



A Safe Harbour for Your CM Requirements

- Regular condition monitoring for all rotating machinery on board.
- Proven and easy investigation of recurrent poor reliability.
- Permanent monitoring for mission critical systems
- Thrusters, pumps, winches, cranes, drives, gearboxes

Marine Industry - A Safe Harbour for Your CM Requirements

1. Podded Drives and Thrusters

Exterior drives and thrusters are subject to both thrust, shear and torsional forces that place great strain on the assembly. Permanently installed Holroyd AE sensors have been used on many such installations to signal potential damage and allow for a planned intervention. Using wireless links it is possible to monitor azimuthing drives without the need for complex wiring. The figure shows a bridge display our sensors on a particularly troublesome installation.



(As a rider to this statement, this issue was a "first of kind installation", retrofit design improvements have now proved successful for the manufacturer.)

See also other Kittiwake products such as Thrusterscan developed for Thruster drives in offshore applications.



2. Offshore Supply Ship Gearbox

MHC was used by one offshore vessel fleet operator as their default CM monitoring tool. On one vessel there was an increase in Distress® on the starboard PTO Gearbox. The gearbox had been in reliable service for 4 years. Measurements frequency was increased and showed a deterioration over the next 6 months until a pre scheduled maintenance period. As the deterioration was only gradual the equipment was deemed fit to remain in service until a scheduled maintenance interval.

Maintenance revealed clear damage to the thrust bearing as shown in the photograph. The bearing was replaced during just one day out of service. **Compare this with an unplanned stoppage, estimated to cost around \$150,000.**



3. Anchor Handling Vessel

The anchor recovery winch on an offshore vessel has proven unreliable in service. Although greased as per manufacturers recommendations, operators could hear an intermittent noise. VA was used to isolate the cause but proved ineffective due to background noise for the generators on the deck below. A visiting maintenance engineer tried his MHC MEMO instrument taking only two measurements.

- Port side Distress® = 4
- Starboard side Distress® = 26

Closer inspection revealed that the starboard bearing grease point was tapped in to a blind hole. It had never been greased hence the unreliability!

Failure of this bearing at sea on a previous occasion resulted in an off hire loss of \$100,000.

Distress® is a registered trademark of Kittiwake Holroyd

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