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Standards

Irish Standard  
I.S. EN 16860:2019

# Railway applications - Requirements and general principles for securing payload in rail freight transport

**I.S. EN 16860:2019**

*Incorporating amendments/corrigenda/National Annexes issued since publication:*

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## National Foreword

I.S. EN 16860:2019 is the adopted Irish version of the European Document EN 16860:2019, Railway applications - Requirements and general principles for securing payload in rail freight transport

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EUROPEAN STANDARD

EN 16860

NORME EUROPÉENNE

EUROPÄISCHE NORM

March 2019

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English Version

## Railway applications - Requirements and general principles for securing payload in rail freight transport

Applications ferroviaires - Exigences et principes généraux en matière d'arrimage de la charge utile lors du transport ferroviaire de fret

Bahnanwendungen - Anforderungen und Grundsätze für die Ladegutsicherung für Güterwagen

This European Standard was approved by CEN on 30 December 2018.

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## **European foreword**

This document (EN 16860:2019) 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of an identical text or by endorsement, at the latest by September 2019, and conflicting national standards shall be withdrawn at the latest by September 2019.

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 has been prepared under a standardization request 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.

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

## EN 16860:2019 (E)

### 1 Scope

This document specifies the minimum requirements for securing payload to ensure safe operation of freight wagons, utilizing a train speed of up to 120 km/h. It is serving as a basis for the design and implementation of payload securing methods.

Additional requirements in the case of wagons designed for the transport of special payload and/or with integrated load security (e.g. tank wagons, hopper wagons, car carriers, coil carriers and wagons for intermodal transport) are not part of this document.

### 2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 12663 (all parts), *Railway applications — Structural requirements of railway vehicle bodies*

EN 15273-3, *Railway applications — Gauges — Part 3: Structure gauges*

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

EN 15551, *Railway applications — Railway rolling stock — Buffers*

EN 15723, *Railway applications — Closing and locking devices for payload protecting devices against environmental influences — Requirements for durability, operation, indication, maintenance, recycling*

### 3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>

#### 3.1

##### **load**

all kinds of external applied forces and moments, distributed load, pressure or weight

#### 3.2

##### **payload**

load which the vehicle is designed to transport under specified conditions of operation, in addition to its tare weight

#### 3.3

##### **force**

single acting load



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