

# Pennzoil Motorcycle 20W-50

## TECHNICAL DATA SHEET



PENNZOIL<sup>®</sup> MOTORCYCLE MOTOR OIL is a premium quality lubricant specially designed to protect motorcycle engines. It is formulated with a unique additive package chosen for exceptional wear protection, sludge and varnish resistance, and thermal stability. A special anti-foaming agent is included to reduce foaming and air entrainment at high engine speeds. This is particularly critical in high speed motorcycle engines, which can reach 12,000 rpm. Many motorcycles use the same oil for both the engine and transmission. Transmission gears place extremely high stress on the lubricating oil which can cause viscosity breakdown. PENNZOIL<sup>®</sup> MOTORCYCLE MOTOR OIL is formulated to resist this stress and provide outstanding protection against viscosity breakdown. When all these components are combined with Pennzoil's high quality petroleum basestocks, the result is a premium quality motor oil that meets the specific demands of motorcycle engines.

PENNZOIL<sup>®</sup> MOTORCYCLE MOTOR OIL is available in SAE grades 10W-40 and 20W-50 to cover the viscosity requirements for most manufacturers and climates.

### Performance, Features & Benefits

- Exceeds warranty requirements for BMW<sup>®</sup> Harley-Davidson<sup>®</sup> Honda<sup>®</sup> Kawasaki<sup>®</sup> Suzuki<sup>®</sup> and Yamaha<sup>®</sup> where API SH or SG oil is recommended
- Reduces heat, friction, and wear
- Gives excellent protection for transmissions and wet clutches
- Helps reduce foaming and air-entrainment in high speed engines
- Provides excellent protection for air cooled engines
- Multi-grade formula allows easier cold starts while maintaining high temperature film strength
- Outstanding protection against thermal and viscosity breakdown
- Protects against piston/cylinder scuffing
- Exceeds API service classifications SH/SG.
- Licensed for JASO MA (1998)

### Main Applications

PENNZOIL<sup>®</sup> MOTORCYCLE MOTOR OIL can be used in all 4-stroke motorcycle engines, including racing, high performance, street, and off road motorcycles. It can also be used in motorcycle transmissions when an API SF, SG, or SH motor oil is required.

PENNZOIL<sup>®</sup> MOTORCYCLE MOTOR OILS exceed the requirements of JASO MA-2 (2006).

### Specifications, Approvals & Recommendations

- API SF, SH, SG
- JASO MA-2

For a full listing of equipment approvals and recommendations, please consult your local Shell Technical Help Desk.

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## Typical Physical Characteristics

Properties	Method	Pennzoil Motorcycle 20W-50
API Service	SAE J183	SH, SG
Gravity, API	ASTM D287	29.2
Density @15°C	ASTM D1298	0.8804
Pour Point °C	ASTM D97	-30
Viscosity @40°C cSt	ASTM D445	167
Viscosity @100°C cSt	ASTM D445	20.2
Viscosity Index	ASTM D2270	140
Low Temperature Viscosity CCS Vis (cP) at @-15°C temperature cP	ASTM D5293	5350
HTHS Viscosity, cP (TBS @ 150°C, 10 <sup>6</sup> Sec <sup>-1</sup> ) @150°C cP	ASTM D4683	4.64
Shear Stability, % Vis Loss, Diesel Injector %Viscosity loss maximum	ASTM D6278	4.0

These characteristics are typical of current production. Ideally the future production will conform to Pennzoil's specification and advice on applications may be obtained from your Pennzoil representative.

## Health, Safety & Environment

### • Health and Safety

PENNZOIL® MOTORCYCLE MOTOR OIL is unlikely to present any significant health or safety hazard when properly used in the recommended application and good standards of personal hygiene are maintained.

Avoid contact with skin. Use impervious gloves with used oil. After skin contact, wash immediately with soap and water.

Guidance on Health and Safety is available on the appropriate Material Safety Data Sheet, which can be obtained from your Shell representative.

### • Protect the Environment

Take used oil to an authorised collection point. Do not discharge into drains, soil or water.

## Additional Information

### • Advice

Advice on applications not covered here may be obtained from your Shell representative.