SINCE 1839
Schaeffer's
SPECIALIZED LUBRICANTS

TECHNICAL DATA

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ISO 9001 CERTIFIED

9020 Advanced Light Duty Diesel Performance 0W-20

Advanced Light Duty Diesel Performance SAE 0W-20 is a premium quality full synthetic, multi-grade engine oil that is specifically formulated and suitable for use in vehicles that require General Motors dexos® D.

Advanced Light Duty Diesel Performance SAE 0W-20 is blended from a unique combination of select synthetic base fluids, advanced additive package and highly shear stable viscosity index improver to provide the following advantages:

PERFORMANCE

- Excellent low-temperature cold cranking and pumpability for rapid oil circulation to minimize wear during low-temperature start
- Exceptional oxidative stability and protection against thermal breakdown at high engine oil operating temperatures
- Low viscosity formulation that reduces friction and maintains optimum operating efficiency at startup and at operating temperature to deliver improved fuel economy.
- Formulated to withstand extreme driving conditions and provide protection to even the most demanding turbocharged high-output engine designs.
- Excellent low volatility characteristics that provide enhanced oil consumption control, less engine oil top-off frequency, and reduced emissions
- Excellent shear stability for stay-in-grade performance throughout the oil drain interval.
- Excellent high temperature/high shear performance to provide excellent oil film thickness and engine protection at high operating temperatures and shear rates.
- Outstanding rust and corrosion protection

DEPOSIT PROTECTION

- Excellent detergency and dispersancy for protection against sludge and varnish formation.
- Unsurpassed turbocharger protection from deposit formation
- Excellent piston and critical engine parts cleanliness
- Hydro-Ethanol inhibitors that significantly reduce the problems that can result from the use of ethanol blended fuels

WEAR PROTECTION

- Protects critical engine parts from damaging friction and wear.
- Excellent protection of turbocharged direct injection engines from damage
- Superior protection against rust and corrosion
- Substantial wear protection to reduce wear and damage to critical engine parts
  - 28% Better wear protection vs. API and GM wear limits
  - 37% Better protection against timing chain wear and elongation vs. GM limits
- Substantial reserve wear performance
- Protection from metal-to-metal contact across a wide operating temperature range.

Advanced Light Duty Diesel Performance SAE 0W-20 also contains two proven frictional modifiers Micron Moly® and Schaeffer Mfg's own proprietary additive Penetro®. These two proven frictional modifiers once plated, form a long lasting, slippery, tenacious lubricant film, which prevents the metal surfaces from coming into contact with each other. By preventing metal-to-metal contact, damaging frictional wear is reduced which results in reduced wear, increased engine life and lower maintenance costs.

Advanced Light Duty Diesel Performance SAE 0W-20 meets and exceeds ACEA C5-21 and is specifically formulated and suitable for use in vehicles that require General Motors dexos® D.

Not for use in vehicles that require API CK-4, FA-4, SP or earlier specifications.
Not for use in gasoline fueled or heavy-duty diesel engines.

TYPICAL PROPERTIES

SAE Grade	**0W-20**
Specific Gravity (ASTM D1298)	0.841
Viscosity @ 40°C, cSt (ASTM D445)	40.0-51.0
Viscosity @ 100°C, cSt (ASTM D445)	8.0-9.29
Viscosity Index (ASTM D2270)	172
High Temperature/High Shear Viscosity 302°F/150°C, cP (ASTM D4683)	2.61
Cold Cranking Viscosity (ASTM D5293)	
@-35°C, cP	5,672
Mini Rotary Viscosity TP-1 @ -40°, cP (ASTM D4683)	34,000
Flash Point °F/°C (ASTM D92)	423°/217.2°
Pour Point °F/°C (ASTM D97)	-49°/-45°
Total Base Number (ASTM D2896)	7.1
Sulfated Ash Content % wt. (ASTM D874)	0.68%
Copper Strip Corrosion Test (ASTM D130)	1a
NOACK Volatility %Evaporation Loss (ASTM D5800)	10.6
Foam Test (ASTM D892)	
Sequence I	0/0
Sequence II	0/13
Sequence III	0/0
Shear Stability (ASTM D6278), 30 cycles, % Viscosity Loss	1.6