



Full traction: the TGE 4x4 in the Bavarian alps

Bayerische Zugspitzbahn Bergbahn AG (BZB) in Garmisch-Partenkirchen recently started using a MAN TGE Kombi 4x4, which has a smart all-wheel drive concept, to transport food to the restaurants located high up in the mountains.

- **The vehicle's driving torque is 0-100% distributed between the front and rear axle in an infinitely variable process**
- **An innovative clutch enables the system to switch to all-wheel drive within 0.084 seconds**

The cog railway first climbed up to the summit of Germany's highest mountain – the Zugspitze – 90 years ago. Since then, the area around the almost 3000-metre-high mountain has become increasingly popular and the number of tourists has increased year after year. As a result, BZB now operates a total of 27 mountain railways and ski lifts as well as eight of its own restaurants in the Garmisch-Classic, Wank and Zugspitze regions. Last year, these restaurants sold, amongst other things, some 133,000 pretzels, 19 tonnes of Kaiserschmarrn and 60 tonnes of chips. To ensure that all its establishments can all be restocked as quickly as possible, the company recently started relying on a MAN TGE 4x4.

Jens Schulze, the man responsible for technical storage and logistics at BZB, is thrilled about the latest addition to the fleet at the Grainau depot: "The decisive factor in the decision to purchase this MAN TGE 4x4 is the enormous force all-wheel drive provides in steep terrain. It's

MAN Truck & Bus is one of Europe's leading commercial-vehicle manufacturers and transport solution providers, with an annual revenue of some 11 billion euros (2019). The company's product portfolio includes vans, trucks, buses/coaches, diesel and gas engines along with services related to passenger and cargo transport. MAN Truck & Bus is a TRATON SE company and employs more than 37,000 people worldwide.

Munich, 09.10.2020

MAN Truck & Bus
Dachauer Straße 667
D-80995 Munich

**Should any questions arise,
please contact:**
Thomas Pietsch
Phone: +49 89 1580-2001
Presse-man@man.eu
<https://press.mantruckandbus.com/>

A member of **TRATON GROUP**.



really impressive how the intelligent all-wheel drive system works, pulling the transporter up the hillside like a mountain goat, even on unpaved roads.”

Thanks to its robust, low-maintenance all-wheel drive system, the MAN TGE 4x4 has absolutely no problem scaling the forest roads and footpaths of the extremely rugged and steep Wetterstein range. The special feature of MAN smart all-wheel drive is that when the vehicle loses traction, the control system reacts fully automatically, activating the rear-wheel drive in the blink of an eye (0.084 seconds). The driving torque can thus be distributed between the front axle and the rear axle in an infinitely variable process, namely from 100 to 0 percent and vice-versa. This is made possible by the rapid responses of the clutch, which automatically distributes the driving torque between the front and rear axles. The clutch itself is an electronically controlled multiple-disc clutch with fins that run in an oil bath. The fins are connected axially as and when required. In this way, the system is guaranteed to provide the best possible traction, no matter whether the vehicle is travelling over wet or snow-covered ground.

Another advantage that the MAN transporter brings BZB is its variability. The Kombi, which is designed to transport people as well as goods, has a series of rails on its floor. These enable the seats of the MAN TGE Kombi to be arranged and moved easily with the aid of a quick-release system and without the need for tools. This gives BZB maximum flexibility when planning its vehicle use. After all, people also need to be driven up to the various restaurants now and again.



Captions:

P_TGE_EOT_Zugspitzbahn_01-05

Thanks to its robust, low-maintenance all-wheel drive system, the MAN TGE 4x4 has absolutely no problem scaling the forest roads and footpaths of the extremely rugged and steep Wetterstein range.

P_TGE_EOT_Zugspitzbahn_06-11

Bayerische Zugspitzbahn Bergbahn AG in Garmisch-Partenkirchen recently started using a MAN TGE Kombi 4x4 with a smart all-wheel drive system to transport food to the restaurants located high up in the mountains.

P_TGE_EOT_Zugspitzbahn_12-13

Jens Schulze, Bayerische Zugspitzbahn: "The decisive factor in the decision to purchase this MAN TGE 4x4 is the enormous force all-wheel drive provides in steep terrain."

P_TGE_EOT_Zugspitzbahn_14

Two brothers meet in the mountains: MAN TGE (left) and MAN TGS (right).