

Are Electric Engines Better than Petrol Engines?

Electric engines are seen as the way forward from vehicles today. Current vehicles use internal combustion engines that all use some sort of non-renewable fuel. Electric engines are seen as a huge improvement on the current motor industry as they do not use valuable resources.

Comparisons can be made about how far a vehicle with each engine can travel on a full charge or full tank of fuel, the power both are able to produce and the cost of each to build. Both have acceptable reasons and unacceptable reasons to be placed on or taken off the market for the consumers who wish to run a specific type of vehicle.

The demand for an emission free car is becoming increasingly popular among the public across the globe. It has been proven by research undertaken by a number of Japanese and European car manufactures that electric engines produce no harmful gases, like Carbon Dioxide. The areas researched produced reports consisting of how charge efficiency, speed and passenger safety affect emission output while studying this key feature. However, the study was carried out with only one passenger and no luggage on a single full charge. The results showed exactly what the manufacturers wanted to see; it showed zero emissions were being produced. However, they were producing a lot of excess heat and noise. A sound recording showed that nearly eighty decibels of sound was being produced by the engine itself.

As a consequence of this demand for electric vehicles the demand for electricity will increase further as more electric vehicles hit Britain's roads. A prediction by a German think tank suggests that this demand will cause power plants to increase the amount of fossil fuels they burn to produce the electricity to recharge these vehicles. If this prediction is correct then the power plants will also increase the volume of green house gasses like Carbon Dioxide and Carbon Monoxide they produce. It is estimated that the increase will be around two billion cubic metres every quarter after three years.

A second reason for the electric counterparts of today's engines is the number of parts it takes to build a single engine. An electric engine only has around thirty components compared to a diesel engine which has more than three hundred components that take up a vast amount of space. The number of components is reflected directly in the price at the showroom; the fewer the components, the higher the price. To be fair electric vehicles should be reasonably priced but truthfully they start from around twenty thousand pounds and upwards. Most of this money is used to further research and improve current vehicles.

A second inconvenience of electric engines is that a single charge cycle only lasts roughly a single day. A study was again carried out by manufacturers to see how long a cycle would last; they spent a day in a congested city driving around to see how the battery lasted in an urban area. They also tested it on a long distance trip of at least a thousand miles at a constant of sixty miles per hour. The first test concluded that

the battery would have to be charged every twenty-eight hours. The second showed that a charge was needed every sixteen hours and would last only 210 miles, resulting in the trip taking roughly six days. This rigorous testing showed that the lifetimes had dropped significantly and replacing it is a manufacturer only procedure so as not to compromise the safety of the passengers.

A final point in favour of the electric engine is they are eighty percent less likely to overheat or even explode. The first models tested would heat up to around three hundred and seventy degrees centigrade. However, a newly qualified ventilation systems' engineer designed a component essential to the lifespan of the vehicle and welfare of the passengers as the component was able to draw the heat from the engine and use it to heat the passenger cell. As a result of this the graduate was given a lead role within the company. A number of engines put through their paces as a test to see if they exploded under a high torque setting; only three of the engines disintegrated. The rest withstood the test and were put into manufacture. Furthermore, the electric engines being used only have one gear with an impressively high ratio, therefore reducing the risk of a number of issues not just the risk of explosion.

A final point against electric engines is the constant charging required to get the user from A to B daily. Studies carried out showed that for just daily use for going to and from work or to the shops would require the battery to be charged every night for at least twelve hours. Additionally, due to this constant charging, battery life would drastically decrease over a short period of time. The original idea for the batteries would be they last for at least fifty years with a charge every two or three days, but this did not go to plan and new batteries are currently in development. Until the new batteries are put in to production the current batteries will have to suffice.

In conclusion, my view, is that electric vehicles are not better than current petroleum fuelled vehicles as they are still in their juvenile stages and aspects such as price and battery life would defer many from investing in one, despite the benefits to the environment. They are also not yet powerful enough to be used in bigger, heavier vehicles such as lorries and specialist plant equipment. In my opinion the current market of electric vehicles is a trial period for manufacturers to find out how we, the consumer, use their product and to see if they are worth putting into mass production around the world.

Sources: Wikipedia and RMIF Reports (Retail Motor Industry Federation)