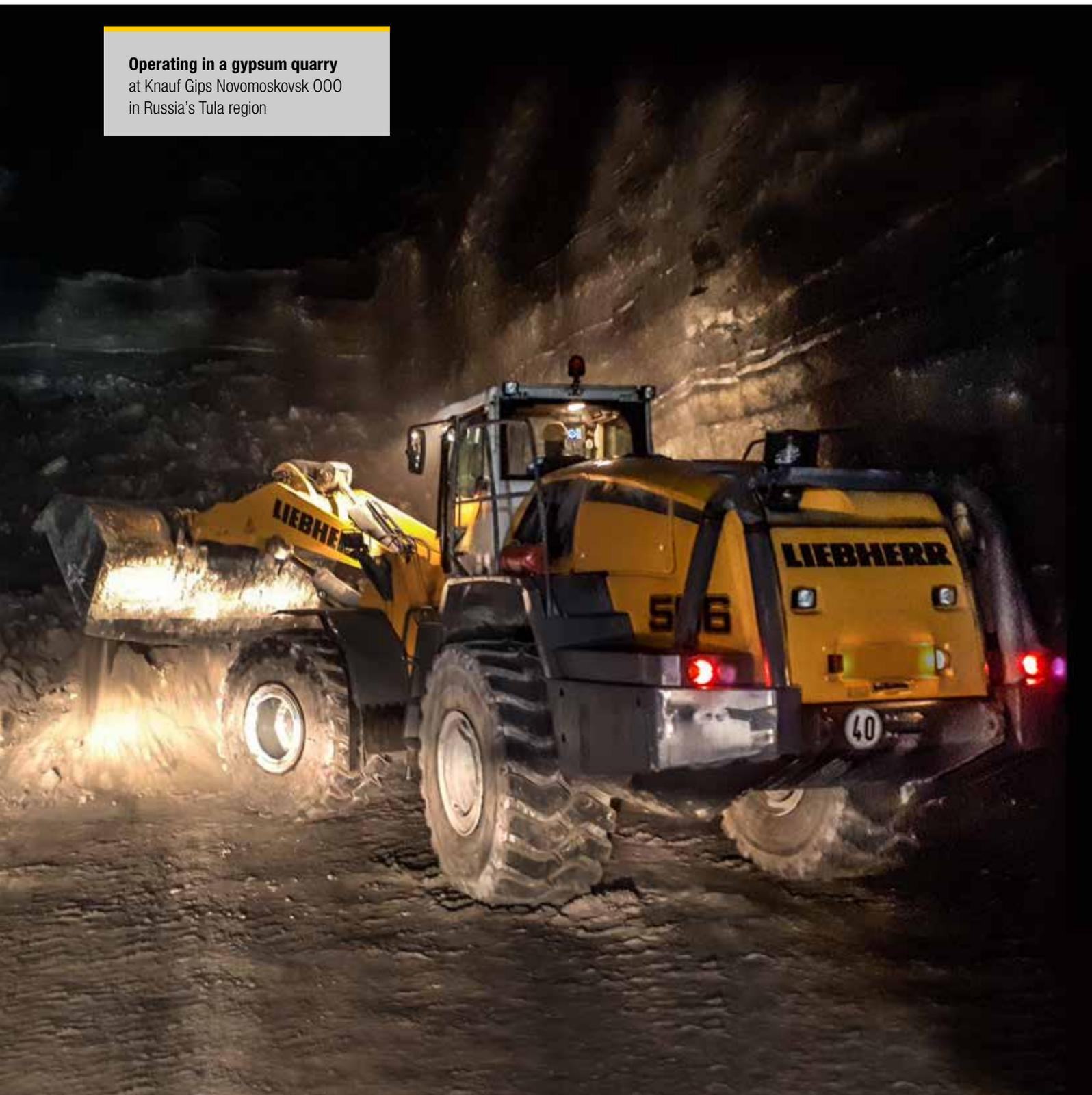


Job Report Wheel Loader

L 566

Operating in a gypsum quarry
at Knauf Gips Novomoskovsk OOO
in Russia's Tula region



LIEBHERR



The L 566 is loading dump trucks with a capacity of up to 45 tonnes.

Situation

The Novomoskovsk gypsum quarry in the Tula region is one of the major gypsum deposits in Russia and the largest in Europe. It was discovered in the 1930s and stretches over an area of more than 40 km². Knauf Gips Novomoskovsk OOO is an example of a highly mechanised mining company and has been enjoying a top ranking among Russian construction supply manufacturers. The annual quarry production capacity is estimated at approximately 3 million tonnes of gypsum. The gypsum is produced from a depth of 130 m with tunnels stretching a total of 670 km. The company's product range is extremely broad and includes not only gypsum stones but also a wide variety of gypsum boards, dry construction mixtures and other items to fulfill various construction needs.

Task

In light of intense and constantly increasing market competition, Knauf Gips Novomoskovsk OOO was looking for the most innovative solutions possible to optimise operating efficiencies and reduce expenditure whilst focusing on maintaining the high quality of goods produced.

Introducing brand-new technologies and automation to the production processes in the challenging deep mining environment would enable Knauf Gips Novomoskovsk OOO to ensure both a significant cost reduction and high levels of marketability for its goods. And the company's criteria for these brand-new technologies included superior reliability, high performance levels, cost-effectiveness and maximum safety for people as basic requirements.

Technical Data

Operating weight	23,620 kg
Tipping load, articulated	13,245 kg
Engine output (ISO 14396)	200 kW / 272 HP



Various safety features are required for safe and efficient operation.

Solution

Gypsum stone is a very solid material. Gypsum mining techniques at Novomoskovsk's underground deposit include drilling with planted explosives, transportation and crushing. Afterwards gypsum is brought to the surface using special conveyors for further handling and shipping to end users.

To achieve the targeted reduction in production costs, the company purchased a Liebherr L 566 wheel loader in 2016 with specific guarding to protect key components from debris. Various safety features, for example a ramming guard, windscreen guard, tilt cylinder protection and particle filter, are required for safe and efficient operation in an environment that is space restricted, has low levels of light and is very dusty.

The L 566 wheel loader is responsible for loading dump trucks with a capacity of up to 45 tonnes and crushers. In addition to the high levels of fuel efficiency provided by Liebherr wheel loaders with the hydrostatic driveline, another key reason for choosing the L 566 was feedback from Knauf Gips Novomoskovsk OOO operators. They noted faster operating cycles, user-friendly access to daily service points, better manoeuvrability and excellent operating area visibility compared to other manufacturers' wheel loaders.

Bucket capacity	4.0 m ³
Fuel consumption	16.8 litres / hour
Tyres	Bridgestone VSDT L5 26.5R25EM