



Municipal transport company EMT Madrid orders 82 Mercedes-Benz natural-gas buses

30 May 2016

- **EMT Madrid opts for environment-friendly technology**
- **New M 936 G gas engine: textbook example of downsizing**
- **Quiet, economical and compact: natural-gas drive with a future**

Stuttgart / Madrid - Transport operator EMT in the Spanish capital Madrid with its around 3.2 million inhabitants is a long-time user of alternative drives in its buses. The focus of its alternative drives will be the gas engine. So far, the use of natural-gas vehicles has made it possible to cut emissions by over 80 per cent. With its order of 82 Mercedes-Benz Citaro NGT (Natural Gas Technology) buses, the municipal transport company EMT Madrid (Empresa Municipal de Transportes de Madrid) is continuing to place all its faith in this environment-friendly drive technology.

The vehicles in question are 40 Mercedes-Benz Citaro natural-gas-powered articulated buses with a length of 18 metres as well as 42 Mercedes-Benz natural-gas-powered rigids with a length of 12 metres. The new Citaro NGT with natural-gas engine sets standards in terms of environmental acceptability and comfort. It is approved without restriction for the use of renewable natural gas to DIN 51624. This makes for an even smaller carbon footprint, as operation of the natural-gas bus then becomes virtually CO₂-neutral. In addition, the noise level of the natural-gas engine is noticeably lower than that of a comparable diesel engine. Depending on the driving status, its noise emissions are up to 4 dB(A) lower, which corresponds to the subjectively perceived noise level almost being cut by half. Both factors – low CO₂ emissions and low noise level – make the new Citaro NGT especially suitable for service in busy inner cities as well as residential areas or old-town districts with high numbers of tourists. In Madrid, the new natural-gas buses from

Mercedes-Benz will operate in the city, including on one of Madrid's main avenues, the Paseo de la Castellana, which is in the centre of the Spanish capital.

Page 2

New M 936 G gas engine: textbook example of downsizing

The centrepiece of the new Citaro NGT is the Mercedes-Benz M 936 G natural-gas engine. With a displacement of 7.7 litres, it is currently the most compact natural-gas engine in its class: weighing just 747 kg including the precatalyst, the engine is a textbook example of successful downsizing.

The natural-gas engine is based on the state-of-the-art OM 936 turbodiesel engine. The vertically installed six-cylinder in-line mono-fuel engine runs on compressed natural gas or biogas. It has an output of 222 kW (302 hp) at 2000 rpm while delivering a peak torque of 1200 Nm consistently from 1200 to 1600 rpm. In many instances, it undercuts the Euro VI emission limits by a considerable margin. These figures, in combination with its impressive power delivery, put the single-stage turbocharged engine on a par with its diesel-powered counterpart. In the main driving range, output and torque characteristics remain consistent from idle speed to around 1500 rpm. Above this, the natural-gas engine actually delivers a slight advantage in terms of power and torque. At the same time, the natural-gas engine from Mercedes-Benz sets the bar for environmental acceptability particularly high, because the CO₂ emissions of a natural-gas engine are up to ten percent below those of a diesel engine. Using renewable natural gas to power the bus makes the carbon footprint even better, because a natural-gas bus then becomes virtually CO₂ neutral.

Quiet, economical and compact: natural-gas drives with a future

Western Europe's urban-bus market amounts to around 10,500 new registrations a year on average and remains steady at this level. The highly specialised European segment for urban buses with natural gas drives currently accounts for just under 1000 units a year. Mercedes-Benz expects this number to increase further in future in light of the debate on environmental pollution in population centres or about the conservation of resources. Hartmut Schick says: "Like our Euro VI diesel technology, the new natural-gas drive is an affordable standard-production technology

with which this goal can already today be achieved in an economical manner."

Page 3

The municipal transport company EMT Madrid has a fleet of 1920 buses. The buses cover just under one million kilometres each year while transporting 425 million passengers. The network has a length of around 3600 km with some 10,000 stops. EMT Madrid was founded in 1947 and is wholly owned by the Municipality of Madrid.

Photos with the index numbers **16C306_006**, **16C306_010** and **16C306_038** are available online at: www.media.daimler.com

Contacts:

Nada Filipovic, +49 (0) 711 17-5 10 91, nada.filipovic@daimler.com

Uta Leitner, +49 (0)711-17-5 30 58, uta.leitner@daimler.com

Further information about Mercedes-Benz is available online:
www.media.daimler.com and www.mercedes-benz.com