FUEL PUMPS
THE CRITICAL LINK

Most people never give a second thought to the fuel pump in their vehicle until it doesn't work, or for enthusiasts and racers until it doesn't meet the needs of their high-performance engine. Modern fuel pumps are very reliable and seldom fail, but if they do, you are going nowhere. Your vehicle will not run without it.

The role of a fuel pump is to deliver a steady supply of fuel to the engine under sufficient pressure to allow the engine to operate properly. This is even more important in modern computer-controlled fuel-injected engines that often require more fuel pressure to be supplied to the engine than carbureted engines did. High-performance engines can require increased flow and/or pressure to operate. Early fuel pumps were primarily engine-driven mechanical pumps, however almost all modern fuel pumps (lift or transfer pumps on diesels) are electric pumps. Many of them can adjust fuel flow on demand.

In-tank fuel pumps are also more environmentally friendly. They reduce emissions because there are fewer connection points outside the tank. They help the engine to run at peak efficiency.

When you think about it, here is a very essential component that is submerged in gasoline, diesel fuel, fuel additives, and sometimes water for years and years and yet expected to function for the life of the vehicle. Metal fuel tanks can also rust on the inside and that rust can clog a fuel pump. All this adds up to a tall order, but it's also a testament to how robust modern fuel pump designs are.

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Today's fuel pumps are typically mounted inside the fuel tank, although some diesels have them near the engine. The fuel tank is mounted lower in the vehicle than the engine so it is always pumping against gravity and acceleration forces. When you consider that the fuel tank is normally in the rear of the vehicle and the engine is usually in the front, the fuel pump has its work cut out for it.

The in-tank design offers many advantages including:

1. Helps keep the fuel pump cleaner than if it was outside the tank
2. Helps keep the fuel pump from overheating, however, running

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the vehicle with low fuel levels over extended periods of time can cause the pump to overheat and wear prematurely

3. Helps reduce emissions

You may never need to replace a fuel pump since they are intended to last the life of the vehicle But if you do need to replace, it is wise to do so with one that is of equal or better quality than the factory pump. Since the fuel tank normally must be removed from the vehicle to replace it, it's typically a job that you only want to do once.

In addition to being replaced when they fail, many performance enthusiasts and racers replace their factory fuel pump with a higher performance unit. High performance units deliver increased flow and, if needed, also increased pressure to meet the demands of higher horsepower engines. Inadequate fuel supply can not only limit the maximum performance of the engine, in certain situations it can also cause expensive damage to the engine.

Modified vehicles utilizing aftermarket performance parts will benefit greatly from a TI Automotive high-performance fuel pump when looking for maximum horsepower. TI Automotive has the optimal high-performance pumps for both single and dual pump installations engineered to match or exceed original equipment quality and will provide years of reliable service. When you need to replace a fuel pump on OE or high-performance applications, TI Automotive fuel pumps are an excellent choice.

ABOUT TI AUTOMOTIVE

Fluid thinking™ shapes the mindset of TI Automotive. Global automotive manufacturers turn to TI Automotive to develop and produce industry-leading automotive fluid systems technology. Two-thirds of the world's vehicles contain technology from TI Automotive.

With 28,000 employees at more than 118 locations in 28 countries, our strength lies in our ability to creatively meet and exceed the increasing fuel economy and emissions regulations of tomorrow's auto industry.

OUR MICHIGAN MANUFACTURING SITE

The Caro, MI plant is TI Automotive's high-performance and aftermarket fuel pump and module manufacturing site. Our fuel pumps and modules are never manufactured or assembled by a third party or sourced from an outside company.