

OIL



Driver Information

Getting the best from your car

In the beg



The low-powered, low-tolerance engines of the time were subject to frequent servicing and the 'thicker' oils used, did their basic job of stopping the moving metal surfaces from grinding together.

The high performance engines of today demand much more from their oil. It has to dissipate the heat generated from friction and the combustion cycle, and hold in suspension the by-products of fuel combustion and other impurities whilst operating under extreme pressure across a huge temperature range.

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In the early days of motoring, oil was just 'oil'. Known as mineral oil, it was simply refined from the oil pumped out of the earth. Oil changes were frequent due to its rapid breakdown e.g. every 250 miles for a 1921 "Bullnose" Morris Oxford.

THE ADVENT OF THE BLACK DEATH



In the early 80's a sticky black substance was identified as the cause of many engine seizures in Europe. Faster roads and higher under bonnet temperatures, conspired to overwork engine oils and change them under pressure into a sort of tar-like substance, which came to be known as the Black Death. The development of higher quality and man-made oils now began to accelerate.

OIL ISN'T JUST 'OIL' ANY MORE!

From the early days of single grade oils, mineral oils have developed into multi-grades which provide protection in both start-up and high temperature running situations, and under all year round temperature changes. Now synthetic oils have arrived to advance performance yet again. Most of them are derived from mineral oils, but undergo a great deal of chemical engineering to reach their final form. The other type is semi-synthetic, sometimes called premium, which is a blend of the two.

It is safe to mix the different types if, for example, you need oil whilst travelling and your normal type is not available. However if you wish to change, don't just start adding another type. Get expert advice first and always move upscale, never down.



Synthetics and saving money

Synthetic motor oils are designed to perform even under severe conditions, such as very cold starting temperatures, extreme high-temperature operations and high-load conditions. They provide significant advantages including:

- Superior protection under heavy engine loads, such as hauling and towing.
- Minimising oil degradation.
- Faster lubrication at start-up in low temperatures.
- Superior protection at high temperatures.
- Superior resistance to thermal breakdown.
- Greater resistance to oil oxidation (thickening).

Although more expensive to buy, there are statistics to show you can realise up to 5% fuel economy by comparison to mineral 15W/40, which on average will pay for the oil component of your service bill with a bit left over!

Keep an eye on your oil

- 1) Check your vehicle's motor oil once a week. Stick to this schedule religiously – it's your best insurance for a long engine life.
- 2) The vehicle should be on level ground and the engine switched off when the oil is checked.
- 3) Wait a couple of minutes after running the engine to allow the oil to drain back into the crankcase, otherwise you will get a false reading and may add oil unnecessarily.



- 4) The accepted way to check the oil is to pull out the dipstick, wipe it off with a clean rag, reinsert it and then pull it out again to check the oil level.
 - 5) The oil level should be between the "full" and "add" marks on the dipstick (sometimes marked as "max" and "min").
 - 6) Don't add oil if the reading is just partially down from "full" (or "max"). Keep checking the oil regularly and wait for the reading to be at least halfway between the two marks before adding oil.
 - 7) To add oil, simply find the filler cap (usually located on the valve cover or cam cover and clearly labelled), unscrew and add about half a litre at a time. Wait for a minute and then recheck.
- 8) If the oil looks especially dirty, it might be time for an oil change, even if the recommended mileage has not yet been reached. Unless you have experience with this, however, don't overreact to the colour of the oil. Fresh oil can look dirty in as little as a week.

-FAST FACT-

Most engine wear occurs in the few seconds after the engine has started. Using a quality oil, especially synthetics, can significantly help to combat this.

Some technical stuff!

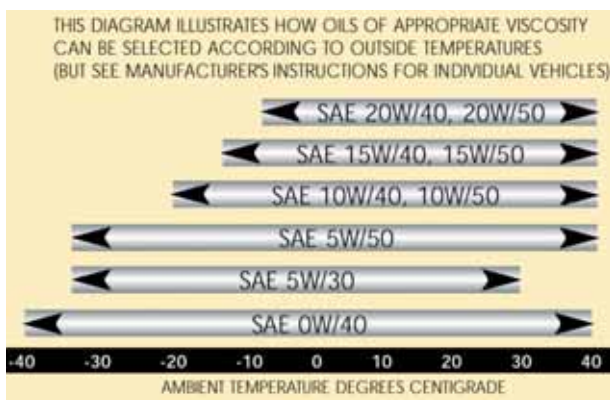
1. Viscosity requirements

Viscosity quite simply is the “thickness” of an oil, most typical being 10W/40 or 15W/40. If the viscosity of the oil is too high (thick), the engine will be difficult to start, particularly in cold weather, and oil will not reach all parts of the engine quickly enough after start-up to prevent wear taking place.

If the viscosity of an oil is too low (thin), there is a danger that the lubricant film will break down in bearings, allowing metal-to-metal contact to take place, which will produce rapid wear.

Multi-grade viscosity motor oils are designed to tackle this problem.

A vehicle manufacturer will normally stipulate a range of viscosities in the vehicle handbook, which depend on typical local ambient temperatures in the region in which the vehicle is normally used.



However, the viscosity rating of oil is no guarantee of the ‘quality’ of oil, nor its ability to protect the engine over long periods of time.

-FAST FACT-

Statistics suggest 1 in 3 cars running on British roads have less than the minimum oil level in the sump.

2. Performance requirements

The European ACEA system, introduced in 1996, includes a range of oils for petrol engines.

- A1 low friction oils
- A2 conventional oils for normal use, and
- A3 high performance engines or long drain intervals.

A similar B1-4 range classification for diesel engines is used.

However, in the ACEA range, the higher numbers do not necessarily imply higher quality, and the manufacturer's recommendations should be sought.

Disposal of used oil

If you change your own oils, remember used engine oils can be hazardous to people and the environment. Minimise skin contact and as recommended by the Oil Care Code dispose of all oil waste at your nearest oil recycling bank (ORB). Telephone the Oil Care Hotline – freephone 0800 663366 to obtain details of your nearest ORB.

Your XPart AutoService centre can also provide very cost effective oil changes and will, of course, dispose of the old oil correctly.

Using the right oil

Your engine has over 100 moving components and they must all synchronize together from the coldest of mornings and run until well over 100°C on the toughest or fastest of journeys. Oil, the lifeblood of the engine, needs to be of the best quality to assure reliability and efficiency.

When choosing oil, your vehicle handbook should be consulted first. The correct specification will be stated together with any recommendations the manufacturer may make. Always remember, the handbook specification is the most important thing to match when buying oils.

To get it right, or if you would like to explore further the benefits that a change to synthetic oils may bring, your XPart AutoService centre can provide expert advice and guidance.



Delivering your kind of service...

WORK YOU CAN RELY ON

- Fully qualified technicians
- Latest workshop technology and equipment
- Quality parts used

HERE WHEN YOU NEED US

- Immediate diagnostic checks available
- Fast appointments convenient to you
- Open to suit our customers

TOP VALUE

- Very competitive prices
- Tyres Exhausts Batteries Brakes
- All-Makes and models
- While-you-wait service
- Scheduled and tailored servicing and repair



recommends

Mobil



recommends

Mobil 1