

Railway applications - Track - Trailers and associated equipment - Part 1: Technical requirements for running and working

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NATIONAL FOREWORD

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English Version

Railway applications - Track - Trailers and associated equipment - Part 1: Technical requirements for running and working

Applications ferroviaires - Voie - Remorques et éléments
associés - Partie 1 : Prescriptions techniques pour la
circulation et le travail

Bahnanwendungen - Oberbau - Anhänger und zugehörige
Ausstattung - Teil 1: Technische Anforderungen an das
Fahren und den Arbeitseinsatz

This European Standard was approved by CEN on 3 August 2012.

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Contents

Page

Foreword.....	4
Introduction	5
1 Scope.....	6
1.1 General	6
1.2 Validity of this European Standard.....	7
2 Normative references.....	7
3 Terms and definitions	8
4 Trailer types — Examples of types of trailer.....	12
4.1 Trailer with continuous brake and parking brake.....	12
4.2 Trailer with parking/break-away brake only.....	12
4.3 Road rail trailer.....	13
4.4 Attachment with rail wheels	13
5 Railway specific safety requirements and/or measures.....	13
5.1 General	13
5.2 Gauge	13
5.2.1 Running gauge.....	13
5.2.2 Trailer in running configuration.....	14
5.2.3 Working limit	15
5.2.4 Determination of lateral limit of exceedance allowed on curves in working configuration.....	16
5.2.5 Limits in lower area in working and running configuration	16
5.2.6 Working limit in the upper area	17
5.3 Interaction with the infrastructure.....	18
5.3.1 General	18
5.3.2 Main wheels.....	18
5.3.3 Auxiliary wheels, auxiliary guides and working parts.....	18
5.3.4 Loads applied to the ballast	19
5.3.5 Loads applied to the formation	19
5.3.6 Forces on structures as a function of axle load configurations	19
5.4 Running safety and prevention of derailment.....	20
5.4.1 General	20
5.4.2 Running safety for trailers running at a speed of $60 \text{ km/h} < v \leq 100 \text{ km/h}$	20
5.4.3 Running safety for trailers running at a speed of $v < 60 \text{ km/h}$	20
5.4.4 Track test for all trailers.....	21
5.5 Stability and prevention of overturning	21
5.6 Trailer frame and structure	21
5.6.1 Frame strength for trailers $v > 60 \text{ km/h}$	21
5.6.2 Frame strength for trailers $v \leq 60 \text{ km/h}$	21
5.6.3 Lifting and jacking points	21
5.7 Couplings between trailers and/or towing machine.....	23
5.7.1 General	23
5.7.2 Special case for trailer that cannot be coupled with other trailers	23
5.8 Running gear.....	23
5.8.1 General	23
5.8.2 Distribution of the wheelset forces in running configuration	24
5.8.3 Trailer rail wheel base.....	24
5.8.4 Rail wheel, wheel profile	24
5.8.5 Rail wheel arrangements	25
5.8.6 Load on rail wheels.....	25
5.8.7 Load on rail wheels in working condition — Maximum rail wheel loads.....	26

5.8.8	Operation of spring loaded points.....	28
5.9	Rail wheel suspension	28
5.10	Braking	28
5.11	Driving and working cabs and places	28
5.12	Controls	28
5.13	Visibility of the trailer	28
5.13.1	Lighting – marker lights	28
5.13.2	Light switching arrangements	29
5.13.3	Tail lamps	29
5.13.4	Lamp brackets	29
5.13.5	Colour of the trailer	31
5.14	Electrical equipment and earth bonding	32
5.14.1	Equipotential bonding	32
5.14.2	Antennae.....	32
5.14.3	Pantograph	32
5.15	Electro-magnetic compatibility.....	32
5.15.1	Emissions from trailers.....	32
5.15.2	Immunity of trailers from railway environment.....	33
5.16	On and off tracking.....	33
5.16.1	General	33
5.16.2	Use of turntables	33
5.17	Setting up and packing away.....	33
5.17.1	General	33
5.17.2	Emergency recovery of equipment	33
5.18	Mobile elevating work platform (MEWP)	34
5.19	Exhaust.....	34
6	Marking of the trailers	34
6.1	Warning signs and pictograms.....	34
6.2	Identification plate.....	34
7	User information.....	34
8	Verification of the conformity to the requirements and/ or particular safety measures	36
Annex A	(informative) Technical details for buffing and draw gear	37
A.1	General	37
A.2	Draw gear constituent parts	37
A.2.1	Coupling part.....	37
A.3	Application.....	38
A.4	Technical details for coupling parts.....	38
A.5	User information.....	39
Annex B	(normative) Special national conditions	40
Annex C	(normative) Check list for conformity	44
Annex D	(informative) Trailer identification plate	48
Annex E	(informative) Structure of European Standards for track construction and maintenance machines	49
Bibliography	51

Foreword

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

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

EN 15954 *Railway applications — Track — Trailers and associated equipment* consists of the following parts:

- *Part 1: Technical requirements for running and working* (the present document);
- *Part 2: General safety requirements.*

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, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

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 European Standard was prepared to meet the basic requirements of EU Directives to facilitate an open market for goods and services.

Trailers as specified in 3.1 form the object of this standard.

This standard deals with railway specific risks of the trailers, defined in Clause 4, when running and working on railway infrastructures.

The safety requirements in relation to the Machinery Directive 2006/42/EC are dealt with in EN 15954-2 of this series of standards.

Deviations or special national conditions are dealt with in Annex B.

The risks which exist in all mechanical, electrical, hydraulic, pneumatic and other components of trailers and which are dealt with in the relevant European Standards are not within the scope of this European Standard. If necessary, references are made to appropriate standards of this type.

1 Scope

1.1 General

This European Standard specifies the technical requirements to minimise the specific railway hazards of trailers and associated equipment, which can arise during the commissioning, the operation and the maintenance of trailers when carried out in accordance with the specification given by the manufacturer or his authorised representative. This European Standard applies to trailers that are not intended to interact with operating signalling and control systems. Other machines are dealt with in other European Standards; see Annex E.

These trailers are not designed or intended for operating signalling and control systems and are only intended to work and run under special operating conditions specifically designated by the infrastructure manager.

These trailers are not intended to be vehicles as defined in the Interoperability Directive and are not permitted to run on the railway lines open to normal traffic. If this is required, they will need to be authorised or placed into service as set out in the Interoperability Directive 2008/57/EC.

Part 1 of this European Standard deals with the technical railway requirements; Part 2 deals with requirements for the trailer to be declared conformant by the manufacturer, except in the case of trailers classified in Annex 4 of the Machinery Directive 2006/42/EC which require conformity check in conjunction with a notified body.

Additional requirements can apply for running on infrastructures with narrow gauge or broad gauge lines, lines of tramways, railways utilising other than adhesion between the rail and rail wheels, and underground infrastructures.

This European Standard is also applicable to trailers and associated equipment that in working configuration are partly supported on the ballast or the formation.

Where two or more trailers are used together to transport loads in a fixed formation, e.g. where a metal container is fixed to two small trailers, the whole system is treated as a trailer for the purposes of compliance with the requirements of this European Standard.

This European Standard does not apply to the following:

- requirements for quality of the work or performance of the trailer;
- specific requirements established by the railway infrastructure operator for the use of trailers, which will be the subject of negotiation between the manufacturer and the operator;
- separate machines temporarily mounted on the trailer.

This European Standard does not establish the additional requirements for the following:

- operation subject to special rules, e.g. potentially explosive atmospheres;
- hazards due to natural causes, e.g. earthquake, lightning, flooding, etc;
- working methods;
- operation in severe working conditions requiring special measures, e.g. work in tunnels or in cuttings, extreme environmental conditions (below -20 °C or above $+40\text{ °C}$), corrosive environment, contaminating environments, strong magnetic fields;
- hazards due to errors in software;

— hazards occurring when used to handle suspended loads which may swing freely.

The intended use of these trailers may have operational parameters specified by each infrastructure manager; for example, the maximum speed allowed for these trailers is likely to be limited by the infrastructure manager; compliance with the clauses of this standard does not confer permission for trailers to travel at this speed. These trailers will not be allowed on a track open to normal railway traffic.

1.2 Validity of this European Standard

This European Standard applies to all trailers, which are ordered one year after the publication date by CEN of this standard.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 791, *Drill rigs — Safety*

EN 12663-1:2010, *Railway applications — Structural requirements of railway vehicle bodies — Part 1: Locomotives and passenger rolling stock (and alternative method for freight wagons)*

EN 13309, *Construction machinery — Electromagnetic compatibility of machines with internal electrical power supply*

EN 13715, *Railway applications — Wheelsets and bogies — Wheels — Tread profile*

EN 14033-1:2011, *Railway applications — Track — Railbound construction and maintenance machines — Part 1: Technical requirements for running*

EN 14033-2:2008+A1:2011, *Railway applications — Track — Railbound construction and maintenance machines — Part 2: Technical requirements for working*

EN 14363:2005, *Railway applications — Testing for the acceptance of running characteristics of railway vehicles — Testing of running behaviour and stationary tests*

EN 14601, *Railway applications — Straight and angled end cocks for brake pipe and main reservoir pipe*

EN 15273-2:2013, *Railway applications — Gauges — Part 2: Rolling stock gauge*

EN 15528, *Railway applications — Line categories for managing the interface between load limits of vehicles and infrastructure*

EN 15954-2:2013, *Railway applications — Track — Trailers and associated equipment — Part 2: General safety requirements*

EN 50121-3-1:2006, *Railway applications — Electromagnetic compatibility — Part 3-1: Rolling stock — Train and complete vehicle*

EN 50121-3-2:2006, *Railway applications — Electromagnetic compatibility — Part 3-2: Rolling stock — Apparatus*

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

EN 60947 (all parts), *Low-voltage switchgear and controlgear*

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

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN ISO 12100:2010 and the following apply.

3.1 trailer

non-self propelled machine that can be hauled on rail wheels

Note 1 to entry: Trailers are not designed and intended to operate signalling and control systems and are not designed to be transported between work areas on their rail wheels.

Note 2 to entry: This includes attachments with rail wheels.

3.2 road-rail trailer

trailer with additional road wheels to enable the trailer to be hauled on both rails and ground

3.3 road-rail machine

self propelled machine that can run on rails and ground

Note 1 to entry: It is normally a road vehicle adapted for running on rail, but can be a specially designed rail vehicle for running on the ground.

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

3.4 demountable machine

self propelled machine that can run and work on rail and which is not intended to operate signalling and control systems

Note 1 to entry: Such a machine is designed to get on 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 running on the ground.

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

3.5 railbound machine

on-track machine
OTM

vehicle specially designed for construction and maintenance of the track and infrastructure, and which is used in different modes: working configuration, running configuration as a self-propelling vehicle, running configuration as a hauled vehicle, when:

- it is running on its own rail wheels,
- it is designed to have characteristics necessary for the operation of track based train detection systems