



निविदा पूछताछ  
**TENDER ENQUIRY**

[वेब निविदा]  
**[WEB TENDER]**

**माझगांव डॉक शिपबिल्डर्स लिमिटेड**  
(भारत सरकार का उपक्रम)  
**MAZAGON DOCK SHIPBUILDERS LIMITED**  
(Formerly known as Mazagon Dock Limited)  
(A Govt. of India Undertaking)  
CIN: L35100MH1934GOI002079  
Dockyard Road, Mumbai 400 010  
Website- [www.mazagondock.in](http://www.mazagondock.in)  
**Certified - ISO 9001: 2008 for Shipbuilding Division**  
GST ID : 27AAACM8029J1ZA

निविदा सं./Tender No	1700000733	विभाग/Department	MPV COMMERCIAL
क्रय अधिकारी/Purchase Exec.	Rahul Dhoble	क्रय अधिकारी/Purchase Exec.	Rahul Dhoble
सेवा में /To		दूरभाष सं./Telephone No	23762737
		फैक्स सं./Fax No	23744709
		ई-मेल/E-Mail	rbdhoble@mazdock.com
दूरभाष सं./Telephone		निविदा सं./Tender No	1700000733
फैक्स सं./Fax		निविदा तिथि/ Tender Date	12.09.2025
ई-मेल/E-Mail		निविदा बंद की तिथि/Tender Closing Date	03.10.2025
		निविदा बंद होने का समय/Tender Closing Time	14:00:00
		आरएफक्यू सं./RFQ No	2230000107

निविदा शुल्क/Tender Fee	रु/Rs	0.00
बयाना राशि/EMD Amount	रु/Rs	0.00
पूर्व बिड बैठक तिथि और समय/Pre Bid Meeting Date & Time		,00:00:00
निविदा खोलने की तिथि और समय/Tender Opening Date & Time		06.10.2025,14:00:00
प्रस्ताव वैधता तिथि है/Offer should be valid up to		01.04.2026
सुरक्षा जमा/Security Deposit		0.00 %आदेश मूल्य का/PO value
वरीय बैंक जमानत /Perf. Bank Guarantee		5.00 %आदेश मूल्य का/PO value

( आगे के विवरण हेतु कृपया सम्बंधित नियम शर्तों को पढ़ें । सुनिश्चित करें कि कोटेशन और संबंधित पत्राचार के लिए विभाग का नाम, क्रय अधिकारी का नाम, निविदा संख्या, बंद होने का समय एवं तिथि एवं आरएफक्यू सं. अपने कोटेशनमें लिखें ।  
**Kindly read and refer relevant terms & conditions for further details. Do ensure to Quote Department Name, Purchase Executive 's Name , Tender Number, closing date & time and RFQ Number in your Quotation & related correspondence )**

प्रिय महोदय/महोदया  
Dear Sir / Madam ,

विषय /SUB:- PROCUREMENT OF IBS -NAVIGATIONAL INSTRUMENTS FOR PROJECT 7500 DWT  
MULTI-PURPOSE DRY CARGO VESSEL.

माझगाँव डॉक शिपबिल्डर्स लिमिटेड प्रतिष्ठित/संभावित आपूर्तिकर्ताओं से निम्न हेतु, प्रतियोगितात्मक दो बोली प्रणाली में ( भाग -I तकनिकी - वाणिज्य बोली एवं भाग II मूल्य बोली ) बोली आमंत्रित करती है।  
Mazagon Dock Shipbuilders Limited (MDL) invites Competitive – Bid from reputed Supplier for the following in TWO BID system ( Part - I Techno - Commercial Bid & Part - II Price Bid ).

क्र सं. SL.No.	सामग्री / सेवा विवरण Material / Service Details	मात्रा / इकाई Quantity / unit	आपूर्ति तिथि Delivery Date
00100	सामग्री सं./ Material Number :- 150000000000082581 MPV_GYRO,Data changeover unit & REPEATER सामग्री वर्णन/Material Description :GYRO,Data changeover unit & REPEATERS	1 SET	31.01.2026

निविदा सं./ Tender No:- 1700000733		निविदा तिथि/ Tender Date:- 12.09.2025		आरएफक्यू सं./RFQ No:- 2230000107	
क्र सं. SL.No.	सामग्री / सेवा विवरण Material / Service Details		मात्रा / इकाई Quantity / unit	आपूर्ति तिथि Delivery Date	
Refer TSP for detailed Specifications and QTY.					
00200	सामग्री सं./ Material Number :- 150000000000083791 GYRO COMPASS सामग्री वर्णन/Material Description :GYRO COMPASS Refer TSP for detailed Specifications and QTY.		1 Number	31.01.2026	
00300	सामग्री सं./ Material Number :- 150000000000082582 MPV_AUTO PILOT सामग्री वर्णन/Material Description :AUTO PILOT Refer TSP for detailed Specifications and QTY.		1 SET	31.01.2026	
00400	सामग्री सं./ Material Number :- 150000000000082583 MPV_MAGNETIC COMPASS सामग्री वर्णन/Material Description :MAGNETIC COMPASS Refer TSP for detailed Specifications and QTY.		1 SET	31.01.2026	
00500	सामग्री सं./ Material Number :- 150000000000082584 MPV_ECHO SOUNDER सामग्री वर्णन/Material Description :ECHO SOUNDER WITH PRINTER Transducer cost to be quoted separately Refer TSP Encloser for detailed Specifications and QTY.		1 SET	31.01.2026	
00600	सामग्री सं./ Material Number :- 150000000000082585 MPV_DOPPLER SPEED LOG सामग्री वर्णन/Material Description :DOPPLER SPEED LOG Transducer cost to be quoted separately. Refer TSP Encloser for detailed Specifications and QTY.		1 SET	31.01.2026	
00700	सामग्री सं./ Material Number :- 150000000000082586 MPV_RADAR AND ARPA सामग्री वर्णन/Material Description :RADAR AND ARPA Refer TSP for detailed Specifications and QTY. Additional item details:-		1 SET	31.01.2026	
00800	सामग्री सं./ Material Number :- 150000000000082587		2 SET	31.01.2026	

निविदा सं./ Tender No:- 1700000733		निविदा तिथि/ Tender Date:- 12.09.2025		आरएफक्यू सं./RFQ No:- 2230000107	
क्र सं. SL.No.	सामग्री / सेवा विवरण Material / Service Details		मात्रा / इकाई Quantity / unit	आपूर्ति तिथि Delivery Date	
	MPV_DGPS NAVIGATOR सामग्री वर्णन/Material Description :DGPS NAVIGATOR  Refer TSP for detailed Specifications and QTY.				
00900	सामग्री सं./ Material Number :- 150000000000082589 MPV_ AUTOMATIC IDENTIFICATION SYSTEM सामग्री वर्णन/Material Description :AUTOMATIC IDENTIFICATION SYSTEM (AIS)  Refer TSP for detailed Specifications and QTY.		1 SET	31.01.2026	
01000	सामग्री सं./ Material Number :- 150000000000082590 MPV_METEO SENSOR सामग्री वर्णन/Material Description :METEO SENSOR  Refer TSP for detailed Specifications and QTY.		1 SET	31.01.2026	
01100	सामग्री सं./ Material Number :- 150000000000082591 MPV_ECDIS सामग्री वर्णन/Material Description :ELECTRONIC CHART DISPLAY AND INFORMATION SYSTEM (ECDIS) & ROUTE PLANNING STATION.  Reffer TSP Encloser for detailed Spfications and QTY.		2 SET	31.01.2026	
01200	सामग्री सं./ Material Number :- 150000000000082592 MPV_BNWAS सामग्री वर्णन/Material Description :BRIDGE NAVIGATION WATCH ALARM SYSTEM (BNWAS)  Refer TSP for detailed Specifications and QTY.		1 SET	31.01.2026	
01300	सामग्री सं./ Material Number :- 150000000000082593 MPV_ VOYAGE DATA RECORDER सामग्री वर्णन/Material Description :VOYAGE DATA RECORDER  Refer TSP for detailed Specifications and QTY.		1 SET	31.01.2026	
01400	सामग्री सं./ Material Number :- 150000000000082594 MPV_ BRIDGE CONTROL CONSOLE सामग्री वर्णन/Material Description :BRIDGE CONTROL CONSOLE  Refer TSP for detailed Specifications and QTY.		1 SET	28.02.2026	
01500	सामग्री सं./ Material Number :- 150000000000082595 MPV_ WHEELHOUSE GAUGE BOARD		1 SET	28.02.2026	

निविदा सं./ Tender No:- 1700000733		निविदा तिथि/ Tender Date:- 12.09.2025		आरएफक्यू सं./RFQ No:- 2230000107	
क्र सं. SL.No.	सामग्री / सेवा विवरण Material / Service Details		मात्रा / इकाई Quantity / unit	आपूर्ति तिथि Delivery Date	
सामग्री वर्णन/Material Description :MPV- WHEELHOUSE GAUGE BOARD					
Refer TSP for detailed Specifications and QTY.					
01600	सामग्री सं./ Material Number :- 150000000000082596 MPV_ BRIDGE WING PORTABLE CONTROL STA सामग्री वर्णन/Material Description :BRIDGE WING PORTABLE CONTROL Refer TSP for detailed Specifications and QTY.		1 SET	28.02.2026	
01700	सामग्री सं./ Material Number :- 150000000000082600 MPV_ IBS_ CABLES सामग्री वर्णन/Material Description :MPV-CABLES REQUIRED FOR SYSTEM AS PER TSP		1 SET	31.12.2025	
01800	सामग्री सं./ Material Number :- 150000000000082601 MPV_ IBS_ COURSE RECORDER सामग्री वर्णन/Material Description :COURSE RECORDER One (1) set of COURSE RECORDER shall be supplied with UTC time display.		1 SET	31.01.2026	
01900	MPV_STW Service Description :MPV_STW NAVIGATIONAL INSTRUMENTS-IBS SYSTEM  The Line item 01900 covers the following services		1 Activity unit	27.02.2026	
0000000010	सेवा सं./Service Number :-  संक्षिप्त वर्णन/Short Description :- MPV_STW सेवा विवरण/Service Details :- NAVIGATIONAL INSTRUMENTS-IBS SYSTEM		1 Activity unit		
02000	MPV_Connectorisation Service Description :MPV_CONNECTORISATION NAVIGATIONAL INSTRUMENTS-IBS SYSTEM  The Line item 02000 covers the following services		1 Activity unit	27.02.2026	
0000000010	सेवा सं./Service Number :-  संक्षिप्त वर्णन/Short Description :- MPV_Connectorisation		1 Activity unit		
02100	MPV_Training Service Description :MPV_TRAINNING NAVIGATIONAL INSTRUMENTS-IBS SYSTEM		1 Activity unit	31.03.2026	

निविदा सं./ Tender No:- 1700000733		निविदा तिथि/ Tender Date:- 12.09.2025		आरएफक्यू सं./RFQ No:- 2230000107	
क्र सं. SL.No.	सामग्री / सेवा विवरण Material / Service Details		मात्रा / इकाई Quantity / unit	आपूर्ति तिथि Delivery Date	
The Line item 02100 covers the following services					
000000001 0	सेवा सं./Service Number :-		1 Activity unit		
	संक्षिप्त वर्णन/Short Description :- MPV_Training				
02200	सामग्री सं./ Material Number :- 150000000000082756 MPV_DOCUMENTATION		1 SET	31.03.2026	
	सामग्री वर्णन/Material Description :MPV_DOCUMENTATION				
02300	सामग्री सं./ Material Number :- 150000000000082757 MPV_ON BOARD SPARES		1 SET	31.01.2026	
	सामग्री वर्णन/Material Description :MPV_ON BOARD SPARES				
02400	MPV_HATs		1 Activity unit	31.03.2026	
	Service Description :MPV_HATs NAVIGATIONAL INSTRUMENTS-IBS SYSTEM				
The Line item 02400 covers the following services					
000000001 0	सेवा सं./Service Number :-		1 Activity unit		
	संक्षिप्त वर्णन/Short Description :- MPV_HATs				
02500	MPV_SATs		1 Activity unit	31.03.2026	
	Service Description :MPV_SATs NAVIGATIONAL INSTRUMENTS-IBS SYSTEM				
The Line item 02500 covers the following services					
000000001 0	सेवा सं./Service Number :-		1 Activity unit		
	संक्षिप्त वर्णन/Short Description :- MPV_SATs				
02600	सामग्री सं./ Material Number :- 150000000000082581 MPV_GYRO,Data changeover unit & REPEATER		1 SET	31.03.2026	
	सामग्री वर्णन/Material Description :GYRO,Data changeover unit & REPEATERS				
	Refer TSP for detailed Specifications and QTY.				
02700	सामग्री सं./ Material Number :- 150000000000083791 GYRO COMPASS		1 Number	31.03.2026	
	सामग्री वर्णन/Material Description :GYRO COMPASS				
	Refer TSP for detailed Specifications and QTY.				
02800	सामग्री सं./ Material Number :- 150000000000082582 MPV_AUTO PILOT		1 SET	31.03.2026	

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क्र सं. SL.No.	सामग्री / सेवा विवरण Material / Service Details		मात्रा / इकाई Quantity / unit	आपूर्ति तिथि Delivery Date	
सामग्री वर्णन/Material Description :AUTO PILOT  Refer TSP for detailed Specifications and QTY.					
02900	सामग्री सं./ Material Number :- 150000000000082583 MPV_MAGNETIC COMPASS सामग्री वर्णन/Material Description :MAGNETIC COMPASS  Refer TSP for detailed Specifications and QTY.		1 SET	31.03.2026	
03000	सामग्री सं./ Material Number :- 150000000000082584 MPV_ECHO SOUNDER सामग्री वर्णन/Material Description :ECHO SOUNDER WITH PRINTER  Transducer cost to be quoted separately  Refer TSP Encloser for detailed Specifications and QTY.		1 SET	31.03.2026	
03100	सामग्री सं./ Material Number :- 150000000000082585 MPV_DOPPLER SPEED LOG सामग्री वर्णन/Material Description :DOPPLER SPEED LOG  Transducer cost to be quoted separately.  Refer TSP Encloser for detailed Specifications and QTY.		1 SET	31.03.2026	
03200	सामग्री सं./ Material Number :- 150000000000082586 MPV_RADAR AND ARPA सामग्री वर्णन/Material Description :RADAR AND ARPA  Refer TSP for detailed Specifications and QTY.		1 SET	31.03.2026	
03300	सामग्री सं./ Material Number :- 150000000000082587 MPV_DGPS NAVIGATOR सामग्री वर्णन/Material Description :DGPS NAVIGATOR  Refer TSP for detailed Specifications and QTY.		2 SET	31.03.2026	
03400	सामग्री सं./ Material Number :- 150000000000082589 MPV_AUTOMATIC IDENTIFICATION SYSTEM सामग्री वर्णन/Material Description :AUTOMATIC IDENTIFICATION SYSTEM  Refer TSP for detailed Specifications and QTY.		1 SET	31.03.2026	

निविदा सं./ Tender No:- 1700000733		निविदा तिथि/ Tender Date:- 12.09.2025		आरएफक्यू सं./RFQ No:- 2230000107	
क्र सं. SL.No.	सामग्री / सेवा विवरण Material / Service Details	मात्रा / इकाई Quantity / unit	आपूर्ति तिथि Delivery Date		
03500	सामग्री सं./ Material Number :- 150000000000082590 MPV_METEO SENSOR सामग्री वर्णन/Material Description :METEO SENSOR Refer TSP for detailed Specifications and QTY.	1 SET	31.03.2026		
03600	सामग्री सं./ Material Number :- 150000000000082591 MPV_ECDIS सामग्री वर्णन/Material Description :ELECTRONIC CHART DISPLAY AND INFORMATION SYSTEM (ECDIS) & ROUTE PLANNING STATION. Reffer TSP Encloser for detailed Spfications and QTY.	2 SET	31.03.2026		
03700	सामग्री सं./ Material Number :- 150000000000082592 MPV_BNWS सामग्री वर्णन/Material Description :BRIDGE NAVIGATION WATCH ALARM SYSTEM (BNWAS) Refer TSP for detailed Specifications and QTY.	1 SET	31.03.2026		
03800	सामग्री सं./ Material Number :- 150000000000082593 MPV_VOYAGE DATA RECORDER सामग्री वर्णन/Material Description :VOYAGE DATA RECORDER Refer TSP for detailed Specifications and QTY.	1 SET	31.03.2026		
03900	सामग्री सं./ Material Number :- 150000000000082594 MPV_BRIDGE CONTROL CONSOLE सामग्री वर्णन/Material Description :BRIDGE CONTROL CONSOLE Refer TSP for detailed Specifications and QTY.	1 SET	30.04.2026		
04000	सामग्री सं./ Material Number :- 150000000000082595 MPV_WHEELHOUSE GAUGE BOARD सामग्री वर्णन/Material Description :WHEELHOUSE GAUGE BOARD Refer TSP for detailed Specifications and QTY.	1 SET	30.04.2026		
04100	सामग्री सं./ Material Number :- 150000000000082596 MPV_BRIDGE WING PORTABLE CONTROL STA सामग्री वर्णन/Material Description :BRIDGE WING PORTABLE CONTROL Refer TSP for detailed Specifications and QTY.	1 SET	30.04.2026		

निविदा सं./ Tender No:- 1700000733		निविदा तिथि/ Tender Date:- 12.09.2025		आरएफक्यू सं./RFQ No:- 2230000107	
क्र सं. SL.No.	सामग्री / सेवा विवरण Material / Service Details		मात्रा / इकाई Quantity / unit	आपूर्ति तिथि Delivery Date	
04200	सामग्री सं./ Material Number :- 150000000000082600 MPV_ IBS_ CABLES सामग्री वर्णन/Material Description :MPV-CABLES REQUIRED FOR SYSTEM AS PER TSP		1 SET	27.02.2026	
04300	सामग्री सं./ Material Number :- 150000000000082601 MPV_ IBS_ COURSE RECORDER सामग्री वर्णन/Material Description :COURSE RECORDER One (1) set of COURSE RECORDER shall be supplied with UTC time display.		1 SET	31.03.2026	
04400	सामग्री सं./ Material Number :- 150000000000082756 MPV_ DOCUMENTATION सामग्री वर्णन/Material Description :MPV_ DOCUMENTATION		1 SET	31.03.2026	
04500	सामग्री सं./ Material Number :- 150000000000082757 MPV_ ON BOARD SPARES सामग्री वर्णन/Material Description :MPV_ ON BOARD SPARES		1 SET	31.03.2026	
04600	MPV_STW Service Description :MPV_STW NAVIGATIONAL INSTRUMENTS-IBS SYSTEM  The Line item 04600 covers the following services		1 Activity unit	30.04.2026	
0000000010	सेवा सं./Service Number :-  संक्षिप्त वर्णन/Short Description :- MPV_STW		1 Activity unit		
04700	MPV_Connectorisation Service Description :MPV_CONNECTORISATION NAVIGATIONAL INSTRUMENTS-IBS SYSTEM  The Line item 04700 covers the following services		1 Activity unit	30.04.2026	
0000000010	सेवा सं./Service Number :-  संक्षिप्त वर्णन/Short Description :- MPV_Connectorisation		1 Activity unit		
04800	MPV_Training Service Description :MPV_TRAINNING NAVIGATIONAL INSTRUMENTS-IBS SYSTEM  The Line item 04800 covers the following services		1 Activity unit	29.05.2026	
0000000010	सेवा सं./Service Number :-  संक्षिप्त वर्णन/Short Description :- MPV_Training		1 Activity unit		



निविदा सं./ Tender No:- 1700000733		निविदा तिथि/ Tender Date:- 12.09.2025		आरएफक्यू सं./RFQ No:- 2230000107	
क्र सं. SL.No.	सामग्री / सेवा विवरण Material / Service Details		मात्रा / इकाई Quantity / unit	आपूर्ति तिथि Delivery Date	
04900	MPV_HATs Service Description :MPV_HATs NAVIGATIONAL INSTRUMENTS-IBS SYSTEM  The Line item 04900 covers the following services		1 Activity unit	29.05.2026	
000000001 0	सेवा सं./Service Number :-  संक्षिप्त वर्णन/Short Description :- MPV_HATs		1 Activity unit		
05000	MPV_SATs Service Description :MPV_SATs NAVIGATIONAL INSTRUMENTS-IBS SYSTEM  The Line item 05000 covers the following services		1 Activity unit	29.05.2026	
000000001 0	सेवा सं./Service Number :-  संक्षिप्त वर्णन/Short Description :- MPV_SATs		1 Activity unit		
05100	सामग्री सं./ Material Number :- 150000000000082581 MPV_GYRO,Data changeover unit & REPEATER सामग्री वर्णन/Material Description :GYRO,Data changeover unit & REPEATERS  Refer TSP for detailed Specifications and QTY.		1 SET	31.05.2026	
05200	सामग्री सं./ Material Number :- 150000000000083791 GYRO COMPASS सामग्री वर्णन/Material Description :GYRO COMPASS  Refer TSP for detailed Specifications and QTY.		1 Number	31.05.2026	
05300	सामग्री सं./ Material Number :- 150000000000082582 MPV_AUTO PILOT सामग्री वर्णन/Material Description :AUTO PILOT  Refer TSP for detailed Specifications and QTY.		1 SET	31.05.2026	
05400	सामग्री सं./ Material Number :- 150000000000082583 MPV_MAGNETIC COMPASS सामग्री वर्णन/Material Description :MAGNETIC COMPASS  Refer TSP for detailed Specifications and QTY.		1 SET	31.05.2026	
05500	सामग्री सं./ Material Number :- 150000000000082584 MPV_ECHO SOUNDER सामग्री वर्णन/Material Description :ECHO SOUNDER WITH PRINTER  Transducer cost to be quoted separately		1 SET	31.05.2026	

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क्र सं. SL.No.	सामग्री / सेवा विवरण Material / Service Details	मात्रा / इकाई Quantity / unit	आपूर्ति तिथि Delivery Date		
Refer TSP Encloser for detailed Spefications and QTY.					
05600	सामग्री सं./ Material Number :- 150000000000082585 MPV_ DOPPLER SPEED LOG सामग्री वर्णन/Material Description :DOPPLER SPEED LOG  Transducer cost to be quoted separately.  Refer TSP Encloser for detailed Spefications and QTY.	1 SET	31.05.2026		
05700	सामग्री सं./ Material Number :- 150000000000082586 MPV_ RADAR AND ARPA सामग्री वर्णन/Material Description :RADAR AND ARPA  Refer TSP for detailed Specifications and QTY.	1 SET	31.05.2026		
05800	सामग्री सं./ Material Number :- 150000000000082587 MPV_ DGPS NAVIGATOR सामग्री वर्णन/Material Description :DGPS NAVIGATOR  Refer TSP for detailed Specifications and QTY.	2 SET	31.05.2026		
05900	सामग्री सं./ Material Number :- 150000000000082589 MPV_ AUTOMATIC IDENTIFICATION SYSTEM सामग्री वर्णन/Material Description :AUTOMATIC IDENTIFICATION SYSTEM (AIS)  Refer TSP for detailed Specifications and QTY.	1 SET	31.05.2026		
06000	सामग्री सं./ Material Number :- 150000000000082590 MPV_ METEO SENSOR सामग्री वर्णन/Material Description :METEO SENSOR  Refer TSP for detailed Specifications and QTY.	1 SET	31.05.2026		
06100	सामग्री सं./ Material Number :- 150000000000082591 MPV_ ECDIS सामग्री वर्णन/Material Description :ELECTRONIC CHART DISPLAY AND INFORMATION SYSTEM (ECDIS) & ROUTE PLANNING STATION.  Reffer TSP Encloser for detailed Spefications and QTY.	2 SET	31.05.2026		
06200	सामग्री सं./ Material Number :- 150000000000082592 MPV_ BNWAS सामग्री वर्णन/Material Description :BRIDGE NAVIGATION WATCH ALARM SYSTEM (BNWAS)	1 SET	31.05.2026		

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क्र सं. SL.No.	सामग्री / सेवा विवरण Material / Service Details		मात्रा / इकाई Quantity / unit	आपूर्ति तिथि Delivery Date	
Refer TSP for detailed Specifications and QTY.					
06300	सामग्री सं./ Material Number :- 150000000000082593 MPV_ VOYAGE DATA RECORDER सामग्री वर्णन/Material Description :VOYAGE DATA RECORDER		1 SET	31.05.2026	
Refer TSP for detailed Specifications and QTY.					
06400	सामग्री सं./ Material Number :- 150000000000082594 MPV_ BRIDGE CONTROL CONSOLE सामग्री वर्णन/Material Description :BRIDGE CONTROL CONSOLE		1 SET	31.05.2026	
Reffer TSP Encloser for detailed Spifications and QTY.					
06500	सामग्री सं./ Material Number :- 150000000000082595 MPV_ WHEELHOUSE GAUGE BOARD सामग्री वर्णन/Material Description :MPV- WHEELHOUSE GAUGE BOARD		1 SET	31.05.2026	
Refer TSP for detailed Specifications and QTY.					
06600	सामग्री सं./ Material Number :- 150000000000082596 MPV_ BRIDGE WING PORTABLE CONTROL STA सामग्री वर्णन/Material Description :BRIDGE WING PORTABLE CONTROL		1 SET	31.05.2026	
Refer TSP for detailed Specifications and QTY.					
06700	सामग्री सं./ Material Number :- 150000000000082600 MPV_ IBS_CABLES सामग्री वर्णन/Material Description :MPV-CABLES REQUIRED FOR SYSTEM AS PER TSP		1 SET	30.04.2026	
06800	सामग्री सं./ Material Number :- 150000000000082601 MPV_ IBS_ COURSE RECORDER सामग्री वर्णन/Material Description :COURSE RECORDER One (1) set of COURSE RECORDER shall be supplied with UTC time display.		1 SET	31.05.2026	
06900	सामग्री सं./ Material Number :- 150000000000082756 MPV_ DOCUMENTATION सामग्री वर्णन/Material Description :MPV_ DOCUMENTATION		1 SET	31.05.2026	
07000	सामग्री सं./ Material Number :- 150000000000082757 MPV_ ON BOARD SPARES सामग्री वर्णन/Material Description :MPV_ SPARES FOR IBS		1 SET	31.05.2026	
07100	MPV_STW		1 Activity unit	30.06.2026	

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क्र सं. SL.No.	सामग्री / सेवा विवरण Material / Service Details		मात्रा / इकाई Quantity / unit	आपूर्ति तिथि Delivery Date	
Service Description :MPV_STW NAVIGATIONAL INSTRUMENTS-IBS SYSTEM					
The Line item 07100 covers the following services					
000000001 0	सेवा सं./Service Number :-		1 Activity unit		
संक्षिप्त वर्णन/Short Description :- MPV_STW					
07200	MPV_Connectorisation		1 Activity unit	30.06.2026	
Service Description :MPV_CONNECTORISATION NAVIGATIONAL INSTRUMENTS-IBS SYSTEM					
The Line item 07200 covers the following services					
000000001 0	सेवा सं./Service Number :-		1 Activity unit		
संक्षिप्त वर्णन/Short Description :- MPV_Connectorisation					
07300	MPV_Training		1 Activity unit	31.07.2026	
Service Description :MPV_TRAINNING NAVIGATIONAL INSTRUMENTS-IBS SYSTEM					
The Line item 07300 covers the following services					
000000001 0	सेवा सं./Service Number :-		1 Activity unit		
संक्षिप्त वर्णन/Short Description :- MPV_Training					
07400	MPV_HATs		1 Activity unit	31.07.2026	
Service Description :MPV_HATs NAVIGATIONAL INSTRUMENTS-IBS SYSTEM					
The Line item 07400 covers the following services					
000000001 0	सेवा सं./Service Number :-		1 Activity unit		
संक्षिप्त वर्णन/Short Description :- MPV_HATs					
07500	MPV_SATs		1 Activity unit	31.07.2026	
Service Description :MPV_SATs NAVIGATIONAL INSTRUMENTS-IBS SYSTEM					
The Line item 07500 covers the following services					
000000001 0	सेवा सं./Service Number :-		1 Activity unit		
संक्षिप्त वर्णन/Short Description :- MPV_SATs					

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क्र सं. SL.No.	सामग्री / सेवा विवरण Material / Service Details	मात्रा / इकाई Quantity / unit	आपूर्ति तिथि Delivery Date		
07600	सामग्री सं./ Material Number :- 150000000000082581 MPV_GYRO,Data changeover unit & REPEATER सामग्री वर्णन/Material Description :GYRO,Data changeover unit & REPEATERS Refer TSP for detailed Specifications and QTY.	1 SET	31.05.2026		
07700	सामग्री सं./ Material Number :- 150000000000083791 GYRO COMPASS सामग्री वर्णन/Material Description :GYRO COMPASS Refer TSP for detailed Specifications and QTY.	1 Number	31.05.2026		
07800	सामग्री सं./ Material Number :- 150000000000082582 MPV_AUTO PILOT सामग्री वर्णन/Material Description :AUTO PILOT Refer TSP for detailed Specifications and QTY.	1 SET	31.05.2026		
07900	सामग्री सं./ Material Number :- 150000000000082583 MPV_MAGNETIC COMPASS सामग्री वर्णन/Material Description :MAGNETIC COMPASS Refer TSP for detailed Specifications and QTY.	1 SET	31.05.2026		
08000	सामग्री सं./ Material Number :- 150000000000082584 MPV_ECHO SOUNDER सामग्री वर्णन/Material Description :ECHO SOUNDER WITH PRINTER Transducer cost to be quoted separately Refer TSP Encloser for detailed Specifications and QTY.	1 SET	31.05.2026		
08100	सामग्री सं./ Material Number :- 150000000000082585 MPV_DOPPLER SPEED LOG सामग्री वर्णन/Material Description :DOPPLER SPEED LOG Transducer cost to be quoted separately. Refer TSP Encloser for detailed Specifications and QTY.	1 SET	31.05.2026		
08200	सामग्री सं./ Material Number :- 150000000000082586 MPV_RADAR AND ARPA सामग्री वर्णन/Material Description :RADAR AND ARPA Refer TSP for detailed Specifications and QTY.	1 SET	31.05.2026		
08300	सामग्री सं./ Material Number :- 150000000000082587 MPV_DGPS NAVIGATOR	2 SET	31.05.2026		

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क्र सं. SL.No.	सामग्री / सेवा विवरण Material / Service Details		मात्रा / इकाई Quantity / unit	आपूर्ति तिथि Delivery Date	
सामग्री वर्णन/Material Description :DGPS NAVIGATOR					
Refer TSP for detailed Specifications and QTY.					
08400	सामग्री सं./ Material Number :- 150000000000082589 MPV_ AUTOMATIC IDENTIFICATION SYSTEM सामग्री वर्णन/Material Description :AUTOMATIC IDENTIFICATION SYSTEM (AIS)		1 SET	31.05.2026	
Refer TSP for detailed Specifications and QTY.					
08500	सामग्री सं./ Material Number :- 150000000000082590 MPV_METEO SENSOR सामग्री वर्णन/Material Description :METEO SENSOR		1 SET	31.05.2026	
Refer TSP for detailed Specifications and QTY.					
08600	सामग्री सं./ Material Number :- 150000000000082591 MPV_ECDIS सामग्री वर्णन/Material Description :ELECTRONIC CHART DISPLAY AND INFORMATION SYSTEM (ECDIS) & ROUTE PLANNING STATION.		2 SET	31.05.2026	
Reffer TSP Encloser for detailed Spefications and QTY.					
08700	सामग्री सं./ Material Number :- 150000000000082592 MPV_BNWS सामग्री वर्णन/Material Description :BRIDGE NAVIGATION WATCH ALARM SYSTEM (BNWS)		1 SET	31.05.2026	
Refer TSP for detailed Specifications and QTY.					
08800	सामग्री सं./ Material Number :- 150000000000082593 MPV_ VOYAGE DATA RECORDER सामग्री वर्णन/Material Description :VOYAGE DATA RECORDER		1 SET	31.05.2026	
Refer TSP for detailed Specifications and QTY.					
08900	सामग्री सं./ Material Number :- 150000000000082594 MPV_ BRIDGE CONTROL CONSOLE सामग्री वर्णन/Material Description :BRIDGE CONTROL CONSOLE		1 SET	31.05.2026	
Refer TSP for detailed Specifications and QTY.					
09000	सामग्री सं./ Material Number :- 150000000000082595 MPV_WHEELHOUSE GAUGE BOARD सामग्री वर्णन/Material Description :MPV- WHEELHOUSE GAUGE BOARD		1 SET	31.05.2026	

निविदा सं./ Tender No:- 1700000733		निविदा तिथि/ Tender Date:- 12.09.2025		आरएफक्यू सं./RFQ No:- 2230000107	
क्र सं. SL.No.	सामग्री / सेवा विवरण Material / Service Details		मात्रा / इकाई Quantity / unit	आपूर्ति तिथि Delivery Date	
Refer TSP for detailed Specifications and QTY.					
09100	सामग्री सं./ Material Number :- 150000000000082596 MPV_ BRIDGE WING PORTABLE CONTROL STA सामग्री वर्णन/Material Description :BRIDGE WING PORTABLE CONTROL  Refer TSP for detailed Specifications and QTY.		1 SET	31.05.2026	
09200	सामग्री सं./ Material Number :- 150000000000082600 MPV_ IBS_ CABLES सामग्री वर्णन/Material Description :MPV-CABLES REQUIRED FOR SYSTEM AS PER TSP		1 SET	30.04.2026	
09300	सामग्री सं./ Material Number :- 150000000000082601 MPV_ IBS_ COURSE RECORDER सामग्री वर्णन/Material Description :COURSE RECORDER One (1) set of COURSE RECORDER shall be supplied with UTC time display.		1 SET	31.05.2026	
09400	सामग्री सं./ Material Number :- 150000000000082756 MPV_ DOCUMENTATION सामग्री वर्णन/Material Description :MPV_ DOCUMENTATION		1 SET	31.05.2026	
09500	सामग्री सं./ Material Number :- 150000000000082757 MPV_ ON BOARD SPARES सामग्री वर्णन/Material Description :MPV_ ON BOARD SPARES		1 SET	31.05.2026	
09600	MPV_STW Service Description :MPV_STW NAVIGATIONAL INSTRUMENTS-IBS SYSTEM  The Line item 09600 covers the following services		1 Activity unit	30.06.2026	
0000000010	सेवा सं./Service Number :-  संक्षिप्त वर्णन/Short Description :- MPV_STW		1 Activity unit		
09700	MPV_Connectorisation Service Description :MPV_CONNECTORISATION NAVIGATIONAL INSTRUMENTS-IBS SYSTEM  The Line item 09700 covers the following services		1 Activity unit	30.06.2026	

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क्र सं. SL.No.	सामग्री / सेवा विवरण Material / Service Details		मात्रा / इकाई Quantity / unit	आपूर्ति तिथि Delivery Date	
0000000010	सेवा सं./Service Number :-  संक्षिप्त वर्णन/Short Description :- MPV_Connectorisation		1 Activity unit		
09800	MPV_Training  Service Description :MPV_TRAINNING NAVIGATIONAL INSTRUMENTS-IBS SYSTEM  <b>The Line item 09800 covers the following services</b>		1 Activity unit	31.07.2026	
0000000010	सेवा सं./Service Number :-  संक्षिप्त वर्णन/Short Description :- MPV_Training		1 Activity unit		
09900	MPV_HATs  Service Description :MPV_HATs NAVIGATIONAL INSTRUMENTS-IBS SYSTEM  <b>The Line item 09900 covers the following services</b>		1 Activity unit	31.07.2026	
0000000010	सेवा सं./Service Number :-  संक्षिप्त वर्णन/Short Description :- MPV_HATs		1 Activity unit		
10000	MPV_SATs  Service Description :MPV_SATs NAVIGATIONAL INSTRUMENTS-IBS SYSTEM  <b>The Line item 10000 covers the following services</b>		1 Activity unit	31.07.2026	
0000000010	सेवा सं./Service Number :-  संक्षिप्त वर्णन/Short Description :- MPV_SATs		1 Activity unit		
10100	सामग्री सं./ Material Number :- 150000000000082581 MPV_GYRO,Data changeover unit & REPEATER सामग्री वर्णन/Material Description :GYRO,Data changeover unit & REPEATERS  Refer TSP for detailed Specifications and QTY.		1 SET	31.07.2026	
10200	सामग्री सं./ Material Number :- 150000000000083791 GYRO COMPASS सामग्री वर्णन/Material Description :GYRO COMPASS  Refer TSP for detailed Specifications and QTY.		1 Number	31.07.2026	
10300	सामग्री सं./ Material Number :- 150000000000082582 MPV_AUTO PILOT		1 SET	31.07.2026	



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क्र सं. SL.No.	सामग्री / सेवा विवरण Material / Service Details		मात्रा / इकाई Quantity / unit	आपूर्ति तिथि Delivery Date	
सामग्री वर्णन/Material Description :AUTO PILOT					
Refer TSP for detailed Specifications and QTY.					
10400	सामग्री सं./ Material Number :- 150000000000082583 MPV_MAGNETIC COMPASS		1 SET	31.07.2026	
सामग्री वर्णन/Material Description :MAGNETIC COMPASS					
Refer TSP for detailed Specifications and QTY.					
10500	सामग्री सं./ Material Number :- 150000000000082584 MPV_ECHO SOUNDER		1 SET	31.07.2026	
सामग्री वर्णन/Material Description :ECHO SOUNDER WITH PRINTER					
Transducer cost to be quoted separately					
Refer TSP Encloser for detailed Spfications and QTY.					
10600	सामग्री सं./ Material Number :- 150000000000082585 MPV_DOPPLER SPEED LOG		1 SET	31.07.2026	
सामग्री वर्णन/Material Description :DOPPLER SPEED LOG					
Transducer cost to be quoted separately.					
Refer TSP Encloser for detailed Specifications and QTY.					
10700	सामग्री सं./ Material Number :- 150000000000082586 MPV_RADAR AND ARPA		1 SET	31.07.2026	
सामग्री वर्णन/Material Description :RADAR AND ARPA					
Refer TSP for detailed Specifications and QTY.					
10800	सामग्री सं./ Material Number :- 150000000000082587 MPV_DGPS NAVIGATOR		2 SET	31.07.2026	
सामग्री वर्णन/Material Description :DGPS NAVIGATOR					
Refer TSP for detailed Specifications and QTY.					
10900	सामग्री सं./ Material Number :- 150000000000082589 MPV_AUTOMATIC IDENTIFICATION SYSTEM		1 SET	31.07.2026	
सामग्री वर्णन/Material Description :AUTOMATIC IDENTIFICATION SYSTEM (AIS)					
Refer TSP for detailed Specifications and QTY.					
11000	सामग्री सं./ Material Number :- 150000000000082590 MPV_METEO SENSOR		1 SET	31.07.2026	
सामग्री वर्णन/Material Description :METEO SENSOR					

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क्र सं. SL.No.	सामग्री / सेवा विवरण Material / Service Details	मात्रा / इकाई Quantity / unit	आपूर्ति तिथि Delivery Date		
Refer TSP for detailed Specifications and QTY.					
11100	सामग्री सं./ Material Number :- 150000000000082591 MPV_ECDIS सामग्री वर्णन/Material Description :ELECTRONIC CHART DISPLAY AND INFORMATION SYSTEM (ECDIS) & ROUTE PLANNING STATION.	2 SET	31.07.2026		
Reffer TSP Encloser for detailed Spifications and QTY.					
11200	सामग्री सं./ Material Number :- 150000000000082592 MPV_BNWAS सामग्री वर्णन/Material Description :BRIDGE NAVIGATION WATCH ALARM SYSTEM (BNWAS)	1 SET	31.07.2026		
Refer TSP for detailed Specifications and QTY.					
11300	सामग्री सं./ Material Number :- 150000000000082593 MPV_VOYAGE DATA RECORDER सामग्री वर्णन/Material Description :VOYAGE DATA RECORDER	1 SET	31.07.2026		
Refer TSP for detailed Specifications and QTY.					
11400	सामग्री सं./ Material Number :- 150000000000082594 MPV_BRIDGE CONTROL CONSOLE सामग्री वर्णन/Material Description :BRIDGE CONTROL CONSOLE .	1 SET	31.07.2026		
Refer TSP for detailed Specifications and QTY.					
11500	सामग्री सं./ Material Number :- 150000000000082595 MPV_WHEELHOUSE GAUGE BOARD सामग्री वर्णन/Material Description :MPV- WHEELHOUSE GAUGE BOARD	1 SET	31.07.2026		
Refer TSP for detailed Specifications and QTY.					
11600	सामग्री सं./ Material Number :- 150000000000082596 MPV_BRIDGE WING PORTABLE CONTROL STA सामग्री वर्णन/Material Description :BRIDGE WING PORTABLE CONTROL	1 SET	31.07.2026		
Refer TSP for detailed Specifications and QTY.					
11700	सामग्री सं./ Material Number :- 150000000000082600 MPV_IBS_CABLES सामग्री वर्णन/Material Description :MPV-CABLES REQUIRED FOR SYSTEM AS PER TSP	1 SET	30.06.2026		

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क्र सं. SL.No.	सामग्री / सेवा विवरण Material / Service Details	मात्रा / इकाई Quantity / unit	आपूर्ति तिथि Delivery Date		
11800	सामग्री सं./ Material Number :- 150000000000082601 MPV_ IBS_ COURSE RECORDER सामग्री वर्णन/Material Description :COURSE RECORDER One (1) set of COURSE RECORDER shall be supplied with UTC time display.	1 SET	31.07.2026		
11900	सामग्री सं./ Material Number :- 150000000000082756 MPV_ DOCUMENTATION सामग्री वर्णन/Material Description :MPV_ DOCUMENTATION	1 SET	31.07.2026		
12000	सामग्री सं./ Material Number :- 150000000000082757 MPV_ ON BOARD SPARES सामग्री वर्णन/Material Description :MPV_ SPARES FOR IBS	1 SET	31.07.2026		
12100	MPV_STW Service Description :MPV_STW NAVIGATIONAL INSTRUMENTS-IBS SYSTEM  <b>The Line item 12100 covers the following services</b>	1 Activity unit	31.08.2026		
0000000010	सेवा सं./Service Number :-  संक्षिप्त वर्णन/Short Description :- MPV_STW	1 Activity unit			
12200	MPV_Connectorisation Service Description :MPV_CONNECTORISATION NAVIGATIONAL INSTRUMENTS-IBS SYSTEM  <b>The Line item 12200 covers the following services</b>	1 Activity unit	31.08.2026		
0000000010	सेवा सं./Service Number :-  संक्षिप्त वर्णन/Short Description :- MPV_Connectorisation	1 Activity unit			
12300	MPV_Training Service Description :MPV_TRAINNING NAVIGATIONAL INSTRUMENTS-IBS SYSTEM  <b>The Line item 12300 covers the following services</b>	1 Activity unit	30.09.2026		
0000000010	सेवा सं./Service Number :-  संक्षिप्त वर्णन/Short Description :- MPV_Training	1 Activity unit			
12400	MPV_HATs	1 Activity unit	30.09.2026		

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क्र सं. SL.No.	सामग्री / सेवा विवरण Material / Service Details		मात्रा / इकाई Quantity / unit	आपूर्ति तिथि Delivery Date	
Service Description :MPV_HATs NAVIGATIONAL INSTRUMENTS-IBS SYSTEM					
The Line item 12400 covers the following services					
0000000010	सेवा सं./Service Number :-		1 Activity unit		
संक्षिप्त वर्णन/Short Description :- MPV_HATs					
12500	MPV_SATs		1 Activity unit	30.09.2026	
Service Description :MPV_SATs NAVIGATIONAL INSTRUMENTS-IBS SYSTEM					
The Line item 12500 covers the following services					
0000000010	सेवा सं./Service Number :-		1 Activity unit		
संक्षिप्त वर्णन/Short Description :- MPV_SATs					
12600	सामग्री सं./ Material Number :- 150000000000082581 MPV_GYRO,Data changeover unit & REPEATER सामग्री वर्णन/Material Description :GYRO,Data changeover unit & REPEATERS		1 SET	31.07.2026	
Refer TSP for detailed Specifications and QTY.					
12700	सामग्री सं./ Material Number :- 150000000000083791 GYRO COMPASS सामग्री वर्णन/Material Description :GYRO COMPASS		1 Number	31.07.2026	
Refer TSP for detailed Specifications and QTY.					
12800	सामग्री सं./ Material Number :- 150000000000082582 MPV_AUTO PILOT सामग्री वर्णन/Material Description :AUTO PILOT		1 SET	31.07.2026	
Refer TSP for detailed Specifications and QTY.					
12900	सामग्री सं./ Material Number :- 150000000000082583 MPV_MAGNETIC COMPASS सामग्री वर्णन/Material Description :MAGNETIC COMPASS		1 SET	31.07.2026	
Refer TSP for detailed Specifications and QTY.					
13000	सामग्री सं./ Material Number :- 150000000000082584 MPV_ECHO SOUNDER सामग्री वर्णन/Material Description :ECHO SOUNDER WITH PRINTER		1 SET	31.07.2026	
Transducer cost to be quoted separately					

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क्र सं. SL.No.	सामग्री / सेवा विवरण Material / Service Details	मात्रा / इकाई Quantity / unit	आपूर्ति तिथि Delivery Date		
Refer TSP Encloser for detailed Spefications and QTY.					
13100	सामग्री सं./ Material Number :- 150000000000082585 MPV_ DOPPLER SPEED LOG सामग्री वर्णन/Material Description :DOPPLER SPEED LOG  Transducer cost to be quoted separately.  Refer TSP Encloser for detailed Spefications and QTY.	1 SET	31.07.2026		
13200	सामग्री सं./ Material Number :- 150000000000082586 MPV_ RADAR AND ARPA सामग्री वर्णन/Material Description :RADAR AND ARPA  Refer TSP for detailed Specifications and QTY.	1 SET	31.07.2026		
13300	सामग्री सं./ Material Number :- 150000000000082587 MPV_ DGPS NAVIGATOR सामग्री वर्णन/Material Description :DGPS NAVIGATOR  Refer TSP for detailed Specifications and QTY.	2 SET	31.07.2026		
13400	सामग्री सं./ Material Number :- 150000000000082589 MPV_ AUTOMATIC IDENTIFICATION SYSTEM सामग्री वर्णन/Material Description :AUTOMATIC IDENTIFICATION SYSTEM (AIS)  Refer TSP for detailed Specifications and QTY.	1 SET	31.07.2026		
13500	सामग्री सं./ Material Number :- 150000000000082590 MPV_ METEO SENSOR सामग्री वर्णन/Material Description :METEO SENSOR  Refer TSP for detailed Specifications and QTY.	1 SET	31.07.2026		
13600	सामग्री सं./ Material Number :- 150000000000082591 MPV_ ECDIS सामग्री वर्णन/Material Description :ELECTRONIC CHART DISPLAY AND INFORMATION SYSTEM (ECDIS) & ROUTE PLANNING STATION.  Reffer TSP Encloser for detailed Spefications and QTY.	2 SET	31.07.2026		
13700	सामग्री सं./ Material Number :- 150000000000082592 MPV_ BNWAS सामग्री वर्णन/Material Description :BRIDGE NAVIGATION WATCH ALARM SYSTEM (BNWAS)	1 SET	31.07.2026		

निविदा सं./ Tender No:- 1700000733		निविदा तिथि/ Tender Date:- 12.09.2025		आरएफक्यू सं./RFQ No:- 2230000107	
क्र सं. SL.No.	सामग्री / सेवा विवरण Material / Service Details		मात्रा / इकाई Quantity / unit	आपूर्ति तिथि Delivery Date	
Refer TSP for detailed Specifications and QTY.					
13800	सामग्री सं./ Material Number :- 150000000000082593 MPV_ VOYAGE DATA RECORDER सामग्री वर्णन/Material Description :VOYAGE DATA RECORDER  Refer TSP for detailed Specifications and QTY.		1 SET	31.07.2026	
13900	सामग्री सं./ Material Number :- 150000000000082594 MPV_ BRIDGE CONTROL CONSOLE सामग्री वर्णन/Material Description :BRIDGE CONTROL CONSOLE  Refer TSP for detailed Specifications and QTY.		1 SET	31.07.2026	
14000	सामग्री सं./ Material Number :- 150000000000082595 MPV_ WHEELHOUSE GAUGE BOARD सामग्री वर्णन/Material Description :MPV- WHEELHOUSE GAUGE BOARD  Refer TSP for detailed Specifications and QTY.		1 SET	31.07.2026	
14100	सामग्री सं./ Material Number :- 150000000000082596 MPV_ BRIDGE WING PORTABLE CONTROL STA सामग्री वर्णन/Material Description :BRIDGE WING PORTABLE CONTROL  Refer TSP for detailed Specifications and QTY.		1 SET	31.07.2026	
14200	सामग्री सं./ Material Number :- 150000000000082600 MPV_ IBS_CABLES सामग्री वर्णन/Material Description :MPV-CABLES REQUIRED FOR SYSTEM AS PER TSP		1 SET	30.06.2026	
14300	सामग्री सं./ Material Number :- 150000000000082601 MPV_ IBS_ COURSE RECORDER सामग्री वर्णन/Material Description :COURSE RECORDER One (1) set of COURSE RECORDER shall be supplied with UTC time display.		1 SET	31.07.2026	
14400	सामग्री सं./ Material Number :- 150000000000082756 MPV_ DOCUMENTATION सामग्री वर्णन/Material Description :MPV_ DOCUMENTATION		1 SET	31.07.2026	
14500	सामग्री सं./ Material Number :- 150000000000082757 MPV_ ON BOARD SPARES		1 SET	31.07.2026	

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क्र सं. SL.No.	सामग्री / सेवा विवरण Material / Service Details		मात्रा / इकाई Quantity / unit	आपूर्ति तिथि Delivery Date	
सामग्री वर्णन/Material Description :MPV_ON BOARD SPARES					
14600	MPV_STW		1 Activity unit	28.08.2026	
Service Description :MPV_STW NAVIGATIONAL INSTRUMENTS-IBS SYSTEM					
The Line item 14600 covers the following services					
000000001	सेवा सं./Service Number :-		1 Activity unit		
0	संक्षिप्त वर्णन/Short Description :- MPV_STW				
14700	MPV_Connectorisation		1 Activity unit	28.08.2026	
Service Description :MPV_CONNECTORISATION NAVIGATIONAL INSTRUMENTS-IBS SYSTEM					
The Line item 14700 covers the following services					
000000001	सेवा सं./Service Number :-		1 Activity unit		
0	संक्षिप्त वर्णन/Short Description :- MPV_Connectorisation				
14800	MPV_Training		1 Activity unit	30.09.2026	
Service Description :MPV_TRAINNING NAVIGATIONAL INSTRUMENTS-IBS SYSTEM					
The Line item 14800 covers the following services					
000000001	सेवा सं./Service Number :-		1 Activity unit		
0	संक्षिप्त वर्णन/Short Description :- MPV_Training				
14900	MPV_HATs		1 Activity unit	30.09.2026	
Service Description :MPV_HATs NAVIGATIONAL INSTRUMENTS-IBS SYSTEM					
The Line item 14900 covers the following services					
000000001	सेवा सं./Service Number :-		1 Activity unit		
0	संक्षिप्त वर्णन/Short Description :- MPV_HATs				
15000	MPV_SATs		1 Activity unit	30.09.2026	
Service Description :MPV_SATs NAVIGATIONAL INSTRUMENTS-IBS SYSTEM					
The Line item 15000 covers the following services					

निविदा सं./ Tender No:- 1700000733		निविदा तिथि/ Tender Date:- 12.09.2025		आरएफक्यू सं./RFQ No:- 2230000107	
क्र सं. SL.No.	सामग्री / सेवा विवरण Material / Service Details		मात्रा / इकाई Quantity / unit		आपूर्ति तिथि Delivery Date
000000001 0	सेवा सं./Service Number :-		1 Activity unit		
	संक्षिप्त वर्णन/Short Description :- MPV_SATs				
15100	सामग्री सं./ Material Number :- 150000000000088811 MPV-Bridge Alert Management System सामग्री वर्णन/Material Description :Bridge Alert Management System Reffer TSP for detailed Specifications and QTY.		1 SET		31.01.2026
15200	सामग्री सं./ Material Number :- 150000000000088811 MPV-Bridge Alert Management System सामग्री वर्णन/Material Description :Bridge Alert Management System Reffer TSP for detailed Specifications and QTY.		1 SET		31.03.2026
15300	सामग्री सं./ Material Number :- 150000000000088811 MPV-Bridge Alert Management System सामग्री वर्णन/Material Description :Bridge Alert Management System Reffer TSP for detailed Specifications and QTY.		1 SET		31.05.2026
15400	सामग्री सं./ Material Number :- 150000000000088811 MPV-Bridge Alert Management System सामग्री वर्णन/Material Description :Bridge Alert Management System Reffer TSP for detailed Specifications and QTY.		1 SET		31.05.2026
15500	सामग्री सं./ Material Number :- 150000000000088811 MPV-Bridge Alert Management System सामग्री वर्णन/Material Description :Bridge Alert Management System Reffer TSP for detailed Specifications and QTY.		1 SET		31.07.2026
15600	सामग्री सं./ Material Number :- 150000000000088811 MPV-Bridge Alert Management System सामग्री वर्णन/Material Description :Bridge Alert Management System Reffer TSP for detailed Specifications and QTY.		1 SET		31.07.2026
15700	सामग्री सं./ Material Number :- 150000000000088812 MPV-Sound Reception system सामग्री वर्णन/Material Description :Bridge Sound Reception system. Refer TSP for detailed Specifications and QTY.		1 SET		31.01.2026
15800	सामग्री सं./ Material Number :- 150000000000088812 MPV-Sound Reception system		1 SET		31.03.2026



निविदा सं./ Tender No:- 1700000733		निविदा तिथि/ Tender Date:- 12.09.2025		आरएफक्यू सं./RFQ No:- 2230000107	
क्र सं. SL.No.	सामग्री / सेवा विवरण Material / Service Details		मात्रा / इकाई Quantity / unit	आपूर्ति तिथि Delivery Date	
सामग्री वर्णन/Material Description :Bridge Sound Reception system.					
Refer TSP for detailed Specifications and QTY.					
15900	सामग्री सं./ Material Number :- 150000000000088812 MPV-Sound Reception system सामग्री वर्णन/Material Description :Bridge Sound Reception system.		1 SET	31.05.2026	
Refer TSP for detailed Specifications and QTY.					
16000	सामग्री सं./ Material Number :- 150000000000088812 MPV-Sound Reception system सामग्री वर्णन/Material Description :Bridge Sound Reception system.		1 SET	31.05.2026	
Refer TSP for detailed Specifications and QTY.					
16100	सामग्री सं./ Material Number :- 150000000000088812 MPV-Sound Reception system सामग्री वर्णन/Material Description :Bridge Sound Reception system.		1 SET	31.07.2026	
Refer TSP for detailed Specifications and QTY.					
16200	सामग्री सं./ Material Number :- 150000000000088812 MPV-Sound Reception system सामग्री वर्णन/Material Description :Bridge Sound Reception system.		1 SET	31.07.2026	
Refer TSP for detailed Specifications and QTY.					
16300	सामग्री सं./ Material Number :- 150000000000088814 MPV-EM LOG Transducer सामग्री वर्णन/Material Description :MPV-EM LOG Transducer Item required in advance considering dry dock requirement of ship.		1 SET	28.11.2025	
16400	सामग्री सं./ Material Number :- 150000000000088814 MPV-EM LOG Transducer सामग्री वर्णन/Material Description :MPV-EM LOG Transducer Item required in advance considering dry dock requirement of ship.		1 SET	28.11.2025	
16500	सामग्री सं./ Material Number :- 150000000000088814 MPV-EM LOG Transducer सामग्री वर्णन/Material Description :MPV-EM LOG Transducer Item required in advance considering dry dock requirement of ship.		1 SET	30.01.2026	
16600	सामग्री सं./ Material Number :- 150000000000088814 MPV-EM LOG Transducer सामग्री वर्णन/Material Description :MPV-EM LOG Transducer Item required in advance considering dry dock requirement of ship.		1 SET	30.01.2026	
16700	सामग्री सं./ Material Number :- 150000000000088814		1 SET	31.03.2026	

निविदा सं./ Tender No:- 1700000733		निविदा तिथि/ Tender Date:- 12.09.2025		आरएफक्यू सं./RFQ No:- 2230000107	
क्र सं. SL.No.	सामग्री / सेवा विवरण Material / Service Details		मात्रा / इकाई Quantity / unit		आपूर्ति तिथि Delivery Date
MPV-EM LOG Transducer सामग्री वर्णन/Material Description :MPV-EM LOG Transducer Item required in advance considering dry dock requirement of ship.					
16800	सामग्री सं./ Material Number :- 150000000000088814 MPV-EM LOG Transducer सामग्री वर्णन/Material Description :MPV-EM LOG Transducer Item required in advance considering dry dock requirement of ship.		1 SET		31.03.2026
16900	सामग्री सं./ Material Number :- 150000000000088815 MPV-Echosounder Transducer सामग्री वर्णन/Material Description :MPV-Echosounder Transducer. Item required in advance considering dry dock requirement of ship.		1 SET		28.11.2025
17000	सामग्री सं./ Material Number :- 150000000000088815 MPV-Echosounder Transducer सामग्री वर्णन/Material Description :MPV-Echosounder Transducer. Item required in advance considering dry dock requirement of ship.		1 SET		28.11.2025
17100	सामग्री सं./ Material Number :- 150000000000088815 MPV-Echosounder Transducer सामग्री वर्णन/Material Description :MPV-Echosounder Transducer. Item required in advance considering dry dock requirement of ship.		1 SET		30.01.2026
17200	सामग्री सं./ Material Number :- 150000000000088815 MPV-Echosounder Transducer सामग्री वर्णन/Material Description :MPV-Echosounder Transducer. Item required in advance considering dry dock requirement of ship.		1 SET		30.01.2026
17300	सामग्री सं./ Material Number :- 150000000000088815 MPV-Echosounder Transducer सामग्री वर्णन/Material Description :MPV-Echosounder Transducer. Item required in advance considering dry dock requirement of ship.		1 SET		31.03.2026
17400	सामग्री सं./ Material Number :- 150000000000088815 MPV-Echosounder Transducer सामग्री वर्णन/Material Description :MPV-Echosounder Transducer. Item required in advance considering dry dock requirement of ship.		1 SET		31.03.2026
नियम और शर्तें : भाग ए में लिखी हुई और इतर संलग्नपत्रे इस निविदा एक अभिन्न अंग हैं। हमें आशा है की, हमें प्रतियोगित्मिक और उचित प्रस्ताव इस निविदा के लिए प्राप्त होगा। Terms & Conditions as indicated in Part A of this tender and other enclosures / annexures form an integral part of this tender document. We look forward to receive your most competitive and reasonable offer against this Tender.					
माझगाँव डॉक शिपबिल्डर्स लिमिटेड के लिए /For Mazagon Dock Shipbuilders Ltd					

**Tender No. 1700000733 (Open Global Tender Enquiry)**

	<p style="text-align: center;"><b>Tender Enquiry</b></p> <p>Enclosure to Tender Enquiry: Terms and Conditions (Section I &amp; II) Item: Procurement of IBS -Navigational Instruments for Project 7500 Dwt Multi-Purpose Dry Cargo Vessel. Project: Multi-Purpose Dry Cargo Vessel(MPV)</p>
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**Section I - Notice Inviting Tender (NIT)**

- (i) Notice Inviting Tender (NIT): Mazagon Dock Shipbuilders Limited (MDL), Mumbai is India's leading Shipbuilding Company with ISO 9001:2015 accreditation. Mazagon Dock Shipbuilders Limited, invites offer in two bid system i.e. Part-I (Techno Commercial Bid) and Part-II (Price Bid) from Indian/Foreign nominated bidders through online bidding via MDL e-procurement portal (<https://eprocuremdl.nic.in>) for Item/Services.
- (ii) **The Tender Document:**
- (i) **Bidders must read the complete 'Tender Document'.** Kindly visit MDL website Link:  
<https://mazagondock.in/English/pages/Tenders> under tab Ship Building(SB)/MPV Project for formats as detailed in enclosure.
- (ii) Bids must be uploaded till the deadline for submission of bids. Request for extension, if at all to be made, shall be forwarded at least 3 working days in advance to the tender closing date / time (excluding tender closing date) with proper reasoning. **However, the extension would be granted by MDL on merit of the case at MDL discretion and would be binding on all bidders.**
- (iii) **Eligibility Criteria for Participation in this Tender:** Subject to provisions in the Tender Document, participation in this Tender Process is open to bidders who fulfil the 'Eligibility' and Pre-Qualification criteria. Bidder shall be required to declare fulfilment of Eligibility Criteria.  
**Note: In case manufacturer has submitted the bid, then bids of its authorised dealer will not be considered.**
- (iv) **Submission of Bids:** No manual Bids shall be made available or accepted for submission (except for originals of scanned copies as mentioned in tender). Bidder must comply with the conditions of the eProcurement portal, including registration, compatible Digital Signature Certificate (DSC) etc. In the case of downloaded documents, Bidder must not make any changes to the contents of the documents while uploading, except for filling in the required information.
- (v) **Disclaimers and Rights of MDL:** The issue of the Tender Document does not imply that MDL is bound to select bid(s), and it reserves the right without assigning any reason to
- reject any or all of the Bids, or
  - cancel the tender process; or
  - abandon the procurement of the Goods/Services in partial or full; or
  - issue another tender for identical or similar Goods/Services.
  - Placement of order is subject to Customer (ship's owner) confirmation.

*Note: Please refer to appended complete Tender Document for further details.*

**Tender Inviting Authority**

## **Tender No. 1700000733 (Open Global Tender Enquiry)**

### **Section II - Tender Enquiry Form (TEF)**

- 1. Description & Scope of Supply / Work:** Procurement of IBS -Navigational Instruments for Project 7500 Dwt Multi-Purpose Dry Cargo Vessel as per Tender & TSP NO - DR / EL / MPV / 5005 REV-3.

**Note:**

- (a) ***Ranking will be done on 6 shipsets.***
- (b) ***In case MDL intends to buy 04 more ship sets (2 nos + 2 nos) of this scope, bidders shall quote percentage escalation (For 2 years) on 6th shipset for additional 04 shipsets for year 2025 and 2026 in the price sheet attached with the tender.***
- (c) ***Bidder should note that percentage escalation year 2025 and 2026 for additional 4 shipsets will not be considered for ranking purpose.***
- (d) ***Bidders shall not claim for this requirement in case this clause is not being exercised.***
- (e) ***Placement of order for additional 4 shipsets (2 set + 2 Sets) will be at MDL discretions.***
- (f) ***Delivery dates for optional 4 shipsets shall be as mentioned below:***

<b>Yard No.</b>	<b>Equipment delivery date</b>
<b>21007</b>	PO date + 11 months
<b>21008</b>	PO date + 11 months
<b>21009</b>	PO date + 11 months
<b>210010</b>	PO date + 11 months

**2. Validity Period of Offer:**

- (a) Bid / Offer shall have the validity period of **180 days** from the tender closing date.
- (b) MDL may request the bidders to extend the validity period for a specified additional period. A bidder may agree to or reject the request. A bidder who has agreed to MDL's request for extension of bid validity, in no case, he shall be permitted to modify his bid. In case techno-commercially accepted bidder/s does not agree to extend the offer validity, the offers of all techno commercially accepted bidder/s including the bidder who has not agreed to extend their offer validity shall be opened and proceed further with valid bids. However, offer of the bidder(s) who have not agreed to extend their offer validity shall not be considered for L1 evaluation purpose.

**3. Delivery Period:** The delivery dates shall be as mentioned below:

<b>Yard No.</b>	<b>Equipment delivery date</b>
21001	PO date + 04 months
21002	PO date + 06 months
21003	PO date + 08 months
21004	PO date + 08 months
21005	PO date + 10 months
21006	PO date + 10 months

Delivery schedule given for services is tentative; the exact schedule will be communicated 15 days in advance before respective activity. Refer TSP for terms related to services.

### **Tender No. 1700000733 (Open Global Tender Enquiry)**

#### **4. Submission of Offer in Two Bid System:** Offer must be submitted in two parts as follows:

- (a) **Part I (Techno Commercial Bid):** The bidder shall ensure submission of techno-commercial offer as per tender terms.

**Note: In any case, prices are not to be mentioned in Part-I bid.**

- (b) **Part-II (Price Bid):** Prices for each of the listed items has to be uploaded strictly in the prescribed format provided in the e-procurement portal. Bids received other than this given format will be **rejected**.

**Note:**

- If, in the price structure quoted for the required goods, there is discrepancy between the unit price and 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 a discrepancy between words and figures, the amount in words shall prevail.
- Bidder must quote for all line items being inseparable line items.

#### **5. Earnest Money Deposit (EMD) / Bid Security:**

- (a) EMD applicable for this tender is Rs. 10,00,000/- (INR Ten Lakhs only) or equivalent in foreign currency.
- (b) EMD in the form of NEFT / Demand Draft / Pay order / Bank Guarantee / Insurance Security Bond / e-Bank Guarantee drawn in favor of MAZAGON DOCK SHIPBUILDERS LIMITED or bid bond shall be forwarded to HOD (Commercial) in sealed envelope super scribing Tender Enquiry No. and Due date, so as to reach us within 7 MDL working days from the tender closing date. The scanned image of EMD shall be uploaded at Part-I tender stage. The bid bond/ Bank Guarantee should be valid for 4 more weeks beyond the offer validity period indicated in the tender. Either of these instruments should be drawn on as per the list of banks approved by SBI/ Canara bank published on MDL website, payable at Mumbai. Crossed DD/ Pay Order issued by Co-operative banks however will be accepted subject to realization. Authorized Indian agent of the overseas bidders can submit EMD in the form of NEFT / DD/ Pay Order in Indian Rupees. Similarly, authorized Indian agent of the overseas bidders can submit BG on behalf of foreign bank as per list of banks approved by SBI / Canara bank as bank of international repute published on MDL website. Bidders to advise their bank/ banker to send EMD directly to commercial department or through SWIFT to dispense with additional step of verification of authenticity of signatories. In case of EMD transmitted through SWIFT, it shall be the responsibility of the bidder that he directs the receiving banker to forward the message duly authenticated to the concerned commercial officer mentioned in the tender. No change/modification in the text of the prescribed format of the BG is permissible.
- (c) Bidders should mention EMD details on MDL e-procurement portal.
- (d) In case of online remittance of EMD amount, scanned image as per format, duly filled, shall be uploaded in Part-I Techno-commercial bid. Further, the bidder should specifically mention the details of company name as well as nature of remittance, tender number/order number etc. in the text/narration fields of Bank's NEFT remittance in order to identify the same.
- (e) EMD can also be remitted online through MDL website: <https://www.mazagondock.in/OnlinePayment.aspx>.

Or one can find Online payment tab on MDL website home page as under:

- Go to [www.mazagondock.in](http://www.mazagondock.in)
- Click on Online payment tab available on home page.
- 4 option viz. Career, Tender, Security, Scrap/ Disposal will be available.

### **Tender No. 1700000733 (Open Global Tender Enquiry)**

- Click on the Tender tab and make the payment online using Debit cards, Credit Cards, Net banking, BHIM/ UPI etc. after filling the required details.
- (f) Bids received without EMD will be categorical rejected other than exempted categories. Following bidders shall be exempted from submission of EMD.
- i. State & Central Government of India Departments & Public Sector Undertakings.
  - ii. Firms registered with MDL. To qualify for EMD exemption, firms should necessarily submit valid copy of the Registration Certificate issued by MDL, for the items for which the offer is being submitted (System Exploitation-Documentation / D013002). Firms in the process of obtaining MDL registration will not be considered for EMD exemption.
  - iii. Micro and Small Enterprises who are manufacturer or Service Provider and give specific confirmation to this effect at the time of bid submission and whose credentials are validated online through Udyam Registration (as validated by Government from time to time) and through uploaded supporting documents.
  - iv. Firms registered with NSIC under its "Single Point Registration Scheme". (Exemption will apply only to items/services for which they are registered. To qualify for EMD exemption, firms should necessarily submit valid copy of the Registration Certificate along with the list of items / services for which they are registered, as issued by NSIC, in Part-I offer / bid. Firms in the process of obtaining NSIC registration will not be considered for EMD exemption.
  - v. Start-ups as recognized by Department of Industrial Policy and Promotion (DIPP).
  - vi. The recognised institutes such as VJTI/IIT.
  - vii. Common/Deemed DPSU registered vendors qualify for EMD exemption. Such firms shall submit valid copy of the registration certificate issued by DPSUs (other than MDL) for the items / services for which the offer is being submitted in Part-I offer/bid. Firms in process of obtaining registration in other DPSUs will not be considered for EMD exemption.
  - viii. Green Channel Status vendors qualify for EMD exemption. Such firms shall submit valid copy of the Green channel certificate issued by MoD for the items for which the offer is being submitted in Part-I offer/bid. Firms in process of obtaining this certificate will not be considered for EMD exemption.
- Note:** Bidder shall submit/upload the supporting documentary evidence along with Part I bid for claiming EMD exemption.
- (g) The original of EMD other than online EMD must be submitted to the HOD(C), Mazagon Dock Shipbuilders Ltd., Dockyard Road, Mazagaon, Mumbai-400010 within seven (7) MDL working days from the Tender closing date, in an envelope super-scribing the Tender no., Tender date, Tender closing date, Purchase Officer's name & brief description of the goods/ services tendered. If the original BG is not received in MDL, the Bid would be considered invalid & rejected accordingly.
- (h) EMD of unsuccessful bidders will be returned after finalization of the tender and shall be interest free.
- (i) EMD of successful bidders may be converted into performance security or refunded on receipt of performance security. The returned / refunded EMD would be interest free.

#### **6. Pre-qualification criteria:**

##### **A) Technical Pre-qualification criteria: -**

- i. Bidders participating in the Tender should offer Navigation equipment's of any one of these makes. (Furuno Japan, JRC, Alphasat Marine, Radio Holland, Wartsila, Sperry, Kongsberg) as per TSP.
- ii. In case Authorised Vendor is quoting on behalf of OEM they should possess valid Authorisation certificate from above indicated OEM for supply & services.

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- iii. Bidders must have proven experience in Design, Integration, Supply & Commissioning of Navigation Equipment's-IBS for sea going Commercial / Naval / Coast Guard vessels on a Turnkey basis."

Supporting Documents Required.

- i. Bidders to submit the experience details including copies of work completion certificates and relevant Purchase orders/ Delivery Challan/ Invoice for supplying Navigation Equipment's-IBS.
- ii. Bidders to submit a declaration in their letterhead that there are no adverse reports from any of their customers for this type of equipment supplied by them. In case any such adverse report/ remark exists, the details of the same may be furnished along with the reference purchase order and customer details.

**B) Commercial Pre-qualification criteria: -**

- i. The average annual financial turnover of the bidder during the last three years, ending 31<sup>st</sup> March of the previous financial year excluding the calendar year of tendering should be at Rs. 3,75,00,000.00/- as per the annual report (audited balance sheet and profit and loss account) of the relevant period, duly authenticated by a Chartered Accountant / Cost Accountant in India.
- ii. Bidders Shop and establishment registration certificate or registration certificate from registrar of firms or certificate of incorporation from Registrar of Companies (Not required for permanent registered vendors with MDL).
- iii. 100% relaxation of prior turnover for MSE vendors. MSEs vendor shall meet prior experience criteria.
- iv. Start-ups shall not be given any relaxation in prior turnover and prior experience.

Note:

a) Applicability to 'Make in India':

Bidders (manufacturer or principal of authorised representative) who have a valid/approved on going 'Make in India' agreement/program and who while meeting all other criteria above, except for any or more of sub-criteria in Experience and Past Performance above, would also be considered to be qualified provided:

- (i) their foreign 'Make-in-India' associates meet all the criteria above without exemption, and
- (ii) the Bidder submits appropriate documentary proof for a valid/approved on going 'Make in India' agreement/program.
- (iii) the bidder (manufacturer or principal of authorised representative) furnishes along with the bid a legally enforceable undertaking jointly executed by himself and such foreign Manufacturer for satisfactory manufacture, Supply (and erection, commissioning if applicable) and performance of 'The Product' offered including all warranty obligations as per the general and special conditions of contract.

b) Authorized Representatives:

Bids of bidders quoting as authorised representative of a principal manufacturer would also be considered to be qualified, provided:

- (i) their principal manufacturer meets all the criteria above without exemption, and
- (ii) the principal manufacturer furnishes a legally enforceable tender-specific authorisation in the prescribed form assuring full guarantee and warranty

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obligations and all contractual obligation as per the tender terms and conditions; and

- (iii) the bidder himself should have been associated, as authorised representative of the same or other Principal Manufacturer for same set of services as in present bid (supply, installation, satisfactorily commissioning, after sales service as the case may be) for same or similar 'Product' for past three years.
- c) Joint Ventures and Holding Companies: Credentials of the partners of Joint ventures cannot (repeat cannot) be clubbed for the purpose of compliance of PQC in supply of Goods/Equipment, and each partner must comply with all the PQC criteria independently. However, for the purpose of qualifying the Financial Standing Criteria, the Financial Standing credentials of a Holding Company can be clubbed with only one of the fully owned subsidiary bidding company, with appropriate legal documents proving such ownership.
- d) MSEs would be treated as owned by SC/ ST entrepreneurs:
  - (i) In case of proprietary MSE, proprietor(s) shall be SC /ST;
  - (ii) In case of partnership MSE, the SC/ ST partners shall be holding at least 51% (fifty-one percent) shares in the unit;
  - (iii) In case of Private Limited Companies, at least 51% (fifty-one percent) share shall be held by SC/ ST promoters.
- e) It is clarified that the work executed by the contractors for their in-house or capital use need not be considered for the purpose of bidders' experience of completion of similar works.
- f) Bidders need to upload / submit supporting documentary evidence in support of the Pre-Qualification Criteria Viz. Work / Purchase Order, Work Completion Certificate/ Proof of payment with Tax Invoice / Store Receipt and Acceptance Report or any other evidence that confirms that the work is completed which is issued by the party for whom the work is done. MDL has a right to verify / cause verification of authenticity of the said documents whenever felt necessary.

### **7. Bid Rejection Criteria:**

- (a) **Categorical rejection criteria:** Any Bids received other than through e-portal (in case of e-tender) shall be summarily rejected.
- (b) Bids received without EMD (other than those who are exempted from payment of EMD), as specified in the tender.
- (c) **Liabe rejection criteria:**
  - (i) Non-compliance/non-acceptance to any of the terms and conditions of the tender shall render the bid liable for rejection.
  - (ii) Non submission of duly filled and signed Integrity pact.
  - (iii) Bidders not meeting the Technical Pre-Qualification parameters stipulated in Tender / TSP enquiry.
  - (iv) Bids received without pre-qualification documents where required as per the tender.
  - (v) Bidders not meeting the Pre-Qualification parameters stipulated in Tender/TSP enquiry.

### **8. Performance Security Bank Guarantee (PSBG):**

- (i) Separate Performance Security(PS) for an amount equal to 5% of each order value (excluding taxes, duties) payable in currency of purchase order shall be submitted



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within 25 days after notification of the award of contract and it should remain valid for a period of 60 (sixty) days beyond the date of completion of all contractual obligations of the supplier, including warranty obligations.

- (ii) Performance security may be furnished in the form of NEFT /Online (MDL website) Demand Draft / Pay order / Bank Guarantee / Insurance Security Bond / e-Bank Guarantee in favour of Mazagon Dock Shipbuilders Limited, Mumbai from the list of Banks approved by SBI / Canara Bank published on MDL website.
- (iii) Non submission of PS with in stipulated time period may lead to cancellation of order by MDL at risk and cost of seller. In case cancellation of order is not opted by the buyer and seller has already commenced supply / services, MDL shall withhold 5% of order value from his bills in lieu of PS. In such case, interest is to be recovered for the period starting from 26<sup>th</sup> day of transmission / notification of order/contract by any mode and amount involved at the relevant rate of interest. For foreign supplier, the interest will be EUROBOR/LIBOR plus 2%. For Indian suppliers, the interest will be SBI BPLR plus 2%.
- (iv) In case of foreign bidders, the performance security must conform to Uniform Rules for Demand Guarantees (URDG 758) - an international convention regulating international securities.
- (v) The performance security will be forfeited and credited to MDL's account in the event of a breach of contract by the contractor. It will be refunded to the contractor without interest, after he duly performs and completes the contract in all respects including the warranty under the contract.
- (vi) Where the duration of contract is very long and banks are unwilling to issue BGs for long duration, rolling bank guarantee towards performance security can be submitted where it will be valid for at least one year with claim period of three months within which the same can be extended for further period by amendment.
- (vii) Performance security on reducing balance can be accepted when the contract period extends beyond one year. This will be effective on completion of one year and thereafter on six monthly / yearly basis.
- (viii) In the event of defects due to poor workmanship leading to non-performance of the Equipment/Item and bidder failure to attend the defects within a reasonable period of time, the PSBG will be encashed by MDL. MDL's decision in this regard shall be final and binding on the supplier / contractor.
- (ix) In the event of postponing of delivery of deliverables/services or extension of guarantee desired & sought by MDL, the Performance Security (for 5% of order value) has to be extended and its amendment charges shall be borne by supplier.

### **9. Warranty/Guarantee:** Warranty/Guarantee shall be as per TSP.

The equipment along with associated auxiliaries/components shall be warranted by the equipment supplier for the stipulated performance for a period of twelve (12) months from the date of supply of equipment to MDL or twelve (12) months after planned delivery date (D) of the ship by MDL to the Owner, whichever is later.

**Note:** Bidders have to quote for warranty /guarantee extension charges for one year beyond warranty clause mention in TSP for each yard in the price sheet attached with the tender. Bidder should note that these charges will not be considered for ranking purpose. Bidders shall not claim for warranty extension in case this clause is not being exercised.

### **10. Currency of Bidding:**

- (a) Indian Bidders shall quote in Indian Rupees only.
- (b) Foreign Bidders are allowed to quote price (and get paid) in RBI's notified basket of foreign currencies - US Dollar or Euro or GBP etc.

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**11. Pricing:**

- (a) **For Indian Bidders:** Prices of all items/services shall be quoted for delivery of the items/services to the following destination including charges towards inland transportation, inspection charges, insurance, custom duty & cess, and other local costs incidental to the delivery of the Goods/Services.

Items/services	Delivery Location at MDL / MDL Stores, Mumbai
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- (b) **For Foreign Bidders:** Bidder shall quote the prices for the delivery on **Incoterm CIF, Mumbai/JNPT port basis** for delivery at MDL. Order will be placed on **CIF basis** only.
- (c) The prices quoted shall remain firm and fixed during the currency of the order / contract unless agreed otherwise by MDL.

**12. Taxes & Duties:**

- (i) Indian Bidders must clearly mention the applicable Taxes in the rate sheet enclosed in the tender. The item wise rates (i.e. Basic + Duties & Cess + Packing, Forwarding, inspection charges, Freight & Insurance) quoted in the Rate sheet should exclude Taxes. Bidder should indicate GST rates as applicable separately under each of the head in the same rate sheet, which will be paid extra based on tax invoice to the extent applicable.
- (ii) Foreign Bidders shall quote their price on Incoterm CIF, Mumbai Basis. Taxes & duties as applicable to be borne by buyer & seller in their own country i.e MDL will bear the taxes & duties applicable within India and for outside India same will be borne by seller/bidder.
- (iii) Foreign bidder shall submit Tax Residency Certificate (TRC) in Part-I offer. In case of remittances to Foreign Companies for services, as per the Income tax act and DTAA provisions, TDS shall be carried out from the amount payable towards services. As per the extant applicability and existing rates, following cases pertaining to TDS are presented for clarity:
- a) **Case 1 (TRC is made available by foreign bidders):** Tax Deduction at Source (TDS) @ 15% of total service payment is applicable or as per applicable TDS rate stipulated by Government of India. If this is not agreed to by the bidder in the bid or during TNC / CNC, then this shall be appropriately loaded as per applicable rates on the price for the purpose of ranking. However, bidders to note that TDS rates / DTAA rates differ from country to country. It varies from 10% to 25%.
- b) **Case 2 (TRC is not made available by foreign bidders):** Tax Deduction at Source (TDS) at the rates as mentioned in the table below is applicable. If this is not agreed to by the bidder in the bid or during TNC / CNC, then this shall be appropriately loaded as per applicable rates stipulated by Government of India on the price for the purpose of ranking. These rates are tentatively as under:

Service Payment slabs (converted in INR )	Rate of TDS applicable on total service payment
Up to Value of INR 1 Cr.	25.75%
Above INR 1 Cr up to INR 10 Cr.	26.26%
Above INR 10 Cr.	27.0375%

(iv) **Goods and Services Tax (GST) – Applicable for Indian Bidder:**

- a) The prevailing rate of GST is to be indicated in your blank rate sheet in Part-I.
- b) MDL's GST Number is **27AAACM8029J1ZA**.

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- c) Bidder/supplier shall comply as per GST act of India and responsible for the financial and non-financial consequences in case of non-compliance of GST provisions/requirements/timelines on their part.
- (v) End User Certificate if applicable. Format to be provided by vendor immediately after placement of order.

**13. Payment Terms:**

**For Indian Bidders:** On receipt of Invoice, 100 % of Payment shall be made within 15 days of receipt and acceptance of material and as reduced by any deductibles and / or the amount leviable towards liquidated damages, if any plus 100% taxes, duties etc. as applicable.

**For Foreign Bidders:** 100 % Payment made through LC for CIF Mumbai/JNPT port delivery against receipt of documents mentioned in payment mode.

**Note:** If PSBG is not submitted, then the equivalent amount shall be retained.

- (i) **Part Payment:** Part Supply, Part Payment shall be applicable.
- (ii) **Services:** 100% payment for all kinds of services wherever included in the same order will be admissible for payment **within 15 days** against certification by the designated acceptance authority after satisfactory completion of the respective activities/services and on receipt of invoice.
- (iii) **Extended Warranty (if applicable):** 100% payment for warranty wherever included in the same order will be admissible for payment will be made within 15 days from date of start of extended warranty period.

**14. Payment Mode & Documents:**

- (a) All the payments to indigenous bidders due shall be made through Real Time Gross Settlement (RTGS) / National Electronic Fund Transfer (NEFT) by MDL.
- (b) All the payments to foreign bidders shall be through Letter of Credit/Direct Remittance through Bank.
- (c) MDL may opt to make due payment for items having shelf life, services or any miscellaneous payment required as per contract through Direct Remittance from Bank post-delivery & acceptance or completion of services.

**Note:** Invoices should be submitted at "Receipt Section" adjacent to the ARS Punching Section, South Yard MDL.

- (d) **Documents for LC Payments for Goods (Foreign Bidders):**

**Note: LC will be opened 60 days before latest date of shipment. However, Bidders need to inform at least 75 days in advance for readiness of the equipment for shipment for processing the opening of LC.**

- (i) Set of Original + 2 Copies of signed Invoice showing item-wise prices as per the order.
- (ii) Set of Original + 2 Copies of signed packing List clearly showing list of items packed.
- (iii) Set of Original + 2 Copies Clean on Board Bill of Lading OR Air Way Bill Made in the name of MDL's Bank and Marked as freight paid.
- (iv) Set of Original + 2 Copies Certificate of approval OR Release Note from Inspection agency.
- (v) Certificate of country of origin in Original + 2 Copies.
- (vi) Original + 2 Copies of Warranty/Guarantee Certificate as per contract/order.

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- (vii) Original + 2 Copies of all Manufacturer's Test Certificates (MTCs) / Reports, Drawings, Manuals, Procedures etc. as relevant to the ordered item.
  - (viii) Certificate Confirming that supplier has couriered / dispatched 4 set of Non Negotiable Documents comprising of all Test reports / MTCs, Technical Documents, Drawings, Manuals, Procedures etc. and of Signed Invoices, Packing Lists, Bill of Lading/AWB marked as Freight Paid, Insurance Policy/Document, Freight Paid Certificate, MDL nominated Inspection Agency's Certificate of approval, Country of Origin Certificate, Guarantee / Warranty Certificate, directly to MDL.
  - (ix) Original + 2 Copies of the Certificate issued by the classified society confirming seaworthiness of the vessel and that the shipment is made on vessels of not more than 15 years' vintage. (Applicable in case of CIF contracts / orders)
  - (x) Certificate issued by MDL confirming that the delivery is made in time and no liquidated damages / penalty is applicable OR in case of delays, admissible amount of liquidated damages/ penalty will be specified by MDL in this certificate for reduction of equal amount from supplier's invoice and/or deduction of interest applicable towards non submission/delayed submission of PSBG and/or withholding the PSBG amount till guarantee/warranty period as applicable. (MDL will issue this certificate generally by Email/FAX immediately on arrival of consignment at port of destination, receipt of signed copy of invoice, packing list, approval certificate of the nominated inspection agency, copies of B/L or AWB marked as Freight Paid, Insurance Policy/Document, Freight Paid Certificate or any other acceptable documents confirming dispatch on CIF basis).
  - (xi) Certificate confirming that the shipping instructions (inclusive of packing)/Sea/Air worthiness packing have been followed while packing / shipment and forwarding of details for Freight and insurance to MDL.
  - (xii) All the documents should clearly indicate the Purchaser's Order number, Import License Number, Airway Bill / Bill of Lading Number, Insurance Policy number/ Insurance Document reference number.
- (e) **Alternate MSME vendor payment through TReDS** – Details are available on MDL Website. Kindly visit MDL website Link: <https://mazagondock.in/English/pages/Tenders> under tab Ship Building(SB)/MPV Project. **This is applicable for Indian Bidder only.**

**15. Consignee:**

- (a) **For Indian Bidders:** Material scheduled for delivery are to be delivered at MDL (Anik / Bond / Electronic store located in Mumbai)  
**Note:-**In order to avoid inconvenience during the delivery of material, it is advisable for supplier to depute their representative in their own interest to coordinate the activities between the transporter, and MDL stores.
  - i) Following document should be submitted along with material:
    - PO copy & subsequent amendments issued to it, if any.
    - Delivery Challans clearly indicating MDL Purchase Order No, Inspection Note Details and Packing List co-relating the items in the inspection report.
    - Copy of Warranty Certificate, Preservation Certificate etc as applicable.
    - Technical documentation, if applicable.
  - ii) Unloading of the equipment/ items will be arranged by MDL. Supplier is required to give 4 day's advance intimation to MDL clearly indicating approx. dimensions and weight of consignments for arranging fork lift/crane for unloading.
- (b) **For Foreign Bidders:** Bidder shall deliver the material on Incoterm CIF, Mumbai/JNPT port basis

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**16. Inspection & Testing:** It shall be as per TSP. Inspection agency TPI. Inspection charges to be borne by vendor/supplier

- (a) **Receipt Inspection:** MDL shall carry out necessary inspection of the items on receipt in the MDL on the basis of appropriate MDL Inspection system requirements & the Inspection documents submitted by suppliers. In case joint receipt inspection (JRI) is required to be carry out, same may be carried out along supplier's rep. Any objection raised by MDL inspection team against quality of material or workmanship shall be satisfactorily corrected by the supplier at his expenses including replacement as may be required within shortest possible time within 30 days. Items damaged during transit shall also be rectified or replaced by the supplier within shortest possible time.
- (b) **Rejection of the material:** Any portion of the equipment found defective/rejected, the supplier shall collect the same at his cost from the MDL Yard, all incidental charges being born by supplier, (inclusive of custom duty, if payable), within 30 days from the date of intimation to the supplier of such rejection. The MDL reserves the rights to dispose-off the rejected item at the end of a total period of 90 days in any manner, to the best advantage to the MDL & recover storage charges & any consequential damages, from sale proceeds of such disposal.

**17. Loading Criteria:**

Deviations sought by the bidder shall be loaded on the bidder/s quoted prices during price evaluation by MDL for ranking of bids to judge L1, as under.

- (a) Varied payment terms quoted by indigenous bidders as compared to the terms stated in the Tender document shall be normalized by adopting the Benchmark Prime Lending Rate of State Bank of India plus 2% thereon on the amount (s) at variation and / or for the period (in no. of days) at variation. For foreign bidders, LIBOR / EURIBOR rates plus 2 % or 6% whichever is higher would be applicable.
- (b) In case of Foreign bidders, L/C opening charges on CIF value, Interest for period of 20 days @ Benchmark Prime Lending Rate (BPLR) of SBI+2% on payment amount to be loaded if applicable for ranking purpose. In case of only foreign bidders quote this clause is not applicable.
- (c) If Service Component exists in an offer from a foreign vendor, then Tax Residency certificate (TRC) should be submitted with Part I offer. If no TRC is submitted, then the enhanced Income Tax rate and GST thereon will be considered while determining L-1.
- (d) For the additional delivery period sought by the bidder over the stipulated date of delivery as per Tender, 0.50% per completed week will be loaded to the quoted price.

**18. Integrity Pact (IP):**

The Integrity pact essentially envisages the agreement between prospective vendors / bidders & buyers committing the person/officials of both the parties not to exercise any corrupt influence on any aspects of the contract. Only those vendors/bidders who enter into such an integrity pact with the buyer would be competent to participate in the bid. The format of integrity Pact is available on MDL's website; details are at enclosure. IP shall be submitted on plain paper.

The 'Integrity pact' dully filled as per enclosed format to be submitted along with the offer. Bidders to ensure that each page of Integrity pact shall be duly signed by the bidder. Non-submission of Integrity Pact by the bidders duly signed on each page along with Part-I bid is under liable for rejection. Bidders shall send original IP immediately to MDL post submission of bid.

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**Independent External Monitors (IEM):** The following Independent External Monitors (IEMs) will have the power to access the entire project document and examine any complaints received by him. In case of any change in IEMs it will be informed accordingly. For any administrative enquires and clarification on tender, bidders shall contact Commercial Dealing Executive. In case of issues related to Integrity Pact (IP) please contact Independent External Monitor (IEM) whose details are as below:

- i. Shri. M. N. Krishnamurthy, IPS(Retd)
- ii. Shri. Deepak Kashyap, IRTS(Retd)

### **19. Ranking of Bids:** Tender line items are inseparable and non-divisible in nature.

- (a) Ranking of bids shall be done on total value wise by considering following factors:
  - (i) The comparison of the responsive tenders shall be on total outgo on Least Cost Net of Credit Basis (LCNC), for the procurement to be paid to the supplier or service provider, including all elements of costs, duties, levies, freight, insurance etc. excluding GST (where ITC is available). Therefore, it should normally be on the basis of CIF/ FOR destination basis, duly delivered, commissioned, as the case may be.
  - (ii) The foreign bidders shall quote on Cost, Insurance & Freight (CIF) basis. They should also to indicate the custom tariff number and custom duty applicable in India. To arrive at the Free On Rail (FOR) destination cost over and above CIF cost the following charges to added / loaded:
    - a. Port Handling Charges: @ one per cent of consignment value excluding services.
    - b. Custom duty, cess and surcharges: @ Eleven per cent of consignment value excluding services
    - c. Clearing agency charges & Inland freight: @ one per cent of consignment value excluding services.
    - d. For bids with Letter of Credit (LC) payment, the likely LC charges (as ascertained from MDL's bankers) should also be added.
    - e. Interest for period of 30 days @ base rate of SBI BPLR plus 2% (As notified by HoD(F) of MDL on quarterly basis) on payment amount is to be considered while evaluating foreign bidders for ranking purpose.
  - iii. In case both Indian and foreign bidders have quoted in the tender, the comparison of the offers would be done on the basis of FOR destination including all applicable taxes and duties (Where Input Tax Credit (ITC) cannot be availed by MDL) on the principle of the total outgo from MDL's pockets.
  - (iii) In case both Indian and foreign bidders have quoted in the tender, the comparison of the offers would be done on the basis of FOR destination including all applicable taxes and duties (Where Input Tax Credit (ITC) cannot be availed by MDL) on the principle of the total outgo from MDL's pockets.
  - (iv) In case there are no domestic bidders, a comparison of offers can be made on the basis of CIF/landed costs since the rest of costs would be same for all bidders.
  - (v) The applicable loading towards deviations shall be loaded for ranking purpose.
- (b) For financial evaluation(Ranking), all bids shall be converted to Indian Rupees based on the "Bill for Collection (BC) selling "exchange rate on the last deadline for bid submission (Techno-commercial offer). If the last deadline for bid submission happens to be holiday or non-transaction day, the exchange rate on immediate previous working day will be adopted. The rate could be obtained from RBI/SBI rates as available on Internet.
- (c) Discount given, if any, by the bidders, after the last date for submission of the bids but before opening of the price bids, will not be considered for determining the ranking of bids but will be considered after the said bidder is adjudged as L1.
- (d) On-line ranking visible to the bidders after opening Part-II price bid is without loading parameters. However, the L1 bidder will be evaluated offline by applying all applicable

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loading parameters as per tender and clarifications during techno-commercial scrutiny / TNC meeting.

- (e) Loading/Ranking will be done on original submitted bid at the time of closing of tender. However, in case MDL invites supplementary price bid from technically qualified bidders, then same will also be considered while ranking of bids.

### **20. Public Procurement Policy (MII Order 2017 and MSE Order 2012):**

This is applicable for this tender and details are available on MDL Website. Kindly visit MDL website Link: <https://mazagondock.in/English/pages/Tenders> under tab Ship Building(SB)/MPV Project.

**Note: All nominated vendors (Class I, Class-II and Non-Local) are eligible to bid for this tender.**

### **21. Public Grievance Cell:**

A public grievance cell headed by Shri R. R. Kumar, ED (EY) has been set up in the company. Members of public having complaints or grievances are advised to contact above Authorities on Wednesday between 10.00 hours and 12.30 hours in his office at 3rd Floor, West Block, Mazagon Dock Shipbuilders Ltd or send their complaints / grievances to him in writing for redressal. Telephone No. is 23762106(MDL).

### **22. Breach of Obligation:**

In case of breach of any obligation mentioned under, the bidder shall be disqualified / debarred from the bidding process for a period of one year from the date of notification;

- i) Bidder has withdrawn / modified / amended / impaired / derogated from the tender during the period of bid validity.
- ii) Bidder fails or refuses to execute the contract upon notification of acceptance of bid by MDL during the period of bid validity.

### **23. Book Examination Clause:**

In case it is found to the satisfaction of the BUYER that the seller has engaged an Agent or paid commission or influenced any person to obtain the contract as described in clauses relating to Agents/Agency commission and penalty for use of undue influence, the seller, on a specific request of the buyer shall provide necessary information/Break-up data/ inspection of the relevant financial documents/information.

### **24. Option Clause:**

MDL the right to increase/decrease the ordered quantity by up to 50 % at any time, till final delivery date (or the extended delivery date of the contract), by giving reasonable notice even though the quantity ordered initially has been supplied in full before the last date of the delivery period (or the extended delivery period).

### **25. Land Border:**

This is applicable for this tender and details are available on MDL Website. Kindly visit MDL website Link: <https://mazagondock.in/English/pages/Tenders> under tab Ship Building(SB)/MPV Project.

### **26. Right to Reject any or all Bids:**

MDL reserves its right to accept or reject any or all Bids, abandon/ cancel the Tender process, and issue another tender for the same or similar Goods/Services at any time before the award of the contract. It would have no liability to the affected Bidder or Bidders or any obligation to inform the affected Bidder or Bidders of the grounds for such action(s).

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### **27. Additional Instructions:**

- (a) Bidder shall abide to all tender terms & conditions including General Conditions of Contract (GCC).
- (b) In case of improper on-line filling or non-submission of Acceptance formats for Tender Enquiry Form (TEF), GCC, it shall be presumed that all our tender terms & conditions are acceptable to the bidder. For GCC, kindly visit MDL website Link: <https://mazagondock.in/English/pages/Tenders> under tab Ship Building(SB)/MPV Project.

### **28. E-Portal and E-Tender Guidance:**

- (a) **Submission of bids against e-Tenders:** The bidder is required to quote online on the *e-Procurement* website [www.eprocuremdl.nic.in](http://www.eprocuremdl.nic.in) by the deadline, by submitting the Techno-commercial Bid & Price Bid in Electronic format only. The prices/quotes & a few declarations shall have to be entered/uploaded by the bidder online in the Tender's entry forms & other bid documents' scanned/soft copies shall have to be uploaded as part of the bid. All bids should be digitally signed using DSC (as explained below).
- (b) To participate in e-Tender (s), every bidder must register themselves on the ASP's website (*registration is free of cost*) & must possess a legally valid Class-IIB or above Digital Signature Certificate (DSC) as per IT Act-2000, using which they can sign their electronic bids. The DSC can be procured from any Certifying Authority (CA) authorized by Controller of Certifying Authorities (CCA) of Govt. of India.
- (c) National Informatics Centre (NIC) have been appointed by MDL as the Application Service Provider (ASP).
- (d) Online User Manual is available on the website for the guidance of users & for participating in the e-Procurement/ e-Tendering, the bidder must ensure having the requisite (IT) infrastructure at their office premises.
- (e) For any further details of e tendering & digital signatures, please contact 0120-4200462, 0120-4001002, 8826246593, [eproc-support@gov.in](mailto:eproc-support@gov.in).
- (f) Problems in hardware/software, internet connectivity, system configurations, Browser setting etc., for whatsoever reason shall not be considered for extension of tender closing date and time.
- (g) MDL will not be responsible for an error in downloading of tender documents from web by the bidders. The version appearing on MDL website will be considered final and authentic.

### **29. Contact Details for Queries:**

**All bidders are requested to get their queries, if any, clarified in advance (i.e. 7 days in advance to tender closing date) to avoid last minute delay.** In case of any clarifications regarding tender, bidders are requested to contact the following executives.

Department	Name of Executives	Contact No	Email
Technical	Mr. Santosh Sitaraman DGM (SB-Design)	022 2376 3025	ssitaram@mazdock.com
	Mr. M. MD. Anwaruddin CM (SB-Design- Elec & Weapon)	022 2376 3187	manwaruddin@mazdock.com
Commercial	Mr. Satish Chandra DGM / PE(C-P17A)	022 2376 2747	schandra@mazdock.com
	Mr. Rahul Dhoble M (C-P17A)	022 2376 2737	rbdhoble@mazdock.com



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**30.** We look forward to receive your most competitive and reasonable offer against this tender.

Yours faithfully,

**For MAZAGON DOCK SHIPBUILDERS LIMITED**

**Enclosure:**

Enclosure-1	General Conditions of Contract (GCC) for Goods and Services
Enclosure-2	Integrity Pact(IP)Format
Enclosure-3	Performance Security (PS) Bank Guarantee Format
Enclosure-4	RTGS format
Enclosure-5	Details for remittance towards Performance Security (PS) Bank Guarantee Format
Enclosure-6	Contact Details of the bidder
Enclosure-7	Format for Compliance Certificate w.r.t. Land Border Clause
Enclosure-13-A	Format for declaration of Local Content & Purchase Preference as per PPP Order 2017. (Applicable for procurement below Rs 10 Cr)
Enclosure-13-B	Format for declaration of Local Content & Purchase Preference as per PPP Order 2017. (Applicable for procurement above Rs 10 Cr)
Enclosure-14-A	Format for declaration of Actual Local Content (Applicable for procurement below Rs 10 Cr)
Enclosure-14-B	Format for declaration of Actual Local Content (Applicable for procurement above Rs 10 Cr)

**Note: All above enclosures are available on MDL Website. Kindly visit MDL website Link: <https://mazagondock.in/English/pages/Tenders>** under tab Ship Building(SB)/MPV Project.



**MAZAGON DOCK SHIPBUILDERS LIMITED**

(A Govt. Of India Undertaking)

**SHIPBUILDING DESIGN ENGINEERING  
DOCKYARD ROAD, MUMBAI - 400 010**

**TECHNICAL SPECIFICATION FOR PROCUREMENT OF**

**NAVIGATIONAL INSTRUMENTS-IBS SYSTEM**

<b>PROJECT</b>	<b>:</b>	<b>7500 DWT Multi-Purpose Dry Cargo Vessel</b>
<b>YARD NO</b>	<b>:</b>	<b>MDL YD No.-21001, 21002, 21003, 21004, 21005, 21006, 21007, 21008, 21009 &amp; 21010</b>
<b>CLIENT</b>	<b>:</b>	<b>NAVI MERCHANTS</b>
<b>DOCUMENT NO</b>	<b>:</b>	<b>DR / EL / MPV / 5005</b>

4	TSP Updated for OPEN Tender GTE.	04-09-2025	
3	TSP Clause updated clarifying acceptability of Makers.	21-03-2025	
2	GMDSS clubbed with IBS TSP	20-12-2024	
1	a) SED's comments dated 27 Mar 24 and 12 Apr 24 incorporated b) Class notations changed and DNV's clarification received c) PCF from M/s NM incorporated in the TSP 11-10-2024 d) SEDS7500MPV-HYBRID - Document submission - Stage-5 - 18/Oct/2024	18-10-2024	
0	First Issue (Draft)	07-03-2024	
REV	DESCRIPTION	DATE	SIGN
	M.Md.Anwaruddin CM (D-L)		PRADEEP MODAK DGM (D-L)
	Prepared By	Checked By	Approved By



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## **SECTION I - GENERAL CONDITIONS AND REQUIREMENTS**

- 1 Subject:** The general conditions and requirements specified in this Section are intended to meet the functional requirements of the Equipment/ System elaborated in Section II and its associated auxiliaries/support systems; for meeting the overall requirements of the Vessel.

The Present requirement is for 10 shipsets. There could be further similar requirements. Hence, Vendors are to submit escalation rates on the 6<sup>th</sup> shipset for further 05 years.

**2 Endurance:**

The endurance of the Vessel, at service speed of 11 knots, shall be about 5500 nautical miles.

**3 Class, Rules, Regulations & Flag:**

The Vessel will be registered under Danish flag and built under survey and in accordance with the rules of Classification Society of DNV.

**Classification Notations:** ✕1A

**Ship Type Notation :** Multi-purpose Dry Cargo Ship

**Additional Class Notations:**

Structural strength and integrity: GRAB (2-20): Hold designed for loading/discharging by grabs.

Strengthened (IB) : Inner bottom strengthened for heavy cargo

**Propulsion, Power Generation and auxiliary systems**

E0 : Unattended Machinery Space

Battery (Safety) : EES installation in one EES space has a rated capacity of 20kWh or above not having the Battery (Power) notation

Navigation notations : NAUT (OC)

**Cargo operations notations:**

LCS : Loading computer system

**Equipment and design features notations:**

DG (B) : Carriage of dangerous goods in bulk acc. SOLAS Reg. II-2/19

DG (P) : Carriage of dangerous goods in packaged form acc. SOLAS Reg. II-2/19

DBC : Carriage of solid dangerous goods in bulk acc. IMSBC Code

Container : Equipped for carriage of Containers

Cold climate notations : Ice 1B

**Environmental and pollution notations:**



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BWM (T) : Ballast Water Treatment  
Clean : Controlling and limiting operational emissions and  
discharges ER (SCR) Installation of SCR System in  
exhaust main engine  
Recyclable : Inventory of hazardous materials

**Survey arrangement notations:**

BIS : In water survey  
TMON (Oil lubricated) : Tail shaft monitoring (oil lubricated system)

**Note:** As per above class notations, firm shall comply following rules and regulation as applicable

**3.1 RULES AND REGULATIONS**

The Vessel, including its hull, machinery and equipment shall be constructed in accordance with guidelines, rules and regulations listed below and which are in force on the date of signing the contract.

**3.2 GENERAL**

1. Classification Society Rules for Multi-purpose vessel
2. Marine Laws and Regulations of Government of the Ship's Flag 4.2.2.

**3.3 IMO CONVENTION**

1. AFS, "International Convention on the Control of Harmful Anti-Fouling Systems on Ships, 2001";
2. BWM "International Convention for the Control and Management of Ships Ballast Water and Sediments, 2004" and IMO Res. A.868(20) and USCG regulations, "Guidelines for the Control and Management of Ships' Ballast Water to Minimize the Transfer of Harmful Organisms and Pathogens"
3. COLREG - Convention on International Regulations for Prevention of Collision at Sea, 1972 and amendments up to 2013.
4. SOLAS - International Convention for the Safety of Life at Sea 1974, or it's protocol of 1988 and up to amendments 2023 January.
5. ILLC - International Load Line convention, 1966/1988 and amendments up to 2014
6. MARPOL - International convention for the Prevention of Pollution from ships, 1973 and protocol of 1978, amendments up to 2022 January.
7. International Convention on tonnage measurement of Ship 1969. 4.2.3.

**3.4 IMO CIRCULAR**

1. IMO MSC/Circ. 1053 – "Explanatory Notes to the Standards for Ship Manoeuvrability"
2. IMO Resolution MSC.1/Circular.1353/Rev.2 (7 December 2020) "Revised guidelines for the preparation of the cargo securing manual"
3. MSC/Circular.891 – Guidelines for the On-Board Use and Application of Computers.

**3.5 IMO RESOLUTION**

1. Resolution MEPC.266(68) - Amendments to the Annex of the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978



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relating there to - (Adopted on 15 May 2015) - Amendments to regulation 12 of MARPOL Annex I

2. Resolution MEPC.203(62) – Regulations on energy efficiency for ships in MARPOL Annex VI

3. EEDI according to Chapter 4 of MARRPOL Annex VI, including verification according to IMO resolution MEPC.254(67) as amended

4. Resolution MEPC. 251(66) - Guidance for calculation of Energy Efficiency for Ships as per MARPOL, Annex VI (EEDI Calculation) and NOx technical file.

5. IMO Resolution A.962(23) - IMO Guidelines on Ship Recycling as amended by IMO Resolution A.980(24), or Ship Recycling Convention 2009, including complete inventory of hazardous materials (IHM) as per MEPC.269(68)

6. IMO Resolution MEPC.245(66) - "2014 Guidelines on the method of calculation of the attained Energy Efficiency Design Index (EEDI) for new ships"

7. Resolution MEPC.254(67) – 2014 Guidelines on Survey and Certification of the Energy Efficiency Design Index (EEDI)

8. IMO Resolution MEPC.282(70) - "2016 Guidelines for the Development of a Ship Energy Efficiency Management Plan (SEEMP)" and amendments (to be prepared by the Builder)

9. Resolution MEPC.107(49) - Oily Water Separator

10. MEPC.1/Circular.642 – 2008 - Revised Guidelines for Systems for Handling Oily Wastes in Machinery Spaces of Ships Incorporating Guidance Notes for an Integrated Bilge Water Treatment System (IBTS)

11. Resolution MEPC.227(64) – 2012 Guidelines on Implementation of Effluent Standards and Performance Tests for Sewage Treatment Plants – (Adopted on 5 October 2012)

12. Resolution MEPC.127(53) - Guidelines for Ballast Water Management and Development of Ballast Water Management

13. IMO Resolution A.1021(26) – Code on Alerts and Indicators, 2009 – (Adopted on 2 December 2009) 14. IMO Resolution MSC.215(82) - PSPC Performance Standard for Protective Coatings for dedicated seawater ballast tanks in all types of ships and double-side skin spaces of bulk carriers

15. IMO Resolution MSC.277(85) - Guidance for Application of Regulations in SOLAS to Ships which Occasionally Carry Dry Cargoes in Bulk and are not Determined as Bulk Carriers

16. Resolution MSC.137(76) - Standards for Ship Maneuverability - (adopted on 4 December 2002)


17. IMO Resolution A.813(19) – General Requirements for Electromagnetic Compatibility (EMC) for all Electrical and Electronic Ships Equipment – (Adopted on 23 November 1995)

18. IMO Resolution A.657(16) – Instructions for Action in Survival Craft – (Adopted on 19 October 1989) 19. IMO Resolution A.708(17) – Navigation Bridge Visibility and Functions – (Adopted on 6 November 1991)

20. Resolution A.952(23) – Graphical Symbols for Ship Board Fire Control Plan. (Adopted on 5th December 2003)

21. Resolution MSC. 128(75) - Performance Standards for a Bridge Navigational Watch Alarm System (BNWAS) - (Adopted on 20 May 2002)

22. Resolution MSC. 232(82) - Adoption of the Revised Performance Standards for Electronic Chart Display and Information Systems (ECDIS). 23. MSC/Circular.982 –

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Guidelines on Ergonomic Criteria for Bridge Equipment and Layout – (Adopted on 20 December 2000)

24. MSC. 90/28/Add. 1

25. Resolution MSC.263(84) – Revised Performance Standards and Functional Requirements for the Long-Range Identification and Tracking of Ships – (Adopted on 16 May 2008)

26. IMPA Recommendation for pilot ladder. MSC/Circular.568/Rev.1 - Pilot Transfer Arrangements - Required boarding arrangements for pilots – MSC/Circular.773 – Pilot Transfer Arrangements - Required boarding arrangements for pilots – (Adopted on 2 January 1997)

27. MSC/Circular.451 – Guidance Concerning the Location of Fire Control Plans for the Assistance of Shore Side Fire-Fighting Personnel – (Adopted on 24 September 1986)

28. Statutory Documents - IMO Publications and Documents - Circulars - Maritime Safety Committee - MSC/Circular.917 – Guidelines on Fire Safety Construction in Accommodation Areas – (4 June 1999)

### 3.6 IMO CODE

1. FSS Code - International Code for Fire Safety Systems
2. FTP Code - International Code for Application of Fire Test Procedures
3. LSA Code - International Life-saving Appliance Code
4. ISPS Code - International Code for the Security of Ships and of Port Facilities.
5. IS Code - International code on Intact Stability, 2008
6. Grain Code - International Code of Safe Carriage of Grain in Bulk
7. Noise Code - Code on noise levels on board ships, Resolution MSC.337(91)
8. IMSBC Code – International Maritime Solid Bulk Cargoes Code – Resolution MSC.268(85) (Italy bulk certificate)
9. Resolution A. 714(17) CSS Code - Code of Safe Practice for Cargo Stowage and Securing (as far as practicable).
10. IMDG Code – International Maritime Dangerous Goods Code

### 3.7 ISO STANDARDS

1. ISO 20283-5:2016 “Mechanical vibration, Measurement of vibration on ships – Part 5 - Guidelines for measurement, evaluation and reporting of vibration with regard to habitability on passenger and merchant ships”
2. ISO 8468 International Standard of Ship's bridge layout and associated equipment
3. ISO 7547 – Air conditioning and ventilation of accommodation spaces on board ships
4. ISO 8861 – Engine-room ventilation in diesel-engine ships
5. ISO 484/1:1981- Ship building- Ship propellers-Manufacturing tolerances.
6. ISO 3046-2002-1 Reciprocating internal combustion engines — Performance
7. ISO 4406: 1999- Hydraulic fluid Power
8. ISO 4628:2003 – Paints and Varnishes
9. ISO 8217:2012 Fuel standard for Marine distillate fuels
10. ISO 8501- Preparation of steel substrates before application of paints and related products - Visual assessment of surface cleanliness
11. ISO 8862:1987 Air Conditioning and ventilation of Machinery Control-Rooms on board ships.
12. ISO 12944 Corrosion Protection of Steel Structures by Protective Paint System





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13. ISO 15016:2015 Guidelines for the assessment of speed and power performance by analysis of speed trial data.

14. IEC 60092

15. IEC 60332-1:2004

16. IEC 60332-3:2000

17. IEC 60533

18. IEC 60754-1:1994

19. IEC 61000

20. IEC 61034-2 CORR 1:2006

21. IEC requirements for electrical installation for ships TC 18/2022 with amendments.

### **3.8 OTHER RULES, DIRECTIVES AND GUIDANCE NOTES**

1. U.S.C.G. Rules and Regulations for foreign flag Vessels operating in navigable waters of the United States

2. International Telecommunications & Radio Conference Regulations 2012 (WCIT 12) and 2019 (WRC 19) with annexes and revisions.

3. International Tele-communication Union Radio Regulation

4. Danish Maritime Authority - Technical Regulation No.5 on noise measurements

5. IACS Rec 47 — Shipbuilding and Repair Quality Standard — rev.8 Oct.2017 and latest amendments

6. Maritime Labor Convention of 2006 (MLC 2006) except swimming pool & separation of deck & engine office

7. ILO Convention for all lifting appliances incl. engine lorry crane and lift – C152, Art 22 of ILO 152

8. ILO 152 Convention deals with all articles related to OSH

9. Kiel Canal Rules

10. Black Sea Rules as far as practicable

11. Panama Canal Navigation Rules including Tonnage Measurement as far as practicable

12. Suez Canal Navigation Rules including Tonnage Measurement

13. Notice B from Danish Maritime Authority (DMA)

14. GMDSS Global Maritime Distress and Safety System 1992 as amended.

15. Performance Standard for Shipborne Radio communications and Navigation Equipment

16. IACS No. 38 – Procedure for calculation and verification of the Energy Efficiency Design Index

17. Directive 2014/90/EU

18. EU directive 2005/33/EC

### **4 Ship's Basic Particulars:**

**Table 1**

**Dimensions:**

Length overall	: 116.20	m
Length between	: 113.60	m
Breadth, moulded	: 17.50	m
Depth, moulded	: 9.80	m

Draught, moulded	: 6.50	m
Freeboard	: Type B	
Endurance	At service speed of 11 knots	5500 NM
Ship's displacement	Deep displacement	Around 7000 Tonnes

**5 Ship's Support Systems Supplies:** - Following ship's support supplies shall be available for the equipment system. For electrical supplies, in case of different requirements (voltage/frequency, etc.), the equipment supplier shall provide suitable provision (transformer/converter/UPS, etc.).

### Table 2

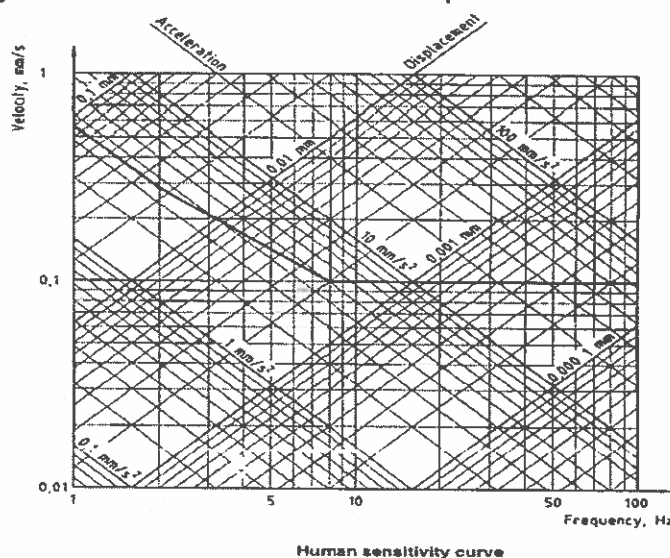
S.N	SYSTEM	SUPPLIES	REMARKS
a)	Compressed air system	For Engine Starting Air at 3.0 MPa at 50 cu m/hr and For Working Air at 0.7 MPa & 80 cu m /hr.	Specific provisions shall be provided by the equipment supplier.
b)	Fresh water system	Fresh water filling for equipment system shall be provided by ship's fresh water hydrophore system.	Specific requirements to be indicated by equipment supplier.
c)	Electrical	400 V AC @ 50 Hz, 3 phase 230 V AC @ 50 Hz, 3 or 1 phase.	Specific provisions shall be provided by the equipment supplier.

## 6 Vibration:

Special attention is to be paid in design and manufacture of the equipment to prevent undue vibration. Vibration limits, evaluation and measurement shall follow the provisions of ISO 20283-5:2016, Mechanical Vibration – Guidelines for the measurement, reporting and evaluation of vibration with regard to habitability on passenger and merchant ships.

Vibration velocity limits are not applicable near equipment seatings.

The vibration measurement is to be made at sea trial condition and when the Vessel is running ahead steadily at the continuous service output of the main engine.





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If Vibration level exceeds the limit of the above defined criteria, vendor to make necessary improvement to a practical extent. Vendor shall submit the vibration analysis (prediction) report for MDL's reference.

Both coupled axial and torsional vibration calculation, as well as whirling, axial and torsional vibration calculations, shall be carried out by the supplier for the entire propulsion train. Calculations to be approved by the Class. (Only for Propulsion)

## **7 Noise Level:**

Vendor shall ensure that the noise level for equipment in the accommodation space and engine room is to be within the limits specified in IMO.MSC 337(91), Code on Noise Level on board ships. In addition, vendor shall endeavour to achieve a noise level of max. 65dB for the equipment in the ECR.

Noise level measurement is to be carried out in the following conditions:

- i. During the sea trial when running ahead steadily continuous service output of the main engine with shaft generator at normal operating condition and all fans running.
- ii. During the sea trial when running ahead steadily continuous service output of the main engine and 1 generator running at normal operating condition and all fans running.
- iii. Harbour trial with 1 generator running
- iv. Harbour trial with emergency generator running

Measuring methods and points, measurement devices and reporting shall be in accordance with the Noise Code.

In case the measured noise level exceeds the above values, necessary improvements shall be made to a practical extent.


All engine room alarms shall be clearly audible above the noise of the running engine room machinery.

## **8 Manning Policy:**

- i. The machinery spaces are envisaged for unmanned continuous operation. The spaces will be attended for starting/shutdown procedures and for routine checks.
- ii. Controls and surveillance on board the ship will be through Remote controls.
- iii. Each vital machinery shall be capable of control at the equipment level and need to be monitored from specified control station as recommended by the vendor and as per the class rules.

## **9 Documentation: -**

Various documents will be submitted by the equipment supplier as per the scope of supply and responsibility. Quality documentation is to be submitted in comprehensive and time bound manner for meeting ship's detailed design and production targets as well as equipment production and delivery schedule. Documentation to be submitted by the equipment supplier is broadly indicated below.

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**Table 3**

<b>SN o.</b>	<b>Documentation</b>	<b>Remarks</b>	<b>Timeline (In Weeks)</b>
(a)	i) Binding design documentation  ii) (QAP) Quality Assurance Plan	i) For progressing with detailed design. ii) Equipment quality assurance during production	PO + 03
(b)	IBS/Navigation equipment's system configuration, Interface, power supply scheme approval by DNV class. All the IACS Type Approval certificate to be vetted by class and acceptance of DNV to be accorded by supplier.	DNV Approval.	PO + 06
(c)	Equipment HATs/SATs documentation	For preparing installation inspection/Test and Trials documentation	PO + 12
(d)	Technical Manuals for equipment operation, maintenance, logistics, etc.	For ship's crew, training and repair organizations.	PO + 14

All documentation (including documents, drawings, data, reports, manuals, etc.) should be in English language. Dimensional details in the drawings should be as per scale. Technical data and parameters should be in metric units (SI Units). Orthographic drawings & 3D model of equipment (associated components), in soft copies are to be submitted. Following file/formats would be acceptable: -

- Documents, data & reports in MS-WORD / EXCEL/ PDF, as applicable
- ACCESS for data base files
- Orthographic drawings (2D) in .DXF / .DWG format.
- 3D model of equipment (associated components) in. STP/ .IGES format.

Note: Above drawings/data are to be submitted in soft copies in latest software version:

Overall documentation must be of high quality in terms of contents, clarity and completeness; for meeting the requirements of detailed design, integration, manufacturing, quality assurance, installation, trials and operation/maintenance of the equipment.

All documents shall be sent electronically in PDF format without encryption and password. Printing of PDF provided by vendor shall be possible.

Vendor shall supply electronic copies (2 sets) of all finished plans and manuals to MDL including Class approved drawings duly stamped together with associated Class approval letter without delay. All finished plans and manuals shall be in printable PDF format without password or encryption. All instruction books shall be provided in printable electronic format.



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Vendor shall supply electronic copies (2 sets) and two (2) hard copy of drawings, manuals and instruction books for the complete system along with the system. The instruction books from suppliers shall be provided only for the first Vessel if there are no changes for the Vessel series.

One (1) hard copy of instruction books from suppliers to be provided in advance to Buyers site office.

The system drawings and documents approval by the Classification society are to be submitted to the society directly by the Vendor with information to MDL. The responsibility of getting the drawings and document approved from the classification society lies with the Vendor. The final approved drawings and documents are to be submitted to MDL.

Approval by the Classification society and / or other regulatory authorities shall in no way be interpreted as approved by MDL, and MDL shall be entitled to make further requests provided they do not conflict with the requirements of specification of the PO.

Two (2) sets of instruction books and manuals of all equipment and systems to be furnished to MDL in electronic format (USB type storage device) in PDF or other agreed format; one each to the Vessels and to MDL. USB type storage device shall contain finished manuals and instruction booklets of all equipment as far as practical. Vendor is to supply two (2) hard copies of the finished drawings (as built) to MDL.

OEM/Firm will prepare binding data and submit to shipyard. Shipyard will scrutinize the same and give comments if any. Post scrutiny by MDL, OEM will submit binding data to DNV for final approval.

**10 Quality Assurance And Testing:** As per DNV class requirement.


**11 Test, Trial and Inspection:**

Tests and trials shall be carried out, in general, according to the usual standard Engineering practice and normal international shipbuilding practice in the presence of the surveyor of the Classification Society and the Buyer's and the Builder's representatives.

The Supplier shall submit the procedure and schedule of test and trial for the Buyer's approval. All results to be recorded and presented to the Buyer.

Following notice to be given for tests and inspections in shipyard and outside shipyard:

- Two (2) working day for shipyard test and inspections in general
- Four (5) working days for outside shipyard tests and inspections in country of shipyard
- Twenty-five (25) days for outside shipyard tests and inspections in country other than the one of shipyard.
- Four (4) weeks for Factory Acceptance Tests

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**i. STW, Harbour Acceptance Trials/Sea Acceptance Trials: -**

During equipment setting to work and HATs/SATs, equipment suppliers should Undertake STW and offer the respective equipment trials for successful completion of trials phase with DNV class. Equipment testing, tuning and any defect rectification during on-board trials shall be undertaken by the equipment supplier in efficient and effective manner.

The HATs/SATs document is to be submitted by the supplier. HATs/SATs shall be carried out to the satisfaction of Inspection agencies.

OEM/Firm will prepare HATs/SATs document and submit to shipyard. Shipyard will scrutinize the same and give comments if any. Post scrutiny MDL will forward HATs/SATs documents to DNV for final approval.

- 12 **Spares:** - Spares, are to be recommended by equipment supplier, taking into account operational and maintenance requirements of the equipment. Equipment supplier shall submit comprehensive list of all types of spares & tools along with the technical offer. The list of spares to be supplied should comply with class requirements.

**13 Installation & Commissioning Consumables: -**

- a. **Installation Tool:** Special tools, jigs and fixtures & test equipment required for Installation, flushing, setting to work, testing & tuning, on-board trials (HATs/SATs) and post Sea Trials inspection of critical internal parts and reassembly of the equipment and its auxiliary systems shall be supplied.

- b. **Commissioning Consumable:** The Commissioning consumables (first charge like coolants, greases, special oil, filters, gaskets, refrigerant etc.) shall be included in the scope of supply. Commissioning consumables shall be delivered before STW of the main equipment, tentative schedule of which shall be indicated in the Tender Enquiry.

- 14 **Space Constraints:** - While designing the equipment and its associated auxiliaries/components the supplier is required to take into consideration the space availability in the respective compartments of the ship, ease of operation/maintenance of the equipment on-board the ship, ergonomics aspects and safety. Maintenance envelopes for equipment and its auxiliaries/components shall be provided by the equipment supplier and assessed in consultation with the Shipyard/ owner for finalizing the layout of respective ship compartments. Optimisation in design is to be ensured while meeting the functional, maintainability and ergonomic requirements.

Limiting dimensions & weight of the equipment are to be indicated by the OEM.

**Table - 4**

	<b>Length</b>	<b>Breadth</b>	<b>Height</b>	<b>Mass</b>
<b>≤</b>	1416	1150	775	2750

OEM to comply with the limiting dimensions indicated in Table 4. Non-compliance of the said limiting dimensions shall be liable for rejection.




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- 15 **Interchangeability:** - Equipment design is to ensure that components and parts having same dimensions and characteristics should be inter-changeable between different units of similar kind, without affecting the specified equipment performance.
- 16 **Tally and Diagram Plates:** - All major components, should be provided with suitable identification tallies for appropriate identification. Tally plates shall be in English language and in SI units. All tallies and diagrammatic plates shall be of brass or aluminium as per DNV Class requirement. They are to be fixed with screws firmly. Tallies for safety, caution & warning considerations should be in bold black letters on a fluorescent orange background. Diagrammatic plates indicating details of connections are to be provided / affixed near the terminal box of the motor.  
All tallies and diagram plates shall be as per OEM Standards and must generally indicate the following-  
Manufacture's Name, Manufacturer's Serial No. Type/Model, Electrical parameters viz. Ratings, Voltage, Frequency, Current, Insulation details etc as applicable, Weight of Equipment, IP Rating of the equipment, Danger labels in Red colour with white lettering are to be provided on all electrical equipment operating on 150Volts or higher.  
Other important instructions are to be given on tally plate.  
Tally of JB/Panel and other equipment's internal diagram plate to be prepared by OEM.  
Cable Tallies as per approved system drawing and Cable tallies for both the ends to be provided by OEM.
- 17 **Instruction Plates:** - Instruction plates listing the starting/shut-down procedure and precautions in brief are to be prominently displayed on the equipment. The Instruction plates shall be of brass or aluminium as per manufacturer standard. Equipment is to be supplied with a set of instruction plates duly mounted on equipment or supplied loose.
- 18 **Painting:** - Standard painting procedure shall be applicable for suitability for marine environment. Colour scheme for painting the equipment shall be indicated subsequently
- 19 **Lifting Arrangement:** - Equipment components weighing more than 25 kilograms are to be provided with eyebolts, for ease of handling/lifting on board the ship or ashore. During transportation/transit of equipment, adequate provisions (such as supports, locking arrangement, jacking, etc.) are to be made for preventing any damage to the equipment & its associated components. Any component requiring special handling shall be clearly marked and appropriate handling instructions shall be provided by equipment supplier. One set of lifting gear shall be supplied to MDL.
- 20 **Preservation / Conditioning:**  
Equipment supplier is to provide high quality packing for the complete scope of supply along with handling arrangements. The package/container should display clear instructions for stowage, handling, care and accessibility for inspection of equipment preservation condition.

Equipment shall be supplied with Initial preservation for a period of 24 months for tropical conditions and protected against high humidity. The equipment is to be preserved on

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delivery as per the standard marine engineering practice. Closing plates/plugs/caps are to be provided on all openings.

For re-preservation requirements, at shipyard or on board ship beyond initial preservation period, suitable provision is to be catered for by equipment supplier. Equipment supplier shall provide re-preservation & upkeep procedure, preservatives/consumables and technical assistance/supervision to the shipyard, as per requirements. (If special equipment/Pumps, hoses, fittings, etc. required shall be brought by the supplier along with them for carrying out the preservation on board the ship.

## 21 **Packing & Shipping:**

All equipment shall be adequately packed and protected with supports to ensure adequate protection during all methods of transportation. Each unit within a package/container shall be clearly marked in English for identification. The container shall clearly indicate the commodity description with caution marks, weight, size, etc.

A separate document giving complete details & instruction for storage, preservation, handling & transportation after delivery shall be supplied & a copy must be included with the shipping document. The supplier should indicate the delivery schedule port of embarkation, transport, packing, preservation, insurance etc.

Following items shall be packed in separate containers/boxes with proper colour coding (with description) & list of their contents in English for their easy identification and traceability:

- Deliverables related to Main Equipment (to be marked in green colour).
- Deliverables related to Auxiliary Equipment (to be marked in green colour).
- Deliverables related to Installation material and Tools related to Main & Auxiliary Equipment (to be marked in green colour).
- Commissioning consumables and Tools (to be marked in green colour).
- Spares and Tools (to be marked in red colour).
- Documentation (to be marked in blue colour).

The list of actual deliverables against each of the above serials shall be forwarded to shipyards in soft copy (MS Excel format) with required part nos. within one week of finalization of PNC in order to detail them in the purchase order.

Packing list should give further breakup of items, wherever particular item is quantified by set.

22 **Security of Information:** - The information contained in this document is not to be divulged to any other firm/third party without the prior permission of MDL. Adequate measures are to be taken to ensure safe custody of this document.

## 23 **Warranty:**

The equipment along with associated auxiliaries/components shall be warranted by the equipment supplier for the stipulated performance for a period of twelve (12) months from





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the date of supply of equipment to MDL or twelve (12) months after planned delivery date (D) of the ship by MDL to the Owner as per sr.no 24 of TSP, whichever is later.

During the said period, the equipment supplied shall be warranted against any malfunction, defects, material failure, and non-compliance to ordered specifications, sub-optimal performance, design deficiency, poor workmanship and quality. Any expense on account of equipment malfunction, repair or supply of spares against guarantee defects is to be borne by the equipment supplier. In case, warranty extension is required the same is to be catered for by the equipment supplier. If any defective part to be taken back to OEM's factory (i.e. importing and re-exporting from Country of origin), for service purpose the liability of the same shall be borne by the supplier.

**Extension to Warranty:** Supplier shall mandatorily indicate, in the offer, the annual rate for extended warranty period, along with the commercial terms and conditions if any.

The rates are to be indicated for the equipment in preserved state as well as for the equipment having been de-preserved and in operation.

**24 Planned Ship Delivery Details(D):** The planned dates for delivery of the Ships to the Owner by MDL is tabulated below:

Table 5:

Ship no.	Planned Delivery date
1	Apr 2026
2	June 2026
3	Aug 2026
4	Oct 2026
5	Dec 2026
6	Feb 2027
7	Oct 2028
8	Dec 2028
9	Dec 2028
10	Feb 2029

**25 Weight Recording / Weight Certificate:** - Weights of all components are to be recorded and a suitable certificate shall be submitted, by the equipment supplier. The designated inspection authorities shall countersign such certificates. Format for weight control data sheet, is placed at Annexure 6 of this document.

Net weight of each component is to be recorded in presence of designated inspection authority and the weight certificate is to be submitted by the equipment supplier, along with equipment supply. Format for weight certificate, is placed at Annexure 7 of this document.

**26 Technical Assistance: -**

The Supplier shall provide the necessary representative(s) to assist, **as and when required**, in carrying out inspection and supervise the work that is done on the equipment, during the following phases:



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- Preparation for installation of equipment by shipyard.
- Monitoring of proper equipment preservation during storage.
- Setting to Work (including fitment of latest calibrated instrumentation).
- Assistance during Harbour trials (till clearance by Shipyard, Class & ICG)
- Assistance during Sea trials
- Assistance in trouble shooting / attending equipment operational problem till warrantee period
- Post CST equipment Inspections.

The supplier shall provide Manday rates for each Ship for the above activities. The supplier shall indicate total cost for executing all technical assistance activities mentioned above, in the price bid.

Shipyard has to progress on ship construction activities, simultaneously on ships of the same Class/Project or on ships of different projects. View this; there shall be every likelihood of clash of requirement of technical assistance. In such eventuality, in order to avoid delays on one ship due to similar work requirement on other ship, supplier shall depute their dedicated separate/independent team of supervisors/specialists for required technical assistance, on the required ships. Rotation of supervisors/specialist amongst the various ships/projects shall be avoided.

The supplier shall provide checklist for installation, setting to work, HATs & SATs to the shipyards to ensure the completeness of the activities by shipyards in order to avoid waiting period of the supplier specialists.

**27 Compliance Matrix and Deviation :** - Para-wise compliance matrix, including Para which are not applicable, as per the technical specifications (contained in this document) shall be submitted by the equipment supplier along with the technical offer, in the format at Annexure 1 (The technical offer received without Compliance Matrix shall be liable for rejection)

**28 Technical Offer as Per Shipyard Tender:** - Technical part of the offer with respect to the equipment and its associated auxiliaries/components/controls, to be submitted by the equipment supplier in comprehensive, systematic and structured manner, as per the requirements mentioned in this document, including the following (but not limited to):-

- Equipment description along with specifications.
- Equipment performance data
- Characteristics data, curves, efficiency, etc., related to equipment performance
- Outline general arrangement drawings of equipment with footprint, main dimensions, weights and mounting arrangement.
- Associated support systems specifications and drawings.
- Interface requirements.
- Relevant drawings with all views and maintenance envelopes.
- Control and monitoring system along with complete list of sensors and instrumentation (in structured manner).
- Mounting data/details and characteristics along with minimum stiffness required for seating/foundation.



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- x. Associated electrical equipment specifications and drawings.
- xi. Recommended list of spares, special tools, test equipment, etc., in systematic manner.
- xii. Preliminary quality assurance and test plan.
- xiii. Compliance matrix (Para-wise compliance to tender specifications).
- xiv. Proposed plan for technical assistance for installation, preservation and commissioning, trials, etc.
- xv. List of items required for auxiliary systems (shipboard systems), which are essentially, be fitted for proper functioning of main equipment. Also indicate any of them, which are not supplied along with main equipment.
- xvi. List of Instrumentation & Diagram.
- xvii. Clear demarcation between the scope of supply of firm and that of the yard.
- xviii. Trial and commissioning time of complete system on board.
- xix. Delivery time from receipt of order.
- xx. List of special tools, instruments, jigs & fixtures & facilities required for lifting, transporting, aligning, installing and commissioning of main equipment and their auxiliaries.
- xxi. Details of all connections to plant, Mounting details with pattern no, seat details, flange details etc

**29 SCOPE OF SUPPLY :**

- i. Main equipment as detailed in Section II of this document.
- ii. Auxiliaries related to the Main equipment and its Electrical and Control Systems viz. Starters, Control Panels, Indicators etc. on Ship's foundation/structure. They shall be delivered along with Main Equipment.
- iii. All flexible hoses/bellows, interface flanges, counter-flanges, couplings, pipe stubs and fasteners, required to connect Main and Auxiliary Equipment to the ship's piping. They shall be delivered along with Main Equipment.
- iv. All mating electrical connectors, plugs and sockets for supplied equipment, for assembly with ship's interconnecting cables. Cable glands should be as per BS 6121/EN 62444-2013 and are to be provided at the bottom of the panel. The body of the gland should be made of mild steel and nut of brass. The terminals used are to be approved type, adequately spaced & clearly marked for ease of connection & inspection. Suitable crimping type connectors of electrolytic copper and terminal clamps of Naval brass must be provided for termination of the permanent cables. They shall be delivered along with Main Equipment.
- v. Deliverables related to Installation material and Tools required carrying out installation, alignment of Main and Auxiliary Equipment (shall be delivered along with Main Equipment).
- vi. Commissioning Spares and Tools (including special tools / instruments / gadgets required to conduct HATs and SATs) shall be delivered before STW of the Main and Auxiliary Equipment.
- vii. Spares and Tools shall be made available before STW of the Main and Auxiliary Equipment.
- viii. First charge of Oils, coolants, and Greases for the equipment and items shall be supplied before STW of the Main and Auxiliary Equipment.
- ix. Preservatives for all mounts shall be supplied along with the mountings.
- x. Preservatives required for preservation of the equipment & items (shall be delivered along with Main Equipment).



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- xi. Flushing procedure, required to flush the system on board the ship (shall be delivered along with Main Equipment).
- xii. Special Tools, items etc. required to carry out preservation of Main and Auxiliary Equipment at Yard or on Board the ship (shall be brought by the supplier for carrying out preservation on board the ship).
- xiii. Documentation in hard as well as soft copies shall be delivered along with Main Equipment for each ship set as detailed in the Para. 9 above.
- xiv. Details of pump/motor/starter.

**30. Bidders Responsibility**

- a) Bidder to Prepare system drawing/Cable drawing in autocad .dwg format.
- b) Bidder to prepare cable schedule, connection schedule of the system.
- c) Connectorisation of the delivered equipment and termination of the cable will be done by Bidder onboard.
- d) Interfacing of third party equipment's/System and handshaking of data will be Bidder responsibility to prove system onboard.
- e) Bidder will responsible for Approving the drawings and power supply configuration with DNV Class.



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**SECTION II**  
**TECHNICAL REQUIREMENTS.**

Bidders should offer Navigation equipment's of any one of these makes. (Furuno Japan, JRC, Alphanon Marine, Radio Holland, Wartsila, Sperry, Kongsberg). In case the OEM does not manufacture any specific product then an undertaking from the OEM should be provided on the OEM letterhead indicating the same. In order to facilitate yard during commissioning and for the buyer during the lifetime of the equipment vendors should avoid combining products of different makes. The alternate make being offered should be provided along with an OEM undertaking letter indicating IBS vendor details for this specific Tender indicating compliance to Tender terms & conditions and delivery timelines. Multiple alternate makes cannot be provided. The offered product should fully comply with TSP Requirements, class rules & regulations and NAUT (OC) notation. The above details to be provided along with the offer. Technical offers without this details are liable for rejection. The Details indicated in **Annexure-09** to be mandatorily provided along with offer. Offers without the details or incomplete information will be liable for rejection

**31. Navigational Instruments-IBS**

Equipment need to comply with class rules and specification. Any interfaces required as per the design/specification, Class/Buyer comment need to be catered based on the relevant wiring diagrams prepared as part of contract.

Following navigational equipment shall be provided.

**A) GYRO COMPASS AND AUTO PILOT.**

**GYRO COMPASS, Gyro Data Switching Unit, Repeaters** (Make Furuno Japan/JRC/Alphanon Marine/Radio Holland/ Wartsila/Sperry/Kongsberg/Yokogawa(YDK)) with valid IACS Type Approval certificate. (EC-MED / B and D, alternatively B and E, B and F or G valid certificates to be mandatorily submitted along with the Offer.)

Two (2) set of gyro-compass shall be provided.

1- Master compass in the Electrical Equipment Room

1- Slave Compass.

2 - Stand type bearing repeater (with hand rail around the repeater bowl), one each at bridge wings

1 - Bracket type bearing repeater with illumination at wheel house front wall centre


1 - Bracket type bearing repeater in steering gear room

1 - Set of azimuth mirror and azimuth circle

1 - Digital type with separate dimmer- switch on Wheelhouse front gauge board. Dimmer switch to be provisioned in Wheelhouse console.

1- ROT Indicator.

Gyro Data switching unit for managing output to consumers from both gyros' in Auto/Manual mode to be supplied.

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Course signal from Gyro shall be arranged for radars and the fleet broad band Inmarsat communication system for voice and data.

One (1) set of course recorder shall be supplied with UTC time display.

Provision for interface with Voyage Data Recorder (VDR) shall be provided.

**B) AUTO PILOT (Make Furuno Japan/ JRC/Alphatron Marine/Radio Holland/ Wartsila/Sperry/Kongsberg/Yokogawa(YDK))** with valid IACS Type Approval certificate. (EC-MED / B and D, alternatively B and E, B and F or G valid certificates to be mandatorily submitted along with the Offer.)

One set of steering control equipment (adaptive type) shall be installed as below

1 - Autopilot Control unit can be installed in Bridge Console

2 - Feedback unit in steering gear room. (If required)

The control system shall, as a minimum, provide the following operating modes:

- Follow-up (Steering Wheel)
- Non follow-up(Joystick)
- Autopilot

Autopilot steering interface consisting of: Selector mode on Centre panel; Potential free On/Off contact; Suitable for +/-10 V DC Signal from Pilot to FU system; Autopilot Override through NFU-Lever in Centre panel. The Steering gear system will be of M/s Damen Netherlands. The Hand steering Wheel & FU processor will be part of Steering Gear system scope of supply.

**C) MAGNETIC COMPASS (Make Furuno Japan/ JRC/Alphatron Marine/Radio Holland/ Wartsila/Sperry/Kongsberg/Saura/Cassen & plath)** with valid IACS Type Approval certificate. (EC-MED / B and D, alternatively B and E, B and F or G valid certificates to be mandatorily submitted along with the Offer.)

One magnetic compass projector type will be installed on the compass deck.

The compass shall be provided with a periscope and dimmer controlled illumination light to enable the helm's man to view the ships direction while navigating.

One Magnetic Heading Repeater, operating on 24V DC shall be provided.

One compass bowl shall be supplied as spare.

#### **Magnetic Compass Calibration:**

Firm to arrange authorized agency for calibration of magnetic compass during SATS. Yard will provide all administrative assistance if required. Any additional item if required during calibration of magnetic compass like D-sphere, magnetic rods, those items have to be supplied by IBS vendor without any cost implications.

**D) ECHO SOUNDER (Make Furuno Japan/ JRC/Alphatron Marine/Radio Holland/ Wartsila/Sperry/Kongsberg)** with valid IACS Type Approval certificate. (EC-MED / B and D, alternatively B and E, B and F or G valid certificates to be mandatorily submitted along with the Offer.)



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One (1) set of echo sounder with oscillation frequency of 200 kHz type with digital indicator shall be provided.

1 - Main display in wheel house console/Chart Space.

1- Repeater in wheel house gauge board separate dimmer in Wheel house console.

1 - Transducer at ship bottom forward (location shall be as per Maker recommendation)

1-Echo Sounder Printer (with suitable cable length from main display in Wheel house Console/Chart space to printer in chart space)

Length of transducer cable up to JB/Matching box will be 30m approx. Cable from JB/Matching box to wheel house gauge board have to be supplied as required.

Considering dry dock requirement of the ship the transducer assembly to be supplied within Eight weeks of placement of order.

**E) DOPPLER SPEED LOG.** (Make Furuno Japan/ JRC/Alphatron Marine/Radio Holland/ Wartsila/Sperry/Kongsberg) with valid IACS Type Approval certificate. (EC-MED / B and D, alternatively B and E, B and F or G valid certificates to be mandatorily submitted along with the Offer.)

One (1) set of Doppler speed log shall be provided.

1 - Semi-flush type transducer unit at ship bottom in a compartment forward (location shall be as per Maker recommendation).

1 - Main electronics unit with speed and distance indicator in chart space.

1 - Digital Speed indicator with illumination in wheel house gauge board and dimmer in wheelhouse gauge board.

Length of transducer cable up to JB/Matching box will be 30m approx. Cable from JB/Matching box to wheel house gauge board have to be supplied as required.

Considering dry dock requirement of the ship the transducer assembly to be supplied within eight weeks of placement of order.

**F) RADAR AND ARPA** (Make Furuno Japan/ JRC/Alphatron Marine/Radio Holland/ Wartsila/Sperry/Kongsberg) with valid IACS Type Approval certificate. (EC-MED / B and D, alternatively B and E, B and F or G valid certificates to be mandatorily submitted along with the Offer.)

One X-band and one S-band, to be provided with **ARPA** facility. (Suitable for flush mounting in wheelhouse console)

2 – 27 inch Monitors in wheelhouse console (TFT type) (suitable for console mounting)

2 - Transceivers in Wheel house. (Mast head transceiver RADAR can be accepted)

2 - Scanners on compass deck Well above the casing

2- Key boards (suitable for console mounting)

2- Processors (suitable for console mounting)

Display with Processor should be of same OEM make as Radar.

Particulars shall be as follows:



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	<b>X-Band Radar-1 Nos</b>	<b>S-Band Radar-1 Nos</b>
Operating	9.2 to 9.5 GHz)	2.9 to 3.1 GHz
Power supply	220 Volts A.C, 50 Hz.	220 Volts A.C, 50 Hz.
Display	27 " Multi colour display	27 " Multi colour display
Maximum range	96 miles	96 miles
Peak power	Max. 25kW	Max. 30 kW
Scanner	about 6'	about 12'

Both radars shall be capable of carrying out performance monitoring function with their performance monitors built in the scanner/ Antenna units.

Shadow diagram to made for acceptance by owner. At least one radar shall be a chart radar.

The radar systems shall incorporate an inter-switch facility and the pertinent HMI shall be available from both radar displays. Failure of the inter-switch shall not reduce the availability of either one of the two radar systems.

**G) DGPS NAVIGATOR.** (Make Furuno Japan/ JRC/Alphatron Marine/Radio Holland/ Wartsila/Sperry/Kongsberg) with valid IACS Type Approval certificate. (EC-MED / B and D, alternatively B and E, B and F or G valid certificates to be mandatorily submitted along with the Offer.)

Two (2) DGPS navigators shall be provided.

1 - Display/processing unit in chart space & 1 on wheelhouse console (suitable for console mounting)

2 - Antenna on compass deck

Ship's position signal shall be provided for the following equipment:

- MF/HF radio station (1)
- VHF radio telephone (2)
- Standard "C" Inmarsat communication system (1)
- Both Radars
- Voyage Data Recorder (VDR)
- Gyro
- FBB

**H) AUTOMATIC IDENTIFICATION SYSTEM (AIS).** (Make Furuno Japan/ JRC/Alphatron Marine/Radio Holland/ Wartsila/Sperry/Kongsberg) with valid IACS Type Approval certificate. (EC-MED / B and D, alternatively B and E, B and F or G valid certificates to be mandatorily submitted along with the Offer.)

A Universal Automatic Identification System (UAIS) be provided with LCD display screen with interface from:

- DGPS
- Gyro

Signal socket shall be provided on wheelhouse forward bulkhead.





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- I) METEO SENSOR** (Make Furuno Japan/ JRC/Alphatron Marine/Radio Holland/ Wartsila/Sperry/Kongsberg/John Lilley & Gilley/AIRMAR) marine Grade sensor and display.

One (1) set of static weather sensor, for measuring and visualisation of humidity, barometric pressure, relative wind speed and direction and Air thermometer to be provided. Air thermometer and humidity sensor shall be doubled and properly screened against heat radiation from deck and bulkhead and installed in port and starboard side.

Wind velocity and direction indicator (Same OEM Make) with illumination and dimmer in wheel house console to be of console mounted type.  
Provision shall be made for interfacing with Voyage Data Recorder (VDR).

- J) ELECTRONIC CHART DISPLAY AND INFORMATION SYSTEM (ECDIS)** (Make Furuno Japan/ JRC/Alphatron Marine/Radio Holland/ Wartsila/Sperry/Kongsberg) with valid IACS Type Approval certificate. (EC-MED / B and D, alternatively B and E, B and F or G valid certificates to be mandatorily submitted along with the Offer.)

Two (2) sets of ECDIS with 27-inch screen shall be provided. Chart Data Files shall be Owner's Supply. ECDIS shall be so installed that the vessel can sail without paper charts. Display with Processor should be of same OEM make.

- ECDIS-2 Nos (Suitable for flush mounting in BRIDGE CONTROL CONSOLE).
- Route Planning station with 27-inch Display.

- K) BRIDGE NAVIGATION WATCH ALARM SYSTEM (BNWAS)** (Make Furuno Japan/ JRC/Alphatron Marine/Radio Holland/ Wartsila/Sperry/Kongsberg) with valid IACS Type Approval certificate. (EC-MED / B and D, alternatively B and E, B and F or G valid certificates to be mandatorily submitted along with the Offer.)

Bridge navigational watch alarm system shall be provided as per IMO MSC.128(75). Reset of BNWAS shall be performed from navigational equipment. System to be interfaced accordingly. 2nd stage Alarm unit to be installed in Captains room, Officers room and Mess/Recreation room. (Items in Wheel house will be of console mounted type)

- L) VOYAGE DATA RECORDER.** (Make Furuno Japan/ JRC/Alphatron Marine/Radio Holland/ Wartsila/Sperry/Kongsberg) with valid IACS Type Approval certificate. (EC-MED / B and D, alternatively B and E, B and F or G valid certificates to be mandatorily submitted along with the Offer.)

A voyage data recorder shall be provided with 4 Indoor & 3 Outdoor Microphone as per class, IMO & solas rules. VDR shall be interfaced with:

- VHF's
- Radars
- Rudder angle indicators



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- Auto Pilot
- Engine Parameters and Manoeuvring Controls
- DGPS
- Gyro
- Anemometer
- Speed Log
- Echo Sounder
- Any other equipment required as per SOLAS.
- "Date and time"; "Meteo sensors"; "Bridge audio"; "ECDIS"; "Main alarms"; "Rudder orders and responses"; "Thruster orders and responses"; "Hull opening status"; "Watertight and fire door status" and "AIS data";

**M) Central Alert management system/Bridge Alert Management System (19-inch Display from same OEM or OEM Standard display):** (Make Furuno Japan/ JRC/Alphatron Marine/Radio Holland/ Wartsila/Sperry/Kongsberg/Any Type Approved product) with valid IACS Type Approval certificate. (EC-MED / B and D, alternatively B and E, B and F or G valid certificates to be mandatorily submitted along with the Offer.) Complying with IMO MSC.302(87) & IEC 62923-1 and IEC 62923-1). All Interfaces to be provided as per latest IMO & SOLAS regulations.


**N) Sound reception system:** (Make Furuno Japan/ JRC/Alphatron Marine/Radio Holland/ Wartsila/Sperry/Kongsberg/ Any Type Approved product) with valid IACS Type Approval certificate. (EC-MED / B and D, alternatively B and E, B and F or G valid certificates to be mandatorily submitted along with the Offer.) SRS with Top/Side Mounted Microphone Unit. The Display Unit should be of console mount Type. All Interfaces to be provided as per latest IMO & SOLAS regulations.

Power supply arrangement/Equipment's as per DNV Class requirement/Approval and SOLAS for Navigation Equipment's to be supplied as part of scope of supply. Suitable mounting arrangement to be provisioned for all the equipment's.

**Interfaces:** All Interfaces required between IBS sub systems mentioned above as per IMO, Class, SOLAS have to be done by the IBS Vendor suitable provisioning of hardware, Interface ports to be catered in the respective systems. All the cables required for the same will be in Vendor scope of supply.

### **32. WHEEL HOUSE ARRANGEMENT-GENERAL:**

The following and panels incorporating electrical equipment shall be provided and installed in the wheelhouse. The wheelhouse console layout shall be "Integrated Bridge system" type and not for "one-man operation".

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As per SOLAS V Bridge Equipment, navigational ship borne displays and the bridge are recommended to meet this performance standard so as to harmonize the presentation of navigation related information displayed and the bridge, to ensure a consistent human machine interface philosophy and implementation.


"Required door size, passage distance between consoles, etc. according to the vessel requirements issued by the Panama Canal Authorities shall be arranged"

### 33. BRIDGE CONTROL CONSOLE

Equipment manufacture can recommend equipment as part of navigation package & Control Console and different locations in the wheel house as per BS and it has to be class approved. The bridge control console shall be provided in the wheelhouse. Main Engine manoeuvring devices, instruments, alarms and communication devices will be fitted on the bridge console. The console shall be constructed as a framed and steel plated desk type panel. Refer Annexure-08 for tentative dimensions and arrangement. All the items mentioned in the console drawing which are in the scope of supply of IBS vendor are to be suitable for flush mounting arrangement in the console.

**The following equipment will be fitted on the bridge control console (Indicative list refer Appendix -08 for Indicative arrangement)**

1. Auto exchange telephone
2. Common battery telephone (6 - station type)
3. Control panel for air horn
4. Control panel for loud speaking and talk back system
5. Steering gear operation/indication and alarm panel.
6. Indication lamp and start/stop push buttons for fire & general service pump and emergency fire pump.
7. Main engine maneuvering handle (commonly used for engine telegraph)
8. Main engine remote control/indication panel (For details, refer to Specification clause 22 - Controls and Instrumentation for machinery plant.)
9. Push Button for General Alarm
10. Emergency stop Push button for ventilation fans in accommodation or machinery space.
11. Emergency stop push button for ventilation fans in duct keel, Forward area and paint store exhaust fan.
12. Navigation and Signal Lights Indicator & Alarm Panel
13. VHF
14. Dimmer for Wheelhouse Panorama Rudder Angle Indicator.
15. DGPS
16. ECDIS
17. Route Planning
18. AIS
19. VDR alarm unit
20. Bilge, Fire & G/S pump outlet pressure indicator
21. Bridge Navigational Watch Alarm System (BNWAS)
22. Bow thruster operation
23. COTS Radar

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The finalized list and details will be provided at a later stage in consultation with and approval by Owner and after finalization of third party equipment. Goose neck lighting arrangement with dimming facility up to zero level, for -Integrated bridge consoles to be provided by vendor as per IMO spec. Consoles should have maintenance switch sockets and lights inside the consoles.

Bridge control console/Carcass (Including cutout of all third party equipment) drawings to be submitted by vendor within 2 weeks of BD approval. Rubber gasket/beading to be used on all carcass cutout which is being provided for fitment of displays and items of other system. Adjustable supporting bars (considering glands) to be provided to sustain the weight of each equipment and easy mounting of other equipment. Rubber insulation to be provided on the handles of carcass for better grip and safety. Provision of light, holder, sockets and switches in each section of console to be provided.

Limiting dimensions of Bridge control console 4500LX800Dx1200H and weight (kg)/unit 900. This is the maximum dimension that we can accommodate in our design. Dimensions above the prescribed values are recommended.

Dimming of lights in equipment in the console shall be with as few dimmers as possible

A tentative system configuration be submitted along with the offer comprising of technical details, heat dissipation, load consumption, mounting arrangement, weight, dimensions, cable length restriction if any, etc, type of cables & indicating supplier's cables and other details as mentioned in TSP preferably in soft copy. Itemized breakdown of the cost of the first fitting items, if any, to be mentioned in the offer.

### **34. WHEELHOUSE GAUGE BOARD**

One (1) Wheelhouse Gauge Board of steel box type shall be provided above wheel house front windows and the following instruments shall be mounted (Clinometer shall be installed vertically).

1. Revolution indicator for main engine.
2. Electric quartz clock
3. Speed indicator for Doppler Log (IBS Scope)
4. Wind velocity and direction indicator (IBS Scope)
5. Clinometer.
6. Digital Indicator for ships course (Gyro compass digital indicator) (IBS Scope)
7. Echo sounder repeater in wheel house gauge board. (IBS Scope)
8. Rudder angle indicator with illumination control.

Wheelhouse Gauge Board displays to have dimmers on Wheelhouse Console. (IBS Scope)

### **35. MISCELLANEOUS INSTRUMENTS**

1. Course Recorder installed on the wheelhouse aft bulkhead



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2. Echo Sounder Printer (with suitable cable length from Wheel house gauge board to printer in chart space)

### **36. BRIDGE WING PORTABLE CONTROL STATION**

A bridge wing portable control station with suitable handling arrangement shall be provided that can be plugged in either bridge wing. It shall have: Engine telegraph, steering gear operation, bow thruster operation, push button for horn and other items need for approaching quayside docking/undocking as needed

1. All mating electrical connectors, plugs and sockets for supplied equipment, for assembly with ship's interconnecting cables. Cable Glands shall be supplied with fitted glands on removable plates to be fitted at the bottom of the panel. They shall be delivered along with Main Equipment.
  2. The Unit should be provisioned with insulation to withstand sub-zero temperature and waterproof protection.
  3. Connector on BWPCS should have provision for connecting all equipments.
37. **CABLES:** All cable assemblies required are to be supplied in prepared condition along with the installation material/ main equipment, and length of each cable to be indicated. All cables required to interconnect the IBS system equipments, sub-system equipments, OEM cables etc shall be of LFH type & shall be supplied by the firm. The power supply cables should be of marine standard type and signal cables should be of LFH type. For all interconnecting cables, list of types of cables used along with detailed specification of each type of cable to be indicated. Cable length restrictions if any are to be indicated in the offer. The type of interface cables (connecting to other system), OEM/suppliers cables etc. to be indicated in the offer. The tentative quantities of end connectors are also to be indicated in offer.
- Shipyard will supply ships power supply cable till the Main unit only, rest all types of cables including power as well as signal cables will be in the OEM scope of supply.
- Firm to consider all cables required to complete the system configuration and quote for adequate quantities required. Any inadequacy in supplied cables vis-à-vis actual requirement onboard observed thereafter shall be made good by the firm without any cost implications.


As the complete architecture is to be provided by vendors in the technical offer and during installation, if extra cable length is required onboard to full fill the system's requirement, Vendor has to provide cables without any cost implications.

Details of the cables length limitation if any to be highlighted in the binding data. Also Details of cables to be provided by Vendor before placement of order.

All cables shall be marine type cables, designed for an ambient temperature of 45°C and an operating temperature of 85°C for propulsion, power and lighting cables.

All cables are to have class certification and cable shall in general be of, XLPE insulated, copper wire braided and PO outer sheath applicable to; IEC60092, IEC60332-1, IEC60332-3 Cat. A.

All cables shall be halogen free, low smoke and as a minimum flame-retardant type

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except some cables are status to use halogen in the condition of high temperature Operation as vendor's standard and high temperature equipment. Where recommended by the makers, special cables to be used.

Cables for data transmission shall be in accordance with the maker's requirements.

Fire safe cables shall be used when required by authorities/rules.

38. **Calibration** to be carried out to customer specification, by Manufacturer. Assistance in Installing magnetic compass, Echo sounder and Speed Log to be provided, if required for the first vessel.

39. **Type Approval:** - DNV type approval Certificate for all above listed equipment is required. Description of certificate should be EC-MED / B and D, alternatively B and E, B and F or G. All equipment shall be certified according to the EU Marine Equipment Directives (Wheel marked). Supportive Document/ Type Test certificate should be submitted along with Bid proving its Class Qualification or Compliance with IMO & SOLAS.

40. On Board Spares and Tools shall be delivered before STW of the Main and Auxiliary Equipment.

41. Preservatives required for preservation of the equipment & items (shall be delivered along with Main Equipment)

42. The supplier is responsible in all respects for the completeness of the system and should prove satisfactory performance of the system/equipment on board the ship.

#### 43. SCOPE OF OFFER

As a minimum, the following technical and design details applicable to equipment/item shall be submitted with the technical proposal:

- System Overview
- Proposed system configuration.
- System Description with block diagram, System components, System operation.
- Technical specifications of system.
- Description of Interfaces with other on board systems along with block diagram.
- List of cables, connectors, installation materials and accessories inclusive / not inclusive in the standard scope of supply.
- List of items required for installation and operation of the equipment and not supplied by the manufacturer.
- List of special tools, items required to carry out preservation at Yard
- List of accessories inclusive / non-inclusive in the standard scope of supply.
- Clear demarcation between the scope of supply of firm and that of ship builder.
- Itemized price list of system components and other services offered.
- Delivery time from receipt of order.
- Indicative maintenance plan.
- Proposed training plan
- Supply of complete binding data within three weeks of placements of order.
- Supply of Documentation.



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- q) Proposal plan for Technical Assistance for System installation including STW, HATs and SATs.
- r) Proposed Factory Acceptance Tests.
- s) Reliability parameters.
- t) Proposed quality assurance and quality Inspection plan.
- u) System Integration and interface Plan.
- v) Sufficiency clause: All the deliverables supplied with the equipment shall be sufficient for the satisfactory operation of the system. If any additional item required thereafter for satisfactory operation of the system as described in the tender will be supplied by the firm with no cost implications.
- w) OEM should organise supply of materials and deputation of their reps for connectorisation, installation, STW, HATs & SATs for ships being built at MDL concurrently without affecting the construction schedule of the ship.
- x) In case the supplier is not able to meet the specification requirements, he should clearly point out the deviations and the reasons thereof in his quotation. If not, it will assume that the supplier will meet all the requirements of specifications in toto.
- y) Any other requirements not covered in this specification, but can give better performance of the equipment/system may be referred to MDL.

44. **BRIDGE DESIGN:** A two-dimensional isometric layout design of the bridge will be required to be provided to Owner for approval. The design should be in compliance with IMO and class rules.

Bridge layout and visibility plan should be as per class notation and IMO regulations.

Bridge layout and visibility plan will be approved by buyer and any comments from this process to be incorporated

45. **BRIDGE CONSOLES ALONG WITH THIRD PARTY EQUIPMENTS:**


Bridge consoles with specifications as given below, to be part of IBS supply. This is to house navigation and communication equipment's in the IBS scope and also the equipment's which are not covered in the scope of IBS vendor. The consoles should satisfy the ergonomics of the bridge to give it a contemporary look. The Detailed drawing of Bridge console indicating Dimensions and arrangement of equipment's is enclosed as Annexure-8. All Items indicated in the console which are under IBS scope of supply are to be suitable for console mounting arrangement.

**Basic Design & Fabrication of Bridge Consoles**

- i) There will be sections of consoles:

Bridge console should be made in as few pieces as possible.

They can be dismantled in order to be shipped in through bridge of the ship. The list of equipment and displays shall be finalised in consultation with owner during design review stages. The panelling's is to be fabricated by firm.

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ii) The consoles could be designed to accommodate the available space in bridge. The opening for maintenance and connectorisation should be preferably on the rear/front side.

iii) Overhead console for mounting the Bridge items as per IMO, class regulations and buyer's comments

iv) Bridge consoles design to be approved by owner and class.

"IBS vendor has to prepare 2D and 3D Console drawing for approval.

Before commencing fabrication of the bridge console, IBS vendor has to prepare a mock-up (plywood make) of the bridge console with printed surface of the finalised instruments for correct placement."

**46. TECHNICAL REQUIREMENTS FOR CONSOLE AND BRIDGE DESIGN:** This technical specification requirement covers the manufacturing of the panels

a) All the consoles will be designed, manufactured and assembled in such a way that they can be dismantled in order to be moved inside the bridge room of the ship.

b) Support structure of Enclosure Panel should be strong enough to take weight of equipment mounted on it. Proper reinforcement to be done for each equipment.

c) Maximum height of the panels and seating arrangement is not to exceed 1200mm. It should be as per class and IMO regulations.

d) Maintenance access for the equipment mounted on the panel enclosure is to be from aft of the panels.

e) Suitable provision for Equipment cooling and ventilation is to be provided. Rear wall of enclosure to be made with perforated hole for ventilation so that heat of equipment can be carried out of enclosure. Enclosure cooling should be natural, air cooled.

f) Panels are to be manufactured with suitable frame work/-strengthening parts, wherever required and all prepared surfaces should be console face plates as per the equipment requirements and laser cutting technology to be used for smooth finishing.

The Panel work and cutting of slots and reinforcement as per the requirement of third party equipment modules will be done at IBS vendor works. Installation of the equipment will be done onboard. Slight modification while installation may have to be carried out by IBS vendor if required onboard.

For the equipment in IBS vendor's scope of supply, wiring shall be done by IBS vendor. For other equipments, wiring shall be undertaken by respective OEMs.

g) There should be no sharp edges or protuberances, which can cause injury to personnel.

h) Finish: All material will be chromate converted and painted matt powder coated (Color of the panels is to be finalized after approval of the drawings).

i) All fasteners should be of stainless steel marine quality.

j) Sufficient hand rails / grab rails are to be fitted for personnel to stand and work in front of the consoles during bad weather.

k) Walkthrough space of as per IMO regulations and class rules to be provided for moving of personnel around console.

l) Suitable cable channels are to be provided for securing and routing of cables inside the consoles.

m) The Dimensional details and other specifications of the equipment that will be fitted on to the console will be provided by shipyard for working out the Fitment Details.





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n) The Consoles supplied will be installed onboard the ship by MDL. The Service of engineers needs to be provided on board to fit the equipment on the consoles and during installation of consoles.

q) Suitable provision to be provided at the bottom of the consoles for cable entry and properly packed for rodent protection.

r) DRAWING: - Prior to commencement of fabrication, the production drawings of the enclosed panelling are to be approved by MDL / Owner /Class for functional correctness and ergonomics. Material to be used by the firm for fabrication of paneling is also to be approved by MDL / Owner /Class at the time of approval of drawings.

MDL will provide dimensional/Cutout details of third party units to be fitted on bridge consoles to IBS vendors at a later stage.

**.47. INSTALLATION MATERIAL:**

(a) One set per ship of installation material that includes inter-cabinet cables, connectors, special fasteners, special tools, special fittings, etc. which shall be supplied by the supplier.

(b) Connectorisation-Termination of all cables connected between different items to be supplied and termination of all interface cables at IBS equipment end will be in the scope of IBS vendor. All materials required for connectorisation to be supplied by the vendor. Necessary tools to carry out the connectorisation work will be brought by the firm. The cable laying of the system within ship equipment will be carried by shipyard as per cable diagram of the IBS Vendor.

(c) Glanding, splicing the cables, connectorisation of cables, crimping, etc are in the scope of supplier.

(d) Interconnecting Connectors: - All interconnecting connectors required for completing cable core terminations of the system should form part of the supply. The list of connectors, adaptors and heat shrink boots is to be included in the binding data / Installation specs as per table at Appendix.

Vendor has to provide suitable mounting arrangement for all IBS equipment's to suit the ship requirement.

(a) Block diagram of the system

(b) Installation documents covering detailed procedure for installation with sequence of activities.

(c) Installation drawings indicating overall dimensions, C.G., weight, maintenance envelope etc. of each unit

(d) Power supply scheme for the system.

(e) Heat dissipation of individual units in compartment

(f) Parts identification list, indicating part no, qty., maker's name, Specification etc.

(g) Cable length limitation etc., if any.

(h) Detailed foundation drawing including bolting plan.

(i) Power consumption of each equipment

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#### **48. SCOPE OF SUPPLY:**

- (a) Deliverables related to Main Equipment.
- (b) All mating electrical connectors plug and sockets for assembly with ship's interconnecting cables, Cable Glands for the equipment shall be supplied along with the equipment.
- (c) Deliverables related to Installation material and Tools required to carry out installation, alignment and exploitation of the Equipment shall be delivered along with Main Equipment.
- (d) Spares and Tools (including special tools / instruments required to conduct HATs and SATs) shall be delivered before STW of the System.
- (e) Special Tools, items etc. required to carry out preservation of the System at Yard or on Board the ship, shall be supplied along with the System.





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		<b>YARD MDL - 21001, 21002, 21003, 21004, 21005 , 21006, 21007, 21008, 21009 &amp; 21010</b>	<b>REV. NO.</b>	<b>4</b>
		<b>NAVIGATIONAL INSTRUMENTS-IBS</b>	<b>DATE</b>	<b>04/09/2025</b>
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**Annexure “3”**

**TABLE-1 FORMAT FOR PROVIDING DIMENSIONAL DETAILS**

SR NO	DEVICE	DIMENSIONS (WXHXD)	Wt IN KG	HEAT DISSIPATION DATA	POWER CONSUMPTION

**Annexure ‘4’**

**TABLE OF CONNECTIONS FORMAT**

SR NO	CABLE NO	CABLE TYPE	NO: OF CORES	FROM DEVICE	CONN REF	TERMINAL / PIN NO	TO DEVICE	CONN REF	TERMINAL / PIN NO	SIGNAL
1	CAB-1	XXX 3 CORE CABLE	1	DEV-A	P1	1	DEV-B	J1	1	
			2			2			2	
			3			3			3	



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21008, 21009 & 21010

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**Annexure No.5- Compliance and Deviation List**

(To be filled in by the **SUPPLIER** & submitted as part of the Offer)

**COMPLIANCE MATRIX AND DEVIATION**

With reference to the subject Requisition received along with the MDL Inquiry and our  
QUOTATION No. \_\_\_\_\_ Dated

\_\_\_\_\_ we hereby confirm / clarify the following :

TSP Para No	Complied / Not Complied	Offer Reference (Page & Para No.)	Deviations with reasons (if any)

The Bidder should fill in this form for the deviations of his bid from the requirements as stated in the TSP. If no deviation is required, bidder should fill in "NIL" in the deviation column.  
Deviation listed other than deviation form shall not be considered.

**BIDDER'S COMPANY SEAL**

**BIDDER'S SIGNATURE & DATE**



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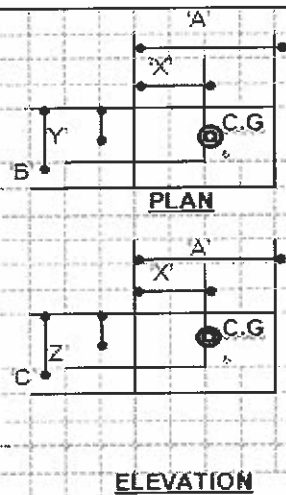
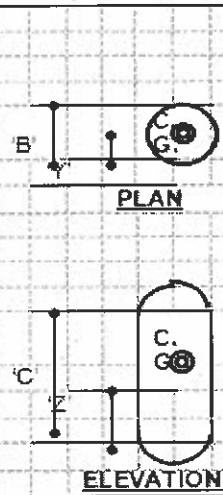
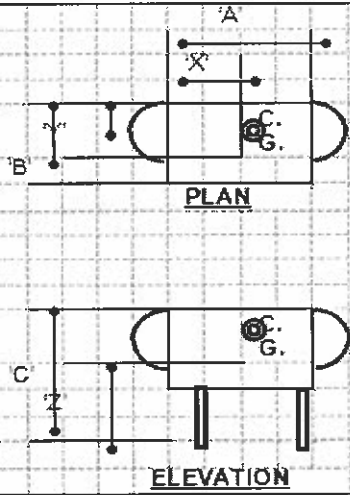
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**Annexure No.6- Weight Control Data Sheet**

WEIGHT CONTROL DATA SHEET				
EQUIPMENT DESCRIPTION		EQUIPMENT NO.		
COMPARTMENT		LOCATION		
SWBD:				
<input type="checkbox"/> TOLERANCE E CODE	<input type="checkbox"/> PRELIMINARY Y EST.	<input type="checkbox"/> DESIGN EST.	<input type="checkbox"/> M.T.O (CALC)	<input type="checkbox"/> WEIGHED
<input type="checkbox"/> TOLERANCE $\pm$ %				
1. WEIGHT (Kg.)				
(a)	DRY		Kg $\pm$	%
(b)	FLUID		Kg $\pm$	%
(c)	OPERATING		Kg $\pm$	%
(d)	TEST		Kg $\pm$	%
(e)	TOTAL		Kg $\pm$	%
2. EQUIPMENT DIMENSIONAL DATA (mm) & Co-ordinates of CoG				
				
OVERALL SIZE		CENTRE OF GRAVITY		
A'		X'		
B'		Y'		
C'		Z'		
<b>NOTE:</b>				
<ul style="list-style-type: none"><li>ALL OFFERS SHALL INCLUDE THIS DATA SHEET DULY FILLED IN BY THE SUPPLIER (SIGNED, DATED &amp; SEAL AFFIXED).</li><li>ALL FINISHED ITEMS SHALL BE WEIGHED &amp; A CERTIFICATE SHALL BE PROVIDED AS PER ATTACHED SHEET.</li><li>SEPARATE SHEETS SHALL BE COMPLETED FOR EACH INSTALLED EQUIPMENT.</li><li>ORIGIN OF 'X', 'Y' AND 'Z' TO BE INDICATED.</li></ul>				
SUPPLIER'S SEAL		SUPPLIER'S SIGNATURE & DATE		



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**Annexure No.7- Weight Certificate**

**WEIGHT CERTIFICATE**

**EQUIPMENT DESCRIPTION:**

**EQUIPMENT NO. :**

The form shall be completed by Supplier & shall be supplied along with the equipment.

**SUPPLIER'S  
NAME**

**Ref. Drg. No.**

**ADDRESS**

**Part No.**

**TELEPHONE NO.**

**ORDER NO.**

**EQPT. NO.**

**METHOD OF WEIGHING:**

Supplier shall prescribe Method & Equipment Used:

**DATE OF  
CALIBRATION**

**LAST**

**SPECIFIED  
REQUIREMENT**

**ACCURACY**

**NOTE :-**

**RESULT OF WEIGHING TOTAL EQUIPMENT DRY WEIGHT**

(Excluding packing, temporary protection etc.)

**ALLOCATED WEIGHT**

(Weight estimate agreed by purchaser  
and supplier based on order specs).

**REASONS FOR VARIATION BETWEEN ALLOCATED WEIGHT AND CERTIFIED WEIGHT:**

**WEIGHING ADDRESS:**

**WITNESSED BY  
FOR SUPPLIER**

**FOR PURCHASER**

**Representative**

**Representative**

**Date:**

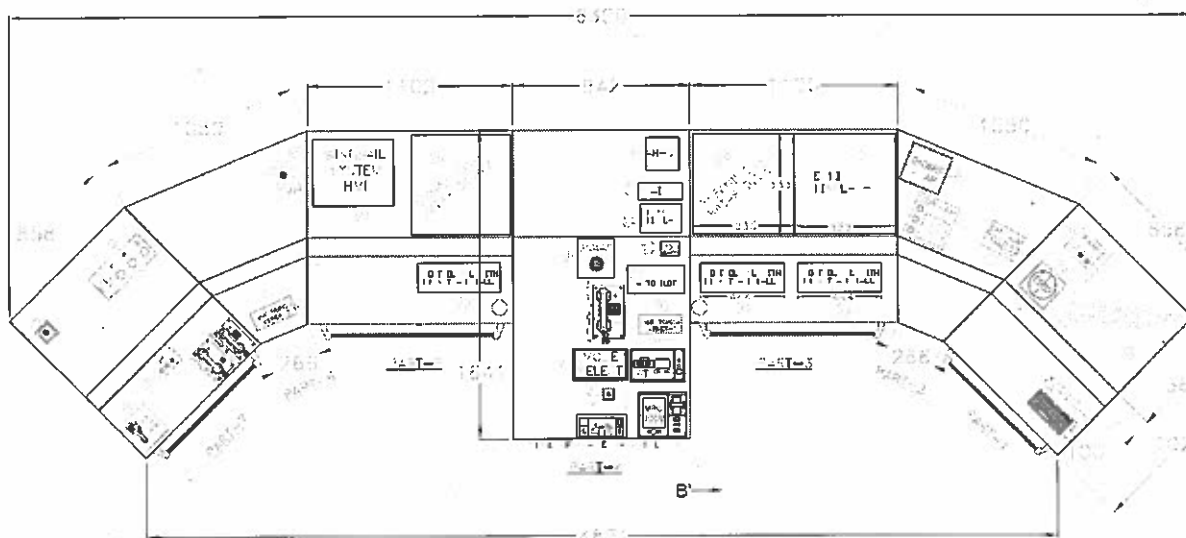
**Signature / Date & Seal**

**Signature/Date & Seal**



## Annexure-08

### Indicative Arrangement of Bridge Console.





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**Annexure-09.**

**Details to be provided along with the offer in excel sheet (Offers without the details or incomplete information will be liable for rejection)**

Sr.no	Equipment Details	Make	Model	List of all Deliverables	Class Approval (YES/NO)	TAC ENCLOSED in OFFER	TAC Validity date	EC-MED / B and D, alternatively B and E, B and F or G.
1	Gyrocompass-DDU-repeaters.							
2	Gyro Course Recorder							
3	Autopilot							
4	MAGNETIC COMPASS							
5	ECHO SOUNDER							
6	SPEED LOG							
7	RADAR X BAND							
8	RADAR S BAND							
9	DGPS							
10	AIS							
12	METEO SENSOR							
13	ECDIS with Route Planning station							
14	BNWAS							
15	VDR							
16	BAMS							
17	Sound Reception system							
18	OBS	Details of All OBS with Qty and name of system to be indicated.						