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

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NATIONAL FOREWORD

See Eesti standard EVS-EN 15955-1:2013 sisaldab Euroopa standardi EN 15955-1:2013 ingliskeelset teksti.	This Estonian standard EVS-EN 15955-1:2013 consists of the English text of the European standard EN 15955-1:2013.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 24.04.2013.	Date of Availability of the European standard is 24.04.2013.
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile standardiosakond@evs.ee.

ICS 45.060.20, 45.120

EUROPEAN STANDARD

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English Version

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

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

Bahnanwendungen - Oberbau - Ausgleisbare Maschinen 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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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
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Management Centre: Avenue Marnix 17, B-1000 Brussels

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Foreword

This document (EN 15955-1:2013) 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of an identical text or by endorsement, at the latest by October 2013, and conflicting national standards shall be withdrawn at the latest by October 2013.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 15955 *Railway applications — Track — Demountable machines 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 European Standard.

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

Demountable machines as specified in 3.1 form the object of this standard.

This standard deals with railway specific risks of the demountable machines 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 15955-2 of this series of standards.

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

The risks 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 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 self propelled demountable machines – henceforward referred to as machines – and associated equipment, which can arise during the commissioning, the operation and the maintenance of these machines when carried out in accordance with the specification given by the manufacturer or his authorised representative. These machines are not designed or intended to operate signalling and control systems and are only designed and intended to work and run under special operating conditions specifically designated by the infrastructure manager. Other machines are dealt with in other European Standards; see Annex D.

This part of EN 15955 deals with the technical railway requirements; Part 2 deals with the requirements for the machine to be declared conformant by the manufacturer, except in the case of machines classified in Annex 4 of the Machinery Directive (2006/42/EC) which requires conformity check in conjunction with a notified body.

These demountable machines 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.

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 machines and associated equipment that in working configuration are partly supported on the ballast or the formation.

This European Standard does not apply to the following:

— requirements for quality of the work or performance of the machine;

— specific requirements established by the railway infrastructure operator for the use of machines, which will be the subject of negotiation between the manufacturer and the purchaser;

— separate machines temporarily mounted on demountable machines and associated equipment.

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;

— 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 °C), corrosive environments, 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 machines may have operational parameters specified by each infrastructure manager, e.g. the maximum speed allowed for these machines is likely to be limited by the infrastructure manager; compliance with the clauses of this standard does not confer permission for machines to travel at this speed. These machines 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 machines, 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 286-3, *Simple unfired pressure vessels designed to contain air or nitrogen — Part 3: Steel pressure vessels designed for air braking equipment and auxiliary pneumatic equipment for railway rolling stock*

EN 286-4, *Simple unfired pressure vessels designed to contain air or nitrogen — Part 4: Aluminium alloy pressure vessels designed for air braking equipment and auxiliary pneumatic equipment for railway rolling stock*

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, *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 15954-1:2013, *Railway applications — Track — Trailers and associated equipment — Part 1: Technical requirements for running and working*

EN 15955-2:2013, *Railway applications — Track — Demountable machines 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 and switchgear and controlgear*

EN ISO 7731, *Ergonomics — Danger signals for public and work areas — Auditory danger signals (ISO 7731)*

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

UIC 541-1, *Brakes — Regulations concerning the design of brake components* [1)]

UIC 577, *Wagon stresses* [1)]

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
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 authorised body and/or the infrastructure manager.

3.2
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.

3.3
trailer
non-self propelled machine that can be hauled on rail wheels

Note 1 to entry: Trailers are not 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.

1) May be purchased from: *Union Internationale de Chemins de fer* (UIC), 14 rue Jean Rey, F-75015 Paris.