

# Marine Piston S3 40

High-Performance Trunk Piston Engine Oil (TPEO) for  
Medium-Speed Marine Diesel Engines

## Description

MAXFLUID Marine Piston S3 40 is a premium-quality trunk piston engine oil (TPEO) developed by MAXFLUID for medium-speed marine and industrial diesel engines operating on residual, blended, and distillate fuels. Formulated with highly refined mineral base oils and an advanced detergent, dispersant, antioxidant, anti-wear, and corrosion inhibitor system, Marine Piston S3 40 delivers reliable engine cleanliness, wear protection, oxidation stability, and long lubricant service life.

With a Base Number (BN) of 30 and SAE 40 viscosity, Marine Piston S3 40 is designed for engines operating under moderate oil stress, providing excellent protection against deposits, corrosion, and acidic combustion by-products while maintaining efficient separator performance.

## Performance Features & Benefits

### Extended Oil Service Life

Excellent resistance to oxidation and thermal degradation helps maintain lubricant performance, retain alkalinity, and extend oil drain intervals while reducing maintenance requirements.

### Superior Engine Cleanliness

Advanced detergent technology minimizes deposits on pistons, crankcases, valve decks, piston undercrowns, and ring grooves, promoting efficient engine operation and reduced component wear.

### Reliable Corrosion Protection

The balanced BN 30 formulation effectively neutralizes acidic combustion products, protecting engine components against corrosive wear and extending equipment life.

### Excellent Water Separation

Optimized detergency and controlled dispersancy allow water and contaminants to separate efficiently through centrifugal purification systems, maintaining lubricant cleanliness and system reliability.

### Outstanding Wear Protection

Provides a durable lubricating film that protects bearings, camshafts, gears, pistons, liners, and valve train components under demanding operating conditions.

## Applications

**MAXFLUID Marine Piston S3 40 is recommended for:**

- Medium-speed marine trunk piston diesel engines
- Marine propulsion engines operating on residual fuel oil (HFO)
- Engines operating on blended fuels
- Marine diesel engines operating on distillate fuels
- Auxiliary marine diesel engines
- Medium-speed industrial diesel engines
- Marine reduction gearboxes where engine oil is specified
- Shipboard auxiliary equipment requiring SAE 40 engine oil

Suitable for engines operating under moderate oil stress, including applications using fuels with moderate sulphur content.

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## Product Advantages

- BN 30 formulation for balanced acid neutralization
- Excellent oxidation and thermal stability
- Outstanding piston and crankcase cleanliness
- Superior wear protection
- Excellent rust and corrosion resistance
- Efficient contaminant removal through centrifugal separators
- Reliable water separation properties
- Long lubricant service life
- Suitable for both engine and selected auxiliary applications
- Helps reduce maintenance costs and extend engine life

## TYPICAL PHYSICAL CHARACTERISTICS

| PROPERTIES                   | UNIT               | METHOD     | Marine Piston S3 40 |
|------------------------------|--------------------|------------|---------------------|
| SAE grade (viscosity class)  | -                  | -          | 40                  |
| Kinematic Viscosity @ 40°C   | mm <sup>2</sup> /s | ASTM D445  | 130                 |
| Kinematic Viscosity @ 100°C  | mm <sup>2</sup> /s | ASTM D445  | 13.7                |
| Viscosity Index              | -                  | ASTM D2270 | 101                 |
| Density @ 15°C               | kg/m <sup>3</sup>  | ASTM D4052 | 905                 |
| Flash Point                  | °C                 | ASTM D93   | 230                 |
| Pour Point                   | °C maximum         | ASTM D97   | -21                 |
| TBN                          | mg KOH/g           | ASTM D2896 | 30                  |
| Load Carrying Capacity (FZG) | Failure load Stage | A/8.3/90   | 11                  |

The values shown are typical characteristics and may vary within normal manufacturing tolerances.

## Health and Safety

MAXFLUID Marine Piston S3 40 is a high-quality trunk piston engine oil formulated for medium-speed marine and industrial diesel engines. Under normal operating conditions and when handled in accordance with recommended practices, the product is not expected to present significant health or safety hazards.

Avoid prolonged or repeated skin contact and prevent contact with eyes. Wear appropriate personal protective equipment (PPE), including protective gloves and safety glasses, when handling the product. Ensure adequate ventilation in enclosed spaces and avoid inhalation of oil mists.

Store in tightly sealed containers in a cool, dry, and well-ventilated area away from direct sunlight, excessive heat, and incompatible materials. Prevent spills from entering drains, waterways, or soil.

For detailed information regarding safe handling, storage, transportation, and disposal, please refer to the latest Safety Data Sheet (SDS) for MAXFLUID Marine Piston S3 40.