

# ENOC STRATA MSDO

## PRODUCT DESCRIPTION

**ENOC STRATA MSDO** are a range of generation III high performance engine oils for all types of marine medium speed diesel engines operating on high sulphur residual fuels. They have been developed from the latest complex dispersant and detergent technology to provide long lubrication life and enhanced engine performance in particular in low emission engines and those with anti-bore glazing piston designs.

## APPLICATIONS

- ◆ A range of high Total Base Number oils for use in Trunk Piston Engines burning variable quality residual fuel with high sulphur content available in the market
- ◆ Provide gear lubrication qualities for reduction gear applications where similar viscosities might be used
- ◆ Suitable for high output turbocharged engines
- ◆ It is recommended that Strata MSD oils are suitable for centrifuging and/or filtered in accordance with the manufacturers instructions
- ◆ Suitable for MAN (B&W), KHD DEUTZ, PIELSTICK , NIGATA, MAK, DAIHATSU, MIRLESS BLACKSTONE trunk piston diesel engines (4 Stroke )

## PERFORMANCE STANDARDS

|             |           |
|-------------|-----------|
| API         | CF        |
| CCMC        | D2        |
| Caterpillar | CMOT pass |

## BENEFITS

### STRATA MSDO provides:

- ◆ Suitability for engines using high sulphur residual or distillate fuels
- ◆ Superior resistance to oxidation and oil thickening
- ◆ Effective neutralisation of acidic combustion products
- ◆ Proven detergent/dispersant technology to reduce deposit formation
- ◆ Long engine and oil service life
- ◆ Excellent centrifugal separator operation

| Technical Data*                                   |        |        |        |        |        |
|---------------------------------------------------|--------|--------|--------|--------|--------|
| Product Grade                                     | 320    | 330    | 340    | 350    | 355    |
| SAE Viscosity                                     | 30     | 30     | 30     | 30     | 30     |
| Kinematic Viscosity<br>mm <sup>2</sup> /s @ 100°C | 11.66  | 12.23  | 12.09  | 11.66  | 12.09  |
| mm <sup>2</sup> /s @ 40°C                         | 104.3  | 110.3  | 107.2  | 104.3  | 107.2  |
| Flash Point COC °C                                | 240    | 256    | 258    | 240    | 250    |
| Pour Point, °C                                    | -15    | -15    | -15    | -15    | -15    |
| Total Base Number, ASTM D2896                     | 20     | 30     | 40     | 50     | 55     |
| FZG fail stage (A8.3/90)                          | 12     | 12     | 12     | 12     | 12     |
| Product code                                      | 252021 | 252022 | 252023 | 252024 | 252025 |

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| Technical Data*                                   |        |        |        |        |        |        |        |
|---------------------------------------------------|--------|--------|--------|--------|--------|--------|--------|
| Product Grade                                     | 420    | 430    | 440    | 450    | 455    | 530    | 540    |
| SAE Viscosity                                     | 40     | 40     | 40     | 40     | 40     | 50     | 50     |
| Kinematic Viscosity<br>mm <sup>2</sup> /s @ 100°C | 14.55  | 15.16  | 15.16  | 14.9   | 14.9   | 20.18  | 20.18  |
| mm <sup>2</sup> /s @ 40°C                         | 147    | 151    | 151    | 148    | 148    | 228    | 228    |
| Flash Point COC °C                                | 258    | 252    | 254    | 258    | 258    | 252    | 252    |
| Pour Point, °C                                    | -15    | -15    | -15    | -15    | -15    | -15    | -15    |
| Total Base Number, ASTM D2896                     | 20     | 30     | 40     | 50     | 55     | 30     | 40     |
| FZG fail stage (A8.3/90)                          | 12     | 12     | 12     | 12     | 12     | 12     | 12     |
| Product code                                      | 252026 | 252027 | 252028 | 252029 | 252030 | 252031 | 252032 |

\*The information prepared provides the typical properties that are considered as representative. Some variation which will not affect performance is possible

### HEALTH AND SAFETY, ENVIRONMENT

The information on this product is available in the ENOC Material Safety Data Sheet (MSDS) as a guide to the precautions and safe handling of this product and its disposal. For further information we recommend you review the MSDS. Handled correctly there are no special precautions suggested.