

Duty 15W40



WORLD CLASS LUBRICANTS
FOR TROPICAL CONDITIONS

GENERAL

The **Ultra Duty** is a premium quality lubricant for high-speed, four-stroke engines designed to meet 2007 exhaust emission standards and to surpass the performance demands of all previous diesel lubrication categories.

New engine design modifications use higher cylinder pressures, increased piston ring zone temperatures and, in most cases, Exhaust Gas Recirculation (EGR). **Ultra Duty** is specifically engineered to sustain engine durability where exhaust gas re-circulation (EGR) is used.

It is especially suited for **high speed naturally aspirated** and **turbo-charged four stroke diesel engines** in the construction and road transport industries. It also meets the highest gasoline performance standards; therefore it is ideal for mixed fleet applications.

Ultra Duty (API CJ-4/SN) is also specifically compounded for use with diesel fuels ranging in sulphur content up to 0.5% weight. It is backward compatible and can be used where CD, CE, CF-4, CG-4 CH-4 or CI-4 oils are recommended.

Ultra Duty provides for enhanced:

- Durability where EGR is used
- Corrosion and Rust Protection
- Reduced Piston Deposits
- Thermal Stability
- Detergency
- Cylinder and Piston-ring wear performance
- Oxidation Stability

PERFORMANCE SPECIFICATIONS

Ultra Duty meets or exceeds the exacting test requirements of:

- | | | | |
|------------------|----------------------------|----------------|--------------|
| • API | CJ-4/SN | • ACEA | E7-04, A5/B5 |
| | CI-4, CH-4, CG-4, CF-4, CF | • MB | 228.5 |
| • Cummins | CES 20081 | • Volvo | VDS-4 |
| • Mack | EO-N | • CAT | ECF-3 |

KEY BENEFITS

Ultra Duty provides optimum protection against **corrosive and soot related wear** tendencies, **piston deposits, oxidative thickening, loss of consumption control, foaming, degradation of seal material** and **viscosity loss** due to shear. Non-EGR engines using **Ultra Duty oils** extend drain intervals; reduce make-up oil need, and lower operating costs/downtime.

The use of **Ultra Duty** would result in:

- Protection against bearing failure
- Reduced valve train wear
- Control of viscosity increase
- Good dispersancy and alkalinity
- Easier starting/pumping
- Better fuel economy
- Low piston-zone deposits
- Ring-stick prevention
- Protection against bore polish
- Reduced oil consumption
- Reduced harmful emissions

MAIN APPLICATIONS

- Modern high speed, four stroke engines.
- Exhaust Gas Recirculation (EGR) and application of other emission control systems.
- High speed naturally aspirated, turbocharged, and supercharged diesel engines in the construction and road transport Industry.
- Off-road, indirect injected diesel engines and other diesel engines that use a broad range of fuel types.
- Mixed fleet engine oil for gasoline/ diesel combinations where SAE 15W 40 lubricants recommended.

TYPICAL PROPERTIES

	TEST METHOD	
SAE Viscosity Grade	J 300	15W40
Kin. Viscosity @ 40°C-cSt	ASTM D445	114.43
Kin. Viscosity @ 100°C-cSt	ASTM D445	15.21
Viscosity Index	ASTM D2270	139
Specific Gravity, 60/60°F	ASTM D1298	0.8828
Pour Point, °C	ASTM D97	-27
Closed Flash Point, °C	ASTM D93	210
Zinc Content, % wt	IP 308	0.15
TBN, mg KOH/g	ASTM D4739	10.5

HEALTH AND SAFETY

Ultra Duty is unlikely to pose any health or safety hazards when used in the recommended applications, provided good standards of personal and industrial hygiene are observed. Please refer to the Material Safety Data Sheet (MSDS) for further information.