

# Bell B30E 4x4 shows its worth at Guggenberger

A Bell B30E 4x4 has been working in production, material handling and overburden removal at the Guggenberger gravel plant in Mintraching, Germany since the end of October 2017 where it replaced a long-serving Bell 25-ton truck. The decision to choose the 4x4 two axle truck concept was taken due to its specific advantages.

With about 500 employees, Guggenberger GmbH is a construction company focusing on building construction, civil engineering and road construction that was founded in 1949 and is based in Bavarian Mintraching, near Regensburg.

Back in the 1950s, the family company opened a gravel pit in the Danube flood plains. With stationary aggregate, asphalt and ready-mixed concrete processing facilities, the production of construction materials was expanded in the 1960s and has subsequently been modernised. Today, around 20 employees are working on site, predominantly to meet the company's own demand for construction materials in the region.

Guggenberger extracts 200 000 tonnes of river gravel per year in Mintraching. The suction dredger excavates to a depth of 6m, the material is then transported on a land conveyor to the processing plant. When working with the dragline excavator, during stripping of the 60 to 70cm overburden layers, or in the restoration of exhausted pit areas, conventional loading and transport equipment is used with excavators,

wheeled loaders and articulated dump trucks (ADTs). This equipment also works in production and material handling at the processing plant.

For twelve years, up until mid-2017, a Bell B25D accumulated 13 500 hours performing a range of

Beuthauser Baumaschinen, the company decided to invest in the two-axle Bell B30E 4x4 truck, which promised best value and better long-term cost efficiency under specific local conditions.

On their 1 500m long cycles on the well-maintained roadways in Mintraching haulers do not require 6x6 traction. Accordingly, the 4x4 two-axle truck scores with very low tyre wear. It also shows off its strengths with a relatively short total length and small turning radius in a traffic network that is often narrow. In direct comparison with the three-axle Bell B30E, the 4x4 offers a turning radius of 14,6m, some 1,3m smaller than the traditional 6x6 ADT. The shorter rear chassis with redesigned dump body makes manoeuvring much easier. Without the scuffing middle axle tyres, the roadways between the stockpiles are spared, which accommodate the conventional tipper trucks that also run there.

The front of the truck is identical to the conventional B30E, including articulated steering and the oscillation joint, while the rear axle comes with reliable B40 and B50 componentry. The 246kW Mercedes-Benz-turbodiesel engine with Allison six-speed automatic

functions in the pit, doing overburden stripping, silo discharge and stockpile work. When it came to replacement, Guggenberger chose to remain with Bell Equipment and, following a detailed evaluation with the regional Bell distributor,



transmission guarantees superior propulsion, while the pre-selectable gearbox retarder and large-diameter wet brakes on all wheels ensure safety. Bell Equipment's most comprehensive standard package of drive and load assistance (on-board weighing, pitch and roll sensors, etc.) ensures safe and comfortable operation.

With a nominal 28 000kg, the two-axle truck offers the same payload as its 6x6 30-tonne equivalent – the high strength, solidly mounted 36t rear axle is fitted with 29.5R25 tyres (front: 23.5R25). The redesigned bin with a flat floor offers a capacity of 18,5m<sup>3</sup> (SAE 2:1), one cubic metre more than the dovetail 6x6 body. In Mintraching, the B30E 4x4, fitted with an automatic tailgate,

gives easier and faster loading of easy-flowing sands and gravel from the silo thanks to the shorter bin. During tipping, the shorter hydraulic cylinders translate into faster dump cycles while the low tipping height of B30E 4x4 is important for specific applications such as tunnelling or underground mining. The standard 70° tipping angle can be electronically set to a smaller angle.

The wide opening scissor tailgate enlarges the volume of the B30E 4x4 close to 20 cubic metres (SAE 2:1).

