



## MARINE TRUNK PISTON ENGINE OIL

# BRAVOIL™

### Technical Data Sheet

## MARINE 1530 & 1540

#### PRODUCT DESCRIPTION:

MARINE 1530 and 1540 are high-performance trunk piston engine oils that are specifically designed for medium-speed marine and industrial trunk piston engines operating on low sulfur distillate fuel with a sulfur content of up to 1.0%. These oils are blended using solvent-refined high viscosity index paraffin mineral base oils and chemical additives that enhance their properties such as alkalinity, wear resistance, detergency, and dispersancy.

#### APPLICATION:

MARINE 1530 oil is specifically recommended for crankcase lubrication in medium-speed marine-type diesel engines. It can also be used to separate bearing lubrication and piston cooling in large crosshead-type engines under severe service conditions, as long as the appropriate viscosity grades are utilized.

#### FEATURES & BENEFITS:

- Improved anti wear properties, reduces ring & liner wear
- Reduces port and under crown deposits
- Cleaner engine operation
- Increased protection against cylinder and bearing wear
- Outstanding thermal & oxidation stability extend periods between inspection & overhauling
- Controls black sludge therefore increases oil filter life and reduces cleaning frequencies
- Excellent TBN retention with low oil consumption

#### PERFORMANCE STANDARDS: Meets or Exceeds:

- API CF

#### MEETS OEMs

- MAN
- Wartsila
- Daihatsu
- Mak / Caterpillar
- Yanmar

#### TYPICAL PROPERTIES:

PARAMETERS	TEST METHOD	UNIT	MARINE 1530	MARINE 1540
SAE Grade			30	40
Kinematic Viscosity @ 104°F/40°C	ASTM D445	cSt	TBR	TBR
Kinematic Viscosity @ 212°F/100°C	ASTM D445	cSt	11.0	15.0
Viscosity Index (min)	ASTM D2270	-	95	95
Density @ 60°F	ASTM D4052	g/cm <sup>3</sup>	TBR	TBR
Flash Point (min)	ASTM D92	°C	220	220
Pour Point (max)	ASTM D97	°C	-9	-9

#### DISCLAIMER:

The test data provided is not a final specification; rather, it serves as a guideline and may vary within acceptable production tolerances. Bravoil reserves the right to modify this test data. Any updates will supersede previous versions, so please refer to the most recent Technical Data Sheet (TDS).

#### HEALTH & SAFETY, ENVIRONMENT:

Prolonged and repeated contact with oil may cause skin disorders. Avoid contact. Wash immediately with soap and water. Do not discharge used oil in to drains or the environment. Dispose to an authorized used oil collection point. For further Information on Safety Guidelines please refer to MSDS available on our website [www.bravoil.ae](http://www.bravoil.ae)

#### HEALTH & SAFETY:

This product is not likely to present any significant health or safety hazards when properly used in the recommended application and good standards of personal hygiene are maintained. Reference is made to the Safety Data Sheet (SDS) which is available on request via your local sales office or via the internet [www.bravoil.ae](http://www.bravoil.ae)

#### PROTECT THE ENVIRONMENT:

Take used oil to an authorized collection point. Comply with local regulation. Do not discharge into drains, soil or water.

#### STORAGE:

We recommend to store all packages under cover. In case outside storage is unavoidable, drums should be laid horizontally to avoid the possible ingress of water and damage to drum markings. Products should never be stored above 60°C, exposed to hot sun or freezing conditions.