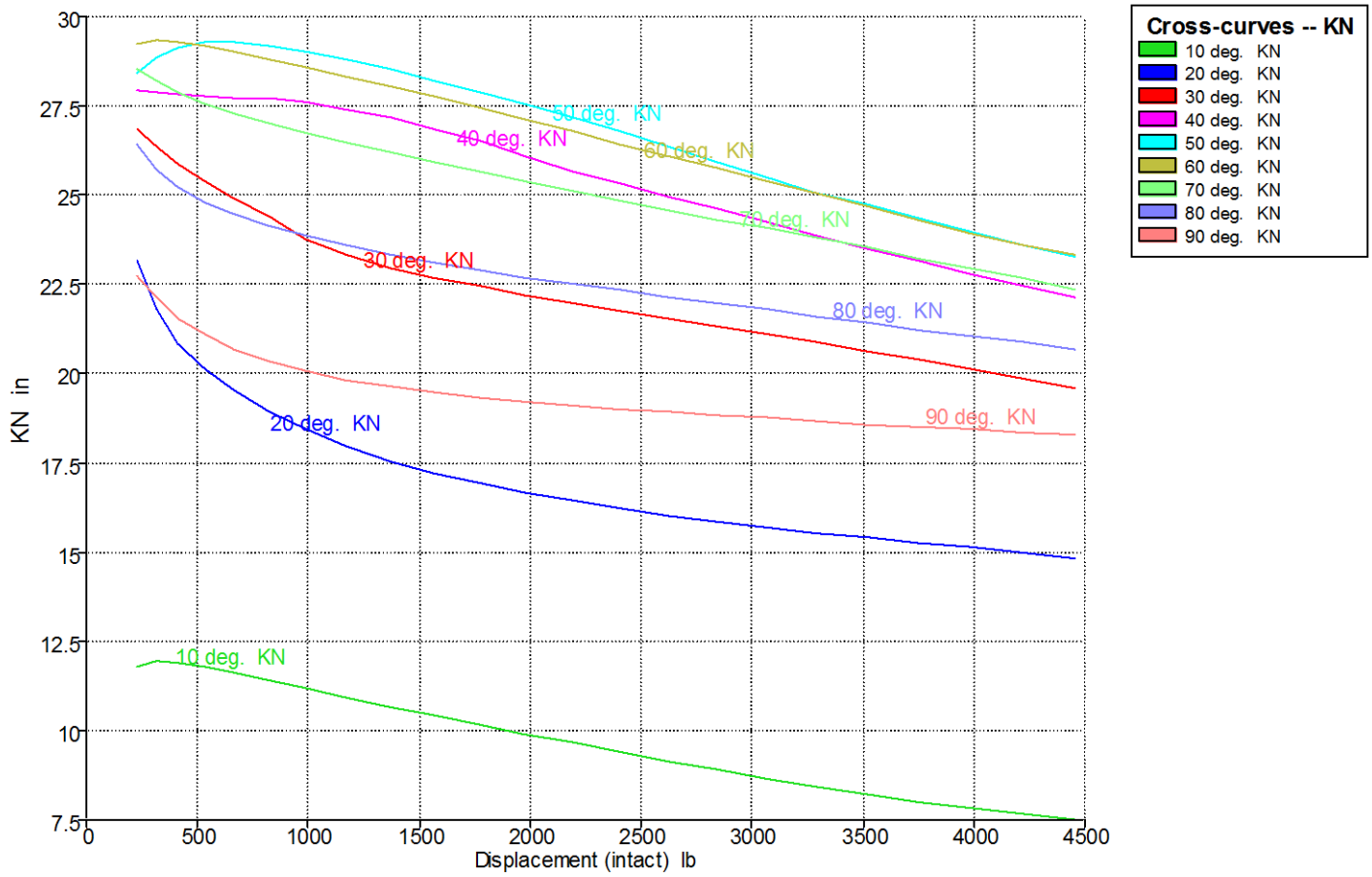
Fixed Trim = 1 in (+ve by stern)
Specific gravity = 1.025; (Density = 0.03703 lb/in^3)
VCG = 0 in; TCG = 0 in



Displacement (intact) lb	Draft Amidships in	LCG in	KN 10.0 deg. Starb.	KN 20.0 deg. Starb.	KN 30.0 deg. Starb.	KN 40.0 deg. Starb.	KN 50.0 deg. Starb.	KN 60.0 deg. Starb.	KN 70.0 deg. Starb.	KN 80.0 deg. Starb.	KN 90.0 deg. Starb.
215.4	4.00	111.85	11.45	23.30	26.95	27.98	28.43	29.22	28.62	26.52	22.81
298.6	4.50	112.06	11.64	21.88	26.46	27.92	28.84	29.35	28.26	25.82	22.19
397.0	5.00	111.78	11.64	20.88	25.98	27.86	29.14	29.33	27.94	25.28	21.62
511.1	5.50	111.19	11.58	20.13	25.49	27.81	29.29	29.23	27.64	24.86	21.15
641.3	6.00	110.28	11.47	19.51	25.00	27.76	29.31	29.06	27.36	24.52	20.76
788.6	6.50	109.20	11.31	18.97	24.48	27.71	29.23	28.86	27.08	24.22	20.43
952.9	7.00	108.02	11.12	18.43	23.85	27.62	29.08	28.63	26.82	23.92	20.14
1133	7.50	106.88	10.90	17.95	23.34	27.45	28.86	28.39	26.56	23.65	19.89
1324	8.00	105.87	10.66	17.54	22.98	27.21	28.60	28.12	26.29	23.40	19.68
1523	8.50	105.04	10.42	17.20	22.70	26.91	28.29	27.83	26.02	23.17	19.52
1727	9.00	104.48	10.17	16.91	22.43	26.56	27.96	27.51	25.74	22.96	19.38
1935	9.50	104.15	9.93	16.65	22.18	26.14	27.61	27.19	25.47	22.76	19.26
2146	10.00	103.95	9.68	16.42	21.95	25.71	27.24	26.85	25.20	22.57	19.16
2361	10.50	103.85	9.44	16.22	21.74	25.35	26.85	26.51	24.93	22.39	19.06
2579	11.00	103.83	9.19	16.03	21.53	25.01	26.45	26.17	24.66	22.20	18.96
2799	11.50	103.85	8.95	15.86	21.31	24.65	26.03	25.82	24.40	22.02	18.87
3023	12.00	103.91	8.71	15.69	21.10	24.28	25.58	25.46	24.13	21.84	18.78
3249	12.50	103.99	8.48	15.54	20.87	23.91	25.16	25.11	23.86	21.66	18.70
3477	13.00	104.09	8.24	15.40	20.64	23.56	24.79	24.76	23.58	21.47	18.61
3708	13.50	104.20	8.03	15.26	20.40	23.21	24.42	24.39	23.30	21.28	18.53
3942	14.00	104.32	7.84	15.13	20.16	22.86	24.04	24.01	23.02	21.10	18.46
4177	14.50	104.44	7.68	15.00	19.90	22.52	23.68	23.68	22.73	20.91	18.39
4415	15.00	104.56	7.53	14.86	19.64	22.19	23.32	23.36	22.44	20.73	18.32

KN Calculation
Damage Case - Intact

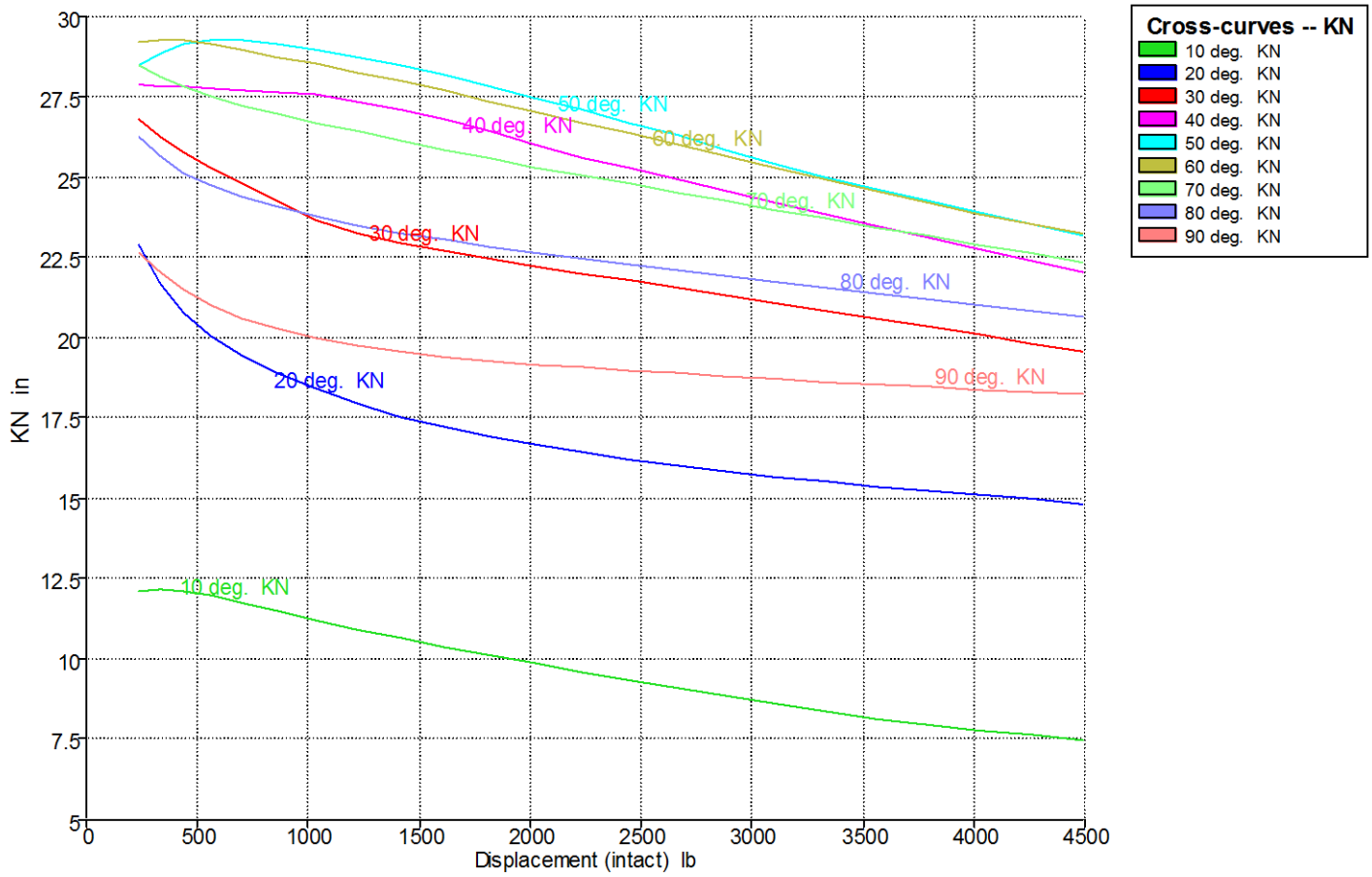
Fixed Trim = 2 in (+ve by stern)
Specific gravity = 1.025; (Density = 0.03703 lb/in^3)
VCG = 0 in; TCG = 0 in



Displacement (intact) lb	Draft Amidships in	LCG in	KN 10.0 deg. Starb.	KN 20.0 deg. Starb.	KN 30.0 deg. Starb.	KN 40.0 deg. Starb.	KN 50.0 deg. Starb.	KN 60.0 deg. Starb.	KN 70.0 deg. Starb.	KN 80.0 deg. Starb.	KN 90.0 deg. Starb.
225.7	4.00	106.35	11.79	23.14	26.88	27.95	28.45	29.22	28.56	26.41	22.74
311.9	4.50	106.86	11.92	21.82	26.39	27.89	28.85	29.33	28.20	25.73	22.12
413.9	5.00	106.82	11.90	20.86	25.91	27.84	29.14	29.30	27.88	25.22	21.56
532.6	5.50	106.40	11.79	20.12	25.42	27.79	29.27	29.18	27.58	24.81	21.08
668.3	6.00	105.68	11.63	19.51	24.92	27.74	29.29	29.01	27.30	24.47	20.69
821.3	6.50	104.76	11.42	18.97	24.39	27.70	29.20	28.81	27.03	24.15	20.35
991.4	7.00	103.82	11.18	18.43	23.78	27.60	29.04	28.58	26.77	23.85	20.06
1175	7.50	102.93	10.93	17.96	23.31	27.42	28.81	28.33	26.50	23.58	19.82
1369	8.00	102.20	10.67	17.55	22.97	27.17	28.54	28.05	26.22	23.33	19.62
1568	8.50	101.75	10.41	17.21	22.71	26.87	28.23	27.76	25.95	23.11	19.46
1771	9.00	101.51	10.15	16.92	22.45	26.51	27.90	27.44	25.67	22.90	19.33
1978	9.50	101.41	9.90	16.66	22.21	26.09	27.55	27.12	25.40	22.70	19.22
2189	10.00	101.42	9.65	16.43	21.99	25.67	27.17	26.78	25.13	22.51	19.11
2403	10.50	101.49	9.40	16.22	21.77	25.32	26.78	26.44	24.86	22.33	19.02
2621	11.00	101.61	9.15	16.03	21.55	24.98	26.38	26.09	24.59	22.15	18.93
2841	11.50	101.76	8.90	15.86	21.32	24.62	25.95	25.74	24.33	21.97	18.84
3064	12.00	101.93	8.66	15.69	21.10	24.25	25.50	25.39	24.06	21.79	18.75
3290	12.50	102.11	8.42	15.54	20.87	23.88	25.09	25.04	23.80	21.61	18.67
3518	13.00	102.29	8.19	15.39	20.63	23.52	24.73	24.68	23.52	21.43	18.59
3749	13.50	102.48	7.99	15.26	20.38	23.16	24.36	24.32	23.25	21.24	18.51
3982	14.00	102.67	7.81	15.12	20.13	22.81	23.98	23.95	22.97	21.06	18.43
4217	14.50	102.85	7.65	14.99	19.87	22.47	23.61	23.62	22.68	20.87	18.36
4455	15.00	103.04	7.51	14.84	19.60	22.13	23.26	23.31	22.38	20.69	18.29

KN Calculation
Damage Case - Intact

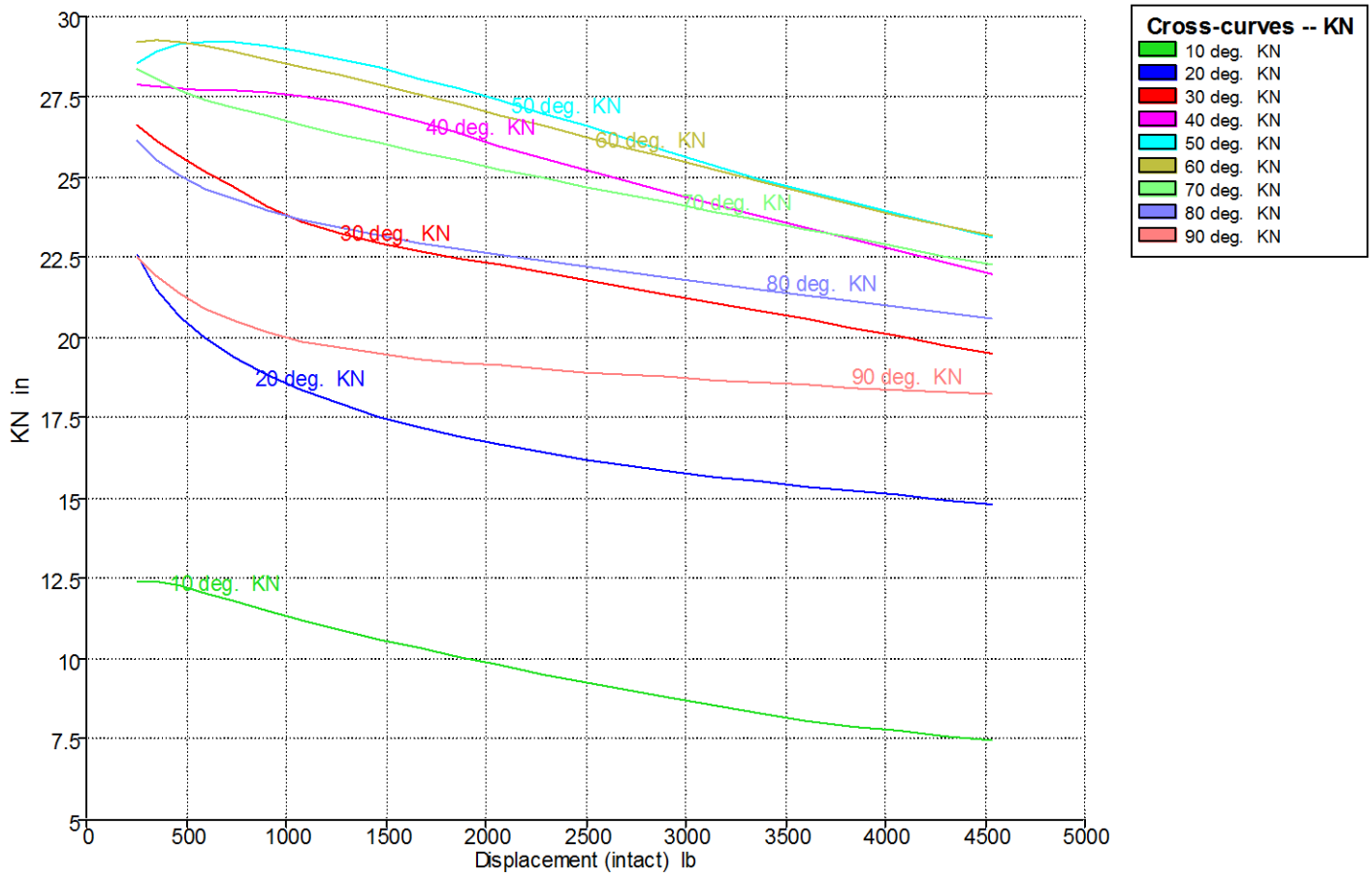
Fixed Trim = 3 in (+ve by stern)
Specific gravity = 1.025; (Density = 0.03703 lb/in^3)
VCG = 0 in; TCG = 0 in



Displacement (intact) lb	Draft Amidships in	LCG in	KN 10.0 deg. Starb.	KN 20.0 deg. Starb.	KN 30.0 deg. Starb.	KN 40.0 deg. Starb.	KN 50.0 deg. Starb.	KN 60.0 deg. Starb.	KN 70.0 deg. Starb.	KN 80.0 deg. Starb.	KN 90.0 deg. Starb.
239.4	4.00	101.11	12.10	22.89	26.78	27.91	28.49	29.23	28.48	26.28	22.65
328.9	4.50	101.71	12.19	21.70	26.29	27.85	28.88	29.30	28.13	25.64	22.04
435.4	5.00	101.81	12.13	20.78	25.81	27.81	29.14	29.26	27.82	25.14	21.48
559.2	5.50	101.50	11.96	20.08	25.32	27.76	29.26	29.13	27.51	24.74	21.01
700.7	6.00	100.97	11.74	19.48	24.82	27.72	29.26	28.96	27.23	24.40	20.61
859.4	6.50	100.32	11.48	18.94	24.26	27.68	29.16	28.76	26.97	24.07	20.27
1035	7.00	99.64	11.21	18.41	23.69	27.57	28.98	28.52	26.70	23.77	19.98
1222	7.50	99.06	10.93	17.95	23.27	27.37	28.75	28.27	26.42	23.51	19.75
1415	8.00	98.74	10.66	17.56	22.96	27.12	28.48	27.99	26.15	23.26	19.56
1614	8.50	98.65	10.39	17.22	22.71	26.81	28.17	27.69	25.87	23.05	19.41
1816	9.00	98.69	10.12	16.92	22.47	26.44	27.83	27.36	25.60	22.84	19.28
2023	9.50	98.82	9.86	16.66	22.24	26.02	27.48	27.04	25.33	22.64	19.17
2233	10.00	99.00	9.60	16.43	22.01	25.63	27.10	26.70	25.06	22.46	19.07
2446	10.50	99.23	9.35	16.22	21.79	25.28	26.71	26.36	24.79	22.28	18.98
2663	11.00	99.48	9.10	16.03	21.56	24.95	26.30	26.01	24.53	22.10	18.89
2883	11.50	99.74	8.85	15.86	21.33	24.59	25.86	25.67	24.26	21.92	18.81
3106	12.00	100.01	8.60	15.69	21.09	24.21	25.42	25.31	24.00	21.75	18.72
3331	12.50	100.28	8.36	15.54	20.85	23.84	25.03	24.96	23.73	21.57	18.64
3559	13.00	100.54	8.14	15.39	20.61	23.47	24.66	24.61	23.46	21.38	18.56
3790	13.50	100.80	7.95	15.25	20.36	23.10	24.29	24.23	23.19	21.20	18.48
4023	14.00	101.06	7.78	15.11	20.10	22.75	23.92	23.88	22.91	21.01	18.40
4258	14.50	101.30	7.62	14.97	19.83	22.40	23.54	23.56	22.62	20.84	18.33
4495	15.00	101.54	7.48	14.82	19.55	22.06	23.19	23.25	22.32	20.65	18.26

KN Calculation
Damage Case - Intact

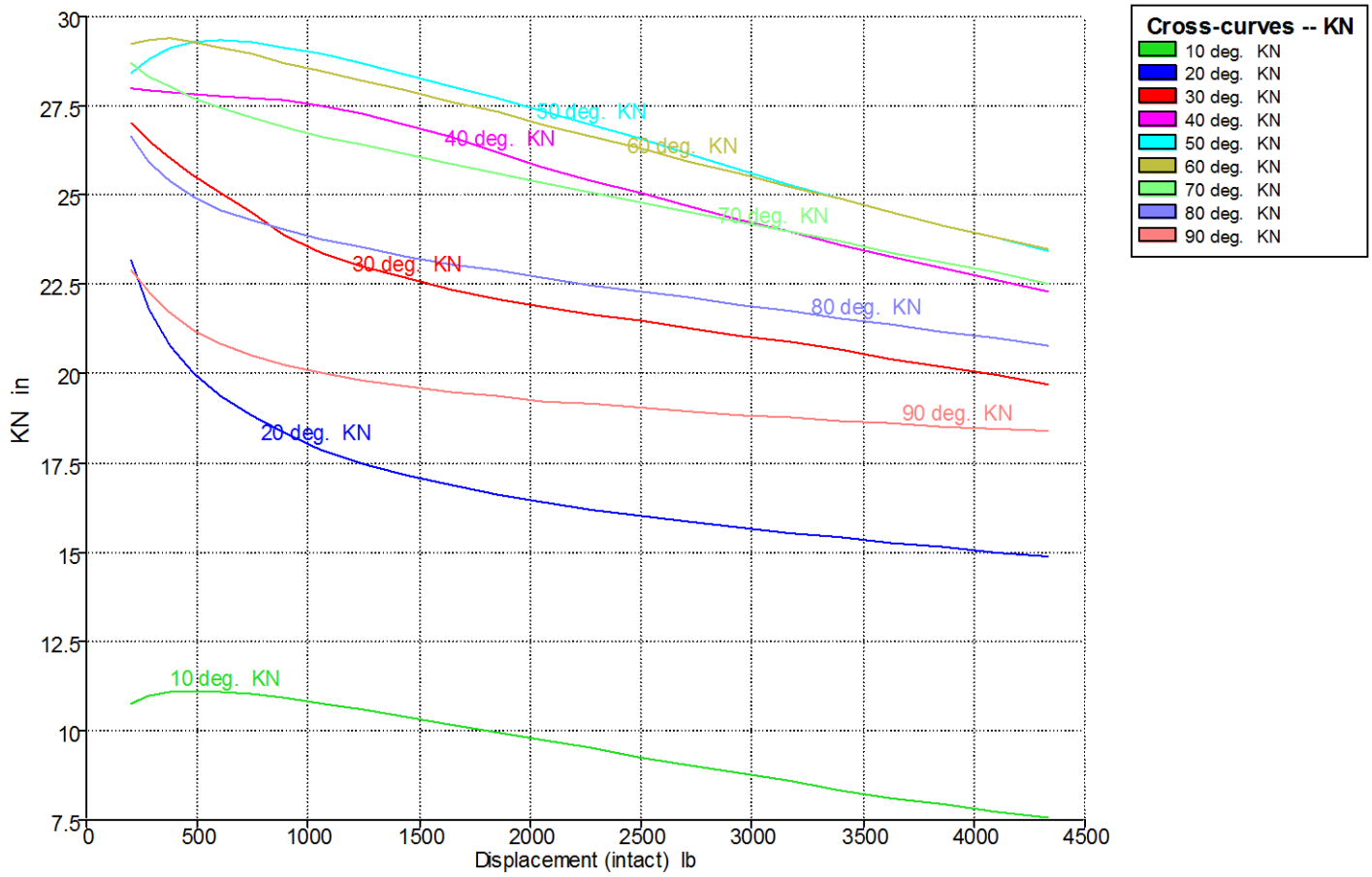
Fixed Trim = 4 in (+ve by stern)
Specific gravity = 1.025; (Density = 0.03703 lb/in^3)
VCG = 0 in; TCG = 0 in



Displacement (intact) lb	Draft Amidships in	LCG in	KN 10.0 deg. Starb.	KN 20.0 deg. Starb.	KN 30.0 deg. Starb.	KN 40.0 deg. Starb.	KN 50.0 deg. Starb.	KN 60.0 deg. Starb.	KN 70.0 deg. Starb.	KN 80.0 deg. Starb.	KN 90.0 deg. Starb.
256.6	4.00	95.95	12.39	22.59	26.65	27.86	28.53	29.23	28.40	26.14	22.55
350.8	4.50	96.69	12.42	21.51	26.17	27.81	28.91	29.27	28.05	25.53	21.93
462.1	5.00	96.78	12.30	20.66	25.69	27.77	29.15	29.21	27.74	25.06	21.38
591.5	5.50	96.62	12.07	19.99	25.20	27.74	29.25	29.07	27.44	24.67	20.91
738.5	6.00	96.31	11.81	19.41	24.68	27.70	29.23	28.90	27.17	24.31	20.52
902.9	6.50	95.94	11.52	18.88	24.10	27.65	29.11	28.70	26.90	23.98	20.18
1082	7.00	95.57	11.21	18.37	23.60	27.52	28.93	28.46	26.62	23.69	19.90
1270	7.50	95.44	10.92	17.93	23.23	27.32	28.69	28.20	26.35	23.43	19.68
1462	8.00	95.53	10.63	17.55	22.95	27.06	28.41	27.91	26.07	23.20	19.50
1660	8.50	95.74	10.35	17.21	22.71	26.74	28.10	27.61	25.80	22.98	19.36
1862	9.00	96.02	10.08	16.92	22.48	26.36	27.76	27.28	25.52	22.78	19.24
2068	9.50	96.35	9.81	16.66	22.26	25.96	27.40	26.96	25.26	22.58	19.13
2278	10.00	96.69	9.55	16.43	22.03	25.59	27.02	26.62	24.99	22.40	19.03
2491	10.50	97.06	9.29	16.22	21.80	25.25	26.62	26.28	24.72	22.22	18.95
2707	11.00	97.42	9.03	16.03	21.56	24.91	26.21	25.93	24.46	22.05	18.86
2926	11.50	97.79	8.78	15.85	21.32	24.54	25.76	25.58	24.19	21.87	18.78
3149	12.00	98.15	8.54	15.68	21.08	24.17	25.34	25.23	23.93	21.70	18.69
3374	12.50	98.50	8.31	15.53	20.84	23.79	24.96	24.88	23.66	21.52	18.61
3601	13.00	98.84	8.10	15.38	20.58	23.41	24.60	24.52	23.40	21.34	18.53
3832	13.50	99.17	7.91	15.24	20.33	23.04	24.22	24.15	23.12	21.16	18.45
4064	14.00	99.48	7.74	15.10	20.06	22.69	23.84	23.82	22.85	20.97	18.38
4299	14.50	99.78	7.59	14.96	19.79	22.33	23.47	23.50	22.56	20.79	18.30
4537	15.00	100.07	7.46	14.80	19.50	21.99	23.11	23.18	22.27	20.61	18.23

KN Calculation
Damage Case - Intact

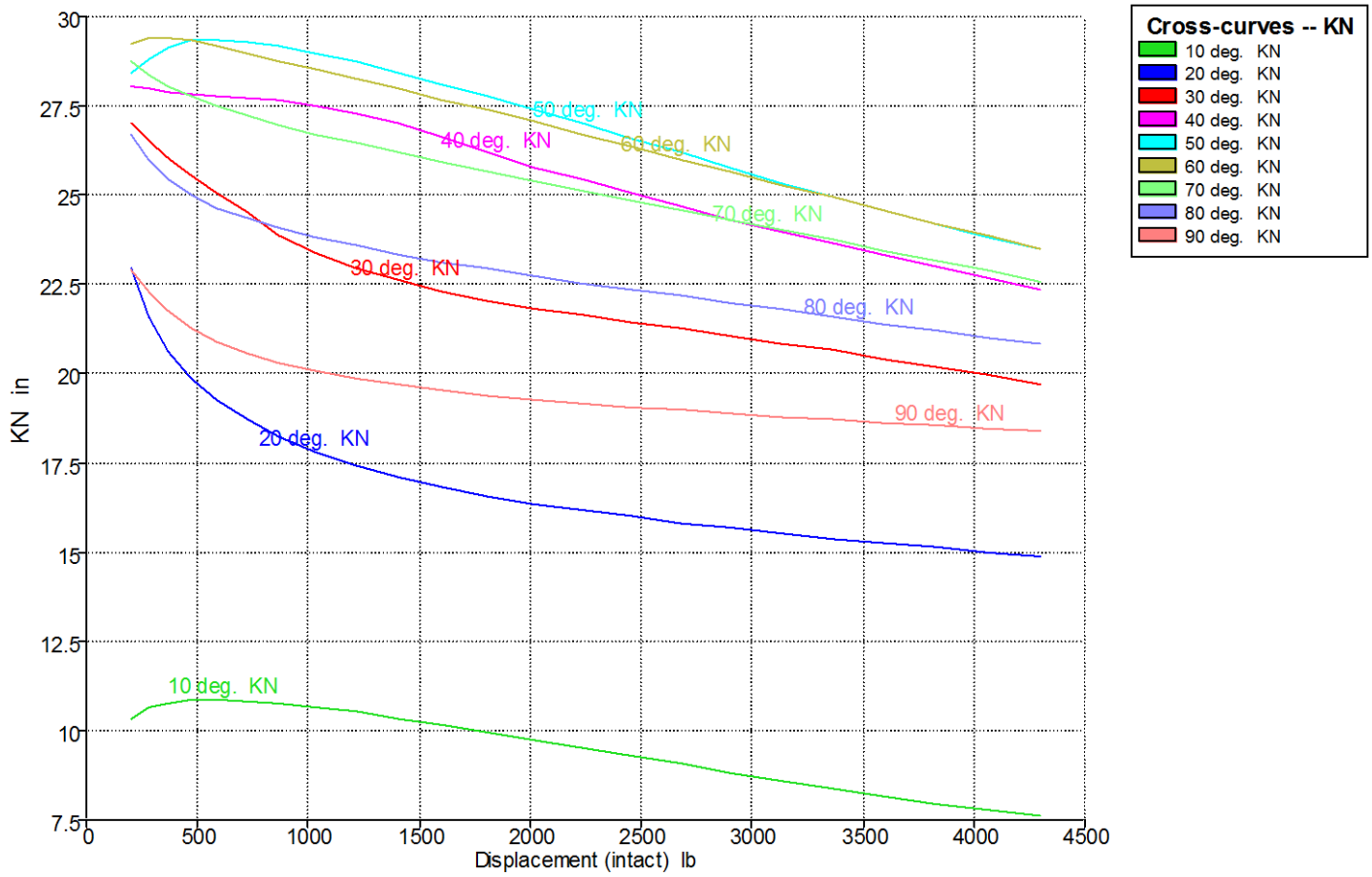
Fixed Trim = -1 in (+ve by stern)
Specific gravity = 1.025; (Density = 0.03703 lb/in^3)
VCG = 0 in; TCG = 0 in



Displacement (intact) lb	Draft Amidships in	LCG in	KN 10.0 deg. Starb.	KN 20.0 deg. Starb.	KN 30.0 deg. Starb.	KN 40.0 deg. Starb.	KN 50.0 deg. Starb.	KN 60.0 deg. Starb.	KN 70.0 deg. Starb.	KN 80.0 deg. Starb.	KN 90.0 deg. Starb.
203.4	4.00	123.19	10.73	23.17	27.02	28.02	28.41	29.23	28.72	26.66	22.90
281.8	4.50	122.50	10.99	21.80	26.53	27.96	28.82	29.37	28.34	25.94	22.29
374.1	5.00	121.52	11.07	20.78	26.05	27.90	29.14	29.38	28.02	25.38	21.71
480.6	5.50	120.33	11.09	20.00	25.56	27.84	29.31	29.30	27.73	24.95	21.23
602.0	6.00	119.02	11.06	19.39	25.06	27.78	29.35	29.15	27.45	24.60	20.85
738.8	6.50	117.63	11.00	18.85	24.54	27.73	29.29	28.95	27.18	24.31	20.53
891.9	7.00	116.20	10.90	18.33	23.90	27.65	29.15	28.73	26.91	24.04	20.26
1062	7.50	114.74	10.76	17.87	23.38	27.50	28.95	28.48	26.67	23.77	20.01
1245	8.00	113.34	10.59	17.48	22.98	27.27	28.69	28.22	26.40	23.52	19.80
1439	8.50	112.07	10.39	17.14	22.66	26.98	28.40	27.94	26.14	23.29	19.63
1641	9.00	110.96	10.17	16.86	22.36	26.63	28.07	27.64	25.87	23.08	19.48
1850	9.50	110.05	9.95	16.61	22.09	26.21	27.72	27.32	25.60	22.87	19.35
2063	10.00	109.37	9.72	16.39	21.87	25.78	27.35	26.99	25.33	22.68	19.24
2279	10.50	108.88	9.49	16.19	21.67	25.40	26.97	26.65	25.06	22.49	19.13
2497	11.00	108.52	9.26	16.01	21.48	25.05	26.56	26.30	24.79	22.31	19.03
2719	11.50	108.25	9.03	15.84	21.28	24.69	26.15	25.95	24.52	22.12	18.94
2943	12.00	108.06	8.80	15.68	21.08	24.32	25.70	25.60	24.25	21.93	18.85
3170	12.50	107.93	8.57	15.53	20.87	23.96	25.28	25.25	23.97	21.75	18.76
3399	13.00	107.84	8.34	15.39	20.65	23.62	24.91	24.89	23.69	21.55	18.67
3630	13.50	107.78	8.12	15.26	20.43	23.29	24.53	24.52	23.41	21.36	18.59
3864	14.00	107.74	7.92	15.13	20.19	22.95	24.15	24.14	23.12	21.18	18.52
4099	14.50	107.72	7.74	15.01	19.95	22.62	23.79	23.80	22.83	20.99	18.44
4337	15.00	107.71	7.58	14.88	19.70	22.29	23.44	23.47	22.53	20.81	18.38

KN Calculation
Damage Case - Intact

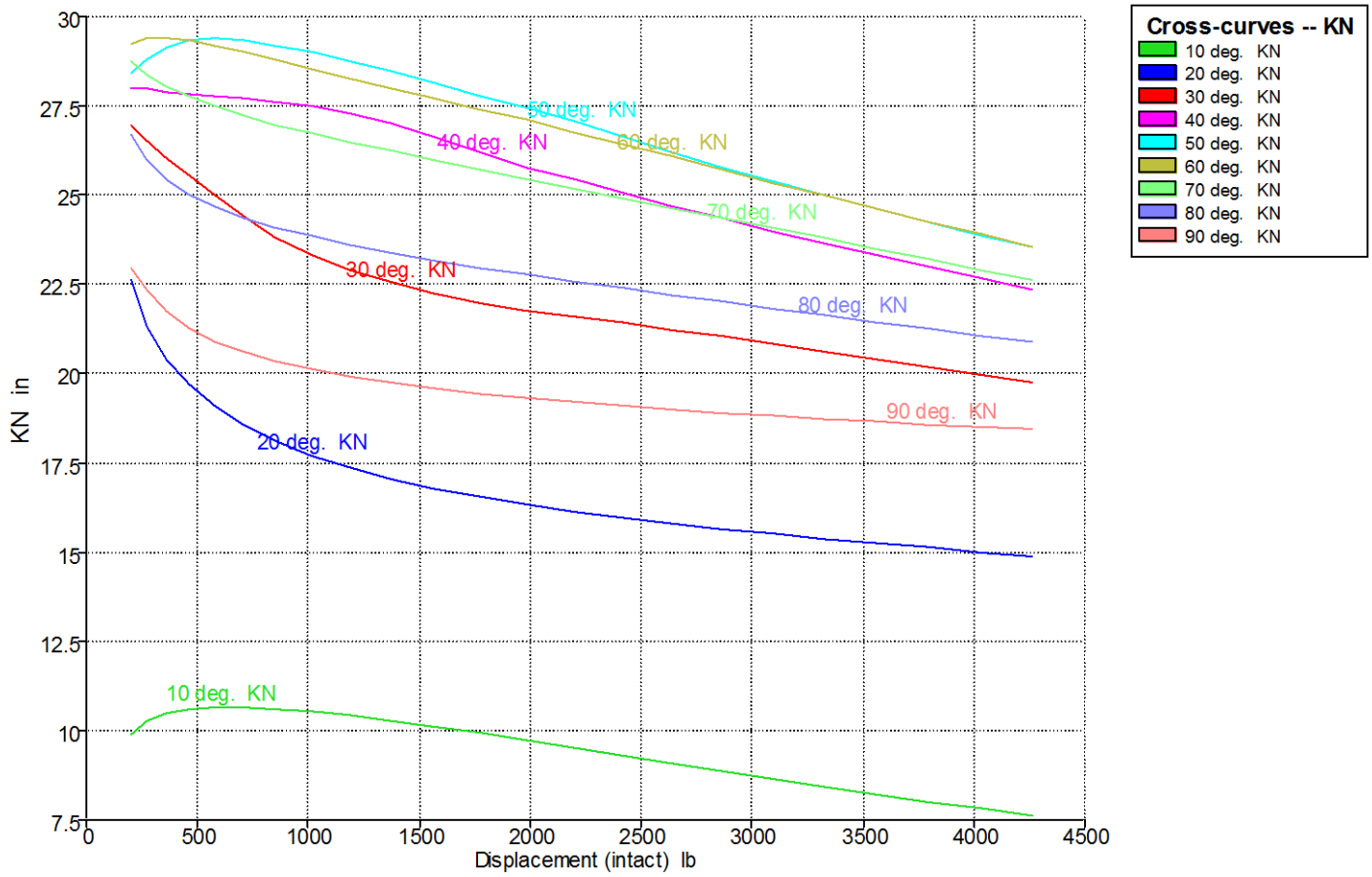
Fixed Trim = -2 in (+ve by stern)
Specific gravity = 1.025; (Density = 0.03703 lb/in^3)
VCG = 0 in; TCG = 0 in



Displacement (intact) lb	Draft Amidships in	LCG in	KN 10.0 deg. Starb.	KN 20.0 deg. Starb.	KN 30.0 deg. Starb.	KN 40.0 deg. Starb.	KN 50.0 deg. Starb.	KN 60.0 deg. Starb.	KN 70.0 deg. Starb.	KN 80.0 deg. Starb.	KN 90.0 deg. Starb.
200.9	4.00	128.89	10.32	22.95	27.02	28.02	28.41	29.24	28.74	26.69	22.92
277.4	4.50	127.64	10.63	21.60	26.53	27.97	28.82	29.39	28.37	25.97	22.32
367.1	5.00	126.19	10.77	20.64	26.05	27.91	29.15	29.40	28.05	25.42	21.74
470.6	5.50	124.67	10.84	19.88	25.56	27.85	29.32	29.33	27.76	24.99	21.26
588.3	6.00	123.12	10.85	19.27	25.06	27.79	29.37	29.18	27.48	24.63	20.88
720.9	6.50	121.58	10.82	18.74	24.51	27.72	29.31	28.99	27.22	24.34	20.57
869.2	7.00	120.05	10.76	18.23	23.86	27.64	29.18	28.77	26.95	24.08	20.30
1034	7.50	118.51	10.66	17.79	23.36	27.50	28.98	28.52	26.70	23.82	20.07
1212	8.00	117.02	10.52	17.42	22.96	27.28	28.73	28.26	26.45	23.58	19.86
1403	8.50	115.61	10.34	17.10	22.63	26.99	28.44	27.98	26.19	23.35	19.68
1602	9.00	114.34	10.15	16.82	22.32	26.64	28.11	27.69	25.93	23.13	19.53
1810	9.50	113.21	9.94	16.58	22.05	26.21	27.77	27.37	25.66	22.93	19.40
2023	10.00	112.27	9.72	16.36	21.83	25.79	27.40	27.05	25.39	22.73	19.28
2239	10.50	111.55	9.50	16.17	21.63	25.42	27.01	26.71	25.11	22.54	19.17
2458	11.00	110.99	9.28	15.99	21.44	25.06	26.61	26.37	24.85	22.35	19.07
2680	11.50	110.57	9.05	15.82	21.26	24.70	26.19	26.01	24.58	22.17	18.97
2904	12.00	110.24	8.83	15.67	21.06	24.33	25.75	25.66	24.31	21.98	18.88
3131	12.50	109.99	8.60	15.52	20.86	23.98	25.33	25.31	24.03	21.79	18.79
3361	13.00	109.79	8.38	15.38	20.65	23.64	24.96	24.95	23.75	21.59	18.70
3592	13.50	109.63	8.16	15.25	20.43	23.31	24.58	24.57	23.46	21.40	18.62
3826	14.00	109.51	7.95	15.13	20.20	22.99	24.21	24.19	23.17	21.21	18.54
4062	14.50	109.41	7.77	15.01	19.96	22.66	23.84	23.85	22.87	21.03	18.47
4299	15.00	109.34	7.61	14.88	19.72	22.34	23.49	23.52	22.58	20.84	18.40

KN Calculation
Damage Case - Intact

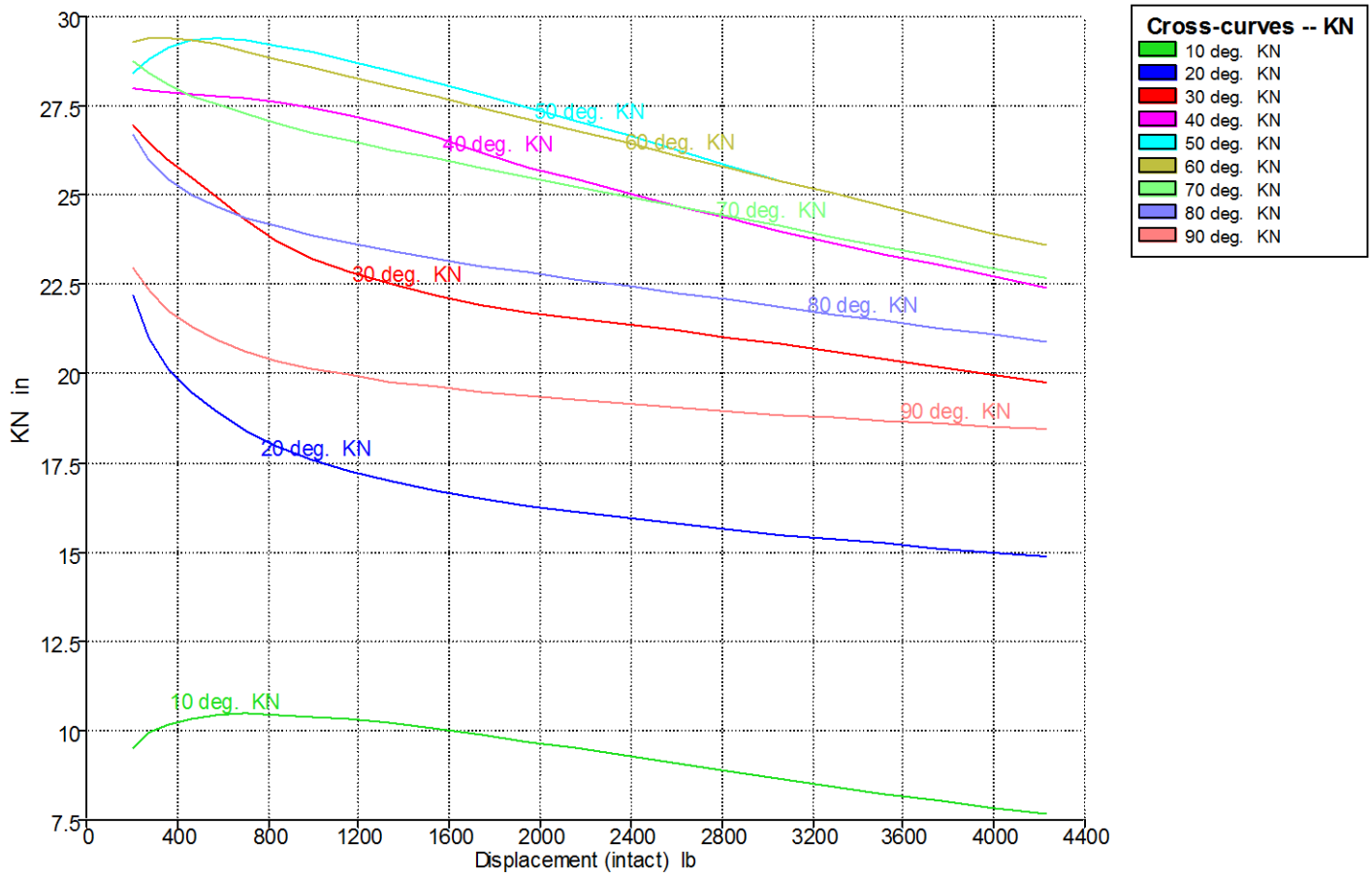
Fixed Trim = -3 in (+ve by stern)
Specific gravity = 1.025; (Density = 0.03703 lb/in^3)
VCG = 0 in; TCG = 0 in



Displacement (intact) lb	Draft Amidships in	LCG in	KN 10.0 deg. Starb.	KN 20.0 deg. Starb.	KN 30.0 deg. Starb.	KN 40.0 deg. Starb.	KN 50.0 deg. Starb.	KN 60.0 deg. Starb.	KN 70.0 deg. Starb.	KN 80.0 deg. Starb.	KN 90.0 deg. Starb.
200.6	4.00	134.38	9.90	22.62	26.99	28.02	28.42	29.26	28.76	26.70	22.93
275.1	4.50	132.55	10.27	21.34	26.51	27.97	28.82	29.40	28.40	25.99	22.33
362.6	5.00	130.67	10.47	20.43	26.02	27.91	29.15	29.41	28.07	25.45	21.76
463.3	5.50	128.84	10.59	19.71	25.53	27.85	29.33	29.34	27.79	25.01	21.28
577.9	6.00	127.07	10.64	19.11	25.02	27.78	29.38	29.21	27.51	24.66	20.91
707.0	6.50	125.38	10.64	18.59	24.43	27.72	29.33	29.02	27.25	24.36	20.60
851.0	7.00	123.73	10.60	18.11	23.79	27.64	29.19	28.80	26.99	24.10	20.34
1011	7.50	122.13	10.53	17.69	23.31	27.49	29.00	28.55	26.73	23.86	20.11
1185	8.00	120.57	10.42	17.34	22.92	27.28	28.75	28.29	26.49	23.62	19.91
1371	8.50	119.10	10.28	17.04	22.58	26.99	28.47	28.01	26.23	23.40	19.73
1567	9.00	117.70	10.11	16.77	22.26	26.64	28.15	27.73	25.98	23.18	19.58
1772	9.50	116.43	9.92	16.54	21.99	26.21	27.80	27.42	25.71	22.98	19.44
1984	10.00	115.28	9.71	16.33	21.78	25.79	27.44	27.10	25.44	22.78	19.32
2200	10.50	114.32	9.50	16.14	21.59	25.43	27.05	26.76	25.17	22.59	19.21
2420	11.00	113.56	9.29	15.96	21.41	25.07	26.65	26.42	24.90	22.40	19.10
2642	11.50	112.96	9.07	15.80	21.23	24.70	26.23	26.07	24.63	22.21	19.00
2867	12.00	112.48	8.85	15.65	21.04	24.34	25.78	25.72	24.36	22.02	18.91
3094	12.50	112.10	8.63	15.51	20.85	23.99	25.38	25.36	24.08	21.83	18.82
3323	13.00	111.79	8.41	15.37	20.64	23.66	25.01	25.00	23.79	21.63	18.73
3555	13.50	111.53	8.19	15.24	20.43	23.34	24.63	24.62	23.50	21.44	18.65
3789	14.00	111.32	7.99	15.12	20.21	23.02	24.26	24.25	23.21	21.25	18.57
4024	14.50	111.14	7.80	15.00	19.97	22.70	23.89	23.90	22.91	21.06	18.50
4262	15.00	110.99	7.63	14.88	19.73	22.38	23.54	23.57	22.62	20.88	18.43

KN Calculation
Damage Case - Intact

Fixed Trim = -4 in (+ve by stern)
Specific gravity = 1.025; (Density = 0.03703 lb/in^3)
VCG = 0 in; TCG = 0 in



Displacement (intact) lb	Draft Amidships in	LCG in	KN 10.0 deg. Starb.	KN 20.0 deg. Starb.	KN 30.0 deg. Starb.	KN 40.0 deg. Starb.	KN 50.0 deg. Starb.	KN 60.0 deg. Starb.	KN 70.0 deg. Starb.	KN 80.0 deg. Starb.	KN 90.0 deg. Starb.
201.8	4.00	139.70	9.49	22.21	26.94	28.01	28.43	29.28	28.76	26.70	22.93
274.9	4.50	137.16	9.92	21.01	26.46	27.96	28.83	29.41	28.41	26.00	22.34
360.2	5.00	134.94	10.18	20.16	25.97	27.90	29.16	29.43	28.09	25.47	21.78
458.6	5.50	132.83	10.34	19.49	25.48	27.84	29.34	29.35	27.80	25.04	21.30
570.5	6.00	130.87	10.43	18.92	24.94	27.77	29.39	29.23	27.53	24.68	20.92
696.4	6.50	129.01	10.46	18.41	24.30	27.70	29.34	29.04	27.27	24.38	20.62
836.9	7.00	127.26	10.44	17.96	23.70	27.62	29.21	28.82	27.02	24.13	20.37
992.6	7.50	125.58	10.39	17.58	23.22	27.48	29.01	28.57	26.76	23.89	20.15
1163	8.00	123.99	10.31	17.25	22.85	27.26	28.77	28.32	26.51	23.66	19.95
1345	8.50	122.46	10.20	16.96	22.51	26.97	28.49	28.04	26.27	23.44	19.78
1537	9.00	121.00	10.05	16.71	22.20	26.61	28.17	27.76	26.02	23.23	19.62
1738	9.50	119.62	9.88	16.49	21.94	26.19	27.83	27.46	25.76	23.03	19.49
1947	10.00	118.34	9.69	16.29	21.72	25.78	27.47	27.15	25.49	22.83	19.36
2162	10.50	117.20	9.49	16.10	21.54	25.42	27.08	26.81	25.22	22.64	19.25
2382	11.00	116.22	9.28	15.93	21.37	25.07	26.68	26.47	24.96	22.45	19.14
2605	11.50	115.43	9.07	15.78	21.20	24.70	26.25	26.12	24.68	22.26	19.04
2830	12.00	114.80	8.86	15.63	21.02	24.34	25.81	25.77	24.41	22.06	18.94
3057	12.50	114.27	8.64	15.49	20.83	24.00	25.41	25.41	24.13	21.87	18.85
3287	13.00	113.84	8.43	15.35	20.63	23.67	25.05	25.05	23.84	21.67	18.76
3518	13.50	113.47	8.22	15.23	20.42	23.35	24.68	24.66	23.55	21.48	18.68
3752	14.00	113.16	8.02	15.11	20.21	23.04	24.30	24.29	23.25	21.29	18.60
3988	14.50	112.90	7.83	14.99	19.98	22.73	23.94	23.95	22.95	21.10	18.53
4226	15.00	112.67	7.66	14.88	19.74	22.41	23.58	23.61	22.67	20.92	18.46

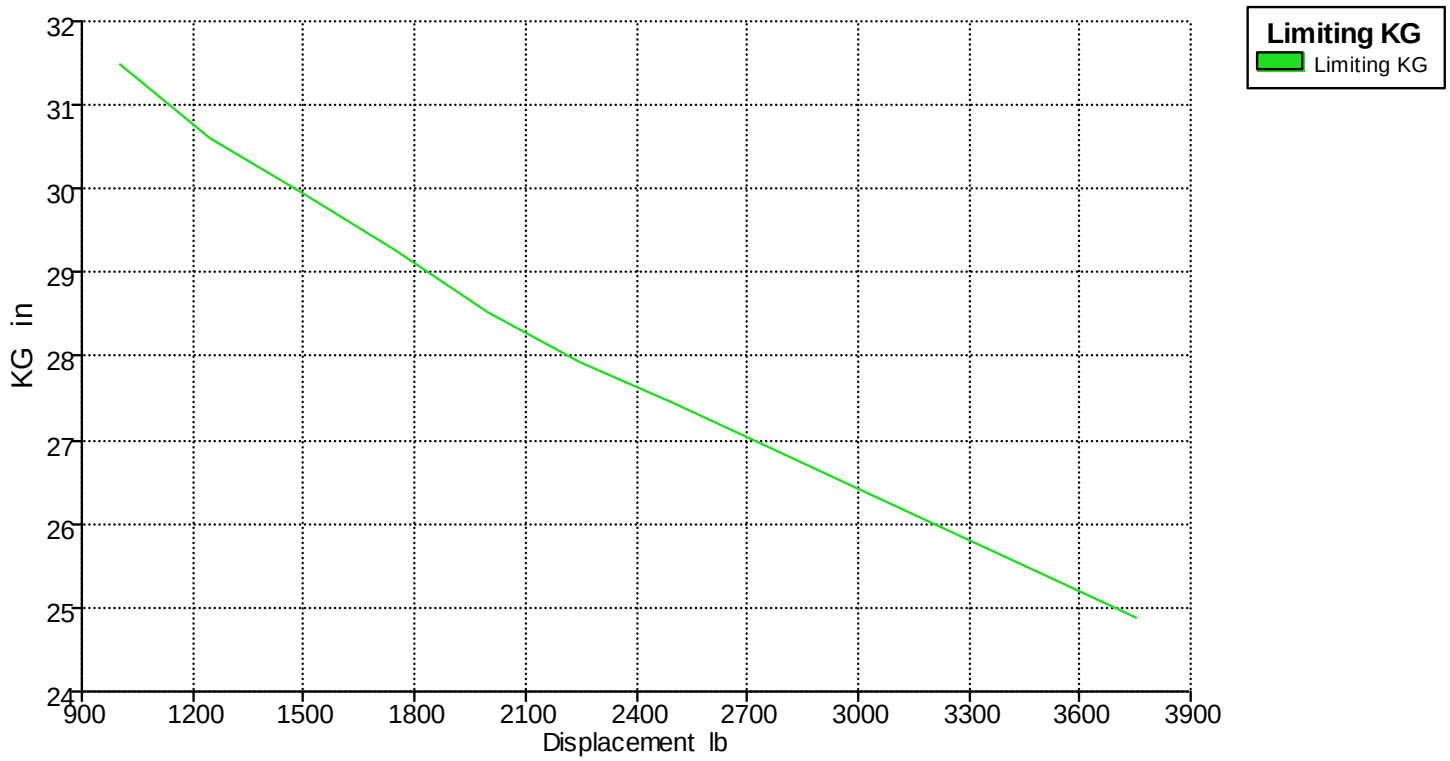
Limiting KG

Limiting KG
Damage Case - Intact

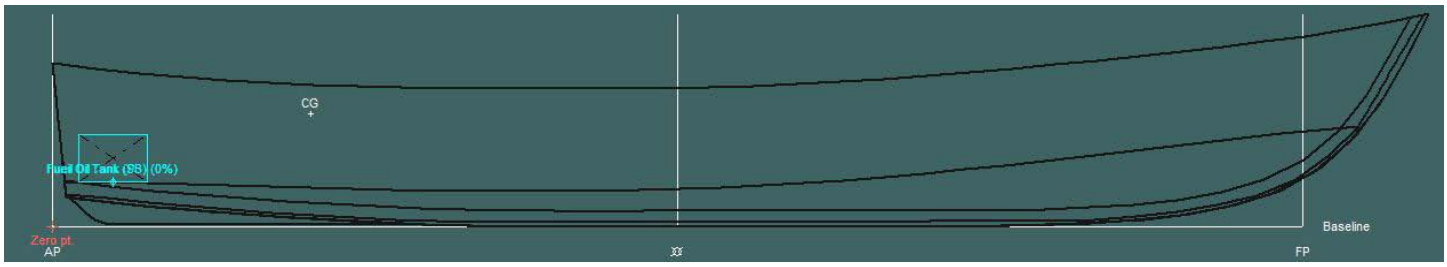
Fixed Trim = 0 in (+ve by stern)
Specific gravity = 1.025; (Density = 0.03703 lb/in^3)
Heel to starboard; heel range: from 0 deg to 90 deg in steps of 10 deg.

Criteria tested:
Intact 3.(a)i: Angle of max GZ
Intact 3.(a)ii: Value of max. GZ
Intact 3.(c): GZ area between limits
Intact 3.(d): Initial GMt

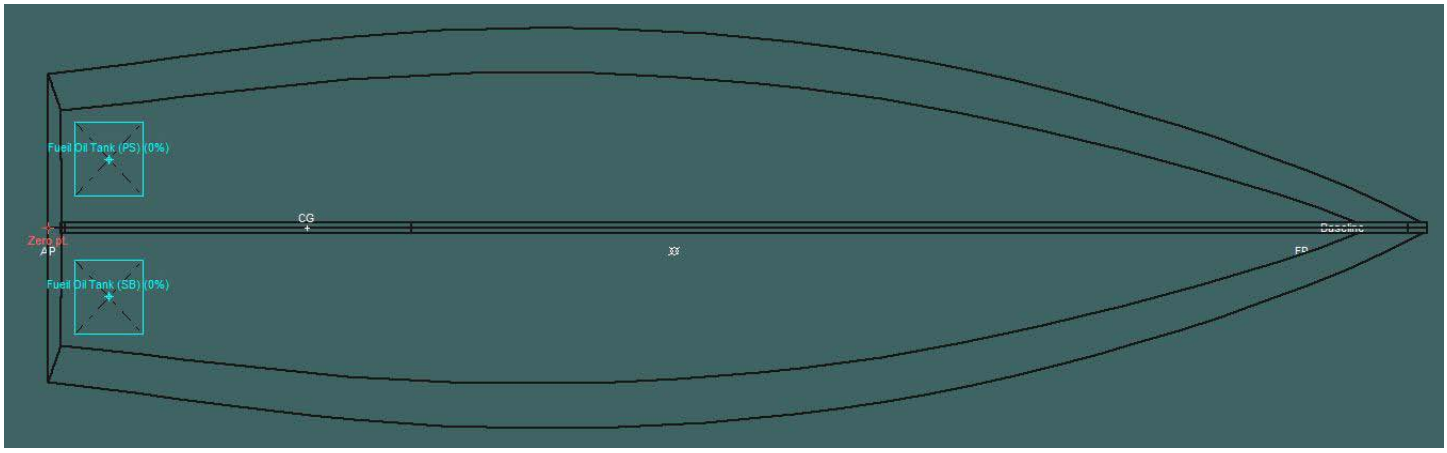
Displacement (intact) lb	Draft Amidships in	Trim (+ve by stern) in	LCG in	TCG in	VCG in	Limit KG in	min. GM in	Criterion	Name
1000	7.23	0.00 (fixed)	111.53	0.00	31.48	31.48	48.89	Intact	3.(a)ii: Value of max. GZ
1250	7.92	0.00 (fixed)	109.80	0.00	30.60	30.60	47.64	Intact	3.(a)ii: Value of max. GZ
1500	8.55	0.00 (fixed)	108.42	0.00	29.95	29.95	43.87	Intact	3.(a)ii: Value of max. GZ
1750	9.16	0.00 (fixed)	107.41	0.00	29.26	29.26	38.59	Intact	3.(a)ii: Value of max. GZ
2000	9.76	0.00 (fixed)	106.78	0.00	28.53	28.53	34.18	Intact	3.(a)ii: Value of max. GZ
2250	10.34	0.00 (fixed)	106.40	0.00	27.94	27.94	30.69	Intact	3.(a)ii: Value of max. GZ
2500	10.91	0.00 (fixed)	106.16	0.00	27.43	27.43	27.91	Intact	3.(a)ii: Value of max. GZ
2750	11.48	0.00 (fixed)	106.02	0.00	26.92	26.92	25.70	Intact	3.(a)ii: Value of max. GZ
3000	12.04	0.00 (fixed)	105.95	0.00	26.42	26.42	23.95	Intact	3.(a)ii: Value of max. GZ
3250	12.59	0.00 (fixed)	105.93	0.00	25.92	25.92	22.58	Intact	3.(a)ii: Value of max. GZ
3500	13.14	0.00 (fixed)	105.94	0.00	25.41	25.41	21.48	Intact	3.(a)ii: Value of max. GZ
3750	13.67	0.00 (fixed)	105.98	0.00	24.88	24.88	20.65	Intact	3.(a)ii: Value of max. GZ



Tank Plan & Calibrations



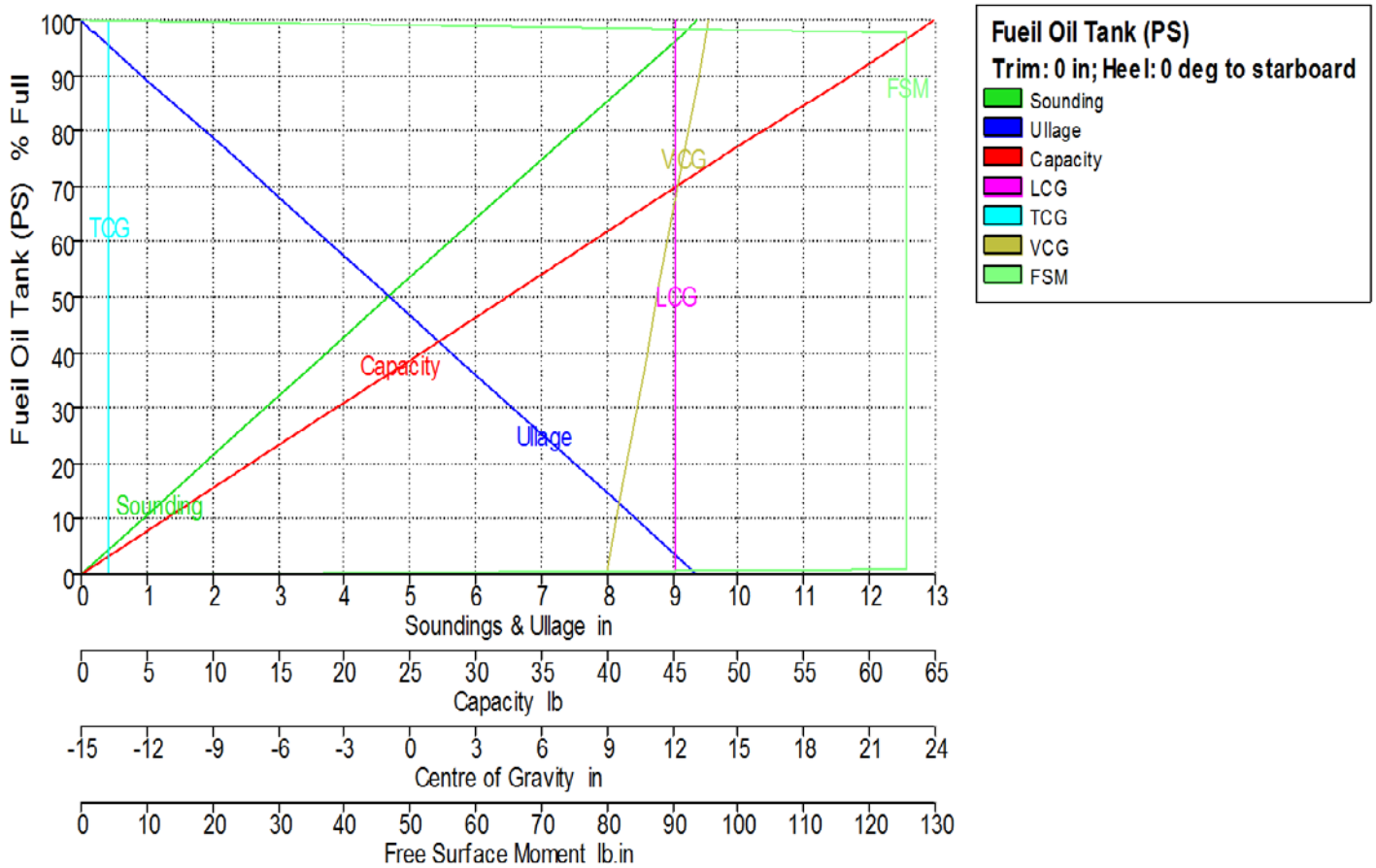
PROFILE VIEW OF TANK POSITION



PLAN E VIEW OF TANK POSITION

Tank Calibrations - Fueil Oil Tank (PS)

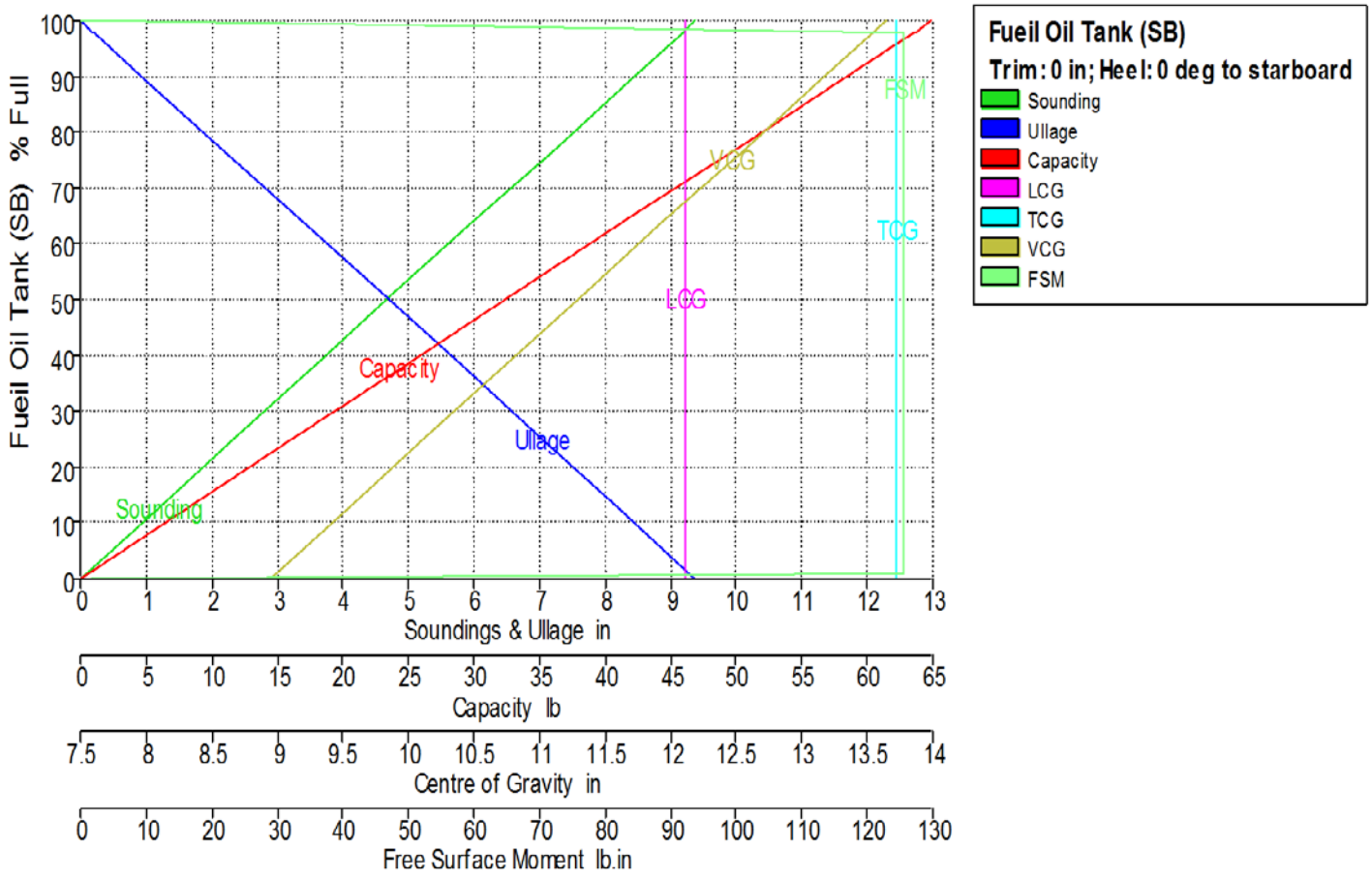
Fluid Type = Fuel Oil Specific gravity = 0.9443
Permeability = 100 %
Trim = 0 in (+ve by stern); Heel = 0 deg to starboard



Tank Name	Sounding in	Ullage in	% Full	Capacity in^3	Capacity lb	LCG in	TCG in	VCG in	FSM lb.in
Fueil Oil Tank (PS)	9.37	0.00	100.000	1901.93	64.9	12.12	-13.72	13.64	0.00
	9.19	0.19	98.000	1863.90	63.6	12.12	-13.72	13.55	125.48
	9.18	0.20	97.900	1861.99	63.5	12.12	-13.72	13.54	125.48
	8.40	0.97	89.600	1704.13	58.1	12.12	-13.72	13.15	125.48
	7.20	2.17	76.800	1460.69	49.8	12.12	-13.72	12.55	125.48
	6.00	3.37	64.000	1217.24	41.5	12.12	-13.72	11.95	125.48
	4.80	4.57	51.200	973.79	33.2	12.12	-13.72	11.35	125.48
	3.60	5.77	38.400	730.34	24.9	12.12	-13.72	10.75	125.48
	2.40	6.97	25.600	486.90	16.6	12.12	-13.72	10.15	125.48
	1.20	8.17	12.800	243.45	8.3	12.12	-13.72	9.55	125.48
	0.09	9.28	1.000	19.02	0.6	12.12	-13.72	9.00	125.48
	0.00	9.37	0.000	0.00	0.0	12.12	-13.72	8.95	0.00

Tank Calibrations - Fueil Oil Tank (SB)

Fluid Type = Fuel Oil Specific gravity = 0.9443
Permeability = 100 %
Trim = 0 in (+ve by stern); Heel = 0 deg to starboard



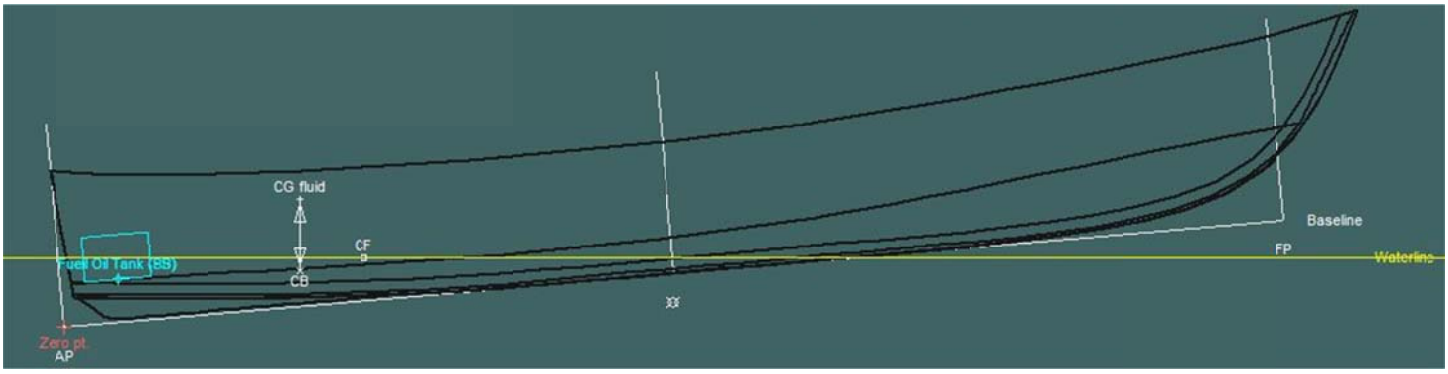
Tank Name	Sounding in	Ullage in	% Full	Capacity in^3	Capacity lb	LCG in	TCG in	VCG in	FSM lb.in
Fueil Oil Tank (SB)	9.38	0.00	100.000	1902.38	64.9	12.12	13.72	13.64	0.00
	9.19	0.19	98.000	1864.33	63.6	12.12	13.72	13.55	125.44
	9.18	0.20	97.900	1862.43	63.5	12.12	13.72	13.54	125.44
	8.40	0.98	89.552	1703.63	58.1	12.12	13.72	13.15	125.44
	7.20	2.18	76.759	1460.25	49.8	12.12	13.72	12.55	125.44
	6.00	3.38	63.966	1216.88	41.5	12.12	13.72	11.95	125.44
	4.80	4.58	51.173	973.50	33.2	12.12	13.72	11.35	125.44
	3.60	5.78	38.380	730.13	24.9	12.12	13.72	10.75	125.44
	2.40	6.98	25.586	486.75	16.6	12.12	13.72	10.15	125.44
	1.20	8.18	12.793	243.38	8.3	12.12	13.72	9.55	125.44
	0.09	9.29	1.000	19.02	0.6	12.12	13.72	9.00	125.44
	0.00	9.38	0.000	0.00	0.0	12.12	13.72	8.95	0.00

Lightship Weight & CG Calculation									
Sr. No.	*Items*	*Material / Specs*	*Volume [in3]*	*Volume [ft3]*	*Density [lb/ft3]*	*Weight [lb]*	*LCG [in]*	*VCG [in]*	*TCG [in]*
1	Main Hull Panels	URIT M100 1/2" RIGID	11573.22	6.70	6.7	44.87	125.68	12.44	0.00
2	Transverse Frame, Longitudinal Str.	COOSA BLUEWATER 26 3/4" & 1 1/2"	12320.85	7.13	26	185.38	94.74	13.59	0.00
3	All Decking	GURIT M80 3/4"	8703.37	5.04	5.3	26.69	113.55	13.43	0.00
4	Console	COOSA 0.25" NAUT 15	1004.3166	0.58	15	8.72	86.95	29.86	0.00
5	Keel Box & Stem	COOSA-BLUEWATER 26	2279.9722	1.32	26	34.31	131.41	4.73	0.00
6	Slash Rails for Dry Ride	GURIT M80	3084.5735	1.79	5.3	9.46	131.08	15.04	0.00
7	Gunwale & Gunwale Support Block	GURIT M80	6405.4586	3.71	5.3	19.65	137.83	29.86	0.00
8	Rubber Bumper		468.5	0.27	62	16.81	141.36	29.08	0.00
9	Cushion		5573.7687	3.23	3	9.68	182.29	23.09	0.00
10	Floatation Foam		47522.8983	27.50	2	55.00	120.96	9.78	0.00
11	Teak Wood		591.8764	0.34	55	18.84	78.82	32.39	0.00
12	Outboard Engine with Propeller	YAMAHA F75 & F90				363.00	-18.00	30.00	0.00
13	Jack Plate	Aluminum	247.7441	0.14	170	24.37	-3.79	26.68	0.00
14	Trim Tabs	Aluminum	191.0642	0.11	170	18.80	-3.00	12.32	0.00
15	Power Source					50.00	30.12	12.41	0.00
16	Hatches	Plastic				15.00	66.07	23.35	0.00
17	Fuel Oil Tank	Aluminum	372.1875	0.22	170	36.62	12.12	15.12	0.00
18	Tubing & Fittings	Aluminum	311.3263	0.18	170	30.63	81.51	63.33	0.00
19	Canvas / Awning					5.00	94.39	89.65	0.00
20	Misc./ Unforeseen / Glass weight					50.00	116.47	15.58	0.000
Total						*1022.82*	*51.60*	*22.40*	*0.00*

Assessment of Intact Stability at Different Loading Condition

Stability Calculation Loadcase - Lightship Condition
Damage Case - Intact
Free to Trim
Specific gravity = 1.025; (Density = 0.03703 lb/in^3)
Fluid analysis method: Use corrected VCG

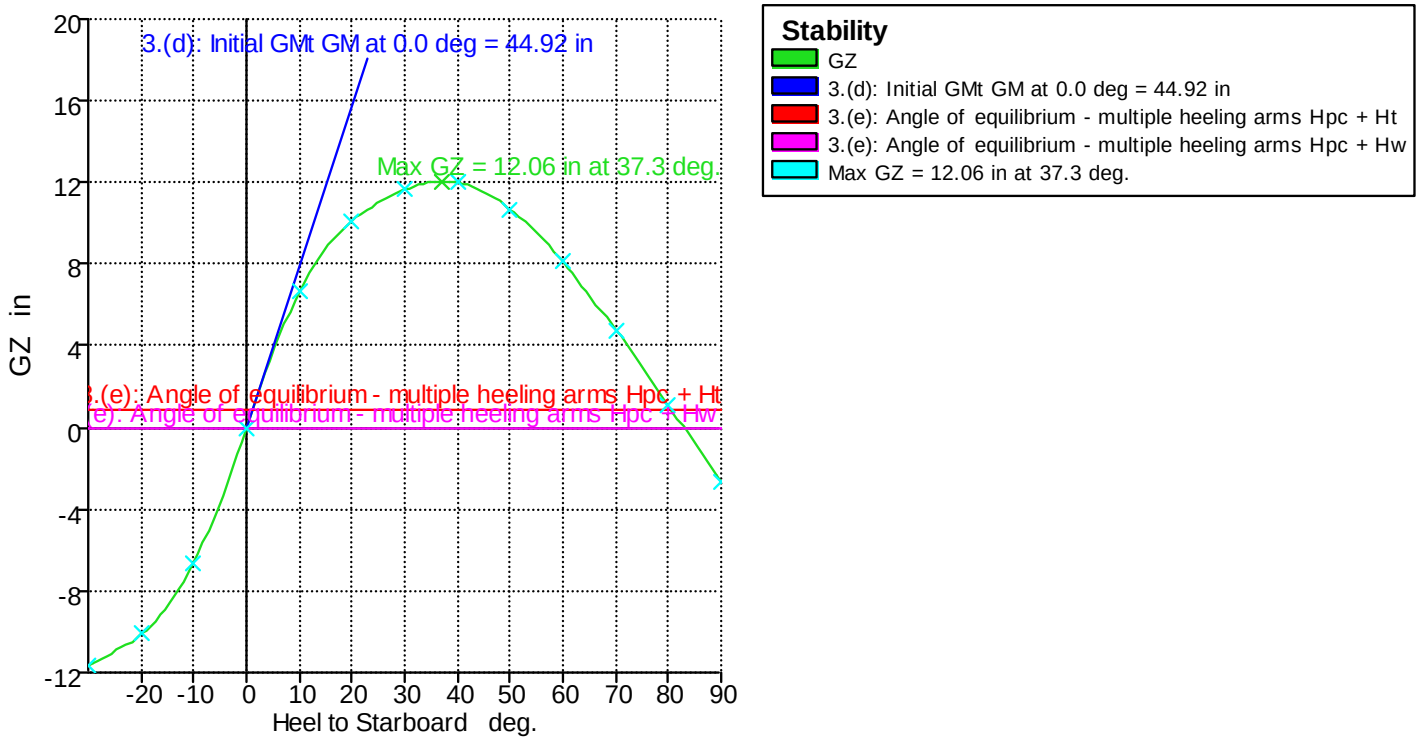
Floating Status



Floating Status Summary	
Draft Amidships in	3.25
Displacement lb	1023
Heel deg	0.0
Draft at FP in	-7.97
Draft at AP in	14.48
Draft at LCF in	8.88
Trim (+ve by stern) in	22.45
WL Length in	162.32
Beam max extents on WL in	61.62
Wetted Area in^2	8871.94
Waterpl. Area in^2	6843.35
Prismatic coeff. (Cp)	0.531
Block coeff. (Cb)	0.217
Max Sect. area coeff. (Cm)	0.488
Waterpl. area coeff. (Cwp)	0.684
LCB from zero pt. (+ve fwd) in	50.27
LCF from zero pt. (+ve fwd) in	63.81
KB in	7.43
KG fluid in	22.40
BMt in	59.91
BML in	323.33
GMt corrected in	44.89
GML in	308.30
KMt in	67.12
KML in	329.53
Immersion (TPi) Long Ton/in	0.113
MTi Long Ton.ft	0.046
RM at 1deg = GMt.Disp.sin(1) lb.in	801.29
Max deck inclination deg	5.0093
Trim angle (+ve by stern) deg	5.0093

Loading Summary

Item Name	Quantity	Unit Mass lb	Total Mass lb	Unit Volume US liqui. Gal	Total Volume US liqui. Gal	Long. Arm in	Trans. Arm in	Vert. Arm in	Total FSM lb.in	FSM Type
Lightship	1	1022.8	1022.8			51.60	0.00	22.40	0.00	User Specified
Fueil Oil Tank (PS)	0%	64.9	0.0	8.23	0.00	12.12	-13.72	8.95	0.00	Maximum
Fueil Oil Tank (SB)	0%	64.9	0.0	8.24	0.00	12.12	13.72	8.95	0.00	Maximum
Total Loadcase			**1022.8**	**16.47**	**0.00**	**51.60**	**0.00**	**22.40**	**0.00**	
FS correction								0.00		
VCG fluid								22.40		



Heel to Starboard deg	GZ in	Displacement lb	Draft at FP in	Draft at AP in	LCB from zero pt. (+ve fwd) in	LCF from zero pt. (+ve fwd) in	KB in	KG fluid in	GMt corrected in	KMt in
-30.0	-11.64	1023	-24.78	12.13	49.26	58.99	11.84	22.40	6.50	33.80
-20.0	-10.11	1023	-16.48	13.86	49.73	60.84	9.84	22.40	14.33	39.24
-10.0	-6.67	1023	-10.63	14.51	50.08	62.47	8.22	22.40	30.77	53.72
0.0	0.00	1023	-7.95	14.47	50.31	63.85	7.43	22.40	44.92	67.15
10.0	6.67	1023	-10.62	14.51	50.09	62.48	8.22	22.40	30.77	53.72
20.0	10.11	1023	-16.50	13.87	49.70	60.85	9.84	22.40	14.36	39.27
30.0	11.63	1023	-24.81	12.14	49.24	58.98	11.84	22.40	6.53	33.83
40.0	12.01	1023	-36.40	9.02	48.78	59.44	14.08	22.40	-2.17	28.47
50.0	10.71	1023	-55.61	5.33	48.13	59.18	15.92	22.40	-10.32	24.05
60.0	8.10	1023	-87.20	-0.14	47.47	59.18	17.22	22.40	-16.97	21.05
70.0	4.78	1023	-148.21	-10.34	46.90	58.18	18.20	22.40	-20.19	20.10
80.0	1.13	1023	-325.46	-39.86	46.57	57.56	19.02	22.40	-21.92	19.78
90.0	-2.66	1023	n/a	n/a	46.52	56.65	19.74	22.40	-22.31	19.74

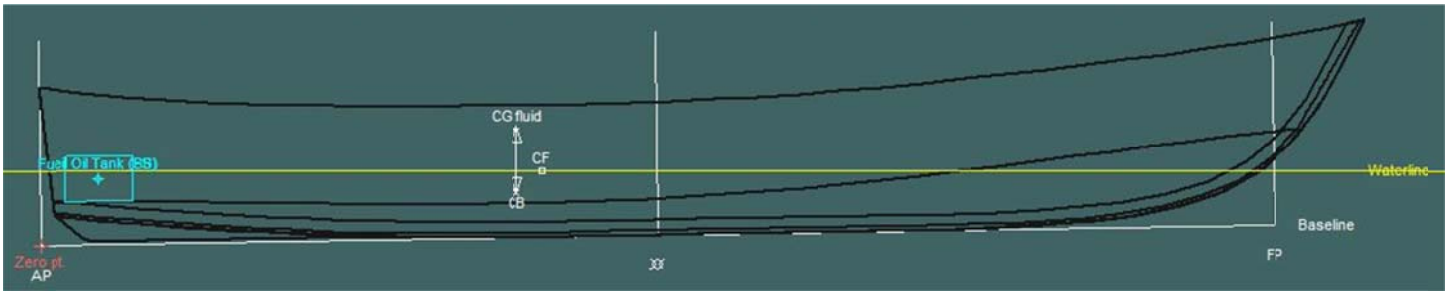
Key point	Type	Immersion angle deg	Emergence angle deg
Margin Line (immersion pos = 32.86 in)		28.8	n/a
Deck Edge (immersion pos = 17.73 in)		34.2	n/a

Criteria Status Summary

Code	Criteria	Value	Units	Actual	Status	Margin %
Intact	3.(a)i: Angle of max GZ	15.0	deg	37.3	Pass	+148.49
Intact	3.(a)ii: Value of max. GZ	7.87	in	12.05	Pass	+53.00
Intact	3.(c): GZ area between limits	124.066	in.deg	317.829	Pass	+156.18
Intact	3.(d): Initial GMt	5.91	in	44.92	Pass	+660.67
Intact	3.(e): Angle of equilibrium - multiple heeling arms				Pass	
	Hpc + Ht	12.0	deg	1.2	Pass	+89.78
	Hpc + Hw	12.0	deg	0.0	Pass	+100.01
ISO 12217-1:2002(E)	6.2 Offset load test - equilibrium with heel arm	10.0	deg	0.0	Pass	+100.01
ISO 12217-1:2002(E)	6.3.3 Resistance to waves (Value of GZ)	7.87	in	11.61	Pass	+47.50
ISO 12217-1:2002(E)	6.4 Heel due to wind action (Categories C and D only)	5.0	deg	0.0	Pass	+100.02

Stability Calculation Loadcase - Loaded Departure Condition
Damage Case - Intact
Free to Trim
Specific gravity = 1.025; (Density = 0.03703 lb/in^3)
Fluid analysis method: Use corrected VCG

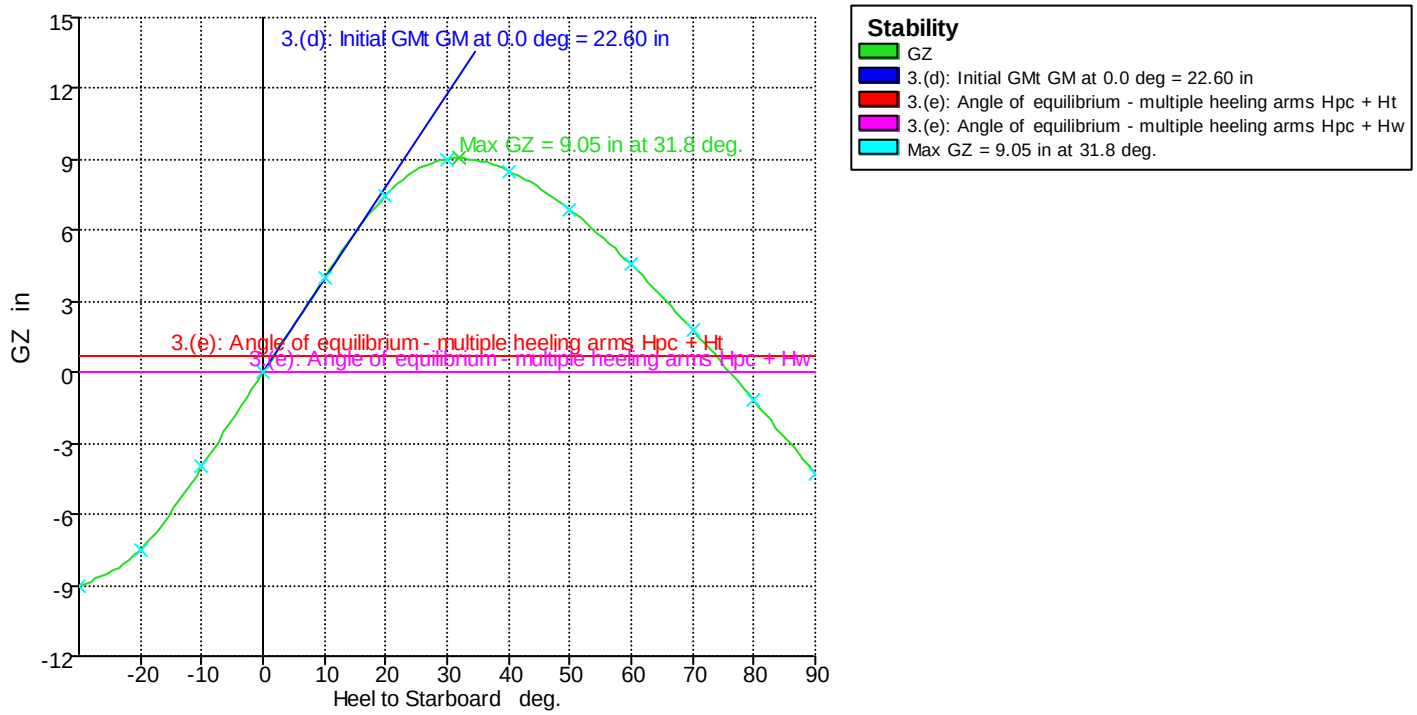
Floating Status



Floating Status Summary	
Draft Amidships in	13.39
Displacement lb	3789
Heel deg	0.0
Draft at FP in	11.31
Draft at AP in	15.47
Draft at LCF in	13.78
Trim (+ve by stern) in	4.17
WL Length in	251.40
Beam max extents on WL in	67.83
Wetted Area in^2	17836.93
Waterpl. Area in^2	12467.64
Prismatic coeff. (Cp)	0.634
Block coeff. (Cb)	0.408
Max Sect. area coeff. (Cm)	0.683
Waterpl. area coeff. (Cwp)	0.731
LCB from zero pt. (+ve fwd) in	98.98
LCF from zero pt. (+ve fwd) in	104.51
KB in	9.26
KG fluid in	22.72
BMt in	36.04
BML in	421.14
GMt corrected in	22.58
GML in	407.68
KMt in	45.30
KML in	430.34
Immersion (TPi) Long Ton/in	0.206
MTi Long Ton.ft	0.224
RM at 1deg = GMt.Disp.sin(1) lb.in	1493.21
Max deck inclination deg	0.9317
Trim angle (+ve by stern) deg	0.9317

Loading Summary

Item Name	Quantity	Unit Mass lb	Total Mass lb	Unit Volume US liqui. Gal	Total Volume US liqui. Gal	Long. Arm in	Trans. Arm in	Vert. Arm in	Total FSM lb.in	FSM Type
Lightship	1	1022.8	1022.8			51.60	0.00	22.40	0.00	User Specified
Fueil Oil Tank (PS)	97%	64.9	62.9	8.23	7.99	12.12	-13.72	13.50	125.48	Maximum
Fueil Oil Tank (SB)	97%	64.9	63.0	8.24	7.99	12.12	13.72	13.50	125.44	Maximum
Passengers	8	180.0	1440.0			140.00	0.00	30.00	0.00	User Specified
Gears	1	1200.0	1200.0			100.00	0.00	15.00	0.00	User Specified
Total Loadcase			**3788.7**	**16.47**	**15.97**	**99.22**	**0.00**	**22.65**	**250.92**	
FS correction								0.07		
VCG fluid								22.72		



Heel to Starboard deg	GZ in	Displacement lb	Draft at FP in	Draft at AP in	LCB from zero pt. (+ve fwd) in	LCF from zero pt. (+ve fwd) in	KB in	KG fluid in	GMt corrected in	KMt in
-30.0	-9.01	3789	8.05	12.40	99.00	107.39	13.10	22.72	1.83	28.81
-20.0	-7.50	3789	9.87	14.43	98.97	104.10	11.34	22.72	16.02	40.33
-10.0	-3.99	3789	11.03	15.30	98.98	103.61	9.81	22.72	23.33	46.38
0.0	0.00	3789	11.32	15.47	99.00	104.51	9.26	22.72	22.58	45.30
10.0	4.00	3789	11.02	15.30	98.99	103.61	9.81	22.72	23.32	46.37
20.0	7.50	3789	9.86	14.44	98.96	104.10	11.34	22.72	16.01	40.32
30.0	9.01	3789	8.02	12.42	98.98	107.42	13.10	22.72	1.82	28.80
40.0	8.51	3789	5.50	10.05	98.98	112.27	14.50	22.72	-6.67	23.07
50.0	6.89	3789	1.83	7.16	98.95	115.33	15.64	22.72	-11.66	20.50
60.0	4.55	3789	-4.43	2.98	98.91	114.31	16.55	22.72	-14.16	19.57
70.0	1.82	3789	-17.26	-4.02	98.85	113.41	17.32	22.72	-16.72	18.71
80.0	-1.20	3789	-55.00	-24.63	98.79	112.50	17.92	22.72	-17.60	18.48
90.0	-4.27	3789	n/a	n/a	98.74	112.32	18.44	22.72	-17.40	18.44

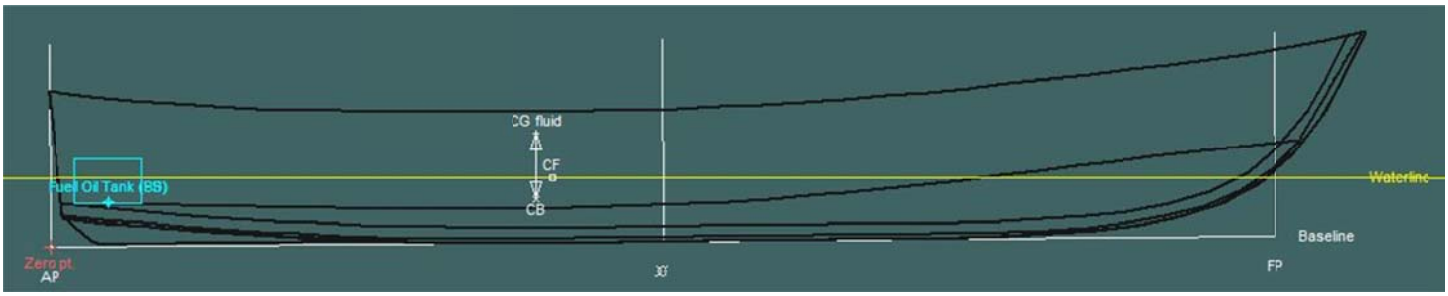
Key point	Type	Immersion angle deg	Emergence angle deg
Margin Line (immersion pos = 90.18 in)		16.3	n/a
Deck Edge (immersion pos = 90.18 in)		21.1	n/a

Criteria Status Summary

Code	Criteria	Value	Units	Actual	Status	Margin %
Intact	3.(a)i: Angle of max GZ	15.0	deg	31.8	Pass	+112.12
Intact	3.(a)ii: Value of max. GZ	7.87	in	9.06	Pass	+15.00
Intact	3.(c): GZ area between limits	124.066	in.deg	179.475	Pass	+44.66
Intact	3.(d): Initial GMt	5.91	in	22.60	Pass	+282.67
Intact	3.(e): Angle of equilibrium - multiple heeling arms				Pass	
	Hpc + Ht	12.0	deg	1.7	Pass	+85.55
	Hpc + Hw	12.0	deg	0.0	Pass	+100.04
ISO 12217-1:2002(E)	6.2 Offset load test - equilibrium with heel arm	10.0	deg	0.0	Pass	+100.05
ISO 12217-1:2002(E)	6.3.3 Resistance to waves (Value of GZ)	7.87	in	9.02	Pass	+14.50
ISO 12217-1:2002(E)	6.4 Heel due to wind action (Categories C and D only)	5.0	deg	0.0	Pass	+100.10

Stability Calculation Loadcase - Loaded Arrival Condition
Damage Case - Intact
Free to Trim
Specific gravity = 1.025; (Density = 0.03703 lb/in^3)
Fluid analysis method: Use corrected VCG

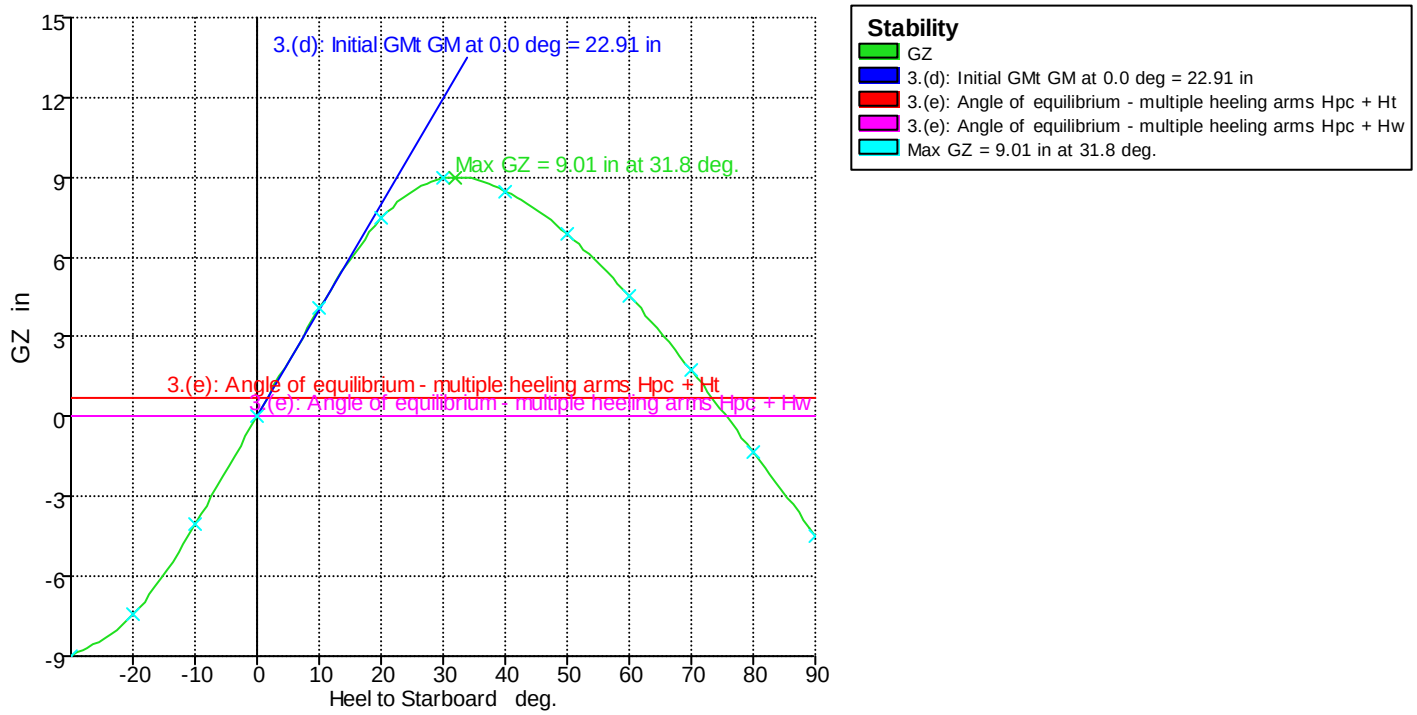
Floating Status



Floating Status Summary	
Draft Amidships in	13.30
Displacement lb	3676
Heel deg	0.0
Draft at FP in	12.09
Draft at AP in	14.52
Draft at LCF in	13.52
Trim (+ve by stern) in	2.43
WL Length in	252.45
Beam max extents on WL in	67.58
Wetted Area in^2	17855.09
Waterpl. Area in^2	12473.54
Prismatic coeff. (Cp)	0.636
Block coeff. (Cb)	0.421
Max Sect. area coeff. (Cm)	0.677
Waterpl. area coeff. (Cwp)	0.731
LCB from zero pt. (+ve fwd) in	101.76
LCF from zero pt. (+ve fwd) in	105.32
KB in	9.08
KG fluid in	22.98
BMt in	36.80
BML in	439.52
GMt corrected in	22.90
GML in	425.62
KMt in	45.88
KML in	448.59
Immersion (TPi) Long Ton/in	0.206
MTi Long Ton.ft	0.227
RM at 1deg = GMt.Disp.sin(1) lb.in	1468.77
Max deck inclination deg	0.5431
Trim angle (+ve by stern) deg	0.5431

Loading Summary

Item Name	Quantity	Unit Mass lb	Total Mass lb	Unit Volume US liqui. Gal	Total Volume US liqui. Gal	Long. Arm in	Trans. Arm in	Vert. Arm in	Total FSM lb.in	FSM Type
Lightship	1	1022.8	1022.8			51.60	0.00	22.40	0.00	User Specified
Fueil Oil Tank (PS)	10%	64.9	6.5	8.23	0.82	12.12	-13.72	9.42	125.48	Maximum
Fueil Oil Tank (SB)	10%	64.9	6.5	8.24	0.82	12.12	13.72	9.42	125.44	Maximum
Passengers	8	180.0	1440.0			140.00	0.00	30.00	0.00	User Specified
Gears	1	1200.0	1200.0			100.00	0.00	15.00	0.00	User Specified
Total Loadcase			**3675.8**	**16.47**	**1.65**	**101.89**	**0.00**	**22.92**	**250.92**	
FS correction								0.07		
VCG fluid								22.98		



Heel to Starboard deg	GZ in	Displacement lb	Draft at FP in	Draft at AP in	LCB from zero pt. (+ve fwd) in	LCF from zero pt. (+ve fwd) in	KB in	KG fluid in	GMt corrected in	KMt in
-30.0	-8.96	3676	9.07	11.06	101.80	108.33	12.96	22.98	2.06	29.25
-20.0	-7.44	3676	10.75	13.35	101.75	105.53	11.17	22.98	15.18	39.79
-10.0	-4.05	3676	11.82	14.34	101.75	104.37	9.65	22.98	23.69	47.02
0.0	0.00	3676	12.09	14.52	101.76	105.32	9.08	22.98	22.90	45.88
10.0	4.06	3676	11.81	14.34	101.75	104.37	9.65	22.98	23.69	47.01
20.0	7.45	3676	10.74	13.36	101.74	105.51	11.17	22.98	15.16	39.78
30.0	8.96	3676	9.04	11.08	101.78	108.31	12.96	22.98	2.04	29.23
40.0	8.48	3676	6.75	8.25	101.81	112.69	14.42	22.98	-6.56	23.41
50.0	6.86	3676	3.52	4.61	101.84	116.71	15.61	22.98	-11.70	20.72
60.0	4.54	3676	-2.15	-0.46	101.82	117.46	16.60	22.98	-14.31	19.76
70.0	1.74	3676	-13.20	-9.92	101.80	115.62	17.37	22.98	-17.07	18.79
80.0	-1.33	3676	-46.19	-37.15	101.76	113.79	17.99	22.98	-17.94	18.56
90.0	-4.46	3676	n/a	n/a	101.72	113.88	18.53	22.98	-17.66	18.53

Key point	Type	Immersion angle deg	Emergence angle deg
Margin Line (immersion pos = 90.18 in)		16.9	n/a
Deck Edge (immersion pos = 90.18 in)		21.8	n/a

Criteria Status Summary

Code	Criteria	Value	Units	Actual	Status	Margin %
Intact	3.(a)i: Angle of max GZ	15.0	deg	31.8	Pass	+112.12
Intact	3.(a)ii: Value of max. GZ	7.87	in	9.02	Pass	+14.50
Intact	3.(c): GZ area between limits	124.066	in.deg	179.255	Pass	+44.48
Intact	3.(d): Initial GMt	5.91	in	22.91	Pass	+288.00
Intact	3.(e): Angle of equilibrium - multiple heeling arms				Pass	
	Hpc + Ht	12.0	deg	1.7	Pass	+85.66
	Hpc + Hw	12.0	deg	0.0	Pass	+100.04
ISO 12217-1:2002(E)	6.2 Offset load test - equilibrium with heel arm	10.0	deg	0.0	Pass	+100.05
ISO 12217-1:2002(E)	6.3.3 Resistance to waves (Value of GZ)	7.87	in	8.98	Pass	+14.00
ISO 12217-1:2002(E)	6.4 Heel due to wind action (Categories C and D only)	5.0	deg	0.0	Pass	+100.10