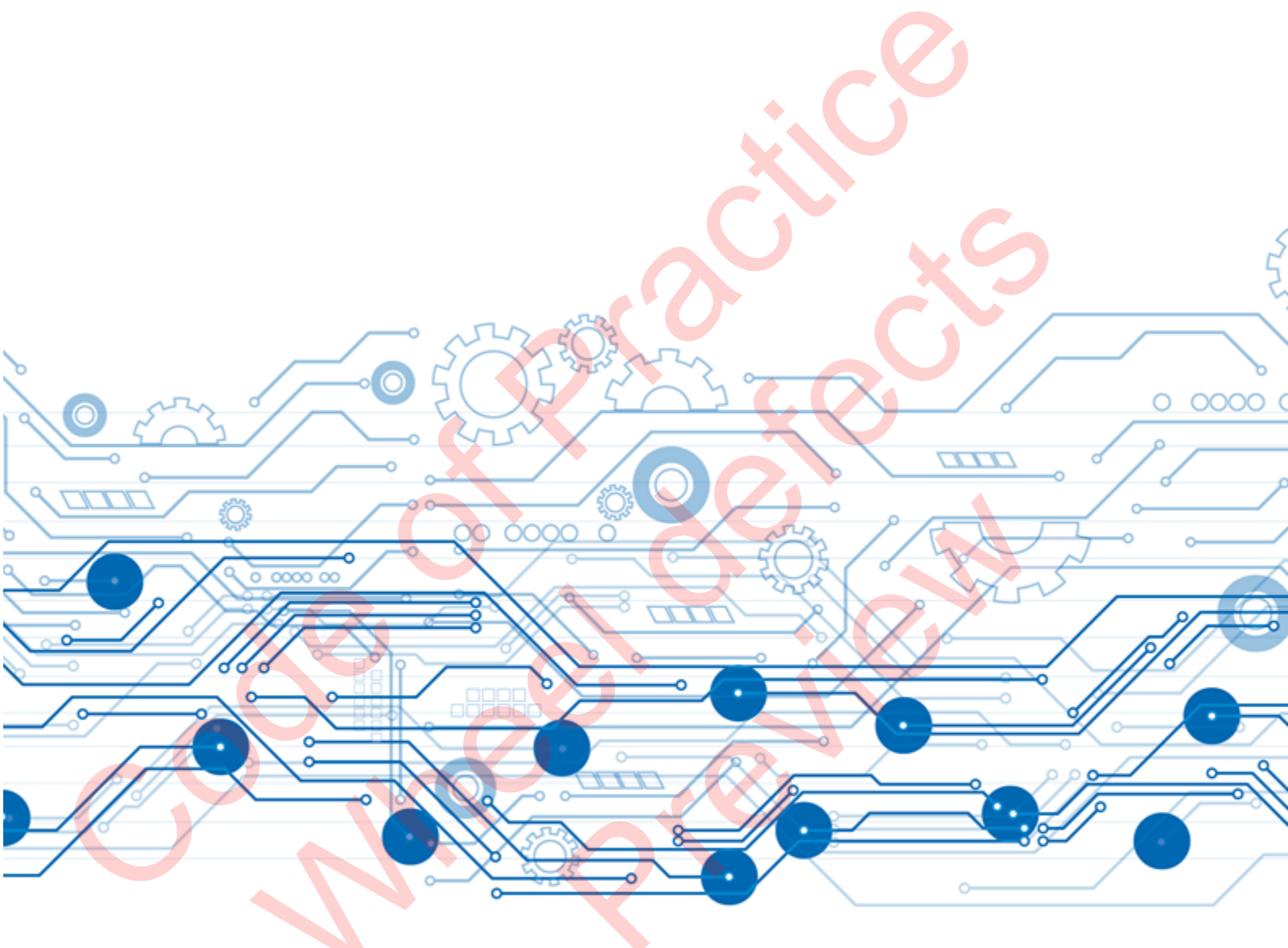


RISSB

RAIL INDUSTRY SAFETY AND STANDARDS BOARD



Wheel defects Code of Practice

This Rail Industry Safety and Standards Board (RISSB) product has been developed using input from rail experts from across the Rail Industry. RISSB wishes to acknowledge the positive contribution of all subject matter experts and DG representatives who participated in the development of this product.

The RISSB Development Group for this Code of Practice consisted of representatives from the following organisations:

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ATRC	Queensland Rail	Aurizon
DIT	TfNSW	Pacific National
Bombardier Transportation Australia		

Development of this Code of Practice was undertaken in accordance with RISSB's accredited processes. It was approved by the Development Group, endorsed by the Standing Committee, and approved for publication by the RISSB Board.

I commend this Code of Practice to the Australasian rail industry as part of the suite of RISSB products assisting the rail industry to manage rail safety, improve efficiency and achieve safety outcomes through interoperability and harmonisation.



Deborah Spring
Chief Executive Officer | Executive Chair
Rail Industry Safety and Standards Board

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Approval

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1 Introduction

1.1 Purpose

This document describes requirements for the inspection of freight, passenger, and infrastructure maintenance rolling stock wheels and determination of the action required. This document provides definitions and illustrations of wheel faults and defects. Each defect category has a severity and corresponding action.

The main purposes of the requirements are to:

- reduce the risk of derailment arising from wheel failure;
- reduce the risk of damage to infrastructure caused by wheel defects;
- minimise hunting/maintaining good vehicle stability; and
- minimise wheel/rail contact stresses in order to prevent rolling contact fatigue in wheels and rails.

1.2 Scope

This Code is supplementary to AS 7514 and applies to new and existing locomotive, freight, passenger and infrastructure maintenance rolling stock.

This Code is not specifically intended to cover rolling stock used on light rail, cane railway and monorail networks, but items from this Code may be applied to such systems as deemed appropriate by the relevant RIM.

Dimensions and limit values given in this Code are primarily for wheels over 700 mm diameter. Where smaller wheels are used, suitable adjustments to the wear and defect limits may be made by the RTO.

The defect levels given in this Code are for operation at speeds below 200 km/h. For operational speeds above 200 km/h the defect levels given in this Code may be reassessed by the RTO / RIM based upon the risk.

This Code prescribes a system of classification for several common defects and includes representative photographs and/or figures. There are also instructions relating to the appropriate action to be taken in the case of each defect. Where this Code prescribes a restricted speed for a defective vehicle the maximum permitted speed over any track section is the lower of the speed prescribed by this Code and the maximum permissible track speed for that section.

For operations with axle loads exceeding 30 t the specific wheel defect limits and their requirements for qualifying wheelsets for service, including their methods of measure, are not included in this Code. Likewise, the specific methods of repair, actions to be taken and permitted speeds may not be applicable or acceptable to axle loads exceeding 30 t.

When moving rolling stock between differing networks e.g. DIRN and Pilbara networks, or between Queensland, South Australia, Tasmania and Western Australia narrow gauge networks, the differing wheelset back-to-back dimensions, wheel cross-sections and profiles applicable to each network shall be taken into account.