## Signature® HD MG MO 10W-30, 15W-40 Product Data Sheet



**Product Description**: Signature® HD MG MO 10W-30 and 15W-40 are heavy duty engine oils recommended for all naturally aspirated and turbocharged four-stroke diesel engines in which the API CK-4 service category and SAE 15W-40 viscosity grade are recommended.

## Benefits:

Signature® HD MG MO 10W-30 and 15W-40 an API CK-4 heavy duty engine oil specifically formulated for 2017 greenhouse gas (GHG 17) compliant diesel engines designed to meet lower CO2 emissions and improved fuel economy, in addition to 2010 compliant low emission diesel engines with Selective Catalytic Reduction (SCR), Diesel Particulate Filter (DPF) and Exhaust Gas Recirculation (EGR) systems calling for SAE 15W-40 heavy duty engine oil. It is fully compatible with previous engine models and previous API Oil Service Categories.

Signature® HD MG MO 10W-30 and 15W-40 delivers value through:

- Minimized Operating Costs: Disperses soot and helps control wear. Cylinders, pistons, rings, and valve train components are well protected against wear and corrosion, providing good service life and minimal maintenance.
- Long Emission Control System Life: Provides optimum Diesel Particulate Filter (DPF) life for minimal downtime and cleaning, thus managing your maintenance costs.
- Managed Inventory Costs: Backwards compatible with previous all API Oil Service Categories and engine models. Good for services in four-stroke gasoline and naturally aspirated turbocharged and modern electronically controlled/low emission diesel engines calling for an SAE 15W-40 heavy duty motor oil. Allows users with a wide mix of engine brands to enjoy simplified inventory and dispensing systems that may contribute to saving money, space and handling time.

## Features:

Signature® HD MG MO 10W-30 and 15W-40 is a quality, mixed fleet heavy duty motor oil manufactured using selected high viscosity index base oils and additives that protect against sludge, varnish, deposits, wear, oxidation, foam, corrosion, and rust.

Signature® HD MG MO 10W-30 and 15W-40 helps minimize deposit buildup resulting from high temperature engine operation (especially in the piston and ring area), combats varnish formation, and helps keep vital engine parts clean.

It also protects against corrosion and resists oxidation at high temperatures.

Signature® HD MG MO 10W-30 and 15W-40 meets the most stringent EGR soot control and particulate requirements.

**Functions:** Signature® HD MG MO 10W-30 and 15W-40 helps to keep rings clean and free for maximum combustion pressure and low oil consumption. It helps minimize valve and piston crown land deposits. Its high level of ashless dispersants keeps fuel soot in suspension and helps avoid filter plugging, heavy cylinder head sludge, abrasive polishing wear, high viscosity increase, and oil gelling. These problems can result in excessive engine wear and bearing failure on startup, without prior indication to the operator.

Specially selected oxidation inhibitors control oxidation, sludge, and undue thickening during oil drain periods.

**Applications:** Signature® HD MG MO 10W-30 and 15W-40 is a mixed fleet motor oil recommended for naturally aspirated and turbocharged fourstroke diesel engines and four-stroke gasoline engines in which the API CK-4 service category and SAE 15W-40 viscosity grade are recommended. It is formulated for engines operating under severe service and a wide range of climatic conditions.

Product (s) manufactured in the USA.

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Signature® HD MG MO 10W-30 and 15W-40 is excellent for use in new advanced engines developed in response to 2010 emissions standards.

This product is recommended for use in Caterpillar engines in off-highway or construction applications which require an API CK-4 Service Category.

Signature® HD MG MO 10W-30 and 15W-40 is approved for:

- API Service Categories CK-4
- Cummins CES 20081
- Mack E0-0 Premium Plus
- Volvo VDS-4

Signature® HD MG MO 10W-30 and 15W-40 meets the requirements of:

Caterpillar ECF-3

| Density @ 15°C, kg/l             | 0.8779   |  |
|----------------------------------|----------|--|
| Viscosity,                       |          |  |
| Kinematic cSt @                  | 105.3    |  |
| 40°C cSt @ 100°C                 | 14.5     |  |
| Viscosity, Cold Crank, °C/Poise  | -20/5700 |  |
| Viscosity Index                  | 140      |  |
| Flash Point, °C/°F               | 230(446) |  |
| Pour Point, °C/°F                | -36(-33) |  |
| Sulfated Ash, wt %               | 1.0      |  |
| Base Number, mgKOH/g, ASTM D2896 | 8.7      |  |
| Phosphorus, wt %                 | 0.077    |  |
| Zinc, wt %                       | 0.086    |  |

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Always confirm that the product selected is consistent with the original equipment manufacturer's recommendation for the equipment operating conditions and customer's maintenance practices.

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