Machinery reliability and availability is critical for any vessel operator. With machinery failure causing a large percentage of marine accidents and most machinery failures taking place immediately after a maintenance activity, a substantial reduction in maintenance costs can be achieved by implementing an efficient Condition Based Maintenance (CBM) strategy programme.

Investing in an on-going condition monitoring programme means ship staff will have the equipment and training to carry out periodic data collection and first pass analysis of data. Xodus Group’s experience encompasses the range of disciplines and skill sets required to successfully evaluate, select and plan the optimum CBM programme for your vessel.

A comprehensive plan from Xodus involves:

- Initial survey of ship’s machinery to establish criticality
- Selection of the most suitable condition monitoring technology for each machine type (rotating, static, electrical)
- Determination of frequency of data collection (based on criticality)
- Repeatable and reliable data collection methodology
- Expert analysis of data
- Recommendations for corrective action.

On-going technical support
Planned, implemented and managed by our condition monitoring experts we provide:

- Condition monitoring training for ship’s engineers (data collection and first pass analysis)
- Monthly and quarterly data analysis depending on system criticality
- Advice on achieving condition based maintenance certification with classification authorities such as ABS and Lloyd’s Register
- An initial assessment of the ship’s machinery using vibration, thermal imaging and lube oil analysis
- Data transfer to our condition monitoring specialists in Dubai, Aberdeen, Southampton and Glasgow
- Identification of measurement points and installation of permanent data collection points (quick fit studs) for repeatable and reliable data
- Detailed data analysis and feedback including recommendations for preventive action and action tracker to follow up on all recommendations and maintenance activities resulting from CBM activities
- Integration with existing maintenance management systems.

Our clients also benefit from:

- Expert advice and support at the end of a phone line or e-mail from experienced Xodus engineers
- Machinery condition trends data to assist in predicting failures and preventing unscheduled shutdowns
- A proactive rather than reactive approach to maintenance
- Reduced class intervention.
Focus
Xodus helps clients to introduce new machinery condition monitoring strategy programmes, or refine existing set-ups. We assess and classify machinery criticality and provide sound, independent technical advice on the most effective approach.

Carried out by professional Xodus vibration analysts and condition monitoring engineers, using state of the art technology, we offer:

› Twice yearly visits to carry out assessment of a vessel’s machinery
› Latest condition monitoring technology
› Tests to ISO and API standards where available
› Intrinsically safe equipment where required
› Thermographic inspection of all electrical and some mechanical machinery
› Optimisation of maintenance resources
› Vibration and shock pulse data measured from all machinery with on the spot analysis and interpretation of results
› The option of an Xodus condition monitoring engineer sailing with the vessel during the twice yearly visits to perform a complete health check of the vessel machinery
› Particle count, additive and elemental chemical analysis of lube oils with ferrography on suspect samples. Oil samples collected and sent ashore for analysis and reporting by ships’ personnel
› Detailed machinery health assessment report (monthly and twice yearly).

For more information contact:
Peter Sharpe . Vibration Engineering Manager . peter.sharpe@xodusgroup.com . +971 4 427 6129
Karsten Moeller . Principal Rotating Machinery Consultant . karsten.moeller@xodusgroup.com . +44 141 299 0061

www.xodusgroup.com