

5th edition, October 2004

Translation

OR

Standard wagons

Ordinary two-axle wagons - Characteristics

Wagons unifiés - Wagons à deux essieux d'usage courant - Caractéristiques
Einheitsgüterwagen - Güterwagen der Regelbauart mit zwei Radsätzen - Merkmale



UNION INTERNATIONALE DES CHEMINS DE FER
INTERNATIONALER EISENBAHNVERBAND
INTERNATIONAL UNION OF RAILWAYS

Leaflet to be classified in Volumes:

IV - Operating

V - Transport stock

Application:

With effect from 1 October 2004 for new stock to be built
All members of the International Union of Railways

Record of updates

1st edition, January 1963	First issue published under the title: "Standard wagons accepted for running on international services - Ordinary two-axle wagons - Characteristics" and 1 Amendment.
2nd edition, January 1967	and 3 Amendments.
3rd edition, July 1963	and 1 Amendment.
4th edition, January 1983	Reprint dated 01.01.96 and 4 Amendments.
5th edition, October 2004	Modifications of points 1 and 4. Adaptation to the editor's guide M1. Important: the articles (points) in this leaflet have been renumbered in the new edition. The first digit of each point has been increased by one (i.e. 0 becomes 1, 1 becomes 2, and so on). Please take account of this change when using cross-references from other leaflets.

The person responsible for this leaflet is named in the UIC Code

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Summary

In order to facilitate the operation of services and the use of wagons by customers, UIC member railways shall undertake to abide by the wagon design standardisation characteristics contained in the leaflet, except in the case of very special requirements.

1 - General

- **1.1** - In order to facilitate the operation of services and the use of wagons by customers, UIC members shall undertake to abide by the wagon design standardisation characteristics contained in this leaflet, except in the case of very special requirements.

1.2 - It is recommended that:

- the types of wagons described in this leaflet which are standardised be constructed in accordance with the series of standard drawings managed by ERRI, and
- to improve aerodynamics, the solutions presented in *ERRI Report B 12/ RP 54* (see Bibliography - page 16) be used where economically viable.

A list of standardised and partially standardised wagons as well as all standardised sub-assemblies and component parts is given in *ERRI Document DG4* (see Bibliography - page 16).

- **1.3** - The interchangeable parts listed in *UIC Leaflet 570* (see Bibliography - page 16) shall be used for the construction of wagons.

- **1.4** - Wagons must meet the following operating requirements:

NB : Covered wagons may be subject to additional requirements (see point 2.4 - page 7)

1.4.1 - With regard to wagons in points 2 - page 4, 3 - page 8, 4 - page 10 (except types 2, 3A and 3B) and 5 - page 14:

- their resistance and on-track stability must be such that they can be worked at 100 km/h with maximum permitted loads on lines designed for 20 t axle-loads (lines in category C) when these loads are distributed over the entire wagon length;
- the braking system must allow for running under S conditions with loads of 20 t per axle.

1.4.2 - With regard to wagons of types 2, 3A and 3B in point 4 (22,5 t axle-loads)

- the resistance of these wagons and their running quality must be such that they can be worked at 100 km/h with maximum permitted loads on lines designed for 22,5 t axle-loads (lines in category D), and at 120 km/h with loads corresponding to 20 t axle-loads, such loads generally being distributed over the entire wagon length;
- the braking system must allow for running under S conditions with loads of 22,5 t per axle.

○ **1.5 - Wagons shall be built:**

- with or without crossing facility,
- with or without screw brake,

in accordance with the conditions laid down in *UIC Leaflet 535-3* (see Bibliography - page 16).

○ **1.6 - The maximum wagon tare, as shown in this leaflet, is that of air-braked wagons and:**

- in the case of wagons with superstructure, incorporating a crossing gangway complying with the provisions of *UIC Leaflet 535-2* (see Bibliography - page 16) and a screw brake which can be operated from this gangway,
- in the case of wagons without superstructure, incorporating crossing steps complying with the provisions of *UIC Leaflet 535-2* and a screw brake which can be operated from the ground.

The minimum tare (not specified in this leaflet) results from the application of the provisions of *UIC Leaflet 530-2* (see Bibliography - page 16), irrespective of whether the wagon is fitted with a crossing gangway and screw brake or not.

○ **1.7 - In respect of covered wagons built to the British gauge, the tare shall also include the lever and vacuum-brake equipment in accordance with the conditions laid down in *UIC Leaflet 549* (see Bibliography - page 16).**

○ **1.8 - The length of the underframe (between buffer fixing planes) laid down in this leaflet refers to wagons without a crossing gangway.**

In all cases, the length of the underframe must have a positive tolerance (in compliance with the corresponding national standard) after manufacture.

○ **1.9 - The uniformly-distributed loads specified in this leaflet must be placed symmetrically in relation to the longitudinal and transverse centre-lines of the wagon and occupy at least 2 m of the floor width.**

Loads resting on two supports must be placed symmetrically in relation to the longitudinal and transverse centre-lines of the wagon, and the supports must occupy at least 2 m of the width and 0,2 m of the floor length.

○ **1.10 - Permanent additional loading gear may only be fitted in the wagons with UIC approval, to determine whether or not the presence of such gear alters the standard characteristics of the wagon. The application to UIC shall be accompanied by:**

1. a detailed description;
2. presentation of a prototype.

○ **1.11 - It must be possible to lift the wagons by either end when loaded, the lifting device being placed under the headstock in line with the solebars.**

2 - Covered wagons

Covered wagons shall be one of the three following types:

Types 1 and 2 (Gbs/Gs):

these types are only suitable for running on lines to the continental gauge;

Type 3 (Hbfs):

this type is also suitable for running on lines to the British gauge.

These wagons must be suitable for the transport of all types of traffic normally conveyed in covered wagons, including livestock traffic.

o 2.1 - Main dimensions

2.1.1 - Type 1 (Gbs)

Length over buffers	14,020 m
Length of underframe	12,780 m
Inside length of floor (minimum)	12,700 m
Inside width of floor (minimum)	2,600 m
Floor area	approx. 33 m ²
Total capacity	approx. 88 m ²
Wheelbase	8,000 m

2.1.2 - Type 2 (Gs)

Length over buffers	10,580 m
Length of underframe	9,340 m
Inside length of floor (minimum)	9,260 m
Inside width of floor (minimum)	2,700 m
Floor area	approx. 25 m ²
Total capacity	approx. 63 m ²
Wheelbase	6,000 m