

# Engineering Standard


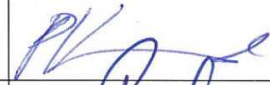
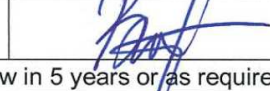
## Train Wheelsets

RS1-DOC-000465

Under review

# Document Control

## Document Status

Document Owner: Director, Asset Management			
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Document Review Schedule: This document is due for review in 5 years or as required.			

## Document Amendment Record

Revision	Change Description	Date	Prepared	Reviewed	Approved
0	Initial issue	July 2014	Kuldeep Zala	Keith Charlton Peter Haskard	Brian Green

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## 1. Introduction

The Department of Planning, Transport and Infrastructure (DPTI), Public Transport Services (PTS), owns, operates and maintains the Adelaide Metropolitan Passenger Rail Network (AMPRN). This standard forms part of the engineering management system used to ensure safety and customer service levels are efficiently and effectively supported

## 2. Purpose

The purpose of this standard is to provide technical requirements for the design, construction and maintenance of train wheelsets.

## 3. Scope

This standard applies to all train passenger rollingstock operating on the AMPRN

Note:

Railway rolling stock other than passenger rollingstock is required to comply with the relevant parts of AS 7517 when operating on the AMPRN.

## 4. References

- AS 7517.3: 2007 Railway Rolling stock - Wheelsets - Part 3: Passenger Rolling Stock
- FR-AM-GE-804 Development and Approval of Rail Engineering Standards (KNet # 8178595)
- PTS-MS-10-XM-STD-00000084 Rail Car Wheel Inspection and Defects Standard (KNet # 6429928)

## 5. Acronyms

ACRONYM	FULL NAME
AMPRN	Adelaide Metropolitan Passenger Rail Network
DPTI	Department of Planning, Transport and Infrastructure
PTS	Public Transport Services (formerly known as a TransAdelaide)
PTSOM	Public Transport Services Operations and Maintenance

## 6. Australian Standard for Wheelsets

Public Transport Services (PTS) adopts all of the mandatory requirements specified in AS 7517.3:2007 Railway Rolling Stock - Wheelsets - Part 3 : Passenger Rolling Stock unless modified as shown in section 7.

Public Transport Services (PTS) adopts all of the recommended requirements specified in AS 7517.3:2007 Railway Rolling Stock - Wheelsets - Part 3: Passenger Rolling Stock as mandatory, unless modified as shown in section 7. If the applicable clause contains the word 'should', it is to be read as the word 'shall'. This is to eliminate any doubt as to the requirements of the clause. If a clause in AS 7517.3 refers to TransAdelaide, it is to be read as Public Transport Services (PTS).

## 7. PTS Addendum to Australian Standard

PTS modifies the following requirements contained within AS 7517.3

### 7.1. Section 2 Clause 4

PTS adopts AAR S-659 Rule 1.4 and RP-631 Section 2.3 method for achieving a suitable assembly of wheels and axles.

Adoption of other methods as specified in AS 7517.3 may be acceptable subject to a detailed investigation and approval being obtained from the PTS Manager Rollingstock Engineering.

- 7.2. Section 3 Clause 2 (b)**  
PTS adopts option (i) Wheel flange back to bearing abutment difference, Figure 1 dimension (C-C1 or C1-C).
- 7.3. Section 3 Clause 9**  
PTS adopts 9(a) as a mandatory requirement.
- 7.4. Section 3 Clause 14**  
For PTS the difference in tread diameter measurements, taken at the tread line, between both wheels on a conventional wheelset shall not exceed 0.25 mm
- 7.5. Section 3 Clause 16**  
The difference in tread diameter measurements between the wheelsets under a vehicle shall be in accordance with the standard *PTS-MS-10-XM-STD-00000084: Rail Car Wheel Inspection and Defects Standard*
- 7.6. Section 3 Clause 19**  
For PTS out of round wheels are considered a low risk. There is also a practicality issue in measuring the tread radial run out after wheels on a wheelset are reprofiled. Therefore the tread radial run out check is not required.
- The tread diameter difference shall be checked after the wheels on any wheelset are reprofiled. The variation in tread diameter shall be in accordance with PTS standard *PTS-MS-10-XM-STD-00000084: Rail Car Wheel Inspection and Defects Standard*.
- 7.7. Section 3 Clause 20**  
Wheel flange back to back dimension shall be checked in accordance with PTS standard *PTS-MS-10-XM-STD-00000084: Rail Car Wheel Inspection and Defects Standard*.
- 7.8. Section 5 Clause 2**  
PTS adopts option 2(a) for the balancing of wheelsets. Adoption of option 2(b) or 2(c) may be acceptable subject to a detailed investigation and approval being obtained from the PTS Manager Rollingstock Engineering.
- 7.9. Section 6 Clause 3**  
The outer hub or rim face of one of both wheels shall be marked in accordance with AS 7517.3