

TERMS OF REFERENCE AND SCOPE OF WORK

1. MAIN PARTICULARS

Type:	Supply Dhoni
Length:	28.96M
Breadth:	9.54M
Depth:	3.25M
Hull Material:	Fiber
Dead Weight:	
Main Engine:	1 x Yanmar GHA2M-WHT
Gear:	1 x Yanmar YX-120-3
Generator:	1 x Yanmar LX-G26B-N

2. INTRODUCTION

Male' Water and Sewerage Company (MWSC) intends to engage a qualified and experienced marine contractor to undertake the docking, inspection, repair, modification, and overhaul of a fiberglass supply dhoni.

The Contractor shall provide all labour, supervision, docking facilities, lifting equipment, tools, testing instruments, consumables, transportation, temporary services, materials, and technical expertise necessary for the satisfactory completion of the works specified herein.

The Contractor shall be fully responsible for the safe execution, quality control, protection of the vessel, and successful completion of all works in accordance with recognized marine industry standards and best practices.

3. GENERAL REQUIREMENTS

The Contractor shall:

- 1 Carry out a joint pre-docking inspection with MWSC representatives prior to commencement of work.
- 2 Provide a detailed work schedule within three (3) days of award.
- 3 Assign a dedicated Project Supervisor who shall be the single point of contact throughout the project.
- 4 Maintain daily progress records and submit weekly progress reports, including photographs and details of completed, ongoing, and pending activities.
- 5 Provide all lifting, staging, scaffolding, access arrangements, and temporary services required for execution of the works.
- 6 Ensure that all inspections, measurements, testing, and repairs are performed by suitably qualified personnel.
- 7 Comply with all applicable marine safety, environmental, and occupational health regulations.

3. QUALIFICATIONS AND TECHNICAL REQUIREMENTS

Failure to comply with any of the following requirements may result in disqualification of the bid.

1. The Contractor should own and operate a dockyard facility or possess a valid agreement with a recognized dockyard, providing access to and use of the dockyard's facilities, infrastructure, and services for the execution of the works.
2. The dockyard should be equipped with suitable lifting, launching, and vessel handling equipment necessary to safely carry out vessel slipping, docking, launching, and related operations.
3. The Contractor shall have a minimum of five (5) years of proven experience in the docking, repair, maintenance, structural refurbishment, and modification of fiberglass reinforced plastic (FRP) vessels.
4. The Contractor should maintain valid insurance coverage throughout the contract period, providing adequate protection for MWSC vessels, personnel, equipment, and third parties against loss, damage, injury, or liability arising from the execution of the works.
5. The Contractor shall submit details of the Marine Engineers and technical personnel proposed for engine, generator, propulsion, and structural repair works. The submission shall include educational qualifications, professional certifications, relevant training, and documented work experience.

4. GENERAL TERMS AND CONDITIONS

1. All work shall be performed in accordance with recognized marine engineering standards and industry best practices.
2. Any additional defects discovered during docking shall be reported immediately to MWSC for review and approval.
3. No variation work shall commence without written approval from MWSC.
4. Photographic records shall be maintained and submitted before, during, and after completion of repairs.
5. Sea trial and successful commissioning shall be mandatory prior to final acceptance of the vessel.
6. The Contractor shall provide a minimum workmanship warranty period of not less than six (6) months from the date of completion.
7. The Contractor shall maintain safe working practices and comply with all applicable health, safety, and environmental requirements throughout the docking period.
8. All removed components shall be made available for inspection by MWSC prior to disposal or replacement.
9. The Contractor shall ensure that all testing, inspections, and measurements are properly documented and included in the final completion report.

5. DOCUMENTATION REQUIREMENTS

Upon completion of all work, the Contractor shall submit the following documents to MWSC:

1. Dry Docking Completion Report.
2. Hull and Fiberglass Repair Report.
3. Propulsion System Inspection Report.
4. Main Engine Overhaul Report.
5. Generator Overhaul Report.
6. Sea Trial and Commissioning Report.
7. Warranty Certificate for workmanship and replaced materials.

6. SCOPE OF WORKS

1. Docking and General Services.

- Slipping up and down
- Supply of shore power
- Supply of fresh water
- Provide temporary lighting
- Shore crane service
- Provide ventilation fan
- Galley garbage disposal service

2. Hull Cleaning

The Contractor shall carry out thorough underwater hull cleaning immediately after the vessel is docked.

The scope shall include:

- High-pressure washing of the complete underwater hull surface.
- Removal of marine growth, barnacles, shell deposits, and other fouling organisms.
- Cleaning of propellers, rudders, propeller shafts, sea chests, seawater intake gratings, and other submerged fittings.
- Removal of any loose paint and contaminants that may affect inspection and coating activities.

3. Hull Inspection

Following cleaning, a detailed inspection of the vessel's hull structure shall be conducted.

The inspection shall include:

- Fiberglass cracks and fractures.
- Delamination of fiberglass laminates.
- Impact damage and abrasion.
- Structural deformation and distortion.
- Signs of water ingress and moisture penetration.
- Condition of hull-to-deck joints and structural reinforcements.

A comprehensive hull inspection report, including photographs and repair recommendations, shall be submitted to MWSC for review and approval prior to commencement of repairs.

4. Surface Preparation and Hull painting

The Contractor shall prepare and coat the hull in accordance with the paint manufacturer's recommendations and accepted marine coating practices.

The work shall include:

- Removal of loose, damaged, or deteriorated paint.
- Surface sanding and preparation of all coating areas.
- Repair and fairing of minor surface imperfections where necessary.
- Application of suitable marine-grade epoxy primer to all repaired, exposed, or bare fiberglass surfaces.
- Application of gelcoat repairs, polishing, and finishing works to topside surfaces above the waterline where required.
- Application of a minimum of two (2) coats of epoxy barrier coating and two (2) coats of approved marine antifouling paint to all underwater hull surfaces.
- Repainting of draft marks, vessel name, identification markings, and safety markings where required.

All coating application procedures shall strictly comply with the paint manufacturer's specifications.

5. Hull & Structure Repair

- Hull & Structure - Strengthening and repairs required. This includes the main crack (a hole) in the hull (about 4ft x 2ft area, Port Side of the vessel, just 1ft high from water level). Putty filling to the cracks and scratches, chips and cracks, sanding complete hull side above water level and spray gel coat to and sanding for finishing and wet sanding for smoothness and polishing. Cleaning and painting the hull using fibre gel paint and anti-fouling. (two coats primer and two coats antifouling)

7. Storage Hatches Repair

- Grind ALL the bulkheads of the storage hatches, laminate bulkhead joints, and clean up the compartments for fungus. Apply gel coating on stringers and frames, including foam filling for necessary frames and stringers

8. Fabricate Bollards

- Entire main deck to be ground re-laminated with 4 layers and finished with gel coat. Gunwale to be repaired with woodworks and followed by related FRP (Fiberglass Reinforced Plastic) works. Apply anti-skid paint as required.

9. Bunker Tank Modification

- Modification of both port and starboard fuel tanks to increase the total fuel capacity from 3,000 liters to 6,000 liters. The tanks shall be constructed of fiberglass and designed for marine fuel storage applications. Tank fabrication and installation shall include all necessary structural supports, connections, fittings, vents, inspection openings, and fuel transfer arrangements.

10. Fresh Water Tank Modification

- Modification of the freshwater tank to increase its capacity from 2,000 liters to 5,000 liters. The tank shall be constructed of fiberglass and designed for marine freshwater storage applications. Tank fabrication and installation shall include all necessary structural supports, connections, fittings, vents, inspection openings, and associated piping arrangements.

11. Engine Room Repairs

- Cracks on bottom deck stringers, frames, and main beams need to be repaired by laminating with gel coat, and the engine room hatch cover needs modification. Clean and properly laminate bulkheads and other areas to remove dirt and fungus.

12. Main Engine Overhauling

The Contractor shall carry out a top overhaul of the main engine, including inspection, dismantling, cleaning, measurement, reconditioning, reassembly, testing, and commissioning. The scope shall include inspection of:

- Cylinder heads
- Valves and valve seats
- Pistons and piston rings
- Cylinder liners
- Fuel injectors
- Fuel injection pumps
- Turbocharger
- Cooling system components

Spare parts shall be supplied by the Contractor and replaced as required following inspection and approval by MWSC.

13. Main Generator Overhauling

The Contractor shall carry out a top overhaul of the generator engine, including inspection, dismantling, cleaning, measurement, reconditioning, reassembly, testing, and commissioning.

Spare parts shall be supplied by the Contractor and replaced as required following inspection and approval by MWSC.

14. Propulsion System

Propeller

The Contractor shall:

- Remove and inspect the propeller assembly.
- Check for cracks, corrosion, cavitation damage, erosion, and deformation.
- Inspect blade pitch and profile condition.
- Polish propeller surfaces
- Replace damaged components subject to Owner approval.

Shafting System

The Contractor shall:

- Remove and inspect the propeller shaft.
- Check shaft straightness and alignment.
- Measure wear on shaft journals and bearing contact surfaces.
- Inspect stern tube bearings and sealing arrangements.
- Inspect shaft couplings and fasteners.
- Replace cutlass bearings if wear exceeds acceptable limits.
- Renew seals and packing where necessary.

Rudder System

The Contractor shall:

- Remove and inspect rudder assembly.

- Inspect rudder blade condition.
- Inspect rudder stock, pintles, bushes, and bearings.
- Measure clearances and replace worn components where necessary.
- Check alignment and freedom of movement.
- Lubricate all moving parts and steering linkages.

A detailed propulsion and steering system inspection report shall be submitted to MWSC for review.

15. Sea Chests

The Contractor shall:

- Open and clean all sea chests.
- Remove marine growth and accumulated debris.
- Inspect gratings, securing arrangements, and internal surfaces.
- Repair or replace damaged components where necessary.

16. Seawater Valves

The Contractor shall:

- Dismantle all seawater valves within the cooling system.
- Clean and inspect valve bodies, seats, discs, and stems.
- Overhaul valves and restore operational condition.
- Renew gland packing, seals, and gaskets where required.

17. Sea Trial and Commissioning

Upon completion of all docking and repair activities, the Contractor shall conduct sea trials in the presence of MWSC representatives.

Sea Trial Scope

- Verification of vessel performance at normal operating speed.
- Testing of steering and rudder systems.
- Testing of propulsion system performance and vibration levels.
- Verification of shaft alignment and operational condition.
- Testing of generator performance under operational load.
- Verification of seawater cooling system operation.
- Confirmation of absence of abnormal noise, leakage, vibration, or overheating.

A detailed sea trial report shall be submitted to MWSC upon completion.

Vendor Selection

Vendors can be selected by a contract process. However, the following point system will be used to select a vendor.

Proposed Evaluation Criteria

Evaluation Criteria	Weightage (%)
Proposed Price	50
Technical capacity	25
Financial capacity	15
Delivery period 5	10

Financial Capacity

The contractor shall provide documentary evidence demonstrating compliance with the following financial requirements:

- An average annual turnover of not less than MVR 5,000,000.00 during the last three (3) financial years; and
- Availability of liquid assets, cash flow, or access to credit facilities amounting to at least MVR 1,000,000.00.

Experience and Technical Capacity

The contractor shall provide documentary evidence demonstrating compliance with the following experience and technical requirements:

- During the last five (5) years, the Tenderer shall have successfully completed at least five (5) projects, each with a contract value of not less than MVR 500,000.00.
- The Tenderer shall fully comply with all requirements specified in the Qualification and Technical Requirements.