



Bridgestone's E4 class VRDP series tyres are designed for operations on abrasive or harsh surfaces.

## Long-life Bridgestone tyre range now in full production

A long-life heavy mining truck tyre range first introduced by Bridgestone Earthmover Tyres more than two years ago, is delivering tyre life improvements of over 20% in Australian mines, and is now in full production.

Bridgestone's VRDP (V-steel Rock Deep Premium) tyres are E4 class tyres designed for operations on abrasive or harsh surfaces.

Features of the VRDP range include:

- Extra-deep tread
- Superior cut resistance
- Low heat generation
- Excellent durability

The VRDP range's unique tread pattern has been designed to ensure even wear throughout the tyre's life, even under the most severe operating conditions.

This tread pattern includes a "centre block" arrangement; these blocks close up on each other at the tyre ground contact area, providing a firm footprint, reducing tread block movement and minimising irregular wear.

The blocks then open up again as the tyre surface rotates away from the ground, providing effective heat dissipation.

These features combine to prolong tyre life compared with other E4 patterns.

As well as the "centre block" tread pattern, the VRDP tyres have a new belt package designed to provide increased durability and cutting resistance.



The first of the VRDP tyres were introduced to the market in November 2001 for 240 US ton dump trucks, and have been available in limited commercial supply since April 2002.

Because of the substantial time and investment required to develop new moulds, the tyres have not been available in fully commercial quantities until now.

Over the next two years, Bridgestone will continue to roll out new sizes in the VRDP range, ultimately offering a full range suitable for rim diameters from 49 inches to 63 inches for fitment on 85 to 380 US ton class dump trucks.

Current tyre sizes available are 46/90 R57 and 40.00 R57 for 240 US ton dump trucks, 42/90 R57 for 190 US ton dump trucks and 33/00 R51 for 150 US ton dump trucks.

According to Bruce Connor, Bridgestone Earthmover Tyres' executive manager, marketing, the VRDP range was developed specifically to provide a longer life alternative.

"Analysis of tyre life since we introduced the first of these to Australian mines in early 2002 is showing tyre life improvements in metalliferous mines of more than 20%," said Bruce.

"For example, in a WA iron ore mine, we are achieving an annual scrap average of more than 98,600km from these tyres, or about 5550 hours. That compares with around 81,200 km or around 4550 hours for alternative tyres," he said.

# BRIDGESTONE

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For further information on any of the products or services covered in *IMPRINT*, please contact us at Bridgestone Earthmover Tyres, or your nearest Bridgestone outlet.

# IMPRINT

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## High quality rubber tracks from Bridgestone

Bridgestone Earthmover Tyres in Australia is now distributing the Bridgestone range of high-quality rubber tracks, designed for use on mini excavators up to about 5 tonnes, tracked skidsteers, small crawler loaders and other compact tracked equipment.

Rubber tracks on crawler equipment result in much less damage to paved, grassed or landscaped surfaces than conventional steel tracks. They are also much quieter in operation compared with steel tracks.

Bridgestone rubber tracks are typically fitted to new equipment at the time of sale from the dealer, but have not been always readily available when it comes time to replace the tracks.

Bridgestone's rubber track sets the quality standard for the industry, delivering cost-effective performance advantages for customers, according to Mick Ryan, Bridgestone Earthmover Tyres diversified products manager.

"You would usually expect to change a set of rubber tracks about every 12 months," he said. "However, some of the low quality tracks are lasting substantially less time than this."

"We've had reports back from some owners that the short life and changeover costs of these lower performing products means they are uneconomic to use, especially when you take into account lost production, extra downtime and so on," said Mick.

Bridgestone pioneered the rubber track concept back in 1960, and remains the major supplier to original equipment manufacturers (OEMs), with around 70% fitting Bridgestone tracks to new equipment.

"The specific design and quality of specially selected embedded core

metals form the basis of the Bridgestone's rubber track compound," he said.

This is combined with high-endurance belt cord and capped off with a unique Bridgestone cut and wear resistance tread rubber.

The tracks are then manufactured to tight tolerances with the correct pin fitments required for prolonged severe service conditions in earthmoving applications.

"No other manufacturer has invested more in rubber track research, development and manufacturing quality control," Mick said.

"This ensures we are able to gain customer satisfaction from both the performance and now availability of our rubber tracks."

"So often, machine owners have said 'if only I could get the original rubber tracks for my machine'. Well, now they can."

Bridgestone rubber tracks are available through the normal Bridgestone Earthmover Tyre distribution channels, including earthmoving equipment dealers and Bridgestone Earthmover Tyre dealers.

In addition to the rubber tracks, Bridgestone Earthmover Tyres will shortly start selling bolt-on rubber pads for crawler equipment up to about 23 tonnes.

These pads, also made of a high-quality rubber compound, are designed to bolt on over each steel grouser on larger equipment, to give the same surface protection and noise reduction as rubber tracks on compact equipment.



## Bridgestone offers training courses in safe tyre servicing

Servicing and maintenance of earthmover tyres for heavy equipment is a potentially dangerous activity, and the appropriate training is essential to ensure this is done as safely and efficiently as possible.

Bridgestone Earthmover Tyres is a Registered Training Organisation (RTO) providing numerous forms of training in tyre awareness and servicing at a number of different levels.

The training offered by Bridgestone Earthmover Tyres includes:

- Basic tyre awareness training for equipment operators
- Tyre application training for on-site maintenance staff
- VETAB-accredited training for tyre servicing personnel.

The most advanced course is the Bridgestone Earthmover Tyre Servicing for Heavy Duty Equipment (TSHDE) course, which was assessed, researched and developed in-house to an industry standard and is nationally accredited by VETAB.

The aim of this course is for experienced tyre fitting personnel to gain accreditation, therefore providing a safer working environment, improved working efficiency and recognition of skills as well as to provide efficient on-site tyre assessment.

The five-day course takes participants through the basics of tyre design, function and application, with a strong emphasis at all times on safe working practice.

It combines extensive theoretical background knowledge with practical "hands-on" training.

However, completion of TSHDE course is only one step on the path to accreditation.

Participants then need to pass an assessment of their skills in a real life on the job environment.

"The aim of our training is to try and remove some of the mystery and myths that surround the use of tyres on large earthmoving equipment," said Paul Comminos, senior engineer with Bridgestone Earthmover Tyres.

"Correct tyre handling procedures are essential to ensure these



Participants in a recent Bridgestone Earthmover Tyre training course in Central Queensland.



activities are carried out safely, with minimal risk of accident or injury."

For information on our tyre training courses, please contact Paul on (02) 9722 6111, email [tyretraining@bsem.com.au](mailto:tyretraining@bsem.com.au).

## Bridgestone VUT radials give excellent performance on shire grader

Wellington Council has been using Bridgestone VUT radial tyres on its Cat 12G graders ever since the tyres came on the market about eight years ago.

Plant Superintendent Glenn Woolfrey said the council preferred radial tyres over cross-ply for its graders.

"We find the cross-plys go out of shape too quickly, plus they are prone to puncturing," said Glenn.

"In addition, we do a lot of roading with our graders, and the radial tyres give much better ride, which makes them a lot more comfortable for our operators."

Wellington Council, in the central west of NSW, runs four Cat 12G graders.

"We switched to the Bridgestone VUT radials about eight years ago, and we've had a great run from them," he said.

"Before we switched to radials, we were getting a lot of punctures, but we're having no problems with the VUTs, so we've stuck with them."



Wellington Council in NSW's Central West, has had excellent results from its Bridgestone VUT radial tyres.

## Three-way partnership results in top underground tyre performance

Underground haul trucks are crucial to the successful operation of any underground mine, particularly for development work.

As with open cut operations, the trucks used in these applications have been growing in size over time.

However, in underground mining the ultimate size of equipment is limited by the size of the underground drives.

The Caterpillar Elphinstone AD55 articulated dump truck, the first prototype of which was produced in 2000, was developed to operate within the limited size of underground mine openings while still carrying a 55 tonne payload.

In order to achieve this, everything about the truck had to be low profile, including the tyres.

Bridgestone Earthmover Tyres and Caterpillar Elphinstone worked together to provide a tyre that could meet the high payload demands of the new vehicle and still perform in the harsh underground mining environment.

Various sizes of tyre were explored before deciding on the 35/65R33. This tyre provided the necessary carrying capacity with a low profile design giving it a diameter not much larger than many 29 inch tyres, but with far greater stability.

However, this decision also created some problems.

Firstly, the only rim available for this sized tyre was an "EM" style rim that did not have the necessary strength for this heavy duty application.

An "EV" style rim was required, so consultation began between Caterpillar Elphinstone, Bridgestone and rim manufacturer TOPY to provide this alternative.

Bridgestone Earthmover Tyres supplies and fits the knave plate for this rim, which has been a definite success story, with life commonly in excess of 20,000 hours.

The second major hurdle in choosing this tyre size is that Bridgestone did not manufacture a tyre that suited a high productivity haul truck application in the 35/65R33 size.

It was decided to produce a new tyre from scratch specifically suited to underground haul truck operation. The 35/65R33 MS (Multi Star) VSNT was the result.

This tyre was developed as a "multi star" tyre meaning, that it can be used for both loaders and haul trucks, making it more versatile and more cost effective to produce.

It has a high traction tread pattern with optimal lug angle, uniform groove depths and ultra wide tread, to provide improved driver control, powerful traction in forward and reverse throughout tread life, excellent protection against sidewall damage and extended tread life potential.

The multi-directional pattern also makes tyre management easy. Bridgestone employed heavy duty construction in the structure of this tyre, giving the 35/65R33 MS VSNT exceptional resistance to cut through damage.

Its heavy duty bead provides strong anchoring to the rim to handle typical high torque and steep grade underground application.

These features all work towards providing one of the lowest cost per hour, highest productivity tyres used in the underground industry.

A significant number of the AD55 trucks built since production began in 2001 have left the Caterpillar Elphinstone factory in Burnie fitted with



Bridgestone 35/65R33 MS VSNT tyres.

In most cases, the buyers will choose these tyres as replacement products in the future.

The Bridgestone 35/65R33 MS VSNT fitted to TOPY wheels on the AD55 are the perfect partners offering a very cost-effective operating solution in the severe underground mining environment.

## Two new appointments at Bridgestone

Bridgestone Earthmover Tyres has recently made two senior executive appointments.

**Mick Ryan**, formerly the company's manager, engineering services, has been appointed executive manager, diversified products.

In this new role, he is responsible for marketing of new products in the Bridgestone range, such as rubber tracks, rubber track pads, industrial tyres and wheels, as well as services such as tyre repairs and servicing.

Mick has been with Bridgestone for 27 years, and has had widespread experience servicing key markets such as mining, construction and industrial.

**Alex Goh** has been appointed Bridgestone Earthmover Tyres' manager, engineering services.

Previously the company's senior national engineer, he has been with Bridgestone Earthmover Tyres for the past four and a half years.

In that job, Alex gained wide experience across the full range of industries covered by Bridgestone Earthmover Tyres, including mining, construction, industrial and local government.

In his new role, Alex's areas of responsibility include technical support for regional offices, training with OEMs and statutory bodies, warranty assessment, training, tyre application development, new product identification and introduction, and product testing.



Mick Ryan, executive manager, diversified products.



Alex Goh, manager, engineering services.