

STN	Železnice Brzdenie Prepínacie zariadenie	STN EN 15624+A1 28 4014
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Railway applications - Braking - Empty-loaded changeover devices

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 11/24

Obsahuje: EN 15624:2021+A1:2024

Oznámením tejto normy sa ruší
STN EN 15624 (28 4014) z augusta 2021

139520

Úrad pre normalizáciu, metrológiu a skúšobníctvo Slovenskej republiky, 2024
Slovenská technická norma a technická normalizačná informácia je chránená zákonom č. 60/2018 Z. z. o technickej normalizácii
v znení neskorších predpisov.

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 15624:2021+A1

September 2024

ICS 45.040

Supersedes EN 15624:2021

English Version

**Railway applications - Braking - Empty-loaded changeover
devices**

Applications ferroviaires - Freinage - Dispositifs de
changement de régime vide-charge

Bahnanwendungen - Bremse - Leer-Beladen-
Umstellvorrichtungen

This European Standard was approved by CEN on 20 December 2020 and includes Amendment approved by CEN on 1 August 2024.

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EN 15624:2021+A1:2024 (E)

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EN 15624:2021+A1:2024 (E)**European foreword**

This document (EN 15624:2021+A1:2024) has been prepared by Technical Committee CEN/TC 256 “Railway applications”, the secretariat of which is held by DIN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by March 2025, and conflicting national standards shall be withdrawn at the latest by March 2025.

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.

This document includes Amendment 1 approved by CEN on 1 August 2024.

This document supersedes A1 EN 15624:2021 A1.

The start and finish of text introduced or altered by amendment is indicated in the text by tags A1 A1.

A1 *deleted text* A1

This document has been prepared under a standardization request addressed to CEN by the European Commission. The Standing Committee of the EFTA States subsequently approves these requests for its Member States.

For the relationship with EU Legislation, see informative Annex ZA, which is an integral part of this document.

Any feedback and questions on this document should be directed to the users’ national standards body. A complete listing of these bodies can be found on the CEN website.

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Introduction

The purpose of empty-loaded changeover devices is the generation of a load-related signal which causes the brake performance to be adjusted to the current vehicle mass.

The manually operated empty-loaded changeover devices change their output signal according to the position of the handles which together with the associated changeover plates serve as interfaces. The changeover plates display the required information for the operation of the empty-loaded changeover devices, i.e. brake weights for each position and the relevant changeover mass of the vehicle.

Automatic empty-loaded changeover devices sense a certain load threshold of the vehicle to automatically adjust the output signal when the mass of a vehicle reaches a defined value. This threshold is the changeover mass. Below this mass the vehicle's brake system provides a reduced brake force. For the changeover mass or more the high brake force applies.

In addition, Annex C of this document contains information on the G/P changeover device, which was originally covered by EN 15877-1 but is about to be removed from that document. It is intended to develop a new standard for brake position change over devices, which will adopt these requirements.

1 Scope

This document specifies the requirements for the design, testing and quality assurance of empty-loaded changeover devices.

This document is applicable to empty-loaded changeover devices.

This document provides recommendations for the shape and measures of the G/P changeover device's plate and handle in Annex C.

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 14478:2017, *Railway applications — Braking — Generic vocabulary*

EN 15625:2021, *Railway applications — Braking — Automatic variable load sensing devices*

EN 15877-1:2012+A1:2018, *Railway applications — Marking on railway vehicles — Part 1: Freight wagons*

EN 45545-2:2020+A1:2023 , *Railway applications — Fire protection on railway vehicles — Part 2: Requirements for fire behavior of materials and components*

EN 60721-3-5:1997, *Classification of environmental conditions — Part 3: Classification of groups of environmental parameters and their severities — Section 5: Ground vehicle installations (IEC 60721-3-5:1997)*

EN 61373:2010, *Railway applications — Rolling stock equipment — Shock and vibration tests (IEC 61373:2010)*

EN ISO 228-1:2003, *Pipe threads where pressure-tight joints are not made on the threads — Part 1: Dimensions, tolerances and designation (ISO 228-1:2000)*

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EN ISO/IEC 17025:2017, *General requirements for the competence of testing and calibration laboratories (ISO/IEC 17025:2017)*

ISO 8573-1:2010, *Compressed air — Part 1: Contaminants and purity classes*

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