

RAIL SAFETY REGULATION SAFETY ALERT

NOTICE TO ACCREDITED RAIL TRANSPORT OPERATORS

THIS ADVICE IS EFFECTIVE IMMEDIATELY

02/11 – Roller bearing failures

Following a recent increase in the number of derailments due to roller bearing failures, Transport and Main Roads (TMR) has issued this Safety Alert.

Background

Recently there have been a number of incidents involving derailments due to failures of roller bearings mounted on the rollingstock. This has occurred particularly on the Mt Isa corridor and involves both spherical bearings with axle box design (in majority) and packaged Roller Bearing Units (RBU; tapered roller bearings).

Roller bearing failures have been the cause of 20 derailment incidents in Queensland since 1 January 2008. Analysis of these incidents has identified that, among other actions requiring compliance with correct maintenance procedures, the risk of bearing failure can be minimised by taking due care and precautions in handling the bearings and wheelsets fitted with the bearings.

Care in the handling of bearings has been reinforced in the recommendations included in ATSB investigation reports the following derailment incidents after roller bearing failures in other Australian States and Territories.

(Source <http://www.atsb.gov.au/publications/safety-investigation-reports.aspx?mode=Rail>)

- RO - 2003-004 Derailment of Train 6WP2 at Bates, South Australia
- RO - 2003-002 Derailment of Train 1SP2N at Chiltern, Victoria

Action

Rail transport operators are requested to initiate the following actions urgently:

- Undertake a review and implement remedial actions as required of workshop processes for the care and handling of roller bearings during storage, transportation and fitment of bearings to reduce the risk of accidental damage to roller bearing components and subsequent cage related failure
- Undertake a review and implement remedial actions as required of the storage, transportation, and handling of wheelsets fitted with RBUs to reduce the risk of accidental damage
- Review and strengthen the procedures for roll-by inspections
- Review and implement remedial actions for minimising the incidents of wagon lift offs at all container terminals
- Ensure the use of correct components and procedures during the refurbishment of roller bearings, as specified by the roller bearing manufacturers.

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