UDUPI COCHIN SHIPYARD LIMITED

(Formerly Tebma Shipyards Limited)

ISO 9001:2015 BUREAU VERITAS Certification

UKAS QUALITY MANAGEMENT 0008

Date: 25.09.2024

TENDER ENQUIRY

Dear Sirs,

This tender enquiry is for Main Diesel Generator with Accessories which is required for 4 no's of 6300DWT vessel being constructed at Udupi Cochin Shipyard Limited (UCSL), Malpe, (A Govt. of India Enterprises).

Sealed Tenders in duplicate, super scribing the Enquiry Number & Last date for receipt of Quotations on the envelope, are invited TWO BID SYSTEM two separate covers as 'Part- I Techno-commercial' and 'Part- II Price' - both enclosed in the single envelope, for the supply of following materials so as to reach the undersigned on or before the last date and time shown. Tenders should be addressed to Assistant General Manager (Materials), Udupi Cochin Shipyard Limited, Malpe Harbor Complex, Malpe. Udupi-576108, Karnataka, India.

Submission by Email: Offers (both Part- I Techno-commercial' and 'Part- II Price) in two separate password protected PDF file format, can also be made by E-mail (sony.clement@udupicsl.com, purchase@udupicsl.com /sunilsnair@udupicsl.com / muhammad.anas@udupicsl.com / midhunthomas@udupicsl.com) on or before, the last date & time of receipt of tender as shown below, if delivery of sealed offers cannot be ensured at UCSL on the due date. The offer PDF files (Part- I Techno-commercial' and 'Part- II Price) to be named clearly (UCSL/MAT/PROJ/2024-25/1274- Techno-commercial and UCSL/MAT/PROJ/2024-25/1274 - Price bid)

Enquiry No.	Enquiry Date	Last Dt. & Time for Receipt of Tender	Tender Opening Date & Time
UCSL/MAT/PROJ/2024-25/1274	25.09.2024	10.10.2024, 15:30:00	10.10.2024, 15:30:00

Sl No	Material Code	Material/ ~~Service~~ Description	UOM	Qty	Yard No	Required Date at UCSL
1		Main Diesel Generator with accessories Make – Volvo/ Scania	Shipset	4	UCSL Y175 - Y178	1st & 2nd shipset - within 9 months from the date of PO. 3rd & 4th Shipset - within 15 months from the date of PO.

उडुपी कोचीन शिपयार्ड लिमिटेड
पत्तन, पोत परिवहन और जलमार्ग मंत्रालय
भारत सरकार

UDUPI COCHIN SHIPYARD LIMITED
Ministry of Ports, Shipping & Waterways
Government of India

पंजीकृत कार्यालय:
एस. नं. 377, पषामत्तूर गाँव
पुकातुरई पोस्ट, मदुरान्तकं तालुका
कांचीपुरम - 603 116, तमिल नाडु, भारत।

कॉर्पोरेट कार्यालय:
माल्पे हार्बर कॉम्प्लेक्स, माल्पे
उडुपी - 576 108, कर्नाटक, भारत।

CIN: U27209TN1984GOI010994

Registered Office:
S.No.377, Pazhamathur Village
Pukathurai Post, Madurantakam Taluk
Kancheepuram - 603 116, Tamil Nadu, India

Corporate Office:
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In case of commercial queries please contact			
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In case of technical queries please contact			
Name	**Designation**	**Mobile no.**	**E-mail**
Mr. Riyas Mydheen	Deputy Manager (Machinery Design & Piping)	+919994230860	riyasmydheen@udupicsl.com design@udupicsl.com

Enclosures:

1. Purchase Technical Specification - Annexure 1
2. General Terms and Conditions of procurement - Annexure 2
3. Price bid format - Annexure 3
4. Bank Guarantee/Security Deposit Format - Annexure 4

For Udupi Cochin Shipyard Ltd,

Authorized Signatory

सुनील शशिधरन नायर
SUNIL SASIDHARAN NAIR
प्रबंधक MANAGER
उडुपि कोचीन शिपयार्ड लिमिटेड
UDUPI COCHIN SHIPYARD LIMITED
माल्पे, कर्नाटक/MALPE, KARNATAKA-576 108

Rev.	Pages	Description	Date	Sign.
0	17	First Issue	23-09-2024	Riyas Mydheen

6300TDW DRY CARGO VESSEL

UDUPI COCHIN SHIPYARD LTD

(A Cochin Shipyard Company)

YARD NO	UY175 - UY178	**6300TDW DRY CARGO VESSEL**
OWNER	WILSON ASA, NORWAY	**PURCHASE TECHNICAL SPECIFICATIONS FOR MAIN DIESEL GENERATORS**
APPROVED	AJITH KUMAR T	
CHECKED	RIYAS MYDHEEN M	
PREPARED	RIYAS MYDHEEN M	
DATE	23-09-2024	Doc. No.: PTS-175-004 / Rev. No: 0

ISSUED TO																								
	DEP																							
	NO.																							

SECTION A – GENERAL SPECIFICATIONS

1. Introduction

The 6300TDW Dry Cargo Vessel is designed by Conoship International and built by Udupi Cochin Shipyards Ltd (UCSL), a fully owned subsidiary of Cochin Shipyard Ltd. The scope of this document is to obtain offer for the design and supply of **Main diesel generators** for the vessel. All required accessories, spares and tools for **Main diesel generator** also to be included in the scope of supply.

2. Name & Quantity

Main diesel generator with accessories : 4 Nos. / vessel

The quantity of equipment indicated above is for only one (1) vessel. The total requirement is to be considered for four (04) vessels. The technical specifications of the equipment shall be as per Section-B of this document.

3. Class & Flag Rules

The vessels shall be built under the flag and classifications specified as follows:

Flag : Norwegian International Ship Registry (NIS)

Classification : DNV.

Class Notation : ✠ 1A Multipurpose dry cargo ship
Strengthened (IB 15 t/m2)
DG(B), DG(P), DBC
E0, LCS
ER(SCR, TIER III), SBC(1)
BWM(T)
BIS
TMON

4. Vessel Particulars

The principal dimensions of the vessel are as follows:

Length over all, L_{OA}	: approx. 99.99 m
Length between perpendiculars, L_{pp}	: approx. 96.93 m
Breadth moulded, B_{mld}	: 15.85 m
Depth to main deck, D	: 8.80 m
Draught design, T_{design}	: 6.50 m
Draught maximum, T_{max}	: 6.75 m
Draught scantling, $T_{scantling}$	: 6.75 m
Deadweight at T = 6.50 m, DWT_{design}	: approx. 5970 t
Deadweight at T = 6.75 m, DWT_{max}	: approx. 6,300 t
Air draught above ballast waterline	: approx. 28,00 m

5. Rules and Regulations

The Vessel shall comply with all applicable rules and regulations of national and international regulatory bodies mentioned below specific to the vessel.

a. Rules and regulations of the classification society;
b. Rules and regulations of flag state;
c. International Maritime Organization (IMO);
d. International Convention on Safety of Life at Sea (SOLAS) 1974/1978 and latest amendments;
e. International Load Line Convention, 1966/1988 and latest amendments;
f. International Conference Tonnage Measurement of Ships, 1969;
g. Rules and regulations governing tonnage and navigation of the Panama and the Suez canal (specially required hardware not included (also engineering)
h. International Regulations for Preventing Collisions at Sea 1972 (COLREGS);
i. International Convention for the Prevention of Pollution from Ships (MARPOL) 1973/1978 and latest amendments:
   - Annex, International Oil Pollution Prevention (IOPP);
   - Annex IV, International Sewage Pollution Prevention (ISPP);
   - Annex V, Prevention of Pollution by Garbage;
   - Annex VI, International Air Pollution Prevention (IAPP)
   - Annex VI, Engine International Air Pollution Prevention (EIAPP)
j. Carriage of dangerous goods according SOLAS Chapter II-2 reg 19;
k. IMDG-Code International Maritime Dangerous Goods Code (MSC.406(96));
l. ILO maritime labour convention MLC 2006;
m. IMO code on noise levels on board ships (A.468 (XII));
n. FSS Code (Fire protection, fire detection, and fire extinction);
o. LSA Code (Life-Saving Appliance);
p. ISPS Code (International Code for the Security of Ships and of Port Facilities);
q. BWM/CONF/36 "International Convention for the Control and Management of Ship Ballast Water and Sediments, 2004" and IMO Resolution. A.868(20) "Guidelines for the Control and Management of Ships' Ballast to Minimize the Transfer of Harmful Organisms and Pathogens";
r. IMO Performance Standard for Protective Coatings (PSPC code);
s. IMO Resolution A.962(23) – IMO Guidelines on Ship Recycling as amended by IMO Resolution A.980(24), or Ship Recycling Convention 2009;
t. Regulation (EU) 1257/2013 on ship recycling and amending Regulation (EC) 1013/2006 and Directive 2009/16/EC.
u. IMO Resolution MEPC.213(63) "2012 Guidelines for the Development of a Ship Energy Efficiency Management Plan (SEEMP)" and Amendments;
v. International Convention on the Control of Harmful Anti-fouling Systems on Ships (AFS), 2001;
w. Diesel generator engines in accordance with IMO tier III. Emergency diesel generator in accordance with IMO Tier II ,030.4.

6. Certification, Inspection and Testing

a) The equipment / machinery shall be approved as per the requirement listed out in this section and the same shall be suitable for marine applications.

b) The diesel generator as a set, its auxiliary engine and the alternator has to comply with the rules and regulations of DNV.

c) The diesel engines are to be of type tested and certified in accordance with the class requirements.

d) Each unit shall be inspected, tested and certified at manufacturer's test bed in accordance with the maker's standard and classification rules in presence of DNV Class Surveyor.

e) The DG set (Prime Mover + Alternator) shall have product certification from DNV as per class rules.

f) The torsional vibration calculations are to be approved by DNV Class.

g) Plan approval (as applicable) if any, from classification society to be obtained as per the class rules/ recommendations. The class approval of equipment and plans to be included in the scope of supply.

h) Buyer shall have the option to attend FAT (both owner and Yard). OEM shall intimate FAT dates well in advance.

i) After installation and commissioning, onboard tests / trials shall be carried out as per manufacturer's standard practice and to the satisfaction of Classification societies / other statutory requirements. Any faults found at this stage, shall be corrected to the satisfaction of all related parties before the delivery of the ship.

7. Design Conditions

Unless mentioned otherwise in this document, the working environment, design of the machinery installation, auxiliary equipment and associated pipelines to be based on the following environmental conditions.

Minimum ambient seawater temperature	: 0 °C
Maximum ambient seawater temperature	: +32 °C
Minimum outside air temperature	: -10 °C
Maximum outside air temperature	: +35 °C
Maximum machinery space temperature	: +45 °C
Minimum machinery space temperature	: +5 °C
Atmospheric pressure	: 100 kPa
Relative Humidity inside	: 50 %
Relative Humidity outside	: 70 %

Machinery shall be able to deliver its specified output and operate satisfactorily under environmental conditions as mentioned above. List, rolling, trim and pitch of machinery are to be according to limits as per Class. Above requirements to be considered as minimum, any other requirements which are necessary to meet class/IMO/flag rules/regulations shall be considered for design and operation of the equipment.

8. Electric Power Supply

a) The electric power supply available onboard is as follows.

- 400 VAC @ 50 Hz, 3 phase
- 230 VAC @ 50 Hz, 1 phase
- 24VDC

b) Any other voltage other than the above should be derived by the firm by using necessary built-in arrangement. All type of power supplies requirements with number of feeders and power rating are to be listed out in the offer.

c) The electrical installation and all materials to be designed for marine use in a damp saline atmosphere. The components of the electrical installation comply with IEC standards, unless otherwise stated.

9. Supply of Documents

All documents shall be in English and in SI unit system and the following documents shall be submitted, where applicable. The drawing approval where required by the Classification Society shall be obtained by the manufacturer.

9.1. Documents to be submitted along with offer

a. General arrangement drawing of equipment along with dimensions showing maintenance space required around the equipment.
b. Complete technical datasheet of engine containing model no., type, capacity, electrical details and all other relevant details of the equipment etc.
c. Technical datasheet of the Flexible Coupling.
d. Technical datasheet of the major components of auxiliary systems.
e. Heat Dissipation of the engine.
f. Air aspiration details.
g. P&IDs of auxiliary systems.
h. Preliminary documents with description, size, weight, CG.
i. Preliminary requirement of ship services such as sea water, compressed air if any.
j. Preliminary list of alarms and instrumentation.
k. Alternator specifications requirements.
l. Installation guidelines/ manuals.
m. List of spares / tools as required and list of recommended spares for operation at different maintenance intervals.
n. List of items quoted including service of engineers during commissioning.
o. List of items if any, not covered in firm's scope of supply.
p. Compliance Matrix / List of deviations.

9.2. Documents to be submitted within 21 working days after placement of Order/LOI/As per final agreement

a. Detailed Bill of Material.
b. Project specific General arrangement drawing of equipment along with dimensions showing maintenance space required around the equipment in Auto CAD/dxf format.
c. Project specific piping schematic diagram for cooling system, exhaust system, SCR System, Fuel Oil System, Lube Oil System with flow rates and connection details etc.,
d. Dimensional drawing of Flexible coupling along with connection details.
e. Integration of Auxiliary Diesel Engine with the Alternator.
f. Foot Print drawing of the equipment with details of mounting fasteners.
g. Detailed dimensional drawings of SCR components, expansion tanks and other loose components etc.
h. 3D model of equipment in *.stp* format (for the diesel generator set and the loose components)
i. Dimensional drawing of silencer and mounting instructions.
j. Nozzle orientation diagram showing position of piping connections on the diesel generator.
k. Project specific electrical system block diagram showing cable types, power supply requirements, interfaces to external systems etc.
l. Project specific electrical interconnection between engine JB (where all the sensors on the engine are pre-wired), local instrument panel and control / alarm panel with cable details as applicable.
m. Project specific internal wiring diagram and logic diagrams of the control alarm panel and any other panels as applicable in line with interconnection details.
n. Details of special cables, if any to be used for the system connection.
o. Project specific electrical connection diagram with terminal details.
p. Foundation drawing of the equipment& control / alarm panel and other loose supplied accessories and fasteners details of the same.
q. Electrical drawings on control and monitoring.
r. Drawings of generator terminal boxes with the arrangement for cable entry, cable gland details, arrangement of busbars, number of holes and bolt sizes (as per cable details from yard).
s. Details / procedure for harbor acceptance test.
t. Lifting Arrangements.
u. Heat dissipation, air aspiration, list and quantity of consumables (grease/ lube oil/ additives etc.,) details.
v. End connection details of all piping connections.
w. Operation, Installation, Maintenance and Troubleshooting Manual.
x. FAT Reports.
y. Details of shop tests and inspection for all items.

z. List of consumables such as lube oil, grease, chemicals if any required for commissioning of the equipment.

aa. List of spares / tools as agreed.

9.3. Documents to be submitted along with delivery of Machinery and/or Equipment to the Yard (3 sets / vessel unless otherwise mentioned)

a. Unit certification by DNV for Engine (1 Original + 3 Copies)
b. Unit certification by DNV for Diesel Generator (1 Original + 3 Copies)
c. Manufacturer's test certificate for Diesel Generator (1 Original + 3 Copies)
d. Test and inspection results (1 Original + 3 Copies)
e. Certificates for Engines complying with IMO Tier III NOx standards (EIAPP Certificate).
f. IHM Documentation – SdoC & MD (3 Copies)
g. Packing list (with reference to each item of Bill of Materials).
h. Installation, Operation, Maintenance manuals (3 Copies and one soft copy in CD/ Pendrive).
i. Spare Parts Manual (3 copies).

10. Design Support and Commissioning Engineer

Required design support and assistance of OEM experts free of cost for erection, alignment, commissioning and for official speed trial for required number of days not less for a ship as indicated in table below. The exact date and number of visits required shall be intimated with 14 days' notice.

Sl. No.	Equipment	Installation	Commissioning& Sea Trial
1.	Main diesel generators and Control System etc.	----	3 visits& 15 days

11. General Remarks

a) Name Plate (s)/Caution Plate (s) and Instrumentation

The name plate(s) and caution plate (s) shall be written in English indicated in SI unit. All major machinery, electrical and equipment shall be provided with identification nameplates made from stainless steel/brass plates as per manufactures standard and label plates indicating equipment type, capacity, electric rating etc. shall be fitted as per manufacturer's standard. Instrumentation shall also be indicated in SI unit.

b) Liability

Manufacturer shall bear all responsibilities for the shop trials and the delivery of the machinery or equipment.

c) Piping Flange

Piping end connection shall be as per EN1092-1 Type 01 PN6/ PN10/ PN16 Flat Face as applicable. Mating flanges shall be supplied for all end connections, if there is any deviation with the standard mentioned above.

d) Screw Thread: Screw thread if any, shall be in accordance with ISO standard.

e) Grease Nipple: Pin type grease nipple, where grease is supplied shall be used.

f) Painting: Painting schedule shall be as per manufacturer's standard and the painting scheme shall be specified.

g) Preservation

Recommended method of preservation and names of recommended preservatives shall be indicated. Maximum R.H. (Relative Humidity) at Malpe in Karnataka is around 80% and minimum R.H is at around 60%.

h) Special Tools: Special tools if any required for installation have to be supplied with the equipment.

i) Instruments: Instruments to be mounted on the equipment have to be supplied with the equipment.

j) Vibrating

Any unsatisfactory condition resulting from the excitation of a resonant frequency in any equipment by the diesel generators or other exciting force shall be prevented.

12. Compliance Matrix

A compliance matrix in the following format shall be submitted by the supplier along with the offer. Deviations from the Technical specification shall be specifically indicated.

Vendor name and address:				Spec. No/ Offer No:	
				Page No:	
Item description:				Ship: UY175 - UY178	
Sl. No.	Spec. Clause no.	Requirement	Status (A/N/C*)	Deviation/ Reason	For UCSL comment

A-Acceptable, N-Not Acceptable, C-Conditional acceptance.

13. Inventory of Hazardous Materials (IHM) Management

The following documents/ details corresponding to the Inventory of Hazardous Materials (IHM) to be provided by the vendor in accordance with the latest and relevant editions of MEPC 269(68).

a. Supplier's Declaration of Conformity (SDoC)

b. Material Declaration (MD)

14. Guarantee

The equipment and accessories shall be guaranteed against defective design, material and workmanship and under performance till, for a period as mentioned in commercial terms and conditions. Guarantee of the equipment shall be as per commercial terms and conditions.

SECTION B – TECHNICAL SPECIFICATIONS

1. General Technical Specifications

a. Four stroke, six cylinders inline, direct injected, turbocharged (with charge air cooler), marine type Diesel Generator set suitable for combined cooling system using box coolers consisting of diesel engine coupled with flexible coupling to alternator with all accessories and mounted on common base frame as per technical specifications given in this section to be offered. The offered diesel generators shall meet the technical specifications mentioned as follows.

- Number of Sets : **4 Nos. per vessel.**
- Generator Output : **425ekW (530kVA)**
- Voltage : 500 V, 3Phase, 3-wire
- Speed : 1800rpm
- Frequency : 60 Hz
- Power factor : 0.8
- Rating : Continuous
- Starting : Electric starting
- Mounting : Diesel Engine - Flexible Mounted on the skid
- Alternator - Fixed Mounted on the skid
- Governor : Electronic type& suitable for parallel operation in all modes

b. The alternators of diesel generators will be under the scope of the electrical system design integrator. However, the integration of Alternators with the diesel engine and supply of Diesel Generator as a complete set, is to be under the scope of the vendor. The testing the complete Diesel Generator set to its requirements and class approval are also to be under the scope of the vendor. The details of the alternator are attached as Annexure (Annexure-1) with this document. The vendor has to coordinate with the alternator maker (electrical system design integrator) for the integration of alternator with the diesel engine.

c. The DG sets are to be intended for continuous parallel operation, auto/manual load sharing, synchronizing etc.

d. The diesel generator set to be suited for parallel operation and capable to run and deliver to the bus bar of 110% power for a time of 15 minutes continuously and of 100% power without any limitation in time.

e. The DG set shall be designed for the angles of inclinations as per DNV Class Rules.

f. Generator space heaters shall be provided for each generator as applicable.

g. All flexible piping connections for external pipe connections (with type approved by any IACS member) shall also be included in the scope of supply.

h. DG Sets are to be supplied duly fitted with all the accessories as far as practicable and Engine is to be complete with all standard accessories. Items supplied for each system are to be indicated in technical offer.

i. Calculations of Torsional vibration including approval by DNV shall be in the supplier's scope as applicable. Flywheel and flywheel guard, to be provided.

2. Engines for Main Diesel Generator Sets

a. Four stroke, single acting, turbocharged (with charge air cooler), marine diesel engine, direct fuel injection with cylinders arranged in line.

b. The engine's emission and certificate in accordance with IMO MARPOL, Annex VI-2008, reg. 13(3) / NOx-tier III. Therefore, a built-on SCR system to be provided with each diesel generator set.

c. Engines should be equipped with standard accessories, alarms, indications etc. as per DNV rule requirements & as per manufacturer's recommendations if any.

d. Following details of the Engine shall be indicated in the technical offer.

- Engine make& model
- Engine datasheet
- Fuel oil consumption at 100 % : _____ lph
- Specific FO consumption : _____ g/kWh
- Fuel oil supply flow rate at 100% :
- Fuel oil return flow rate at 100% :
- Flow restriction for fuel oil pipe lines
  - Supply :
  - Return :
- Exhaust gas temperature at 100% :
- Cooling water requirement at 100% :
- Air quantity requirement for combustion :
- Heat balance :
- Flow restriction for cooling water lines :

e. Fuel Oil System:

- The main generator engines to be designed for single fuel operation, cognisant MGO ISO 8217:2017 (E) Cat. F-DMA/DMX as well as EN590:2009
- The diesel generator sets to be equipped with an electronic controlled fuel injection system.
- To be built-on engine, with engine driven pump with built in safety valve, fuel oil coolers and duplex fuel filters.
- Flexible connection for fuel oil supply and return connections shall be included in the scope of supply.
- Float tanks at the return side to be included in the scope of supply as applicable.

f. Lube Oil System (Wet sump):

- To be built-on the engine, with crankcase breather, oil filters as per class requirements, wet oil sump, oil filler, Dip stick, engine driven oil pump, Lube oil cooler, Drain hand pump etc.
- If crank case ventilation pipe to be provided, same is to be indicated in the offer/drawing.
- Provision for filling lube oil in the diesel engine to be provided.
- The lube oil/ grease chart for various components to be provided in the manual.

g. Cooling system:

- The vessel to be provided with box coolers combined for the main diesel generator sets and following auxiliary components.
  - Propulsion Motors (Port & Stbd)
  - Propulsion Frequency Converters (1 Nos)
  - Gear Box (1 nos)
  - Air Conditioning Unit
- The cooling requirement of other auxiliary components will be finalized post order.
- The internal high temperature cooling and external low temperature cooling shall be by means of freshwater.
- The LT fresh cooling water circuit is of the closed type, consisting of:
  - Two (2) box coolers for the complete system (diesel generating sets and auxiliary systems, such as frequency drives, electric propulsion motors, air conditioning unit, etc.)
  - Two (2) electrical driven LT cooling water circulation pumps for the complete system – The pumps will be under yard scope.
  - There shall be separate engine driven cooling pumps for charge air cooler. The cooling water requirement for engine jacket cooling and the charge air cooler are to be specified in the offer. The engine driven cooling pumps to be under the vendor scope.
- The HT fresh cooling water circuit to be of the closed type, mixed with the LT fresh cooling water circuit for each diesel generator set, consists of:
  - Engine driven HT cooling water pump for each diesel engine.
  - HT system should be supplied with a combined heat exchanger for heat recovery from all diesel engines in relation to the heat balance for heating of accommodation compartments.
  - A combined expansion tank for all four generators to be supplied along with the diesel generators.
- Cooling water pumps and thermostatic valves to be built-on. The cooling system P&ID of the generator set to be provided in the offer.
- Flexible connections (flanged, as per EN1092-1 standard) for cooling water in and out shall be included in the scope of supply.

h. Exhaust System

- Dry type exhaust to be provided.
- Exhaust system in terms of a SCR system to be provided and integrated in the exhaust gas system of the main diesel generators to obtain to IMO MARPOL Annex VI 2008, reg. 13(3) / Nox Tier III compliance as per IMO and Class requirements.
- Exhaust pipe expansion joint for engine exhaust outlet to be included. Adequate number of SS expansion bellows shall be included in the scope of supply for each Engine.
- Silencer with spark arrestor suitable for min. 45db(A) insertion loss, vertical mounting type shall also be included in the scope of supply. Silencers shall have provision to weld brackets for supporting to hull.
- The back pressure across exhaust silencer should be as minimal as possible.

i. Exhaust Gas Treatment System

- In order to fulfil the IMO MARPOL, Annex VI-2008, reg. 13(3) / NOx-tier III requirements, the diesel generator engines to be delivered with one Selective Catalytic Reduction (SCR) equipment per diesel generator set.
- The SCR system consists of:
  - One (1) urea unit in stainless steel, prepared for connection to the main urea tank, including:
    - Reductant tank with a capacity for one (1) "sea day"
    - One (1) reductant feed pump to ensure the reductant flow between main urea tank and urea unit
    - Reductant pick up and control unit
  - Urea pre-filter unit
  - One (1) control unit
  - Coolant pipes (connected to the HT system of the diesel generator engines)
  - One (1) exhaust routing valve that enables to by-pass the SCR system in accordance with the rules and regulations of Class, and/or Authorities
  - One (1) reductant doser
  - One (1) evaporator module
  - One (1) SCR catalyst
  - NOx sensors
  - Exhaust temperature sensors.

j. Air Intake System

- Air inlet system shall consist of air cleaners, vacuum indicator, Air intake manifold, Turbocharger, after/Charge air cooler etc.

k. Starting system:

- All engines are to be started by an electric starter. Starter motor to be mounted on engine.
- The details of battery are mentioned below. The batteries will be under yard scope. In case of any changes required in the battery, the same to be mentioned in the offer.
  - Quantity : 1 no for each generator
  - Power : 220 Ah per item
  - Voltage : 24 VDC
  - Battery chargers : One (1), supplied by main switchboard
- Battery charging alternator with built in rectifier and regulator shall be provided. Capacity, voltage and specification of starting battery in compliance with the staring requirement of DNV class to be indicated in the technical offer.
- Also, the details of starting battery cable shall be mentioned in the technical offer for selecting suitable size of cables by Yard.
- Additionally, manual starting provision to be provided for diesel engines for dead ship recovery.

l. Instrumentation and safety devices according to class rules & latest maker standards to be provided. Instrumentation on local panels, sensors etc. on engine shall be according to classification society requirement and makers standard.

3. Control & Monitoring (through Local Control Panel – 1 No each)

a. Each main diesel generator set to be equipped with a Marine Control Unit (MCU), built into a waterproof steel casing, mounting on the main generator skid.

b. The control unit should be capable of interfacing to the Vessel's alarm monitoring system via potential-free contacts and/or Modbus communication.

c. Minimum following controlling operations shall be possible from DG local control panel. The lists of controlling options mentioned below are only minimum and any requirement as per class rules in addition to be catered by the vendor.

- Engine start/stop operation
- Emergency stop button with safety cover
- Provision for Remote Emergency Stop
- Engine running indication
- Local-remote selector switch
- Engine Hour meter
- Tachometer
- Pre-warning and shutdown alarm display and meters(analog/digital) for monitoring engine parameters for safety operation of engine as per class rules and maker standard.

- All pre warning and safety alarms as per class rules and maker standard.
- All shutdown alarms as per class rules and maker standard.
- Engine reset and alarm acknowledge button

d. Controls & monitoring and local gauges including hour counter shall be provided as per class rules and manufactures standard.

e. The local control panel shall give audible & visual alarm in the event of any fault on the DG. The audio-visual alarm unit shall be prewired to the local control panel.

f. Each main diesel generator set to be delivered at least with the transmitters and switches for the following indicators, alarms, automatic shutdowns, and readouts. The lists of indications and alarms mentioned below are only minimum and any requirement as per class rules in addition to be catered by the vendor.

- *Indications*
  - Speed/rpm
  - Running hours counter
  - Oil pressure
  - Oil temperature
  - Cooling water (HT) temperature
  - Exhaust gas temperature
  - Battery voltage
- *Alarms*
  - Cooling water (HT) level : low
  - Cooling water (HT) pressure : low
  - Cooling water (HT) temperature : high
  - Oil pressure : low
  - Oil temperature : high
  - Fuel oil pressure : low, high
  - Exhaust gas temperature : high
  - 24-DC voltage : low
  - LT cooling water : Low pressure and High temperature and Low level in expansion tank will be provided as per the class requirements.
- *Engine shut down (in accordance with the rules and regulations of Class and/or Authorities):*
  - Cooling water (HT) temperature : high-high
  - Lubrication oil pressure : low-low
  - Overspeed : high
- *Readouts:* The instruments and controls to be connected to the generator engine via CAN SAE J1939 interface.

g. The panel shall be in a drip proof enclosure of min IP-44.

h. All cable entry glands based on yard cable size has to be supplied by OEM.

i. Main and back-up supplies for local and instrumentation panel shall be provided from ship 24V DC system. Instantaneous change over to stand by supply in case of failure of primary supply and viz-viz has to be done without interrupting the operation of DG.

j. The details of aux supplies required from ship's power system shall be clearly mentioned in the offer.

k. The local control panel shall have provisions for connecting external battery charger for charging the battery when the engine is not switched on. Necessary interlocks shall be made in the control panel accordingly.

l. The local control panel has to provide DG cranking (potential free contact) signal which is required for disconnecting the static battery charger (yard scope), used for external charging the DG starting batteries, when DG is started. Number of potential free contact required shall be clarified during detailed design stage.

m. The local control panel shall have potential free (open for alarm) contacts for common alarm, running indication and common shutdown.

n. The generator engine shall be speed controlled remotely by governor control switch on main switchboard.

o. All other control, interlocks & indication required as per class rules and maker standard to be provided.

4. Automatic Alarms & Safety System / Control Panel / Instrumentation on DG set

a. A safety system for protection and controls of each DG set to be provided. The safety system shall control and protect the DG sets in order to prevent faulty operation and / or major failure. The system shall automatically stop the engines upon critical failure which may lead to break down of the engines.

b. Also, the system provided must be with an audio (suitable for engine room environment)-visual display (LCD screen/supplier standard) with Acknowledge and Reset facility.

c. The safety system for auxiliary engines shall include alarm, indications (Supplier standard display) and monitoring functions of the engine as per the class requirements/recommendations and OEM standards. All sensors mounted on the engine for alarms & trips have to be provided by the supplier and must be pre wired to local control panel. If so, the alarm shall be clearly indicated on the safety system panel / cabinet.

d. The control panel shall have provision for interfacing & control of DG via Power Management System. The control panel shall be a separate interface for status & monitoring of DG via vessel alarm monitoring system. The interface via serial shall be of RS485 MODBUS.

5. Conditions of supply

   a. Complete main diesel generators and equipment and systems are to be constructed with sufficient strength, capacity and the necessary supporting systems to provide reliable maneuvering to the vessel in all operating conditions. The complete main diesel generators should be manufactured with the best quality material and workmanship.

   b. The main diesel generators under supplier's scope shall be new, unexploited and of marine quality suitable for intended service. Also, these equipment's shall be equipped for efficient and proper working under worst marine conditions. Anything necessary to accomplish this must be supplied not withstanding any omission in the specifications.

   c. Supplier should tender advice free of any charges in respect of offered main diesel generators layout, construction of structure in way of the mounting, instrumentation & control and also assist in answering of queries from the Yard/Owner.

   d. Supplier should also undertake to study any drawing submitted by the shipyard and offer approval/comments/advice on them free of any charge.

   e. Necessary flexible hoses as recommended by manufacturer/supplier for the connecting yard piping to equipment's/accessories (type approved by class) shall be included in the scope of supply, if any.

   f. Yard will arrange an interface meeting jointly with the main diesel generators vendor, electrical system integrator and the yard for finalizing the requirement of integration of Alternators and interfaces between the main diesel generators and control & monitor system via online. The requirement of main diesel generators control system shall be finalized during the meeting. The final offer for interfaces shall be decided from the outcome of the meeting.

   g. The Diesel generators shall be tested and certified in front of the surveyor as per the class rules.

6. Spare Parts, Inventories, Tools & Training for crew

   Following spares shall be included in the scope of supply.

   a. Spare parts, which are mandated by Classification Society and Regulatory Authority for the intended operation, shall be included in the scope of supply by the OEM.

   b. One spare fuel pump is to be included in the scope of supply.

   c. Manufacturer's standard recommended consumable spares, special jigs and tools for maintenance of the machinery/equipment and fittings shall be included in the scope of supply.

   d. Commissioning spares as per manufacturer standard shall be included in the scope of supply.

   e. Each part or set of parts shall be individually packed and protected as per standard shipbuilding practices against dampness and corrosion during prolonged storage.

   f. Each part to have a label attached to the exterior of each package.

g. The spare parts shall be supplied in a box.

Note

- ***Notwithstanding any omission in this specification, all items/features required as per class rules/statutory regulations, safe working and good ship building practice shall be included in the offer by the bidder.***
- ***All the equipment/accessories supplied should meet the rule requirements of class notations and other operational requirement for the vessel. Alternatively, any features/accessories/equipment required as per applicable class rules and other operational requirements should be included in the scope of supply.***

Annexures

1. Datasheet of Alternators
2. P&ID for Cooling System
3. P&ID for Heat Recovery System
4. P&ID for Fuel Oil System

Att.: Saran Ray, Ram Mohan Baliga
Date: 13.09.2024
Your ref: RFP for electrical system
Class: DNV/BV or equivalent

TECHNICAL SPECIFICATION

Q-2024-884

Rev.1

Wilson 6300DWT Bulk Carrier
Udupi Cochin Shipyard Limited

norwegian electric systems
part of HAV group

Technical Specification

Dear Sir / Madam,

Thank you for your inquiry for system integration package for your 6300 DWT Bulk Carrier newbuilding project.

We are pleased to present our technical proposal for your consideration.

Supplementary documents, if necessary, will be included and referenced accordingly. Please be advised that the images provided are for illustrative purposes only and may not represent the actual equipment.

Should you have any questions or require additional clarification regarding this proposal, please do not hesitate to contact us.

Kind regards,

Mads Ulstein
Sales

Revision

No.	Date	By	Comment
0	30.04..2024	MUL	First Issue
1	11.09.2024	HE	General update

Table of Contents

1. Generators

Four (4) sets

For illustration only

Main Generators

Technical description

- LSAM 47.3 S5 C6S/4
- 472 kVA, 425kW, 480V-60Hz, 1800rpm
- AVR type Digital
- Temp rise F
- Insulation class H
- Anti Friction bearings x 2
- Horizontal installation
- IP23, Self Ventilated, no filters
- Heaters 230V
- Mech. Mounting: Flexible Coupling (not included)
- Monitoring, 2x3PT100 in windings
- Monitoring, 2x1PT100 in bearings
- Weight appr.:
- Colour RAL 5012
- Certification according to DNV-class
- Designed for DC switchboard application
- Efficiency @100% load better than 96%

2. Main Propulsion Motor

Note: Final E-motor speed at 2x650kW to be decided after study of tank test result and discussion with Finnøy. Below data is just our preliminary proposal for what we think will be the best solution based on discussion with Finnøy to ensure constant power range in the whole vessel speed range.

Two (2) set

** Prepared for SPM monitoring equipment (Sensors not included).*
In case of sleeve bearings: minimum speed: 200rpm.

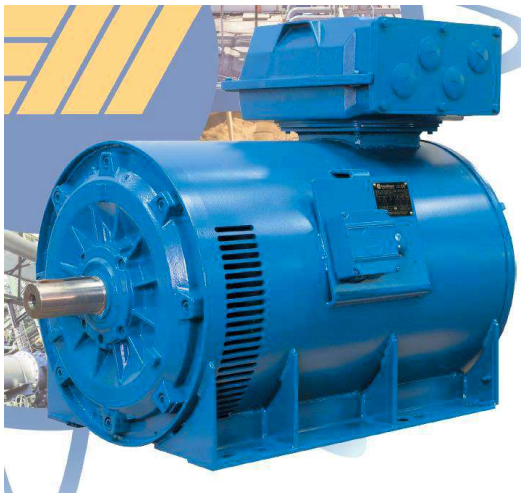
Main Propulsion Motors

Technical description

- 650kW @ 1100 RPM induction motor
- (max speed and speed range TBA)
- 480V AC
- S1 duty
- Temp class F
- Insulation class F
- Roller bearings x 2
- B3, horizontal installation
- IP55, F.W. cooled,
- Heaters 230V
- Monitoring, 2x3PT100 in windings
- Monitoring, 2x1PT100 in bearings
- Weight appr. 2670kg
- Colour RAL 5012
- Designed for converter application.
- Efficiency @100% load better than 96%

3. Bow Thruster Motor

One (1) set **Bow Thruster Motor**



** Prepared for SPM monitoring equipment (Sensors not included).*

Technical description

- 350kW
- 480V, 60Hz
- 0-1800rpm
- S2-30 duty
- Temp class F
- Insulation class F
- Roller bearings x 2
- V1, Vertical installation
- IP23, Air Cooled
- Heaters 230V
- Monitoring, 2x3PT100 in windings
- Monitoring, 2x1PT100 in bearings
- Weight appr. 760kg
- Colour RAL 5012
- Designed for converter application.

4. DC Switchboard

One (1) set **Main Switchboard – DC 700V**

General:
NES MSB 700V DC – Marine Switchboard is a DC Power Distribution Switchboard specially designed for marine applications.

Illustration photo of DC SWB.

Switchboard to be floor standing with hinged door and hand-rail in front and fixed panel aft. The switchboard is based on a common DC - bus system where power is feed to/from switchboard through power modules. The switchboard system consists of two separate DC busbars within the same cabinet.

The NES MSB 700V DC - Marine Switchboard includes following power modules (inverts/rectifiers) for the following incoming/outgoing suppliers (Each outgoing/incoming supplier also includes protective devices, breakers, filters/chokes, control components, needed instrumentation and cooling):

4 x Main Generators, each 425kW (diode rectifiers)
2 x Main Propulsion, each 650W
1 x Bow Tunnel Thruster, 350kW
2 x Grid Converters for Consumer, 95kVA
2 x Chopper for Break resistor including resistor IP55 for external mounting
1 x Bustie arrangement with High Speed fuse and isolating switch
2x Power plant controllers including remote HMI

Cooling System:
The NES MSB 700V DC – Marine Switchboard in this quotation is **Air Cooled.**

Paint: Powder Coating RAL 5012
IP degree: 23

Preliminary Cabinet Size (L, D, H): TBA
Preliminary Cabinet Weight : TBA

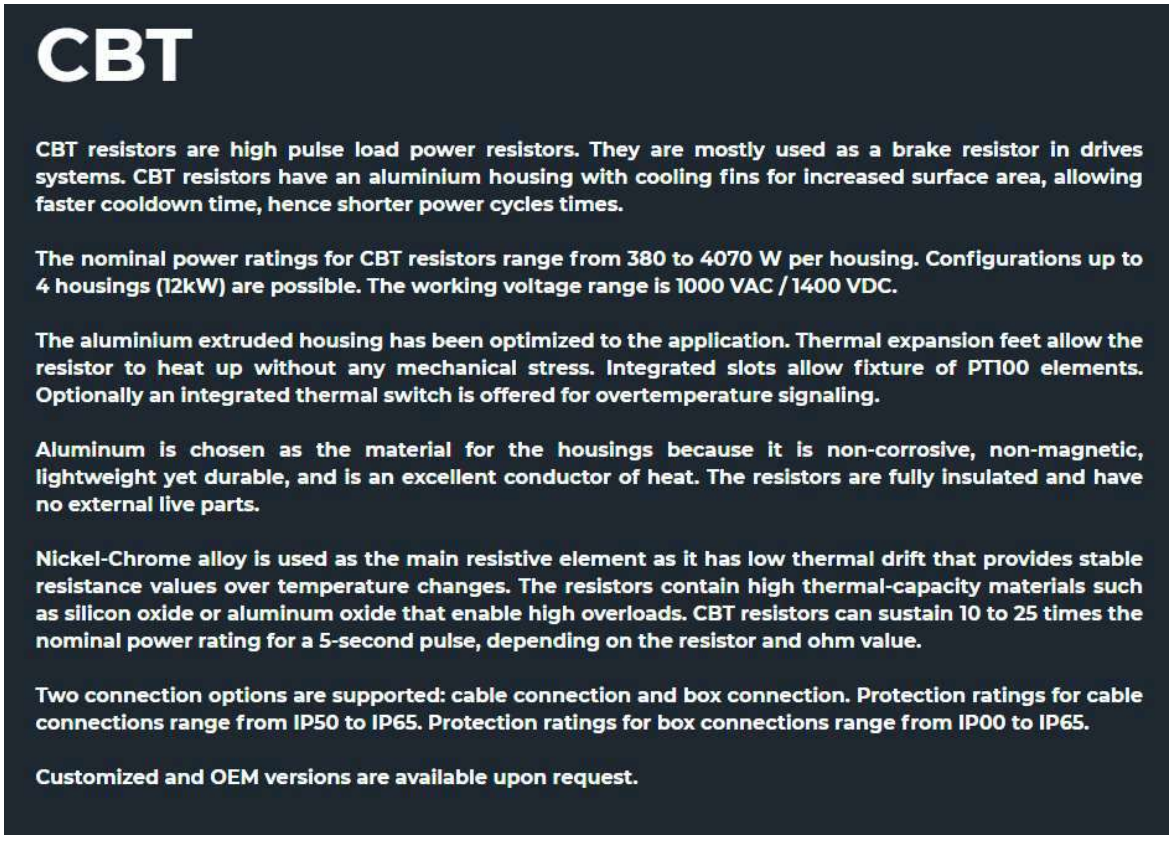
5. Break Resistors

Two (2) set **Breake Resistors**

General:
One Power resistor is connected to each busbar on DC SWB for burning of any regenerated power the hotel cannot absorb. Breake chopper inside the DC SWB controls the power to the resistors.

Prelim. Data for Danotherm CBT Breake resistor:

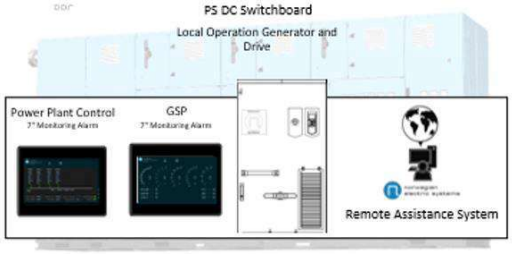
Voltage 700VAC
Peak power : 98kW (TBA during engineering phase)
Cooling: Air cooled
Enclosure: IP 55
Material for Housing is Aluminum
Material for main resitive element is Nickel-Chrome alloy



6. Power Plant Contr. (NES-PPC). Built into DC SWB

(See also our Basic Design Document for more details).

Two (2) sets



One set pr. busbar

Including

- Stand alone or system configurable
- Thruster power limitation
- Fast load reduction
- Load dependant Start Stop
- Blackout Recovery
- IAS mirror capable

Controller Integrated in the DC SWB cabinet (built in).

7. Power Plant Contr. Monitor (NES-PPC). Built into DC SWB

(See also our Basic Design Document for more details).

Two (2) pcs

Including

15.6” TFT color display, resolution 1366x768 pixel, 16M colors. - Dimmable LED backlight- Projected capacitive touchscreen. True glass design. Multitouch operation.

24V power supply

8. Gen. Sync. and Protect. unit (NES-GSP). Built into DC SWB

(See also our Basic Design Document for more details).

Four (4) sets — **One set pr. Generator**

NES GSP (Generator Synch and protection unit):

- Stand Alone
- Synchronize
- ROCIF (Over-excitation protection)
- Short circuit protection
- Overvoltage
- Local and remote operation
- Digital meters
- Local control
- Alarmlist
- Monitoring

Integrated in the DC SWB cabinet (built in).
Monitor 7" TFT color display, resolution 800 x480 pixel, 64K colors. Resistive touchscreen, Dimmable LED backlight ARM Cortex A8 1 GHz
24V power supply

9. Transformers

Two (2) sets — **Distr. transformer, type NET-95 (T1 / T2)**

Technical Information:

- Power: 95kVA
- Primary Voltage: 440V IT-net
- Secondary voltage: 400V TN-net with Neutral.
- Frequency: 50Hz
- Enclosure: IP 23
- Insulation class F
- Temp. class F
- Natural air cooled
- Colour RAL 5012
- Appr. Weight: 430kG
- Appr. Dim. (LxWxH) 600x470x570 [mm]

Designed for use in application with Frequency Converters.

NOTE:

The design of this transformer is based upon our own SLD proposal with combined 400V TN/ 230V SWB.

This transformer design can of course be changed to IT net on both Primary and Secondary side of transformer if yard wants to have IT net and separate switchboard for each Volage, with no extra cost.

10. Thruster Control

(See also our Basic Design Document for more details).

Three (3) set

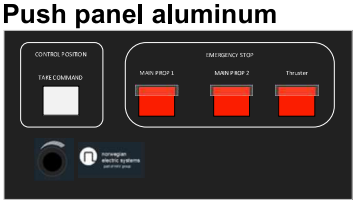
MP1+Thruster

MP2

MP's

Thruster

Push panel aluminum



Levers

Technical Information:

3 control positions

Total

Push panel aluminum (3) pcs

- Emergency stop
- Control position
- Dimmable backlight in buttons

Lever (3) pcs - Thruster

- 1x4-20mA order signal
- Scale -100 0 100
- Singel signal circuit

Lever (3) pcs – Main propulsion

- 4-20mA order signal
- One lever with dual signal circuits
- Scale -100 0 100

Monitor (6) pcs

- Monitoring: speed, power, in limit, control position, warning, fault, ready, inhibit.
- Control: Start / Stop / Reset / Power Mode
- 7" TFT color display, resolution 800 x480 pixel, 64K colors. Resistive touchscreen, Dimmable LED backlight ARM Cortex A8 1 GHz
- 24V power supply

11. Remote Assistance System (R.A.S)

Through the vessel's satellite communication system, the user can receive direct assistance to help solve operational problems, from anywhere in the world and anytime.

This opens new opportunities regarding service support and will drastically reduce the risk of vessel "off hire" time.

Note:

The RAS system is for free use in the guarantee period. After the guarantee period has ended a service agreement has to be entered in order to prolong the 24/7 RAS support.

NES does not include an internet connection.
A clean internet connection for use with the Remote Assistance System is to be provided by the vessel.

Service and Support 24/7

12. Electrical Studies and Analysis

Electrical Studies / analysis of equipment delivered by NES.

- Short circuit calculations DC Switchboard
- Selectivity and coordination studies for NES scope of supply, Ref SLD
- Interface between offered equipment and external equipment.
- Project planning and reporting
- Test plan, validation and approvals (DNV)

See separate integrator document for details 100-005-03System_Integrator_Role

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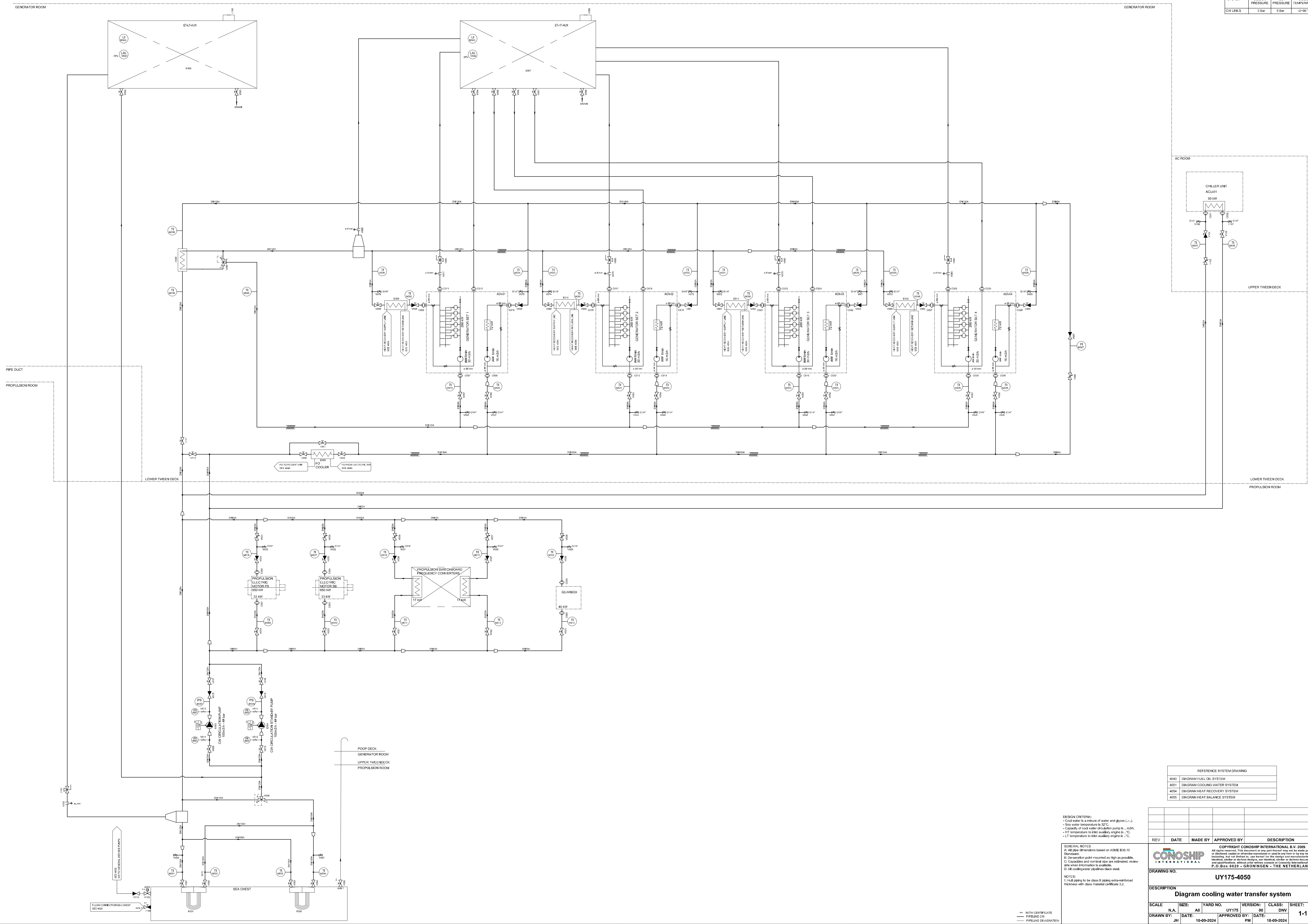
* Please note that NES scope of supply is restricted solely to the systems outlined in the aforementioned technical specification

SYSTEM	DESIGN PRESSURE	TEST PRESSURE	DESIGN TEMPERATURE
CW LINES	3 Bar	5 Bar	-2+90 °C



REFERENCE SYSTEM DRAWING	
4040	DIAGRAM FUEL OIL SYSTEM
4051	DIAGRAM COOLING WATER SYSTEM
4054	DIAGRAM HEAT RECOVERY SYSTEM
4055	DIAGRAM HEAT BALANCE SYSTEM

DESIGN CRITERIA:
- Cool water is a mixure of water and glycos (..-..).
- Sea water temperature is 32°C.
- Capacity of cool water circulation pump is .. m3/h.
- HT temperature to inlet auxiliary engine is ..°C.
- LT temperature to inlet auxiliary engine is ..°C.

REV	DATE	MADE BY	APPROVED BY	DESCRIPTION

GENERAL NOTES
A: All pipe dimensions based on ASME B36.10 Standaard.
B: De-aeration point mounted as high as possible.
C: Capacities and nominal size are estimated, review size when information is available.
D: All coolingwater pipelines black steel.

NOTES:
1: Hull piping to be class II piping extra-reinforced thickness with class material certificate 3.2.

P.O.Box 6029 - GRONINGEN - THE NETHERLANDS

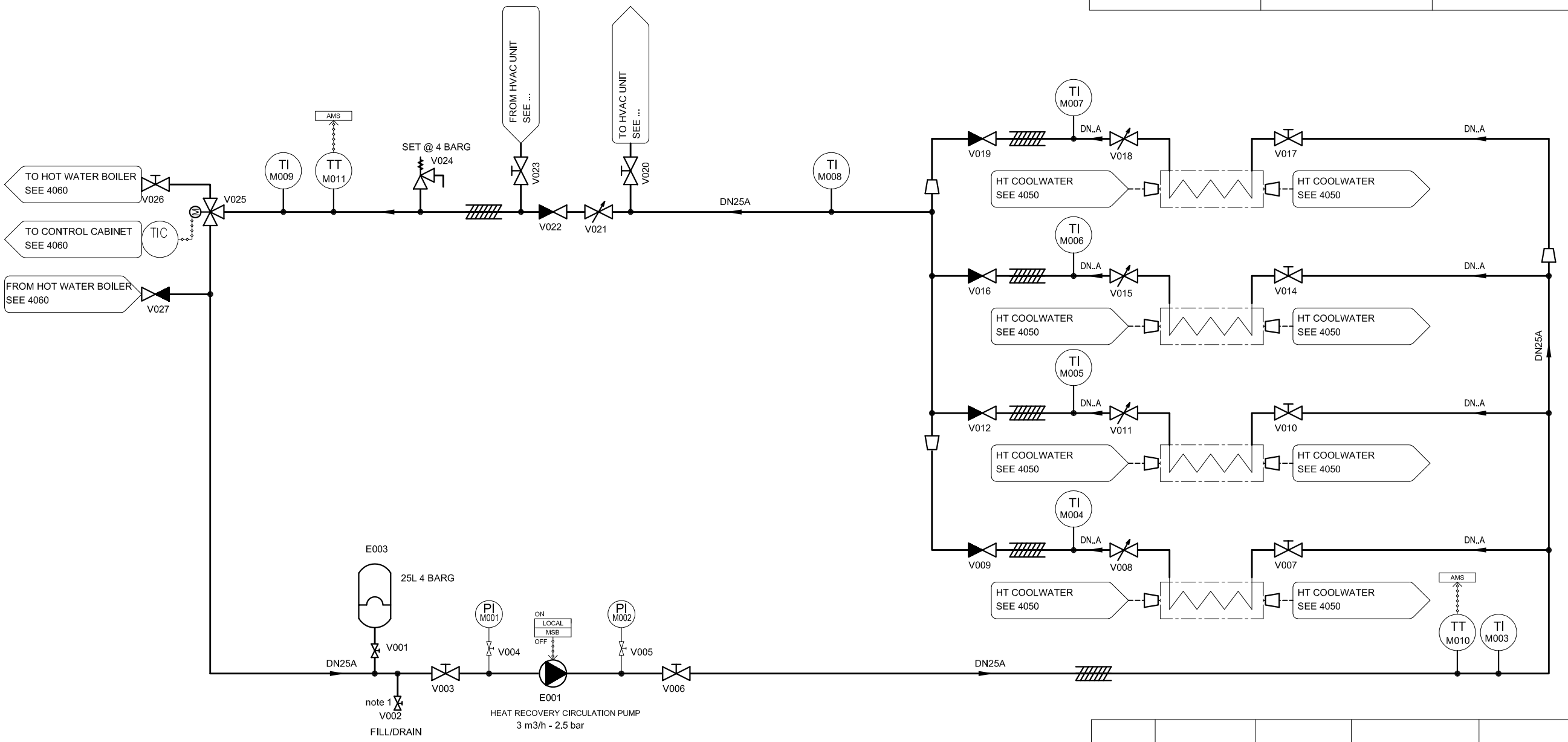
DRAWING NO. UY175-4050

DESCRIPTION
Diagram cooling water transfer system

SCALE	SIZE:	YARD NO.	VERSION:	CLASS:	SHEET:
N.A.	A0	UY175	00	DNV	1-1

DRAWN BY:	DATE:	APPROVED BY:	DATE:
JH	10-09-2024	PM	18-09-2024

DESIGN CONDITIONS			
System	Design pressure	Test pressure	Design temperature
Heat recovery lines	4 Bar	6 Bar	0+90°C



REV	DATE	MADE BY	APPROVED BY	DESCRIPTION

REFERENCE SYSTEM DRAWING	
4050	Diagram cooling water system
4060	Diagram fresh water system.

——————— COLD FRESH WATER

---------- HOT FRESH WATER

GENERAL NOTES
A: All pipe dimensions based on ASME B36.10 Standaard.
B: All piping to be fabricated as black steel.

SPECIFIC NOTES
1: Flushing line for cold water to flush the system with hot water.

DRAWING NO.

UY175-4054

DESCRIPTION

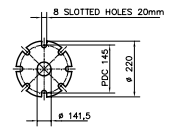
Diagram heat recovery system

SCALE	SIZE:	YARD NO.	VERSION:	CLASS:	SHEET:
N.A.	A3	UY175	00	DNV	1-1

DRAWN BY:	DATE:	APPROVED BY:	DATE:
JH	04-09-2024	PM	17-09-2024

SYSTEM	WORKING PRESSURE	DESIGN PRESSURE	TEST PRESSURE	DESIGN TEMPERATURE
FUEL OIL TRANSFER	6 Bar	6 Bar	9 Bar	+60°

DETAIL A
IMO INTERNATIONAL SHORE CONNECTION



EMERGENCY GENERATOR ROOM
EMERGENCY GENERATOR
E005
EMERGENCY GENERATOR DAY TANK
206
LAH M016
LAL M017
LI M005
At least 18Hr Cap. left
DRAIN V043
V044
V047
V048
V069
V072
DN80
DN_A
BOAT DECK
POOP DECK
BUNKER STATION PS
PI M014
MGO BUNKER ADAPTOR SPOOL PIECE (detail A)
V037
V038
V039
V049
V050
V064
SAMPEL
DN150
BUNKER STATION SB
PI M011
V066
V067
V068
V065
DN125
DN125A
DN150
note 1
note 8
DN25A
MAIN DECK
BUNKER TANK PS
BUNKER TANK SB
202
201
FUNNEL
TECHNICAL SPACE
OVERFLOW TANK
LAH M013
note 7
205
LI M018
LAH M012
note 6
40%
V043
DN50
DAY TANK 2
DAY TANK 1
GENERATOR ROOM
note 5
V036
LAH M015
80%
LSH M010
80%
LSL M009
-1%
At least 8Hr Cap. left
V033
V034
V032
V031
V016
note 2
204
203
FO SEPARATOR UNIT
E008
1.2 m3/h
E013
1.2 m3/h
V028
V027
V071
V070
TO BWC TANK SEE 4100
LI M008
TI M020
LAL M007
10%
DRAIN V030
V020
V019
LI M006
TI M019
LAL M004
V021
V022
V023
note 2
V024
V050
V051
FUNNEL
AUX-04
E004
AUX-03
E003
AUX-02
E002
AUX-01
E001
Note 2
V058
V057
V056
V055
DN15A
DN32A
FUEL CONSUMPTION MONITOR
E012
E010
E011
"FUEL IN USE" TEST VALVE
V073
LT CW SUPPLY LINE SEE 4053
LT CW MAIN LINE SEE 4053
FO COOLER IN DIAGRAM 4053
TI M021
TI M022
V052
V053
V054
DN25
V061
V060
V059
V062
PROPULSION ROOM
V042
V041
E009
V040
V012
V013
V014
V015
V017
V018
FO TRANSFER PUMP 1
5m3/h - 1,5 bar
FO TRANSFER PUMP 2
5m3/h - 1,5 bar
E006
E007
V008
V009
V001
V002
F001
F002
V003
V004
V005
V006
V007
PI M001
PI M002
PI M003
PI M004
PIPE DUCT
A051
A063
V063

REFERENCE SYSTEM DRAWING	
4053	DIAGRAM COOLING WATER SYSTEM
4082	DIAGRAM DE-AERATION SYSTEMS
4100	DIAGRAM DIRTY OIL SYSTEM

DESIGN CRITERIA:
-8 Hour operation based on the needed amount of engines running on 100% MCR while sailing.
-Capacity overflow tank minimum 10 minutes bunker capacity
-Bunker rate: 100m3/h
-Manual Selection daytank and transfer pump.

REV	DATE	MADE BY	APPROVED BY	DESCRIPTION

GENERAL NOTES
A: All pipe dimensions based on ASME B36.10 Standaard
B: All ends of sounding pipe should have striking plates to prevent damage to the hull when sounding the tank.
C: For wall thickness de-aeration pipes and sounding pipes see correspondng reference drawing.

SPECIFIC NOTES
1: Overflow/de-aeration bunker tanks above deepest waterline.
2: Valves to be in a accessible position which in case of fire of another engine does not became inaccessible.
3: Open only in case of an emergency.
4: SOS valve manually operated outside emergency generator room.
5: Height of this line should be lower then de-aeration to overflow tank.
6: Level alarm is second alarm that gives a signal when the overflow tank is filling up.
7: Level alarm is first alarm that gives a signal when tray is filling up
8: Drain line to be routed outside engine room.

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DRAWING NO.
UY175-4040

DESCRIPTION
Diagram fuel oil system

SCALE	SIZE:	YARD NO.	VERSION:	CLASS:	SHEET:
N.A.	A1	UY175	00	DNV	1-1

DRAWN BY:	DATE:	APPROVED BY:	DATE:
JH	02-09-2024	PM	17-09-2024

General Terms and Condition		Annexure 2
SL NO	**Description**	**Compliance by Supplier (YES/NO)** **In case of non-compliance, please provide remarks.**
1	Tenderers are to carefully go through the terms and conditions and the technical specification of the items for which offers are called for. Tenderers have to adhere to above and supply full technical scope of items along with compliance of commercial conditions. UCSL have full right upon deviations, if any, including rejecting the partial scope/ complied offers.	
2	Offers are to be furnished in duplicate and should be free from overwriting. Corrections and additions, if any, must be attested. ~~In the case of E tender offers shall be submitted only through UCSL E- procurement portal.~~ Incomplete/ambiguous/conditional offers are likely to be rejected.	
3	Technical checklist, if applicable and current general terms & conditions of enquiry duly filled and signed and technical specifications of items offered (refer clause 5), should be submitted along with part-1 techno-commercial bid ~~in the case of two-bid tenders and along with the bid documents in the case of single bid~~. Non receipt of the document may lead to rejection of offers. ~~In the case of E tender filling up of GTC check list in the portal itself is sufficient.~~	
4	Spare/Tool requirements to be confirmed, if applicable i) Spare parts shall be furnished in accordance with the Class recommendations and manufacturers standard ii) The same shall be included in offered costs and shall be a part of L1 evaluation.	
	Acceptable Make - Volvo, Scania	
5	Following Certificates/documents is to be submitted for the item in the event of an order: **Refer certification, testing and inspection in Section A of PTS-175-004, (page no 4)** **Refer PTS Clause no 9 supply of documents (page no 5)** **Refer PTS Clause no 12 compliance matrix (page no 8)**	
6	**SPECIFICATIONS**: - a) Manufacturer's name, their trade mark and brand, if any, should invariably be mentioned and illustrative leaflets giving technical particulars (technical details of items offered including technical literature) etc., should be attached to the offer. b) Materials offered shall conform to UCSL specifications and drawings. c) ~~Samples are to be supplied free of cost in the event of requirement by UCSL~~. The detailed working drawing, if called for, is also to be furnished for approval before commencement of manufacture.	
7	Packing materials should be eco-friendly.	
8	Supplier should follow the statutory requirements of product offered.	
9	Products supplied shall be non-toxic and harmless to health. In case of toxic materials, Materials Safety Data Sheet may be furnished along with the material.	
10	**a) COMMISSIONING & SEATRIALs**: - **Service engineer assistance for 15 days(excluding travel days, Sundays) irrespective of number of engineers in 3 trips per shipset.** **Total 60 man-days (excluding travel days, Sundays) irrespective of number of engineers in 12 trips for all 4 ships to be included in scope and cost.** b) Cost considered to include all charges incurred for travel, lodging, food and local transport costs. c) Additional man-day rates to be indicated separately (all inclusive of cost for boarding, lodging and local transport etc.) for extension beyond agreed man-days. Additional man-days/trips only applicable after completion of 12 man-days & 3 trips as indicated in 9a for all the vessels together. d) Whether the applicable taxes in India shall be borne by UCSL/Supplier (In the case of foreign vendors) e) Income tax liability of non-resident service engineer based on his period of stay in India shall not be borne by UCSL f). The non-resident seller/service provider shall provide such documents that are necessitated by the Indian income tax laws so as to enable UCSL to comply with the provisions of Indian statute and for payments of income tax in India. Following documents shall be sought by UCSL in this regard (i) Certificate under 10 (F) (ii) Tax residency certificate (iii) The certification regarding the existence/non-existence of business connection or permanent establishment in India. (The above is only an indicative list)	
11	Taxes and duties, if any, payable extra are to be indicated ~~in the price part for single bid and~~ in techno commercial part and price part (in the case of 2 bid tender).	
12	~~**MSEs, Startups and Make in India**~~ ~~a) Local Suppliers (Make In India), MSME firms and Startups will be eligible for various Relaxations in pre-qualification criteria and other Benefits as per the orders promulgated by Government of India. Bidders are advised to refer the details of various Benefits and Relaxation in pre-qualification criteria as published at CSL website (www.cochinshipyard.in) under the Tenders tab for further reference.~~	
13	**Delivery Period:** a. Delivery time required for supplies should be indicated in the offer (including time frame for drawing preparation, class approvals, manufacture etc.) Please note, required date at UCSL are as follows: b. The supplier shall submit all the drawings for approval from UCSL within 15 days from the date of PO and UCSL has forward the drawing approval within 15 days thereafter. **Material required date at UCSL** **1st & 2nd Shipset: Within 9 months from the date of PO** **3rd & 4th Shipset: Within 15 months from the date of PO** The delivery date mentioned is the date at which the items to be delivered to UCSL Stores irrespective of all drawing approvals, clarifications etc. arising post PO placement. It is the responsibility of the supplier to get all the drawing approvals, clarifications etc. from UCSL and supply the items within the delivery date	

SL NO	Description	Compliance by Supplier (YES/NO) In case of non-compliance, please provide remarks.
14	**SHIPMENT** a. Supplier shall intimate UCSL the readiness of the Equipment/ Machinery/ Components and Parts prior to fourteen days of shipment. b. A minimum 14 days free detention period is to be granted for clearance of the goods at Mangalore/Mumbai/Chennai seaport, as applicable for full containers.	
15	**PAYMENT TERMS:** a. For equipment's with commissioning **UCSL payment term is 80% along with 100% applicable taxes of material supplied within 30 days from the date of receipt and acceptance of items at UCSL stores after inspection and balance 20% of material and commissioning charges on satisfactory completion of commissioning certified by UCSL.** b. For general items ~~UCSL payment term is 100% within 30 days of receipt and acceptance of materials at UCSL stores after inspection.~~	
16	c) Payment mode shall be Electronic Clearing System (ECS)/cheque /NEFT/ /LC/CAD/TT-as mutually agreed in line with above standard payment terms. Variations from standard terms, if any, shall be appropriately loaded for tender comparison purposes for arriving the lowest bid. Bank charges (including LC charges, if any) inside India will be to UCSL account and outside India to supplier's account (In the case of import shipments). The charges for LC amendment, if any, shall be borne by the parties by whom the same is attributed/ necessitated. d) Normally advance payments are not encouraged. In case, if advance payment is sought, the same can be considered for a maximum of 10% order value only. Interest at the base rate of SBI {applicable on the date of price bid opening} + 1% for the amount of advance will be charged. In addition, Bank guarantee for equivalent amount of advance to cover the period till advance payment is adjusted to be furnished. (i.e till completion of supplies or for a period as specifically agreed + 90 days). In case interest as above is not agreeable to be paid, the same will be loaded on your quoted basic prices, for tender comparison purposes for arriving the lowest bid e) For deviation in Payments terms from UCSL standard terms, if any, aforesaid interest will be loaded on quoted item prices, for tender comparison purposes for arriving lowest bid. f) Part payment shall be considered only if specifically agreed against partial supplies. (g) If it is found that the supplier is not filing GSTR 1 & 3B, UCSL reserves the right to deduc the GST amount in the next payment.	
17	**Security Deposit/ Warrantee Bank Guarantee**: a.i) The successful bidder shall remit a security deposit of 3% of the total order value (excluding taxes, duties) in the form of demand draft drawn in favor of Udupi Cochin Shipyard Ltd towards the satisfactory performance of the contract, if an order is placed on them. Alternatively, a Bank Guarantee equivalent to above % of the total order value (excluding taxes, duties) as per UCSL format from an International Bank as per approved list of banks available in CSL website (for overseas supplier) & Scheduled Indian bank for Indian supplier is to be submitted, if an order is placed towards satisfactory performance of the contract. a.ii) The supplier shall also agree for 3% of total order value (excluding taxes and duties) as Bank guarantee towards the Guarantee clause a.iii) The Bank Guarantee /DD as above should be initially valid till 90 days after completion of supplies in terms of SD and later revalidated (within the validity of initial BG) to cover the guarantee period mutually agreed plus 90 days~~. However, in the case of items where WBG is not applicable (as in 15.a.ii), the SD shall be valid for item delivery at yard plus 90 days~~. Fixed Deposit Receipt (for equivalent amount of Security Deposit/WBG required as per tender) in lieu of bank guarantee is also acceptable. Fixed Deposit Receipt shall be in the name of supplier with lien marked in favor of Udupi Cochin Shipyard Limited, Kochi. ~~a.iv) The above SD/WBG is required or applicable only when the total order value (excluding taxes and duties) is Rs.20lakhs and above (or equivalent foreign currency). In case supplier have quoted Rs.20 lakhs and above in tender and indicated that BG as not applicable in the check list, the clause 15b shall be considered for further process.~~ ~~b) If the bidder is not agreeable to submission of SD/ warrantee bank guarantee as per UCSL general terms and conditions of enquiry, UCSL reserves the right to reject the offer at our discretion or 3% of total order value (excluding taxes and duties) will be added to the quoted price for tender comparison/ evaluation purpose on case to case basis for arriving the lowest bid.~~ ~~However, in cases where total quoted value is less than 20 lakhs, (ie split order etc) and the order value of entire tendered items is more than Rs 20.0 lakhs, the aforesaid loading will be applied on individual items in following cases.~~ ~~· The bidder has not quoted for entire tendered quantity~~ ~~· UCSL has technically / commercially rejected a few items in the tender~~ c) SD to be submitted within 2 weeks of receipt of order from yard. d) Format of bank guarantee along with enquiry to be agreed, in general e) Mode of receipt of bank guarantee is strictly through SWIFT mode from supplier bank to UCSL designated bank (for overseas bidders)	
18	**Risk Purchase:** If the supplier fails to supply the items ordered in good quality as per contract specification and fails to deliver within the delivery date or violate any of the terms and conditions of the purchase order, UCSL shall have the following rights. a. To cancel the order partially or fully with 15 days, notice and to forfeit the security deposit, if any. b. To impose tender holiday for the vendor for an appropriate period as decided by UCSL c. To initiate alternate procurement action at the risk and cost of the supplier. This Risk Purchase clause is applicable only in the case of total order/ contract value (excluding taxes and duties) is Rs.20 lakhs and above (or equivalent foreign currency). Cases of value less than 20 lakhs will be addressed by serving appropriate caution/ warning notice to the firm.	
	Liquidated Damage:	

SL NO	Description	Compliance by Supplier (YES/NO) In case of non-compliance, please provide remarks.
19	In case of delay in supply of ordered materials beyond the stipulated delivery period, which is not attributable to UCSL, supplier is to pay Liquidated Damages (and not by way of penalty) a sum equivalent to ½% (half percent) per week or part of the week of the total basic price ~~in case of Machinery/Equipment and of basic price of materials delayed in all other cases~~, subject to a maximum of ~~10% of the total basic price of undelivered material/~~10% of total basic price of machinery/equipment (Total basic price is the order value excluding freight, taxes, other charges etc.). Further, GST will be applicable upon LD and the same also will be deducted along with LD. However,LD applicability is without prejudice to UCSL right to terminate contract for delayed delivery or other actions as per clause 16.	
20	**Guarantee**	
	a) The Items supplied shall be guaranteed for rated performance and against damage or failure due to faulty design, defective materials and bad workmanship for a period of 18 months from the date of delivery of the ship to Owners OR 30 months from the date of delivery of items to Yard, whichever is earlier. Should such damage/failure occurred within the Guarantee period, the Supplier should immediately rectify the failure by repair/replacement of any such part found to be under performing/ defective, at his own expenses.	
	b) Further to equipment guarantee, replaced/repaired items shall be guaranteed for 12 months from date of repair/replacement.	
21	**Preservation & Packing**	
	1.The preservation and packaging of the equipment to ensure that there is no damage and deterioration during transit and the period when the item is in storage in storhouse. 2. Duration of validity of preservation to be indicated. 3. Methodology for receipt inspection without affecting preservation (for main equipment and loose supplied items) is to be indicated by the OEM including any requirement for re-preservation 4. The procedure for re-preservation to be supplied by the firm. 5. Requirement of special provisions for storage and transportation to be specifically indicated. 6. Any consumables required for preservation/ re-preservation beyond a stipulated time period to be clearly indicated by OEM.	
22	**Jurisdiction:**	
	All questions, disputes or difference arising under, out of, or in connection with contracts shall be subject to the exclusive jurisdiction of the Courts at Bangalore, India. Alternate dispute resolution mechanism can also be considered.	
23	**Force Majeure condition**:	
	Should failure in performance of the contract or part thereof arise from war insurrection, restrain imposed by Government, Act of Legislature or other Statutory Authority or illegal strike, riot, legal lock-out, flood, fire, explosion, act of God or any inevitable or unforeseen event beyond human control which may be construed as reasonable ground for an extension of time, UCSL may allow such additional time as is mutually agreed, to be justified by the circumstances of the case. The occurrence/cessation of force majeure situation is to be informed with documentary evidence within 15 days from the date of occurrence/ cessation.	
24	**Indian Agent:**	
	a) Udupi Cochin Shipyard Ltd prefers to deal directly with the supplier. However, if the supplier appoints an Indian Agent to deal with Udupi Cochin Shipyard Ltd., the Agency commission payable by the supplier to such an agency shall be intimated.	
	b) If manufacturers affect the supply through Agents only, authorization in writing from manufacturers in favor of the Agent for supply to UCSL shall be furnished.	
	c) In case where an Agent participates a tender on behalf of a Foreign manufacturer Indian agent should submit specific authorization from the authorized person of foreign manufacturer.	
	d) In a tender, either the Indian agent on behalf of the Principal/ OEM or Principal/OEM itself can bid but both cannot bid simultaneously for the same item/ product in the same tender. If an agent submits bid on behalf of principal/OEM, the same agent shall not submit a bid on behalf of another principal/OEM in the same tender for the same item/product. Indian agents cannot represent more than one firm or quote on their behalf for any particular tender.	
	e) Clarifications, either technical or commercial, should be submitted to points specially asked for only. The opportunity so given should not be used for correcting/changing/amending the data/conditions already submitted with the tender	
	PRICING: a. Overseas firms should quote prices both on FOB and C&F Chennai Seaport terms. Indigenous bidders should quote prices for delivery of materials at UCSL stores. Insurance shall be to UCSL scope. ~~In the case of E tender C&F price shall be quoted and the freight charges shall be indicated separately under header conditions as per the provision in the CSL e-tender portal~~.	
	b. Exchange rate variation will not be applicable and the prices shall be fixed for an order within validity period in the case of indigenous/ import orders.	
	c. Offer to be submitted in ~~EUR/USD/~~INR currency Generally. Indian Firms shall quote in INR only.	
	d. Comparison of prices will be in INR only. All foreign currencies will be converted to INR for comparison and Exchange rate as on date of price bid opening shall be considered for arriving lowest bid	
	e. Prices should be valid for acceptance for a period of four months from the date of tender opening.	
	f. No enhancement of rate for whatsoever cause will be allowed once the offer is accepted and an order is placed. Withdrawal of the quotation after it is accepted or failure to make the supply within the stipulated delivery period, will entail cancellation of the order and forfeiture of Earnest Money Deposit/Security deposit, if any and/or risk purchase, without prejudice to other penal actions, including tender holiday after serving show cause notices, as deemed fit.	
	g. Conditional discounts, if any, will not be reckoned for tender evaluation/ comparison purpose. However, if the bidder becomes L1 at original offer, conditional discount shall also be considered.	

SL NO	Description	Compliance by Supplier (YES/NO) In case of non-compliance, please provide remarks.
25	h. Unpriced bid (price bid without price) duly signed is to be submitted along with techno-commercial offer in the price format, provided. Price should be quoted separately for each item shown in the format. In the event price bid is different from the unpriced format already submitted, yard reserves the right to reject the offer at our discretion without any further discussions. Details of optional items, if any, should be indicated under separate heading in the Techno commercial bid and the respective price details should also be given in the price bid. Combining of figures against more than one item and ambiguous clauses will lead to rejection of the bid.	
	i. If, in the price structure quoted for the required material/ item, there is discrepancy between the unit price and the total price (which is obtained by multiplying the unit price by the quantity), the unit price shall prevail and the total price corrected accordingly. If there is an error in a total corresponding to the addition or subtraction of subtotals, the subtotals shall prevail and the total shall be corrected. If there is a discrepancy between words and figures, amount in words of respective figures shall prevail. If the bidder does not agree to the observation of the UCSL, the tender is liable to be rejected and the same shall be intimated.	
	j. After submission of quotation/price offer no unsolicited correspondence will be entertained.	
	k. Udupi Cochin Shipyard Limited does not bind itself to accept the lowest or any tender but reserves to itself the right to reject any or all or a part of any tender at its discretion.	
	l. UCSL reserves the right to place order to the techno-commercially qualified lowest bidder in full or individual items to the respective lowest bidders in the tender (except in cases where basis of L1 arrival is declared specifically in enquiry). Also please refer loading applicable for split order of value less than 20 lakhs (Clause 15 b)	
	m. In the case of part quantity order, the quoted freight charges applicable for the entire quantity as per enquiry shall be apportioned and allocated.	
	n. If it is found that the bidder has altered or changed the UCSL standard general terms & conditions or price bid, UCSL reserves the right to reject the offer from the bidder	
	L1 computation shall be based on total cost of all items, including cost of spares as per tender & Class/certification charges, if any required (excluding GST/IGST). For all import consignments directly imported in UCSL's name/or on High Seas Sale agreement, customs duty is not applicable at import clearance. Customs clearance at Chennai port and transport till UCSL stores shall be to UCSL account.	
26	**Integrity Pact**: As per Government of India (Central Vigilance Department), UCSL and the SUPPLIER have to sign an Integrity Pact for the high value contracts, for ensuring transparency, equity and competitiveness in public procurement. The Tenderer has to sign Pre-Contract Integrity Pact as per format enclosed and to submit along with your offer. The above is applicable when the total basic price is above Rs. 100.0 lakhs. (present limit)	
27	**Grievance Redressal Committee:** As an alternate dispute redressal or reconciliation mechanism (other than arbitration clause), Cochin Shipyard has constituted Grievance Redressal Committee. Currently following executives of the committee may be contacted for the settlement of disputes, if any, arising out of all contracts. a) Mrs. Anjana KR, GM (Design) b) Ms. Bindhu Krishna - AGM (Legal) c) Mr. Shibu John, General Manager (Finance)	
28	**SUB CONTRACTING AND ASSIGNMENT** Supplier shall not contract with any subcontractor and/or vendor without the prior written consent of UCSL. Such consent shall not relieve the Supplier from any of his responsibilities and liabilities under the Purchase Order. In addition, Supplier shall ensure that the terms and conditions of any such contract shall comply with and correspond to the terms and conditions of the Purchase Order.	
29	**General:** a. Prior to price bid opening, UCSL is at liberty to take the credit rating of bidders at our cost on case to case basis, and to include the same during the evaluation of the tender.	
	b. Deviations, if any in the techno-commercial offer from that of the tender enquiry in any form should be clearly furnished in a separate document titled as "List of Deviations", failing which it will be presumed that all the terms and conditions are acceptable.	
	c. The techno-commercial part alone will be opened initially on the due date of tender. The price part will be opened only after evaluation of the Techno commercial part. Date of opening of the price part will be intimated to those firms whose Techno- commercial bids would be acceptable after the evaluation. Suppliers are allowed to depute their authorized representative to be present at the time of opening of Price Bid of their tender only. ~~In case of E-Tender , suppliers shall not depute their representative to CSL. However techno-commercially qualified supplier can view the price details in CSL E-procurement portal after opening the price-bid~~	
30	**P.O**:- a. In the event supplier's offer leads to an agreement to effect supplies, a formal purchase order shall be issued by UCSL on the basis of agreed terms and conditions of tender.	
	b. Upon placement of order (by post or mail) the supplier shall submit the acknowledgement (ie: signed and stamped original/ scanned soft copy by mail) as a token of acceptance of order within 5 days. In case UCSL doesn't receive the above, it will be deemed as accepted.	
	c. Supplier shall submit monthly progress report on the ordering status of raw materials, construction progress of the items ordered by UCSL, supporting with photo evidence.	
	SUPPLY: - a) UCSL reserve the right to inspect the goods after receipt at UCSL store / prior to dispatch (by UCSL or UCSL authorized agency at yard cost). Short supply / Mismatch / Replacement of Defective items / those not meeting agreed / contractual specification/ Items failing during commissioning shall be sent on air freight/ DDP basis courier freight prepaid/delivered at UCSL store. The customs clearance charges of above shall be to supplier account.	
	b) Replacements during guarantee period to be sent on Duty and all taxes paid basis to location as required by yard/vessel owner with all expenses to supplier account.	

SL NO	Description	Compliance by Supplier (YES/NO) In case of non-compliance, please provide remarks.
31	c) Defective items, if any, after receipt shall be sent back on cost, carriage, handling and insurance prepaid basis including re-export (wherever desired by supplier) to be arranged by supplier. Defective items shall be returned after receipt of replacement item. Supplier shall replace all/ part of items as applicable, in case of rejection, within 4 weeks of reporting the defect, without any additional cost to UCSL. In case the defective materials are not taken back within the said period, UCSL reserves the right to dispose the same without further intimation.	
	d) The supplier shall compensate UCSL for loss on account of shortage in quantity and number of pieces received than that indicated in the bill of lading provided the UCSL's claim is rejected by the insurance due to any fault of supplier. Such claims, if any, shall be supported by recognized surveyors report. The supplier shall also compensate for losses, if any sustained by the UCSL due to defective packing and/or marking of the goods not in accordance with the terms of contract. The time limits for filing claims under clauses above shall be generally 180 days from the date of complete discharge of goods.	
32	UCSL reserves the right to alter, modify the scope of supply at its discretion and in consistent with the policy of the Government of India and statutory bodies under them as applicable to the contract from time to time.	
33	UCSL shall, at its own discretion and costs opt for obtaining credit information report on supplier's financial credentials through credit rating firms. The same shall also be considered as criteria for commercial evaluation. In the event supplier's credit rating is not at least satisfactory, offer will be summarily rejected.	
34	Public procurement policy as per order No. D.O. No. P-45021/2/2017-PP (BE-II) (E-1588) by Department for promotion of Industry and Internal Trade Ministry of Commerce & Industry is applicable for this tender	
35	UCSL reserves the right to commercially reject the offer if compliance is not issued to terms at Sl. No.14, 15, 16, 17 & 18 without any further clarification / notice / communication in this regard from M/s. Udupi Cochin Shipyard Ltd., even though the offer is technically acceptable.	
36	UCSL has an option of receiving more similar projects and upon exercise of this option by owner yard will confirm the same quantity of item to supplier. Therefore the price offer shall consist the prices for current projects as well as the discounted prices applicable for these optional projects with validity to confirm the order till December 2024. However the L1 determination shall be purely based on current confirmed quantity.	
~~37~~	Restriction of bidders sharing land border with India vide Office memorandum dt 23.7.2020 Order - Public Procurement no 1 dt 23.7.2020, Order no 2 dt 23.7.2020 and Order no 3 dt 24.7.2020	
A	Requirement of registration	
1	Any bidder from a country which shares a land border with India will be eligible to bid in this tender only if the bidder is registered with competent authority as per C below. In works contracts, including turkey contracts, contractors shall not be allowed to sub contract works to any contractor from a country which shares a land border with India unless such contractor is registered with Competent authority. Relevant certificate to be submitted by bidder from a country which shares land border with India except for bidders to which Govt of India has extended lines of Credit or in which Govt of India has development projects, along with the offer as proof of registration with competent authority, failing which the offer will not be considered. A certificate is to be submitted by the bidder for compliance with the order referred above along with tender documents for consideration of offer (Wordings are as per Clause below). If such certificate given by a bidder whose bid is accepted is found to be false, this would be a ground for immediate termination and further legal action in accordance with law.	
2	Wordings of certificate to be submitted along with tender documents for Works involving possibility of sub contracting	
3	I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India and on sub contracting to contractors from such countries. I certify that this bidder is not from such a country or if from such a country has been registered with the competent authority and will not subcontract any work to a contractor from such countries unless such contractor is registered with the competent authority. I hereby certify that this bidder fulfils all requirements in this regard and is eligible to be considered(Evidence of valid registration by the competent authority shall be attached wherever applicable)	
B	Validity of registration	
1	Registration should be valid at the time of submission of bids and at the time of acceptance of bids. In respect of supply otherwise than by tender, registration should be valid at the time of placement of order. If the bidder is validly registered at the time of acceptance /order placement, registration shall not be a relevant consideration during contract execution.	
C	Competent authority and Procedure for registration	
1	The competent authority for the purpose of registration under the order shall be Registration committee constituted by the Department of Promotion of Industry and Internal Trade (DPIIT). Details of the committee and procedure for registration and restrictions shall be as per Ann I of the Order - Public Procurement no 1 dt 23.7.2020 issued by Ministry of Finance, department of Expenditure.	
D	Definition of Bidder and Bidder from a country sharing land border with India	
1	Bidder is defined as any person or firm or company including any, member of a consortium or joint venture, every artificial, juridical person not falling in any of the descriptions of bidders stated hereinbefore, including any agency, branch or office controlled by such person, participating in a procurement process.	
2	"Bidder from a country which shares a land border with India" for the purpose of this Order means:-	
	a) An entity incorporated, established or registered in such a country; or	
	b) A subsidiary of an entity incorporated, established or registered in such a country; or	
	c) An entity substantially controlled through entities incorporated, established or registered in such a country; or	
	d) An entity whose beneficial owner is situated in such a country; or	
	e) An Indian (or other) agent of such an entity; or	
	f) A natural person who is a citizen of such a country; or	
	g) A constitution or joint venture where any member of the consortium or joint venture falls under any of the above.	
	Type of business entity	

SL NO	Description	Compliance by Supplier (YES/NO) In case of non-compliance, please provide remarks.
3	(Private Limited Company/ Public Limited Company/ Sole Proprietorship/ One Person Company/ Partnership/ Limited Liability Partnership/ Joint Venture/ Trust/ NGO)	
	In case of incorporated entity - to attach certificate of incorporation	
4	Beneficial Owners - as defined in the Department of Expenditure Order (Public Procurement No.1) issued vide No. F.No.6/18/2019-PPD dated 23rd July, 2020.	
	Details of all beneficial owners having entitlement of more than 01% of shares or capital or profit to be given, in the format as given in Annexure-I duly certified by practicing Chartered Account in India.	
38	**Preference to Make in India**	
	Purchase preference in accordance with Public procurement (Preference to Make in India Order - 2017) Order from Department of Promotion of Industry and Internal Trade P - 45021 /2/2017/- B.E -II dt ,4.6.2020 and as amended from time to time shall be applicable as per below	
	In the procurement of all goods/services/works in respect of which there is sufficient local capacity/local competition, only Class I Local suppliers shall be eligible to bid irrespective of purchase value	
	In the procurement of all goods/services /works which are not covered as above and with estimated value of purchase less than Rs 200.0 Crores, only Class I local suppliers along with Class II local suppliers shall be eligible to bid.	
39	**Purchase preferences for Class I local suppliers**	
A	In the procurement of goods/works covered under 2 above and which are divisible in nature, Class I local supplier shall be eligible for Purchase preference over Class II/Non local supplier as per following	
B	If L1 bid is not a Class I local supplier, 50% of the order quantity shall be awarded to L1. Thereafter the lowest bidder among Class I local supplier will be invited to match the L1 price for the remaining 50% quantity subject to Class I local supplier quoted price falling within 20% margin. Contract for that quantity shall be awarded to such Class I local supplier subject to matching L1 price. In case such lowest eligible Class I local supplier fails to match L1 price or accept less than offered quantity, next higher Class I local supplier within 20% margin shall be invited to match the L1 price for the remaining qty and so on. If some quantity is left uncovered on Class I local supplier, such balance quantity shall be ordered on L1 bidder.	
C	For procurements that are not divisible in nature and in procurement of services evaluated on price alone, Class I local supplier shall get purchase preference over Class II/Non local supplier as per below	
D	If L1 is not a Class I local supplier, lowest bidder among Class I local supplier will be invited to match L1 price subject to Class I local supplier quoted price falling within 20% of L1 price and contract will be awarded to such Class I local supplier, subject to matching L1 price. In case such lowest eligible Class I local supplier fails to match L1 price, procedure same as para 3 above will be opted. In case none of Class I local suppliers within 20% margin matches L1 price, contract shall be awarded to L1 bidder. The purchase preference as above will be only for Class I local supplier and Class II local supplier will not be eligible for any Purchase preference	
E	Local content requirement to categorize a supplier as Class I/Class II/Non local supplier shall be as per below. Definition of local content shall be as per order dt 4.6.2020 ie amount of value added in India which shall be the total value of the item procured (excluding net domestic indirect taxes) minus the value of import content in the item (including all customs duties) as a proportion of total value in percentage.	
F	Class I -Local content equal to or greater than 50%	
G	Class II-Local content greater than 20%, less than 50%	
H	Non local -Local content less than 20%	
40	**Declaration of local content**	
A	Class I local supplier /Class II local supplier at the time of tender shall indicate % of local content and provide self-certification that offered item shall meet the local content requirement for Class I/Class II as applicable including details of locations at which local value addition is made.	
B	In case of procurement for a value in excess of Rs 10.0 Crores Class I/Class II local supplier is to provide a certificate from statutory auditor/cost auditor (for companies) /practicing cost accountant/Chartered accountant (suppliers other than companies) indicating % of local content	
C	Verification of the Certificates issued by the bidder shall be carried out by CSL on random basis. False declarations will attract actions as stipulated in the order referred, including other actions as permissible by law.	
D	Exemption is applicable from provisions of order for purchases with estimated values less than Rs 5.0 lakhs	
E	Notwithstanding above, exemptions for meeting local content as per relevant Clause of order dt 4.6.2020 and as amended from time to time shall apply.	

Note: Statement striked out is not applicable.

Annexure - 3

PRICE BID FORMAT

Tender Enquiry No: UCSL/MAT/PROJ/2024-25/1274 **Tender Enquiry Date: 25 September 2024**

Vessel/Project: UY 175-178

SL. NO	DESCRIPTION	Quantity for 4 shipsets	UOM	Currency in INR	Unit Rate	Total Price
1	MAIN DIESEL GENERATOR WITH ACCESSORIES as per PTS-175-004, Rev 0	4	Shipset			
2	Commission Engineer Charges (as per clause 10 of PTS Section A). Quoted Charges should be including all travel, Boarding, lodging and any other charges incurred for completing the commissioning & Sea trail job.	4	Shipset			
3	**TOTAL BASIC PRICE FOR 4 SHIPSETS**					
4	Packing & Forwarding Charges / FOB Charges	4	Shipset			
5	Freight Charges	4	Shipset			
6	Cost of Special tools, if any (price break up for each tool to be submitted seperately along with main offer)	4	Shipset			
7	Cost of Spares (price break up for each spare to be submitted seperately along with main offer)	4	Shipset			
8	Class Inspection charges, if any	4	Shipset			
9	Other Charges, if any (specify)					
10	Transit Insurance and Unloading Charges		By UCSL			
11	GST (as applicable)					
12	HSN CODE					
13	Total Order value for 4 Ship sets (C&F CHENNAI SEAPORT / FOR UCSL STORES PRICE)					
14	Additional Per man-day Service Engineer charges including Travel, Boarding, lodging etc. over and above free man-days included in the offer					
15	Warranty extension charges, if applicable (Quarterly Charges for extenion of warranty over and above the agreed warrenty period)					
16	Delivery Period required at UCSL stores		1st & 2nd shipset - within 9 months from the date of PO. 3rd & 4th Shipset - within 15 months from the date of PO.			

Signature :
Name & Address of the firm

Important Note:

1. **Un-priced Bid, to be submitted along with techno commercial bid with details like percentage of taxes & duties applicable and showing whether "Amount quoted/ Nil/ Included/ By UCSL" against respective column. Confirmation regarding exercising the option shall be provided during finalization of the purchase order.**
2. **The prices quoted in column no 1 to 9 above will be added and the bidder who has quoted the aggregate lowest will be declared the Lowest bidder (Overall L1 bidder) and hence Individual Line item Lowest will not be considered for order placement.**
3. **Acceptable Make - Volvo, Scania**

Annexure 04

BANK GUARANTEE IN LIEU OF SECURITY DEPOSIT/

WARRANTY GUARANTEE

To

UDUPI COCHIN SHIPYARD LTD

(Formerly Tebma Shiyards Limited

MALPE HARBOUR COMPLEX, MALPE, UDUPI - 576108.

WHEREAS …… (Name & Address of Supplier) (Hereinafter called "**the Supplier**") has undertaken, in pursuance of Contract…… No…… Dated: …… to execute …… (Name of Contract and brief description of works) (Hereinafter called "**the Contract**").

AND WHEREAS it has been stipulated by UDUPI COCHIN SHIPYARD LTD (The Buyer - hereinafter called "**UCSL**") in the said contract that the Supplier shall furnish CSL with a Bank Guarantee for the sum specified therein as security for compliance with the Supplier's obligations in accordance with the Contract.

AND WHEREAS we have agreed to give the Supplier such a Bank Guarantee.

NOW THEREFORE we …… (Name of the Bank) having its Head Office at …… (Address of Head Office) and acting through its branch office at …… (Address of the executing branch) (Hereinafter called "the Bank") hereby affirm that we are the Guarantor and responsible to CSL, on behalf of the Supplier up to a total of …… (amount of Guarantee) ……in words).

We, the bank, hereby irrevocably undertake to pay you any amount not exceeding in total the Guarantee Amount upon receipt by us of your demand in writing accompanied by the following documents:

1. Your signed statement certifying that the Supplier is in breach of his obligation(s) under the Contract and the respect in which the Supplier is in breach.
2. Your signed statement certifying that the Supplier has been given a prior written notice by email from you to make good the aforesaid breach and that the Supplier still failed to fulfill the Contract within 30 days of such notice. A copy of such notice given by email to the Supplier shall be attached to the demand for payment.

Any demand for payment should contain your authorized signatures which must be authorized by your bankers or by a notary public.

We, the Bank, further agree that no change or addition to or other modification of the terms of the Contract or of the Works to be performed there under or of any of the Contract documents which may be made between UCSL and the Supplier shall in any way release us

from any liability under this guarantee, and we hereby waive notice of any such change, addition or modification. We, the Bank, further agree that any change in the constitution of the said contractor or the said bank shall not discharge our liability hereunder.

Notwithstanding anything contained herein:

1. Our liability under this Bank Guarantee shall not exceed …… (…… only).

2. This Bank Guarantee shall be valid up to (date) and

3. We are liable to pay the guaranteed amount or any part thereof under this bank guarantee only and only if UCSL serve upon us a written claim or demand on or before ……(validity date) .

Any demand for payment under this guarantee must be received by us at this office during working hours on or before the validity date. Should we receive no claim from you by the validity date, our liability to you will cease and the guarantee will definitely become null and void whether returned to us or not.

Yours truly,

Signature and seal of the

Guarantor:……

Name of Bank:……

Address: ……

Date: ……

* An amount shall be inserted by the Guarantor, representing the percentage of the Contract Price specified in the Contract and denominated in respective Dollars / Indian Rupees/Other Currency.