

HGV machinery removal truck: 6 x 4 rigid with lorry mounted crane & specialist body



The operator of this specialist vehicle uses it to transport large and heavy pieces of machinery and plant to a range of sites around the Greater London area. It is a six wheel rigid, with a chassis flitched (reinforced) to carry a high capacity (tonne/metres) lorry mounted crane and a body designed to carry plant equipment with high point loadings into the deck. This vehicle represents a substantial investment in a niche sector of the haulage market and is likely to have a longer-than-average lifespan because of the equipment it is fitted with and also because a specialist vehicle of this type serves a very particular purpose, where site accessibility and the ability to “self-load” are paramount. Annual road mileage is relatively low.

This vehicle was first registered in 1998 and is fitted with a Euro II certified engine. Because the gross vehicle weight of the vehicle is well over 12 tonnes GVW, it will be within scope of the London low emission Zone (LEZ) from the launch in February 2008. There are instances when certain advanced engines of this age do conform to the LEZ standards, in relation to PM. To find out if this is the case the operator would need to check the engine type displayed on the manufacturer’s plate, usually located on the driver-side door jamb, and see if the engine is listed on the LEC (Low Emission Certificate) Eligible Engines List - available on the Transport or London website (<http://www.tfl.gov.uk/roadusers/lez/vehicles/options/5374.aspx>). If the engine appears on the LEC list, the vehicle operator may apply to a VOSA test station for the vehicle to be inspected and to undergo a smoke test. If it passes the test, which is more stringent than the usual MOT smoke check, a LEC may be issued. This certificate, renewable annually, makes the vehicle a compliant vehicle for the current London Low Emission Zone until 2012, when the emission standard is tightened to Euro IV for particulate matter.

If the engine does not appear on the LEC list there are a number of options open to the operator to achieve compliance with the proposed LEZ emission standards:-

One option is to replace the vehicle with a newer model. A vehicle with a Euro III certified engine will be compliant with the LEZ until 2012, whilst a vehicle with a Euro IV certified engine will be compliant with the proposed LEZ after the standards are tightened in 2012. However, given the expense of replacing this vehicle and the long projected lifespan, early replacement may not be the preferred option.

Another option would be to consider fitting a replacement engine to the vehicle. If the vehicle were retrofitted with a Euro III certified engine, then it would be compliant with the LEZ until 2012. The addition of an approved Diesel Particulate Filter (DPF) would reduce the PM emissions from the new engine to Euro IV levels making the vehicle compliant after 2012. However, this is a costly conversion which would take a long time to pay for itself given that the annual mileage is small.

Assuming that the existing engine is in sound condition, the addition of a DPF to the exhaust system would reduce particulate levels to those of Euro IV, providing LEZ compliance beyond 2012. The DPF fitted should be one approved on the RPC list operated by VOSA. This would also allow the operator to apply for a reduced rate of VED for the vehicle. Where there is no suitable RPC approved fitment available, a particulate abatement device deemed by Transport for London to result in an equivalent emission standard (and listed in the LEC Approved Devices List) will enable the vehicle to be compliant with the LEZ standards. Such systems will have been verified to ensure their compliance, although there would be no reduced VED rates available for vehicles retrofitted under this approach.

Alternatively, since the vehicle has a Euro II engine fitted, it may be possible to fit a lower-cost partial filter to the exhaust system. Such a system would reduce the PM emissions to below the Euro III level, enabling LEZ compliance until 2012. Further work such as engine replacement or DPF fitment would then be necessary to ensure compliance beyond 2012.

A further option is to elect not to modify the vehicle but to pay a fee each time the non-compliant vehicle enters the LEZ. The fee payable is £200 per visit. Clearly, it is necessary to consider the number of visits to the LEZ that the vehicle is likely to make each year. If the number is very low, then it may be economical simply to pay the fee as an alternative to retrofitting the vehicle.