**Press release**

**Testing in extreme conditions**

**Liebherr relies on HBK force sensors for structural testing of excavators**

*Darmstadt, February 2021*

Moving a large mass of material quickly, reliably and safely usually requires the use of hydraulic excavators, mining trucks and material-handling machines at construction sites, scrapyards or ports. However, to ensure that they function reliably and withstand extreme conditions in the long term, Liebherr tests the load-carrying capacity and service life of its machines and components very precisely.

"In our load tests, we subject assemblies, such as a hydraulically adjustable boom, to the load an excavator normally experiences over its entire life in just a few weeks," says Nils Dippon, a test engineer at Liebherr's development and demonstration centre.

For the complex series of structural tests in the modern test stand in Kirchdorf, Germany, Liebherr relies on the U10M and S9M force sensors and strain gauges from Hottinger Brüel & Kjaer. The U10M sensors, for instance, measure the forces produced and compensate for bending moments in doing so while the strain gauges from HBK simultaneously measure the strain on the components.

"Our U10M series force transducers achieve very high precision over a wide measuring range. They provide high-resolution measurement data for the various measurement setups at Liebherr and offer maximum flexibility. Our high-quality strain-gauge technology also accurately acquires minimal component deformations to provide a comprehensive data basis for further development," explains Thomas Kleckers, the product manager for force sensors at HBK.

Liebherr is one of the world's leading manufacturers of hydraulic excavators and mining trucks that meet the highest demands.

You will find more information about this application at

<https://www.hbm.com/en/9341/structural-testing-of-excavators-and-dump-trucks/>

**End**

**About HBK – Hottinger Brüel & Kjær**  
For many decades, HBM and Brüel & Kjær have been trusted by multiple industries to deliver highly accurate technologies and expertise in testing and measuring and sound and vibration, respectively, HBM as the market leader in testing, measuring and analysis and Brüel & Kjær as the world’s leading solution provider for measuring and managing sound and vibration.

The two companies have joined forces as HBK – Hottinger Brüel & Kjaer – to form the world’s foremost provider of integrated test, measurement, control, and simulation solutions.

For more information, please visit[www.hbkworld.com](http://www.hbkworld.com)