

### **Two Liebherr R 980 SME models for direct excavation: Schwenk Zement KG brings 100 tonne crawler excavator into operation**

- Two Liebherr R 980 SME crawler excavators for deployment in limestone quarry at Schwenk Zement KG
- SME version offers highest level of performance and productivity for direct excavation
- Schwenk has relied for many years on its partnership with Liebherr dealer Nagel Baumaschinen

**Colmar (France), 13 October 2015 – To increase its productivity, Schwenk Zement KG recently decided to purchase two Liebherr R 980 SME crawler excavators. The investment in the two 100 tonne excavators was made through the Ulm-based Liebherr sales partner, Nagel Baumaschinen Ulm GmbH. The excavators are deployed in the company's own limestone quarry for direct excavation.**

In Heidenheim an der Brenz in the south of Germany, Schwenk Zement KG runs a limestone quarry with adjoining cement works. For operations in stone quarrying, two new Liebherr R 980 SME crawler excavators were recently brought into operation.

The SME crawler excavators from Liebherr are particularly suitable for deployment in excavation and are tailored to the tough operating conditions associated with quarrying. SME stands for "Super Mass Excavation". A bonus feature that impressed Schwenk Zement KG during the purchase: The excavator is equipped with a reinforced undercarriage on which the running gear components of the next larger model from the standard programme, namely the R 9100 mining excavator, can be installed. In conjunction with a heavy ballast weight, this undercarriage improves the stability of the machine and, at the same time, enables the use of a backhoe with greater capacity.

Even the equipment, such as the stick and backhoe cylinders, has been adapted to the higher tearing and breaking out forces with a larger diameter and matching kinematics.

The performance and cost effectiveness of the excavator are overall better compared with the standard R 976 model.

The Liebherr excavators are manufactured in Colmar, France, and with an operating weight of 100 tonnes respectively are the largest models of the current crawler excavator programme from Liebherr France SAS. The Liebherr engine returns 420 kW / 571 HP and complies with emissions standards Stage IIIB / Tier 4i. Both models have the same equipment with a 7.20 m outrigger, a 3.30 m stick and a Liebherr HD-type backhoe with 6.5 m<sup>3</sup> capacity.

At Schwenk Zement KG, the Liebherr R 980 SME crawler excavators are deployed together with a wheel loader directly at the quarry wall. Material is always excavated using two of the three machines. While the wheel loader is more flexible and mobile, the crawler excavator is suitable for sorting the stone and, at the same time, offers higher tearing and breaking out forces. “We used to work with three wheel loaders in production. With the two Liebherr crawler excavators, we have now found the ideal solution as we have a greater output and productivity and maintain flexibility thanks to the wheel loader”, explains Wolfgang Kuhnt, quarry manager. Since the two crawler excavators have been in operation, the number of detonations for stone excavation has dropped. The bed and material can be collected and processed in a dryer state and the loss of raw material at Schwenk Zement KG can be reduced.

When deployed on-site, the Liebherr crawler excavators achieve an average material handling performance of 350 tonnes per hour and thereby ensure optimum supply of the crushing plant, which is restricted to a capacity of 700 tonnes per hour. “The crawler excavators are quite capable of dealing with 500 tonnes per hour as well, however, which equates to 1,000 tonnes when two are in operation”, explains Kuhnt. Material transport is then carried out by rigid frame dump trucks with a payload of 65 tonnes.

### **The R 980 SME crawler excavator: Power, comfort and optimum consumption**

The drivers at Schwenk Zement KG are all thrilled by the power of the machine. With 394 kN and 508 kN, the R 980 SME crawler excavator impresses with its enormous tearing and breaking out force.

Due to the work intensity and the many hours that the driver has to spend in the machine, the comfort that it offers is held in particularly high regard. The new cab of the R 980 SME is spacious and has been specially developed for Liebherr excavators above 60 tonnes. It is noise insulated and as standard features air suspension seats with seat heating. A 7" touchscreen with high resolution colour display as well as the standard automatic climate control facilitate even greater comfort at work.

With an average fuel consumption of 55 litres per hour, the two R 980 SME crawler excavators are also more frugal in operation than the wheel loader. This low fuel consumption is achieved due to the integrated system technology from Liebherr. The technology is based on a hydraulic system that works with strategically placed sensors. Each steering input made by the operator of the excavator is processed by the control computer, which optimises operation of the engine and hydraulic system accordingly. This makes it possible to work quickly, smoothly and precisely. Depending on the requirement, the circuits work separately or together for optimum use of energy. From every millilitre of fuel consumed, therefore, maximum performance is extracted.

The R 980 SME crawler excavator is equipped with three hydraulic circuits and features a third pump, which ensures jolt-free and smooth movements of the machine.

### **Nagel and Schwenk: A match made for efficiency**

As one of the very first Liebherr sales partners in Germany, Nagel Baumaschinen Ulm GmbH has also been a competent and trusted point of contact of Schwenk Zement KG for decades.

In a quarry, the cost effectiveness and productivity of the machines deployed for excavation are crucial for trouble-free operation of the whole production process in the company. The machines are at the forefront of the production chain and have to work

to the operator's complete satisfaction day after day. In this context, customer service and maintenance of the machines plays an important role. This is one of the strengths of Nagel, a company that takes careful note of the needs of its customers and can react quickly and efficiently.

The Schwenk Group is a family business. It was established in 1847 and has its head office in Ulm, Baden-Württemberg (Germany). In 2014, the building material manufacturer employed about 3,500 staff at its sites in Europe and Africa and had a turnover of more than 1 billion euros. In Heidenheim an der Brenz, a workforce of 120 is employed at the cement works, 20 of whom are assigned to the quarry. This has been in operation for more than a century and stretches over 70 ha.

### **Captions**

liebherr-crawler-excavator-r980sme-schwenk-01.jpg

In the limestone quarry of Schwenk Zement KG, the new Liebherr R 980 SME crawler excavator loads a dump truck to supply the crushing plant.

liebherr-crawler-excavator-r980sme-schwenk-02.jpg

The "SME" crawler excavators from Liebherr are specially developed for quarrying operations.

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