

# PennGrade® High Mileage



## Product Description

**PennGrade® High Mileage Motor Oils** maximize engine performance with premium base oils and optimized additive system to meet the lubricating demands of today's high mileage gasoline engines. **PennGrade® High Mileage Motor Oils** offer excellent anti-wear and shear stability properties, protection from engine sludge, varnish deposits and valve train component corrosion. **PennGrade® High Mileage Motor Oils** also offer exceptional resistance to thermal degradation, good anti-foaming characteristics and lower phosphorous levels for improved emissions systems performance in vehicles prone to consumption / oil leakage.

## Product Features and Benefits

**PennGrade® High Mileage Motor Oils** are premium quality synthetic blend gasoline engine oils specially formulated for older, high mileage engines (over 75,000 miles). As engines age and accumulate thousands of miles, issues such as oil consumption, oil leakage and spark plug fouling can occur. **PennGrade® High Mileage Motor Oils** are tailored with specific additives to counter these higher mileage issues. Additionally, **PennGrade® High Mileage Motor Oils** contain seal conditioners that help stop oil leaks by regenerating engine seals. They also offer increased oxidation stability to decrease oil consumption and prevent oxidative thickening of the oil.

**PennGrade® High Mileage Motor Oils** utilize an enhanced dispersant and detergent additive system that promotes engine cleanliness and protects against performance robbing sludge while minimizing engine varnish deposits. They also offer outstanding wear protection for worn (tired) engine components as well as exceptional oil burn-off defense to decrease oil consumption.

### Typical product attributes include:

- Possesses Seal Swell Agents for Engine Seal Conditioning
- Emissions System Protection (Lowered Phosphorous)
- LSPI (Low Speed Pre-Ignition) prevention technology
- Maximizes Engine Performance
- Exceptional Resistance to Thermal breakdown
- Increased Fuel Economy (Field Evaluated)
- Enhanced Detergency Package
- Synthetic Blend
- 100% Made in the USA



## Typical Applications

**PennGrade® High Mileage Motor Oils** are fully licensed in all of the following viscosity grades and specifications:

## Specifications

### PG HM 0W-20

*API Approvals*  
API SN Plus  
API SN  
ILSAC GF-5, Resource Conserving

### PG HM 5W-20

*API Approvals*  
API SN Plus  
API SN  
ILSAC GF-5, Resource Conserving

### PG HM 5W-30

*API Approvals*  
API SN Plus  
API SN  
ILSAC GF-5, Resource Conserving

### PG HM 10W-30

*API Approvals*  
API SN Plus  
API SN  
ILSAC GF-5, Resource Conserving

*Meets the Performance Requirements of:*  
Ford WSS-M2C947-A  
Ford WSS-M2C947-B1

*Meets the Performance Requirements of:*  
Ford WSS-M2C945-A  
Ford WSS-M2C945-B1

*Meets the Performance Requirements of:*  
Ford WSS-M2C946-A  
Ford WSS-M2C946-B1

## Typical Properties

SAE Viscosity Grade	J300	0W-20	5W-20	5W-30	10W-30
Viscosity @ 100°C, cSt	ASTM D445	8.1	8.7	10.2	10.1
@ 40°C, cSt	ASTM D445	42.7	50.2	60.7	64.2
Viscosity Index	ASTM D2270	165	152	157	143
Pour Point, °F (°C)	ASTM D97	-54 (-48)	-57 (-49)	-54 (-48)	-38 (-39)
Flash Point, °F (°C)	ASTM D92	446 (230)	410 (210)	430 (221)	459 (237)
Sulfated Ash, Weight %	ASTM D874	0.9	0.81	0.78	0.84
Specific Gravity @ 60°F	ASTM D4052	N/A	0.8577	0.8588	0.8624
CCS @ -35°C, cP	ASTM D5293	N/A	-----	-----	-----
CCS @ -30°C, cP	ASTM D5293	-----	4976	5557	-----
CCS @ -25°C, cP	ASTM D5293	-----	-----	-----	5163

### D-A Part Number:

Bulk	63111	63121	63131	63141
Tote – 330 Gal	63113	63123	63133	63143
Drum – 55 Gal	63112	63122	63132	63142
Bag-in-a-box – 6 Gal	63115	63125	63135	63145
Case – 4/1 Gal	N/A	63124	63134	N/A
Case – 12/1 Qt	63116	63126	63136	N/A

