Seiho Machinery and Electric

Singapore • Malaysia • China

Instruments/ Gauges
All Makers’ Engines
Instruments for All Makers Engines

Seiho Machinery
Appointee of Distributor Letter

This agreement is to confirm the appointment of SEIHO Machinery and Electric CO PTE LTD of 803 King George's Avenue, #02-218, Singapore 200803 as the authorized distributor and stock-list of HERIANA CO LTD's products in Hong-Kong, Singapore, Indonesia, Malaysia, Thailand and Philippines.

SEIHO Machinery and Electric CO PTE LTD's customers are from the following:
1. Ship Owners
2. Ship Management Companies
3. Marine Offshore

For customers in China, SEIHO Machinery and Electric CO PTE LTD will provide HERIANA CO LTD with a detailed list of customers list once this Appointment of Distributor Letter has been signed.

SIGNED BY

HERIANA CO LTD

Mr. S.K. SUNG

President S.K. Sung

2012.4.23
Heriana Major Customers

Navigation Equipment

- Samsung Heavy Industries
- Hyundai Mipo Dockyard Co., Ltd.
- Hyundai Heavy Industries
- Daewoo Shipbuilding & Marine Engineering
- STX Offshore & Shipbuilding
- Hanjin Heavy Industries
- Sungdong Shipbuilding
- SPP Shipbuilding
- CSBC Corporation
- TSUJI Heavy Industries

New buildings

Delivered 400 Ships, in 2010
Heriana Major Customers

Engine Builder

HYUNDAI
HEAVY INDUSTRIES CO., LTD.
ENGINE & MACHINERY

DOOSAN

STX Marine Service
Heriana Instruments (Low Speed Engine)

- Reversing Air Cylinder (safety, Non Return Valve)
- Turbo Charger
- Exhaust Gas Outlet
- Resistance Bulb/Thermometer
- P.C.O non flow switch
- Main Bearing Sensor
- Crank Pin Bearing Sensor
- Sensor
PT 100 Temp Sensor

- Type: Pt100 Resistance Bulb
- Measuring Range: 0 ~ 200°C
- Material: SUS304

**Application:**

1. Jacket cooling fresh water/fuel oil/lubricating oil (medium)
2. Jacket cooling fresh water/fuel oil/lubricating oil (medium, low)
3. Inter shaft bearing/thrust pad/piston cooling oil/main bearing
4. Cam shaft bearing

SME
Seiho Machinery
Thermo-Couple Temp. Sensor

- **Type**: K type Thermocouple
- **Measuring Range**: 0 ~ 600°C
- **Material**: SUS304

**Application**:

1. Exhaust gas; T.C in/outlet (low)
2. Exhaust gas; T.C in/outlet (medium)
3. Exhaust gas; T.C in/outlet (medium)
4. Amplifier for thermocouple (output: 4 - 20mA)
Thermometer

- Measuring system: Bimetal type
- Measuring Range: 0 ~600°C
- Standard length: 50 ~300mm
- Material: SUS304
- Accuracy: ±1.6% of full scale

- Measuring system: Gas & capillary type
- Measuring Range: 0 ~320°C
- Standard length: 80 ~300mm
- Material: SUS304
- Accuracy: ±1.6% of full scale
Other Instruments

NON-RETURN VALVE
- MC Engine
- Reversing air cylinder for fuel pump

SAFETY VALVE
- MC Engine
- Reversing air cylinder for fuel pump

PRESSURE REGULATING UNIT
- RT-FLEX Engine
- Servo oil pump

JUNCTION BOX
- MC Engine & ME Engine

Seiho Machinery
Flow Switch (HF-501)

- **Measuring Principle**: Capacitive Sensing Element
- **Power**: 24VDC (18 ~ 32VDC)
- **Material**: SUS304
- **Output**: Relay Contacts
- **Installation**: Piston Cooling Oil
Flow Switch (HF-501V)

- **Measuring Principle**: Vibration
- **Power**: 24VDC (18 ~ 32VDC)
- **Material**: ALUMINUM, SUS304
- **Output**: Relay Contacts
- **Application**: Piston cooling oil
Combined Type Flow Sensor

Combined Flow Switch, Temperature Sensor & Local Gauge

- **Power**: 24VDC (18 ~ 32VDC)
- **Measuring Range**: 0 ~ 200°C
- **Material**: ALUMINUM
- **Output**: Relay Contacts & temperature PT100 signal
- **Application**: Piston cooling oil
Main Bearing & Crankpin Sensor

- **Type**: Pt100
- **Measuring Range**: 0 ~ 200°C
- **Material**: SUS304/316
- **Engine type**: Low speed engine

<Follow these steps to install main bearing sensor>
Main Bearing & Crank Pin Sensor & Accessories

- Thrust & Cross Head Sensor
- Collection Unit
- Guide Bracket
- Saddle
- Oil Funnel
- Joint Box