BS EN 17069-1:2019

BSI Standards Publication

Railway applications - Systems and procedures for change of track gauge

Part 1: Automatic Variable Gauge Systems

bsi.

National foreword

This British Standard is the UK implementation of EN 17069-1:2019.

The UK participation in its preparation was entrusted to Technical Committee RAE/3/-/1, Railway Applications - Wheels and Wheelsets.

A list of organizations represented on this committee can be obtained on request to its secretary.

The UK committee draws users' attention to the distinction between normative and informative elements, as defined in Clause 3 of the CEN/CENELEC Internal Regulations, Part 3.

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When speeds in km/h require unit conversion for use in the UK, users are advised to use equivalent values rounded to the nearest whole number. The use of absolute values for converted units should be avoided in these cases. Please refer to the table below for agreed conversion figures:

INS, RST and ENE speed conversions	
km/h	mph
5	3
10	5
20	10
30	20
80	50
160	100
190	120

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This European Standard was approved by CEN on 2 December 2018.

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European foreword

This document (EN 17069-1:2019) has been prepared by Technical Committee CEN/TC 256 “Railway applications”, the secretariat of which is held by DIN.

This document shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by October 2019, and conflicting national standards shall be withdrawn at the latest by October 2019.

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

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For relationship with Directive 2008/57/EC, see informative Annex ZA, which is an integral part of this document.

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Introduction

For historical reasons, several track gauges are used on the rail networks in Europe. In order to cross the borders among these, passengers and goods need to be transferred.

In order to increase comfort of passengers by avoiding transhipments, and to reduce both the risk of damaging goods and the involved cost of transferring them, several systems and procedures for change of track gauge have been developed. Nowadays, there are three main possibilities to attain connection among rail networks with different track gauges:

— automatic variable-gauge systems;

— interchange of complete bogies;

— interchange of complete wheelsets.

The interfaces and the approval methods for such systems were defined in several UIC-leaflets and national regulations. This document is intended to set all related requirements together in a single document for automatic variable-gauge systems.

1 Scope

This document defines the interfaces and gives guidance for the design of systems and procedures for change of track gauge. It defines also their assessment for technical approval, for the automatic variable-gauge systems.

The document is focused on the change of track gauge among the following nominal track gauges: 1 435 mm, 1 520 mm, 1 524 mm, 1 600 mm and 1 668 mm.

This document is not limited to the aforementioned nominal track gauges but the interfaces to change to/from other nominal track gauges can be different. The established assessment procedures can be used as well.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 12080, *Railway applications – Axleboxes - Rolling bearings*

EN 12081, *Railway applications – Axleboxes – Lubricating greases*

EN 12082, *Railway applications – Axleboxes – Performance testing*

EN 13103-1, *Railway applications – Wheelsets and bogies – Part 1: Design method for axles with external journals*

EN 13260, *Railway applications – Wheelsets and bogies – Wheelsets – Product requirements*

EN 13261, *Railway applications – Wheelsets and bogies – Axles – Product requirements*

EN 13262, *Railway applications – Wheelsets and bogies – Wheels – Product requirements*

EN 13749, *Railway applications – Wheelsets and bogies – Method of specifying the structural requirements of bogie frames*

EN 13979-1, *Railway applications – Wheelsets and bogies – Monobloc wheels – Technical approval procedure – Part 1: Forged and rolled wheels*

EN 14363, *Railway applications – Testing and Simulation for the acceptance of running characteristics of railway vehicles – Running Behaviour and stationary tests*

EN 15273-1, *Railway applications – Gauges – Part 1: General – Common rules for infrastructure and rolling stock*

EN 15273-2, *Railway applications – Gauges – Part 2: Rolling stock gauge*

EN 15437-1, *Railway applications – Axlebox condition monitoring – Interface and design requirements – Part 1: Track side equipment and rolling stock axlebox*

EN 15437-2, *Railway applications – Axlebox condition monitoring – Interface and design requirements – Part 2: Performance and design requirements of on-board systems for temperature monitoring*

EN 15551, *Railway applications – Railway rolling stock – Buffers*