



## **Eco driving skills and the way to conserve fuel for better economy.**

### **Introduction.**

This article will serve to illustrate what ordinary motorists could achieve just by following some useful tips, advice and information. During the past years, the price of petrol and diesel has hit above the £1 a litre mark. Diesel is more expensive than petrol, adding more pressures on taxi drivers, driving instructors and not forgetting the haulage operators. I have already coached some van drivers and have had positive results of a saving of 10% in a reduction on their overall fuel bill. The ordinary motorist is not immune from the Chancellors punitive indirect taxes on fuel. Many households have had to make compromises in order to rely on their car. This is true for people living in rural areas where public transport is poor or non-existent.

### **Maintenance.**

#### **(i) Engine Oil.**





A lot of motorists will leave the basic checks once it goes back to their local garage or dealer for the essentials to be topped up. Yet checking the oil, coolant level, windscreen washer hardly takes up one's time. Having adequate oil in the sump of the engine will ensure that there is no eventual downfall, engine seizing up. Regular oil checks will ensure that the engine is operating at the correct level and if one sees a considerable burning of oil, corrective measures can be taken up much earlier. This would save the motorists considerable amount of money in the long term. The correct viscosity of oil should be used. This can be found in the car manual. In times of a recession, it's quite tempting to use cheap oil from supermarkets. However, it does not do the engine any good. Mixing up different grades of oil can burn up more oil in the combustion chamber. It is better to stick with good quality oil. I would avoid cheap supermarket brands and stick to what it says in the vehicles handbook.

**(ii) Coolant Level.**

It's wise not to open the coolant cap if the engine is hot. Liquid boils at 100 Degrees. One can scold themselves if the filler cap is twisted and opened. Ensure that the coolant is at the correct level. Any topping up with anti-freeze should be done at a ratio of 2:1. Two parts of water in relation to 1 part of anti-freeze.

**(iii) Screen wash.**

During winter season, the screen wash is your best friend. Driving on main roads your vehicle is exposed to dirt and grit being thrown on your vehicle. If your washer is not topped up, you will definitely struggle to drive on the main roads. Again, the quality of screen wash needs to be emphasised. You don't want to put in washing up liquid as this will definitely freeze in sub-zero temperatures in winter. Screen wash are not that expensive. Bargain 5 litres cost around £4-£5.00 pounds for a good quality screen wash.

**(iv) Tyres**



There have been a lot of articles in the motoring press the advantages of having winter tyres fitted. Personally, I don't have them fitted as they are expensive and wear out faster than conventional tyres. This is because winter tyres are made from much softer rubber to allow for sub-zero temperatures. What I advocate is fitting brand new tyres. If you can't afford to fit the premium range, go for the budget range. Make sure that the tyres are new as one can be tempted to opt for part-worn tyres. Part-worn tyre places have sprung up in the recession. The disadvantage is that these tyres are not tested and one is putting their life at risk. The only piece of contact you have between yourself and the road is the piece of rubber.

Tyres should be checked for any bulges or deep lacerations. If in doubt, have the tyre checked at a good reputable garage. Tyres in winter ought to be replaced if the tread falls below 3 mm. This is because sufficient tread is needed to grip the road and in times of aquaplaning, water needs to be drained quickly from the grooves of the tyres.

Correct pressures is again of paramount importance. I am not a fan of using the forecourt gauge. These gauges get flung around and are subject to abuse. Most of them are not free, you ending up waiting until it's your turn and it is not accurate. Better that one spends and buys a reliable tyre pressure monitor. It's an investment and you never know, you might need it one day if you suddenly find that one of your tyre pressures has significantly gone down. Could be a slow puncture.

The correct pressures can be obtained from the car manual. Over inflating the tyre can cause wear at the centre of the tyre. Under inflation causes wear on the outer edge and results in poor fuel economy.

### **Planning for the road ahead.**



Isn't it ironic that when you see a set of red traffic lights, most motorists seem to driver faster towards it? Only to suddenly brake? Sadly, this is quite common for most motorists, brake off, gas (accelerator) pedal on syndrome. The biggest enemy of fuel is notably harsh braking. If one is quite skilled of planning ahead, one can make quite a bit of savings on their fuel bill. Looking and planning ahead can be related to the metaphor of slinging a fishing rod. You sling your fishing rod as far as you can, and then quickly draw it back. This then can be applied to motoring. Look as far as you can see, spot any potential or developing hazards and start to take action by easing of the gas pedal and braking gently. Not only will you conserve fuel, there will be less wear on your tyres and brakes.

Use of the accelerator or the gas pedal should be smooth and not heavy footed. Think of the gas pedal as one opening a tap of water. The more you open the tap, the more water flows out. This analogy can also be applied to the accelerator. It's very sensitive and the pedal ought to be used sensibly.

One other thing, never race or speed up towards a set of green lights. Ask yourself "How long have the lights been on green?" When approaching a set of green lights, about 4 to 5 car lengths, ease of the gas pedal. This is so if the light changes, there will be no harsh braking. So less fuel will be used and less wear on your tyres and brakes. Remember, a green light is a mean light.

### Gears.



Many years ago, we were taught by our instructors that after significantly slowing the vehicle down, one would need to change down into lower gears to slow the car down. True, the clutch does act as a secondary form of braking in helping to slow down the car. In those days, we did not have modern brakes. By this I mean that we had something called drum shoes fitted at the back of the rear axle. Today, we have modern engines and modern brakes fitted with callipers' all way round.

As a consequence of modern engineering and technological advancements in braking, we can stop the car in any gear we wish to. There is simply no need to change gears unnecessarily. Think of it this way, the more gear changes results in wasted fuel and not forgetting your effort. Instead, the motorist could concentrate on checking their internal mirror and keeping both hands on the steering wheel. Makes sense.

Correct manual gear changes at the correct speed is vital if one is to achieve good fuel economy. I tend to say that in a petrol engine, gear change should be done at 2,000 rpm (revs per minute). The diesel needs to be worked a bit harder, say at 2,500 revs before moving up the gear. By not labouring in the wrong gear and quick changes, this ought to be beneficial in the long term.

However, recently we have witnessed torrential days of rain and more rain. A monsoon style of summer. The road surface becomes slippery and forms a film of puddle not visible to the naked eye. I would not advise to block change gears as accelerating hard in a lower gear to its maximum, could result in wheel spins and in some cases skids. This is also known as aquaplaning. So in extreme wet weather, go through the conventional gear changes, and as always maintain the four second gap.



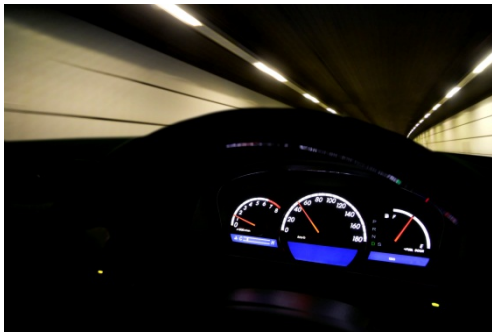
### **Excess Baggage.**

Have you ever opened your boot to find plenty of clutter you seem to carry around that you really don't need? Losing a few pounds means less weight for the car to carry round and less fuel being used. Even the roof rack or roof box can cause resistance, resulting in a drag at high speeds on the dual carriageway or the motorway. If the roof rack/box is not being used, take it off. If you do need to use a roof box on a regular basis, make sure that it is **aerodynamic** in design.

### **Electrics inside the car.**

Powering up the fan heater when it is not needed or using the air con again uses resources powered from your engine. Yes, the engine draws its energy from your fuel tank. If heating is not needed, switch off the car heater. An air-con inside the car can use upto 15% more fuel as it uses a separate pump to work the compressor.

## Speed.



How many of us ignore the speed limits only to slow down when we see the speed camera? Stick to the limits and savings in fuel can be achieved. Driving at 80 mph uses up 20% more fuel than if you were to drive at 70 mph. The logic is simple. The faster you drive, the more fuel is needed.



Tariq Musaji, BA (Hons) DMS, DipDE, Rospa Dip DVSA Adi. Grade "A" Fleet Instructor.

Owner of Farrah Driver Training

[www.drivingschoolbasildon.com](http://www.drivingschoolbasildon.com)

[www.essexroadsigns.org](http://www.essexroadsigns.org)



[About my Business:](#)

I operate my own driver training business, coach and re-fresh the skills of qualified drivers in category B vehicles (cars and van drivers) I also provide driving lessons in a manual car. See my website [www.drivingschoolbasildon.com](http://www.drivingschoolbasildon.com)

My specialism is eco-driving and road risk assessment. I am passionate about road safety. My motto is "Quality and Excellence" and this is what I strive for and believe in. I also have a road signs campaign which I started in June 2011. Please visit the site [www.essexroad signs.org](http://www.essexroad signs.org)

With the help of my local MP, the Rt Hon Mark Francois, we managed to persuade Essex county council to rectify the anomalies of the road signs. This campaign is still on-going.

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