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Ever since the assembly line was put into use by Henry Ford in 1903 the automobile has gotten more and more popular and easier to obtain.

Why is this topic important? On today's roads 96% of all vehicles driven are powered by an internal combustion engine. There are different designs to this engine type. In automobiles today we have an option for diesel engines and gasoline engines. Americans need to realize the importance of the diesel and how it can save them time and money. Diesel Engines are more efficient, they last longer, and they produce less emissions than their gasoline counterparts contrary to popular belief. Here is why diesel engines are better than gasoline engines.

With increasing regulations and rising prices choosing an economical means of transportation for work commutes and retrieving goods from stores is imperative. Choosing diesel over gasoline will save you money because diesel engines are more efficient by design. Gasoline engines have a lower thermal efficiency than diesel engines. Diesel engines also create less emissions than gasoline engines contrary to popular belief. Diesel engines have double the service life of a gasoline engine which will save you money because you have to service diesels less and replacing the engine is few and far between.

Diesel vs gasoline is often debated upon when it comes to buying a new vehicle or getting a used one. Most Americans check the mpg rating of a vehicle before they buy it. Having a fuel-efficient vehicle is important because money not spent in one area can be put to another area such as paying rent utilities or mortgage. Diesel vs gasoline is also of importance when it comes to environmental concern which has a major weight because it influences the cost of the vehicle and influences its ability to operate. "...in a study they conducted to compare the fuel efficiency of

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diesel and gas engines, diesel engines were 29 percent more efficient on the highway and 24 percent more efficient in the city.” (Research, Hearst Autos)

The diesel engine is able to accomplish this because diesel fuel contains more energy than gasoline does thus allowing it to do more work with less fuel.

Because diesels use compression ignition, they are able to make torque at a lower rpm. Because of this lower rpm range, they vibrate less allowing them to last longer than their gasoline counterparts.

“Diesel engines also have fewer components than gas engines, which means your car has fewer potential parts that could malfunction. Most diesel engines require fewer repair and maintenance services than gas engines, which represents an overall economic saving.” (Research, Hearst Autos)

Diesels produce less emissions than gasoline engines contrary to popular beliefs.

“... we can calculate that when compared to its gasoline counterpart the diesel vehicle has 35% lower fuel consumption, 53% higher fuel economy, and 27% lower CO₂ emissions.” (Sullivan, J. L., et al)

Despite popular belief diesels are better for the environment than gasoline engines . Most people see diesels as soot dumping vehicles. Diesels only produce black smoke when more fuel is added than can be burned into the engine. Modern diesel vehicles do not do this because of accurate fuel control by an engine control computer. Modern diesels also have particulate matter filters that prevent soot from exiting the exhaust. The use of diesel exhaust fluid also prevents excessive soot from entering the atmosphere. Diesel engines not only produce less carbon dioxide but less carbon monoxide also. Diesel fuel does not evaporate which means it cannot release hydrocarbons into the atmosphere which creates ground level ozone. Ground level ozone (or smog) causes many respiratory problems such as increasing chances for asthma. But there may still be possible downsides to diesels not mentioned here.

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What does the opposing side think or say? Many might argue that diesel engines are hard to start in cold weather, but this is only the case when it is below freezing temperatures. This becomes the case when the temperature is below freezing. In the United States the only place that gets cold enough to make cold starting a diesel hard is Alaska. To prepare an engine for winter (gas or diesel) it is necessary to put winter blend fuel and winter blend engine oil. In the United States mainland, the most you will have to do are these two steps. In Alaska, some may find it necessary to equip the vehicle with engine warmers to make sure the engine stays at a warmer temperature. And some might find it necessary to mix kerosene with the diesel fuel to preventing the diesel fuel from turning into a gel like substance similar to bacon grease after it has cooled. In extremely cold climates even electric vehicles struggle. An electric car would have to stay plugged in all night to keep the battery at a safe temperature.

Another argument against diesels is the cost of diesel fuel. On average diesel costs up to 2 dollars more per gallon than gasoline. This is because of the low sulfur refining that takes place. This is done in attempt to lower particulate matter in diesel fuel. Even though diesel costs more it is still cheaper to use. Because of the efficiency of the diesel engine, you still fill up half the amount as you would with gasoline.

Reliable forms of transportation is a concern of many. Choosing diesel over gasoline will save you money because diesel engines last longer than gasoline engines, which means less repairs over its lifespan. Diesel engines are more efficient than gasoline engines because of its high torque outputs and the higher energy content of diesel fuel, they produce less harmful emissions such as

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carbon monoxide. Diesel fuel cannot release hydrocarbons like gasoline does which means less possibility for ground level ozone to build. Diesel will save you time and money allowing you to spend time doing other things more important than worrying about fuel costs and what is next to fix on your vehicle.

Sources Used

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