




NO	DATE	SHEET	MODIFICATION	BY
OWNER JASA ARMADA INDONESIA		PROJECT NAME ASD HARBOUR TUG 2x2200 HP		ISSUED DATE 17/08/2018
CLASS BKI		PROJECT NO ABH18048 HULL NO. <b>TB101</b> TB102/TB103/TB105		DRAWN BY -
SHIPYARD PT. CITRA SHIPYARD		DRAWING TITLE  <b>WELDING TABLE</b>		DESIGNED BY USA
SCALE NTS				CHECKED BY IMR
SIZE A4				APPROVED BY TRI
DRAWING NO : H - 22 - 003		SHEET 1 OF 8	REVISION ① 1 2 3 4 5	
<div style="text-align: center;">  <b>CITRA SHIPYARD</b>        SHIP BUILDING &amp; REPAIR     </div>				
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# WELDING TABLE

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## Note : Steel Hull

- Minimum welding of fillet weld 4.0 mm, unless gap between members is 1 mm or less.

DESCRIPTION		Leg Length (mm)	
		Double Continues Weld	Stag Intermitt Weld
<b>A. BOTTOM &amp; MACHINARY SPACES</b>			
1	Keel Plate (12 mm) to Center Girder (10 mm)	5.0	
2	Bottom Plate (10 mm) to Floor (9 mm)	5.0	
3	Bottom Plate (10 mm) to M/E Girder (XX mm)	Deep Penetration	
4	M/E Girder (XX mm) to Bracket (10 mm)	5.0	
5	M/E Girder (XX mm) to Top Plate (XX mm)	Deep Penetration	
6	M/E Girder (XX mm) to Floor (10 mm)	5.0	
7	Center Girder (10 mm) to Floor (9 mm)	5.0	
8	Floor (9 mm) to Stiffeners (12 mm)	5.0	
9	Keel Plate (12 mm) to Bottom Plate (10 mm)	6.5	
10	Bilge Keel (14 mm) to Bottom Plate (10 mm)	6.5	
<b>B. TANK TOP (1500 ABL)</b>			
1	Tank Top Plate (9 mm) to Centre Girder (10 mm)	5.0	
2	Tank Top Plate (9 mm) to Floor (9 mm)	5.0	
3	Tank Top Plate (12 mm) to Centre Girder (10 mm)	5.0	
4	Tank Top Plate (12 mm) to Floor (9 mm)	5.0	
5	Tank Top Plate (9 mm) to Shell Plate (10 mm)	6.0	
6	Tank Top Plate (9 mm) to Bracket (9 mm)	5.0	

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DESCRIPTION		Leg Length (mm)	
		Double Continues Weld	Stag Intermit Weld
<b>C. TANK TOP (2840 A BL )</b>			
1	Tank Top Plate (9 mm) to Shell Plate (10 mm)	6.0	
2	Tank Top Plate (9 mm) to Deck Beam (10 mm)	5.0 (Tank)	5.0 (Non Tank)
3	Tank Top Plate (9 mm) to Web Beam (10 mm)	5.0	
4	Web Beam (10 mm) to Face (12 mm)	5.0	
5	Tank Top Plate (9 mm) to Deck Center Girder (10 mm)	5.0	
6	Tank Top Plate (9 mm) to Trans Bulkhead (9 mm)	6.0	
7	Deck Girder (10 mm) to Bracket (9 mm)	5.0	
8	Tank Top Plate (9 mm) to FWT Bulkhead (10 mm)	6.0	
9	Web of Deck Girder (10 mm) to Face (10 mm)	5.0	
10	FWT Bulkhead (9 mm) to Stiffeners (8 mm)	5.0	
11	FWT Bulkhead (9 mm) to Vert. Girder (10 mm)	5.0	
12	Web of Vert. Girder (10 mm) to Face (12 mm)	5.0	
<b>D. SIDE SHELL</b>			
1	Shell Plate (10 mm) to Ord. Frame (10 mm)	5.0 (Tank)	5.0 (Non Tank)
2	Shell Plate (10 mm) to Web Frame (10 mm)	5.0	
3	Shell Plate (10 mm) to Trans Bhd (9 mm)	6.0	
4	Shell Plate (10 mm) to Side Plate (14 mm)	5.0	
5	Side Plate (14 mm) to Main Deck Plate (9 mm)	6.0	
6	Web Frame (10 mm) to Face (12 mm)	5.0	
7	Shell Plate (10 mm) to Sea Chest plate (14 mm)	6.5	
8	Shell Plate (10 mm) to Bracket (9 mm)	5.0	



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DESCRIPTION		Leg Length (mm)	
		Double Continues Weld	Stag Intermit Weld
<b>E. MAIN DECK</b>			
1	Main Deck Plate (9 mm) to Deck Beam (9 mm)	5.0 (Tank)	5.0 (Non Tank)
2	Main Deck Plate (9 mm) to Deck Girder (10 mm)	5.0	
3	Main Deck Plate (9 mm) to Deck Girder (9 mm)	5.0	
4	Main Deck Plate (9 mm) to Web Beam (10 mm)	5.0	
5	Main Deck Plate (9 mm) to Wall (6 mm)	4.5	
6	Web of Deck Girder (10 mm) to Face (12 mm)	5.0	
7	Web of Deck Girder (9 mm) to Face (10 mm)	5.0	
8	Main Deck Plate (9 mm) to Stay (9 mm)	5.0	
9	Main Deck Plate (9 mm) to Bulwark Plate (9 mm)	5.0	
10	Bulwark Plate (9 mm) to Stay (9 mm)		5.0
<b>F. SKEG</b>			
1	Skeg Plate (12 mm) to Keel Plate (12 mm)	Full Penetration	
2	Skeg Plate (12 mm) to Web (10 mm) (P side)	5.0	
3	Skeg Plate (12 mm) to Web (10 mm) (S side)	Slot Weld	
4	Skeg Plate (12 mm) to Skeg Bottom Plate (14 mm)	Full Penetration	
5	Skeg Plate (12 mm) to Horz Plate (10 mm)	5.0	
6	Web Plate (10 mm) to Horz Plate (10 mm)	5.0	

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DESCRIPTION		Leg Length (mm)	
		Double Continues Weld	Stag Intermit Weld
<b>G. TRANS WT BULKHEAD</b>			
1	Bulkhead Plate (9 mm) to Bottom Plate (10 mm)	6.0	
2	Bulkhead Plate (9 mm) to Shell Plate (10 mm)	6.0	
3	Bulkhead Plate (9 mm) to Deck Plate (9 mm)	6.0	
4	Bulkhead Plate (9 mm) to Tank Top Plate (9 mm)	6.0	
5	Bulkhead Plate (9 mm) to Vert. Girder (10 mm)	5.0	
6	Bulkhead Plate (9 mm) to Stiffeners (8 mm)		5.0
7	Web of Vert. Girder (10 mm) to Face (12 mm)	5.0	
<b>H. AFTER CONST</b>			
1	AP. Bulkhead (9 mm) to Bottom Plate (10 mm)	6.0	
2	AP. Bulkhead (9 mm) to Shell Plate (10 mm)	6.0	
3	AP. Bulkhead (9 mm) to Stiffeners (8 mm)	5.0 (Tank)	5.0 (Non Tank)
4	AP. Bulkhead. (9 mm) to Vertical Girder (10 mm)	5.0	
5	AP. Bulkhead (9 mm) to Deck plate (9 mm)	6.0	
6	Web of Vert. Girder (10 mm) to Face (12 mm)	5.0	
7	Bottom Plate (10 mm) to Bottom Girder (10 mm)	5.0	
8	Bottom Girder (10 mm) to Face (12 mm)	5.0	
9	Deck Plate (9 mm) to Deck Girder (10 mm)	5.0	
10	Deck Girder (10 mm) to Face (12 mm)	5.0	
11	Shell Plate (10 mm) to Web Frame (10 mm)	5.0	
12	Web Frame (10 mm) to Face (12 mm)	5.0	



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DESCRIPTION		Leg Length (mm)	
		Double Continues Weld	Stag Intermit Weld
<b>I. FORE CONST.</b>			
1	Bottom Plate (10 mm) to Bottom Girder (10 mm)	5.0	
2	Bottom Girder (10 mm) to Face (12 mm)	5.0	
3	Main Deck (9 mm) to Deck Girder (10 mm)	5.0	
4	Deck Girder (10 mm) to Face (12 mm)	5.0	
5	Stem Plate (12 mm) to Shell Plate (10 mm)	6.5	
6	Stem Plate (12 mm) to Web (10 mm)	5.0	
7	Side Plate (14 mm) to Web of Breast Hook (10 mm)	5.0	
8	Web of Breast Hook (10 mm) to Face (12 mm)	5.0	
9	Rope Store Plate (9 mm) to Shell Plate (10 mm)	6.0	
10	Rope Store Plate (9 mm) to Stiffeners (8 mm)		5.0
11	Rope Store Plate (9 mm) to Vert. Girder (10 mm)		5.0
12	Web of Vert. Girder (10 mm) to Face (12 mm)	5.0	
<b>J. DECK HOUSE SOLE &amp; BRIDGE DECK</b>			
1	DH Sole (6 mm) to Deck Girder (9 mm)		4.5
2	DH Sole (6 mm) to Web Beam (9 mm)		4.5
3	DH Sole (6 mm) to Deck Beam (7 mm)		4.5
4	DH Sole (6 mm) to Outer Wall (6 mm)	4.5	
5	Bracket (9 mm) to Deck Girder (9 mm)	5.0	
6	Web of Deck Girder (9 mm) to Face Plate (10 mm)	5.0	
7	Web Beam (9 mm) to Face (10 mm)	5.0	
8	Bridge Deck Plate (6 mm) to Deck Girder (9 mm)		4.5
9	Bridge Deck Plate (6 mm) to Web Beam (9 mm)		4.5
10	Bridge Deck Plate (6 mm) to Deck Beam (6 mm)		4.5
11	Bridge Deck Plate (6 mm) to Inner Wall (6 mm)	4.5	



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DESCRIPTION		Leg Length (mm)	
		Double Continues Weld	Stag Intermit Weld
<b>K. TOP DECK</b>			
1	Top Deck (6 mm) to Deck Beam (6 mm)		4.5
2	Top Deck (6 mm) to Web Beam (6 mm)		4.5
3	Top Deck (6 mm) to Deck Girder (6 mm)		4.5
4	Top Deck (6 mm) to Inner Wall (6 mm)	4.5	
5	Top Deck (6 mm) to Outer Wall (6 mm)	4.5	
6	Wall Plate (6 mm) to Stiffener (6 mm)		4.5
7	Wall Plate (6 mm) to Vert. Girder (6 mm)		4.5
8	Web of Deck Girder (6 mm) to Face Plate (8 mm)	4.5	
9	Web Beam (6 mm) to Face Plate (8 mm)	4.5	
10	Web of Vert. Girder (6 mm) to Face Plate (8 mm)	4.5	