



Intelligent torque and life cycle monitoring for cardan shafts

OnCare.Health Cardan Shafts

Benefits

- + Records actual system loads and dynamic torque peaks
- + Ensures operation of equipment according to specification
- + Enables predictive maintenance via cardan shaft lifetime projection
- + Facilitates reliable production with minimal downtimes
- + Files installation history of joints and bearings

Included with the OnCare.Health product range, Voith offers an intelligent torque measuring system for condition monitoring of cardan shafts. Using DTect.Torque sensors, the torque signals are transmitted telemetrically to a processing unit known as the Voith BlueEdge, where the signals are analyzed in real time and processed to provide characteristic values for the specific cardan shaft.

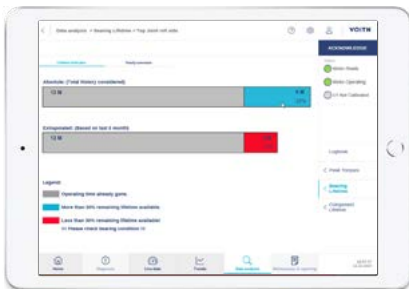
Voith BlueEdge for real-time data evaluation



Process data in real time and with history



Lifetime status of cardan shaft components



Operating torques can be analyzed retrospectively and provide information about potential for equipment optimization. The maximum torque occurrences are archived in high resolution, which allows an accurate analysis and at the same time ensures that the drive is operated within the component specifications.

Using intelligent algorithms, the residual service life of the cardan shaft bearings and joints is calculated, allowing operators to more effectively plan when to replace or procure individual system components. This creates the basis for preventive maintenance strategies.

A quick overview provides a visualization of the current operating condition of the cardan shaft components. Components that have been replaced are archived in a clearly laid-out form that allows spare parts to be planned efficiently.

This enables:

- Analytical condition monitoring
- Trend indicators
- System optimization
- Predictive maintenance
- Remote access (on request)

Hardware platform

All hardware such as the BlueEdge, power supply or data transmission devices are well protected accommodated in a switch cabinet. Additional signals can be loaded via fieldbus interfaces. The results can be visualized using standard browsers within the customer's network. The optional remote access (ExtraNet) is provided via a secure VPN connection.

Main functions:

- Operating torques
- High-resolution peak torque values
- Frequency distribution of load peaks
- Bearing service life
- Joint service life
- Component administration/archive

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