



Great (Britain) gas tour

Lower torque values, poor engine braking and a fledgling supply network have all conspired against running a fleet, or part of it, on gas. Iveco believes that the tide may have turned; it now has answers to most of these issues. Ian Norwell reports

An interview with a technical director of our major truck brands is usually a brief affair. But in taking the opportunity to join a gas truck trial with Iveco, I lucked out, spending two full days in a truck cab with Martin Flach, technical and alternative fuels director of the company. The natural gas-powered Stralis NP was launched in June 2016 and Iveco has a number of demos in the field, although a RHD model has only been available since February. (Scania also has a 4x2 gas-powered tractor, with sales to Waitrose and Argos, and later this year Volvo is launching an LNG truck engine, MethaneDiesel Euro 6).

The methane supply infrastructure is certainly thin on the ground, compared to the ready supply of diesel. But with a little planning, it looks like it may not be the deal-breaker some think. There are currently 46 LNG (liquefied natural gas) and CNG (compressed natural gas) filling stations in the UK and ROI, some

of which are public (see map; supplier Gasrec provided gas and services for this run). Blank spots include Northern Ireland and Scotland, but otherwise they run from Carlisle to Bridgewater. Flach agrees that we need more, but he also says: "If the will is there, a little judicious planning will keep a fleet moving."

Engines have changed too, so a test run was organised from John O' Groats to Land's End to see if a gas-powered tractor could cover the distance without needing to refuel – and whether it could keep pace with a diesel sibling.

The range quoted for the Iveco LNG Stralis NP (natural power) is 1,500km, powered by two tanks that carry 400kg of gas between them. Their first offering is a 314bhp version of the 9-litre Cursor 9 engine. Adapted for gas operation, it is aimed squarely at the supermarkets and parcel carriers. Both cube out and use 4x2 tractors in big numbers, so my truck was loaded to a representative 32 tonnes gross.

Flach says: "Torque was certainly an issue in the past, but progressive developments now bring this engine up to par with a diesel, at 1,700Nm." So the test was designed to cover these issues, and see how it stacked up against a diesel sibling, in this case a Stralis XP 460 running with the same automated manual transmission and a 454bhp engine (compared to the NP's 394bhp).

TESTED

The first section from John O' Groats to Inverness fell into a 'heavy going' category, with narrow highland A roads and plenty of undulating terrain. I drove the Stralis NP over this section, and didn't feel held back by the lower power rating, covering the 194km at a respectable average speed of 62.3kph.

On this low-compression, spark-ignition engine, I felt that the torque was now pretty much what we would expect from a similarly-rated diesel unit; but the engine braking was well below par. Flach acknowledged this, saying: "It's a

known characteristic of gas engines, so we have included an intarder in the standard specification."

Buried inside the Eurotronic 12-speed AMT, along with eco-roll and hill-holder functions, it did a superb job. On that initial section through the highlands, which was such a dynamic route, it was a boon, allowing me to complete the journey with almost no recourse to the service brakes. That's a big safety plus, and also a maintenance benefit in preserved friction materials.

Fleet managers must expect, however, increased wear on the drive axle tyres, as they will be doing not only all the traction, but the lion's share of the braking, too. Tyre makers are alive to this, designing their latest tyres to cope with the reverse torque generated by increased intarder use (Michelin LRR 385/55 R22.5 tyres were fitted on the front axle; LRR 315/70 R22.5s were fitted to the rear). Despite this extra wear, the net effect can be a big saving, but drivers should be cautious about full intarder use in the wet, and at low temperatures. In these conditions gentle braking on all five axles is safer.

CALMER CONDITIONS

After the A9 was behind us, and I entered the nation's motorway network on the M9 near Stirling. It was a simple matter of engaging ACC (adaptive cruise control) and letting the electronics manage the progress. I generally favoured a setting around the 88kph mark, striking a balance between good progress, and cutting down the overtaking needed. Traffic and weather, the bane of testers, were both kind to me. Two very minor



hold-ups and a short period of drizzle was an exceptional result for this journey.

Pulling into my last stop at Scorrier on the A30 near Redruth, trailers were dropped for the last few miles to Land's End. Yes, the NP had made it all the way. But fleet managers who may be thinking of trying gas vehicles may not travel as far as that. Flach says: "If a haulier feels that they would like to make a serious green statement, and take say 15 [tractors] or more, we would expect a gas supplier to look at installing a filling station on their premises." He adds: "It may not need as many as that, if they are doing higher than average mileages, as the decision will naturally be based on the usage of gas."

As far as fuel handling goes, it is cryogenic (the truck's fuel tanks are essentially very strong vacuum flasks); so a little training, and some sensible PPE, are all that is needed. And as it is stored in the fuel tanks at -160°C, fuel theft can effectively be discounted. As for the second life of the tractor, with

no established used market, Iveco are pragmatically offering a residual value on the NP, against a contract.

THE NUMBERS

Over the entire 2,230km route, the XP 460 consumed 383.5 litres of diesel, and the NP used 344.3 kg of gas.

Diesel consumption was at the rate of 27.7 litres/100km (10.2 mpg), and gas at 24.8kg/100km.

To translate this into hard cash, at current rates of 75p per kg for gas, and 96p per litre for diesel (both excluding VAT), this equates to £258.25 worth of gas, and £368.16 spent on diesel.

Therefore the Stralis NP's fuel costs for the run were £109.91 less than its (more powerful) diesel sibling. In rough terms, with this fuel saving, a tractor covering 160,000km annually will net savings of £12,500. Factoring in the price premium for the NP chassis, of "around £30,000", results in a break-even point at two years of operation at that duty. Those who run tractors for three years or more, or for a shorter period for longer distances, stand to benefit.

With this exercise, Iveco set out to answer most of the criticisms that have piled up against gas trucks in recent past. Given the continued demonisation of diesel from the tabloids - however ill-informed - the preemptive investigation of cleaner fuels that are a practical proposition might make sense. Less easy to measure than fuel on your bottom line, but still a powerful factor, is the PR value. [IE](#)

FURTHER INFORMATION

- 'Climate of change' - <https://is.gd/ofukok>
- 'Emissions statement' - <https://is.gd/etefuq>
- 'Dash for gas?' - <https://is.gd/ekuejv>