

# Mobilgard™ 540 AC





# Mobilgard™ 540 AC

Introducing Mobilgard™ 540 AC, an advanced 40BN cylinder oil developed for use in slow-speed, two-stroke marine engines operating on fuels with up to 0.50% sulphur content, LNG, ethane, methanol and LPG.

The high-performance lubricant has been validated by WinGD for use in its dual fuel engines with conventional fuels and methanol which adds peace of mind for vessel operators when switching fuel formulations. Additionally, it holds Category II status from MAN ES, applicable to Mark 9 and higher two-stroke marine diesel engine designs. Category II 40BN oils may also be advantageous for MAN Mark 8 engines and lower<sup>1</sup>.

Mobilgard 540 AC is approved for use in MAN ES and WinGD two-stroke engines running on LNG, distillates, methanol and very low sulphur fuel oils (VLSFOs).

Developed using ExxonMobil's proprietary balanced formulation, this premium lubricant meets the advanced cleanliness needs of newer engines. It received No Objection Letters from both MAN ES and WinGD<sup>3</sup> following extensive field trials.

## Formulated with performance in mind



Combats deposits and scuffing-related engine wear associated with low-sulphur fuels



Delivers exceptional cleanliness due to high level of detergency



Ensures performance even in severe operating conditions due to its excellent thermal and oxidative stability

## Quantifiable benefits

Mobilgard 540 AC helps<sup>2</sup>:



Prolong engine life



Minimise maintenance



Enhance vessel reliability



Simplify operation as a single solution

<sup>1</sup> Please refer to the latest OEM guidance for up-to-date recommendations.

<sup>2</sup> When compared with a standard 40 BN cylinder oil and no/limited scrape down oil analysis..

<sup>3</sup> LNG validated has been introduced by WinGD as the renewed claim language for dual fuel validation (April 2024).

# ExxonMobil cylinder oil recommendation based on OEM guidance and extensive experience

		LNG / Methanol / LPG* and Ethane*	Fuel S < 0.1%	0.1%<Fuel S≤ 0.5%	0.5%<Fuel S≤ 1.5%	Fuel S≥ 1.5%
MAN ES	Mark 9 and higher	540 AC			5100	5100/5145
	Mark 8 and lower		540/540 AC		570/5100	5100/5145
WIN GD		540/540 AC			540/540 AC/570	5100/5145

These recommendations are based on OEM guidance and ExxonMobil's extensive experience. Please refer to the latest OEM's Service Bulletins for more detailed recommendations. Individual engine requirements may vary. Mobilgard™ 570 can be replaced by Category II cylinder oils for cleaning purposes.

## Streamlined inventory – simplified operations

Many vessel operators use a combination of 40BN and 100BN cylinder oils in alternating patterns to meet the required Category II cleanliness performance. This is far from ideal.

A switch to Mobilgard™ 540 AC offers a single solution, helping vessel operators optimise their inventory and also gain access to a range of performance benefits.

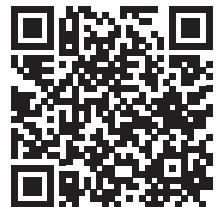
## Maximise cost savings

Mobil<sup>SM</sup> Cylinder Condition Monitoring, used in conjunction with Mobilgard 540 AC, can help vessel operators optimise cylinder oil feed rates while improving engine protection.

The scrape down oil analysis service includes:

- ✓ Safe, fast, simple and accurate onboard sampling
- ✓ Scan-and-go technology for easy sample registration
- ✓ Actionable insights within minutes of sample submission
- ✓ Tailored lubricant recommendations

Mobilgard 540 AC is compatible with ExxonMobil's entire range of two-stroke engine cylinder oils in any quantity. Full details of its availability can be viewed on ExxonMobil's Ports & Services Guide: [www.portsandservices.exxonmobil.com](http://www.portsandservices.exxonmobil.com)



Visit the ExxonMobil website to learn more.



# Frequently asked questions

## **Is Mobilgard 540 AC right for my engine?**

Mobilgard 540 AC is an advanced 40BN cylinder oil developed for use in slow-speed, two-stroke marine engines operating on fuels with up to 0.50% sulphur content, LNG, ethane<sup>4</sup>, methanol and LPG<sup>4</sup>. It has been validated by both MAN ES and WinGD for use in all their engines. Please refer to the ExxonMobil cylinder oil recommendation based on OEM guidance and extensive experience table in this document for specific details on your engine type.

## **Will Mobilgard 540 AC be compatible with my current lubricant?**

Yes, it is compatible with ExxonMobil's entire range of two-stroke engine cylinder oils. However, in order to take full advantage of the performance of Mobilgard 540 AC, best practice guidance is to minimise the amount of the prior lubricant in the tank before loading on top.

## **What benefits does Mobilgard 540 AC offer to vessel operators?**

The lubricant has been designed with outstanding detergency and dispersancy to deliver the advanced cleanliness requirements of modern two-stroke engines while maintaining excellent performance in all other attributes of a premium cylinder oil. Mobilgard 540 AC also possesses high thermal stability, anti-oxidation and anti-wear properties.

## **Will Mobilgard 540 AC help me clean up my engine?**

Engine cleanliness is dependent on a range of factors including fuel type and operating profile. An oil analysis programme, such as Mobil<sup>SM</sup> Cylinder Condition Monitoring, can help identify the optimum lubricant feed rate for achieving best results. Removing some deposits may require mechanical process. An experienced ExxonMobil engineer can advise you on how this should be approached.

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