

Switching to Mobilgard 1™ SHC high-performance synthetic oil helped extend thruster overhaul intervals

Royal Boskalis Westminster | Shoalway & Causeway | Workboat gearboxes



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Mobilgard 1™ SHC oil and Mobil Serv™ Lubricant Analysis helped dredging contractor Boskalis avoid excessive (micro) pitting on the gear teeth of Masson-Marine gearboxes in two hopper dredgers. The move also helped extend jet pump drive overhaul periods.

Situation

A routine maintenance inspection of the Shoalway, revealed the presence of severe (micro) pitting on the gear teeth of its forward and aft jet pump drives, likely caused by high loading. As a result, the Masson-Marine Type W4000 workboat gearboxes had to be completely overhauled after just under 10,000 hours of operation.

Recommendation

ExxonMobil recommended switching the Shoalway to Mobilgard 1 SHC, a high-performance synthetic oil formulated to offer superior lubrication and control (micro) pitting issues on the vessel's overhauled gearboxes. To prevent development of similar issues, the Causeway hopper dredger also converted to Mobilgard 1 SHC oil. These moves resulted in minimal (micro) pitting on both vessels' gearbox teeth.

Boskalis also followed ExxonMobil's recommendation to implement its Mobil Serv™ Lubricant Analysis service to monitor the oil's performance.

Impact

A visual inspection more than 40 months after the switch to Mobilgard 1 SHC oil revealed negligible (micro) pitting and wear rates on the gears of the vessels' jet pump drives, while used oil analysis results indicated minimal deposit formation. As a result, it was not considered necessary to overhaul the Masson-Marine Type W4000 gearboxes again, which provided the vessel operator with a substantial reduction in maintenance costs and unscheduled downtime.

A switch to Mobilgard 1 SHC oil helped Boskalis significantly reduce gearbox maintenance costs and unscheduled downtime.