



HEAVY DUTY ENGINE OIL 15W-40 Diesel/gasoline engines

Work Horse[®] Oil Heavy Duty 15W-40 CK-4/ SN engine oils are formulated with Group II base oils and highly advanced additive systems. These fluids are some of the most rigorously and extensively tested fluids we have ever developed. Our additive system is supported by over 100 million miles of field testing in various applications and conditions, including: long and short haul fleets, off-road equipment, commercial and public buses. Modern diesel engine oils must meet the demands of higher engine power as well as increased emission controls including: exhaust gas recirculation, diesel particulate filters, and selective catalytic reduction. This high-quality engine oil formulation meets all service categories for heavy duty diesel engines, including the capability to provide outstanding performance for older diesel engines, reducing the need to inventory multiple engine oils.

- Protects all diesel engines with emission controls, and is backwards compatible for older engines
- Excellent piston cleanliness and sludge control performance
- Neutralizes and disperses combustion by-products to prevent harmful deposits and corrosive wear
- · Increases pumpability in cold temperatures for superior wear protection during cold starts
- Improves oxidation performance by 60% when compared to API CJ-4 technology
- High film strength stands up to extreme temperatures and high load conditions
- · Proven ability to provide extended drain intervals

Always consult and follow manufacturer's guide for proper SAE grade. Never exceed recommended drain interval without close monitoring through oil analysis.

Work Horse[™] is a new breed of lubricants designed to stand up to brutal workloads and a wide range of challenging conditions. Born from a 90-year legacy of proven performance and premium products, Work Horse lubricants are formulated using the latest technology and advanced additives to deliver superior results and the protection you demand. Extensive testing in both on-road and off-road environments ensures all Work Horse products meet and exceed major manufacturers' service requirements. Your hard-working equipment needs hard-working oil.





HEAVY DUTY ENGINE OIL 15W-40 DIESEL/GASOLINE ENGINES

Typical Characteristics

| PRODUCT | 15W-40 |
|--|---------------|
| Gravity, °API | 30.1 |
| Specific Gravity @ 60°F (15.6°C) | 0.8756 |
| Viscosity @ 40°C cSt | 116.2 |
| Viscosity @ 100°C cSt | 15.56 |
| Viscosity Index | 141 |
| Pour Point °C (°F) | -36°C (-33°F) |
| Cold Cranking Simulator at (°C), cP | 5832 (-20) |
| High Temperature / High Shear Vis at 150°C, cP | 4.2 |
| Color | 3.5 |
| Zinc, wt. % | 0.12 |
| Phosphorus, wt. % | 0.225 |
| Calcium, wt. % | 0.225 |
| Sulfated Ash, wt. % | 0.99 |
| Nitrogen, wt. % | 0.184 |
| Pumping Viscosity at (°C), cP | 20,000 (-25) |
| Total Acid Number, mgKOH/g | 2.9 |
| TBN, mgKOH/g | 10 |



API SN, SM, SL, SJ, SH, SG, SF, SE, SD, SC API CK-4 Chrysler/Fiat MS-10902 API CJ-4 John Deere API CI-4 Plus, CI-4, CH-4, CG-4, CF-2, CF Ford WSS-M2C171-F1 Ford WSS-M2C171-E Mack EO-O Premium Plus, EO-N Premium Plus 03, EO-M Plus, and prior Mack EOS-4.5 CAT ECF-3, ECF-2, ECF-1-a Cummins CES 20081, 20077, 20076 Cummins CES 20086 Detroit Diesel 93K218, 93K215, 93K214 Detroit Diesel 93K222 CID A-A-52306, MIL-PRF-2104G MAN 3275, 270 MAN 3575 MB 228.3, 228.31 MTU Type I, Type II MTU 2.1 Renault RLD-4 Volvo VDS-4, 3, 2 Volvo VDS-4.5 Global DHD-1 JASO DH-2 ACEA E9, E7 Suitable for use in applications specifying Allison **TES-439** Allison C-4