

Weight Management System (WMS)

by Zentech

On-board Stability Weight Management System for Spars

SECTION NO. 0 - PROD DK(SOL)Tb6.2

XCG = 0, YCG = 0

XCG = 0, YCG = 0

Plan View
Production Deck at 640 Ft above Keel

Profile View

No.	Item Description	Weight (kips)	XCG (FT)	YCG (FT)	VCG (FT)	Sub Group	Group
1	Prod Deck Grid 1	1.0	-62.00	29.00	642.00	PAS	OFF
2	Prod Deck Grid 2	2.5	-24.00	60.00	642.00	PAS	OFF
3	Prod Deck Grid 3	5.3	68.00	64.28	642.00	PAS	OFF
4	Prod Deck Grid 4	21.8	-55.00	22.93	653.00	PAS	OFF
5	Prod Deck Grid 5	1.0	-19.58	10.92	641.58	PAS	OFF
6	Prod Deck Grid 6	1.0	60.00	19.00	642.00	PAS	OFF
7	Prod Deck Grid 7	3.2	27.32	16.73	640.65	PAS	OFF
PROD DK(SOL)Tb6.2		48.4	-8.54	12.70	629.08	Note: Click on PAS and ON to select Subgroup Option	
CONDITION TOTAL		69,442.6	-0.00	0.00	346.89		

Deck Load 8002.9 Kips
Trim 0.00 Deg
List 0.00 Deg
KG Magn 47.69 Ft

VOID TANKS
TOPSIDE VARIABLES-LIQ
TOPSIDE VARIABLES-SOL
DRL DK(SOL) Tb6.1
CELLR DK(SOL)Tb6.3
INTRCNCTSMIS Tb7
HULL VARIABLES-LIQ

Sign Convention

Launch drawing
Plan Profile
Drilling Rig @ (WELL 'C') ON
Print Exit
Print with Subgroup Details

Part of Zentech's Suite of Load and Stability Calculator (LoStab) Programs, WMS is an interactive, menu-driven, vessel-specific software used in data management and loading calculations in the day-to-day operations of Spars.

Main Features

- Pull-Down and Pop-Up Menus for Data Input
- Grouping of Weights Based on Solids, Liquids, Miscellaneous Items and Mooring Loads.
- Selected Blocking of Fields to Prevent User Entry
- Individual Weights and CGs, Subtotals and Totals
- Facility to Archive and Retrieve Loading Conditions
- Calculation of Stability Parameters, Free Surface Effect and Deck Loads
- Updates of Drafts, Trim and Heel Angles, Deck Loads and KG Margin, with Every Entry
- CGs of Weights about Global or Local Coordinate Systems

Special Features

- Deck-wise Solid Weight Management through graphics, by click and drag option
- Weight Management by Grouping and Sub-grouping
- Summary of Consumables and their Break-up
- Calculation of Liquid Weights and CGs from Tank Tables
- Interface with ZenMAS, the Real-time Mooring Advisory Software and updation of mooring loads real-time
- User Input Data validation against preset limits
- Loading calculation with or without the Drilling Rig onboard
- Ballasting and Deballasting Procedures and Load Equalization Calculations
- Damaged Stability Calculations
- User Selectable Allowable KGs

Deballasting

Top View

Profile View

No	Tank Description	Old Ft-In	New Ft-In	Net Wt. Shift
1	BALLAST TANK B1N	10-10.2	10-9.8	-3.21
2	BALLAST TANK B1W	12-10.5	11-10.2	-82.27
3	BALLAST TANK B1E	27-3.2	26-2.1	-61.72

Total Weight 63275.41 Kips
XCG 0.00 Ft
YCG 0.00 Ft
VCG 346.85 Ft
KG Margin 47.38 Ft
Trim 0.00 Deg
List 0.00 Deg

Drifts 535.50
535.50
535.50
535.50

Total Shift of Wt -167.2 Kips

Proceed? [OK] [Cancel]

- Plots of Weights, CGs and Free Surface Moments with Sounding, for Tanks
- Screen Preview and Hard Copy Options for Outputs
- Comprehensive Help Menu

Stability Summary

Free Surface Moment
Transverse 36457.20 Ft-K
Longitudinal 36457.20 Ft-K

Total Weight : 69,442.6 Kips

XCG	-0.00	Ft	Trim	-0.00	Deg
YCG	0.00	Ft	List	0.00	Deg
VCG	346.89	Ft			
KMT	424.28	Ft	KML	424.28	Ft
GMT	76.87	Ft	GML	76.87	Ft
TGF	0.00	Ft	LCF	0.00	Ft
TCB	0.00	Ft	LCB	0.00	Ft

Corrected KG 347.41 Ft
Allowable KG 395.10 Ft
KG Margin 47.69 Ft

Sign Convention

Drilling Rig @ (WELL 'C') ON

Print Exit

Variable Summary

Del	Item Description	Weight	Unit	Volume	Unit	Av. Drnsty	Unit
TOPSIDE LIQUIDS							
1	Drill Dk Var(Liq)	1.2	Kips	3.43	Bbls	1.00	Sp.Grav
3	Prod Dk Var(Liq-Diesel)	122.6	Kips	416.90	bbls	0.84	Sp.Grav
4	Cellr Dk Var(Liq-Pot Wtr)	45.0	Kips	134.14	bbls	0.88	Sp.Grav
5	TOTAL TOPSIDE LIQUIDS	168.8	Kips				
HULL LIQUIDS							
7	Ballast	3997.4	Kips	11140.52	Bbls	1.02	Sp.Grav
8	Void Tanks	0.0	Kips		Bbls	1.03	Sp.Grav
9	TOTAL HULL LIQUIDS	3997.4	Kips				
VARIABLE LOADS							
TOPSIDE VARIABLES							
12	Drill Dk Vrble(Sol)	148.2	Kips				
13	Prod. Dk Vrble(Sol)	48.4	Kips				
14	Cellar Dk Vrble(Sol)	395.5	Kips				
15	Interconnects and Misc.	50.9	Kips				
16	TOTAL TOPSIDE VARIABLES	643.1	Kips				
HULL VARIABLES							

Total Deck Load 8002.9 Kips
Average VCG 439.00 Ft

Drilling Rig @ (WELL 'C') ON

Print Exit

Note: Click the 'Del' column cell to get the details of each item.



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