

# **INBOARD 4T 15W-40**

### Oil for Marine engines

## Inboard 4 stroke Diesel engines surpercharged or turbocharged

#### TYPE OF USE

All recreational and professional 4 stroke engines fitted on boats, along coast or on rivers. Last generation diesel inboard engines, supercharged, turbocharged or atmospheric, direct injection "Common rail" or "pump injector" type, running with a low/medium sulphur content fuel up to 1%: BAUDOIN, CATERPILLAR, CUMMINS, IVECO, LOMBARDINI, MERCRUISER, MTU, NANNI, MAN, PERKINS, VETUS-DEUTZ, VOLKSWAGEN, VOLVO PENTA, YAMAHA, YANMAR... Gasoline Inboard engines: CRUSADER, MERCRUISER, VOLVO PENTA, YAMAHA... Also suitable for invertors (HURTH, TECHNODRIVE...) according to manufacturer recommendations.

#### **PERFORMANCES**

STANDARDS Diesel: ACEA E7 (E5 and E3),

API CI-4 / CH-4 / CG-4 / CF-4 (exceeds API CD – CE – CF)

Gasoline: API SG, SF

SPECIFICATIONS CATERPILLAR ECF-1, CUMMINS 20071-20072-20076-20077-20078,

MAN M 3275, Global DHD-1, MTU Type II, VOLVO VDS-3 / VDS-2

Used in first fill and officially recommended by YANMAR importer in France.

Protects against corrosion due to moisture and salt, neutralises acid combustion residues from fuel, increases engine life time.

Prevents emulsion with water.

Reinforced in detergents and dispersants to warranty engine cleanliness and prevent from deposit build ups on pistons and into engine sump.

Anti friction properties to minimise fuel consumption.

#### **RECOMMENDATIONS**

Oil change: According to manufacturers' recommendations ant to be adjusted according to use and oil test results.

Can be mixed with synthetic or mineral oils.

#### **PROPERTIES**

Viscosity grade	SAE J300	15W-40
Density at 20°C (68°F)	ASTM D1298	0.883
Viscosity at 40°C (104°F)	ASTM D445	118.5 mm <sup>2</sup> /s
Viscosity at 100°C (212°F)	ASTM D445	15.0 mm <sup>2</sup> /s
Viscosity index	<b>ASTM D2270</b>	131
Flash point	ASTM D92	222°C / 431°F
Pour point	ASTM D97	-33°C / -27°F
TBN	ASTM D 2896	11.3 mg KOH/g