

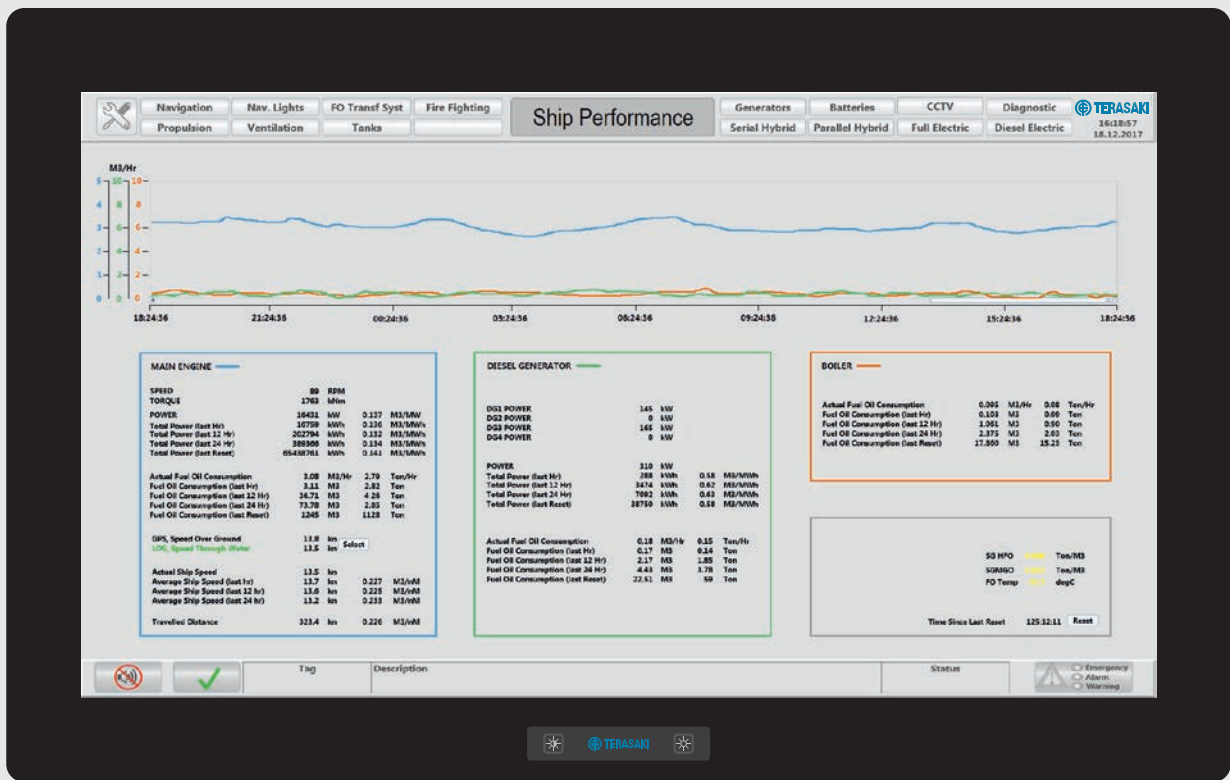


Ship Performance Monitor



Ship Performance Monitor

Operator Workstation



Ship Performance Monitor

Features

The Mega-Guard Ship Performance Monitor (SPM) measures and displays fuel consumption, power, speed and distance travelled on an Operator Workstation. In addition, Mega-Guard SPM calculates and displays time and trip based performance data in order to provide a detailed overview to the operator. The ship operator is able to make a judgement with Mega-Guard SPM regarding increase of hull resistance over time in order to plan hull maintenance intervals by comparing data of a recent trip to data of previous trips. In addition, the Ship Performance Monitor helps the operator to realize IMO legislation SEEMP (Ship Energy Efficiency Management Plan). The Mega-Guard SPM can be supplied as an integrated part of the Mega-Guard Vessel Management System or as a stand-alone system.

The Ship Performance Monitor has the following features for main engines, diesel generators and/or boilers:

- ▶ Continuous and time based fuel consumption, torque, power, speed and distance measurement
- ▶ Calculation of absolute and normalized fuel consumption
- ▶ Averaging fuel consumption e.g. of the last 24 hours
- ▶ Fuel consumption per NM and per trip
- ▶ Remaining days fuel
- ▶ History data recording and display capability
- ▶ History data retrieval via USB- or Ethernet file transfer

Measurement values

The Ship Performance Monitor makes the calculation, display and storage of data based upon data as measured by sensors.

- ▶ Fuel consumption : measured by a fuel flow meter and compensated for temperature
- ▶ Main engine power : measured by shaft torque and power meter
- ▶ Generator power : measured by the supplied electrical power for each generator
- ▶ Speed : measured by GPS (speed over ground) and/or by speed log (speed through water)
- ▶ Distance : measured by GPS

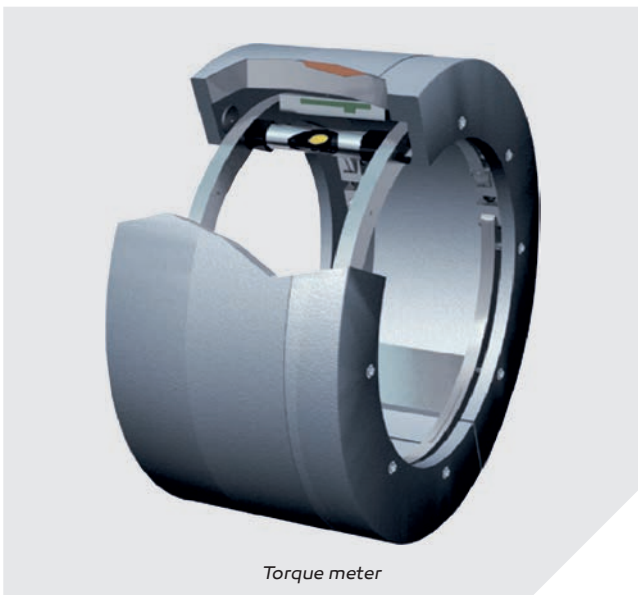
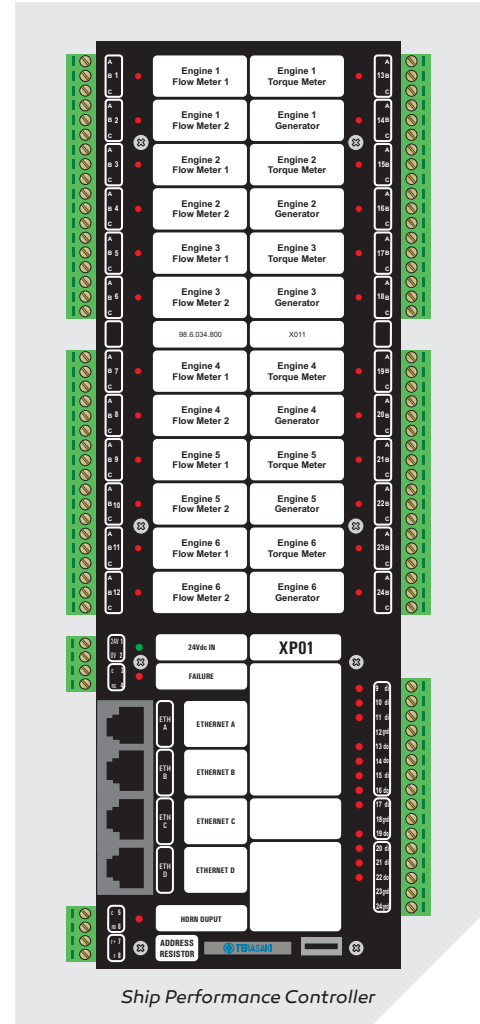
The Mega-Guard Ship Performance Monitor interfaces these sensors via a Ship Performance Controller or through the Mega-Guard Vessel Management System. The Ship Performance Controller is available with hard wired inputs, serial communication lines (NMEA-0183 or MODBUS) and Ethernet interfaces.

Scope of supply

A typical stand-alone Mega-Guard SPM consist of:

- ▶ Operator Workstation with TFT size ranging from 10" to 86"
- ▶ Ship Performance Controller
- ▶ Main engine shaft torque meter
- ▶ Fuel oil flow meters
- ▶ Interface to GPS and speed log

The Operator Workstation and the Ship Performance Controller can be omitted in case the Mega-Guard SPM is integrated in Mega-Guard VMS.



Vessel Management System



Power Management System



BNWAS Watch Alarm System



Navigation Light Control



Wiper Control System



Fire Alarm System



Ship Performance Monitor



Fleet Management System



Ship automation

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