

ARRIVA BUSES



LOCATION

Newcastle, Tyne & Wear, UK

BUSINESS SECTOR

Passenger transport

SIZE

Arriva plc: 54,500 staff, €3bn turnover

VEHICLES

Volvo & DAF buses

CHALLENGES FACED

1. Arriva buses sought to reduce oil consumption in their fleet of passenger buses. Four oil changes a year took the vehicles out of service too often and increased oil costs.
2. Even though mass transport is intrinsically more environmentally friendly than personal vehicles, Arriva was keen to promote an even greener image of itself.

SOLUTIONS DELIVERED

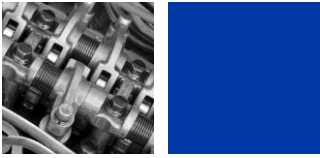
1. By fitting an Extended Oil Life System, we were able to show that Arriva's four oil changes a year could be reduced to one without any detrimental effect on the reliability of the engine.
2. By reducing the number of oil changes, we were able to reduce oil consumption by 75%.

“ *EOLS reduces our oil consumption and keeps our buses where they need to be - on the road.* ”

Arriva Technical Director



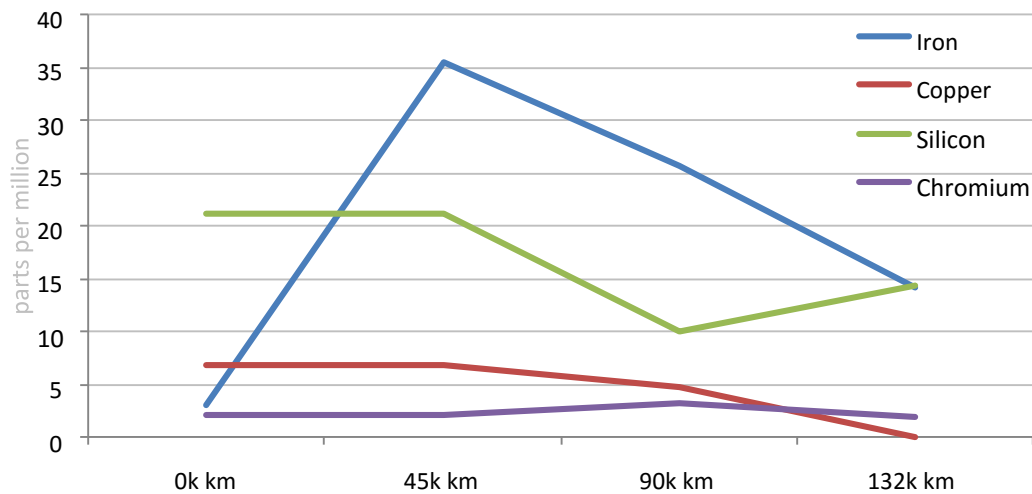
Extended Oil Life System



TECHNICAL GOOD SENSE

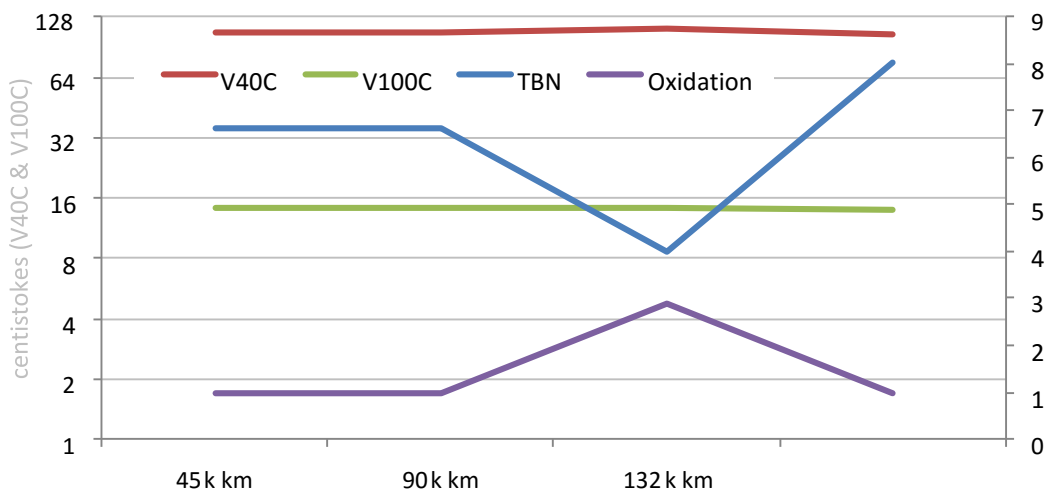
REMOVING WEAR METALS

Even after 132,000 kms (four times the normal oil-change service interval), the EOLS unit is reducing the rate of wear in the engine as shown by the falling or stable number of wear particles in the oil. The EOLS' protein-rich 1µm cotton element removes the particles that combine to cause engine problems.



MAINTAINING FLUID PHYSICAL PROPERTIES

After the same extended service interval, the oil's Total Base Number (i.e. the level of alkaline additives) and viscosity are maintained thanks to the EOLS unit's ability to evaporate off water and sulphur dioxide, the precursors of a sulphuric acid reaction.



BACKGROUND

Arriva is one of the largest transport services organizations in Europe, employing 54,500 people and delivering more than 2.2 billion passenger journeys across 14 European countries every year.

Arriva Buses' goals were straightforward: to reduce oil consumption and to promote a more environmentally friendly image to passengers and the public.

IMPRESSIVE RESULTS

Fitting Extended Oil Life System (EOLS) units to Arriva buses delivered dramatic results. While extending the oil-change service intervals by a factor of four, the rate of engine wear was significantly reduced. The quantity of some wear metals is actually falling over time.

By eliminating three of the bus's four annual oil changes, the EOLS unit reduces its oil consumption by 75 liters per year. This helps promote Arriva's credentials as an environmentally aware member of the community.

A CLEAR FINANCIAL SAVING

The cost savings available from a single bus will become substantial when replicated across Arriva's fleet of thousands of vehicles. By reducing oil costs by 46% the EOLS unit can almost halve the fleet's significant oil costs.

Eliminating three oil change services allows the buses to spend more time on the road, improving Arriva's efficiency and enhancing its ability to serve its customers.

ABOUT ARRIVA BUSES

Arriva is one of the largest providers of passenger transport in Europe. Its buses and trains provide more than 2.2 billion passenger journeys a year. The group runs over 19.000 buses in 14 countries.

75%

**Reduction in annual oil
consumption**

www.waagene.no