

## **STERN Heavy-Duty Motor Oils (HDMO)**

## **P-Series**

These STERN HDMOs (Heavy Duty Motor Oil) SAE Single-Grade crankcase oils are formulated for diesel and gasoline engines. These oils are blended from selected and highly refined base stocks. They are compounded with detergents, dispersants, wear control elements, anti-oxidants, corrosion inhibitors, and a foam suppressant additive.

## **APPLICATIONS**

Recommended for all major automotive diesel and four-cycle gasoline engines in all services and under all operating conditions. SAE grades 30, 40, and 50 meet former API Service Classifications CF, CF-2. SAE Grades 10W and 20W meet former API Service Classification CF. All comply with obsolete API classifications CD, CD-II, CE. These products meet the performance requirements of MIL-PRF-2104G (SAE 10W, 30, 40), MIL-L-2104B, MIL-L-46152D and conform to all major automobile manufacturers' and automotive/truck diesel engine builders' requirements, including Caterpillar, Cummins, Detroit Diesel-Allison, and Mack Truck. SAE 10W through SAE 30 meet the Allison Type C-3, C-4 transmission performance requirements recommended for hydraulic systems. [Do not use in EMD Diesel Engines (railroad, marine) which requires oil with <10 ppm zinc content].

## **TYPICAL PROPERTIES**

Heavy-Duty Motor Oils (HDMO)	SAE 10	SAE 30	SAE 40	SAE 50
Viscosity (cSt) at 40°C	42	114	155	233
Viscosity (cSt) at 100°C	6.5	11.8	15.1	18.7
Viscosity, SUS at 100 °F	210	560	800	1100
Viscosity, SUS at 210°F	48	65	77	93
Viscosity Index	+90	+90	+90	+90
Flash Pt., (COC) °F	+400	+435	+450	+465
Pour Point, °F	-25	-5	0	+5
Sulfated Ash, % wt	<1.0	<1.0	<1.0	<1.0
Neut. No., TBN-E (min)	7.5	7.5	7.5	7.5
Gravity, API @ 60°F	27.9	26.5	25.5	24.9