



WÄRTSILÄ WIRELESS BIG-END BEARING TEMPERATURE MONITORING SYSTEM – PREVENT DAMAGE TO THE ENGINE AND LOST REVENUE FROM VESSEL DOWNTIME

A big-end bearing seizure can have expensive consequences for an engine and for your business. The Wärtsilä Wireless big-end bearing temperature monitoring system provides real-time temperature monitoring of the connecting rod big-end bearings. If the temperature exceeds acceptable limits, it enables preventive actions to be taken to avoid expensive repairs and lost revenue.

Preventing engine damage

In the worst-case scenario a big-end bearing seizure can lead to complete engine failure. For example the crankshaft can be damaged to the extent that it needs to be replaced altogether, taking the engine – and in many cases the entire vessel – out of action for potentially up to ten months, depending on the availability of a replacement shaft.

The Wärtsilä Wireless big-end bearing temperature monitoring system provides crew with real-time data on the big-end bearing temperature and enables automatic load reduction and shutdown in case of big-end bearing temperature deviation.

KEY BENEFITS

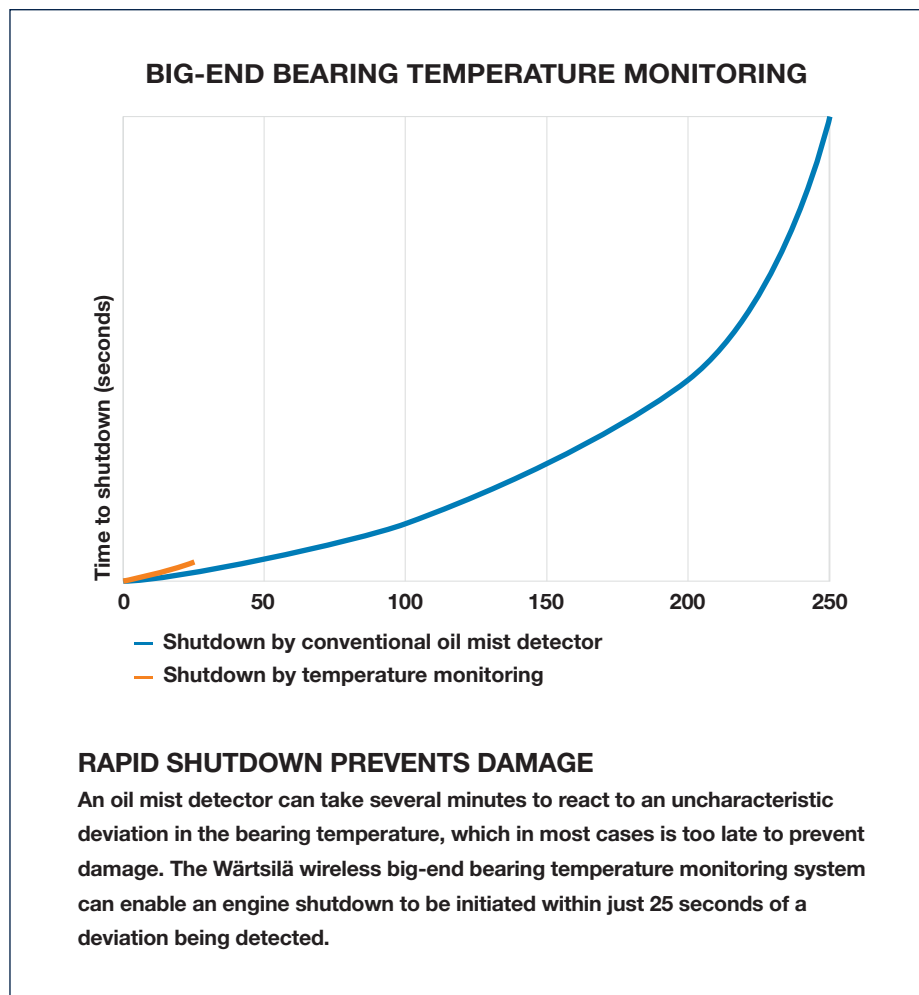
- Prevent major damage to the engine that can lead to long periods of off hire
- Increase safety for both personnel and equipment
- Analyse and follow up measured trends and historical data

The system consists of a wireless temperature sensor with one stationary antenna per cylinder and one or more signal processing units. The temperature sensor is installed in the connecting rod, while the stationary antenna is installed in a suitable place inside the engine crankcase. A coaxial cable connects to the signal processing unit. The unit can be connected to a standalone alarm and monitoring system or to the engine automation system.

Installation-specific engine manuals and spare part catalogues are updated by Wärtsilä after the upgrade. The Wärtsilä Wireless big-end bearing temperature monitoring system is approved by all major classification societies.

A faster response than oil mist detectors

Oil mist detectors are slow to react to changes in the big-end bearing temperature, taking up to several minutes to activate the shutdown signal – minutes in which a lot of damage has time to take place. The Wärtsilä Wireless big-end bearing temperature monitoring system reacts almost immediately, enabling an engine shutdown to be initiated on average within 25 seconds of an uncharacteristic deviation in the bearing temperature.



Scope of supply

The Wärtsilä Wireless big-end bearing temperature monitoring system is available for the following engine types: Wärtsilä 26, Wärtsilä 32, Vasa 32, Wärtsilä 34, Wärtsilä 38, Wärtsilä 46, Wärtsilä 50 and Sulzer Z40.

The scope of supply includes all needed parts for installation and commissioning. All work is performed by Wärtsilä Field Services. The system can be calibrated using software available from the Wärtsilä Online portal.

Why choose Wärtsilä?

Wärtsilä is a leading OEM supplier to the marine industry with a global network providing service and support. We use advanced analytics to provide expert support and recommendations to optimise your vessel operation, combining actual data from your engines with decades of historical engine running data from thousands of vessels. The Wärtsilä Wireless big-end bearing monitoring system a proven track record of success, having been installed on over 300 engines in both marine and energy applications since 2007.