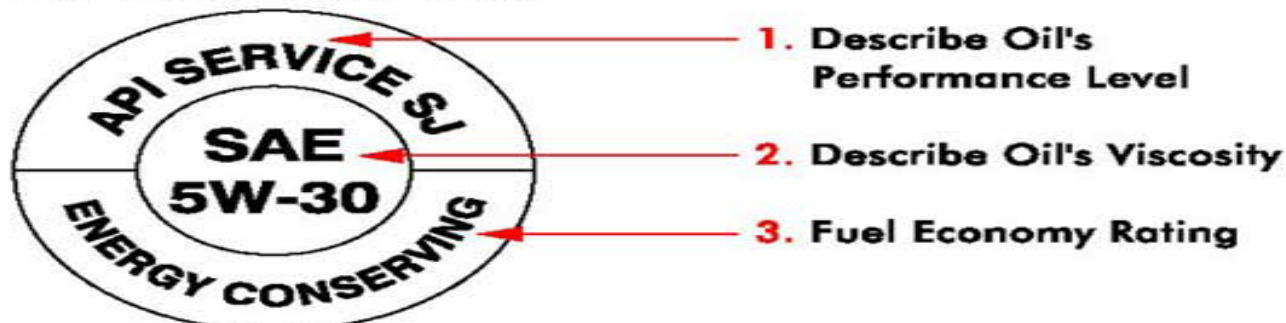


Motor Oil Guide

Additives API's Service Symbol and Certification Mark identify quality engine oils for gasoline and diesel-powered vehicles. Oils displaying the API Marks meet performance requirements set by U.S. and international vehicle and engine manufacturers and the lubricant industry. More than 500 companies participate in this voluntary program, which is backed by a marketplace sampling and testing program.



1. Describe Oil's Performance Level

2. Describe Oil's Viscosity

3. Fuel Economy Rating

1. Performance Level

Gasoline engine oil categories (for cars, vans, and light trucks with gasoline engines): Oils designed for gasoline-engine service fall under API's "S" (Service) categories. Look for current service category SJ. API SH may appear in the Service Symbol when preceded by a "C" category. See reverse for descriptions of current and obsolete API service categories.

Diesel engine oil categories (for heavy-duty trucks and vehicles with diesel engines): Oils designed for diesel-engine service fall under API's "C" (Commercial) categories. Look for current categories CH-4, CG-4, CF-4, CF-2 and CF.

2. Viscosity

The measure of an oil's thickness and ability to flow at certain temperatures.

3. Fuel Economy Rating

The "Energy Conserving" rating applies only to oils intended for gasoline-engine cars, vans and light trucks. Widespread use of "Energy Conserving" oils may result in an overall savings of fuel in the nation as a whole. (Applies primarily to SAE 5W-30 and 10W-30 grades.)

Guide to SAE Grades of Motor Oil for Passenger Cars

For Multigrade oils such as SAE 5W-30 and 10W-30 are widely used because, under all but extremely hot or cold conditions, they are thin enough for easy cranking at low temperatures and thick enough to perform satisfactorily at high temperatures.

Note that your vehicle's requirements may vary. Follow your vehicle manufacturer's recommendations on SAE oil viscosity.

If lowest expected outdoor temperature is

Typical SAE Viscosity Grades for Passenger Cars

5W-30 10W-30W

Look for the API Quality Marks every time you buy motor oil.



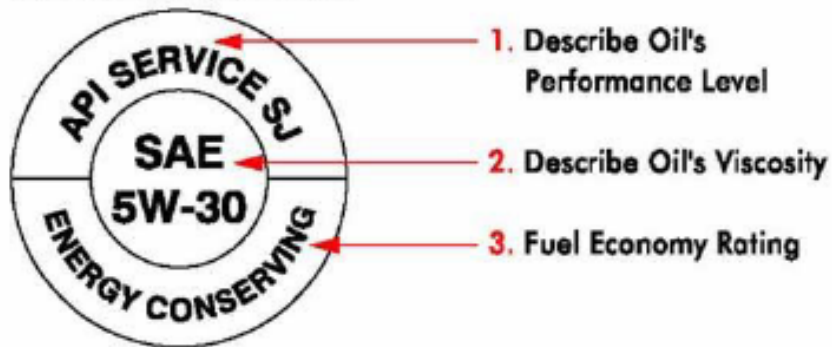
API Service Symbol indicates an oil's performance level, viscosity, and fuel economy rating.



API Certification Mark indicates that an oil meets current standards of the International Lubricant Standardization and

Motor Oil Guide

Additives API's Service Symbol and Certification Mark identify quality engine oils for gasoline and diesel-powered vehicles. Oils displaying the API Marks meet performance requirements set by U.S. and international vehicle and engine manufacturers and the lubricant industry. More than 500 companies participate in this voluntary program, which is backed by a marketplace sampling and testing program.



1. Performance Level

Gasoline engine oil categories (for cars, vans, and light trucks with gasoline engines): Oils designed for gasoline-engine service fall under API's "S" (Service) categories. Look for current service category SJ. API SH may appear in the Service Symbol when preceded by a "C" category. See reverse for descriptions of current and obsolete API service categories.

Diesel engine oil categories (for heavy-duty trucks and vehicles with diesel engines): Oils designed for diesel-engine service fall under API's "C" (Commercial) categories. Look for current categories CH-4, CG-4, CF-4, CF-2 and CF.

2. Viscosity

The measure of an oil's thickness and ability to flow at certain temperatures.

3. Fuel Economy Rating

The "Energy Conserving" rating applies only to oils intended for gasoline-engine cars, vans and light trucks. Widespread use of "Energy Conserving" oils may result in an overall savings of fuel in the nation as a whole. (Applies primarily to SAE 5W-30 and 10W-30 grades.)

**Guide to SAE Grades of
Motor Oil for Passenger Cars**

**Look for the API
Quality Marks every**

The current and previous API Service Categories are listed below. Vehicle owners should refer to their owner's manuals before consulting these charts. Engine oils are categorized based on their performance characteristics and the type of service for which they are intended: S category oils are suitable for gasoline engines and C category oils for diesel engines. Oils may have more than one performance level.

For automotive gasoline engines, the latest engine oil service category includes the performance properties of each earlier category. If an automotive owner's manual calls for an API SG or SH oil, an API SJ oil will provide full protection. For diesel engines, the latest category usually - but not always - includes the performance properties of an earlier category.

Gasoline Engines		
Category	Status	Service
SJ	Current	For all automotive engines presently in use. Introduced in the API Service Symbol in 1996.
SH	Obsolete	For model year 1996 and older engines. Valid when preceded by certain C categories.
SG	Obsolete	For model year 1993 and older engines
SF	Obsolete	For 1988 and older engines.
SE	Obsolete	For 1979 and older engines.
SD	Obsolete	For 1971 and older engines.
SC	Obsolete	For 1967 and older engines.
SB	Obsolete	For older engines. Use only when specifically recommended by the manufacturer.
SA	Obsolete	For older engines: no performance requirement. Use only when specifically recommended by the manufacturer.

Note : API intentionally omitted "SI" from the sequence of categories because the letters are commonly used to refer to international units of measurement.

Diesel Engines		
Category	Status	Service
CH-4	Current	Introduced December 1, 1998. For high-speed, four-stroke engines designed to meet 1998 exhaust emission standards. CH-4 oils are specifically compounded for use with diesel fuels running in