

SEPARATE QUOTATIONS REQUIRED FOR ATTACHED 108 X IT SPECIFICATIONS

SINGLE STAGE TWO ENVELOPE PROCEDURE

INSTRUCTIONS FOR BIDDERS (SINGLE STAGE, TWO STAGE BIDDING PROCEDURE)

In accordance with applicable PPRA Rules and DPPI-35, all participating firms are required to submit their bids under the SINGLE-STAGE, TWO STAGE ENVELOPE Bidding System for the listed items. Each bid shall consist of two separate sealed envelopes, clearly marked "Technical Proposal" and "Commercial Proposal", and placed within two outer sealed envelopes.

Stage I – Technical Proposal (First Envelope)

The Technical Proposal shall be submitted without any reference to prices or financial information and must include the following:

1. A clear understanding of the scope of work and objectives of the assignment
2. Relevant experience of the firm in similar or comparable projects
3. Details of sourcing arrangements for goods and/or services proposed for the assignment
4. Proposed methodology and work plan.
5. Approach for successful and timely completion of the work
6. Copies of relevant documents, including but not limited to:
 - Company profile.
 - Registration certificates
 - NTN / STRN (where applicable)
 - Past performance certificates or client references

The Technical Proposal will be evaluated first. Only firms whose Technical Proposals are found responsive and compliant with the prescribed requirements will qualify for Stage II (Commercial Evaluation).

Stage II – Commercial Proposal (Second Envelope)

The Commercial Proposal shall be submitted in a separate sealed envelope and must include:

1. Complete item-wise price breakdown for all goods to be supplied and/or services to be rendered
2. Clear description of the scope of work or services covered under the quoted prices
3. All prices quoted in Pakistani Rupees (PKR), inclusive of applicable duties and taxes, as detailed below:
 - **General Sales Tax (GST) @ 18%** on applicable goods
 - **Sindh Sales Tax (SST) @ 15%** on services rendered

CONDUCT OF PMS ROUTINE OF STARTER CONTROLLER BOX - PMSS KASHMR

S No	Description																																														
1.	Ships Name	PMSS KASHMIR																																													
2.	Parent Equipment	Starter Controller Box																																													
3.	OEM	SHANGHAI MARINE DIESEL ENGINE RESERCH INSTITUTE, CSIC																																													
4.	Model	SAL-13																																													
5.	Serial No	541639~541642																																													
6.	Origin	China																																													
7.	Sub Equipment	Electromagnetic Starter Control Box																																													
8.	Assembly Equipment	LOGO 24RC(AC/DC) Contactor LC1D32M7C Buzzer AD16-22SM/r 23 2 position self-locking switch LA42X29-22/B 3 position no self-locking switch LA42X3A-22/B 2P Relay RJ2S-CLD-D24 4P Relay RU4S-D24 Green indicator AD16-22D/G 23S White indicator AD 16-22D/W23S Red indicator AD16-22D/R 23S White button LA39-B322/W																																													
9.	Part No. of Assembly Equipment	<table border="1"> <thead> <tr> <th>S No</th> <th>NSN/ Part No</th> <th>Description</th> <th>Qty</th> </tr> </thead> <tbody> <tr> <td>a.</td> <td>LC1D32M7C</td> <td>Contactor</td> <td>2</td> </tr> <tr> <td>b.</td> <td>AD16-22SM/r23</td> <td>Buzzer</td> <td>2</td> </tr> <tr> <td>c.</td> <td>LA42X29-22/B</td> <td>2 position self-locking switch</td> <td>2</td> </tr> <tr> <td>d.</td> <td>LA42X3A-22/B</td> <td>3 position no self-locking switch</td> <td>2</td> </tr> <tr> <td>e.</td> <td>RJ2S-CLD-D24</td> <td>2P Relay</td> <td>2</td> </tr> <tr> <td>f.</td> <td>RU4S-D24</td> <td>4P Relay</td> <td>2</td> </tr> <tr> <td>g-</td> <td>AD16-22D/G 23S</td> <td>Green indicator</td> <td>2</td> </tr> <tr> <td>h.</td> <td>AD16-22D/W23S</td> <td>White indicator</td> <td>2</td> </tr> <tr> <td>j.</td> <td>AD16-22D/R 23S</td> <td>Red indicator</td> <td>2</td> </tr> <tr> <td>k.</td> <td>LA39-B322/W</td> <td>White button</td> <td>2</td> </tr> </tbody> </table>		S No	NSN/ Part No	Description	Qty	a.	LC1D32M7C	Contactor	2	b.	AD16-22SM/r23	Buzzer	2	c.	LA42X29-22/B	2 position self-locking switch	2	d.	LA42X3A-22/B	3 position no self-locking switch	2	e.	RJ2S-CLD-D24	2P Relay	2	f.	RU4S-D24	4P Relay	2	g-	AD16-22D/G 23S	Green indicator	2	h.	AD16-22D/W23S	White indicator	2	j.	AD16-22D/R 23S	Red indicator	2	k.	LA39-B322/W	White button	2
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10.	Source of Availability	OEM, Local Market																																													
11.	Justification for work	To conduct PMS routine of Electromagnetic Starter Control Box (PMS No: 5- 3101-0001-0002)																																													
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		Details of Repair work Required	Details of services Required	Details of Spares Required
		Inspection/ Overhauling of Electromagnetic Starter Control Box required for SAT OPS. Defective parts must be replaced with new	Repair/ Replacement required for defective items of Electromagnetic Starter Control Box required for SAT OPS	As per S No 9
14.	Technical Specs	Equipment type Serial No Input voltage/ Frequency Rated current Output Interface	SAL-13 541639-541642 AC380V 50Hz 63 A 4 on-off output Passive contact 2 AC380V control signal ; 2 AC220V control signal	
15.	Eligibilities	Reputable local/ international contractor registered with FBR and having working experience with PMSA.		
16.	EDC	30 Days after award of contract		
17.	Warranty	1 Year		
18.	Acceptance Criteria	a. OEM Certified item b. Defective/ BER items must be replaced with new. c. Firm will not be allowed to use ship tools and manpower		

IT NO: IT/86/02/2025-26

REPAIR/ REPLACEMENT OF EXHAUST LINES ON MAIN ENGINES AND SSDG-1 - PMSS BARKAT

S No	Description	
1.	Ships Name	PMSS BARKAT
2.	Parent Equipment	Main Engine and SSDG
3.	OEM	MTU/CUMMINS
4.	Model	16V 396 TB93/ 6CTA8-3
5.	Serial No	5590545, 5590546/ 226-62-97-462
6.	Origin	Germany/ USA
7.	Sub Equipment	Exhaust System
8.	Assembly Component	Exhaust Line
9.	Quantity	As per detail scope of work
10.	Source of Availability	Local Market
11.	Justification for Work	a. Exhaust lines of FSME and APME (Length 4 feet, Dia 15 inch) from bulk head (over board point) up to exhaust flap found leaky due sea water ingress during rough weather. b. Exhaust line of SSDG-1 (Length 4 feet, Dia 8 inch) from bulk head (over board point) towards engine found leaky due sea water ingress during rough weather.

12.	Work Required	<table border="1"> <thead> <tr> <th>a</th> <th>b</th> <th>c</th> <th>d</th> </tr> </thead> <tbody> <tr> <td>Defect/ Routine List</td> <td>Repair Work Required</td> <td>Services Required</td> <td>Spares Required</td> </tr> <tr> <td>Exhaust lines of FSME, APME and SSDG-1 from bulk head (over board point) towards engine found leaky</td> <td>Repair/ replacement of exhaust lines is required for sat ops.</td> <td>As per serial 13 column b.</td> <td>As per serial 13 column c.</td> </tr> </tbody> </table>	a	b	c	d	Defect/ Routine List	Repair Work Required	Services Required	Spares Required	Exhaust lines of FSME, APME and SSDG-1 from bulk head (over board point) towards engine found leaky	Repair/ replacement of exhaust lines is required for sat ops.	As per serial 13 column b.	As per serial 13 column c.																					
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14.	Eligibilities	<p>a. The firm must visit onboard and carry out diagnoses/ inspections to establish the extent of required work.</p> <p>b. The firm must have sufficient experience of same kind of work and experienced.</p> <p>c. The firm should be NTN /GST registered</p>																																	
15.	EDC	15 x Days after issuance of work/confirmation order.																																	
16.	Warranty	01 Year																																	
17.	Acceptance Criteria	<p>a. Satisfactory work done by the firm.</p> <p>b. Successful completion and acceptance by the end user,</p> <p>c. Satisfactory trials.</p>																																	
18.	Any other	Quality material is to be used.																																	

	relevant Information	
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IT NO: IT/86/03/2025-26

CONDUCT OF PMS ROUTINE OF CWP SEA WATER PUMPS - PMSS KASHMIR

S No	Details				
1.	Ships Name	PMSS KASHMIR			
2.	Parent Equipment	S.W Cooling Pump			
3.	OEM	JIANGSU ZHENHUA PUMP INDUSTRY CO., LTD.			
4.	Model	CLH89-10-4.5(Z) Shaft Cooling Pump			
5.	Origin	China			
6.	Sub Equipment	Sea Water Pump			
7.	Assembly Component	a. Impeller b. Pump shaft c. Motor bearing d. Motor Shaft e. Mechanical Seal			
8.	Part No. of Assembly Component	S No	Part No	Description	QTY
		a.	i. 466ZH95-10-02 ii. 466TC92-03-02	Impeller	4
		b.	i. 466ZH95-10-04 ii. 466TC92-03-04	Pump shaft	2
		c.	i. GB/T276-1994/6308 ii. GB/T276-1994/6309 iii. GB/T276-1994/7309	Motor bearing	4
		d.	i. Y132S1-2H-07 ii. Y160M2-2H-07	Motor Shaft	2
		e.	i. ZH3-30 ii. ZH3-30	Mechanical Seal	4
		f.		Pump Body	2
9.	Quantity	As mentioned in S No 9			
10.	Source of availability	OEM, Local Market			
11.	Justification for Work	Replacement of above mentioned items is required for Cooling Pump for Equipment			
12.	Work Required	a	b	c	d
		Defect/ Routine List	Repair Work Required	Services Required	Spares Required
		Sea Water Pump	Overhauling of 02 x Sea water pump required	Overhauling	As per S No 8
Chilled Water Pump	Overhauling of 02 x Chilled water pumps required	Overhauling	As per S No 8		

13.	Detailed scope of work	a	b	c															
		Details of Repair Work Required	Details of services Required	Details of Spares Required															
		Overhauling of Sea water pump & chilled water pumps required. Moreover, repair/ replacement of defective parts of pump required for SAT OPS	Overhauling of Sea water pump & chilled water pumps required. Moreover, repair/ replacement of defective parts of pump required for SAT OPS	As per S No 8															
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		c.	Working Pressure	0.32 MPa															
d.	RPM	2950																	
15.	Eligibility	Reputable local contractor registered with FBR and having working experience onboard PMSA Ships.																	
16.	EDC	01 Week																	
17.	Warranty																		
18.	Acceptance Criteria	<ul style="list-style-type: none"> a. OEM Certified item b. Contractor must visit onboard for detailed scope of work prior quoting. c. Pumps should run smoothly without any leakage, noise and vibration d. Pump should provide discharge pressure as per tech manual e. Motor winding must be pure copper f. Motor running current should be as per tech manual. g. Any growth work after dismantling of pumps will be beard by firm h. Firm will not be allowed to use ship tools and manpower 																	

IT NO: IT/86/04/2025-26
IT SPECIFICATIONS FOR PMS ROUTINE OF RCS CALLING SYSTEM

S No	Description																																																		
1.	Ships Name	PMSS KASHMIR																																																	
2.	Parent Equipment	RCS Calling System																																																	
3.	OEM	CHANGSHU RUIE ELECTRIC CO., LTD.																																																	
4.	Model	RCS-CB4/B																																																	
5.	Origin	China																																																	
6.	Sub Equipment	Calling System																																																	
7.	Assembly Equipment	Fuse core RL98B-16T 10A Indicator light AD16-22D/w23S Indicator light AD16-22D/r23S Button LA39-B1-10T/r Seal cover F1 Terminal block JWD1-2.5B Terminal block JWD1-6 Bolt GB/T5783-2000/M10x35 Bolt GB/T5783-2000/M6x35 Nut GB/T6170-2000/M10 Nut GB/T6170-2000/M6																																																	
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		required for defective items of calling System required for SAT OPS.	Overhauling of Calling System required for SAT OPS. Defective parts must be replaced with new.
13.	Technical Specs	Input voltage AC Auxiliary Power DC Voltage Change Operation mode Overall dimensions L x W x H	24 VDC 24 VDC ± 20% Manual 300x260x140 mm
14.	Eligibilities	Reputable local/ international contractor registered with FBR and having working experience with PMSA.	
15.	EDC	30 Days after award of contract	
16.	Warranty	1 Year	
17.	Acceptance Criteria	a. OEM Certified item b. Defective/ BER items must be replaced with new. c. Firm will not be allowed to use ship tools and manpower	

IT NO: IT/86/05/2025-26

PROCUREMENT OF CEREMONIAL DRESSING LINE WITH 69 X FITTED FLAGS - PMSS NUSRAT

S No	Description													
1.	Ship's Name	PMSS NUSRAT												
2.	Parent Equipment/ System	Ceremonial Dressing Line with fitted flags												
3.	Origin	PAKISTANI												
4.	Quantity	<table border="1"> <thead> <tr> <th>Description</th> <th>Qty</th> </tr> </thead> <tbody> <tr> <td>Ceremonial Dressing Line with flags</td> <td>69 x Flags 2BD 80 x Meters Ropes</td> </tr> </tbody> </table>	Description	Qty	Ceremonial Dressing Line with flags	69 x Flags 2BD 80 x Meters Ropes								
Description		Qty												
Ceremonial Dressing Line with flags	69 x Flags 2BD 80 x Meters Ropes													
5.	Justification for work	Ceremonial Dressing Line with fitted flags is essentially required onboard for ceremonial events												
6.	Work Required	<table border="1"> <thead> <tr> <th>a</th> <th>b</th> <th>c</th> <th>d</th> </tr> </thead> <tbody> <tr> <td>Defect List</td> <td>Repair Work required</td> <td>Services Required</td> <td>Spares Required</td> </tr> <tr> <td>Ceremonial Dressing Line and flags deteriorated due FWT</td> <td>Ceremonial Dressing Line and flags are required onboard</td> <td>See Sr No 16 para b</td> <td>See Sr No 16 para c</td> </tr> </tbody> </table>	a	b	c	d	Defect List	Repair Work required	Services Required	Spares Required	Ceremonial Dressing Line and flags deteriorated due FWT	Ceremonial Dressing Line and flags are required onboard	See Sr No 16 para b	See Sr No 16 para c
a		b	c	d										
Defect List	Repair Work required	Services Required	Spares Required											
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7.	Detailed Scope of Works	<table border="1"> <thead> <tr> <th>Defect Analyzed</th> <th>a</th> <th>b</th> <th>c</th> </tr> </thead> <tbody> <tr> <td>Ceremonial Dressing Line and flags deteriorated due FWT</td> <td>Repair Work Required</td> <td>Services Required</td> <td>Spares Required</td> </tr> <tr> <td></td> <td>Ceremonial Dressing Line and flags are required onboard</td> <td>Ceremonial Dressing Line and fitting of flags</td> <td>Complete ceremonial dressing line with fitted flags</td> </tr> </tbody> </table>	Defect Analyzed	a	b	c	Ceremonial Dressing Line and flags deteriorated due FWT	Repair Work Required	Services Required	Spares Required		Ceremonial Dressing Line and flags are required onboard	Ceremonial Dressing Line and fitting of flags	Complete ceremonial dressing line with fitted flags
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Ceremonial Dressing Line and flags deteriorated due FWT	Repair Work Required	Services Required	Spares Required											
	Ceremonial Dressing Line and flags are required onboard	Ceremonial Dressing Line and fitting of flags	Complete ceremonial dressing line with fitted flags											
8.	Technical Specs	a. Flag should be water proof i.e. parachute Size 2BD												

9.	Eligibilities	a. As per TSR b. The firm should visit onboard and assess the extent of required work c. The firm should be having good experience d. The firm should be NTN /GST registered
10.	EDC	14 x working days after issuance of work order
11.	Warranty	03 Years
12.	Acceptance criteria	As per IT Specification
13.	Technical Specs	b. Flag should be water proof i.e. parachute c. Size 2BD
14.	Eligibilities	e. As per TSR f. The firm should visit onboard and assess the extent of required work g. The firm should be having good experience h. The firm should be NTN /GST registered
15.	EDC	14 x working days after issuance of work order
16.	Warranty	01 Years
17.	Acceptance criteria	As per IT Specification

**IT SPECIFICATION FOR OVERHAUL ENGINE AND RUDDER TELEGRAPH WITH LIGHT ALARM –
PMSS BASOL**

S No	Description																																															
1.	Ship's Name	PMSS BASOL																																														
2.	Parent Equipment	Engine and Rudder Telegraph																																														
3.	OEM	LIAONING LIDA AUTOMATION EQUIPMENT MANUFACTURING LTD.																																														
4.	Model	EDZ11																																														
5.	Origin	China																																														
6.	Sub Equipment	Transmitter receiver, Receiver transmitter, Receiver transmitter, Audible and visual alarm, Junction box																																														
7.	Assembly Components	Alarm Siren, Fuse Core Indicator Light, Indicator Panel Control Module																																														
8.	Part No of Assembly Component	<table border="1"> <thead> <tr> <th>S No</th> <th>NSN/ Part No</th> <th colspan="2">Description</th> </tr> </thead> <tbody> <tr> <td>a.</td> <td>6350PV2020011 7LD623.013G1</td> <td colspan="2">Control panel</td> </tr> <tr> <td>b.</td> <td>TB/NF21</td> <td colspan="2">Transmitter receiver</td> </tr> <tr> <td>c.</td> <td>EDZ11TB/NJ2</td> <td colspan="2">Receiver transmitter</td> </tr> <tr> <td>d.</td> <td>EDZ11TC/NJ1</td> <td colspan="2">Receiver transmitter</td> </tr> <tr> <td>e.</td> <td>Y LX12024Z</td> <td colspan="2">Audible and visual alarm</td> </tr> <tr> <td>f.</td> <td>FX1</td> <td colspan="2">Junction box</td> </tr> <tr> <td>g.</td> <td>OEZ35-TB/A-F1</td> <td colspan="2">Transmitter</td> </tr> <tr> <td>h.</td> <td>OEZ35-TC/A-J1</td> <td colspan="2">Receiver</td> </tr> <tr> <td>j.</td> <td>YL120-24Z</td> <td colspan="2">Electric Bell</td> </tr> <tr> <td>k.</td> <td>6350PV1010003</td> <td colspan="2">Control board</td> </tr> </tbody> </table>			S No	NSN/ Part No	Description		a.	6350PV2020011 7LD623.013G1	Control panel		b.	TB/NF21	Transmitter receiver		c.	EDZ11TB/NJ2	Receiver transmitter		d.	EDZ11TC/NJ1	Receiver transmitter		e.	Y LX12024Z	Audible and visual alarm		f.	FX1	Junction box		g.	OEZ35-TB/A-F1	Transmitter		h.	OEZ35-TC/A-J1	Receiver		j.	YL120-24Z	Electric Bell		k.	6350PV1010003	Control board	
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		j.	YL120-24Z	Electric Bell																																												
		k.	6350PV1010003	Control board																																												
9.	Quantity	01 x Engine and Rudder Telegraph with light alarm																																														
10.	Sources of Availability	MTU																																														
11.	OEM Details	Address: LIAONING LIDA AUTOMATION EQUIPMENT MANUFACTURING LTD Contact Phone: +86-512-52345677																																														
12.	Justification for work	As per PMS routines/ technical manual																																														
13.	Work Required	a	b	c																																												
		Defect List	Repair Work Required	Services Required	Spares																																											
		Nil	Yes	Yes	Yes																																											
14.	Detail scope of work	a	b	C																																												
		Detail of Repair Work Required	Details of Services Required	Details of Spares Required																																												

	As per requirements	<p>Complete overhaul of Engine and Rudder telegraph system including following aspects:</p> <ol style="list-style-type: none"> 1. Inspect/ overhaul Bridge Engine Telegraph head: housing, indicator scale, lever movement, and mechanical detents. Inspect Engine Control Room (ECR) repeater and Engine Room Local Telegraph. Check wiring for loose terminals, chafing, corrosion, or burnt smell. Verify power supply (DC/AC as per vessel design). Check label plates, direction indicators, and handle lock mechanisms. 2. Inspect/ overhaul functional Test from Engine Room and Bridge and verify: ECR repeater receives correct order. Alarm bell/buzzer sounds for new order. Confirmation lever at ECR acknowledges order. Bridge receives "Acknowledged" indication. Confirm Engine Room Local Telegraph also repeats same order. Repeat test in reverse order and check full movement range. Confirm signal lamp or buzzer extinguishes upon proper acknowledgment. Check return signal path for delays or dropouts. 3. Check and overhaul Electrical & Signal Testing by checking synchro transmitter (ST) and receiver (SR) voltages and continuity Replace defective synchro units, transmitters, dial lamps, or wiring as required. 4. Check end overhaul rudder telegraph system by Bridge Steering Gear Room Physical Inspection and Functional Test. 5. Confirm alarm reset function works, and re-arming.; of alarm loop. Perform final check: paneUamp indicators, siren, wiring, ground continuity, and ensure no short circuits or faulty insulation. 6. Satisfactory operations of engine and rudder telegraph system. Carry out complete overhauling as per JICs and technical manual following all SOPs 	<p>New fuse cores, Spare relays, Indicator lamps / bulbs, Replacement buttons and siren unit, Terminal blocks or lugs, Cable ties / labeling tags / Wiring sleeves / Insulation sleeves and mentioned at S No 9</p>
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15.	Technical Specs	As per OEM/ Technical Manual.
16.	Eligibilities	OEM authorized Rep having experience of combined alarm system
17.	EDC	ASAP (07 days)
18.	Warranty	1 year
19.	Acceptance Criteria	a. Work will be carried out by/ through OEM rep. b. Satisfactory trials of Main Engine

IT NO: IT/86/07/2025-26

IT SPECIFICATIONS - FABRICATION AND INSTALLATION OF LEATHER BRAKE PADS FOR ANCHOR CAPSTAN - EMP PMSS KASHMIR

S No	Description				
1.	Ships Name	PMSS KASHMIR			
2.	Parent Equipment	Leather Brake pads for anchor capstan			
3.	OEM	China			
4.	Origin	China			
5.	Sub Equipment	Leather brake pads for anchor capstan			
6.	Assembly Component	Leather brake pads for anchor capstan			
7.	Quantity	4 in No			
8.	Sources of Availability	Local Contractor			
9.	Justification for Work	Fabrication and installation of leather pads for anchor capstan			
10.	Work Required	a	b	c	d
		Defect List	Repair Work Req	Services Req	Spares Req
		Fabrication and installation of leather brake pads for anchor capstan	Fabrication and installation of leather brake pads for anchor capstan	Fabrication and installation of leather brake pads for anchor capstan	Nil
11.	Detail Scope of Work	a	b	c	
		Details of Repair Work Req	Details of Services Req	Details of Spares Req	
		Fabrication and installation of leather brake pads for anchor capstan	Fabrication and installation of leather brake pads for anchor capstan	Nil	
12.	Technical Specs	As prescribed by SS			
13.	Eligibilities	Reputable local contractor having working experience in PMSA			
14.	EDC	15 x days			
15.	Warranty	a. 3 x year warranty after satisfactory trials/ test b. Material will be replaced if deformity or wear is developed			
16.	Acceptance Criteria	Satisfactory work as per provided sample			

17.	Any other relevant information	<p>a. Contact SS/ visit onboard for clear understanding of scope of work</p> <p>b. Damage/ defect occurred to system during work is responsibility of contractor</p> <p>c. Dismantling/ assembling/ installation and in way removal work is responsibility of contractor</p>
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IT NO: IT/86/08/2025-26

DEFECT DIAGNOSIS & RECTIFICATION OF PROPULSION CONTROL SYSTEM ALONG WITH REPLACEMENT OF DEGRADED COMPONENTS AND WIRING - PMSS KASHMIR

S No	Details				
	Ships Name	PMSS KASHMIR			
	Parent Equipment	Propulsion System			
	OEM	CRRC China			
	Model	RK-20			
	Origin	UK			
	Sub Equipment	Control System			
	Assembly Component	<p>a. Combine propulsion Control Panel</p> <p>b. Communication Module</p> <p>c. Control Handle</p> <p>d. Wiring</p>			
	Part No. of Assembly Component	S No	Part No	Description	Quantity
		a.	711-401	Combine Controller CPU1215C	01
		b.	711-430	Communication Module (RS485/422)	04
		c.	711-607	Control handle CJM1-BS1	
		d.	N/A	Control Wiring	As per Existing fitting
	Quantity	As per S No 9			
	Source of Availability	OEM/ Local Market			
	Work Required	a	b	c	d
		Defect/ Routine List	Repair Work Required	Services Required	Spares Required
		Defect diagnosis of misc interlocks of propulsion control system	Nil	Diagnosis	Nil
		Repair/ replacement of identified component	Yes	Nil	Yes
		Repair of combine controller	Yes	Nil	Nil
		Replacement of 4 x communication module PLCs	Nil	Nil	Yes
	Detailed scope of work	As per S No 12			
	Technical	As per relevant TPI			

	Specs	
	Eligibilities	Reputable local contractor registered with FBR and having working experience with PMSA.
	EDC	30 Days after award of contract
	Warranty	01 Year
	Acceptance Criteria	a. OEM Certified items. b. Satisfactory trial at sea for 7 x days

IT NO: IT/86/09/2025-26

PROCUREMENT OF ELECTRIC HOT WATER TANK COMPONENTS – PMSS KASHMIR

S No	Description																													
1.	Ships Name	PMSS KASHMIR																												
2.	Parent Equipment	ELECTRIC HOT-WATER TANK																												
3.	OEM	TAIXING NAVIGATION MACHINERY CO., LTD																												
4.	Model	DRG-0.5 0.5M3																												
5.	Origin	China																												
6.	Sub Equipment	Electric heat element																												
7.	Assembly Equipment	Cover Tube sheet Electric heating tube Mounting plate Hexagon nut Spring shim																												
8.	Part No. of Assembly Equipment	<table border="1"> <thead> <tr> <th>S. No</th> <th>NSN/ Part No</th> <th>Description</th> <th>Qty</th> </tr> </thead> <tbody> <tr> <td>a.</td> <td>Q245R-3</td> <td>Cover</td> <td>1</td> </tr> <tr> <td>b.</td> <td>FL-350</td> <td>Tube sheet</td> <td>1</td> </tr> <tr> <td>c.</td> <td>4221HH-0.5C-02</td> <td>Electric heating</td> <td>6</td> </tr> <tr> <td>d.</td> <td>LB-3</td> <td>Mounting plate</td> <td>1</td> </tr> <tr> <td>e.</td> <td>GB6173-M27X2</td> <td>Hexagon nut</td> <td>12</td> </tr> <tr> <td>f.</td> <td>GB93-27</td> <td>Spring shim</td> <td>12</td> </tr> </tbody> </table>	S. No	NSN/ Part No	Description	Qty	a.	Q245R-3	Cover	1	b.	FL-350	Tube sheet	1	c.	4221HH-0.5C-02	Electric heating	6	d.	LB-3	Mounting plate	1	e.	GB6173-M27X2	Hexagon nut	12	f.	GB93-27	Spring shim	12
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		e.	Flow rate	2.5m3/h																										
		f.	Pumping head	15 m																										
g.	Rotate speed	2950 r/min																												

		h.	Motor power	0.75 Kw
11.	Eligibilities	Reputable local/ international contractor registered with FBR and having working experience with PMSA.		
12.	EDD/ EDC	30 Days after award of contract		
13.	Warranty	01 Year		
14.	Acceptance Criteria (if any)	a.	OEM certified item	
		b.	effective/BER items must be replaced with new one	
		c.	Firm will not be allowed to use ship tools and manpower	

IT NO: IT/86/10/2025-26

OVERHAULING OF 02 X SEA WATER PUMPS OF MAIN ENGINE OF FRB-158 - EASTERN WING

S No	Description																			
1.	Ship's Name	EASTERN WING/ FRBs																		
2.	Parent Equipment	C 9 Main Engines																		
3.	OEM	Caterpillar, USA																		
4.	Make/ Model	Caterpillar C 9																		
5.	Serial No	PortX9Y00442 stbd X9Y00359																		
6.	Origin	USA																		
7.	Sub Equipment	Cooling System																		
8.	Assembly components	Sea water pump																		
9.	Part No of assembly components	197-5993																		
10.	Quantity	02																		
11.	Justification of work	Performance of 02 x sea water pumps degraded due old vintage.																		
12.	Work Required	<table border="1"> <thead> <tr> <th>a</th> <th>b</th> <th>c</th> <th>d</th> </tr> </thead> <tbody> <tr> <td>Defect/ Routine List</td> <td>Repair Work Required</td> <td>Services Required</td> <td>Spares Required</td> </tr> <tr> <td> Performance of 02 x Sea Water pumps found degraded due old vintage <ul style="list-style-type: none"> • Coolant temperature high during normal operation. • Rise in temperature may lead failure to engines. • Vibration observed during normal operation </td> <td>Repair/ maintenance of 02 x sea water pumps</td> <td>Repair/ maintenance of 02 x sea water pumps required including all associated accessories</td> <td>As per requirement</td> </tr> </tbody> </table>			a	b	c	d	Defect/ Routine List	Repair Work Required	Services Required	Spares Required	Performance of 02 x Sea Water pumps found degraded due old vintage <ul style="list-style-type: none"> • Coolant temperature high during normal operation. • Rise in temperature may lead failure to engines. • Vibration observed during normal operation 	Repair/ maintenance of 02 x sea water pumps	Repair/ maintenance of 02 x sea water pumps required including all associated accessories	As per requirement				
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13.	Details Scope of Work	<table border="1"> <thead> <tr> <th colspan="4">Details of Serial 15 Column a, b & c</th> </tr> <tr> <th>a</th> <th>b</th> <th colspan="2">c</th> </tr> </thead> <tbody> <tr> <td>Details of Repair work Required</td> <td>Details of services Required</td> <td colspan="2">Details of Spares Required</td> </tr> <tr> <td>Inspection and repair/ maintenance of undermentioned</td> <td>Repair/ maintenance of 02 x sea water pumps</td> <td colspan="2">As per requirement</td> </tr> </tbody> </table>			Details of Serial 15 Column a, b & c				a	b	c		Details of Repair work Required	Details of services Required	Details of Spares Required		Inspection and repair/ maintenance of undermentioned	Repair/ maintenance of 02 x sea water pumps	As per requirement	
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		items and replacement (if required): <table border="1" style="margin-left: 20px;"> <tr><td>6L2280</td><td>Rod</td></tr> <tr><td>1359819</td><td>Seal</td></tr> <tr><td>8C3080</td><td>Seal O Ring</td></tr> <tr><td>1131110</td><td>CAM</td></tr> <tr><td>1149088</td><td>Seal Pump</td></tr> <tr><td>1750225</td><td>Ring retain</td></tr> <tr><td>3665761</td><td>Shaft water pump</td></tr> <tr><td>4P5926</td><td>Key stainless</td></tr> <tr><td>5G5078</td><td>Ring</td></tr> <tr><td>2D6392</td><td>Seal O Ring</td></tr> <tr><td>7E0321</td><td>Impeller</td></tr> <tr><td>7E0328</td><td>Plate As</td></tr> <tr><td>8H4320</td><td>Bearing</td></tr> <tr><td>8T2944</td><td>Seal O Ring</td></tr> <tr><td>3704053</td><td>Slinger</td></tr> <tr><td>3704056</td><td>Spacer</td></tr> </table>	6L2280	Rod	1359819	Seal	8C3080	Seal O Ring	1131110	CAM	1149088	Seal Pump	1750225	Ring retain	3665761	Shaft water pump	4P5926	Key stainless	5G5078	Ring	2D6392	Seal O Ring	7E0321	Impeller	7E0328	Plate As	8H4320	Bearing	8T2944	Seal O Ring	3704053	Slinger	3704056	Spacer	including all associated accessories required.
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1359819	Seal																																		
8C3080	Seal O Ring																																		
1131110	CAM																																		
1149088	Seal Pump																																		
1750225	Ring retain																																		
3665761	Shaft water pump																																		
4P5926	Key stainless																																		
5G5078	Ring																																		
2D6392	Seal O Ring																																		
7E0321	Impeller																																		
7E0328	Plate As																																		
8H4320	Bearing																																		
8T2944	Seal O Ring																																		
3704053	Slinger																																		
3704056	Spacer																																		
15.	Eligibilities	Any well-known national/ international firm having good experience for repair/ maintenance of Caterpillar Engines and associated accessories																																	
16.	EDC	15 days																																	
17.	Warranty	One year after installation and successful trials onboard																																	
18.	Acceptance Criteria	Physical inspection of under mentioned parts by end user after installation onboard and trials upto maximum engine RPMs for satisfactory performance: <ul style="list-style-type: none"> • Machining/alignment of shaft. • Machining of impeller housing. • Replacement of impellers, seals, bearing etc. 																																	
19.	Any other relevant information	a. Installation/ Replacement of Marine Grade spares/ accessories are to be ensured by contracted firm. b. Dismantling and re-installation of in-way accessories is responsibility of the firm. c. Any breakage/ material failure during dismantling/ installation will be lies with the firm.																																	

IT SPECIFICATIONS FOR PROCUREMENT OF EXPLOSIVE DETECTOR - PMSS INDUS

S No	Description				
1.	Ships Name	PMSS INDUS			
2.	Parent Equipment	Portable Handheld Explosive Detector			
3.	Model	Any suitable/ Available at DESTO			
4.	Quantity	02			
5.	Source of Availability	DESTO PAKISTAN			
6.	Justification of Work	1 out of 2 x explosive detectors has been declared BER, however, another is malfunctioning despite repeated repair/ maintenance attempts from DESTO Pakistan due to old vintage. Therefore, 2 x reliable and updated explosive detectors are considered operationally essential to enhance early detection, strengthen access control and overall security posture.			
7.	Work required	a	b	c	d
		Defect List	Repair Work Required	Services Required	Spares Required
		Nil	Nil	Nil	02 x Portable hand held Explosive Detector
8.	Detail scope of work	a	b	c	
		Detail of Repair Work Required	Detail of Services Required	Detail of Spares Required	
		Nil	Nil	02 x Portable hand held Explosive Detector	
9.	Eligibilities	Reputable local contractor having working experience with PMSA.			
10.	EDD/EDO	7 Days after award of contract			
11.	Warranty	As per OEM			
12.	Acceptance Criteria (if any)	a. Evaluation by end user			

**CONDUCT OF PMS ROUTINE OF SEA WATER COOLING PUMPS FOR PACKAGE ACs –
PMSS KASHMIR**

S No	Description																																		
1.	Ships Name	PMSS KASHMIR																																	
2.	Parent	SEAWATER PUMP FOR PACKAGE AC																																	
3.	OEM	JIANGSU ZHENHUA PUMP INDUSTRY CO., LTD.																																	
4.	Model	CLH50-32-4.5(Z)																																	
5.	Origin	China																																	
6.	Sub Equipment	Sea Water Pump For Package AC																																	
7.	Assembly Equipment	Pump shaft Impeller Seal ring Mechanical seal O ring Diesel oil Cleaning cloth																																	
8.	Part No. of Assembly Equipment	<table border="1"> <thead> <tr> <th>S No</th> <th>NSN/Part No</th> <th>Description</th> <th>Qty</th> </tr> </thead> <tbody> <tr> <td>a.</td> <td>466ZH-CLH-42-07</td> <td>Pump shaft</td> <td>2</td> </tr> <tr> <td>b.</td> <td>466ZH-CLH-42-04</td> <td>Impeller</td> <td>2</td> </tr> <tr> <td>c.</td> <td>466ZH-CLH-42-02</td> <td>Seal ring</td> <td>2</td> </tr> <tr> <td>d.</td> <td>ZH3-22</td> <td>Mechanical seal</td> <td>2</td> </tr> <tr> <td>e.</td> <td>GB/T3452.1Ø175x Ø3.55</td> <td>O ring</td> <td>2</td> </tr> <tr> <td>f.</td> <td>GB252-20000</td> <td>Diesel oil</td> <td>4L</td> </tr> <tr> <td>g.</td> <td>QXB-400*400</td> <td>Cleaning cloth</td> <td>4 pc</td> </tr> </tbody> </table>		S No	NSN/Part No	Description	Qty	a.	466ZH-CLH-42-07	Pump shaft	2	b.	466ZH-CLH-42-04	Impeller	2	c.	466ZH-CLH-42-02	Seal ring	2	d.	ZH3-22	Mechanical seal	2	e.	GB/T3452.1Ø175x Ø3.55	O ring	2	f.	GB252-20000	Diesel oil	4L	g.	QXB-400*400	Cleaning cloth	4 pc
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f.	GB252-20000	Diesel oil	4L																																
g.	QXB-400*400	Cleaning cloth	4 pc																																
9.	Quantity																																		
10.	Source of Availability	OEM, Local Market																																	
11.	OEM Details	<u>Address</u> 9#, Jiangyan Road, Jiangyan District, Taizhou City, Jiangsu Province; <u>Contact Phone</u> 86-523-82072006 82072066 <u>Contact Email</u> zhhby@vip.sina.com																																	
12.	Justification for work	To conduct PMS routine of Sea Water Pump No 1 & 2 For Package Acs (PMS No 3-4201-0001-0002)																																	
13.	Work Required	a	b	c	d																														
		Defect/ Routine List	Repair Work Required	Services Required	Spares Required																														
		PM-010	Overhauling of pump required	Overhauling of pumps required for SAT OPS	As per S No 8 & 9																														
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14.	Detailed scope of Work	a	b	C																															
		Detail of Repair Work Required	Details of services Required	Details of Spares Required																															
		Overhaul of sea water pumps	Repair/ Replacement required for defective items of pumps	As per S No 8 & 9																															

15.	Technical Specs	S No	Description	Working Pressure	Capacity (m3/h)	Power (KW)	Speed (rpm)
		a.	Sea water pump for Package AC	0.32 MPa	12.5	3	2950
16.	Eligibilities	Reputable local/ international contractor registered with FBR and having working experience with PMSA.					
17.	EDD/ EDC	30 Days after award of contract					
18.	Warranty	01 Year					
19.	Acceptance Criteria (if any)	a. OEM Certified item. b. Upon scrutiny of items and provided documents along with production certificate by OEM. c. Defective/ BER items must be replaced with new. d. Firm will not be allowed to use ship tools and manpower					

REPAIR/ MAINTENANCE OF FUELING POINT - PMSA BASE GWADAR

S No	Details				
1.	Ships Name	PMSS NAZIM/ PMSA BASE GWADAR			
2.	Quantity	01			
3.	Justification for Work	The Structure of fueling point has become deteriorated. Despite its current severe condition, the fueling point remains in use, posing significant safety risk. Therefore, to mitigate this risk, repair/ maintenance of fueling point is essentially required.			
4.	Work Required	Following store items are required for repair/ maintenance of TPT Shed.			
		S No	Description	Quantity	Remarks
		a.	Sand	1 X Dumper	
		b.	TR Garders	07 (18 ft)	
		c.	T Iron	26 (28 ft)	
		d.	Cement Bag	40 in No	
		e.	Slate Tiles	530 in No	
		f.	Cemented Block	500 in No	
		g.	Distemper	03 Buckets	
		h.	Oil Paint	12 Liters	
		j.	Lights	05 (24 W)	
k.	Electric Wiring	N/A			
5.	Technical Specs	Length of fueling point roof:	28 ft		
		Width of fueling point roof:	18 ft		
6.	Eligibility	Any local/ international well-reputed firm having experience for repair/ maintenance of shed.			
7.	EDC	15 days			
8.	Warranty	01 Year			
9.	Acceptance Criteria	Inspection by end user upon successful completion of work.			

OVERHAULING OF 14 X MARINE FAN COIL UNITS (FCUs) - PMSS HINGOL

S No	Details				
1.	Ships Name	PMSS HINGOL			
2.	Parent Equipment	Main air conditioning system			
3.	OEM	Jiangsu Josun Air Conditioner CO.,LTD			
4.	Model	CFP-LGX, CFP-WM, CFP-LG			
5.	Serial No	Not known			
6.	Origin	China			
7.	Assembly Component	Fan Coil unit.			
8.	Part No. of Assembly Component	As Provided by OEM			
9.	Quantity	14			
10.	Source of availability	Local Engineering Houses			
11.	Justification for Work	PMS NO 3-6163-0001, MOP NO PM-008, (14x Fan coil unites overhauling is due).			
12.	Work Required	a	b	c	d
		Defect/ Routine List	Repair Work Required	Services Required	Spares Required
		PMS NO 3-6163-0001, MOP NO PM-008, (14 x Fan coil unites overhauling is due).	1. Overhauling of 14x fan coil units. 2. In rout all accessories Including bulkhead/ ceiling honeycomb is to be removed and fitted back without any damage. 3. 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 and FCU filters. 4. Replacement of 14x defective controllers. 5. Clear all choked drains. 6. Repair/ replacement of deteriorated FCU bodies. 7. All tools, spares and test equipment's will be	Overhauling of 14x fan coil units, Removal and installation of In rout accessories including bulkhead/ ceiling honeycomb without any damage. 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. Replacement of 14 x defective controllers. Clear all choked drains. Repair/ replacement of deteriorated FCU bodies.	14x coils (copper material). All defective accessories and components. Defective fan motors bearing. 14x controllers. All defective/ degraded blowers. All deteriorated FCU bodies. All damage/ degraded nuts, bolts and screws. All degraded FCU filters.

		arranged by firm/ contractor																																				
		8. Any growth work will be soul responsibility of the firm.																																				
		9. Any damage during removal and installation of accessories will be responsibility of firm.																																				
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14.	Technical Specs	As per OEM manual.																																				
15.	Eligibility	Security wise clear firm having working experience on Main air conditioning system onboard HINGOL CLASS MPVs of PMSA.																																				
16.	EDC	14 Days																																				
17.	Warranty	One year warranty after satisfactory test / trails w.r.t: a. Satisfactory operation of FCUs without any abnormal noise. b. Satisfactory cooling efficiency of FCUs up to 16 Degree centigrade.																																				

		<p>c. Satisfactory flow of blower air.</p> <p>d. Satisfactory operation of FCUs without any leakage of chill water and condensation water.</p> <p>e. Satisfactory operation of FCU controllers.</p> <p>f. Any defect and leakage in FCUs will recover by firm during warranty period.</p> <p>g. Any defect of FCU controllers will recover by firm during warranty period.</p>
18.	Acceptance Criteria	<p>a. OEM Certified spares.</p> <p>b. Satisfactory operation of FCUs without any abnormal noise.</p> <p>c. Satisfactory cooling efficiency of FCUs up to 16 Degree centigrade.</p> <p>d. Satisfactory flow of blower air.</p> <p>e. Satisfactory operation of FCUs without any leakage of chill water and condensation water.</p> <p>f. Satisfactory operation of FCU controllers.</p>
19.	Any other relevant information	<p>a. Damage/ defect occurred to system during work is responsibility of contractor.</p> <p>b. Dismantling/ assembling/ installation and in way removal work is responsibility of contractor.</p>

IT NO: IT/86/15/2025-26

REPLACEMENT OF X-BAND MOTOR GEAR BOX ASSEMBLY TRANSAS RADAR - PMSS BARKAT

S No	Description					
1.	Ship's Name	PMSS BARKAT				
2.	Parent equipment	TRANSAS RADAR				
3.	OEM	TRANSAS				
4.	Model	NR-4000				
5.	Sub equipment	SCANNER UNIT				
6.	Assembly components	MOTOR GEAR BOX ASSEMBLY				
7.	Part No. of Assembly Component	T91003765				
8.	Quantity	<table border="1"> <thead> <tr> <th>Item Description</th> <th>Quantity</th> </tr> </thead> <tbody> <tr> <td>ASSEMBLY MOTOR GEAR BOX</td> <td>01</td> </tr> </tbody> </table>	Item Description	Quantity	ASSEMBLY MOTOR GEAR BOX	01
Item Description	Quantity					
ASSEMBLY MOTOR GEAR BOX	01					
9.	Source of availability	Local				
10.	Justification for Work	X-BAND Motor Gear Box Assembly is malfunctioning during normal operation				
11.	Work Required	Replacement of Assembly Motor Gear Box.				

12.		a.	b.	c.
		Detail of repair/ Replacement work required	Details of Services Required	Details of Spares Required
	Detail scope of work	<p>a. Replacement of X-Band Motor Gear Box Assembly of TRANSAS Radar.</p> <p>b. Proper fitting of Motor Gear Box Assembly required.</p> <p>c. All connections must be tightened properly.</p> <p>d. Requirement of external services, if required, will be responsibility of firm.</p> <p>e. All spares (must be genuine) tools special equipment /accessories required for said Repair/ Maintenance are to be arranged by the firm.</p> <p>f. Any damage/ defect/ wear tear occurred during course of removal; repair and installation of system/ equipment will be repaired /met by firm.</p> <p>g. The firm will be responsible for all removal, transportation and installation work during warranty/ guarantee periods claims in case of any rework.</p> <p>h. No growth work will be processed.</p>	-	-
13.	Technical Specs	Replacement of X-BAND Motor Gear Box Assembly. Supply 24VDC		
14.	Eligibilities	<p>a. The firm must have sufficient experience of same kind of work and experience</p> <p>b. The firm should be NTN/ GST registered</p>		
15.	EDC	14 x days after issuance of work/confirmation order.		
16.	Warranty	01 Year or as per OEM Standard (whichever is higher)		
17.	Acceptance Criteria	<p>a. Satisfactory work done by the firm.</p> <p>b. Successful completion and acceptance by the end user.</p> <p>c. Satisfactory trials (HATs/ SATs).</p>		

REPAIR/ OVERHAULING OF YANMAR ENGINE & STERN DRIVE PORT RHIB BOAT – PMSS HINGOL

S No	Description													
1.	Ships Name	PMSS HINGOL												
2.	Parent Equipment	PORT RHIB BOAT												
3.	OEM	YANMAR												
4.	Model	4LHA-STP												
5.	Origin	JAPAN												
6.	Sub Assembly	Main Engine												
7.	Assembly Components	Engine, steering system, stern drive.												
8.	Part No of Assembly Components	As Provided by OEM												
9.	Quantity	01												
10.	Source Of Availability	Local Engineering Houses												
11.	OEM Detail	Address 2-1-1 yaesu, chuo-ku Tokyo Japan Contact Phone +31365493200 Contact Email marinesales-yase@yanmar.com												
12.	Alternate / Local Source	Local Engineering and Manufacturing Houses												
13.	Justification for work	Performance of port RHIB boat degraded, overhauling of main engine, steering system and stern drive is required for satisfactory operation.												
14.	Work Required	<table border="1"> <thead> <tr> <th>a.</th> <th>b.</th> <th>c.</th> <th>d.</th> </tr> <tr> <th>Defect List</th> <th>Repair Work Required</th> <th>Service Required</th> <th>Spares Required</th> </tr> </thead> <tbody> <tr> <td>Performance of port RHIB boat degraded, overhauling of main engine, steering system and stern drive is required for satisfactory operation.</td> <td> (1) Overhauling of complete engine. (2) Replacement of all degraded components and parts of engine. (3) Test and calibration of safeties, control system. If require replace with new. (4) Overhauling of steering system and replacement of degraded/ defective components with new. (5) Overhauling of stern drive including </td> <td> Overhauling of complete engine. Test and calibration of safeties & control system. If require replace with new. Overhauling of steering system. Overhauling of stern drive including </td> <td> All degraded/ defective items which necessary to replace for overhauling of engine, Overhauling of steering system, Overhauling of stern drive including transmission system of output shaft and bolts and nuts are required. </td> </tr> </tbody> </table>	a.	b.	c.	d.	Defect List	Repair Work Required	Service Required	Spares Required	Performance of port RHIB boat degraded, overhauling of main engine, steering system and stern drive is required for satisfactory operation.	(1) Overhauling of complete engine. (2) Replacement of all degraded components and parts of engine. (3) Test and calibration of safeties, control system. If require replace with new. (4) Overhauling of steering system and replacement of degraded/ defective components with new. (5) Overhauling of stern drive including	Overhauling of complete engine. Test and calibration of safeties & control system. If require replace with new. Overhauling of steering system. Overhauling of stern drive including	All degraded/ defective items which necessary to replace for overhauling of engine, Overhauling of steering system, Overhauling of stern drive including transmission system of output shaft and bolts and nuts are required.
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		<p>transmission system of output shaft and replacement of degraded/ defective components with new.</p> <p>(6) Corroded/ damaged bolts and nuts to be replaced with new bolts and nuts.</p> <p>(7) Any removal and installation work and in way components will be responsibility of firm.</p> <p>(8) All spares and tools will be arrange be firm.</p> <p>(9) Growth work will be sole responsibility of the firm</p>	transmission system of output shaft	
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15.	Detail Scope of Work	a	b	c
		Detail of Repair Work Required	Detail of Service Required	Detail of Spare Required
		<p>(1) Overhauling of complete engine.</p> <p>(2) Replacement of all degraded components and parts of engine.</p> <p>(3) Test and calibration of safeties, control system. If require replace with new.</p> <p>(4) Overhauling of steering system and replacement of degraded/ defective components with new.</p> <p>(5) Overhauling of stern drive including transmission system of output shaft and replacement of degraded/ defective components with new.</p> <p>(6) Corroded/ damaged bolts and nuts to be replaced with new bolts and nuts.</p> <p>(7) Any removal and installation work and in way components will be responsibility of firm.</p>	<p>Overhauling of complete engine.</p> <p>Test and calibration of safeties & control system.</p> <p>If require replace with new.</p> <p>Overhauling of steering system.</p> <p>Overhauling of stern drive including transmission system of output shaft</p>	<p>All degraded/ defective items which necessary to replace for overhauling of engine, Overhauling of steering system, Overhauling of stern drive including transmission system of output shaft and bolts and nuts are required.</p>

		(8) All spares and tools will be arranged by firm.		
		(9) Growth work will be sole responsibility of the firm		
16.	Technical specs	As per OEM manual.		
17.	Eligibility	Security wise clear firm having working experience on Main Engine, steering system, stern drive and output shaft transmission system of RHIB boat onboard HINGOL CLASS MPVs of PMSA.		
18.	EDC	15 Days		
19.	Warranty	<p>One year warranty after satisfactory test / trails w.r.t:</p> <p>a. Satisfactory operation of engines without any leakage/ seepage of exhaust, sea water, coolant water, lub oil and fuel oil from any point.</p> <p>b. Satisfactory operation of engine up to maximum designed RPM & speed by OEM without any abnormal noise and vibration.</p> <p>c. Satisfactory operation of engine up to maximum designed RPM & speed by OEM, all parameters should within limit.</p> <p>d. Testing and celebration of all safeties & control system.</p> <p>e. Satisfactory operation of steering system without any leakage/ seepage of hydraulic oil.</p> <p>f. Satisfactory operation of stern drive without any abnormal noise, vibration and hydraulic oil leakage/ seepage.</p> <p>g. Any Leakage/ seepage of exhaust, sea water, coolant water, lub oil, hydraulic oil and fuel oil from any part will be repaired by the firm during warranty period.</p> <p>h. If any deterioration/ degradation of engine, steering, shaft power transmission and stern drive performance observed during warranty period, will recover by firm.</p>		
20.	Acceptance Criteria	<p>a. Satisfactory operation of engines without any leakage/ seepage of exhaust, sea water, coolant water, lub oil and fuel oil from any point.</p> <p>b. Satisfactory operation of engine up to maximum designed RPM & speed by OEM without any abnormal noise and vibration.</p> <p>c. Satisfactory operation of engine up to maximum designed RPM & speed by OEM, all parameters should within limit.</p> <p>d. Testing and celebration of all safeties & control system.</p> <p>e. Satisfactory operation of steering system without any leakage/ seepage of hydraulic oil.</p> <p>f. Satisfactory operation of stern drive without any abnormal noise, vibration and hydraulic oil leakage/ seepage.</p>		

DEFECT RECTIFICATION OF JMA NAVIGATIONAL RADAR – PMSS HINGOL

S No	Description				
1.	Ship's Name	PMSS HINGOL			
2.	Parent Equipment	JRC JMA 5312/6 Navigation Radar			
3.	OEM	JRC, JAPAN			
4.	Model	JRC JMA 5312/6 Navigation Radar			
5.	Origin	Japan			
6.	Sub Equipment	Below Deck Unit/ Processor Unit			
7.	Assembly/ Component	Below Deck Unit/ Processor Unit			
8.	NSN/ Part Number	JRC JMA 5312/6			
		<u>Part No/NSN</u>	<u>Qty</u>	<u>Item</u>	
		NCE-5171	01	Radar Processing Unit	
9.	Quantity	01			
10.	Sources of Availability	Local Engineering Houses/ OEM Local Rep			
11.	OEM Details	Address Nakano Central Park East,10-1,Nakano 4-choem,, Nakano-ku, Tokyo, Japan Contact Phone +81 3 6832 1721 Contact Email tmisc@jrc.co.jp			
12.	Alternate/ Local Source	Local Engineering houses/ OEM Local Rep			
13.	Justification for work	JMA Radar processing unit malfunctioning			
14.	Work required/ Defect	a.	b.	c.	d.
		Defect List	Repair Work Required	Services required	Spares Required
		i. Display not available, Processor Unit of JMA 5312 Nav Radar malfunctioning	Defect rectification of Radar's Processor Unit	Repair, integration and STW of Navigational Radar	As per installation / repair requirement
15.	Scope of work	Defect Analyzed	a.	b.	c.
		Processor Unit of JMA 5312 Navigation Radar malfunctioning	Repair Work Required	Services required	Spares Required
			i. Satisfactory system trials i.e. harbor and sea. ii. All accessories to be installed/ fitted back by the firm. iii. Work to be undertaken in accordance with relevant technical manual. iv. Any damage/ defect/ wear or tear which may occur during installation will be repaired by the firm without any		As per installation / repair requirement

		liability/responsibility on part of the ship
16.	Technical Specifications	As per OEM manual/ Specifications.
17.	Eligibility Criteria	a. Firm having working experience on JRC manufactured Radars/ systems. b. Registered and security wise cleared local contractor/ firm who has working experience of MPVs. c. Firm must visit ship to undertake the exact diagnosis prior quoting to avoid inconvenience after award of Work Order.
18.	EDC	04 week
19.	Warranty	01 years
20.	Acceptance Criteria	a. System should boot-up, scan, transmit and hook targets/ tracks as per standard. b. Upon completion of satisfactory trials at harbor and sea.
21.	Any Other Relevant Information	SS may be contact for any further queries.

IT NO: IT/86/18/2025-26

FABRICATION OF FUEL SUPPLY LINES OF PORT & STBD MAIN ENGINES EMP - PMSS KASHMIR

<u>S No</u>	<u>Description</u>																									
1.	Ships Name	PMSS KASHMIR																								
2.	Parent Equipment	Main Engine																								
3.	OEM	MAN B&W / DALIAN CRRC DIESEL ENGINE CO, LTD.																								
4.	Model	20RK270																								
5.	Origin	Germany																								
6.	Sub Equipment	Fuel supply line																								
7.	Assembly	Fuel supply line																								
8.	Quantity	<table border="1"> <thead> <tr> <th>S No</th> <th>Description</th> <th>Size</th> <th>Qty</th> <th>Material</th> </tr> </thead> <tbody> <tr> <td>a.</td> <td>Supply lines</td> <td>Length: 7 ft, Dia: 2 Inch 1.8 Inch</td> <td>02</td> <td rowspan="2">Cu/Nk 90/10</td> </tr> <tr> <td>b.</td> <td>Engine suction line</td> <td>Length: 6.5 ft Dia: 2 inch</td> <td>01</td> </tr> <tr> <td>c.</td> <td>Fuel probe receiver</td> <td>Length: 8 ft Dia: 1.5 inch</td> <td>03</td> <td>SS -316</td> </tr> <tr> <td>d.</td> <td>Discharge lines</td> <td>Length: 6 ft Dia: 2 inch</td> <td>02</td> <td>Cu/ Nk 90/10</td> </tr> </tbody> </table>	S No	Description	Size	Qty	Material	a.	Supply lines	Length: 7 ft, Dia: 2 Inch 1.8 Inch	02	Cu/Nk 90/10	b.	Engine suction line	Length: 6.5 ft Dia: 2 inch	01	c.	Fuel probe receiver	Length: 8 ft Dia: 1.5 inch	03	SS -316	d.	Discharge lines	Length: 6 ft Dia: 2 inch	02	Cu/ Nk 90/10
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8 x Fuel Supply Lines																										
9.	Source of Availability	OEM																								
10.	Work Required	<table border="1"> <thead> <tr> <th>a</th> <th>b</th> <th>c</th> <th>d</th> </tr> </thead> <tbody> <tr> <td>Defect List</td> <td>Repair Work Required</td> <td>Services Required</td> <td>Spares Required</td> </tr> </tbody> </table>	a	b	c	d	Defect List	Repair Work Required	Services Required	Spares Required																
		a	b	c	d																					
Defect List	Repair Work Required	Services Required	Spares Required																							

		Fabrication	Fabrication of new lines as per quantity & material mentioned at S No 8	Nil	As per para 8
		Installation/ dismantling	Dismantling and installation of new lines	Yes	Nil
11.	Defect History	Fuel supply lines are being used with cold repairs for SAT operation of system			
12.	Technical Specs	Fabrication of new fuel supply lines as per sample			
13.	Eligibilities	Reputable local/ international contractor registered with FBR and having working experience with PMSA.			
14.	EDD/ EDC	30 Days after award of contract			
15.	Warranty	01 Year			
16.	Acceptance Criteria (if any)	a. OEM Certified item b. Pipe must be flushed before installation for clearing any debris c. No leakage of fuel after installation			

REPAIR/ OVERHAULING OF FIRE HYDRANTS & HOSES - PMSS BASOL

SNo.	Description			
1.	Ship's Name	PMSS BASOL		
2.	Parent Equipment	Fire Hydrants		
3.	OEM	China		
4.	Origin	China		
5.	Sub Equipment	Fire Hydrants and hoses		
6.	Quantity	22 x Fire Hydrants and 10 x hoses		
7.	Sources of	China		
8.	OEM Details	Address Room 2-1-1801, No. 139, Ziyang Contact Phone Tel: 027-88737566 Fax: 027-88733403 Contact Email ofiicer@mikand.cn		
9.	Justification for work	As per PMS routines/ technical manual		
10.	Detail scope of work	a	b	c
		Detail of Repair Work Required	Details of Services Required	Details of Spares Required
		As per requirements for overhauling of Fire Hydrants	Complete overhauling of Fire Hydrants system includes following aspects: 1. Remove hydrant cap and inspect internal threads. 2. Dismantle and overhaul hydrant valve assembly completely. 3. Replace all defective seals, washers, O-ring and valve seat. 4. Remove, Inspect and repair hoses completely. 5. Inspect/ overhaul couplings and nozzles of fire hydrants. 6. Record operating parameters (discharge pressure and flow-rate) as per OEM recommendation	As per requirements for overhauling of Fire Hydrants and hoses
11.	Eligibilities	Reputable local contractor having working experience of Fire Hydrants system		
12.	EDC	02 Weeks		
13.	Warranty	01 Year		

14.	Acceptance Criteria	a. Satisfactory operation of all Fire Hydrants and hoses. b. Satisfactory operation without noise and vibration. c. Leakage free operation of system. d. Successful trials by end user.
15.	Any other relevant information	a. Contactor may contact SS/ visit onboard ship to resolve any query. b. Growth work, damage/ defect occurring during work will be responsibility of contractor.

IT NO: IT/86/20/2025-26

INSPECTION/ REPLACEMENT OF SENSORS SAFETIES OF PROPULSION MACHINERY – PMSS BASOL

S No	Details				
1.	Ships Name	PMSS BASOL			
2.	Parent Equipment	Main Engine			
3.	OEM	MTU Germany			
4.	Model	16V4000M73L DIESEL ENGINE			
5.	Serial No	N/A			
6.	Origin	Germany			
7.	Sub Equipment	Main Engines sensors/ safeties and associated fittings			
8.	Assembly Component	Lub Oil, Fuel, Air, differential, Sea Water Pressure Transmitters, Charge Air Cooler and Jacket Water Temperature Sensor/ Transmitters.			
9.	Part No. of Assembly Component	Pressure Sensor (X00E50208388), Temperature Sensor (PT 100 ABGAS), Speed Transmitter VDO-PICK-UP (5205304069), Speed Sensor BR4000 KW (0005357633)			
10.	Quantity	06 x Lube Oil Pressure Sensor, 06 x Pressure Sensor, 09 x Main Bearing Temperature, 32 x Exhaust Temperature cylinder Sensor, 04 x Speed Transmitter VDO-PICK-UP, 04 x Speed Sensor BR4000 KW (61 x 02 SENSORS) of 02 x Main Engines			
11.	Source of availability	MTU			
12.	Justification for Work	As per PMS routines/ technical manual			
13.	Work Required	a	b	c	d
		Defect/ Routine List	Repair Work Required	Services Required	Spares Required
		Nil	Nil	Yes	Yes

		a	b	c
		Details of Repair Work Required	Details of services Required	Details of Spares Required
14.	Detailed scope of work	Nil	<ol style="list-style-type: none"> 1. Check wiring to all sensors and safeties for firm grip or damage. Inspect sensor housings for corrosion or leaks. 2. Re-energize power supply under controlled conditions. Simulate trip conditions for safeties (high pressure, low pressure, over-temp, flow switch). Verify alarms/ trip signals at local & remote panels. 3. Compare actual sensor values with independent instruments (thermometer, pressure gauge). Record deviations. 4. Remove faulty safety/ sensor unit. Fit new sensor/ safety device and reconnect wiring. Restore main engine system integrity and perform leak test. 5. Restart Main Engines safeties and sensors during start-up and normal running. Verify alarms/trips reset correctly. 6. Record all test values, replacements & defective parts and replace (if required). 7. OEM certified spares. Satisfactory operation of Main Engines. 	As per requirements mentioned at S No 10
15.	Technical Specs	As per OEM/ Technical Manual.		
16.	Eligibility	OEM authorized Rep having experience of MTU Main Engines fitted onboard HINGOL class MPVs.		
17.	EDC	ASAP (07 days)		
18.	Warranty	1 year		
19.	Acceptance Criteria	<ol style="list-style-type: none"> a. Work will be carried out by/ through OEM rep. b. Satisfactory trials of Main Engine 		

**IT SPECIFICATIONS FOR PMS ROUTINE OF GEAR BOX ELECTRICAL MONITORING SYSTEM -
PMSS KASHMIR**

S No	Description																																																																									
1.	Ships Name	PMSS KASHMIR																																																																								
2.	Parent	GEAR BOX ELECTRICAL MONITORING SYSTEM																																																																								
3.	OEM	SHANGHAI MARINE DIESEL ENGINE RESERCH INSTITUTE , CSIC																																																																								
4.	Model	SAL-14-GCD750-800-type																																																																								
5.	Serial No	541639-541642																																																																								
6.	Origin	China																																																																								
7.	Sub Equipment	Gearbox Local Monitoring Box Gearbox Backup Pump Control Box																																																																								
8.	Assembly Equipment	PLC CPU1215C DC/DC/DC LCD iX T7A Green button with lamp LA39-B322D/G 23 Buzzer AD16-22SM/r 23 White button LA39-B322/W 2 position self-locking switch LA42X29-22/B 2P Relay RXM 2LB2BD 4P Relay RXM 4LB2BD Contactor LC1D18B7C Contactor LC1D25B7C Contactor LC1D09B7C Thermal relay LRD22C Green indicator AD16-22D/G 23S White indicator AD16-22D/W23S Red indicator AD16-22D/R 23S 3 position no self-locking switch LA42X3A-22/B Transformer JBK3-160																																																																								
9.	Part No. of Assembly Equipment																																																																									
10.	Quantity																																																																									
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r.	LA42X3A-22/B	3 position no self-locking switch	1																																																																							
s.	JBK3-160	Transformer	1																																																																							
11.	Source of Availability	t. 6120PV1000034 OEM, Local Market																																																																								

12.	OEM Details	<u>Address</u> No. 3111, Huaining Road, Shanghai, China <u>Contact Phone</u> 18901620966 <u>Contact Email</u> pmh_1227@163.com			
13	Justification for work	To conduct PMS routine of Gear Box Electrical Monitoring System (PMS No 5-6129-0000)			
14	Work Required	a	b	c	d
		Defect/ Routine List	Repair Work Required	Services Required	Spares Required
		PM-006	Overhaul of the gearbox local monitoring box	Overhaul of device required	As per S No 9 & 10
		PM-012	Overhaul of the gearbox backup pump control box		
15	Detailed scope of Work	a		b	C
		Detail of Repair Work Required		Details of services Required	Details of Spares Required
		Overhaul of the gearbox local monitoring box		Overhaul of device required	As per S No 9 & 10
		Overhaul of the gearbox backup pump control box			
16	Defect History	5A PMS routine of Gear Box Electrical Monitoring System			
17	Technical Specs	a. Gearbox local monitoring box Input voltage DC 24 V ($\pm 20\%$) Rated current 5A b. Gearbox backup pump control box Input voltage AC 380 V (50Hz) Rated current 45A			
18	Eligibilities	Reputable local/ international contractor registered with FBR and having working experience with PMSA.			
19	EDD/ EDC	30 Days after award of contract			
20	Warranty	01 Year			
21	Acceptance Criteria (if any)	e. OEM Certified item. f. Defective/ BER items must be replaced with new one. g. Upon scrutiny of items and provided documents along with production certificate by OEM. h. Defective/ BER items must be replaced with new. i. Firm will not be allowed to use ship tools and manpower			

OVERHAULING OF ENGINE COMBINED ALARM SYSTEM - PMSS BASOL

S No	Details				
1.	Ships Name	PMSS BASOL			
2.	Parent Equipment	Engine Room Combined Alarm System			
3.	OEM	CHANGSHU RUIITE ELECTRIC CO., LTD.			
4.	Model	Alarm lamp panel RTM-1511015SGB-1			
5.	Origin	China			
6.	Sub Equipment	Engine Room Combined Alarm System, rotating alarm lamp, fire alarm lamp panel, alarm siren, general mobilization alarm lamp panel, CO2 release alarm lamp panel, telegraph call alarm lamp panel and telephone call alarm lamp panel			
7.	Assembly Component	Alarm Siren, Fuse Core Indicator Light, Indicator Panel Control Module			
8.	Part No. of Assembly Component	S No	NSN/ Part No	Description	QTY
		a.	6350PV0020004	Alarm Siren	01
		b.	5920PV0010008	Fuse Core	01
		c.	5920PV0010009	Fuse Core	01
		d.	6240PV0010018	Indicator Light	01
		e.	6240PV0010023	Indicator Light	01
		f.	6320PV1100009	Indicator Panel Control Module	01
		g.	RTM-511015SGB-1	Alarm lamp panel	01
		h.	RT-ZHBJ	PCB printed board	01
9.	Quantity	02 x Engine Rooms combined alarm system			
10.	Source of availability	MTU			
11.	Justification for Work	As per PMS routines/ technical manual			
12.	Work Required	a	b	c	d
		Defect/ Routine List	Repair Work Required	Services Required	Spares Required
		Nil	Yes	Yes	Yes
13.	Detailed scope of work	a	b	c	
		Details of Repair Work Required	Details of services Required	Details of Spares Required	
		As per requirements	Complete overhaul Engine Room combined alarm system including following aspects: 1. Dismantlement 2. Overhaul after dismantlement. Replace any damaged fuse with new approved fusé core. Replace defective indicator lights, buttons, or siren, reinstalling new units and reconnecting wiring properly. Carry out relay testing & replacement. Replace terminal block	New fuse cores, Spare relays, Indicator lamps / bulbs, Replacement buttons and siren unit, Terminal blocks or lugs, Cable ties / labeling tags / Wiring sleeves / Insulation sleeves and mentioned at S No per JICs and technical	

		<p>or remediate wiring/insulation.</p> <p>3. Re-organize internal wiring and ensure proper routing; make sure wire ends are clean and labeled. Reinstall fuse, relay, terminal blocks, indicator lights, buttons, siren, and any other components into mounting rails/box in their original positions. Reconnect incoming external cables (previously numbered) to external terminals. And ensure grounding.</p> <p>4. Check all wiring against drawings for correctness. Confirm CO₂ / emergency lamp panel illumination, red rotating lamp activation, and continuous single-tone siren light alarm. Press "Silence" (acknowledge) button: siren should stop immediately while lamp remains (or as per local alarm logic).</p> <p>5. Overhaul the Marine Engineer's Calling System. Overhaul the refrigerator calling alarm system. Replace main control board of control box at alarm bell general- purpose alarm system.</p> <p>6. Confirm alarm reset function works, and re-arming of alarm loop. Perform final check: panel lamp indicators, siren, wiring, ground continuity, and ensure no short circuits or faulty insulation.</p> <p>7. Satisfactory operations of engine room combined alarm system including rotating alarm lamp, fire alarm lamp panel, alarm siren, general mobilization alarm lamp panel, CO₂ release alarm lamp panel, telegraph call alarm lamp panel and telephone call alarm lamp panel</p> <p>8. Carry out complete overhauling as per JICs and technical manual following all SOPs</p>	<p>manual following all SOPs</p>
14.	Technical Specs	As per OEM/ Technical Manual.	
15.	Eligibility	OEM authorized Rep having experience of combined alarm system	
16.	EDC	ASAP (07 days)	
17.	Warranty	1 year	
18.	Acceptance Criteria	<p>a. Work will be carried out by/ through OEM rep.</p> <p>b. Satisfactory trials of Main Engine</p>	

MAINTENANCE OF 1ST, 2ND & 3RD STAGE OILY WATER SEPARATOR - PMSS BASOL

S No	Details					
1.	Ships Name	PMSSBASOL				
2.	Parent Equipment	Oily water separator				
3.	OEM	Dongtai City Dongfang Marine Fitting Co, Ltd.				
4.	Model	YWC-0.50 15PPM				
5.	Origin	China				
6.	Sub Equipment	Oily water separator				
7.	Assembly Component	1 st , 2 ^{na} and 3 ^{ra} membrane, Dosing and screw pump Pneumatic valves				
8.	Part No. of Assembly Component	Item	Model/ Part No	NSN	Features	Qty
		First-stage Separator				
		First-stage cylinder	YJTT	4630PV2020002	322DF-1-01-1	01
		Gland	FT	4630PV2020003	322DF-1-01-2	01
		Electric heater	DJRQ	4420PV1005008	322DF-1-01-3	01
		Liquid level controller	JYB1	6685PV0990021	322DF-1-4A	01
		Corrugated plate group	BWBZ	4630PV2020004	322DF-1-01-5	02
		Two stage filter				
		Body of the second-stage separator		4630PV2020007	322DF-1-02-01	01
		Second-stage cover plate		4630PV2020007	322DF-1-02-02	01
		Second-stage inlet pipe		4630PV2020009	322DF-1-02-04	01
		Second-stage filter	322DF-1-24	4630PV2020010	322DF-1-02-03	02
		Three stage membrane				
		Lower cover plate		4630PV2020014	322DF-1-03-1	01
		Body of three-stage separator		4630PV2020015	322DF-1-03-2	01
		Upper cover plate		4630PV2020016	322DF-1-03-3	01
		Third-stage membrane module		4630PV2020017	322DF-1-03-4	04
		Motor	LGBDJ0.6 7	6105PV1000056	322DF-1-04-1	01
		Pump	LGBBC12 AS81RMA	4320PV6070001	322DF-1-04-2	01
		9.	Quantity	As mentioned in S No 8		
10.	Source of availability	Harbin Engineering University				
11.	Justification for Work	As per PMS routines/ technical manual				
12.	Work Required	a	b	c	d	
		Defect/ Routine List	Repair Work Required	Services Required	Spares Required	
		Nil	Yes	Yes	Yes	

		a	b	c
		Details of Repair Work Required	Details of services Required	Details of Spares Required
13.	Detailed scope of work	As per Requirements	<p>Detailed work scope for Oily water separator is as under:</p> <p>a. Dismantling of all accessories required for carrying out inspection/ maintenance routines.</p> <p>b. Cleaning of all dismantled items in detail. Overhaul Replace screw and dosing pump.</p> <p>c. All spares required for carrying said routines is to be provided by the contractor.</p> <p>d. Replacement of all removed gaskets/ seals for carrying said routines with new gaskets/ seals, same will also be provided by the contractor.</p> <p>e. Check the vacuum meter on the first-stage that must be within (-0.05-0.01 MPa), if not, check the airtightness of the pipeline.</p> <p>f. Check the differential pressure gauge for second- stage separator that must be less than 0.2MPa. Second-stage filter should be replaced</p> <p>g. Check the differential pressure gauge for the Third-stage membrane. A differential pressure between the inlet and the outlet must be less than 0.2MPa. Membrane should be cleaned or replaced</p> <p>h. Any other repair/ maintenance job will be covered in growth work.</p> <p>j. Conduct of Harbour and sea trials. Record operating parameters (oil pressure, discharge pressure, temperature) as per OEM recommendation</p>	As mentioned in S No 8
14.	Technical Specs	As per technical manual		
15.	Eligibility	Reputable local contractor having working experience of Oily water separator		
16.	EDC	02 weeks		
17.	Warranty	01 Year		
18.	Acceptance Criteria	<p>a. Satisfactory operation of oily water separator</p> <p>b. Satisfactory SATs followed by HATs.</p> <p>c. Satisfactory operation without noise and vibration.</p> <p>d. Leakage free operation of system.</p>		
19.	Any other relevant information	<p>a. Contactor may contact SS/ visit onboard ship to resolve any query.</p> <p>b. Growth work, damage/ defect occurring during work will be responsibility of contractor.</p>		

PMS ROUTINE OF CWP SEA WATER PUMPS - PMSS KASHMIR

S No	Details				
1.	Ships Name	PMSS KASHMIR			
2.	Parent Equipment	Marine Light Water Chiller			
3.	OEM	JIANGSU ZHENHUA PUMP INDUSTRY CO., LTD.			
4.	Model	CLH50-32-4.5(Z)			
5.	Origin	China			
6.	Sub Equipment	Sea Water Pump For Chiller			
7.	Assembly Component	Pump shaft Impeller Seal ring Mechanical seal O ring Diesel oil			
8.	Part No. of Assembly Component	S No	Part No	Description	QTY
		a.	466ZH-CLH-40-02	Pump shaft	2
		b.	IS100-80-160-02	Impeller	4
		c.	466ZH-CLH-42-02	Seal ring	6
		d.	9320PV1010708	Mechanical seal ZH3-22	2
		e.	GB/T276-1994/6309	Motor bearing	2
f.	Y160M2-2H-07	Motor Shaft	2		
9.	Quantity	As mentioned in S No 8			
10.	Source of availability	Local Market			

CONDUCT OF PMS ROUTINE FOR SHAFT COOLING PUMPS - PMSS KASHMIR

S No	Details				
1.	Ships Name	PMSS KASHMIR			
2.	Parent Equipment	S.W. Cooling Pump			
3.	OEM	JIANGSU ZHENHUA PUMP INDUSTRY CO., LTD.			
4.	Model	CLH89-10-4.5(Z) Shaft Cooling Pump			
5.	Origin	China			
6.	Sub Equipment	Sea water pump			
7.	Assembly Component	a. Impeller b. Pump shaft c. Motor bearing d. Motor shaft e. Mechanical seal			
8.	Part No. of Assembly Component	S No	Part No	Description	QTY
		a.	i. 466ZH95-10-02 ii. 466TC92-03-02	Impeller	4
		b.	i. 466ZH95-10-04 ii. 466TC92-03-04	Pump shaft	2
		c.	i. GB/T276-1994/6308 ii. GB/T276-1994/6309 iii. GB/T276-1994/7309	Motor bearing	4
		d.	i. Y132S1-2H-07 ii. Y160M2-2H-07	Motor shaft	2
		e.	i. ZH3-30 ii. ZH3-30	Mechanical seal	4
		f.		Pump Body	2
9.	Quantity	As mentioned in S No 9			
10.	Source of availability	OEM, Local Market			
11.	Justification for Work	Replacement of above mentioned items is required for Cooling Pump for Equipment			
12.	Work Required	a	b	c	d
		Defect/ Routine List	Repair Work Required	Services Required	Spares Required
		Impeller	Inspection / renewal	Inspection, dismantling and installation	4
		Pump shaft	Inspection / renewal	Inspection, dismantling and installation	2
		Motor bearing	Inspection / renewal	Inspection, dismantling and installation	4
		Motor shaft	Inspection / renewal	Inspection, dismantling and installation	2
		Mechanical seal	Inspection / renewal	Inspection, dismantling and installation	4
		Pump Body	Inspection / renewal	Inspection, dismantling and installation	2

13.	Detailed scope of work	a	b	c
		Details of Repair Work Required	Details of services Required	Details of Spares Required
		PMS Routine of Overhauling	Inspection, repair/ renewal of Impeller, Pump Shaft, Motor bearing. Motor shaft and Mechanical Seals of 02 x equipment cooling pumps and 02 x shaft cooling pumps	04 x Impellers, 04 x mechanical seals and fabrication of new 02 x pump shaft, 02 x motor shaft
14.	Technical Specs	S No	Description	Technical Data
		e.	Model	CLH80-50-7(Z)
		f.	Manufacturer	JIANGSU ZHENHUA PUMP INDUSTRY PUMP
		g.	Working Pressure	0.4 MPa
		h.	RPM	2950
15.	Eligibility	Reputable local contractor registered with FBR and having working experience onboard PMSA Ships.		
16.	EDC	01 Week		
17.	Warranty			
18.	Acceptance Criteria	a. Successful trials by end user. b. Contractor must visit onboard for detailed scope of work prior quoting c. Pumps should run smoothly without any leakage, noise and vibration d. Pump should provide discharge pressure as per tech manual e. Motor winding must be pure copper f. Motor running current should be as per tech manual g. Any growth work after dismantling of pumps will be beard by firm h. Firm will not be allowed to use ship tools and manpower		

CONDUCT OF PMS ROUTINE OF 08 X FIRE FIGHTING PUMPS - PMSS KASHMIR

S No	Description																					
1.	Ships Name	PMSS KASHMIR																				
2.	Parent Equipment	Firefighting System																				
3.	OEM	JIANGSU ZHENHUA Pump Industry CO. LTD																				
4.	Model	ELECTRIC FIRE-FIGHTING PUMP 5.5(Z)	CLH80-65-																			
		ELECTRIC FIRE-FIGHTING PUMP Submersible 7(Z)	CLH100-65-																			
		GENERAL PURPOSE FIRE/BILGE PUMP	125CLZ-9-2																			
		PRESSURE RETAINING PUMP FOR FIRE MAIN 2.5(Z)	CLH40-32-																			
		AFFF LIQUID FILLING PUMP	JGGC4-12																			
5.	Serial No	Misc																				
6.	Origin	China																				
7.	Sub Equipment	Pumps, Motors & Bodies																				
8.	Assembly Equipment	Pumps, Motors & Bodies																				
9.	Quantity	<table border="1"> <thead> <tr> <th>S No</th> <th>Description</th> <th>Qty</th> </tr> </thead> <tbody> <tr> <td>p.</td> <td>General Purpose Fire Pump</td> <td>1</td> </tr> <tr> <td>q.</td> <td>Pressure Retaining Pump</td> <td>2</td> </tr> <tr> <td>r.</td> <td>Electric Submersible Pump</td> <td>2</td> </tr> <tr> <td>s.</td> <td>Mobile Emergency Fire Pump</td> <td>2</td> </tr> <tr> <td>t.</td> <td>AFFF Liquid Filling Pump</td> <td>1</td> </tr> </tbody> </table>			S No	Description	Qty	p.	General Purpose Fire Pump	1	q.	Pressure Retaining Pump	2	r.	Electric Submersible Pump	2	s.	Mobile Emergency Fire Pump	2	t.	AFFF Liquid Filling Pump	1
		S No	Description	Qty																		
		p.	General Purpose Fire Pump	1																		
		q.	Pressure Retaining Pump	2																		
		r.	Electric Submersible Pump	2																		
		s.	Mobile Emergency Fire Pump	2																		
t.	AFFF Liquid Filling Pump	1																				
10.	Source of Availability	Local Market																				
11.	Justification for work	To conduct PMS routine of Sea Water Pump No 1 & 2 For Package Acs (PMS No 3-4201-0001-0002)																				
12.	Work Required	a	b	c	d																	
		Defect/ Routine List	Repair Work Required	Services Required	Spares Required																	
		PMS No 3-4210-0000	Overhauling ' of pump and motor required. Moreover, Fabrication of basis alongwith replacement of associated fitting also required.	Dismantling and installation of motor after repair work	Yes																	
		PMS No 3-4214-0000																				
PMS No 3-4218-0001																						
PMS No 3-4232-0001																						

13.	Detailed scope of Work	a	b	C
		Detail of Repair Work Required	Details of services Required	Details of Spares Required
		Overhauling ' of pump and motor required. Moreover, Fabrication of basis alongwith replacement of associated fitting also required.	Dismantling and installation of motor after repair work	Yes
14.	Technical Specs	S No	Description	Technical Data
		a.	Model	CLH80-65-5.5(Z) CLH100-65-7(Z) 125CLZ-9-2 CLH40-32-2.5(Z) JGGC4-12
		b.	Manufacturer	JIANGSU ZHENHUA Pump Industry CO. LTD
		c.	Working Pressure	0.6 MPa
		d.	Power	18.5 kW
		e.	Input voltage	AC 380V
		f.	RPM	2950
15.	Eligibilities	Reputable local contractor having working experience with PMSA.		
16.	EDD/ EDC	30 Days after award of contract		
17.	Warranty	1 year		
18.	Acceptance Criteria (if any)	a. OEM Certified item b. Contractor must visit onboard for detailed scope of work prior quoting c. Pumps should run smoothly without any leakage, noise and vibration d. Pump should provide discharge pressure as per tech manual e. Motor winding must be pure copper f. Motor running current should be as per tech manual.		

REQUIREMENT OF ITEMS FOR GUARDRAILS – PMSS ZHOB

S No		Details
1.	Ship's Name	PMSSZHOB
2.	Parent Equipment	Mooring/ Rigging Equipment
3.	OEM	Reputed Manufacturer
4.	Model	Standard Marine Grade
5.	Origin	Local
6.	Sub Equipment	Guardrail wire rope with PVC coating (Black)\. Shackle 12mm, Bottle screw, Bulldog Grips, Ferrule and Thimble.
7.	Assembly Component	Guardrails
8.	Quantity	100 meter guardrail wire rope with PVC coating (Black), 40 x Ferrule, 40 x Shackle 12mm, 40 x Bottle screw slips, 40 x bulldog grips and 4-0 x Thimbles
9.	Source of availability	Any local/ international registered firm with good reputation
10.	Justification for Work	Existing guardrails corroded and worn out. Replacement required to maintain safety standards
11.	OEM Details	<p>Address Ropemaker Park, Diplocks Way, Hilsham, East Sussex, BN27 3 GU, United Kingdom</p> <p>Contact +44(0)1323 444 444</p> <p>Email sales@marlowropes.com</p>
12.	Quantity	Existing guardrails corroded and worn out. Replacement required to maintain safety standards
13.	Work required	Procurement of Guardrail wire rope with PVC coating (Black)\, Shackle 12mm, Bottle screw, Bulldog Grips, Ferrule and Thimble.
14.	Detail Scope of Work	Procurement of Procurement of Guardrail wire rope with PVC coating (Black), Shackle 12mm, Bottle screw slips, Bulldog Grips, Ferrule and Thimble.
15.	Technical Specs	<p>a. Stainless Steel 12mm guardrail wire rope with PVC coating (Black)</p> <p>b. Stainless steel ferrule suitable for hydraulic swaging</p> <p>c. Stainless steelshackle 12mm</p> <p>d. Stainless steel bottle screw slips</p> <p>e. Stainless steelbulldog grips</p> <p>f. Stainless steel thimbles</p>
16.	Eligibilities	Any firm having experience with PMSA
17.	EDC/ EDD	ASAP
18.	Warranty	1 Year
19.	Acceptance Criteria	<p>a. Visual inspection.</p> <p>b. Verification of material grade and size.</p> <p>c. Submission of material certificate.</p>
20.	Any other relevant information	<p>a. Item shall be new and unused</p> <p>b. Suitable for shipboard operations</p> <p>c. Corrosion resistant for marine use</p>

PROCUREMENT OF SPARES FOR MAIN ENGINE LOCAL MONITORING SYSTEM - PMSS KOLACHI

S No	Details																																																										
1.	Ships Name	PMSS KOLACHI																																																									
2.	Parent Equipment	Main Engine Local Monitoring System																																																									
3.	OEM	Shanghai Marine Diesel Engine Research Institute, CSIC																																																									
4.	Model	SAL-10 Type Main Engine Local Monitoring Box																																																									
5.	Serial No	781547~781550																																																									
6.	Origin	China																																																									
7.	Sub Equipment	Main Engine Local Monitoring Box																																																									
8.	Assembly Component	LCP Main Engine IXT 10A SM1223 Module SM1231 Module AI8-13 Bit SM1231 Module 8 x RTD SM1231 Module 8 x TC SM1223 DI8/ OQ8 Transformer 160 VA, 220V AC/ 24V AC Frequency Conversion Module (PH61V6D) NPGL Module CMIID 4-20mAmp one input two output Switching Power Supply 24V DC/ 24V DC																																																									
9.	Part No. of Assembly Component	<table border="1"> <thead> <tr> <th>S No</th> <th>Model/ Spec</th> <th>NSN/ Part No</th> <th>Description</th> <th>Qty</th> </tr> </thead> <tbody> <tr> <td>a.</td> <td>iXT10A(HMI)</td> <td>7025PV0020036/ 711-605</td> <td>LCP Main Engine IXT10A(HMI)</td> <td>2</td> </tr> <tr> <td>b.</td> <td>6ES7-215-1AG40-0XB0</td> <td>5999PV9000025/ 711-401</td> <td>SM1223 Module</td> <td>2</td> </tr> <tr> <td>c.</td> <td>6ES7-231-4HF30-0XB0</td> <td>5999PV9000130/ 711-409</td> <td>SM1231 Module AIS-13 Bit</td> <td>2</td> </tr> <tr> <td>d.</td> <td>6ES7-231-5PF32-0XB0</td> <td>5999PV9000131/ 711-410</td> <td>SM1231 Module 8 x RTD</td> <td>2</td> </tr> <tr> <td>e.</td> <td>6ES7-231-5QF30-0XB0</td> <td>5999PV9000132/ 711-411</td> <td>SM1231 Module 8 x TC</td> <td>2</td> </tr> <tr> <td>f.</td> <td>6ES7 223-1BH32-0XB0</td> <td>5999PV9000133/ 711-412</td> <td>SM1223 DI8/OQ8</td> <td>2</td> </tr> <tr> <td>g.</td> <td>JBK3-160TH, 160VA (AC380-AC220/AC24)</td> <td>6120PV1000034/ 711-321</td> <td>Transformer 160VA, 220V AC/24V AC</td> <td>2</td> </tr> <tr> <td>h.</td> <td>PH61V6D</td> <td>6110PV6110004/ 711-436</td> <td>Frequency Conversion Module (PH61V6D)</td> <td>2</td> </tr> <tr> <td>i.</td> <td>NPGL-CM111D</td> <td>NPGL-CM111D/ 711-431</td> <td>NPGL Module CMIID 4-20mAmp one input two output</td> <td>2</td> </tr> <tr> <td>j.</td> <td>SD-200B-24</td> <td>6125PV1010029/ 711-309</td> <td>Switching Power Supply 24V DC/ 24V DC</td> <td>2</td> </tr> </tbody> </table>			S No	Model/ Spec	NSN/ Part No	Description	Qty	a.	iXT10A(HMI)	7025PV0020036/ 711-605	LCP Main Engine IXT10A(HMI)	2	b.	6ES7-215-1AG40-0XB0	5999PV9000025/ 711-401	SM1223 Module	2	c.	6ES7-231-4HF30-0XB0	5999PV9000130/ 711-409	SM1231 Module AIS-13 Bit	2	d.	6ES7-231-5PF32-0XB0	5999PV9000131/ 711-410	SM1231 Module 8 x RTD	2	e.	6ES7-231-5QF30-0XB0	5999PV9000132/ 711-411	SM1231 Module 8 x TC	2	f.	6ES7 223-1BH32-0XB0	5999PV9000133/ 711-412	SM1223 DI8/OQ8	2	g.	JBK3-160TH, 160VA (AC380-AC220/AC24)	6120PV1000034/ 711-321	Transformer 160VA, 220V AC/24V AC	2	h.	PH61V6D	6110PV6110004/ 711-436	Frequency Conversion Module (PH61V6D)	2	i.	NPGL-CM111D	NPGL-CM111D/ 711-431	NPGL Module CMIID 4-20mAmp one input two output	2	j.	SD-200B-24	6125PV1010029/ 711-309	Switching Power Supply 24V DC/ 24V DC	2
S No	Model/ Spec	NSN/ Part No	Description	Qty																																																							
a.	iXT10A(HMI)	7025PV0020036/ 711-605	LCP Main Engine IXT10A(HMI)	2																																																							
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i.	NPGL-CM111D	NPGL-CM111D/ 711-431	NPGL Module CMIID 4-20mAmp one input two output	2																																																							
j.	SD-200B-24	6125PV1010029/ 711-309	Switching Power Supply 24V DC/ 24V DC	2																																																							
10.	Source of availability	OEM/ LOCAL Market																																																									
11.	Justification for Work	To conduct PMS routine for inspection/ servicing of Main Engine Local Monitoring System (PMS No 5-6123-0001~0002)																																																									
12.	Work Required	a	b	c																																																							
		Defect/ Routine	Repair Work	Services Required																																																							
			d	Spares																																																							

		List	Required	Required
		Intermittent response of 2 x LOPs observed due to malfunctioning of software	Repair/ replacement of both main engine LOPs required	Inspection/ Servicing of Main Engine Local Monitoring System required As per S No 9
13.	Detailed scope of work	Details of Repair Work Required	Details of services Required	Details of Spares Required
		Repair/ replacement of both main engine LOPs required	Inspection/ Servicing of Main Engine Local Monitoring System required	As per S No 9
14.	Technical Specs	Type of engine: DATE of manufacture Serial No: Speed: Power supply: Rated current Monitoring box	20RK270 September 2016 781547-781550 1000rpm DC 24 V (±20%) 5 A 145Kg	
15.	Eligibility	Reputable local/ international contractor registered with FBR and having working experience with PMSA.		
16.	EDC	30 Days after award of contract		
17.	Warranty	01 Year		
18.	Acceptance Criteria	a. OEM Certified item. b. Upon scrutiny of items and provided documents along with production certificate by OEM. c. Defective/ BER items must be replaced with new. d. Firm will not be allowed to use ship tools and manpower		
19.	Any other relevant information	Contractor/ Rep of firm should visit ship prior quoting to inspect exact scope of work		

PMS ROUTINE OF GENERAL PURPOSE ALARM SYSTEM - PMSS KOLACHI

S No	Details											
1.	Ships Name	PMSS KOLACHI										
2.	Parent Equipment	General Alarm System KLZ-24Z02										
3.	OEM	JINZHOU NORTH NAUTICAL INSTRUMENT CO.,LTD										
4.	Model	KLZ-24Z02										
5.	Origin	China										
6.	Sub Equipment	Emergency Main Engine Telegraph System										
7.	Assembly Component	Main Control Board JH5.623.233										
8.	Part No. of Assembly Component	<table border="1"> <thead> <tr> <th>S No</th> <th>Part No</th> <th>Item Description</th> <th>Qty</th> </tr> </thead> <tbody> <tr> <td>a.</td> <td>6320PV290006</td> <td>Main Control Board JH5.623.233</td> <td>02</td> </tr> </tbody> </table>			S No	Part No	Item Description	Qty	a.	6320PV290006	Main Control Board JH5.623.233	02
		S No	Part No	Item Description	Qty							
a.	6320PV290006	Main Control Board JH5.623.233	02									
9.	Justification for Work	To conduct PMS routine of General Purpose Alarm System (PMS No : 5-5401-0000)										
10.	Work Required	Defect/ Routine List	Repair Work Required	Services Required	Spares Required							
		PM-007	Replace Main Control Board of Control Box at Alarm Bell	Inspection/ Overhauling of General purpose Alarm System required for SAT OPS	As per S No 9 & 10							
11.	Detailed scope of work	Details of Repair Work Required		Details of services Required	Details of Spares Required							
		Repair/ Replacement required for defective items of General Purpose Alarm System required for SAT OPS		Inspection/ Overhauling of General Purpose Alarm System required for SAT OPS. Defective parts must be replaced with new	As per S No 9 & 10							
12.	Technical Specs	Action warning 1 long Damage-control warning continuously short Ready for War & Voyage 3 long 1short Blackout 1short 1long 1short Input voltage With scope of change		Continuously 25~30s Continuously 25~30s Repeat 3 times, interval : 2s Repeat 3 times, interval : 2s 24 VDC +6%~-6%								
13.	EDC	30 Days after award of contract										
14.	Warranty	01 year										
15.	Acceptance Criteria	a. OEM Certified item. b. Defective/ BER items to be replaced with new c. Firm will not be allowed to use ship tools and manpower										
16.	Any other relevant Info	Rep of firm should visit ship prior quoting to inspect exact scope of work.										

IT SPECIFICATIONS FOR ELECTROPLATING - PMSS KOLACHI

S No	Description		
1.	Ships Name	PMSS KOLACHI	
2.	Parent Equipment	Electroplating	
3.	Sub Equipment	Ship's Name Plate, Ship's Bell, Azimuth Circle, Officer State Board Alphabet, Action Alarm Bells, Fire Hydrants	
4.	Quantity	184	
5.	Source of Availability	Local Market	
6.	Justification of Work	Electroplating is required to ensure presentable outlook and serviceability of items.	
7.	Work required	a	b
		Defect List	Repair Work Required
			Electroplating
		c	d
		Services Required	Spares Required
		Local Vendor	
8.	Detail scope of work	a	b
		Detail of Repair Work Required	Detail of Services Required
		Electroplating	Electroplating
		c	
		Detail of Spares Required	
9.	Technical specs	Nil	
10.	Eligibilities	Reputable local contractor having working experience with PMSA.	
11.	EDD/EDO	7 Days after award of contract	
12.	Warranty	1 Years	
13.	Acceptance Criteria (if any)	b. Evaluation by end user	

PROCUREMENT OF STEERING MOTORS CONTROL PANEL BRIDGE - PMSS KOLACHI

S No	Details				
1.	Ships Name	PMSS KOLACHI			
2.	Parent Equipment	BRIDGE CONTROL CONSOLE			
3.	OEM	JINZHOU HANGXING SHIP TECHNOLOGY CO, LTD.			
4.	Model	Integrated bridge control console			
5.	Origin	China			
6.	Sub Equipment	Steering Remote Panel F.Motor starter (MR200B)			
7.	Assembly Component	Steering Remote Panel F.Motor starter (MR200B)			
8.	Part No. of Assembly Component	S No	NSN/ Part No	Description	Qty
		a.	(Supplied by shipyard)	Steering Remote Panel F. Motor starter	1
9.	Source of availability	Local Market			
10.	Justification for Work	Steering control panel at Bridge found defective.			
11.	Work Required	a	b	c	d
		Defect/ Routine List	Repair Work Required	Services Required	Spares Required
		Steering control panel at Bridge found defective	Repair/ Replacement of Steering control panel at Bridge.	Inspection, Repair/ Replacement of Steering control panel at Bridge for sat ops.	As per S No 8
12.	Detailed scope of work	Details of Repair Work Required	Details of services Required	Details of Spares Required	
		Repair/ Replacement of Steering control panel at Bridge.	Inspection, Repair/ Replacement of Steering control panel at Bridge for sat ops.	As per S No 8	
13.	Technical Specs	As per sample			
14.	Eligibility	Reputable local/ international contractor registered with FBR and having working experience with PMSA.			
15.	EDC	30 Days after award of contract			
16.	Warranty	01 Year			
17.	Acceptance Criteria	a.	OEM Certified items		
		b.	All BER items to be replaced with new		

	c. Firm will not be allowed to use ship tools and manpower
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IT NO: IT/86/31/2025-26

SERVICING/ OVERHAULING OF FUEL TREATMENT SYSTEM KFWA - PMSS BASOL

S No	Details				
1.	Ships Name	PMSS BASOL			
2.	Parent Equipment	Fuel Treatment System KFWA BY			
3.	OEM	Fuel Treatment System KFWA BY			
4.	Model	MAHLE			
5.	Origin	China			
6.	Sub Equipment	Pump Module and Treatment Module			
7.	Assembly Component	Motor and pump assembly, mechanical seal, o ring, impeller, body			
8.	Part No. of Assembly Component	S No	NSN/ Part No	Model Description	Qty
		a.	6150PV100- 0062/ S160-05- 12	KFWA 3 by Motor Serial no: N15/248, Flow rate: 4400 L/ Hour, Volume 60 Ltrs, Operating pressure 03 Bar, Difference pressure 1.5 Bar	01
		b.	4320PV4000015/ S160-05-14	KFWA BY Pump HZ03ZMG31 N435	01
9.	Quantity	As per S No 8			
10.	Source of availability	Wuhan Mekand Equipment Co Ltd			
11.	Justification for Work	As per PMS routines/ technical manual			
12.	Work Required	a	b	c	d
		Defect/ Routine List	Repair Work Required	Services Required	Spares Required
		NIL	YES	YES	YES
13.	Detailed scope of work	a	b	c	
		Details of Repair Work Required	Details of services Required	Details of Spares Required	
		As per requirements	Overhauling of steering motor and pump includes following aspects: a. Pump and motor to be removed. Chain Block or any other lifting equipment which may be required is to be arranged by the firm. b. Pump to be completely dismantled. All degraded/ defective components to be procured/fabricated. Bronze material to be used. b. All degraded Nuts and Bolts are	As per requirement mentioned at S No 8	

		<p>to be replaced with new (Stainless Steel). Motor and pump to be assembled with proper alignment.</p> <p>c. Pump be installed back, followed by successful onboard trials on rated parameters. Medium: DMX, DMA, DMB in accordance with DIN ISO 8217 Diesel fuel in accordance with DIN EN 590 Viscosity: 2 ...13 [cST at 40 °C] Water content inlet: max. 1000 ppm Water content outlet: approx. 70 ppm free water content.</p> <p>d. All in way accessories be removed by firm and fitted back.</p> <p>e. Any other damage to pipelines observed during dismantling/ installation work will be responsibility of firm. Follow all the aspects mentioned in technical manual and JICs.</p> <p>f. Conduct of HATs/ SATs</p>	
14.	Technical Specs	As per technical manual	
15.	Eligibility	Reputable local contractor having working experience of steering system	
16.	EDC	01 week	
17.	Warranty	01 year	
18.	Acceptance Criteria	<p>a. Satisfactory operation of fuel treatment system devices along with displayed parameter.</p> <p>b. Contractor would be responsible for any damage to assembly components.</p> <p>c. Successful HATs and SATs trials.by end user.</p>	
19.	Any other relevant information	<p>a. Contactor may contact SS/ Visit onboard ship to resolve any query.</p> <p>b. Growth Work, Damage/ defect occurred during work is responsible of contractor</p>	

FABRICATION OF MISC BRASS AND SS BILGES LINES - PMSS KASHMIR

S No	Details				
1.	Ships Name	PMSS KASHMIR			
2.	Parent Equipment	Bilges System			
3.	OEM	China			
4.	Origin	China			
5.	Sub Equipment	Bilges suction and discharges system			
6.	Assembly Component	20 x Brass lines 25 x SS lines			
7.	Part No. of Assembly Component	Description	Size (inner & outer) in mm	Thickness (mm)	Length (meter)
		10 x brass lines	In-20 Out= 25	5	50 m
		7 x brass lines	In=50 Out= 57	7	30 m
		3 x brass lines	In-20 Out- 25	5	20 m
		10 x SS lines	In=105 Out= 108	3	70 m
		8 x SS lines	In-130 Out-133	3	91 m
		7 x SS lines	In-156 Out-159	3	45 m
8.	Quantity	As per S No 7			
9.	Source of availability	OEM Local Market			
10.	Justification for Work	FWT			
11.	Work Required	a	b	c	d
		Defect/ Routine List	Repair Work Required	Services Required	Spares Required
		Misc lines of bilges observed deteriorated due FWT	Yes	Nil	Yes (size can be measured onboard)
12.	Technical Specs	As per originally installed onboard			
13.	Eligibility	Reputable local contractor registered with FBR and having working experience with PMSA.			
14.	EDC	30 x Days after award of contract			
15.	Warranty	01 Year			

SERVICING/ OVERHAULING OF 50 X DISCHARGE OVERBOARDS VALVES OF BOTH MAIN ENGINE ROOM - PMSS KASHMIR

S No	Details				
1.	Ships Name	PMSS KASHMIR			
2.	Parent Equipment	Propulsion & Auxiliary Machinery			
3.	Origin	China			
4.	Sub Equipment	Discharge overboard			
5.	Assembly Component	Discharge overboard			
6.	Quantity	50			
7.	Source of availability	OEM, Local Market			
8.	Justification for Work	FWT			
9.	Work Required	a	b	c	d
		Defect/ Routine List	Repair Work Required	Services Required	Spares Required
		Servicing of discharge overboard valve required for SAT ops	Servicing/ overhauling required	Yes	Nil
10.	Technical Specs	As per originally installed			
11.	Eligibility	Reputable local/ international contractor registered with FBR and having working experience with PMSA.			
12.	EDC	30 Days after award of contract			
13.	Warranty	01 Year			
14.	Acceptance Criteria	a. OEM Certified item b. Discharge overboard material must be good quality. c. Firm will not be allowed to use ship tools and manpower			

FLUSHING CLEANING AND FABRICATION OF SHIP DRAINAGE SYSTEM - PMSS KASHMIR

S No	Details				
1.	Ships Name	PMSS KASHMIR			
2.	Parent Equipment	Drainage System			
3.	OEM	China			
4.	Origin	China			
5.	Sub Equipment	a. Sewage drain pipes b. Bath room drains c. Galley drains d. Pantry drains e. Deck drains			
6.	Assembly Component	Pipelines			
7.	Quantity	56			
8.	Source of availability	OEM, Local Market			
9.	OEM Details	Alternate Source Address	Local market NIL NIL NIL		
10.	Justification for Work	FWT			
11.	Work Required	a	b	c	d
		Defect/ Routine List	Repair Work Required	Services Required	Spares Required
		High pressure flushing and chemical cleaning of drainage system	Nil	Yes	Nil
	Fabrication of drain pipes of different sizes	Nil	Yes	Yes	
12.	Technical Specs	As per originally installed onboard			
13.	Eligibility	Reputable local contractor registered with FBR and having working experience with PMSA.			
14.	EDC	30 x Days after award of contract			
15.	Warranty	01 Year			

CONDUCT OF 6000 HRS PMS ROUTINE OF SSDG NO 3 - PMSS KASHMIR

S No	Details				
1.	Ships Name	PMSS KASHMIR			
2.	Parent Equipment	SSDG			
3.	OEM	Cummins			
4.	Model	KTA19-DA			
5.	Origin	China			
6.	Sub Equipment	SSDG#3			
7.	Assembly Component	Misei			
8.	Part No. of Assembly Component	As per relevant JIC			
9.	Quantity	01			
10.	Source of availability	OEM & Local Vendor			
11.	Justification for Work	Conduct of 6000 Hrs PMS Routines of SSDG-3			
12.	Work Required	a	b	c	d
		Defect/ Routine List	Repair Work Required	Services Required	Spares Required
		PMS Routine	Adjust the valve clearance and nozzle stroke	Yes	Yes
			Check the diesel engine protection system and the crankshaft axial clearance		
			Tighten all bolts on the mounting bracket and check the seawater and fresh water cooler		
			Clean and verify the fuel injector pump.		
			Check the turbocharger / Vibration isolators / pump, clean and flush the cooling system		
			Verify the diesel engine protection system.		
			Check crankshaft alignment		
			Renew filter elements		
			Fit new nozzle of fuel injector		
			Visually inspect vibration dampers for oil leakage		
			Inspect camshaft drive gears		
			Check crankshaft alignment		
	Renew cylinder head rocker cover joints				
	Replace the thermostat and seals				
	Check the throttle stroke (adjust the connecting rod of variable speed throttle)				

			Removal/ inspection/ repair/ installation of cylinder head		
			Removal/ inspection/ rebuild and installation sea water pump		
			Replace filter element (including full-flow and bypass oil filter. Fuel and coolant filter / oil-water separator)		
			Clean or replace the crankcase respirator, check the battery and all the belts		
			Replace Coolant		
			Replace all cooler tubes and covers		
13.	Technical Specs	As per relevant technical manual			
14.	Eligibility	OEM authorized rep Spares to be provided by firm			
15.	EDC	30 Days after award of contract			
16.	Warranty	01 Year			
17.	Acceptance Criteria	a. OEM Certified item. b. Defective/ BER items must be replaced with new one. c. Upon scrutiny of items and provided documents along with production certificate by OEM. d. Defective/ BER items must be replaced with new. e. Firm will not be allowed to use ship tools and manpower			

PROCUREMENT OF ITEMS AGAINST PMS ROUTINE OF MARINE DRINKING WATER TREATMENT DEVICE (PMS NO 3-3807-0000) - PMS KOLACHI

S No	Details				
1.	Ships Name	PMSS KOLACHI			
2.	Parent Equipment	Marine Drinking Water Treatment Device			
3.	OEM	Shanghai Haixun Mechanical and Electronic Engineering Company Limited.			
4.	Model	GPH843T5L/4P			
5.	Origin	China			
6.	Assembly Component	Ultraviolet lamp 40W Folding Filtering Membrane Polyethylene activated Carbon Rod Φ65x250			
7.	Part No. of Assembly Component	S No	NSN/ Model	Item Description	Qty
		a.	4610PV1030016	Ultraviolet lamp 40W	2
		b.	4610PV1030011	Folding filtering membrane	22
		c.	4610PV1030008	Polyethylene activated carbon rod 065x250	10
8.	Quantity	As per mentioned in S No 9			
9.	Source of availability	OEM, Local Market			
10.	OEM Details	Address	No. 99, Xiangyun Road, Minhang District, Shanghai City.		
		Contact Phone	+ 86 021-34098836-8528		
		Contact Email	haixun1688@aliyun.com.		
11.	Justification for Work	As per PMS routines/ technical manual			
12.	Work Required	a	b	c	d
		Defect/ Routine List	Repair Work Required	Services Required	Spares Required
		PM-002 & 003	Nil	Nil	As per S No 7
13.	Detailed scope of work	a	b	c	
		Details of Repair Work Required	Details of services Required	Details of Spares Required	
		Nil	Nil	As per S No 7	
14.	Technical Specs	Reputable local/ international firm registered with FBR and working experience with PMSA.			
15.	Eligibility	30 Days after award of contract			
16.	EDC	ASAP (07 days)			
17.	Warranty	1 year			
18.	Acceptance Criteria	a.	OEM Certified item.		
		b.	Upon scrutiny of items and provided documents along production certificate by OEM.		
19.	Any other relevant Information	Contractor/ Rep of firm should visit ship prior quoting to inspect item for procurement.			

PROCUREMENT INSTALLATION OF SENSORS AND SAFETIES OF DIESEL GENERATOR NO 3 - PMSS BASOL

S No	Details												
1.	Ships Name	PMSS BASOL											
2.	Parent Equipment	GENSET No 3											
3.	OEM	CATERPILLAR											
4.	Model	CS MARINE GENSETs											
5.	Serial No	C9Z05164											
6.	Origin	USA											
7.	Sub Equipment	Gensets sensors/ safeties and associated fittings											
8.	Assembly Component	Lub Oil, Fuel Air, differential, Sea Water Pressure Transmitters, Charge Air Cooler and Jacket Water Temperature Sensor/ Transmitters.											
9.	Part No. of Assembly Component	S No	NSN/ Model	item Description	Qty								
		d.	X00E50208388	Lube Oil Pressure Sensor	04								
		e.	X00E50208388	Pressure Sensor	03								
		f.	PT 100 ABGAS	Temperature Sensor	04								
		g.	5205304069	Speed Transmitter VDO-PICK-UP	03								
		h.	0005357633	Speed Sensor BR4000 KW	03								
		i.	NA	Pressure Transmitter	03								
		j.	NA	Level switch	03								
10.	Quantity	As per mentioned in S No 9											
11.	Source of availability	CATERPILLAR											
12.	OEM Details	Address MTU Friedrichshafen GmbH, Germany Contact Phone +4251178060 Contact Email www.mtu.de											
13.	Justification for Work	As per PMS routines/ technical manual											
14.	Detailed scope of work	<table border="1"> <thead> <tr> <th align="center">a</th> <th align="center">b</th> <th align="center">c</th> </tr> <tr> <th align="center">Details of Repair Work Required</th> <th align="center">Details of services Required</th> <th align="center">Details of Spares Required</th> </tr> </thead> <tbody> <tr> <td align="center">Nil</td> <td> a. Check wiring to ail sensors and safeties for firm grip or damage. Inspect sensor housings for corrosion or leaks. b. Re-energize power supply under controlled conditions. Simulate trip conditions for safeties (high pressure, low pressure, over-temp, flow switch). Verify alarms/ trip signals at local & remote panels. c. Compare actual sensor values with independent instruments (thermometer, pressure gauge). Record deviations. d. Remove faulty safety/ sensor unit. Fit new sensor/ safety device and reconnect wiring. Restore </td> <td align="center">As per S No 9</td> </tr> </tbody> </table>			a	b	c	Details of Repair Work Required	Details of services Required	Details of Spares Required	Nil	a. Check wiring to ail sensors and safeties for firm grip or damage. Inspect sensor housings for corrosion or leaks. b. Re-energize power supply under controlled conditions. Simulate trip conditions for safeties (high pressure, low pressure, over-temp, flow switch). Verify alarms/ trip signals at local & remote panels. c. Compare actual sensor values with independent instruments (thermometer, pressure gauge). Record deviations. d. Remove faulty safety/ sensor unit. Fit new sensor/ safety device and reconnect wiring. Restore	As per S No 9
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		refrigerant system integrity and perform leak test. e. Check expansion valve, electrical control box ground pole and insulation resistance test. Carry out routine maintenance of compressor & electrical control box f. Restart Gensets safeties and sensors during start-up and normal running. Verify alarms/ trips reset correctly. g. Record all test values, replacements & defective parts and replace (if required). OEM certified spares. Satisfactory operation of Gensets.	
15.	Technical Specs	As per OEM/ Technical Manual.	
16.	Eligibility	OEM authorized Rep having experience of GENSETs fitted onboard HINGOL class MPVs.	
17.	EDC	ASAP (07 days)	
18.	Warranty	1 year	
19.	Acceptance Criteria	a. Work will be carried out by/ through OEM rep. b. Satisfactory trials of GENSETs	

IT NO: IT/86/38/2025-26

IT SPECIFICATIONS – PURCHASE OF 06 X TYRES FOR 100401 MS HINO BUS - PMSS INDUS

S No	Details			
1.	Ships Name	PMSS INDUS/ TPT		
2.	Parent Equipment	HINO BUS		
3.	OEM	HINO		
4.	Model	2010		
5.	Origin	PAKISTAN		
6.	Sub Equipment	HINO BUS		
7.	Justification for Work	Commercial repair of HINO BUS		
8.	Work Required	Commercial repair of HINO BUS		
9.	Detail Scope of Work	a	b	C
		Detail of Repair Work Required	Detail of Services Required	Detail of Spares Required
		Size:9.00-20/14 PR	Tyres, Tubes, Flaps General/ Panther	06
10.	Technical Specs	See overleaf against each item		
11.	Eligibilities	a. The firm should be FRB/ SRB registered. b. The firm should be registered with HQ PMSA/ Navy/ DP Navy		
12.	EDC	30 x days after issuance of work/ confirmation order		
13.	Warranty	01 year after delivery/ work		
14.	Acceptance Criteria	Accepted by MTO PNSS INDUS & D(MT)		

IT SPECIFICATIONS – COMMERCIAL REPAIR CASE 080317 ISUZU TRUCK – DMT

S No	Details	
1.	System	Commercial Repair
2.	Make	ISUZU TRUCK
3.	Model	2008
4.	VEHICLE NO	080317 MS
5.	Item Description	Work Description a. Complete vehicle dent paint required Complete vehicle dent paint required b. Silencer Replaced with new c. Ignition Switch d. Break pressure system repair work e. Hydraulic system repair work
6.	Technical Specs	Material as per existing
7.	EDC	30 Days
8.	Warranty	01 Year
9.	Acceptance Criteria	Stage Inspection by end user

**IT SPECIFICATIONS – REPAIR/ REPLACEMENT OF PHASE SEQUENCE PROTECTOR (RELAY)
INSTALLED WITH EXPLOSION PROOF FAN COIL UNIT - PMSS KOLACHI**

S No	Details	
1.	Ships Name	PMSS INDUS/ TPT
2.	Parent Equipment	Ambulance
3.	OEM	Toyota
4.	Model	2010
5.	Origin	Japan
6.	Sub Equipment	Ambulance
7.	Quantity	As per S No 9
8.	Justification for Work	Commercial repair of Toyota Ambulance
9.	Work Required	<ul style="list-style-type: none">a. Roof repair three-layer fiber coating.b. Complete dent paint workc. Sliding dock lock and diggi lock replacement with new, 02 x doors inner fiber sheets required newd. Fuel pump service, new injector set and fuel pipes, diesel filter, oil filter replacement with new.e. Suspension work through replacement of new parts as necessary.f. A/C computer maintenance work (compressor, condenser, A/C fan motor, 02 x cooling coils, suction and discharge line replacement as necessary.g. Speedo meter, temperature gauge, oil pressure gauge, battery gauge and wiring repair/ maintenance through replacement.h. Ambulance warning light with hooter/ siren replacement with new.i. Steering box and steering rack repair work.j. Brake shoe brake pads and disc replacement.k. Wheel alignment and greasing, scanning of vehicle with computerl. Complete Interior cleaning and service.
10.	Technical Specs	As per Description
11.	EDC	30 Days after issuance of order
12.	Warranty	1 year after delivery/ work
13.	Acceptance Criteria	Accepted by DD(Med), MTO PMSS INDUS & D(MT)

IT SPECIFICATIONS – COMMERCIAL REPAIR CASE VEHICLE NO 070313 MS ISUZU TRUCK - DMT

S No	Details													
1	System	Commercial Repair												
2	Make	ISUZU TRUCK												
3	Model	2007												
4	VEHICLE NO	070313 MS												
5	Item Description	<p><u>Work Description:</u></p> <p><u>Following items will be repair/ replaced:</u></p> <table border="1"> <thead> <tr> <th>S No</th> <th>Work Description Repair/ Replace</th> </tr> </thead> <tbody> <tr> <td>a.</td> <td>Complete cabin repair (rusted parts must be replaced with new one)</td> </tr> <tr> <td>b.</td> <td>Silencer Replacement</td> </tr> <tr> <td>c.</td> <td>Fuel Injection Pump and nozzle servicing</td> </tr> <tr> <td>d.</td> <td>Wiper motor and wiper blade replacement</td> </tr> <tr> <td>e.</td> <td>Main Steering Assembly Repairing and heat gauge repairing/ replacement</td> </tr> </tbody> </table>	S No	Work Description Repair/ Replace	a.	Complete cabin repair (rusted parts must be replaced with new one)	b.	Silencer Replacement	c.	Fuel Injection Pump and nozzle servicing	d.	Wiper motor and wiper blade replacement	e.	Main Steering Assembly Repairing and heat gauge repairing/ replacement
S No		Work Description Repair/ Replace												
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b.		Silencer Replacement												
c.		Fuel Injection Pump and nozzle servicing												
d.		Wiper motor and wiper blade replacement												
e.	Main Steering Assembly Repairing and heat gauge repairing/ replacement													
6	Technical Specs	Material as per existing												
7	EDD	30 Days												
8	Warranty	Warranty 12 Months												
9	Acceptance Criteria	Stage Inspection by end user												

Repair/ Replacement of 01 X PPS Card of Main Engine No 1 - PMSS BASOL

S No	Details				
1.	Ships Name	PMSS BASOL			
2.	Parent Equipment	Main Engine No 1			
3.	OEM	MTU Germany			
4.	Model	16V4000M73L DIESEL ENGINE			
5.	Origin	Germany			
6.	Sub Equipment	PPS Housing			
7.	Assembly Component	PPS Card			
8.	Part No. of Assembly Component	NSN: 5310 73 518 2072			
9.	Quantity	01			
10.	Source of Availability	MTU			
11.	Justification for Work	As per PMS routines/ technical manual			
12.	Work Required	a	b	c	d
		Defect/ Routine List	Repair Work Required	Services Required	Spares Required
		Nil	Yes	Yes	Yes
13.	Detailed scope of work	a	b	c	
		Detail of Repair Work Required	Detail of Services Required	Detail of Spares Required	
		Repair/ replacement of PPS card required for defect rectification	a. Installation of PPS card. b. OEM certified software to be installed. c. Elimination and rectification of alarms displayed on MCS-5 and LOP. d. Satisfactory monitoring/ operation of Main Engine.	01 x PPS card for Main Engine	
14.	Technical Specs	As per OEM/ Technical Manual.			
15.	Eligibilities	OEM authorized Rep having experience of MTU Main Engines fitted onboard HINGOL class MPVs.			
16.	EDC	15 days			
17.	Warranty	1 year			
18.	Acceptance Criteria	a. Work will be carried out by/ through OEM rep.			
		b. Satisfactory trials of Main Engine			

PROCUREMENT OF CRITICAL SPARES FOR AUXILIARY MACHINERY - PMSS BASOL

S No	Description				
1	Ship's Name	PMSS BASOL			
2	Parent Equipment	Auxiliary Machinery			
3	OEM	MTU Germany, Caterpillar			
4	Origin	Germany, USA, China			
5	Sub Equipment	Auxiliary Machinery			
6	Assembly components	Filters, mechanical seals, impeller and breaker			
7	Part No of assembly components	S No	NSN/ Part No	Description	Qty
		1.	192-2169	Genset drive belt	05
		2.	4320-71-524-8866/: 7E-0321	Genset sea water pump impeller	06
		3.	SEPAR 00530	Genset (Pre Fuel Filter Separ)	10
		4.	JBL-000MS	Jubilee Clamps (Different Size)	150
		5.	FSHB3-10003	RO Belt (Size A28)	05
		6.	FSHB3-00803	RO Cartridge Filters	08
		7.	77-92-9/E330	Citric Acid	05
		8.	T1B160	Insulation breaker	05
		9.	ZH3-35	Mechanical seal for GS pump	03
		10.	1650-550800	RHIB boat Fuel Filter	06
		11.	ZH3-28	Mechanical seal Auxiliary seawater pump	05
		12.	127695-35150	RHIB boat Lube Oil Filter	08
		13.	060036	HPAC P61 Filter Core	06
		14.	N25886	HPAC Air Inlet Filter Element	05
		15.	LW1982	HPAC Lubricating Oil Filter Core	04
		16.	S160-5-16	Steering Gear Pressure Filter	05
		17.	S160-5-15	Steering Gear Return Filter	06
		18.	0000377267	Hydraulic crane Filter Cart (Air)	08
		19.	0000377098	Hydraulic crane Filter Oil	04
20.	WA8CC-2TC14/A06-M4	Lugs for electric cables (Size 34")	20		
8	Quantity	Required quantity is mentioned in S No 9			
9	Source of availability	OEM recommendations			
10	Justification of work	Items are required for repair/ replacement of items to carry out PMS routines and maintenance of machinery.			
11	Work Required	a	b	c	d
		Defect/ Routine List	Repair Work Required	Services Required	Spares Required
		Nil	Yes	Nil	Yes

12	Details Scope of Work	a	b	c
		Details of Repair work Required	Details of services Required	Details of Spares Required
		Items are required for. repair/ replacement of items to carry out PMS routines and maintenance of machinery through recommended OEM/ local engineering sources.	Nil	As mentioned in S No 7
13	Technical Specs	As per OEM/Technical Manual.		
14	Eligibilities	OEM recommended spares.		
15	EDC	ASAP (10 days)		
16	Warranty	1 year		
17	Acceptance Criteria	a. OEM recommended spares/, pails. b. Certified spares to be used for avoiding damage to system and ship.		

**OVERHAULING OF COMPRESSOR & EVAPORATOR OF CHILLED WATER PLANT NO 3 - PMSS
BASOL**

S No	Description				
1.	Ship's Name	PMSS BASOL			
2.	Parent Equipment	Marine Light Water Chiller .			
3.	OEM	Jiangsu Josun Air Conditioner Co., Ltd			
4.	Make/ Model	JTLS-168(IV)			
5.	Origin	China			
6.	Sub Equipment	Hermetically Sealed Compressor and Evaporator			
7.	Assembly components	Hermetically Sealed Compressor (Model ZR190KCE-TFD with Oil Heater) Condenser and evaporator			
8.	Part No of assembly components	Item	Hermetically Sealed Compressor	Evaporator/ Plate Heat Exchanger	
		Model/ Part Number	ZR190KCE-TFD 06.01.057	V80HX60	
		Manufacturer	Copeland	SWEP	
		Features	Cooling capacity: 42kW Connection type: Y Refrigerant: R404A Crankcase heater: 90W Net weight: 66kg	Heat Exchange area: 3.48m ² Board material: SS316L Freon side pressure: 3.1 MPa Water side pressure: 3.1 MPa Grade of Pressure vessel: D1	
9.	Quantity	01 x Hermetically Sealed Compressor & 01 x Evaporator			
10.	Source of availability	Jiangsu Josun Air Conditioner Co., Ltd			
11.	OEM Details	Address: Tongjiang Road 18-28, Taixing city, Jiangsu Province Contact Phone: Tel: 0523-87598768 Contact Email: huanq xinshenq@iosun.cn			
12.	Justification of work	As per PMS routines/ technical manual			
13.	Work Required	a	b	c	d
		Defect/ Routine List	Repair Work Required	Services Required	Spares Required
		Nil	Yes	Yes	Yes

		a	b	c
		Details of Repair work Required	Details of services Required	Details of Spares Required
14.	Details Scope of Work	As per requirements	<ol style="list-style-type: none"> 1. Disconnect all electrical terminals, piping/ lines and mechanical fittings. Remove compressor and condenser coil assembly. 2. Installation of compressor, evaporator, condenser of Chiller Plant No 3 and all associated, fittings. Clean double-pipe heat interchanger & plate heat exchanger 3. Charging of dry nitrogen (150-200 psi) for 24 hour Nitrogen gas pressure test of system for any leakages. 4. Release nitrogen gas and connect vacuum pump to the system. Pull vacuum to 500 microns and hold for 15- 20 min to ensure moisture or leaks. 5. Charge refrigerant gas and start compressor for ampere checks. System Gas charging (404A) to be provided by contractor. All tools and test equipments will be arranged by firm/ contractor. 6. Restart chiller plant. Monitor safeties and sensors during start-up and normal running. Verify alarms/trips correctly. Record parameters as per OEM recommendations. 	<p>As mentioned in S No 9</p> <p>Hermetically Sealed Compressor</p> <p>Evaporator</p>
15.	Technical Specs	As per technical manual of Marine Light Water Chiller for M65P.		
16.	Eligibilities	Reputable local contractor having working experience of Chilled Water Plant.		
17.	EDC	01 Week		
18.	Warranty	01 Year		
19.	Acceptance Criteria	Satisfactory operation and trials of Chilled Water Plant by end user.		
20.	Any other relevant information	<ol style="list-style-type: none"> a. Contactor may contact SS/ visit onboard ship to resolve any query. b. Growth work, damage/ defect during work will be responsibility of contractor. 		

OVERHAULING OF POWER STATION MONITORING & CONTROL SYSTEM - PMSS BASOL

S No	Description				
1.	Ship's Name	PMSS BASOL			
2.	Parent Equipment	Power station monitoring and control system (Switch Boards 1 & 2)			
3.	OEM	Systems Engineering Research Institute of China State Shipbuilding Corporation			
4.	Make/ Model	S7-300 CPU314C-2PN/DP, DEIF PPU3+H3			
5.	Serial No	N/A			
6.	Origin	China			
7.	Sub Equipment	PLC and PPU			
8.	Assembly components	Circuit breaker, Illuminated button, Indicator, Button, Fuse, Contactor, Power Module, NLC circuit board, SLC circuit board, Relay, Chip, Diode, Terminal blocks			
9.	Part No of assembly components	S No	NSN/ Part No	Description	Qty
		1.	6110PV6040007/PLC	CPU S7300 CPU314C2PN/DP	01
		2.	6110PV6040012/ PPU	DEIF PPU H3 PPU	03
		3.	6110PV6040005/DPU	WOP2070TN2AE DPU	01
		4.	5945PV1000194/ RELAY2	2CO Relays Weldmuller DRM270024LD + FS2CO/F S4CO + METAL CLIP	01
		5.	5945PV1000191/RELAY4	4CO Relays Weldmuller DRM570024LD+FS4CO +METAL CLIP	01
		6.	5940PV0030277/ JX	Terminals block JX32005 20	01
		7.	MC	MC 6ES79538LJ300AA0	01
		8.	6110PV6040009/ SM321	Digital Input Module S7300SM321	02
		9.	6110PV604001/SM322	Digital Output Module S7300SM322	01
		10.	6110PV6040011/SM331	Analog Input Module S7300SM331	01
		11.	6110PV6040008/ CP341	Communication Module S7300CP341	01
		12.	7010PV2000007/ SC	RS485 Router ZTEK ZY211	01
		13.	6110PV6040006/ ROUTER	Ethernet Switch EKI 25251	01
		14.	6625PV0070007Z/Q96-HCA 100V 45-50-55	Frequency meter Q96-HCA 100V 45-50-55	03
		15.	6625PV0023005/Q96-MQA 0-5MQ AC220V	Insulation meter Q96-MQA 0~5MΩ AC220V	02
		16.	6625PV0023006/Q96-MQA 0-5MQ AC380V	Insulation meter Q96-MQA 0~5MΩ AC380V	02
		17.	6625PV0050035/Q96-RBC 0-300V	Voltmeter Q96-RBC 0~300V	02
		18.	6625PV0050036/Q96-RBC 0-500V 380V/100V	Voltmeter Q96-RBC 0~500V/380V/100V	03
19.	6625PV0040040/Q96-RBC 500/5A	Ammeter Q96-RBC 500/5A	03		
10.	Quantity	Power station monitoring and control system (Switch Board 1 & 2) Components mentioned in S No 08			

11.	Source of availability	China			
12.	OEM Details	Address: Systems Engineering Research Institute <u>Contact Phone.</u> +86 10 56654794 <u>Contact Email:</u> Guangfu.Wang@mappseri.com			
13.	Justification of work	<u>As per PMS routines/ technical manual</u>			
14.	Work Required	a	b	c	d
		Defect/ Routine List	Repair Work Required	Services Required	Spares Required
		Nil	Yes	Yes	Yes
15.	Details Scope of Work	a	b		c
		Details of Repair work Required	Details of services Required		Details of Spares Required
		As per requirements	<p>Complete overhaul of Power station monitoring and control system (Switch Board 1 & 2) including following aspects:</p> <p>a. Check the input and output voltages of system to see if they are in the standard value. Clean system equipment. Check grounding. Check up the terminal labels inside the console to see if they are in good condition and whether the device labels are clear or require replacement.</p> <p>b. Check the function of the circuit breaker. Check ground connection, check fuse body and fuse check the indicator, check the insulation resistance. Check the relay or contactor, check the power supply device (CT and PT) and check the tightness of all the connection.</p> <p>c. Cut off all the power supply to system. First use powerful vacuum to clean the dust, especially the dust on terminals, exposed connectors, and wasted jumpers, cleaning cloth and brush could be used when necessary. Qualified technicians should be arranged to check and evaluate all the devices and components, a list made for the repairs and replacements in need and should be applied for replacements.</p> <p>d. Repair the repairable components, and adjust back to pervious value or specification before repaired. Replace or reinstall the components in need and check the installation correctively. Check the loose terminals, internal wiring, power supply line, wiring of equipment connecting, and all fasteners. If loosen, tight with screw drivers, straight drive and Long nose piler.</p>		As per mentioned at S No 9

		<p>Check the insulation and make sure they meet the requirements, check the shell and the earthing points, and test with the megameter to make sure the insulation is well. Check whether clamp nuts of equipment grounding connection are loose or not; if loose, tighten with long nose piler. if any commissioning steps in need, operator should follow the guide to Commission to standard.</p> <p>e. Start/ stop main SSDGs for checking parallel operation in all modes i.e. Auto, semi auto and manual.</p> <p>f. Satisfactory operation (Start/ stop) of all GENSETs from remote position with auto, semi-auto and manual modes alongwith all parameters within limits.</p>	
16.	Technical Specs	As per OEM/ Technical Manual.	
17.	Eligibilities	OEM authorized Rep having experience of Power station monitoring and control system (Switch Board)	
18.	EDC	ASAP (10 days)	
19.	Warranty	1 year	
20.	Acceptance Criteria	<p>a. Work will be carried out by/ through OEM rep.</p> <p>b. Satisfactory trials of GENSETs with auto, semi-auto and local modes.</p>	

IT NO: IT/86/46/2025-26

REPAIR/ REPLACEMENT OF EXCITER PCB & 100W RF POWER AMPLIFIER - PMSS KASHMIR

S No	Details						
1.	Ships Name	PMSS KASHMIR					
2.	Parent Equipment	JTM-30C NDB					
3.	OEM	TELE SUPPLY AS Fetveien 300 N-1900 FETSUND NORWAY					
4.	Model	JTM-30C NDB					
5.	Serial No	09426					
6.	Origin	OEM					
7.	Sub Equipment	RF Power Amplifier 100W					
8.	Quantity	01					
9.	Justification for Work	RF Power Amplifier 100W of JTM-30C NDBTX is defective and required to be rectified for SAT Ops					
10.	Work Required	a	b	c	d		
		Defect/ Routine List	Repair Work Required	Services Required	Spares Required		
		01 x RF power Amplifier is defective	Defect is to be rectified for SAT ops	Installation of repaired RF Power Amplifier and operational trials is required	01x RF power Amplifier		
11.	Detailed scope of work	Details of Repair Work Required		Details of services Required		Details of Spares Required	
		01 x RF power Amplifier is defective		Defect is to be rectified for SAT Ops		Installation of repaired power amplifier and operational trails is required	
12.	Technical Specs	a. RF Power Output:	100W Peak Envelope Power (PEP)				
		b. Frequency Range:	190kHz to MHz				
		c. Modulation type:	Morse Code, tone Modulated Morse Code Carrier Only				
		d. Digital Keying:	High Speed digital keying for efficient Morse Code Transmission				
		e. Power Supply	24V DC				
13.	Eligibility	Reputable Local/ international contractor registered with FBR working having experience with PMSA					
14.	EDC	15 x Days					
15.	Warranty	01 Year Warranty					
16.	Acceptance Criteria	End user satisfaction after successful trials. Firm registered with FBR					

IT NO: IT/86/47/2025-26

FABRICATION/ REPLACEMENT OF 03 X MAIN ENGINES EXHAUST BELLOW - PMSS BASOL

S No.	Description	
1.	Ship's Name	PMSS BASOL
2.	Parent Equipment	Main Engine
3.	OEM	MTU Germany
4.	Model	16V4000M73L DIESEL ENGINE

5.	Origin	Germany			
6.	Sub Equipment	Exhaust System			
7.	Assembly	Exhaust bellow			
8.	Part No. of Assembly	As per sample and technical specs mentioned at S No. 22			
9.	Quantity	03 x Exhaust bellow			
10.	Justification for work	Exhaust/ smoke observed from exhaust bellow due to deterioration during normal operation undermining exhaust performance			
11.	Work Required	a	b	c	d
		Defect List	Repair Work Required	Services Required	Spares Required
		Degraded	Yes	Yes	Yes
12.	Detail scope of work	Details of Serial 15 column a, b & c			
		a	b	c	
		Detail of Repair Work Required	Details of Services Required		Details of Spares Required
		Fabrication and replacement	a. Removal of cladding lagging and heat protective sheets from both elbows by the firm. b. Removal of exhaust elbows by the firm. c. Repair/ Replacement of exhaust elbows by the firm with mild steel material. d. The pressure test of exhaust expansion bellows be undertaken at 5 bar. e. Exhaust elbow be installed back with insulating gaskets on both exhaust elbows. f. Elbow to be welded with bulkhead from inside and outside during installation. g. The mild steel studs/ Nut blots on both elbow flanges for installation. h. After installation of exhaust elbow successful onboard trials on running engine by the firm. j. Arrangements of all tools and test equipment required during dismantling/ assembling by the firm. k. Sole responsibility of firm in case of growth work		03 x Exhaust bellow as per sample

13.	Technical Specs	<p>03 x Main Engine exhaust expansion bellow stainless steel (Grade 316-L) with following dimensions is to be repaired/fabricated:</p> <p><u>ENGINE SPECIFICATIONS:</u></p> <p>Power: 2880 kW Speed: 2050 rpm No. of cylinders: 16 Bore/stroke: 170/190 mm Fuel consumption at rated power: 657 L/Hr</p> <p><u>EXHAUST EXPANSION BELLOW</u></p> <table> <tr> <td>a.</td> <td>Length of Inner diameter</td> <td>765 mm</td> </tr> <tr> <td>b.</td> <td>Length of Outer diameter</td> <td>810 mm</td> </tr> <tr> <td>c.</td> <td>Thickness</td> <td>35 mm</td> </tr> <tr> <td>d.</td> <td>Flange</td> <td>08</td> </tr> <tr> <td>e.</td> <td>Pitch Circle Diameter</td> <td>800 mm</td> </tr> <tr> <td>f.</td> <td>Flange outside total length</td> <td>475 mm</td> </tr> <tr> <td>g.</td> <td>No. of Flange holes</td> <td>40</td> </tr> <tr> <td>h.</td> <td>Diameter of holes</td> <td>44 mm Rated</td> </tr> </table>	a.	Length of Inner diameter	765 mm	b.	Length of Outer diameter	810 mm	c.	Thickness	35 mm	d.	Flange	08	e.	Pitch Circle Diameter	800 mm	f.	Flange outside total length	475 mm	g.	No. of Flange holes	40	h.	Diameter of holes	44 mm Rated
a.	Length of Inner diameter	765 mm																								
b.	Length of Outer diameter	810 mm																								
c.	Thickness	35 mm																								
d.	Flange	08																								
e.	Pitch Circle Diameter	800 mm																								
f.	Flange outside total length	475 mm																								
g.	No. of Flange holes	40																								
h.	Diameter of holes	44 mm Rated																								
14.	Eligibilities	OEM authorized Rep having experience of MTU Main Engines fitted onboard																								
15.	EDC	ASAP (07 days)																								
16.	Warranty	1 year																								
17.	Acceptance Criteria	<p>a. Pressure test of exhaust bellow at 3 Bar to be conducted before installation.</p> <p>b. No seawater leakage to be observed during normal operation at sea.</p> <p>c. No exhaust gas leakage to be observed from elbow at max power of Main Engine i.e. 2050 RPMs</p> <p>d. Satisfactory fabrication, installation and operation of exhaust expansion bellow of Main Engines</p>																								

IT NO: IT/86/48/2025-26

REPLACEMENT OF SAFETIES/ SENSORS & COMPRESSOR OF MARINE PACKAGED REFRIGERATION PLANT - PMSS BASOL

S No	Details	
1.	Ships Name	PMSS BASOL
2.	Parent Equipment	Marine Packaged Refrigeration Plant
3.	OEM	Jiangsu Josun Air Conditioner Co., Ltd
4.	Model	CZLZ-4
5.	Serial No	NA
6.	Origin	China
7.	Sub Equipment	Safeties/ Sensors
8.	Assembly Component	Flow sensors, LP Safety, HP Safety, Flow switch, Overload Safety, Contactor, Temperature sensors, Wiring with sleeve and Pressure Switches, Compressor

9.	Part No. of Assembly Component	Item	Model/ Part Number	NSN	Features	Qty
		Compressor	2DES-3Y 06.02.01.21 4	4310FP1000005	Cooling capacity 4kW (Tk=40°C To=22°C)	01
		Temperature Sensor	PT100 (03.10.01.018)		100 ohm at 0°C	06
		Universal change-over switch	LW38D-164D0081/1 02.01.03.001	5930PV0040060	LW38D-164D0081/1	02
		Indicator light	AD11-22/41-7GZ	6240PV0010085	AD11-22/41-7GZ AC220V white, red	03
		Thermal relay	LRD-04C	5945PV1000017	LRD-04C	01
		Thermal relay	LRD-05C	5945PV1000060	LRD-05C	01
		Thermal relay	LRD-16C	5945PV1000017	LRD-16C	01
		Fuse	RL98-16 6A	5920PV0010014	RL98-16 6A	04
		High and low pressure controller	KP15, KP1 03.09.01.001	5930PV0990032	Stainless steel	02
		Water pressure controller	YWK-50-C	5930PV0990031	Stainless steel	02
		Safety valve	3060/45 2.4MPa		Copper 3060/45 2.4MPa	02
		Metal casing thermometer	WLG-11		SS, WLG-11,-30 - 50°C L=30mm	02
10.	Quantity	As mentioned in S No 9				
11.	Source of availability	Jiangsu Josun Air Conditioner Co., Ltd				
12.	Justification for Work	As per PMS routines/ technical manual				
13.	Work Required	a	b	c	d	
		Defect/ Routine List	Repair Work Required	Services Required	Spares Required	
		Nil	Yes	Yes	Yes	

		a	b	c
		Details of Repair Work Required	Details of services Required	Details of Spares Required
14.	Detailed scope of work	As per requirements	<ol style="list-style-type: none"> 1. Check wiring to all sensors and safeties for firm grip or damage. Inspect sensor housings for corrosion or leaks. 2. Re-energize power supply under controlled conditions. Simulate trip conditions for safeties (high pressure, low pressure, over-temp, flow switch). Verify alarms/ trip signals at local & remote panels. 3. Compare actual sensor values with independent instruments (thermometer, pressure gauge). Record deviations. 4. Remove faulty safety/ sensor unit. Fit new sensor/ safety device and reconnect wiring. Restore refrigerant system integrity and perform leak test. 5. Check expansion valve, electrical control box ground pole and insulation resistance test. 6. Carry out routine maintenance of compressor & electrical control box. 7. Clean double-pipe heat interchanger & plate heat exchanger. 8. Restart refrigeration plant. Monitor safeties and sensors during start-up and normal running. Verify alarms/trips reset correctly. 9. Record all test values, replacements & defective parts and replace (if required). 	<p>Compressor (Part No. 06.02.01.21 4)</p> <p>Compressor (NSN: 4310FP1000005)</p> <p>Flow sensors, LP Safety, Safety, Flow switch, Overload Safety, Contactor, Temperature sensors, Wiring with sleeve and Pressure Switches</p>
15.	Technical Specs	As per technical manual of CZLZ-4 Marine Packaged Refrigeration Plant for M65P		
16.	Eligibility	Reputable local contractor having working experience of Refrigeration plant.		
17.	EDC	01 Week		
18.	Warranty	One Year		
19.	Acceptance Criteria	<ol style="list-style-type: none"> a. Satisfactory operation of marine packaged refrigeration plant. b. Successful trials by end user. 		
20.	Any other relevant information	<ol style="list-style-type: none"> a. Contactor may contact SSZ visit onboard ship to resolve any query. b. Growth work, damage/ defect occurring during work will be responsibility of contractor. 		

**REPLACEMENT OF COMPRESSOR AND CONDENSER OF CHILLED WATER PLANT NO 1 - PMSS
BASOL**

S No	Details				
	Ships Name	PMSS BASOL			
2.	Parent Equipment	Marine Light Water Chiller			
3.	OEM	Jiangsu Josun Air Conditioner Co., Ltd			
4.	Model	JTLS-168(IV)			
5.	Origin	China			
6.	Sub Equipment	Hermetically Sealed Compressor, Condenser and Dryer			
7.	Assembly Component	Hermetically Sealed Compressor (Model ZR190KCE-TFD with Oil Heater) Condenser and dryer			
8.	Part No. of Assembly Component	Item	Hermetically Sealed Compressor	Condenser/ Double pipe heat interchanger	Evaporator/ Plate Heat Exchanger
		Model/ Part Number	ZR190KCE-TFD 06.01.057	JTLS-150	V80Hx60
		Manufacturer	Copeland	Yingte (Zhejiang)	SWEP
		Features	Cooling capacity: 42kW Connection type: Y Refrigerant: R404A Crankcase heater: 90W Net weight: 66kg	Heat Exchange area: 209m ² Heat Exchange tube material: B30/0.8mm Freon side pressure: 3.0MPa Water side pressure: 1.0MPa Grade of Pressure vessel: D1	Heat Exchange area: 3.48m ² Heat Exchange board material: SS316L Freon side pressure: 3.1 MPa Water side pressure: 3.1 MPa Grade of Pressure vessel: D1
9.	Quantity	01 x Hermetically Sealed Compressor, Condenser and evaporator			
10.	Source of availability	Jiangsu Josun Air Conditioner Co., Ltd			
11.	OEM Details	Address: Tongjiang Road 18-28, Taixing city, Jiangsu Province Contact Phone: Tel: 0523-87598768 Email: huang_xinshengq@iosun.cn			
12.	Justification for Work	As per PMS routines/ technical manual.			
13.	Work Required	a	b	c	d
		Defect/ Routine List	Repair Work Required	Services Required	Spares Required
		Nil	Yes	Yes	Yes

		a	b	C
		Detail of Repair Work Required	Details of Services Required	Details of Spares Required
14.	Detailed scope of work	As per requirements	<p>1. Disconnect all electrical terminals, piping/ lines and mechanical fittings. Remove compressor and condenser coil assembly.</p> <p>2. Installation of compressor, dryer, condenser of Chiller Plant No 1 and all associated fittings. Clean double-pipe heat interchanger & plate heat exchanger</p> <p>3. Charging of dry nitrogen (150-200 psi) for 24 hour Nitrogen gas pressure test of system for any of system for any leakages.</p> <p>4. Release nitrogen gas and connect vacuum pump to the system. Pull vacuum to 500 microns and hold for 15- 20 min to ensure moisture or leaks.</p> <p>5. Charge refrigerant gas and start compressor for ampere checks. System Gas charging (404A) to be provided by contractor. All tools and test equipments will be arranged by firm/ contractor.</p> <p>6. Restart chiller plant. Monitor safeties and sensors during start-up and normal running. Verify alarms/trips correctly. Record parameters as per OEM recommendations</p>	<p>As mentioned in S No 9.</p> <p>Hermetically Sealed Compressor</p> <p>Dryer</p> <p>Condenser (as per sample</p>
15.	Technical Specs	As per technical manual of Marine Light Water Chiller for M65P.		
16.	Eligibility	Reputable local contractor having working experience of Chilled Water Plant.		
17.	EDC	01 Week		
18.	Warranty	01 Year		
19.	Acceptance Criteria	Satisfactory operation and trials of Chilled Water Plant by end user.		
20.	Any other relevant information	<p>a. Contactor may contact SS/ visit onboard ship to resolve any query.</p> <p>b. Growth work, damage/ defect during work will be responsibility of contractor.</p>		

REPAIR/ REPLACEMENT OF FWD & AFT ENGINE ROOM AND FWD & AFT LOBBY LADDERS - PMSS BASOL

S No	Details				
1.	Ships Name	PMSS BASOL			
2.	Parent Equipment	Fwd and Aft Engine Room & Fwd and Aft lobby ladders			
3.	OEM	China			
4.	Model	China			
5.	Origin	China			
6.	Sub Equipment	Repair/ Replacement of Fwd Aft Engine Room & Fwd and Aft . lobby ladders			
7.	Assembly Component	Repair/ Replacement of Fwd Aft Engine Room & Fwd and Aft lobby ladders			
8.	Quantity	04			
9.	Source of availability	Local Contractor			
10.	Justification for Work	Replacement of Old Plates are required due to their deteriorated conditions			
11.	Work Required	a	b	c	d
		Defect/ Routine List	Repair Work Required	Services Required	Spares Required
		Repair/ Replacement of Fwd Aft Engine Room & Fwd and Aft lobby ladders foot plates welding & alignment of frame	Repair/ Replacement of Fwd Aft Engine Room & Fwd and Aft lobby ladders foot plates welding & alignment of frame	Repair/ Replacement of Fwd Aft Engine Room & Fwd and Aft lobby ladders foot plates welding & alignment of frame	Removal of old plates with installation of new aluminum plates & frame with specific/ work on joints
12.	Detailed scope of work	a	b	c	
		Details of Repair Work Required	Details of services Required	Details of Spares Required	
		Repair/ Replacement of Fwd Aft Engine Room & Fwd and Aft lobby ladders foot plates welding & alignment of frame	Repair/ Replacement of Fwd Aft Engine Room & Fwd and Aft lobby ladders foot plates welding & alignment of frame	Removal of old plates with installation of new aluminum plates & frame with specific/ work on joints	
13.	Eligibility	Security wise clear firm, having working experience onboard for HINGOL class MPV			
14.	EDC	07 x Days			
15.	Warranty	01 Year			
16.	Acceptance Criteria	OEM Recommended Spares			

CONDUCT OF 8A REPAIR/ MAINTENANCE ROUTINES OF 04 X MARINE GEARBOX - PMSS BASOL

S No.	Description				
1.	Ship's Name	PMSS BASOL			
2.	Parent	MARINE GEARBOX			
3.	OEM	ZF Friedrichshafen AG Marine Propulsion Systems 88038 Friedrichshafen Deutschland			
4.	Model	ZF 9000			
5.	Origin	Germany			
6.	Sub Equipment	Marine Gearbox			
7.	Part No. of Assembly	As per spare parts catalog ZF 9000 3103 002 035 ZF 9050 MTU FRIEDRICHSHAFEN			
8.	Quantity	04 x Marine Gearbox			
9.	Sources of	ZF Friedrichshafen AG Marine Propulsion Systems			
10.	OEM Details	Address ZF Friedrichshafen AG Marine Propulsion Systems 88038 Friedrichshafen Deutschland - Germany Contact Phone Tel: +49 7541 77-2207 Contact Email www.zf.com			
11.	Justification for work	As per PMS routines/ technical manual To carry out following maintenance routines of 04 x Marine Gearbox:			
		MOP	Description	Period	
		PM-016	Recalibrate display devices	8A	
		PM-018	Check shaft seal of input shaft	8A	
		PM-019	Check shaft seal of output shaft	8A	
		PM-009	Flexible clutch: visual inspection	8A	
		PM-010	Flexible engine and transmission support; visual inspection	8A	
		PM-011	Clutch discs	8A	
		PM-012	Running gears: visual inspection	8A	
		PM-013	Check oil pump	8A	
		PM-014	Check control unit	8A	
		PM-015	Check actuation device (mechanical/ electrical)	8A	
12.	Work Required	Defect List	Repair Work Required	Services Required	Spares Required
		Nil	Yes	Yes	Yes
13.	Detail scope of work	a	b		C
		Detail of Repair Work Required	Details of Services Required		Details of Spares Required

		As per requirements	<p>Detailed work scope for carrying out 8A routines of Marine Gearbox is as under:</p> <p>a. Remove the inspection cover and check the gearing of wheels on input shaft, intermediate shaft, and output shaft.</p> <p>b. Check rubber rings of flexible clutch for flawless condition. To do this, rotate Engine slowly and check rubber parts through inspection hole of bell housing</p> <p>c. For checking the control unit If possible, replace rather than dismantle the complete control unit. Readjustment of the control unit is not required when dismantling is necessary for cleaning or replacing individual pressure springs. However, a pressure test on the transmission is required.</p> <p>d. Check/ calibrate display devices for oil pressures and oil temperatures for correct display values. Connect calibrated display devices in parallel and compare values displayed. Display errors must not exceed 10% of individual operating ranges. Dismantle display devices and arrange for recalibration and/or use replacement display devices.</p> <p>e. Check/ Replace shaft seal of output shaft for leaks.</p> <p>f. Check/ Replace shaft seal of input shaft for leaks.</p> <p>g. Loosen fixing screws and remove mechanical actuation. Replace the complete unit and make sure mechanical actuation runs freely.</p> <p>h. Loosen fixing screws and remove electrical actuation. Replace the complete unit and measure the electrical resistance (26.7 ohm +/- 8% at 20°C).</p> <p>j. Carry out all maintenance routines as per JICs</p> <p>h. Conduct of HATs and SATs. Record all operating parameters (oil pressure,</p>	As per requirements
14.	Technical Specs	As per technical manual		
15.	Eligibilities	Reputable local contractor having working experience of Marine Gearbox		
16.	EDC	02 weeks		
17.	Warranty	01 Year		

18.	Acceptance Criteria	<ul style="list-style-type: none">a. Satisfactory operation of Marine Gearboxb. Satisfactory SATs followed by HATs.c. Satisfactory operation without noise and vibration.d. Leakage free operation of system.
19.	Any other relevant information	<ul style="list-style-type: none">a. Contactor may contact SS/ visit onboard ship to resolve any query.b. Growth work, damage/ defect occurring during work will be responsibility of contractor.

PROCUREMENT REPLACEMENT OF 06 X SPLIT TYPE AC COMPLETE - PMSS REHMAT

S No	Details			
1.	Ships Name	PMSS REHMAT		
2.	Parent Equipment	Refrigeration, Air Conditioning and Air Circulating Equipment		
3.	OEM	Pakistan/ China/ Japan		
4.	Model	1.5 Ton & 2 Ton		
5.	Sub Equipment	Split Type Air Conditioner Complete		
6.	Assembly Component	1.5 Ton (18,000 BTUs) 02 Ton (24,000 BTUs)		
7.	Quantity	04 x 1.5 Ton (18,000 BTUs) Split Type AC 02 x 2 Ton (24,000 BTUs) Split Type AC		
8.	Source of availability	Local Market		
9.	Justification for Work	06 x split type ACs declared BER. 06 x Split Type ACs required onboard at various spaces for machinery equipment's and accommodation area to control humidity and maintain conducive living environment		
10.	Work Required	a	c	d
		Defect/ Routine List	Services Required	Spares Required
		06 x Split Type ACs declared BER.	a. 06 x Split Type ACs declared BER. b. Removal of Old 04 x 1.5 Ton Split Type AC and Installation of New 04 X 1.5 Ton Split Type AC . c. Removal of Old 01 x 2 Ton Split Type AC and Installation of New 02 X 2 Ton Split Type AC d. Removal of Old 01 x 1 Ton Split Type AC.	a. 02 x 2 Ton Split Type ACs including remote b. 04 x 1.5 Ton Split Type AC including remote c. 06 x 20 Amp Breaker' d. 06 x 50 Feet Suction copper Piping e. 06 x 50 Feet Discharge copper Piping f. 06 x30 Feet Drain Piping
11.	Detailed scope of work	a	b	c
		Details of Repair Work Required	Details of services Required	Details of Spares Required
		a. 06 x Split Type ACs declared BER. b. Removal of Old 04 x 1.5 Ton Split Type AC and Installation of New 04 X 1.5 Ton Split Type AC . c. Removal of Old	a. All spares, special equipment / tools, accessories etc for installation of said work to be arranged by the firm. b. Any damage /in way removal/ defect / wear tear occur during the	a. 02 x 2 Ton Split Type ACs including remote b. 04 x 1.5 Ton Split Type AC including remote c. 06 x 20 Amp Breaker'

		01 x 2 Ton Split Type AC and Installation of New 02 X 2 Ton Split Type AC d. Removal of Old 01 x 1 Ton Split Type AC.	course of removal and installation of ACs are to be repaired/ met by firm. c. Requirement of external services, if required will be responsibilities of firm.	d. 06 x 50 Feet Suction copper Piping e. 06 x 50 Feet Discharge copper Piping f. 06 x30 Feet Drain Piping
12.	Technical Specs	a. 18000/24000 BTU b. 220V 50Hz c. Copper material for inner and outer coil.		
13.	Eligibility	a. The firm must visit onboard and carry out diagnosis/ inspections to establish the extent of required work. b. Income Tax registered. d. Sales Tax registered		
14.	EDC	2 Week after issuance of Work Order		
15.	Warranty	01 Year		
16.	Acceptance Criteria	a. 18000/24000 BTU b. 220V 50Hz c. Copper material for inner and outer coil, d. Inspection and satisfactory trials by end user		

IT NO: IT/PM/86/53/2025-26

OVERHAULING OF INJECTORS OF MAIN ENGINE NO 1 - PMSS BASOL

S No	Details			
1.	Ships Name	PMSS BASOL		
2.	Parent Equipment	Main Engine		
3.	OEM	MTU Germany		
4.	Model	16V4000M73L DIESEL ENGINE		
5.	Serial No	Main Engine No 1 : 527112664		
6.	Origin	USA		
7.	Sub Equipment	Fuel Injectors		
8.	Assembly Component	Fuel Injectors, Cylinders, common rail		
9.	Part No. of Assembly Component	Fuel injectors Part No X59407500022 NSN: 2815PV1030384		
10.	Quantity	Inspection, overhauling and pressure testing of 16 x fuel injectors and 03 x sensors. Detailed health inspection i.e. endoscopy of Main Engine injectors/ cylinders diagnose the defect for its rectification		
11.	Source of availability	MTU		
12.	Justification for Work	Combustion cycle of Main Engine unable to start		
13.	Work Required	a	b	c
		Defect/ Routine List	Repair Work Required	Services Required

		Nil	Nil	Yes	Yes
		a	b	c	
		Details of Repair Work Required	Details of services Required	Details of Spares Required	
14.	Detailed scope of work	Nil	<p>Overhauling of injectors of Main Engine No 1 encompasses following aspects:</p> <p>a. Detailed health inspection i.e. endoscopy of Main Engine injectors/ cylinders through diagnostic tool and health assessment to diagnose the defect for its rectification.</p> <p>b. Remora! and installation of Fuel injectors as per OEM technical manual/ instructions and MMS JICs.</p> <p>c. Overhauling considerations must include inspection, overhauling and pressure testing of 16 x fuel injectors, sensors and software updation.</p> <p>d. Bank common rail of defect rectification.</p> <p>e. Sharing of report indicating any defects and unseen anomaly in the system. Reconditioning/ replacement of any defected parts/ components.</p> <p>f. Provision and installation of only OEM recommended parts for satisfactory operation and is to be arranged by firm.</p> <p>g. Satisfactory HATs and SATs of Main Engine No 1 arier injectors installation.</p> <p>h. Satisfactory full power trials.</p>	16 x Fuel Injectors	Part No X59407500022 NSN: 2815PV1030384 Gasket O Rings Sensors
15.	Technical Specs	As per technical manual/ OEM.			
16.	Eligibility	OEM authorized Rep having experience of MTU Main Engines fitted onboard HINGOL class MPVs.			
17.	EDC	ASAP (07 x Days)			
18.	Warranty	01 x Year			
19.	Acceptance Criteria	a. Work will be carried out by/ through OEM Rep. b. Satisfactory trials of Main Engine.			

REPAIR/ OVERHAULING OF GENSET NO 1 - PMSS DASHT

S No	Details				
1.	Ships Name	PMSS DASHT			
2.	Parent Equipment	GENSET			
3.	OEM	Caterpillar			
4.	Model	C-9			
5.	Serial No	C9Z05156			
6.	Origin	USA			
7.	Sub Equipment	GENSET No 1			
8.	Assembly Component	Fuel Injectors, Sea water pump, Alternator and Stator, Cylinder Head, Heat Exchanger, Intercooler, Radiator			
9.	Part No. of Assembly Component	387-9431, 170-6116			
10.	Quantity	08			
11.	Source of availability	Local Contractor			
12.	Justification for Work	Repair/ Overhauling of GENSET No 1.			
13.	Work Required	a	b	c	d
		Defect/ Routine List	Repair Work Required	Services Required	Spares Required
		As per defect history	a. Dismantling and installation of 06 x Fuel injectors. b. Dismantling of sea water pump. c. Dismantling of alternator and stator. d. Dismantling of cylinder head. e. Dismantling of heat exchanger. f. Dismantling of intercooler. g. Dismantling of Radiator.	a. Calibration of 06 x Fuel Injectors. b. Repair/ overhauling and installation of sea water pump. c. Repair/ overhauling and installation of alternator and stator. d. Servicing/ cleaning and installation of heat exchanger. e. Servicing/ cleaning and installation of intercooler. f. Repair/ overhauling and installation of radiator by the firm.	N/A

		a	b	c
		Details of Repair Work Required	Details of services Required	Details of Spares Required
14.	Detailed scope of work	<p>a. Dismantling and installation of 06 x Fuel injectors.</p> <p>b. Dismantling of sea water pump.</p> <p>c. Dismantling of alternator and stator.</p> <p>d. Dismantling of cylinder head.</p> <p>e. Dismantling of heat exchanger.</p> <p>f. Dismantling of intercooler.</p> <p>g. Dismantling of Radiator.</p>	<p>a. Calibration of 06 x Fuel Injectors.</p> <p>b. Repair/ overhauling and installation of sea water pump.</p> <p>c. Repair/ overhauling and installation of alternator and stator.</p> <p>d. Servicing/ cleaning and installation of heat exchanger.</p> <p>e. Servicing/ cleaning and installation of intercooler.</p> <p>f. Repair/ overhauling and installation of radiator by the firm.</p>	N/A
15.	Technical Specs	As per technical manual/ OEM.		
16.	Eligibility	Reputable contractor having relevant work experience.		
17.	EDC	07 x Days		
18.	Warranty	01 x Year		
19.	Acceptance Criteria	<p>a. Provision of pressure test record as per OEM standard. Only OEM recommended spares to be used by firm.</p> <p>b. Visual inspection of provided items/ spares used w.r.t physical inspection.</p> <p>c. Full Power Trials, HATs & SATs.</p>		
20.	Any other relevant information	Coordinate MEO/ SS/ visit onboard to resolve any query.		

CALIBRATION OVERHAULING OF 32 X FUEL INJECTORS OF MAIN ENGINE NO 1 & 2 - PMSS
DASHT

S No	Details				
1.	Ships Name	PMSS DASHT			
2.	Parent Equipment	Main Engine No 1 & 2			
3.	OEM	MTU			
4.	Model	16V4000M73L			
5.	Origin	Germany			
6.	Sub Equipment	Fuel Injectors			
7.	Assembly Component	Fuel Injectors			
8.	Part No. of Assembly Component	X59407500022, EX59407500022, RX59407500022			
9.	Quantity	32			
10.	Source of availability	MTU			
11.	Justification for Work	Calibration/ overhauling of 32 x Fuel Injectors of Main Engine No 1 & 2			
12.	Work Required	a	b	c	d
		Defect/ Routine List	Repair Work Required	Services Required	Spares Required
		As per defect list.	Calibration/ overhauling of 32 x Fuel Injectors of Main Engine No 1 & 2	a. Dismantling of 32 x fuel injectors by firm. b. Calibration and overhauling of 32 x fuel injectors.	32 x Fuel Injectors.
13.	Detailed scope of work	a	b	c	
		Details of Repair Work Required	Details of services Required	Details of Spares Required	
		Calibration/ overhauling of 32 x Fuel Injectors of Main Engine No 1 & 2	c. Dismantling of 32 x fuel injectors by firm. Calibration and overhauling of 32 x fuel injectors.	32 x Fuel Injectors.	
14.	Technical Specs	As per Technical Manual/ OEM.			
15.	Eligibility	a. Must have relevant experience in calibration/ overhauling of said fuel injectors. b. Only OEM recommended spares must be used. c. Firm must visit site for understanding exact nature of defect/ hindrances involved in job prior quoting to avoid inconvenience on later stage after award of Work Order.			
16.	EDC	07 x Days			
17.	Warranty	01 x Year			
18.	Acceptance Criteria	a. OEM certified spares should be used.			
		b. Technical specifications to be provided by Firm			

19.	Any other relevant information	Contact SS/ MEO/ firm visit onboard to resolve any query.
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IT NO: IT/PM/86/56/2025-26

IT SPECIFICATIONS – REPAIR/ REPLACEMENT OF DEGRADED BULWARKS & DETERIORATED INTERNAL/ EXTERNAL FIXTURES - PMSS BARKAT

S No	Details	
1.	Ships Name	PMSS BARKAT
2.	Parent Equipment	Degraded Bulwark & deteriorated internal/ external fixtures
3.	Sub Equipment	Bulwark & internal/ external fixtures
4.	Make	China
5.	Quantity	As per Scope of Work
6.	Justification for Work	Degraded condition over the period of time.
7.	Work Required	Repair/ replacement work as per scope of work
8.	Detailed scope of work	<p>Scope of work is as under:</p> <ul style="list-style-type: none"> a. Repair/ replacement of 03 x life rafts securing bases. b. Repair/ replacement of under-mentioned hatches: <ul style="list-style-type: none"> 1) Fwd mess emergency hatch deteriorated, hatch to be repaired. 2) Bosn store hatch to be repaired. 3) Emergency hatch FWD & AFT engine room are required to be repaired. 4) ASP & Tech mess hatch deteriorated, hatch to be repaired. 5) EVAC compartment hatch deteriorated, hatch to be repaired. c. Ensign staff is deteriorated. Repair/ replacement work required. d. Repair / replacement of 02 x Jack staff support (Dia 1.5” length 5’ each). e. Repair/ replacement of 04 x Engine Rooms Foam drenching tubes covers. f. 04 x arms of main mast to be replaced (Dia 2” length 4’). g. Repairing of Guard Rails with stanchions of all Decks. h. Repair/ replacement of 04 x rope securing reels (Foxl & Q/ Deck). j. All water tight doors securing hook to be replaced. k. Repairing of washroom doors CPOs/Sailors (06) and Officers (03) with locking mechanism as requirement l. Repairing of 04 x aluminum doors including door closer and rubber seals (1 deck alleyway, dining hall, bridge and wardroom).

		<p>m. Repair of all (17) water tight doors alongwith replacement of rubber seal.</p> <p>n. Repair of 02 x vegetable locker doors 4'x3'.</p> <p>p. Repair/ replacement of 15 x portable fire extinguisher bases/ stowage.</p> <p>r. Repairing of Chain stoppers of anchor cable.</p> <p>s. Repair work of all (12) water tight port holes.</p> <p>t. Repair/ replacement of Zulu boat cradle.</p> <p>u. Following ladders/ stairs are required to be repaired/ replacements:</p> <ol style="list-style-type: none"> 1) Q/Deck 2) G/Deck 3) EVAC 4) MCR <p>v. Repairing of Armoury lockers.</p> <p>w. Repair/ replacement finder line at PORT and STBS side.</p> <p>x. Repair/ replacement of 03 x Fuel tank vents.</p> <p>y. Repair/ replacement of 04 x fresh water tank vents.</p> <p>z. Repair/ replacement of 09 x vent flaps including butterfly nuts / bolts on (01 x Foxl, 03 x Port & Stbd alleyway,03 x Gun deck and 02 x Signal Deck).</p> <p>aa. 04 x Engine room supply fans bases deteriorated. Bases are to be made new (Dia 27" Height 1').</p> <p>ab. Repair/replacement of under mentioned ventilation trunking: in FER, ASP, armoury and messes. Replace/ repair the deteriorated trunking:</p> <p>ac. Repair/ replacement of gratings on Port &Stbd trunking in ASP (1x1')</p> <ol style="list-style-type: none"> 1) Repair/ replacement of gratings on Port &Stbd exhaust trunking in AER (2'x2') 2) Replacement/ repair of gratings on Port &Stbd exhaust trunking in FER (2'x2') 3) Repairing of Port & Stbd trunking of Armoury (60"x6"x6") 4) Repairing of Port & Stbd gratings of Armoury trunking (1x1') <p>ad. The firm will be responsible for all types of welding/ cutting work,</p> <p>ae. All spares (must be genuine) tools special equipment /accessories required for said Repair/ replacement are to be arranged by the firm</p> <p>af. Any damage/ defect/wear tear occurred during course of repair and replacement of system/equipment will be met by firm.</p>
9.	Technical spec	As per IT specifications
10.	Eligibilities	<p>a. The firm must visit onboard and carry out diagnoses/inspections to establish the extent of required work.</p> <p>b. The firm must have sufficient experience of same kind of work and experienced.</p> <p>c. The firm should be NTN /GST registered.</p>
11.	EDC	15 x days after issuance of work/confirmation order.

12.	Warranty	01 Year
13.	Acceptance criteria	a. Satisfactory work done by the firm. b. Successful completion and acceptance by the end user. c. Satisfactory trials (HATs/ SATs).

IT NO: IT/PM/86/57/2025-26

ADDITIONAL COMPONENTS AND SPARES REQUIRED AS BACKUP INVENTORY
DEFENDER AIRCRAFT PMSA 93 SQN

S No	Details				
1.	Ships Name	93 PMSA SQN			
2.	Parent Equipment	Defender BN-2T Aircraft			
3.	OEM	Britten Norman (BN2T)			
4.	Origin	UK/ USA/AS PER OEM COUNTRY			
5.	Sub Equipment	Defender BN-2T Aircraft components/ spares			
6.	Assembly Component	Defender BN-2T Aircraft components/ spares			
7.	Part No. of Assembly Component	S No	Part No	Description	Qty Req
		a.	A2180-2/34163065	LENS RED (NAV LIGHT)	3
		b.	L-1330-150	FUSE 150AMP	3
		c.	NB-45-0325	CLIP BONDING	36
		d.	NB-33-0203	BONDING LEAD	8
		e.	NB-51-061	BONDING LEAD	8
		f.	NB-45-1139	BONDING LEAD	8
		g.	1505G1009-5	BRUSH CARBON	24 Pair
		h.	AC-3 / 354504394	BRUSH MOTOR	12 f
		j.	PC820-101	SIGNAL CONDITIONING UNIT	2
		k.	10-614950-1	EXCITER (IGNITION UNIT)	2
		l.	51565-001R	VOLTAGE REGULATOR	1
		m.	NB-51-2477	COOLING DUCT DIODE PACK	6
		n.	NB-20-2311	LANDING LIGHT COVER	3
		p.	NB-57-2731	FIEL PRESSURE TRANSDUCER SUB ASSY	6
		q.	3001-47-450/ 190C-3M	ENGINE FIRE DETECTOR	2
		r.	RS348-914	RELAY STARTER WARNING (RL-70)	3
		s.	RS349-080	SOCKET RELAY MOUNTING	3
		t.	RS348-936	RELAY HEAVY DUTY (RL- 63.RL-64)	6 J
		u.	RS349-096	SOCKET CHASSIS MOUNTING	6
		v.	0382-1-8046	AMMETER ANTI-ICING	2
w.	5032-3134	TGT INDICATOR	2		
x.	361140031 / 4344-3063	TORQUE INDICATOR	4		
y.	362040014/SZ8E81BN-N1	TURBINR SPEED INDICATOR	4		
z.	362040023	PROP SPEED INDICATOR	4		

		aa.	361000113	FUEL FLOW INDICATOR	2												
		bb.	BS2G148/ S483-1-16	INDICATOR (O.A.T)	2												
		cc.	23068275/6875708	COMBINED GOVERNOR	1												
		dd.	A111-5E	BOLT	4												
		ee.	A111-15G	BOLT	4												
		ff.	A111-11E	BOLT	4												
		gg.	NB-57-B-485	PIPE ASSY FUEL	2												
		hh.	NB-57-C-457	PIPE ASSY FUEL	2												
		jj.	NB-57-A4-2347	PIPE ASSY FUEL	2												
		kk.	NB-57-C-1061	PIPE ASSY (L/H)	2												
		ll.	NB-57-C-1062	PIPE ASSY (R/H)	2												
		mm.	NB-57-A4-2353	PIPE ASSY FUEL	2												
		nn.	NB-57-ND-2369	PIPE ASSY FUEL	2												
		pp.	NB-57-ND-2370	PIPE ASSY FUEL	2												
		qq.	A113-1/2C	BOLT	200												
		rr.	B471365	CABLE	50m												
		ss.	B471363	CONDUIT ASSY	50m												
		tt.	SP90C6	SPLIT PIN	100												
		uu.	RBB0/1100	RED BOX BATTERY	2												
8.	Quantity	As mentioned against each															
9.	Source of Availability	OEM or OEM authorized aviation vendors															
10.	Justification for Work	Spares required for replacement on Defender BN2T aircraft against scheduled/unscheduled maintenance.															
11.	Work Required	<table border="1"> <thead> <tr> <th>a</th> <th>b</th> <th>c</th> <th>d</th> </tr> <tr> <th>Defect/ Routine List</th> <th>Repair Work Required</th> <th>Services Required</th> <th>Spares Required</th> </tr> </thead> <tbody> <tr> <td>Consumable/ once used items</td> <td>-</td> <td>Spares required for Defender BN-2T aircraft as per para 9a-ss</td> <td>As per para 9a-uu</td> </tr> </tbody> </table>				a	b	c	d	Defect/ Routine List	Repair Work Required	Services Required	Spares Required	Consumable/ once used items	-	Spares required for Defender BN-2T aircraft as per para 9a-ss	As per para 9a-uu
a	b	c	d														
Defect/ Routine List	Repair Work Required	Services Required	Spares Required														
Consumable/ once used items	-	Spares required for Defender BN-2T aircraft as per para 9a-ss	As per para 9a-uu														
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a	b	c															
Detail of Repair Work Required	Detail of Services Required	Detail of Spares Required															
--	Spares required for Defender BN-2T aircraft as per para 9a-uu	As per para 9a-uu															
13.	Technical Specs	Islander Illustrated Parts Catalogue Publication Reference No. PC/ 4 Volume-1 & Rolls-Royce 250-B17 Series Illustrated Parts Catalogue															
14.	Eligibilities	<p>a. Replacement of items are to be delivered in New Condition only, from OEM or OEM authorized aviation vendors.</p> <p>b. Firms have to provide authorization letter of their principal firms and bank statement of last 01 year of their firm.</p> <p>c. Firms must have at least 02 years' experience of procurement/repair of Aviation components/ spare parts. Experience certificate of Aviation related contracts by contracting agency in Pakistan is mandatory.</p> <p>d. Firms need to include freight/ insurance charges and custom duties/ taxes, etc (as applicable) in quotation.</p> <p>e. Firms need to get import/ export licenses from respective abroad firms/ agencies where applicable.</p>															

		f. In case of failure to meet acceptance criteria or any defect during physical/ operational testing of items post installation on aircraft, firm is liable to get the items replaced/ repaired on FoC basis in shortest possible time.
15.	EDC	08 weeks after award of contract
16.	Warranty	1 Year
17.	Acceptance Criteria	<p>a. Satisfactory physical condition and operational check of items (where Applicable).</p> <p>b. Items part numbers should be identical to the part numbers mentioned against each item in IT Specification. Alternatively, OEM letter for change in Part No may also be provided.</p> <p>c. Provision of OEM certification from EASA/ FAA (if applicable).</p> <p>d. Provision of import documents (if required).</p> <p>e. Items having shelf life/ expiry date should be within 6-8 weeks from date of manufacturing.</p>

IT NO: IT/PM/86/58/2025-26

PROCUREMENT OF MAIN ENGINE 1 & 2 PPS CARDS - PMSS ZHOB

S No	Details									
1.	Ships Name	PMSS ZHOB								
2.	Parent Equipment	Main Engines 1 & 2								
3.	OEM	MTU								
4.	Model	MPU30-04								
5.	Origin	China								
6.	Sub Equipment	PPS CARD mpu30-04 Part No X00E 5021 0833								
7.	Assembly Component	PPS CARD mpu30-04 Part No X00E 5021 0833								
8.	Part No. of Assembly Component	X00E 5021 0833								
9.	Quantity	2								
10.	Source of Availability	China								
11.	Justification for Work	Upon inspection of LOPs of MTUs parameters fluctuation observed suspected PPS card malfunctioning.								
12.	Work Required	a		b		c		d		
		Defect/ Routine List		Repair Work Required		Services Required		Spares Required		
		N/A		Installation of Main Engines 1 & 2 PPS Cards by the firm		See S.No 14 Para b		See S.No 14 Para c		
13.	Detailed scope of work	a			b			c		
		Detail of Repair Work Required			Detail of Services Required			Detail of Spares Required		
		Installation of Main Engines 1 & 2 PPS Cards by the firm			Installation of Main Engines 1 & 2 PPS Cards through recommended OEM/ local engineering house			2 x PPS CARD mpu30-04 Part No: X00E 5021 0833		
14.	Technical	As per OEM manual specs								

	Specs	
15.	Eligibilities	COC needs to be provided by OEM
16.	EDC	45 Days
17.	Warranty	1-year
18.	Acceptance Criteria	a. COC, HATs & SATs
19.	Any other relevant info	Growth work, Damage/ defect occurred during work is responsibility of contractor.

IT NO: IT/PM/86/59/2025-26

OVERHAULING OF HPAC SYSTEM NO 1 & 2- PMSS BASOL

S No	Details				
1.	Ships Name	PMSS BASOL			
2.	Parent Equipment	High Pressure Air Compressor			
3.	OEM	Bauer Kompressoren GmbH Munich			
4.	Model	HPAC I15.1-11-5			
5.	Origin	Germany			
6.	Sub Equipment	Compressor Host			
7.	Part No. of Assembly Component	IK15.1			
8.	Quantity	02			
9.	Source of availability	WUHAN MEKAND EQUIPMENT CO., LTD			
10.	Justification for Work	As per RMS routines/ technical manual.			
11.	Work Required	a	b	c	d
		Defect/ Routine List	Repair Work Required	Services Required	Spares Required
		Nii	Yes	Yes	Yes
12.	Detailed scope of work	a	b	c	
		Details of Repair Work Required	Details of services Required	Details of Spares Required	
		As per requirements for overhauling of HPAC system	Complete overhauling of HPAC system Including following aspects. 1. Shut down and isolate compressor. Depressurize air system; drain oil and moisture. 2. Remove & inspect outer covers and piping connections. Dismantle valve assemblies, cylinder heads, pistons and connecting rods. Remove & inspect bearings and crankshaft.	As per requirements for overhauling of HPAC system	

		<p>3. Check piston rings and cylinder liners for wear/ scoring Inspect valves for seat damage and carbon deposits. Measure clearances of bearings and journals. Inspect oil pump, filters and lubrication passages.</p> <p>4. Renew piston rings, gaskets and worn valves. Replace oil and air filters. Replace bearings and seals if out of limits. Maintenance of the condensate drain valve.</p> <p>5 Electrical appliance inspection in the electric control.</p> <p>6. Replacement of Air inlet filter, lubricating oil & lubricating oil filter core.</p> <p>7. Clean all components with solvent and lint free cloth. Reassemble in reverse order applying new gaskets/ seals. Torque bolts to manufacturer's specifications.</p> <p>8. Fill with fresh compressor oil. Run HPAC under supervision check for leaks, abnormal vibration & noises. Gradually raise pressure to operating limit; monitor safety cut-outs.</p> <p>9. Record operating parameters (oil pressure discharge pressure temperature) as per OEM recommendation.</p>	
13.	Technical Specs	As per High Pressure Air Compressor for M65P technical manual	
14.	Eligibility	Reputable local contractor having working experience of HPAC system.	
15.	EDC	01 Week	
16.	Warranty	01 Year	
17.	Acceptance Criteria	<p>a. Satisfactory operation of HPAC.</p> <p>b. Successful trials by end user.</p>	
18.	Any other relevant information	<p>a. Contactor may contact SS/ visit onboard ship to resolve any query.</p> <p>b. Growth work, damage/ defect occurring during work will be responsibility of contractor.</p>	

PROCUREMENT OF 06 X COOPER BEARING - PMSS BASOL

S No	Details				
1.	Ships Name	PMSS BASOL			
2.	Parent Equipment	Intermediate Bearing			
3.	OEM	Cooper Roller Bearing Co, Ltd			
4.	Model	01E BCP 170mm EX IH TE (G1/8) SRS SLUB			
5.	Serial No	1L19216/1			
6.	Origin	England			
7.	Sub Equipment	Split Type Cooper Roller Bearings			
8.	Assembly Component	Split type Cooper Roller Bearings			
9.	Quantity	6			
10.	Source of availability	Cooper Roller Bearing Co, Ltd			
11.	Justification for Work	As per PMS routines/ technical' manual			
12.	Work Required	a	b	c	d
		Defect/ Routine List	Repair Work Required	Services Required	Spares Required
		NIL	NIL	YES	YES
13.	Detailed scope of work	Details of Repair Work Required	Details of services Required	Details of Spares Required	
		NIL	Removal/ reinstallation of complete split type cooper roller bearing assembly encompasses following aspects: <ul style="list-style-type: none"> a. Inspection of bearing shell, journal surface and oil seals. b. Verify proper lubrication flow path. c. Measure bearing clearance using feeler or dial gauge and compare with manufacturer's limits. d. Check alignment of shaft with respect to bearing seating e. Inspect oil lines, filters & flow indicators for clogging or leaks f. Refit whole assembly with new gasket/ seal and refill lubricant to correct level. g. Start propulsion and monitor bearing temperature, vibrations and compare 	06 x split type cooper roller bearings	

		with normal limits.
14.	Technical Specs	As per technical manual
15.	Eligibility	Reputable local contractor having working experience of shafting system.
16.	EDC	01 Week
17.	Warranty	01 Year
18.	Acceptance Criteria	a. Satisfactory operation of propulsion system b. Successful trials by end user
19.	Any other relevant information	a. Contactor may contact SS/ Visit onboard ship to resolve any query. b. Growth work, damage/ defect occurring during work will be responsibility of contractor.

SCOPE OF WORK/ IT SPECIFICATIONS - DISPOSAL OF GARBAGE HQ PMSA

S No	Description	Collection of Garbage
1.	Requirement/ Scope of Work	<p>a. Collection of Garbage through conserving truck from HQ PMSA building daily and PMSA Ships stationed/ berthed at KS & EW and Karachi Port when ordered except Sunday and gazetted holiday in a safe and environmental friendly manner.</p> <p>b. Sweeping and cleaning of all garbage drums on daily basis and sprinkling of lime powder on fortnightly basis.</p> <p>c. Removal of bush(s)/ undesired vegetation including stones/ polythene bags from the HQ PMSA Complex and its surrounding i.e MLC plot & Seaward side.</p> <p>d. Provision of janitorial services on Eid Holidays</p> <p>e. Insect killer spray twice a week of complete area (HQ PMSA Complex and surroundings with PMSA AoR)</p> <p>f. 01 x dumper of sweet earth/ manure per quarters.</p> <p>g. White wash of kachra kundi per month</p> <p>h. Orange color jackets and jokey caps for labour/ SWs provided.</p> <p>j. Maintenance of garden and provision of seasonal flowers/ plants.</p> <p>k. Garbage of ship's galley and other departments be collected for main Kachra Kundi</p> <p>l. Provision of manpower for clean ship of outer/ open area of HQ PMSA from Entrance PN dockyard road till INDUS jetty and HQ PMSA Complex building/ surrounding area on working days.</p> <p>m. Following material will be required with the vehicle:</p> <ul style="list-style-type: none"> i. 04 x punji/ quarter ii. 1 04 x phora/ quarter iii. 30 brooms/ month iv. 200kg lime powder/ month
2.	Location	HQ PMSA Complex.
3.	Eligibilities	Any registered firms (conservancy contractor).
4.	Specification	1 x truck and 10 x sanitary workers alongwith supervisor and 1 x Mali having good gardening experience & knowledge.
5.	Disposal	Disposal of collected Garbage to any suitable place in consultation with concerned Cantonment Board
6.	Acceptance Criteria	Inspection by end user
7.	Any other relevant information	In case of any query, contact EXO PMSS INDUS 021-48505455

8.	Contract period	12 Months
9.	Terms of payment	On monthly basis

IT NO: IT/PM/86/62/2025-26

IT SPECIFICATIONS PMS ROUTINE OF SWINGING VANE HYDRAULIC STEERING SYSTEM
- EMP - PMSS KASHMIR

S NO	DESCRIPTION				
1.	Ships Name	PMSS KASHMIR			
2.	Parent Equipment	SWINGING VANE HYDRAULIC STEERING GEAR			
3.	OEM	WUHAN MEKAND			
4.	Model	SCAN 80			
5.	Origin	China			
6.	Sub Equipment	Steering System			
7.	Quantity	02 (PORT and STBD)			
8.	OEM Details	WUHAN MEKAND EQUIPMENT CO, LTD OCT 2017			
9.	Work Required	Defect/ Routine List	Repair Work Required	Services Required	Spares Required
		PMS	Replace the electric hydraulic pump station	Yes	Pump Station S80-01
			Replace the seal parts of swinging vane rudder motor	Yes	S80-03-B3 S80-03-B14
			Replace the electromagnetic valve	Yes	Valve S80-01-03
			High Pressure filter cartridge replacement	Yes	Cartridge S80-01-18
			Returned Oil filter cartridge replacement	Yes	Cartridge GB/T S80-01-17
			Overhauling of steering Motors	Yes	Nil
10.	Eligibilities	OEM Authorized Rep spares to be provided by firm			
11.	EDD/ EDC	30 Days after award of contract			
12.	Warranty	01 Year			
13.	Acceptance Criteria	<p>OEM Certified item. Defective/ BER items must be replaced with new one. Upon scrutiny of items and provided documents along with production certificate by OEM. Defective/ BER items must be replaced with new. Firm will not be allowed to use ship tools and manpower.</p>			

**REQUIREMENT OF 02 X V/UHF TX/RX XT-4410 COMMUNICATION AND STW OF SYSTEM - PMSS
SABQAT & RAFAQAT**

S No		Details			
1.	Ships Name	PMSS BASOL			
2.	Parent Equipment	Main Engine			
3.	OEM	MTU Germany			
4.	Model	16V4000M73L DIESEL ENGINE			
5.	Serial No	Main Engine No 2 : 527112664 Main Engine No 3 : 527112604 Main Engine No 4 : 527112620			
6.	Origin	Germany			
7.	Sub Equipment	Fuel Injectors and Breather filter			
8.	Assembly Equipment	Fuel Injectors and Breather filter (oil separator)			
9.	Part No. of Assembly Component	Fuel Injectors (Part No: X59407500022, EX59407500022, RX59407500022) Fuel Injectors NSN : 2815PV1030384 Breather filter (Part No: X54701800063)			
10.	Quantity	48 x Fuel Injectors and 24 x Breather filter			
11.	Source of Availability	MTU			
12.	OEM Details	Address: MTU Friedrichshafen GmbH, GERMANY Contact Phone: +4251178060 Contact Email: www.mtu.de			
13.	Alternate/ Local Source	Alternate Source: R.A Engineering & Services (Pvt) Ltd Address: R46F+R4C, Korangi Creek, Karachi, Pakistan Contact Phone: 02135120442, +92333-7231723 Contact Email: info@raeng.com			
14.	Justification for Work	As per PMS routines/ technical manual (PMS No 3-1118-0002) (MOP 037, 041)			
15.	Work Required	a	b	c	d
		Defect List	Repair Work Required	Services Required	Spares Required
		Nil	Nil	Yes	Yes
16.	Detailed Scope of Work	Details of Serial 9 Column a, b and c.			
		a	b	c	
		Detail of Repair Work Required	Detail of Services Required	Details of Spares Required	
		Nil	a. Procurement of Fuel Injectors as per mentioned quantity and part number/ NSN. b. Procurement of Breather filter as per mentioned quantity and part number. c. Removal and installation of Fuel Injectors as per OEM technical manual/ instructions and MMS JICs. d. OEM certified spares.	48 x Fuel Injectors (Part X59407500022, EX59407500022, RX59407500022) NSN 2815PV1030384 24 x Breather Filter (Part X54701800063)	

		e. Satisfactory operation of Main Engine
17.	Technical Specs	As per OEM/ Technical Manual
18.	Eligibilities	OEM authorized rep having experience of MTU Main Engines fitted onboard HINGOL class MPVs
19.	EDC	ASAP (07 days)
20.	Warranty	01 Year
21.	Acceptance Criteria	a. Work will be carried out by/ through OEM rep b. Satisfactory trials of Main Engine

IT NO: IT/PM/86/64/2025-26

PROCUREMENT OF 04 X SETS OF C9 GENSET ELECTRONIC FUEL INJECTORS - PMSS BASOL

S No	Details				
1.	Ships Name	PMSS BASOL			
2.	Parent Equipment	C9 Marine Generator			
3.	OEM	CATERPILLAR			
4.	Model	C9Z05159			
5.	Serial No	C9Z05159			
6.	Origin	USA			
7.	Sub Equipment	C9 GENSET Fuel Injectors			
8.	Assembly Component	Electronic Fuel injectors			
9.	Part No. of Assembly Component	387-9431			
10.	Quantity	04x sets (24 x Electronic Fuel Injectors)			
11.	Source of availability	WUHAN MEKAND EQUIPMENT CO. LTD			
12.	Justification for Work	As per PMS routines/ technical manual			
13.	Work Required	a	b	c	d
		Defect/ Routine List	Repair Work Required	Services Required	Spares Required
		Nil	Nil	Nil	Yes
14.	Detailed scope of work	Details of Repair Work Required	Details of services Required	Details of Spares Required	
		N/A	N/A	04 x sets (24 x Electronic Fuel Injectors)	
15.	Technical Specs	As per OEM manual / Technical Manual			
16.	Eligibility	OEM authorized rep having experience of CAT C9 DGs fitted onboard HINGOL class MPVs			

17.	EDC	7 days
18.	Warranty	1 year after satisfactory load trials of GENSET
19.	Acceptance Criteria	a. Work will be carried out by through OEM rep b. Satisfactory trials on 100% load through load van after installation of injectors.

IT NO: IT/PM/86/65/2025-26

PURCHASE OF NAVAL STORE ITEMS FOR ALL PMSA UNITS

S No	Details			
1.	Ships Name	PMSS INDUS/ WAREHOUSE		
2.	Parent Equipment	Naval Stores		
3.	OEM	Pakistan/Local		
4.	Model	As Per Sample		
5.	Origin	Pakistan		
6.	Sub Equipment	Naval Stores		
7.	Quantity	See attached list (Page 1 & 2)		
8.	Source of Availability	Local Market		
9.	Justification for Work	Purchase of Naval Stores items for all PMSA Units/Ships		
10.	Work Required	a	b	c
		Defect/ Routine List	Repair Work Required	Services Required
		-	-	Purchase of Stores (See attached list Page 1 & 2)
11.	Detailed scope of work	a	b	c
		Detail of Repair Work Required	Detail of Services Required	Detail of Spares Required
		N/A	N/A	N/A
12.	Eligibilities	a. The firm should be NTN/GST registered. b. The firm should be registered with HQ PMSA		
13.	EDC	15 Days after Issuance of order		
14.	Warranty	06 Months after delivery		
15.	Acceptance Criteria	Accepted by Warehouse Staff		

LIST OF ITEMS

S No	DESCRIPTION	BRAND	MODEL	DEN	QTY REQ
1.	ACID	LOCAL	LOCAL	LTR	200
2.	AIR WICK REFILL	AIR WICK	SANDAL WOOD	NOS	24
			TURQUOISE OASIS	NOS	24
			SUMMER DELIGHT	NOS	24
			CRISP LINEN & LILAC	NOS	12
			WINTER WALKS	NOS	24
			PINK SWEET PEA	NOS	12
			SMOOTH SATIN & MOON LILY	NOS	12
			WHITE FLOWER	NOS	24
			VANILA FLAVOUR	NOS	24
			MEDITERRANEAN SUN	NOS	12
			AQUA	NOS	24
ICE	NOS	24			
3.	AIR FRESHENER	PERFECT	MUSK	NOS	60
			2ONE2	NOS	60
			AZZURA	NOS	48
			MAN	NOS	48
			COOL	NOS	48
			99	NOS	48
			BLOOM	NOS	60
			BAKHOOR	NOS	60
			DREAM	NOS	60
			HEAVEN	NOS	60
			TEA ROSE	NOS	60
			ASLEE	NOS	60
			JEANS	NOS	60
			MUBARAK	NOS	60
GENTLE MAN	NOS	48			
LAVENDER	NOS	60			
4.	BAG POLYTHENE 18X24	WIPES	18X24	ROLL	240
5.	BAG POLYTHENE 24 X 36	WIPES	24 X 36	ROLL	170
6.	BAG POLYTHENE 30 X 50	WIPES	30X50	ROLL	300
7.	CAR POLISH 450ML	FLAMINGO	LOUD	NOS	48
			LEMON	NOS	36
			STRAWBERRY	NOS	36
8.	CHLORINE TABLETS	HI-CLEAN	100 TABLETS	BOX	03
9.	COOPEX POWDER	MORTINE	100 GMS	NOS	100
10.	COUNTRY BROOM	LOCAL	500 GMS	NOS	600
11.	COUNTRY BROOM (PHOOL JHARO)	LOCAL	400 GMS	NOS	100
12.	DUST BIN WITH COVER	PHEONIX	PEDDLE BIN	NOS	40
13.	DUST PICKER	PLASTIC	FINE QUALITY	NOS	60
14.	DUSTER	FINE QUALITY	FINE QUALITY (18X24)	PKT	150
15.	VEHICLE CLEANING TOWEL LARGE	SOGO	TOWEL TYPE	NOS	100
16.	COSMIC POLISH FOR V6 & V8 (FOR DG TPT)	KANGROO	KANGROO	NOS	12
17.	FURNITURE POLISH 450ML	FLAMINGO	LEMON ZEST	NOS	48

			FRESH FLOWER	NOS	48
			CITRUS MINT	NOS	24
18.	GLINT	GLINT	500 ML	NOS	300
19.	HAND WASH (FOR DG OFFICE) 500 ML	DOVE	LEVANDER	NOS	30
20.	HANDWASH 500 ML	LIFE BUOY	AELOVERA	NOS	100
			MINT	NOS	100
21.	HAND BRUSH	LOCAL	FINE QUALITY	NOS	100
22.	HARD BRUSH WITH HANDLE	LOCAL	FINE QUALITY	NOS	100
23.	INSULATION TAPE	OSAKA	BLACK	ROLL	60
24.	TAPE ADHESIVE BLACK 2 INCH	JHONSON	02 INCHES BLUE	ROLL	200
25.	TAPE ADHESIVE BLUE 2 INCH	JHONSON	02 INCHES BLACK	ROLL	200
26.	LEMON MAX DISH WASH BAR (FOR DG OFFICE) 475ML	LEMON MAX	LEMON (475ML)	NOS	120
27.	LIQUID SOAP 10 LTR PACKING	LOCAL	FINE QUALITY	LTR	1000
28.	LOTA PLASTIC	LOCAL	FINE QUALITY	NOS	48
29.	METAL POLISH/ BRASSO	KIWI	200 ML	NOS	24
30.	MOP (FLAT) FOR SHIP SIDE (LARGE)	SPONTEX	45CM BASE	NOS	30
31.	MORTIEN SPRAY FLYING INSECTS KILLER	MORTINE	550 ML	NOS	300
32.	MOSQUITO KILLER MACHINE	MORTINE	SMART PLUS	NO	30
33.	MOSQUITO KILLER MACHINE REFILL	MORTINE	SMART PLUS	NO	50
34.	NAPTHELENE BALL	LOCAL	FINE QUALITY	KG	50
35.	PAINT TRAY	LOCAL	FINE QUALITY	NOS	20
36.	EXTENSION BOARD FINE QUALITY	CAMELION	CE-EB-4S	NOS	30
37.	REFILL PAINT ROLLER PENCIL ROLLER	UNIVERSAL	4 INCH	NOS	50
38.	ROBIN BLEACH	ROBIN	500 ML	BTL	48
39.	ROOMI 12'S	ROOMI	JASMINE	BOX	100
40.	SCOTCH BRITE	3M	FOAM TYPE	NOS	700
41.	SCOTCH BRITE ULTRA WIPE (3's)	3M	12 INCH	PKT	60
42.	SCRRAPER FINE QUALITY	UNIVERSAL	12 X 12 CM	NOS	60
43.	SODA CAUSTIC	LOCAL	FINE QUALITY	KG	100
44.	SOFT BRUSH WITH HANDLE	LOCAL	FINE QUALITY	NOS	80
45.	SURF	SURF EXCEL	500 G PACKING	KG	1000
46.	SURFACE CLEANER DETTOL (ORIGINAL)	DETTOL	LAVANDER	BTL	200
47.	SWEEP RED	SAY'S	500 ML	BTL	300
48.	TAPE TRANSPARENT	JOHNSON	01 INCH	ROLL	150
49.	TAPE TRANSPARENT	JOHNSON	03 INCH	ROLL	150
50.	TISSUE BOX	ROSE PETAL	POP-UP	NOS	1000
51.	TISSUE BOX	ROSE PETAL	LUXUARY 3 PLY	NOS	1000
52.	TISSUE ROLL	ROSE PETAL	MAXOB	NOS	2000
53.	TOILET BRUSH	LOCAL	FINE QUALITY	NOS	60
54.	TOILET SOAP	LUX	130 GMS	NOS	600
55.	TYFON SPRAY	TYFON	1000 ML PACKING	LTR	100
56.	VIM POWDER	VIM	500 GMS	KG	50
57.	WATER FILTER ALL TYPE	SO-SAFE	5 MICRON POLYPROPYLENE YARN	NOS	06
			SPUN POLYPROPLYLENE	NOS	06

			PPF-5		
			CBC 205 R	NOS	06
			01 MICRON LONG & THICK	NOS	06
			SPUN POLYPROPYLENE LONG & THIN	NOS	06
58.	WIPER	UNIVERSAL	FINE QUALITY	NOS	100
59.	WIRE BRUSH STAINLEES STEEL	UNIVERSAL	06 INCH	NOS	80
60.	WIRE WOOL	3M	SCOTCH BRIGHT	NOS	300
61.	WHISTLE	LOCAL	STEEL	NOS	10
62.	PHENYLE LIQUID ORIGINAL	FINIS	2.75 LTR PACKING	LTR	800
63.	MOSPEL	ABBOT	45 ML	NOS	448
64.	MOP WITH HANDLE SIZE 7	UNIVERSAL	PREMIUM QUALITY	NOS	120
65.	CELL AA SIZE	TOSHIBA	R6UG SP-4TGTE (GREEN)	NOS	1000
66.	CELL AAA SIZE	TOSHIBA	R03UG SP-2TFTE (GREEN)	NOS	1000
67.	LIQUID VIM	VIM	500 ML	BTL	96
68.	PAINT ROLLER 6 INCH	UNIVERSAL	06 INCH	NO	120
69.	COTTON RAG	LOCAL	FINE QUALITY	KG	2000
70.	HARPIC	RECKITT BANCKISER	500 ML	BTL	360
71.	RECHARGEABLE CELL AA	CAMELION	800 mAh	NOS	30
72.	RECHARGEABLE CELL AAA	CAMELION	1000 mAh	NOS	20
73.	DOOR BELL	CLOPAL	WIRE LESS	NOS	20
74.	ELFY	GMSA	20 MG	NOS	12
75.	UHU ADHESIVE TUBE	UHU	33 ML	NOS	24
76.	SAMAD BOND TUBE	BOSTIK PAK	40 GMS	NOS	24
77.	CELL A-23 SIZE	CAMELION	A-23	NOS	24

PURCHASE OF STATIONARY STORE ITEMS FOR ALL PMSA UNITS

S No	Details				
1.	Ships Name	PMSS INDUS/WAREHOUSE			
2.	Parent Equipment	Stationery Stores			
3.	OEM	Pakistan/Local			
4.	Model	As Per Sample			
5.	Origin	Pakistan			
6.	Sub Equipment	Naval Stores			
7.	Quantity	See attached list			
8.	Source of Availability	Local Market			
9.	Justification for Work	Purchase of Stationery Stores items for all PMSA Units/Ships			
10.	Work Required	a	b	c	
		Defect/ Routine List	Repair Work Required	Services Required	Spares Required
		-	-	Purchase of Stores (See attached list (Page 1 & 2))	See over leaf
11.	Detailed scope of work	a	b	c	
		Detail of Repair Work Required	Detail of Services Required	Detail of Spares Required	
		N/A	N/A	N/A	
12.	Technical Specs	N/A			
13.	Eligibilities	a. The firm should be NTN/GST registered. b. The firm should be registered with HQ PMSA			
14.	EDC	15 Days after Issuance of order			
15.	Warranty	06 Months after delivery			
16.	Acceptance Criteria	Accepted by Warehouse Staff			

LIST OF ITEMS

S.NO	DESCRIPTION	DEN	QTY REQ
1.	BALL POINT BLUE/BLACK PIANO SILK	NOS	3000
2.	BALL POINT RED PIANO SILK	NOS	500
3.	BOARD MARKER BLACK MERCURRY	NOS	240
4.	BOARD MARKER BLUE MERCURRY	NOS	240
5.	BOARD MARKER RED MERCURRY	NOS	240
6.	BOARD MARKER GREEN MERCURRY	NOS	240
7.	POINTER UNI BALL (EYE) BLUE	NOS	360
8.	POINTER UNI BALL (EYE) BLACK	NOS	360
9.	POINTER UNI BALL (EYE) RED	NOS	360
10.	POINTER UNI BALL (SIGNO) BLUE	NOS	360
11.	POINTER UNI BALL (SIGNO) BLACK	NOS	360
12.	POINTER UNI BALL (SIGNO) RED	NOS	360
13.	POINTER UNI BALL (VISION ELITE) BLUE	NOS	360

14.	POINTER UNI BALL (VISION ELITE) BLACK	NOS	360
15.	POINTER UNI BALL (VISION ELITE) RED	NOS	360
16.	POINTER UNI BALL (VISION ELITE) TOURQUIS	NOS	60
17.	CD R MAXELL	NOS	100
18.	CD RW MAXELL	NOS	300
19.	COLOR FLAG PELIKAN	PKT	600
20.	CORRECTION PEN UNI	NOS	240
21.	DVD R MAXELL	NOS	100
22.	DVD RW MAXELL	NOS	200
23.	ENVELOP SE-5	NOS	2500
24.	ENVELOP SE-5 WHTIE	NOS	1000
25.	ENVELOP SE-6	NOS	1500
26.	ENVELOP SE-6A	NOS	800
27.	ENVELOP SE-6 WHITE	NOS	1500
28.	ENVELOP SE-6A WHITE	NOS	1000
29.	ENVELOP SE-8	NOS	500
30.	ENVELOP SE-8A	NOS	500
31.	ERASER SOFT PELIKON (ORIGINAL)	NOS	420
32.	FILE COVER WHITE WITH CLIP	NOS	500
33.	FILE COVER WHITE WITHOUT CLIP	NOS	500
34.	FILE FOLDER BLUE	NOS	200
35.	FILE FOLDER WHITE	NOS	150
36.	GUM STICK UHU 40 Grm	NOS	300
37.	GUM LIQUID (ADX)	BTL	150
38.	HIGHLIGHTER PELIKAN	NOS	400
39.	INK STAMP PAD (CRYSTAL)	NOS	50
40.	MAIL FOLDER (COSMO)	NOS	100
41.	MAIL FOLDER A TO Z (RED/ GREEN/ BLACK/ BLUE) (COSMO)	NOS	61
42.	PAPER PHOTOSTATE LEGAL (PAPER ONE)	REAM	50
43.	PAPRE PHOTOSTATE (PAPER ONE 70 Grm)	REAM	1000
44.	PAPER CUTTER BLADE	PKT	60
45.	PAPER CUTTER (DELI)	NOS	300
46.	PAPER CLIP (DELI)	PKT	600
47.	PAPER JACKET(POLO)	PKT	100
48.	PIN REMOVER POLO	NOS	100
49.	PIN STAPLING DOLLAR	PKT	500
50.	POST IT PAD SMALL PELIKAN	PAD	400
51.	POST IT PAD MEDIUM PELIKAN	PAD	400
52.	POST IT PAD LARGE PELIKAN	PAD	300
53.	POST IT PAD MULTICOLOR LARGE SIZE PELIKAN	PAD	100
54.	PUNCHING MACHINE (DELI)	NOS	80
55.	REGISTER COVER PMSA MONOGRAM (01,02 & 04 QR)	NOS	500
56.	SCALE STEEL	NOS	150
57.	SCISSORS (SENSA)	NOS	70
58.	SHARPENER MACHINE (DELI)	NOS	32
59.	SHARPENER(DUX STEEL)	NOS	350
60.	SOFT PENCIL (DOLLAR)	NOS	2000
61.	STAMP PAD (CRYSTAL)	NOS	100
62.	STAPLING MACHINE (DELI)	NOS	120
63.	TAG COTTON SMALL THREAD TYPE	BNDL	100
64.	TAG COTTON MEDIUM THREAD TYPE	BNDL	100
65.	TAG COTTON LARGE THREAD TYPE	BNDL	100
66.	THUMB PIN COLORFUL	PKT	200
67.	TRANSPERANT FILE WITH CLIP (POLO)	NOS	250

68.	SEPARATOR PLASTIC (ALPHABATIC/ NUMERICAL)	PKT	200
69.	BINDER CLIP LARGE	PKT	30
70.	BINDER CLIP MEDIUM	PKT	20
71.	MINUTE SHEET 80 Grm GREEN	PAD	300
72.	FILE COVER BLUE PMSA	NO	3000
73.	PMSA SHORT HAND DIARY SMALL	PAD	500
74.	PMSA SHORT HAND DIARY MEDIUM	PAD	500
75.	PMSA EXECUTIVE DIARY	PAD	100
76.	PERMANENT MARKER BLUE (MERCURRY)	NOS	240
77.	PERMANENT MARKER BLACK (MERCURRY)	NOS	240
78.	PERMANENT MARKER RED (MERCURRY)	NOS	120

IT NO: IT/PM/86/67/2025-26

FABRICATION OF DATUM PLATES FOR 12.7MM GUNS – ALL PMSA SHIPS

S No	Description	
1.	Ship's Name	ALL PMSA SHIPS
2.	Parent Equipment	12.7mm Guns
3.	Origin	Pakistan
4.	Sub equipment	12.7mm Guns (PORT/STBD)
5.	Assembly Component	Bullet proof Datum Plates.
6.	Quantity	32 in Nos
7.	Justification for Work	Required for safety of Gun Crew.
8.	Work Required	Fabrication of Datum Plates. -
9.	Detail scope of work	Fabrication and installation of Bullet Proof Datum Plates of high strength aluminium/ stainless steel.
10.	Known Prices	Price not known.
11.	Technical Specs	Size: Approx. 24 inches x 24 inches Thickness: 10mm to 20mm
12.	Eligibility criteria	Reputable Firm having working experience of manufacturing of Datum Plates.
13.	EDC	ASAP
14.	Warranty	1 year
15.	Acceptance Criteria	Satisfactory fabrication and installation of Bullet Proof Datum Plates of high strength aluminium/ stainless steel.
16.	Any other relevant information	a. Damage/ defect occurred to guns surrounding fittings during work is responsibilities of contractor. b. Dismantling/ assembling/ installation and in way removal work is responsibility of contractor.

**REPAIR/ OVERHAULING OF 04 X TURBO CHARGERS & SERVICING CLEANING OF
02 X INTERCOOLERS OF MAIN ENGINE NO 01 & 02 - PMSS DASHT**

S No	Details				
1.	Ships Name	PMSS DASHT			
2.	Parent Equipment	Main Engine No 1 & 2			
3.	OEM	MTU			
4.	Model	16V4000M73L			
5.	Origin	Germany			
6.	Sub Equipment	Turbo Chargers, Intercoolers			
7.	Assembly Component	Turbo Chargers, Intercoolers			
8.	Quantity	04 x Turbo Chargers, 02 x Intercoolers			
9.	Source of availability	MTU			
10.	Justification for Work	Servicing/ overhauling of Turbo Chargers and servicing/ cleaning of Intercoolers of Main Engine No 1 & 2			
11.	Work Required	a	b	c	
		Defect/ Routine List	Repair Work Required	Services Required	Spares Required
		As per defect list.	Repair/ overhauling of Turbo Chargers and Servicing/ Cleaning Intercoolers of Main Engine No 1 & 2	a. Dismantling and installation of turbo chargers and intercoolers of Main Engine No 1 & 2. b. Repair/ overhauling of 04 x Turbo Chargers, intercoolers of Main Engine No 1 & 2. c. Servicing/ Cleaning of 02 x Intercoolers of Main Engine No 1 & 2	N/A
12.	Detailed scope of work	a	b	c	
		Details of Repair Work Required	Details of services Required	Details of Spares Required	
		Repair/ overhauling of Turbo Chargers and Servicing/ Cleaning Intercoolers of Main Engine No 1 & 2	a. Dismantling and installation of turbo chargers and intercoolers of Main Engine No 1 & 2. b. Repair/ overhauling of 04 x Turbo Chargers, intercoolers of Main Engine No 1 & 2. c. Servicing/ Cleaning of 02 x Intercoolers of Main Engine No 1 & 2	N/A	
13.	Technical Specs	As per Technical Manual/ OEM:			

14.	Eligibility	a. Must have relevant experience in repair/ overhauling & servicing/ cleaning of said equipment. b. Only OEM recommended spares must be used. Firm must visit site for understanding exact nature of defect/ hindrances involved in job prior quoting to avoid inconvenience on later stage after award of Work Order.
15.	EDC	07 x Days
16.	Warranty	01 x Year
17.	Acceptance Criteria	a. OEM certified spares should be used. b. Technical specifications to be provided by Firm.

IT NO: IT/PM/86/69/2025-26

PROCUREMENT OF REVERSE OSMOSIS PLANT - PMSS BASOL

S No	Details				
1.	Ships Name	PMSS BASOL			
2.	Parent Equipment	Reverse Osmosis S.W Desalination Plant			
3.	OEM	Romer Environmental Protection (SHENZHEN) Co, Ltd			
4.	Model	RR-FSHB3			
5.	Origin	CHINA			
6.	Sub Equipment	Water intake Pump, HP Pump, safety filters, pre filter tank, lines, membranes, valves, gauges, all safeties and complete control system.			
7.	Assembly Component	As Provided by OEM.			
8.	Part No. of Assembly Component	01			
9.	Quantity	Local Engineering Houses.			
10.	Source of availability	Harbin Engineering University			
11.	Justification for Work	Aft reverse osmosis plant performance degraded, procurement and installation of new reverse osmosis plant is to be required.			
12.	Work Required	a	b	c	d
		Defect/ Routine List	Repair Work Required	Services Required	Spares Required
		Nil	Yes	Yes	Yes

		a	b	c
		Details of Repair Work Required	Details of services Required	Details of Spares Required
13.	Detailed scope of work	<p>a. Removal of defective reverse osmosis plant along with fittings</p> <p>b. Procurement and Installation of new reverse osmosis plant along with fittings as recommended by OEM.</p> <p>c. All tools and test equipment or any spare required to conduct i said work will be arranged by firm/ contractor and no growth work will be acceptable.</p> <p>d. Any other defect occurred during dismantling/ installation work will be responsibility of firm.</p> <p>e. Dismantling/ assembling/ installation and in way removal work is responsibility of contractor.</p>	<p>a. Removal of defective reverse osmosis plant along with fittings, procurement and Installation of new reverse osmosis plant along with fittings as recommended by OEM.</p> <p>b. All tools and test equipment or any spare required to conduct said work will be arranged by firm/ contractor and no growth work will be acceptable.</p> <p>c. Dismantling/ assembling/ installation and in way removal work is responsibility of contractor.</p>	<p>Procurement of complete reverse osmosis plant along with fittings</p>
14.	Technical Specs	As per OEM/ Technical Manual.		
15.	Eligibility	Security wise clear firm having working experience on reverse osmosis S.W desalination plant onboard HINGOL CLASS MPVs of PMSA. 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.		
16.	EDC	ASAP (10 days)		
17.	Warranty	<p>One year warranty after satisfactory test / trails w.r.t:</p> <p>a. Satisfactory operation of RO Plant without any leakage/ seepage of water from lines, connectors, pumps and membranes.</p> <p>b. Satisfactory operation of RO Plant up to maximum production output as recommended by OEM.</p> <p>c. Satisfactory operation of RO Plant at Auto and manual modes.</p> <p>d. Satisfactory operation of all safeties during running at auto and manual modes.</p> <p>e. Satisfactory operation of all safeties at recommended ranges by OEM.</p> <p>f. Any Leakage/ seepage of water everywhere from the system will be repaired by the firm during warranty period.</p> <p>g. Any abnormality in operation at any mode of control will be repaired by the firm Wing warranty period.</p> <p>h. Any degradation in RO Plant performance during warranty period will be repaired by the firm.</p>		

18.	Acceptance Criteria	<p>a. Satisfactory operation of RO Plant without any leakage/ seepage of water everywhere from the system</p> <p>b. Satisfactory operation of RO Plant up to maximum production output as recommended by OEM.</p> <p>c. Satisfactory operation of RO Plant at Auto and manual modes.</p> <p>d. Satisfactory operation of all safeties during running at auto and manual modes.</p> <p>e. Satisfactory operation of all safeties at recommended ranges by OEM.</p> <p>f. OEM recommended spares/ parts.</p> <p>g. Certified spares to be used for avoiding damage to system and ship.</p>
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IT NO: IT/PM/86/70/2025-26

IT SPECIFICATIONS
REQUIREMENT OF ITEMS – PMSA BASE RISHAD

S No	Description																																																																																																													
1.	Ship's Name	PMSA BASE RISHAD																																																																																																												
2.	Store Required	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>S. No</th> <th>Description</th> <th>Den</th> <th>Qty</th> </tr> </thead> <tbody> <tr><td>a.</td><td>100W Reflector Flood Lights</td><td>No</td><td>8</td></tr> <tr><td>b.</td><td>Ceiling Fans GFC</td><td>No</td><td>3</td></tr> <tr><td>c.</td><td>Electric Wall Boards</td><td>No</td><td>10</td></tr> <tr><td>d.</td><td>Breakers Single Button</td><td>No</td><td>10</td></tr> <tr><td>e.</td><td>Breakers Triple Buttons</td><td>No</td><td>5</td></tr> <tr><td>f.</td><td>LED Bulb Circular</td><td>No</td><td>100</td></tr> <tr><td>g.</td><td>LED Bulb Pin</td><td>No</td><td>50</td></tr> <tr><td>h.</td><td>Electric Wire Coil 3/29 Pakistan Cable</td><td>No</td><td>07</td></tr> <tr><td>j.</td><td>Electric Wire Coil 7/29 Pakistan Cable</td><td>No</td><td>07</td></tr> <tr><td>k.</td><td>Bulb Holder Circular</td><td>No</td><td>50</td></tr> <tr><td>l.</td><td>Globe and Holders for Lights</td><td>No</td><td>30</td></tr> <tr><td>m.</td><td>Pedestal Fan GFC</td><td>No</td><td>2</td></tr> <tr><td>n.</td><td>Lead Acid Batteries 200 AMP</td><td>No</td><td>2</td></tr> <tr><td>1.</td><td>Lead Acid Batteries 50 AMP</td><td>No</td><td>1</td></tr> <tr><td>2.</td><td>Capacitors for Ceiling Fans</td><td>No</td><td>30</td></tr> <tr><td>3.</td><td>Bracket Fans GFC</td><td>No</td><td>5</td></tr> <tr><td>4.</td><td>Cot</td><td>No</td><td>10</td></tr> <tr><td>5.</td><td>Niwaar</td><td>No</td><td>20</td></tr> <tr><td>6.</td><td>Iron Lockers</td><td>No</td><td>2</td></tr> <tr><td>7.</td><td>Pulse Oximeter</td><td>No</td><td>1</td></tr> <tr><td>8.</td><td>QuilClot Gauze</td><td>No</td><td>10</td></tr> <tr><td>9.</td><td>BP Apparatus</td><td>No</td><td>1</td></tr> <tr><td>10.</td><td>Stethoscope</td><td>No</td><td>1</td></tr> <tr><td>11.</td><td>Stretcher</td><td>No</td><td>1</td></tr> <tr><td>12.</td><td>IV Stand</td><td>No</td><td>1</td></tr> <tr><td>13.</td><td>Solar Lights 500 Watts</td><td>No</td><td>07</td></tr> </tbody> </table>	S. No	Description	Den	Qty	a.	100W Reflector Flood Lights	No	8	b.	Ceiling Fans GFC	No	3	c.	Electric Wall Boards	No	10	d.	Breakers Single Button	No	10	e.	Breakers Triple Buttons	No	5	f.	LED Bulb Circular	No	100	g.	LED Bulb Pin	No	50	h.	Electric Wire Coil 3/29 Pakistan Cable	No	07	j.	Electric Wire Coil 7/29 Pakistan Cable	No	07	k.	Bulb Holder Circular	No	50	l.	Globe and Holders for Lights	No	30	m.	Pedestal Fan GFC	No	2	n.	Lead Acid Batteries 200 AMP	No	2	1.	Lead Acid Batteries 50 AMP	No	1	2.	Capacitors for Ceiling Fans	No	30	3.	Bracket Fans GFC	No	5	4.	Cot	No	10	5.	Niwaar	No	20	6.	Iron Lockers	No	2	7.	Pulse Oximeter	No	1	8.	QuilClot Gauze	No	10	9.	BP Apparatus	No	1	10.	Stethoscope	No	1	11.	Stretcher	No	1	12.	IV Stand	No	1	13.	Solar Lights 500 Watts	No	07
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5.	Warranty	01 Year																																																																																																												

6.	Acceptance Criteria	Upon acceptance and satisfaction of end user
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IT NO: IT/PM/86/71/2025-26

IT SPECIFICATIONS
STORE ITEMS REQUIRED FOR PMSA BASE ORMARA

1.	Ship's Name	PMSA Base Ormara																																					
2.	Justification	Items are essentially required for Replace/ repair of Pre-Cast Slab and R.C.C Slab																																					
3.	Store Required	<table border="1"> <thead> <tr> <th>S. No</th> <th>Description</th> <th>Qty</th> </tr> </thead> <tbody> <tr> <td>a.</td> <td>R.C.C Slab</td> <td>6,480 Sq Ft</td> </tr> <tr> <td>b.</td> <td>Paint</td> <td>2500 Ltr</td> </tr> <tr> <td>c.</td> <td>Tile, UPVC & PPR of Washroom</td> <td>12,000 Sq Ft</td> </tr> <tr> <td>d.</td> <td>Tile, UPVC & PPR Sanitary Fittings</td> <td>2000 in No</td> </tr> <tr> <td>e.</td> <td>Repair & Maintenance Dining Hall</td> <td>2 in Job</td> </tr> <tr> <td>f.</td> <td>Stair of Check Post (Complete New R.C.C)</td> <td>2 in No</td> </tr> <tr> <td>g.</td> <td>Check Post Repair & Maintenance</td> <td>2 in Job</td> </tr> <tr> <td>h.</td> <td>Mosque Slop Maintenance & Repair</td> <td>2 In Job</td> </tr> <tr> <td>j.</td> <td>Locker</td> <td>2 in No</td> </tr> <tr> <td>k.</td> <td>Guardroom Demolishing.</td> <td>2 in Job</td> </tr> <tr> <td>l.</td> <td>Guardroom Re-Construction (R.C.C)</td> <td>720 Sq ft</td> </tr> </tbody> </table>	S. No	Description	Qty	a.	R.C.C Slab	6,480 Sq Ft	b.	Paint	2500 Ltr	c.	Tile, UPVC & PPR of Washroom	12,000 Sq Ft	d.	Tile, UPVC & PPR Sanitary Fittings	2000 in No	e.	Repair & Maintenance Dining Hall	2 in Job	f.	Stair of Check Post (Complete New R.C.C)	2 in No	g.	Check Post Repair & Maintenance	2 in Job	h.	Mosque Slop Maintenance & Repair	2 In Job	j.	Locker	2 in No	k.	Guardroom Demolishing.	2 in Job	l.	Guardroom Re-Construction (R.C.C)	720 Sq ft	
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4.	Eligibilities	FBR and SBR Registered Firm																																					
5.	EDC	90 days																																					
6.	Warranty	01 Year																																					
7.	Acceptance Criteria	Upon acceptance and satisfaction of end user																																					

IT NO: IT/PM/86/72/2025-26

IT SPECIFICATIONS
SECURITY ITEMS REQUIRED FOR PMSA BASES

S No	Description																						
1.	Ship's Name	PMSA Bases																					
2.	Store Required	<table border="1"><thead><tr><th>S. No</th><th>Description</th><th>Qty</th></tr></thead><tbody><tr><td>1.</td><td>Jersey Wall</td><td>36,400 Sq Ft</td></tr><tr><td>2.</td><td>Jersey Barriers</td><td>72</td></tr><tr><td>3.</td><td>Manual Boom Barriers</td><td>12</td></tr><tr><td>4.</td><td>Automatic Barriers</td><td>24</td></tr><tr><td>5.</td><td>Hydraulic Road Blockers</td><td>12</td></tr><tr><td>6.</td><td>Turnstile Points</td><td>06</td></tr></tbody></table>	S. No	Description	Qty	1.	Jersey Wall	36,400 Sq Ft	2.	Jersey Barriers	72	3.	Manual Boom Barriers	12	4.	Automatic Barriers	24	5.	Hydraulic Road Blockers	12	6.	Turnstile Points	06
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10.	Warranty	01 Year																					
11.	Acceptance Criteria	Upon acceptance and satisfaction of end user																					

IT NO: IT/PM/86/73/2025-26

IT SPECIFICATIONS
PROCUREMENT OF QUADCOPTERS AND BINOCULARS FOR HQ PMSA

1.	Ship's Name	HQ PMSA									
2.	Store Required	<table border="1"><thead><tr><th>S. No</th><th>Description</th><th>Qty</th></tr></thead><tbody><tr><td>7.</td><td>Binoculars</td><td>30</td></tr><tr><td>8.</td><td>Day/ Night Quadcopter (DJI MAVIC 4T)</td><td>07</td></tr></tbody></table>	S. No	Description	Qty	7.	Binoculars	30	8.	Day/ Night Quadcopter (DJI MAVIC 4T)	07
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8.	Day/ Night Quadcopter (DJI MAVIC 4T)	07									
3.	Eligibilities	FBR and SRB Registered Firm									
4.	EDC	90 days									
5.	Warranty	01 Year									
6.	Acceptance Criteria	Upon acceptance and satisfaction of end user									

PROCUREMENT OF UNDERWATER HULL AND BILGES PAINT - PMSS KOLACHI

S No	Details																																											
1.	Ships Name	PMSS KOLACHI																																										
2.	Parent Equipment	Underwater Hull and Bilges Section																																										
3.	Assembly Equipment	Inter speed 6400 (20 Ltrs Packing) inter speed 6400 (20 Ltrs Packing) Intersheild 300 (Paint A = 12.5 Ltrs + Paint B 5 Ltrs) 1 st Coat Intersheild 300 (Paint A = 12.5 Ltrs + Paint B 5 Ltrs) 2 nd Coat Integrated 263 (Part A = 16 Ltrs + Part B 4 Ltrs) 3 rd Coat Inter smooth 7460 HS SPC (20 Ltrs Packing) 4 th Coat Inter smooth 7460 HS SPC (20 Ltrs Packing) 5 th Coat Thinner International GTA220 (20 Ltrs Pack) 1 st , 2 nd & 3 rd Coat Thinner International GTA007 (20Ltrs Pack) 4 th & 5 th Coat																																										
4.	Part No. of Assembly Component	<table border="1"> <thead> <tr> <th>S No</th> <th>Part/ NSN</th> <th>Description</th> <th>Qty</th> </tr> </thead> <tbody> <tr> <td>a.</td> <td>8010-70-511-1998</td> <td>Inter speed 6400 (20 Ltrs Packing)</td> <td>20 Ltrs</td> </tr> <tr> <td>b.</td> <td>8010-79-511-4043</td> <td>Inter speed 6400 (20 Ltrs Packing)</td> <td>20 Ltrs</td> </tr> <tr> <td>c.</td> <td>8010-32-076-9003</td> <td>Intersheild 300 (Paint A = 12 5 Ltrs + Paint B 5 Ltrs) 1st Coat</td> <td>175 Ltrs</td> </tr> <tr> <td>d.</td> <td>8010-32-075-9301</td> <td>Intersheild 300 (Paint A = 12 5 Ltrs + Paint B 5 Ltrs) 2nd Coat</td> <td>175 Ltrs</td> </tr> <tr> <td>e.</td> <td>8010-79-510-4045</td> <td>Integrated 263 (Part A =16 Ltrs + Part B 4 Ltrs) 3rd Coat</td> <td>40 Ltrs</td> </tr> <tr> <td>f.</td> <td>8010-79-511-8139</td> <td>Inter smooth 7460 HS SPC (20 Ltrs Packing) 4th Coat</td> <td>80 Ltrs</td> </tr> <tr> <td>g.</td> <td>8010-79-511-8137</td> <td>Inter smooth 7460 HS SPC (20 Ltrs Packing) 5th Coat</td> <td>80 Ltrs</td> </tr> <tr> <td>h.</td> <td>8010-98-200-0777</td> <td>Thinner International GTA220 (20 Ltrs Pack) 1st, 2nd & 3rd Coat</td> <td>80 Ltrs</td> </tr> <tr> <td>j.</td> <td>8010-99-728-8345</td> <td>Thinner international GTA007 (20 Ltrs Pack) 4th & 5th Coat</td> <td>80 Ltrs</td> </tr> </tbody> </table>			S No	Part/ NSN	Description	Qty	a.	8010-70-511-1998	Inter speed 6400 (20 Ltrs Packing)	20 Ltrs	b.	8010-79-511-4043	Inter speed 6400 (20 Ltrs Packing)	20 Ltrs	c.	8010-32-076-9003	Intersheild 300 (Paint A = 12 5 Ltrs + Paint B 5 Ltrs) 1 st Coat	175 Ltrs	d.	8010-32-075-9301	Intersheild 300 (Paint A = 12 5 Ltrs + Paint B 5 Ltrs) 2 nd Coat	175 Ltrs	e.	8010-79-510-4045	Integrated 263 (Part A =16 Ltrs + Part B 4 Ltrs) 3 rd Coat	40 Ltrs	f.	8010-79-511-8139	Inter smooth 7460 HS SPC (20 Ltrs Packing) 4 th Coat	80 Ltrs	g.	8010-79-511-8137	Inter smooth 7460 HS SPC (20 Ltrs Packing) 5 th Coat	80 Ltrs	h.	8010-98-200-0777	Thinner International GTA220 (20 Ltrs Pack) 1 st , 2 nd & 3 rd Coat	80 Ltrs	j.	8010-99-728-8345	Thinner international GTA007 (20 Ltrs Pack) 4 th & 5 th Coat	80 Ltrs
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5.	Justification for Work	Procurement of Under Water Hull and Bilges paint for upcoming DED.																																										
6.	Work Required	<table border="1"> <thead> <tr> <th>a</th> <th>b</th> <th>c</th> <th>d</th> </tr> <tr> <th>Defect List</th> <th>Repair Work Required</th> <th>Services Required</th> <th>Spares Required</th> </tr> </thead> <tbody> <tr> <td>Underwater hull and Bilges Section paint deteriorated</td> <td>Underwater Hull and Bilges are required to be painted for sat ops.</td> <td>Paint work required on Underwater Hull and Bilges section</td> <td>As per S No 4</td> </tr> </tbody> </table>	a	b	c	d	Defect List	Repair Work Required	Services Required	Spares Required	Underwater hull and Bilges Section paint deteriorated	Underwater Hull and Bilges are required to be painted for sat ops.	Paint work required on Underwater Hull and Bilges section	As per S No 4																														
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8.	Technical Specs	As per S No 4
9.	Eligibilities	Reputable local/ international contractor having working experience with PMSA.
10.	Warranty	15 Days after award of contract
11.	Acceptance Criteria	05 Years after de-docking/ applying paint
12.	Any other relevant information	a. OEM Certified item. b. Import documents along with production certificate by OEM be provided

IT NO: IT/PM/86/75/2025-26

PROCUREMENT OF 01 X MAGNETRON & 01 X MOTOR DRIVE UNIT OF TRANSAS NR-4000 RADAR - PMSS DASHT

S No	Details									
1.	Ships Name	PMSS DASHT								
2.	Parent Equipment	TRANSAS NR 4000 Radar								
3.	OEM	CHINA								
4.	Model	NR 4000 Navigational Radar								
5.	Origin	USA								
6.	Sub Equipment	Scanner unit								
7.	Assembly Component	Motor Drive Unit & Magnetron (MG-5473)								
8.	Part No. of Assembly Component	Motor Drive Unit & Magnetron (MG-5473)								
9.	Quantity	01 x Motor drive Unit 01 x Magnetron (MG-5473)								
10.	Justification for Work	Procurement of Motor drive unit and Magnetron of TRANSAS NR 4000 Radar								
11.	Work Required	a		b		c		d		
		Defect/ Routine List		Repair Work Required		Services Required		Spares Required		
		N/A		Procurement of Motor drive unit, and Magnetron of TRANSAS NR 4000 Radar		As per S No 9				
12.	Detailed scope of work	a			b			c		
		Detail of Repair Work Required			Detail of Services Required			Detail of Spares Required		
		Procurement of Motor drive unit, and Magnetron of TRANSAS NR 4000 Radar			As per S No 9					
13.	Technical Specs	As per technical manual								
14.	Eligibilities	a. Any registered and security wise cleared local L contractor having good experience in above mentioned scope of work. b. Firm must visit site for understanding exact nature of work involved in job prior quoting to avoid inconvenience on later stage after reward of Work Order. Firm is to quote for growth work by visiting ship in commercial								

10.	Source of availability	MTU, USA			
11.	Justification for Work	Exhaust/ smoke observed from exhaust bellow due to deterioration during normal operation undermining exhaust performance			
12.	Work Required	a	b	c	d
		Defect List	Repair Work Required	Services Required	Spares Required
		Yes	Yes	Yes	Yes
13.	Detailed scope of work	a	b	c	
		Details of Repair Work Required	Details of services Required	Details of Spares Required	
		Fabrication and replacement	<p>a. Removal of cladding lagging and heat protective sheets from both elbows by the firm.</p> <p>b. Removal of exhaust elbows by the firm.</p> <p>c. Repair/ displacement of exhaust elbows by the firm with mild steel material.</p> <p>d. The pressure test of exhaust expansion bellows be undertaken at 5 bar.</p> <p>e. Exhaust elbow be installed back with insulating gaskets on both exhaust elbows.</p> <p>f. Elbow to be welded with bulkhead from inside and outside during installation.</p> <p>g. The mild steel studs/ Nut bolts on both elbow flanges for installation.</p> <p>h. After installation of exhaust elbow successful onboard trials on running engine by the firm.</p> <p>j. Arrangements of all tools and test equipment required during dismantling/ assembling by the firm.</p> <p>k. Sole responsibility of firm in case of growth work</p>	03 x Exhaust bellows as per sample	
14.	Technical Specs	<p>01 x Main Engine and 02 x Gensets exhaust expansion bellow stainless steel (Grade 316-L) with following dimensions is to be repaired/fabricated:</p> <p>ENGINE SPECIFICATIONS:</p>			

		Power: 2880 kW Speed: 2050 rpm No. of cylinders: 16 Bore/ Stroke: 170/190 mm Fuel consumption at rated power:657 L/Hr <u>EXHAUST EXPANSION BELLOW</u> a. Length of Inner diameter 765 mm b. Length of Outer diameter 810 mm c. Thickness 35 mm d. Flange 08 e. Pitch Circle Diameter 800 mm d. Flange outside total length 475 mm e. No. of Flange Holes 40 f. Diameter of Holes 44 mm Rated C9 Marine Generator CATERPILLAR C9Z05159 QTY 02 x 152.4 MM 6 Inch exhaust elbows as per sample.
15.	Eligibility	OEM authorized Rep having experience of exhaust bellows of MTU Main Engines and Gensets fitted onboard HIMGOL class MPVs.
16.	EDC	ASAP (07 days)
17.	Warranty	1 year
18.	Acceptance Criteria	a. Pressure test of exhaust bellow at 3 Bar to be conducted before installation. b. No seawater leakage to be observed during normal operation at sea. c. No exhaust gas leakage to be observed from elbow at max power of Main Engine i.e. 2050 RPMs and Gensets at full load. d. Satisfactory fabrication, installation and operation of exhaust expansion bellow of Main Engines and Gensets.

IT NO: IT/86/77/2025-26

REPAIR/ REPLACEMENT OF GAUGES EMP – PMSS KASHMIR

S No	Details				
	1.	Ships Name	PMSS KASHMIR		
2.	Parent Equipment	Gauges			
3.	Origin	China			
4.	Sub Equipment	Gauges			
5.	Assembly Components	Pressure gauges, Analogue meters			
6.	Quantity	388			
7.	Source of availability	Local Market			
8.	Alternate/ Local Source	Local Market			
9.	Justification for Work	FWT			
10.	Work Required	a	b	c	d
		Defect List	Repair Work Required	Services Required	Spares Required

		Pressure gauges	Calibration required	Calibration	Yes (if defective)
		Analogue meters	Calibration required.	Calibration	NIL (if defective)
11.	Detailed scope of work	a		b	
		Details of Repair Work Required		Details of services Required	
		Calibration of pressure gauges and analogue meters of all machinery required for SAT operation of system		Calibration of pressure gauges and analogue meters required	
12.	Technical Specs	Calibration of gauges with known good standard gauge			
13.	Eligibility	Reputable local/ international contractor registered with FBR and having working experience with PMSA.			
14.	EDC	30 Days after award of contract			
15.	Warranty	01 Year			
16.	Acceptance Criteria	a. OEM Certified item b. Defective/ BER gauges must be replaced with new one c. Gauges must be calibrated according to given known good for SAT operation.			

REPAIR / REPLACEMENT OF 388 X GAUGES OF KASHMIR IN DED

S No	System	Range	Qty
1.	Main Engines	1 to 6 MPA	10
		0 to 1 MPA	10
		0 to 0.6 MPA	24
		-58 to 220 C	04
		0 to 100 C	14
		0 to 4 MPA	02
		0 to 25 MPA	02
		0 to 1.6 MPA	02
		-0.1 to 0.1 MPA	02
		0 to 300 RPM	04
		0 to 1200 RPM	06
		100 to 0 & 100 Pitch	06
2.	CPP System	0 to 0.6 MPA	04
		-40 to 80 C	02
		0 to 25 MPA	06
3.	Gear Box	0 to 1 MPA	02
		0 to 100 C	02
		0 to 0.5 MPA	02
		0 to 6 MPA	04
4.	Pumps (Daily Fuel pump, Shaft cooling pump, FIFI pump, Fire & Bilge pump, SSDGs sea water pump, Equipment cooling pump and Fuel transfer pump)	-0.1 to 0.1 MPA	13
		0 to 1 MPA	04
		0 to 0.6 MPA	06
		0 to 2.5 MPA	02
		1 to 6 MPA	03
		1 to 6 BAR	03
5.	Air Module System	0 to 25 MPA	09
		0 to 6 MPA	12
		0 to 0.25 MPA	01

		Oto 1.6 MPA	01
		0 to 1 MPA	01
		0 to 8 BAR	04
6.	Pumps (Daily Bilge pump, Fresh water transfer pump, Dirty oil transfer pump, Bilge pump, Sludge pump, Fire Retaining pump and Fire main pump)	-0.1 to 0.1 MPA	11
		Oto 1.6 MPA	04
		Oto 0.6 MPA	04
		0 to 6 bar	04
7.	Package Air conditioning	-0.1 to 0.1 MPA	02
		-0.1 to 1.5 MPA	08
		0 to 0.6 MPA	02
		-0.1 to 3.5 MPA	04
8.	Main Fridge	-0.1 to 0.1 MPA	02
		0 to 0.6 MPA	03
		0 to 8 MPA	02
		-0.1 to 1.5 MPA	02
9.	Chill Water System	-0.1 to 0.1 MPA	02
		0 to 0.6 MPA	16
10.	Sewage Treatment Plant	-0.1 to 0.1 MPA	05
		0 to 0.6 MPA	12
11.	RO Plant	0 to 0.6 MPA	04
		Oto 100 BAR	02
12.	Fin Stabilizer	0 to 25 MPA	10
13.	Shaft Brake	0 to 0.6 MPA	02
14.	Oily Water Separator	0 to 600 KPA	04
		-0.1 to 0.3 MPA	02
15.	Fuel water separator	0 to 600 KPA	02
		-0.1 to 0.3 MPA	02
16.	Fresh water Servicing System	Oto-0.1 MPA	02
		0 to 1 MPA	02
17.	Fog Whistle System	Oto 0.9 MPA	03
18.	Hydraulic RHIB Boat	Oto 40 MPA	04
19.	Fuel Receiving System	Oto 1.6 MPA	02
20.	Oil Receiving/ Overboard System	Oto 1.6 MPA	04
21.	Steering System	Oto 16 MPA	04
		Oto 0.6 MPA	04
		Oto 16 MPA	12
22.	AHU 20	Oto 0.6 MPA	10
		Oto 100 C	10
23.	SSDGs	0 to 500 V	07
24.		0 to 300 V	04
25.		45 to 55 HZ	04
26.		0 to 600 KW	06
27.		0 to 300 KW	05
28.		0 to 800 A	04
29.		0 to 600 A	07
30.		0 to 400 A	04
31.		0 to 5 M Ohm	03
32.		Oto 150 AMP	06
33.		Oto 1000 AMP	03

**REPAIR/ OVERHAUL OF 18 X PNEUMATIC CENTRE PIVOTED BUTTERFLY VALVES - PMSS
DASHT**

S No	Details			
1.	Ships Name	PMSS DASHT		
2.	Parent Equipment	Pneumatic Control Valves		
3.	OEM	China		
4.	Origin	China		
5.	Sub Equipment	Pneumatic Control Butterfly Valves		
6.	Assembly Components	Center Pivoted Butterfly Valves		
7.	Part No. of Assembly Component	Q/SF0306 DN40, Q/SF0306 DN50, Q/SF0306 DN65 Q/SF0306 DN80, Q/SF0306 DN100.		
8.	Quantity	18		
9.	Source of availability	Local Contractor		
10.	OEM Details	Address: JIANGSU SHAZHOU VALVE CO. LTD (CHINA).		
11.	Justification for Work	Repair/ Overhauling of 18 x Butterfly fly Valves		
12.	Work Required	a	b	c
		Defect List	Repair Work Required	Services Required
		As per Defect History.	Repair/ Overhauling of 18 x Butterfly Valves.	Repair/ Overhauling of 18 x Butterfly Valves.
13.	Detailed scope of work	a	b	c
		Details of Repair Work Required	Details of services Required	Details of Spares Required
		Repair/ Overhauling of 18 x Butterfly Valves.	Repair/ Overhauling of 18 x Butterfly Valves.	N/A
14.	Technical Specs	As per Technical Manual/ OEM.		
15.	Eligibility	Reputable contractor having relevant work experience.		
16.	EDC	14 x Days		
17.	Warranty	01 x Year		
18.	Acceptance Criteria	Satisfactory operation of all Butterfly Valves through Control Box in presence of Ship Staff/ MEO.		
19.	Any other relevant information	SS/ visit onboard to resolve any query		

DEFECT RECTIFICATION/ OVERHAULING OF DOMESTIC BOILER - PMSS DASHT

S No	Details				
1.	Ships Name	PMSS DASHT			
2.	Parent Equipment	Hot Water Heating Device			
3.	OEM	China			
4.	Model	RLH0.23-0.4/95/70			
5.	Origin	China			
6.	Sub Equipment	Boiler			
7.	Assembly Components	Burner, Circulating Pump, Water make-up valve and Exhaust valve.			
8.	Part No. of Assembly Component	S No	Item Description	NSN/ Part No	
		a.	Burner	4460PV2010026	
		b.	Circulating pump	4320PV9000001	
		c.	Water make-up valve	4410PV1010012	
		d.	Exhaust valve	4410PV1010008	
9.	Quantity	04			
10.	Source of availability	Local Contractor			
11.	OEM Details	Address:	N/A		
		Contact phone:	N/A		
		Contact Email:	N/A		
12.	Justification for Work	Technical Manual: TPI No 5-6902-450-001, Chapter No. 4 Article No.4.1.2			
13.	Work Required	a	b	c	d
		Defect List	Repair Work Required	Services Required	Spares Required
		N/A	Overhauling of hot water heating device heat exchanger.	Overhauling	N/A
14.	Detailed scope of work	a	b	c	
		Details of Repair Work Required	Details of services Required	Details of Spares Required	
		Overhauling of hot water heating device heat exchanger.	Overhauling	N/A	
15.	Technical Specs	a.	Type	Oil Fired Hot Water Boiler	
		b.	Output Power	230 kW/ 115kW	
		c.	Design Pressure	0.5/0.55MPa	
		d.	Working pressure	≤0.4 MPa/ 0.5MPa	
		e.	Water Temperature	≤85°C, adjustable	
		f.	Circulating water flow	10m3/h (Δ t = 20)	
		g.	Dry Weight	~675kg	
16.	Eligibility	Through any reputable Local Contractor			
17.	EDC	07 x Days			
18.	Warranty	01 x Year including provisioning of all spares/ parts (whenever required).			
19.	Acceptance Criteria	Upon provision of warranty/ safe operation certificate to ship staff of Domestic Boiler.			

SERVICING/ OVERHAULING OF HP AIR SYSTEM OF MAIN ENGINE NO 1 & 2 - PMSS DASHT

S No	Details				
1.	Ships Name	PMSS DASHT			
2.	Parent Equipment	Air Bottle Set for Starting Main Engines			
3.	OEM	China			
4.	Model	Mkd-ma-15x0.85			
5.	Origin	China			
6.	Sub Equipment	HP Air System			
7.	Assembly Components	HP Air Reducers, HP Air Relief Valve, HP Air Pilot Valves			
8.	Part No. of Assembly Component	MKD-ZJK-03, MKD-ZJK-00, MKD-ZJK-04, MKD-ZJK-05			
9.	Quantity	13			
10.	Source of availability	Local Contractor			
11.	OEM Details	Address: WUHAN MEKAND Equipment Co. Ltd Contact phone: N/A Contact Email: N/A			
12.	Justification for Work	Servicing/ overhauling of HP air system of Main Engne No 1 & 2			
13.	Work Required	a	b	c	d
		Defect List	Repair Work Required	Services Required	Spares Required
		As per defect history	Servicing/ Overhauling	a. Servicing/ overhauling 04 x pilot valves. b. Servicing/ overhauling of 03 x HP air reducers. c. Servicing/ overhauling of 03 x pressure relief valves. d. NDT required for Air Bottles set.	N/A
14.	Detailed scope of work	a	b	c	
		Details of Repair Work Required	Details of services Required	Details of Spares Required	
		Servicing/ Overhauling	a. Servicing/ overhauling 04 x pilot valves. b. Servicing/ overhauling of 03 x HP air reducers. c. Servicing/ overhauling of 03 x pressure relief valves. d. NDT required for Air Bottles set.	N/A	
15.	Technical Specs	As per technical Specs/ Manual.			

16.	Eligibility	a. Authorized rep of OEM/ Local contractor having working experience. b. Contractor is to get visit certificate from MEO prior participation in tender to fully understand the scope of work.
17.	EDC	07 x Days
18.	Warranty	01 x Year
19.	Acceptance Criteria	a. Satisfactory operation without leakage of air. b. Damage/ defect occurred during work is responsibility of contractor

IT NO: IT/86/81/2025-26

REPAIR/ REPLACEMENT OF CHILLER PANEL ASSOCIATED ELECTRICAL COMPONENTS - PMSS DASHT

S No	Details																							
1.	Ships Name	PMSS DASHT																						
2.	Parent Equipment	Air Conditioning System JTLS-168 (IV) Marine Light Water Chiller																						
3.	OEM	China																						
4.	Model	JTLS-42 (I) Water Chiller Module																						
5.	Origin	China																						
6.	Sub Equipment	Electrical Components																						
7.	Assembly Components	Contactors, Relays, Fuses, PLCs, Switches and Cabling																						
8.	Part No. of Assembly Component	<table border="0"> <thead> <tr> <th>Part No</th> <th>Item Description</th> </tr> </thead> <tbody> <tr> <td>5925PV1000523</td> <td>Air Switch</td> </tr> <tr> <td>5935PV1000059</td> <td>Contactor (LC1-D32M7C)</td> </tr> <tr> <td>5935PV1000059</td> <td>Relay (LRD-32C)</td> </tr> <tr> <td>5920PV0020003</td> <td>Fuses Seat</td> </tr> <tr> <td>5920PV0010009</td> <td>Fuses (RL98-16 4A)</td> </tr> <tr> <td>6ES72162BD230XB8</td> <td>Controller Module CPU226</td> </tr> <tr> <td>6145PVO010015</td> <td>Marine Cabling</td> </tr> <tr> <td>7025PV0020026</td> <td>Display panel (HMIGXO3502M)</td> </tr> <tr> <td>5925PV400002</td> <td>Power Monitor (MWVA84873025)</td> </tr> <tr> <td>4120PV1030003</td> <td>Thermal resistance module (EM2314RTD) (6ES72317PC22OXAO)</td> </tr> </tbody> </table>	Part No	Item Description	5925PV1000523	Air Switch	5935PV1000059	Contactor (LC1-D32M7C)	5935PV1000059	Relay (LRD-32C)	5920PV0020003	Fuses Seat	5920PV0010009	Fuses (RL98-16 4A)	6ES72162BD230XB8	Controller Module CPU226	6145PVO010015	Marine Cabling	7025PV0020026	Display panel (HMIGXO3502M)	5925PV400002	Power Monitor (MWVA84873025)	4120PV1030003	Thermal resistance module (EM2314RTD) (6ES72317PC22OXAO)
Part No	Item Description																							
5925PV1000523	Air Switch																							
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9.	Quantity	<table border="0"> <thead> <tr> <th>Item Description</th> <th>Qty</th> </tr> </thead> <tbody> <tr> <td>Air Switch</td> <td>04</td> </tr> <tr> <td>Contactor (LC1- 04D32M7C)</td> <td>(LC1- 04D32M7C)</td> </tr> <tr> <td>Relay (LRD-32C)</td> <td>04</td> </tr> <tr> <td>Fuses Seat</td> <td>04</td> </tr> <tr> <td>Fuses (RL98-16 4A)</td> <td>04</td> </tr> <tr> <td>Controller Module CPU226</td> <td>01</td> </tr> <tr> <td>Marine Cabling</td> <td>15m</td> </tr> <tr> <td>Display panel (HMIGXO3502M)</td> <td>01</td> </tr> <tr> <td>Power Monitor (MWVA84873025)</td> <td>01</td> </tr> <tr> <td>Thermal resistance module (EM2314RTD) (6ES72317PC22OXAO)</td> <td>01</td> </tr> </tbody> </table>	Item Description	Qty	Air Switch	04	Contactor (LC1- 04D32M7C)	(LC1- 04D32M7C)	Relay (LRD-32C)	04	Fuses Seat	04	Fuses (RL98-16 4A)	04	Controller Module CPU226	01	Marine Cabling	15m	Display panel (HMIGXO3502M)	01	Power Monitor (MWVA84873025)	01	Thermal resistance module (EM2314RTD) (6ES72317PC22OXAO)	01
Item Description	Qty																							
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Power Monitor (MWVA84873025)	01																							
Thermal resistance module (EM2314RTD) (6ES72317PC22OXAO)	01																							
10.	Source of availability	Local Contractor																						
11.	OEM Details	<table border="0"> <tr> <td><u>Address:</u></td> <td>Jiangsu Josun Air Conditioner Co., Ltd</td> </tr> <tr> <td><u>Contact phone:</u></td> <td>N/A</td> </tr> <tr> <td><u>Contact Email:</u></td> <td>N/A</td> </tr> </table>	<u>Address:</u>	Jiangsu Josun Air Conditioner Co., Ltd	<u>Contact phone:</u>	N/A	<u>Contact Email:</u>	N/A																
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<u>Contact Email:</u>	N/A																							

12.	Justification for Work	Malfunctioning of Control System of Chilled water Plant due to degraded condition of associated electrical components			
13.	Work Required	a	b	c	d
		Defect List	Repair Work Required	Services Required	Spares Required
		As per defect history	Repair/ replacement above mentioned items.	a. Remove panel wiring/ cabling and replace with new. b. Inspection/ repair of Chilled Water Plant display unit. c. Inspection/ repair Control System breakers. d. Replacement of 04 x LP/ HP safeties and 04 x Water Flow Switches with new (OEM specified only) e. Replacement of all above mentioned (S No 10) electrical components. f. Provision of R-404A gas by firm with in warranty period (if needed). g. Replacement of 04 x flexible hoses of the system. h. Replacement of any other degraded component not mentioned above.	N/A
14.	Detailed scope of work	a		b	c
		Details of Repair Work Required		Details of services Required	Details of Spares Required
		Repair/ replacement above mentioned items.		See Serial No 15 column c.	N/A
15.	Technical Specs	As per technical Specs/ Manual.			
16.	Eligibility	Reputable local contractor having working experience onboard H1NGOL class ships.			
17.	EDC	07 x Days			
18.	Warranty	01 x Year			
19.	Acceptance Criteria	a. OEM Certified spares only (as mentioned with part numbers). b. Satisfactory operation of main CWP Electrical panel. c. Satisfactory operation without refrigerant leakage.			
20.	Any other relevant information	Contact SS/ MEO and must visit onboard for clear understanding of scope of work			

**OVERHAULING/ FUNCTIONAL TEST OF SPEED MEASURING DEVICE OF PROPELLER SHAFT -
PMSS BASOL**

S No	Details				
1.	Ships Name	PMSS BASO			
2.	Parent Equipment	Shafting earthing speed detector			
3.	OEM	SHANGHAI OCEAN MARINE EQUIPMENT			
4.	Model	OC-ZXCS			
5.	Origin	China			
6.	Sub Equipment	Shafting Earthing Speed Detector, Potential Measurement Box, Signal amplifier			
7.	Assembly Components	Shafting Earthing Speed Detector, Potential Measurement Box, Signal amplifier			
8.	Part No. of Assembly Component	S No	NSN/ Part No	Model Description	Qty
		a.	2010PV1 020001/ OC-ZXCS-01	Big support	01
		b.	2010PV1 020002/ OC-ZXCS-02	Earthing carbon brush ring Ø160mm	04
		c.	2010PV1 020003/ OC-ZXCS-03	Fixed block of carbon brush holder-	08
		d.	2Ö10PV1 020004/ OC-ZXCS-04	Measuring carbon brush holder Z4 15'25mm	04
		e.	2010PV1 020005/ OC-ZXCS-05	Carbon brush J160250	12
		f.	2010PV1 020006/ OC-ZXCS-06	Sensor HAL506 S	04
		g.	2010PV1 020007/ OC-ZXCS-07	Magnet Ø18*5	04
		h.	2010PV1 020008/ OC-ZXCS-08	Potential Measurement Box	01
		i.	2010PV1 0200097 OC-ZXCS-09	Signal amplifier	01
		j.	522ÖPV0 990039/ OC-ZXCS-10	Speed display (Single channel digital-display instrument) KST/C-H 11T0A0B 0SV0	32
		k.	2010PV1 020004/ OC-ZXCS-11	Earthing carbon brush holder Z4 1 *25mm	02
		l.	6625PV0 050042/ OC-ZXCS-08- 01	Millivoltmeter 84L4-V	04

		m.	5220PV0 990038/ OC-ZXCS 09- 01	Speed digital - display instrument KSM/C-H11AT027B	16
		n.	6125PV1 010042/ OC-ZXCS 09-02,	Power MDR-20-24	16
		o.	2010PV1 020011/ OC-ZXCS 09-03	Signal isolation module KL-F055	16
		p.	5940PV0 020020 OC-ZXCS 09-04	Connection Terminal SAK2.5EN	16
		q.	5940PV0 020021/ OC-ZXCS 09-05	Connection terminal EK4/35	03
9.	Quantity	As per mentioned at S No 8			
10.	Source of availability	Shanghai Ocean Marine Equipment Co. Ltd			
11.	OEM Details	Address: Shanghai Ocean Marine Equipment Co., Ltd Contact phone: 021-68943685 Contact Email: xianqjunfeng@163.com			
12.	Alternate/ Local Source	N/A			
13.	Justification for Work	As per PMS routines/ technical manual			
14.	Work Required	a	b	c	d
		Defect List	Repair Work Required	Services Required	Spares Required
		NII	Yes	Yes	Yes

		a	b	c
		Details of Repair Work Required	Details of services Required	Details of Spares Required
15.	Detailed scope of work	As per requirements	<p>Overhauling of speed measuring device includes following aspects:</p> <p>a. Remove the dust and sundries on shaft earthing 8 speed measuring device with brush. Have a cleaning cloth dampened with alcohol and dry to remove the oil stain and waterlogging on shaft earthing 8. Speed measuring device.</p> <p>b. Loosen the screws on connection joint of carbon brush, take down the serious damaged carbon brush and replace.</p> <p>c. Tighten-the all screws on big support and check if there is loosening phenomenon. Big Support Check whether the screws on earthing carbon brush ring are loosening or not Earthing carbon brush ring Check whether carbon brush ring has deformation phenomenon, if has, need to replace carbon brush ring. Check whether carbon brush holder is damaged or not, if damaged, need to replace or maintain carbon brush holder and reinstall.</p> <p>d. Check whether the guide line between measuring carbon brush and millivoltmeter is connected well or not, whether the thread is falling off or not. If connection is loosening, reconnect the connection aspect whether millivoltmeter is damaged or not with digital multimeter. If damaged, need to replace millivoltmeter.</p> <p>e. Check whether the compressed tension spring of carbon brush holders are broken or falling off, if broken or falling off, replace, with a new one. Check if the carbon brush is worn seriously and replace carbon brush: on time.</p> <p>f. Replace carbon brush ring. Replace carbon brush holder. Replace carbon brush. Replace sensor. Fault Maintenance of signal Amplifier. Replace single channel digital instrument.</p> <p>g. Follow all the aspects mentioned in technical manual and JICs.</p>	As per requirements mentioned at S No 8
16.	Technical Specs	As per technical manual		
17.	Eligibility	Reputable local contractor having working experience of speed measuring device		
18.	EDC	01 week		
19.	Warranty	01 year		
20.	Acceptance	a. Satisfactory operation of speed measuring devices along with displayed		

	Criteria	parameters at MCR, Bridge and tunnel compartment. b. Contractor would be responsible for any damage to assembly components. c. Successful trials by end user.
21.	Any other relevant information	a. Contactor may contact 53/Visit onboard ship to resolve any query. b. Growth Work, Damage/ defect occurred during work is responsible of CO'Ki acted

IT NO: IT/86/83/2025-26

REPAIR/ REPLACEMENT OF PNEUMATIC SYSTEM OF VENTILATION AND EXHAUST FAN FLAPPERS- PMSS BASOL

S No	Details				
1.	Ships Name	PMSS BASOL			
2.	Parent Equipment	Ventilation and Exhaust Fan Flappers			
3.	OEM	China			
4.	Origin	China			
5.	Sub Equipment	Pneumatic/ solenoid valves of ventilation and exhaust fan system			
6.	Assembly Component	Pneumatic/ solenoid valves and ventilation and exhaust fan flappers			
7.	Part No. of Assembly Component	As per sample and technical specs			
8.	Quantity	10 x fan flapper pneumatic system			
9.	Source of availability	MTU			
10.	Justification for Work	Degraded operation of pneumatic system of ventilation and exhaust fan flappers			
11.	Work Required	a	b	c	d
		Defect List	Repair Work Required	Services Required	Spares Required
		NII	Yes	Yes	Yes

		a	b	c
		Details of Repair Work Required	Details of services Required	Details of Spares Required
12.	Detailed scope of work	Repair/ replacement	<p>a. Inspect/ reconditioning of pneumatic actuators, linkages, flapper's hinges, solenoid valves, air supply manifolds, fan/ flapper blades and limit switches/ position indicators.</p> <p>b. Check/ overhaul air leakages and electrical actuations.</p> <p>c. Overhaul functional test i.e. local and remote operations of all fan flappers.</p> <p>d. Satisfactory, smooth, leak-free and correctly synchronized operations of fan flappers.</p> <p>e. Arrangements of all tools and test equipment required during dismantling/ assembling by the firm.</p> <p>f. Sole responsibility of firm in case of growth work</p>	<p>Pneumatic valves Solenoid valves Control valves</p> <p>Air supply line Limit switches</p>
13.	Technical Specs	As per technical details as per sample		
14.	Eligibility	OEM authorized Rep having experience of ventilation and exhaust fan flappers onboard HINGOL class MPVs.		
15.	EDC	ASAP (07 days)		
16.	Warranty	1 year		
17.	Acceptance Criteria	Satisfactory fabrication, installation and operation of ventilation and exhaust fan flappers		

IT NO: IT/86/84/2025-26

REPAIR/ REPLACEMENT OF FIRE ALARM PANEL - PMSS BASOL

S No	Details			
1.	Ships Name	PMSS BASOL		
2.	Parent Equipment	Fire Alarm System		
3.	OEM	Kentec Electronics Ltd		
4.	Model	Syncro ASM Fire Panel		
5.	Origin	UK		
6.	Sub Equipment	Syncro ASM Fire Panel		
7.	Part No. of	Part Number	Description	Req Qty

	Assembly Component	MA80161M2	Syncro ASM Fire Panel	01									
8.	Quantity	As per Serial No 8											
9.	OEM Details	Address	Kentec Electronics Ltd, 25-26 Fawkes Avenue, Questor, Dartford, DA1 1JQ England.										
		Contact	+44 (0) 1322 222121										
		Email	sales@kentec.co.uk										
10.	Justification for Work	Defect rectification/ resolution of undermentioned faults/ alarms of Syncro ASM Fire Alarm Panel											
		<ul style="list-style-type: none"> • System Fault • Input Activated • Monitor Output Fault • Internal Fault 											
11.	Work Required	Repair/ replacement of Syncro ASM Fire Panel											
12.	Detailed scope of work	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 33%; text-align: center;">a</th> <th style="width: 33%; text-align: center;">b</th> <th style="width: 33%; text-align: center;">c</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">Details of Repair Work Required</td> <td style="text-align: center;">Details of services Required</td> <td style="text-align: center;">Details of Spares Required</td> </tr> <tr> <td>Repair/ replacement of Syncro ASM Fire Panel</td> <td> a. All spares, tools and test equipment are to be arranged by the contractor. b. Satisfactory onboard trial/ set to work i.e. resolution of faults highlighted in S. No 14 </td> <td style="text-align: center;">N/A</td> </tr> </tbody> </table>			a	b	c	Details of Repair Work Required	Details of services Required	Details of Spares Required	Repair/ replacement of Syncro ASM Fire Panel	a. All spares, tools and test equipment are to be arranged by the contractor. b. Satisfactory onboard trial/ set to work i.e. resolution of faults highlighted in S. No 14	N/A
		a	b	c									
		Details of Repair Work Required	Details of services Required	Details of Spares Required									
Repair/ replacement of Syncro ASM Fire Panel	a. All spares, tools and test equipment are to be arranged by the contractor. b. Satisfactory onboard trial/ set to work i.e. resolution of faults highlighted in S. No 14	N/A											
13.	Technical Specs	As per Serial No 8											
14.	Eligibility	a. Certified local contractor having working experience onboard 6HT MPVs. b. Hands On Experience of working on Marine version Fire Alarm Systems											
15.	EDC	ASAP											
16.	Warranty	1 Year											
17.	Acceptance Criteria	a. OEM Certified items. b. Items will be accepted after physical inspection by SS. c. Upon scrutiny of item and provided documents i.e. technical specifications by OEM.											
18.	Any other relevant information	SS may be contacted for any further query/ requirement and visit onboard for clear understanding.											

MAJOR OVERHAULING OF MAIN ENGINE (APME) W-6 ROUTINE (PMS NO 3-1101-0000, MOP 030) - PMSS BARKAT

S No		Details			
1.	Ships Name	PMSS BARKAT			
2.	Parent Equipment	Main Engine (APME)			
3.	OEM	MTU			
4.	Model	16V 396 TB93			
5.	Serial No	5590546			
6.	Origin	Germany			
7.	Sub Equipment	MTU Main Engine			
8.	Assembly Equipment	Engine Major Overhaul W-6 routine			
9.	Quantity	01			
10.	Source of Availability	Local Market			
11.	Justification for Work	W-6 Routine is due (PMS No 3-1101-0000, MOP 030), Routine is to be carried out for sat ops			
12.	Work Required	a	b	c	d
		Defect List	Repair Work Required	Services Required	Spares Required
		Conduct of PMS routine PMS No 3-1101-0000 MOP No 030	W-6 routine is to be carried out for smooth and safe operation of the main engine	As per Serial 13	As per Serial 13
13.	Detailed Scope of Work	<p>Following works are required to be undertaken with replacement of requisite parts as per MTU standard / operation & maintenance manual.</p> <p>a. W-6 standard kit is required to be arranged/ provided by the firm and the same will be inspected by the ship's staff in presence of the firm rep.</p> <p>b. All cylinder liners (16 In No) are to be inspected for surface scoring, pitting, scuffing marks and honey chroming. Replace liners where pitting is deeper than 1.5 mm after approval and recommendation of the ship's staff.</p> <p>c. All pistons (16 In No) are to be inspected thoroughly and de carbonize piston crown and cylinder TDC area. Replace piston if required as per MTU standard in consultation with ship's staff.</p> <p>d. Inspect/ check valve gear including tappet, rocker arm and adjusting screw for wearing out if any of these assemblies are found defective then replace after the ship's staff recommendation.</p> <p>e. Check valve guides, cam/ camshaft and valve stem de carbonized valve and replace I valve stems and all head gaskets. Replace water and oil transfer pipes/ seals.</p> <p>f. Check fuel injection pumps timing and carry out phasing and calibration and replace ■ defective delivery valves.</p> <p>g. Carry out pressure test of injectors for good spray pattern and replace all nozzles and I injector sleeves.</p> <p>h. Check and inspect lube oil pumps repair if required.</p>			

- j. Lube oil cooler to be removed, cleaned and pressure tested for satisfactory operation.
- k. Inspect and clear all oil passage ways at a minimum working pressure as defined in maintenance manual.
- l. Clean oil pan and check for cracks using the surface crack testing method. Replace the oil pan if cracks are observed there in.
- m. Fly wheel hosing to be checked for any crack.
- n. Crank bore to be measured and crank shaft bearing journal and small end bearing bore to be measured and reading charts to be provided.
- ;
- p. Sea water pump to be overhauled with all requisite accessories and renewal of impeller and shaft.
- q. Fresh water pump to be overhauled and shaft and impeller will be replaced.
- r. Inter air cooler to be cleaned, pressure tested and re furnished if condition is unsatisfactory with sea water resistance, material (copper, nickel 30/70).
- s. Turbo chargers (03 In No) to be removed / dismantled and cleaned. All components to be checked and measure bearing clearance, renew compressor wheel bearings, gas. etc if required and made turbo chargers leakage free.
- |
- t. Inspect all air intake blowers flexible hoses/ ducting and replace only defective parts after approval of the ship's staff.
- u. Main engine mounts are to be inspected and replaced if degraded / damaged.
- v. Main engine and gearbox will be checked for alignment, re-aligned if misalignment observed. The gearbox is to be inspected as per OEM instructions.
- w. Vulkin coupling is to be inspected for damage / cracks and replace if required after approval by the ship's staff.
- x. Exhaust system including exhaust bellows, piping, and lagging/ cladding, is to be inspected, appropriate repair/ replace work is to be carried out and made exhaust system free from exhaust leakage
- y. Replace following defective gauges, meters, and sensors.
 - (1) Engine RPM meter.
 - (2) Gear box lube oil pressure and temperature gauge. |
 - (3) Engine coolant water temperature gauge. i
 - (4) Engine lube oil pressure and temperature gauge. (
- z. Meter and gauges are to be calibrated and calibration certificate be provided.
- aa. Charging alternator and starter to be overhauled with replacement of requisite parts/ accessories (Coil, brushes, coupling, pinion and securing system).
- ab. All spares (must be genuine) tools special equipment /accessories required for said Repair/ Maintenance are to be arranged by the firm
- ac. Any damage/ defect/ wear tear occurred during course of removal work, repair and installation of system/ equipment will be met by firm

		ad. The firm will be responsible for all removal, transportation and installation work during warranty/ grantee periods claims in case of any rework
14.	Technical Specs	MTU Operating Manual MO 11026/OOE MTU Maintenance Manual MO 20028/OOE
15.	Eligibilities	a. The firm must visit onboard and carry out diagnoses/ inspections to establish the extent of required work. b. The firm must have sufficient experience of same kind of work. The firm should be NTN /GST registered
16.	EDC	30 x Days after issuance of work/ confirmation order.
17.	Warranty	a. 02 Year The firm have to provide certificate that all equipment and spares used in W-6 kit are in performance as per OEM standard and shall be branded / genuine / new.
18.	Acceptance Criteria	a. ■ Main engine will be operated at designed RPM i.e. 2100 RPM while maintaining all parameters within limits after the W-6 PMS routine. b. The firm has to provide OEM conformity certificate of MTU Germany for W-6 kit (MOH kit). c. Satisfactory sea trials will be conducted after completion of BW-6 routine. d. Satisfactory trials of monitoring and control system including all safeties / warning / trips. e. The firm must provide data recording sheets for following: 1. Crank case bore 2. Cylinder liner (installed) 3. Crank shaft data sheet 4. Main bearing 5. Connecting rods 6. Connecting rods bearing (bearing shell installed) 7. Valve and injection timing 8. Piston cylinder head clearance f. Main engine alignment, gearbox and wheel coupling inspection / setting certificate will be provided after W-6 PMS routine.
19.	Any other relevant information	Quality material is to be used.

IT NO: IT/PM/86/86/2025-26

**PROCUREMENT & INSTALLATION OF NEW CONTROL SYSTEM OF MAIN ENGINE NO 1 - PMSS
DASHT**

S No	Details
1.	Ships Name PMSS DASHT
2.	Parent Equipment Lube Oil
3.	OEM China
4.	Model Shell Rimula
5.	Serial No API CI-4 SAE
6.	Origin China
7.	Sub Equipment Lube Oil 15W-40
8.	Assembly R4X 15W-40

	Equipment				
9.	Part No. of Assembly Component	9150-12-149-8316			
10.	Quantity	29 Drums (Total 6061 Liters)			
11.	Source of Availability	LOCAL CONTRACTOR/ NSD			
12.	Justification for Work	Procurement/ demand of 6000 Ltrs Lube Oil 15W-40 for flushing and oil change routine of Main and Auxiliary Machinery.			
13.	Work Required	a	b	c	d
		Defect List	Repair Work Required	Services Required	Spares Required
		As per defect list.	Procurement of 15W-40 Lube oil.	d. Demand of 15W-40 Lube oil.	15W-40 Lube Oil 6000 Ltrs.
14.	Detailed Scope of Work	a	b	c	
		Detail of Repair Work Required	Detail of Services Required	Details of Spares Required	
		Procurement/ demand of 15W- 40 Lube oil.	Procurement/ Demand of 6000 Ltrs 15W- 40 for oil change and flushing routine of Main and Auxiliary machinery onboard ship.	15W-40 Lube Oil 6000 Ltrs required for oil change and flushing routine of Main and Auxiliary machinery onboard ship.	
15.	Eligibilities	Authorized rep of OEM/ Local contractor having working experience			
16.	EDC	07 x Days			
17.	Warranty	01 x Year			
18.	Acceptance Criteria	Only PNCTA Lab tested lube oil should be procured for onboard use.			
19.	Any other relevant information	Coordinate MEO/ SS/ visit onboard to resolve any query			

IT NO: IT/PM/86/87/2025-26

PROCUREMENT & INSTALLATION OF NEW CONTROL SYSTEM OF MAIN ENGINE NO 1 - PMSS DASHT

S No	Details	
1.	Ships Name	PMSS DASHT
2.	Parent Equipment	Main Engine No 1 & 2
3.	OEM	MTU
4.	Model	16V4000M73L
5.	Origin	Germany
6.	Sub Equipment	Oil Separator, Fuel Injectors, Core Heat Exchanger, Turbo Charger, Intercooler
7.	Assembly	Breather Filters, Fuel Injectors, Core Heat Exchanger, Turbo Charger,

	Equipment	Intercooler			
8.	Part No. of Assembly Component	Breather Filters (Oil Separators) Part No X54701800063 Fuel Injectors Part No X59407500022, EX59407500022, RX59407500022,			
9.	Quantity	16 x Breather Filters, 32 x Fuel Injectors, 02 x Core Heat Exchangers, 04 x Turbo Chargers, 02 x Intercoolers.			
10.	Source of Availability	MTU			
11.	OEM Details	Address: MTU, Germany. Contact Phone: N/A Contact Email: N/A			
12.	Justification for Work	Repair/ Overhauling of Main Engine No 1 & 2.			
13. .	Work Required	a	b	c	d
		Defect List	Repair Work Required	Services Required	Spares Required
		As per defect list	Repair/ Overhauling of Main Engine No 1 &2	a. Dismantling of 32 x fuel injectors and 16 x breather filters by firm. b. Calibration of 32 x fuel injectors. c. Overhauling of Oil separator. e. Servicing/ cleaning of core heat exchanger of Main Engine No 1 & 2. Servicing/ overhauling of 04 x Turbo Chargers, f. Servicing/ Cleaning of 02 x Intercoolers.	a. 1 6 X , Breather Filters. b. 3 2 X Fuel injectors.
14.	Detailed Scope of Work	Details of Serial 9 Column a, b and c.			
		a	b	c	
		Detail of Repair Work Required	Detail of Services Required	Details of Spares Required	
		Repair/ Overhauling of Main Engine No 1 & 2	a. Dismantling of 32 x fuel injectors and 16 x breather filters by firm. b. Calibration of 32 x fuel injectors. c. Overhauling of Oil separator. d. Servicing/ cleaning of core heat exchanger of Main Engine No 1 & 2. Servicing/ overhauling of 04 x Turbo Chargers, e. Servicing/ Cleaning of 02	a. 16 X , Breather Filters. b. 32 X Fuel injectors.	

		x Intercoolers.
15.	Technical Specs	As per Technical Manual/ OEM
16.	Eligibilities	a. Must have relevant experience in repair/ overhauling & servicing/ cleaning of said equipment. b. Only OEM recommended spares must be used. Firm must visit site for understanding exact nature of defect/ hindrances involved in job prior quoting to avoid inconvenience on later stage after award of Work Order.
17.	EDC	07 x Days
18.	Warranty	01 x Year
19.	Acceptance Criteria	a. OEM certified spares should be used. Filters should have 02 x year shelf life.
20.	Any other relevant information	c. Technical specifications to be provided by Firm.

IT NO: IT/PM/86/88/2025-26

CONDUCT OF 10000 HRS PMS ROUTINES OF 02 X MAIN ENGINES PORT & STBD - PMSS KASHMIR

S No	Details				
1.	Ships Name	PMSS KASHMIR,			
2.	Parent Equipment	MAIN ENGINES			
3.	OEM	CRRC China			
4.	Model	MKD-50/150			
5.	Origin	UK			
6.	Sub Equipment	Port & Stbd Engine			
7.	Assembly Equipment	Misc			
8.	Part No. of Assembly Component	As per relevant JIC			
9.	Quantity	02 (Port & Stbd)			
10.	Source of Availability	OEM			
11.	OEM Details	Address: MAN B&W / DALIAN DIESEL ENGINE CO., LTD Contact Phone: N/A Contact Email: N/A			
12.	Alternate/ Local Source	Alternate Source: a. M/s MAN Energy Solution Pvt Ltd Karachi b. M/s Tritex Energy Solution Pvt Ltd Karachi Address: N/A Contact Phone: N/A Contact Email: N/A			
13.	Justification for Work	Conduct of 10000 Hrs PMS Routines, of Main Engines			
14.	Work Required	a	b	c	d
		Defect List	Repair Work Required	Services Required	Spares Required
		PMS	Check crankcase depression	Yes	Yes

		Check cylinder head and valve gear Check operation of fuel control linkage Check pneumatic over-speed trip Cleaning of turbocharger air intake filter Check rebound setting and height of AV mounts Check crankshaft alignment Renew filter elements Fit new nozzle of fuel injector Visually inspect vibration dampers for oil leakage Inspect camshaft drive gears Check crankshaft alignment Renew cylinder head rocker cover joints Drain governor/ actuator oil and refill Instrumentation check and calibration Check operation of protection systems Remove charge cooler ashore for cleaning Cleaning and examine of explosion relief valve Examine fuel linkage Turbocharger overhaul Check and repair forced circulation cooling water preheater Motor overhaul Clean, examine and- test cooling water thermostatic valve Check functional testing of all safeties (temp, pressure etc) Clean, examine and test lub oil thermostatic valve		Firm should work out all spares required to conduct the routine form relevant JICs
15.	Technical Specs	As per relevant technical manual		
16.	Eligibilities	OEM authorized rep Spares to be provided by firm		
17.	EDC	30 Days after award of contract		
18.	Warranty	01 Year		
19.	Acceptance Criteria	a. OEM Certified item. b. Defective/ BER items must be replaced with new one. c. Upon scrutiny of items and provided documents along with production certificate by OEM. d. Defective/ BER items must be replaced with new. e. Firm will not be allowed to use ship tools and manpower		

PROCUREMENT OF SHAFT STERN SEAL & INTERMEDIATE BEARING - PMSS KOLACHI

S No	Details																
1.	Ships Name	PMSS KOLACHI															
2.	Parent Equipment	Controllable Pitch Propeller Propulsion Equipment															
3.	OEM	Hangzhou Advance Gearbox Group CO., LTD Dongtai Oceangoing Marine Fittings CO.,LTD.															
4.	Model	CSMC-380 (water-lubricated) Shaft Stern Seal															
5.	Origin	China															
6.	Sub Equipment	Shaft Stern Seal															
7.	Assembly Equipment	Shaft Stern Seal															
8.	Part No. of Assembly Component	<table border="1"> <thead> <tr> <th>S No</th> <th>NSN No/ Part No</th> <th>Item Description</th> <th>Qty</th> </tr> </thead> <tbody> <tr> <td>a.</td> <td>As per attached documents</td> <td>Pneumatic tyre 02-CSMC-380 Stern shaft seal</td> <td>1</td> </tr> <tr> <td>b.</td> <td>As per attached documents</td> <td>Shaft Intermediate Bearing</td> <td>1</td> </tr> </tbody> </table>			S No	NSN No/ Part No	Item Description	Qty	a.	As per attached documents	Pneumatic tyre 02-CSMC-380 Stern shaft seal	1	b.	As per attached documents	Shaft Intermediate Bearing	1	
		S No	NSN No/ Part No	Item Description	Qty												
		a.	As per attached documents	Pneumatic tyre 02-CSMC-380 Stern shaft seal	1												
b.	As per attached documents	Shaft Intermediate Bearing	1														
9.	Quantity	As mentioned at S No 8															
10.	Source of Availability	Local Market															
11.	OEM Details	Address: 45#, Xiaojin Rd. Xiaoshan District, Hangzhou, China Contact Phone: +86 (0)571 8267 3888 Contact Email: syjx@163.com/heiian911177@163.com															
12.	Justification for Work	Stbd shaft stern seal found leaky. Replacement of shaft stern seal and intermediate bearing required.															
13.	Work Required	<table border="1"> <thead> <tr> <th>a</th> <th>b</th> <th>c</th> <th>d</th> </tr> </thead> <tbody> <tr> <td>Defect List</td> <td>Repair Work Required</td> <td>Services Required</td> <td>Spares Required</td> </tr> <tr> <td>During normal operation Stbd shaft stern seal found leaky. Moreover, shaft intermediate bearing also found noisy.</td> <td>Replacement of shaft stern seal and intermediate bearing urgently required.</td> <td>Inspection/ replacement of shaft stern seal & intermediate bearing required.</td> <td>As per S No 8.</td> </tr> </tbody> </table>			a	b	c	d	Defect List	Repair Work Required	Services Required	Spares Required	During normal operation Stbd shaft stern seal found leaky. Moreover, shaft intermediate bearing also found noisy.	Replacement of shaft stern seal and intermediate bearing urgently required.	Inspection/ replacement of shaft stern seal & intermediate bearing required.	As per S No 8.	
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14.	Detailed Scope of Work	Details of Serial 9 Column a, b and c.															
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		a	b	c													
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S No	Description	Technical Data															
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d.	Environment where stern tube seal stays, temperature	Oil mist and moulds, -10°C~50°C															
15.	Technical Specs																

		e.	Shaft Intermediate Bearing	As per Drawing/ sample
16.	Eligibilities	Reputable local/ international contractor having working experience with PMSA.		
17.	EDC	30 Days after award of contract		
18.	Warranty	2 Years		
19.	Acceptance Criteria	a. OEM Certified items b. BER items to be replaced with new , c. Firm will not be allowed to use ship tools and manpower		
20.	Any other relevant information	Firm must visit the Ship onboard for inspection prior forwarding quotation.		

IT NO: IT/PM/86/90/2025-26

REQUIREMENT OF CONNING SYSTEM OF PMSS RAFAQAT & SABQAT

S No	Details				
1.	Ships Name	PMSS Rafaqat & PMSS Sabqat			
2.	Parent Equipment	4-Channel Digital Power Amplifier TOA M-9000M2 Mixer			
3.	OEM	TOA Corporation Japan			
4.	Model	TOA DA-500FH			
5.	Origin	TOA Corporation			
6.	Sub Equipment	TOA SC-630M 03 in no wall mounted speaker 30W 07 in no mic station 07 in no wired mic marine version 05 in no. TOA speaker horn type Mic cable stations 300 meter approx. Cable for speaker 300 meter approx. Power Distribution Unit 3KVA UPS for backup			
7.	Assembly Equipment	Racks, Power Cables, Audio Cables, Fuses, Breakers, Mic box			
8.	Quantity	02 in no complete system with accessories			
9.	Source of Availability	Local source			
10.	OEM Details	Address: 7-2-1 Minatojima Nakachi, Chuo-Ku, Kobe ,Hoogo 650-0046, Japan Contact Phone: +81-78303-5630 Contact Email: www.toa.jp			
11.	Alternate/ Local Source	Alternate Source: N/A Address: N/A Contact Phone: N/A Contact Email: N/A			
12.	Justification for Work	Coning system is critical to support bridge to ship communication under both routine emergency operating conditions			
13.	Work Required	a	b	c	
		Defect List	Repair Work Required	Services Required	d Spares Required
		Coning system is unavailable	New coning system installation and STW of the system is required	Fittings of speakers with matching transformers. & mic stations. Rigging copper cables, and	All material, spares, tools, special equipment, accessories

				STW of the system.	etc required of said work are to arrange by the local firm.
14.	Detailed Scope of Work	Details of Serial 9 Column a, b and c.			
		a	b	c	
		Detail of Repair Work Required	Detail of Services Required	Details of Spares Required	
		Installation and fitting of power amplifier with mixer in racks. Installation 08 x speakers with matching transformer with 8 x mic stations. Rigging of cables and installation of racks for amplifier.	a. Rigging of power & audio cables from inner to outer units and vice versa. b. Fitting of power panels with breakers, fuses and safeties. c. Fitting of racks for power amplifier. d. Requirement of external services will be the responsibility of the firm. e. Firm will provide all the spares and accessories required for installations. f. The firm is to visit onboard ship for understanding and mapping of work.	a. All material, spares, tools special equipment/ tools, accessories and cables for said work are to be arranged by the contractor should be marine version. b. Any other spares required for installation and STW of the system which are not mentioned in IT Specs are to be arranged by the firm	
15.	Technical Specs	TOA SC-630M 03 in no wall mounted speaker 30w TOA Speaker 05 in no horn type. TOA M-9000M2 mixer TOA DA-500FH Power amplifier			
16.	Eligibilities	Any suitable firm			
17.	EDC	02 Weeks (10 x working days)			
18.	Warranty	1 year			
19.	Acceptance Criteria	a. Successful trials by end user.			
20.	Any other relevant information	All other work concern to the system installation not covered in contract are also be the responsibility of the firm during installations and STW of the system. Any damage occurred during work, firm would be responsible for repair/maintenance.			

OVERHAUL OF 02 X STARTER GENERATORS (PART NO 150SG117Q) - 93 PMSA SQN

S No	Details				
1.	Ships Name	93 PMSA SQN			
2.	Parent Equipment	BN2T Defender Aircraft			
3.	OEM	Aircraft Parts Corporation N.Y (USA)			
4.	Model	Specification No: TSO-C56			
5.	Serial No	7942 & S No 8118			
6.	Origin	USA			
7.	Sub Equipment	Allison 250-B17C Turboprop Engine			
8.	Assembly Equipment	Starter Generator			
9.	Part No. of Assembly Component	150SG117Q			
10.	Quantity	2			
11.	Source of Availability	OEM or OEM Authorized Maintenance Centre (AMC)			
12.	OEM Details	<u>Address</u> Rolls-Royce Corporation PO BOX 420 Indianapolis, IN 46206 USA <u>Contact Phone</u> 317-230-6400 Fax: 317-2030-6084 <u>Contact Email</u> N/A			
13.	Alternate/ Local Source	<u>Alternate Source</u> 503 Army Aviation Workshop <u>Address</u> Pak Army Qasim Base, Dhamial Camp, Rawalpindi <u>Contact Phone</u> <u>Contact Email</u>			
14.	Justification for Work	Overhaul of 2 x Starter Generators required for spare backup supportability			
15.	Work Required	a	b	c	
		Defect List	Repair Work Required	Services Required	
		Overhauling of Starter Generator (Part No 150SG117Q) became due on hourly basis	Overhaul of Starter Generator (Part No 150SG117Q)	Overhaul of 2 x Starter Generator Part No 150SG117Q (S No 7942 & 8118)	
16.	Detailed Scope of Work	Details of Serial 9 Column a, b and c.			
		a	b	c	
		Detail of Repair Work Required	Detail of Services Required	Details of Spares Required	
		Overhaul of Starter Generator	Overhaul of 2 x Starter Generator	As per standard replacement	
17.	Technical Specs	As per part number mentioned at Para 9			
18.	Eligibilities	a. Item to be overhauled only from OEM or OEM Authorized Maintenance			

		Centre (AMC)
19.		b. Firm is bound to share detailed and complete work scope of overhaul (itemized)
20.		c. Any additional work required due to findings of inventory check, stripping ui Starter Generator or Inspection apart from detailed scope of work may not be undertaken until approved by HQ PMSA
21.		d. All requisite, Documentation i.e. Airworthiness Certificate (FAA/ EASA/ PCAA Form), Certificate of Conformity along with detail of work accomplished on Starter Generator duly signed and stamped would be required
22.		e. Cost of overhaul (itemized) is to be quoted and each cost i.e. overhaul cost, transportation cost and taxes/ duties separately mentioned
23.		f. Firms have to provide authorization letter of their principal firms and bank statement of last 1 year of their firm
24.		g. Firms must have at least 2 years' experience of procurement/repair/overhaul of Aviation components/ spare parts. Experience certificate of Aviation related contracts by contracting agency in Pakistan is mandatory
25.		h. Firms need to include freight charges/ insurance/ custom duties for transportation of the Starter Generator as applicable
26.		j. Firms need to get import/ export licenses from respective abroad firms/1 agencies (where applicable). Furthermore firm will be sole responsible f^ transportation of the Starter Generator
27.		k. In case of failure to meet acceptance criteria or defect during physical/ operational inspection of items as mentioned at Para 26, firm is liable to get the items replaced/ repaired on FoC basis in shortest possible time.
28.		l. Firms need to provide assurance that the item shall be received from 93 PMSA SQN and will be transported to MRO for repair at their own responsibility. Same will also be delivered back at 93 PMSA SQN after completion of work at their own responsibility
29.		m. Offered quotes are to be firm and final. No adjustments against Foreign Exchange rate variations will be accommodated
30.		n. Firm may quote Custom duties/ taxes (as applicable) for transportation of the Starter Generator. However, final decision for responsibility of customs/ transportation (PMSA or supplier) will be finalized prior contract
31.	EDC	08-10 weeks after award of contract
32.	Warranty	1000 hours with 1 x year warranty.
33.	Acceptance Criteria	<p>As per eligibilities mentioned at Para 23 above. In addition, following criteria must be fulfilled:</p> <p>a. <u>General:</u></p> <p>(1) Satisfactory physical condition and operational check of items (where applicable as per satisfactory Ground Run & CTF)</p> <p>(2) Provision of OEM certification from EASA/FAA & ISO Certification/Log Card.</p> <p>b. <u>Ground/ Static Checks:</u></p> <p>(1) Visual inspection for any sign of wear/ tear or damage & corrosion.</p> <p>(2) Item must be noise free during manual rotation.</p> <p>c. <u>During Engine /Aircraft Start-up Check:</u></p> <p>(1) Item must be capable to perform role as Starter.</p> <p>(2) Item must provide electric power to complete Aircraft System as well as start the other engine.</p> <p>d. <u>Post Flight Check:</u></p>

		(1) Item must be free of any sign of oil and grease. (2) Item must be noise free during flight.
34.	Any other relevant information	Firms are requested to provide original quote of AMC (without price) along with their respective technical quote. Technical quote of firm will not be accepted without provisioning of AMC original quote

IT NO: IT/PM/86/92/2025-26

REQUIREMENT OF DEFENDER AIRCRAFT TOOLS AND SPARES - 93 PMSA SQN

S No	Details				
1.	Ships Name	93 PMSA SQN			
2.	Parent Equipment	Defender BN-2T Aircraft			
3.	OEM	Britten Norman (BN2T)			
4.	Origin	UK/ USA/ AS PER OEM COUNTRY			
5.	Sub Equipment	Defender BN-2T Aircraft and components/ spares			
6.	Assembly Equipment	Defender BN-2T Aircraft and components/ spares			
7.	Part No. of Assembly Component	S No	Part No	Description	Qty Req
		a.	CCM750	Wrench Torque	1
		b.	SSD3-8IN	Adapter 3/8 Inch (compatible with Torque Wrench Part No CCM750)	1
		c.	2-15(341806020)	Discharger Static	30
		d.	B470057	Washer Friction	15
		e.	NB-25-B-197/ NB-25-197 (B250197)	Bush Locking	6
		f.	NB-45-2071	Rod Assy	5
		g.	1164-P31 (340008085)	Pressure Switch, Differential	3
		h.	NB57C457	Pipe Assy Fuel	4
		j.	AN8246D	Tee Piece	4
		k.	NB-45-1137	Lead Bonding	10
		l.	ES61110-11	Brush	4
		m.	D7271-8-5 (340000081)	Breaker Circuit	3
		n.	11DB06	Volt Ammeter Indicator	3
		p.	01-0020 (340203000)	Resister Dimming	3
		q.	320554	Tag (Terminal Lug) (Terminal Lug)	12
		r.	3E-2050	Wire Harness (Prop Kit Harness)	10
		s.	MIL-L-6081	Lubricating Oil Aero Shell Turbine	2
t.	071-01242-000	Slaving Accessory KA51B PNI System	2		
u.	NB83247	Plate Assy Compass	2		
v.	354301015	Pump Fuel	10		
w.	NB-88-0725	Pitot/Static Adapter	1		
8.	Quantity	As mentioned against each			
9.	Source of	OEM or OEM authorized aviation vendors			

	Availability													
10.	OEM Details	<p>Address: Britten-Norman Aircraft Ltd, Bembridge Airport, Bembridge, Isle of Wight, PO355PR, United Kingdom</p> <p>Contact Phone: +44(0)1983872511</p> <p>Contact Email: info@britten-nrman.com sales@britten-norman.com</p>												
11.	Alternate/ Local Source	<p>Alternate Source: N/A</p> <p>Address: N/A</p> <p>Contact Phone: N/A</p> <p>Contact Email: N/A</p>												
12.	Justification for Work	Procurement and replacement of spares/ consumables required for day to day maintenance requirements of Defender aircraft.												
13.	Work Required	<table border="1"> <thead> <tr> <th>a</th> <th>b</th> <th>c</th> <th>d</th> </tr> </thead> <tbody> <tr> <td>Defect List</td> <td>Repair Work Required</td> <td>Services Required</td> <td>Spares Required</td> </tr> <tr> <td>-</td> <td>-</td> <td>Spares replacement for Defender BN-2T aircraft</td> <td>As per para 8 S No a-w</td> </tr> </tbody> </table>	a	b	c	d	Defect List	Repair Work Required	Services Required	Spares Required	-	-	Spares replacement for Defender BN-2T aircraft	As per para 8 S No a-w
		a	b	c	d									
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		Detail of Repair Work Required	Detail of Services Required	Details of Spares Required										
-	Spares replacement for Defender BN-2T aircraft	As per para 8 S No a-w												
-														
15.	Eligibilities	a. Required items are to be delivered in New Condition only, from OEM or OEM authorized aviation vendors.												
		b. Firms have to provide authorization letter of their principal firms and bank statement of last 01 year of their firm.												
		c. Firms must have at least 02 years' experience of procurement/repair of Aviation components/ spare parts. Experience certificate of Aviation related contracts by contracting agency in Pakistan is mandatory.												
		d. Firms need to include freight/ insurance charges and custom duties/ taxes, etc (as applicable) in quotation.												
		e. Firms need to get import/ export licenses from respective abroad firms/ agencies where applicable.												
		f. In case of failure to meet acceptance criteria or any defect during physical/ operational testing of items post installation/ utilization on aircraft, firm is liable to get the items replaced on FoC basis in shortest possible time.												
16.	EDC	08 weeks after award of contract												
17.	Warranty	01 Year												
18.	Acceptance Criteria	a. Satisfactory physical condition and operational check of items (where Applicable).												
		b. Items part numbers should be identical to the part numbers mentioned against each item in IT Specification. Alternatively, OEM letter for change in Part No may also be provided.												
		c. Provision of OEM certification from EASA/ FAA (if applicable).												
		d. Provision of import documents.												
		e. Consumable items having shelf life/ expiry date should be within 6-8 weeks from date of manufacturing.												

REFURBISHMENT/ RENOVATION OF PMSA BASE SADAQAT AND UPLIFTING OF BMG (C-2) PLOT
- CDR EASTERN WING

S No		Details																																																												
1.	Scope of Work	Uplift / Renovation of PMSA Base SADAQAT																																																												
2.	Details	Under mentioned details a. Installation of new precast slabs with girders b. Elevated Platform for DG Shed c. Main gate installation d. False Ceiling e. Electrification with fixtures f. Flooring g. Painting h. Installation of doors and windows																																																												
3.	Make	Local																																																												
4.	Model	Local																																																												
5.	Quantity	Mentioned at S No 9 Below																																																												
6.	Justification i.e PMS/ Failure/ FWT etc	Non availability existing item																																																												
7.	Work Required/ Defect	Uplift / Renovation of PMSA Base SADAQAT																																																												
8.	Detailed Scope of Work	Following construction items required for uplift / renovation of PMSA Base SADAQAT <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;">S No</th> <th style="width: 70%;">Description</th> <th style="width: 20%;">Qty</th> </tr> </thead> <tbody> <tr><td>a.</td><td>Pre cast concrete slab</td><td>2000 SFT</td></tr> <tr><td>b.</td><td>Pre cast girders 22 feet</td><td>20</td></tr> <tr><td>c.</td><td>Gypsum board False ceiling with fitting</td><td>2000 SFT</td></tr> <tr><td>d.</td><td>Steel</td><td>4 Ton</td></tr> <tr><td>e.</td><td>Cement Bags</td><td>200 No</td></tr> <tr><td>f.</td><td>Enamel Paint</td><td>30 Gal</td></tr> <tr><td>g.</td><td>Fiber sheet 8mm</td><td>50 SFT</td></tr> <tr><td>h.</td><td>Sand</td><td>1000 CFT</td></tr> <tr><td>j.</td><td>Crush</td><td>1000 CFT</td></tr> <tr><td>k.</td><td>MS Plate (10 Guage)</td><td>100 SFT</td></tr> <tr><td>l.</td><td>MS Pipe 2 x 1 1/2 inch</td><td>100 RFT</td></tr> <tr><td>m.</td><td>12 Watt LED Ceiling Light</td><td>60</td></tr> <tr><td>n.</td><td>Pavers Rectangular 80mm</td><td>400 SFT</td></tr> <tr><td>p.</td><td>Electric copper wire 7/29</td><td>100 Mtr</td></tr> <tr><td>q.</td><td>Switch board 8 switches 2 sockets</td><td>10</td></tr> <tr><td>r.</td><td>Ceramic tiles (Master Shabbir)</td><td>2000 SFT</td></tr> <tr><td>s.</td><td>PVC Windows</td><td>100 SFT</td></tr> <tr><td>t.</td><td>PVC Doors size 3' x 7'</td><td>10</td></tr> <tr><td>u.</td><td>Concrete Blocks 5 inch thick</td><td>300</td></tr> </tbody> </table>	S No	Description	Qty	a.	Pre cast concrete slab	2000 SFT	b.	Pre cast girders 22 feet	20	c.	Gypsum board False ceiling with fitting	2000 SFT	d.	Steel	4 Ton	e.	Cement Bags	200 No	f.	Enamel Paint	30 Gal	g.	Fiber sheet 8mm	50 SFT	h.	Sand	1000 CFT	j.	Crush	1000 CFT	k.	MS Plate (10 Guage)	100 SFT	l.	MS Pipe 2 x 1 1/2 inch	100 RFT	m.	12 Watt LED Ceiling Light	60	n.	Pavers Rectangular 80mm	400 SFT	p.	Electric copper wire 7/29	100 Mtr	q.	Switch board 8 switches 2 sockets	10	r.	Ceramic tiles (Master Shabbir)	2000 SFT	s.	PVC Windows	100 SFT	t.	PVC Doors size 3' x 7'	10	u.	Concrete Blocks 5 inch thick	300
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9.	Eligibility Criteria	Any registered firm with good reputation and having experience of renovation																																																												
10.	EDC	07 Days after completion																																																												
11.	Warranty	1 year after completion																																																												
12.	Acceptance	a. inspection by end user																																																												

	criteria	b. Completion in due date c. Acceptance by Garrison Engineer PMSA
13.	Any other relevant information	Logistic support including transportation of material, meal and other domestic requirements are responsibility of contracted firm

IT NO: IT/PM/86/94/2025-26

PROCUREMENT & INSTALLATION OF NEW CONTROL SYSTEM OF MAIN ENGINE NO 2 - PMSS DASHT

S No	Details				
1.	Ships Name	PMSS HINGOL			
2.	Parent Equipment	STEERING SYSTEM/ AIR CONDITIONING PLANT/ ELECTRICAL EQUIPMENTS			
3.	Quantity	As per spare list			
4.	Source of Availability	Local Market			
5.	Alternate/ Local Source	Local engineering houses			
6.	Justification for Work	Critical spares required for OSD			
7.	Work Required	a	b	c	d
		Defect List	Repair Work Required	Services Required	Spares Required
		Critical spares required for OSD	Critical spares required for OSD	Critical spares required for OSD	<u>Steering System</u> 04 x Hydraulic hoses (For Hyd Cylinder) 04 x Hydraulic hoses (For Oil Cooler) <u>Air Conditioning Plant</u> 02 x Inlet Pressure Switch 02 x Outlet Pressure Switch 20 Ft Rubber Braided Hoses <u>Electrical Equipments</u> 02 x Illumination Circuit Roil 01 x AC Contactor 35A 01 x Overload 35A 02 x Fuel Transfer Contactor 40A 02 x Elevated Pump Breaker 50A 100 M 16 mm2 (3 Core Cable) 01 x Auto Change Over 01 x Shore Supply Breaker 01 x GENSET MCCB Breaker
8.	Detailed Scope of Work	Details of Serial 9 Column a, b and c.			
		a	b	c	
		Detail of Repair Work Required	Detail of Services Required	Details of Spares Required	
		Critical spares required for OSD	Critical spares required for OSD	<u>Steering System</u> 04 x Hydraulic hoses (For Hyd Cylinder) 04 x Hydraulic hoses (For	

				Oil Cooler) Air Conditioning Plant 02 x Inlet Pressure Switch 02 x Outlet Pressure Switch 20 Ft Rubber Braided Hoses Electrical Equipments 02 x Illumination Circuit Roil 01 x AC Contactor 35A 01 x Overload 35A 02 x Fuel Transfer Contactor 40A 02 x Elevated Pump Breaker 50A 100 M 16 mm2 (3 Core Cable) 01 x Auto Change Over 01 x Shore Supply Breaker 01 x GENSET MCCB Breaker
9.	Technical Specs	As per attached list		
10.	Eligibilities	Any security wise clear firm/ contactor having working experience on HINGOL Class MPVs		
11.	EDC	03 Days		
12.	Warranty	01 Year Warranty of above mentioned spares		
13.	Acceptance Criteria	a. Satisfactory test and trials of spares onboard b. Only OEM recommended spares acceptable		

IT NO: IT/PM/86/95/2025-26

CONDUCT OF PMS ROUTINE 04 X MAIN ENGINES & 01 X SSDG - PMSS REHMAT

S No	Details				
1.	Ships Name	PMSS REHMAT			
2.	Parent Equipment	Main Engine MTU 16 V 396 TB 93 and SSDG Cummins 60KW 120 Amp			
3.	OEM	MTU/ Cummins			
4.	Model	16V396TB93 and SSDG			
5.	Serial No	5590551, 5590550, 5590553 & 5590592			
6.	Origin	Germany / America			
7.	Sub Equipment	Intake & Exhaust valve			
8.	Assembly Equipment	Cylinder head			
9.	Quantity	04 main engines and 01 x SSDG			
10.	Source of Availability	Local			
11.	Justification for Work	Preventive maintenance routine PMS 3-1101-000 MOP 006 Main Engine Preventive maintenance routine PMS 3-3700-0000 MOP 013 SSDG			
12.	Work Required	a	b	c	d
		Defect List	Repair Work Required	Services Required	Spares Required
		Conduct of PMS routine PMS 3-1101-0000 MOP 006 and 3-3700-	Check and Adjust cylinder head valves clearance	Check valve clearance, adjust, if necessary, Check linkage for ease of movement, lubricate.	68 x Cylinder head gasket 68 x 'O' ring/washer

		0000 MOP 013		Check drain for obstruction	68 x rubber seals		
13.	Detailed Scope of Work	a		b			
		Detail of Repair Work Required		Detail of Services Required			
		Conduct of Preventive maintenance routine PMS 3-1101-0000 MOP 006 and 3-3700-0000 MOP 013		Check valve clearance, adjust, if necessary,		68 x Cylinder head gasket	
		Removal of each engine cylinder head cover.		Check linkage for ease of movement, lubricate.		68 x 'O' ring/washer	
		All spares, tool, special equipment/ tools, accessories etc. required for said checking/ adjusting are to be arranged by firm.		Check drain for obstruction		68 x rubber seals	
		Firm will responsible damage/ defect/ wear tear occurred during course of said work					
		Requirement of external services, if required will be responsibility of firm of firm.					
14.	Technical Specs	Standard procedure must be followed by using special tool. Firm is responsible for certificate.					
15.	Eligibilities	<p>a. The firm must visit onboard and carry out diagnosis/ inspections to establish the extent of required work.</p> <p>b. Firms not undertaking the visit onboard ship to see extent of work will not technically qualify.</p> <p>c. The firm must have sufficient experience of same kind of work and experience.</p>					
16.	EDC	20 x days after issuance of work/ confirmation order.					
17.	Warranty	01 x Year.					
18.	Acceptance Criteria	<p>a. Satisfactory work done by Firm</p> <p>b. Successful completion and acceptance by the end user</p> <p>c. Satisfactory trials (HATs/ SATs)</p>					
19.	Any other relevant information	Standard procedure must be followed by using special tool. Firm is responsible for certificate.					

OVERHAUL OF BRIDGE & ENGINE ROOM CENTRAL CONTROL CONSOLE - PMSS BASOL

S No	Details																																																																																																																																										
1.	Ships Name	PMSS BASOL																																																																																																																																									
2.	Parent Equipment	Bridge and Engine Room Central Control Console																																																																																																																																									
3.	OEM	Jinzhou Hangxing Ship Technology Co. Ltd.																																																																																																																																									
4.	Model	Bridge and Engine Room Central Control Console																																																																																																																																									
5.	Origin	China																																																																																																																																									
6.	Sub Equipment	Bridge and Engine Room Central Control Console																																																																																																																																									
7.	Assembly Equipment	Circuit breaker, Illuminated button, Indicator, Button, Fuse, Contactor, Power Module, NLC circuit board, SLC circuit board, Relay, Chip, Diode, Terminal blocks																																																																																																																																									
8.	Part No. of Assembly Component	<table border="1"> <thead> <tr> <th>S NO</th> <th>NSN/ Part No</th> <th>Description</th> <th>Qty</th> </tr> </thead> <tbody> <tr> <td colspan="4">E.R CC components</td> </tr> <tr> <td>a.</td> <td>5925PV1000042/ S202MD10</td> <td>Circuit breaker</td> <td>22</td> </tr> <tr> <td>b.</td> <td>5925PV1000043/ S202MD16</td> <td>Circuit breaker</td> <td>02</td> </tr> <tr> <td>c.</td> <td>5930PV0010180/ LA39B211D/G23</td> <td>Illuminated button</td> <td>06</td> </tr> <tr> <td>d.</td> <td>.5930PV00101204/ LA39B211D/G31</td> <td>Illuminated button</td> <td>08</td> </tr> <tr> <td>e.</td> <td>5930PV00101203/ LA39B111XD/G23</td> <td>Illuminated button</td> <td>04</td> </tr> <tr> <td>f.</td> <td>6240PV0010015/ AD16-22D/G23</td> <td>Indicator</td> <td>08</td> </tr> <tr> <td>g.</td> <td>6240PV0010091 / AD16-16D/W23</td> <td>Indicator</td> <td>01</td> </tr> <tr> <td>h.</td> <td>6240PV0010084/ AD16-16D/W31</td> <td>Indicator</td> <td>02</td> </tr> <tr> <td>j.</td> <td>5930PV0010048/ LA39B211/R</td> <td>Button</td> <td>15</td> </tr> <tr> <td>k.</td> <td>5920PV0010053/ RT1832</td> <td>Fuse</td> <td>02</td> </tr> <tr> <td>l.</td> <td>5935PV1000013/ QCC1463A/22 DC24V</td> <td>Contactor</td> <td>01</td> </tr> <tr> <td>m.</td> <td>6125PV1010040/SE150024</td> <td>Power Module</td> <td>01</td> </tr> <tr> <td colspan="4">BCC Component</td> </tr> <tr> <td>a.</td> <td>5925PV1000043/S202MD16</td> <td>Circuit breaker</td> <td>01</td> </tr> <tr> <td>b.</td> <td>5925PV1000042/ S202MD10</td> <td>Circuit breaker</td> <td>01</td> </tr> <tr> <td>c.</td> <td>5925PV1000053/ S202MD6</td> <td>Circuit breaker</td> <td>01</td> </tr> <tr> <td>d.</td> <td>6125PV1010041/SE35024</td> <td>Power module</td> <td>01</td> </tr> <tr> <td>e.</td> <td>6110PV6020014/NLC20P</td> <td>NLC circuit board</td> <td>01</td> </tr> <tr> <td>f.</td> <td>6110PV6020015/SLC12P</td> <td>SLC circuit board</td> <td>01</td> </tr> <tr> <td>g.</td> <td>5945PV1000008/ HH52P AC220V</td> <td>Relay</td> <td>01</td> </tr> <tr> <td>h.</td> <td>5935PV1000109/ LC1E3201M5N</td> <td>Contactor</td> <td>01</td> </tr> <tr> <td>j.</td> <td>5935PV1000028/ LC1D098M7C+LADN02</td> <td>Contactor</td> <td>01</td> </tr> <tr> <td>k.</td> <td>5935PV10000-13/ QCC1463A/22 DC24V</td> <td>Contactor</td> <td>01</td> </tr> <tr> <td>l.</td> <td>6110PV6020017/ XP01</td> <td>Chip</td> <td>01</td> </tr> <tr> <td>m.</td> <td>5961PV0010015/ BD6</td> <td>Diode</td> <td>01</td> </tr> <tr> <td>n.</td> <td>5961PV0010016/ BD7</td> <td>Diode</td> <td>01</td> </tr> <tr> <td>p.</td> <td>5930PV0090012/ LAY5016AY22X/B</td> <td>Button</td> <td>01</td> </tr> <tr> <td>q.</td> <td>5940PV0030276/JUT12.5</td> <td>Terminal blocks</td> <td>10</td> </tr> <tr> <td>r.</td> <td>5920PV0010053/ RT1832 2A</td> <td>Fuse</td> <td>02</td> </tr> <tr> <td>s.</td> <td>5920PV0020302/ RT1832</td> <td>Fuse base</td> <td>02</td> </tr> <tr> <td>t.</td> <td>6110PV6020016/ZB5</td> <td>Terminal signs</td> <td>20</td> </tr> <tr> <td>u.</td> <td>6240PV0010018/ AD1622D/W31S</td> <td>Indicator</td> <td>01</td> </tr> </tbody> </table>		S NO	NSN/ Part No	Description	Qty	E.R CC components				a.	5925PV1000042/ S202MD10	Circuit breaker	22	b.	5925PV1000043/ S202MD16	Circuit breaker	02	c.	5930PV0010180/ LA39B211D/G23	Illuminated button	06	d.	.5930PV00101204/ LA39B211D/G31	Illuminated button	08	e.	5930PV00101203/ LA39B111XD/G23	Illuminated button	04	f.	6240PV0010015/ AD16-22D/G23	Indicator	08	g.	6240PV0010091 / AD16-16D/W23	Indicator	01	h.	6240PV0010084/ AD16-16D/W31	Indicator	02	j.	5930PV0010048/ LA39B211/R	Button	15	k.	5920PV0010053/ RT1832	Fuse	02	l.	5935PV1000013/ QCC1463A/22 DC24V	Contactor	01	m.	6125PV1010040/SE150024	Power Module	01	BCC Component				a.	5925PV1000043/S202MD16	Circuit breaker	01	b.	5925PV1000042/ S202MD10	Circuit breaker	01	c.	5925PV1000053/ S202MD6	Circuit breaker	01	d.	6125PV1010041/SE35024	Power module	01	e.	6110PV6020014/NLC20P	NLC circuit board	01	f.	6110PV6020015/SLC12P	SLC circuit board	01	g.	5945PV1000008/ HH52P AC220V	Relay	01	h.	5935PV1000109/ LC1E3201M5N	Contactor	01	j.	5935PV1000028/ LC1D098M7C+LADN02	Contactor	01	k.	5935PV10000-13/ QCC1463A/22 DC24V	Contactor	01	l.	6110PV6020017/ XP01	Chip	01	m.	5961PV0010015/ BD6	Diode	01	n.	5961PV0010016/ BD7	Diode	01	p.	5930PV0090012/ LAY5016AY22X/B	Button	01	q.	5940PV0030276/JUT12.5	Terminal blocks	10	r.	5920PV0010053/ RT1832 2A	Fuse	02	s.	5920PV0020302/ RT1832	Fuse base	02	t.	6110PV6020016/ZB5	Terminal signs	20	u.	6240PV0010018/ AD1622D/W31S	Indicator	01
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9.	Quantity	01 x Bridge Control Console with components mentioned in S No 09 01 x Engine Room Central Control Console with components mentioned in S No 09																																																																																																																																									

10.	Source of Availability	China			
11.	OEM Details	Address:	Jinzhou Hangxing Ship Technology Co. Ltd.		
		Contact Phone:	+86-0416-3819721		
		Contact Email:	hxnorth@hxgroup.com.cn		
12.	Alternate/ Local Source	Alternate Source:	N/A		
		Address:	N/A		
		Contact Phone:	N/A		
		Contact Email:	N/A		
13.	Justification for Work	As per PMS Routines/ Technical manual			
14.	Work Required	a	b	c	d
		Defect List	Repair Work Required	Services Required	Spares Required
		Nil	Yes	Yes	Yes
15.	Detailed Scope of Work	Details of Serial 9 Column a, b and c.			
		a	b		c
		Detail of Repair Work Required	Detail of Services Required		Details of Spares Required
		As per requirements	<p>Complete overhaul of Bridge and Engine Room Central Control Console including following aspects:</p> <p>a. Check the input and output voltages of system to see if they are in the standard value. Clean system equipment. Check grounding. Check up the terminal labels inside the console to see if they are in good condition and whether the device labels are clear.</p> <p>b. Inspect the buttons, indicators on the console panel for any damage: Inspect the wiring on the terminal inside the console for any looseness and damage</p> <p>c. Complete Overhauling with repair and replacement of components/ parts as required. Internal overhaul of ECC includes disconnect the internal power supply completely, check the interna) cables and devices for the insulation (insulation resistance as per manual), clean the sundries with a high power dust collector, especially the dust on the terminal board, exposed contactors and waste wires in the console, use a brush when necessary, check the welding spots of foundation of console control room for any sealing off. if yes, use an electric welding machine and welding electrode for repair welding, check the surface paint layer of console body, in case of any peeling off, polish with abrasive paper and make up with paint of the corresponding color, check all wires and fastening screws</p>		As mentioned at S No 9

and bolts for any looseness and tighten them with corresponding screwdrivers and nipple pliers respectively organize relevant qualified maintenance technicians to inspect and evaluate a) of the defected devices / components / elements, after the devices / components / elements listed have been repaired or replaced, check the installation and wiring as per the relevant drawings and power on for adjustment, to make sure the operation requirements of ECC are met.

d. Examining the appearance of the Bridge control console/DCC examining the inside of the bridge control console/DCC.

e. Check the function of the circuit breaker. Check ground connection, check fuse body and fuse check the indicator, check the insulation resistance. Check the relay or contactor, check the power supply device and check the tightness of all the connection.

f. Since the breakers are within the distribution boxes, therefore, their overhaul must be carried out on the distribution boxes, which may be dismantled when necessary. Dismantle the four screws connected to the supporting post on the louver of distribution box with crossrecessed head screwdriver and take off the louver, dismantle the connecting wire of the damaged circuit breaker with slottedhead screwdriver and loosen the screw connecting the jumper with this screwdriver. The damaged circuit breaker can be taken off from the guide rail easily-in this way. install the new circuit breaker on the guide rail, connect the jumper to the circuit breaker and tighten the screw with slottedhead screwdriver to make sure the jumper and circuit breaker are tightened firmly, meanwhile, install the dismantled connecting wire to the other end of circuit breaker and tighten the screw with slottedhead screwdriver to make sure the connecting wire and circuit breaker are tightened firmly finally, install the louver of distribution box back to the supporting post and tighten the screw with crossrecessed head screwdriver, the circuit breaker is replaced hereby test after installation: measure the input and output of the circuit breaker with a universal multimeter, the input and output ends are switched on when the circuit breaker is closed; the input and output ends are switched off when the

			<p>circuit breaker is opened.</p> <p>g. Satisfactory operation (Start/ stop) of all Main Engines from Bridge, Engine Room and Local.</p> <p>h. Satisfactory operation of all parameters on gauges of Main Engines at Bridge, Engine Room and Local.</p>	
16.	Technical Specs	As per OEM/ Technical Manual.		
17.	Eligibilities	OEM authorized Rep having experience of MTU control console		
18.	EDC	ASAP (10 days)		
19.	Warranty	1 year		
20.	Acceptance Criteria	<p>a. Work will be carried out by/ through OEM rep.</p> <p>b. Satisfactory trials of Main Engines from. Bridge, Engine Room and Local.</p>		

PROCUREMENT OF CRITICAL ITEMS FOR MAIN ENGINES & GENSETS OF BASOL

S No	Details																																									
1.	Ships Name	PMSS BASOL																																								
2.	Parent Equipment	Main Engine, Gensets																																								
3.	OEM	MTU Germany, Caterpillar																																								
4.	Model	16V400M73L MAIN ENGINE, CAT C9 GENSET, ZF-9050 MAIN GEARBOX																																								
5.	Serial No	Main Engine:527112664, Genset C9																																								
6.	Origin	Germany, USA																																								
7.	Sub Equipment	Main Engine, Genset, Gearbox, HPAC																																								
8.	Assembly Equipment	Filter Element																																								
9.	Part No. of Assembly Component	<table border="1"> <thead> <tr> <th>Item</th> <th>Model/ Part No/ NSN</th> <th>Qty</th> <th>Remarks</th> </tr> </thead> <tbody> <tr> <td colspan="4">MAIN ENGINE (16V400M73L)</td> </tr> <tr> <td>Air Filter</td> <td>0180943002/2940-12-362-42063</td> <td>12</td> <td rowspan="11">MTU Spare</td> </tr> <tr> <td>Fuel Filter</td> <td>X00042421/ X52408300034</td> <td>12</td> </tr> <tr> <td>Fuel Prefilter (Water Separators)</td> <td>XS594080.00073</td> <td>12</td> </tr> <tr> <td>Centrifugal Oil Filter</td> <td>X52718300040</td> <td>12</td> </tr> <tr> <td>Collessor Elements (KFWA)</td> <td>X00036161/43310-12- 379-2788</td> <td>08</td> </tr> <tr> <td>Filter Element Air starting bottle</td> <td>MKD-ZJK-09-03/5430PV3030017</td> <td>06</td> </tr> <tr> <td>Lube Oil filter insert</td> <td>0632.100.186</td> <td>12</td> </tr> <tr> <td>Fuel Filters</td> <td>1R-0750</td> <td>10</td> </tr> <tr> <td>Air Filters</td> <td>4L-9852</td> <td>10</td> </tr> <tr> <td>Lube Oil filter</td> <td>R1808</td> <td>10</td> </tr> </tbody> </table>	Item	Model/ Part No/ NSN	Qty	Remarks	MAIN ENGINE (16V400M73L)				Air Filter	0180943002/2940-12-362-42063	12	MTU Spare	Fuel Filter	X00042421/ X52408300034	12	Fuel Prefilter (Water Separators)	XS594080.00073	12	Centrifugal Oil Filter	X52718300040	12	Collessor Elements (KFWA)	X00036161/43310-12- 379-2788	08	Filter Element Air starting bottle	MKD-ZJK-09-03/5430PV3030017	06	Lube Oil filter insert	0632.100.186	12	Fuel Filters	1R-0750	10	Air Filters	4L-9852	10	Lube Oil filter	R1808	10	
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Lube Oil filter	R1808	10																																								
10.	Quantity	As mentioned in S No 9																																								
11.	Source of Availability	Germany, USA, China																																								
12.	OEM Details	Address: MTU Friedrichshafen GmbH, Germany Contact: +4251178060 Email: www.mtu.de																																								
13.	Justification for Work	As per PMS Routines/ Technical manual																																								
14.	Detailed Scope of Work	Details of Serial 9 Column a, b and c.																																								
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		Detail of Repair Work Required	Detail of Services Required	Details of Spares Required																																						
	Nil	Nil	As mentioned in S No 9																																							
15.	Technical Specs	As per Technical Manual/ OEM.																																								
16.	Eligibilities	OEM recommended Spares																																								
17.	EDC	ASAP (10 x Days)																																								

18.	Warranty	01 x Year
19.	Acceptance Criteria	a. OEM recommended spares/ parts. b. Certified spares to be used for avoiding damage to system and ship.

IT NO: IT/PM/86/98/2025-26

PROCUREMENT & INSTALLATION OF CONTROL SYSTEM OF MAIN ENGINE NO 1 - PMSS DASHT

S No		Details			
1.	Ships Name	PMSS DASHT			
2.	Parent Equipment	GENSET			
3.	OEM	Caterpillar			
4.	Model	C-9			
5.	Serial No	C9Z05156			
6.	Origin	USA			
7.	Sub Equipment	GENSET No 1			
8.	Assembly Equipment	Replacement of control system.			
9.	Part No. of Assembly Component	387-9431, 170-6116			
10.	Quantity	01			
11.	Source of Availability	Local Contractor			
12.	OEM Details	Address:		USA (Caterpillar)	
		Contact Phone:		N/A	
		Contact Email:		N/A	
13.	Justification for Work	Repair/ Overhauling of GENSET No 1			
14.	Work Required	a	b	c	d
		Defect List	Repair Work Required	Services Required	Spares Required
		As per defect history	Replacement of control system.	Replacement of control system.	N/A
15.	Detailed Scope of Work	Details of Serial 9 Column a, b and c.			
		a	b	c	
		Detail of Repair Work Required	Detail of Services Required	Details of Spares Required	
		Replacement of control system	Replacement of control system	N/A	
16.	Technical Specs	As per technical manual/ OEM.			
17.	Eligibilities	Reputable contractor having relevant work experience.			
18.	EDC	07 x Days			
19.	Warranty	01 x Year			
20.	Acceptance Criteria	a. Provision of pressure test record as per OEM standard. Only OEM recommended spares to be used by firm. b. Visual inspection of provided items/ spares used w.r.t physical inspection. c. Full Power Trials, HATs & SATs.			

21.	Any other relevant information	visit onboard to resolve any query.
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IT NO: IT/PM/86/99/2025-26

PROCUREMENT & INSTALLATION OF NEW CONTROL SYSTEM OF MAIN ENGINE NO 3 - PMSS DASHT

S No	Details			
1.	Ships Name	PMSS DASHT		
2.	Parent Equipment	Main Engine No 3		
3.	OEM	MTU		
4.	Model	16V4000M73L		
5.	Origin	Germany		
6.	Sub Equipment	Replacement of control system		
7.	Quantity	01		
8.	Source of Availability	MTU		
9.	Justification for Work	Replacement of Control System		
10.	Work Required	a	b	c
		Defect List	Repair Work Required	Services Required
		As per defect list.	Replacement of control system.	Replacement of control system.
11.	Detailed Scope of Work	Details of Serial 9 Column a, b and c.		
		a	b	c
		Detail of Repair Work Required	Detail of Services Required	Details of Spares Required
		Replacement of control system	Replacement of control system Engine No 3.	N/A
12.	Technical Specs	As per Technical Manual/ OEM.		
13.	Eligibilities	a. Must have relevant experience in above servicing/ cleaning and repair/ overhauling of said machinery items. b. Only OEM recommended spares must be used. c. Firm must visit site for understanding exact nature of defect/ hindrances involved in job prior quoting to avoid inconvenience on later stage after award of Work Order.		
14.	EDC	07 x Days		
15.	Warranty	01 x Year		
16.	Acceptance Criteria	a. Only OEM recommended spares must be used. b. No growth work will be accepted by firm.		
17.	Any other relevant information	Visit ship to resolve any query		

PROCUREMENT & INSTALLATION OF CONTROL SYSTEM OF MAIN ENGINE NO 3 - PMSS DASHT

S No	Details			
1.	Ships Name	PMSS DASHT		
2.	Parent Equipment	GENSET		
3.	OEM	Caterpillar		
4.	Model	C-9		
5.	Serial No	C9Z05156		
6.	Origin	USA		
7.	Sub Equipment	GENSET No 3		
8.	Assembly Equipment	Replacement of control system.		
9.	Part No. of Assembly Component	387-9431, 170-6116		
10.	Quantity	01		
11.	Source of Availability	Local Contractor		
12.	OEM Details	Address: USA (Caterpillar) Contact Phone: N/A Contact Email: N/A		
13.	Justification for Work	Procurement/ installation of Control System		
14.	Work Required	a	b	c
		Defect List	Repair Work Required	Services Required
		As per defect history	Replacement of control system.	Replacement of control system.
15.	Detailed Scope of Work	Details of Serial 9 Column a, b and c.		
		a	b	c
		Detail of Repair Work Required	Detail of Services Required	Details of Spares Required
		Replacement of control system	Replacement of control system	N/A
16.	Technical Specs	As per technical manual/ OEM.		
17.	Eligibilities	Reputable contractor having relevant work experience.		
18.	EDC	07 x Days		
19.	Warranty	01 x Year		
20.	Acceptance Criteria	a. Provision of pressure test record as per OEM standard. Only OEM recommended spares to be used by firm. b. Visual inspection of provided items/ spares used w.r.t physical inspection. c. Full Power Trials, HATs & SATs.		
21.	Any other relevant information	Coordinate MEO/ SS/ visit onboard to resolve any query.		

**PROCUREMENT & INSTALLATION OF CONTROL SYSTEM OF MAIN ENGINE NO 2 - PMSS
DASHT**

S No		Details			
1.	Ships Name	PMSS DASHT			
2.	Parent Equipment	GENSET			
3.	OEM	Caterpillar			
4.	Model	C-9			
5.	Serial No	C9Z05156			
6.	Origin	USA			
7.	Sub Equipment	GENSET No 2			
8.	Assembly Equipment	Replacement of control system.			
9.	Part No. of Assembly Component	387-9431, 170-6116			
10.	Quantity	01			
11.	Source of Availability	Local Contractor			
12.	OEM Details	Address:		USA (Caterpillar)	
		Contact Phone:		N/A	
		Contact Email:		N/A	
13.	Justification for Work	Repair/ Overhauling of GENSET No 2			
14.	Work Required	a	b	c	d
		Defect List	Repair Work Required	Services Required	Spares Required
		As per defect history	Replacement of control system.	Replacement of control system.	N/A
15.	Detailed Scope of Work	Details of Serial 9 Column a, b and c.			
		a	b	c	
		Detail of Repair Work Required	Detail of Services Required	Details of Spares Required	
		Replacement of control system	Replacement of control system	N/A	
16.	Technical Specs	As per technical manual/ OEM.			
17.	Eligibilities	Reputable contractor having relevant work experience.			
18.	EDC	07 x Days			
19.	Warranty	01 x Year			
20.	Acceptance Criteria	a. Provision of pressure test record as per OEM standard. Only OEM recommended spares to be used by firm. b. Visual inspection of provided items/ spares used w.r.t physical inspection. c. Full Power Trials, HATs & SATs.			
21.	Any other relevant information	Coordinate MEO/ SS/ visit onboard to resolve any query.			

**PROCUREMENT & INSTALLATION OF NEW CONTROL SYSTEM OF MAIN ENGINE NO 2 - PMSS
DASHT**

S No		Details			
1.	Ships Name	PMSS DASHT			
2.	Parent Equipment	Main Engine No 2			
3.	OEM	MTU			
4.	Model	16V4000M73L			
5.	Origin	Germany			
6.	Sub Equipment	Replacement of control system			
7.	Quantity	01			
8.	Source of Availability	MTU			
9.	Justification for Work	Replacement of Control System			
10.	Work Required	a	b	c	d
		Defect List	Repair Work Required	Services Required	Spares Required
		As per defect list.	Replacement of control system.	Replacement of control system.	N/A
11.	Detailed Scope of Work	Details of Serial 9 Column a, b and c.			
		a	b	c	
		Detail of Repair Work Required	Detail of Services Required	Details of Spares Required	
		Replacement of control system	Replacement of control system Engine No 2.	N/A	
12.	Technical Specs	As per Technical Manual/ OEM.			
13.	Eligibilities	a. Must have relevant experience in above servicing/ cleaning and repair/ overhauling of said machinery items. b. Only OEM recommended spares must be used. c. Firm must visit site for understanding exact nature of defect/ hindrances involved in job prior quoting to avoid inconvenience on later stage after award of Work Order.			
14.	EDC	07 x Days			
15.	Warranty	01 x Year			
16.	Acceptance Criteria	a. Only OEM recommended spares must be used. b. No growth work will be accepted by firm.			
17.	Any other relevant information	Coordinate MEO/ SS to resolve any query			

**PROCUREMENT & INSTALLATION OF NEW CONTROL SYSTEM OF MAIN ENGINE NO 1 - PMSS
DASHT**

S No		Details			
1.	Ships Name	PMSS DASHT			
2.	Parent Equipment	Main Engine No 1			
3.	OEM	MTU			
4.	Model	16V4000M73L			
5.	Origin	Germany			
6.	Sub Equipment	Replacement of control system			
7.	Quantity	01			
8.	Source of Availability	MTU			
9.	Justification for Work	Replacement of Control System			
10.	Work Required	a	b	c	d
		Defect List	Repair Work Required	Services Required	Spares Required
		As per defect list.	Replacement of control system.	Replacement of control system.	N/A
11.	Detailed Scope of Work	Details of Serial 9 Column a, b and c.			
		a	b	c	
		Detail of Repair Work Required	Detail of Services Required	Details of Spares Required	
		Replacement of control system	Replacement of control system Engine No 1.	N/A	
12.	Technical Specs	As per Technical Manual/ OEM.			
13.	Eligibilities	a. Must have relevant experience in above servicing/ cleaning and repair/ overhauling of said machinery items. b. Only OEM recommended spares must be used. c. Firm must visit site for understanding exact nature of defect/ hindrances involved in job prior quoting to avoid inconvenience on later stage after award of Work Order.			
14.	EDC	07 x Days			
15.	Warranty	01 x Year			
16.	Acceptance Criteria	a. Only OEM recommended spares must be used. b. No growth work will be accepted by firm.			
17.	Any other relevant information	Contract MEO/ SS to resolve any query			

**PROCUREMENT & INSTALLATION OF NEW CONTROL SYSTEM OF MAIN ENGINE NO 4 - PMSS
DASHT**

S No		Details			
1.	Ships Name	PMSS DASHT			
2.	Parent Equipment	Main Engine No 4			
3.	OEM	MTU			
4.	Model	16V4000M73L			
5.	Serial No	N/A			
6.	Origin	Germany			
7.	Sub Equipment	Replacement of control system			
8.	Quantity	01			
9.	Source of Availability	MTU			
10.	Justification for Work	Replacement of Control System			
11. .	Work Required	a	b	c	d
		Defect List	Repair Work Required	Services Required	Spares Required
		As per defect list.	Replacement of control system.	Replacement of control system.	N/A
12.	Detailed Scope of Work	Details of Serial 9 Column a, b and c.			
		a	b	c	
		Detail of Repair Work Required	Detail of Services Required	Details of Spares Required	
		Replacement of control system	Replacement of control system Engine No 4.	N/A	
13.	Technical Specs	As per Technical Manual/ OEM.			
14.	Eligibilities	a. Must have relevant experience in above servicing/ cleaning and repair/ overhauling of said machinery items. b. Only OEM recommended spares must be used. c. Firm must visit site for understanding exact nature of defect/ hindrances involved in job prior quoting to avoid inconvenience on later stage after award of Work Order.			
15.	EDC	07 x Days			
16.	Warranty	01 x Year			
17.	Acceptance Criteria	a. Only OEM recommended spares must be used. b. No growth work will be accepted by firm.			
18.	Any other relevant information	Contract MEO/ SS to resolve any query			

REQUIREMENT OF EPOXY FLOORING IN INNER AREAS - PMSS KOLACHI

S No	Details				
1.	Ships Name	PMSS KOLACHI			
2.	Parent Equipment	Epoxy Flooring			
Quantity	S No	Compartment	Area		
	a.	Wardroom Alleyway	198 Sq Ft		
	b.	CPO's Washroom Alleyway	107 Sq Ft		
	c.	Galley Alleyway	256 Sq Ft		
	d.	MCR Alleyway	520 Sq Ft		
	e.	Ops Alleyway	462 Sq Ft		
	f.	Diving Store Alleyway	110 Sq Ft		
	g.	Officer's Alleyway	198 Sq Ft		
	h.	ME Mess	124 Sq Ft		
	i.	Ops Mess	124 Sq Ft		
	j.	Combined Mess	100 Sq Ft		
	k.	Ops Mess Lobby	230 Sq Ft		
	l.	PO's Alleyway	150 Sq Ft		
	m.	PO's Mess	136 Sq Ft		
	n.	L & M Mess	124 Sq Ft		
	o.	L & M Mess Lobby	63 Sq Ft		
	p.	Communication Mess	100 Sq Ft		
q.	Paint Store Alleyway	174 Sq Ft			
Total			3176 Sq Ft		
3.	Source of Availability	Through Local Firm/ Contractor			
4.	Justification for Work	Wear and Tear of Epoxy/Matting			
5.	Work Required	a	b	c	d
		Defect List	Repair Work Required	Services Required	Spares Required
		Wear and Tear of Epoxy/ Matting	New Epoxy Flooring	New Epoxy Flooring	As required
6.	Detailed Scope of Work	Details of Serial 9 Column a, b and c.			
		a	b	c	
		Detail of Repair Work Required	Detail of Services Required	Details of Spares Required	
		Wear and Tear of Epoxy/ Matting	New Epoxy Flooring of area 3176 Sq Ft	As required	
7.	Technical Specs	As prescribed by SS			
8.	Eligibilities	Reputable local contractor having working experience in PMSA			
9.	EDC	15 x Days			
10.	Warranty	a. 2 x year warranty after delivery			
		b. Epoxy flooring will be replaced if deformity of wear is developed during warranty period.			
11.	Acceptance	Acceptance by end user			

	Criteria	
12.	Any other relevant information	a. contact SS/ visit onboard for clear understanding of scope of work. b. Damage/ defect occurred is responsibility of contractor.

IT NO: IT/PM/86/106/2025-26

**REQUIREMENT OF 02 X V/UHF TX/RX XT-4410 COMMUNICATION AND STW OF SYSTEM - PMSS
SABQAT & RAFAQAT**

S No		Details
1.	Ships Name	PMSS SABQAT & RAFAQAT
2.	Parent Equipment	XT-4410 V/UHF TX/RX
3.	OEM	R & S Germany
4.	Model	R&S
5.	Serial No	5127007
6.	Origin	Germany
7.	Sub Equipment	a. V/UHF TRANSCEIVER XT 4410 (5895-72-512-7007) b. Power Supply AC/DC for M3SR (5895-73-510-7596) c. V/UHF Coaxial dipole 100 MHz to 1300 MHz (5895-73-510- 7573) d. RF Feeder Cable (5995-72-511-8067) e. Head set Incl Microphone (5985-25-151-5039) f. Hand Held Microphone with cable and plug (5965-12-354-6159) g. Power Supply Cable (6150-12-364-8638)
8.	Assembly Equipment	a. V/UHF Transceiver complete XT-4410L b. Power SUPPLY AC/DC for M3SR c. V/UHF Coaxial Dipole 100 MHz to 400 MHz d. RF Feeder Cable 40 meter e. Heat Set Including Microphone f. Hand Held Microphone with Cable and plug g. Power Supply Cable
9.	Part No. of Assembly Component	a. V/UHF Transceiver Complete XT 4410L (5895-72-512-7007) b. Power Supply AC/DC for M3SR (5895-73-510-7596) c. V/UHF Coaxial Dipole 100 MHz to 1300 MHz (5895-73-510- 7573) d. RF Feeder Cable 40 meter (5995-72-511-8067) e. Head set Incl Microphone (5985-25-151-5039) f. Hand Held Microphone with cable and plug (5965-12-354-6159) g. Power Supply Cable (6150-12-364-8638)
10.	Quantity	02 x V/UHF TX/RX XT-4410 with complete assembly components
11.	Source of Availability	OEM, International/ Local Market
12.	OEM Details	Address: M/S ROHDE & SCHWARZ GMBH & CO GERMANY MUEHLDFSTR. 15 MUNICH, GERMANY Contact Phone: +49894129-0 Contact Email: customersupport@rohde-schwarz.com
13.	Alternate/ Local Source	Alternate Source Address: Mr Zeeshan Ahmed Qureshi R& S Pakistan 21 st West 4 ^m Floor Sardar Mansion Fazal UI Haq Road Blue Area Islamabad Contact Phone: 051-111-050-050 & 0345-2010344 Contact Email: NIL
14.	Justification for Work	New installation of V/UHF TX /RX XT -4410L

15.	Work Required	a	b	c	d
		Defect List	Repair Work Required	Services Required	Spares Required
		New Installation	-	Installation of 02 x complete XT-4410 V/UHF TX/RX Communication Equipment and STW of the system	All spares tools, special equipment/ tools accessories etc for installation of V/UHF TX/ RX XT-4410 are to be arranged by the firm
16.	Detailed Scope of Work	Details of Serial 9 Column a, b and c.			
		a	b		c
		Detail of Repair Work Required	Detail of Services Required		Details of Spares Required
		Installation of 02 x complete XT-4410 V/UHF TX/RX Communication Equipment and STW of the system	a. Installation of 2 x complete XT-4410 V/UHF TX/RX Communication equipment as per IT spec and STW of system. b. Dismantling, assembling and transportation will be responsibility of the firm. c. Any other work required to ensure good quality and optimum performance of the system. d. All in way work will be undertaken by the firm. e. The firm will be responsible to undertake any work not covered above for repair/ replacement of XT-4410 system		All spares tools, special equipment/ tools accessories etc for installation of V/UHF TX/ RX XT-4410 are to be arranged by the firm
17.	Technical Specs	a. Out Power AM 30W and FM 100W. b. Must be SECOS Modules c. Frequency: i. VHF 108 MHz to 174 MHz ii. UHF 225 MHz to 400 MHz d. Power Supply AC/DC for M3SR			
18.	Eligibilities	a. As per TSP b. The firm should visit onboard and access the extend of required work and undertake exact nature of defect before quotation. c. The firm should having good experience to repair/ maintenance/ replacement of such system/ equipment. d. The firm should be NTN/ GST registered.			
19.	EDC	08 x week after issuance			
20.	Warranty	01 Year			
21.	Acceptance Criteria	Satisfactory (HATs & SATs) after installation of 02 x complete V/UHF TX /RX XT-4410L Communication system			

**REPAIR/ REPLACEMENT OF MAIN SWITCHBOARD ELECTRICAL & ELECTRONIC EQUIPMENTS -
PMSS DASHT**

S No		Details			
1.	Ships Name	PMSS DASHT			
2.	Parent Equipment	Main Switchboard			
3.	OEM	China			
4.	Model	PGH1			
5.	Serial No	GB/T13602-92			
6.	Origin	China			
7.	Sub Equipment	Main Switchboard No 1			
8.	Assembly Equipment	380V AC Feeder Panels, PPU-3(DEIF), DG No 1 Control Panel, 220V AC Feeder and Sync Panel, 380V AC Feeder and DG No 2 Control Panel, DG No 3 Control and Sync Panel, 220V AC Feeder Panel, 2 Pool Breaker HMI and AMS CPU & Display.			
9.	Part No. of Assembly Component	T5N630PR222DS, T1B160TMDR20FFC3P, T1B160TMDR32FFC3P, T1B 160TMDR160FFC3P, T1B 160TMDR25FFC3P, T1B 160TMDR100FFC3P, T1B 160TMDR125FFC3P, T2N160MAR20FF3P, T2NPR221DLSIR160FF3P, T4N250PR222DS/P-LSIR160FF3P, T4N250PR222DS/P-LSIR250FF3P, CPU314C- 2PN/DP24DI16DO4AI2AO, PPU+H3+Y11(PPU3)			
10.	Quantity	13 x 380V AC Feeder Panels Breakers, 03 x PPU-3(DEIF), 20 x 220V AC Feeder Breakers and 01 x Sync Panel, 03 x 380V ACB Breaker and MSB 1 DG Control Panel, 42 x 2 Pool Breakers.			
11.	Source of Availability	Local Contractor			
12.	OEM Details	Address: CHANGSHU RUIITE Electric Company Ltd.			
13.	Justification for Work	New installation of V/UHF TX /RX XT -4410L			
14.	Work Required	a	b	c	d
		Defect List	Repair Work Required	Services Required	Spares Required
		As per defect list.	Repair/ replacing of electrical and electronic equipment's fitted in MCR.	Repair/ Replacement.	N/A
15.	Detailed Scope of Work	Details of Serial 9 Column a, b and c.			
		a	b	c	
		Detail of Repair Work Required	Detail of Services Required	Details of Spares Required	
		Repair/ replacement of Electrical and Electronic equipment's fitted in MCR.	a. Dismantling/ cleaning and installation of electrical and electronic equipment fitted in MCR. b. Repair/ replacement of all breakers as per OEM standard. Repair/ replacement of PPU-3 (DEIF) fitted on Main Switchboard No 1. c. Repair/ replacement of MCS-5, PIMS, PPS, RCS-5 FPP and ECS-5 with EIM.	As per requirement.	

16.	Technical Specs	As per technical manual/ OEM.
17.	Eligibilities	Reputable contractor having relevant work experience.
18.	EDC	07 x Days
19.	Warranty	01 x Year
20.	Acceptance Criteria	a. Provision of all electrical/ electronic items as per OEM standard. Only OEM recommended spares to be used by firm. b. Visual inspection of provided items/ spares used w.r.t physical inspection.

IT NO: IT/PM/86/108/2025-26

SCOPE OF WORK/ IT SPECIFICATIONS – DISPOSAL OF GARBAGE

S No	Description	Collection of Garbage
1.	Requirement/Scope of Work	<p>a. Collection of Garbage through truck from HQ PMSA building on daily basis except Sunday.</p> <p>b. Fumigation of HQ PMSA complete area by usage of insecticide spray and smoke spray on daily basis.</p> <p>c. 01 x Dumper of sweet earth/ Manure on quarterly basis.</p> <p>d. Provision of 300 x Seasonal Flowers plants on quarterly basis.</p> <p>e. Provisions of 10 x Labors, 01 x Supervisor and 01 x Maali for HQ PMSA for clean ship of internal/ external area of HQ PMSA complex premises and surrounding areas on daily basis except Sunday and gazetted holiday. Firm is to ensure Payment of salaries to these labors at minium wage rate implemented by federal Government at the time of the signing of contract</p> <p>f. Firm is to provide below mentioned equipment additionally to HQ PMSA as per schedule motioned against each</p> <ul style="list-style-type: none"> i. 04 x axe/ Qtr ii. 04 X Garden fork /Qtr iii. 04 x Shovels/ Qtr iv. 04 x Pick age/ Qtr v. 04 x Sickle/ Qtr vi. 02 x Garden Hoe/ Qtr vii. 200 kg lime powder/ month <p>g. Labors provided by the firm shall be responsible for below mentioned tasking.</p> <ul style="list-style-type: none"> i. Cleanship of complete AOR at HQ PMSA complex and surrounding areas ii. Sweeping and cleaning of all garbage drums along with sprinkling of the same with lime powder iii. Removal of stones polythene bag from HQ PMSA complex and its surroundings i.e MLC plot & seaward Side. iv. Trimming of bushes and trees in HQ complex area and surroundings i.e MLC plot seaward side v. White wash of Kachra Kundi vi. Maintenance of Lawn areas i.e grass cutting. vii. Any additional work as per requirement.
2.	Location	HQ PMSA Complex
3.	Eligibilities	Reputable local contractor registered with FBR and having working experience with PMSA
4.	Specification	As Per Scope of Work

5.	Disposal	Disposal of collected Garbage to any suitable place in consultation with concerned Cantonment Board.
6.	Acceptance Criteria	Inspection by end user
7.	Any other relevant information	In case of any query, contract EXO PMSS INDUS 021-48505455
8.	Contract period	One Year Extendable to Three Year
9.	Terms of payment	On monthly basis

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

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 alongwith the tender No and date on the envelope containing the technical offer.

b. **COMMERCIAL OFFER:** The price be quoted in figures as well as in words alongwith 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. Total price of the items quoted against the tender os to be clearly mentioned. It should also contain a **pay order 2% 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.

c. **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 alongwith 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%:

S No	Description	Unit Price	Qty	Total GST @18% or SST @ 15%	Total Price
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Please prepare quotation in this format In case of without GST or SST:

S No	Description	Unit Price	Qty	Total	Total Price
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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
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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. EARNEST MONEY:

All participating firms are to provide earnest money in form of pay order alongwith bids. **Registered firms 2% of complete value (inclusive of all prices and taxes). Non registered firms 5% of complete value (inclusive 5% of all prices and taxes).** Firms disqualifying in technical opening/

Commercial opening will be returned their earnest money upon award of work order/ LPO/ Contract to qualifying Firm.

9. TENDER FEE:

Each technical offer must be accompanied with Cash of **Rs 2,000/-** for single stage single envelope and **Rs 7500/-** for Single Stage Two Envelop nonrefundable as tender fee (In favor 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. For provision of stores/ repair or replacement work wherein Two Stage bidding i.e technical opening is required, Inspection of same will be carried out through reputed third party labs i.e SGS, PNCTA and TTI etc. For inspections carried out in two stage bidding, charges for inspection will be borne by supplying firm.

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 Bills for further processing of the same for payment:

- a. 10% of total amount of Contract, 5% of total amount of LPO/ Work Order.
- b. Certificate of Conformity (CoC) required.
- c. Survey Copy of unserviceable items duly verified/ signed by BSO PMSS INDUS.

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 and 5% of LPO/ Work Order (excluding taxes, duties / freight handling charges on a stamp paper of the value 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(l).

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