Press Release
**MAN Truck & Bus**

# 100 years of MAN Truck and Bus: Ready for the future

## With success and experience: MAN has been building efficient and reliable commercial vehicles for the past century

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**MAN Truck & Bus**
Dachauer Straße 667
D-80995 Munich

**Head of**
**Corporate Communications**
Andreas Lampersbach

Phone: +49 89 1580-2001
Andreas.Lampersbach@man.eu
www.man.eu/presse

The history of the MAN Group extends over more than 250 years. The company is celebrating another important anniversary this year: The history of commercial vehicle construction at MAN started 100 years ago. Here is an overview of the most important milestones.

On 21 June 1915, a new company was entered in the trade register of the City of Nuremberg: "Lastwagenwerke M.A.N.-Saurer". The company was established as a joint venture between Maschinenfabrik Augsburg-Nürnberg AG and Saurer, a Swiss producer of commercial vehicles. The first MAN-Saurer 3-tonne truck soon left the joint factory in Lindau at Lake Constance. It was followed by the first buses, which were used as long-distance buses by the Imperial Post Office and transported passengers as well as letters and parcels. This was the beginning of commercial vehicle construction at MAN, a success story that has not only shaped the history of the company itself. MAN has significantly influenced the development of trucks and buses with its advanced and often revolutionary innovations for the last 100 years – and is still continuing to do so.

### The early years

In 1916, production was shifted to the MAN plant in Nuremberg. The company traded as "M.A.N Lastwagenwerke" after the departure of Sauer in 1918. In 1924, MAN presented the first truck with a direct-injection diesel engine – which created the basis for the triumph of diesel engines in truck construction. It saved up to 75 percent of operating costs in comparison with the petrol engines common at the time. Economy and efficiency were already important development goals of MAN at that time and they still apply today. During the same year, MAN produced the first low-floor bus with a specially designed low-frame chassis. The buses that MAN had previously built since 1915 had run on truck chassis.

In 1928, MAN presented its first three-axle truck, which was the precursor of all subsequent MAN heavy-duty trucks. In 1932, the S1H6 truck was

The MAN Group is one of Europe's leading industrial players in transport-related engineering, with revenue of approximately €14.3 billion in 2014. As a supplier of trucks, buses, diesel engines, turbomachinery, and special gear units, MAN employs approximately 55,900 people worldwide. Its business areas hold leading positions in their respective markets.

equipped with a D4086 diesel engine that delivered 140 hp and was then considered the most powerful diesel truck in the world. In 1937, the next technical milestone was achieved with the development of an extremely fuel-efficient direct-injection diesel engine and the introduction of the all-wheel drive.

**MAN trucks as engines of reconstruction**

Trucks were in demand during reconstruction work after the Second World War. In the 1950s, the MAN F8 with its 180 hp V8 motor became the flagship of the economic miracle in the new Federal Republic of Germany. MAN demonstrated its level of innovation as early as 1951, when it introduced the first German truck engine with exhaust gas turbo-charging. The six-cylinder engine achieved 175 hp with a 8.72-litre displacement, a remarkable power increase of 35 percent. In 1955, MAN moved its truck and bus production to its new site in Munich. The Nuremberg plant became the centre of competence for engine production.

MAN also proved its innovative powers in bus construction. In 1961, the company introduced the market to the 750 HO, the first bus in modular design. The standardised chassis was used with different superstructure versions for public buses, intercity buses and travel buses.

**Büssing brought the lion to MAN**

In 1971, MAN took over Büssing Automobilwerke and the company's plant in Salzgitter. MAN adopted Büssing's specialised underfloor engine technology as well as Büssing's logo, the lion of Brunswick, which has since decorated the radiator grille of all commercial vehicles made by MAN. At the end of the 1970s, MAN started to cooperate with VW in the light truck segment. The six- and eight-tonne trucks of the G-series were jointly produced until 1993. Today, MAN is part of the VW Group.

However MAN's show-pieces have always been trucks with hoods for construction work and heavy forward-controlled trucks for long-distance transport, such as the Type 19.280, which was the first MAN truck to receive the "Truck of the Year" award in 1978. Numerous awards followed, for example for the MAN F90, which was introduced in 1986 and received the "Truck of the Year" award the following year. The generous driver's cabin of the F90 was particularly impressive. Ergonomics and comfort for the driver have always been important concerns for MAN designers. The most successful truck model of the nineties was the F2000. The heavy series has had standard engines with electronic injection control since 1994.

MAN buses also have their highlights. In 1992, MAN introduced the Lion's Star, a travel bus that would determine the names of all subsequent MAN bus generations. The high-decker for long-distance-travel had a cw-value of only 0.41, i.e. it was particularly aerodynamic and therefore saved fuel.

**MAN in the new millennium**

MAN started the new millennium with new innovations. In 2000, the "Trucknology Generation Type A" called TGA set new standards regarding comfort and ergonomics as well as new technologies such as the MAN TipMatic or the MAN Comfort-Shift for optimal gear changes. MAN strengthened its position in the premium travel bus segment by taking over the NEOPLAN bus brand in 2001.

The introduction of the D20 engines with common rail injection in 2004 was a real milestone in engine technology. MAN was the first commercial vehicle manufacturer to change all its engines to this economic and environmentally friendly, electronically controlled injection method. MAN also modernised the light and medium series by introducing the TGL and the TGM in 2005. It was possible to achieve Euro 4, the exhaust gas standard at the time, by a combination of exhaust gas recycling and particle filters, entirely without additives such as AdBlue. Two years later, two models were presented to succeed the TGA in the heavy series: The TGX was designed for long-distance transport while the TGS was used for applications requiring traction and heavy distribution traffic. MAN received the "Truck of the Year" award for the seventh time and for both models - which is a record in this sector.

In 2010, MAN started serial production of a city bus with a hybrid drive, the Lion's City Hybrid. The Lion's City Hybrid saves up to 30 percent fuel due to its innovative hybrid drive. The model quickly became a huge success and received the ÖkoGlobe Award in 2011 and the Green Bus Award in 2012 for its sustainable concept.

**Into the future with MAN**

The development of resource-saving and environmentally friendly vehicles has always been one of the main goals of MAN Truck & Bus. Euro 6, the latest exhaust gas standard was a challenge that MAN met in 2012 with its latest generation of TG vehicles. They fulfil the strictest requirements with maximum fuel efficiency. In the autumn of 2014, MAN introduced the latest engine generation, the D38, which is currently the culmination of 100 years of engine development in commercial vehicles. The frugal Euro 6 diesel engines reach up to 640 hp, using a two-step turbo-charger.

The current drivers of product development are sustainability, the in-house climate goals of the company, general political conditions and the limited availability of fuel resources. MAN is therefore considering further development of various, alternative drive concepts. Hybrid drives in commercial vehicles will be part of the drive concept of the future in all areas of application. A diesel/electric hybrid is already being a standard drive for the city bus. MAN has introduced the TGX Hybrid at the IAA 2014 fair. This is a concept vehicle for a TCO-optimised truck hybrid drive that might be used in long-distance transport. MAN has built the Metropolis research vehicle, a fully electrically operated heavy truck with a range extender for tasks in the city. It is currently in the test phase.

Compressed natural gas (CNG) and biogas are already available as alternatives. Engines suitable for CNG can also be operated with biogas in an almost $CO_2$-neutral manner. An example is the new Lion's City GL CNG natural gas articulated bus, which won the "Bus of the Year 2015" award. The established range of natural gas city buses will be supplemented by trucks with a CNG drive in 2016.

The Department for Futures Research analyses global mega-trends and determines the direction for the development of future vehicle generations. MAN's developers are already working on vehicles that no longer need a driver for certain activities, for example when a safety vehicle secures motorway building sites. MAN Truck & Bus will use these and completely new ideas to ensure sustainable development of ultra-modern business vehicles in the future.

**Additional information:**

250 years of MAN history

In 2015, MAN is celebrating its 100th anniversary in commercial vehicle construction. However, the history of the current MAN Group started more than 250 years ago, with three historical starting points: the establishment of the St. Antony ironworks in Oberhausen in 1758, the establishment of the Sandersche Maschinenfabrik in 1840 and the establishment of the Eisengießerei und Maschinenfabrik Klett & Comp in Nuremberg in 1841. In 1878, the St. Antony ironworks merged with two other ironworks in the Ruhr area to form the "Gutehoffnungshütte" (GHH), while the two South-German predecessor companies merged to form Maschinenfabrik Augsburg-

Nürnberg AG in 1898. This was the origin of the name "MAN". Rudolf Diesel developed the first diesel engine in this Augsburg factory from 1893 to 1897. It served as the basis for later engine generations in MAN commercial vehicles. In 1921, MAN and GHH merged to form the current company that has been part of the Volkswagen Group since 2011.