

# AMSOIL SERVICE LINE

## NEWS AND IDEAS FROM AMSOIL

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## Next-Generation Ea Oil Filters Offer Increased Capacity for Superior Protection

### NOTES

#### Expanded Distribution Centers Open in New Locations

Company growth has prompted AMSOIL to expand five distribution centers. The Edmonton and Chicago distribution centers have moved to new locations, while the Richmond, Toronto and Dallas distribution center expansions have been completed at their current locations.

The new Edmonton Distribution Center is located one block away from the former location; the new address is 14328 – 121A Avenue, Edmonton, Alberta. The new facility opened December 19.

The new Chicago Distribution Center is located two miles away from the current location; the new address is 485 Thomas Drive, Bensenville, IL 60106. The current distribution center will close at noon on Friday, January 20, and the new facility will open the morning of Monday, January 23.

#### AGGRAND, MANN-FILTER®, Donaldson® and Mothers® Price Adjustment Effective February 1

Due to fluctuations in raw material costs, AGGRAND products are subject to a price adjustment effective February 1. Cost increases from the company's aftermarket partners subject MANN-FILTER®, Donaldson® and Mothers® products to a price adjustment effective February 1. See the Product Pricing Interface in the Account Zone for updated pricing.

The entire line of Ea Oil Filters (EAO, EA15K) has been redesigned to provide up to two times greater capacity than before, making an already superior filter even better. Each filter provides a filtering efficiency of 98.7 percent at 20 microns, ranking them among the most efficient oil filters available (see graph). Ea Oil Filters now feature a fluted can for improved grip. Four new AMSOIL-branded cartridge-style filters (EA15K01, EA15K02, EA15K03, EA15K04) featuring full-synthetic media have been added to the line, as well as three additional 25,000-mile filters (Ea017, Ea018 and Ea098). Product codes and pricing remain unchanged.

#### Advanced Media Technology

Redesigned Ea Oil Filters are engineered using full-synthetic media that features smaller fibers compared to the cellulose and blended media found in other filters. The smaller fibers have a controlled size and shape, providing greater efficiency, capacity and durability. The re-engineered media in Ea Oil Filters provides up to two times greater capacity. Capacity refers to the amount of contaminants a filter can hold while still remaining effective.

To understand the significance of improved capacity, it's helpful to know the basics of oil filtration. Clean oil is vital to keeping engines

running properly. The oil filter must remove contaminants introduced into the oil and prevent them from reaching sensitive engine parts without restricting normal oil flow. Internal sources of contamination include wear products from the rubbing surfaces of the engine, and degradation of the oil itself. To provide maximum performance, a filter must be constructed with the optimum balance of capacity, efficiency, flow and durability.

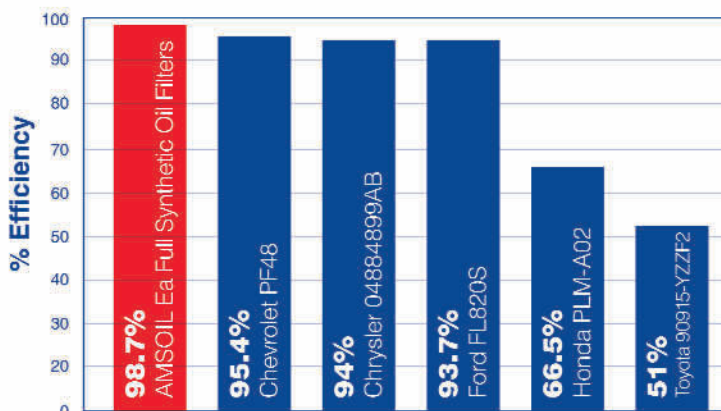
#### Contaminants Increasing

Filter capacity has become increasingly more important. To increase fuel economy in response to government mandates, automakers continue employing turbochargers, direct fuel injection and other performance-improving technologies that introduce more contaminants into oil. In addition, ethanol found in gasoline has been shown to further degrade oil, placing extra strain on oil filters.

In short, today's engines introduce more contaminants into the oil than did their predecessors and oil sumps are shrinking, leaving fewer detergents and dispersants to help fight the by-products of modern internal combustion. Oil filter capacity must be improved in order to contend with the additional contaminants.

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Average Filter Efficiency @ 20 microns (ISO 4548-12)  
February 2011 Test Results



U.S. & CANADA TOLL-FREE ORDERING: 1-800-777-7094  
Hours: 7 am to 5 pm, Central Time, Monday through Friday.

## Absolute Efficiency

Efficiency describes the filter's ability to capture contaminants. The more efficient a filter, the more contaminants it removes from the oil. Manufacturers typically report their filters' efficiencies as the percentage of contaminants 20 microns and larger removed from oil. Filters using traditional media are often only 40 to 80 percent efficient at 20 microns.

In extensive testing, the full line of AMSOIL Ea Oil Filters achieves a near-perfect absolute efficiency rating of 98.7 percent at 20 microns, making each filter among the most efficient available for autos/light trucks.

## Improved Flow

Flow is restricted as the spacing in the filter media is made smaller to provide greater efficiency. The unique design and full-synthetic media in AMSOIL Ea Oil Filters allow decreased space between fibers without restricting flow. This provides exceptional cold-start performance and ensures proper levels of lubrication throughout the engine.

## Durable Construction

Over the service life of a cellulose filter, hot oil degrades the resins that bind the media. Ea Oil Filters' full-synthetic media is backed with a wire screen that is pleated with the media for superior strength. Ea Oil Filters are constructed with HNBR nitrile gaskets that are fully tested to extreme distances in numerous severe environments. The filters also feature fully tucked seams, a molded element seal, roll-formed threads and a long-lasting premium-grade silicone anti-drain valve.

## Extended Service Intervals

When used in conjunction with AMSOIL synthetic motor oil, Ea Oil Filters are guaranteed for extended service life:

- Ea Filters designated with product code Ea15K are recommended for 15,000 miles/one year, whichever comes first, in normal or severe service.
- Ea Filters designated with product code EaO are recommended for 25,000 miles/one year, whichever comes first, in normal service or 15,000 miles/one year, whichever comes first, in severe service.

## New Filters

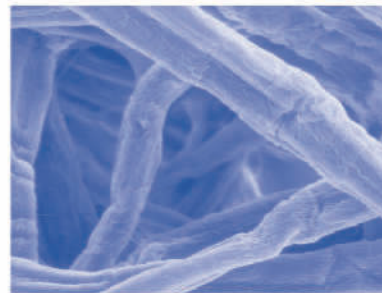
The redesigned line of Ea Oil Filters includes three new EaO Filters, as well as four cartridge-style filters recommended predominantly for some newer Toyota, Lexus, Saturn and other applications. For specific product recommendations, consult the auto/light-truck product application guide or MyAMSOILGarage™ at [www.amsoil.com](http://www.amsoil.com).



Ea Oil Filters now feature up to two times greater capacity and fluted cans for improved grip.

### AMSOIL Ea Oil Filters

Stock #	Units	Package Size	U.S. Wholesale	U.S. Sugg. Retail	Can. Wholesale	Can. Sugg. Retail
EA15K01	EA	1 Filter	16.00	21.15	17.10	22.60
EA15K01	CA	12 Filters	178.56	234.75	190.50	250.40
EA15K02	EA	1 Filter	11.25	14.85	12.05	15.85
EA15K02	CA	12 Filters	125.55	165.05	134.00	176.15
EA15K03	EA	1 Filter	6.40	8.45	6.85	9.05
EA15K03	CA	12 Filters	71.42	93.90	76.25	100.20
EA15K04	EA	1 Filter	12.00	15.85	12.85	16.95
EA15K04	CA	12 Filters	133.92	176.05	142.85	187.80
EAO17	EA	1 Filter	10.50	13.90	11.25	14.85
EAO17	CA	12 Filters	117.18	154.05	125.20	164.55
EAO18	EA	1 Filter	10.50	13.90	11.25	14.85
EAO18	CA	12 Filters	117.18	154.05	125.20	164.55
EAO98	EA	1 Filter	16.80	22.20	17.95	23.70
EAO98	CA	12 Filters	187.49	246.50	199.95	262.90



Cellulose fibers are inconsistent in size and shape, allowing more contaminants to pass through. Restriction is higher and capacity lower.



Small, consistent synthetic fibers trap smaller and hold more contaminants. Restriction is lower and flow improved.

# AMSOIL Provides Complete Vehicle Cold-Weather Performance

Extreme cold can cause conventional motor oil, transmission fluid and gear lube to thicken, starving vital moving parts of necessary lubrication. In many cases, thick motor oil will prevent vehicles from starting. Cold, thick transmission fluid results in delayed or sluggish shifts and inadequate protection for bearings, valves and other critical parts. Thick gear lube, meanwhile, requires more energy to turn the gears, reducing fuel efficiency. Because gears and bearings in the axle housing are splash-lubricated, conventional gear lubes that are too thick at cold temperatures can starve internal components of lubrication, which can cause excessive wear and premature failure.

Conventional petroleum lubricants thicken because they often contain paraffins (wax). While modern refining techniques remove most of the wax from petroleum oil, some wax-like molecules remain.

These wax-like molecules are soluble at ambient temperatures above freezing, but crystallize into a honeycomb-like structure at lower temperatures and cause circulation problems. At startup, this can leave working parts unprotected while the lubricant warms to a temperature that allows it to flow.

AMSOIL synthetic lubricants do not contain paraffins. They provide outstanding low-temperature fluidity for fast, dependable winter starts; quick, responsive shifts and immediate startup protection.

## Superior Fuel & Coolant Additives

Diesel applications can be especially sensitive to cold-weather issues. As the temperature drops, the wax naturally found in diesel fuel begins to form crystals. The point at which wax crystals form is known as the cloud point. These wax crystals eventually clog the fuel filter

and starve the engine of fuel, preventing it from starting. While low-quality fuels may form wax crystals in temperatures as warm as 40°F, most fuels have a cloud point near 32°F. The point at which the wax crystals clog the fuel filter is known as the cold filter-plugging point (CFPP). AMSOIL Cold Flow Improver reduces the CFPP of ultra-low-sulfur diesel fuel by as much as 20°F for increased protection.

In frigid conditions, motorists often idle vehicles for extended periods to warm the interiors and defrost the windows. Not only can the practice be inconvenient, it wastes fuel as well. AMSOIL Dominator® Coolant Boost uses proprietary tiered-surfactant technology to provide quick and effective heat transfer inside radiator and cylinder heads, resulting in faster engine warm-up times. As a result, vehicle interiors warm more quickly and the defroster becomes effective sooner. ■



### 1) TRANSMISSION & TRANSFER CASE

**Synthetic Automatic Transmission Fluid (ATF, ATL)** flows readily in cold temperatures for almost instantaneous circulation and protection, inhibiting wear and promoting fast, responsive shifts.

### 2) GASOLINE ENGINE / DIESEL ENGINE

**Signature Series Synthetic Motor Oil (ASM, ALM, AZO, ASL, ATM) and Premium API CJ-4 Synthetic Diesel Oil (DEO, DME)** feature ultra-low pour points to ensure vehicles start immediately, even when the mercury plummets far below zero.

### 3) COOLING SYSTEM

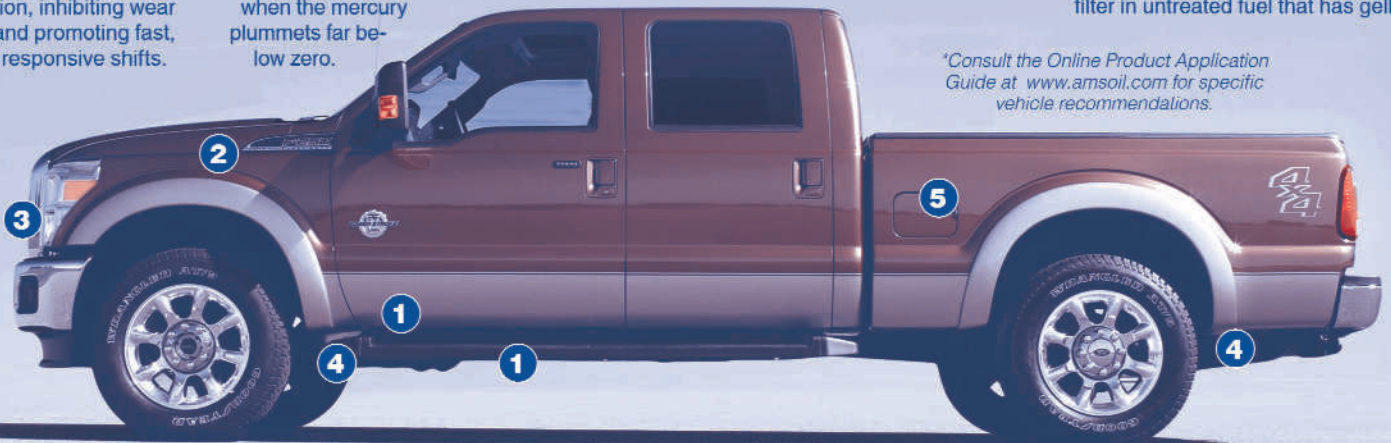
**Dominator® Coolant Boost (RDCB)** inhibits harmful coolant system corrosion and reduces engine warm-up times up to 30 percent.

### 4) DIFFERENTIALS

**Severe Gear® Synthetic Gear Lube (SVG, SVT, SVO)** remains fluid in sub-zero temperatures to provide immediate lubrication and extend equipment life.

### 5) DIESEL FUEL SYSTEM

**Cold Flow Improver (ACF)** helps prevent icing or gelling in diesel fuel, while **Diesel Concentrate plus Cold Flow Improver (DFC)** provides the added benefit of increased fuel economy. **Diesel Recovery (DRC)** quickly liquefies gelled diesel fuel, thaws frozen fuel filters and reduces the need for a new filter in untreated fuel that has gelled.



\*Consult the Online Product Application Guide at [www.amsoil.com](http://www.amsoil.com) for specific vehicle recommendations.



## A slipping transmission, like slipping tires, can ruin your day.

Modern transmissions, like modern engines, have become riddled with high-tech electronics. Dirty transmission fluid often causes shift solenoids to stick, and a fluid breakdown can lead to a complete transmission overhaul. In the old days, transmissions would give advance notice. Today, the tolerance for dirty fluid has gone way down. Tranny maintenance has become a much higher priority than it ever was before.

For smoother shifting and longer transmission life, be sure to use AMSOIL ATF. It is formulated to withstand the harsh environments found in modern transmissions, longer.

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

**Ordering Tips – Commercial and Retail Accounts get free freight with orders of \$11,000 (U.S.) or more. UPS delivers product to street addresses, not to post office boxes. To order: Call 1-800-777-7094 or log into the Account Zone at [www.amsoil.com](http://www.amsoil.com).**

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