# Railway applications - Braking - Mass transit brake systems - Part 2: Methods of test

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# EESTI STANDARDI EESSÕNA

# **NATIONAL FOREWORD**

Käesolev Eesti standard EVS-EN 13452-
2:2003 sisaldab Euroopa standardi EN
13452-2:2003 ingliskeelset teksti.

Käesolev dokument on jõustatud 15.04.2003 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.

Standard on kättesaadav Eesti standardiorganisatsioonist.

This Estonian standard EVS-EN 13452-2:2003 consists of the English text of the European standard EN 13452-2:2003.

This document is endorsed on 15.04.2003 with the notification being published in the official publication of the Estonian national standardisation organisation.

The standard is available from Estonian standardisation organisation.

### Käsitlusala:

This European Standard specifies test requirements for the braking of vehicles for urban transport systems, running on steel or rubber tyred wheels and guided by steel rails or other equivalent means

# Scope:

This European Standard specifies test requirements for the braking of vehicles for urban transport systems, running on steel or rubber tyred wheels and guided by steel rails or other equivalent means

ICS 45.060.01

**Võtmesõnad:** bridges, quality requiremen, railroad vehicles, railway applications, railway bridges, railway installations, railway vehicles, railways, routine check tests, specification (approval), specifications, testing, tramway systems, underground railways, urban railways

# EUROPEAN STANDARD NORME EUROPÉENNE

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# **English version**

# Railway applications - Braking - Mass transit brake systems - Part 2: Methods of test

Applications ferroviaires - Freinage - Systèmes de freinage des transports publics urbains er suburbains - Partie 2: Méthodes d'essais Bahnanwendungen - Bremsen - Bremssysteme des öffentlichen Nahverkehrs - Teil 2: Prüfverfahren

This European Standard was approved by CEN on 27 December 2002.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, Spain, Sweden, Switzerland and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION COMITÉ EUROPÉEN DE NORMALISATION EUROPÄISCHES KOMITEE FÜR NORMUNG

Management Centre: rue de Stassart, 36 B-1050 Brussels

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# **Foreword**

This document (EN 13452-2:2003) 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 September 2003, and conflicting national standards shall be withdrawn at the latest by September 2003.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association.

CEN/TC 256/SC3/WG 23 "Braking/Urban traffic" has been assisted with the preparation of this European Standard by CEN/TC 256/SC3/WG 25 "Braking/Terminology, calculations and acceptance procedures".

This series EN 13452 Railway applications – Braking – Mass transit brake systems consists of two parts:

- Part 1: Performance requirements
- Part 2: Methods of test.

With regard to clause 9 of EN 13452-1, which concerns Commuter/Regional trains, it should be noted that there might be border-line cases which may also come under the scope of CEN/TC 256/SC 3/WG 22 "Braking/Mainline railways".

Annex A is informative.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, Spain, Sweden, Switzerland and the United Kingdom.

# Introduction

The objective of this part of the European Standard is to provide the test requirements to enable compliance with EN 13452-1 to be demonstrated.

ars th. ung of cc. This European Standard covers the static and dynamic brake type and routine testing of completed units or trains but it does not cover the testing of components, equipment or individual vehicles.

# 1 Scope

This European Standard specifies test requirements for the braking of vehicles for urban transport systems, running on steel or rubber tyred wheels and guided by steel rails or other equivalent means.

This European Standard applies to vehicles operating on:

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- light railways;
- metros on steel wheels:
- metros on rubber tyred wheels;
- commuter/regional railways;

and is applicable to:

- all newly designed vehicles;
- all major refurbishments, if these include either redesign or extensive modifications to the brake system;
- any new builds of existing designs of vehicles.

This European Standard does not apply to special transport systems, e.g. suspended monorail, rack and pinion lines, special duty vehicles, etc.

Transport Authorities shall ensure that specifications include this European Standard as part of the brake system requirements. Suppliers shall identify, at the time of tendering, any non-compliances against this European Standard.

## 2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text, and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

EN 13452-1:2003, Railway applications — Braking - Mass transit brake systems — Part 1: Performance requirements.

# 3 Terms and definitions

For the purposes of this European Standard, the terms and definitions given in EN 13452-1:2003 and the following apply.

## 3.1

### type test

test of the brake system on a unit or a train, to show that the design, and its implementation, meets the required specifications and relevant European Standards