

# SERVICE INTERVALS V'S OIL CHANGE PERIODS

Whilst both car engine and oil technology advancements has resulted in dramatically increased service intervals from 4,000 to 10,000 plus kilometres, a major problem is becoming increasingly apparent.

Some car owners are unknowingly imposing upon themselves a false sense of security by assuming that their oil only needs to be changed in conjunction with their 10,000 or 15,000 kilometre mechanical service. Unfortunately, they are in danger of damaging their engine, therefore minimising its life.

Why? Because owners haven't checked the section of their vehicle manual to identify personal driving habits, and under what conditions the 10/15,000 kilometre oil change periods do not apply. These conditions greatly affect the life of the engine oil, and consequently the engine. In fact, today's engines generally last about 200,000 kilometres, however, if well looked after, can achieve as much as 500,000 kilometres without major overhauls. A big difference car owners need to understand!

Vehicle manufacturers are designing their engines to take SAE 10W-30 type oils, (now the highest selling grade in the USA), and in some instances, even lighter. These reduce friction, help improve fuel consumption and assist in the reduction of exhaust emissions... all very positive benefits if the right driving conditions apply.

The trend to use these lower viscosity oils is becoming more common, but like the heavier viscosity oils such as 20W-50, they will still suffer from fuel dilution resulting in oil thinning. The fuel enters the oil on cold start-up and depending upon the driving condition of the vehicles, may or may not be vaporised out.

What most drivers don't know is that water vapour, unburnt petrol and blow-by gases from the combustion process overload the oil which combine to produce sludge deposits. It takes about 20 kilometres from a cold start to fully warm up the engine oil and reduce the rate of fuel contamination.

This does not effectively take place in engines that don't travel further than 20 kilometres after each cold start. The oil is soon saturated with contaminants and destroys its protective ability, no matter what high quality grade it is.

Consequently, oil thick with deposits can't reach the moving parts as quickly when the engine is first started – the point at which most engine damage occurs. It is a less effective lubricant, accelerating wear and leakage. In addition, many modern engines have reduced sump capacities, some as low as 3.5 litres (including oil filter), causing the oil to be under a lot more stress – particularly as the oil approaches the end of its effective service life.

As a recommended guide, a vehicle travelling less than 20 kilometres per trip for more than half its journeys should have an oil change every 5,000 to 7,000 kilometres or every six months (whichever comes first). This affects about 80% of vehicles which do little more than a token stop-start to work, to the station, to school or the shopping centre and are at risk of increased engine wear and damage compared to a car which travels long enough to vaporise the potentially damaging contaminants.

Other abnormal conditions that reduce oil change intervals include dusty roads, heavy loads and sustained high-speeds.

Also, simply topping up an engine low on oil, with new oil is not the same as giving it an oil change. Contaminants left behind increase in concentration each time the oil level drops, accelerating engine wear.

So, to protect your investment, take the time to check the vehicle's manual to identify what your abnormal driving conditions are and how they may affect the oil, even between regular service periods. Or simply enquire when you next have your car serviced. Correctly followed, you will maximise the life of your engine, help contribute to lower pollution and save many thousands of dollars in the long run!

***Information supplied by Castrol Australia in the interest of better, more economical motoring.***