



# SERVICE LINE

NEWS AND IDEAS FROM AMSOIL

## New AMSOIL Power Steering Fluid Provides Long-Lasting Performance

### NOTES

#### New AMSOIL Pricing

Due to continued market volatility, AMSOIL is forced to implement a price adjustment effective September 1, 2008. While the company did adjust pricing in August, raw materials costs have continued to soar to unprecedented levels. Even with a price adjustment, AMSOIL synthetic lubricants remain the best and most cost-effective choice on the market, saving customers money through extended drain intervals, reduced wear and maintenance and increased fuel efficiency.

A new price list is included in this issue of *Service Line*. To access updated pricing online, login to either the Retail or Commercial Account Zone at [www.amsoil.com](http://www.amsoil.com). If you have not established your own AMSOIL Customer Account Zone account, do so by submitting your account number and a valid email address through the New Registration link. Alternatively, you can check pricing when placing your next order by calling 1-800-777-7094.

Most power steering systems use a belt-driven pump to provide hydraulic pressure to the system. The pump, usually a rotary vane pump, is driven by the vehicle's engine. As the speed of the engine increases, the pressure in the hydraulic fluid also increases, necessitating the incorporation of a relief valve to allow excess pressure to be bled away.

While the power steering is not being used (driving in a straight line), twin hydraulic lines provide equal pressure to both sides of the steering wheel gear. When torque is applied to the steering wheel, the hydraulic lines provide unequal pressures, providing assistance in turning the wheels in the intended direction. Other modern hydraulic power steering systems include an electronic pressure valve which can reduce the hydraulic pressure of the power steering lines as the vehicle's speed increases. This is known as variable assist power steering.

#### Why Change Power Steering Fluid?

Power steering fluid is one of the most neglected fluids under the hood because most people don't think about it unless there is a problem. Consumers realize that power steering systems require additional fluid occasionally, but do not realize that power steering fluid should be changed at regular intervals. Many original equipment manufacturers (OEMs) recommend changing power steering fluid due to the accumulation of wear material and other debris within the power steering system. For example, Dodge recommends changing the power steering fluid in its 2005-2008 Magnum and Charger models every 60,000 miles. In addition, power steering fluid has a service life, just like any other lubricating fluid. It is subject to temperature extremes and must combat contaminants while simultaneously fulfilling its role as a hydraulic fluid.

#### AMSOIL Power Steering Fluid

AMSOIL Synthetic Universal Power Steering Fluid provides excellent wear protection. Its synthetic formulation delivers better lubricity and reduced friction, resulting in cooler operating temperatures, longer component life and quieter operation. AMSOIL Power

Steering Fluid is formulated with a high viscosity index. Its low pour point ensures immediate lubrication at startup and in cold temperatures, yet it resists thermal breakdown and maintains maximum protection in high temperatures.

#### Applications

AMSOIL Synthetic Universal Power Steering Fluid meets or exceeds motor vehicle specifications for use in GM, Chrysler, Honda, Ford, Volkswagen, Mercedes, Saab, Subaru and Audi applications.

- Ford 9M2C138-CJ, M2C33-F & ESW-M2C128-C&D
- Volkswagen TL-VW-570-26 & TL-52146
- GM 9985010 Saginaw Power Steering Systems
- DaimlerChrysler MS1872 & MS5931F
- America Motor Corporation C4124
- Navistar TMS 6810
- Acura/Honda
- Mercedes Benz
- Saab
- Subaru
- Audi

#### Fluid Extraction Pump



To aid in the removal of used fluids when servicing vehicles, AMSOIL now offers a fluid extraction pump (G2576). The AMSOIL Fluid Extraction Pump features a high-quality, heavy-duty barrel and premium Viton suction gaskets. Viton gaskets are more resilient and resistant to solvents than natural rubber or nitrile gaskets, ensuring better suction and longer life. This high-quality pump can be used to remove old power steering fluid when converting a vehicle to AMSOIL Power Steering Fluid. It can also be used to remove other fluids such as engine oil, drivetrain lubricants and engine coolant.

# AMSOIL Lubricants Are “Polished” Before They’re Packaged

More than 35 years of providing consistently superior products has defined a new level of quality. AMSOIL has built its reputation on providing the most advanced synthetic lubricants available, so quality control is paramount. Everything from raw chemicals to quart bottles is thoroughly tested to ensure it meets AMSOIL quality parameters.

Part of the quality control process at AMSOIL includes filtering finished products before they are packaged. AMSOIL has always filtered its products to a higher degree than industry standards mandate, and the recent transfer of AMSOIL production facilities to the AMSOIL Center provided the perfect opportunity to incorporate even more advanced new filtration technologies.

## The Problem

In order to keep up with demand, AMSOIL increased production capabilities at the AMSOIL Center by 250 percent. The new system uses higher flow rates and increased pressures, and the filters used in the old system couldn't hold up to the increased demands. AMSOIL turned to one of its corporate partners for help.

## The Solution

Donaldson is the leader in industrial filtration technology. AMSOIL and Donaldson worked together to create a filter that would not only withstand the flow rates and pressures inside the production lines, but provide AMSOIL-quality filtration as well. The solution came in the Donaldson HRK10 In-Line Hydraulic Filter. The HRK10 provides superior filtration along with unmatched durability.

## Solid Construction

AMSOIL installed 30 custom filter housings specially built by Donaldson to AMSOIL specifications. These rugged, heavy-duty housings are all steel and have a basket-like design that ensures contaminants captured by the filter remain in the filter, even during change-out. Other systems filter the lubricant as it flows into the filter rather than on its way out, leaving the contaminants to collect in the bottom of the housing. The Donaldson HRK10 filter and housing are designed so that the lubricant flows from the inside of the filter to the outside, keeping contaminants trapped inside. This allows the filter to be removed from the housing with all of the contaminants still intact.

The HRK10 filter housings are designed to withstand pressures far greater than what they'll face at AMSOIL. They are static burst rated to 500 psi, with flow ranges to 300 gallons per minute.

## Synthetic Media

The Donaldson HRK10 features Donaldson synthetic Synteq™ filter media, the same media used in Donaldson Endurance heavy-duty filters. Synteq synthetic filter media has smooth, rounded fibers for low resistance to flow while maintaining a high efficiency rate.

## Impressive Results

AMSOIL achieved all of its goals through its partnership with Donaldson. The HRK10 filters are more than capable of withstanding the high flow rate and high pressures found in AMSOIL production lines. They also help the company meet its stringent quality standards while simultaneously improving efficiency and production capabilities.

“We were filtering to an industry-leading standard, now we've improved upon that and increased production capabilities,” said AMSOIL Vice President of Operations Scott Davis. “We researched our options and found the Donaldson HRK10 to be the best.”

While the service lives of the housings are still being determined, the lives of the filter elements are extended to offset the price of the element itself, a concept very familiar to AMSOIL customers.

“These filters last 1.6 times longer than our old filters, which offsets the price difference and ensures the cost-effectiveness of filtering AMSOIL synthetic lubricants to the highest quality,” said Davis. “We demand more of our filtration because AMSOIL customers expect an AMSOIL-quality product.”

The Donaldson HRK10 filters and housings allow AMSOIL to “polish” its lubricants one more time before they are packaged and shipped. The system of 30 HRK10 units ensures that AMSOIL synthetic lubricants are absolutely free of contaminants.



# AMSOIL Online Guides Provide Instant Recommendations

The AMSOIL corporate website includes a number of convenient, easy-to-use product lookup and cross-reference guides that provide customers with instant AMSOIL lubricant and filter and aftermarket product (WIX, Donaldson, NGK, TRICO, Twin Air) recommendations for their applications. Each recommended product listed in the guides is set up as a link, allowing the user to reach that product's page within the AMSOIL online catalog, where he or she can read more information on the product or place an order. Located on the right-hand side of the AMSOIL homepage, the lookup and cross-reference guides cover more applications than ever and provide a valuable tool for customers determining which products are right for their equipment.

## Online Lookup Guides

The online lookup guides are designed to yield AMSOIL and aftermarket product recommendations based on the vehicle information provided by the user. The AMSOIL corporate website has product lookup guides for auto and light truck, powersports and small engine applications and TRICO Heavy-Duty Wiper Blades, and it has filter lookup guides for vintage vehicles and heavy-duty applications.

### Auto and Light Trucks Lookup Guide

The Auto and Light Trucks Lookup Guide enables users to gain a complete listing of recommended AMSOIL lubricant and filter and aftermarket products for their vehicles. Begin by simply typing in the year of the vehicle and clicking the "Build List" button to view a list of vehicle manufacturers. Upon clicking the appropriate manufacturer, a list of that manufacturer's vehicle models is generated. Once the appropriate model is clicked, the lookup produces a list of engine options for that vehicle model. After clicking the appropriate engine option, the right-hand column of the page displays the list of recommended products for the vehicle.

### PowerSports Lookup Guide

The PowerSports Lookup Guide enables users to find the recommended AMSOIL and aftermarket products for motorcycle, marine, personal watercraft, snowmobile and ATV applications. First, select either the "oil and filters" option or the "spark plugs" option, then specify the appropriate vehicle by using the dropdown menus for equipment type, make, model, engine size and year. Click the "Get Oil and Filters" or "Get Spark Plugs" button to retrieve the list of recommended products for the vehicle.

### Small Engine Lookup Guide

The Small Engine Lookup Guide enables users to find the recommended AMSOIL and aftermarket products for small engine applications. Simply select the appropriate engine manufacturer and engine detail from the dropdown menus to retrieve the list of recommended products for the small engine application.

### TRICO Heavy-Duty Lookup Guide

The TRICO Heavy-Duty Lookup Guide enables users to find the recommended TRICO Heavy-Duty Wiper Blades for virtually all heavy-duty truck, bus and recreational vehicle applications. Simply select the vehicle type, make, model and year from the dropdown menus and click the "Get Recommendation" button to retrieve the appropriate wiper blade recommendations.

### Vintage Vehicles Filter Lookup Guide

The Vintage Vehicles Filter Lookup Guide enables users to gain a complete listing of recommended AMSOIL and WIX filtration products for vintage (1985 and earlier) automobile and light truck applications. Simply select the vehicle make, year, model and engine size from the dropdown menus and click the "Get Recommendations" button to retrieve the appropriate lube, air, fuel, breather and transmission filter recommendations.

### Heavy-Duty Truck, Bus, Off-Road and Industrial Filter Lookup Guide

The Heavy-Duty Truck, Bus, Off-Road and Industrial Filter Lookup Guide enables users to gain a complete listing of recommended Donaldson P-Series and Endurance Filters for heavy-duty applications. Simply select the vehicle make, model and year from the dropdown menus to retrieve the appropriate lube, air, fuel, coolant and hydraulic filter recommendation.

## Online Cross-Reference Guides

The online cross-reference guides are designed to yield AMSOIL and aftermarket product recommendations based on competing manufacturers' part numbers. The AMSOIL corporate website has a master filter and an NGK plugs and wires cross-reference guide. If, for example, a customer is using a competing filter brand, the filter number can be typed into the Master Filter Cross-Reference Guide to determine the appropriate AMSOIL Ea Filter.

### Master Filter Cross-Reference Guide

The Master Filter Cross-Reference Guide enables users to determine the appropriate AMSOIL, WIX and Donaldson filters for an application based on competing manufacturers' filter numbers. Simply select either the "car/light truck" or "heavy-duty equipment" option, type in the manufacturer filter part number and click the "Get AMSOIL Product" button to retrieve the appropriate filter recommendations.

### NGK Plugs and Wires Cross-Reference Guide

The NGK Plugs and Wires Cross-Reference Guide enables users to determine the appropriate NGK plugs and wires for an application based on competing manufacturers' part numbers. Simply type in the part number and click the "Cross-Reference" button to retrieve the appropriate spark plug and wire recommendations.

# STOP!

On the track or on the street, AMSOIL Brake Fluids provide stopping power. Experts recommend changing brake fluid every 12 to 24 months as preventative maintenance. In addition, as brake systems heat up, brake fluids with low boiling points begin to vaporize. If enough of the brake fluid vaporizes, brake system failure may occur. AMSOIL Brake Fluids have high boiling temperatures, ensuring maximum life and reliable braking power, even in extreme conditions.



Far Exceeds the  
Performance of  
Common Brake  
Fluids

**The AMSOIL Service Line sent courtesy of AMSOIL INC.**

Jeff Fisher

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