

EASY INSTALLATION, OPERATION & CALIBRATION
ROBUST DESIGN & OUTSTANDING DURABILITY

Torque Measuring System TORXmeter®



Shaft Power Measurement

The Leutert Torque Measuring System TORXmeter® is a system for continuous shaft power measurements and provides vital data for efficiency improvement and prevention of downtime.

Description

The TORXmeter® is a permanent shaft power measuring system basically designed for seagoing vessels, but may be used also for other engine-driven applications. Provided data are vital for evaluating engine performance in relation to power consumption (burning of fuel), thus helps to improve engine efficiency and to reduce fuel costs.

The TORXmeter® is easy to install and requires no electronic/electric parts on the shaft. Only two magnetic sensor belts in a distance of 1.5 to 2 m have to be installed on the shaft. The system works contact free, which makes it rugged and more durable than competitive systems.

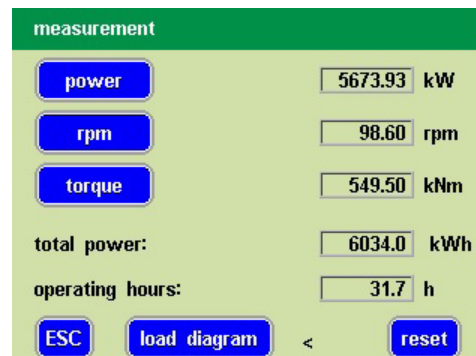
Simple installation and calibration makes presence of a service technician unnecessary and is usually done by the vessel's crew.

Data transmission to additional systems, e.g. vessel's automation system, can be easily done via 4 to 20 mA outputs and NMEA Protocol (RS485). Installation of several repeater displays (engine control room, bridge) is possible.

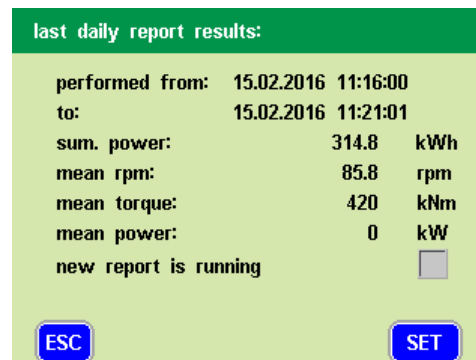
Screen Displays of the Terminal Box

The intuitive touch screen interface of the terminal box allows easy operation, permanent display, and automatic reports of following values:

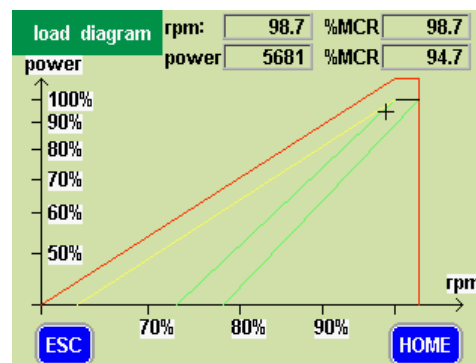
- Shaft power (kW)
- Shaft speed (RPM)
- Torque (kNm)



Measurement screen

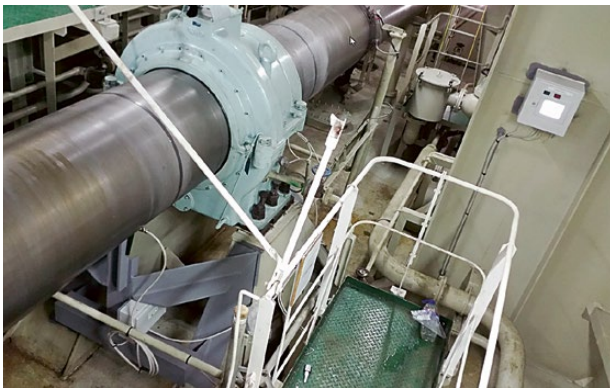
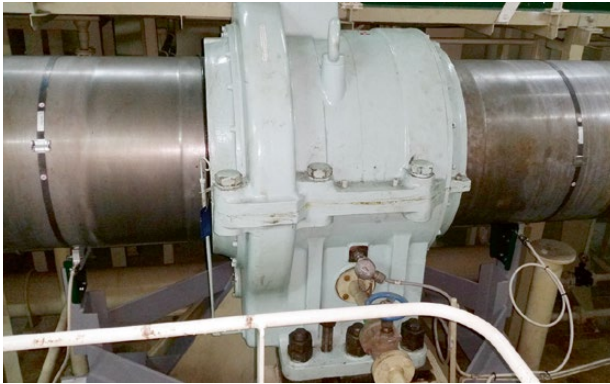


Daily report



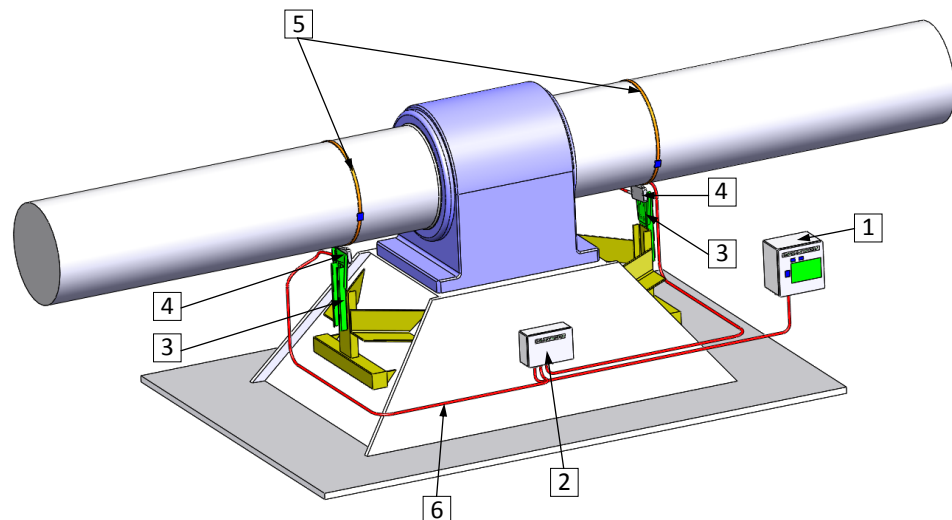
Propeller curve

Installation Examples



TORXmeter® overview

- 1) Terminal box, wall or console mounted version
- 2) MWE box
- 3) 2 sets of bracket and holders for EXFR sensors
- 4) 2 pcs. EXFR sensors, depending on shaft diameter
- 5) 2 pcs. sensor belts, depending on shaft diameter
- 6) Pre-wired cable between MWE box and EXFR sensors



Technical Specifications

Power supply	100/240 VAC, 50/60Hz, 16 A
Temperature range	Terminal box and MWE box 0 to 60°C EXFR sensors and belts -40 to 85°C
Shaft diameter	250 to 1,000 mm; < 250 mm on request
Sensor measuring accuracy	< 0.1 % FS
Speed range	up to 250 rpm; > 250 rpm on request
Torque/RPM measurement	high-resolution sensor, contact-free
Analogue outputs	3 x 4 to 20 mA signals for torque, shaft power, shaft speed
Alarm outputs	Engine overload, system error (potential free contacts)
Interface	RS485 (NMEA 183)
Protection class	Terminal box and MWE box IP54 EXFR sensors and belts IP67
Firmware update	via USB stick (update file can be sent via e-mail)
Display	Illuminated touch screen
Optional equipment	Repeater display for ECR or bridge installation