



# Electrics over Europe

When it comes to electric trucks, MAN has a plan. John Challen reports

2018 will be remembered in many ways as the year that the truck market came of age, in terms of electrification.

There were numerous battery-powered options showcased at international industry events, while some were also actually put into service in European markets. For example, Dutch supermarket chain Jumbo has taken delivery of DAF's first fully electric truck, the CF Electric, marking the start of a large-scale field test for the vehicle. That 4x2 tractor is designed for urban operations at up to 37 tonnes and has a range of 100km (62mi). At the core of its powertrain is a 281bhp electric motor powered by a lithium-ion battery pack with a capacity of 170kWh.

Meanwhile, German rival MAN now has 10 electric variants of its TGM truck – nine 26-tonne models and a 32-tonner in a mix of 4x2s and 6x2s – being used by Austrian and German transport fleets.

Engineers have made use of existing production components – powertrain aside – so the chassis is based on the standard TGM. Powering the truck is an electric motor located in the centre of the frame, which puts out 197bhp and offers up to 3,100Nm of torque. A lithium-ion battery pack is fitted beneath the cab on the side of the frame, the layout dependent on the model. In the 26-tonne solo chassis version (MAN TGM 6X2-4 LL), a total of 12 batteries are deployed, allowing for a range of up to 200km (124mi), depending on the body configuration, type of use and driving profile. Up to eight battery packs can be used in the four-wheel semi-trailer tractor version (MAN TGM 4X2 LL) – consequently, the range can reach as high as 130km (81mi), depending on the usage profile and type of semi-trailer.

MAN is looking to promote battery power in the transport sector all over Europe, and has, in fact, announced

plans for the sale of 50 trucks from July 2019 to markets including the UK, France, Belgium, Spain and the Netherlands. By providing vehicles in a wide range of locations, the manufacturer hopes to convince drivers and operators that electric trucks are a viable alternative to diesel or other fuels.

Following the deployment of nine electric trucks to operators in Austria in summer 2018 (see box, p16), MAN put another eTGM on the road in December – this time in Germany and running between the base of logistics company LGI (Logistics Group International) and the Stuttgart-Zuffenhausen factory of sportscar brand Porsche. Part of the rationale behind the collaboration is that the eTGM will be used to transport components for Porsche's forthcoming electric car, the Taycan. It is hoped that running electric along the 19km (12mi) route five times a day will cut CO<sub>2</sub> emissions by 30 tonnes a year.



A 45-minute window between deliveries will enable the battery pack to be almost completely recharged – allaying any fears of range anxiety, however unnecessary that might be, given the journey is just a fraction of its maximum travelling distance. MAN confirmed that servicing will be carried out at a facility close to the LGI depot, by specially trained staff.

The eTGM will start its journey in Freiburg – home to LGI, which is renting the truck from MAN.

The reason for the rental, according to the truck manufacturer, is so that the vehicle “stays the property of MAN: this will enable us to monitor performance, TCO and – together with Porsche – use the joint findings of the investigation to improve as we continue the



development”. Both Porsche and LGI have installed fast chargers at their facilities, both of which will be powered by energy sourced from renewable resources.

“With the MAN eTGM, electric commercial vehicles have taken a big step towards series maturity, and can now reliably play on their strengths in day-to-day operations,” says Manuel

Marx, head of total vehicle development at MAN. “The findings gained together with Porsche in regular plant logistics will then feed into a first small series.”

That is attracting quite a lot of interest, with Felix Kybart, vice president of alternative drives at MAN, admitting that the company has a list of 300 operators throughout Europe who are asking. “We are planning to limit the fleet to 50 vehicles that will be coming on board from Q3 2019, and we’ve already agreed sales with many customers,” he confirms, including from the UK. **TE**

## RUNNING ELECTRICS IN AUSTRIA: THE OPERATOR EXPERIENCE

Operators involved in the Austrian eTGM trial are Hofer, Magna, Metro, Quehenberger, REWE Group, Schachinger Logistik, Spar, Steigl and Gebrüder Weiss, which claims to be the oldest transport company in the world. It will use the eTGM for first- and last-mile delivery.

Like Porsche, Magna is using the truck – together with an extra semi-trailer – to move parts for electric vehicle production. Magna’s eTGM will transport components for the Jaguar I-Pace from a logistics centre to the car’s production facility.

“It is a distance of 3 to 5km, and we have calculated a 90-minute turnaround, which gives us an opportunity to charge the truck, as well as it being charged overnight,” explains Alfons Dachs-Wiesinger, director of logistics services at Magna.

“The CO2 reduction is the biggest benefit for us – we save between 30-50 tonnes of CO2

a year with the truck. Also, in the urban area, lower noise levels are also an advantage. The eTGM replaces an existing diesel truck in our fleet, and we will be running it for up to three years, so we expect a lot of emissions to be saved, while experiencing good performance at the same time.”

Hofer believes that it will also save similar amounts of CO2. Head of logistics Sandra Stella says: “We got the truck because we wanted to demonstrate our commitment to sustainability, which is something of which we are very conscious.” The truck is based in and around Vienna, transferring goods between the company’s seven centres there. Its test will run for three years, travelling an expected 43,000km/year, the same distance as a standard diesel working for the company. CO2 savings will be in the region of 40 tonnes a year.

For Steigl – and managing director Thomas

Gerbl – running an MAN eTGM is all about being seen to be doing something, and showing that actions speak louder than words. “Our products are 100% natural, and we want our vehicles to go back to nature as [much] as our products,” he says. “We have 120 trucks delivering to customers, covering two million kilometres a year. This truck will make deliveries to customers such as hotels and restaurants.” Gerbl says it’s not the first electric vehicle on the fleet, as many of the staff run battery-powered electric cars.

Finally, Metro says it sees the eTGM as “a building block of the future ecosystem”. A spokesman adds: “We need e-mobility in our business model to reduce waste, CO2 and ultimately to make a difference. We already use electric vans in Austrian cities, and now this truck will be used for deliveries in and around Vienna.”