Bell efficiency drive covers underground ADT range

Lower total cost of ownership is a bold undertaking by Bell Equipment that is sure to strike a chord with underground mining operations in the market for underground Articulated Dump Trucks (ADTs).

Bell Equipment Marketing Manager: ADTs, Tristan du Pisanie, says the company has been building underground ADTs since the late 1980s and is confident that the company's improvements with its latest generation of underground ADTs will positively differentiate Bell from other underground haulage brands in the marketplace.

"Our trucks, being locally manufactured, have a lower capital cost and spare parts pricing while still burning less fuel for the same productivity. Combined these factors have the potential to offer a significant reduction in the running cost of an underground ADT," says Tristan.

With a rated payload of 33 000kg the B33L is currently the largest Low Profile ADT in the Bell range generating gross power of 290kw and gross torque of 2 000Nm. In addition to the benefits already mentioned, the B33L is fast establishing itself as a preferred production tool due to its powerful drivetrain and suitability to heavy duty mining.

According to Tristan the latest B33L has been designed based on the company's popular and proven B40D Articulated Dump Truck (ADT) in a number of key areas, most notably the engine, transmission transfer case and electrical system. "The benefits of this design approach are that we have a lot of experience with these components and a high level of confidence that they will meet the expectations of our customers. Our spare parts and logistics systems are also already set up to support a growing population of these trucks."

Understanding the cost of downtime on mining production, Bell has also taken the strategic decision to stock increased levels of spare parts for underground ADTs in its Global Logistics Centre in Johannesburg and, most importantly, at Customer Service Centres closest to the machines to ensure the fastest possible response time in the unlikely event of a failure.

Elsewhere the truck is specifically designed with underground mining in mind. "We use Kessler axles, which have spring applied hydraulic release (SAHR) brake systems, which is a requirement of most underground mines. The main structure is designed to keep height to a minimum and due to the harsh operating environment it is also much more robust than the standard ADTs through the use of thicker steel plate." Tristan adds: "With our latest underground ADTs we took a conscious decision to place emphasis on developing a machine that our customers are asking for. Our development programme included visits by our engineers and sales team to a number of underground mining customers to discuss their requirements for underground ADTs. These discussions gave us a clear picture of what truck would meet the industry's needs and expectations. In addition this aligned very well with what we would be able to engineer, manufacture and support."

Continuous improvement is a way of life for Bell and future developments under consideration to enhance the company's underground product offering include developing a side-mount cab option so Bell can offer both a side-mount and a centre-mount solution.

"We're also looking at the possibility of developing a larger underground truck, which should deliver a lower cost per tonne," says Tristan.

In addition Bell plans to develop a wi-fi solution to further enhance its Fleetm@tic fleet management system. "Currently our system is based on satellite and cell phone tower communication but with wi-fi we would be able to link to an underground mine's network and communicate fleet management information in that way."

