



## Castrol RX Mono DD50

for long and healthy engine life

### Description

Castrol RX Mono DD50 is a superior low ash, heavy duty diesel engine oil. Castrol RX Mono DD50 has been specifically designed to lubricate Detroit Diesel two-stroke diesel engines in addition to other manufacturers' engines where Monograde engine oils are recommended.

### Application

The prime recommendation is for use in normally aspirated diesel engines operating under moderate to severe service conditions and running on fuels containing not more than 0.5% sulphur. Castrol RX Mono DD50 is recommended for both naturally aspirated and turbo-charged Detroit Diesel two-stroke engines. It is a versatile oil to be recommended where a Monograde API CF-2/CF/CD II/CD/CC/SF lubricant is required.

Castrol RX Mono DD50 has been specifically formulated to meet the latest Detroit Diesel two-cycle lubricant recommendations using low ash, detergent/dispersant chemistry for optimum performance. Detroit Diesel now recommends 0.8% mass maximum sulphated ash for 149 series engines. Castrol RX Mono DD50 complies with this requirement and is our prime recommendation for these engines.

Castrol RX Mono DD50 has been widely used in manual transmissions where a "straight" 90 (non EP) gear oil is recommended, eg Fuller Roadranger, Spicer, Volvo and Mitsubishi. It is now being superseded for these applications by Castrol TFC 450 and synthetic fluids such as Castrol Syntrans M and Syndrive 50E.

#### Detroit Diesel Two-Cycle Engines Series 53, 71, 92, 149 Viscosity Recommendations:

- For continuous coolant outlet temperatures over 94°C (200°F) and for 149 Series engines where ambient temperatures are above 35°C (96°F):

**Note:** SAE 50 engine oils should not be used where ambient temperatures are below 10°C (50°F).

### Advantages

| Product Feature   | Operational Advantage  | Customer Benefit                              |
|---|--|---|
| <b>Special Base Formulations:</b><br>Castrol has formulated this lubricant to optimise viscosity stability at maximum engine operating temperatures through the use of low volatility oils.   | Reduced piston, ring and cylinder bore wear is achieved.   | Lower oil consumption and longer engine life. |
| <b>Detergency/Dispersancy:</b><br>New generation detergent/dispersant additive technology in Castrol RX Mono DD50 provides excellent piston deposit control in high output two-cycle diesel engines. Castrol RX Mono DD50 also exhibits improved soot handling control. | Engine performance and efficiency maintained longer. Less oil filter blockage and cleaner engines. | Engine service life is maximised.             |

|  |  |   |
|--|--|---|
| <p><b>Oxidation Resistance:</b><br/>Selection of high temperature anti-oxidant prevents the formation of gum and rapid deterioration of the oil when exposed to high piston temperatures. Acid production from oxidised oil is minimised</p>   | The lubricant is able to operate at high temperatures without degradation for longer periods.      | Longer lubricant life.  |
| <p><b>Corrosion Resistance:</b><br/>The blow-by of combustion products, such as water and corrosive acids, will contaminate the engine oil. <b>Castrol RX Mono DD50</b> contains alkaline and surface active additives to neutralise these acids and provide protection against acid corrosion and wear.</p>   | Prevention of corrosive attacks on core engine components  | Improve engine component life.  |
| <p><b>Foam Resistance:</b><br/>The inclusion of an anti-foam agent ensures the rapid collapse of foam and the rejection of entrained air (oil/air/foams are very inefficient lubricants)</p>   | The lubricant maintains contact with the metal surfaces.   | Better wear control.  |
| <p><b>Wear Resistance:</b><br/>Anti-wear additives are included to minimise wear on such critical components as cams, tappets, valve train, cylinder bores, pistons, piston rings and bearings.</p>  | Less wear on engine components.  | Longer engine life and less engine maintenance.   |
| <p><b>Exhaust Valve Guttering Resistance:</b><br/>Castrol RX Mono DD50 has been formulated with a low level of sulphated ash (20% lower than the standard maximum recommended by Detroit Diesel) for maximum exhaust valve life in two-stroke diesel engines. High levels of sulphated ash in an oil often results in reduced exhaust valve life and exhaust valve guttering in two stroke diesel engines.</p> | Longer exhaust valve life. Castrol RX Mono DD50 is suitable where 0.8% sulphated ash is specified. | Longer engine life and lower maintenance costs. Suitable for all engine series in all ambient temperature ranges. |

### Typical Characteristics

| Test                | Method     | Unit     | Typical Characteristic |
|---------------------|------------|----------|------------------------|
| SAE Viscosity Grade |            | -        | 50                     |
| KV @40 °C           | ASTM D445  | cSt      | 210                    |
| KV @100 °C          | ASTM D445  | cSt      | 19                     |
| Total Base Number   | ASTM D2896 | mg/KOH/g | 7.0                    |
| Flash Point (COC)   | ASTM D92   | °C       | 244                    |
| Pour Point          | ASTM D97   | °C       | -21                    |
| Sulphated Ash       | D874       | % Mass   | 0.8                    |

The above data is typical and does not constitute a specification.

## Performance Levels

**American Petroleum Institute (API):** CF-2/CF/CD II/CD/CC-Diesel  
SF Petrol

Detroit Diesel (2-cycle) 7SE 270  
DDC 0.8% sash 2 cycle

**Motor Manufacturers:**

Detroit Diesel Sulphated Ash 1% max  
(0.8% max Series 149)

## Product Removal

**Bare Metal Surfaces:** Remove with Castrol solvent cleaners or water based degreasers.

**Hand Cleaning:** Use any of the Castrol range of hand cleaners; e.g. CareClean Plus.

**Other Surfaces:** Contact your local Technical Advice Line on 1300 557 998.

Castrol RX Mono DD50  
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