

# *South African Colliery Engineers' Association*

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## MINING TYRE TACTICS



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# Background

MINING TYRE TACTICS

- Worldwide EM Tyre shortage since 2005
- Chinese & Indian demand for goods & materials
- World Mining exploded to meet this demand
- Manufacturers unable to gear production in time
- Mining Houses panic to secure mid term tyre needs
- B & M undertook to meet 2004 supply levels - loyalty
- Limited growth opportunity to exploit demand
- B & M resisted OEM pressure – conflict issues



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# Background

- Mining Industry critical to SA Economy
- SA EM Tyre usage <4% of world demand
- Major Miners closed long term deals with B & M
- Secured “first call” on new production capacity
- Others followed, but only got relief from 2010
- Some users were left exposed to shortages
- Key mining sizes affected: 3700R57, 3600R51, 3300R51, 2700R49, 45/65-45, 2400R35, 35/65-33, and 29.5R25

The Key Question is then:

***“How can you ensure continuity of supply of EM tyres in this time of shortage?”***



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# Process

To minimise your exposure to the supply shortage, the basic premise must be to utilise existing resources as efficiently as possible

The ultimate objective is to

***"USE FEWER TYRES"***

It is important to "drive" this initiative within a programme that clearly defines the tasks and responsibilities of team members.

*See example*

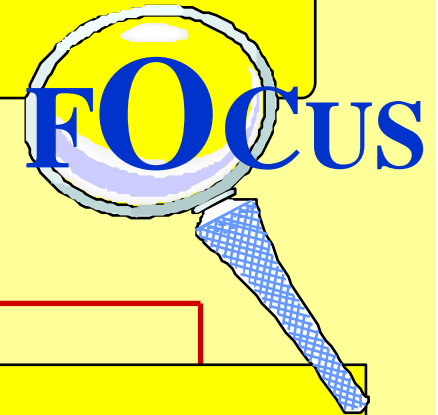


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# TYRE STRATEGY COMMITTEE version 2



**CHAIRMAN or DRIVER**

**Money & Logistics Team**

TEAM MEMBERS

- HQ & User Commercial
- User Technical
- Manufacturer Marketing
- QT Marketing

PRIMARY TASKS

- MFP Supply Agreements
- Variance Mechanisms
- Order Forecasting
- ROE Monitoring
- Commodity Admin
- TCO Monitoring
- SLA –“Pain/Gain” Agreements
- Recover Maintenance Personnel costs

**Tyre Maintenance Team**

TEAM MEMBERS

- User Engineering Dept
- QT Technical
- Manufacturer Technical
- User Technical

PRIMARY TASKS

- Inflation Management
- Rotation
- Matching
- Load & TKPH Studies
- Tyre Failure Evaluation
- Warranty Monitoring
- Vehicle & Alignment Checks
- Preventative Repairs
- Rubber Audits
- Rim Maintenance
- Operator Training

**Opcon Maintenance Team**

TEAM MEMBERS

- User Production Dept
- QT Technical
- Manufacturer Technical
- User Technical

PRIMARY TASKS

- Daily Opcon Evaluation
- Opcon Maintenance
- Route Management
- Tyre Failure Evaluation
- Operator Training
- Operator Incentives
- Cost Controller Training

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# Process

The “*Tyre Champion*” must maintain, monitor and encourage the team focus

- Maintain scorecards for tyre performance indicators
- Take immediate action to stop “Tyre Killers”
- Monitor progress and assess risks regularly

The next slides show some strategies that have been implemented effectively by EM tyre users in SA



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# No. 1 - Preventative Actions

Better utilisation means longer life & lower cost

- *Evaluate site operating conditions daily*
- *Upgrade sites all the time*
- *Prepare new sites before machines arrive*
- *Regular route evaluation – TKPH, Loads etc.*
- *Operator evaluation and re-training*
- *Train Tyre personnel and cost controllers*
- *Preventative tyre repairs before terminal failure*
- *Technical support from SP and manufacturers*

Can also be seen as “Preservation Actions”



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# No. 2 - Salvage Measures

Recycling is a potential hidden asset

- *Never allow any tyres off site until positively scrap*
- *Repair discarded tyres and return to service*
- *Extend repair parameters to salvage more tyres*
- *Take used tyres from old machines before scrapping*
- *Retread tyres wherever possible*

Life extension will reduce tyre operating costs



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# No. 3 - Best Practice Measures

- *Fit new tyres to RDT front for 1<sup>st</sup> half of life*
- *Rotate to rear – run cooler and longer*
- *Vigilance – high profile in severe operating areas*
- *Operator incentives for tyre preservation within production objectives*

Best utilisation means longer life & lower cost



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# No. 4 - Supply Shortage Strategies

Assess viabilities of all possible options

- *Evaluate alternative products – Some non-premium brands can be nursed to do the job*
- *Evaluate whether cross-ply tyres can do your radial jobs*
- *Forecast your usage – meet monthly with your supplier – actual vs. forecast & shortfall actions*
- *Communicate with other users to share successful strategies and possible untried actions*

A broader base of knowledge grows confidence



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# No. 5 - Maintenance Standards

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Things not stated above must not be taken for granted

- *Maintain tyre pressures at recommended levels*
- *Rim safety must remain a high priority*
- *Standard expectation for controllable tyre maintenance must stay at least at current levels*

Keep focus on the basics before implementing improvement strategies



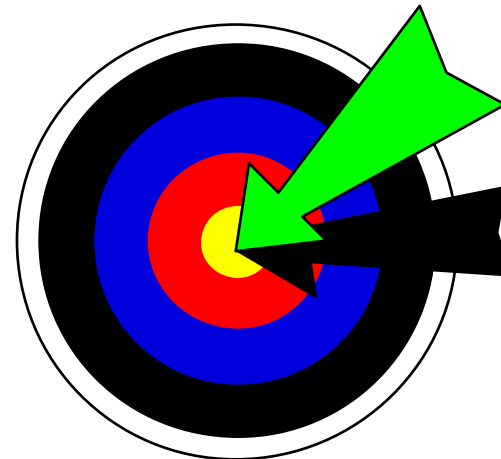
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# CONCLUSION

To extract maximum benefit from this type of project, it should be run at a high management level



We trust that this presentation has stimulated some new concepts and ideas and that you will keep your rubber rolling and you operations on target!



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