

ARRIVA BUSES



LOCATION

Newcastle, Tyne & Wear, UK

BUSINESS SECTOR

Passenger transport

SIZE

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

VEHICLES

Volvo & DAF buses

“The EDI system reduces our oil consumption and keeps our buses where they need to be - on the road.”

CHALLENGES FACED

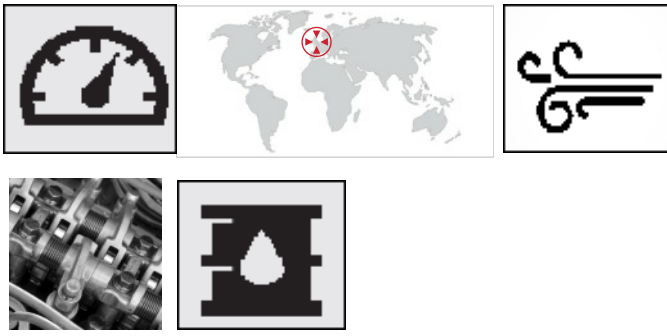
1. Arriva buses sought to reduce oil consumption in their fleet of passenger buses. Four oil changes a year took the vehicles out of service too often and increased oil costs.
2. Even though mass transport is intrinsically more environmentally-friendly than personal vehicles, Arriva was keen to promote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

SOLUTIONS DELIVERED

1. Fitting an EDI Lube Oil Purifier, demonstrated 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, Arriva was able to reduce oil consumption by 75%



EDI - Lube Oil Purifier



FINANCIAL GOOD SENSE

WITHOUT EDI

	Year 1	Year 2	Year 3	Year 4	Year 5
<u>Services Costs</u>					
Oil	£44	£44	£44	£44	£44
Full-Flow Filters	£15	£15	£15	£15	£15
Labour	£40	£40	£40	£40	£40
Oil Analysis	£0	£0	£0	£0	£0
Total cost per service	£99	£99	£99	£99	£99
Annual Services	4	4	4	4	4
Annual Spend	£396	£396	£396	£396	£396
Total 5 year spend	£1,980				

SAVING WITH EDI

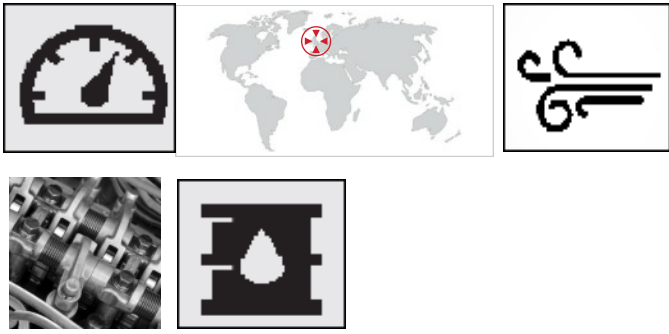
	Year 1	Year 2	Year 3	Year 4	Year 5
<u>Services Costs</u>					
Oil	£46	£46	£46	£46	£46
Full-Flow Filters	£15	£15	£15	£15	£15
Labour	£47	£47	£47	£47	£47
Oil Analysis	£0	£0	£0	£0	£0
EDI Elements	£35	£35	£35	£35	£35
Total cost per service	£143	£143	£143	£143	£143
Annual Services	1	1	1	1	1
EDI (incl. Installation)	£350				
Annual Cost with EDI	£493	£143	£143	£143	£143

ANNUAL SAVINGS WITH EDI INSTALLED £253 per engine

resulting in a 5 year saving £915 - 46%

These statistics exclude additional savings from:

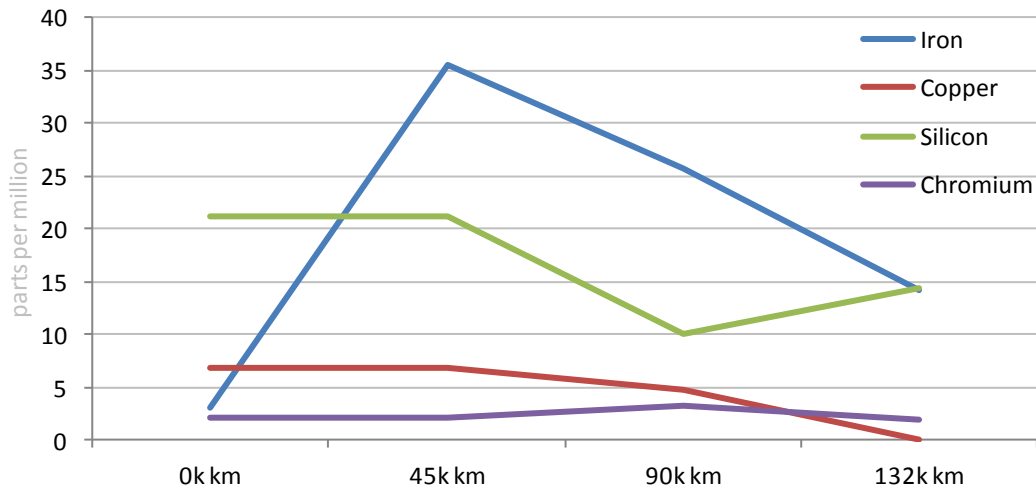
- Productivity enhancements available from fewer service stops
- Reduced oil disposal costs



TECHNICAL GOOD SENSE

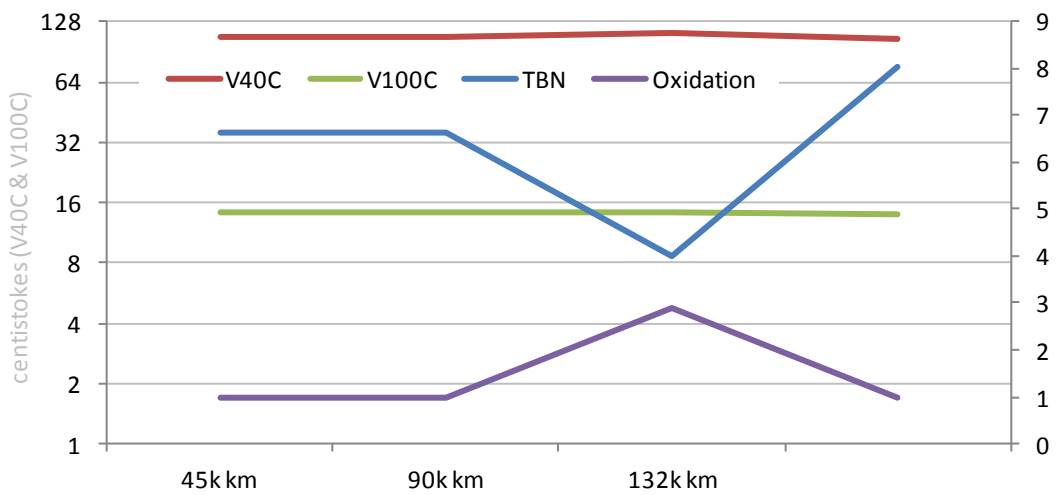
REMOVING WEAR METALS

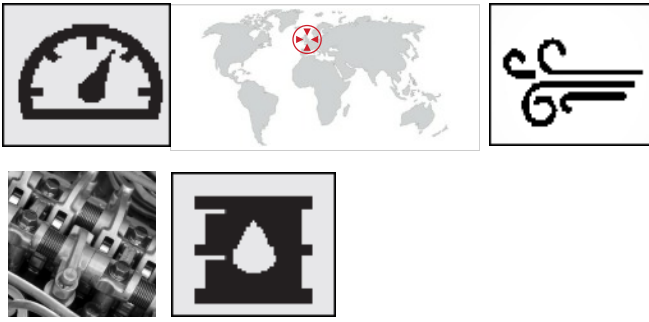
Even after 132,000 kms (four times the normal oil-change service interval), the EDI unit is reducing the rate of wear in the engine as shown by the falling or stable number of wear particles in the oil. The EDI's protein-rich 1µm cotton element removes the particles that combine to cause engine problems.



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 EDI 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 organisations 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 straight-forward: to reduce oil consumption and to promote a more environmentally-friendly image to passengers and the public.

IMPRESSIVE RESULTS

Fitting EDI Lube Oil Purifier 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' four annual oil changes the EDI unit reduces its oil consumption by 75 litres 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 EDI 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.

ABOUT MARSHIP UK

MarShip UK's oil products can help extend the life of engine and transmission oils and hydraulic fluids by removing harmful contaminants and by monitoring and analysing contamination levels and properties. MarShip UK's specialist team has extensive knowledge of all forms of engine and industrial filtration together with fuel cleaning and fuel polishing.

75%

**Reduction in annual oil
consumption**

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