



# HEAVY DUTY ENGINE OIL SYNTHETIC BLEND SAE 10W-30

## DIESEL ENGINES

Work Horse Heavy Duty Synthetic Blend 10W-30 API CK-4 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 will be 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 (EGR), Diesel Particulate Filters (DPF), and Selective Catalytic Reduction (SCR). This Premium Heavy Duty engine oil formulation meets all service categories for ALL 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
- Neutralized and dispersed combustion by-products to prevent harmful deposits and corrosive wear
- Increased pumpability in cold temperatures provides superior wear protection during cold starts
- Improved oxidation performance by 60% when compared to API CJ-4 technology
- High film strength stands up to high temperature, high load conditions
- 10W-30 CK-4 provides same outstanding protection but has shown increased fuel economy when compared to 15W-40
- 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.



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DIESEL ENGINES

## Typical Characteristics

PRODUCT	10W-30
Gravity, °API	31.07
Specific Gravity @ 60°F (15.6°C)	0.8704
Viscosity @ 40°C, cSt	82.18
Viscosity @ 100°C, cSt	12.06
Viscosity Index	141
Pour Point, °C (°F)	-39°C (-38°F)
Cold Cranking Simulator at (°C), cP	6600 (-25)
High Temperature / High Shear Vis at 150°C, cP	3.5
Noack Volatility, % loss	11
Color	3
Zinc, wt. %	0.127
Phosphorus, wt. %	0.115
Calcium, wt. %	0.105
Sulfur, wt. %	0.32
Magnesium, wt. %	0.1
Molybdenum, wt. %	0.0066
Sulfated Ash, wt. %	0.99
Nitrogen, wt. %	0.105
Pumping Viscosity at (°C), cP	24,000 (-30)
TBN, mgKOH/g	10



## Performance Level

- API 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-0 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

## Available In:

Qt, 2.5 Gal, Bulk