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AMSOIL
The First in Synthetics®

DATA BULLETIN

20W-50 Synthetic V-Twin Motorcycle Oil

High-Performance Lubricant for Engines, Transmissions and Primary Chaincases

AMSOIL 20W-50 Synthetic V-Twin Motorcycle Oil is a premium oil designed for those who demand the absolute best lubrication for their motorcycles. It is the result of extensive research and is specially formulated to excel in all areas unique to motorcycles, including the high temperatures of air-cooled engines such as Harley-Davidson* V-twins, wet-clutch lubrication, extreme-pressure regions of gears and chains and rust common to short trips and storage. AMSOIL Synthetic Motorcycle Oil is multi-functional and fulfills the requirements of both domestic and foreign motorcycles.

AMSOIL, the leader in synthetic lubrication, produced the world's first API-qualified synthetic motor oil in 1972. Trust the extensive experience of AMSOIL, The First in Synthetics®, *to do the best job protecting your motorcycle.*



- **Resists** extreme heat
- **Retains** viscosity for excellent wear protection
- **Convenience** of one lubricant for all three sumps

Reduces Wear and Deposits

AMSOIL Synthetic V-Twin Motorcycle Oil contains a heavy treatment of anti-wear additives to reduce wear regardless of the operating conditions. It is thermally (heat) stable and contains maximum levels of oxidation inhibitor additives. After 250 hours (13,647 miles) on an engine dyno, AMSOIL Synthetic V-Twin Motorcycle Oil eliminated piston scuffing and wear for long engine life and maximum power (see image).

Withstands Extreme Heat

Big, powerful V-twin engines run extremely hot, especially in summer during stop-and-go rally or parade traffic. High heat breaks down oil formulated for standard service, inviting wear and performance-robbing deposits. AMSOIL Synthetic V-Twin Motorcycle Oil is formulated with naturally heat-resistant synthetic base oils that resist oxidation in extreme heat. Its unique additive system helps keep engines clean and running efficiently in the toughest riding conditions.

Extreme-Pressure Protection for Gears and Chains

AMSOIL Synthetic V-Twin Motorcycle Oil delivers exceptional protection in transmissions and primary chaincases. It is absolutely shear stable and will not thin out from mechanical activity. AMSOIL 20W-50 V-Twin Motorcycle Oil performs like a gear lube without the negative effects of extreme-pressure additives. In the FZG gear test, AMSOIL achieved a perfect score with a "zero" wear rating.

Delivers Superior Rust Protection

Motorcycles are prone to rust from storage, humidity and short drives. Rust can cause major damage such as roller bearing failure, wear, compression loss and blow-by. Good rust protection, however, comes by design and is not natural to motor oils. Unlike many motorcycle oils, AMSOIL Synthetic Motorcycle Oil contains special anti-rust agents. It passes the ASTM D1748 humidity cabinet rust test, demonstrating superior rust protection to help your engine achieve maximum performance and long life.

Helps Prevent Wear



After 250 hours (13,647 miles) of dyno testing, AMSOIL 20W-50 Synthetic V-Twin Motorcycle Oil protected against piston scuffing and wear for long engine life.

*All trademarked names and images are the property of their respective owners and may be registered marks in some countries. No affiliation or endorsement claim, express or implied, is made by their use. All products advertised here are developed by AMSOIL for use in the applications shown.

Order by Phone 1-800-956-5695 - Give Operator Reference #5983322

TYPICAL TECHNICAL PROPERTIES

AMSOIL 20W-50 Synthetic V-Twin Motorcycle Oil (MCV)

Kinematic Viscosity @ 100°C, cSt (ASTM D445)	18.5
Kinematic Viscosity @ 40°C, cSt (ASTM D445)	132.8
Viscosity Index (ASTM D2270)	156
Pour Point °C (°F) (ASTM D97)	-41 (-42)
Flash Point °C (°F) (ASTM D92)	228 (442)
High-Temperature/High-Shear Viscosity (ASTM D5481 @ 150°C, 1.0 X 10^6 s^{-1}), cP	5.6
Four-Ball Wear Test (ASTM D4172 @ 40 kgf, 150°C, 1800 rpm, 1 hr), Scar, mm	0.4
FZG (ASTM D5182), Load Stage Pass (Wear in mm)	12+ (0 mm)
NOACK Volatility, % weight loss (g/100g) (ASTM D5800)	4.2
Foam (ASTM D892, Sequence I, II & III)	0/0, 20/0, 0/0
Shear Stability Kurt Orbahn (ASTM D6278), % viscosity change 120 cycles	0.25
Rust Test - Humidity Cabinet (ASTM D1748)	No Rust, Pass
Total Base Number	11.6

Provides Excellent Wet-Clutch Performance

AMSOIL 20W-50 Synthetic V-Twin Motorcycle Oil contains no friction modifiers and promotes smooth shifting and positive clutch engagement. It controls heat and helps prevent slippage and glazing, while its high TBN helps improve clutch life by resisting the acids that can degrade clutch material.

APPLICATIONS

Use in motorcycles that require 15W-50 or 20W-50 motorcycle oil and any of the specifications listed below, including those made by Harley-Davidson*, Buell*, Ducati*, Aprilia*, BMW* and Triumph*.

JASO MA/MA-2 • API SG/SL/CF/CG-4 • ISO-L-EMA2

Do not use where an API GL-4 or GL-5 gear oil is required.

COMPATIBILITY

AMSOIL 20W-50 Synthetic V-Twin Motorcycle Oil is compatible with other synthetic and conventional motor oils. Mixing AMSOIL oils with other oils, however, will shorten the oil's life expectancy and reduce its performance benefits. AMSOIL does not support extended drain intervals where oils have been mixed.

Aftermarket oil additives are **not recommended** for use with AMSOIL Synthetic Motorcycle Oils.

SERVICE LIFE

Recommended for use up to twice the motorcycle manufacturer change interval (miles/hours) or one year, whichever comes first, in engines, transmissions and primary chaincases. For Big Twin Harley-Davidson transmissions only, follow the Harley-Davidson recommended drain interval for synthetic oil of up to 20,000 miles or one year, whichever comes first. When using an engine filter other than AMSOIL Ea®, change the filter at standard intervals.

For off-road use, change AMSOIL 20W-50 Synthetic V-Twin Motorcycle Oil at motorcycle manufacturer-recommended intervals.

Racing or modified engines are excluded from extended drain interval recommendations. Oil changes are at the owner's discretion.

WARRANTY SECURE™

AMSOIL 20W-50 Synthetic V-Twin Motorcycle Oil is Warranty Secure, keeping your factory warranty intact. AMSOIL 20W-50 Synthetic V-Twin Motorcycle Oil is a high-performance replacement for vehicle manufacturer-branded products and is also backed by the AMSOIL Limited Warranty. For details, visit www.amsoil.com/warrantysecure.

HEALTH & SAFETY

This product is not expected to cause health concerns when used for the intended applications and according to the recommendations in the Safety Data Sheet (SDS). An SDS is available via the Internet at www.amsoil.com or upon request at (715) 392-7101. **Keep Out of Reach of Children.** Recycle used oil and bottle.

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