



## *Product One Voice Q&A*

**Product:** AMSOIL Formula 4-Stroke, Scooter Oil (ASO)

**Product Area:** Power Sports

**Created:** 3/9/07

**Published Date:** 3/19/07

**Revised:** 4/23/07

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**1. Question:**

Why did AMSOIL develop a new product specifically for scooters?

**Answer:**

The scooter market is one of the fastest growing segments within the transportation industry today. These new high tech vehicles are easy to use, relatively inexpensive, attain incredible gas mileage and offer noteworthy performance. Scooter sales have increased dramatically in many parts of North America and throughout the world. . AMSOIL is leading the way in providing a top-of-the-line product formulated specifically for this application. Once again, AMSOIL proves to be the “First in Synthetics.”

The growth in this market is a perfect opportunity for AMSOIL Dealers by offering a product that meets the needs of this special application. As current gasoline prices continue to increase, many motorists are turning to scooters as a means to save money. Scooter popularity can also be attributed to a high interest among young people who have graduated from popular foot-propelled sidewalk scooters.

The motorcycle manufacturers have responded to the demand by expanding their scooter offerings. The heightened interest is also evident with increased advertising and news articles. And while scooters have long been popular in coastal areas and warmer climates, more are now being sold in states with colder climates.

**2. Question:**

What is the product code for the new AMSOIL Formula 4-Stroke Scooter Oil?

**Answer:**

The product code is ASO.

**3. Question:**

Is the new AMSOIL Scooter Oil relabeled automotive oil?

**Answer:**

No. This oil has been developed specifically to meet the unique needs of modern high tech motorized scooter applications, including high temperatures and high rpms. Also, because many scooter owners use these machines on a sporadic basis, it is important to have a product that is designed to provide protection while the scooter is not in use.

**4. Question:**

What is the difference between Formula 4-Stroke® 10W-40 Synthetic Scooter Oil (ASO) and 10W-40 Synthetic Motorcycle Oil (MCF)?

**Answer:**

Although scooters and motorcycles place similar demands on engine oil, the degree of stress each application places on the oil differs. For example, the operating speeds of scooters tend to max out around 5-7,000 rpms, while café style motorcycles can easily redline in the 12-14,000 rpm range. In addition, though the state-of-tune of scooters is significantly higher than in the past, it pales in comparison to the horsepower per cc of displacement realized by today's high powered motorcycles. In order to meet these differences most effectively, the formulation of AMSOIL Formula 4-Stroke Synthetic Scooter Oil has been optimized to more closely match the performance levels demanded by scooters.

**5. Question:**

Can Formula 4-Stroke® 10W-40 Synthetic Scooter Oil (ASO) and 10W-40 Synthetic Motorcycle Oil (MCF) be interchanged?

**Answer:**

Yes, to some degree they can. MCF is more than suitable for use in scooter applications, but it may be considered overkill. Because it is unlikely that a scooter application will ever present the level of severity for which MCF was designed to handle, the issue of cost efficiency enters in. There is, however, a contingent of owners with tricked out scooters looking for maximum performance regardless of cost. For that group, MCF is well worth consideration. On the other hand, ASO will perform satisfactorily in motorcycle applications. In fact, the level of performance and protection offered by ASO exceeds that found in conventional motorcycle oils. ASO, however, was not designed to offer the higher degree of safety margin AMSOIL believes is required by many high performance motorcycle applications. Also, from the standpoint of consumer perception, it is unlikely that an owner of a \$20,000 crotch rocket would be inclined to use an oil that is directed toward scooter applications.

**6. Question:**

What is so different about the operation of a scooter that makes them special?

**Answer:**

The operating conditions of new high tech scooters are similar to motorcycles in many respects. Both differ from the demands of automobile engines. Here are a few of the differences between the two-wheeled and four-wheeled applications.

- Many scooter engines operate at 9,000 rpms. These speeds tear conventional oils apart. They also promote foaming, which reduces oil's lubricity which shortens both the life of the oil and the scooter engine.
- Many scooters are air-cooled and their operating temperatures can far exceed those of car engines. This is especially evident when the scooter is idling and air is not flowing over the engine.
- Many scooters sit idle for weeks and sometimes months at a time and they need extra corrosion protection over these periods on inactivity.
- Scooter transmissions are nothing but gear sets. These gears shear the oil causing it to thin out, and most scooters use the same oil in both their transmissions and engines.
- Scooters contain clutch materials that have special frictional properties. These frictional clutches immersed in oil are common on scooters.

- Scooters have different needs and place different demands on engine oils. They need oil with the ability to meet those special needs: AMSOIL Formula 4-Stroke Scooter Oil.

**7. Question:**

What benefits does the new Scooter Oil provide?

**Answer:**

High temperature protection – a must for scooters, which mainly utilize hot running air-cooled engines.

Superior wear control – if people are interested in prolonging the lives of their scooters, and protecting their investments, they will use the new AMSOIL Formula 4-Stroke Scooter Oil.

Foaming control – protects against the abuse created by high rpm engines and the churning of transmission gears. At 9,000 rpm, these engines abuse an oil.

Viscosity stability in transmissions – insures maximum protection against wear. AMSOIL Scooter Oil controls oil thinning, which is extremely important when protecting an engine.

Wet clutch compatibility – smooth operation and longer clutch life.

Reduced oil consumption – minimizes maintenance costs and saves money. It is also better for the environment as less oil burns and ends up in the atmosphere.

Long-term storage protection – advanced corrosion protection for periods of non-use.

Robust additive package – maximized wear protection for longer component life.

Multi-functional – performs as well in the engine as it does in the transmission.

**8. Question:**

Where applications are best suited for the new Scooter Oil?

**Answer:**

AMSOIL 10W-40 Scooter Oil was developed specifically for the unique needs of air and/or water-cooled, 4-stroke motorized scooters. Manufacturers include Honda, Kawasaki, Suzuki, Yamaha, Vespa, Aprilia, Piaggio, Benelli, Vento, Kymco, Tank and TGB. This oil can be used in any 4-stroke scooter engine calling for a 10W-40 product. It is also recommended for transmissions and gearboxes in both 2 and 4-stroke scooters when a 10W-40 product is specified.

**9. Question:**

What packaging sizes are available?

**Answer:**

New AMSOIL Formula 4-Stroke Scooter Oil is available in quarts, stock code ASO-QT for individuals and ASO-01 for cases of 12.

**10. Question:**

Has the product been formulated to provide protection during periods of non-use?

**Answer:**

AMSOIL Formula 4-Stroke, Scooter Oil contains an advanced rust and corrosion additive package. This package provides the additional protection required during prolonged periods on non-use and storage. Remember, just because an engine is not running does not mean that damage is not occurring.

**11. Question:**

Can this oil be used in applications other than scooters?

**Answer:**

AMSOIL Scooter Oil can be safely used in any application calling for an SAE 10W-40 motor oil meeting API service classification SG or SL/CF.

**12. Question:**

Will AMSOIL Formula 4-Stroke Scooter Oil cause a wet clutch to slip?

**Answer:**

No. ASO contains no friction modifiers and meets the frictional requirements as outlined in JASO standard T903:2006 MA/MA2 as it pertains to wet clutch compatibility.

**13. Question:**

Many of today's oils contain less zinc and phosphorous, and that can be a negative in scooter and motorcycle engines. How does this oil stack up?

**Answer:**

AMSOIL Scooter Oil has a robust additive package that provides maximum wear protection, exceptional internal engine cleanliness and outstanding life expectancy. Zinc and phosphorous levels have not been minimized. This special formulized scooter oil protects like no other.

**14. Question:**

Many scooter manufacturers recommend an SAE 90. Can the 10W-40 AMSOIL Scooter Oil still be used?

**Answer:**

There are two different SAE viscosity grading systems; one for motor oils and another for gear oils. At 100° C, SAE 40 motor oil and SAE 90 gear oil have similar viscosities.

**15. Question:**

What is the recommended drain interval for AMSOIL Scooter Oil?

**Answer:**

AMSOIL Scooter Oil is manufactured to the same high quality standards, but because of the variety of scooter types, and in many cases the lack of filtration, the equipment manufacturers drain interval recommendations should be followed.

**16. Question:**

Does a scooter really need synthetic oil? Petroleum products are much cheaper.

**Answer:**

There are cheaper oils available that may be adequate for scooter applications, but in today's high tech scooters, adequate is just not good enough. With AMSOIL Formula 4-Stroke Scooter Oil, performance is not an issue. Keep in mind the cost of today's entry-level scooters is in the \$2,300 to \$2,700 range, with high-end models exceeding \$8,000. The little additional investment for AMSOIL Formula 4-Stroke, Scooter Oil is money well spent to protect against corrosion, premature wear, and breakdowns. Dependability is also a key point as this is the primary mode of transportation for many people.

**17. Question:**

Where can additional information be found?

**Answer:**

Additional information can be found at [www.amsoil.com](http://www.amsoil.com). A Formula 4-Stroke Data Bulletin (G-2331) is also available.