

TR 90 : 2021
(ICS 45.020)

TECHNICAL REFERENCE

Maintenance of vehicle gauges for railway

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The Technical Committee set up the Working Group on Maintenance of Vehicle Gauges for Railway to prepare this standard. The Working Group consists of the following experts who contribute in their *individual capacity*:

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Secretary	: Ms Priscilla Leong
Members	: Mr Jean-François Chassin Er. Adrian Cheong Wah Onn Mr Daniel Lim Mr Lester Lim Mr Looi Yuan Wang Mr Low Tian Leng Mr Mohamad Noriman Bin Ibrahim Dr Andrew Ng Keong Mr Ng Chan Cheok Mr Noorul Hasan Prof John Pang Hock Lye Mr Phillip Peachey Mr Phua Ming Ming Mr Quek Jinrong Mr Paramjit Singh Dr Zhou Yi

The organisations in which the experts of the Working Group are involved are:

Asia Rail Engineering Pte Ltd
Bombardier Transportation
Land Transport Authority
Nanyang Technological University

SBS Transit Ltd
Singapore Institute of Technology
Singapore Polytechnic
SMRT Trains Ltd
The Institution of Engineers, Singapore

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Foreword

This Technical Reference was prepared by the Working Group on Maintenance of vehicle gauges for railway set up by the Technical Committee on Railway Systems under the purview of TCSC.

This TR aims to promote common understanding and consistency through establishing expectations for the application, as well as compliance to and maintenance of the gauges during maintenance in the railway environment. It is also intended to be the base and common language in communications among railway organisations and government agencies bodies.

This TR is a provisional standard made available for application over a period of three years. The aim is to use the experience gained to update the TR so that it can be adopted as a Singapore Standard. Users of the TR are invited to provide feedback on its technical content, clarity and ease of use. Feedback can be submitted using the form provided in the TR. At the end of the three years, the TR will be reviewed, taking into account any feedback or other considerations, to further its development into a Singapore Standard if found suitable.

It is presupposed that in the course of their work, users will comply with all relevant regulatory and statutory requirements. Some examples of relevant regulations and acts are listed in the Bibliography. The Singapore Standards Council and Enterprise Singapore will not be responsible for identifying all of such legal obligations.

Acknowledgement is made to the Land Transport Authority for the reproduction of materials from E/GD/09/106/A2 Engineering Group's Civil Design Criteria for Road and Rail Transit Systems, and C151B Authority's Drawing into this standard (refer to the footnotes in the standard).

Attention is drawn to the possibility that some of the elements of this TR may be the subject of patent rights. Enterprise Singapore shall not be held responsible for identifying any or all of such patent rights.

NOTE

- 1. Singapore Standards (SSs) and Technical References (TRs) are reviewed periodically to keep abreast of technical changes, technological developments and industry practices. The changes are documented through the issue of either amendments or revisions. Where SSs are deemed to be stable, i.e. no foreseeable changes in them, they will be classified as "Mature Standards". Mature Standards will not be subject to further review, unless there are requests to review such standards.*
- 2. An SS or TR is voluntary in nature except when it is made mandatory by a regulatory authority. It can also be cited in contracts making its application a business necessity. Users are advised to assess and determine whether the SS or TR is suitable for their intended use or purpose. If required, they should refer to the relevant professionals or experts for advice on the use of the document. Enterprise Singapore and the Singapore Standards Council shall not be liable for any damages whether directly or indirectly suffered by anyone or any organisation as a result of the use of any SS or TR. Although care has been taken to draft this standard, users are also advised to ensure that they apply the information after due diligence.*
- 3. Compliance with a SS or TR does not exempt users from any legal obligations.*

Maintenance of vehicle gauges for railway

1 Scope

The objective of this Technical Reference (TR) is to set out the definitions of various types of railway vehicle gauges and their purpose(s), as well as the maintenance management system and processes to be adopted to ensure compliance with the gauges by a working party.

The TR covers railway gauges such as the structure gauge, service vehicle load gauge and kinematic envelope.

The TR applies to any person ("party") who is involved partially or entirely in a contract:

- a) to build;
- b) to maintain or renew; or
- c) as a licensee to operate and maintain

for a rapid transit system in Singapore.

2 Normative references

There are no normative references in this standard.