

# Gas round-up

All production CNG/LNG buses and commercial vehicles of over 3.5 tonnes gvw available new on the UK market are listed below. Aftermarket conversions are excluded. Compiled by Richard Simpson



## VANS

### 1 IVECO DAILY

Available as a panel van or chassis-cab with gvw from 3.5-7.2 tonnes, the Daily uses a purpose-built 3.0-litre spark-ignition engine fuelled by CNG, and is claimed to have comparable performance and payload to diesel versions, while yielding a 5% reduction in CO<sub>2</sub>. Power output is 128bhp, and maximum torque is 350Nm. IVECO's Hi-Matic 8-speed automatic gearbox is said to offer a 25% fuel saving over the optional six-speed manual alternative. There is no SCR.

## TRUCKS

### 2 IVECO EUROCARGO

Available at 9-16.8 tonnes gvw, the Eurocargo CNG uses a spark-ignition CNG-only version of the six-litre, six-cylinder Tector engine producing 201bhp and 750Nm of torque. Gearbox options are Allison full auto or ZF six-speed manual. Range is up to 650km depending upon tank options. Reductions of 10% in CO<sub>2</sub>, 35% in NO<sub>x</sub> and 95% in particulates are claimed. There is no SCR or PM filter.

### 3 IVECO STRALIS NP

IVECO offers a comprehensive range of gas-powered Stralis NP heavy trucks, with a choice of CNG, LNG or dual-gas versions (LNG + CNG). All engines are spark-ignition (NP) versions of diesel designs.

Starting with 4x2 and 6x2 rear-steer rigid, the Cursor 8 NP engine is offered at 266-325bhp, with a choice of Allison automatic or ZF manual transmissions. This truck is available either with a day cab, or low or medium-roof versions of the Active Time medium sleeper. Move up to the 454bhp Cursor 13 NP, and the ZF-supplied Hi-Tronix automated transmission is standard, and there is a choice of low or high-roof versions of the long Hi-Way cab.

Tractors are available on 4x2 standard, 4x2 low-height and 6x2 twin-steer chassis. On the 4x2 distribution tractor the 325bhp Cursor 8 NP engine drives a manual gearbox. A range of 450km on CNG can be extended to 905km with the addition of LNG tankage. Centre-steer 6x2s are available only with the Cursor 8 engine. Long-haul 4x2 tractors have a choice of 395bhp Cursor 9 NP (pictured above) or 454bhp

Cursor 13 NP engine and automated transmissions. Range varies from 570km on CNG to 1,600km on LNG. There is also a low-chassis LNG-only 4x2 with the same cab options, but range constrained to 750km on LNG-only. The 6x2 option has the 454bhp Cursor 13 NP engine plus automated 'box and a 750km range on LNG only. There is no SCR or PM filter.

### 4 MERCEDES-BENZ

A CNG-only, spark-ignition version of its 7.7-litre diesel engine is at the heart of Merc's gas offering. The 298bhp straight-six produces 1,200Nm of torque and drives through a six-speed Allison automatic transmission. It can be installed either in the Actros distribution or Econic low-entry chassis in 4x2 or 6x2 forms. Range is up to 650km. There is no SCR or PM filter.

### 5 SCANIA

A 13-litre 404bhp six-cylinder spark-ignition engine heads the Scania gas-engine line-up. It can be installed under G or R cabs, and on 4x2 tractors, and rigid, including 4x2, 6x2, 6x2 rear-steer, and 8x4 rear-steer tridem chassis. Based on Scania's 13-litre diesel



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engine, it drives the standard Opticruise automated gearbox. Maximum range on LNG is 1,100km for a 4x2 tractor on LNG, or 1,600km for a rigid.

There is also a nine-litre, five-cylinder, spark-ignition engine available at two ratings: 276 and 335bhp, with torque outputs of 1,350 and 2,000Nm, respectively. These can be installed under the P day cab in 4x2 and 6x2 chassis, with an option to drive a fridge unit from the engine. The 9-litre can be specified with Opticruise, manual or Allison automatic transmissions, and can also be fitted to the low-entry cab L chassis. All Scania gas engines are based on the diesel equivalents and can be specified to run on CNG or LNG. There is no SCR or PM filter.

## 6 VOLVO

Unlike the other manufacturers in the gas arena, Volvo uses a novel technology that retains the compression-ignition characteristics of the parent 13-litre diesel engine and removes the need to fit an electrical ignition system. Instead the engine has what Volvo describes as 'diesel spark plugs' (see also [www.is.gd/](http://www.is.gd/)



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*imizun*). Using technology developed by Westport, a small charge of diesel is injected into the combustion chamber on the compression stroke. This then serves as an ignition medium when the main combustion charge of gas is subsequently introduced to the cylinder through the same Delphi injector, which features twin concentric needles.

The advantage of the Volvo system is that there are no spark plugs (plug changes are a determining factor in gas engine service intervals) and the high compression ratio is retained. This aids fuel efficiency, which Volvo claims to be 15-25% better than rival gas engines. A CO<sub>2</sub> saving of 20% is claimed over conventional diesel. The disadvantages are that there is a need to carry diesel fuel on the vehicle in addition to gas, even though 90% of the fuel burn is gas. The truck still requires an SCR system and PM filter to process diesel emissions.

The gas engine (pictured) is available under the FM and FH cabs, in 4x2, 6x2 and 6x4 tractor chassis and 4x2 6x2 and 6x4 rigids. Running on LNG only, it is supplied at two outputs: 414bhp/2,100Nm or 454bhp/230Nm. Depending upon the tank options



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chosen, a range of up to 1,000km can be attained. Volvo's I-Shift automated transmission is standard.

## BUSES

### 7 MAN, ECOCITY

Supplied with Caetano bodywork, the EcoCity features MAN's CNG-dedicated six-cylinder horizontal E2876 12.8-litre engine, originally designed as an electricity-generation unit. Output is 268bhp/1,250Nm torque, driving a six-speed ZF EcoLife automatic gearbox. The bus seats 42 passengers. Range is not given, but gas capacity is 1,176 litres. There is no SCR or PM filter.

### 8 SCANIA, ADL E300/400

Single-deck (E300) and double-deck (E400) CNG-powered buses fitted with ADL bodywork are powered by Scania's 9-litre, five-cylinder, spark-ignition engine with outputs of 276bhp and 1,350Nm torque or 316bhp and 1,500Nm in a Scania chassis. The ZF EcoLife six-speed automatic transmission is standard. Range is 300-330km, and up to 89 passengers can be carried on the double-decker. There is no SCR or PM filter. [TE](#)



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