Torsional Oscillation Analysis by metapower™

A powerful tool in detecting faulty operational propulsion conditions

FUNCTIONS

Measuring, recording and analysing torque variations

Trend analysis of torque oscillations is a tool for preventive maintenance and corrective actions

ANALYSING MODES

The measured values can be presented in three ways:

- Graph showing torque as a function of time
- Graph showing torque as a function of the rotational angle
- Torsional oscillation frequency spectrum

Analysis may be performed in real-time (on-line) or on recorded files of data:

- Advantage of analysing recorded data: View the same data in three different modes, which may give additional information compared to single mode real-time analysis

DATA LOGGING

May be performed for one shaft – or for two shafts simultaneously

Continuous logging:

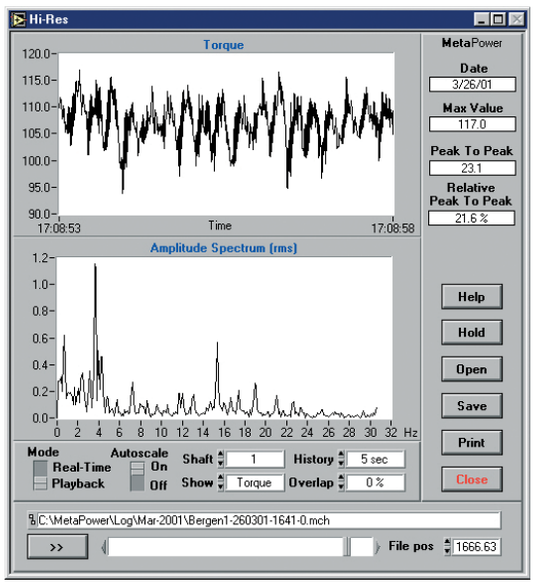
- Records the shaft continuously

Interval logging:

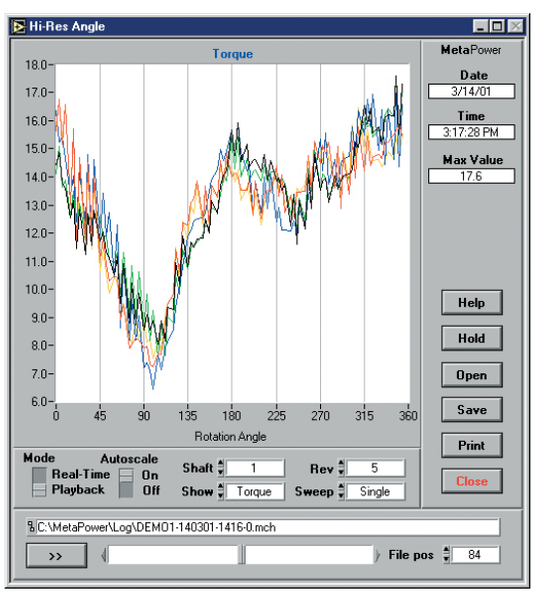
- Records the shaft for a short period – at chosen intervals
- Ideal in order to study the performance changes over some time without generating too much data

Overload logging:

- Records the shaft when torque or power exceeds preset levels
- Data is kept in a buffer some time before discarded. This makes it possible to record data generated some seconds before the log-state occured, as well as some seconds after the log-state is over.



Upper graph displays torque/time recordings. Lower graph displays the corresponding torque frequency spectrum (based on FFT analysis).



Torque as function of the rotational angle.

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