



LUBRICANTS

STERN Heavy-Duty Motor Oils (HDMO)

M-Series

STERN Heavy-duty Motor Oils M-Series 15W-40 and 10W-30 are oils designed to meet warranty requirements for high-speed, four-stroke heavy duty diesel engines. These products are formulated to maintain the durability of emission control systems, including diesel particulate filters and other advanced aftertreatment systems.

HDMO meets or exceeds the requirements of API service classifications CK-4, CJ-4, CI-4 PLUS, CI-4 and CH-4. These products are also approved by major original equipment manufacturers (OEM).

APPLICATIONS

- Recommended for heavy duty diesel applications including low emission engine designs and those featuring EGR.
- Recommended for heavy duty diesel applications using older and naturally aspirated conventional designs.

SPECIFICATIONS/APPROVALS

- API CK-4, CJ-4, CI-4 Plus, CI-4, CH-4
- Caterpillar ECF-3
- Cummins CES 20086, 20081
- Volvo VDS-4.5, VDS-4
- Mack EOS-4.5, EO-O Premium Plus
- Detroit Fluids Specification 93K222, 93K218
- Ford WSS-M2C171-F1
- MTU Oil Category 2.1 (15W-40 only)
- Renault Trucks RLD-3

TYPICAL PROPERTIES

Heavy-Duty Motor Oils (HDMO)	15W-40	10W-30
<i>Viscosity (cSt) at 40°C</i>	112	81.3
<i>Viscosity (cSt) at 100°C</i>	14.2	11.9
<i>Viscosity Index, ASTM D 2270</i>	132	140
<i>Density @ 15.6°C kg/L, ASTM D 4052</i>	0.874	0.867
<i>Pour Point, °C, ASTM D 97</i>	-27	-36
<i>Flash Point, °C, ASTM D 92</i>	225	225
<i>Sulfated Ash, % wt</i>	1	1
<i>Total Base Number, mg KOH/g, ASTM D 2896</i>	10	10

