

How Technology Has Improved Car Engines



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1 Introduction

- In recent years, many different methods of optimizing fuel mileage have come about.
- Some require sophisticated computers and technology to run them, but others just require extended research and revolutionary innovation.



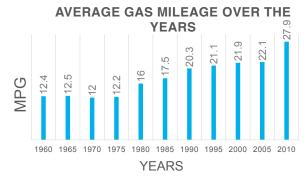
Taken from source 1

Turbocharge taken

. Methods

- · Hybrids/Electric Cars with Gas Generators
 - Toyota Prius
 - BMW i8
- Electric Cars
 - Tesla
 - Chevy Volt
- Turbocharged Vehicles
- Ford Mustang Eco Boost
- Ford GT Eco Boost
- · Variety of Volkswagens
- Cylinder Shut Off Technology
 - Dodge Charger Hellcat
 - GMC Sierra SLT Flex Fuel
- Stop-Start Systems
 - Chevy Malibu
 - · Variety of Mercedes Benz Vehicles

3 Results



- As the years increase fuel efficiency has a positive increasing correlation
- In 50 years average fuel efficiency has increased by more then double
- In 80 years average horsepower has increased by more then three and a half times



BMW i8 motor placement taken from source 3



Mercedes eco dash taken from source 3

Conclusion

- There are many different ways to increase efficiency.
- Manufacturers provide a range of options because no one method is perfect yet allowing the consumer to choose their own preference.
- Electric cars seem to be our best bet for efficiency, but are still far from perfect.

Future Work

- In the future we expect more cars to go electric or hybrid and become way more efficient then todays car because technology is improving exponentially.
- In the future, we can expect gas mileage to increase just as fast as it has in the past, eventually to where "gas" mileage will be a dated term.

Works Cited

- http://www.autoblog.com/2010/05/25/horsepower-has-increased-112since-1980-and-other-fun-facts/
- 2. Importtuner.com
- http://www.bmwblog.com/2011/02/24/autocar-bmw-i8-to-receivegasoline-engine-and-no-turbo-diesel/
- http://wot.motortrend.com/1410_mercedes_betting_big_on_ev_and_hy drogen_powertrains.html/2015-mercedes-benz-s550-plug-in-hybridinterior-instrument-cluster-e-save-mode/