

# AMSOIL®

*The First in Synthetics®*

## MOTORCYCLE PRODUCTS



***AMSOIL synthetic motorcycle oils  
deliver maximum protection,  
power and performance  
for all makes of motorcycles.***

# AMSOIL Synthetic 20W-50 and 10W-40 Motorcycle Oils

## Superior Wear Protection for Motorcycles.

AMSOIL Synthetic Motorcycle Oils are formulated with premium synthetic base stocks and high performance additive technology that provide superior multi-functional benefits for the special requirements of motorcycle applications. These independent and exclusive AMSOIL formulations provide second-to-none viscosity protection for hot-running American and foreign motorcycle engines, transmissions and primary chaincases.

AMSOIL 20W-50 Synthetic Motorcycle Oil (MCV) is recommended for Harley-Davidson, Buell, KTM, Ducati, BMW, Aprilia and Triumph motorcycles calling for a 15W-50 or 20W-50 viscosity, providing superior protection in engines, transmissions and primary chaincases.

AMSOIL 10W-40 Synthetic Motorcycle Oil (MCF) is recommended for Honda, Kawasaki, Yamaha, Suzuki, Victory, BMW, Husqvarna and KTM motorcycles calling for a 10W-40 or 20W-40 viscosity, providing superior protection in engines and transmissions.

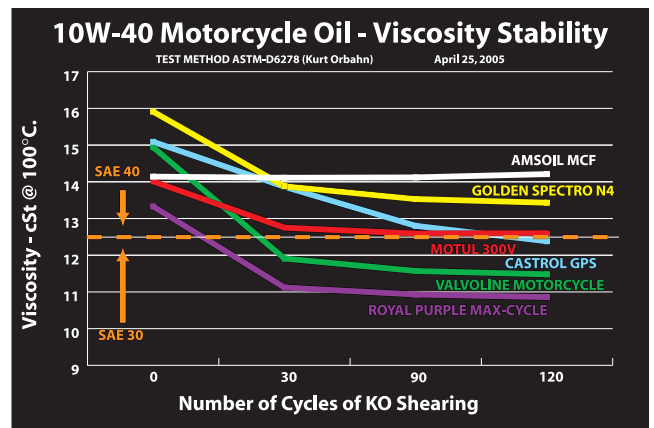
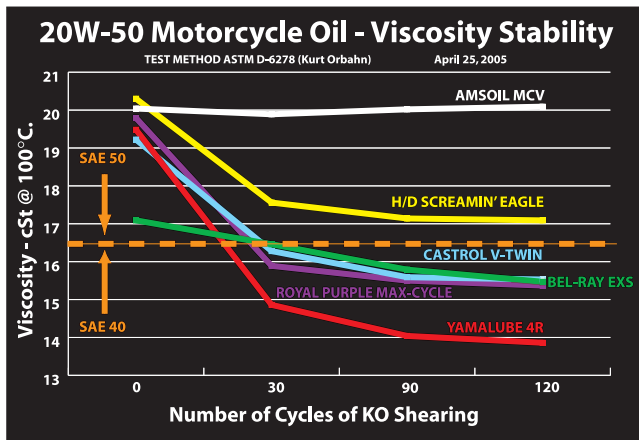
AMSOIL 10W-40 Synthetic Motorcycle Oil is also an exceptional product for any two-cycle motorcycle transmissions requiring a 10W-40 lubricant.

### MAXIMUM TRANSMISSION PROTECTION

AMSOIL Synthetic Motorcycle Oils not only provide superior protection for motorcycle engines, they also provide superior gear protection, meeting API GL-1 and SAE 80W/90 (MCF) and SAE 90 (MCV) gear lube requirements.



Viscosity is the most important characteristic of a lubricant. Motorcycle gears create a shearing effect that causes permanent oil viscosity loss. This thinning effect reduces the oil's ability to prevent metal-to-metal contact and wear. AMSOIL Synthetic Motorcycle Oils exhibit absolute shear stability as measured by the industry recognized Kurt Orbahn shear stability test (ASTM D-6278). They provide superior protection compared to competitive oils and eliminate the need for separate gearbox or chaincase oils.

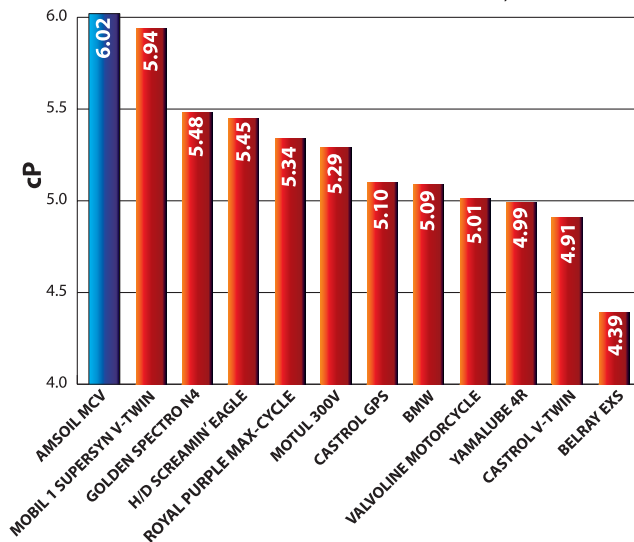


## 20W-50 Motorcycle Oil - High Temperature Viscosity Protection

Higher values reflect better film strength.

ASTM TEST METHOD D-4683

March 16, 2005

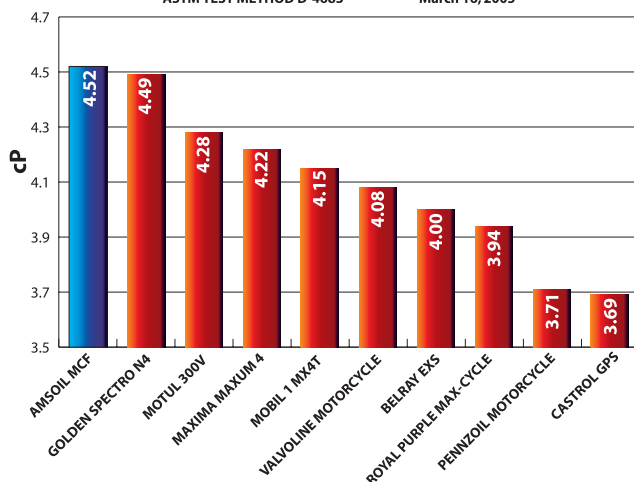


## 10W-40 Motorcycle Oil - High Temperature Viscosity Protection

Higher values reflect better film strength.

ASTM TEST METHOD D-4683

March 16, 2005



The high temperatures and tight tolerances common to motorcycle applications also affect viscosity. The High Temperature/High Shear (HTHS) Test (ASTM D-4683) measures a lubricant's viscosity under severe high temperature and shear conditions. The more resistant an oil is to high-temperature viscosity loss, the better it protects, and even a HTHS difference of 0.1 cP makes a significant difference.

AMSOIL Synthetic Motorcycle Oils exhibit the highest HTHS viscosities of competing synthetic and conventional motorcycle oils. They provide the best high-temperature viscosity protection, giving motorcycle owners peace-of-mind during extensive idle times or when riding in hot weather conditions.

## EXCELLENT WET-CLUTCH PERFORMANCE

Many motorcycles utilize a clutch that is immersed in the motor oil. The friction modifiers present in many automotive motor oils and the extreme pressure addi-

tives present in EP gear lubricants produce a low coefficient of friction between the clutch discs and plates, resulting in clutch slippage and glazing. Slippage leads to increased operating temperatures and reduced clutch life. AMSOIL Synthetic Motorcycle Oils are formulated without friction modifiers, providing positive clutch engagement, longer equipment life and reduced temperatures. AMSOIL Synthetic Motorcycle Oils meet the clutch compatibility requirements mandated by JASO MA/MA2 and ISO standard ISO-L-EMA2.

## EXCELLENT CORROSION PROTECTION

Most motorcycles spend the majority of their lives either parked or in storage, but most motorcycle oils fail to address corrosion problems. Corrosion protection during storage and in humid conditions is essential to extending equipment life. AMSOIL Synthetic Motorcycle Oils are formulated with specialized additive technology that not only protects against corrosion and acids during operation, but also provides exceptional protection during storage. The ASTM D-1748 Rust Test measures a lubricant's ability to protect against rust and corrosion. A standard metal reference coupon is immersed in the test oil before being placed in a humidity cabinet for 24 hours at 120° F. As seen in the photos, the reference coupon treated with AMSOIL 20W-50 Synthetic Motorcycle Oil showed no signs of rust and corrosion, while the competitor failed the test.

AMSOIL 20W-50 (MCV)



Castrol GPS 20W-50



TEST DATE: APRIL 20, 2005

## OUTSTANDING HEAT RESISTANCE

Motorcycles operate in demanding, high-heat conditions that require robust high-temperature deposit control additives. While many conventional oils break down and oxidize when faced with high temperatures, causing formation of carbon and sludge deposits, AMSOIL Synthetic Motorcycle Oils effectively withstand oil breakdown and oxidation, keeping equipment running cooler and minimizing oil consumption, thickening and emissions. Air-cooled engines get especially hot while idling in traffic, commonly reaching temperatures of 270° F or higher. The extra margin of protection provided by AMSOIL Synthetic Motorcycle Oils is especially important for hot-running air-cooled motorcycle engines.

## FOAM CONTROL

High engine speeds and transmission gears in motorcycles churn the oil, suspending air and causing foam. When this oil and air mixture is drawn into a loaded area, the air compresses and decreases the thickness of the oil film, compromising wear protection. In addition, suspended air promotes oil oxidation, reducing its service life. AMSOIL Synthetic Motorcycle Oils provide outstanding foam control and are formulated with anti-foam agents that allow for quick air release. They provide long term lubricating protection in high speed, high RPM conditions.

## UNSURPASSED WEAR PROTECTION

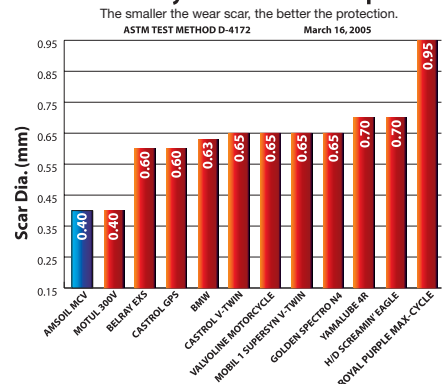
The Four Ball Wear Test (ASTM D-4172) determines the wear protection properties of a lubricant. The smaller the average wear scar, the better the wear protection provided by the lubricant. AMSOIL Synthetic Motorcycle Oils produce significantly smaller wear scars than competing motorcycle oils, providing unsurpassed protection against engine wear, reducing maintenance costs and extending equipment life.

## COST EFFECTIVE

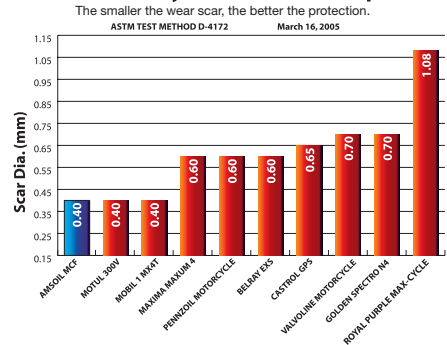
AMSOIL Synthetic Motorcycle Oils provide excellent cost effectiveness and are cost competitive with competing high-end motorcycle oils. The unmatched protection and performance provided by AMSOIL Synthetic Motorcycle Oils is excellent insurance for today's expensive motorcycles and custom bikes.

AMSOIL Synthetic Motorcycle Oils are recommended for twice the manufacturer's recommended drain interval for on-road motorcycles.

### 20W-50 Motorcycle Oil - Wear Comparison



### 10W-40 Motorcycle Oil - Wear Comparison



### AMSOIL SYNTHETIC MOTORCYCLE OILS

- Excellent for roller bearings and does not cause "skate" or "float" in V-Twin Engines
- Prevents foaming in high-RPM engines
- Eliminates the need for multiple lubricants
- Absolute shear stability maintains protective viscosity in high heat, high shear conditions
- Better performance and price than competitive motorcycle oils
- Recommended for twice the manufacturer's recommended drain interval for on-road motorcycles
- Provide exceptional protection against rust and corrosion during storage
- Robust anti-wear additive packages provide superior wear protection and longer equipment life

## AMSOIL PRODUCTS FOR ALL HARLEY DAVIDSON APPLICATIONS

AMSOIL 20W-50 Advanced Synthetic Motorcycle Oil provides the ultimate in protection and performance for new and recent models of Harley-Davidson bikes, but older engine generations require a different oil. AMSOIL provides gear lube and motor oils for all Harley-Davidson models.



AHR

### AMSOIL SAE 60 SYNTHETIC SUPER HEAVY WEIGHT RACING OIL

AMSOIL SAE 60 Synthetic Super Heavy Weight Racing Oil (AHR) is a high-viscosity oil designed for high-horsepower engines. It resists the thinning effects of fuel dilution and provides unsurpassed wear protection, friction reduction and more power. AMSOIL SAE 60 Synthetic Super Heavy Weight Racing Oil is highly resistant to thermal degradation and oxidation.



SVO



SVT

### AMSOIL SEVERE GEAR™ SYNTHETIC EP GEAR LUBES

AMSOIL Severe Gear™ Synthetic EP Gear Lubes (SVG, SVT, SVO) are specifically engineered for high demand applications. Their superior lube "film strength" combined with extra additives protects gears and bearings from scoring and wear. They resist high heat and possess excellent cold flow properties. AMSOIL Severe Gear Synthetic EP Gear Lubes outperform all conventional gear lubes.

Harley Davidson Models	First	Second	Third
<b>Flathead</b>			
Engine	AHR	MCV	—
Transmission	SVT	SVO	—
<b>Knucklehead</b>			
Engine	AHR	MCV	—
Transmission	SVT	SVO	—
<b>Panhead</b>			
Engine	AHR	MCV	—
Transmission	SVT	SVO	—
<b>Shovelhead</b>			
Engine	AHR	MCV	—
Transmission	SVT	SVO	—
<b>Evolution 1340, Big Twins 1450, and Revolution-V-Rods</b>			
Engine	MCV	—	—
Transmission	MCV	SVT	SVO
Primary Chain Case	MCV	—	—
<b>Ironhead &amp; Evolution Sportsters</b>			
Engine, Transmission/Chain Case	MCV	—	—

First: AMSOIL preferred recommendation  
Second: Option two  
Third: Option three

# AMSOIL 2-Cycle Oils

Today's high-stress, high-revving, two-cycle motorcycle engines demand superior lubrication for optimal performance. Two-cycle engines in motorcycles are frequently pushed to severe operating conditions and abuse which results in high engine temperatures and dirty operating conditions.

AMSOIL Synthetic 2-Cycle Oils provide maximum protection and performance in two-cycle gasoline engines. AMSOIL Synthetic 2-Cycle Oils control engine operating temperatures, increase power output and keep engines cleaner than petroleum oils. AMSOIL Synthetic 2-Cycle Oils also provide maximum oxidation protection, anti-corrosive characteristics and improved operation in low temperatures.

## RESIST THERMAL BREAKDOWN FROM HEAT

AMSOIL Synthetic 2-Cycle Oils resist oil breakdown caused by heat to prevent the formation of varnish and carbon deposits. AMSOIL Synthetic 2-Cycle Oils also control engine temperatures to inhibit power-robbing thermal expansion in hard-driven engines. This protection reduces maintenance costs and helps engines last longer.

## RESIST HIGH-TEMPERATURE DEPOSITS

AMSOIL Synthetic 2-Cycle Oils promote clean burning. They inhibit the formation of varnish, carbon or deposit residues. Spark plug fouling and excessive carbon buildup on piston domes, exhaust ports and valving are virtually eliminated. Rings remain free for excellent compression and combustion.

## REDUCE WEAR THROUGHOUT THE ENGINE

AMSOIL Synthetic 2-Cycle Oils protect pistons and rings from wear caused by metal-to-metal contact under the hottest loaded conditions. The lubricity properties in AMSOIL Synthetic 2-Cycle Oils provide a durable film that reduces friction and protects moving parts against wear.

## REDUCE SMOKE, ODOR AND EMISSIONS

AMSOIL Synthetic 2-Cycle Oils burn clean, minimizing smoke, odor and emissions.



Even though AMSOIL 2-Cycle Oils have been optimized for specific applications, they are multi-functional and recommended for use in many areas. The ratings for each oil's performance abilities per application are as follows:

**Excellent:** The primary recommendation for the oil. The oil is specifically designed for the operating conditions of the motors in these markets. There is only one "Excellent" recommendation per category.

**Very Good:** A main recommendation for the oil. Identifies an oil that is very good for the operating conditions of these motors.

**Good:** A secondary recommendation for an oil. The oil was not specifically designed for these applications. However, the chemistry in the oil is suited to the operating conditions of these motors.

**Racing:** Excellent for racing or modified motors. Very good for recreational use.

**AMSOIL DOMINATOR (TDR)** is excellent for motorcycle racing applications. It is very good for recreational use.

**AMSOIL INTERCEPTOR (AIT)** is excellent for two-cycle motorcycle applications.

**AMSOIL SABER PROFESSIONAL (ATP)** is very good for pre-mix only two-cycle motorcycle applications.

## AMSOIL MOTORCYCLE OIL WHITE PAPER

AMSOIL has released the most comprehensive study of motorcycle oils ever produced.

See how 28 of the top-selling motorcycle oils compare in the most critical areas of motorcycle oil performance. This no-frills study is designed to help consumers make informed decisions when selecting motorcycle oils. There is no hype, no sales pitch, just facts. Never before has so much information on motorcycle oils been delivered in one easy-to-understand source.



See for yourself how the full range of the most popular motorcycle oils stand up to the hot running, hard pounding, high RPM conditions of motorcycle applications. This complete battery of tests includes wear protection, rust protection, oxidation stability and more ...

### G2156 MOTORCYCLE OIL STUDY

Stock #	U.S. Price	Can. Price
G2156	1.15	1.40

# AMSOIL Fogging Oil and Gasoline Stabilizer

## AMSOIL ENGINE FOGGING OIL

Two- and four-stroke motorcycles are commonly operated seasonally or infrequently, then stored for long periods of time. During these periods of inactivity, and as a result of fluctuations in ambient temperatures, water vapor can form condensate within the engine, eventually becoming surface corrosion on cylinder liners, piston rings, anti-friction bearings and steel/iron contact surfaces on rotational seals.

AMSOIL Engine Fogging Oil (FOG) offers superior film retention, providing long-term protection against corrosion and dry starts, extending engine life and reducing operating expenses. Its aerosol spray formulation offers easy and clean application, while reaching more components and offering better distribution than straight motor oil.

AMSOIL Engine Fogging Oil applications include, but are not limited to, motorcycles, snowmobiles, ATVs, outboard motors, stern drive and inboard marine engines, personal watercraft, lawn equipment, cars, trucks and much more.



FOG

AST

## AMSOIL GASOLINE STABILIZER

It is difficult to drain all of the fuel from equipment before storage, and doing so would expose the system to other problems, including the formation of rust and corrosion on the bare metal in the tank and fuel system and the drying and cracking of gaskets and seals. Some fuels are pre-treated with oxidation inhibitors that allow them to be stored for short periods without forming excessive deposits, while other fuels have no inhibitors at all.

AMSOIL Gasoline Stabilizer (AST) reduces the oxidation process that occurs when fuel is stored for extended periods. It prevents the formation of varnish and sludge which can clog injectors, stick floats and cause poor engine performance. AMSOIL Gasoline Stabilizer is ideal for stored seasonal equipment such as motorcycles, snowmobiles, lawnmowers and boats. The treat rate is one ounce with every 2.5 gallons of fuel. One bottle treats 40 gallons.

## Twin Air Air Filters

Twin Air air filters provide motorcycles and ATVs with maximum intake protection in any riding conditions. The coarse open-pore foam catches airborne dirt, grime and sand, while the fine open-pore inner foam acts as a second filter to trap the smallest particles while ensuring maximum air passage. Twin Air air filters are constructed with an exclusively formulated adhesive that withstands repeated cleanings. Their thick, flat-foam greaseless sealing ring ensures maximum contact with the airbox while acting as a breathable gasket for increased air passage. Unlike competitors' two piece designs, the fused outer and inner elements of Twin Air air filters prevent dirt and grime from being lodged between layers, preventing trapped particles from restricting airflow and keeping even the tiniest dirt particles from entering an engine and destroying cylinders and piston rings.



## TWIN AIR CLEANING PRODUCTS

AMSOIL also offers several Twin Air filter cleaning and oiling products.

**Liquid Power Filter Oil** starts thin for a deep, even penetration, then dries to an even coating. This high-tack shield traps dirt, grit and dust.

**Liquid Bio Power** biodegradable air filter oil is the first biodegradable air filter oil that works in all riding conditions. Liquid Bio Power prevents dirt, dust and even water from entering carburetors. Its alcohol base allows easy, even penetration, then dissipates quickly to form a super-sticky, dirt-grabbing shield. Available in spray or liquid form.

**Liquid Dirt Remover** is formulated to quickly cut through Liquid Power, loosen the dirt and flush filters clean. It will not harden or damage filter foam.

**Liquid Bio Dirt Remover** is a biodegradable air filter cleaner. It can be used with a washing machine or when washing by hand in a bucket. Liquid Bio Dirt Remover is a granular water-soluble cleaner that can go right down the drain without clogging or harming the environment.

**Spray Contact Cleaner** is designed to clean the air box and surrounding areas. It quickly and effectively removes excess dirt and grime.

## THE SYSTEM

The System is the full filter care solution. This filter cleaning kit comes with everything needed to clean Twin Air air filters in a sturdy storage box complete with carrying handles. Each kit includes a Twin Air cleaning tub, oiling tub, Liquid Dirt Remover, Liquid Power Filter Oil, contact cleaner and rubber gloves.

The cleaning tub is resealable and comes with a filter tray that allows dirt to sink to the bottom, away from filters. The oiling tub allows filters to be submerged for easy, even oiling. When not in use, the oiling tub is resealable, enabling users to save unused filter oil.

# AMSOIL Ea Motorcycle Filters

## EA MOTORCYCLE AIR FILTERS

The filtration media in the Ea Motorcycle Air Filter is pleated and has epoxy-coated wire on the face and back of the media for additional strength and stiffness. High-quality plastisol potting compounds bond the pleat packs to the plastic or aluminum side plates. The S&S style round filters are manufactured with high-quality plastisol that bonds the media to the wire backing and sealing area.

## SUPERIOR FILTRATION

The synthetic nanofiber media featured in AMSOIL Ea Motorcycle Air Filters have sub-micron diameters and small inter-fiber spaces, resulting in more contaminants being captured on the surface of the media and lower restriction. Cellulose, wetted gauze and foam filters are larger and have larger spaces between the media that cause contaminants to load in the depth of the filter, resulting in airflow path plugging, higher restriction and lower capacity.

## CLEANABLE FOR LONG SERVICE LIFE

AMSOIL Ea Motorcycle Air Filters are cleanable, providing unsurpassed protection and long service life. AMSOIL Ea Motorcycle Air Filters should be cleaned every year or according to operating conditions. Operation in extremely dusty or dirty environments may require more frequent cleaning. Ea Motorcycle Air Filters should be changed every four years.

## CLEANING INSTRUCTIONS

AMSOIL Ea Motorcycle Air Filters are cleaned in the same manner as AMSOIL Ea Air Filters for cars and light trucks: with a vacuum or shop air.

To clean with a vacuum, place the filter on a flat surface and carefully vacuum the filter media on the dirty side where the incoming airflow enters the filter. Using a vacuum with too much suction may damage the filter.

To clean with shop air, hold the filter with one hand and carefully blow the filter media at a 45-degree angle on the clean side of the filter using low-pressure (15 to 20 psi) shop air. Using too much air pressure will damage the filter media.



## SUPERIOR ALTERNATIVE

AMSOIL currently provides eight Ea Motorcycle Air Filters manufactured for the most popular Harley Davidson models from the years 1988 to 2006, including motorcycles equipped with S&S carburetors and air cleaner housings.

## EA MOTORCYCLE OIL FILTERS

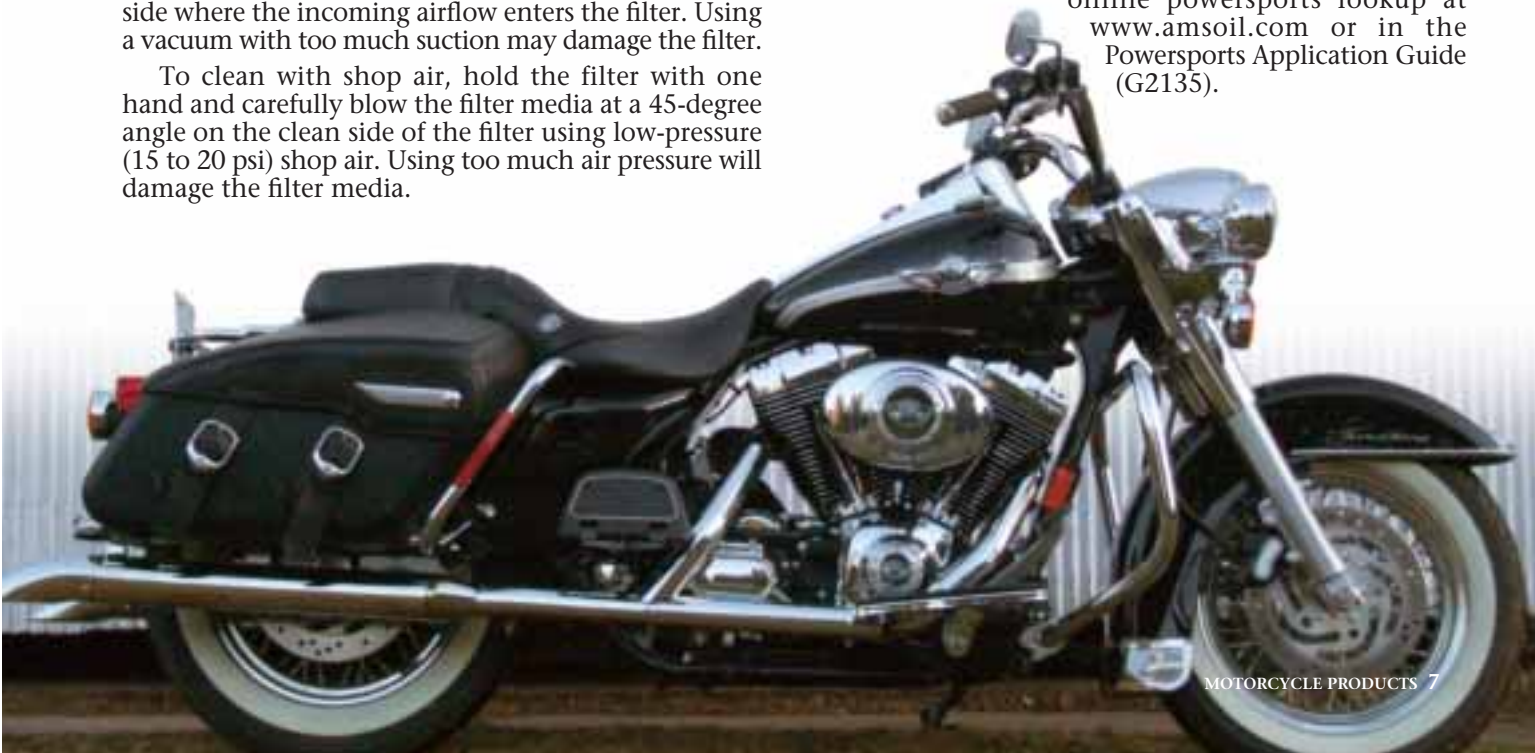
Ea Motorcycle Oil Filters feature a specially constructed silicone anti-drainback valve and a nitrile sealing gasket to go along with the full-synthetic Ea nanofiber media. The anti-drainback valve provides excellent protection during startup and remains flexible in all temperatures, and the nitrile sealing gasket resists chemical breakdown, providing excellent durability and ensuring long filter life.

## SUPERIOR FILTRATION

The unique construction and full-synthetic media of AMSOIL Ea Motorcycle Oil Filters allow them to provide unmatched performance in motorcycles and other powersports equipment. EaOM Filters last longer, stop smaller dirt particles and offer less restriction than other filters. Ea Motorcycle Oil Filters provide filtering efficiency of 98.7 percent at 15 microns, outperforming the best cellulose/synthetic blend media on the market. For maximum protection, AMSOIL recommends changing Ea Motorcycle Oil Filters at every oil change.

## SUPERIOR ALTERNATIVE, MULTIPLE APPLICATIONS

AMSOIL Ea Motorcycle Oil Filters provide unsurpassed protection for motorcycles, ATVs, four-stroke personal watercraft, four-stroke snowmobiles and four-stroke outboards. AMSOIL currently provides 16 Ea Motorcycle Oil Filters manufactured for the most popular powersports applications, eight of which are chrome plated. Application information can be found in the online powersports lookup at [www.amsoil.com](http://www.amsoil.com) or in the Powersports Application Guide (G2135).



# Motorcycle Accessory Products

## SHOCK THERAPY SUSPENSION FLUID (STL, STM)

Formulated for fade-free dampening and smooth rebounds in racing and recreational applications. Controls friction and heat, reduces wear, scuffing, frictional energy loss and heat buildup and prevents fade more effectively than conventional suspension fluids. Ideal for both front forks and shocks. Available in two viscosity grades.



STL



AMP

## MP METAL PROTECTOR (AMP)

Disperses water and protects metal surfaces from rust and corrosion. Penetrates existing rust buildup and dries wet electrical systems.

## SERIES 2000 OCTANE BOOST (AOB)

Maximizes power, reduces engine knock and improves ignition and engine response. Helps fuel burn cleaner and removes carbon deposits.



AOB

## HEAVY DUTY METAL PROTECTOR (AMH)

A heavy-duty spray lubricant fortified with special rust and corrosion inhibitors. It penetrates and adheres to metal surfaces, leaving a long-lasting protective coating. Ideal for motorcycle, bicycle and ATV chains.



AMH

## SERIES 2000 RACING GREASE (GRG)

Ultimate protection for hard-driven, high-performance motorcycles. Dramatically reduces friction and wear for improved performance.



GRG



APF

## POWER FOAM (APF)

Improves starting and performance. Cleans dirty intake systems and spark plugs, frees sticky valves. Also removes gum, varnish and carbon deposits from engine exterior surfaces.

## MIRACLE WASH WATERLESS WASH AND POLISH (AMW)

A unique dry car wash and polish delivers outstanding performance with quick, easy and economical applications. No water required.

Incredibly easy to use: simply apply, use a clean terry cloth towel to spread Miracle Wash and wipe clean with a second terry cloth towel. No scratching, no scraping. It's a miracle.



AMW

AMSOIL products and Dealership information are available from your local AMSOIL Dealer.

