



**NSAI**  
Standards

Irish Standard  
I.S. EN 15746-1:2010+A1:2011

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

## I.S. EN 15746-1:2010+A1:2011

*Incorporating amendments/corrigenda/National Annexes issued since publication:*  
EN 15746-1:2010/A1:2011

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

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

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

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## Foreword

This document (EN 15746-1:2010+A1:2011) 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of an identical text or by endorsement, at the latest by April 2012, and conflicting national standards shall be withdrawn at the latest by April 2012.

This document includes Amendment 1, approved by CEN on 2011-08-22.

This document supersedes EN 15746-1:2010.

The start and finish of text introduced or altered by amendment is indicated in the text by tags A1 A1.

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.

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(s).

For relationship with EU Directive(s), see informative Annex ZA, which is an integral part of this document.

A1 EN 15746, *Railway applications — Track — Road-rail machines and associated equipment*, consists of the following parts:

- *Part 1: Technical requirements for running and working*
- *Part 2: General safety requirements* A1

According to the CEN/CENELEC Internal Regulations, the national standards organizations 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, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

## Introduction

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This European Standard is a type C standard as stated in EN ISO 12100-1:2003 and EN ISO 12100-2:2003.

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

Road-rail machines as specified in 3.1 form the object of this European Standard.

This European Standard deals with railway specific risks of the road-rail machines, defined in Clause 4 when running and working on railway infrastructures.

The safety requirements in relation to the Machinery Directive are dealt with in EN 15746-2:2010 of this series of standards.

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 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, the operation and the maintenance of machines when carried out in accordance with the specification given by the manufacturer or his authorised representative.

Part 1 of EN 15746 defines requirements for approval of the machine by an authorised body; 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.

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

This European Standard is also applicable for 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:

- 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;
- running and working whilst 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.

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 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.

Other track construction and maintenance machines used on railway tracks are dealt with in other European Standards, see Annex G.

## 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 European Standard.

## 2 Normative references

The following referenced documents are indispensable for the application 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 280, *Mobile elevating work platforms — Design calculations — Stability criteria — Construction — Safety — Examinations and tests*

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 12663:2000, *Railway applications — Structural requirements of railway vehicle bodies*

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

EN 13715, *Railway applications — Wheelsets and bogies — Wheels — Wheels tread*

EN 14033-1:2008, *Railway applications — Track — Railbound construction and maintenance machines — Part 1: Technical requirements for running*

EN 14033-2:2008, *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 15153-1, *Railway applications — External visible and audible warning devices for high speed trains — Part 1: Head, marker and tail lamps*

EN 15153-2, *Railway Applications — External visible and audible warning devices for high speed trains — Part 2: Warning horns*

EN 15273-2:2009, *Railway applications — Gauges — Part 2: Rolling stock gauge*

EN 15437 (all parts), *Railway applications — Axlebox condition monitoring — Interface and design requirements*

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

EN 15746-2:2010, *Railway applications — Track — Road-rail machines and associated equipment — Part 2: General safety requirements*

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