

BLACKWATER COAL MINE STACKER DEMOLITION

Location
Blackwater, QLD

Client
BHP Billiton Mitsubishi Alliance

Duration
6 weeks



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Project overview

Liberty Industrial carried out the demolition of a collapsed coal stacker at BMA's Thermal Coal Plant in Blackwater, Queensland. The coal stacker had collapsed during a high wind event and was now hindering BMA's usual coal export operations.

The project was technically complex and required extensive pre-planning to complete within the client's tight timeframes. The demolition work was critical to the overarching project which included the replacement of the stacker with a new, temporary solution. The collapsed stacker was in unknown structural condition and was assumed to carry excessive tensile stresses in several members. This, along with the interface of the stacker and the remaining transfer tower provided a major challenge in the demolition phase of the works.

Our approach to the technical difficulty of the project was the use of specialised demolition equipment including a 70t Volvo excavator equipped with a third member, rotating, hydraulic shear. The removal of the bogey required close coordination between the crane crew and Liberty Industrial's demolition team to ensure that the bogey was removed in a condition which was suitable for analysis. The bogey was rigged to the crane and then released from the structure using the hydraulic shear.

Once the tension in selected members was released the 70t excavator with hydraulic shear progressively removed sections of the stacker in order to shave as much weight from the structure as possible.

The final stage of the works involved the manoeuvring of the remaining section of stacker from a transfer tower, which was achieved using the 70t excavator equipped with the demolition grab attachment. Using several spotters and open communication streams the excavator was able to free the stacker section from the transfer tower without causing any damage to the remaining infrastructure.

The sections of stacker were then transferred to the processing area and downsized into export grade scrap steel which was left in the client's possession for sale. The project was finished ahead of schedule which allowed the later stages of the project to take place without delay. The project was regarded by the client as a successful example of Liberty Industrial's capability to deliver complex and time sensitive results.

