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## Scheffer cranes in the steel warehouse With slewing gear trolley and load-securing system

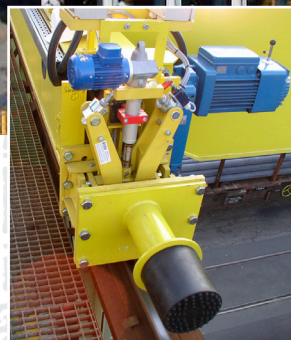
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At the beginning of the summer of 2002 Scheffer Krantechnik GmbH's (Sassenberg) LEG department for cranes with a load-securing system received an order from Benteler Stahl/Rohr GmbH of Paderborn for delivery of two special cranes with load-securing system for transporting steel billets to an external storage location. The conventional cranes used in the past had reached their capacity limits and were also showing signs of wear and tear. After an intensive analysis of the requirements, on which the contractor and customer worked together, Scheffer constructed, produced and assembled two tailor-made cranes.

Both crane systems – produced as double-girder gantry cranes – are used in three shifts per day. The cranes, which have a total load bearing capacity of 15 tonnes each and a span of 17,960 mm, are used to transport around 90,000 tonnes of steel billets each year. Robust design and a high classification were therefore important prerequisites for construction.

In order to ensure that up to three of the approximately 3.2 tonnes steel billets can be transported quickly and, above all, safely using magnetic lifting technology, the slewing gear trolleys were fitted with the patented LEG load-securing system. This system fully prevents the load from swinging. The load-securing system and speeds of up to 100 m/min for crane movement, 30 m/min for trolley movement and 10 m/min for lifting make a contribution to achieving the set cycle times at the storage site.

All the drive motors are equipped with frequency converters and are infinitely variable.



(Photos: Scheffer)

### Koro IBS supplied parts

- ➔ electromotive rail clamps ZWVE
- ➔ sheaves

As the steel billets have to be rotated by up to 90° in the warehouse, the trolleys were produced as slewing gear trolleys.

One crane was also given a cantilever crab with a load bearing capacity of 6.3 tonnes which can be freely moved along the main girder. The cantilever crab is also fitted with a calibrated weighing scale based on the double-frame principle and a scrap magnet. All trolleys, the slewing gear trolley and the cantilever crab, are designed to be accessible on foot. Both cranes were also provided with an ergonomic cockpit design. However, they

can also be operated from floor level using an additional radio control unit.

Even after a short time with the cranes in use, it was clear that the LEG load-securing system made for considerably safer, more efficient working conditions and thus higher level of performance.

Two 15 tonnes double-girder gantry cranes and magnetic lifting technology are responsible for handling the steel billets on the storage site.