



PERFORMANCE PLUS OILS AND LUBRICANTS
 PERFORMANCE UNDER THE MOST EXTREME CONDITIONS



AUTOMOTIVE ENGINE | AUTOMOTIVE DRIVELINE | HEAVY DUTY ENGINE | HEAVY DUTY DRIVELINE | HYDRAULIC | GEAR OILS | GREASES | INDUSTRIAL LUBRICANTS | ANTIFREEZE

HEAVY DUTY ENGINE OILS (CK-4)

Performance Plus® Heavy Duty Diesel Engine Oils are formulated using specially engineered Group II+ base oil and premium state-of-the-art performance additives to surpass the latest heavy duty Original Equipment Manufacturer's (OEM) severity requirements. Their proprietary formula is designed to provide outstanding oxidation resistance, improved wear protection and exceptional thermal stability under extreme conditions (low and high temperatures). Additionally, they are recommended for the latest heavy duty diesel, gasoline, and propane engines including those equipped with emission control (EGR) and post treatment (DPF or DOC) systems and are approved and licensed to meet or exceed the latest API CK-4 requirements. Performance and Protection are the foundation of all Performance Plus products which is why they are designed to maintain power, perform, and protect engines in harsh driving conditions.

PERFORMANCE PLUS PROPERTIES		
SAE Viscosity Grade	10W-30	15W-40
API Service Category	CK-4	CK-4 / SN
Kinematic Viscosity		
cSt @ 40°C	81.7	113.9
cSt @ 100°C	12.2	15.6
Viscosity Index	145	145
CCS Viscosity		
cP @ -25°C	6,200	-
cP @ -20°C	-	5,500
MRV Viscosity		
cP @ -30°C	23,600	-
cP @ -25°C	-	22,200
TBN	10.0	10.0
Evaporative Loss, NOACK, wt%	10	8
Specific Gravity 15.6°C (60°F)	0.865	0.869
Flash Point, °C (°F)	237 (459)	226 (439)
Pour Point, °C (°F)	-39 (-38)	-33 (-27)
Color (ASTM)	L 4.0	L 4.0
Sulfated Ash, wt%	1.0	1.0

Approvals and Specifications

Performance Plus® Heavy Duty Engine Oils have been formally approved to meet or are suitable for use* the following specifications:

API CK-4	Detroit Diesel DFS 93K222
API CJ-4	Detroit Diesel DFS 93K218
API SN (15W-40)	Ford WSS M2C171-F1
ACEA E9*	Cummins CES 20081
ACEA E7*	Cummins CES 20086
Renault RLD-3	Mack EO-S 4.5
Renault RLD-4	Mack EO-O Premium Plus
Volvo VDS-4.5	Mack EO-N Premium Plus
Volvo VDS-4	MTU Category 2.1*
Caterpillar ECF-3*	Mercedes Benz 228.31*
Caterpillar ECF-2*	Mercedes Benz 228.3*
Deutz DQC III-10 LA*	

Since Performance Plus Heavy Duty Engine Oils meet the latest stringent requirements of leading automobile manufacturers, they are suitable for the following OEMs (where applicable**):

Caterpillar	Case
Volvo	Toyota
Freightliner	Kenworth
Navistar	Peterbilt
Mack	Mitsubishi
International	Hyundai
Ford	Komatsu
John Deere	Western Star

Note: Values shown above are representative of current production and may vary within modest ranges

**Information regarding recommended maintenance and equipment operating conditions can be found by referencing Original Equipment Manufacturer's (OEM) owner's manual and lubricant recommended grades.

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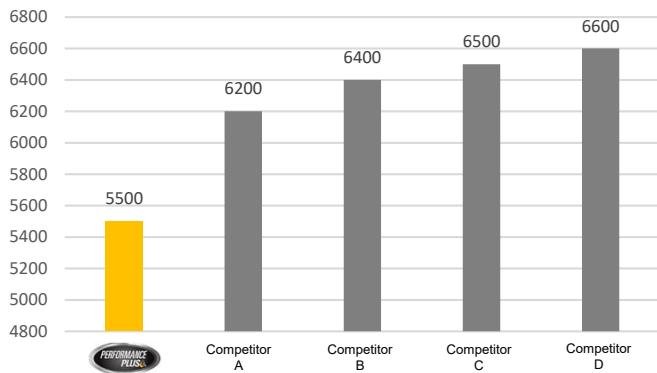
Features and Benefits: Today's trucks and fleets demand power, performance and protection and Performance Plus Heavy Duty Engine Oils are designed to meet and exceed their needs. Tested, proven, and trusted quality are why those demanding the best turn to Performance Plus. In addition to performance and protection, Performance Plus Heavy Duty Engine Oils offer:

- Enhanced soot control and reduced oxidative thickening
- Excellent cleanliness reducing piston deposits
- Superior resistance to viscosity and thermal breakdown
- Outstanding soot control to protect against wear
- Protects against rust and bearing corrosion

- Extending performance over long drain intervals
- Improving overall fuel economy
- Performing under the most extreme conditions
- Optimizing engine output
- Prolonging the life of the engine

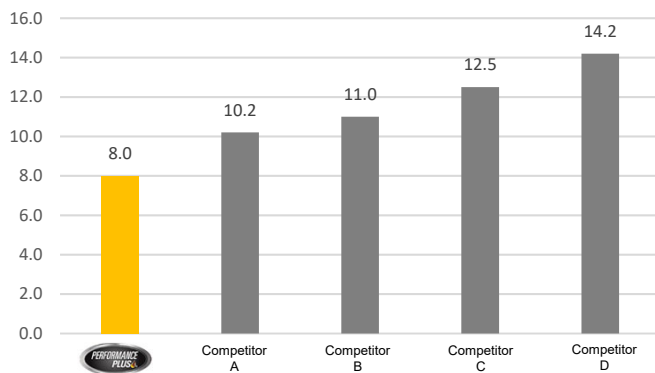
Proven and Trusted: The foundation of all Performance Plus products is the tested, proven and trusted base oil which exceeds the performance of many of the major oil refiners. Our finished lubricants start at a higher level than the competition due to our formulated blend of high quality base oils and additives.

Cold Crank



Performance Plus® delivers superior lubrication flow to vital components faster and more efficiently thus significantly reducing critical engine wear during cold temperature operation v. conventional formulations.

NOACK



Performance Plus® uses Group II+ base oil to provide exceptional volatility performance resulting in less oil top off, less light end engine deposits, and excellent cold and high temperature viscosity performance v. conventional formulations.

Health and Safety: Information detailing health and safety can be found in the corresponding Safety Data Sheet on the Performance Plus website. Performance Plus products contain petroleum distillates and are not likely to pose any significant health or safety hazards. Gloves should be used to avoid any contact - should there be contact with skin, washing with soap and water is advised. If ingested, call a poison center or doctor - do not induce vomiting.

Storage: Performance Plus products should not be stored where the temperatures are above 140° F (60° C) or near sparks and flames. Products should be stored under cover and away from the reach of children. In case where drums cannot be under cover, they should be laid horizontally to avoid any potential contaminants.

Disposal: All efforts should be made to protect the environment. Please properly dispose of used motor oil and lubricants. Should you need any assistance please contact your sales representative for information on how Safety-Kleen's used motor oil collection services.

For additional questions, please contact your Performance Plus® Products Sales Representative.

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