

# TOTAL, a reliable professional partner



## Oils for 4-stroke Diesel engines

### Multigrade

#### CAPRANO TDI 15W-40

Very high-performance multigrade oil for the optimum lubrication of last-generation high-speed 4-stroke marine Diesel engines, whether supercharged or not. Also suitable for the lubrication of auxiliary generators.

**Properties:** Very stable viscosity in service, protection against the buffing of the jackets, longer oil-change intervals.

**Approvals:** • API CI-4 • ACEA E5

■ **Engines:** • Baudouin SMB5 • Perkins • Volvo VDS 3 • Caterpillar • Cummins 76/77/78 • Mitsubishi • MTU Cat 2  
■ **Reversing reduction gears:** • ZF-Masson • Allison C4.

#### CAPRANO TDH 15W-40

A high-performance multigrade oil specially suited to the modern high-speed 4-stroke Diesel engines used in shipping, whether supercharged or not. Also suitable for the lubrication of auxiliary generators.

**Properties:** High protection against wear, highly detergent, very good anti-oxidant and anti-corrosion properties.

**Approvals:** • API CH-4

■ **Engines:** • Baudouin SMB5 • Perkins • Mitsubishi • MTU Cat 2 • Cummins 71/72 • Volvo VDS 2 • Caterpillar  
■ **Reversing reduction gears:** • ZF-Masson • Allison C4.

#### CAPRANO TD 15W-40

Multigrade oil for 4-stroke Diesel engines used in shipping, specially recommended for the lubrication of supercharged engines for marine propulsion (fishing, transport of goods and passengers). Also suitable for auxiliary engines.

**Properties:** Excellent detergent and dispersant properties keep the engine clean, high resistance to oxidation, good anti-wear properties.

**Approvals:** • API CG-4 • ACEA E2

■ **Engines:** • Baudouin SMB4 • Caterpillar • Volvo VDS • Cummins • Perkins • Mitsubishi • MTU Cat 1  
■ **Reversing reduction gears:** • ZF-Masson • Allison C4.

### Monograde

#### DISOLA M 3015/4015

Monograde oil for medium and high-speed Diesel engines used in shipping, fishing and river transport. Naturally-aspirated or supercharged engines, main and auxiliary engines of all types and power outputs. Bearings, stern tubes and reversing reduction gears.

**Properties:** High reserve alkalinity, high mechanical and thermal resistance of film, high detergent and anti-wear capacities.

**Approvals:** • API CF

■ **Engines:** • Baudouin SMB 3 • Deutz • ABC • Mitsubishi • MAK • Wärtsilä SACM  
■ **Reversing reduction gears:** • ZF-Masson • Baudouin.

#### DISOLA MT 30/40

High-performance monograde oil for high-speed Diesel engines used in shipping, fishing and river transport. Supercharged or atmospheric engines operating under severe service conditions. Bearings, stern tubes and reversing reduction gears. On-board generator sets.

**Properties:** Excellent detergent and dispersant properties, good anti-wear properties, high resistance to oxidation.

**Approvals:** • ACEA E2 • API CF

■ **Engines:** • Baudouin SMB 3 • MTU Cat 2 • Mitsubishi • ABC  
■ **Reversing reduction gears:** • ZF-Masson • Baudouin • Allison.

#### RUBIA FP 40

Monograde detergent oil for high effective pressure marine Diesel engines used under very severe conditions: fishing, river transport of goods and passengers. Bearings, stern tubes and reversing reduction gears. Also suitable for auxiliary generators.

**Properties:** High viscosity when hot, exceptional detergent qualities, high anti-wear and anti-corrosion properties. Reduces the formation of deposits and varnishing.

**Approvals:** • API CE

■ **Engines:** • Wärtsilä: Poyaud UD engines • Baudouin SMB 3 • Perkins • MAK  
■ **Reversing reduction gears:** • ZF-Masson • Baudouin • Allison.

## Special oils

### Hydraulic oil

#### HYDROFLO CT

Very viscous hydraulic oil specially designed for hydraulic and hydrostatic systems and for any circuits exposed to large variations in temperature. Particularly suitable for equipment used outdoors in humid environments. Blue dye added.

**Properties:** High shear resistance, high resistance to oxidation and hydrolysis, high air release capacity, good compatibility with seals.

**Approvals:** • DIN 51524 type HLP  
• NFE 48602 and 60-200- cat HV.

### Oil for reducing gears

#### CARTER EP

Special oil for closed gears operating under heavy loading conditions. Provides optimum lubrication of cog and worm reducing gears, and of bearings and couplings subjected to heavy loads.

**Properties:** Excellent extreme-pressure and anti-wear properties, high thermal stability and anti-corrosion properties.

**Approvals:** • DIN 51517 part 3  
• NF-ISO 6743-6 category CKD.

### • Biodegradable Oils

### Hydraulic oil

#### BIOHYDRAN SE 46

Very high-quality biodegradable hydraulic oil, based on synthetic saturated bases, particularly recommended when there is a risk of contaminating sensitive waters or environments. Can be used to replace mineral oils after emptying the circuit.

**Properties:** Remarkable viscosimetric performance and shear resistance, high thermal stability and resistance to hydrolysis. Compatible with elastomers.

**Approval:** • VDMA type HEES.

### Oil for stern tubes

#### BIOHYDRAN TMP 100

Synthetic biodegradable hydraulic oil. Particularly recommended when there is a risk of contaminating water or protected environments.

**Properties:** Broad range of temperatures, high shear resistance, compatible with elastomers.

**Approval:** • VDMA type HEES.

## Greases

#### MULTIS EP 2

Extreme-pressure grease without heavy metals, used at temperatures ranging from -20°C to 120°C. Ideal for ball-bearings, bearings, crosshead guides and racks exposed to heavy loads.

**Properties:** Mechanical stability, resistance to shocks, oxidation and corrosion.

**Approvals:** • ISO 6743-9 : L-XBCEB 2  
• DIN 51 502 : KP 2K- 25.

#### CERAN WR2

Extreme-pressure grease based on complex calcium with high water-resistance. Ideal for ball-bearings, bearings, crosshead guides and racks exposed to heavy loads in a marine environment.

**Properties:** Mechanical stability, high resistance to shocks, oxidation and corrosion even in the presence of seawater.

**Approvals:** • ISO 6743-9 : L-XBFIB 2  
• DIN 51 502 : KP 2R- 25.

### • Biodegradable Grease

#### BIOMULTIS SEP 2

Extreme-pressure multi-purpose biodegradable grease, recommended for difficult and high-temperature applications, for lost lubrication with environmental constraints.

**Properties:** Highly water-resistant film, miscible with most conventional grease soaps, reduces maintenance costs.

**Approvals:** • ISO 6743-9: L-XDDEB 2  
• DIN 51 502: KPE2N- 40.

## Oil for 2-stroke Diesel engines

### Monograde

#### MILKANO TC 30/40

Mineral-based oil with low ash content (<1%) specially designed for 2-stroke Diesel engines, whether naturally-aspirated or turbocharged. Particularly suitable for Detroit Diesel equipment used in shipping.

**Properties:** High thermal stability, excellent protection against wear and corrosion, high reserve alkalinity.

**Approvals:** • API CF-2 • CF

■ **Engines:** • Detroit Diesel 53,71,92,149 Marine.

Sail in complete safety....



## ANAC Diagnosis

Lubricants analysis at the service of your company

*ANAC is a fleet-management tool for ships or land-based rolling stock.*

The ANAC service can draw up a **diagnosis of all mechanical assemblies** (engines, reversing reduction gears, hydraulics) by **sampling lubricants in service**.

The analyses are carried out by an expert system which evaluates the operation of each assembly in comparison to a reference assembly of the same type. The system takes account of the various oil-change intervals and of the lubricant's characteristics.

The results of these analyses are presented with a summary of previous evaluations, thus allowing you to monitor the evolution of your equipment.

### Advantages

- Less downtime and mechanical damage.
- Optimisation of maintenance intervals.
- Enhanced equipment lifetime and reliability.
- Increased corporate productivity.

[www.anac.be](http://www.anac.be)

A web-site which offers personalised secure access to the results of analyses of your oils.



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### TOTAL LUBRIFIANTS

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# Lubricants for fluvial and coastal fishing and shipping



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