

Validated engine oils for WinGD engines

Version 18

January 2026



WINGD

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This document must be read and used in conjunction with the WinGD document “Lubricants” [Link](#)

Engine types

The oil lists are valid for the following engine types:

WinGD X, WinGD X-DF, WinGD X-DF-A, WinGD X-DF-M, WinGD RT-flex, WinGD RT-flex-DF, Wärtsilä RTA, Wärtsilä RT-flex and Wärtsilä X engines as well as in Sulzer 2-stroke engines

Changes compared to Version 17 published in March 2025

New products added:

- ADNOC: Voyager Marine Oil 540 / Voyager Marine Oil X 540
- Castrol Cyltech 140f
- Chevron Lubricants Taro Ultra 140A
- Chevron Veritas 800A Marine 30X
- ENEOS Marine CX405
- Imex Oil: Enmar Cyl 540X / Enmar Cyl 570X / Enmar Cyl 5100X / Enmar SMO 30X
- LENOL CL 140
- Petronas Silub 100 LS2 50
- Repsol Systemax 305
- Sinova Marine CYN 50 BN 100
- MAG Aqua MCL SAE 50 BN 100

Products phased out:

- Aegean Alfacylo 570 GII
- Chevron Taro Ultra 20
- CPC Marilube Oil CO-200 Plus
- Gulf Marine: GulfSea Cylcare 5070S / GulfSea Cylcare 50100S / GulfSea Cylcare 50100X1
GulfSea Cylcare 50140X / GulfSea Cylcare 50140S
- Petrobras Marbrax CIP-55

Changes on existing products:

- "Cepsa" changed to "MOEVE"
- Chevron “Lubricants Veritas 800a Marine 30” changed to “Lubricants Veritas 800A Marine 30”
- "Petrobras" changed to "Vibra Energia (Lubrux) S.A."
- Shell Alexia 40, Folling note removed:
“LNG validated” only valid for products formulated and blended with Gp. I base oils

For additional information on any of the above products, please contact the respective oil company directly.

General amendments to this document:

- No general amendments were made in this revision.

General remarks

LNG column

All cylinder lubricating oils shown under the LNG gas fuel column are allowed for general usage in gas mode.

- “LNG-validated” oils have passed a field validation trial running in gas mode. These oils have demonstrated a good ability to keep the piston running components clean while running in gas mode at optimised low feed rates.
- “General Usage” oils have passed a field validation trial running on liquid fuels only. Based on their performance, the usage of these oils in gas mode is also allowed.
- Oils which are not allowed to be used in gas mode have an empty field in the LNG gas fuel column.

Ammonia column

- “General Usage” oils have passed a field validation trial running in gas mode (LNG). Based on their performance, the usage of these oils in ammonia mode is also allowed.

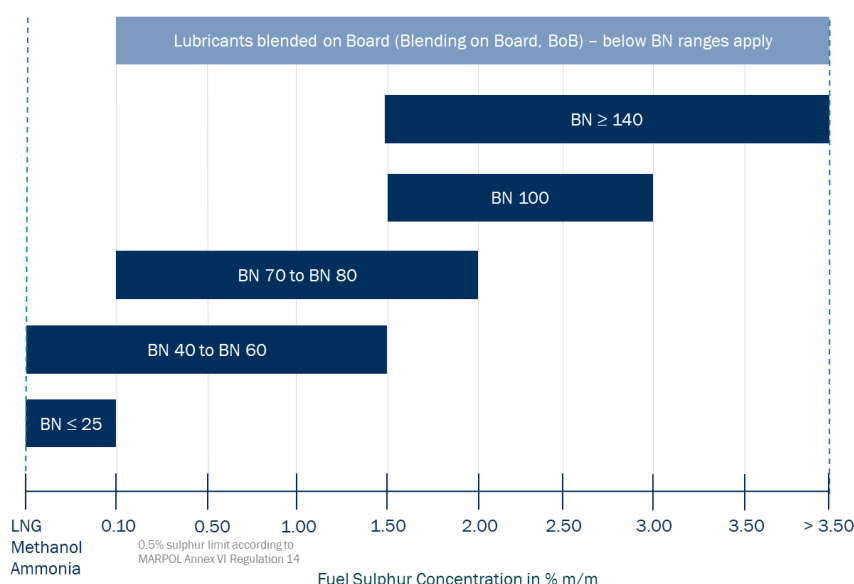
Methanol column

- “General Usage” oils have passed a field validation trial running on liquid fuels and/or in gas mode. Based on their performance, the usage of these oils in gas mode is also allowed.

General guideline for cylinder lubricating oil selection

Step 1: Choose a suitable BN range for cylinder lubricating oil from the following overview based on intended fuel usage.

Step 2: Refer to the table “List of validated cylinder lubricating oils” on the next pages to verify specific cylinder oil usage guidelines



Note: In all instances the information in this document takes precedence and should be regarded as the final approved guidelines by WinGD.

List of validated cylinder lubricating oils

Oil supplier	Oil name	BN	BN range	LNG	Ammonia	Methanol	Fuel sulphur concentration							
							0.00% to 0.10% S	0.10% to 0.50% S	0.50% to 1.50% S	1.50% to 2.00% S	2.00% to 2.50% S	2.50% to 3.00% S	3.00% to 3.50% S	> 3.50% S
ADNOC	Voyager Marine Oil 540	40	40 - 60	2)		2)								
	Voyager Marine Oil X 540	40	40 - 60	LNG validated										
Aegean	Voyager	70	70 - 80					Monitor						
	Alfacylo 540 NG	40	40 - 60											
ARG	Alfacylo 570	70	70 - 80					Monitor						
	Marine Diesel Cylinder Lubricant	70	70 - 80					Monitor						
AVIN	Neptune 40 SAE 50	40	40 - 60											
	Neptune 70 SAE 50	70	70 - 80					Monitor						
Bardahl	Neptune 100 SAE 50	100	80 - 100							Monitor				
	Naval 50	70	70 - 80					Monitor						
Castrol	Cyltech 40	40	40 - 60	2)		2)								
	Cyltech 40 SX	40	40 - 60	LNG validated										
	Cyltech 40 XDC	40	40 - 60	LNG validated										
	Cyltech 70	70	70 - 80					Monitor						
	Cyltech 70f	70	70 - 80					Monitor						
	Cyltech 100	100	80 - 100							Monitor				
	Cyltech 100f	100	80 - 100							Monitor				
	Cyltech 140	140	≥ 140							Monitor				
Chevron	Cyltech 140f	140	≥ 140							Monitor				
	Taro Ultra 40	40	40 - 60	2)		2)								
	Taro Ultra 40X	40	40 - 60											
	Taro Ultra Advanced 40	40	40 - 60	LNG validated										
	Taro Ultra 70	70	70 - 80					Monitor						
	Taro Ultra 70J	70	70 - 80					Monitor						
	Taro Ultra 70X	70	70 - 80					Monitor						
	Taro Ultra 100	100	80 - 100							Monitor				
Cosmo	Taro Ultra 100J	100	80 - 100							Monitor				
	Taro Ultra 100X	100	80 - 100							Monitor				
	Taro Ultra 140	140	≥ 140							Monitor				
	Taro Ultra 140A	140	≥ 140							Monitor				
	Marine 5040	40	40 - 60											
Cosmo	Marine 5070S	70	70 - 80					Monitor						
	Marine 5100S	100	80 - 100							Monitor				

Oil supplier	Oil name	BN	BN range	LNG	Ammonia	Methanol	Fuel sulphur concentration							
							0.00% to 0.10% S	0.10% to 0.50% S	0.50% to 1.50% S	1.50% to 2.00% S	2.00% to 2.50% S	2.50% to 3.00% S	3.00% to 3.50% S	> 3.50% S
CPC	Marilube Oil CO-700 Plus	70	70 - 80					Monitor						
	Marilube Oil CO-1000 Plus	100	80 - 100							Monitor				
Cyclon Hellas	Nautilus LS	40	40 - 60											
	Nautilus Heavy	70	70 - 80					Monitor						
	Nautilus Heavy XT	100	80 - 100							Monitor				
ENEOS	Marine C405	40	40 - 60											
	Marine C405S	40	40 - 60											
	Marine C405Z	40	40 - 60											
	Marine CX405	40	40 - 60	LNG validated										
	Marine C705	70	70 - 80					Monitor						
	Marine C705S	70	70 - 80					Monitor						
	Marine C1005	100	80 - 100							Monitor				
	Marine C1005S	100	80 - 100							Monitor				
ENI	Punica 570	70	70 - 80					Monitor						
ENOC	STRATA CYL 540LS	40	40 - 60											
	STRATA CYL N 570	70	70 - 80					Monitor						
ExxonMobil	Mobilgard 540	40	40 - 60	2)		2)								
	Mobilgard 540 AC	40	40 - 60	LNG validated										
	Mobilgard 570	70	70 - 80					Monitor						
	Mobilgard 5100	100	80 - 100							Monitor				
	Mobilgard 5145	145	≥ 140							Monitor				
Formosa	XC05070	70	70 - 80					Monitor						
GazProm Neft	Ocean CCL 17 UL5F	17	15 - 25											
	Ocean CCL 70	70	70 - 80					Monitor						
	Ocean CCL 100 HSF	100	80 - 100							Monitor				

Oil supplier	Oil name	BN	BN range	LNG	Ammonia	Methanol	Fuel sulphur concentration							
							0.00% to 0.10% S	0.10% to 0.50% S	0.50% to 1.50% S	1.50% to 2.00% S	2.00% to 2.50% S	2.50% to 3.00% S	3.00% to 3.50% S	> 3.50% S
Gulf Marine	GulfSea Cylcare ECA 50S	20	15 - 25											
	GulfSea Cylcare ECA 50X	17	15 - 25											
	GulfSea Cylcare 5040H	40	40 - 60											
	GulfSea Cylcare 5040X	40	40 - 60											
	GulfSea Cylcare XP 5040H	40	40 - 60	LNG validated										
	GulfSea Cylcare XP 5040X	40	40 - 60	LNG validated 3)	3)	3)	3)							
	GulfSea Cylcare 5070H	70	70 - 80					Monitor						
	GulfSea Cylcare 5070X	70	70 - 80					Monitor						
	GulfSea Cylcare XP 50100H	100	80 - 100							Monitor				
Hyundai Oilbank	GulfSea Cylcare XP 50100X	100	80 - 100							Monitor				
	GulfSea Cylcare XP 50140X	140	≥ 140							Monitor				
	Xteer MCL 5040L	40	40 - 60	2)		2)								
	Xteer MCL 5070	70	70 - 80					Monitor						
Idemitsu Kosan	Xteer MCL 50100	100	80 - 100							Monitor				
	Daphne Seamaster A-50LS	40	40 - 60	2)		2)								
	Daphne Seamaster A-50N	70	70 - 80					Monitor						
Imex Oil	Daphne Seamaster A-50NH	100	80 - 100							Monitor				
	Enmar Cyl 540X	40	40 - 60	2)		2)								
	Enmar Cyl 570X	70	70 - 80					Monitor						
	Enmar Cyl 5100X	100	80 - 100							Monitor				
Indian Oil	Servo Marine 7050	70	70 - 80					Monitor						
	Servo Marine ME10050	100	80 - 100							Monitor				
	Servo Marine ME14050	140	≥ 140							Monitor				
LENOL	CLX 20	20	15 - 25	LNG validated										
	CLX 40	40	40 - 60											
	CL 40	40	40 - 60											
	CL 50	50	40 - 60											
	CL 70	70	70 - 80					Monitor						
	CL 100	100	80 - 100							Monitor				
LOTOS	CL 140	140	≥ 140							Monitor				
	Marinol RG 4050	40	40 - 60											
	Marinol RG 7050	70	70 - 80					Monitor						

Oil supplier	Oil name	BN	BN range	LNG	Ammonia	Methanol	Fuel sulphur concentration							
							0.00% to 0.10% S	0.10% to 0.50% S	0.50% to 1.50% S	1.50% to 2.00% S	2.00% to 2.50% S	2.50% to 3.00% S	3.00% to 3.50% S	> 3.50% S
Lubmarine (Total Energies)	Talusia LS 40	40	40 - 60											
	Talusia HD 40	40	40 - 60	LNG validated 3)	3)	3)	3)							
	Talusia Universal	57	40 - 60	LNG validated										
	Talusia HR 70	70	70 - 80					Monitor						
	Talusia Universal 100	100	80 - 100							Monitor				
	Talusia Optima	100	80 - 100				<300 h							
	Talusia HR 140	140	≥ 140							Monitor				
LUKOIL	Navigo MCL Ultra	20	15 - 25	LNG validated										
	Navigo MCL Extra	40	40 - 60											
	Navigo 70 MCL AW	70	70 - 80					Monitor						
	Navigo 100 MCL	100	80 - 100							Monitor				
	Blended Cylinder Oil (BN 60 to 100)	N/A	N/A											
MAG	Aqua MCL SAE 50 BN 100	100	80 - 100							Monitor				
MOEVE	Gavia 4050	40	40 - 60											
	Gavia 7050	70	70 - 80					Monitor						
Motor Oil Hellas	EMO Neptune 40 SAE 50	40	40 - 60											
	EMO Neptune 70 SAE 50	70	70 - 80					Monitor						
	EMO Neptune 100 SAE 50	100	80 - 100							Monitor				
Pertamina	Medripal 5040	40	40 - 60											
	Medripal 570	70	70 - 80					Monitor						
PetroChina	KunLun DCA 5070H	70	70 - 80					Monitor						
PetroGulf	Marine Cylinder Oil 5040	40	40 - 60											
	Marine Cylinder Oil 5070	70	70 - 80					Monitor						
	Marine Cylinder Oil 50100	100	80 - 100							Monitor				
Petron	Petromar DCL 4050	40	40 - 60											
Petronas	Silub 20 LS50	20	15 - 25											
	Silub 100 LS2 50	100	80 - 100							Monitor				
Premier Six	Opt-Max Shieldguard 5040	40	40 - 60											
	Opt-Max Shieldguard 5070	70	70 - 80					Monitor						
	Opt-Max Shieldguard 50110	110	80 - 100							Monitor				
	Opt-Max BoB 300 ¹⁾ (BN 40 to 120)	N/A	N/A											

Oil supplier	Oil name	BN	BN range	LNG	Ammonia	Methanol	Fuel sulphur concentration							
							0.00% to 0.10% S	0.10% to 0.50% S	0.50% to 1.50% S	1.50% to 2.00% S	2.00% to 2.50% S	2.50% to 3.00% S	3.00% to 3.50% S	> 3.50% S
Puma Energy	Marine Cylinder Oil TBN 70 SAE 50	70	70 - 80					Monitor						
	Marine Cylinder Oil TBN 100 SAE 50	100	80 - 100							Monitor				
Repsol	Innocean Cyllindex 40	40	40 - 60	2)		2)								
	Innocean Cyllindex 70	70	70 - 80					Monitor						
	Innocean Cyllindex 100	100	80 - 100							Monitor				
Shell	Alexia 40	40	40 - 60	LNG validated										
	Alexia 40 XC	40	40 - 60	LNG validated										
	Alexia 70	70	70 - 80					Monitor						
	Alexia 100	100	80 - 100							Monitor				
	Alexia 140	140	≥ 140							Monitor				
SINOPEC	Marine Cylinder Oil 5017	17	15 - 25											
	Marine Cylinder Oil 5040	40	40 - 60	2)		2)								
	Marine Cylinder Oil 5040N	40	40 - 60											
	Marine Cylinder Oil 5040N (II)	40	40 - 60	LNG validated 3)	3)	3)	3)							
	Marine Cylinder Oil 5070N	70	70 - 80					Monitor						
	Marine Cylinder Oil 5070S	70	70 - 80					Monitor						
	Marine Cylinder Oil 5080S	80	70 - 80					Monitor						
	Marine Cylinder Oil 50100	100	80 - 100							Monitor				
	Marine Cylinder Oil 50100N	100	80 - 100							Monitor				
Sinova	Marine CYN 50 BN 100	100	80 - 100							Monitor				
	Supermar CYL 40 Plus	40	40 - 60	2)		2)								
SK	Supermar CYL 40	40	40 - 60											
	Supermar CYL 40L	40	40 - 60											
	Supermar CYL 70 Plus	70	70 - 80					Monitor						
	Supermar CYL 100	100	80 - 100							Monitor				

Oil supplier	Oil name	BN	BN range	LNG	Ammonia	Methanol	Fuel sulphur concentration							
							0.00% to 0.10% S	0.10% to 0.50% S	0.50% to 1.50% S	1.50% to 2.00% S	2.00% to 2.50% S	2.50% to 3.00% S	3.00% to 3.50% S	> 3.50% S
Texas Petro-chemical	Texmarine 700	70	70 - 80					Monitor						
	Texmarine 1000	100	80 - 100							Monitor				
United Oil company	U Star Lube Star Marine 570	70	70 - 80					Monitor						
Vibra Energia (Lubrax) S. A.	Marbrax CID-54-AP	40	40 - 60	LNG validated 3)										
	Marbrax CID-57	70	70 - 80					Monitor						
	Marbrax CID-5100	100	80 - 100							Monitor				

	GENERAL USAGE: Allowed within WinGD general usage guidelines
< 300 hrs	SPECIFIC USAGE: Allowed continuously for maximum time limit stated
Monitor	SPECIFIC USAGE: Allowed but with increased frequency of Piston Underside Inspections (PUIs) and Cylinder Scrape Down Oil Analysis.
LNG validated	SPECIFIC USAGE: Allowed without restriction within WinGD general usage guidelines. Cylinder Oil has passed full validation trial running on LNG
<p>NOTES: 1) Multiple blending combinations with different system oils are possible. Not all of them are validated. Speak to the supplier for more data about the validated products.</p> <p>NOTES: 2) Only valid for products formulated and blended with Gp. I base oils</p> <p>NOTES: 3) Only valid for products formulated and blended with Gp. II base oils</p>	
<p>It is the responsibility of the NOL holder to apply for renewals of NOLs prior to expiry. Expired NOLs will be removed from the list if no renewal application has been made in good time. In this respect, the list will be reviewed annually and expired NOLs, and those not currently in reissuance process, will be removed.</p>	

List of validated system lubricating oils

Oil supplier	Oil name	BN
ADNOC	Marine System Oil 306	6
ADNOC	Voyager System Oil 306	6
Aegean	Alfasys 305	5
AVIN	Panoil M 530	5
Castrol	CDX 30	5
Castrol	CDX 30f	5
Castrol	CDX 30r	5
Chevron	Veritas 800 Marine 30	5
Chevron	Veritas 800A Marine 30	5
Chevron	Veritas 800A Marine 30X	5
Cosmo	Marine 3005	5
CPC	Marilube Oil AC-30 Plus	5
Cyclon Hellas	Armor Medium SAE 30	5
Eneos	Marine S30	7
ENI	Cladium 50	5
ExxonMobil	Mobilgard 300 C	9
Formosa	XS03005	5
Four C Marine Lubricants	Athen Marine System Oil 3005	5
GasPromNeft	Ocean CS0 7	7
Gulf Marine	GulfSea Superbear 3006	6
Gulf Marine	GulfSea Superbear 3006 S	5
Gulf Marine	GulfSea Superbear 3008	8
Hyundai	Xteer SO 3005	5
Imex Oil	Enmar SMO 30X	5
IndianOil	Servo Marine 0530	5
Lenol	6 S 30	6
Lubmarine (TotalEnergies)	Atlanta Marine D 3005	5
LUKOIL	Navigo 6 CO	6
MOEVE	Ciconia 30	5
Motor Oil Hellas	EMO Panoil M 530	5
Pertamina	Medripal 307	7
PetroChina	KunLun DCC3008	8
Petrogulf	Marine System Oil 3006	6
Petronas	DISROL 5 LS30	5
Premier Six	Opt-Max Shieldguard 3008	8
Puma Energy	Marine System Oil TBN 5 SAE 30	5
Repsol	Systemax 305	5
Shell	Melina S30	5

Oil supplier	Oil name	BN
SINOPEC	Marine System Oil 3005	5
SINOPEC	Marine System Oil 3005S	5
SINOPEC	Marine System Oil 3006	6
SINOPEC	Marine System Oil 3008	8
SINOPEC	Marine System Oil 3008N	8
SK	Supermar AS ¹⁾	5
Vibra Energia (Lubrax) S.A.	DISROL 5 LS30	5

NOTES: 1) Multiple formulations of this product are available. Not all of them are validated. Speak to the supplier for more data about the validated products.

Appendix

BN140/145 cylinder oils for fuels with a sulphur content higher than 3 %

Evidence from engines with a range of bore sizes shows that the performance limits of BN100 oils are being reached when used in combination with >3.00 % S fuels. This is mostly evidenced through lacquering and cold corrosion on liners.

- An increase in oil feed rate has shown little to no improvement in most cases.
- In some cases, maximum feed rate settings have been reached, and cannot be further increased.
- Furthermore, excessive feed rates may have negative effects over time:
 - On the piston running & other components (e.g. Ca deposits)
 - Wasting of cylinder oil for the customer where unused cylinder oil is scraped down into the piston underside
 - Scraping down large amounts of fresh oil makes the results of the scrape down oil analysis less useful
- WinGD has gathered information from field validation trials to support this
- Customers have worked with WinGD to monitor and assess the situation

Therefore, a cylinder oil with a higher BN has been considered necessary.

During oil validation trials of BN140/145 products WinGD confirmed that these lubricants perform very well. The main improvements when compared to BN100 oils is further increased cleanliness of the combustion chamber and substantially lower feed rates that are achieved. This presents in an overall benefit for the operators: cleaner components, lower risks for cold corrosion and lower feed rates for reduced OPEX costs.

Note: Engage with the supplier in advance to make sure the oil is available in time. Batches might be produced on demand only.