



# SYNTHETIC HD DIESEL OILS

## (Synthetic HD Diesel Engine Oil, Premium Plus Quality)

**SYNTHETIC HD DIESEL OILS** are specially formulated motor oils that utilize the latest engine oil technology in synthetic hydrocarbon base stocks to provide outstanding performance.

**SYNTHETIC HD DIESEL OILS** are blended with low volatility synthetic fluids and the finest additives. These advanced oils have significantly improved thermal and oxidation stability, shear stability and detergency as compared to mineral oil based heavy-duty diesel engine oils.

**SYNTHETIC HD DIESEL OILS** are high TBN oils, which offer outstanding high temperature engine protection and performance. The outstanding heat-transfer capabilities helps keep engines operating in their optimal temperature range.

The outstanding thermal and oxidative stability of **SYNTHETIC HD DIESEL OILS** ensure the long-term integrity of the oils after exposure to engine operating temperatures. Poor thermal and oxidative stability are the top reasons conventional oils require frequent changing.

Low volatility makes **SYNTHETIC HD DIESEL OILS** highly resistant to oil consumption. This allows the total volume of oil to protect and lubricate the engine.

Outstanding shear stability ensures that **SYNTHETIC HD DIESEL OILS** maintains its protective viscosity throughout their extended service life and protect engine components from wear, especially at high temperatures.

Wax-free synthetic stocks with extremely low pour points ensure the rapid flow of motor oil throughout the engine after startup, protecting engines when cold-thickened mineral oils allow significant wear. This enhances fuel economy and performance. The low coefficients of friction ensure the maximum delivery of engine power with minimal friction losses.

### BENEFITS:

- DESIGNED FOR EXTREME TEMPERATURE OPERATIONS
- EXTENDS DRAIN INTERVALS
- CONSERVES FUEL
- KEEPS ENGINES CLEAN
- EXTENDS OIL DRAIN INTERVALS

### APPLICATIONS:

**SYNTHETIC HD DIESEL OILS** are recommended for all diesel engines. The quality claims shown below are based on the claims these quality additives would meet in mineral oil base stocks. These oils meet or exceed the following requirements:

- API SL quality (all grades)
- API CI-4 Plus (all except 5W-30)

**SYNTHETIC HD DIESEL OILS** are fully compatible with mineral-based or conventional motor oils. They are also compatible with all other synthetic motor oils.

**SYNTHETIC HD DIESEL SAE 40 multigrade oils** also meet or exceed the specifications of the following manufacturers: Caterpillar ECF-1, Cummins CES 20078, Detroit Diesel 93K214, Mack EO-N Premium Plus 03 and Volvo VDS-3.



# SYNTHETIC HD DIESEL OILS MOTOR OILS

(Synthetic Heavy Duty Diesel Oil, Premium Plus Quality)

## TYPICAL CHARACTERISTICS

ISO Viscosity Grade	5W-30	5W-40	15W-40	15W-50
Product Code	40853	40854	40856	40855
API Gravity (ASTM D-1298)	32.8	32.9	32.9	34.1
Density, lbs/gal	7.17	7.17	7.17	7.12
Viscosity (ASTM D-445):				
cSt @ 40°C	60	92	92	113
cSt @ 100°C	10.5	14.5	14.5	17.5
Brookfield Viscosity (D-5293)				
60,000 cPs max @ -35°C, max.	pass	pass	-	-
60,000 cPs max @ -30°C, max.	-	-	-	-
60,000 cPs max @ -25°C, max.	-	-	pass	pass
Cold Crank Simulator				
6,600 cPs max @ -30°C	pass	pass	-	-
7,000 cPs max @ -25°C	-	-	-	-
7,000 cPs max @ -20°C	-	-	pass	pass
Viscosity Index (ASTM D-2270)	164	162	162	168
Pour Point (ASTM D-97) °F	-48	-48	-48	-48
(°C)	(-54)	(-54)	(-54)	(-54)
Flash Point (ASTM D-92) °F	446	435	435	439
(°C)	(230)	(224)	(224)	(226)
Ash content, wt%	1.4	1.4	1.4	1.4
TBN (ASTM D-2896)	12	12	12	12

The above data is subject to usual manufacturing variation. For more information and availability, call 1-800-442

LUBE.

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