

Diesel vs gas essay



You're in the market for a new truck; you have an idea about what you want but not quite sure if you want a gasoline or a diesel engine. Well, gas and diesel engines are very similar yet different in quite a few ways. At first glance, someone who doesn't know much about either of the two engines might ask, " What's the difference? " To the untrained eye they might look exactly alike, but don't judge the engine by its exterior look. Gas engines are mainly used by the individual in personal vehicles whereas diesels are very popular in the commercial and industrial fields.

Diesel engines are used by the navy in their ships and by the army in their tanks and big trucks. Some of the main reasons for choosing this engine are that diesels are more reliable and durable than gas engines. Diesels are built to last and built to work. Also the power output is greater in a diesel, thus more economical. From an environmental point of view a diesel doesn't burn as clean as gasoline. Apart from particulate matter (which modern diesel filters can minimize), burning a gallon of diesel will generate more CO₂ than burning a gallon of premium gasoline.

You'd need a fuel savings of around more than 15% percent to compensate for the increase in CO₂ output compared to the same car powered with an equally powerful gasoline engine. The way the gas and diesel engines start are a major difference in the two. Gas engines use spark plugs to ignite the fuel. Diesels do not have spark plugs, they use compression. A gasoline engine intakes a mixture of gas and air, compresses it and ignites the mixture with a spark from the spark plug. A diesel engine takes in just air, compresses it, and then injects fuel into the compressed air. The heat of the compressed air lights the fuel.

Both modern engines use Electronic Fuel Injection to inject fuel into the cylinders. Both the gas and diesels are internal combustion engines. Inside an internal combustion engine explosions of fuel in the cylinders periodically push the piston down, which, through the connecting rod, turns the crankshaft. The continuing rotation of the crankshaft drives the piston back up, ready for the next cycle. The piston moves in a reciprocating motion, which is converted into circular motion of the crankshaft, which ultimately propels the car. Gas engines usually have about the same amount of horsepower as they do torque.

The diesel engine usually has twice as much torque as it does horsepower, thus it is the better hill climber and load carrier. As you might have noticed, diesel engines have a harder time starting in cold weather compared to gas engines due to the fact that gas engines have an electrical started system. Gas engines rely on fuel, air and spark to ignite whereas diesel engines rely on heat and compression to initiate spontaneous combustion. Some of the more obvious differences are the prices for fuel.

As of now, March 2011, the price for diesel is significantly higher than gas. Gas is approaching the range of \$3.40 per gallon to \$3.00 per gallon (depending on what part of the country you're in, it could be higher than that). Diesel, on the other hand, is nearing \$4.00 per gallon and quickly rising. I remember 7 or 8 years ago when diesel was cheaper than gas, and gas was just above \$1.00 per gallon. Overall, I would say the diesel engine is the better of the two. Of course it all depends on the usage and perhaps the price of the vehicle but overall the diesel engine is more rugged and reliable, long-lasting, stronger, more efficient and requires less maintenance than a

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gas engine. I'm proud to say I drive a diesel and will continue to for many years.