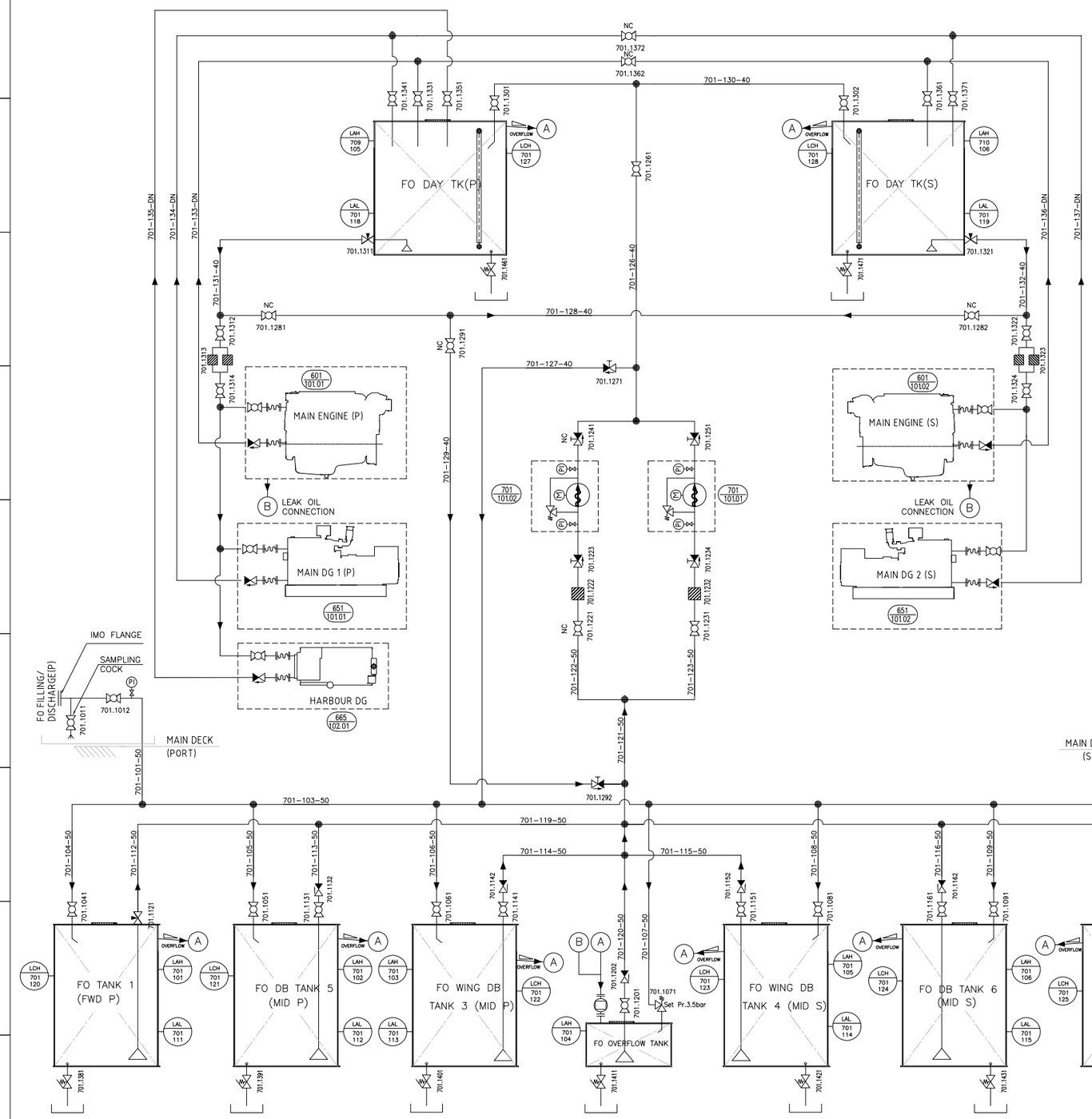


SYSTEM				
PIPING SYSTEM CLASS:	III	HYDROSTATIC TEST PRESSURE:	4.5 Bar	
DESIGN WORKING PRESSURE:	3 Bar	JOINTS NDT:	–	
DESIGN WORKING TEMPERATURE:	–	PIPING MATERIAL:	STEEL	
SYSTEM PRESSURE CLASS:	PN10	YARD SYSTEM TAG:		

PIPING SPECIFICATION	Piping			Connections		
Nominal Dia. (ND)	Pipe Type	Standard	Material	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:

1. THIS DRAWING IS AN INDICATIVE SCHEMATIC ONLY.
2. FO PIPING SHALL BE SEAMLESS DRAWN MS BLACK STEEL.
3. 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.
4. QUICK CLOSING VALVES ARE TO FITTED DIRECTLY ON RESPECTIVE TANK BULKHEAD AND SHALL BE OPERATED BOTH LOCALLY & REMOTELY.
5. OVERFLOW PIPE PENETRATION INSIDE THE TANKS SHALL BE ABOVE 95% OF TANK VOLUME.
6. 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.
7. 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.
8. FO COOLER IS NOT CONSIDERED IN THE PRESENT DESIGN. HOWEVER SAME CAN BE PROVIDED IF IT IS REQUIRED AS PER ENGINE OEM RECOMMENDATION.
9. STANDBY FO FEED PUMPS FOR MEs OR ONE SPARE PUMP SHALL BE STOWED ONBOARD.
10. FO FLOW METERS MAY BE PROVIDED BASED ON OWNER REQUIREMENTS.

NSFI	QTY	DESCRIPTION	CAPACITY	TYPE
601 T01no	2	MAIN ENGINE	APPROX. 2050 KW	
651 T01no	2	DIESEL GENERATOR	APPROX. 150 KW	
665 T02no	1	HARBOUR DG	APPROX. 50 KW	
701 T01no	2	FO TRANSFER PUMP	APPROX. 8m3/hr, 2.5 Bar	ROTARY GEAR/SCREW TYPE

SEE LETTER
E-125693-180627
REVIEWED
INDIAN REGISTER OF SHIPPING
11-SEP-2021

MAIN PARTICULARS

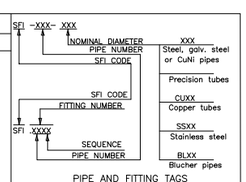
LENGTH O.A	.....	abt 33.0 [m]
LENGTH B.P	.....	abt 31.3 [m]
BREADTH (MLD)	.....	abt 11.9 [m]
DEPTH (MLD)	.....	abt 5.4 [m]
DRAFT (HULL)	.....	abt 4.2 [m]
COMPLEMENT	.....	14 PERSONS
BOLLARD PULL	.....	70 T @100% MCR
INSTALLED POWER	.....	abt 4100 [kW]
CLASS NOTATION	.....	IRS – SWASTIKA SUL, TUG SWASTIKA IY, AGNI 1 (2400 m³/hr)

ARMATURE AND FITTINGS LEGEND

Symbol	Designation	Symbol	Designation	Symbol	Designation	Symbol	Designation	Symbol	Designation
	SDNR VALVE		BUTTERFLY VALVE	LAH	LEVEL ALARM HIGH	LCH	LEVEL CONTROL HIGH		
	NON RETURN VALVE		DRAIN VALVE	LAL	LEVEL ALARM LOW		DUPLEX FO FILTER		
	GATE VALVE		FLEXIBLE BELLOW	PI	PRESSURE INDICATOR				
	FO FILTER		HAND PUMP	M	ELECTRIC MOTOR				
	BALL VALVE		LEVEL GAUGE		QUICK CLOSING VALVE				
	SCREW PUMP		SIGHT GLASS		PRESSURE RELIEF VALVE				

REFERENCE DRAWINGS

Drawing No.	Drawing title
CT3370-101-001	GENERAL ARRANGEMENT
CT3370-445-001	OILY WATER AND SLUDGE OIL SYSTEM



PIPE AND FITTING TAGS

PLAN ENDORSED FOR IN-PRINCIPLE APPROVAL

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

ASTDS

70T BP TUG

TITLE
FUEL OIL SYSTEM

DESIGN NO : CT3370

COCHIN SHIPYARD LIMITED
P.O. Bag 1653, COCHIN-682015, INDIA

Scale	Format	Project No.	Dwg. no.
1:120	A3	CT3370	CT3370-701-001