



PENNZOIL® HD

PRODUCT DESCRIPTION

PENNZOIL® HD are conventional, single grade motor oils meeting or exceeding the performance requirements of U.S. and foreign passenger car engines. They are formulated to help prevent deposits under all harsh service conditions. PENNZOIL® HD contains a balanced blend of select high performance, high VI base stocks and high performance additives. PENNZOIL® HD is formulated to overcome the extreme engine conditions caused by heavy use in mono-grade applications.

APPLICATION

PENNZOIL® HD is recommended for small and large engines that are fueled with gasoline or LPG that require and SAE 30, SAE 40 or SAE 50 engine oil. PENNZOIL® HD exceeds the performance levels of API SM (SAE 30, SAE 40 and SAE 50). It is also recommended for older engines where the owner's manual recommends API SL, SJ, SH, SG, SF, SE Service Classifications or any combination thereof.

PENNZOIL® HD is formulated to protect engines that have been converted to use propane, butane or LPG. These engines tend to produce a higher peak combustion temperature that can result in ash deposits forming in the combustion chamber. This condition can lead to increased valve temperatures and greater valve seat wear, which is inhibited by PENNZOIL® HD.

PENNZOIL® HD is suitable for use in hydraulic systems, air compressors, and industrial circulating systems requiring the use of detergent-type single-grade motor oils.

PENNZOIL® HD is available in three viscosity grades: SAE 30, SAE 40 and SAE 50. Viscosity recommendations vary according to temperature and engine manufacturer. Always consult your owner's manual for the correct viscosity choice.

BENEFITS

- Formulated for engine protection under harsh conditions such as stop-and-go driving
- Reduces internal engine friction
- Retards harmful deposit formation on vital engine parts
- Protects against rust and corrosion
- Helps prevent engine wear and extend engine life
- Protects engines under severe driving conditions
- Minimizes varnish build-up in emission control devices
- Eliminates the need for extra oil additives
- Controls high-temperature deposits in the ring belt and combustion chamber
- Recommended for engines fueled with butane, propane, or LPG fuels
- Meets or Exceeds API SM Service Classification (HD 30 and HD 40)
- Meets engine protection requirements of API SM Service Classification (HD 50)

**TYPICAL PHYSICAL AND CHEMICAL PROPERTIES
PENNZOIL® HD**

TEST	METHOD	TYPICAL RESULTS		
PENNZOIL® HD		30	40	50
SAE Viscosity Grade	SAE J300	30	40	50
API Service	SAE J183	SM	SM	
Gravity, °API	ASTM D-287	28.5	27.0	26.5
Specific Gravity @ 15.6°C(60°F)	ASTM D-287	0.88	0.89	0.90
Pounds per Gallon		7.36	7.43	7.46
Flash Point, °C(°F)	ASTM D-92	232(450)	235(455)	238(460)
Pour Point, °C(°F)	ASTM D-97	-30(-22)	-27(-17)	-27(-17)
Color	ASTM D-1500	7.0	7.0	7.5
Viscosity				
@ 40°C, cSt	ASTM D-445	98	165	240
@ 100°C, cSt	ASTM D-445	11.5	15.5	20.0
@ 100°F, SUS	ASTM D-445 & D-2161	475	800	1150
@ 210°F, SUS	ASTM D-445 & D-2161	68	84	96
Viscosity Index	ASTM D-2270	105	100	96
Material Number				
Bulk		3530	3540	3550