

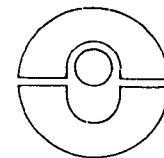
UIC Code

5 1 1

0

7th edition, 01.07.1987

**Trailing Stock
Wheelbase**



International Union of Railways

Note

This leaflet forms part of a set which also includes:

Leaflet 432: Wagons - Running speeds.

Leaflet 510-2: Trailing stock - Conditions concerning the use of wheels of various diameters with running gear of different types.

Leaflet 512: Rolling stock - Conditions to be fulfilled in order to avoid difficulties in the operation of track circuits and treadles.

Leaflet 530-1: Constructional conditions for wagons to be observed with a view to fitting the automatic coupler of the Member Railways of the UIC and OSJD respectively.

Leaflet 530-2: Wagons - Running safety.

Leaflet 700: Classification of lines and resulting load limits for wagons.

Leaflet 702: Loading diagram to be taken into consideration for the calculation of rail carrying structures on lines used in international services.

1 - New rolling stock

The wheelbase of new vehicles must comply with the specifications in the following table:

Characteristics	Minimum	Maximum
<u>Passenger vehicles</u>		
Wheelbase of a 2-axle bogie:	2000mm	
Distance between end axles of a bogie with rigid axles:		4500mm
<u>Bogie freight vehicles</u>		
Wheelbase of a 2-axle bogie:	1800mm(1)	
Distance between end axles of a bogie with rigid axles:		4500mm
Wheelbase of a bogie with more than 2 axles:	1500mm(1)	
<u>Freight vehicles with independent axles</u>		
Distance between end axles:		
. 2-axle wagon:	6000mm	9000mm
. 3-axle wagon with a single underframe		not accepted
. 3-axle wagon with articulated underframe:	2x6000mm	(2)
Ratio:		
$\frac{\text{Wheelbase of end axles}}{\text{Overall length of vehicle (buffers in uncompressed position)}}$		
. wagons with single-link suspension:		not accepted
. wagons with double-link suspension	0.54	

(1) Special bogies with small-diameter wheels can be designed to accommodate shorter wheelbases, providing they comply with UIC Leaflets 432, 510-2 and 700.

(2) For 3-axle wagons with 2 articulated underframes, the maximum distance between each end axle and the middle axle must be such that the position of axles on the track is not more unfavourable than for a 2-axle wagon with a wheelbase of 9000mm. This distance, however, shall not exceed 10 500 mm.

2 - Existing rolling stock

Generally speaking, the wheelbases of existing vehicles must comply with the same conditions as those applicable to future vehicles covered in chapter 1 above.

However, the following specific conditions shall be admitted.

Passenger vehicles:

- . No specific condition(s).

Bogie freight vehicles

Wheelbase of 2-axle bogie

- . For ordinary wagons (not bearing the S or SS sign) built before 1.1.79, the minimum wheelbase for a 2-axle bogie must be 1500mm.

Freight vehicles with independent axles

Distance between end axles:

- . The minimum distance between the end axles of ordinary 2-axle or 3-axle wagons (not bearing the S or SS sign) must be:
 - 4000mm for wagons built before 1.1.1961,
 - 4500mm for wagons built after 1.1.1961 and before 1.1.1978,
 - 6000mm for wagons built since 1.1.1978(1)

(1) After 1 January 1985 for DR and CFR

- . The minimum distance between the end axles of 2-axle S wagons must be:

- 4500mm for wagons built before 1.1.1978,
- 6000mm for wagons built after 1.1.1978.

- . The minimum distance between the end axles of 2-axle SS wagons must be 6000mm.

- . The maximum distance between the end axles of rigid-axled wagons must be 4500mm.

Ratio:

Wheelbase of end axles

Overall length of vehicle (buffers in uncompressed position)

- . The minimum value of the ratio for wagons with single-link suspension must be:
 - 0.45 for ordinary wagons (not bearing the S or SS sign) built after 1.1.1963
 - 0.45 for S wagons, irrespective of date of manufacture,
 - 0.45 for SS wagons built before 1.1.1978,
 - 0.60 for SS wagons built after 1.1.1978.
- . The minimum value of the ratio for wagons with double-link suspension must be:
 - 0.54 for standard wagons built after 1.1.1954
 - 0.54 for non-standard wagons built after 1.1.1965.