



SYSTEM	PIPING SYSTEM CLASS:		III	HYDROSTATIC TEST PRESSURE:		4.5 Bar		
	DESIGN WORKING PRESSURE:		3 Bar	JOINTS NDT:		-		
	DESIGN WORKING TEMPERATURE:		-	PIPING MATERIAL:		STEEL		
	SYSTEM PRESSURE CLASS:		PN10	YARD SYSTEM TAG:				
PIPING SPECIFICATION	Nominal Dia. (ND)	Piping	Standard	Material	Connections	Type	Standard	Rating (bar)
	≤40	STEEL PIPES	ANSI B 36	ASTM A53 GR.B	FLANGED	EN 1092	PN 10	
	>40/≤150	STEEL PIPES	ANSI B 36	ASTM A53 GR.B	FLANGED	EN 1092	PN 10	
>200	STEEL PIPES	ANSI B 36	ASTM A53 GR.B	FLANGED	EN 1092	PN 10		
Remarks For wall thickness on pipes in general, in tanks, on weather deck and for overboard pipes see respective pipe charts.								
ANSI B 36 SEAMLESS STEEL PIPES	Nominal diameter	ND20	ND25	ND32	ND40	ND50	ND65	ND80
	Outer diameter	26,6	33,4	42,1	48,3	60,3	73,0	88,9
	Wall thickness, general (Schedule 40)	2,9	3,3	3,6	3,7	3,9	5,2	5,5
	Wall thickness, in tanks (Schedule 80)			4,8	5,1	5,5	7,0	7,6

- GENERAL NOTES:**
- THIS DRAWING IS AN INDICATIVE SCHEMATIC ONLY.
  - FO PIPING SHALL BE SEAMLESS DRAWN MS BLACK STEEL.
  - FO PURIFIER IS NOT CONSIDERED IN THE PRESENT DESIGN. HOWEVER SAME CAN BE PROVIDED, IF IT IS REQUIRED BASED ON THE ENGINE OEM RECOMMENDATION AND QUALITY OF THE FUEL USED.
  - QUICK CLOSING VALVES ARE TO FITTED DIRECTLY ON RESPECTIVE TANK BULKHEAD AND SHALL BE OPERATED BOTH LOCALLY & REMOTELY.
  - OVERFLOW PIPE PENETRATION INSIDE THE TANKS SHALL BE ABOVE 95% OF TANK VOLUME.
  - THE MATERIAL OF SIGHT GLASS SHALL BE BRASS TYPE. THE SIGHT GLASSES SHALL BE PROVIDED WITH ILLUMINATION AND SUITABLE FIRE RESISTANCE WHICH SHALL BE VISIBLE FROM A READILY ACCESSIBLE POSITION.
  - AN EMERGENCY FIRE PUMP IS ALSO CONSIDERED IN THE PRESENT DESIGN, FILLING OF WHICH SHALL BE MANUAL AND NOT PART OF MAIN FO SYSTEM. ITS REQUIREMENTS SHALL BE AS PER PARA. 2.2.2, CH:12 OF FSS CODE. FO SERVICE TANK FOR EMERGENCY FIRE PUMP SHALL BE SUFFICIENT TO RUN THE PUMP ON FULL LOAD FOR ATLEAST 3 HRS. SUFFICIENT RESERVE FUEL SHALL BE PROVIDED TO ENABLE THE PUMP TO RUN AT FULL LOAD FOR ADDITIONAL 15 HRS. SEPARATE APPROVAL FOR THIS SHALL BE TAKEN BY THE BUILDER PRIOR TO CONSTRUCTION.
  - FO COOLER IS NOT CONSIDERED IN THE PRESENT DESIGN. HOWEVER SAME CAN BE PROVIDED IF IT IS REQUIRED AS PER ENGINE OEM RECOMMENDATION.
  - STANDBY FO FEED PUMPS FOR MEs OR ONE SPARE PUMP SHALL BE STOWED ONBOARD.
  - FO FLOW METERS MAY BE PROVIDED BASED ON OWNER REQUIREMENTS.

NSFI	QTY	DESCRIPTION	CAPACITY	TYPE
601 101no	2	MAIN ENGINE	APPROX. 2400 KW	
651 101no	2	DIESEL GENERATOR	APPROX. 150 KW	
665 102no	1	HARBOUR DG	APPROX. 50 KW	
701 101no	2	FO TRANSFER PUMP	APPROX. 8m <sup>3</sup> /hr, 2.5 Bar	ROTARY GEAR/SCREW TYPE

**SEE LETTER E-125699-180639**

**REVIEWED**



**MAIN PARTICULARS**

LENGTH O.A	.....	abt 33.0 [m]
LENGTH B.P	.....	abt 31.3 [m]
BREADTH (MLD)	.....	abt 11.9 [m]
DEPTH (MLD)	.....	abt 5.4 [m]
DRAFT (HULL)	.....	abt 4.2 [m]
COMPLEMENT	.....	14 PERSONS
BOLLARD PULL	.....	80 T @100% MCR
INSTALLED POWER	.....	abt 4800 [kW]
CLASS NOTATION	.....	IRS - SWASTIKA SUL, TUG SWASTIKA IY, AGNI 1 (2400 m <sup>3</sup> /hr)

**11-SEP-2021**

Rev. I	30-Aug-2021	For publishing on IPA website	VKM	AK	NFC
No.	Date	Description	Drawn	Checked	Approved

ASTDS	80T BP TUG				
DESIGN NO : CT3380	TITLE				
<b>FUEL OIL SYSTEM</b>					

	COCHIN SHIPYARD LIMITED P.O. Bag 1653, COCHIN-682015 INDIA	1:120	A3	CT3380	CT3380-701-001
		Scale	Format	Project No.	Dwg. no.

This design was developed by Cochin Shipyard Ltd. for Indian Ports Association as a part of ASTDS Package. CSI does not make any representation or warranties, express or implied as to the completeness, accuracy, suitability of the design and it shall be the responsibility of the respective builder/owner to make its own assessment / evaluation of any such completeness, accuracy, suitability of the design prior to construction and any consequence thereof.

**PLAN ENDORSED FOR IN-PRINCIPLE APPROVAL**

ARMATURE AND FITTINGS LEGEND				REFERENCE DRAWINGS			
Symbol	Designation	Symbol	Designation	Symbol	Designation	Drawing No.	Drawing title
	SDNR VALVE		BUTTERFLY VALVE		LEVEL ALARM HIGH	CT3380-101-001	GENERAL ARRANGEMENT OILY WATER AND SLUDGE OIL SYSTEM
	NON RETURN VALVE		DRAIN VALVE		LEVEL ALARM LOW	CT3380-445-001	
	GATE VALVE		FLEXIBLE BELLOW		PRESSURE INDICATOR		
	FO FILTER		HAND PUMP		ELECTRIC MOTOR		
	BALL VALVE		LEVEL GAUGE		QUICK CLOSING VALVE		
	SCREW PUMP		SIGHT GLASS		PRESSURE RELIEF VALVE		

