



ENGINES. DOES SIZE MATTER?

Manufacturers are continuously improving engine efficiency and performance, which in turn is resulting in the squeezing of more power out of ever smaller engines.

INTRODUCTION

Over the years, fleet policies had tended to reflect the view that engine size increases in line with seniority. For example, junior sales staff may have been eligible for a company car with a 1.2 – 1.4 litre engine, middle management would typically have expected to be able to procure a larger 2.0 litre engine, and a CEO may have decided to choose a more powerful car again – 3.0 litre plus.

Although these policies have changed there can still be a perception that a greater engine capacity had been seen to equal an enhanced performance and therefore an increased driver experience. However with the challenges set out by the European Union on emissions targets, manufacturers are changing the way in which they power vehicles.

This paper sets out how these manufacturer changes affect policy make-up today and whether driver perception has moved on from the belief that a larger engine is needed for a better driving experience.

FACTORS DRIVING CHANGE

Within the Lex Autolease customer base there has been a significant shift towards environmentally friendly vehicles. The cause of the shift is down to a number of factors.

Personal tax	The tax on company cars is based on a sliding scale where lower CO2 emitting cars attract a lower Benefit in Kind percentage.
Reducing running costs	Many organisations have adopted whole life cost as a method of selecting vehicles. This ensures that costs which are linked to vehicle efficiency (such as National Insurance and Fuel) are built into the vehicle selection process.
Fuel costs	Fuel costs have increased rapidly in recent years and are expected to continue to rise in the long term.
Vehicle Excise Duty	The annual VED cost is based on emissions with both first year and standard rates varying depending on the CO2 of the car. Cars in the highest emitting band will cost over £50 per month more than cars in the lowest band.
Corporation tax	Since April 2009 capital allowances and the lease rental restriction have been linked to CO2 injecting a higher cost for higher emitting cars.
Environmental awareness	People are more aware of environmental issues and more specifically the very visible use of a vehicle. Some low emission vehicles such as the Toyota Prius have also become the vogue due to a number of high profile celebrities adopting it as their vehicle of choice.

TECHNOLOGY

Manufacturers now utilise an assortment of different technologies such as turbo chargers, superchargers and hybridisation which provides greater power efficiency. This has allowed manufacturers to reduce the size of their engines whilst producing similar or greater power output. Advances in composite materials have further facilitated this shift through significantly reducing the weight of vehicles without compromising in other areas such as safety.

IMPACT

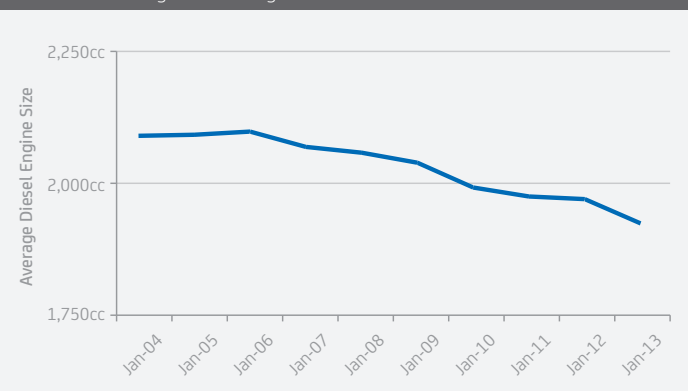
The following example shows how the Volkswagen Golf and Polo have developed over a two year time period.

	Volkswagen Golf			Volkswagen Polo		
	1.6 Tdi 105 Match 5dr	1.6 Tdi S 5dr	Change	1.4 Match 5dr	1.2 Tsi 105 SEL	Change
CO2 Emissions	119	98	▼	139	124	▼
mpg (combined)	62.8	74.3	▲	47.9	53.3	▲
BHP	103	103	◄►	85	103	▲
Torque (Nm)	185	184	▼	97	129	▲
0-62	11.3	10.7	▲	11.9	9.7	▲
Date	Dec-11	Jan-14		Dec-11	Jan-14	

FLEET EXPERIENCE

The average engine size of vehicles being offered for sale has shown a decrease which has accelerated in recent years. Lex Autolease has seen a more exaggerated shift in driver behaviour towards lower capacity engines when vehicles come up for replacement. This is mainly due to the benefits of reduced fuel consumption and taxation which the more efficient engine technologies provide.

Decline of average diesel engine size



CONCLUSIONS

There has been a fundamental shift in terms of how manufacturers are approaching developments in engine technologies. Fuel efficiency is a key factor in new developments, influenced by the EU Directives on emissions standards and the escalating price of fuel.

One of the key developments to help increase vehicle efficiency has been the downsizing of engines. What makes this more impressive is that it has been done in a way which enhances, rather than reduces the driver experience whilst also significantly reducing the environmental impact of the vehicle. The mantra that “bigger is best” may no longer hold sway.

In considering the appropriate fleet car now, we suggest that consideration of the actual power output of the engine is more important than size, in fact many manufacturers will display the power output in the vehicle’s description. Often a single size of engine may have 3 or 4 derivatives with different power outputs due to the tuning of the engine and different turbo chargers.

To find out more, contact our dedicated Strategic Fleet Consultancy team or

visit: lexautolease.co.uk

call: **0844 824 0270**

email: fleetconsultancy@lexautolease.co.uk