

**SEPARATE QUOTATIONS REQUIRED FOR ATTACHED 21 x IT SPECIFICATIONS**

**IT NO : IT/16/01/2024-25**

**IT SPECIFICATION FOR OVERHAULING OF FRESH WATER SUPPLY PUMP NO 2 – PMSS DASHT**

S No.	Description	
1.	System	Fresh Water Supply Pump
2.	Sub system	Fresh Water System
3.	Origin	China
4.	Make	Jiangsu Zhenhua Pumps Industry Co., Ltd.
5.	Model	HMZZGS-02
6.	Justification	Degraded performance
7.	Qty	01
8.	Technical Specs (if any)	As per OEM manual/ Specs
9.	Scope of Work	<p>a. Replacement of degraded impeller, impeller key and impeller housing with new.</p> <p>b. Replacement of old mechanical seal with high quality mechanical seal.</p> <p>c. Replacement of degraded seal rings with copper/ phosphorus bronze material seal rings.</p> <p>d. Replacement of degraded pump shaft with Stainless Steel (316L) material pump shaft.(if required).</p> <p>e. Replacement of pump bearing with SKF/ high quality bearing.</p> <p>f. Repair/ replacement of degraded pump body/ casing.</p> <p>g. Overhauling of motor (wiring/ insulation/ field balancing/ bearing).</p> <p>h. Repair/ replacement of degraded suction/ discharge lines.</p> <p>j. Precise alignment of pump with motor.</p> <p>k. Old bolts and nuts to be replaced with new Stainless steel (316L) bolts and nuts.</p>
10.	Eligibilities	Authorized rep of OEM/ Local contractor having working experience on pumps and impeller. Contractor is to visit the ship in order to understand the scope of work
11.	EDC	07 x days
12.	Warranty	<p>01 x Year warranty for satisfactory operation of pump without following defects:</p> <p>a. Water leakage from pump</p> <p>b. Decreased discharge pressure (due to worn out impeller)</p> <p>c. Normal operating temperature</p> <p>d. Motor winding</p>
13.	Acceptance Criteria	<p>a. Satisfactory discharge flow rate of 0.5 - 0.6 m3/h of pump.</p> <p>b. Satisfactory maintaining of positive heading of 48.5 meters.</p> <p>b. Satisfactory operation without increased noise, vibration &amp; leakage.</p>
14.	Any other Info	Growth Work, Damage/ defect occurred during work is responsibility of contractcr.

**IT SPECIFICATIONS FOR RENEWAL OF LAGGING OF SUPPLY/ EXHAUST FANS OF FWD & AFT ENGINE ROOMS- PMSS DASHT**

S No	Description	
1.	Parent Equipment	Marine Axial Flow Fan
2.	Sub Equipment	Fan Duct Lagging
3.	Assembly Component	Lagging
4.	Model	CLH50324.5(Z)
5.	Make	China
6.	Quantity/Item Details	04
7.	Justification	Lagging of fan duct deteriorated
8.	Work required/Defect	Renewal of lagging is required.
9.	Scope of work	<ul style="list-style-type: none"><li>a. Removal of exhaust/ supply fans flaps of FER &amp; AER</li><li>b. Removal of old lagging from duct</li><li>c. Cleaning of inner and outer surface of supply/exhaust fans ducts</li><li>d. Fabrication of new lagging (glass wool, mineral wool flexible elastomeric foam, rigid foam etc) as per dimension and measurements</li><li>e. Overhauling and rewinding of all fan motors of FER &amp; AER</li><li>f. Inspection and repair of ducts in FER &amp; AER</li><li>g. Application of lagging and securing on inner side of ducting</li><li>h. Application of exhaust/supply fan ventilation flaps with new nut and bolts (stainless steel)</li><li>i. Satisfactorily trials of FER &amp; AER supply/exhaust fans</li><li>j. Growth work will be solely responsibility of firm. To avoid complications on later stage, firms is to visit ship before quoting for understanding removal/installation and defect rectification scope</li><li>k. Cleaning, servicing and paint work of all supply/exhaust fans of FER &amp; AER will be carried out by the firm</li></ul>
10.	Technical Specifications	As per OEM Manual/ spec
11.	Eligibility Criteria	<ul style="list-style-type: none"><li>a. Any registered and security wise cleared local contractor who has working experience onboard MPVs</li><li>b. Firm must visit site for understanding the exact nature of defect/hindrances involved in job prior quoting to avoid inconvenience on later stage after award of Work Order.</li></ul>
12.	EDC/EDD	05 x Days
13.	Warranty	01 x Year
14.	Acceptance Criteria	Satisfactorily trials of FER & AER supply/exhaust fans without any deterioration in lagging material
15.	Any Other Relevant Information	Nil



**IT SPECIFICATION FOR CONDUCT OF 3 ANNUAL MAINTENANCE ROUTINE OF PORT & STBD FIN STABILIZERS - PMSS DASHT**

S No.	Description																									
1.	Parent Equipment	Fin Stabilizer																								
2.	Sub Equipment	Stabilizer Gland Seal Packing Box																								
3.	Assy. Component	Seals																								
4.	Make	Harbin Engineering University																								
5.	Model	NJ4-1.8S-1																								
6.	Qty	02																								
7.	Justification	Conduct of 3A PMS routine																								
8.	Technical Specs (If any)	<p>To carry out following maintenance routines of 02 x Fin Stabilizers:</p> <table border="1"> <thead> <tr> <th>S No.</th> <th>MOP</th> <th>Description</th> <th>Period</th> </tr> </thead> <tbody> <tr> <td>a.</td> <td>PM-011</td> <td>Inspection of the spare sealing ring</td> <td>3A</td> </tr> <tr> <td>b.</td> <td>PM-012</td> <td>Replace the filter element of filter</td> <td>3A</td> </tr> <tr> <td>c.</td> <td>PM-013</td> <td>Replace the sealing of hydraulic cylinder</td> <td>3A</td> </tr> <tr> <td>d.</td> <td>PM-014</td> <td>Clean the oil tank and replace oil</td> <td>3A</td> </tr> <tr> <td>e.</td> <td>PM-015</td> <td>Replace and pressure test oil cooler</td> <td>3A</td> </tr> </tbody> </table> <p>Details of carrying out these routines are mentioned in JICs (Job Information Cards) which are available onboard and firm must visit ship for understanding complete scope of work.</p>	S No.	MOP	Description	Period	a.	PM-011	Inspection of the spare sealing ring	3A	b.	PM-012	Replace the filter element of filter	3A	c.	PM-013	Replace the sealing of hydraulic cylinder	3A	d.	PM-014	Clean the oil tank and replace oil	3A	e.	PM-015	Replace and pressure test oil cooler	3A
S No.	MOP	Description	Period																							
a.	PM-011	Inspection of the spare sealing ring	3A																							
b.	PM-012	Replace the filter element of filter	3A																							
c.	PM-013	Replace the sealing of hydraulic cylinder	3A																							
d.	PM-014	Clean the oil tank and replace oil	3A																							
e.	PM-015	Replace and pressure test oil cooler	3A																							
9.	Scope of Work	<p>a. Detailed work scope routines wise for carrying out 3A routines of Fin Stabilizers is as under:</p> <p>(1) <u>Inspection/ Replace the sealing of hydraulic cylinder and filter element</u></p> <p>(a) Dismantling of all associated accessories.            (b) Taking down of hydraulic cylinder.            (c) Replacement of seals of cylinder.            (d) Assembling of mechanical unit. Checking of wear and tear on the cylinder trunnion, the trunnion's mounting and if they are fitted well. Greasing of surfaces of trunnion and trunnion mounting. (ZG-4(GB 491-1987))            (e) Fitting/ assembling of hydraulic cylinder            (f) Replacement of all the filter element.</p> <p>(2) <u>Replace and Pressure Test of Oil Cooler</u></p> <p>(a) Dismantling of all associated accessories.            (b) Uninstall of oil cooler and pressure testing of the same be conducted as per designed testing method/ procedure.            (c) On successful pressure testing, same cooler required to be installed.            (d) In case pressure testing of old cooler failed, replace with new cooler.</p>																								

10.	Spares Required for Conduct of Routines	<table border="1"> <thead> <tr> <th>Description</th> <th>NSN No.</th> <th>Denomination</th> <th>Qty</th> </tr> </thead> <tbody> <tr> <td>Seal Ring</td> <td>4810-PV-634-0004</td> <td>Each</td> <td>02</td> </tr> <tr> <td>Grease</td> <td>9159-PV-002-0018</td> <td>Ltrs</td> <td>02</td> </tr> <tr> <td>Cylinder Seal</td> <td>2040-PV-303-0029</td> <td>Each</td> <td>02</td> </tr> <tr> <td>Oil Cooler</td> <td>2930-PV-100-0004</td> <td>Each</td> <td>01</td> </tr> </tbody> </table>	Description	NSN No.	Denomination	Qty	Seal Ring	4810-PV-634-0004	Each	02	Grease	9159-PV-002-0018	Ltrs	02	Cylinder Seal	2040-PV-303-0029	Each	02	Oil Cooler	2930-PV-100-0004	Each	01
		Description	NSN No.	Denomination	Qty																	
		Seal Ring	4810-PV-634-0004	Each	02																	
		Grease	9159-PV-002-0018	Ltrs	02																	
		Cylinder Seal	2040-PV-303-0029	Each	02																	
Oil Cooler	2930-PV-100-0004	Each	01																			
(3) Satisfactory working and repair of all electronic/ control system circuit associated with fin stabilizers																						
(4) Complete overhauling of fin stabilizers motors, pumps, relief valves and valve block with satisfactory operation.																						
(5) Replacement of Hydraulic cylinders of both the hydraulic rams																						
(6) Provision and replacement of Hydraulic oil of fin stabilizers																						
(7) Provision of 02 x set of filter elements of fin stabilizers																						
(8) Inspection and repair of complete and all associated fittings of fin stabilizers till SAT results and upto command satisfaction																						
(9) Pressure testing, inspection and satisfactory trials																						
(10) Satisfactory HATs and SATs both after completion of routine, overhauling of motor and pumps and replacement of all associated fittings of fin stabilizers with new OEM specified spares and parts only.																						
<p>Note: 100% Genuine spares from OEM (Harbin Engineering University, Address: No. 145, Nantong Street, Nan Gang District Harbin, Heilong Jiang province, China) will be allowed onboard installation. Firm is to order parts from OEM and firm is to provide certificates and order details for confirmation of parts prior undertaking these maintenance routines onboard ship.</p>																						
11.	Eligibilities	Authorized rep of OEM/ Local contractor having working experience on hydraulic systems.																				
12.	EDC	10 days																				
13.	Warranty	<p>Warranty for maintenance/ repair work undertaken by the contractor should be as following:</p> <ol style="list-style-type: none"> <li>2-year/ OEM warranty for all the spares utilized during maintenance/ defect rectification.</li> <li>2-year warranty for leakage free operation of the complete system being dismantled/ opened during conduct of maintenance routines/ defect rectification.</li> <li>1000 SAT running hours of Fin stabilizer without any anomaly or defect.</li> <li>Any damage to associated components involved with fin stabilizers (including electronic/ control system) will also be covered under warranty jobs by the firm</li> <li>Provision of all spares and parts (OEM specified only) with in warranty period in case of any defect will be by the firm</li> </ol>																				

14.	Acceptance Criteria	<ol style="list-style-type: none"> <li>Satisfactory HATs followed by SATs.</li> <li>Satisfactory operation without noise and vibration.</li> <li>Leakage free operation of system.</li> <li>SS will handover system to firm by giving satisfactory trials, any other defect after maintenance work will be responsibility of firm. HQ PMSA will not pay for any growth work due firm workmanship. This will also include defects pertain to electronic/ control system. Firm must check performance of system prior start of work.</li> <li>STW and satisfactory trials at Harbour and at Sea for 02 x months</li> </ol>
15.	Any other Information	<ol style="list-style-type: none"> <li>Firm is to visit ship (during working hours, i.e Mon to Fri 8AM to 3PM) for understanding complete scope of work and accessories removal route prior participating In tender. Any growth work including spare parts other than above parts will be responsibility of firm.</li> <li>Firm is to attach offered OEM parts catalogue/ brochures with technical quotations for spare parts. Firm not providing offered spare part IPCs in technical quotations are liable for rejection in TSR.</li> </ol>



**IT SPECS FOR REPLACEMENT OF GEARBOX FLEXIBLE HOSES OF MTU MAIN ENGINES –  
PMSS DASHT**

S No.	Description	
1.	Parent System	Main Engine
2.	Sub system	Gearbox
3.	Assy component	Flexible hoses
4.	Origin	Germany
5.	Make	MTU
6.	Model	16V4000M73L
7.	Qty	08
8.	Justification	FWT
9.	Technical Specs (If any)	As per OEM Manual/ Specs
10.	Scope of Work	<ul style="list-style-type: none"> <li>a. Provision of Flexible Hoses as per sample provided by SS.</li> <li>b. Punching of SS 316 L connectors across the ends of hoses.</li> <li>c. Flexible hoses must be sufficient enough to sustain 5 MPa pressure.</li> <li>d. All tools and equipments to be arranged by the firm.</li> <li>e. All spares and parts (OEM specified) to be provided by the firm.</li> <li>f. All leakages w.r.t associated system be rectified by the firm for SAT ops.</li> <li>g. HATs &amp; SATs to be conducted satisfactorily.</li> <li>h. Any growth work will be responsibility of the firm.</li> <li>c. All nuts &amp; bolts of all flanges of associated system be replaced with new SS nuts &amp; bolts.</li> <li>c. Corrosion, rust, erosion on lines and flanges of all associated system should be rectified.</li> <li>c. Any damage, crack or pin holes in lines of associated system should be brazed/ rectified by the firm.</li> </ul>
11.	Eligibilities	Reputable local contractor having working experience of repair/ overhauling of sea water system onboard 6HT MPVs.
12.	EDC	07 x days
13.	Warranty	<p>One year warranty for satisfactory operation without following defects:</p> <ul style="list-style-type: none"> <li>a. Leakage / dripping of sea water from flanges</li> <li>b. Corrosion, rust, erosion on lines, flanges &amp; Nuts/bolts</li> <li>c. Damage, cracks, pin holes in lines</li> </ul>
14.	Acceptance Criteria	<ul style="list-style-type: none"> <li>a. Satisfactory replacement of flexible hoses</li> <li>b. Satisfactory and leakage free operation as per desired system parameters</li> </ul>

**IT SPECIFICATIONS FOR REPLACEMENT OF PVC PIPES AND UNIONS OF MAIN AC CONDENSERS AND HEAT EXCHANGERS - PMSS DASHT**

S No	Description	
1.	System	Marine Light Water Chiller
2.	Sub system	Condensers and Heat Exchangers
3.	Origin	China
4.	Make	Jiangsu Josun Air Conditioner Co. Ltd
5.	Model	JTLS-168(IV)
6.	Qty	08
7.	Justification	Ageing factor (FWT)
8.	Scope of work	<p>a. Complete Isolation of Main AC Seawater circulation system with suitable means in coordination with SS.</p> <p>b. Removal of PVC pipes, unions, sockets and all other connections carefully without any damage to system.</p> <p>c. Procurement of new pipes and all associated fittings from local market as per samples (OEM specified only).</p> <p>d. Installation of new PVC pipes and all associated fittings onboard after pressure testing as per dimensions already installed.</p> <p>e. Verification of AC seawater circulation system without any leakage.</p> <p>f. All in-way accessories be removed by the firm and fitted back carefully.</p> <p>g. Growth work will be sole responsibility of the firm. To avoid complications on later stage, firm is to visit the ship before quoting for understanding the exact nature of work and defect rectification scope.</p> <p>h. Firm quoting without visiting will be liable for rejection in TSR.</p> <p>j. Material of PVC pipes and all other associated fittings must be approved by MEO/ SS prior installation.</p> <p>k. Inspection/ repair of any leakage or defect w.r.t Compressors, Condensers, Expansion Valves, Flexible pipes or any other associated component with the AC system be rectified by the firm.</p> <p>l. All spares and parts (OEM specified) be provided by the firm.</p> <p>m. All tools and equipments (Blanks/ Nuts/Bolts/ Isolation tools etc) be arranged by the firm.</p> <p>h. Satisfactory Full load trials (HATs and SATs both) of AC system upto command satisfaction.</p>
9.	Eligibilities	Any registered and security wise cleared local contractor having good working experience in above mentioned scope of work
10.	EDC	07 x Days
11.	Warranty	02 x Years
12.	Acceptance Criteria	Satisfactory operation of 04 x Main AC Compressors/ Condensers/ Heat Exchangers and Expansion Valves without any leakage from PVC pipes and associated fittings in AC system
13.	Any other info	Coordinate MEO/ SS for better understanding of scope of work

**IT SPECIFICATIONS FOR DEFECT RECTIFICATION OF HYDRAULICALLY ACTUATED ELECTRONICALLY CONTROLLED UNIT INJECTOR PUMP OF CAT C9 GENSET NO. 2 OF PMSS DASHT**

S No	Description	
1.	Parent Equipment	CAT C9 Marine Genset
2.	Sub Equipment	Hydraulically Actuated Electronically Controlled Unit Injector Pump
3.	Assembly Comp	Hydraulically Actuated Electronically Controlled Unit Injector Pump
4.	Make	Caterpillar
5.	Model	C9Z Series, Part No 476-8769
6.	Qty	01
7.	Justification	Rapid decrease of RPM and frequency when on-load.
8.	Work Required/ Defect	Repair/ Overhauling of hydraulically actuated electronically controlled unit injector pump
9.	Detailed Scope of Work	Defect rectification and full load trials of Genset No. 2 including following: a. Repair/ Replacement of Plunger assembly valve. b. Replacement of shaft assembly. c. Replacement of O-rings. d. Testing of said pump on test bench at 6 bar. e. After repair/ replacement check clearances between shaft and plunger assembly. f. Inspection of all associated fittings of GENSET No 2 including exhaust muffler g. Repair of exhaust pipe leakage h. Chemical cleaning and servicing of Intercooler and Heat exchanger i. Provision of ELC coolant for GENSET No 2 j. Satisfactory full load trials (upto 180 KW).
10.	Technical Specs	As per OEM Manual/ Specs
11.	Eligibilities	Any reputable local contractor or OEM authorized Rep having experience of CAT C9 Gensets
12.	EDC	07 days
13.	Warranty	01 year after Satisfactory full load trials of Genset
14.	Acceptance Criteria	a. OEM Certified spares. b. Technical specifications of item alongwith tech manual, CoC, document to be provided by contractor. c. Onboard satisfactory test/ trials. d. Item must be genuine, packed and compatible with existing system. Aftermarket products, loose items or any variant item w.r.t dimension/ tech specs will not be accepted f. Satisfactory full load trials.
15.	Any other Info	Coordinate MEO/ SS for better understanding of scope of work



## IT SPECIFICATIONS FOR REPAIR/ OVERHAULING OF OILY WATER SEPARATOR - PMSS DASHT

S No	Description	
1.	Parent Equipment	Oily Water Separator
2.	Sub Equipment	Water Separator
3.	Assembly Component	Oil content meter, operation electrodes, 1 <sup>st</sup> , 2 <sup>nd</sup> & 3 <sup>rd</sup> stage filter/ membranes, screw pump, pressure controller, temperature controller, dosing pump, pneumatic valves and electrical control box
4.	Quantity	01
5.	Make	China
6.	Model	YWC-0.50 15ppm
7.	Justification	Degraded performance with frequent tripping/ shut down
8.	Work Required	Repair/ overhauling of oily water separator
9.	Scope of work	<ul style="list-style-type: none"> <li>a. Detailed inspection of bilge oily water separator</li> <li>b. Removal of complete accessories of bilge oily water separator.</li> <li>c. Replacement of 1<sup>st</sup>, 2<sup>nd</sup> &amp; 3<sup>rd</sup> stage separator.</li> <li>d. Replacement of Two stage filter.</li> <li>e. Replacement of 1<sup>st</sup>, 2<sup>nd</sup> &amp; 3<sup>rd</sup> stage membranes.</li> <li>f. Overhauling of screw and dosing pump along with motors</li> <li>g. Repair/ replacement of pressure and temperature controller</li> <li>h. Inspection of automatic opening and closing check valve coarse filter</li> <li>j. Repair of electrical control box unit</li> <li>k. Calibration of differential pressure gauges.</li> <li>l. Inspection/ repair of oil content meter and pneumatic valves.</li> <li>m. All tools and equipments be arranged by the firm</li> <li>n. All spares/ parts provided must be OEM specified only</li> <li>a. Complete overhauling and repair of the oily water system with SAT running parameters.</li> </ul>
10.	Technical specs	As per OEM manual 33412450001 YWC-0.50 15ppm M65P
11.	Eligibilities	Any security wise clear, reputable local contractor having relevant working experience
12.	EDC	07 x Days
13.	Warranty	01 x year complete warranty of replaced part and overhauled equipment after completion of successful trials.
14.	Acceptance Criteria	Satisfactory operation of Oily Water Separator
15.	Any other relevant information	Firms are requested to visit onboard prior quoting to understand exact scope of work.



**IT SPECIFICATION DEFECT RECTIFICATION/ OVERHAULING OF RO PLANT NO.1  
- PMSS DASHT**

S No	Description	
1.	Parent Equipment	RO Plant
2.	Sub Equipment	High pressure pump
3.	Assembly Comp	Shaft, Impeller, Housing, Casing
4.	Make	Romer Environmental Protection (Shenzhen) Co, Ltd r
5.	Model	25WBZS3-18
6.	Qty	01
7.	Justification	Pump shaft damaged due ingress of sea water through damaged pump seal
8.	Work Required/ Defect	Repair/ Overhauling of RO Plant No 1
9.	Detailed Scope of Work	<ul style="list-style-type: none"> <li>a. Repair of degraded pump body.</li> <li>b. Replacement of old mechanical seal with high quality mechanical seal.</li> <li>c. Replacement of degraded seal rings with copper/ phosphorus bronze material seal rings.</li> <li>d. Replacement of degraded pump shaft with Stainless Steel (316L) material pump shaft.</li> <li>e. Replacement of old worn out bearings with new SKF or other good quality bearing.</li> <li>f. Precise alignment of pump with motor.</li> <li>g. Complete overhauling of RO Plant No 1 along with motor, pump, oil, membrane, filter and sand.</li> <li>h. Replacement of all gauges.</li> <li>j. Corroded/ damaged bolts and nuts to be replaced with new Stainless steel (316L) bolts and nuts.</li> </ul>
10.	Technical Specs	As per OEM Manual/ Specs
11.	Eligibilities	Reputable local contractor having working experience of repair/ overhauling of RO Plant onboard 6HT MPVs
12.	EDC	07 x days
13.	Warranty	<p>1 year warranty for satisfactory operation of RO Plant No 1 without following defects:</p> <ul style="list-style-type: none"> <li>a. Seawater leakage from pump, mechanical seal and discharge valve.</li> <li>b. Increased vibration/ noise/ hard to rotate.</li> <li>c. Decreased discharge pressure.</li> <li>f. Satisfactory operation of RO Plant No 1 with replacement of complete auxiliary contact.</li> </ul>
14.	Acceptance Criteria	<ul style="list-style-type: none"> <li>a. Satisfactory discharge pressure of sea water pump i.e 6MPa</li> <li>b. Satisfactory and smooth operation without high vibration and noise</li> <li>c. Satisfactory operation without sea water leakage.</li> <li>d. Precise alignment; impeller should be free to rotate.</li> </ul>
15.	Any other Info	Coordinate MEO/ SS

**IT SPECIFICATION FOR REPAIR/ OVERHAULING OF 22 X FAN COIL UNIT (FCU) – PMSS DASHT**

S No	Description	
1.	Parent Equipment	Marine Fan Coil Unit (FCU)
2.	Sub Equipment	Marine Fan Coil Unit (FCU)
3.	Assembly Component	22 x FCU (Evaporators, Blowers and Coils)
4.	Model	CFP-18LG, CFP-3WA, CFP-5WAX
5.	Make	Jiangsu Josun Air Conditioner Co. Ltd
6.	Quantity/Item Details	22 x (Evaporator, Blower, Coils and Base Plates of Standing FCUs)
7.	Justification	Chill water leakage due to deterioration of FCU and degradation of FCU blower also observed during normal operation observed. FWT observed in coils
8.	Work required/Defect	Repair/ Overhauling of 22 x FCUs
9.	Scope of Work	<p>(1) In route all accessories including bulkhead/ ceiling honeycomb is to be removed and fitted back without any damage</p> <p>(2) Degraded components including defective fan motor, bearings, evaporator coils are to be replaced with copper material and servicing/ overhauling of blower motor replacement of corroded parts</p> <p>(3) Replacement of 22 x FCU controllers</p> <p>(4) FCU performance is to be restored to maintained compartment temperature (i.e. upto 22 degree centigrade)</p> <p>(5) Clear all chocked drains, replace all standing FCU base plates and foundation</p> <p>(6) Provision of all spares and parts for FCUs and associated fittings (OEM specified only)</p> <p>(7) Evaporators, Blowers and Coils be checked/ inspected by SS prior installation</p> <p>(8) Satisfactory running operation of 22 x FCUs</p> <p>(9) Inspection and repair of all FCUs leakages</p> <p>(10) Fabrication of lines for all FCUs (if deteriorated)</p> <p>(11) All spares, tools and test equipments are to be arranged by the firm</p> <p>(12) Any growth work will be soul responsibility of the firm</p> <p>(13) Any damage during removal of accessories will be responsibility of the firm</p>
10.	Eligibilities	Reputable local contractor having working experience on chiller and FCUs of MPVs
11.	EDC	03 x weeks
12.	Warranty	One year after completion of successful trials
13.	Acceptance Criteria	Satisfactory operation of 22 x Fan Coil Unit upto 22 degree centigrade
14.	Any other Information	Firms are requested to visit site before quoting. If any firm quotes without visiting ship, firm will be rejected in TSR



**IT SPECIFICATIONS FOR REPLACEMENT OF LUBE OIL PRESSURE SENSOR OF MAIN ENGINE NO 1 GEAR BOX – PMSS DASHT**

S No.	Description	
1.	Parent Equipment	Main Engine
2.	Sub Equipment	Gear Box
3.	Assembly component	Lube Oil Pressure Sensor
4.	Make	China
5.	Model	Lube Oil Pressure Sensor : MBS 3100 060G3567 Pr 0 – 30 Bar; O/P 4 – 20 mA Danfoss
6.	Qty	01 x Lube Oil Pressure Sensor
7.	Justification	Sensor found defective, safety hazard for gearbox operation
8.	Work req/ Defect	Replacement of 01 x Lube Oil Pressure Sensor
9.	Detailed Scope of Work	a. Replacement of 01 x Lube Oil Pressure Sensor b. Satisfactory test/ trials c. All tools and test equipments will be arranged by firm/ contractor
10.	Technical specs (if any)	As per OEM Manual/ Specs
11.	Eligibilities	Reputable local contractor having working experience of Main Engine
12.	EDC	03 x Days
13.	Warranty	02 x Years sensor warranty after test/ trials or as recommended by OEM
14.	Acceptance Criteria	a. OEM Certified spares. b. Upon scrutiny of item and provided documents i.e. technical specifications c. Items will be accepted after onboard fitting and test/ trails
15.	Any other Information	a. Damage/ defect occurred to system during work is responsibility of contractor. b. Dismantling/ assembling/ installation and in way removal work is responsibility of contractor.

**IT SPECIFICATION FOR OVERHAULING OF SEWAGE TREATMENT CUTTING PUMP – PMSS DASHT**

S No.	Description	
1.	System	Sewage Treatment Cutting_Pump
2.	Sub System	Cutting Pump
3.	Origin	China
4.	Make	Jiangsu Nanji Machinery Co., Ltd.
5.	Model/ Type	50CPW0.5-10B
6.	Qty	01
7.	Justification	Degraded performance
8.	Technical Specs (if any)	As per OEM manual/ Specs
9.	Scope of Work	<ul style="list-style-type: none"> <li>a. Replacement of degraded impeller, impeller key and impeller housing with new.</li> <li>b. Replacement of old mechanical seal with high quality mechanical seal.</li> <li>c. Replacement of degraded seal rings with copper/ phosphorus bronze material seal rings.</li> <li>d. Replacement of degraded pump shaft with Stainless Steel (316L) material pump shaft.(if required).</li> <li>e. Replacement of pump bearing with SKF/ high quality bearing.</li> <li>f. Repair/ replacement of degraded pump body/ casing.</li> <li>g. Overhauling of motor (wiring/ insulation/ field balancing/ bearing).</li> <li>h. Complete rewinding of motor</li> <li>j. Repair/ replacement of degraded suction/ discharge lines.</li> <li>k. Precise alignment of pump with motor.</li> <li>l. Old bolts and nuts to be replaced with new Stainless steel (316L) bolts and nuts.</li> </ul>
10.	Eligibilities	Authorized rep of OEM/ Local contractor having working experience on pumps and motor winding. Contractor is to visit the ship in order to understand the scope of work
11.	EDC	05 x Days
12.	Warranty	01 x Year warranty for satisfactory operation of without following defects: <ul style="list-style-type: none"> <li>a. Water leakage from pump</li> <li>b. Decreased efficiency due cutting blades</li> <li>c. Motor winding</li> <li>d. Provision of spares/ parts (Impeller/ Bearing/ O rings/ Seals) (whenever needed).</li> </ul>
13.	Acceptance Criteria	<ul style="list-style-type: none"> <li>a. Satisfactory discharge flow rate of 0.5 m<sup>3</sup>/h of cutting pump.</li> <li>b. Satisfactory operation without increased noise, vibration &amp; leakage.</li> </ul>
14.	Any other Info	Growth Work, Damage/ defect occurred during work is responsibility of contractor.



## IT SPECIFICATION FOR REPLACEMENT OF RADIATOR OF GENSET NO 3 – PMSS DASHT

13

S No	Description	
1.	Parent Equip.	GENSET No 3
2.	Sub Equip.	Radiator
3.	Assy Comp.	Radiator
4.	Origin	China
5.	Make	Caterpillar
6.	Model	C9
7.	Quantity	01
8.	Justification	Deteriorated radiator tubes beyond repair/ FWT
9.	Technical specs	As per OEM manual/ Specs
10.	Scope of work	<p>a. Contractor is to dismantle existing radiator very carefully by his own labour.</p> <p>b. Contractor is to ensure heat proof painting of GENSET No 3 radiator onboard ship.</p> <p>c. Contractor is to take exact measurements of all parts of radiator which should include location of holes (for nuts and bolts) for replacement of new radiator.</p> <p>d. Contractor is to fabricate new radiator of 316L Stainless Steel exactly as per sample. GENSET is to be trial for 72 hours with new radiator. If noise or vibration is present, contractor is to modify as necessary.</p> <p>e. Newly fabricated radiator must fit exactly on its base as per original and no fitting observation should remain after installation.</p> <p>f. Contractor is to use new stainless steel 316L bolts, nuts and washers for installation of new radiator.</p> <p>g. Contractor is to provide ELC coolant as prescribed by OEM for SAT operation after replacement and whenever required in warranty period.</p> <p>h. Contractor is to provide services of chemical and pressure cleaning onboard for radiator once in every quarter in warranty period.</p>
11.	Eligibilities	Local contractor and his workers having working experience of fabricating, repairing stainless steel 316L frames.
12.	EDC	EDC for replacement and installation of new stainless steel 316L radiator is <b>one week</b> after issuance of work order.
13.	Warranty	02 x Years material warranty of newly fabricated radiator. Moreover, it should remain vibration free and noise free. In case of <b>ANY</b> warranty claim is raised by ship staff related/ regarding RADIATOR, it should be rectified by contractor within 24 hours of intimation.
14.	Acceptance Criteria	<p>a. As per technical manual maximum operating pressure of radiator 4000 mbar and maximum temperature is 107 C. Therefore, newly fabricated radiator must be tested at 150% of above mentioned parameters</p> <p>b. Upon provision of warranty certificate to ship staff for radiator.</p> <p>c. Radiator must be tested at 150% of above mentioned operating parameters.</p> <p>d. After completion of complete work as mentioned in S. No 6 'a' to 'h'</p>
15.	Any other info	Firm must visit onboard to meet exact requirement of ship and in case of any query contractor must contact MEO/ SS

**IT SPECIFICATION FOR DEFECT RECTIFICATION OF MAIN REFRIGERATION PLANT NO 1 & 2 – PMSS  
DASHT**

S No.	Description	
1.	Parent System	CLZ4 Marine Packed Refrigeration Plant
2.	Sub System	Compressor and Condenser
3.	Assy. Component	Compressor, Condenser, Valves, Refrigerant circuit
4.	Origin	China
5.	Make	Jiangsu Josun Air Conditioner Co., Ltd
6.	Model	CZLZ-4
7.	Quantity	02
8.	Technical specs (if any)	As per OEM Manual/ Specs
9.	Justification	Leakage from refrigerant circuit
10.	Scope of Work	a. Inspection of complete gas circuit including evaporator, condenser and compressor gas circuit lines of both the systems b. Replacement of both compressor and compressor Oil Suniso (SL-32) c. Replacement of dry filter element and oil separator of both the systems c. Replacement of condenser along with valves of both of the systems d. 24 hour Nitrogen gas pressure test of both of the system for any leakages e. System Gas charging (R-404A) of both the systems by contractor during work and within warranty period whenever needed f. Satisfactory test/ trials of both the systems g. All tools and test equipments will be arranged by firm/ contractor
11.	Eligibilities	Reputable local contractor having working experience of Refrigeration Plant repairs onboard MPVs
12.	EDC	07 x Days
13.	Warranty	One Year warranty after test/ trials or as recommended by OEM without following defects: a. Satisfactory operation without refrigerant leakage b. Provision of gas whenever needed within warranty period c. Brazing of circuit whenever needed within warranty period
14.	Acceptance Criteria	a. OEM Certified spares. b. Upon scrutiny of item and provided documents i.e. technical specifications c. Satisfactory operation without high vibration and noise. d. Satisfactory operation without refrigerant leakage. e. Maintaining the temperature of Cold Room (-6C to -18C) and Cool Room (+12C to +6C)
15.	Any other Information	a. Damage/ defect occurred to system during work is responsibility of contractor. b. Dismantling/ assembling/ installation and in way removal work is responsibility of contractor.



**IT SPECIFICATION FOR CLEANING AND PAINT OF 16 X FUEL TANKS, 05 X FRESH WATER TANKS AND 06 MISC TANKS - PMSS DASHT**

S No	Description						
1.	Parent Equipment	16 X Fuel tanks, 05 X Fresh water tanks and 06 Misc tanks(Gray water tank, dirty oil, sludge oil, bilge tank)					
2.	Sub-equipment						
3.	Assembly equipment						
4.	Make	CSTC	5.	Model	N/A		
6.	Quantity	27 x Tanks	7.	Justification i.e PMS/Failure/FWT	DED work package		
8.	Work required/ Defect	Cleaning and paintwork (including provision of paint) of 16 x fuel tanks, 05 x fresh water tanks and 06 misc tanks					
9.	Detailed scope of work	Cleaning and paint work of following 27 x tanks					
		S.No	Tank	Paint	Paint Code	Area (m2)	Requirements (Liters)
		a.	05 x Fresh water Tank	Epoxy Phenolic/ Tank coating	TLA851/TLS856	364.7	72
				Epoxy Phenolic/ Tank coating	TLA850/TLS856	364.7	72
		b.	09 x Fuel Tank & 06 x Header Tanks	Epoxy tank Holding primer	THA700/THA703	847.9	200
				Epoxy tank Holding primer	THA702/THA703	847.9	200
		c.	01 x Fuel Tank (overflow)	Epoxy tank Holding primer	THA700/THA703	24.6	5.8
				Epoxy tank Holding primer	THA702/THA703	24.6	5.8
		d.	02 x Grey water tank	Epoxy universal primer	KU606/KUA603	82.7	15.2
				Epoxy universal primer	KU602/KUA603	82.7	15.2
		e.	01 x Lube oil tank	Epoxy tank Holding primer	THA700/THA703	21.2	5.0
				Epoxy tank Holding primer	THA702/THA703	21.2	5.0
		f.	01 x Dirty oil tank	Epoxy universal primer	KU606/KUA603	42.7	7.9
				Epoxy universal primer	KU602/KUA603	42.7	7.9
		g.	01 x Sludge oil tank	Epoxy universal primer	KU606/KUA603	15.7	2.9
				Epoxy universal primer	KU602/KUA603	15.7	2.9
		h.	01 x Bilge tank	Epoxy universal primer	KU606/KUA603	25.0	4.6
				Epoxy universal primer	KU602/KUA603	25.0	4.6
		TOTAL				2849	626.8
		(a) Firm is to carry out deep cleaning of tanks and remove all oil settled at bottom, residue and dust particulars.					
		(b) Gas free of each tank is to be undertaken before cleaning of tanks					
		(c) Firm is to use only recommended and clean cloth. Moreover blast/ explosion proof lighting is to be used by firm while undertaking cleaning/ paint activity.					
		(d) Firm is to renew packing/ seals of tank hatches/ covers.					
		(e) Firm is to apply recommended paint after clearing any corrosion on surface, i.e. surface is to be prepared properly before applying paint.					
		(f) Only recommended Paint (Akzo Noble Pakistan) is to be procured / used by firm having valid shelf life of atleast 01 year.					
		(g) All spares, tools and test equipment are to be arranged by the firm					
		(h) Any growth work/ damage will be sole responsibility of the firm					
10.	Technical specs	As per OEM Manual/ Specs					
11.	Eligibility criteria	a). Reputable local contractor having working experience on tanks cleaning and paint work onboard.					
		b). Firm must visit site for understanding exact nature of work.					
12.	EDC	ASAP(20 days)					
13.	Warranty	One year after satisfactory cleaning and paint work.					
14.	Acceptance criteria	Visual inspection alongwith paint film thickness testing by firm.					
15.	Any other information	Firms are to visit site before quoting to fully understand scope of work					

**IT SPECIFICATION FOR REPAIR/ MAINTENANCE AND INSTALLATION OF  
FRAMES AND SECURING OF DECK PLATES IN MACHINERY, TUNNEL  
AND SEWAGE COMPARTMENTS - PMSS DASHT**

S No	Description	
1.	Parent System	Machinery, Tunnel and Sewage Compartment
2.	Sub system	Compartments
3.	Assy Equipment	Frames and Deck Plates
4.	Make	China Shipbuilding Trading Company Ltd
5.	Model	Nil
6.	Qty	660 Square Feet
7.	Justification	FWT
8.	Technical Specs	Installation of deck frames and securing of deck plates
9.	Scope of Work	<ul style="list-style-type: none"><li>i. Repair/ maintenance and securing of deck plates via stainless steel (grade 316L) machine screws (with oval head).</li><li>ii. Modification in plates for securing requires drilling of holes (if needed).</li><li>iii. Installation/ fabrication of iron deck frames/ angles and other associated fittings.</li><li>iv. Installation and sizing of deck plates and iron angles fro securing the plates.</li><li>v. Removal and installation will be carried out by the firm.</li><li>vi. All tools and equipments will be arranged by the firm.</li><li>vii. Any growth work will be responsibility of firm.</li><li>viii. All spares and parts (Nuts/ Bolts etc) will be provided by the firm.</li></ul>
10.	Eligibilities	<ul style="list-style-type: none"><li>i. Any registered and security wise cleared local contractor, who has good working experience of above mentioned work.</li><li>ii. Firm quoting without visiting site will be liable for rejection in TSR</li></ul>
11.	EDC	10 x Days
12.	Warranty	02 x Years
13.	Acceptance Criteria	Satisfactory work by the firm upto command satisfaction
14.	Any other info	Coordinate MEO/ SS for better understanding of scope of work

**IT SPECIFICATIONS FOR PURCHASE OF DINNING CHAIRS FOR DINNING HALL**

**PMSS DASHT**

S. No	IT SPECIFICATIONS	
1	Item	Dinning Chairs
2	Specifications	<ul style="list-style-type: none"><li>• Imported Rexine</li><li>• Master Commander Foam</li><li>• Stand (Frame) of 20 MM</li><li>• Crum Polish</li></ul>
3	Sub system	N/A
4	Dimension/ Size	Standard Size (18" Width & 22" back side)
5	Model	N/A
6	Quantity	35 in Number
7	Description	Dinning Chairs with Crum Polish
8	Eligibilities	The Firm should registered with PMSA and also NTN/ GST registered.
9	EDD	15 Days after issuance of work/ confirmation order
10	Warranty	01 Year
11	Acceptance criteria (if any)	Accepted by Ship Staff
12	Any other relevant information	Firm must visit onboard for clarification of any query and understanding of requirement before quoting



**IT SPECIFICATION FOR OVERHAULING OF FIRE MAIN PUMP – PMSS DASHT**

S No.	Description	
1.	Parent Equipment	Fire main system
2.	Sub Equipment	Fire main pump
3.	Assembly component	Fire main pump
4.	Make	Jiangsu Zhenhua Pump Industry Co. Ltd
5.	Model	CLH80-65-5.5(Z)
6.	Qty	01
7.	Justification	Low discharge pressure.
8.	Work required/ Defect	Replacement of degraded parts
9.	Detailed scope of Work	<ul style="list-style-type: none"> <li>a. Replacement of degraded impeller, impeller key and impeller housing with new.</li> <li>b. Replacement of old mechanical seal with high quality mechanical seal.</li> <li>c. Replacement of degraded seal rings with copper/ phosphorus bronze material seal rings.</li> <li>d. Replacement of degraded pump shaft with Stainless Steel (316L) material pump shaft.(if required).</li> <li>e. Replacement of pump bearing with SKF/ high quality bearing.</li> <li>f. Repair/ replacement of degraded pump body/ casing.</li> <li>g. Overhauling of motor (wiring/ insulation/ field balancing/ bearing).</li> <li>h. Repair/ replacement of degraded suction/ discharge lines.</li> <li>j. Precise alignment of pump with motor.</li> <li>k. Old bolts and nuts to be replaced with new Stainless steel (316L) bolts and nuts.</li> </ul>
10.	Technical Specs (if any)	As per OEM Manual/ Specs.
11.	Eligibilities	Reputable local contractor having working experience of repair/ overhauling of sea water pumps onboard 6HT MPVs.
12.	EDC	07 x days
13.	Warranty	<p>1 year warranty for satisfactory operation of pump without following defects:</p> <ul style="list-style-type: none"> <li>a. Seawater leakage from pump, mechanical seal and discharge valve.</li> <li>b. Increased vibration/ noise/ hard to rotate.</li> <li>c. Decreased discharge pressure.</li> <li>d. Provision of spares/ parts (Impeller/ Bearing/ O rings/ Seals) (whenever needed).</li> </ul>
14.	Acceptance Criteria	<ul style="list-style-type: none"> <li>a. Satisfactory discharge pressure of 0.6 MPa.</li> <li>b. Satisfactory and smooth operation without high vibration and noise</li> <li>c. Satisfactory operation without sea water leakage.</li> </ul>
15.	Any other Information	Dismantling/ assembling/ installation and in way removal work is responsibility of contractor.

**IT SPECIFICATIONS FOR OVERHAULING/ REPAIR OF PORT RHIB STERN DRIVE UNIT -  
PMSS DASHT**

S No	Description	
1.	Parent Equipment	PORT RHIB Boat
2.	Sub Equipment	Stern Drive Unit
3.	Assembly Component	Propeller shaft, Coupler spines, Drive sleeve, Thrust hub, Shaft anode, Body/casing stern drive, coupler, Trim cylinder, Gimbal ring, Bell housing,
4.	Model	4LHA-STP MerCruiser II OW900028
5.	Make	Mercury
6.	Quantity	01
7.	Justification	Abnormal noise and behavior observed from stern drive unit with hydraulic oil leakage from drive casing
8.	Work required	Inspection/servicing/ complete overhauling with testing of Stern Drive unit satisfactorily
9.	Scope of work	<p>a. All in-way accessories to be removed by the firm.</p> <p>b. Removal of Stern Drive for overhauling/ repairing and adjustment.</p> <p>c. Replacement of stern drive gear lube oil with rubber gasket and monitor cap.</p> <p>d. Replacement of propeller, sealing washer, drain plug and vent plug.</p> <p>e. Replacement of Gearcase anodic plate, anode plate, mercathode system, anode kit, trim cylinder anodes, bearing carrier anodes, and shaft anode.</p> <p>f. Replacement of Ventilation plate anode, transom plate continuity wires and steering level continuity wire.</p> <p>g. Replacement of flywheel housing and screw &amp; nuts, gimbal housing and ring ground wire and trim cylinder ground wire.</p> <p>h. Replacement of stainless steel hoses, throttle cable pivots and contact surfaces.</p> <p>j. Replacement of coupler spines, exhaust tube and shift cable bellows</p> <p>k. Replacement of Rear mount, bolts and transom plate mounts.</p> <p>l. Turbocharger to be checked for fair wear and tear.</p> <p>m. Intercooler to be dismantled for chemical cleaning.</p> <p>n. Fuel pump to be serviced.</p> <p>o. Tappet clearance/adjustment to be carried out.</p> <p>p. Shaft bearing inside the coupler to be dismantled and replaced.</p> <p>q. All accessories to be fitted back by the firm after repair.</p> <p>r. Growth work will be solely responsibility of firm. To avoid complications on later stage, firm is to visit ship before quoting for understanding removal/installation and maintenance scope.</p>
10.	Technical Specs	As per Technical Manual TPI 15503450001 M65P
11.	Eligibility Criteria	Any reputable, qualified, registered and security wise cleared Local Contractor having relevant working experience
12.	EDC	07 x Days
13.	Warranty	01 x Year
14.	Acceptance Criteria	Satisfactory operation/ running of the boat upto maximum Engine RPM i.e. 3500
15.	Any Other Info	Coordinate MEO/ SS for scope of work understanding



**IT NO : IT/16/20/2024-25**

**IT SPECIFICATION FOR REPLACEMENT OF DIEF PANELS, ECMS, SENSORS, PLC AND DETAILED INSPECTION OF C9 CAT GENSET No. 1 & 3 – PMSS DASHT**

S No	Description
1.	Parent Equip. GENSET No 1 & 3 and Switchboard
2.	Sub Equipment Generator and Controls
3.	Assm. Comp. DIEF panels, ECMs, Sensors and PLC
4.	Make Caterpillar and Siemens
5.	Model C9 water and air cooled (C9Z05156 and C9Z05159) and T5N630 PR222DS/P-LSI630A/ SIEMENS SIMATIC S7-300
6.	Quantity 02 x GENSETs items and 01 x Switchboard PLC
7.	Justification Sudden tripping of GENSETs due DIEF and ECM malfunctioning
8.	Work required Replacement of DIEF panels, ECMs PLC and Sensors and detailed inspection of GENSETs
9.	Scope of work a. Detailed health inspection of injectors and associated gear driven pumps of GENSET No. 1 & 3 b. Sharing of report indicating hidden defects and any unseen anomaly in the system. Report should also include recommendations for catering defects (if any). c. Replacement of complete DIEF panels with new OEM specified only for GENSET No 1 & 3 d. Replacement of ECMs (Engine Control Modules) with new OEM specified only for GENSET No 1 & 3 e. Replacement of Sensors (Lube Oil Press, Fuel Press (MBS 3100), Lube Oil Temp (MBS 5150 060N1072) and Atmospheric Temp) with new OEM specified only for GENSET No 1 & 3 f. Replacement of 02 x ABB T5N630 PR222DS/P-LSI630A (3 Phase SACE Tmax breaker with control device (motorize unit) with frame and accessories) with new of OEM only for GENSET supply to Main Switchboard. g. Replacement of SIEMENS SIMATIC S7-300 PLC (Programmable Logic Controlling) with new OEM specified only for Main Switchboard
10.	Tech Specs As per OEM specified only
11.	Eligibilities Reputable contractor having working experience of C9 Caterpillar Genset Siemens Switchboard PLC fitted on MPVs.
12.	EDC 10x Days
13.	Warranty 01 x Year with supportability of any spares needed in warranty period
14.	Acceptance Criteria a. OEM Certified spares only (All spare part(s) used during defect rectification of GENSETs are to be procured through OEM local Rep M/s Allied Engineering Ltd.) b. Upon scrutiny of item and provided documents i.e. technical specifications c. Successful HATs and SATs upto satisfaction level d. SAT running of both GENSETs No 1 & 3 with no abnormal noise and vibration e. SAT parallel running of all GENSETs with no fluctuation/ hunting
15.	Any other info Contact SS/ MEO



**IT SPECIFICATION FOR REQUIREMENT OF HEILA HYDRAULIC CRANE SYSTEM**  
**INSTRUMENTAL PAINT WORK – PMSS DASHT**

S No.	Description	
1.	Parent system	HEILA Hydraulic Crane System
2.	Sub system	Crane
3.	Assy. Component	Crane Paint work
4.	Make	Eway Marine (Hong Kong Co. Ltd)
5.	Model	242SYF-5-00
6.	Qty	01
7.	Justification	FWT
8.	Scope Of Work	<p>Cleaning and Anti-rust painting as per prescribed paint scheme including following:</p> <ul style="list-style-type: none"> <li>a. Complete Paint/ Rust removal of entire system including motors fitted</li> <li>b. Replacement of eroded parts/ components(i.e. 316L ferules of hydraulic pipes) as per design/ specification/ material</li> <li>c. Preparation of all surfaces including application of polygate filling prior paint work</li> <li>d. Single coat of Zinc chromate primer via spray gun</li> <li>e. Application of OEM recommended paint marine type Akzo Nobel Interthane 987/990- Grey &amp; Black ( 3 x coats via spray gun)</li> <li>f. Polishing of Entire system upon completion of paint work</li> <li>g. Removal and re-installation/ fitting of all in-way parts/ accessories is the responsibility of the firm.</li> <li>h. Provision of OEM authorized paint is the responsibility of the firm</li> <li>j. Any growth in scope of work will be the responsibility of contractor</li> <li>j. Defect rectification of any leakage or replacement of parts/ spares if needed</li> </ul>
9.	Eligibilities	<ul style="list-style-type: none"> <li>a. The firm may visit onboard and carry out inspection to establish the extent of scope of work</li> <li>b. The firm should have expertise in quality paint work onboard ships</li> </ul>
10.	EDC	01 x week
11.	Warranty	02 x Years
12.	Acceptance	Satisfactory work done by the firm and completion by the end user
13.	Any Other Information	Coordinate SS

**IT SPECIFICATION OF INFRARED NIGHT VISION SYSTEM - PMSS DASHT**

S No.	Description	
1.	Parent Equipment	Marine infrared night vision system
2.	Sub equipment	-
3.	Assembly component	-
4.	Make	CSSC
5.	Model	HEOS-103
6.	Qty	01
7.	Justification i.e PMS/Failure/FWT etc	Failure
8.	Technical Specs (If any)	As per OEM Manual/ Specs
9.	Work required/ defect	Defect diagnosis/rectification of marine night vision system is required
10.	Detailed Scope of work	Satisfactory working of equipment
11.	Eligibility criteria	Reputable local contractor having working experience with PMSA. OEM authorized reps will be given preference
12.	EDC	ASAP (01 month)
13.	Warranty	01 year
14.	Acceptance Criteria	a. OEM Certified items b. Items will be accepted after satisfactory test/ trials onboard c. OEM Technical documents of item d. Upon scrutiny of item and provided documents i.e. technical specifications along with production certificates and batch No. by OEM e. Items must be genuine. Local/ aftermarket products will not be accepted
15.	Any other relevant Information	a. Firm must visit onboard for clarification of any query and understanding of requirement before quoting. b. Onboard installation is responsibility of firm.

**Note: 100% Payment after completion by CNA**

## Director General

Pakistan Maritime Security Agency

Plot No 34-A, Dockyard Road

KARACHI

Telephone 021-48509194

Fax 99214625

E-Mail [dpcc@pmsa.gov.pk](mailto:dpcc@pmsa.gov.pk)

### **INVITATION TO TENDER GENERAL INSTRUCTIONS**

#### **1. CONDITIONS GOVERNING CONTRACT:**

All Procurement / Repairs / Maintenance Contract, Local Purchase Order (LPO) and work ordered made as a result of this IT shall mean the agreement entered into between the parties that is buyer and the supplier will be in accordance with the PPRA rules 2004 or any amendment issued from time to time. Therefore all open tender inquiry will be uploaded on PPRA Website and publish on print media as the case may be.

#### **2. SUBMISSION OF TENDER:**

Firms shall submit their offers in two separate envelopes clearly marked as "**Commercial Offer**" and "**Technical Offer**" for open tender. Both envelopes shall be properly sealed bearing the signature of the bidder. Thereafter both these envelopes shall be placed in one bigger envelope. This envelope should bear the address of the D (P&CC).

- a. **TECHNICAL OFFER:** Should contain all relevant details and specifications as per the IT specifications. Literature / Brochure or any other relevant technical details may also be included in it. Technical offer should not contain the price. Indication of price in technical offer may render it null and void. The word "Technical Offer" should be clearly mentioned along with the tender No and date on the envelope containing the technical offer.
- b. **COMMERCIAL OFFER:** The price to be quoted in figures as well as in words along with essential Literature / Brochures. The word "Commercial Offer", tender number should be clearly mentioned on the envelope. Taxes, duties, freight / transportation, insurance charges etc if any are to be indicated separately.
- c. **BID SECURITY:** All registered firms are exempted from provision of bid security upto Rs.500,000/- and unregistered firms have to provide bid security equals to 02% for bids amounting upto Rs.500,000/- in the shape of Pay Order in favor of "IT Sale Account DG PMSA". Furthermore, firms are required to deposit bid security not exceeding 05% of the bid price for bid value amounting more than Rs.500,000/-. Moreover, following guidelines will be followed:
  - i. 2% from registered firms.
  - ii. 5% from un-registered firms.
- d. Total price of the items quoted against the tender is to be clearly mentioned. It should also contain a **pay order 2% or 5% in the shape of pay order of the offered value** as earnest money. Cross cheque or cash is not acceptable in this case. The offer received without earnest money will be rejected.
- e. **SPECIAL INSTRUCTIONS:** Tender documents and its conditions may please be read point to point and understood properly before quoting. All tender conditions should be responded properly. In case of any deviation due to non-acceptance of tender conditions, the same should be highlighted along with changed offer / conditions. Tender may however be liable to be rejected.

#### **PREPARATION OF QUOTATION**

Please prepare quotation in this format In case of GST @ 18% or SST @ 15%:

<u>S.NO</u>	<u>Description</u>	<u>Unit Price</u>	<u>Qty</u>	<u>Total</u>	<u>GST @ 18% or SST @ 15%.</u>	<u>T/Price</u>

Please prepare quotation in this format In case of without GST or SST:



S.NO	Description	Unit Price	Qty	Total	T/Price

**Without this format quotation will not be accepted.**

**3. DATE AND TIME FOR RECEIPT OF TENDER:**

Tender must be dropped in tender Box placed at main gate. HQ PMSA will not accept any excuse of delay occurring due to whatsoever reason. Tender received after the time indicated in IT will not be entertained. The tender opening time, however, fall on next working day in case of closed / forced holiday or any other unforeseen event. Only authorized representatives of firm will be allowed to attend tender opening. **The tender received through Fax, E-Mail will not be acceptable.**

**4. TENDER OPENING:**

Technical offer will be opened as per scope of work on the date and time mentioned in the tender. Commercial offer shall be retained with technical officer. It will be opened at a later stage. All technical offers will be scrutinized by a Technical Scrutiny Report (TSR) committee nominated by HQ PMSA. The offers which are not as per the IT specification will be rejected. The firms recommended by TSR Committee will be allowed to attend the commercial opening for which date and time will be intimated separately.

**5. VALIDITY OFFER:**

The validity period of quotations must be indicated and should invariably be for 90 days extendable to 30 days from the date of opening of Technical offer.

**6. QUOTING OF RATES:**

Unit price of the item, GST/ SST or any other Govt tax and Total price all these should be indicated separately in Pak Rupees in a very clear manner as follows:

S No	Description	Qty	U/Price	GST/SST/Taxes	Total Price
------	-------------	-----	---------	---------------	-------------

**7. ATL/ GST/ SST/ INCOME TAX NUMBER:**

Only registered suppliers, who are on Active Taxpayers List (ATL) of FBR, are eligible to supply goods/ services to Government department. GST/SST and income tax number be clearly indicated on the quotations and all other relevant documents.

**8. RETURN OF EARNEST MONEY:**

- a. Earnest money to the unsuccessful bidders will be returned **one week** after commercial opening date.
- b. Earnest money to the firm who has won the purchase order/ work order & contract will be returned on submission of Bank Guarantee as per the contract.

**9. TENDER FEE:**

Each technical offer must be accompanied with Cash of **Rs.1,000/-** nonrefundable as tender fee (In favour of IT Sale Account DG PMSA) (**Separate Quotations required for each IT Specification**).

**10. INSPECTION AUTHORITY:**

Joint inspection of stores provided and work done will be carried out by committee appointed by HQ PMSA or as per the contract.

**11. CONDITION OF STORES:**

Spares, Stores, items and work done will be accepted on Warranty / Guarantee of the firm on Form DPL-15.

**12. DOCUMENTS REQUIRED:**

Following documents are required to be submitted alongwith the quotes where applicable:

- a. OEM / Authorized Dealer/Agent Certificate alongwith OEM Dealership Evidence as applicable.

b. The Supplier is to provide OEM conformance certificate. In case of Fax or e-mail hard copy of conformance certificate must follow. On receipt of this PMSA HQ may approach the OEM to confirm the veracity of the documents submitted. Companies / firms rendering false OEM conformance certificate will be penalized as per rules in vogue.

**13. SECURITY DEPOSIT / BANK GUARANTEE:**

To ensure timely and correct supply of stores the firm will furnish an unconditional Bank Guarantee (BG) from a schedule bank for an amount of **10%** of the contract value (excluding taxes, duties / freight handling charges on a stamp paper of the value of (Rs.100/00) as per prescribed format in the shape of Bank Guarantee. Format of Bank Guarantee is at Annex „B“. Furthermore, it is imperative to mention that deposit of PBG for HMI and Core Exchange cases will be equal to the total value of engine.

**14. CURRENT BANK STATEMENT:**

For all contracts of Rs 1,000,000/- or more the firm is required to submit current bank statement of the firm.

**15. INTEGRITY PACT:**

Procurement exceeding Rs 1.00 M shall be subject to an integrity pact, between the Buyer and the Suppliers or Contractors.

**16. CORRESPONDENCE:**

All correspondence will be addressed to the Buyer. Correspondence with regard to payment or issue of delivery receipt may be addressed to D (P & CC) PMSA Karachi.

**17. PRE SHIPMENT INSPECTION:**

PMSA may send a team of Officers for the inspection of Major Equipment and Machinery items at OEM premises for inspection before dispatch if required at the Supplier's cost and arrangement.

**18. AMENDMENT IN CONTRACT:**

Contract may be amended / modified to include fresh clause modify the existing clauses with the mutual agreements by the Supplier and the Buyer such modifications shall form an integral part of the contract.

**19. DISCREPANCY:**

The Buyer will render a discrepancy report to all concerned within 45 days after receipt of stores for discrepancies found in the consignment. The quantities found short are to be made good by the Supplier free of cost.

**20. PRICE VARIATION:**

Price offered against IT are to be firm and final.

**21. LIQUIDATED DAMAGES (LD):**

Liquidated Damages upto 2% per month are liable to be imposed on the Suppliers by the Buyer in accordance with PPRA rules, if the stores supplied after the expiry of the delivery date without any valid reason. Total value of the LD shall not exceed 10% of the contract value.

**22. RISK PURCHASE:**

In the event of failure on the part of Supplier to comply with the contractual obligations the contract will be cancelled at the Risk and Expense of the Supplier in accordance with PPRA rules.

**23. PENALTY:**

In case of wrong supply of the item by the Supplier, a penalty of 10% of the contract value may be imposed by this HQ PMSA apart from any other penalties.

**24. ALL RIGHTS RESERVED:**

HQ PMSA may reject all bids or proposals at any time prior to the acceptance of a bid or proposal as per PPRA Rule 33(I).

---

**25. PAYMENT:**

The payment will be released through Controller of Naval Accounts (CNA) Karachi in Pak Rupees after completion of delivery / work.

**26. PARTIAL ORDER.**

All participating firms are to comply acceptance of partial order. Partial supply as per lowest rates will be awarded to the lowest bidder.

**27. DISQUALIFICATION:** Offers are liable to be rejected if:-

- a. Received after time and date specified in the IT.
- b. Offers are found conditional or incomplete in any respect.
- c. There is any deviation from the General / Special / Technical Instructions contained in this tender.
- d. Taxes and duties, Freight, Transportation and Insurance charges not indicated separately as per required price breakdown mentioned above.
- e. Pay Order with Commercial Offer and Cash with Technical Offer is not received.
- f. Multiple rates quoted against one item.
- g. Manufacture's relevant Brochures and technical details on major equipment, assemblies are not attached in support of specification.
- h. Offers (Technical / Commercial) are containing amendments / corrections / overwriting etc.
- j. National Tax No (NTN) and GST/SST No are not indicated on technical and commercial offer.
- k. If validity of offer is not quoted as required in IT or made subject to confirmation late.