Irish Standard
I.S. EN 15746-1:2020

Railway applications - Track - Road-rail machines and associated equipment - Part 1: Technical requirements for travelling and working

I.S. EN 15746-1:2020

Incorporating amendments/corrigenda/National Annexes issued since publication:

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National Foreword

I.S. EN 15746-1:2020 is the adopted Irish version of the European Document EN 15746-1:2020, Railway applications - Track - Road-rail machines and associated equipment - Part 1: Technical requirements for travelling and working

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 15746-1

December 2020

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English Version

Railway applications - Track - Road-rail machines and associated equipment - Part 1: Technical requirements for travelling and working

Applications ferroviaires - Voie - Machines rail-route et équipements associés - Partie 1 : Prescriptions techniques pour le déplacement et le travail

Bahnanwendungen - Oberbau - Zweiwege-Maschinen und zugehörige Ausrüstungen - Teil 1: Technische Anforderungen an die Versetzfahrt und den Arbeitseinsatz

This European Standard was approved by CEN on 5 May 2019.

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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 CEN-CENELEC Management Centre has the same status as the official versions.

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European foreword

This document (EN 15746-1:2020) 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of an identical text or by endorsement, at the latest by June 2021, and conflicting national standards shall be withdrawn at the latest by June 2021.

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 15746-1:2010+A1:2011.

Principal amended clauses compared to EN 15746-1:2010+A1:2011:

— general All references updated to latest issue;

— running, travelling and working modes adopted;

— requirements solely for running mode moved to new EN 15746-3:2020;

— 4.3 New clause;

— 5.5 Clause on safety against derailment enhanced to provide greater clarity and increased options for testing;

— 5.6 Specific requirements for prevention of overturning moved from EN 15746-2:2010+A1:2011, 5.11 with enhanced requirements for RCI/RCL and data recording;

— 5.7 Requirements for frame structure simplified;

— requirements for demountable modules added;

— 5.8 Requirements for couplings made more specific for road-rail machines;

— 5.14 Requirements for lighting amended;

— 5.16 Requirements for pantographs enhanced;

— 5.24 New clause for environmental protection;

— Annexes All annexes reviewed and updated;

— Annex C Now informative;

— Annex D Now informative and the identification number changed to commence ZZ;

— Annex E Now informative.

EN 15746, *Railway applications — Track — Road-rail machines and associated equipment*, is currently composed with the following parts:

— *Part 1: Technical requirements for travelling and working*;

— *Part 2: General safety requirements*;

— *Part 3: Technical requirements for running*;

— *Part 4: Technical requirements for running, travelling and working on urban rail*.

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, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Introduction

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

This document is the first of a series of four parts of the European Standard: *Railway applications — Track — Road-rail machines and associated equipment*, dealing with railway specific risks of the road-rail machines when running, travelling and working on railway infrastructures:

— Part 1 covers the technical requirements for the machines in travelling and working modes, and is applicable for all machines.

— 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 3 covers the essential requirements for the machines that have a running mode and run on tracks within the scope of the Railway Directive 2007/58/EC; this is a document harmonized with the Railway Interoperability Directive 2008/57/EC and its associated Technical Specifications for Interoperability (TSI).

— Part 4 covers the technical requirements for the machines that have a running mode on urban rail and/or for machines intended to have running, travelling and/or working mode on urban rail.

Part 1 defines requirements for approval of the machine for use on the railway. Depending on the decision of the Infrastructure Manager or National rules the assessment of conformance could be by the Infrastructure Manager concerned, by a third party assessor or declaration of conformity by the manufacturer.

Part 2 defines 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.

Part 3 defines requirements for running on the European railway network. Assessment of conformity is by a notified body as prescribed in the Railway Interoperability Directive.

Part 4 defines requirements for approval of the machine for use on urban rail. Depending on the decision of the manager of the network or National rules the assessment of conformance could be by the Urban Rail Manager concerned, by a third party assessor or declaration of conformity by the manufacturer.

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. Where necessary, references are made to appropriate standards of this type.

1 Scope

1.1 General

This document deals with the technical requirements to minimize the specific railway hazards of self-propelled road-rail machines – henceforward referred to as machines – and associated equipment, which can arise during the commissioning, operation and maintenance of the machines when carried out in accordance with the specification given by the manufacturer or his authorized representative.

These risks are normally common regardless of the track gauge. However, additional requirements can apply for travelling and working on infrastructures with narrow gauge or broad gauge lines, railways utilizing other than adhesion between the rail and rail wheels and underground infrastructures.

This document is also applicable for machines and associated equipment that in working configuration are partly supported on the ballast or the formation. Such machines are capable of independent self-propelled movement on the ground.

This document does not apply to the following:

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

— the specific requirements established by the machine operator for the use of machines, which will be the subject of negotiation between the manufacturer and the Infrastructure Manager;

— moving and working while not on rails;

— separate machines temporarily mounted on machines and associated equipment;

— demountable machines as defined in 3.2;

— trailers as defined in 3.3, including road-rail trailers.

Vehicles which are not track-guided themselves but have attachments that are track-guided are not road-rail machines.

The requirements within this document are amended and added to by the requirements in EN 15746-4 for machines designed and intended to use urban rail.

This document 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 such as: freezing temperatures, high temperatures, corrosive environments, tropical environments, contaminating environments, strong magnetic fields;

— hazards due to errors in software;

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