

**Tabelle ZA.4 — Zusammenhang zwischen dieser Europäischen Norm und der TSI für Fahrzeuge —
Lärm (veröffentlicht am 31. Mai 2011 im Europäischen Amtsblatt) und der Richtlinie 2008/57/EG**

Abschnitte/Unterabschnitte dieser Europäischen Norm	Abschnitte/§ der TSI	Grundlegende Anforderungen der Richtlinie 2008/57/EG	Erläuterungen/Anmerkungen
5.3.3 Sicherheitseinrichtungen für das Fahren §5.3.3.2 Messwertschreiber 5.10.2 Bremsleistung für Maschinen im Fahrmodus 5.11 Fahr- und Arbeitskabinen und Plätze 5.12.2 Signallichter im Fahrmodus 5.12.3 Scheinwerfer 5.12.4 Akustische Warneinrichtungen 5.15 Bergung 5.19 Belastungszustand 5.24 Sicherheitsschaltung des Fahrers Abschnitt 6 Markierungen und Nummerierung von Maschinen	4. Merkmale des Teilsystems 4.2 Funktionelle und technische Spezifikationen des Teilsystemes 4.2.2 Spezifikationen zu den Zügen §4.2.2.1 Zugsichtbarkeit §4.2.2.2 Zughörbarkeit §4.2.2.3 Identifizierung von Fahrzeugen §4.2.2.5 Zugbildung §4.2.2.6.1 Mindestanforderungen an das Bremssystem §4.2.2.8 Erkennung von streckenseitigen Signalen und Markierungen §4.2.2.9 Wachsamkeit des Triebfahrzeugführers 4.2.3 Spezifikationen zur Durchführung von Zugfahrten §4.2.3.5.2 Fahrzeugseitige Aufzeichnung von Überwachungsdaten §4.2.3.6.3 Wiederherstellungsergelungen Anhang P Europäische Fahrzeugnummer und entsprechende Kennbuchstaben	Anhang III, Grundlegende Anforderungen 2. Besondere Anforderungen an jedes Teilsystem 2.6 Verkehrsbetrieb und Verkehrssteuerung 2.6.1 Sicherheit 2.6.3 Technische Kompatibilität	

WARNHINWEIS — Für Produkte, die in den Anwendungsbereich dieser Norm fallen, können weitere Anforderungen und weitere EU-Richtlinien anwendbar sein.

Literaturhinweise

- [1] EN 468, *Schutzkleidung — Schutz gegen flüssige Chemikalien — Prüfverfahren: Beständigkeit gegen das Durchdringen von Spray (Spray-Test)*
- [2] EN 13977:2011, *Bahnanwendungen — Oberbau — Sicherheitsanforderungen an tragbare Maschinen und Rollwagen für Bau und Instandhaltung*
- [3] prEN 14033-3:2014, *Bahnanwendungen — Oberbau — Schienengebundene Bau- und Instandhaltungsmaschinen — Teil 3: Allgemeine Sicherheitsanforderungen*
- [4] prEN 1576-4:2015, *Bahnanwendungen — Oberbau — Zwei-Wege Maschinen und zugehörige Ausstattung — Teil 4: Technische Anforderungen an Fahrbetrieb, Versetzfahrten und Arbeitseinsatz in Schienennahverkehrssystemen*
- [5] EN 15954-1:2013, *Bahnanwendungen — Oberbau — Anhänger und zugehörige Ausstattung — Teil 1: Technische Anforderungen an das Fahren und den Arbeitseinsatz*
- [6] EN 15954-2:2013, *Bahnanwendungen — Oberbau — Anhänger und zugehörige Ausstattung — Teil 2: Allgemeine Sicherheitsanforderungen*
- [7] EN 15955-1:2013, *Bahnanwendungen — Oberbau — Ausgleisbare Maschinen und zugehörige Ausstattung — Teil 1: Technische Anforderungen an das Fahren und den Arbeitseinsatz*
- [8] EN 15955-2:2013, *Bahnanwendungen — Oberbau — Ausgleisbare Maschinen und zugehörige Ausstattung — Teil 2: Allgemeine Sicherheitsanforderungen*
- [9] EN 45545 (alle Teile), *Bahnanwendungen — Brandschutz in Schienenfahrzeugen*
- [10] PN-K-02056:1970, *Standard gauge rolling stock, extremely static (jetzt ersetzt durch EN 15273-2)*
- [11] RIS-1530-PLT, *Engineering acceptance of possession-only rail vehicles and associated equipment*²⁾
- [12] 1995/54/EC, RICHTLINIE 95/54/EG DER KOMMISSION vom 31. Oktober 1995 zur Anpassung der Richtlinie 72/245/EWG des Rates zur Angleichung der Rechtsvorschriften der Mitgliedstaaten über die Funkentstörung von Kraftfahrzeugmotoren mit Fremdzündung an den technischen Fortschritt und zur Änderung der Richtlinie 70/156/EWG des Rates zur Angleichung der Rechtsvorschriften der Mitgliedstaaten über die Betriebserlaubnis von Kraftfahrzeugen und Kraftfahrzeuganhängern³⁾
- [13] 2004/26/EG, Richtlinie 2004/26 des Europäischen Parlaments und des Rates vom 21. April 2004 zur Änderung der Richtlinie 97/68/EG zur Angleichung der Rechtsvorschriften der Mitgliedstaaten über Maßnahmen zur Bekämpfung der Emission von gasförmigen Schadstoffen und luftverunreinigenden Partikeln aus Verbrennungsmotoren für mobile Maschinen und Geräte⁴⁾

2) Rail Safety and Standards Board, London, www.rssb.co.uk

3) Öffentliches Amtsblatt der Europäischen Kommission Nr. L 266 vom 1995-11-08.

4) Öffentliches Amtsblatt der Europäischen Kommission Nr. L 146/1 vom 2004-04-30.

English Version

**Railway applications - Track - Road-rail machines and
associated equipment - Part 3: Technical requirements for
running**

Bahnanwendungen - Oberbau - Zwei-Wege-Maschinen
und zugehörige Ausstattung - Teil 3: Technische
Anforderungen an das Fahren

This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 256.

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CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

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European foreword

This document (prEN 15746-3:2015) has been prepared by Technical Committee CEN/TC 256 “Railway applications”, the secretariat of which is held by DIN.

This document is currently submitted to the CEN Enquiry.

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 2008/57/EC.

For relationship with EU Directive 2008/57/EC, see informative Annex ZA, which is an integral part of this document.

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

- *Part 1: Technical requirements for running and working;*
- *Part 2: General safety requirements;*
- *Part 3: Technical requirements for running* [currently at Enquiry stage];
- *Part 4: Technical requirements for running, travelling and working on urban rail* [currently at Enquiry stage].

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 third 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 working and travelling modes, and is applicable for all machines.
- Part 2 covers the safety requirements for the machines in working and travelling modes; this is a harmonized standard 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 harmonized standard 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 working and travelling modes 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 of defines requirements for approval of the machine for use on urban rail, depending on the decision of the controller of the network or National rules the assessment of conformance could be by the urban rail controller 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 European Standard deals with the technical requirements to minimize the specific railway hazards of self-propelled road-rail machines as defined in prEN 15746-1:2015, 3.5, henceforward referred to as machines – when designed and intended for running on European railways within the scope of European Directive 2007/58/EC.

The running mode is an option designed by the manufacturer which permits the use of the machine on a specified railway infrastructure without the need for special operational rules.

NOTE The use of special track safety equipment (i.e. part of automatic train protection systems) does not necessarily infer that the machine has a running mode, some infrastructure managers use such equipment as means of protection for machines in travelling and/or working modes.

This European Standard does not apply to the following:

- 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;
- travelling and working both on and off rails;
- running on urban rail.

For a road-rail machine it is assumed that an EU road permissible host vehicle will offer an accepted safety level for its designed basic functions before conversion. Unless explicitly stated otherwise in a particular clause this specific aspect is not dealt with in this European Standard.

1.2 Validity of this European Standard

This European Standard applies to all machines which are within the scope of the Commission Regulation (EU) No 1302/2014 for locomotives and passenger rolling stock.

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 12663-1:2010+A1:2014, *Railway applications — Structural requirements of railway vehicle bodies — Part 1: Locomotives and passenger rolling stock (and alternative method for freight wagons)*

EN 12663-2:2010, *Railway applications — Structural requirements of railway vehicle bodies — Part 2: Freight wagons*

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 15153-1:2013, *Railway applications — External visible and audible warning devices for trains — Part 1: Head, marker and tail lamps*

EN 15273-2:2013, *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*

prEN 15746-1:2015, *Railway applications — Track — Road-rail machines and associated equipment — Part 1: Technical requirements for travelling and working*

prEN 15746-2:2015, *Railway applications — Track — Road-rail machines and associated equipment — Part 2: General safety requirements*

EN 45545-2, *Railway applications — Fire protection on railway vehicles — Part 2: Requirements for fire behavior of materials and components*

EN 50238-1:2003, *Railway applications — Compatibility between rolling stock and train detection systems — Part 1: General*

EN 62625-1:2013, *Electronic railway equipment — On board driving data recording system — Part 1: System specification (IEC 62625-1:2013)*

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, prEN 15746-1:2015 and prEN 15746-2:2015 apply.

4 Machine categorization

4.1 Categories

The machines are divided into four categories as shown in prEN 15746-1:2015, Clause 4.

4.2 Type qualification for being in a train

4.2.1 Mode of machine Category 8

Machines of Category 8 may be part of a train, but only under the conditions prescribed by the railway undertaking of such a train and/or by the infrastructure manager.

4.2.2 Mode of machine Category 9

The machine has a running mode and shall be designed and intended to operate signalling and control systems, and shall comply with this standard

NOTE 1 The acceptance procedure for access to the railway infrastructure is likely to be different for running mode than for travelling and working modes.