

Railway applications - Infrastructure - Demountable machines, trailers and associated equipment - Part 1: Technical requirements for travelling and working

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>See Eesti standard EVS-EN 15955-1:2025 sisaldab Euroopa standardi EN 15955-1:2025 ingliskeelset teksti.</p> <p>Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.</p> <p>Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 28.05.2025.</p> <p>Standard on kättesaadav Eesti Standardimis- ja Akrediteerimiskeskusest.</p>	<p>This Estonian standard EVS-EN 15955-1:2025 consists of the English text of the European standard EN 15955-1:2025.</p> <p>This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation and Accreditation.</p> <p>Date of Availability of the European standard is 28.05.2025.</p> <p>The standard is available from the Estonian Centre for Standardisation and Accreditation.</p>
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ICS 45.060.20, 45.120

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EUROPEAN STANDARD

EN 15955-1

NORME EUROPÉENNE

EUROPÄISCHE NORM

May 2025

ICS 45.060.20; 45.120

Supersedes EN 15954-1:2013, EN 15955-1:2013

English Version

Railway applications - Infrastructure - Demountable machines, trailers and associated equipment - Part 1: Technical requirements for travelling and working

Applications ferroviaires - Infrastructure - Machines dérailables, remorques et éléments associés - Partie 1 : Prescriptions techniques pour le déplacement et le travail

Bahnanwendungen - Infrastruktur - Ausgleisbare Maschinen, Anhänger und zugehörige Ausstattung - Teil 1: Technische Anforderungen an die Versetzfahrt und den Arbeitseinsatz

This European Standard was approved by CEN on 7 March 2025.

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Contents	Page
European foreword	6
Introduction	8
1 Scope	9
2 Normative references	10
3 Terms and definitions	11
4 Hazards and categories	13
4.1 List of significant hazards	13
4.2 Examples of demountable machines and trailers.....	14
4.3 Attachments with rail wheels.....	14
5 Requirements and/or measures	14
5.1 General.....	14
5.2 Machine profile.....	15
5.2.1 Travelling mode gauge profile	15
5.2.2 Working limit	16
5.2.3 Determination of lateral limit of exceedance allowed on curves in working mode... 16	16
5.2.4 Limits in lower area	16
5.2.5 Working limit in the upper area - protection for the operator	17
5.3 Interaction with the infrastructure.....	17
5.3.1 General.....	17
5.3.2 Loads applied to the ballast	18
5.3.3 Loads applied to the formation.....	18
5.3.4 Rail gear	18
5.4 Running safety equipment	18
5.5 Inter-machine couplings	18

5.5.1	Couplings	18
5.5.2	Special case for trailer that cannot be coupled with other trailers.....	18
5.6	Braking.....	19
5.6.1	General	19
5.6.2	Braking of towing machines	19
5.6.3	Braking of trailers	19
5.6.4	Breakaway braking of trailers.....	20
5.6.5	Continuous service air brake system compatible with UIC brake.....	20
5.6.6	Air continuous brake for trailers.....	20
5.7	Driving and working cabs.....	20
5.8	Communications between work positions	20
5.9	Controls.....	21
5.10	Visibility and audibility of the machine.....	21
5.10.1	Requirements for demountable machines.....	21
5.10.2	Requirements for trailers.....	21
5.10.3	Trailer light switching arrangements	21
5.11	Warning systems.....	22
5.12	Warning systems for personnel of traffic on adjacent lines in working mode	22
5.13	Electrical system	22
5.13.1	General	22
5.13.2	Working environment	22
5.13.3	Specific requirements for urban rail machines for working with live overhead contact line systems	22
5.14	Electromagnetic compatibility	23
5.14.1	Emissions from machines.....	23
5.14.2	Immunity of machines from railway environment.....	23
5.15	Power supply.....	23
5.16	On and off tracking.....	23

5.16.1	General.....	23
5.16.2	Use of turntables	24
5.17	Setting up and packing away	24
5.18	General and railway specific attachments.....	24
5.19	Emergency stopping devices.....	24
5.20	Emission of gas and particles	24
5.21	Protection from the risks of fire	24
5.22	Trailer obscuring operator view.....	25
5.23	Demountable modules.....	25
5.24	Rated capacity indicator/rated capacity limiter (RCI / RCL).....	25
5.25	Climatic conditions.....	25
6	Trailers used to carry machines.....	26
7	Marking and numbering of the machine.....	26
7.1	Identification plate.....	26
7.2	Marking	26
8	Documentation	27
8.1	General.....	27
8.2	Technical description.....	27
8.3	Instructions for use.....	27
8.4	Restrictions of use	28
9	Verification of the conformity to the requirements and/or particular safety measures	28
9.1	General.....	28
9.2	Methods of examination.....	28
9.2.1	General.....	28
9.2.2	Visual check	28
9.2.3	Measurement.....	28
9.2.4	Functional test	28

9.2.5	Load test(s)	28
9.2.6	Specific verification/measurements and other controls	29
Annex A (normative)	Special national conditions	30
Annex B (normative)	Checklist for conformity	38
Annex C (informative)	Technical details for buffing and draw gear	42
C.1	General	42
C.2	Draw gear constituent parts	42
C.2.1	Coupling part	42
C.2.2	Tow bar	42
C.2.3	Screw coupling	43
C.3	Application	43
C.4	User information	43
	Bibliography	44

European foreword

This document (EN 15955-1:2025) 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 November 2025, and conflicting national standards shall be withdrawn at the latest by November 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 supersedes EN 15954-1:2013 and EN 15955-1:2013.

Principal amended clauses compared to EN 15954-1:2013 and EN 15955-1:2013:

- general: all references updated to latest issue;
- 4.3: attachments with rail wheels clarified to be a trailer;
- Clause 5: clauses concerning machine profile, running safety, stability, structural strength, and failure recovery transferred to EN 15955-2:2025;
- 5.11: additional clause added for machines intended for urban rail for warning systems;
- 5.13.3: additional clause added for machines intended for urban rail for MEWP bonding;
- 5.19: additional clause added for machines intended for urban rail for emergency stopping devices;
- 5.23: additional clause added for demountable modules;
- 5.24: additional clause added for rated capacity indicator / rated capacity limiter (RCI/RCL);
- 5.25: additional clause added for climatic conditions in geographic areas;
- Clause 6: additional clause added for trailers used to carry machines;
- Clause 8: documentation requirements completely revised (was previously called 'User Information');
- Annex B: revised to suit new format and numbering.

EN 15955, *Railway applications - Infrastructure - Demountable machines, trailers and associated equipment*, is currently composed with the following parts:

- *Part 1: Technical requirements for travelling and working;*
- *Part 2: General safety requirements.*

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.

According to the CEN-CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia,

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Introduction

The machinery concerned and the extent to which hazards, hazardous situations and events are covered are indicated in the scope of this document.

This document is the first of a series of two parts of the European Standard: *Railway applications — Track — Demountable machines, trailers and associated equipment*, dealing with railway specific risks of the demountable machines and trailers when travelling and working on railway infrastructures:

- Part 1 covers the safety and technical requirements for the machines in travelling and working modes, and is applicable for all machines, including those in operation on urban rail;
- Part 2 covers the safety requirements for the machines in travelling and working modes; this is a document harmonized with the European Machinery Directive 2006/42/EC.

Part 1 specifies requirements for approval of the machine for use on the railway. Depending on the decision of the infrastructure manager, Urban Rail Manager or the requirements in National rules the assessment of conformance could be undertaken by the Infrastructure/Urban Rail Manager concerned, by a third party assessor or by the manufacturer as a declaration of conformity.

Part 2 specifies requirements for the machine to be declared conformant by the manufacturer, except in the case of machines classified under Annex 4 of the Machinery Directive, which require a conformity check in conjunction with a notified body.

The hazards which exist in all mechanical, electrical, hydraulic, pneumatic and other components of machines and which are dealt with in the relevant European standards are not within the scope of this document. Where necessary, references are made to appropriate standards of this type.

1 Scope

This document specifies the requirements for demountable machines and trailers, including road-rail trailers – henceforward referred to as ‘machines’.

NOTE 1 Trailers, including road-rail trailers, are considered as machines because they are moved along the track by powered machines.

This document specifies the requirements to deal with the common hazards presented by their use on the railway during transport, assembly and installation, commissioning, travelling and working on track, use including setting, programming, and process changeover, operation, cleaning, fault finding, maintenance and de-commissioning of the machines and associated equipment when they are used as intended and under conditions of misuse which are reasonably foreseeable.

These machines are not designed nor intended to operate signalling and control systems and are only designed and intended to work and travel under special operating conditions in accordance with those permitted by the infrastructure managers. These machines are not permitted to run on railway lines open to normal traffic.

NOTE 2 Other rail mounted railway maintenance and infrastructure inspection machines are dealt with in other European standards, see Technical Report CEN/TR 17498:2020.

This document is also applicable to machines and associated equipment that in working mode are partly supported on the ballast or the formation.

The requirements in this document are based on the assumption that the machines are used, operated and maintained by skilled person(s).

This document does not include the requirements for:

- quality of the work or performance of the machine;
- use of separate equipment temporarily mounted on machines;
- machines that utilize the overhead contact line system for traction purposes or as a power source;
- hazards due to air pressure caused by the passing of high-speed trains at more than 200 km/h;
- operation subject to special rules, e.g. potentially explosive atmospheres;
- hazards due to natural causes, e.g. earthquake, lightning, flooding;
- working methods;
- operation in severe working conditions requiring special measures, e.g. corrosive environments, contaminating environments, strong magnetic fields;
- hazards occurring when used to handle suspended loads which may swing freely.

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 14033-1:2017, *Railway applications - Track - Railbound construction and maintenance machines - Part 1: Technical requirements for running*

EN 14033-2:2017, *Railway applications - Track - Railbound construction and maintenance machines - Part 2: Technical requirements for travelling and working*

EN 15273-2:2013+A1:2016, *Railway applications - Gauges - Part 2: Rolling stock gauge*

EN 15746-1:2020, *Railway applications - Track - Road-rail machines and associated equipment - Part 1: Technical requirements for travelling and working*

EN 15746-2:2020, *Railway applications - Track - Road-rail machines and associated equipment - Part 2: General safety requirements*

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

EN 15955-2:2025, *Railway applications - Infrastructure - Demountable machines, trailers and associated equipment - Part 2: General safety requirements*

EN 50121-3-1:2017,¹ *Railway applications - Electromagnetic compatibility - Part 3-1: Rolling stock - Train and complete vehicle*

EN 50122-1:2022, *Railway applications - Fixed installations - Electrical safety, earthing and the return circuit - Part 1: Protective provisions against electric shock*

EN 60529:1991,² *Degrees of protection provided by enclosures (IP code) (IEC 60529:1989)*

EN 62262:2002,³ *Degrees of protection provided by enclosures for electrical equipment against external mechanical impacts (IK code) (IEC 62262:2002)*

EN ISO 12100:2010, *Safety of machinery - General principles for design - Risk assessment and risk reduction (ISO 12100:2010)*

EN ISO 13766-1:2018, *Earth-moving and building construction machinery - Electromagnetic compatibility (EMC) of machines with internal electrical power supply - Part 1: General EMC requirements under typical electromagnetic environmental conditions (ISO 13766-1:2018)*

¹ As impacted by EN 50121-3-1:2017/A1:2019.

² As impacted by EN 60529:1992/corrigendum May 1993, EN 60529:1992/A1:2000, EN 60529:1992/A2:2013, EN 60529:1992/A2:2013/AC:2019-02 and EN 60529:1992/AC:2016-02.

³ As impacted by EN 62262:2002/A1:2021.

EN ISO 13766-2:2018, *Earth-moving and building construction machinery - Electromagnetic compatibility (EMC) of machines with internal electrical power supply - Part 2: Additional EMC requirements for functional safety (ISO 13766-2:2018)*

ISO 16754:2008, *Earth-moving machinery - Determination of average ground contact pressure for crawler machines*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply. ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <https://www.electropedia.org/>

3.1

demountable machine

self-propelled machine that can travel and work on rail only, and is not intended to operate signalling and control systems

Note 1 to entry: Such a machine is designed to move onto and off track by its own means or with other lifting equipment. In the case of demounting by its own means, these are not intended for general movement on the ground.

Note 2 to entry: Such a machine is permitted to work and travel on the railway only under special operating conditions granted by the infrastructure manager.

3.2

trailer

non-self-propelled machine that can be towed on rail wheels and is not intended to operate signalling and control systems

3.3

road-rail trailer

trailer that can be towed on rails and on the ground

Note 1 to entry: Towed also includes when the trailer is being pushed in front of a powered machine.

Note 2 to entry: It does not imply that the trailer is suitable for use on the public road.

3.4

mobile elevating work platform

MEWP

mobile machine that is intended to move persons to working positions where they are carrying out work from the work platform with the intention that persons are getting on and off the work platform at one defined access position and which consists as a minimum of a work platform with controls, an extending structure and a chassis

3.5

host vehicle

basic road vehicle or item of machinery which is converted to operate additionally on rails; this vehicle is either EU road permissible or CE marked