Since 2004





# MTS Global Co., Ltd.

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www.mtsbest.com

# **Brief History**

- **Established as "MTS"** 2004 Service Agreement with "Doosan Engine" Service Agreement with "Samsung Heavy Industries" Service Agreement with "Daewoo Shipbuilding & Marine Engineering" Established as "M-Tech E.N.G." 2005 Service Agreement with "SungDong Shipbuilding & Marine Engineering" Service Agreement with "STX H.I." & "STX Engine" Service Agreement with "SPP Shipbuilding" 2006 Established as "Marine Tech USA"
- Service Agreement with "Hyundai H.I. EMD" 2007
- Service Agreement with "Daehan Shipbuilding" 2008
- 2009 Established as "MTS Turbo" Authorized Turbocharger Service Partner of "STX H.I."
- Established as "MTS China" 2010
- Established as "M-Tech" 2013
- Expanded Business Areas & Established as "MTS Global" 2015 Authorized Part Sales Agency of "Doosan Engine"







# **Part Sales**

- Medium Speed Diesel Engine (Licensed by MAN Diesel & Turbo)
- Deck & E/R Machinery & Equipment
- General Store



# Services

- Marine Diesel Engine Service
- Recondition Repair Service
- **Engine Retrofit Service**
- Ship & Machinery Service
- Power Plant Service

• Low Speed Diesel Engine (Licensed by MAN Diesel & Turbo, Winterthur Gas & Diesel)

# **Service Service Service**



We are assure that MTS Global will fully support your business by supplying all ship's spares with best quality & reasonable price and make the utmost effort to become your reliable partner for satisfying your demands.

# Low Speed Diesel Engine (2 Stroke)

- · MAN Diesel & Turbo (MC / ME / ME-GI)
- $\cdot\,$  Winterthur Gas & Diesel (RTA / RT-flex / X / DF)
- Turbocharger (All types of MAN T/C)

# Medium Speed Diesel Engine (4 Stroke)

- MAN Diesel & Turbo (Augsburg, 32/40 etc.)
- MAN Diesel & Turbo (Holeby, 23/30H etc.)
- Turbocharger (All types of MAN T/C)

# Deck & E/R Machinery & Equipment

- · Generator & Alternator, Boiler, Purifier, SCR
- Heat Exchanger, Compressor, Steering Gear
- · Crane & Davit, Cargo Pump, Winch & Windlass
- · Ballast Water Treatment System etc.

# **General Store**

- · Marine Oil & Chemicals, Marine Paint
- · Pipe & Fittings, Valves, Screws & Nuts
- · Safety Equipment etc.





# **Marine Diesel Engine Service**



MTS Global has accumulated the service experiences & know-how for marine diesel engine since 2004. It would be providing you the differential technical services by our specialists & experts. They are ready for supporting the total services of engine operation & maintenance to your good vessels anywhere 24hours 7days in the world.

#### Low Speed Diesel Engine (2 Stroke)

- MAN Diesel & Turbo (MC / ME / ME-GI)
- Winterthur Gas & Diesel (RTA / RT-flex / X / DF)
- $\cdot$  Others



STX

MAN

### Medium Speed Diesel Engine (4 Stroke)

- MAN Diesel & Turbo (Augsburg Engines)
- MAN Diesel & Turbo (Holeby Engines)
- HHI-EMD (HiMSEN Engines)
- $\cdot$  Others











### Field Service & Repair Job

- Assembly & Installation
- Commissioning & Voyage Inspection
- Routine Inspection & Test
- Regular Maintenance & Overhaul
  (Cylinder Liner & Piston, Cylinder Head, Bearing etc.)
- Engine & Components Replacement
  (Engine Complete, Crankshaft, Crankcase, T/C etc.)
- Root Cause Analysis & Trouble Shooting
- Retrofit Service (Alpha Lubrication System etc.)
- Recondition Service (Cylinder Head, Piston etc.)

### **Special Work**

- Life-time Caring Service for Engine & BMS
- Electric Engine & System Optimization
- SCR Maintenance & Repair (for DelNox)
- Lock & Stitching (Patent Application) Structure Welding Repair
- Crankshaft & Camshaft Polishing

### Turbocharger Service

- Routine Inspection & Test
- Regular Maintenance & Overhaul
- Dynamic Balancing of Rotor Assembly
- Retrofit Service (T/C Cut-off & Re-activation)

## In-situ Machining Service

- Cylinder Liner Honing
- Crankshaft / Journal Machining
- Piston Rod Polishing
- · Laser Alignment & Centering
- · Others (Boring / Milling / Grinding etc.)

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# Recondition Repair Service



MTS Global has prepared full capacity for reconditioning service of diesel engine & other machinery and it could be providing the qualified parts with competitive price through the highest technical skill & experienced manpower whatever you want.















## Main Engine Components

- $\cdot$  Cylinder Liner
- $\cdot$  Cylinder Cover
- · Piston Complete
- · Exhaust Valve Assembly
- Exhaust Valve Spindle
- · Exhaust Valve Seat

# Aux. Engine Components

- · Cylinder liner
- · Cylinder head
- Piston complete
- $\cdot$  Connecting rod
- $\cdot$  Fuel pump
- · Cylinder units

### **Fuel equipment**

- Injection valves
- Plunger & barrel
- · Nozzle etc.

## Others

- Electric Motor / Generator / Alternator
- Governor, Hydraulic Pump
- Other Re-conditioning Parts etc.

# **Engine Retrofit Service**



MTS Global has experienced various retrofit service for marine diesel engine and it could be perfectly performed the service to your good engines. After the retrofit, you are able to get more benefits with higher efficiency & convenience & eco-friendly system.



### **B-WACS System**

#### BWM (Bearing Wear Monitoring) System which is developed by **Doosan Engine**

B-WACS detects the failure of the three major bearings of a large two stroke diesel engine before engine suffers from relevant damages. The principle of BWACS is to measure the change of BDC level to detect any abnormal bearing condition during operation.

- High accurate system of 10 µm degrees
- Simple and compact components

### Alpha Lubrication System

#### Electronic cylinder lubricating system for MAN two stroke diesel engines

- · Considerable cost savings in cylinder oil consumption
- Reduction of particle emissions
- · Uniform and optimal cylinder liner wear rate
- Extended life time of piston ring and cylinder liner

#### **Turbocharger Cut-out System**

Semi-automatic turbocharger cut-off system for large two stroke diesel engines (Optimal solution for low load operation)

- Increase T/C efficiency at part load
- Improve engine performance at part load
- Reduce specific fuel oil consumption by
- $-3 \sim -5$  g/kwh at part load









- within 10bar

### **Advanced Measutal**

### Wireless C/S Deflection Measurement Device which is developed by **Doosan Engine**

- · Be free from work danger
- · Be quick in measurement
- · Be confirmed in data management







• User-friendly monitoring program

#### **O-WACS System**

#### WIO (Water In Oil) System for monitoring water contents in the lubricating oil which is designed by Doosan Engine

As O-WACS is specially developed for marine diesel engine, it is more accurate than any other WIO system. O-WACS is easy to install and maintain and fully integratable with B-WACS.

Measurement of water activity and temperature at operation pressure

• Three relay for alarm output

Built-in modubus protocol RS485-based

• Save log data (Max 30 years, over 260,000 times)

# Ship & Machinery Service



MTS Global has offered technical service with assistance for hull repair & ship's machinery based on service experience for newbuilding & in-service repair. Our professional team would provide best solution to your good vessel and it could be maintained the upmost condition.











### Service for

- Hull Structure
- · Main & Aux. Engine
- Propeller, Shafting System
- Rudder & Steering Gear System
- Bow Thruster System
- Ballast Water Treatment System
- Deck Machinery & Equipment
  (Winch & Windlass, Deck/Provision/Cargo Crane etc.)
- E/R Machinery & Equipment (Boiler, Purifier, Heat Exchangers, Pumps, Valves etc.)
- Automation System
  (Pneumatic, Hydraulic, Electronic)

### Service Scope

- Assembly & Installation
- Commissioning & Optimization
- Routine Inspection & Test
- Regular Maintenance & Overhaul
- · Repair & Replacement
- Renewal & Retrofit Service
- Welding & Metal Stitching Repair
- Piping & Cabling Re-installation
- · Root Cause Analysis & Trouble Shooting etc.

# **Power Plant Service**



MTS Global has experienced installation, commissioning & yearly maintenance for domestic & overseas power plants and it would be providing the optimized service for operation & maintenance in accordance with customer's needs anywhere.

### Service for

- $\cdot$  Dynamo Engine
- · Generator, Electric System
- · Machinery etc.

### Service Scope

- Installation & Commissioning
- · Yearly Inspection & Maintenance
- · Overhaul, Replacement & Repair
- · O & M (Operation & Maintenance)

#### Service Experience

- Em'cy Generator of Nuclear Power Plant
- North Jeju Diesel Power Plant
- South Jeju Diesel Power Plant
- · Guam Cabras Diesel Power Plant
- $\cdot\,$  Mexico BCS V Diesel Power Plant
- $\cdot \,$  Papu New Guinea Diesel Power Plant
- · Greece Kos / Paros / Chios Diesel Power Plant











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