

# Which is better, diesel or gasoline research paper sample

[Technology](#), [Innovation](#)



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Engines that use diesel or gasoline might look similar to an untrained eye. However, diesel engines are much older, and they are mostly used for heavy machinery. On the other hand, gasoline is commonly used in personal vehicles and light machinery. Therefore, both fuels have their own advantages leading us to ask the pertinent question on the best source of fuel. This question arouses different feelings in consumers of diesel and gasoline. The main factors to consider in this case are intended use and price of the type of fuel. In terms of efficiency of function and pricing, diesel is a better source of fuel than gasoline.

## **Background**

Diesel is a heavier type of fuel the reason why it is utilised by most heavy duty purposes. It has been in existence for a longer time. However, there were issues on air pollution as a result of the use of diesel. As fate would have it, technology and experience joined efforts and came up with gasoline.

This is a lighter fuel used for light duty machinery. It is not efficient for heavy duty work. Poltcor defines gasoline as a liquid fuel that has been derived from petroleum. It was meant to be an inexpensive way of obtaining this precious commodity (Poltcor 3).

## **Problem**

At one time, cars that utilise diesel accounted for about ninety percent of the total car sales in the world. The invention of gasoline changed this. In the nineteen eighties, most of the world population steered off car consuming vehicles. Diesel was left for utilisation by heavy industrial machinery and big trucks (Ayhan 13). Currently, the popularity of diesel seems to be increasing attributed to various reasons. The cost efficiency and cost benefit analysis seems to be a one sided ledger. The odds are vouching for the return of diesel as a source of fuel. The decision on whether diesel is better than gasoline is based on the following discussions.

## **Pros of Using Diesel over Gasoline**

One significant advantage of diesel is the fact that it is a heavy fuel. As such, it has high energy content available for use during consumption. Diesel converts heat into energy unlike gasoline which has to be compressed to release heat that is then used as energy. This heat is passed through the tail pipe (Ayhan 53). Any diesel powered machine is more powerful and effective than one powered by gasoline. Such machinery and automotives can perform the same amount of work for a longer time. This also contributes to considerable mileage. Apparently, diesel delivers about thirty percent higher in terms of efficiency (" Pros and Cons of Gas Vs. Diesel in Class 3-4 Trucks"

1).

One factor considered when purchasing machinery or vehicles is durability ("Pros and Cons of Gas Vs. Diesel in Class 3-4 Trucks" 1). This is another advantage of diesel powered machinery. In order to withstand the rigors of higher compression ratios and cylinder pressure, diesel engines are built with sturdier parts. This is an immensely effective way of dissipating these pressures. Even though this makes them slightly noisy, their durability masks this aspect. Diesel engines are rated to have up to six hundred thousand miles. Moreover, diesel fuel is known to be less corrosive on the exhaust increasing their durability factor.

The introduction of gasoline seemed as a good way of dealing with the fuel price problems. However, this advantage is short lived. The prices of fuel have been fluctuating through the years affecting both gasoline and diesel. Diesel prices have been almost similar to the price of gasoline in the United States of America. Currently, gasoline is more expensive owing to the problems in Middle East. Furthermore, due to its popularity, unscrupulous businessmen have taken advantage of the situation (Deana 67). Prices of gasoline soar simply because these businessmen have realised that people are willing to pay more for this commodity. This is compounded by the fact that gasoline is easily acquired. As such, in terms of price, diesel seems to be the favourable solution.

The durability factor leads to the advantage of diesel powered being resalable and thus easy to dispose of. According to research collected by Schifsky, a diesel powered vehicle is preferred to a gasoline powered vehicle in a second hand market (Schifsky 1). Whether the mileage is higher or not,

a considerable number of people purchasing vehicles from a second hand market preferred a second hand one (Schifsky 1). This advantage is also passed onto the businessman as the prices of such vehicles and machineries are higher. For companies with a smaller fleet budget, diesel trucks are more efficient than gasoline ones. For instance; gasoline trucks only last for more than one hundred miles while diesel engines can last up to one and half that long. As such, companies tend to prefer them (Schifsky 1).

The efficiency of work done is dependent on the choice of tools. Not only is diesel capable of performing light duties, it has a torque advantage of heavy duties. This capability is probably the reason why diesel has survived for ages. Even though the same duty can be conducted using a gasoline engine, power is less efficient, and it also lasts for a shorter time. This is evidenced by the preference for diesel engines by most heavy duty industries such as shipping and transportation.

A tremendously pertinent issue arises when it comes to environmental protection and fuel usage. About a million vehicles are on the road each minute in America only. The fumes emitted from these vehicles contribute to the amount of green house gases. Researchers say that diesel is a better form of fuel because it contributes less in terms of green house gases (Schifsky 1). Ram and Ayhan state that diesel emits about seventeen percent green house gases than gasoline (Ram and Ayhan 78). At the same time, it requires eighteen percent more of heat trapping gases while gasoline requires much less. The latter data partially offsets the initial data. Therefore, diesel is an effective way of dealing with global warming.

## **Is Diesel Really Advantageous?**

One factor that led to the invention of gasoline is the emission of strong smelling fumes from diesel. This smell was previously attributed to several lung diseases and sinus sensitivity (Ram and Ayhan 93). As diesel burns, the sulphur compound in it is responsible for the strong smell. Even with the invention of low sulphur diesel, the smell is much stronger than that emitted by gasoline. The black sooty substance produced from the tail pipe compounds to this problem. However, several researches are still being conducted and it is expected that the next generation diesel will have solved this problem.

Cases of lack of fuel have hit the world from time to time. This was especially rampant before the invention of gasoline. Diesel is hard to acquire as compared to gasoline. The preference for gasoline has also led most businessmen not stocking on diesel. In fact, it is reported that diesel pumps in America are only found in one out of five fuel stations ("Pros and Cons of Gas Vs. Diesel in Class 3-4 Trucks" 1). When interviewed, most businessmen reported that even the lack of diesel itself reduced the zeal of dealing in the product (Deanna 190). In these cases, the consumption of gasoline has increased and most household vehicles utilise gasoline engines.

## **Conclusion**

Preference for gasoline or diesel comes down to several things; price, torque efficiency, durability and availability of the fuel. As evidence suggests, diesel seems to have an advantage in most of these factors. For instance; engines that use diesel are more durable and are easy to dispose in exchange of

money. In the second hand markets, diesel consuming machineries are preferred to those that utilise gasoline. Its lack of corrosiveness also contributes to this advantage. Moreover, the fuel is fairer in price and it is not easily affected by price fluctuations like gasoline. It also gives value for its money. In terms of cost benefit analysis, diesel provides a more efficient service and for a longer time. This can be determined by analysis of the mileage of both fuels. Gasoline has its own but limited advantages over gasoline. First, it fights off the problem of fume emissions. Secondly, it is easy to acquire and thus beats off the problem of fuel shortages. Despite this, it cannot be utilised for heavy machinery and thus diesel remains to be a better form of fuel than gasoline.

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