



Molysyn Manufacturing Co.

ISO
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Certified

TECHNICAL DATA

102 Barton Street, St. Louis, USA

700 SUPREME SYNTHETIC DIESEL ENGINE OIL

M-700 – 15w40 Is a Synthetic blend premium quality multi-grade heavy duty engine oil that is formulated to extend engine life, while providing for extended drain capability and improved fuel economy benefits.

FEATURES:

M-700 – 15w40 Is truly multi-purpose for all seasons with highly refined Paraffinic base oil provide excellent performance to maximize engine service life.

1. Excellent Wear and Deposit Protection of On-Highway and Off-Highway Low Emission Diesel Engines and Pre-1994 Diesel Engines.
2. Excellent Wear and Deposit Protection of Off-Highway Diesel Engines that Burn High Sulfur Diesel Fuel.
3. Exceptional Thermal Stability, for Outstanding Performance at High Engine Operating Temperatures.
4. Ultra – Low Ash; is fortified with exclusive additive that help minimizes ash deposits, keep combustion chamber and valve surface clean.
5. High Alkaline Reserve (TBN): It is effectively neutralizes corrosion acids to protect bearings and other vital engine parts.
6. High levels of TBN Reserve for extended Drain Oil Capability.
7. Excellent Soot Dispersency for Protection Against Soot Overloading, Increases in Viscosity Due to Soot Thickening and Soot Abrasive Wear.
8. All Calcium Based Detergency to Enhance High Temperature Piston Cleanliness and Protection Against Bore Polishing and Scuffing.
9. Effective detergent keeps engine parts clean, minimize carbon, sludge and varnish formation, extends filters life and reduces oil thickening.
10. Specially fortified with anti-scuff additives to minimizes friction and wear in rings, cylinders, bearings, timing gears, valves, and all other moving metal parts.
11. The exclusive additive also form an oiliness protective film on moving parts to reduce friction and drag, therefore reduce fuel consumption.
12. Viscosity index improver which will not make the oil thinning during high temperature and thicken during low temperature.
13. Excellent Anti-Foaming Properties to Protect Against Aeration and Foaming.
14. Excellent Gasket and Seal Life.
15. Longer Drain Intervals, for Lower Overall Maintenance Costs.
16. Improved Fuel Economy, Increased Engine Life and Reduced Maintenance Costs.
17. **Superior Cold Weather Startability and Operating characteristics** which results in less friction and lubricant drag in the engine and instant lubrication during cold weather start-up.
18. **Superior Oxidative Stability:** Any oil as it is increasingly exposed to high temperature operation undergoes the process of oxidation. This results in the oils thickening and the buildup of acidic components, because of PAO's and 100% paraffin base oil's uniform molecular structure, the process of oxidation is greatly reduced. And excellent resistance to thermal degradation.



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PRODUCT INFORMATION:

M-700 - 15w40; Blended into the 100% Pure Paraffin base stocks and polyalphaolefin base fluids is a highly specialized performance additive package and a highly shear stable viscosity index improver is a proven frictional modifier, Micron Moly a liquid soluble type of moly that plates to the metal surfaces of the engine. Once plated, the moly forms a long lasting lubricant film, which prevents the metal surfaces from coming into contact with each other. By preventing metal-to-metal contact, damaging frictional wear is eliminated, thus leading to less downtime and longer engine life.

FRICION & HEAT REDUCTION: The Moly's solid lubricant film also helps to reduce friction. The reduction in friction results in reduced wear and reduction in contact area temperatures. This in turn leads to increased equipment life, less downtime and extended lubrication cycles.

RECOMMENDED:

Recommended for use in all types of On-Highway and Off-Highway Diesel Engines, including low-emissions certified engines, diesel engines that are equipped with Exhaust Gas Recirculation (EGR) Systems and in older On-Highway and Off-Highway Diesel Engines, also for construction, mining, agricultural, marine and power plant equipment. M-701-15w40 meets and exceeds the following specifications and manufacturers requirements: MIL-PRE-2104G and A-52306A, API Service Classification CI-4 and CI-4/CH-4/SL, Caterpillar ECF-1, Capterpillar TO2, Cummins CES 20076, Detroit Diesel 7SE 270, Komatsu Dresser, MAN 271, MAN 3275, MTU Type 2 and Volkswagen VW502.00 and Diamler Chrysler MB 228.

TYPICAL SPECIFICATIONS:

SAE Grade	15w40
Gravity API	29.2
High Temp/High Shear Viscosity 302 F/150 C, cP (ASTM D-4683)	4.3
Cold Cranking Viscosity (ASTM D-5293) @ -20 c, Cp	5,460
Mini Rotary Viscosity TP-1 @ -20, cP (ASTM D-4683)	17,500
MRV Borderline Pumping Temperature F/C (ASTM D-4683)	-15/- 26.11
Scanning Brookfield Gelation Index @ -11 F/-24 C	3.9
Flash Point F/C (ASTM D-92)	457/236.11
Fire Point F/C (ASTM D-92)	495 /257.22
Stable Pour Point F/C (FTM 7916 Method 203)	<-41 / <-42
Total Base Number (ASTM D-2896)	12
Cst 40 C (ASTM D-445)	110-126
Cst 100 C (ASTM D-445)	14.00-16.00
Viscosity Index (ASTM 2270)	145
Copper Strip Corrosion Test (ASTM D-130)	1a
Shear Stability (ASTM D-3945 Procedure A) % viscosity loss	5
Volatility 700 F % Evaporation Loss (ASTM D-2287)	6%
NOACK Volatility % Evaporation Loss (ASTM D-5800)	11.3