The Case for Re-powering.

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Local Authorities are failing to meet their air quality targets and under pressure from central government are looking at ways in which they can reduce air pollution.

Buses have been recognised as one of the main contributors of the particulate, carbon and nitrous oxide content of the pollution and as such if the bus operators are to comply by reduced emissions now and the forthcoming legislation then they do not have to many options available to them.

One option is to renew the vehicle which is a very costly option and while it will solve the problem in the immediate area what then becomes of the old bus which may be only part way through its expected life span, are they cascaded down within the operating group to to other parts of the country so moving the pollution from A to B or are they sold on to an outside buyer who with the amount of buses being available will regard the residual value as being much reduced, in other words a buyers market.

We at the Emission Control Centre have developed a re-power package which we believe to be a cost effective solution to the problem. By removing the original engine and fitting a new engine compliant with either Euro 3 or 4 standards we can offer a package that delivers emissions comparable with those from vehicles purchased today.Should a futher reduction in emissions be required in the future, we can also offer a solution by fitting either an EGR or SCRF emission system which would deliver emissions equivalent to Euro 5.

The engines we can offer are the Iveco Euro 3 Tector and Cursor range offering power outputs of between 130 and 540 hp and the Caterpillar C7 together with an Eminox paticulate trap which offers Euro 4 emissions and delivers between 230 and 250 hp. Both of these installations have been approved by the respective manufacturers who have extended their standard warranty from 12 to 24 months with a futher valuable option of an extension to a full 5 years.

To date we have supplied and fitted in excess of 50 re-power packages to "The Original London Sightseeing Tours" who have reported that their vehicles (Leyland Olympians and Tri-axle Metrobuses) are more responsive to drive, quieter easier to maintain and of course the emissions are much better. They have also found that fuel consumption has improved from 3 to 4 mpg to 5 to 6 mpg with the new engines.

The residual value of the vehicle will also rise because of the re-power and the improved emissions and ths will be realised on the disposal of the vehicle. The original engine could also be retained as a spare or sold on to another operator.

A typical case study on a Leyland Olympian would be as follows:
- Replace the old vehicle with new. £150000.00
- Re-power with an Iveco Tector 230 hp Euro 3 engine. £20000.00
- Plus gearbox modification dependant on type.
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- Other costs and savings to be considered.
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- Remanufacture the original engine. £9000.00
- Remove and refit the original engine. £1000.00
- Fit new radiator, hoses and ancillaries. £1000.00
- Increase of residual value of the vehicle. £3000.00
- Value of old engine if sold on. £1000.00

Total £15000.00

Therefore the actual capital cost of the conversion is only £5000 per vehicle and during the period that the vehicle is in operation the anticipated improved fuel consumption would add significant savings to this calculation, for example:-

50,000 miles per annum at 4 mpg = 12500 gallons of fuel per vehicle.

50,000 miles per annum at 6 mpg = 8333 gallons of fuel per vehicle.

Therefore the annual SAVING per vehicle is 4167 gallons.

Because of these savings capital costs could be paid back within a period of three to four years and as an added bonus your company would be seen to be meeting it's enviromental responsibilities which could be used as a marketing tool to encourage more people to travel on your buses.