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Dear Client

Earthmover Tyre Shortage Global CRISIS

During 2005, a significant percentage of the world's rubber tyred mining fleets will be idle due to a severe shortage of earthmover (EM) tyres. The situation will worsen in 2006.

EM tyre supply has reached the crisis stage and will remain so until at least the end of 2006. Although the effects have not materially impacted on the site tyre operation to date, that will change very shortly. We must acknowledge this, be aware of the consequences and work as a team, together with tyre suppliers, to minimise the disruption to mine production on site.

No mine in the world can escape the outcome. The global demand for EM tyres has increased by half over the past 12 months and will continue to rise. EM tyre manufacturers have done everything possible to maximise output from existing facilities and equipment. Supplier inventory levels are zero. Planned expansion of tyre production is minimal, and with a lead-time of at least 18 months. There is no more spare capacity on the supply side. We must now do two things exceedingly well – manage supply logistics closely and get as much life as possible from our tyres.

Tyre suppliers have not created these shortages and, while they will try to be fair in their dealings, they will be under increasing pressure from all quarters – ultimately they will decide how supply is allocated. It is essential to have a tyre supply contract, preferably with at least two suppliers for primary fleet tyre sizes, and to maintain a close and good working relationship with these suppliers. We should keep suppliers fully and officially informed about our long term usage estimates, place our orders early, pay on time and closely track deliveries to ensure they do not get diverted. Effective site stockholdings should be increased in whatever manner possible. Working capital issues are insignificant compared with the risk and cost of running out of tyres.

The real challenge will be to obtain the maximum possible life out of every tyre that we run on site because suppliers will be unable to meet even our existing requirements within a few months – no mining company will be immune. We must aim for an immediate minimum 25% increase in tyre life to have any hope of forestalling trucks and other mining equipment being stood down during 2005. To achieve this we need to effect a quantum improvement in the site tyre operation. This will require a change in focus and may involve sacrifices in mine production, eg. extra tyre changes to maximise life on asymmetrically worn tyres, or parking trucks because operators are required to man graders or dozers. However we must do what it takes – it is better to lose a few hours in truck downtime now than to have trucks stood-down indefinitely in future because of a lack of tyres.

Attached is a list of recent developments and some actions that we need to consider. We will present more detailed specific site recommendations shortly. **We cannot over-emphasise the need for immediate action to avert severe disruption to future mine production.**

Yours faithfully
Otraco International Pty Ltd

Tony Cutler
Technical Manager

Attachment



Attachment to letter dated 29 November 2004

A. RECENT DEVELOPMENTS CONCERNING EM TYRE SHORTAGES

- Global demand for EM tyres is **HALF AS HIGH AGAIN** as it was 12 months ago – and it's **increasing** with **no end in sight**.
- There are only five major EM tyre factories worldwide and every one is working at **MAXIMUM CAPACITY** – the problem is not raw material shortage; it is production capacity.
- EM tyre companies typically had 6 weeks to two months of uncommitted inventory available – this is now **ZERO INVENTORY** for all suppliers.
- The three major suppliers (Michelin, Bridgestone and Goodyear) have already sold all of their EM tyre production up until **mid 2006**. No tyre suppliers, including the usual alternative suppliers of smaller tyres (viz. Toyo and Yokohama), are taking on **ANY NEW CLIENTS**. As overall demand increases (eg. as existing clients expand their operations and requirements for tyres) the tendency will be for tyre suppliers will restrict and allocate supply proportionately among their clients. **No one should believe that they have such special supply status that they will be immune.**
 - One manufacturer has advised that it will be unable to start producing tyres ordered for calendar year 2005 delivery until the 2nd half of 2005.
 - Suppliers are rationalising tyre sizes. For example one manufacturer has considered eliminating the low demand 36.00R51 size from its range.
 - Haultrucks are already being stood down around the world including nine ultra-class trucks from a fleet of 40 at a large mine in the USA.
 - Major mining companies in Australia, North and South America have been advised by suppliers that they will be receiving only a fraction of the tyres that they were expecting during 2005.
- There is virtually **NIL PLANNED INCREASE** in large EM radial tyre production over the next two years. Investment is risky and returns are considerably lower for EM tyres compared with the light vehicle and road truck tyre market. All the tyre companies have been caught before with excess production capacity. (It typically takes an EM tyre manufacturer AT LEAST 24 MONTHS to transform a proposal for increased production capacity into reality.)
 - The only company to announce any increase is Michelin – they plan to install ONE NEW TYRE PRESS that can cure an additional two 63" tyres or three 57" tyres per day; that press will hopefully be commissioned sometime in 2005, with perhaps another press in 2006. (Each new tyre press costs between US\$5-8 million, plus US\$0.5 million per mould.)
 - While Goodyear has recently increased production of 51" bias ply tyres in one of its Brazilian plants, and of its USA made 45R57 two-piece tyre, it has NO plans for any production increase of other large EM tyres.
 - There has been no announcement from Bridgestone at all about any increase in large EM tyre production.
 - Any number of incidents could reduce factory output – industrial dispute, machinery breakdown, fire or earthquake (the largest of the five global factories is located in a zone of seismic activity).
- Every mine equipment manufacturer has a **full order book** at present, some with lead times already exceeding two years. They are increasing **UNABLE TO PROVIDE OE TYRES** (and rims) for haultrucks and other mining equipment.
- Shortages experienced to date are largely due to one-off demand for OE tyres for new equipment purchases to expand production at existing mines and to equip new mines. All this new equipment will require ongoing replacement tyres commencing, typically, six to 12 months after the machines entered service. **THE IMPACT OF THIS INCREASED DEMAND FOR REPLACEMENT TYRES WILL HIT THE MINING INDUSTRY WITHIN A FEW MONTHS.**
- **SHIPPING REMAINS A MAJOR BOTTLENECK.** The shipping industry had predicted a respite in the last quarter of 2004; it has not occurred.

B. ACTIONS WE NEED TO CONSIDER

- Carefully **MANAGE TYRE SUPPLY LOGISTICS**
 - Provide our suppliers with formal and accurate estimates of monthly tyre usage through to at least the end of 2006, based on likely/potential equipment fleet numbers during the period.



- Place orders for tyres as early as possible, sit down with the suppliers to work out delivery schedules, and seek commitment from them to honour these.
- Maintain close liaison with all suppliers, including Toyo, Yokohama and importers of Chinese, Russian and Indian manufactured tyres. Spot purchasing opportunities – usually involving sub-57”, bias ply tyres – may arise occasionally for tyre sizes used on site.
- Forewarn company stakeholders now of impending tyre supply problems and their likely impact on mine production; set realistic mine production targets.
- Do not allow an already fixed budget (capital or operating) prevent investment in an item or process that is needed now to avoid a production crisis within the next 12 months.
- **INCREASE SITE AVERAGE TYRE LIFE** by at least **25%**
Some of the actions below will effect production or operational flexibility and others, eg. retreading or extending repair selection criteria may not produce the lowest tyre operating cost; however these outcomes will be insignificant compared with having to stand-down equipment because there are no tyres.
 - **Tyre selection:**
 - Ensure that, wherever possible, the optimum tyre specification is being used for every application on site.
 - Convert trucks and equipment to larger tyre sizes where possible.
 - A mine that has a mixture of very long and very short hauls should consider creating separate haulage fleets each fitted with tyre specifications designed to maximise life for the relevant haul distance.
 - Do not discount new ideas, such as the two-piece tyre, on solely economic grounds.
 - **Tyre maintenance:**
 - Maintain the highest standard of tyre pressure control.
 - Ensure that rear dual tyres on haultrucks are properly matched by circumference.
 - Maximise life of asymmetrically worn tyres, particularly on front positions, through a tyre change/reverse mounting program.
 - Remove rocks that become embedded in tyres.
 - Re-evaluate tyre repair criteria – it may be possible to repair tyres that are currently being rejected for purely economic reasons. Consider preventative and owner’s risk repairs.
 - Investigate tyre retreading options, particularly for smaller loader, dozer and grader tyres.
 - **Mine operations:**
 - Keep haulroads, benches, loading areas and dumps in excellent condition at all times; ie. maintain a smooth, even surface without undulations, sheeted with appropriate material and clear of rock spillage.
 - Rectify problem areas in the mine – tight corners, inadequate superelevation or road width, undulations, water collection points, etc.
 - Consider purchasing an impact roller for problem area waste dumps.
 - Position loads centrally in truck bodies and do not volumetrically overload truck bodies – this will reduce rock spillage on roads and result in significantly higher tyre life.
 - If a grader or dozer is required for cleanup and there are no spare operators, use a haultruck driver even if it means standing down a truck for a few hours.
 - Conduct regular rock damage patrols, pick rocks off the road by hand if needed, and encourage truck drivers and shovel/excavator operators to advise when areas need cleanup attention.
 - Mines using truck dispatch systems should ensure they are using that system’s TKPH module to maximise tyre life.
 - If there is any way to move material more efficiently (with existing rubber-tyred equipment) or without the need for rubber-tyred equipment, consider it.
 - **Operator tyre awareness:**
 - Run regular tyre awareness sessions for mine equipment operators. New operators should receive a tyre awareness induction and all operators a six-monthly update.
 - Introduce an incentive scheme to reward operators or shifts that have the lowest tyre damage rate. Reward good behaviour; punish bad behaviour.