

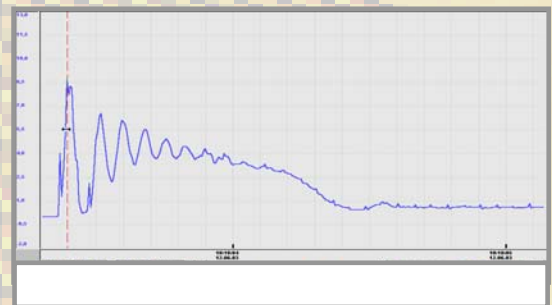
Torque measurements

The **Machine Diagnostics** department performs on-site torque measurements with strain gauges on e.g. gearbox and propeller shafts. With the **Strain gage telemetry system** continuous measurements can be taken and recorded with an additional datalogger.

The strain gage telemetry system can be used to evaluate actual transmitted static and dynamic torque in a shaft. A full bridge arrangement can measure torsion strain while negating strains due to bending, axial and temperature effects. The voltage signal proportional to strain can be converted to torque or shear stress. The measured stress can be compared to allowable levels.

Typical physically measurable variables include:

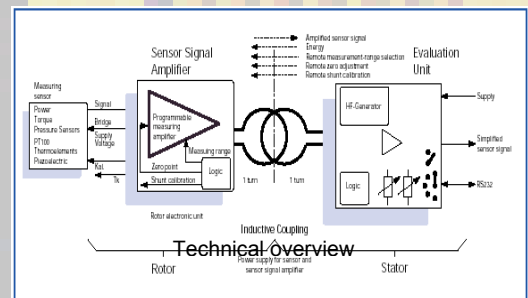
- ❑ Torque (static and dynamic)
- ❑ Power
- ❑ Pressure
- ❑ Temperature
- ❑ Acceleration



Internal gearbox application

The RMC sensor telemetry system has been specially developed for the contactless (telemetric) detection of measuring data on moving objects - particularly rotating shafts- employed in the mechanical engineering industry. The remote-controlled rotor electronic unit (sensor signal

amplifier) and the simple method of transmission (by antennae) make the system exceptionally user friendly.



Remote-controlled measurement range selection means that the usual problems caused by selecting the wrong measurement range on a rotor electronic unit are eliminated.

The system includes the following advantages:

- ❑ Short start-up times
- ❑ No solder resistance on electronic rotor unit
- ❑ Free choice of measuring range and zero adjustment during operation
- ❑ Higher resolution of measuring signal due to dynamic measuring range selection
- ❑ Integrated speed and performance measurement for dynamo hubs

