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Railway applications - Braking - Brake performance



EESTI STANDARDI EESSÕNA

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EN 16834

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English Version

Railway applications - Braking - Brake performance

Applications ferroviaires - Freins - Performance de freinage

Bahnanwendungen - Bremse - Bremsvermögen

This European Standard was approved by CEN on 12 November 2018.

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European foreword

This document (EN 16834:2019) 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of an identical text or by endorsement, at the latest by October 2019, and conflicting national standards shall be withdrawn at the latest by October 2019.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.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive 2008/57/EC.

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

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1 Scope

This document defines a harmonized way to assess the braking performance by test of locomotives, passenger coaches, freight wagons and self-propelled passenger trains (EMU/DMU).

The document sets out the standardized method for undertaking brake performance tests and the correction factors to be applied to the data obtained for all types of rolling stock.

This document also defines the methods to assess the brake performance in terms of stopping distance, and from this the process to determine vehicle(s) deceleration and braked weight.

It then deals with conversion of the braked weight to the braked weight percentage of a vehicle or train for operating purposes. It also sets out additional factors when determining the braked weight percentage of a train calculated from specified braked weight, depending on the formation of the train.

In Annex D there is a method for determining brake performance of freight wagons fitted with P10 cast iron or LL-blocks using limited testing (force measurement).

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 14198, Railway applications — Braking — Requirements for the brake system of trains hauled by locomotives

EN 14478, Railway applications — Braking — Generic vocabulary

EN 14531-1, Railway applications — Methods for calculation of stopping and slowing distances and immobilization braking — Part 1: General algorithms utilizing mean value calculation for train sets or single vehicles

EN 14531-2:2015, Railway applications — Methods for calculation of stopping and slowing distances and immobilization braking — Part 2: Step by step calculations for train sets or single vehicles

EN 15355, Railway applications — Braking — Distributor valves and distributor-isolating devices

EN 15595, Railway applications — Braking — Wheel slide protection

EN 15663, Railway applications — Vehicle reference masses

EN 15877-1, Railway applications — Marking on railway vehicles — Part 1: Freight wagons

EN 15877-2, Railway applications — Markings of railway vehicles — Part 2: External markings on coaches, motive power units, locomotives and on track machines

EN 16207, Railway applications — Braking — Functional and performance criteria of Magnetic Track Brake systems for use in railway rolling stock

EN 16452, Railway applications — Braking — Brake blocks