

# **MARINE TRUNK PISTON ENGINE OIL**



### Technical Data Sheet

## MARINE 4040, 5040, 5540

#### PRODUCT DESCRIPTION:

MARINE 4040, 5040, and 5540 are specially formulated trunk piston engine oils intended for medium-speed diesel engines operating on residual fuels in marine, power generation, and industrial applications. The oils are equipped with advanced additive technology, ensuring exceptional engine cleanliness and wear protection across various operating conditions. With their high-water tolerance, these oils exhibit excellent water separation and base retention properties.

#### APPLICATION:

MARINE 4040, 5040, and 5540 oils are specifically recommended for use in trunk piston engines, such as those found in marine propulsion and land-based power generation applications. These oils are designed to be used in engines that run on residual or heavy fuels, offering optimal performance and protection in such operating conditions.

#### **FEATURES & BENEFITS:**

- · Outstanding engine cleanliness especially in hotter engine parts like piston rings & piston under-crowns
- · Higher base number (BN) stabilization even in low oil consuming engines
- Good anti-wear protection of piston rings and cylinder liners
- · Higher degree of compatibility with fuel asphalts
- · Good viscosity & insoluble control
- Longer drain capabilities

## PERFORMANCE STANDARDS: Meets or Exceeds:

API CF

### **MEETS OEMs**

MAN

Wartsila
Yanmar

Daihatsu

## TYPICAL PROPERTIES:

Mak / Caterpillar

PARAMETERS	TEST METHOD	UNIT	MARINE 4040	MARINE 5040	MARINE 5540
SAE Grade			40	40	40
Kinematic Viscosity @ 104°F/40°C	ASTM D445	cSt	TBR	TBR	TBR
Kinematic Viscosity @ 212°F/100°C	ASTM D445	cSt	14.9	15.0	15.1
Viscosity Index (min)	ASTM D2270	-	95	95	95
Flash Point (min)	ASTM D92	°C	220	220	220
Pour Point (max)	ASTM D97	°C	-9	-9	-9
TBN	ASTM D2896	mg KOH/g	40	50	55

## **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.bravoila.

#### **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

## 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.