



# MKR BROTHERS ENGINEERING

PTE LTD

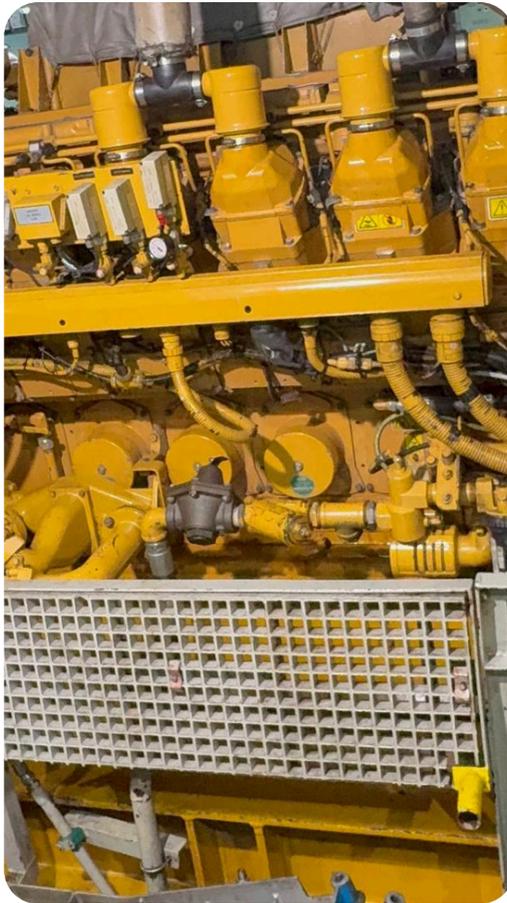




# MKR BROTHERS ENGINEERING PTE LTD

## Main Engine Service and Auxiliary Engine Repair Type -2 Stroke and 4 Stroke

- ⚓ General Inspection , Visual inspection of external condition, leakage check, alignment & foundation, Record running hours, previous service history, and operational log review.
- ⚓ General Inspection ⚓ Cylinder Head & Valve Gear ⚓ Piston & Liner ⚓ Fuel System,
- ⚓ Turbocharger & Air System ⚓ Lubrication & Cooling System ⚓ Crankshaft & Bearings
- ⚓ Reassembly, Testing & Commissioning.



### Deliverables after Job Completion

- ⚓ Service report with measurements & observations
- ⚓ Recommendations for spares & further maintenance.
- ⚓ Performance test records before and after overhaul
- ⚓ Refit with new seals/gaskets.
- ⚓ Conduct test run under load.
- ⚓ Record performance parameters.



## Reconditioning Job Scope

### Component-wise Headlines

- ⚓ Initial Inspection & Assessment
- ⚓ Cylinder Head Reconditioning
- ⚓ Piston Reconditioning
- ⚓ Cylinder Liner Reconditioning
- ⚓ Fuel Injection Equipment Reconditioning
- ⚓ Turbocharger Reconditioning

- ⚓ Crankshaft Reconditioning
- ⚓ Bearings & Bushes
- ⚓ Reassembly & Functional Testing
- ⚓ Final Inspection & Quality Assurance
- ⚓ Dimensional verification against OEM standards
- ⚓ Visual inspection for assembly quality.
- ⚓ Documentation of before/after measurements
- ⚓ Certification of reconditioned components



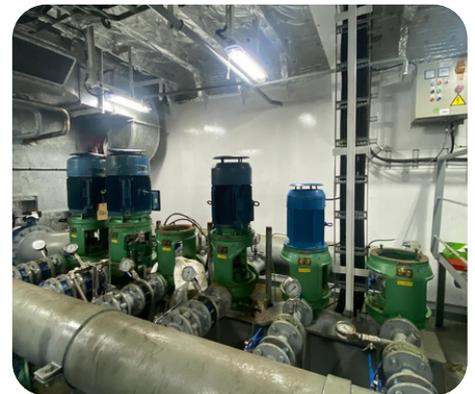
## All Types Of Pump Service, Repairs and Reconnaissance

- ⚓ Centrifugal Pumps ⚓ Gear Pumps
- ⚓ Piston / Plunger Pumps ⚓ Diaphragm Pumps
- ⚓ Screw / Helical Pumps
- ⚓ Peristaltic / Hose Pumps ⚓ Vacuum Pumps (Rotary, Liquid ⚓ Ring, Dry Screw)
- ⚓ Hydraulic / High-Pressure Pumps
- ⚓ Specialty Pumps (Slurry, Screw, Lobe, Magnetic Drive)

- ⚓ Seal / Gasket Replacement
- ⚓ Bearing & Shaft Alignment Check
- ⚓ Cleaning & Corrosion Check
- ⚓ Functional Performance Test

**Notes:**

⚓ Each pump type requires pre-service inspection, dismantling, cleaning, measurement, reconditioning, reassembly, and testing.



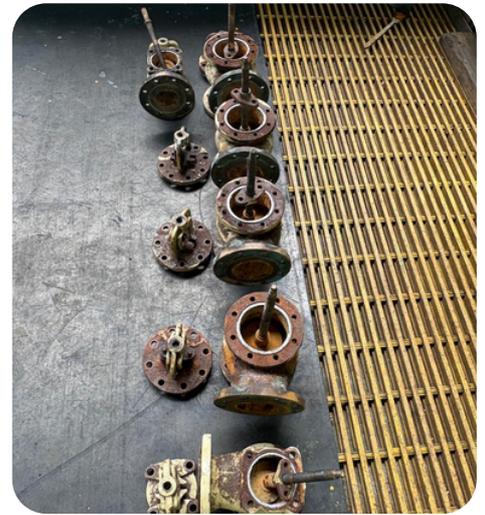
⚓ Inspection of rotating and stationary parts ⚓ Documentation of before/after measurements, test results, and certification is recommended.

## Valve Types – Service, Repair & Reconnaissance

- ⚓ Gate Valves ⚓ Globe Valves ⚓ Ball Valves
- ⚓ Butterfly Valves ⚓ Check Valves (Swing, Lift, Tilting Disc, Spring Loaded) ⚓ Pressure Relief / Safety Valves ⚓ Needle / Control Valves
- ⚓ Plug Valves ⚓ Diaphragm Valves ⚓ Solenoid / Actuated Valves

### Notes for Valve Service & Maintenance:

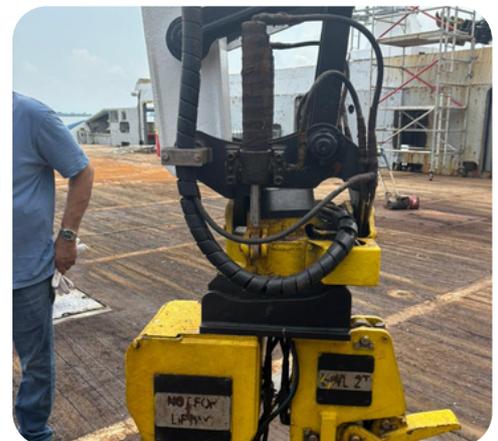
- ⚓ Each valve type generally involves inspection, dismantling, cleaning, repair or replacement of seals/seats, reassembly, and functional testing.
- ⚓ Documentation of service history, leak test, and operational verification is essential.



- ⚓ Critical valves (safety, pressure relief, check valves) should include reconnaissance and calibration checks.

## Vessel Accessories & Equipment – Service & Repairs

- ⚓ Pumps (Centrifugal, Gear, Piston, Diaphragm, Screw, Peristaltic, Vacuum)
- ⚓ Valves (Gate, Globe, Ball, Butterfly, Check, Pressure Relief/Safety, Needle/Control, Plug, Diaphragm, Solenoid/Actuated)
- ⚓ Compressors (Air, Refrigeration, Gas, Booster, Screw, Reciprocating)
- ⚓ Generators & Alternators
- ⚓ Main & Auxiliary Engines
- ⚓ Steering Gear Systems
- ⚓ Propulsion Shafting & Couplings
- ⚓ Winches, Cranes, & Hoists
- ⚓ Pumps & Piping Systems Maintenance
- ⚓ HVAC / Air Conditioning Units
- ⚓ Boiler & Steam Systems
- ⚓ Fire Fighting Systems (Hydrants, Monitors, Pumps, CO<sub>2</sub> Systems)
- ⚓ Navigation & Communication Equipment
- ⚓ Fuel Oil & Lubrication Oil Systems
- ⚓ Fresh Water & Sewage Treatment Systems
- ⚓ Anchoring & Mooring Equipment
- ⚓ Ballast & Bilge Systems
- ⚓ Deck Machinery & Accessories
- ⚓ Safety & Lifesaving Equipment
- ⚓ Electrical Systems & Panels
- ⚓ Hydraulic Systems
- ⚓ Instrumentation & Control Systems
- ⚓ Refrigeration & Cold Storage Systems
- ⚓ Waste Management Systems





## Hydraulic Equipment – Service & Repairs

⚓ **Hydraulic Pumps** - Gear, Piston, Vane, Screw, Axial Piston, Radial Piston.

⚓ **Hydraulic Motors** - Gear, Vane, Piston, Radial Piston.

⚓ **Hydraulic Cylinders** - Single-Acting, Double-Acting, Telescopic Cylinders.

⚓ **Hydraulic Valves** - Directional Control Valves, Pressure Relief Valves, Flow Control Valves, Check Valves, Proportional/Servo Valves.

⚓ **Hydraulic Accumulators** - Bladder, Piston, Diaphragm Types.

⚓ **Hydraulic Power Units (HPU)** - Skid-mounted or Integral Systems

⚓ **Hydraulic Filtration Systems** - Pressure Filters, Suction Filters, Return Line Filters, Offline / Offline Filtration Units

⚓ **Hydraulic Hoses & Fittings** - High-pressure hoses, Quick-connect couplings, Fittings & Adapters

⚓ **Hydraulic Cooling Systems** - Oil Coolers, Heat Exchangers, Fan & Pump Systems.

⚓ **Hydraulic Actuators & Cylinders**- Rotary Actuators, Linear Actuators.

⚓ **Hydraulic Control Panels & Instrumentation** - Pressure Gauges, Flow Meters, Temperature Sensors, Control Valves

⚓ **Hydraulic Safety Devices** - Pressure Relief, Check, and Overload Protection Valves.

### Notes:

⚓ Each headline represents a category for inspection, service, repair, or reconditioning.

⚓ A typical workflow includes:

⚓ Inspection / Reconnaissance



⚓ Cleaning & Dismantling

⚓ Replacement of worn components / seals

⚓ Functional testing and performance verification

⚓ Documentation & reporting

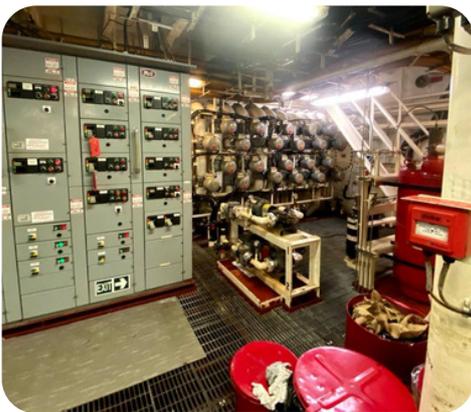
### Electrical & Electronic Equipment – Service & Repairs

- ⚓ Generators & Alternators
- ⚓ Switchboards & Control Panels
- ⚓ Transformers & Voltage Regulators
- ⚓ Circuit Breakers & Fuses
- ⚓ Motors (AC & DC)
- ⚓ Starters, Contactors & Relays
- ⚓ Batteries & Battery Chargers
- ⚓ Lighting Systems (Navigation, Deck, Accommodation)
- ⚓ Navigation Equipment
- ⚓ Radar, Gyrocompass, GPS, Echo Sounder
- ⚓ Communication Equipment VHF, MF/HF, Satellite Communication, Intercom.
- ⚓ Alarms & Monitoring Systems - Engine Alarm Panels, Fire & Gas verification, Documentation & reporting
- ⚓ Sensors & Transmitters
- ⚓ Pressure, Temperature, Flow, Level, Position Sensors

- ⚓ Electronic Control Units (ECU) & PLCs,
- ⚓ Automation & Control Systems - Engine Automation, Power Management Systems, Hydraulic / Process Control.
- ⚓ Inverters & UPS Systems
- ⚓ Ship Service & Emergency Power Distribution Equipment

**Notes:**

- ⚓ Each headline can be used as a category for inspection, preventive maintenance, repairs, or troubleshooting.
- ⚓ Typical workflow includes:
  - ⚓ Visual & functional inspection
  - ⚓ Testing with instruments (multimeter, insulation tester, oscilloscope)



- ⚓ Cleaning, tightening, or replacing worn components
- ⚓ Calibration and functional verification
- ⚓ Documentation & reporting

## Steel Work & Piping – Service & Repairs

⚓ **Structural Steel Work**- Hull Structure, Bulkheads, Decks, Frames, Stringers, Stanchions, Supports, Brackets, Ladder & Railings.

⚓ **Pipe Systems** – General Fuel Oil, Lube Oil, Fresh Water, Sea Water, Ballast, Bilge, Fire Fighting, Compressed Air, Hydraulic Lines.

⚓ **Pipe Fittings & Flanges** - Elbows, Tees, Reducers, Couplings, Flanges, Unions, Valves.

⚓ **Pipe Supports & Hangers** - Clamps, Saddles, Brackets, Guides, Anchors.

⚓ **Welded Joints & Connections** - Inspection, Repair, Rewelding, Non-Destructive Testing (NDT).

⚓ **Valve & Pump Integration** - Flanged / Welded connections, Alignment, Leak Test.

⚓ **Exhaust, Ventilation & Duct Piping**

- Exhaust Lines, Air Ducts, Smoke Pipes, Stack Connections

⚓ **Pipe Coatings & Insulation**

- Corrosion Protection, Paints, Thermal Insulation, Lagging

⚓ **Specialty Piping Systems**

- Fire Main, Ballast, FO / LO Transfer, Bilge & Sludge, Sewage, Cargo Lines

### Notes:

⚓ Each headline can be used as a category for service, repair, inspection, or maintenance documentation.

⚓ Typical workflow includes:

- ⚓ Visual inspection & measurement

- ⚓ Leak testing & pressure testing



### Load Testing Equipment – Service & Repairs

⚓ **Cranes & Hoists** - Deck Cranes, Gantry Cranes, Pedestal Cranes, Electric / Hydraulic Hoists.

⚓ **Winches & Windlasses** - Mooring Winches, Anchor Windlasses, Capstans, Hydraulic / Electric Drives.

⚓ **Lifting Gear & Rigging** - Shackles, Slings, Chains, Hooks, Turnbuckles, Load Pins, Lifting Beams

⚓ **Hydraulic Test Jacks & Cylinders** - Single-acting / Double-acting Jacks, Telescopic Jacks.

⚓ **Load Cells & Dynamometers** - Tension / Compression Load Cells, Mechanical / Digital Dynamometers

⚓ **Pulley Blocks & Sheaves**

- Inspection, Bearing Check, Load Testing

⚓ **Hoist & Crane Safety Devices** - Limit Switches, Overload Protection, Brakes, Safety Locks.

⚓ **Testing Frames & Platforms** - Portable / Fixed Load Testing Frames, Test Rigs.

⚓ **Hydraulic / Pneumatic Test Pumps** - For pressure testing or load simulation.

⚓ **Calibration & Verification Instruments** - Pressure Gauges, Torque Meters, Force Meters.

**Notes:**

⚓ Each headline can be used as a category for service, maintenance, repair, or inspection recording.

⚓ Typical workflow includes:

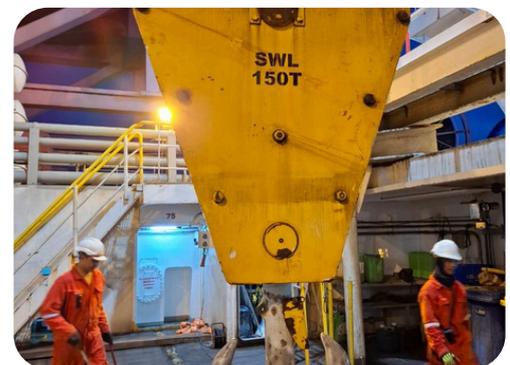
- ⚓ Visual & functional inspection

- ⚓ Calibration & verification

- ⚓ Load testing under controlled conditions

- ⚓ Lubrication & minor repairs

- ⚓ Documentation of test results



### All Types of Gearbox Equipment – Service & Repairs

⚓ **Main Propulsion Gearboxes** - Reduction Gearboxes, Reversible / Non-reversible Gearboxes.

⚓ **Auxiliary Engine Gearboxes**- Diesel Generator Drive Gearboxes, PTO (Power Take-Off) Units.

⚓ **Turbine Gearboxes**- Steam Turbine Reduction Gearboxes, Gas Turbine Gearboxes.

⚓ Bow Thruster & Stern Thruster Gearboxes

⚓ Winch & Windlass Gearboxes

⚓ Crane & Hoist Gearboxes

⚓ Steering Gear Gearboxes

⚓ Pump Drive Gearboxes

⚓ **Conveyor / Mechanical Drive Gearboxes** - Helical Gearboxes, Bevel Gearboxes, Worm Gearboxes Planetary Gearboxes.

⚓ Clutch & Coupling Systems (integrated with gearboxes).

**Notes:**

⚓ Service & repair scope usually includes:

⚓ Visual Inspection & Oil Analysis

⚓ Dismantling & Cleaning

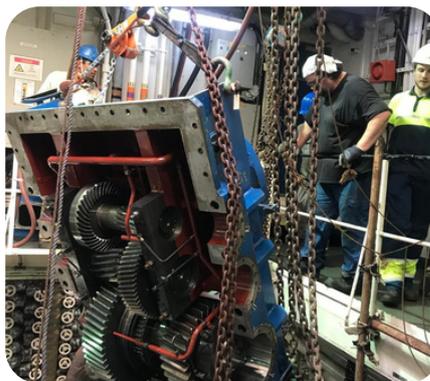
⚓ Gear Tooth Inspection & Measurement

⚓ Bearing & Seal Replacement

⚓ Alignment & Backlash Check

⚓ Reassembly & Functional Testing

⚓ Documentation & Reporting



### All Types of Deck Machinery and Engine Riding Crew Equipment – Service & Repairs,

**⚓ Anchoring & Mooring Equipment** - Windlasses , Capstans, Mooring Winches, Fairleads, Bollards & Chocks.

**⚓ Cranes & Davits** - Deck Cranes (Hydraulic / Electric) , Davits (Lifeboat / Rescue Boat), Gantry Cranes , Pedestal Cranes.

**⚓ Winches & Hoists** - Cargo Winches, Towing Winches, Electric / Hydraulic Hoists.

**⚓ Lifting & Rigging Gear**- Shackles, Slings, Hooks, Chains, Turnbuckles, Lifting Beams & Load Pins.

**⚓ Lifeboat & Liferaft Equipment** - Release Gear / Davit Systems, Launching Appliances.

**⚓ Firefighting & Safety Deck Equipment** -

- Fire Monitors & Hoses, Foam / CO<sub>2</sub> / Hydrant Systems
- Fire Pumps & Accessories

**⚓ Deck Handling Accessories** - Hatch Covers & Hydraulic Drives, Cargo Securing Equipment , Chocks, Fairleads & Tensioning Devices.

**⚓ Engine Riding Crew Equipment** - Portable Tools & Instruments for Engine Inspection, Safety & Communication Devices, Hand Tools, Lifting & Measuring Instruments, Diagnostic & Monitoring Equipment.

**⚓ Hydraulic & Pneumatic Deck Systems** - Hydraulic Power Packs, Cylinders / Actuators for Deck Machinery Control Valves & Piping.

**⚓ Navigation / Monitoring Accessories for Deck Operations** - Load Monitoring Systems, Tension Indicators, Safety Alarms & Signaling Devices.

**⚓ Anchorage Services,Offshore Works,Emergency Response**



#### Notes:

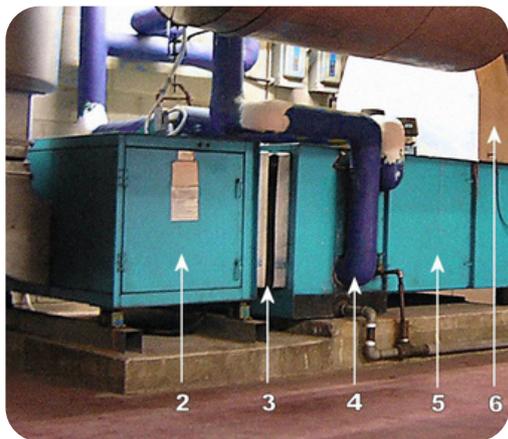
⚓ Each headline represents a category for inspection, service, maintenance, or repair. Typical workflow includes-

⚓ Visual Inspection & Functional Testing ,Lubrication & Minor Repairs, Replacement of Worn Components, Calibration / Load Testing, Documentation & Reporting.

## All Types of HVAC and AHU Equipment – Service & Repairs

- ⚓ **Air Handling Units (AHU)** - Fan Coil Units, Supply / Return Air Fans, Filters & Filter Housings Dampers & Louvers.
- ⚓ **Chillers & Refrigeration Units** - Air-Cooled Chillers, Water-Cooled Chillers, Marine Refrigeration Systems.
- ⚓ **Cooling Towers** - Fans, Motors & Drives, Water Distribution System, Fill Media & Drift Eliminators.
- ⚓ **Ducting & Piping Systems** - Supply / Return Air Ducts, Condensate Drains & Piping, Refrigerant Lines & Insulation
- ⚓ **HVAC Control Panels & Instrumentation** - Temperature Sensors & Thermostats, Pressure / Flow Sensors, Control Panels & Actuators
- ⚓ **Heating Equipment** - Electric Heaters, Steam / Hot Water Coils, Radiators & Heat Exchangers.

- ⚓ **Air Filtration & Purification Systems** - HEPA / Carbon Filters, UV / Ionization Units.
  - ⚓ **Ventilation Fans & Exhaust Systems**- Supply Fans, Exhaust Fans, Smoke / Emergency Ventilation.
  - ⚓ **Air Conditioners (Packaged / Split Units)**- Marine AC Units, Compressor / Condenser / Evaporator.
  - ⚓ **Ancillary Components**- Dampers & Actuators, Vibration Isolators / Mountings, Fan Belts, Bearings & Couplings.
  - ⚓ **Piping Insulation, Accommodation Insulation**
- Notes:**
- ⚓ Each headline represents a category for inspection, preventive maintenance, service, or repairs.





## Ship Chandler Services (Agent) and Others

### Ship Chandling

At Nivis Group, we offer comprehensive Ship Chandler support, providing a wide range of provisions, consumables, and essential supplies for your vessels. Whether you require fresh provisions, technical supplies, or spare parts, our team is ready to assist.



**We offer an extensive selection of Other Products including all kind of Sea Foods and fresh, frozen, ,preserved food and Wide Range of Products Like Beer, Wine, Liquor and Cigarettes**





## British Assessment Bureau

Certification is conditional on maintaining the required performance standards throughout the certified period of registration  
The British Assessment Bureau, 50 Tower View, Kings Hill, Kent, ME19 4UY

The management system of Certificate Number 2033943

**NIVI'S ENGINEERING PTE LTD**  
307 Bukit Batok Street 31 #02-119 Hong Kah Green, Singapore 650307

has been assessed and certified as meeting the requirements of

**ISO 45001:2018**  
for the following activities



## CERTIFICATE

The Workplace Safety and Health Council  
is pleased to certify that

**NIVI'S ENGINEERING PTE. LTD.**





## CONTACT US

---

**GM MOORTHY** - Managing Director

Ph No : +65 9016 9657 - [niviseng@gmail.com](mailto:niviseng@gmail.com)

**M.Ramasamy** - Managing Director

[info@nivisgroup.com](mailto:info@nivisgroup.com)

---

**A.ARJUNAN** - Technical Director

Ph No : +65 8186 7004 - [niviseng@gmail.com](mailto:niviseng@gmail.com),  
[Arjunan@nivisgroup.com](mailto:Arjunan@nivisgroup.com)

---

**KARTHIKEYAN** - General Manager

Ph No : +65 8187 8018 - [niviseng@gmail.com](mailto:niviseng@gmail.com)

## SINGAPORE

### Office Address:

**3, Soon Lee Street, #02-  
29, Pioneer Junction,  
Singapore - 627606.**

### WorkShop Address:

**23, Kian Teck Road,  
#04-02,  
Singapore - 628774.**

## INDIA

**No.44, Govinthan nagar, Thaenpathi(PO) Sirkali(TK)  
muayiladuthurai, Tamilnadu, India, 609111**