

2020 lubrication solutions

engine lubricants

protect your engine with lubricants formulated for today — and tomorrow



take full control

our engine oils work hard so your engines don't have to

With one of the industry's largest distribution networks, Chevron has the infrastructure to deliver the marine products and services you need. From our global operational reach to the depth of our experienced personnel, we stand for one thing above all else — reliability.



helping you navigate to 2020 lubrication solutions

Chevron Marine's Taro[®] Ultra family is a regulation-ready range of new generation cylinder oils, providing the reassurance of a global lubrication solution for virtually every fuel eventuality, while lowering your fleet's total cost of ownership.

routes to IMO 2020 compliance

distillate fuel or MGO

Although the new IMO regulations require a sulphur fuel level of 0.5% or less, in emission control areas (ECAs) sulphur levels remain much lower at 0.1% and will not be impacted by the 2020 IMO regulations. With this in mind, distillate fuel is likely to remain the main fuel alternative used in ECA areas to meet the 0.1% sulphur limit. However, it is unlikely that distillate fuels will be adopted outside of ECA areas because of the higher cost of purchase over alternatives.

LSFO

< 0.5% LSFO (low sulphur fuel oil) is expected to be the predominant compliance option to meet the IMO legislation requirements post-2020, with most slow-speed engines able to operate using LSFO — typically without the need for modification. LSFOs are products that are above 0.1%, but in order to meet the 0.5% sulphur limit, they are blended from high sulphur HFO and lower sulphur components such as distillate.

exhaust gas abatement systems plus HSFO

Exhaust gas abatement systems or scrubbers provide another option for meeting the legislation. Scrubbers reduce the SOx output to a level that will meet IMO 2020 emission requirements and allow the use of HSFO (high sulphur fuel oil). There are several different types of scrubber - open loop, closed loop, hybrid, dry - and once installed, traditional high sulphur fuels can be employed.

LNG

LNG (liquefied natural gas) in some cases helps to reduce carbon emissions by 25%, NOx emissions by 70-80%. and has almost zero sulfur emissions, thus meeting 2020 legislation. Global LNG bunkering infrastructure is at an infant stage today, and most LNG-powered ships are LNG carriers or coastal vessels limited to European waters. Major bunkering ports in the world have yet to develop full-scale LNG bunkering facilities. The LNG option makes most sense for LNG carriers or newbuilds rather than conversions of existing ships, with several major operators choosing LNG for vessels on liner routes.

we've got you covered ... whichever operational route you choose

cylinder oils for today — and tomorrow



Taro Cylinder Lubricants*

Taro Grade	Taro [®] Ultra 25	Taro [®] Ultra 40	Taro [®] Ultra 70
Description	High performance 25BN SAE 50 cylinder oil for engines operating on ECA fuel, LNG, LPG and ethane ethanol.	High performance 40BN SAE 50 cylinder oil for engines operating on LSFO and distillate fuel single grade for 0.50% sulphur. Additionally for the use of intermittent ECA fuel and permanent methanol.	High performance 70BN SAE 50 cylinder oil for a wide range of fuels.
Base Number (BN)	25	40	70
ISO Viscosity Grade	50	50	50
Density 15°C kg/l	0.90	0.92	0.92
Viscosity at 100°C	19	19	19
Pour Point, °C	-12	-12	-12
OEM Approved			
MAN ES	✓		✓
WinGD (former Wärtsilä)	✓		 Image: A second s

Taro[®] Ultra 140 140 BN

HIGH

Taro [®] Ultra 100	Taro [*] Ultra 140 High performance 140BN SAE 50 cylinder oil optimized to also combat cold corrosion and lower feed rates in two-stroke engines. Designed for cost performance optimization with scrubbers.	
High performance 100BN SAE 50 cylinder oil, the optimal choice for most slow-speed vessels. Optimized to combat cold corrosion in two-stroke engines. Designed for high sulphur HFO & scrubber operations.		
100	140	
50	50	
0.93	0.98	
19	19	
-12	-12	
1	 ✓ 	
1		

* Always use Taro products in line with OEM guidelines

Five cylinder lubricants for every need

Taro Ultra — formulated to cope with the demands and provide the flexibility needed post IMO 2020 implementation. Developed and field tested for over 65,000 hours in a range of 2-stroke engines and vessel applications using a variety of bunker fuels, including 0.50% sulfur blends, alternative and hybrid fuels as well as traditional bunker fuels to mirror almost all future operations. Performance analysis from the FAST vessel optimization program and strong working relationships with major marine OEMs provides the reassurance you expect from Chevron Marine Lubricants, helping you navigate through change.



diesel engine oils



optimize your engine, FAST

Predictive measures and analysis play a vital role in the maintenance of vessel equipment. The FAST range of services enable operators and engineers to quickly diagnose the condition of their engine and protect crucial equipment **before** it results in costly downtime.



Take samples



Test on board



Send for lab analysis



with the FASTTM range of services



DOT.FAST® Drip Oil Analyzer

Delivers onboard results with laboratory accuracy. Easy to use and innovative, the testing is supported by onshore analysis reviewed by experts.

FAST™

Provides comprehensive fluid analysis at our advanced global laboratories where the focus is on what you need most — reliability.

FAST™ OnBoard

A portable and user-friendly digital laboratory providing easy to interpret results, measuring viscosity, water and base number (BN).

XLI Portable Refractometer

A simple and easy to use onboard device to read the concentration of Chevron's XLI Cooling Water Treatment in fluid samples.



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www.chevronmarinelubricants.com



Always confirm that the product selected is consistent with the original equipment manufacturer's recommendation for the equipment operating conditions and customer's maintenance practices.

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