Burma introduce first Bell B45Es on Kolomela Mine rehabilitation project

Small opportunities are often the beginning of great achievements as Burma Plant Hire and Mining (Pty) Ltd is proving at Kolomela Mine, near Postmasburg in the Northern Cape, where the company's fleet of six new Bell B45E Articulated Dump Trucks is making a positive and lasting impact on the mine's rehabilitation project.

Kolomela is an iron ore mine operated by Anglo American's Kumba Resources. Burma Plant Hire and Mining, which has the Raubex Group's Burma Plant Hire (Pty) Ltd as its majority shareholder, has been involved in general mining activities, including load and haul of final product, since the mine's inception in 2009.

Burma Plant Hire's Managing Director, Theuns Burger says: "It was mainly thanks to this long standing relationship and our strong safety record at the mine that we were approached to extend our activities to include the acceleration of the mine's rehabilitation efforts. It also helped that we had equipment on site and the flexibility to be able to immediately redirect some of this equipment and start the rehabilitation work at the end of August 2017 without delay," he explains.

Drones are used on site to establish progress and measure production in relation to the rehabilitation. In the first 10 weeks Burma Plant Hire

and Mining moved 60 000m³ of material, working about 150 hours per month in eight hour shifts.

Integral to this success has been the fleet of six Bell B45Es, three of which move calcrete-rich overburden and top soil, stripped from newly developed areas of the mine, to stockpile it for rehabilitation. In this application a 30-ton wheeled loader takes two-and-a-half to three loads to fill each truck bin.

At the stockpile, to prevent unsafe undercutting, the company has opted for a 50-ton excavator, which loads the other three trucks. Six passes with the excavator fills a B45E bin and this material is then hauled to the rehabilitation site. Haul distances vary anywhere between a roundtrip of 1km and 6km. "We try to stockpile as near as possible to the rehabilitation area," says the company's Manager: Mining, Carlo Hennig, who adds that haul roads are flat, and in good condition, promoting high productivity.

The area only receives an average rainfall of 275mm per annum. For this reason the company uses rippers on the back of dozers to rip 500mm into the ground and contour the rehabilitation site into a moonscape to retard water runoff and prevent erosion, thereby giving the natural vegetation the best possible chance to re-establish.

Work is carried out in strict accordance with guidelines set by the Department of Environmental Affairs, which undertakes the re-establishment

of natural vegetation after the company has successfully prepared the land. The Department of Environmental Affairs uses seven types of endemic grass seeds, each of which are colour stained to prevent birds from eating them before they have a chance to grow.

According to Carlo, the decision to invest in Bell ADTs followed a visit to the company's factory in Richards Bay. "We were impressed with how these Bell machines are built and it gave us peace of mind when making our decision to put our confidence in the Bell brand and support them as a locally based manufacturer. They are beautiful trucks, built for our conditions and we have been impressed by the personalised customer service. Everyone is involved to the extent that they become friends. Even the Operator Trainer, Warren Loffler, calls to discuss the progress and that's great.

"We opted for the B45Es because the B50E would have been too large and we believe that there is definitely a market for trucks with a payload between 40 and 50 tonnes. It was exciting for us to be able to assess this new product and it is perfect for what we need. We had a few initial teething problems but they were quickly resolved and the trucks are now running at optimum levels."

Depending on the haul distance, the trucks each average three cycles per hour during which they move 93,2t of material. Although the trucks operate on dry rates, with the mine supplying the diesel, the company monitors fuel consumption and Carlo says the ADTs use between 12 and 17 litres of fuel per hour. This is less than he expected considering the high ambient temperatures in which the trucks operate.

Data is provided by Bell Equipment's proprietary fleet management software, Fleetm@tic®, which Carlo checks "religiously". "Fleetm@tic® is brilliant. A great selling tool for Bell," he says. "From the mechanical side I can see when the trucks are coming up for a service for planning purposes. I travel a lot and at the end of a shift I receive a report on email, either on my phone or laptop, and can see what productivity has been achieved and whether we are on track. All the information is there in graph form so you can plan easily. It saves a lot of time and frustration."

Since these are the first Bell ADTs to operate on Kolomela Mine they were thoroughly evaluated to ensure they met the stringent safety requirements on the mine. With the host of safety mechanisms that have been incorporated into the new E-series trucks, they passed with flying colours. Bell Tip Safe, a feature that doesn't allow unsafe tipping and requires that the bin is fully down before the truck can change gears when it pulls away, was particularly well received.

According to Carlo other standout features of the B45Es include the powerful Mercedes Benz engine and Allison transmission combination. "The straight 6 engine is unbelievably quiet. You have to stand close to the truck to hear if it's idling or not."

With the unquestionable effect the Bell B45Es have had on productivity on the rehabilitation site during their initial two six-month contract periods, Burma Plant Hire and Mining is hopeful that this will stand them in good stead as they strengthen and grow their presence on the mine.

The Burma Plant Hire and Mining team on site includes (from left): Carlo Hennig (Manager: Mining) and Shift Supervisors, Francois Mathysen and Koos Swanepoel.