

100-tonne machine deployed: The Liebherr R 980 SME crawler excavator in limestone quarry of Pongratz family

- R 980 SME crawler excavator designed for quarry application
- Maximum production and controlled fuel consumption
- Pongratz Schotterwerk GmbH & Co. KG is a family-run company which was founded in 1923 and is managed by the managing partners Ulrike and Alexander Pongratz.

Colmar (France), September 2016 – The family-run company Pongratz Schotterwerk GmbH & Co. KG, in Ensdorf-Wolfsbach/Bavaria has been using a Liebherr R 980 SME crawler excavator in the limestone quarry since May 2016. The 100-tonne excavator is being used at the face of the quarry for loading the dumper trucks and in the overburden.

Developed and manufactured in Colmar (France), the Liebherr crawler excavator has an operating weight of approximately 100 tonnes. The diesel engine with an engine power of 420 kW / 571 HP complies with the exhaust emissions standards of stage IIIB / tier 4i. The company replaces the R 954 S-HD, which was used up to now, with the R 980 SME. After blasting the rock is transported to the crusher in dump trucks. Two Liebherr machines are now used for loading: the new R 980 SME and a L 586 wheel loader.

In the quarry belonging to the Pongratz family the process is timed exactly; the machines used therefore have to be compatible with each other. The R 980 SME is configured with a 6 m³ HD bucket and designed to produce 400 tonnes per hour. The new crawler excavator is tailored to the throughput of the crusher in the company.

"The new excavator loads a dumper truck with 40 tonnes in four cycles and a dumper truck with 50 tonnes in five cycles," explains Ulrike Pongratz. "There is time then between the loading cycles for sorting and the drop ball operation", she adds.

The further development of the 15-hectare limestone quarry in Ensdorf-Wolfsbach requires a crawler excavator with high capacity. The tough geological conditions with

uneven excavation beds, as well as a large area of solid rock with soil, can now be developed in the coming years using the R 980 SME.

"The experience and the technical know-how and expertise of Liebherr were also decisive factors for influencing our buying decision. The numerous protective devices available on the machine, together with a product range adapted especially for operation in the quarry, naturally played a huge role", explains Alexander Pongratz, the technical head of the family-run company.

The family-run company has been placing their trust in Liebherr for over 20 years now. There are good, long-standing relations between the customer, the authorised dealer and the production plant in Colmar. "We have always had good experiences with the crawler excavators from Liebherr. Even when there were problems, a solution was always found", adds Alexander Pongratz.

The R 980 SME crawler excavator

Liebherr developed a special product range, the SME crawler excavators, for difficult and demanding conditions in quarries. SME stands for "Super Mass Excavation". These crawler excavators are equipped with a reinforced undercarriage featuring suspension components from the next model up in the standard range. In the R 980 SME this is the undercarriage of the R 9100 mining excavator. Combined with a heavy counterweight, the larger undercarriage improves the stability and service life of the machine. Enables the use of large capacity buckets. The equipment such as stick and bucket cylinder has larger dimensions and offers higher digging and breakout forces with the adapted kinematics.

The Liebherr R 980 SME crawler excavator impresses with a low average fuel consumption of 51 litres per hour, achieved with the excavator system technology of Liebherr. This concept is based on the development of a special hydraulic system. It is designed with its own electronics and attains optimal efficiency thanks to its strategically positioned sensors.

With every steering action by the excavator driver the operation of the engine and the hydraulic system are continuously optimised via a control computer. This allows fast, fluid and precise work. The circuits are separated or reconnected as needed, thus guaranteeing optimal energy consumption.

A third circuit is responsible for the rotation of the uppercarriage and guarantees consistent maximum performance and maximum swing torque - irrespective of the workload on the other circuits. For instance, maximum power and speed can be delivered with combined movements.

Captions

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

In the limestone quarry of Pongratz Schotterwerk GmbH & Co. KG the new R 980 SME crawler excavator from Liebherr also crushes huge blocks of rock in the drop ball operation.

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

The "SME" crawler excavators from Liebherr are adapted to the difficult and demanding conditions in quarries.

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