



2/26/18

BARGE CONFIGURATION AND ENGINEERING ANALYSIS

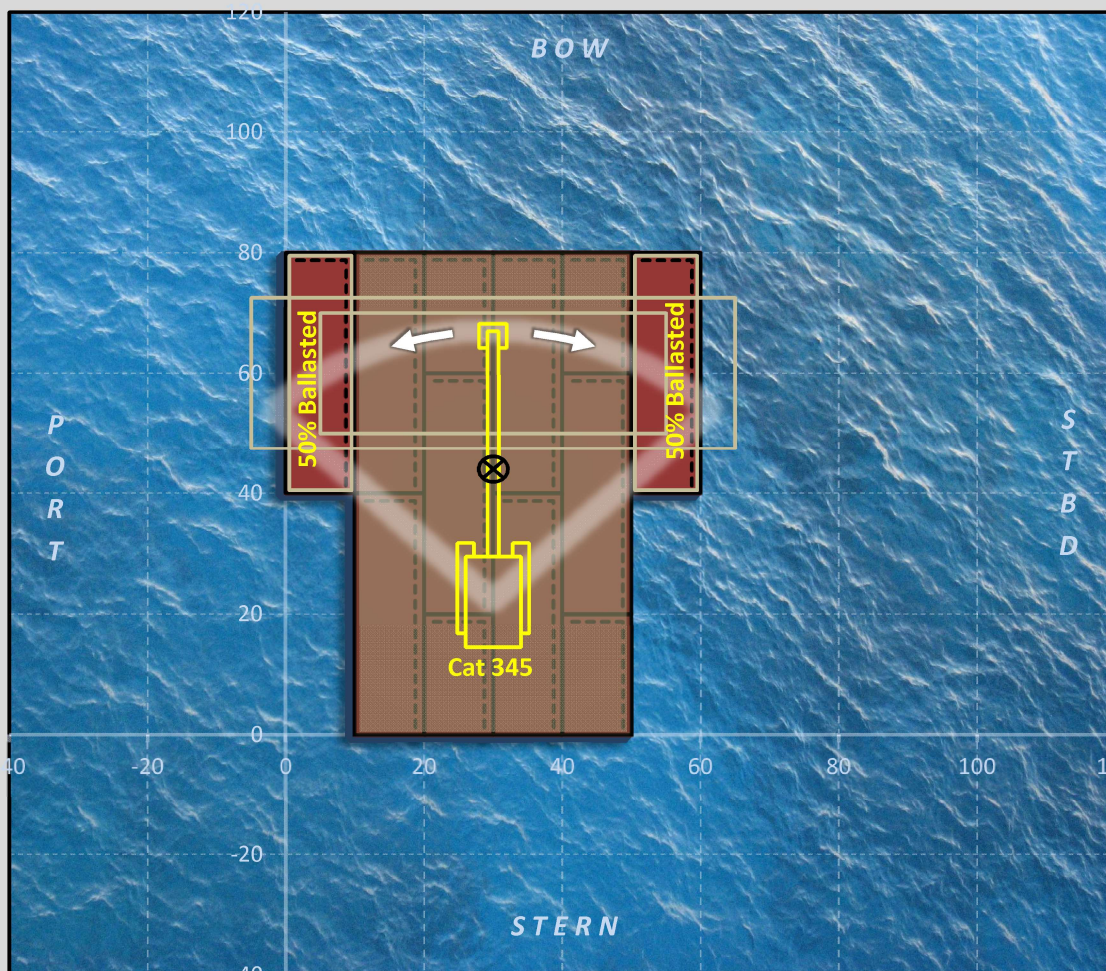
Library # 1885

DECK LOAD		Weight (lbs)	Vertical CG (ft)	Dist from Centroid		Size (ft)	
Description				X (ft)	Y (ft)	Length	Width
	Cat 345B L Excavator	110,000	14.0	0	-22	8	15
	Crane Mat - 12" Thick	118,560	7.5	0	-4	38	78
	Bucket Weight and Load	5,000	28.8				
	Steel Plate (25ft x 70ft x 1")	71,568	8.0	0	16	70	25
	Ballasted Port Flanking Barge, 50%	82,750	3.5	-25	16	9	39
	Ballasted Stbd Flanking Barge, 50%	82,750	3.5	25	16	9	39
	Demo'd Concrete	250,000	10.0	0	16	50	20

HULL WEIGHT		Weight (lbs)	Vertical CG (ft)	Alignment Angle Orientation (deg)	Range of Operation
Qty	Description				
8	P2 - 7 x 40 x 10 - Barge	246,216	3.5		from 45 to 135 degrees
4	P2 - 7 x 20 x 10 - Barge	67,244	3.5		

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Deck Load (lbs)

720,628

Hull Weight (lbs)

313,460

Total Weight (lbs)

1,034,088

Platform
Centroid (ft)

X = 30.00

Y = 44.00

Lift Radius (ft)

45

Boom Length (ft)

50

Pick Height (ft)

22

Net Vert CG (ft)

7.1



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HYDROSTATICS

Description		Description	
Displaced Volume in Saltwater (ft ³)	16,158	Average Draft in Saltwater (ft)	4.04
Displaced Volume in Freshwater (ft ³)	16,572	Average Draft in Freshwater (ft)	4.14
Longitudinal Moment of Inertia (ft ⁴)	2069333	Waterplane Area (ft ²)	4000
Transverse Moment of Inertia (ft ⁴)	933333	Vertical Center of Buoyancy (ft)	2.07

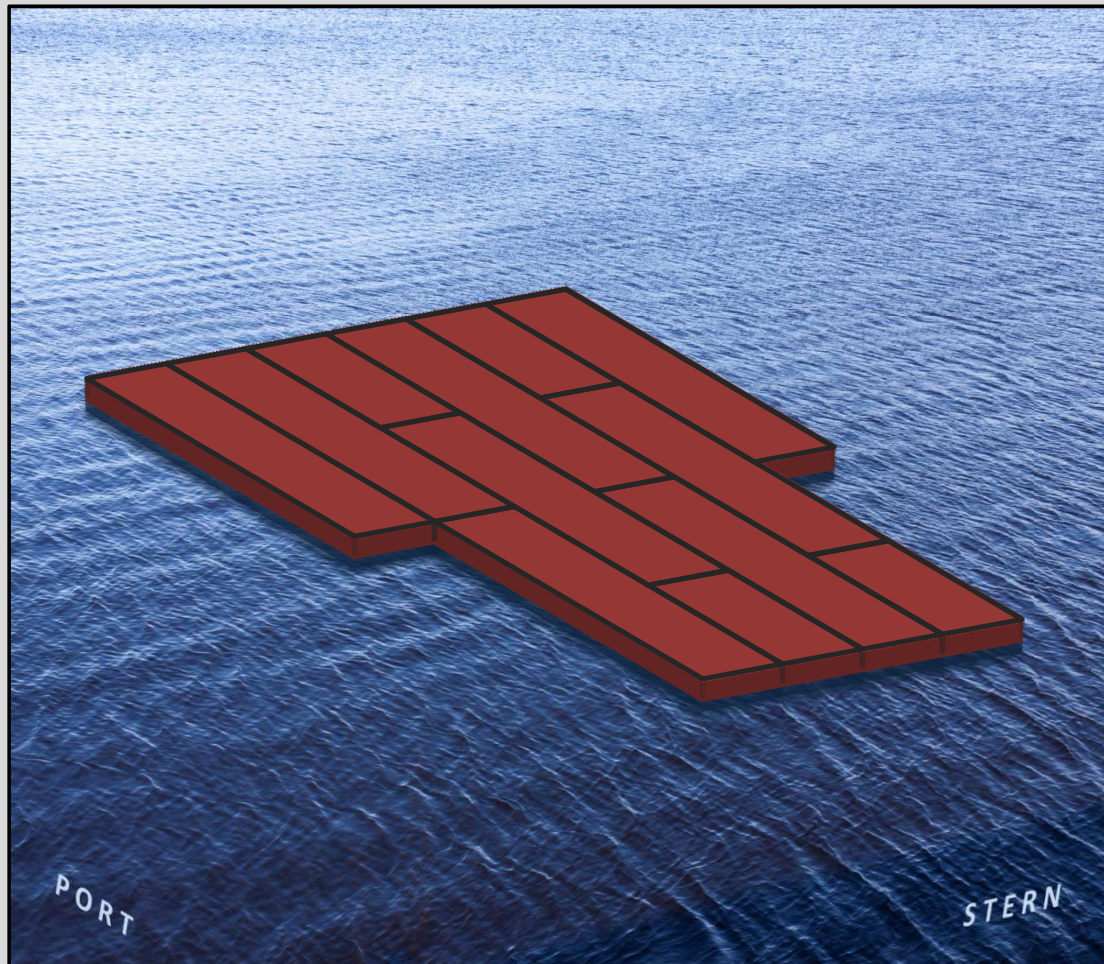
STABILITY METRICS

Working over end of platform		Working over side of platform	
Trim Moment (ft lbs)	5013848	List Moment (ft lbs)	159099
BM _L (ft)	124.9	BM _T (ft)	56.3
GM _L (ft)	119.9	GM _T (ft)	51.3

Note - Negative moments and angles are towards the Port and Stern.

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Width (ft)
Port to Stbd

60.0

Length (ft)
Bow to Stern

80.0

List Angle (deg)
Port to Stbd

0.2

Trim Angle (deg)
Bow to Stern

2.3

Average Draft (ft)
freshwater

4.1

This analysis is provided for the evaluation of buoyancy and stability based upon the project parameters submitted to Poseidon Barge Corp. There are project and worksite conditions and variables which are unforeseeable and beyond the control of Poseidon Barge Corp. and therefore, we cannot accept responsibility and specifically deny any liability for the safe use of Poseidon Barge Corp. equipment. This analysis is a guideline and does not constitute a guarantee that there will not be circumstances that prevent and do not allow for the intended use of the equipment. Approval of the analysis and ultimate project engineering is the sole responsibility of the contractor/lessee. Please review our website for further information concerning our Disclaimer of Warranties. www.poseidonbarge.com