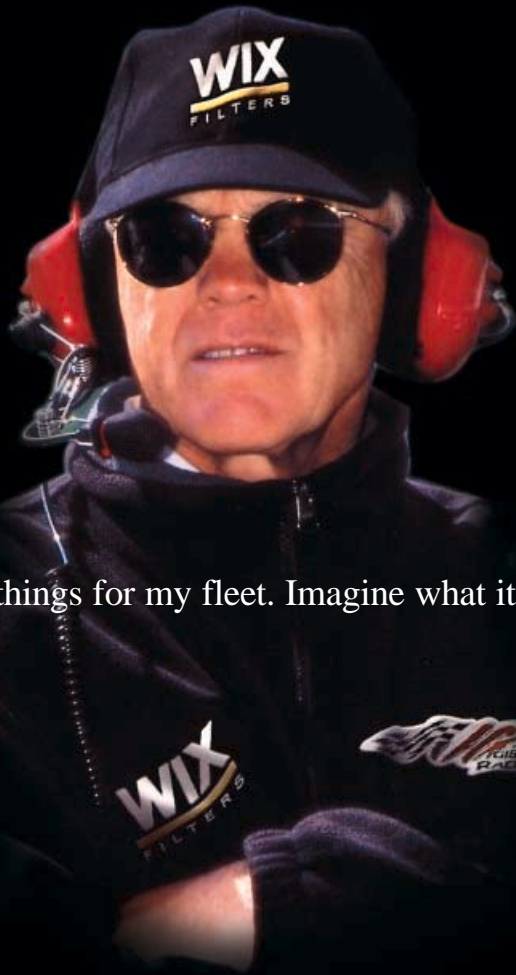


WIX HEAVY DUTY FILTERS



“WIX Filters has done great things for my fleet. Imagine what it can do for yours.” *Joe Gibbs*

NEXTEL Cup Champion 2000 and 2002.

Heavy Duty Oil Heavy Duty Air Heavy Duty Fuel Heavy Duty Coolant Heavy Duty Transmission Industrial Hydraulics Mobile Hydraulics





Coolant



Air



Fuel

Meet the WIX Fleet!



Hydraulic



Oil



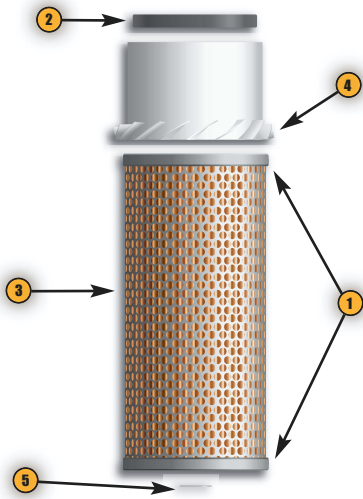
Transmission

WIX Air Filtration

WIX Heavy Duty Air Filters were best-in-class for design and construction according to the Benchmark Study.

Composite of a WIX Heavy Duty Air Filter

- 1 Pre-painted or galvanel HD air filter end caps provide excellent gasket adhesion and resist corrosion.
- 2 WIX's patented silicone gaskets provide excellent sealing characteristics, compression set recovery and resist extreme temperatures, chemicals and ozone.
- 3 WIX Filters uses .028-inch-thick outer body expanded metal as a design standard, which provides excellent column strength and is resistant to damage.
- The combination of the metal pattern and metal thickness on WIX HD air filters provides a smooth surface designed to protect the media against damage.
- 4 Injection-molded polypropylene fins (when required) are designed to distribute contaminant over the HD air filter media surface area — increasing the life of the filter.
- 5 Rubber-backed sealing washers specifically designed for use with WIX HD air filters top end cap geometry.



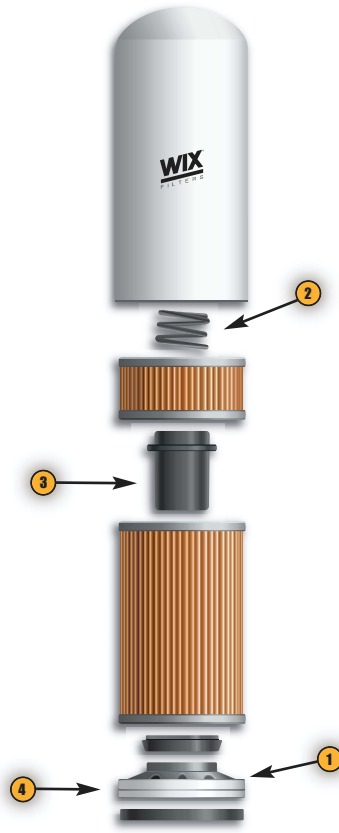
WIX Heavy Duty Air Filter

WIX Oil Filter

WIX Heavy Duty Oil Filters are structurally the best filters in the Aftermarket.

Composite of a WIX XD Heavy Duty Oil Filter

- 1 WIX's HD oil filter base plates use a .155-inch-thick design standard, which means higher burst strength, improved cycle-fatigue resistance, consistent gasket compression for positive sealing, and easier thread engagement for optimum engine protection.
- 2 The kicked-and-tucked spring design used on all WIX HD oil filters provides for a minimum 50-lb. load and keeps inner elements perpendicular and consistently sealed to the base plate. This means that no unfiltered oil will bypass the filter element under all operating conditions and pressures.
- The center tubes on WIX HD oil filters are over-engineered for consistent inner-element support to withstand wide fluctuations in flow and high differential pressure to insure system protection.
- The glass-filled nylon element supports the seal extremely well and is resistant



WIX Heavy Duty Oil Filter

to all fluid types, vibration, high and low temperatures and will not deform under constant spring-load pressure.

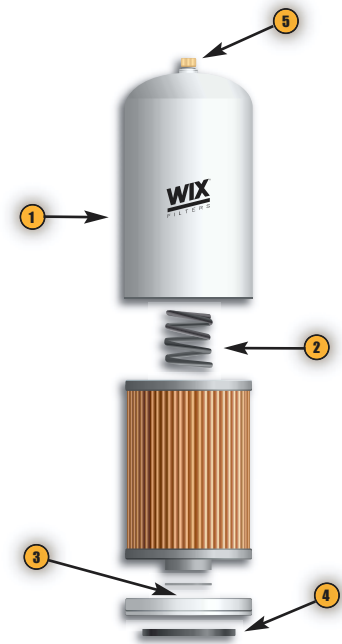
- 3 Patented spin-flow technology insures low flow restriction through the filter elements.
- 4 WIX double-seam technique assures trouble-free filtration use through a wide range of pressures and resists extreme cycle fatigue.

WIX Fuel Filtration

The Benchmark Study showed WIX Heavy Duty Fuel filters to have the best media utilization.

Composite of a WIX Heavy Duty Fuel Filter

- 1 WIX HD fuel filters use optimum metal thickness and double-seam design.
- 2 The kicked-and-tucked spring design used on WIX HD fuel filters, with a standard 30-lb. load on the inner element, won't cut or damage the can, it reduces the possibility of filter bypass and keeps the filter element seated against the base plate.
- 3 The base plate threaded neck on all WIX HD fuel filters is turned in to provide strength and assure consistent loading during pulsations to eliminate a potential failure point.
- 4 WIX HD fuel filters feature evenly spaced and smooth gasket splines, rather than staked gaskets that are



WIX Heavy Duty Fuel Filter

offered by the competition, assuring round gaskets that can stand up to the compression and stress in the application.

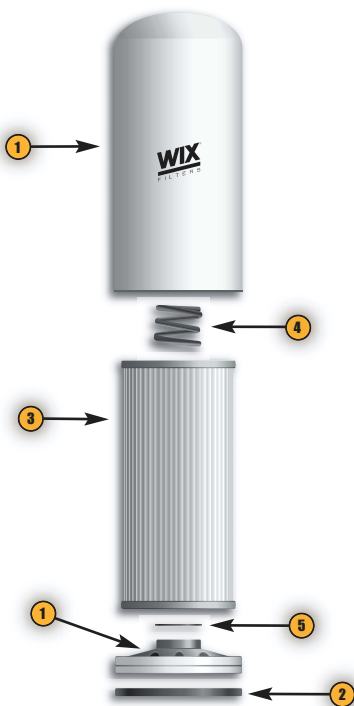
- 5 WIX HD fuel filters feature an entire line of fuel/water separators and accessories for specific applications.

WIX Hydraulic / Transmission Filters

WIX Heavy Duty Hydraulic and Transmission filters are specifically designed for tough applications.

Composite of WIX Heavy Duty Hydraulic and Transmission Filters

- Constantly growing coverage for both cartridge-style and spin-on-style filters for mobile and industrial applications.
- Cartridge-style filters made with heavy-gauge, tin-plated steel outer bodies and spiral-wound center tubes for consistent structural integrity.
- 1 Spin-on-style filters made with heavy-gauge steel containers and base plates with rolled, internal threads for easy installation.
- 2 Sealing gaskets made from materials specifically designed for use with hydraulic and transmission fluids.
- 3 Prescription Filtration®: high-efficiency filter media specifically designed for mobile and industrial applications.



WIX Heavy Duty Hydraulic Filter

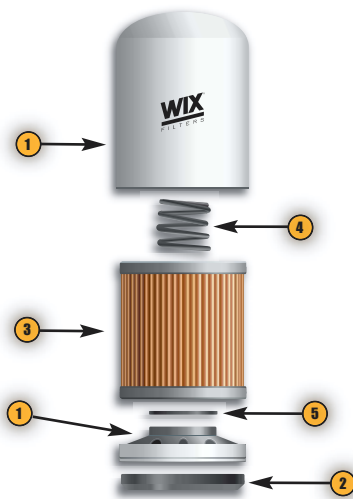
- Beta Ratio performance information either printed on the filter or available upon request.
- Professional fluid analysis program available, including particle counting, for preventive maintenance and problem solving.
- The finest catalog, part number interchange system and technical support available.
- 4 The kicked-and-tucked spring design used on all WIX HD hydraulic and transmission filters keeps inner elements perpendicular and consistently sealed to the base plate. This means that no unfiltered fluid will bypass the filter element under all operating conditions and pressures.
- 5 Inner element sealing washer seals the inner element to the base plate assembly to prevent bypass of unfiltered fluids.

WIX Coolant Filters

WIX Heavy Duty Coolant Filters provide everything you need to protect and maintain your entire coolant system.

Composite of WIX Heavy Duty Coolant Filter

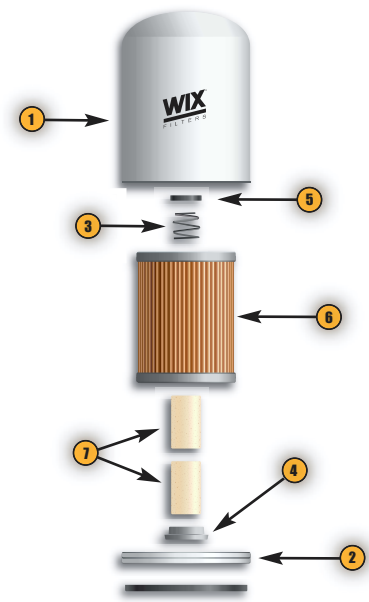
- 1 Interiors of filters are epoxy coated to prevent rust-through due to improper chemistry levels or poor maintenance practices.
- 2 The base plates on all WIX HD coolant filters are made from heavy-gauge steel and feature rolled internal threads for easy installation.
- 3 The kicked-and-tucked spring design used on all WIX HD coolant filters



WIX Heavy Duty Transmission Filter

keeps inner elements perpendicular and consistently sealed to the base plate. This means that no unfiltered fluid will bypass the filter element under all operating conditions and pressures.

- 4 Inner element sealing insert seals the inner element to the base plate assembly to prevent bypass of unfiltered fluids.
- 5 Plastic cap covers the spring and prevents the spring from potentially damaging the epoxy coating in the can.
- 6 Prescription Filtration®: filter media specifically designed for use with today's coolants.
- 7 Supplemental Coolant Additive (SCA): chemistry that goes into the coolant system to protect it from sleeve cavitation, corrosion and other cooling system problems.
- Full line of products for standard-service, slow-release and extended-service intervals.
- Chemistry that is compatible with competitive products and all types of antifreeze available today.
- Easy-to-use, in-field test strips or full-laboratory analysis are available to ensure the cooling systems are being properly maintained or for troubleshooting.
- Refractometer to accurately check the freeze point of the coolant.
- Easy-to-install mounting base to add a coolant filter to virtually any coolant system.
- Technical support and training available.



WIX Heavy Duty Coolant Filter

Air Filtration

It takes only eight ounces of dirt to destroy a Heavy Duty engine. The typical off-road vehicle is exposed to 1 1/2 to 2 1/2 tons of airborne dirt each year, meaning first-rate air filtration is critical to the life of the engine.

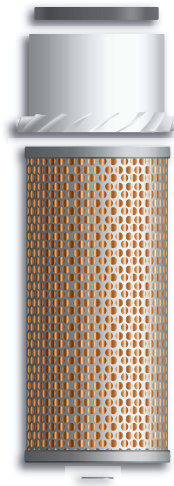
WIX Heavy Duty Air filters protect an off-road vehicle's air intake system from contaminants like soot, dirt and debris, which can cause premature engine wear and failure.

One of the most important elements when considering HD air filters is the housing gasket when required. When selecting air filters, customers must be sure the gasket is designed to not only fit multiple housings, but that it's also the right design for the application. WIX HD air filters feature multiple, pre-formed housing bolt holes, which assure the proper seal and eliminate improper gasket usage and inventory issues.

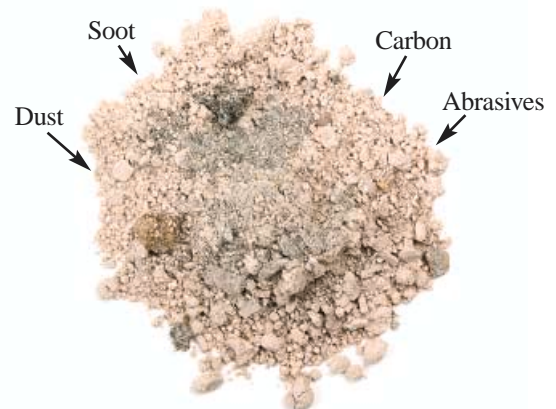
Another key element of HD air filters is the end caps, which should be designed with structure and fit in mind. WIX HD air filters are drawn in a concave shape, which allows for ease of installation and ensures exacting torque-load distribution — meaning the gasket seals and the filter become one with the housing to protect the engine.

WIX Filters goes the extra mile during the design and construction

of its HD air filters. Every element on WIX's HD air filters, from the patented silicone gaskets to the oven-cured plastisol media stabilization beads, assure that its customers don't have to worry while going down whatever "road" they're on.



air



air filtered elements

Oil Filtration

It takes the average contractor 15 to 20 minutes to change an oil filter on any vehicle in their fleet. This \$20 investment can add up over time. But when paired with a premium WIX Heavy Duty filter, it's much more cost effective than replacing your equipment.

Oil is the life-blood of any vehicle, and this holds particularly true of Heavy Duty and off-road equipment. Many operators tend to take their oil filtration for granted. However, this small and inexpensive portion of their overall system plays a vital role in protecting their engines from premature wear and potential failures.

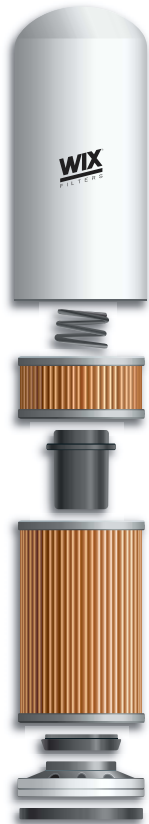
The base plate on all WIX HD oil filters are manufactured with a standard .155-inch thickness and boasted the most consistent design within the Benchmark Study. This thicker standard base plate assures:

- consistent thread strength
- easier thread engagement
- positive inner-element support-seal area
- consistent gasket compression
- positive filter performance for optimal engine protection

The WIX HD oil filter glass-filled nylon element supports are designed to resist all fluid types, vibration, high and low

temperatures and will not deform under constant spring-load pressure. This maintains a positive seal and ensures that no fluid will bypass under all operating conditions.

The inner elements of HD oil filters are exposed to a wide variety of fluctuations in flow and pressure. WIX HD oil filter center tubes are purposely "over-engineered" for these reasons and to assure overall system protection.



clean oil



oil filtered elements

Fuel Filtration

No matter what size or horsepower rating your diesel engine is, the primary fuel filter should always be a fuel/water separator. All diesel fuel will have some water in it. Removing it ensures long, happy diesel injection system life and productive engine up-time.

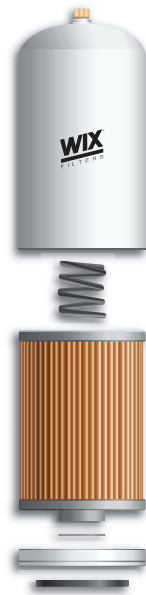
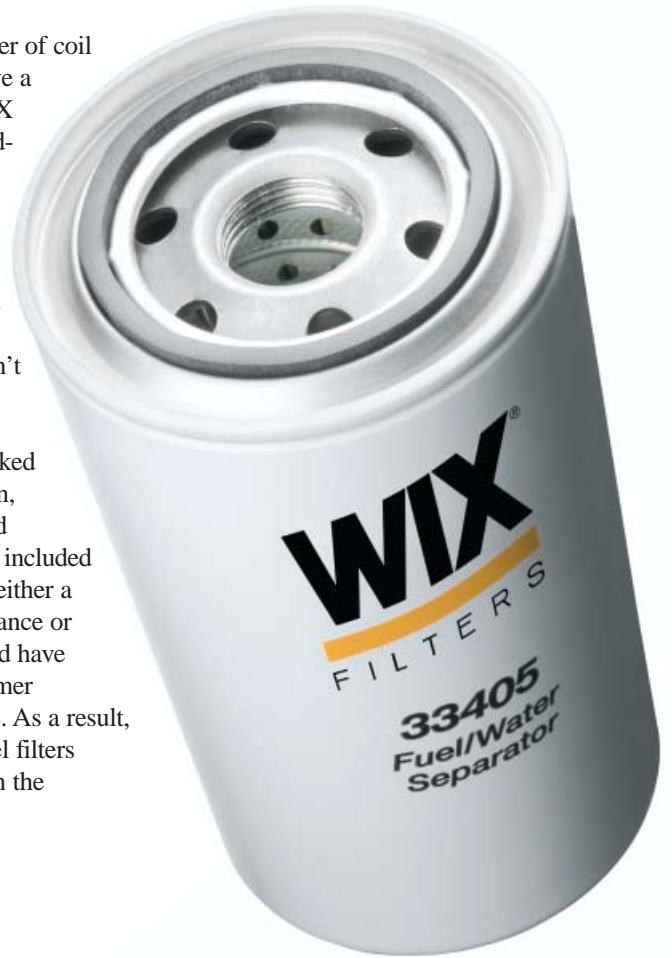
The fuel your off-road equipment uses to power through the toughest jobs, more often than not, contains contaminants such as dirt, rust, scale and water that can plug fuel injectors or carburetors and cause engine malfunction or deterioration. These impurities can originate from dirty and rusty service-station storage tanks, and as the vehicle ages, from corrosion within the fuel system components.

WIX Filters understands the need to protect this vital power system and offers high-quality, high-efficiency fuel filters, and a complete line of fuel/water separators, for farm, construction, mining and other off-road applications.

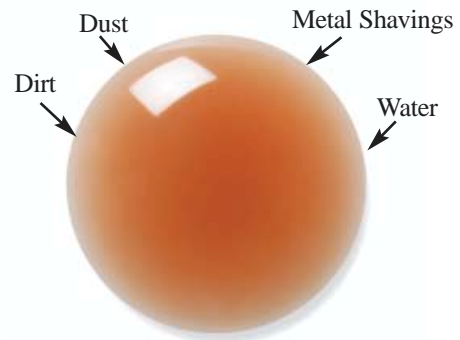
WIX HD fuel filter containers utilize optimal metal thickness and double-seam construction and were the only fuel filters in the Benchmark Study to pass all cycle-fatigue tests. They also ranked best-in-class for media surface area utilization.

The competition uses a number of coil or leaf springs that do not have a consistent load or design. WIX HD fuel filters use kicked-and-tucked springs with a 30-lb. load standard on the inner element. This reduces the possibility of fuel bypass, keeps the filter element seated against the base plate and the kicked-and-tucked spring won't cut or damage the can.

WIX HD fuel filters were ranked best-in-class for overall design, construction, performance and quality. All of the competitors included in the Benchmark Study had either a design, construction, performance or quality flaw that could have caused either a customer complaint or a failure. As a result, WIX Heavy Duty fuel filters easily ranked No. 1 in the Benchmark Study.



clean fuel



fuel filtered elements

Transmission and Hydraulic Filtration

The age-old question of “How clean is clean?” has been answered by the universal acceptance of a standardized test method to determine a media’s Beta Ratio. Beta Ratios precisely describe how efficient a media is at removing certain-size particles. The test procedures used to determine “micron ratings” were not standardized and could be easily manipulated.

Fluid power applications are growing at a very rapid rate. WIX is constantly researching these applications and adding new products to meet our customers’ needs. Our newest product offering is a line of industrial hydraulic filters. Whether your fluid-power filtration needs are for mobile or industrial applications, WIX is your source for hydraulic and transmission filters.

Whether the filter is cartridge style or spin-on style, WIX fluid-power filters utilize heavy-gauge steel componentry that is tin plated to resist corrosion. Our filters’ center tubes are spiral wound for consistent internal structural integrity. The base plates of our spin-on-style filters contain optimized inlet-hole geometry and rolled, internal threads for strength and easy installation.



Our sealing-gasket materials are specifically designed for use with hydraulic and transmission fluids.

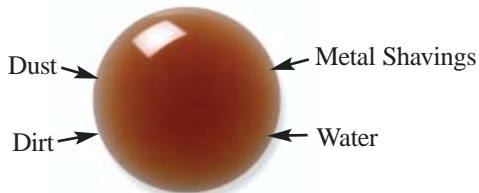
To insure the correct performance levels are achieved, our fluid-power filters make use of Prescription Filtration®. This means our customers can be assured that when they purchase a WIX brand fluid-power filter, the media used in the filter is specifically designed for their application, and it will perform to their expectations. Complete media performance information, as prescribed by current SAE/ISO Beta Ratio testing methods, is either printed on the filter itself or available upon request.

Customers and technicians who are involved with fluid-power applications consistently use fluid analysis as a preventive, predictive maintenance tool. WIX offers a nationwide, professional fluid analysis program for both mobile and industrial fluids. The industrial service includes particle counting to insure expensive equipment is being properly maintained.

The finest catalog application information, part-number interchange database and technical support are available on our Web site, www.wixfilters.com, or they are just a toll-free telephone call away at 800-949-6698. Customer service and satisfaction is our primary goal.



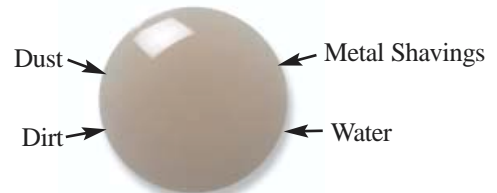
clean transmission fluid



transmission fluid filtered elements



clean hydraulic fluid



hydraulic fluid filtered elements

Coolant System Filtration

Fifty-three percent of all catastrophic, premature diesel engine failures are directly related to improper cooling system maintenance techniques and habits. Using the correct water, antifreeze and supplemental coolant additives in cooling systems is more critical than ever to insure trouble-free service life.

Heavy Duty cooling system manufacturers' maintenance recommendations, maintenance techniques and filtration-product availabilities have dramatically changed over the past several years. WIX has been very successful in keeping pace with the changes that directly affect our coolant-filtration products and the cooling system additives we offer. In addition, we have several services to help our customers properly test and service their Heavy Duty cooling systems.

From a chemical-additive and coolant-filtration perspective, WIX has virtually everything our Heavy Duty customers could want, with the exception of water and antifreeze, to properly maintain all of their Heavy Duty cooling systems. We have standard service interval products for systems being serviced every 15,000 miles or 250 hours of operation. We have slow-release products for systems being serviced every 12 months or 120,000 hours of operation.

We have extended service interval products for systems that are being serviced every 150,000 miles or 4,000 hours of operation.

Which product to use is totally dependent on your customers' decision as to how often they want to service the cooling system. All of our cooling system products are designed to be totally compatible with all other additive, filtration and antifreeze technologies available today.

Our coolant-filtration product offering has a wide variety of applications. Most of the filters contain some type of chemical additive. However, we do offer several filters without chemical additives for customers who prefer to use the liquid form of the additive and simply want a filter to protect the coolant system for any type of solid contamination. Regardless of which filter is used, they are all manufactured with epoxy-coated steel on their interiors to prevent rust-through due to improper additive levels or poor maintenance practices.

In an effort to insure our customers have everything they need to properly maintain their Heavy Duty cooling systems, WIX offers both in-field test strips and a full-laboratory coolant-analysis program. The test strips will give our customers a quick and simple method to check their cooling systems on-site to make sure they are properly protected.

The full-laboratory analysis is a complete and in-depth test procedure that can aid in troubleshooting efforts or can verify the service interval for the system, the filtration products and/or the chemical additives you have chosen are actually performing



and protecting the way they are expected. WIX also offers a filter mounting base specifically designed for adding a coolant filter to almost any cooling system. Finally, product information, part-number interchanges and technical support are available on our Web site, www.wixfilters.com, or they are just a toll-free telephone call away at 800-949-6698.



clean coolant



coolant filtered elements

History of WIX Filters



In 1939, WIX Filters was founded by John Doan "Jack" Wicks and Paul G. Crawshaw and based itself on the idea that manufacturing filter replacements would simplify

the filter changing process. At that time, WIX was focused on manufacturing the first sock-covered refills for popular oil filters that were both economical and highly efficient for the farming industry.

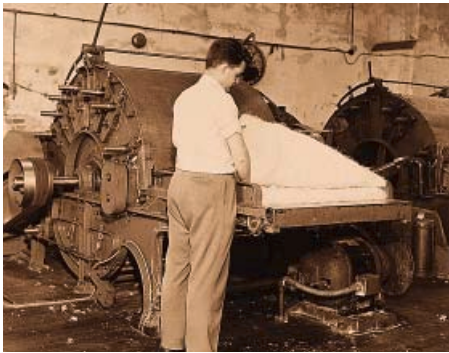
In the late 1930s and early 1940s, filter manufacturing for the Heavy Duty industry was key — as that preceded the mass production of passenger cars and light-duty trucks.

During World War II, WIX Filters found itself, like many other companies at that time, devoting much of its focus to the war effort by supplying filtration solutions for the government. After the war, the focus shifted once again to the exploding passenger and light-duty markets.

WIX Filters never forgot that its roots were founded in the Heavy Duty industry, and in 2002, began a conscious effort to re-establish its focus in the industry where it all started. WIX Filters conducted an extensive Benchmark Study to see where it stood when put up against the Heavy

Duty competition. This first-of-its-kind comprehensive study of the industry proved what WIX Filters has known for a long time — that WIX HD filters can stand up to whatever industry demands or brutal elements are thrown at them.

WIX Filters' determined refocus on the Heavy Duty industry couldn't come at a better time, as newly refined EPA regulations and the challenges that accompany them will place increasing demands on filtration. WIX Filters is committed to working with manufacturers, fleet owners and service centers to assure the reduction of diesel emissions while protecting expensive off-road and fleet equipment.



WIX Filters
1 Wix Way
Gastonia, NC 28054

Phone: 704-869-3300
Fax: 704-864-9861

Customer Service: 704-869-3421
www.wixfilters.com