### Cylinder Condition Monitoring

# Mobil Serv™ Cylinder Condition Monitoring

Next-generation service designed to help ensure engine reliability and provide peace of mind



Mobil Serv<sup>\*\*</sup> Cylinder Condition Monitoring is designed to help vessel operators obtain the optimal operation of their slow-speed marine diesel engines. It does this by delivering insights into lubricant feed rate optimisation, which can extend engine life and reduce total operating costs and, when paired with MobilGard<sup>\*\*</sup> cylinder oils, it can help prevent unscheduled engine downtime.

#### Service summary

Based on our extensive database of results, more than 50% of vessels are not operating at their optimal feed rates. By subscribing to our next-generation cylinder condition monitoring service, vessel operators will receive valuable insights to quickly identify issues such as over- or under-lubrication, system oil dilution and the presence of cat fines and other wear metals. This can identify problems before they become serious issues, helping reduce unscheduled maintenance and avoid potentially catastrophic engine failure.

The service can also measure fuel sulphur content to ISO 8754 and ASTM D4294 standards and deliver the results in real time to ship operators. This can help ship owners stay compliant with the International Maritime Organization (IMO) 2020 0.50% global sulphur cap.

Through constant monitoring and proactive corrective action, ExxonMobil is committed to helping you safely extend the overhaul periods of your engines and provide you with the confidence that they are running reliably. This is why we analyse your fleet's potential savings based on its unique operating conditions.

#### New features

The service now offers enhancements to reflect the evolving need to monitor for contaminants. Testing now includes both chromium and vanadium, whose presence can be an indicator of engine component wear. It can also now detect system oil dilution of your cylinder oil, which can have a detrimental impact on engine performance and lifespan.

#### Potential benefits

Mobil Serv<sup>®</sup> Cylinder Condition Monitoring helps to:

- Reduce your total maintenance and operating costs
- 2 Optimise cylinder oil feed rates
- 3 Monitor for system oil dilution and wear metals
- **4** Reduce cylinder, piston and liner wear, and extend overhaul intervals
- **5** Improve engine reliability and provide peace of mind

Mobil Serv<sup>®</sup> Cylinder Condition Monitoring has helped customers save more than **US \$3.6M** in cylinder oil costs.\*

\* Total reported cylinder oil cost savings of surveyed customers from 2012 to date (including under MobilGard° Cylinder Condition Monitoring – the previous name for Mobil Serv° Cylinder Condition Monitoring). Actual savings realised may vary based on a number of factors, including equipment used, its maintenance, operating conditions and environment and any prior lubricant used.

## Mobil Serv™ Cylinder Condition Monitoring

By using Mobil Serv<sup>\*\*</sup> Cylinder Condition Monitoring in combination with high performance MobilGard<sup>\*\*</sup> cylinder oils, marine operators can help improve engine reliability and reduce feed rates and total operating costs.

#### How the service works



#### A leader in cylinder condition monitoring

ExxonMobil has more than 700,000 test results, drawn from more than 18 years of cylinder condition monitoring data; every year we create a further 5,000 more reports. All this information is analysed by our cylinder oil specialists to provide vessel operators with bespoke actionable insights.

These recommendations have helped vessel operators reduce cylinder oil feed rates by 45%\* and minimise total operating costs. To learn more about Mobil Serv<sup>--</sup> Cylinder Condition Monitoring, visit our <u>website</u>.



More than **35%** of vessels have cat fines present.

\*Based on experience of marine customers. Actual results may vary depending upon the type of equipment used and its maintenance, operating conditions and environment, and any prior lubricant used.