

Job Report

Crawler Tractor

PR 756

Litronic®

Gravel pit operation

at Hanson Aggregates,
Pottal Pool-Quarry (UK)



LIEBHERR



Safe and efficient work with the PR 756 at Pottal Pool-Quarry.

Situation

Pottal Pool-Quarry is owned by Hanson UK, part of the worldwide Heidelberg Cement Group. The quarry is situated on Cannock Chase, an AONB, in the West Midlands Region of England and supplies sand and gravel to a mixture of internal and external customers throughout the region. The quarry works a deep deposit of Bunter Sand and Gravel containing some hard material which needs to be ripped prior to extraction. The upturn in the UK market for construction materials meant that the (two) existing competitor machines could no longer reliably deliver the required production.

Task

The sand and gravel is ripped and dozed for 80-100 metres into a ground feeder which in turn feeds a field conveyor system onto a surge pile which then feeds the processing plant. The plant requires a feed rate of at least 220 tonnes per hour over the 10 hour day, total output is 300,000 to 350,000 tonnes per year.

Solution

The management at Hanson UK decided to specify a latest generation Liebherr PR 756 crawler dozer complete with 8.92 m³ semi-U blade and single shank ripper. The PR 756 is fitted with the latest Tier 4 final engine delivering 340 HP / 250 kW. The hydrostatic drive system delivers high drawbar pull and breakout force for dozing and ripping work. The machine was also modified with hydraulic folding access steps and extended walkways for operator access and egress, extra mirrors for all round visibility and an automatic fire suppression system. The aim of this purchase was to deliver better productivity and lower fuel consumption. Since delivery and commissioning the PR 756 has been producing around 400 tonnes per day more than its predecessors, regularly achieving 2,000 tonnes in a single shift. For the quarry this means that the extra material can be processed through meal breaks and gives an extra hour per day of production. The fuel economy of the PR 756 has also been excellent with an average fuel burn of 37 litres per hour, comparing very favourably with the 55 litres per hour of the previous machines; this could lead to an annual saving of 32,400 litres per year. The excellent productivity of the Liebherr PR 756 also means that it will have time to carry out reinstatement of the quarry so reducing the need to hire in additional equipment to carry out this important task.

Technical Data

Engine	Liebherr D 946 A7
Engine output according to ISO 9249	250 kW / 340 HP
Operating weight	40,400 kg / 89,070 lb
Blade capacity	8.92 m ³ / 11.67 yd ³

Equipment

Semi-U blade
1-Shank Ripper
Bogie suspension undercarriage with 610 mm / 24" track pads
LED headlights
Extended walkways with access steps
Automatic fire suppression system

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