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Railway applications – Structural requirements of railway vehicle bodies – Part 2: Freight wagons English translation of DIN EN 12663-2:2010-07

Bahnanwendungen –
Festigkeitsanforderungen an Wagenkästen von Schienenfahrzeugen –
Teil 2: Güterwagen
Englische Übersetzung von DIN EN 12663-2:2010-07

Applications ferroviaires –
Prescriptions de dimensionnement des structures de véhicules ferroviaires –
Partie 2: Wagons de marchandises
Traduction anglaise de DIN EN 12663-2:2010-07

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

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A comma is used as the decimal marker.

National foreword

This standard has been prepared by Technical Committee CEN/TC 256 “Railway applications” (Secretariat: DIN, Germany), Working Group WG 2 “Structural requirements” (Chairmanship: Austria).

The responsible German body involved in its preparation was the *Normenausschuss Fahrweg und Schienenfahrzeuge* (Railway Standards Committee), Working Committee NA 087-00-04 AA *Festigkeit/ Kollisionssicherheit.*

Amendments

This standard differs from DIN EN 12663:2000-10 as follows:

a) The standard has been split into two parts, Part 1 dealing with locomotives and passenger rolling stock, Part 2 dealing with freight wagons.

b) The standard has been revised in form and structure.

c) The terminology has been updated.

d) Further specifications have been added, e.g. requirements for the design of the vehicle body of freight wagons and of specific equipment, full scale test methods for freight wagons and a validation programme for vehicle bodies.

e) The former Annex A has been revised and updated as a new Annex ZA.

Previous editions

DIN EN 12663: 2000-10

EUROPEAN STANDARD

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EN 12663-2

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Supersedes EN 12663:2000

English Version

Railway applications — Structural requirements of railway vehicle bodies — Part 2: Freight wagons

Applications ferroviaires — Prescriptions de dimensionnement des structures de véhicules ferroviaires — Partie 2: Wagons de marchandises

Bahnanwendungen — Festigkeitsanforderungen an Wagenkästen von Schienenfahrzeugen — Teil 2: Güterwagen

This European Standard was approved by CEN on 23 January 2010.

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

Management Centre: Avenue Marnix 17, B-1000 Brussels

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Contents

Foreword

This document (EN 12663-2:2010) 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 September 2010, and conflicting national standards shall be withdrawn at the latest by September 2010.

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.

This European Standard is part of the series EN 12663, *Railway applications — Structural requirements of railway vehicle bodies*, which consists of the following parts:

— *Part 1: Locomotives and passenger rolling stock (and alternative methods for freight wagons)*

— *Part 2: Freight wagons*

This document, together with EN 12663-1, supersedes EN 12663:2000.

The main changes with respect to the previous edition are listed below:

a) the standard has been split into two parts. EN 12663-1 contains validation methods mainly for locomotives and passenger rolling stock but as an alternative to EN 12663-2 also for freight wagons. EN 12663-2 contains validation methods for freight wagon bodies and associated specific equipment based on tests;

b) full scale test methods for freight wagons have been added;

c) the design validation requirements for associated specific equipment have been added;

d) the buffing impact test requirements have been added;

e) a validation programme has been added.

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

The structural design and assessment of freight wagon bodies depend on the loads they are subject to and the characteristics of the materials they are manufactured from. Within the scope of this European Standard, it is intended to provide a uniform basis for the structural design and assessment of the vehicle body.

The loading requirements for the vehicle body structural design and assessment are based on proven experience supported by the evaluation of experimental data and published information. The aim of this European Standard is to allow the supplier freedom to optimise his design whilst maintaining requisite levels of safety considered for the assessment.