

YANNAR



INDEX

1. Engines	1
1.1. Slow-speed engines	2
1.2. Medium-speed engines	4
1.3. Medium High-speed engines	7
1.4. High-speed engines	8
1.5. Special applications	9
2. Auxiliary machinery	10
2.1. Hydraulic	11
2.2. Gears	12
2.3. Stern tube	15
2.4. Turbine	16
2.5. Compressor	17
2.6. Refrigeration Compressor	18
2.7. Heat transfer	19
2.8. Grease	20
3. Pleasure Speed Boat	22
3.1. 2 Stroke Petrol Engine	25
3.2. 4 Stroke Petrol Engine	24
O.1. Packaging	28

INTRODUCTION

We provide a complete range of high quality marine lubricants that are designed to protect and enhance the efficiency of engines and equipment. All of our products are backed by our industry-leading technical support services and used oil testing services that enable optimal maritime operation.

YANMAR Marine delivers the latest technology and state of oil Marine Grade Range. It covers main and minor grades of provent quality.

QUALITY ASSURANCE

Our Engines oils have excellent deposits and wear control and meets the demand of latest and highly rated engines designs as well as all other applications.

Our Two-Stroke engine oils range consist of system oil and known for low sulphur application

Our Four-Stroke engine oil offers different level of alkalinely-reserve and covers highly loaded engines at low lube oil consumption from distillate to heavy fuel operations.

We offer very high quality product range for ancillary machinery application a cooperation with one leading marine additive manufacturing, that is covering Hydraulic / Gear / Compressor / Turbine / Refrigeration / Grease, exclusive from YANMAR.



SECTOR CHALLENGE

At YANMAR we have developed a wide range of lubricants that cover all the lubrication needs in the marine world, both for engines and the rest of machinery on board.

We provide our clients with marine oils for 2-stroke and 4-stroke technology propulsion engines, as well as all the other lubricants and greases used in the vessel's diverse machinery.

We also supply biodegradable oils (EALs) for equipment that may pollute its environment, as well as for vessels sailing in waters where international VGP standards must be complied with. You'll find them differentiated as follows:



Today marine equipment faces ever-increasing challenges that are presented in different ways, partly due to the demand for the full availability of the equipment frequently used at full load, but mainly due to the extreme environments in which they operate.

In these extreme operating conditions, lubricants must provide, inaddition to their standard function, extra protection in order to maintain or increase equipment reliability and availability, as wellas facilitate maintenance management.

YANMAR Lubricants, with their extensive experience in this type of applications, have demonstrated their high performance and response capacity, ensuring customers full equipment availability.

The YANMAR Lubricants range is designed to respond to extremely demanding operating conditions: greater resistance to oxidation (higher working temperatures), lower viscosity loss (use of top-quality bases), greater anti-wear capacity (developments), etc., offering high resistance in this operating environment.

In addition to the cutting-edge technology used by YANMAR to manufacture its lubricants, its extensive experience in the field and the data obtained from the analysis of thousands of samples provide valuable information that is taken into account in the development and adaptation of its range of lubricating oils, to a great extent contributing to the excellence of its products.

In line with our philosophy of ongoing innovation and improvement, we present our Marine Lubricants Catalogue in which we have selected the most widely-used products in the sector, of which YANMAR offers you a wide range of products. In this selection you will find two categories based on their geographic availability differentiated as follows:





SLOW-SPEED **ENGINES**

YANMAR Marine have full series of slow speed diesel engine oils, which is developed with heavy base stock and specially designed additive control. Two segments of this series are formulated for two very different applications, first is the OSOI SLOW-SPEED and the second is the OSOI UNIVERSAL. Both are termed high performance lubricants and provide enhanced protection from mechanical wear as well as mitigation of cold corrosion. They are fully capable to optimize feed rates and reduce operating cost.

OSOI 50-25

CYLINDER OIL

Meets & Exceeds:

YANMAR 0S0I 50-25 marine cylinder oil for slow-speed 2-stroke engines running on ECA fuels below 0,1% sulfur,is a highly reliable low alkaline lubricant, ensuring reliable operations with ECA compliant ultra low sulphur fuels, provides excellent cleanliness and outstanding deposit control, its low-ash content are protected against deposit formation which can lead to scuffing issues. YANMAR OSOI 50-25 meets the requirements of Japan Engine Corporation, MAN ES, and WinGD.

- YANMAR
- MAN Diesel & Turbo
- Wärtsilä 2-stroke

SAE Grade: 50 **TBN 25**

OSOI 50-40

CYLINDER OIL

Meets & Exceeds:

- ΥΔΝΜΔΡ
- MAN Diesel & Turbo
- Wärtsilä 2-stroke

YANMAR OSOI 50-40 marine cylinder oil for slow-speed 2-stroke engines running on ECA fuels using low sulfur residual fuels below (1.0% sulfur), It's special formulation to maintains engine cylinder cleanliness and minimizes deposit build-up on piston crowns, rings and liners, With its low BN and its conventional calcium carbonate chemistry, it is optimized to efficiently lubricate engines. YANMAR OSOI 50-40 meets the requirements of Japan Engine Corporation, MAN ES, and WinGD.

SAE Grade: 50 **TBN 40**

OSOI UNIVERSAL 50-57

CYLINDER OIL

Meets & Exceeds:

YANMAR OSOI UNIVERSAL 50-57 marine cylinder oil for all 2-stroke engines using fuels and Dual Fuel with a sulfur range of 0.0 to 1.5%. the single oil solution, designed to lubricate engines using a wide range of fuels. Chemistry ensures optimum engine cleanliness and efficient acid neutralization. YANMAR OSOI UNIVERSAL 50-57 meets the requirements of Japan Engine Corporation, MAN ES, and WinGD.

- YANMAR
- MAN Diesel & Turbo
- Wärtsilä 2-stroke

SAE Grade: 50 **TBN 57**

OSOI UNIVERSAL 50-70

CYLINDER OIL

Meets & Exceeds:

YANMAR 0S0I 50-70 marine cylinder oil for slow-speed 2-stroke engines running on high sulfur fuel oils, Using conventional mineral chemistry, its high BN efficiently neutralises sulphuric acid formed during combustion of high sulphur residual fuels, this prevents corrosion, cylinder wear and scuffing, and can extend the length of time between engine overhauls, it can work in various operating conditions. YANMAR OSOI 50-70 meets the requirements of Japan Engine Corporation, MAN ES, and WinGD.

- YANMAR
- MAN Diesel & Turbo
- Wärtsilä 2-stroke

SAE Grade: 50 **TBN 70**

OSOI UNIVERSAL 50-100

CYLINDER OIL

Meets & Exceeds:

- YANMAR
- MAN Diesel & Turbo
- Wärtsilä 2-stroke

YANMAR 0S0I 50-100 is designed exclusively for modern Tier II and Tier III engines using high sulphur residual fuel oil, and has a high BN of 100, allowing for the most stringent and corrosive service conditions. It is capable of keeping engine cylinders clean and preventing engine damage when high sulphur heavy fuel oils (HSHFOs) are used, as well as when the engine is operated over extended periods of intense operation. YANMAR SHISUTEMU 50-100 meets the requirements of Japan Engine Corporation, MAN ES, and WinGD.

SAE Grade: 50 **TBN 100**

OSOI 50-100 CYLINDER OIL

YANMAR 0S0I 50-100 marine cylinder oil BN 100 for slow-speed 2-stroke engines running on any fuel oils in the range 0,0% to 3,5% sulfur, the innovative formulation using Ashfree Neutralizing Molecules provides superior acid neutralization and outstanding cylinder cleanliness, exceeding the capability of conventional oil. YANMAR SHISUTEMU 50-100 meets the requirements of Japan Engine Corporation, MAN ES, and WinGD.

Meets & Exceeds:

- YANMAR
- MAN Diesel & Turbo
- Wärtsilä 2-stroke

SAE Grade: 50 **TBN 100**

OSOI 50-140 CYLINER OIL

YANMAR OSOI 50-140 marine cylinder oil for slow-speed 2-stroke engines especially suitable for those known to be susceptible to the cold corrosion phenomenon. YANMAR OSOI 50-140 is able to efficiently neutralise sulphuric acid formed during combustion of high sulphur residual fuels whilst ensuring optimum engine cleanliness and minimising component wear. It is also suitable for use in on-board Mixing Systems when used in conjunction. YANMAR OSOI 50-140 meets the requirements of Japan Engine Corporation, MAN ES, and WinGD.

YANMAR SHISUTEMU 30-5 system oil has been specifically designed for the lubrication of slow

speed 2-stroke crosshead diesel engines. offers excellent detergency, thermal stability and

resistance to foaming, anti-oxidant properties enable superb antirust and anti-corrosive ca-

Meets & Exceeds:

- ΥΔΝΜΔΡ
- MAN Diesel & Turbo
- Wärtsilä 2-stroke

SAE Grade: 50 **TBN 140**

SHISUTEMU 30-5

SYSTEM OIL

Meets & Exceeds:

- YANMAR
- MAN ES (MAN B&W)
- WinGD (Wärtsilä)
- Japan Engine Corporation (UE Engines)

pability, Developed in close collaboration with major OEMs, YANMAR SHISUTEMU 30-5 meets the requirements of Japan Engine Corporation, MAN ES, and WinGD.

SAE Grade: 30 TBN 5

SHISUTEMU 40-5

SYSTEM OIL

Meets & Exceeds:

YANMAR SHISUTEMU 40-5 system oil for 2-stroke crosshead diesel engine crankshafts. With excellent detergency and dispersancy properties to maintain the circuit clean and protect metallic parts against wear, corrosion and the build-up of lacquers and varnishes. YANMAR **CRODEN 40-5** meets the requirements of Japan Engine Corporation, MAN ES, and WinGD.

- YANMAR
- MAN ES (MAN B&W)
- WinGD (Wärtsilä)
- Japan Engine Corporation (UE Engines)

SAE Grade: 40 **TBN 5**

MEDIUM-SPEED ENGINES

YANMAR, always striving to be at the forefront of innovation and technology in the maritime sector, and YANMAR offers a wide range of lubricants for large vessels with slow-speed 2-stroke engines to protect the engine and ensure smooth operation regardless of the quality of fuel used. A unique combination of chemically modified additives in combination with a broad TBN range make YANMAR 2-stroke engine lubricants an outstanding choice for all working conditions.

The 2-stroke lubricants range ensures minimum engine wear, maximum cleanliness, lower maintenance costs and long review periods.

CHUSOKU 30-15

MAIN ENGINE OIL

Meets & Exceeds:

YANMAR CHUSOKU 30-15 is a new generation of lubricant oils can be used in main and auxiliary engines of all types and ratings which run on marine diesel or intermediate fuel oil with low sulphur content. As a result, it offers excellent detergency and dispersant properties, which are effective in the entire range of engine operating temperatures. It is also suitable for lubrication of bearings, stern tubes, and reduction gears. YANMAR CHUSOKU 30-15 meets the requirements of Japan Engine Corporation, MAN ES, and WinGD.

YANMAR CHUSOKU 30-20 designed for use in highly rated, medium speed diesel engines used

for both marine and stationary power generation. Engines using residual heavy fuel oil with

low sulfur content. It is also suitable for dual fuel 4-stroke engines. The product can also be

used to lubricate bearings, stern tubes and reduction gears. YANMAR CHUSOKU 30-20 meets

the requirements of Japan Engine Corporation, MAN ES, and WinGD.

- WÄRTSILÄ
- MAN ENERGY SOLUTIONS
- CATERPILLAR MAK
- YANMAR
- DAIHATSU
- HiMSEN
- ROLLS-ROYCE

SAE Grade: 30 TBN 15

CHUSOKU 30-20

MAIN ENGINE OIL

Meets & Exceeds:

- WÄRTSILÄ
- MAN ENERGY SOLUTIONS
- CATERPILLAR MAK
- YANMAR
- DAIHATSU
- HIMSEN
- ROLLS-ROYCE

SAE Grade: 30 TBN 20

CHUSOKU 30-30

MAIN ENGINE OIL

Meets & Exceeds:

YANMAR CHUSOKU 30-39 marine trunk piston engine oil for 4-stroke medium speed diesel engines running on high sulfur heavy fuel oil (HSFO) for marine and stationary power generation, ensures outstanding cleanliness of both the hot and cold parts of an engine. Excellent resistance to the negative effects of residual fuel contamination. Excellent thermal resistance and oxidisation resistance. Good wear protection and excellent oil film strength at extreme pressures. YANMAR CHUSOKU 30-39 meets the requirements of Japan Engine Corporation, MAN ES, and WinGD.

- WÄRTSILÄ
- MAN ENERGY SOLUTIONS
- CATERPILLAR MAK
- YANMAR
- DAIHATSU
- HIMSEN
- ROLLS-ROYCE

SAE Grade: 30 TBN 30

CHUSOKU 30-40

MAIN ENGINE OIL

Meets & Exceeds:

YANMAR CHUSOKU 30-40 range of trunk piston engine oils are developed for use in medium speed diesel engines utilising IMO 2020 compliant and residual fuels, combines an exclusive formulation of the latest additive technologies, developed by the Johnson research center, the product utilizes and highly refined base oils to provide a substantial safety margin able to cope with higher stress levels. YANMAR CHUSOKU 30-40 meets the requirements of Japan Engine Corporation, MAN ES, and WinGD.

- WÄRTSILÄ
- MAN ENERGY SOLUTIONS
- CATERPILLAR MAK
- YANMAR
- DAIHATSU
- HIMSEN
- ROLLS-ROYCE

SAE Grade: 30 TBN 40

CHUSOKU 40-15

MAIN ENGINE OIL

Meets & Exceeds:

YANMAR CHUSOKU 40-15 new generation of lubricant oils developed for main and auxiliary engines of all types and ratings running on marine diesel or intermediate fuel oil with low sulphur content. Its noted for their good detergency and dispersant properties in the whole engine operation temperature range, excellent anti-wear protection. Its also suitable for the lubrication of bearings, stern tubes and reduction gears. YANMAR CHUSOKU 40-15 meets the requirements of Japan Engine Corporation, MAN ES, and WinGD.

SAE Grade: 40 **TBN 15**

- WÄRTSILÄ
- MAN ENERGY SOLUTIONS
- CATERPILLAR MAK
- YANMAR
- DAIHATSU
- HIMSEN
- ROLLS-ROYCE

CHUSOKU 40-20

MAIN ENGINE OIL

Meets & Exceeds:

YANMAR CHUSOKU 40-20 marine trunk piston engine oil for 4-stroke medium speed diesel or dual-fuel engines running on low sulfur fuel oil (LSFO) for marine and stationary power generation, The product offers excellent resistance to the negative effects of residual fuel contamination, along with excellent thermal resistance and oxidisation resistance, is also very water resistant, with outstanding demulsibility capacity, enabling rapid removal of water after an

- WÄRTSILÄ
- MAN ENERGY SOLUTIONS
- CATERPILLAR MAK
- YANMAR
- DAIHATSU
- HiMSFN
- ROLLS-ROYCE

SAE Grade: 40 **TBN 20**

CHUSOKU 40-30

MAIN ENGINE OIL

Meets & Exceeds:

YANMAR CHUSOKU 40-30 marine trunk piston engine oil for 4-stroke medium speed diesel or dual-fuel engines running on low sulfur fuel oil (LSFO) for marine and stationary power generation, Good detergency and dispersant capacity in a wide range of temperatures, high oxidation resistance and excellent anti-wear protection, cleanliness of both the hot and cold parts of an engine. YANMAR CHUSOKU 40-30 meets the requirements of Japan Engine Corporation, MAN ES, and WinGD.

ingress and the maintenance of good engine performance. YANMAR CHUSOKU 40-20 meets the

requirements of Japan Engine Corporation, MAN ES, and WinGD.

- WÄRTSILÄ
- MAN ENERGY SOLUTIONS
- CATERPILLAR MAK
- YANMAR
- DAIHATSU
- HIMSEN
- ROLLS-ROYCE

SAE Grade: 40 **TBN 30**

CHUSOKU 40-40

MAIN ENGINE OIL

Meets & Exceeds:

YANMAR CHUSOKU 40-40 is exceeds the CF specification defined by the American Petroleum Institute (API), specially formulated for marine trunk piston engine oil for 4-stroke medium speed diesel or dual-fuel engines running on low sulfur fuel oil (LSFO) for marine and stationary power generation, high ability to reduce heavy deposit build-up in an engine creates savings via a reduction in maintenance costs. YANMAR CHUSOKU 40-40 meets the requirements of Japan Engine Corporation, MAN ES, and WinGD.

- WÄRTSILÄ
- MAN ENERGY SOLUTIONS
- CATERPILLAR MAK
- YANMAR
- DAIHATSU
- HiMSEN
- ROLLS-ROYCE

SAE Grade: 40 **TBN 40**

CHUSOKU 40-55

MAIN ENGINE OIL

Meets & Exceeds:

YANMAR CHUSOKU 40-55 marine trunk piston engine oil for 4-stroke medium speed diesel or dual-fuel engines running on low sulfur fuel oil (LSFO) for marine and stationary power generation, ensures outstanding cleanliness of both the hot and cold parts of an engine. It contains a strengthened alkaline reserve to neutralisecombustion acids in all engines running on high sulphur heavy fuel oils and very low lubricant oil consumption. YANMAR CHUSOKU 40-55 meets the requirements of Japan Engine Corporation, MAN ES, and WinGD.

• WÄRTSILÄ

- MAN ENERGY SOLUTIONS
- CATERPILLAR MAK
- YANMAR
- DAIHATSU
- HIMSEN
- ROLLS-ROYCE

SAE Grade: 40 **TBN 55**



MEDIUM HIGH-SPEED **ENGINES**

ENJIN 40

MAIN ENGINE OIL

Meets & Exceeds:

YANMAR ENJIN 40 is a new generation of lubricant oils can be used in main and auxiliary engines of all types and ratings which run on marine diesel or intermediate fuel oil with low Sulphur content. As a result, it offers excellent detergency and dispersant properties, which are effective in the entire range of engine operating temperatures. It is also suitable for lubrication of bearings, stern tubes, and reduction gears. YANMAR ENJIN 40 meets the requirements of Japan Engine Corporation, MAN ES, and WinGD.

- WÄRTSILÄ
- MAN ENERGY SOLUTIONS
- CATERPILLAR MAK
- YANMAR
- DAIHATSU
- HIMSEN
- ROLLS-ROYCE

SAE Grade: 40 **TBN 20** API: CH-4

ENJIN 50

MAIN ENGINE OIL

Meets & Exceeds:

YANMAR ENJIN 50 designed for use in highly rated, medium high speed diesel engines used for both marine and stationary power generation. Engines using residual heavy fuel oil with low sulfur content. It is also suitable for dual fuel 4-stroke engines. The product can also be used to lubricate bearings, stern tubes and reduction gears. YANMAR ENJIN 50 meets the requirements of Japan Engine Corporation, MAN ES, and WinGD.

- WÄRTSILÄ
- MAN ENERGY SOLUTIONS
- CATERPILLAR MAK
- YANMAR
- DAIHATSU
- HIMSEN
- ROLLS-ROYCE

SAE Grade: 50 **TBN 20** API: CH-4

ENJIN 15W-40

MAIN ENGINE OIL

Meets & Exceeds:

YANMAR ENJIN 15-40 is specially made for Japanese marine engines particularly recommended for the lubrication of turbo-charged marine engines & normally aspireted diesel marine engines running under most extreme use up to 400 running hours. Are high performance mono-grade marine diesel engine oils designed for the highest output, marine diesel engines, burning distillate fuel and is formulated to give better engine protection and longer drain intervals than ordinary marine diesel engine oils.

- WÄRTSILÄ
- MAN ENERGY SOLUTIONS
- CATERPILLAR MAK
- YANMAR
- DAIHATSU
- HIMSEN
- ROLLS-ROYCE

SAE Grade: 15W-40

API: CI-4/SN

ENJIN 15W-50

MAIN ENGINE OIL

Meets & Exceeds:

YANMAR ENJIN 15-50 is specially made for Japanese marine engines particularly recommended for the lubrication of turbo-charged marine engines & normally aspireted diesel marine engines running under most extreme use up to 400 running hours. Are high performance mono-grade marine diesel engine oils designed for the highest output, marine diesel engines, burning distillate fuel and is formulated to give better engine protection and longer drain intervals than ordinary marine diesel engine oils.

- WÄRTSILÄ
- MAN ENERGY SOLUTIONS
- CATERPILLAR MAK
- YANMAR
- DAIHATSU
- HIMSEN
- ROLLS-ROYCE

SAE Grade: 15W-50

API: CI-4/SN

HIGH-SPEED ENGINES

YANMAR KOSOKU series is designed for the highest performing range of high performance engines, providing the greatest level of cleanliness and protection which results in an extended life of your engine. It can help to lower your maintenance cost.

KOSOKU 15W40-10

PISTON ENGINE OIL

YANMAR KOSOKU 15W40-10 is a multigrade marine trunk piston engine oil for highly rated diesel engines (life boat engines, emergency power units, fire pumps). Very stable multigrade feature enabling the lubricant to be used in all seasons. Very high detergent properties at high temperature and high dispersant properties at low temperature. Excellent thermal stability

YANMAR KOSOKU 15W40-10 meets the requirements of Japan Engine Corporation, MAN ES, and WinGD.

SAE Grade: 15W-40 TBN 10

Meets & Exceeds:

- WÄRTSILÄ
- MAN ENERGY SOLUTIONS
- CATERPILLAR MAK
- YANMAR
- DAIHATSU
- HiMSEN
- ROLLS-ROYCE

KOSOKU 30-12

and oxidation resistance.

PISTON ENGINE OIL

YANMAR KOSOKU 30-12 is indicated for modern high-speed and medium-speed engines using distillate and semi-distillate fuels up to contents of 1% sulphur or MDO. These oils have a high detergent capacity, neutralise combustion acids and alkaline reserve for excellent thermal stability. YANMAR KOSOKU 30-12 meets the requirements of Japan Engine Corporation, MAN ES, and WinGD.

SAE Grade: 30 TBN 12

Meets & Exceeds:

- WÄRTSILÄ
- MAN ENERGY SOLUTIONS
- CATERPILLAR MAK
- YANMAR
- DAIHATSU
- HIMSEN
- ROLLS-ROYCE

KOSOKU 40-12

PISTON ENGINE OIL

YANMAR KOSOKU 40-12 is a monograde marine trunk piston engine oil for highly rated high speed diesel engines, adapted to high sulfur distillate fuels up to 0.5%S. Excellent detergent and dispersant capabilities guaranteeing engine cleanliness in all running conditions. Very good anti-corrosion and anti-oxidation capabilities providing engine durability. Excellent anti-wear and extreme pressure performances allowing use in reduction gears.

YANMAR KOSOKU 40-12 meets the requirements of Japan Engine Corporation, MAN ES, and WinGD.

SAE Grade: 40 TBN 12

Meets & Exceeds:

- WÄRTSILÄ
- MAN ENERGY SOLUTIONS
- CATERPILLAR MAK
- YANMAR
- DAIHATSU
- HIMSEN
- ROLLS-ROYCE

KOSOKU 40-20

PISTON ENGINE OIL

YANMAR KOSOKU 40-20 is designed to meet the needs of a wide range of high-speed marine diesel engines operating under all conditions. It's additive technology helps protect against corrosion and wear throughout the oil-drain interval, control piston deposits and maintain good standards of engine cleanliness. It can be used in many aspirated and turbo-charged engines to provide protection and longer engine life.

YANMAR KOSOKU 40-20 meets the requirements of Japan Engine Corporation, MAN ES, and WinGD.

SAE Grade: 40 TBN 20

- WÄRTSILÄ
- MAN ENERGY SOLUTIONS
- CATERPILLAR MAK
- YANMAR
- DAIHATSU
- HIMSEN
- ROLLS-ROYCE

SPECIAL APPLICATION

TOKUBETSU SAE 40-N13

SPECIAL APPLICATION

YANMAR TOKUBETSU SA40-N13 is modern, fifth-generation technology oil, especially designed for use in diesel engines with silver bearings with all types of oils. Its additivation ensures thorough cleaning of internal engine parts, particularly the piston segment area, thus preventing abrasive wear and extending engine life. YANMAR TOKUBETSU SA40-N13 meets the requirements of Japan Engine Corporation, MAN ES, and WinGD.

SAE Grade: 40 TBN 13

Meets & Exceeds:

- WÄRTSILÄ
- MAN ENERGY SOLUTIONS
- CATERPILLAR MAK
- YANMAR
- DAIHATSU
- HIMSEN
- ROLLS-ROYCE

TOKUBETSU N7.8

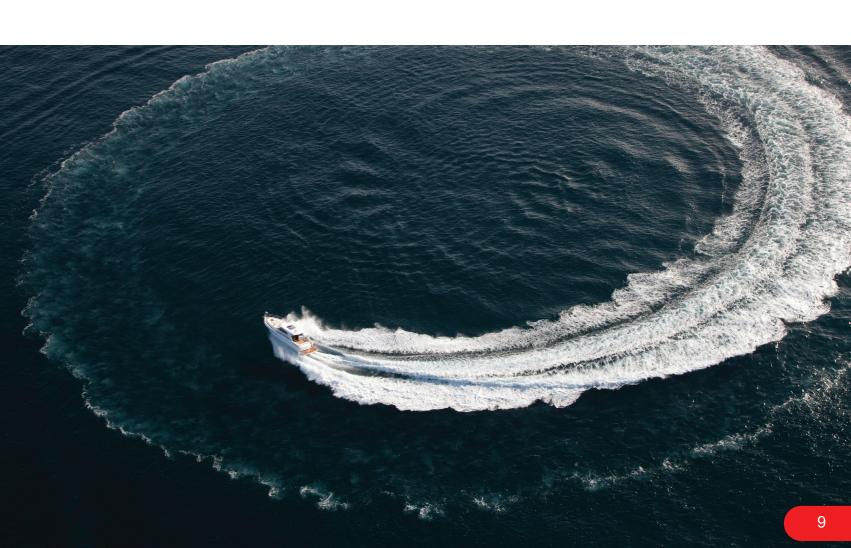
SPECIAL APPLICATION

YANMAR TOKUBETSU N7.8 is specifically designed for 2-stroke engines running on distillate fuels (in compliance with Detroit Diesel specifications). Monograde lubricant with high resistance to oxidation, anti-wear properties, high detergent dispersant power and low-ash additivation to prevent inlet port and exhaust blockages. Reacting to your engines' demands, it provides added protection. It can also be used in transmissions and torque converters. YANMAR TOKUBETSU N7.8

SAE Grade: 40 TBN 7.8

meets the requirements of Japan Engine Corporation, MAN ES, and WinGD.

- WÄRTSILÄ
- MAN ENERGY SOLUTIONS
- CATERPILLAR MAK
- YANMAR
- DAIHATSU
- HIMSEN
- ROLLS-ROYCE





HYDRAULIC

YANMAR HYDRAULIC fluids for marine applications ensure the lubrication, robustness and reliability of equipment. Their anti-wear, resistance to oxidation, corrosion protection, excellent water separation and high viscosity index properties make all our products exceed in many cases the requirements set forth in DIN 51524 and ISO 6743/4 standards.

HAIDO HVLP 68 HYDRAULIC OIL Meets & Exceeds: YANMAR YANMAR HAIDO HVLP 68 is a marine hydraulic oil, particularly recommended for all high pres-• DIN-51524, sure and high speed (vane, piston and gear type hydraulic pumps) and for use in all hydraulic Part 3 (HVLP) equipments operating in extreme temperature conditions, including: • ISO 6743/4 HV - Remote control systems • ISO 11158 - Hydraulic deck machinery AFNOR NF E 48-603 HV - Steering gears Filterability AFNOR Especially developed in order to satisfy the wide variations in temperature encountered with (NF E 48-690 &48-691) modern hydraulic systems. Eaton Vickers I-286-S & M-2950-S • MAG IAS P-68, P-69, ISO: 68 P-70 (ex Cincinnati) HAIDO HVLP 100 HYDRAULIC OIL **Meets & Exceeds:** YANMAR YANMAR HAIDO HVLP 100 fluid are high performance hydraulic fluids based on Group II base oils • DIN-51524, that provide outstanding protection and performance across a wide range of temperatures. • Part 3 (HVLP) They resist breakdown under heat or mechanical stress and are ideally suited to most mobile • ISO 6743/4 HV equipement and other applications subjected to a wider range of operating temperatures. It • ISO 11158 have a good stability in the presence of moisture, with ensure long fluid life and reduces the • AFNOR NF E 48-603 HV risk of corrosion and rusting, particularly in moist or humid environments. • Filterability AFNOR (NF E 48-690 &48-691) • Faton Vickers I-286-S & M-2950-S • MAG IAS P-68, P-69, ISO: 100 P-70 (ex Cincinnati) **HAIDO BIO** HYDRAULIC OIL **Meets & Exceeds:** YANMAR HAIDO BIO is a fully formulated anti-wear, readily biodegradable, environmentally • ISO 6743/4 (HEES) friendly, ecologically responsive, non-toxic fluid designed for high pressure industrial, ma-• ISO 15380 (HEES) rine, construction and mobile hydraulic systems, turbines and circulating oil systems that • DIN 51524/3 (HV)* are operated in environmentally sensitive areas. Fully synthetic esters, blended wtih ashless Biodegradability additives, with a superior blend of lubrication performance. OECD 301-B • Biotelex Ecolabel 46 & 68 ISO: 68

HAIDO BIO TMP

HYDRAULIC OIL

YANMAR HAIDO BIO TMP is a synthetic biodegradable hydraulic oil featured by outstanding viscosimetric performances and good low temperature behaviour, thus offering a very wide range of operating temperatures. Suitable for any hydraulic system requiring a lubricant with good anti-wear properties, high viscosity index and improved thermal and oxidation stability giving an increased service life of the fluid.

ISO: 68

- ISO 15380 (HEES)
- EAL according to VGP
- Meets SwedishStandard SS155434
- VDMA 24568: HEES
- ROLLS-ROYCE

GEARS

KOGU GL-5 80W90

GEAR OIL

Meets & Exceeds:

YANMAR KOGU GL-5 80W-90 is a high performance gear lubricant formulated with high performance base oils and an advanced additive system. Its ability to lubricate elements subjected to boundary lubrication (metal/metal contact) and its excellent water separation capacity in the eventof pollution, make this lubricant ideal for working in all marine gear subjected to extreme lubrication conditions. Meets the requirements for API GL4 and GL5 performance categories and corresponds to SAE 80W-90 viscosity grade. For outboard and inboard transmissions subject to a normal to high load.

- YANMAR
- MB 235.6
- MAN 342 Type M2
- ZF TE-ML:07A, 16C, 17B, 19B, 21A
- US Military MIL-L-2105D

SAE GRADE: 80W-90 API GL-5

KOGU GL-4 80W90

GEAR OIL

Meets & Exceeds:

YANMAR KOGU GL-4 80W-90 is a high performance gear lubricant formulated with high performance base oils and an advanced additive system. PAO and ester-based synthetic lubricant for gears running under very severe load and temperature conditions. Its protection against micropitting failure is particularly noteworthy. Meets the requirements for API GL4 and GL5 performance categories and corresponds to SAE 80W-90 viscosity grade. For outboard and inboard transmissions subject to a normal to high load.

- YANMAR
- MIL-L-2105
- MAN 341
- MB 235.10
- ZF TE-ML 01,02 and 08
- Massey Ferguson M1110
- JI Case MS 1210

SAE Grade: 80W-90 API GL-4

KOGU GL-5 85W140

GEAR OIL

Meets & Exceeds:

YANMAR KOGU GL-5 85W140 is mineral low-viscosity hypoid gear oil. For vehicles with tried and tested transmission technology. Even under the most difficult conditions and during large temperature fluctuations, it ensures flawless aggregate functioning. Greatest lubrication security, maximum wear protection through large viscosity bandwidth. Outstanding viscosity temperature behavior. Reduces transmission noise.

- YANMAR
- MB 235.6
- MAN 342 Type M2
- ZF TE-ML:07A, 16C, 17B, 19B, 21A
- US Military MIL-L-2105D

SAE Grade: 85W-140 API GL-5

KOGU GL-4 85W140

GEAR OIL

Meets & Exceeds:

YANMAR KOGU GL-4 85W-140 is a high performance oil developed for axles, highly loaded gears and hypoid axles with double or single reduction requiring API GL-5 (gear boxes, axles, transfer boxes). Its a premium mineral gear oil, ensures high corrosion protection, even with sea water contamination, and provides lubrication advantages at both high and low temperatures compared to mineral oils. It is particularly adapted for the lubrication ZF manual transmission with drain interval based on OEM recommendations.

- ΥΔΝΜΔΡ
- MIL-L-2105
- MAN 341
- MB 235.10
- ZF TE-ML 01,02 and 08
- Massey Ferguson M1110
- JI Case MS 1210

SAE Grade: 85W-140 API GL-4

KOGU GL-5 75W80

GEAR OIL

Meets & Exceeds:

YANMAR KOGU GL-5 85W-140 is a high performance oil developed for axles, highly loaded gears and hypoid axles with double or single reduction requiring API GL-5 (gear boxes, axles, transfer boxes). Its a premium mineral gear oil, ensures high corrosion protection, even with sea water contamination, and provides lubrication advantages at both high and low temperatures compared to mineral oils. It is particularly adapted for the lubrication ZF manual transmission with drain interval based on OEM recommendations.

- YANMAR
- MB 235.6
- MAN 342 Type M2
- ZF TE-ML:07A, 16C, 17B, 19B, 21A
- US Military MIL-L-2105D

SAE Grade: 85W-140 API GL-4

KOGU GL-5 75W90

GEAR OIL

Meets & Exceeds:

YANMAR KUGO GL-5 75W-90 is fully synthetic high-performance gear oil with extremely high performance reserves. Ensures assemblies function perfectly, even under extreme operating conditions and when exposed to large temperature fluctuations. Meets the requirements for API GL4 and GL5 performance categories and corresponds to SAE 75W-90 viscosity grade. For marine transmissions which require a top quality lubricant. Also suitable for drive wheels of different categories and reverse gears. Exceeds the highest test requirements of well-known transmission manufacturers.

API GL4/5API MT-1

SAE Grade: 75W-90

KOGU ISO 100

GEAR OIL

Meets & Exceeds:

YANMAR KUGO ISO 100 is high performance gear oils having outstanding extreme pressure characteristics and load-carrying properties, intended for use in all types of enclosed gear drives with circulation or splash lubrication systems. It designed to stay ahead of the changing needs of gearbox technology. Gearbox technology design trends are towards smaller units with similar power throughput. This increase inpower density places increased demands on gear oils. This product are formulated to meet the stress by providing extra protection for gears, bearings and seals.

- DIN 51517 Part 3
- ISO 12925-1 Type CKC
- AGMA 9005 E-02
- David Brown S1.53 101(E) and US Steel 224.

ISO: 100

KOGU ISO 220

GEAR OIL

Meets & Exceeds:

YANMAR KUGO ISO 220 is high performance extreme pressure gear oils developed for lubrication of heavy duty industrial gears working under severe operating conditions. These are blended from high quality base stocks and sulphur-phosporous type extreme pressure additive system that gives excellent load carrying capability to provide protection against shock loading and wear. The high thermo oxidative stability of the oil helps resist high temperature deposit formation and oil thickening. In addition, these oils also possess excellent water separation characteristics and offer resistance to foaming.

- DIN 51517/ Part 3 CLP
- MAN ENERGY SOLU TIONS
- AIST 224
- ISO-L-CKD
- AGMA 9005-E02-EP 1.53.101
- ISO 12925-1 CKD
- MAG IAS

ISO: 220

KOGU ISO 320

GEAR OIL

Meets & Exceeds:

YANMAR KUGO ISO 320 is an excellent, high performance, gear oil for use in sensitive environments such as off-shore platforms and other marine related services. The long life and high film strength of KUGO ISO 320 greatly increases equipment reliability and provides excellent protection in highly corrosive environments. It gains its performance advantage over competing oils through its superior blend of base oils technology. This unique, synthetic additive technology is proven to make bearings and equipment run smoother, cooler, quieter, longer and more efficiently.

- DIN 51517/ Part 3 CLP
- MAN ENERGY SOLUTIONS
- AIST 224
- ISO-L-CKD
- AGMA 9005-E02-EP 1.53.101
- ISO 12925-1 CKD
- MAG IAS

ISO: 320

KOGU ISO 460

GEAR OIL

Meets & Exceeds:

YANMAR KUGO ISO 460 is a range of marine and industrial gear oils, combining high quality mineral oils and extreme pressure (EP) additives, intended for use in marine and industrial gear systems of the spur, helical and straight and spiral bevel types. YANMAR KUGO ISO 460 Gear Oils have high load carrying capability and ensure 'clean' gear performance under conditions of high temperature and oxidation. Additionally these grades provide strong protection against wear, oxidation, foam, rust and corrosion.

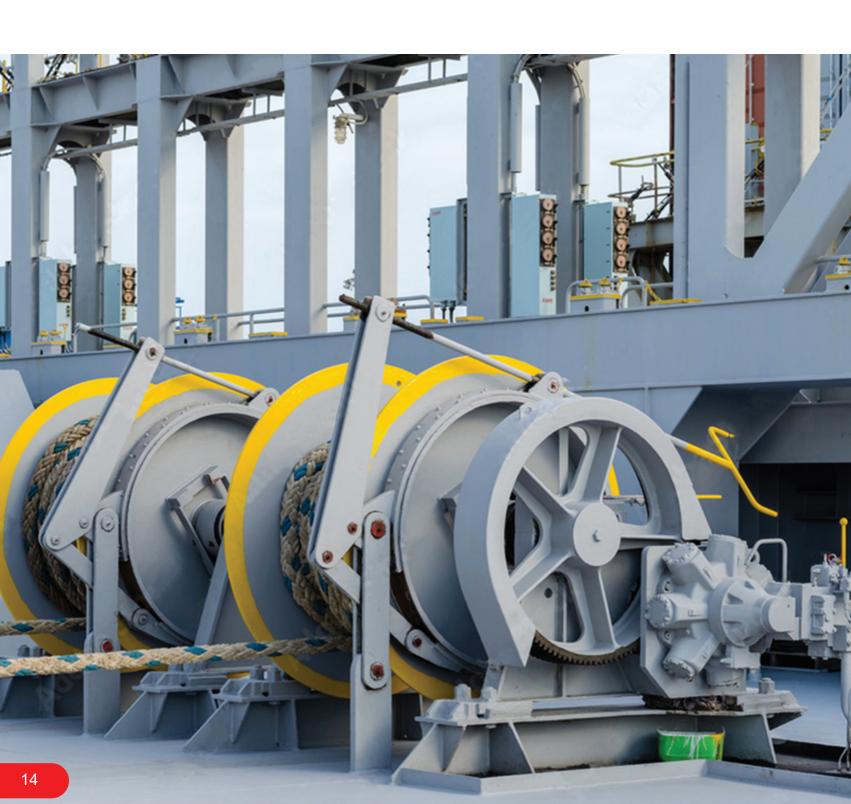
- DIN 51517/ Part 3 CLP
- MAN ENERGY SOLUTIONS
- AIST 224
- ISO-L-CKD
- AGMA 9005-E02-EP 1.53.101
- ISO 12925-1 CKD
- MAG IAS

ISO: 460

KOGU BIO GEAR OIL

YANMAR KOGU BIO is a Biodagradable gear oil. Developed for lubricating gears and bearings subjected to harsh lubrication conditions in applications which might pollute the marine environment. Excellent extreme pressure properties and high load capacity ensuring excellent protection of lubricated gears. High protection against corrosion, also with sea water pollution, providing lubrication advantages at high and low temperatures compare to mineral oils. It is suitable for propulsion systems.

- DIN 51517
- Part 3 CLP
- ISO 12925-1 CKC/
- EA for 2013 VGP
- ZF Propulsion
- Wärtsilä
- HHI Thrusters
- Scania



STERN TUBE

Very specific marine environment application for which YANMAR has developed its own lubricating oils, incorporating a unique additivation capable of emulsifying water entering the system in the event of leakage, maintaining adequate equipment lubrication.

SENBI 150	STERN TUBE OIL	Meets & Exceeds:
YANMAR SENBI 150 is a high performance, high viscos brication of Cedervall-type stern tube bearings us fin stabilizers, formulated from relatively high V emulsifiers, structure modifiers, surface active at effective rust protection in the presence of seaw water washing so that corrosion protection is made operating conditions.	ed in ships and for certain bearings of ships' iscosity Index (VI) base oils combined with gents and corrosion preventives. It provides vater and the lubricating film is resistant to	• YANMAR • BLOHM & VOSS (SIMPLEX) • WÄRTSILÄ • PROPULSION.
ISO: 150		
SENBI BIO 220	STERN TUBE OIL	Meets & Exceeds:
YANMAR SENBI 220 is synthetic biodegradable lubrica ed for stern tube sliding rolling bearings, minim spillage. Wide range of working temperatures. Exc ties. Compatible with main seals: Viton, Nitrile NE	ising environmental impact in the event of cellent anti-wear and anti-corrosion proper-	 YANMAR Ecolabel EAL for VGP Blohm & Voss (Simplex) Wärtsilä Propulsion
SENBI HT BIO 100	STERN TUBE OIL	Meets & Exceeds:
YANMAR SENBI BIO 100 is Biodegradable ester-based to comply with KEMEL manufacturer quality stati-wearproperties and good performance at low tworking temperatures. Excellent anti-corrosive pr	andards. SENBI BIO 100 features excellent antemperatures, offering a very wide range of	YANMAR ISO 15380: HEES EAL for VGP KEMEL all types and sizes of seals Kamome Propeller

TURBINE

This is a range of oils obtained from selected paraffinic bases, improved with oxidation, rust and foam inhibitor additives, offering excellent properties and outstanding operational performance. Multifunctional lubricant oil for circulatory systems that include highly revolutionary mechanisms, in their lower viscosities, hydraulic or steam turbines in grades between ISO 32 and ISO 100 and for lubrication of various types of mechanical equipment in casing or by circulation in higher viscosities.

Meets & Exceeds: ROTA 32 TURBINE OIL

YANMAR ROTA 32 oils are formulated for superior protection against oxidation, sludge, and varnish. By combining quality base oils with highly effective additives, we've created some of the highest-performing turbine oils in the industry. Some of the most significant changes include improved RPVOT retention, water separation, varnish and sludge protection, rust and corrosion reduction, and foam and entrained air release.

ISO: 32

- DIN 51515 Part 1 L-TD
- DIN 8659 Part 2
- DIN 51517 Part 2. CL
- ISO 3498 (1986) CKB
- DIN 51506 VBL & VCL
- ISO 6743 Part 3 DAA
- Complies with quality level: ABB, Siemens, AEG, Westinghouse, Alstom, Sulzer, GE, KKK

ROTA 46 Meets & Exceeds: TURBINE OIL

YANMAR ROTA 46 are premium performance, anti-wear type turbine oil formulated from premium base oils. Highly refined group II base stocks and unique additive package minimizing the formation of deposits in reservoirs, high temperature bearings and other hot areas of the turbine. an ash-less anti-wear additive system, rust, oxidation and foam inhibitors. Designed primarily for use in industrial gas and steam turbines including those with reduction gear sets.

ISO: 46

ROTA 68

• DIN 51515 Part 1 L-TD

- DIN 8659 Part 2
- DIN 51517 Part 2, CL
- ISO 3498 (1986) CKB • DIN 51506 VBL & VCL
- ISO 6743 Part 3 DAA
- Complies with quality level: ABB, Siemens, AEG, Westinghouse, Alstom, Sulzer, GE, KKK

TURBINE OIL

YANMAR ROTA 68 is highly refined base stocks and multi-component oxidation inhibitor system resist the formation of harmful sludge and varnish deposits. The rust inhibitor protects components against corrosion. Good water separability of the highly refined base stocks and inhibitor system ensure rapid settling of harmful water accumulated from steam condensate, non-silicone foam inhibitor allows rapid release of entrained air while minimizing foam formation, enabling reliable operation of sensitive hydraulic control devices

ISO: 68

- DIN 51515 Part 1 L-TD
- DIN 8659 Part 2

Meets & Exceeds:

- DIN 51517 Part 2, CL
- ISO 3498 (1986) CKB
- DIN 51506 VBL & VCL
- ISO 6743 Part 3 DAA
- Complies with quality level: ABB, Siemens, AEG, Westinghouse, Alstom, Sulzer, GE, KKK

ROTA 100 Meets & Exceeds: TURBINE OIL

YANMAR ROTA 100 is highly refined base stocks and multi-component oxidation inhibitor system resist the formation of harmful sludge and varnish deposits. The rust inhibitor protects components against corrosion. Good water separability of the highly refined base stocks and inhibitor system ensure rapid settling of harmful water accumulated from steam condensate, non-silicone foam inhibitor allows rapid release of entrained air while minimizing foam formation, enabling reliable operation of sensitive hydraulic control devices

ISO: 100

- DIN 51515 Part 1 L-TD
- DIN 8659 Part 2
- DIN 51517 Part 2. CL
- ISO 3498 (1986) CKB
- DIN 51506 VBL & VCL
- ISO 6743 Part 3 DAA
- Complies with quality level: ABB, Siemens, AEG, Westinghouse, Alstom, Sulzer, GE, KKK

COMPRESSOR

For equipment requiring enhanced lubricant antioxidant properties due to the high temperatures reached in lubrication circuits, YANMAR has a wide range of oils made with hydrogenated bases for turbines and next generation turbochargers. Designed to protect equipment from corrosion and wear and minimize the build-up of deposits and the formation of varnishes, guaranteeing a long oil and lubricated equipment lifespan

Meets & Exceeds: SABO HVLP 68 COMPRESSOR OIL YANMAR SABO HVLP 68 is a marine mineral oil with specific high performance additives designed DIN 51506-VDL& VCL to lubricate screw and reciprocating air compressors. It allows real cuts in the operating costs • ISO 6743 DAA DAG of the compressed air production facility by optimizing the compressor efficiency. The range of this product has an anti-clogging property that ensures the efficiency of the filters during a long period, thus extending the service life of the separating filter elements. ISO: 68 **SABO HVLP 100 Meets & Exceeds: COMPRESSOR OIL** YANMAR SABO HYLP 100 is a marine mineral oil with specific high performance additives designed • DIN 51506-VDL & VCL to lubricate screw and reciprocating air compressors. Formulated with premium base oils and • Complies with quality levels: a unique additive system that provide excellent thermal and oxidation stability, high viscosity Dresser-Rand, Neuenhauser, index, high flash point, low pour point, and excellent hydrolitic stability. Sauer & Sohn, Sulzer, Tabane, etc. • ISO 6743 DAB DAG ISO: 100 **Meets & Exceeds: COMPRESSOR OIL SABO 100** YANMAR SABO HVLP 150 is is a synthetic lubricant based on esthers specifically formulated for • DIN 51506-VDL cylinders of reciprocating air compressors. Allows to prolong the oil charge life and is also • ISO L-DAB suitable for lubrication of compressor bearings • ISO L-DAJ ISO: 150 **Meets & Exceeds: SABO HVLP 150 COMPRESSOR OIL** YANMAR SABO HVLP 150 is a marine mineral oil with specific high performance additives designed • ISO 6743 DAH DAJ to lubricate screw and reciprocating air compressors. Designed and formulated to be use in • Screw Compressors: Sauer & conditions where the discharge temperature does not exceed 100°C, otherwise, the use of Sohn. Tamrotor synthetic oils is preferred. Turbochargers: ABB ISO: 150

REFRIGERATION COMPRESSOR

We have a wide range of YANMAR products to lubricate all types of refrigeration compressors, whichever type of refrigerant gas and equipment working conditions. Many refrigerant gases are used for cold generation. The key for selecting the correct lubricant is to know the interactions between the gas and the lubricant chemistry used, so that they may be compatible but immiscible to always maintain correct lubricant viscosity that ensures the machine protection.

REITO 32	COMPRESSOR OIL	Meets & Exceeds:
/ANMAR REITO 32 is a premium quality synthetic con which are highly miscible with hydrochlorofluord very low temperature applications, down to −60° used in compressors where ammonia acts as the	ocarbon (R22). This allows them to be used in C. In certain circumstances, they can also be	• DIN 51503 KAA • ISO 6743-3B-DRA
ISO: 32		
REITO 46	COMPRESSOR OIL	Meets & Exceeds:
ANMAR REITO 46 is a synthetic lubricant for refr nended for hermetic type compressors (domes dustrial units and heat pump systems that open R-22, ammonia). It can prevent solidification of p ow flocculation and pour point.	tic fridges), open-type or partially sealed in- rate with standard refrigerating fluids (R-12,	• ISO L-DRA-DRB • Bock • Bitzer • Grasso
REITO 68	COMPRESSOR OIL	Meets & Exceeds:
ANMAR REITO 68 is a synthetic refrigeration lubrica ester base fluid. It has excellent high temperature extended service life even where high compress used with a full spectrum of refrigerants (with the	e and oxidation stability, this product provides sion discharge temperatures occur. It can be	• DIN 51503 KD • ISO 6743-3B-DRD
ISO: 68		
REITO 100	COMPRESSOR OIL	Meets & Exceeds:
ANMAR REITO 100 is made from ultra-low wax naphting compressors in which a non-inhibited lubricatermetic type compressors (domestic fridges), cand heat pump systems that operate with standate	ant is needed. Particularly recommended for open-type or partially sealed industrial units	• Bock • Howden • Grasso • York

HEAT TRANSFER

Within its heat transfer oil range, YANMAR has mineral and synthetic oils to cover the whole working temperature range. They have a good heat transfer coefficient, low discharge loss and can lengthen the service life preventing the formation of deposits and the increase of viscosity.

NETSU S-HTO

HEAT TRANSFER OIL

Meets & Exceeds:

YANMAR NETSU S-HTO is a Synthetic fluid especially formulated for use in closed circuit forced-circulation heat transfer systems, where the working temperature is around 315°C. Its specific additivation gives it extraordinary resistance to oxidation. Its main features are great thermal stability, low vapour pressure and long service life with regard to mineral lubricant oils, giving it great temperature control in these processes.

• ISO 6743/12-QC

NETSU M-HTO

HEAT TRANSFER OIL

Meets & Exceeds:

YANMAR NETSU M-HTO Fluid specially formulated for use as a heat transfer agent. It is formulated from highly refined mineral bases with specific additivation that gives it extraordinary resistance to oxidation, minimises the formation of varnishes and prevents oil cracking at working temperatures.

It is a specific oil for use in closed-circuit and forced-circulation heat transfer systems in which maximum working temperatures reach approximately $300\,^{\circ}\text{C}$.

- ISO 6743/12-QB
- DIN 51522-Q



GREASES

Aimed at completing our lubrication portfolio to cover all on-board machinery requirements. The highest quality standards applied by YANMAR guarantee the most suitable lubrication in all types of applications and working conditions, not only in the lubricant but also in the grease. The wide range of thickeners used by YANMAR and its knowledge of all the formulation variables to adapt the grease benefits to the working environments ensure the proper performance of all our greases in marine environments

GURISO CS	MARINE GREASE	Meets & Exceeds:
YANMAR GRASO CS is an extreme-pressure water fonate complex marine grease, with excellent the adapted for a wide range of temperatures and remarally high extreme pressure and anti-wear propertions.	ermal and mechanical stability features. It arkable load resistance thanks to its natu-	• ISO 6743-9: L-XBDIB 0 • DIN 51502: OGPON -20
NLGI: 2		
GURISO CSC	MARINE GREASE	Meets & Exceeds:
YANMAR GURISO CSC is an extreme-pressure wat fonate complex marine grease. It is suitable in c cation of all kinds of components where the greas water due to enhanced antirust performances.	entralized greasing systems for the lubri-	• ISO 6743-9: L-XBFIB 1/2 • DIN 51 502: KP1/2R -30
NLGI: 2		
GURISO CSC-WR	MARINE GREASE	Meets & Exceeds:
YANMAR GURISO CSC-WR is an extreme-pressure sulfonate complex marine grease. It is suitable in cation of all kinds of components where the great water due to enhanced antirust performances.	centralized greasing systems for the lubri-	• ISO 6743-9: L-XBFIB 1/2 • DIN 51 502: KP1/2R -30
NLGI: 2		
GURISO LC 0	MARINE GREASE	Meets & Exceeds:
YANMAR GURISO LC 0 is an extreme pressure lith load carrying capacity and anti-wear properties. This high performance grease assures a low coeffi excellent protection against rust and corrosion. NLGI: 0		• ISO 6743-9: L-XBFIB 1/2 • DIN 51 502: KP1/2R -30

GURISO LC 1 MARINE GREASE Meets & Exceeds:

YANMAR GURISO LC 1 is an extreme pressure lithium/calcium marine grease, with very high load carrying capacity and anti-wear properties.

This high performance grease assures a low coefficient of friction, good water resistance and excellent protection against rust and corrosion.

• ISO 6743-9 L-XBEHB 1
• DIN 51502 KP1P -20

NLGI: 1

GURISO EP 2 MARINE GREASE Meets & Exceeds:

YANMAR GURISO EP 2 is an extreme pressure lithium/calcium marine grease, with very high load carrying capacity and anti-wear properties.

This high performance grease assures a low coefficient of friction, good water resistance and excellent protection against rust and corrosion.

- ISO 6743-9 L-XBEHB 1
- DIN 51502 KP1P -20

NLGI: 2

GURISO MDS 2 MARINE GREASE Meets & Exceeds:

YANMAR GURISO MDS 2 is an extreme pressure lithium/calcium grease with molybdenum disulfide, with very high load carrying capacity and anti-wear properties. Recommended for long intervals greasing without any change of its properties or characteristics. Its operating temperature ranges within minus 25°C to 130°C. This high performance grease assures a low coefficient of friction, good water resistance and excellent protection against rust and corrosion.

NLGI: 2

• ISO 6743-9 L-XBEHB 1
• DIN 51502 KP1P -20







4 STROKE PETROL OUTBOARD ENGINE

4T 25W40

YANMAR 4T 25W40 Marine Engine Oil SAE 25W-40 is designed with synthetic base oil to improve wear protection and increase catalyst life in newer inboards using catalytic converters. Meets or exceeds NMMA FC-W (CAT) performance. It can be used in automotive applications where API SM oils are called out for. Also have applications in 4-stroke outboards and 4-stroke personal watercraft

SAE Grade: 25W-40 API SL

Meets & Exceeds:

- NMMA FC-W
- API SL

4T 10W40

YANMAR 4T 10W40 is a Fully Synthetic multi-grade marine trunk piston engine lubricant for highly rated High speed 4-Stroke diesel engines (like marine life boat, emergency power unit, fire pumps, etc. It is designed to meet the most severe conditions and high speed engines with high temperatures.

SAE Grade: 10W-40 API SN

Meets & Exceeds:

- YANMAR
- ACEA C2-16 MB 229.31
- ACEA C3-16 MB 229.52
- VW 505 01 VW 505 00
- BMW LONGLIFE-04
- FIAT 9.55535-S3
- GM DEXOS 2
- OPEL/VAUXHALL 0V0401547

4T 5W30

YANMAR 4T 5W30 is a fully synthetic high-performance high-lubricity engine oil for petrol engines for marine use, which are subjected to heavy loads. Formulated with G-III base oil oils and a high proportion of fully synthetic additives also provide a reliable margin in reserve, even under the toughest operating conditions.

SAE Grade: 5W-30 API SN

- YANMAR
- ACEA C2-16 MB 229.31
- ACEA C3-16 MB 229.52
- VW 505 01 VW 505 00
- BMW LONGLIFE-04
- FIAT 9.55535-S3
- GM DEXOS 2
- OPEL/VAUXHALL 0V0401547



2 STROKE PETROL OUTBOARD ENGINE

2T TC

Meets & Exceeds:

YANMAR 2T TC is high performance 2-stroke engine oil for use in 2T marine applications with excellent additive system to provide good overall cleaning and performance. It provides maximum film strength and anti-wear characteristics for main and big end bearings, gudgeon pins, rings and bores.

• NMMA TC

• API TC • JASO FC

SAE Grade: 20 NMMA TC

2T TCW

Meets & Exceeds:

YANMAR 2T TC is semi-synthetic lubricant oil, especially formulated to meet the demands of two-stroke water-cooled marine outboard motors, in accordance with the NMMA TC-WII specification, therefore guaranteeing excellent protection against corrosion and rust in the marine environment.

• NMMA TC

• API TC • JASO FC

SAE Grade: 30 API TCW

2T TCW2

Meets & Exceeds:

YANMAR 2T TCW2 Universal lubricant designed for the lubrication of cylinders in engines (prior to 2008) running on high sulphur fuel content between 0.5% and 3.5%. Its patented formula allows you to protect the engine for a longer period of time than with conventional higher TBN-content oils.

• NMMA TC-W3

SAE Grade: 10W-30 API TCW2

2T TCW3

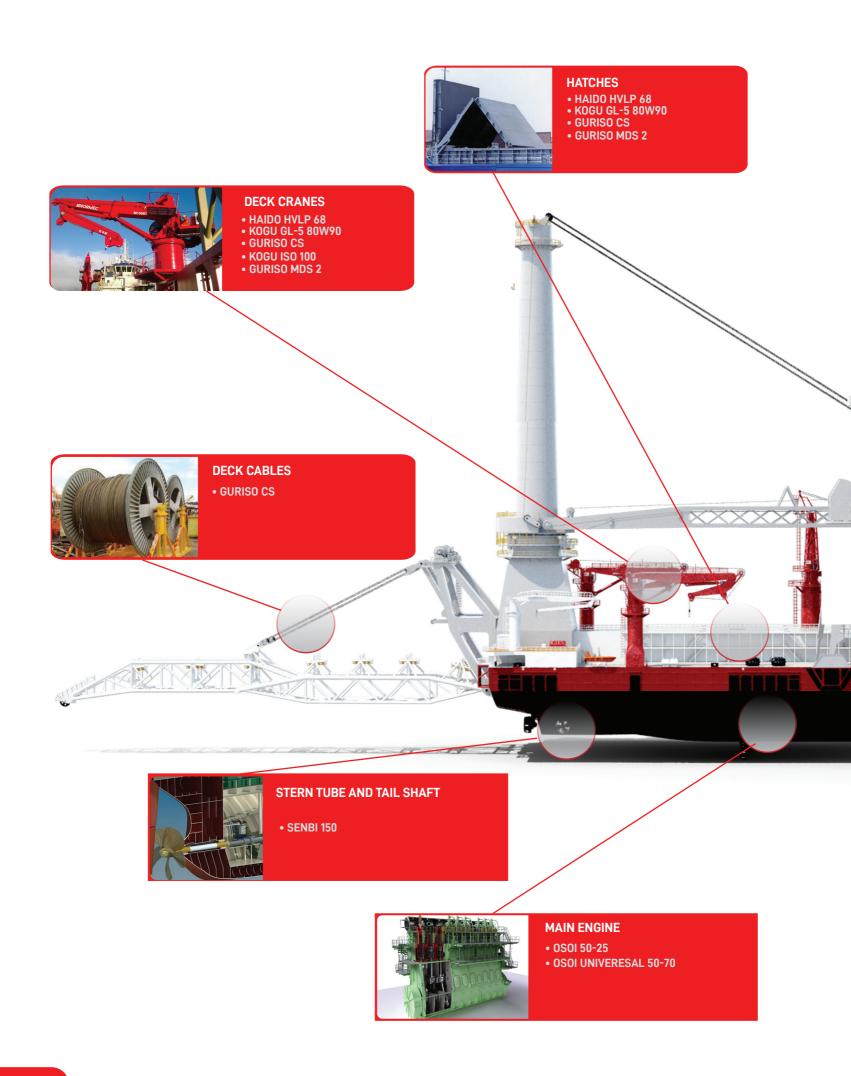
Meets & Exceeds:

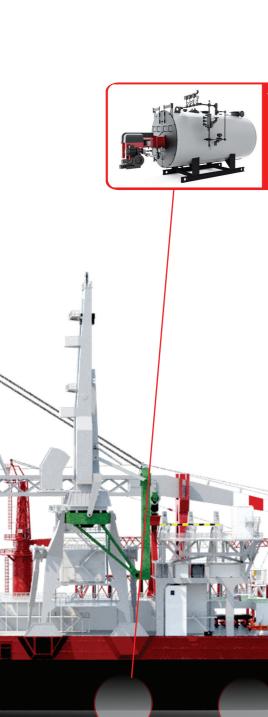
YANMAR 2T TCW3 Cylinder oil formulated for the lubrication of 2-stroke slow-speed crosshead diesel engines, ensuring engine protection when running on high sulphur fuel oil, extending engine overhaul shutdowns.

• NMMA TC-W3

SAE Grade: 10W-30 API TCW3







THERMAL BOILERS

• NETSU S-HTO



LIFEBOAT

- GURISO CSC

- GURISO CS HAIDO HVLP 68 KOGU GL-5 80W90 HAIDO TMP



WALLAND THE

MOORING MACHINERY

- GURISO CSC GURISO CS

- HAIDO HVLP 68 KOGU GL-5 80W90 GURISO MDS 2





AUXILIARY ENGINE

• KOSOKU 15W40-10



ENGINE ROOM PUMPS/

TURBOPUMPS

- SABO HVLP 100 SABO HVLP 150

- SABO HVLP 68

• SABO HVLP 150

WASTEWATER TREATMENT SYSTEM

- HAIDO HVLP 68
- KOGU GL-5 80W90
- SABO HVLP 100

• SABO HVLP 150 **REFRIGERATION**

- COMPRESSOR
 REITO 32
 REITO 46

- REITO 68 REITO 100

AIR COMPRESSOR TURBOCHARGERS

- SABO HVLP 100
- SABO HVLP 150

PACKAGING

PRODUCTS	BULK	IBC 1000L	Drum 208L	Container 20L	Container 5L	Container 1L		
	SLOW-SPEED ENGINES							
OSOI 50-25			•	•				
OSOI 50-40			•	•				
OSOI UNIVERSAL 50-57			•	•				
OSOI UNIVERSAL 50-70			•	•				
OSOIUNIVERSAL 50-100			•	•				
OSOI 50-100			•	•				
OSOI 50-140	•		•	•	<u>.</u>			
SHISUTEMU 30-5	•		•	•				
SHISUTEMU 40-5			•	•				
	ME	DIUM-SPE	ED ENGI	NES				
PRODUCTS	BULK	IBC 1000L	Drum 208L	Container 20L	Container 5L	Container 1L		
CHUSOKU 30-15			•	•				
CHUSOKU 30-20	•••••		•	•				
CHUSOKU 30-30	•••••		•	•				
CHUSOKU 30-40	•••••		•	•				
CHUSOKU 40-15	•••••		•	•				
CHUSOKU 40-20	•••••		•	•				
CHUSOKU 40-30			•	•				
CHUS0KU 40-40	••••••		•	•				
CHUSOKU 40-55	•••••	<u> </u>	•	•				
	MED	IUM HIGH	-SPEED I	ENGINES				
PRODUCTS	BULK	IBC 1000L	Drum 208L	Container 20L	Container 5L	Container 1L		
ENJIN 40			•	•	•	•		
ENJIN 50			•	•	•	•		
ENJIN 15W-40			•	•	•	•		
ENJIN 15W-50	•		•	•	•	•		

	Н	IIGH-SPEE	D ENGIN	IES		
PRODUCTS	BULK	IBC 1000L	Drum 208L	Container 20L	Container 5L	Container 1L
KOSOKU 15W-40-10			•	•	•	•
KOSOKU 30-10	•••••		•	•	•	•
K0S0KU 40-12	•••••		•	•	•	•
KOSOKU 40-20			•	•	•	•
	S	PECIAL A	PPLICAT	ION		
PRODUCTS	BULK	IBC 1000L	Drum 208L	Container 20L	Container 5L	Container 1L
TOKUBETSU SAE 40-N13			•	•		
TOKUBETSU N7.8			•	•		
		HYDR	AULIC			
PRODUCTS	BULK	IBC 1000L	Drum 208L	Container 20L	Container 5L	Container 1L
HAIDO HVLP 68			•	•		
HAIDO HVLP 100	•		•	•		
HAIDO BIO	•		•	•		
HAIDO BIO TMP	•••••		•	•		
		GEAR	S			
PRODUCTS	BULK	IBC1000L	Drum 208L	Container 20L	Container 5L	Container 1L
KOGU GL-5 80W90			•	•		
K0GU GL-4 80W90	•••••		•	•		
KOGU GL-5 85W140	•••••		•	•		
KOGU GL-4 85W140			•	•		
K0GU GL-5 75W80	••••		•	•		
K0GU GL-5 75W90			•	•		
K0GU ISO 100			•	•		
K0GU ISO 220			•	•		
KOGU ISO 320			•	•		
KOGU ISO 460			•	•		
KOGU BIO			•	•		

STERN TUBES						
PRODUCTS	BULK	IBC 1000L	Drum 208L	Container 20L	Container 5L	Container 1L
SENBI 150			•	•		
SENBI BIO 220			•	•		
SENBI HT BIO 100	•••••		•	•		
		TURBIN	E			
PRODUCTS	BULK	IBC 1000L	Drum 208L	Container 20L	Container 5L	Container 1L
ROTA 32			•	•		
ROTA 46			•	•		
ROTA 68			•	•		
ROTA 100			•	•		
		COMPRI	ESSORS			
PRODUCTS	BULK	IBC 1000L	Drum 208L	Container 20L	Container 5L	Container 1L
SABO HVLP 68			•	•		
SABO HVLP 100	•••••		•	•		
SAB0 100			•	•		
SABO HVLP 150			•	•		
	REFRIC	ERATION	I COMPRE	ESSORS		
PRODUCTS	BULK	IBC 1000L	Drum 208L	Container 20L	Container 5L	Container 1L
REITO 32			•	•		
REITO 46	••••		•	•		
REITO 68	•••••		•	•		
REITO 100	•		•	•		
HEAT TRANSFER						
PRODUCTS	BULK	IBC 1000L	Drum 208L	Container 20L	Container 5L	Container 1L
NETSU S-HTO			•	•		
NETSU M-HTO			•	•		

GREASES						
PRODUCTS	Drum 180KG	BUCKET 18KG	BUCKET 5KG	BUCKET 1KG	BUCKET 500GM	BUCKET 250GM
GURISO CS	•	•	•	•	•	•
GURISO CSC	•	•	•	•	•	•
GURISO CSC-WR	•	•	•	•	•	•
GURISO LC 0	•	•	•	•	•	•
GURISO LC 0	•	•	•	•	•	•
GURISO EP 2	•	•	•	•	•	•
GURISO MDS 2	•	•	•	•	•	•

PLEASURE SPEED BOAT

451RUF	CE ENGIR	VE UIL

PRODUCTS	BULK	IBC 1000L	Drum 208L	Container 20L	Container 4L	Container 1L
4T 25W40				•	•	•
4T 10W40				•	•	•
4T 5W30	***************************************			•	•	•

2 STROKE ENGINE OIL

PRODUCTS	BULK	IBC 1000L	Drum 208L	Container 20L	Container 4L	Container 1L
2T TC				•	•	•
2T TCW	•••••			•	•	•
2T TCW2				•	•	•
2T TCW3				•	•	•



Formulated In Japan Product of Singapore