

TECHNICAL DATA SHEET

HD MOTOR OIL HIGH PERFORMANCE MOTOR OIL

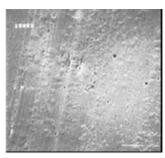
Royal Purple[®] HD Motor Oil is specifically formulated to maximize performance and meet the demands of heavy-duty engines. Many older heavy-duty engines, and some newer commercial and stationary engines recommend the use of a straight grade heavy duty engine oil. HD Motor Oil is fortified with a high level of zinc/phosphorus anti-wear additive and a generous dose Synerlec[®]. Synerlec[®] is Royal Purple's proprietary additive chemistry that greatly increases the protective film strength of the oil, reducing metal to metal contact, friction and wear. Synerlec[®] also increases the oil's resistance to thermal degradation, reducing deposit formation and lengthening the oil's useful life.



New Bearing*



After Leading Synthetic*



After Royal Purple w/ Synerlec*

HD Motor Oil reduces parasitic loss compared to other straight grade HD engine oils, saving fuel, and its synthetic solvency keeps internal engine parts cleaner than detergents alone. Superior oxidation resistance also minimizes oil degradation and greatly extends engine oil drain intervals, reducing maintenance costs. HD motor oil is recommended for use in gasoline and diesel applications including automotive, commercial fleet and stationary industrial engines that recommend the use of an API CF or API SJ engine oil. Royal Purple HD Motor Oils may also be used in transmissions and gear boxes that specify the use of SAE 30, SAE 40, or SAE 50 engine oil.

PERFORMANCE ADVANTAGES

- · Superior wear protection
- · Greatly extends oil drain intervals
- Superior corrosion protection
- · Reduced exhaust emissions
- · Increased resistance to varnish piston deposits and sludge formation
- · Exceeds API performance standard CF/SJ

OEM SPECIFICATIONS

API Service SJ

SAE 40:

API Service SJ

SAE 50:

API Service SJ

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Typical Physical Properties				
Property	Test Method	30	40	50
API Service		SJ	SJ	SJ
Viscosity @ 40°C, cSt	ASTM D445	75.3	124	185
Viscosity @ 100°C, cSt	ASTM D445	10.1	13.8	18.6
Viscosity Index	ASTM D2270	116	109	112
Flash Point, °C (°F)	ASTM D92	226 (440)	232 (450)	234 (454)
Pour Point, °C (°F)	ASTM D97	-42 (-45)	-36 (-33)	-36 (-33)
TBN, mg KOH	ASTM D2896	9.5	9.8	9.4
HTHS, @150°C, cP	ASTM D5481	3.1	4.1	5.1
Sulfated Ash, wt%	ASTM D874	1.05	1.03	1.03

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