



SAFETY ALERT

Tyre Safety

ISSUES

The worldwide shortage of earth moving tyres is causing mining companies to review operating practices and to seek alternative methods of preserving tyre life. It is recognised that extending tyre life is an important production and cost consideration for mining companies.

Some alternatives commonly used by mining companies for preserving tyre life include:

- Second hand tyres;
- Tyre repairing;
- Tyre retreading;
- Non traditional brands of new tyres;
- Untried brands of new tyres; and
- Wider tyres being fitted to narrow rims. For example: 40.00R57 tyre (29' wide rim) fitted to 37.00R57 tyre rim (27'wide rim).

SAFETY CONSIDERATIONS

Whether extending existing tyre life or seeking alternative tyre sources for new tyres, mining companies should think first about the health and safety implications for the workforce. Where operating practices have changed, appropriate risk management, consultation, and training of employees must be implemented. It is essential that mining companies consult with the Original Equipment Manufacturer (OEM) before any design parameters are altered from normal operating practice.

Operating practices and safety procedures should be reviewed when changing from radial ply to bias ply tyres or, when mixing both radial and bias ply tyres on the one machine. If changing front tyres from radial to bias ply or vice versa the OEM should be consulted regarding any possible alterations to the steering geometry.

Mining companies should consider the following questions when changing procedures with respect to tyre purchase and use:

1. Does the tyre rubber compound and TKPH (Tonne Kilometre Per Hour) rating of the tyre match the haul profile of the machine?
2. Will the steering will be affected?
3. Will braking performance be affected?
4. Will any changes affect the propulsion system controller configuration files of electric drive trucks?
5. Will changes in overall tyre dimensions cause interference with other components of the machine?
6. Are the rims designed for the interchange of tyres being considered?
7. What codes are the tyres and rims manufactured to? For example are the tyres made to:
 - a. American tyre and rim association (TRA);
 - b. Japan automobile tyre manufacturers association (JATMA);
 - c. Tyre and rim association of Australia; or
 - d. European tyre and rim technical organisation.

If using retreads:

8. What TKPH will a retreaded radial tyre be?
9. What TKPH will a retreaded bias ply tyre be?
10. Are they fit for use as front tyres?

The above questions and issues are only a summary of factors companies should consider when changing work practices to extend tyre life and value. All companies have the responsibility to ensure that any change in work practice and procedure is supported by a proper risk review and appropriate workplace consultation and training.



Rob Regan
CHIEF INSPECTOR
DIRECTOR, MINE SAFETY OPERATIONS BRANCH
NSW DEPARTMENT OF PRIMARY INDUSTRIES

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