



Mercedes-Benz Econic CNG

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Mercedes-Benz
Trucks you can trust



Philip Chance Senior Municipal Sales & Special Applications Manager Mercedes-Benz Trucks



Lower Carbon Vehicles – Mercedes-Benz Econic CNG



Econic CNG – the story so far

Launched 2002

Compressed Natural Gas or Bio-Methane

1500 Econic CNG operated in Europe

20 Econic CNG in the UK but 6000 diesels

Little or no infrastructure for CNG in the UK

Quality of CNG / Bio-Methane is very important – DIN 51624

EEV engine emissions vs EuroIII / IV / V



Econic CNG – the story so far

2008 Leeds City Council Project

Training – drivers & workshop staff

Safety

Some maintenance at Northside T&V

Engine Performance

Working with Faun

Increased kerb weight

Quiet operation – added benefit for residence



Diesel vs Compressed Natural Gas

Diesel is an energy dense fuel

600ltrs / 90kg of CNG \approx 100ltrs of Diesel

CNG produces 20% less CO₂ because of chemical composition

– greater reduction with bio-methane

EuroVI – all internal combustion engines

Reduced exhaust cleaning – no adBlue or DPF

Quiet operation

– 3db – 9db drop / approximately 50% reduction



Econic CNG – EuroVI – M936G

New cylinder head & turbocharger design

New gas injection and pencil-type ignition coils with short conduction paths

New piston geometry with quench zone

Very high efficiency with low tendency to knock

Low combustion temperature – long service life

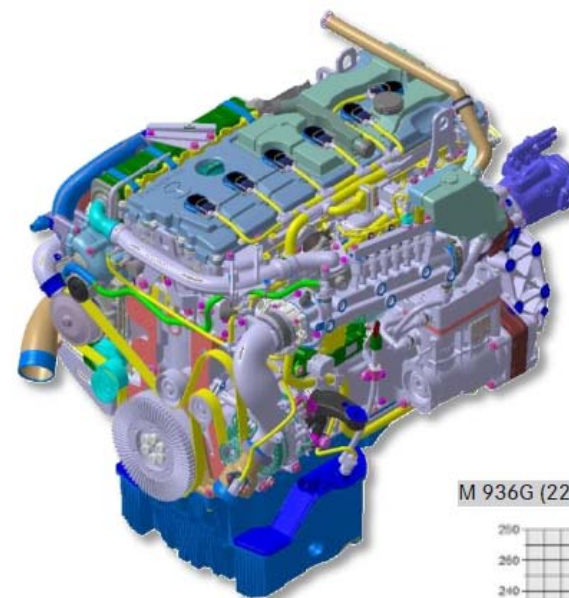
Stoichiometric combustion system based on Miller

Homogeneous mixture formation with swirl effect

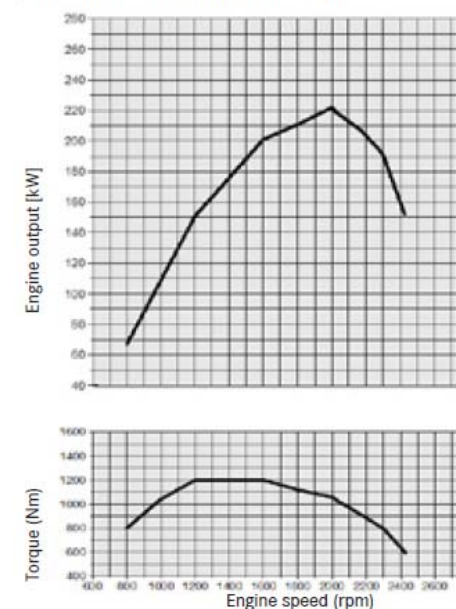
Powered by natural gas or renewable biogas DIN 51624

New quality in terms of power output and torque

Low-level noise emissions

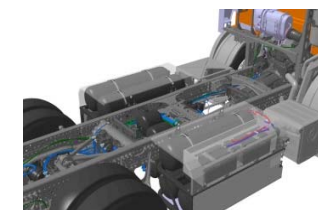
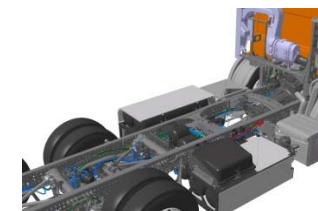
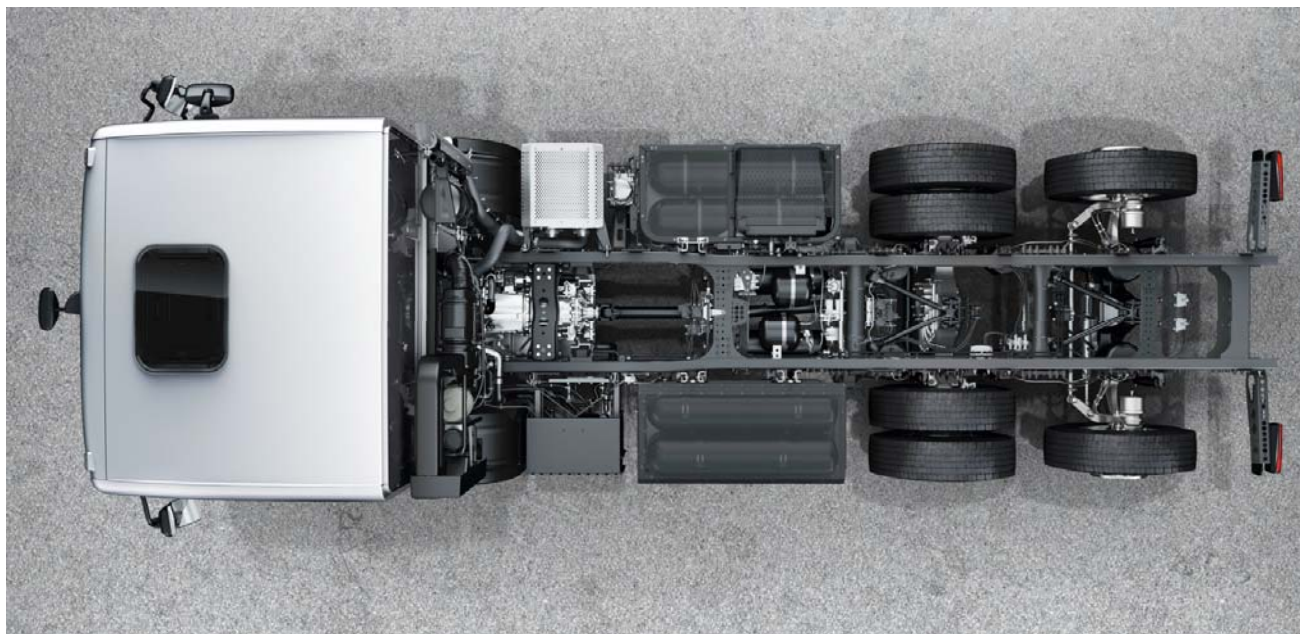


M 936G (222 kW) engine diagram



Econic CNG - EuroVI

- New lighter steel / composite tanks
 - approx. 300kg – 400kg lighter than steel tanks
- 600ltr or 700ltr





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Thank you for your attention – questions at the end please

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