



## UNIVERSAL HDX ENGINE OIL

### High Quality Heavy Duty Diesel Engine Oil

#### PRODUCT DESCRIPTION

QUAKER STATE® UNIVERSAL HDX ENGINE OILS are high quality fleet motor oils for use in diesel engines and 4-cycle gasoline engines. They are designed primarily for use in today's high output, high performance heavy-duty diesel engines, while still meeting the requirements of 4-cycle automotive gasoline engines. QUAKER STATE® UNIVERSAL HDX ENGINE OILS are formulated with select base stocks and advanced technology detergent, dispersant, anti-wear and anti-corrosion additives and are designed to provide excellent performance even in diesel engines equipped with Exhaust Gas Recirculation (EGR). These oils exceed the API and engine manufacturer performance requirements as given below.

QUAKER STATE® UNIVERSAL HDX ENGINE OILS provide excellent performance and protection in low temperature operation (multigrades) as well as high speed, high temperature operation.

#### APPLICATION

QUAKER STATE® UNIVERSAL HDX ENGINE OILS are recommended for use in heavy duty naturally aspirated and turbocharged 2-cycle and 4-cycle diesel engines (including engines equipped with Exhaust Gas Recirculation (EGR)) used in mobile and stationary service, as well as in modern 4-cycle automotive gasoline engines. They meet or exceed the requirements of the following industry, military and equipment builder specifications:

- |                  |   |
|------------------|---|
| - API            | CJ-4, CI-4 Plus, CI-4, CH-4, CG-4, CF-4, CF/ SM, SL, SJ |
| - ACEA           | E7*   |
| - Caterpillar    | ECF-3, ECF-2  |
| - Cummins        | CES 20081*  |
| - Detroit Diesel | 93K218* , 7SE270*                                       |
| - Deutz          | DQC III-05*   |
| - Mack           | EO-O Premium Plus 2007                                  |
| - MAN            | M3275*  |
| - Mercedes-Benz  | 228.3*, 228.31*   |
| - MTU            | Category 2*   |
| - Volvo          | VDS-4*  |

1 SAE 15W-40 only

## BENEFITS

- Meets Ford WSS-M2C171C
- Formulated for mixed fleet applications
- Helps minimize piston deposits
- Excellent bearing corrosion control
- Protects new EGR diesel engines designed to meet today's low emission specifications
- Excellent cold cranking capabilities
- Helps reduce engine wear to help increase engine life
- Outstanding high temperature protection

## TYPICAL PHYSICAL AND CHEMICAL PROPERTIES QUAKER STATE® UNIVERSAL HDX ENGINE OIL

TEST	TYPICAL RESULTS	
SAE Grade	10W-30	15W-40
API Gravity	30.0	29.1
Viscosity		
@ 40°C, cSt	78	118
@ 100°C, cSt	11.5	15.8
Viscosity Index	140	137
CCS Viscosity cps Max		
@ Temp. °C	7000 @ -25	7000 @ -20
Flash Point, °C(°F)	210(410)	210(410)
Pour Point, °C(°F)	- 33 (-22)	- 33(-27)
Low Temp. Pumping Viscosity		
@ -30°C (-22°F) cP Max	60,000	
@ -25°C (-13°F) cP Max		60,000