

AMSOIL Introduces Ea Bypass Filters

In an effort to continually enhance the AMSOIL product line, new technologies are evaluated to provide the best products for AMSOIL Dealers and customers. Consequently, AMSOIL is now offering new bypass filters from its revolutionary Ea line of filtration products. AMSOIL EaBP Filters are high efficiency bypass filters that also remove soot. They provide the ultimate in protection against wear, oil degradation, rust and corrosion. AMSOIL EaBP Filters are superior to AMSOIL BE Bypass Filters in several key areas.

Higher Efficiency

AMSOIL EaBP Filters have an efficiency of 98.7 percent at two microns, compared to the AMSOIL BE Filters' 98.6 percent efficiency at three microns. At normal operating RPMs the EaBP Filter will filter all of the oil in a typical five quart sump in less than 10 minutes.

Superior Construction

The superior construction of AMSOIL EaBP Filters provides better sealing and increased longevity along with superior corrosion resistance.

AMSOIL EaBP Filters have a marine powder coated exterior. Their zinc-dichromate base plates increase rust protection, and they feature the same dimensions and threads as BE-90, BE-100 and BE-110, so they are compatible with existing AMSOIL bypass filter mounts. EaBP Filters have a nitrile HNBR gasket and an orange silicone anti-drain valve. The two stage pleated and layered cellulose/full synthetic media has an efficiency rating of 98.7 percent at two microns.

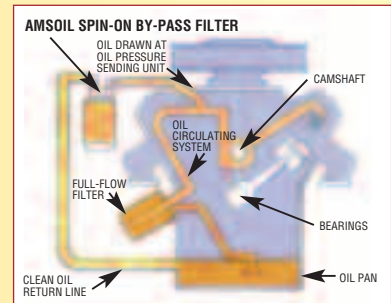
Longer Lasting

When used in conjunction with AMSOIL motor oil and an AMSOIL EaO or Donaldson Endurance™ filter, the EaBP should be changed every other full-flow filter change up to 60,000 miles. When used with other brands of motor oil or full-flow filters, the EaBP filter should be changed every other full-flow filter change. AMSOIL recommends using oil analysis when extending oil drain intervals.

Bypass Basics

Bypass oil filtration is a secondary filter with the purpose of eliminating nearly all contaminants in engine oil. They have high capacities and eliminate much smaller particles than full-flow filters, including soot. Bypass filters reduce engine wear and increase oil volume, but their high efficiencies mean they also have higher restriction and must be used in conjunction with a full-flow filter.

Bypass filters operate by filtering oil on a "partial-flow" basis. They draw approximately 10 percent of the oil pump's capacity at any one time and trap the extremely small, wear-causing contaminants that full-flow filters



can't remove. Bypass filters have a high pressure differential, causing the oil to flow through them very slowly and allowing for the removal of smaller contaminants. It is called bypass filtration because the oil flows from the bypass filter back to the sump and bypasses the engine. This continual process will eventually make all of the oil analytically clean, reduces long-term wear and can extend drain intervals.

Increased Oil Capacity

The increased fluid system capacity and filtration life provides improved oil cooling and ensures that equipment constantly runs on clean oil. Engine efficiency is increased and engine life is extended significantly.

Soot Removal

AMSOIL has designed a new high-efficiency bypass filter element that is also a soot removal device. AMSOIL Ea Bypass Filters use a synthetic/cellulose sandwiched media. The inner layer of the element is composed of a highly efficient cellulose media covered with a full synthetic media outer layer. These filters remove 39 percent of soot contaminants less than one micron. Soot removal efficiency increases approximately 10 to 14 percent when the EaBP Filter is used in conjunction with a standard full-flow filter, even higher in conjunction with Ea Oil Filters or Donaldson Endurance filters.

The Dangers of Soot

The combustion process of diesel engines creates soot. After fuel is injected, combustion occurs with elevated soot levels as a byproduct of the process, and the combustion particulates become trapped on the exposed oil film. The rings wipe the particulates into the oil and the fine particulates aggregate, increasing levels of soot in the oil.

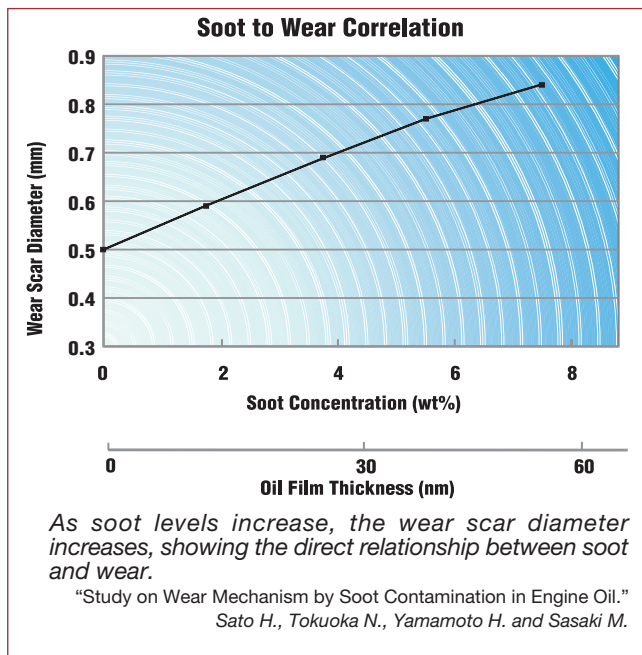
Oil with dispersant additives will generally keep soot



in the range of 0.002 to 0.5 microns in suspension; detergent additives prevent the build-up of sludge and act as an acid neutralizer, keeping soot in the range of 0.5 to 1.5 microns in suspension. These anti-wear additives work by providing a sacrificial chemical-to-chemical barrier. As the amount of soot suspended in the oil increases, the performance of these additives decreases.

Soot Causes Wear

As an oil's soot dispersant additive level increases, wear reducing additives become less effective. This creates a direct linear correlation between wear and soot concentration; the higher the concentration of soot, the higher the level of wear. Today's oil manufacturers are extending oil life by holding higher concentrations of contaminants, including soot, in suspension in the oil. They are also increasing fuel economy by reducing oil viscosity and oil film thickness. Therefore, even smaller sized contaminants are becoming critical in items in terms of creating wear. This further necessitates the use of bypass filtration, especially in diesel engines.



EaBP Vital Statistics

AMSOIL will continue to offer three bypass filters: the EaBP-90, EaBP-100 and EaBP-110. All vehicles and applications that can accept the AMSOIL BMK-11, 12, 13, 15, 16, 17 and 18 filter mounts can use the EaBP Filters. Per AMSOIL bypass installation instructions, AMSOIL recommends bypass filters be mounted as close to vertical as possible. The filters are equipped with an anti-drain back valve in the event they are mounted at an angle.

Who Uses Bypass Filtration?

Bypass filtration comes standard on all heavy-duty turbo diesel engine applications from OEMs such as Cummins, Mack and many more. It has been available as standard equipment or as an option from OEMs like Caterpillar, John Deere, Case and others, but it isn't just for heavy-duty diesel operators. Bypass filtration is a valuable commodity for anyone that wants to extend drain intervals and prolong engine life. It is also beneficial to vehicles that are exposed to high levels of contaminants on a regular basis.

Bypass Filtration Benefits

- Dramatically Extended Drain Intervals
- Improved Oil Cooling
- Increased Filtration Capacity and Life
- Increased Fluid System Capacity
- Efficient Small Particle and Soot Removal
- Significantly Extended Engine Life
- Equipment Constantly Runs On Clean Oil
- Increased Engine Efficiency
- Remove Particles Less Than One Micron

AMSOIL EaBP Pricing					
Stock #	C.C.	U.S.	U.S. Retail	Can.	Can. Retail
EaBP-90	20.75	27.65	35.95	39.40	52.55
EaBP-100	21.75	28.95	37.65	41.25	55.00
EaBP-110	25.20	33.50	43.70	47.95	63.90

AMSOIL BE bypass filters are available while supplies last.

