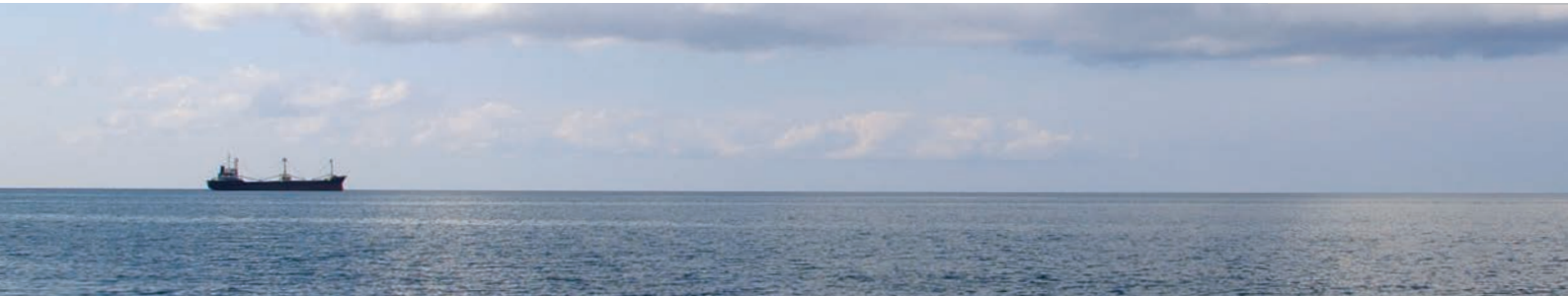


# Cylinder condition monitoring helped cut feed rates by more than 30 per cent

HTM Shipping Co, Ltd. | MAN 560MC Mk6 and MAN 6550MC Mk7



Energy lives here™

Mobil Serv<sup>SM</sup> Cylinder Condition Monitoring and a high-performance MobilGard<sup>TM</sup> cylinder oil enabled HTM Shipping to reduce deposit formation, wear and cylinder oil consumption on two bulk carriers, M/V Jia Da and M/V Jia Run.

## Situation

Evolving international emission standards, changes in operating speeds and cost-saving reductions in cylinder oil feed rates have created unprecedented operating challenges for two-stroke marine diesel engines — many of which must now perform at levels beyond the capabilities conceived for their original designs.

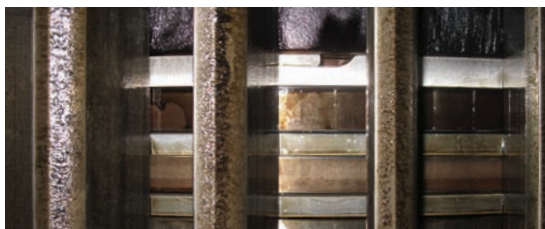
To respond to these challenges, ExxonMobil developed Mobil Serv Cylinder Condition Monitoring and the MobilGard range of high-quality cylinder oils, which work together to help provide optimum engine protection and performance.

## Recommendation

Mobil Serv Cylinder Condition Monitoring is a suite of tests that enable onboard monitoring and analysis of cylinder conditions using scrape-down oil samples. Properly implemented, it can provide information that can help improve an engine's reliability, reducing associated maintenance and repair costs. MobilGard cylinder oils provide excellent protection for today's modern slow-speed engines and are recognised for their performance and ability to enable lower feed rates and extend time between overhauls.

## Impact

Mobil Serv Cylinder Condition Monitoring enabled HTM Shipping to reduce feed rates on M/V Jia Da's Hudong MAN B&W 5S60MC MK6 engine from 1.06 g/kWh to 0.72 g/kWh, resulting in a savings of 32.08 per cent. For the M/V Jia Run's STX (Dalian) MAN B&W 6S50MC MK7 engine, the rate was cut from 0.65 g/kWh to 0.59 g/kWh, a savings of 9.23 per cent. The move not only helped extend engine life, it also reduced operational costs and lessened the bulk carriers' environmental impact in comparison with their previous running. Similar regimens were implemented across the HTM Shipping fleet — nine vessels in total — giving the company an overall reduction in cylinder oil consumption of 17 per cent in 12 months.



After 8,000 hours, the Jia Run's pistons, piston rings and liners were free of deposits and exhibited negligible wear.

Based on the experience of a single customer. Actual results can vary depending upon the type of equipment used and its maintenance, operating conditions and environment, and any prior lubricant used.

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