



Case Study

## **A New Bucket Wheel Excavator Complex for the Goonyella Mine**

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A bucket wheel excavator – conveyor system – spreader complex will be put into operation in Australia for the first time in particularly difficult winning conditions. These difficulties were taken into account by the exceptional stipulations laid down for the layout of the machines. The complex will be put into operation at the beginning of 1982.

The Utha Development Company (UDC) operates a coal open cast mine at Goonyella, Bowen Basin in Central Queensland. This is coking coal situated at a depth of approx. 45 m. The overburden has been removed to date using American drag lines. As the seam sinks deeper, the drag line operation becomes uneconomic. As a result UDC decided to remove the upper overburden layer of approx. 30 m depth with help of a pre-stripping system and the rest as before with drag lines. The overburden consists mainly of hard clay with gravel and boulder beds. Strata of sandstone, siltstone and argillaceous rock occur which have to pre-blasted. Chunks with 80 cm edge length must be conveyed. O&K Lübeck received the order for the design and delivery of the pre-stripping system consisting of excavator, tripper car and spreader in the summer of 1978. The conveyor system is being delivered by PHB Weserhütte, Australia.