



SYSTEM	PIPING SYSTEM CLASS:	III	HYDROSTATIC TEST PRESSURE:						
	DESIGN WORKING PRESSURE:		JOINTS NDT:	-					
	DESIGN WORKING TEMPERATURE:	-	PIPING MATERIAL:	STEEL					
	SYSTEM PRESSURE CLASS:	PN10	YARD SYSTEM TAG:						
	MEDIA FLASHPOINT:	-							
PIPING SPECIFICATION	Nominal Diameter (ND)	Piping		Connections					
	≤40	STEEL PIPES	ANSI B 36	ASTM A53 GR.B	FLANGED	EN 1092	PN 10		
	>40 ≤50	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	
REMARKS:									

- GENERAL NOTES:**
- THIS DRAWING IS AN INDICATIVE SCHEMATIC ONLY
 - ALL EQUIPMENT CONNECTIONS/DETAILS SHOWN ARE PRELIMINARY-SUBJECT TO CHANGE BASED ON FINAL EQUIPMENT SELECTED.
 - THRUSTER UNIT SHOWN IS INDICATIVE ONLY. THRUSTER LO TANKS, VALVES AND ASSOCIATED FITTINGS SHALL BE BASED ON OEM RECOMMENDATION.
 - LUBE OIL FILLING TO INDIVIDUAL CONSUMERS MAY BE MANUAL BY FLEXIBLE HOSE COUPLED TO SUPPLY LINE PIPE AND FREE END TO THE FILLING CAP; DEPENDING ON CONSUMER LUBE OIL SYSTEM.
 - ALL FLEXIBLE HOSE/CONNECTIONS SHALL BE FIRE RESISTANT.
 - ALL LO PIPES TO BE MS BLACK STEEL OF SCH.40 UNLESS OTHERWISE STATED.
 - LO PURIFIERS/ LO COOLERS SHALL BE PROVIDED ONLY ON ENGINE OEM RECOMMENDATION
 - CLOSED CIRCUIT LUBE OIL SYSTEM SHALL BE PROVIDED WITH AN ENGINE DRIVEN PUMP AND A STANDBY ELECTRIC MOTOR DRIVEN PUMP. AUTOMATIC CHANGEOVER TO BE PROVIDED FOR LUBE OIL STANDBY PUMPS WITH ENGINE DRIVEN PUMPS WITH SUITABLE ALARM
 - QUICK CLOSING VALVES ARE TO BE FITTED DIRECTLY ON RESPECTIVE TANK BULKHEADS. THESE VALVES ARE TO BE OPERABLE FROM A POSITION OUTSIDE THE MACHINERY SPACE AND THE VALVES TO BE PROVIDED WITH LOCAL MANUAL OPERATION INDEPENDENT OF THE REMOTE OPERATION.

NSFI	QTY	DESCRIPTION	CAPACITY	TYPE
601/101.01	2	MAIN ENGINE	Approx.1300 KW	
651/101.01	2	AUXILIARY DG	Approx.150 KW	
634/101.01	2	THRUSTER UNIT		
711/101.01	2	LUBE OIL HAND PUMP	3 m3/hr	SEMI ROTARY
711/102.01	1	LUBE OIL TRANSFER PUMP	1.5 m3/hr, 2Bar	GEAR PUMP
713/101.01	2	LO STANDBY PUMP FOR ME	-	ELECTRIC, GEAR/SCREW PUMP

SEE LETTER E-126094-180433

REVIEWED

MAIN PARTICULARS

LENGTH O.A abt 32.00 [m]

LENGTH B.P abt 30.80 [m]

BREADTH (MLD) abt 10.50 [m]

DEPTH (MLD) abt 5.00 [m]

DRAFT (HULL) abt 3.70 [m]

COMPLEMENT 10 PERSONS

BOLLARD PULL 40 T @100% MCR

INSTALLED POWER abt 2600 [kW]

CLASS NOTATION SWASTIKA SUL, SWASTIKA IY, TUG, INDIAN RIVER SEA VESSEL TYPE - 4

11-SEP-2021

PLAN ENDORSED FOR IN-PRINCIPLE APPROVAL

Rev. I	30-Aug-2021	For publishing on IPA website	ANJ	AK	NFC
No:	Date	Description	Drawn	Checked	Approved
ASTDS		40T BP HARBOUR TUG			
DESIGN NO: CT3240		LUBE OIL SYSTEM			
COCHIN SHIPYARD LIMITED P.O. Bag 1653, COCHIN-682015, INDIA		NTS	A3	CT3240	CT3240-711-001
		Scale	Format	Project No.	Dwg. no.
<small>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/end-user to make its own assessment / evaluation of any such completeness, accuracy, suitability of the design prior to construction, and any consequence thereof.</small>					

ARMATURE AND FITTINGS LEGEND				REFERENCE DRAWINGS	
Symbol	Designation	Symbol	Designation	Symbol	Designation
	BUTTERFLY VALVE		LOW LEVEL ALARM		RELIEF VALVE
	GATE VALVE		HIGH LEVEL ALARM		CONDENSATE TRAP
	DRAIN VALVE		QUICK CLOSING VALVE		
	BALL VALVE		LO FILTER		
	BALL VALVE c/w HOSE CONNECTION		GEAR PUMP		
	LEVEL GAUGE		NON RETURN VALVE		

Symbol	Designation	Symbol	Designation
	NOMINAL DIAMETER PIPE NUMBER		Steel, galv. steel or CuNi pipes
	SEI CODE		Precision tubes
	FITTING NUMBER		Copper tubes
	SEQUENCE PIPE NUMBER		Stainless steel
			Blucher pipes