

ROAD TEST 7.5 tonne, 5.8 litre, Iveco 75E15 Drop Side Truck

The truck was filled up with diesel at Toddington Service Station and driven to Halifax. Two Hiclones were fitted for the journey, one in the throttle body and one about 8 inches before the turbo. The truck was re-fuelled at Halifax and the consumed fuel measured. The Hiclones were removed and the truck was driven to Toddington where the consumed fuel was measured again.

In addition to running the road test the same vehicle was tested on a rolling road to look at the effect of Hiclone on Torque and power.

ROLLING ROAD TEST

7.5ton, 5.8 litre, Iveco 75E15, Drop Side Truck.

The test was carried out on Tuesday 14th January 2003, as a *preliminary examination* to determine if it was likely that Hiclone could have a positive effect on the performance of large slow speed diesel engines and secondly whether a full scale test programme should be carried out.

Results

Two Hiclones were used, one placed before the Turbocharger and one placed close to the engine throttle body. The test was first run with the Hiclones fitted and repeated with the Hiclones removed.

A substantial increase in power and torque was recorded in the lower RPM ranges:-

- The power and torque increase could benefit the fuel consumption of vehicles operating on short journeys, such as those carried out by delivery vehicles in built up areas.
- Tests should be carried out on larger slow speed diesel engines that operate at a lower RPM than the IVECO, as it is possible Hiclone could benefit them.
- The increase in torque and power is indicative of lower emissions for vehicles operating on short, slow journeys, such as those carried out in urban. Tests should be carried out to investigate this.
- More torque and power available at low speeds could be useful for emergency vehicles operating in urban conditions, for heavy construction machinery or for military vehicles.

A smaller but significant increase in power and torque was recorded across the whole operating range which is indicative that Hiclone is likely to result in improved consumption at higher RPM. The road test undertaken on the M1 Motorway bears out this statement and a comprehensive test programme should be undertaken to investigate this matter further.

Road Rest Results

1st Journey with Hiclone fitted

Tachometer reading Toddington	385215
Tachometer reading Halifax	385496
Distance travelled	281Km
Fuel consumed	43.45 litres
Average fuel consumption	6.47 Km/litre

2nd Journey with Hiclone removed

Tachometer reading Halifax	385536
Tachometer reading Toddington	385819
Distance travelled	283Km
Fuel consumed	50.18 litres
Average fuel consumption	5.64 Km/litre

Fuel saving as a result of Hiclone intervention:

0.83 Km/litre or 14.72%

Notes

- The truck was carefully driven at a constant speed between 60-68mph.
- Traffic was heavier on the first journey with the Hiclones fitted
- The weather was overcast with showers
- The truck was empty, carrying no load
- Two responsible people supervised the test
- The test took place on Tuesday 14th Jan 2003

Rolling Road Test Results

