# Duty Plus with Hydro-Synthetic Technology 15W-40



WORLD CLASS LUBRICANTS FOR TROPICAL CONDITIONS

#### **GENERAL**

The **Ultra Duty Plus** SAE 15W-40 enhanced with **Hydro-Synthetic Technology (HST)** is a heavy duty diesel engine oil designed high speed naturally aspirated and turbo-charged four stroke diesel engines in the construction and road transport industries. It is designed to meet 2017 model year on-highway and Tier 4 non-road exhaust emission standards, as well as for previous model year diesel engines.

It is formulated with a superior additive technology to provide protection for diesel engines with Diesel Particulate Filter (DPF), Selective Catalytic Reduction SCR) and Exhaust Gas Recirculation (EGR) systems. **Ultra Duty Plus** is specifically engineered to sustain engine durability and provide exceptional protection for on and off-highway applications.

**Ultra Duty Plus (API CK-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, CI-4 and CJ-4 oils are recommended.

Ultra Duty Plus provides for enhanced:

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

## PERFORMANCE SPECIFICATIONS:

Ultra Duty Plus meets or exceeds the exacting test requirements of:

- API Service Categories CK-4, CJ-4, CI-4 PLUS, CI-4, CH-4, SN
- Cummins CES 20086, CES 20081
- MTU Category 2.1
- Detroit Fluids Specification (DFS) 93K222
- Renault VI RLD-4, RLD-3
- Mack EOS-4.5, EO-O Premium Plus
- MAN M3575
- Volvo VDS-4.5, VDS-4, VDS-3
- Caterpillar ECF-3, ECF-2
- ACEA E9-2012, E7

### KEY BENEFITS

**Ultra Duty Plus 15W-40** exhibits superior soot handling capabilities and outstanding control over soot induced thickening. **Ultra Duty Plus 15W-40** extends drain intervals to **10K guaranteed**; reduce make-up oil need, and lower operating costs/downtime.

The use of Ultra Duty Plus 15W-40 would result in:

- Reduce carbon dioxide and greenhouse gas emissions
- Improved oxidation resistance
- Better shear stability
- Superior dispersancy and alkalinity
- Easier starting/pumping
- Excellent aging resistance

- Outstanding temperature stability
- Exceptional wear protection
- Reduced oil consumption

#### MAIN APPLICATIONS

- Current on-highway low emission diesel engines running on ultra-low sulfur diesel fuel (ULSD).
- 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.
- Heavy duty transmissions requiring fluid meeting Allison® C-4 specification.
- Mixed fleet engine oil for diesel/gasoline combinations where SAE 15W-40 lubricants recommended.

|                            | TEST METHOD |        |
|----------------------------|-------------|--------|
| SAE Viscosity Grade        | J 300       | 15W-40 |
| Kin. Viscosity @ 40°C-cSt  | ASTM D445   | 114.43 |
| Kin. Viscosity @ 100°C-cSt | ASTM D445   | 15.21  |
| Viscosity Index            | ASTM D2270  | 145    |
| Specific Gravity, 60/60°F  | ASTM D1298  | 0.8828 |
| Pour Point, °C             | ASTM D97    | -29    |
| Closed Flash Point, °C     | ASTM D93    | 210    |
| Zinc Content, % wt         | IP 308      | 0.15   |
| TBN, mg KOH/g              | ASTM D4739  | 11     |

#### **TYPICAL PROPERTIES**

## 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.

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