

DIN EN 15746-3



ICS 93.100

**Railway applications –
Track - Road-rail machines and associated equipment –
Part 3: Technical requirements for running;
English version EN 15746-3:2020,
English translation of DIN EN 15746-3:2021-05**

Bahnanwendungen –
Oberbau - Zweiwege-Maschinen und zugehörige Ausrüstungen –
Teil 3: Technische Anforderungen an das Fahren;
Englische Fassung EN 15746-3:2020,
Englische Übersetzung von DIN EN 15746-3:2021-05

Applications ferroviaires –
Voie - Machines rail-route et équipements associés –
Partie 3: Prescriptions pour la circulation;
Version anglaise EN 15746-3:2020,
Traduction anglaise de DIN EN 15746-3:2021-05

Document comprises 38 pages

Translation by DIN-Sprachendienst.

In case of doubt, the German-language original shall be considered authoritative.

A comma is used as the decimal marker.

National foreword

This document (EN 15746-3:2020) has been prepared by Technical Committee CEN/TC 256 “Railway applications” (Secretariat: DIN, Germany).

The responsible German body involved in its preparation was *DIN-Normenausschuss Fahrweg und Schienenfahrzeuge* (DIN Standards Committee Railway), Subcommittee NA 087-00-01-02 UA “Track construction and maintenance machines” of Working Committee NA 087-00-01 AA “Infrastructure”.

DIN EN 15746 consists of the following parts, under the general title *Railway applications — Track — Road rail machines and associated equipment*:

- *Part 1: Technical requirements for travelling and working*
- *Part 2: General safety requirements*
- *Part 3: Technical requirements for running (this document)*
- *Part 4: Technical requirements for running, travelling and working on urban rail*

For current information on this document, please go to DIN’s website (www.din.de) and search for the document number in question.

English Version

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

Applications ferroviaires -
Voie -
Machines rail-route et équipements associés -
Partie 3: Prescriptions pour la circulation

Bahnanwendungen -
Oberbau -
Zweiwege-Maschinen und zugehörige Ausrüstungen -
Teil 3: Technische Anforderungen an das Fahren

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

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

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.

CEN members are the national standards bodies of 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 United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

Contents

Page

European foreword.....	4
Introduction	5
1 Scope	6
1.1 General	6
1.2 Validity of this document	6
2 Normative references	6
3 Terms and definitions	7
4 Machine categorization.....	8
4.1 Categories	8
4.2 Type qualification for being in a train	8
4.2.1 Category 8 machine in running mode.....	8
4.2.2 Category 9 machine in running mode.....	8
5 Railway specific safety requirements and/or measures	8
5.1 General.....	8
5.2 Rolling stock gauge.....	8
5.2.1 Running gauge.....	8
5.2.2 Machine in running mode	9
5.2.3 Limits in lower area in running mode	9
5.3 Running safety equipment.....	9
5.3.1 Indication equipment	9
5.3.2 Data recorder	9
5.4 Safety against derailment	9
5.4.1 General.....	9
5.4.2 Safety against derailment for machines	10
5.4.3 Dynamic tests on track for first type approved machines	10
5.4.4 Railhead clearing devices.....	10
5.5 Stability and prevention of overturning.....	11
5.6 Machine frame and structure	11
5.6.1 Design of the machine frame.....	11
5.6.2 Lifting and jacking points.....	11
5.7 Inter-machine couplings.....	12
5.7.1 General.....	12
5.7.2 Category 8 machines buffing and drawgear	12
5.8 Running gear.....	12
5.8.1 General.....	12
5.8.2 Distribution of the wheelset forces in running mode	12
5.8.3 Rail wheel, wheel profile	12
5.8.4 Rail wheel arrangements	12
5.8.5 Load on rail wheels.....	12
5.8.6 Operation of spring loaded points	13
5.8.7 Ratio of wheel load on guiding wheels to road axle load.....	13
5.9 Rail wheel suspension	14
5.10 Braking.....	15
5.11 Driving and working cabs and places	15
5.12 Visibility and audibility of the machine	15