

DEENDAYAL PORT AUTHORITY

MECHANICAL ENGINEERING DEPARTMENT

Tel : (02836)270484/270354
FAX : (02836) 270184
Web : www.deendayalport.gov.in



Office of the Marine Engineer Gr.-I
Marine Bhawan.
New Kandla, Kutch,
Gujarat PIN-370 210

No. CME/Mech.Division/_____

Date:-03/06/2025

EXPRESSION OF INTEREST

“Repairing, retrofitting and Conversion of old Pilot Launch Niharika to Green Electric Hydrogen and Battery along with modifications of propulsion system with controls & alignment, Gear boxes, steering & rudder system, electrification & modifications on craft to operate successfully for pilotage operation at DPA”.

Sir,

Under the Green port initiatives and net zero target of MoSPW, Deendayal Port Authority (DPA) intends to outsource the work of “Repairing, retrofitting and Conversion of old Pilot Launch Niharika to Green Electric Hydrogen and Battery along with modifications of propulsion system with controls & alignment, Gear boxes, steering & rudder system, electrification & modifications on craft to operate successfully for pilotage operation at DPA”. This project will be a technological demonstration initiative, aligning with DPA’s commitment to sustainability and innovation in maritime operations.

Interest and efficient contractor are requested to kindly submit the Expression of Interest (EOI) along with budgetary-offer along with Techno Commercial Offer for the subject work in the prescribed format at **Schedule-B** based on the terms and conditions enclosed at **Annexure- I**. Available documents of Pilot Launch ML Niharika is placed under Annexure-II. Items in Schedule-B are indicative and the contractor is required to access the requirement for complete repairing and fitting of Electric propulsion systems along with all the requirements to make Pilot Launch Operational to attain round the clock shipping /pilotage/other required operations of DPA.

The rates quoted must be inclusive of all costs including but not limited to materials, labour, all tools & tackles, transportation, provision for Hydrogen cylinders/tank for easy replacement/refilling, Fuel cell of minimum 400KW, Li-ion Propulsion Battery pack of minimum 400KW and suitable charger to charge the propulsion batteries, Electric Propulsion motors, Gear boxes, control system, Battery Management system & Energy Storage System (BMS & ESS) and EMS for efficient utilization of energy. Propulsion load shall be designed in sequential basis and incase of failure of electrical supply from Fuel cell & battery bank, it shall be capable to take power directly from DG and reach to jetty safely. All the equipments shall be Class approved from IR Class or IACS member and the Craft may be registered under GMB/MMD. Steel renewal as per requirement of DPA/IRS Class and any other charges for successful completion of the work excluding GST. The GST applicable shall be shown separately, which shall not be considered for evaluation purposes.

Your Expression of interest along with budgetary offer with techno commercial offer for the above work should reach the office of Marine Engineer Gr.-I on or before 13/06/2025 (soft copy through email raideo.kumar@deendayalport.gov.in, fcr.kpt@gmail.com and hard copy by post/hand).

Thanking you,

-SD-

Marine Engineer Gr.-I
Deendayal Port Authority

TERMS AND CONDITIONS

1. All tools & tackles, materials, steel renewal, labour, transportation, required Electric motors, Fuel Cells, Battery packs, Gear box renewal (if required), Foundation & hull modifications, steel renewal as per requirement of DPA/IRS Class, certification of IRS Class and registration with GMB/MMD, etc. required for successful completion of the work to make Pilot Launch operation shall be arranged by the contractor at his own cost. Safe area on land to complete the work on docking blocks, space for working at site, required containers space for office & store purposes (if required), electricity and fire watch shall be provided by DPA free of cost. However, necessary permission shall be obtained by the contractor from the concerned departments/divisions of DPA. The complete work shall be carried out under supervision of DPA/IRS surveyor and to the satisfaction of DPA/IRS Class.
2. Contractor shall have previous experience of repairing/building of new crafts or ships with propulsion system. Contractor have to ensure for availability of required spare parts & services from OEM/OPM of supplied Electric Propulsion system, gear boxes or any new equipments installed.
3. Interested contractor shall also indicate the time period required to complete the work. If work is intended to be carried out jointly as JV/consortium, documents for same shall also be submitted with EOI.
4. Port Entry permit for the labour, officials and materials if required shall be arranged by the party. DPA can assist only for issuance of authorization/NOC letter.
5. All Work shall be guaranteed for six months from the date of satisfactory test and trail at sea after completion of work.
6. Expected time period for the complete work is about 5 months from the readiness given by DPA after providing required repairing spaces for craft at site.
7. No transportation, accommodation etc. shall be provided by DPA.
8. All the rules and regulations governing DPA will be applicable.
9. FORCE MAJEURE: This shall be restricted to acts of GOD only.
10. During the guarantee period if any defect is found due to material/poor workmanship of the contractor, the cost of repair will be borne by the contractor and rework and other auxiliary work if required is to be carried out by the contractor free of cost including the cost of materials.
11. **GST Clause:** The contractor shall quote the price exclusive of GST. The contractor shall quote prevailing GST rate separately, which shall be reimbursed by DPA after ascertaining necessary compliance as per Goods & Service Tax, 2017. All other duties, taxes, cesses applicable if any, shall be borne by the contractor. No claims of contractor shall be entertained on account of any other taxes levied by central/ state government or authorities paid by him except GST.
12. For any delay in completion of the work which is attributable to the contractor, liquidated damage (L.D.) shall be levied at the rate of ½% (half percent) of the contract value for delay of each week and part thereof subject to maximum of 10 % of the contract value in the event of failure to complete the work within stipulated completion period or such extension as may be granted from time to time.
13. For repairing of the craft, payment may be made in phase wise as per actual after completion of work.
14. Maximum of 95% payment may be released by DPA after successful test and trial at sea in present of IRS Surveyor, balance 5% shall be paid after completion of guarantee defect liability period of six months.
15. The work shall be carried out in accordance with the best standard of workmanship and to the entire satisfaction of DPA/IRS.
16. Cost of IRS Class inspection and certification of work shall be in the scope of the contractor.

17. DPA reserves the right to cancel the work without assigning any reasons and also increase/ decrease the quantum of work.
18. Contractor shall be responsible for any damage, theft and fire during the execution of said works for his own and DPA property.
19. Income Tax/ Education cess/TDS on GST as applicable shall be deducted at source while making payment to the contractor for carrying out the work and only net amount shall be paid to the contractor.
20. The GST Registration No & Income tax PAN no (exemption if any) should invariably be submitted along with the quotation.
21. The contractor should strictly follow all statutory rules & regulations like labour law, insurance, safety norms & regulations etc.
22. Correction, if any, should be signed / initialed. White ink corrections are not allowed.
23. The contractor shall affix SEAL along with SIGNATURE in the offer documents (to be downloaded online from DPA/ CPP/n-procure website) along with site visit form falling which the offers will be considered as non-responsive and be liable to non-consideration.
24. Contractor can be held liable for any monetary or non- monetary consequences on account of Non Remittance of tax by service provider to central government.
25. Contractor will be liable for carrying out all the work as per standard marine practice, fulfilling the IRS requirements for welding & steel quality test, painting as per existing scheme, approval of drawings from IRS for any amendments/ modifications, preparing and taking approval of any required drawing/documents required for IRS and not available with DPA.
26. The bidder is expected to examine carefully the instruction and Terms & Conditions also inspect the site and all factors required for successful completion of work.
27. The contractor is required to visit the site to understand the nature of the job involved prior to offering the rates, a copy of site visit form (form-1) shall be attached with this EOI.
28. Offer shall remain valid for a period of minimum 60 days from the date of submitting the EOI.
29. The contractor shall indemnify, protect and defend at its own cost, DPA and its agent & employees from & against any /all action, claims any kind of losses or damages arising out of:
 - a. Any violation by the contractor in course of its execution of the contractor of any legal provisions or any right of third parties.
 - b. Contractor's failure to exercise the skill and care required for satisfactory execution of the contract.

**Seal & Signature of
Contractor**

**Marine Engineer Gr.-I
Deendayal Port Authority**

Schedule-B

Sub:- “Repairing, retrofitting and Conversion of old Pilot Launch Niharika to Green Electric Hydrogen and Battery along with modifications of propulsion system with controls & alignment, Gear boxes, steering & rudder system, electrification & modifications on craft to operate successfully for pilotage operation at DPA”.

Sr. No.	Item Description	Unit	Qty.	Unit Rate (Rs.)	Amount (Rs.)
PART A: Repairing and Retrofitting (Tentative Quantities)					
1	2	3	4	5	6
1	All fabrication works, including but not limited to renewal of steel plates, angles, frames, brackets, stiffeners, foundations, manhole door sets, round bars, various pipes of required size and length including fittings, insulations, steel and rubber fenders, mooring & towing fittings, doors, complete two sets of anchors with chain and windless/mooring, etc. as per requirement including the cost of materials, labours, transportation, testing and commissioning. (Note: All Steel must be sandblasted and painted with single coat of primer on both side before fitting).	Tons (as per actual requirement)	40		
2	Repairing/modification of above deck area accommodation, Engine rooms, restrooms & bridge area with fitting of glasses, lights with stand, brackets, frames, furniture, HVAC as per requirements, water tight, weather tight & fire doors for sea worthy requirements.	Ship set	01		
3	Grit blasting & Painting of underwater area as per painting scheme of Craft/approved by paint manufacturer (Jotun /international/ Sigma) under guarantee period of minimum 3 years including cost of materials, labours, tools, equipments etc. required for successful completion of the work.	Ship set	01		
4	Painting of above water areas e.g. deck, Machinery space, inside tanks, bulkheads, frames, structures, equipments, bilge area etc. as per painting scheme of craft/approved by paint manufacturer (Jotun/international /Sigma) under guarantee period of Min. 1 year including cost of materials, labours, tools, equipments etc. required for successful completion of the work.	Ship set	01		
5	Supply, Installation, Testing & Commissioning of Electrical propulsion motors, gear boxes, ESS, BMS, EMS, Propulsion battery banks, controllers, control cables, charger for propulsion battery, Propeller, Propeller shaft, rudder, stern gears, thrust lever, Hydrogen Fuel cell assembly, cabling & harness, control systems, various seals/glands, initial fill Lube/hydraulic oils, Coolants etc. including but not limited to alignment & fitting of required parts/ equipments, successful testing & commissioning.	Ship set	01		
6	Repair/replacement of entire electrical installations and wiring including but not limited to cables, electrical fittings and lighting fixtures	Ship set	01		

	switch boards, panels, auxiliary battery banks, transformers, shore connection box, Installation of minimum 01 No. of DG set as per requirement for electric propulsion. Any additional controls required for successful upgradation & operation of craft on electrical propulsion system.				
7	Various miscellaneous works require to make the Pilot Launch M. L. Niharika including but not limited to docking arrangements of crafts at space provided by DPA, fasteners, insulations, outer outfits, FFA, LSA, LSSS, Radio & Navigation Communication Equipments, Navigation and safety equipment, fire water with pumps & hydrants, bilge pumps.	Ship set	01		
8	Supply and Fittings of Zinc Anodes on underwater hull having approx. weight of 3.5 kg. Note: Zinc anodes with purity higher than 99% and certified by Govt. approved Lab/Marine Class societies.	Ship set	01		
9	Delivery Documents e.g. Operation manual, Maintenance manual, Troubleshooting manual, parts manual, approved drawings/documents/certificates, successful Test and Trials etc.	Ship set	01		
Total Amount in Figure (Rs.) _____					Total=

Note: Above rates are exclusive of GST.

-Sd-

Seal & Signature of

Marine Engineer Gr.-I

Contractor

Deendayal Port Authority

Documents of Pilot Launch M.L. Niharika

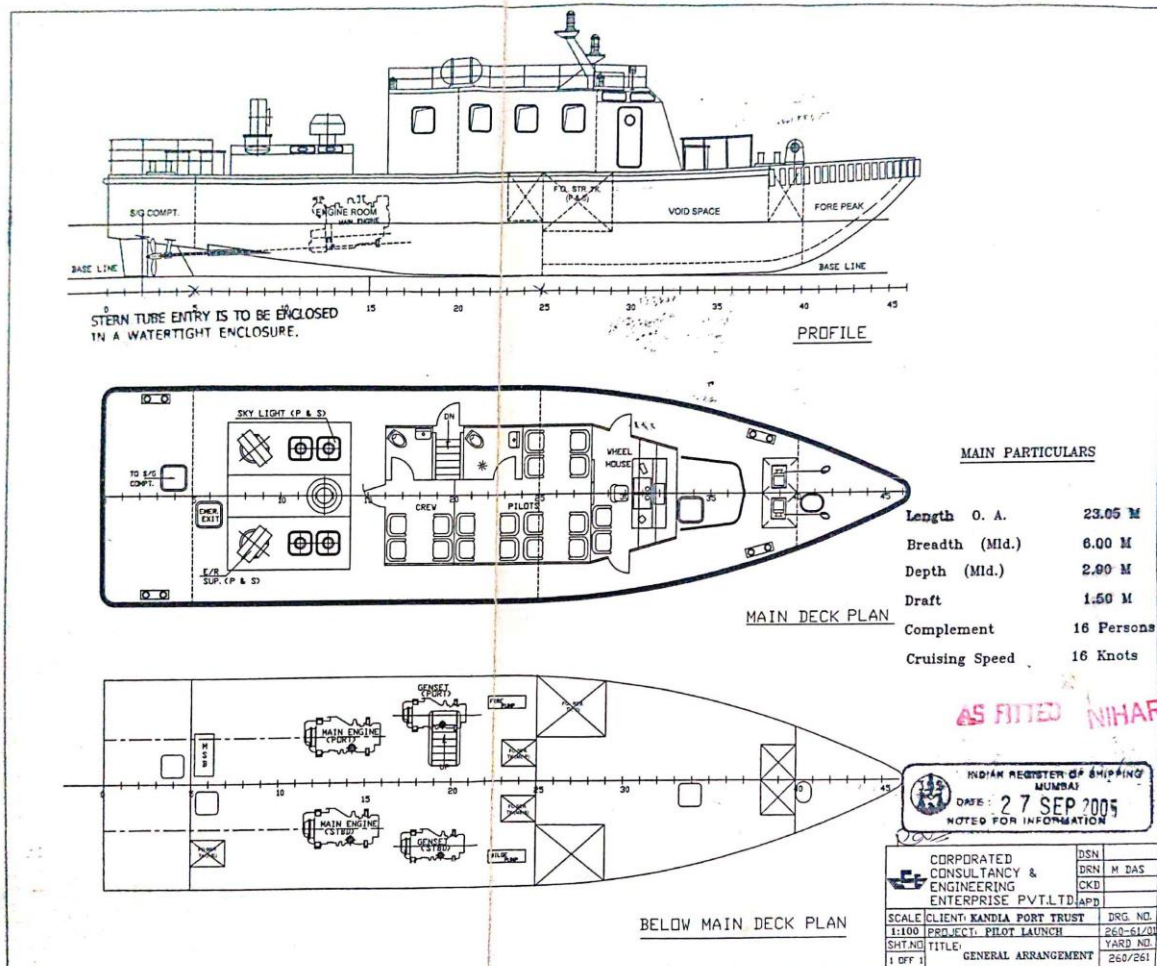
14.1 **Note:** The details given here are not exhaustive. The bidders are advised to inspect the launches prior to bidding. They can also verify the certificates, manuals, etc. pertaining to the crafts before offering offers some of the indicative drawings attached below.

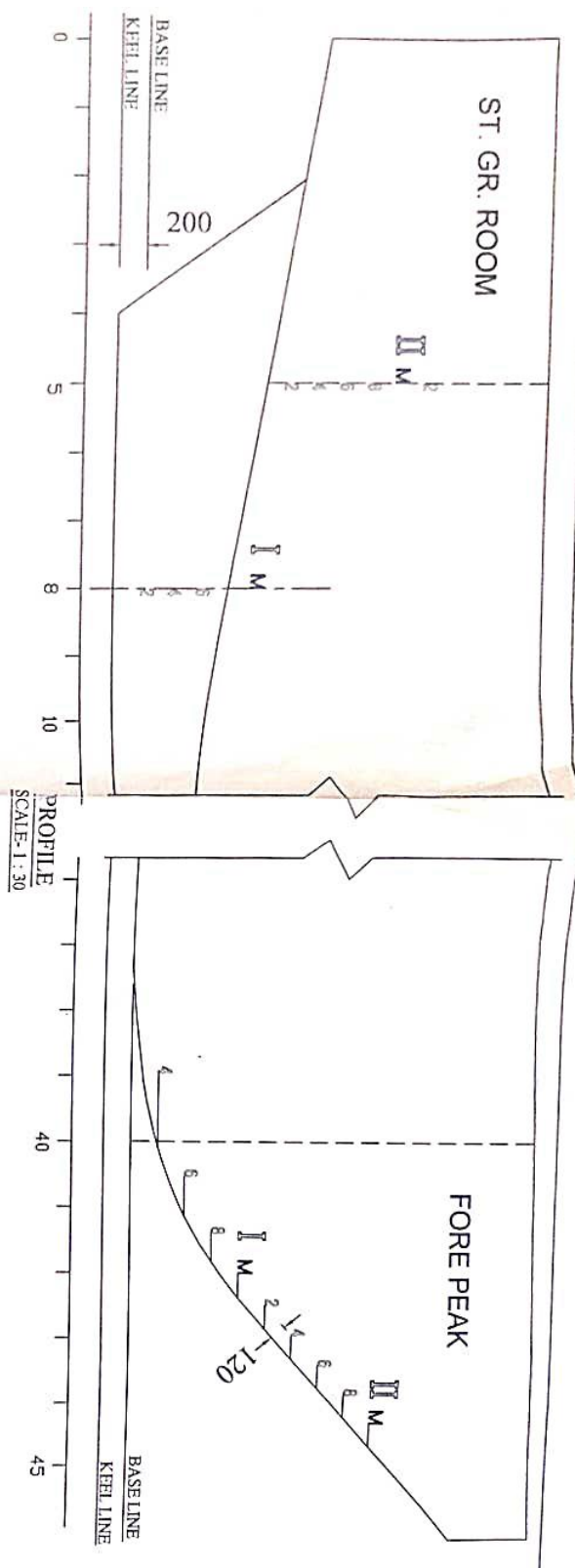
14.2 TECHNICAL DETAIL OF PILOT LAUNCH ML Niharika : (REGISTERED UNDER M.S. ACT).

1	Dimensions		
	a	Length WL	23.10 M
	b	Depth Moulded	2.90 M
	c	Breadth Moulded	6.00 M
	d	Draft	1.50 M
	e	Hull & Superstructure	Steel & FRP
	f	Year of Built	2007
	g	Class	-
	h	Gross Tonnage	100 T
	i	Net Tonnage	30 T
2	Classification		
		IRS	Old (withdrawn)
3	Main Engine		
	a	Make	CATERPILLAR
	b	Model	3412 M
	c	Type	4-Stroke,V-type12 Cylinder
	d	ESN (P)	7 BL 02456 (ML Niharika)
	e	ESN (S)	7 BL 02454 (ML Niharika)
	f	No of cylinders	12 Cylinder
	g	Rating	615 KW @ 2100 RPM
4	Reduction Gear Box		
	a	Make	Hitachi
	b	Model	MGN 86EL-IA-IIA
	c	Type	Mechanical Hydraulic Operated
	d	SN (P)	4N863920 (ML Niharika)
	e	SN (S)	4N863919 (ML Niharika)
	f	Reduction Ratio	3.48:1
5	Steering		
	Electro Hydraulic Steering System (Main Steering), Single Double Acting Cylinder		
	Mechanical Hydraulic Steering System (Emergency Steering)		
6	Propulsion		
	Two high speed diesel engines installed as the main engine and connected to Twin screw fixed pitch propeller		

7	Propeller		
	a	Type	Fixed Pitch propeller
	b	Metal	Manganese Bronze GR Cu-I
	c	No. of blades	4
	d	Dimensions	Dia:-1100 MM, Pitch:-1320 MM
8	DG set		
	a	Make	Simpson
	b	Model	S 433 Diesel Engine
	c	Type	4-Stroke, 4-Cylinder Inline
	d	No of cylinders	4-Cylinder
	e	Rating	31 KW @1500 RPM
	f	Alternator	KEL, 25 KVA, 1500 rpm, 3 ph , 50 Hz, 415 AC.
9	Navigation and Other Equipment's as per IRS Approved Plan		

Drawings: D-1

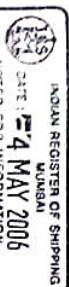




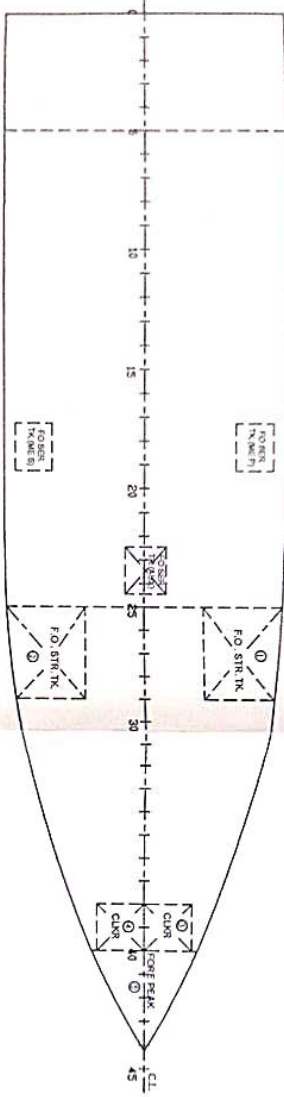
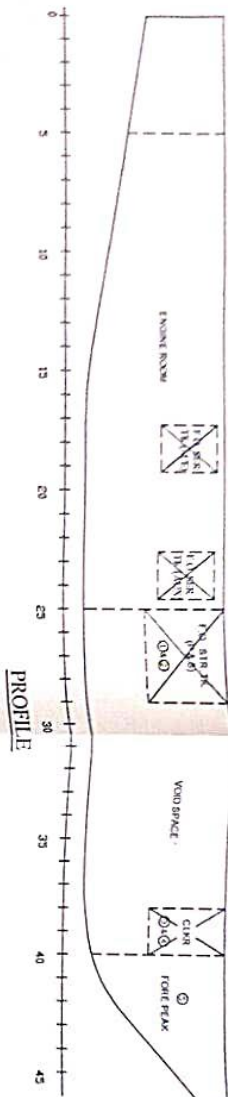
NOTE:

- ALL DRIFT MARKS ARE TO BE MEASURED FROM UNDERSIDE OF KEEL
- ALL MARKS TO BE CUT FROM 5 MM THK. PLT. & WELDED CONTINUOUSLY ON THE SHELL
- ALL DIMENSIONS ARE IN MM.
- ALL MARKS TO BE AFFIXED ON BOTH PORT AND STARBOARD SIDES.

AS FTTED



CORPORATED				SHOW/USE
CONSULTANCY &		DSN		
ENGINEERING		DSN	5 000004	
ENTERPRISE PVT.LTD.		DD	1 000000	
		ADD		
SCALE	Sheet -	DSN NO		
		2054-1/21		
AS SEEN	Project -	VARD NO		
SIT NO	788 -	205-61		
DRAFT MARK				



GENERAL TESTING REQUIREMENTS

TANK NO	DESCRIPTION	TYPE OF TEST	TEST PRESSURE
1	FO STR. TRUP	STRUCTURAL TESTING	A
2	FO STR. TRUP	STRUCTURAL TESTING	A
3	CHAIN LOCKER (P)	STRUCTURAL TESTING	B
4	CHAIN LOCKER (S)	STRUCTURAL TESTING	B
5	ROOF PEAK	STRUCTURAL TESTING	C
6	WATERTIGHT BULKHEADS	HOPE TESTING	

* TO BE AS PER PART 3, CH. 18, SEC. 3.5 OF THE RULES.

NOTE: LEAK TESTING MAY BE CARRIED OUT INSTEAD OF STRUCTURAL TESTING FOR A GROUP OF TANKS PROVIDED ONE OF EACH TYPE OF TANK IS STRUCTURALLY TESTED.

TO BE AS PER PART 3, CH. 18, SEC. 3.5 OF THE RULES.

- A. 400mm head above highest point of tank
- B. Head of water up to 10m
- C. Head of water up to 10m

CORPORATED		ENGINEERING		ENTERPRISE PVT. LTD.	
NAME	KANDIA PORT TRUST	DESIGN	K. JANA	DATE	20/06/23
PROJECT	PILOT LAUNCH	DESIGN	T. CHANDRA	DATE	20/06/23
SHEET NO.	TITLE	DESIGN	T. CHANDRA	DATE	20/06/23
1 of 1	TANK TESTING PLAN	DESIGN	T. CHANDRA	DATE	20/06/23

APPROVED		DATE: 24 MAY 2024	
INDIAN REGISTER OF SHIPPING		MUMBAI	
REVIEWED BY		REVIEWED BY	

NIHARIKA
AS AMENDED
SEE LETTER

ITEM NO.	DESCRIPTION	SIZE	NO. OF	MATL.	REMARK
V1	GATE VALVE	125 NB	2	CAST IRON	C.I. Body
V2	GATE VALVE	125 NB	2	CAST IRON	C.I. Body
V3	SL. VALVE	32 NB	2	CAST IRON	C.I. Body
V4	AIR REL. VALVE (SL.)	25 NB	2		C.I. Body
V5	COOLING PUMP		2		M.E. MOUNTED
V6	COOLING PUMP		2		M.E. MOUNTED
V7	COOLER		2		M.E. MOUNTED
V8	COOLER		2		M.E. MOUNTED
V9	SL. VALVE	65 NB	4	CAST IRON	C.I. Body

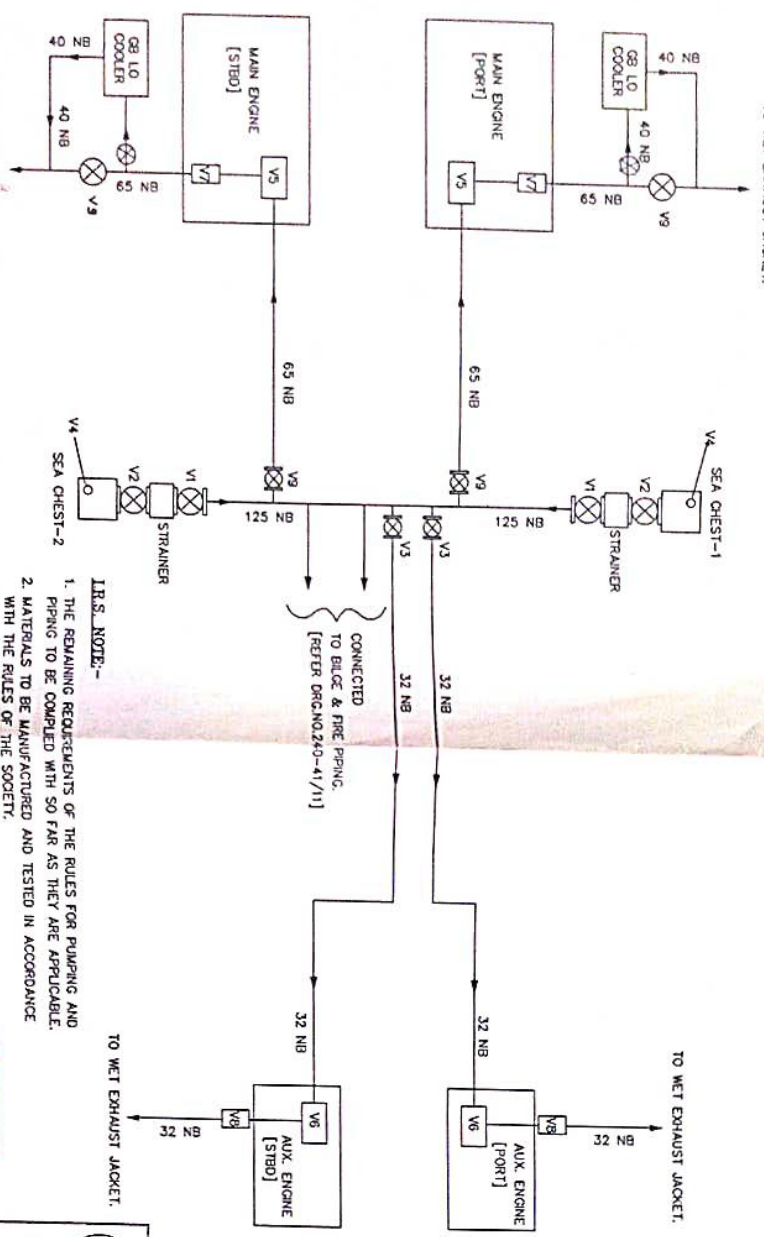
PIPE SPECIFICATION			
NB	OD (mm)	TYPE	THICKNESS
125 NB	138.5	HEAVY	5.4 MM
65 NB	76.6	HEAVY	4.5 MM
50 NB	59.8	HEAVY	4.5 MM

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CONSULTANCY & ENGINEERING
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SCALE: CLIENT: KANDLA PORT TRUST
N.T.S. PROJECT: PILOT LAUNCH
SHT. NO. TITLE: ENGINE COOLING SYSTEM (SCHEMATIC)

DRG. NO. 260-61/25
YARD NO. 260/261

TO WET EXHAUST JACKET.



IR.S. NOTE:-
1. THE REMAINING REQUIREMENTS OF THE RULES FOR PUMPING AND PIPING TO BE COMPLIED WITH SO FAR AS THEY ARE APPLICABLE.
2. MATERIALS TO BE MANUFACTURED AND TESTED IN ACCORDANCE WITH THE RULES OF THE SOCIETY.

AS FITTED

APPROVED
DATE: 15 JUL 2006
INDIAN REGISTER OF SHIPPING
MUMBAI

EXAMINED BY: [Signature]
REVIEWED BY: [Signature]

SEE LETTER

AS AMENDED
MATERIALS TO BE MANUFACTURED AND TESTED IN ACCORDANCE WITH THE RULES OF THE SOCIETY.
THE REMAINING REQUIREMENTS OF THE RULES FOR PUMPING AND PIPING TO BE COMPLIED WITH SO FAR AS THEY ARE APPLICABLE.

INHARIKA

