



HAVOLINE[®] MOTOR OILS

SAE 5W-20, 5W-30

CUSTOMER BENEFITS

Havoline Motor Oils deliver value through:

- **Excellent antiwear protection**
- **Protection against thermal breakdown**
- **Clean engines** and clean positive crankcase ventilation systems resulting from minimal deposit formation under heavy load and stop-and-go driving conditions.
- **Exceeds warranty requirements** of car and light truck manufacturers relying on an API SM motor oil.

FEATURES

Havoline Motor Oils are premium quality automotive engine oils.

All grades are formulated with high quality base stocks, a shear-stable viscosity index improver, and contain detergent, dispersant, wear control, antioxidant, corrosion inhibitor, and foam suppressant additives.

The high viscosity index of Havoline Motor Oils ensures low viscosities at low temperatures for easy cold starting and rapid warmup and high viscosities at high temperatures for fuel economy, oil economy, and effective protective films for engine parts.

Their antiwear additives provide excellent wear protection of critical engine parts.

A high level of dispersancy in Havoline Motor Oils protects against deposit and sludge formation in stop-and-go driving and sustained high temperature operation, and protects against corrosion.

Their excellent high temperature oxidation stability prevents viscosity increase and oil gelling in the crankcase. They keep PCV systems clean to maintain smooth engine performance.

APPLICATIONS

Havoline Motor Oils are recommended for all four-stroke gasoline engines used in passenger cars, light trucks, powerboats, motorcycles, and other mobile and stationary equipment. They are excellent for high-revving engines in small cars and light trucks. All grades are specially formulated for use in both new and high-mileage cars, and in turbocharged as well as normally aspirated engines.

SAE 5W-20 provides optimum fuel economy and durability performance. It is recommended for Ford and Honda vehicles specified for this viscosity grade.

SAE 5W-30 is recommended by the majority of auto manufacturers for most of their late model North American vehicles, under all weather conditions. It also is recommended for use at very low temperatures involving cold starting, and for high fuel economy.

Note: Always consult your owner's manual regarding viscosity grade.

Havoline Motor Oils meet:

- **API Service Categories**
 - SM, SL and all previous API "S" categories
 - Energy Conserving for API SM (SAE 5W-20, 5W-30)
- **ILSAC GF-4** (SAE 5W-20, 5W-30)
- **manufacturers' performance requirements**
 - **Ford**
 - ESE-M2C153-G (SAE 5W-30)
 - WSS-M2C153-F (SAE 5W-30)
 - WSS-M2C930-A (SAE 5W-20)
 - WSS-M2C929-A (SAE 5W-30)
 - **General Motors** GM 6094M (SAE 5W-30)
 - **Daimler Chrysler** MS6395L (SAE 5W-30)
 - **Japanese (JASO)** Valvetrain Wear
- **Department of Defense Commercial Item Description (CID)**
 - SAE J2362 (formerly CID A-A-52039¹) (SAE 5W-30)

1. Replaces MIL-L-46152

TYPICAL TEST DATA

SAE Grade	5W-20	5W-30
<i>CPS Number</i>	222197	222195
<i>MSDS Number</i>	8599	8599
API Gravity	32.3	32.2
Viscosity, Kinematic cSt at 40°C cSt at 100°C	45.5 8.0	64.8 10.8
Viscosity, Cold Crank, °C/Poise	-30/52	-30/57
Viscosity Index	148	159
Flash Point, °C(°F)	238(460)	232(450)
Pour Point, °C(°F)	-33(-27)	-36(-33)
Sulfated Ash, wt %	0.9	0.9
Base Number, ASTM D 2896	8.5	7.6
Phosphorus, wt %	0.077	0.077
Zinc, wt %	0.112	0.103

Typical test data are average values only. Minor variations which do not affect product performance are to be expected in normal manufacturing.