

Intelligent and professional diagnostic system for the mobility of the future.



Maximize vessel operation time



Early detection of changes in the performance of components



Reduced TCO costs



Secure and reliable transfer of data



For all vessels propelled with thruster systems



24/7 access to the monitored data



Worldwide support from ZF experts

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Condition Monitoring System ZF ProVID for Thruster Systems

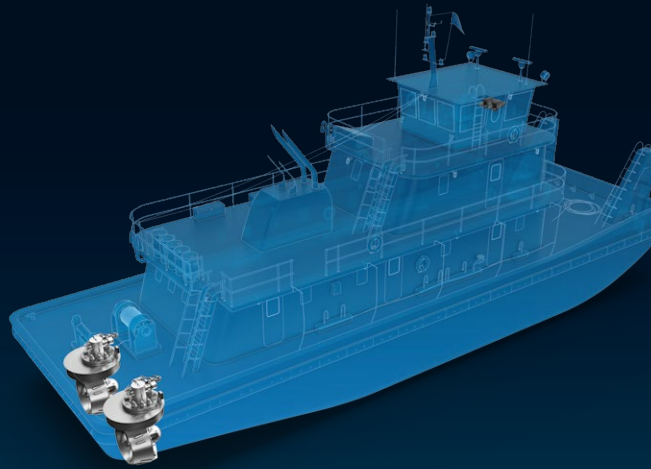
Fit for the Future



Operational excellence with ZF Technology

ZF ProVID is the innovative Condition Monitoring System for thruster systems. Based on many years of application experience and expertise in the field of vibration measurement and analysis, ZF developed customer-specific algorithms as the prerequisite for a qualified evaluation of operating conditions.

The intelligent feature demonstrates how integrated sensors and advanced data analysis tools can further improve efficiency, reliability, and safety on board.



CONDITION MONITORING

The highlights at a glance

- Monitoring of bearings, gears, balance of internal shafts and propeller
- Tracking oil quality with the aim of reducing operating costs by reducing chemical analyses of oil and oil changes
- Early detection of changes in the performance of components
- Increased availability and extended lifetime of monitored systems
- Regular reports with condition-based recommendations for maintenance
- Remote support from ZF experts worldwide
- Maintenance cycles based on actual conditions, thus increasing efficiency and avoiding unscheduled service interruptions
- Service reports (oil analysis, repairs, annual reports) made available online in the dashboard



ZF ProVID Processor Data transfer

- Regular transfer of onboard data through secured VPN connection

Data acquisition

- Bearings
- Gears in upper and lower gearbox
- Balance of internal shafts
- Propeller balance

Optional

- Oil analysis with regards to contamination by conductive material and water content

Dashboard

- Access for authorized users only
- 24/7 availability

Remote data analysis by ZF experts

- Advanced algorithms and daily trend monitoring
- Failure detection and recommendations
- Notification of critical cases
- All trend data are made available via a cloud-based ZF ProVID dashboard

Yearly report

- Report including a recommended course of actions to secure operational excellence
- On request the frequency of reports can be adjusted