

Inputs Sheet 2

Vessel: **LCT. SURYA AGUNG 2**

Crane and Hookload Inputs (For details refer to tab below entitled "Figure A")					
id	Symbol	Description	Qty	Units	Comments
1	W_{CR}	Weight of Crane, crane includes crawlers, cab, counterweights, boom, etc. Basically all crane components less the hook load.	80,000	kg	From crane documentation, if the provided units are different, convert them to kg and then enter the converted value here.
1a		Input Weight of Crane	80.00	Tonne	Conversion of above to metric tons
2	LCC_{CR}	Longitudinal Center of Crane Rotation Axis	20.000	meters	Distance from end of barge to crane rotation axis, See Figure A
3	W_{HL}	Weight of Hook Load	7,500	kg	From lift requirements, must never be larger than maximum allowable hookload for crane radius selected below.
3a		Input Weight of Hook Load	7.50	Tonne	Conversion of above to metric tons
4	CR_{HL}	Crane Radius for Hook Load	12.000	meters	From crane documentation.
5	L_{CRAKE}	Length of LCT Rake, below and/or next to the crane if present.	4.500	meters	If no rake is present below the crane, set this value equal to zero.
6	E	Longitudinal distance from Rotation Axis to CG of Crane (excludes hookload), usually a small value	1.500	meters	Plus if offset is toward barge center as shown in Figure A. Zero if crane boom is orientated athwartships
7	LCG_{CR}	Longtd'l. CG of Crane, location from amidships	7.500	meters	Where $LCG_{CR} = L / 2 + L_{CRAKE} - LCC_{CR} - E$
8	VCG'_{CR}	Height of CG for Crane Assembly, including Boom & Counterweights	2.500	meters	All crane components (excluding hook load), vert. distance to crane bottom
9	T_M	Thickness of Timber Matt on Deck	0.000	meters	If no matt present set this equal to zero
10	VCG_{CR}	Vertical CG of Crane Assembly., above LCT baseline	2.750	meters	Where $VCG_{CR} = D + T_M + VCG'_{CR}$
11	TCG_{CR}	Transverse CG of Crane Assembly, location from Centerline	1.500	meters	See notes on next line. This includes cab, boom, counterweights & tracks (all crane components except hook load)
This TCG_{CR} value is normally equal to the distance from barge's longitudinal centerline to the center of rotation of the crane plus the effects of any eccentricity (from the crane rotation access to crane transverse cg). This value is equal to zero if crane assembly center of gravity is located on longitudinal centerline.					
12	LCG_{HL}	Longtd'l. CG of Hook Load, location from amidships	21.000	meters	Where $LCG_{HL} = LCG_{CR} + E + CR_{HL}$
13	VCG'_{HL}	Vertical CG of Hookload, above crane baseline (crane bottom)	18.500	meters	Height to the center of sheave that is located at top of the crane boom
13a	VCG_{HL}	Vertical CG of Hookload, above barge baseline (LCT bottom)	21.400	meters	Where $VCG_{HL} = VCG'_{HL} + T_M + D$
14	TCG_{HL}	Transverse CG of Hook Load, location from Centerline	10.000	meters	See notes on the next line.
This TCG_{HL} value is normally equal to the distance from barge's longitudinal centerline to the center of rotation of the crane plus the crane radius to the hook load. This value is equal to zero if hook load center of gravity is located over the longitudinal centerline.					
15	W_{CW}	Trim Compensating Weight	0	kg	Input compensating weight, if present
15a		Trim Compensating Weight	0.00	Tonne	Conversion of above to metric tons
16	LCG_{CW}	Longtd'l. CG of Compensating Weight, location from amidships	0.000	meters	State Location of Weight: Like over fwd rake bulkhead or at Frame X
17	HCG_{CW}	Vertical CG of Compensating Weight, above LCT Deck	7.500	meters	Estimate, based on info provided
18	VCG_{CW}	Vertical CG of Compensating Weight, above LCT baseline	10.400	meters	Where $VCG_{CW} = D + HCG_{CW}$
19	TCG_{CW}	Transverse CG of Compensating Weight, location from Centerline	0.000	meters	Zero if balanced on Centerline. Value based on information provided.