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Railway applications — Vehicle reference masses

Applications ferroviaires — Masses de référence des véhicules

~~DIS~~FDIS stage

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Foreword

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This document was prepared by Technical Committee ISO/TC 269, *Railway applications*, Subcommittee SC 2, *Rolling stock*.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found atwww.iso.org/members.html.

Introduction

This document provides a set of vehicle reference masses and describes how each is derived. These reference masses can be used as a clear and unique specification of the load conditions of rail vehicles in relation ~~with~~to dimensioning, design, testing, acceptance, marking, delivery, operation, maintenance, etc~~.~~. This document does not specify for which cases a defined reference mass is applied. The determination of how these reference masses are applied is ~~part of~~governed by the corresponding ~~requirements documents, such as~~ application standards or specifications.

The reference masses are determined from the parameters described in the document (see ~~also~~ 5.1), and their default values~~, described in the document.~~ If the default values are not applicable for certain vehicles, ~~particular~~specific reference masses may, where justified, be chosen from a range of values given in brackets. The corresponding vehicle specification ~~specifies~~identifies where ~~particular~~specific values are used instead of default values. In this sense, the reference masses, whether based on default values or on ~~particular~~specific values, are consistent for all applications which use ~~the reference masses as basis~~them.

~~Since this~~This document does not supersede mass definitions in application standards~~, these~~. As such, application standards can provide their own mass definitions (special purpose masses). To align these mass definitions in application standards, ~~these~~such special purpose mass definitions should stay within the framework of the specifications described in this document.

Railway applications — Vehicle reference masses

1 Scope

This document provides reference masses for specifying the requirements for rail vehicles.

These reference masses are specified with respect to the whole vehicle, but they can also be applicable to a specific system or component.

This document does not supersede mass or payload conditions which are specified in application standards.

This document is applicable for all types of rail vehicles.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

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

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

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at ~~https://www.electropedia.org/~~https://www.electropedia.org/

3.1
mass increment
quantity added to or subtracted from the vehicle mass

~~Note 1 to entry: Examples are *payload*~~EXAMPLE *Payload* (3.2), staff, consumables ~~and,~~ *wear allowance* (3.10).

3.2
payload
mass increment (3.1) for the load carried by the vehicle (passengers, luggage or cargo)

Note 1 to entry: ~~Typically~~This is typically a load from which revenue is derived.

3.3
luggage compartment
closed area~~,~~ that is intended for the carriage of luggage and goods, ~~which is~~and not ~~intended~~ for the transport of passengers

3.4
luggage area
low-level location or unit in a passenger saloon or vestibule provided to store luggage

Note 1 to entry: Overhead luggage racks are not regarded as luggage areas.

3.5
passenger area
dedicated area inside the vehicle ~~dedicated~~ for transporting passengers

Note 1 to entry: *Catering areas* (3.6) are not regarded as passenger areas.

3.6
catering area
area set aside for passengers for the purchase or consumption of catering services

EXAMPLE Buffet, bar, bistro.

3.7
standing area
unobstructed part of either a *passenger area* (3.5) or a *catering area* (3.6) which can be used by standing passengers

EXAMPLE Vestibules, aisles, stairways.

3.8
normal seat
permanent seat in a *passenger* ~~or catering area~~*area* (3.5) or *catering area* (3.6)

3.9
tip-up seat
folding seat fixed to a wall or partition for temporary use

3.10
wear allowance
quantity of mass that is assumed to be lost in service due to abrasion and mechanical wear

Note 1 to entry: The main sources of wear to be accounted for are from wheels and brake friction materials.

3.11
dead mass
mass of the vehicle in the "as built" condition without consumables and without staff

Note 1 to entry: See 5.3 for further information.

3.12
working order
condition in which the vehicle is available for service, including staff and an amount of consumables, but without any *payload* (3.2)

Note 1 to entry: The amount of consumables depends on the vehicle condition ~~{~~[*design condition* (3.15) or *operational condition* (3.16~~)}~~)] as given in Table 4.

Note 2 to entry: This state is sometimes described as "unladen" or "tare". Nevertheless, the use of the expression "working order" is encouraged to harmonize wording.

3.13
normal payload
typical *payload* (3.2) seen on a regular basis

Note 1 to entry: The normal payload depends on the vehicle condition (design or operational condition) as given in Table 2.

Note 2 to entry: For freight vehicles, the payload is always taken as the maximum payload as specified in the loading table of the vehicle.

3.14
exceptional payload
maximum possible *payload* (3.2) that can be carried