

Torductor® 500 Shaft Torque and Fuel Efficiency Metering

ABB has a 50 year tradition in measuring crucial data for propeller shaft torque, power and ultimately fuel efficiency. Important data is being measured in the marine industry such as: Accumulated energy, Accumulated fuel consumption, Specific fuel consumption per kWh, Trends and so on. Thus providing reliable information to monitor, evaluate and reduce operational costs.

Torque Transducer:

The core of the Torductor® 500 system is the torque transducer. The transducer relies on ABB's Pressductor® technology, a unique magnetic principle. The size available ranges from 60 to 840mm (shaft diameter).

Advantages:

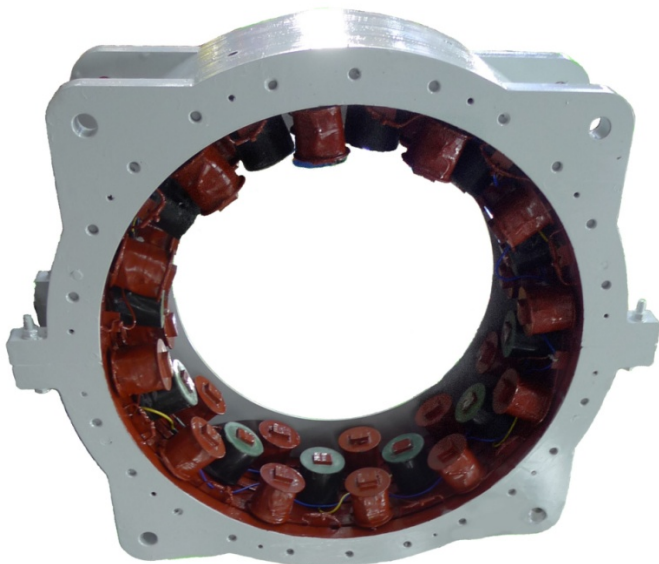
The torque transducer allows torque measurement with the advantages of:

- No mechanical contact with the shaft
- No delicate optical instruments involved, making it insensitive to moisture and dirt
- No moving parts in the system, so there is no wear or drift
- Only 25cm of free length, with constant tubular or solid cross section, is needed for the transducer
- Unrivalled reliability and long-term repeatability

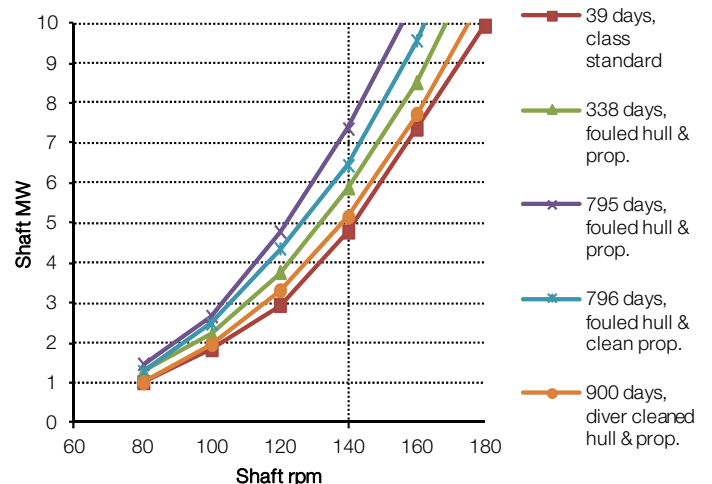
Applications:

The measuring of shaft torque and fuel efficiency provides you with real-time measuring values. This enables you to:

- Monitor and evaluate tuning state of the propulsion engines
- Monitor and evaluate the performance of the total propulsion system
- Optimize speed and pitch of the propeller at different loadings
- Monitor hull/propeller fouling and forecast maintenance periods for hull/propeller cleaning
- Protection against over torque of the propeller shaft



Example: Additional power required to maintain 140rpm



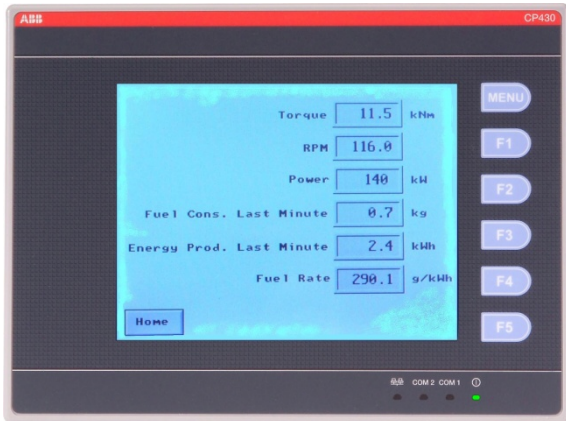
HMI:

The Torductor® 500 is standard delivered with a touch screen operator panel. Optional web interface and/or integration into a control system are possible.

The system is fitted with a speed pickup to measure the shaft rotation speed. This makes it possible to calculate the power output through the drive shaft.

Measurement values, calculated values, resettable totalizers and trends show data like:

- Energy
- Fuel consumption per kWh
- Accumulated fuel consumption



Fuel Flow Metering (option):

For fuel rate metering, the Torductor® 500 system has inputs available for connecting various fuel flow meters, for example the ABB Coriolis Mass Flow measuring instrument.



For more information please contact:

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