

Bomag MPH600 Recycler proves its worth in an unusual application

Asphalt recyclers, also known as soil stabilisers are machines that are used exclusively in road rehabilitation and construction to cut through the base layers of especially asphalt paved roads, right?

Wrong! Recyclers can also be used to free up and mill crusted waste material in mining tailings dams, so making it easier to stockpile the material for reprocessing using hydro-mining techniques. And if this may sound far-fetched, you'd better speak to a few experienced individuals at the company M Civils in Rustenburg about this technique.

One of those is the company's Contracts Manager, Richard Stone, who says: "We recently bought a Bomag MPH600 Asphalt Recycler but not with the primary goal of it working on roads projects, which is our company's core business."

M Civils is a road construction and rehabilitation company with its head office in Rustenburg. Civil

engineer, Mike de Kock, founded the company in 1997 when he saw potential in the many reconstruction and development projects that were being undertaken. These projects included construction of new roads, upgrading and rehabilitation of existing roads and the installation of services such as a water supply and reticulation.

M Civils employs 180 full-time staff with additional labour sourced from areas where they undertake projects. The company operates a fleet of earthmoving equipment and haulage vehicles numbering 110.

"We derive a large part of our income from work on regional and national roads, which also includes smaller civil construction such as storm water drainage and culverts while bridge construction is left to specialised sub-contractors," Richard adds. "We also try to undertake most of our projects within the North West Province."

"Back in 2012 we bought a Bomag MPH125 Asphalt Recycler specifically for our roads rehabilitation projects



Wimpie Steyn, M Civils Plant Manager.

and this machine has served us well. It has also given our operational and maintenance staff the opportunity to get to know the technology that Bomag employs. When a call came from clients who are well versed in the construction and management of mining tailings dams and waste disposal projects, we could offer them support with our knowledge and experience of this type of equipment,” Richard says.

The challenge came about as M Civils’ clients were tasked with re-mining the tailings dam of a platinum mine. The tailings depository, with its water drained, had formed a hard crust on the top and this needed to be broken up to enable a bulldozer to gather the material into windrow patterns, from where it would be turned into slurry, using high-pressure water guns. The problem was that the bulldozer could not break the crust finely enough and it was felt that an asphalt recycler was needed.

“After some in-house research by our colleague, Reino de Kock, we decided to test the Bomag MPH600 Recycler and we and our clients were so impressed with its performance in this unusual role, that we had no hesitation in buying the machine as it was competitively priced as well,” Richard continues. “We’ll admit that initially we thought that it would be touch and go for the Bomag MPH600 Recycler to match the speed of the bulldozer stockpiling the material but in truth the Recycler is now so far ahead of production that we’ve been able to take it on to a roads rehabilitation project while the bulldozer catches up on its stockpiling activities.”

Wimpie Steyn is the Plant Manager for M Civils who, with his experience of the Bomag MPH125 Recycler, has been very impressed with the new machine’s overall performance and features. “Our Bomag MPH125 Recycler really made our lives a lot easier but the MPH600 has certainly brought in a ‘wow factor’, he says. “We were concerned that due to the abrasive nature of

the waste material we’d experience heavy wear on the drum cutting teeth but we have not seen any noticeable wear.”

Other features that have impressed include the speed on the drum, which can now be set depending on the type of material that is worked in. The drum can be set lower than that of its predecessor, so increasing its penetration, which works well on the unusual application of the tailings dam. Operator ergonomics have been enhanced by a four-camera system with one in front, one in the rear and two side-mounted cameras. Crab steering on all four wheels provides tighter turning circles and the rear mounted spray bar can differentiate how many square metres have been treated with water.

“The adjustable speed of the drum really impressed our mining clients as that positively affects how fine or coarse the material can be processed,” Wimpie adds. “The ease with which the Bomag MPH600 Recycler processed blocks of material 100 metres long by 100 metres wide, and to a depth of 400mm, clearly showed it was the correct machine for the task at hand.”

With a large fleet of earthmoving equipment, M Civils has learnt the value of preventative maintenance and how it adds to longevity of equipment. The company has designed its own operator checklist that is illustrated with pictures of machine parts. Members of M Civils’ maintenance staff are kept up to date on preventative maintenance by attending technical courses presented by Bomag at Bell Equipment’s Jet Park Customer Service Centre. Bell Equipment’s Customer Service Centre in Rustenburg does all the in-warranty servicing.

The company also runs four Bomag BW212 Smooth Drum Rollers of which some can be converted to padfoot rollers with clamshell attachments.

