DEEP INSIGHTS | THE GREEN ECONOMY



Is a solution around the corner?

Authored by John Martin, vice president southern Africa, Kal Tire's Mining Tire Group

In southern Africa, mining companies in pursuit of their ESG commitments are keen to see a solution to one of our industry's greatest environmental challenges: OTR scrap tyres.



eveloping a tyre abatement programme that's sustainable and ethical may seem complex, but, in fact, we're already on our way. What's needed now is collective action.

Estimates suggest there are probably millions of tonnes of scrap mining tyres stockpiled on mine sites and dedicated



↑Scrap tyre disposal should be regulated

stockpiling areas throughout our region, and what we're seeing at Kal Tire's Mining Tire Group is that mining companies are very supportive of a more future-minded approach to dealing with end-of-life tyres. Stockpiled tyres continue to pose several health and environmental risks, including fire, water borne diseases, insects and vermin.

Additional safety risks being observed in southern Africa is the illicit trade of end-of-life truck and car tyres, finding their way back onto both public and private vehicles, creating risk to life and limb for all road users.

While only a small percentage of scrapped mining tyres are currently being processed through shredding facilities, the end product mostly remains stored, or exported in the form of tyre-derived fuel.

42 MINING REVIEW AFRICA | ISSUE 2 / 2022

DEEP INSIGHTS | THE GREEN ECONOMY

Therefore, a strong desire from all industries remains intact for a wide-scale, ethical and sustainable solution. Where's the gap? What needs to change?

In a region with insufficient legislation for the governance and management of tyre abatement, an urgent change to the legislation is needed, to introduce the most practical and environment friendly tyre abatement solutions. It's likely that variousstakeholders – including mining companies, suppliers, communities and government – will need to unite as a collective to implement much needed legislative reforms and a solution that's both ethical and sustainable.

There is a solution at the opposite end of the spectrum from sending tyres to other countries to be burned in kilns and furnaces as tyre-derived fuel.



↑ Kal Tire's tyre recycling facility in Chile

A country that has already risen to this significant environmental challenge is Chile, which is one of the first countries to implement mining tyre disposal legislation. As government and industry collaborated, important conversations about viable solutions arose. Kal Tire's Mining Tire Group was fortunate to be at the table, and the company was determined to help customers solve the challenge of scrap mining tyres in a way that fully supports a circular economy and meets the highest standards for both environmental and safety.

After several years of research and development, in 2021 Kal Tire successfully opened a new thermal conversion mining tyre recycling facility in northern Chile that converts scrap OTR tyres into reusable products. The technology uses heat in the absence of oxygen to convert tyres into their base elements (fuel oil, steel and carbon black). Nearly 100% of the tyre can be reused. The solution is scalable and can be implemented anywhere.

What's more, Chile's journey shows us here in southern Africa what's possible when stakeholders unite to enable a greener future. MRA

MINING REVIEW AFRICA | ISSUE 2 / 2022 43







STOCKPILE TUNNEL SPECIALISTS

We strive to be the leading specialists in the supply and manufacture of corrugated steel pipes used mainly as stockpile tunnels and culverts for roads.

Our extensive knowledge gained over multiple decades of operation has allowed us to market and sell our products with the utmost confidence ensuring that the required design parameters are adhered to with the necessary factors of safety.

Our product range has been used extensively by mining houses, contractors and consulting engineers globally due to the numerous advantages offered by the product. The cost savings are extremely attractive when comparing Armco structures against conventional designs and the ease of installation ensures a quicker completion time.

Your professional partner in steel tunnels and culverts.





Address. 131 Anvil Road, Isando, South Africa **Tel.** +27 11 974 8511 | **Fax.** +27 11 974 8510

E-mail. mail@armco.co.za

Web. www.armco.co.za

OBO Bettermann Group