

UIC Code

567 - 2

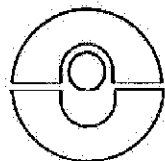
OR

4th Edition, 1-7-1991

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quel Land.*

**Standard Z-type coaches
accepted for running in international traffic
Characteristics**

**NUMERISATION DANS
L'ETAT DU DOCUMENT**



International Union of Railways

567 - 2

OR

- 2 -

Leaflet to be classified in Volumes :

IV - Operating

V - Transport Stock

Amendments

<i>no</i>	<i>1-1-94</i>		

Preliminary remarks :

Obligatory provisions are preceded by an asterisk : *

A double vertical line (||) in the margin denotes modifications introduced on the date shown at the bottom of the page.

Implementation of this leaflet is governed by the provisions listed under the heading "Application" in the last part of the document.

Note : Plates I, IIIa, IIIb, IVa, IVb

Please, change the English headings of these plates as follows :

- **Plate I** : Day coach.
- **Plate IIIa** :
2nd class day coach with centre-aisle (Standard type Z).
- **Plate IIIb** :
2nd class day coach with centre-aisle (Standard type VTU).
- **Plate IVa** :
1st class day coach with centre-aisle (Standard type Z).
- **Plate IVb** :
1st class day coach with centre-aisle (Standard type VTU).

Note

This leaflet is part of a set which also includes :

- Leaflet 440 - Loudspeaker systems in RIC coaches.
- Leaflet 515 - Coaches - Running gear.
- Leaflet 532 - Trailing stock - Signal lamp brackets - Coaches - Fixed electric signal lamps.
- Leaflet 550 - Power supply installations for passenger stock.
- Leaflet 552 - Electric power supply for trains taken from the train cable.
- Leaflet 553 - Ventilation, heating and air-conditioning in coaches.
- Leaflet 554-1 - Power supply to electrical equipment on stationary railway vehicles from a local mains system or another source of energy at 220 V or 380 V, 50 Hz.
- Leaflet 555 - Electric lighting in passenger rolling stock.
- Leaflet 560 - Doors, entrance platforms, windows, steps, handles and handrails of coaches and luggage vans.
- Leaflet 561 - Interconnecting gangways for coaches.
- Leaflet 562 - Space for baggage racks, coat-hooks and lockers. Measures to prevent baggage theft.
- Leaflet 563 - Fillings provided in coaches in the interests of hygiene and cleanliness.

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- Leaflet 564-1 - Coaches - Windows made from safety glass.
- Leaflet 564-2 - Regulations relating to fire protection and fire-fighting measures in passenger-carrying railway vehicles or assimilated vehicles used on international services.
- Leaflet 565-1 - Special comfort and constructional characteristics for sleeping cars accepted in international traffic.
- Leaflet 565-2 - Special comfort and constructional characteristics and rules of hygiene for restaurant cars accepted in international traffic.
- Leaflet 566 - Loadings of coach bodies and their components.
- Leaflet 567 - General provisions for coaches.
- Leaflet 567-1 - Standard X- and Y-type coaches accepted for running on international services. Characteristics.
- Leaflet 567-3 - Constructional arrangements on coaches with a view to the application of the automatic coupler on the member railways of the UIC and on the member railways of the OSJD.
- Leaflet 568 - Loudspeaker and telephone systems in RIC coaches.
- Leaflet 569 - Regulations to be observed in the construction of coaches and vans suitable for conveyance by train ferry.
- Leaflet 580 - Inscriptions and markings, route indicators and number plates to be affixed on coaching stock used in international traffic.

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0 - General

* 0.1 - This leaflet concerns standard coaches of types :

- Z₁ for 200 km/h
- Z₂ for 160 km/h

in the following versions :

Type	Coach description	Number of compartments		Number of seats/ couchettes per compartment		Plan view acc. to plate
		1st cl.	2nd cl.	1st cl.	2nd cl.	
A*	1st class day coach with side corridor	9	—	6	—	I
B ¹¹	2nd class day coach with side corridor	—	11	—	6	—
A*B ⁶	1st/2nd class day coach with side corridor	4	6	6	6	I
Bc ¹⁰	2nd class couchette coach with side corridor	—	10	—	6/6 (6/4)	II
Ap (At, Am)	1st class day coach with centre aisle	2	—	(1)	—	IVa and IVb
Bp (Bt, Bmh)	2nd class day coach with centre aisle	—	2	—	(2)	IIIa and IIIb

1) in accordance with Point 4.3.1.1 the number of seats in the coach shall be 58.
2) in accordance with Point 4.4.1.1 the number of seats in the coach shall be 80.

* 0.2 - In addition to the provisions set out below, standard coaches must comply with the other provisions of the UIC Code applicable to coaches.

* 0.3.1 - The main dimensions of coaches are laid down in Point 1.2. The other important constructional dimensions are indicated in the corresponding paragraph or are shown on the relevant plates.

The arrangement of the fittings is shown on Plates I to IVb.

0.3.2 - The details of the pictorial representation are not obligatory.

1 - Common provisions

1.1 - General technical provisions

* 1.1.1 - Z₁ type coaches must be designed for running at a speed of 200 km/h.

* 1.1.2 - Z₂ type coaches must be designed for running at a speed of 160 km/h.

* 1.1.3 - Regulations for carriage on train ferries : see Leaflet 567-1, Point 0.5.3.

1.1.4 - It is recommended that the tare of a fully equipped coach with empty reservoirs should be held as light as possible. The following values should be observed :

- ≤ 42 t for an air-conditioned coach,
- ≤ 38 t for a coach without air-conditioning.

* 1.2 - Dimensions

The table on the following page gives only the main coach dimensions. The dimensions of the internal compartments and side corridor are given on the attached plates or in the relevant provisions of this leaflet.

	Dimensions in metres					
	A'B'' A'B'	Bc	Coach construction Ap (Al, Amh)		Bp (Bl, Bmh)	
			Construction in accordance with Plate IVa	Construction in accordance with Plate IVb	Construction in accordance with Plate IIIa	Construction in accordance with Plate IIIb
Length over buffers	26.400	26.400	26.400	26.400	26.400	26.400
Distance between bogie pivot centres	19.000	19.000	19.000	18.306	19.000	18.306
Width of body (for information)	2.825	2.825	2.825	2.870 (max)	2.825	2.870 (max)
Overall width (2)	2.835 (1)	2.835 (1)	2.835 (1)	2.886 (max) (3)	2.835 (1)	2.886 (max) (3)
Height of roof top above rail top	4.050	4.050	4.050	4.050	4.050	4.050
Height of vestibule floor above rail top (with buffer height of 1000 mm)	1.255	1.255	1.250	1.153(4) 1.250(5)	1.250	1.153(4) 1.250(5)
Side corridor width (minimum)	0.785	0.710	—	—	—	—
Width of centre aisle	—	—	0.675	0.675 (min) 0.720 (max)	0.535	0.515(6)

(1) The calculation of the coach width in accordance with Leaflet 505-2 is based on a displacement value ($q + w$) on a curve of 250 m radius equal to :
22 mm towards the inside of the curve
50 mm towards the outside of the curve
and also on a flexibility coefficient $s = 0.4$ and a height of the centre of gravity of the rolling movement $h_c = 0.7$ m.
When the play of the bogie bolster is symmetrical, the value of ($q + w$) is limited to 22 mm. It is recommended to provide for the design to allow for the play of the bogie bolster to be governed by the curve radius, permitting a lateral play of ± 60 mm on straight track and reducing it to $+50/-20$ mm on curves of 250 m radius. In the case of bogies not fitted with a bolster, stops shall be provided to limit the lateral play on straight track and on curves in an equivalent manner.

(2) Components such as steps, handrails, hooks of route plates, including and window projections, etc., may extend as far as the gauge of the coach, making allowance for any reduction at their point of location.

(3) Calculation of overall width :
 $s = 0.3$ $h_c = 0.500$
play = $q + w$ (in 250 m radius curves) :
22 mm towards the inside of the curve
50 mm towards the outside of the curve.

(4) In vestibule area.

(5) Dimension allowing for 4 steps levels.

(6) Minimum dimension.

2 - Constructional characteristics

* 2.1 - Underframe and body

2.1.1 - Strength

(See Point 1, Leaflet 566).

2.1.2 - Fixtures fitted to the underframe

Implementation in accordance with Leaflet 567-1, Point 2.1.2.

2.1.3 - Fasteners for route and number plates

Implementation in accordance with Leaflet 567-1, Point 2.1.3.

2.1.4 - In the case of Z₁ coaches, the plates must not project beyond the outside wall; their fastenings must ensure that the plates will not fall off.

* 2.2 - Buffing and draw gear

Implementation in accordance with Leaflet 567-1, Point 2.2.

2.3 - Running gear

* 2.3.1 - Running gear of type Z₁ must be suitable for a speed of 200 km/h and running gear of the type Z₂ for a speed of 160 km/h.

* 2.3.2 - As a general rule, the maximum bogie wheelbase must be 2.600 m.

* 2.3.3 - The diameter of the wheel tread must lie within a range of 920/840 mm.

* 2.3.4 - The bogie must be suitable for being fitted with an electro-magnetic brake.

2.4 - Brakes

Implementation in accordance with Leaflet 567-1, Point 2.4.

* 2.5 - Coach interconnections and end doors

2.5.1 - The coaches must be provided with flange interconnections and retractable gangways as defined in Leaflet 561.

2.5.2 - The interconnecting doors must conform with Leaflet 560.

* 2.6 - Entrance steps

See Leaflet 560, Points 4.1, 4.2 and 4.3.

* 2.7 - Entrance doors, compartment doors, corridor doors, WC doors, compartment and corridor windows, WC and vestibule windows

See Leaflets 560 and 564-1: entrance doors of standard type Z coaches must be designed in the form of folding hinged doors or sliding plug doors.

* 2.8 - Handrails and steps for service purposes

Implementation in accordance with Leaflet 560.

- to avoid binding with sharp edges,
- to design textile covers so that they can be removed with a few hand movements without tools.

* 2.9.3.8 - A number plate must be affixed above each seat.

2.9.3.9 - Additional conditions for head rest covers.

* 2.9.3.9.1 - They must cover the whole surface, on which the head rests.

2.9.3.9.2 - The following materials are recommended :

- textile, removable and washable,
- throw-away non-woven fibre material.

* 2.9.4.1 - Each compartment must be provided with :

- luggage racks (in accordance with Leaflet 562),
- mirrors (in accordance with Leaflet 564-1),
- cane and umbrella holders,
- reading lamps in 1st class accommodation,
- coat hooks,
- 2 folding table-tops beneath the compartment window,
- a removable or tip-over litter bin as set out in Leaflet 563.

2.9.4.2 - It is recommended that reading lamps should also be provided in 2nd class accommodation.

* 2.9.5 - The walls must be covered with protective strips above the luggage racks.

2.9.6 - Compartment window furnishings.

* 2.9.6.1 - The compartment windows must be provided either with:

- 2 sliding curtains which, when closed, overlap sufficiently to prevent the penetration of light. They must be made of colour-fast, shrink-proof and tear-resistant material. They must be easy to remove without tools,
- or roller or Venitian blinds, or similar equipment.

These must consist of a material, which is easy to clean, colour-fast and tear-resistant. Their design must permit easy cleaning of both sides.

2.9.6.2 - Marking of the sliding curtains with the vehicle type is recommended.

2.9.6.3 - Roller or Venitian blinds and similar equipment shall conform with Leaflet 564-2.

* 2.9.7 - The glazed part of the partition separating the compartments from the corridor must be provided with 2 sliding curtains or similar equipment.

These curtains shall conform with the provisions of Point 2.9.6.1.

2.9.7.1 - It is recommended that the overlap of these curtains should be in front of the door handle and this door should be provided with a device causing the curtain to open together with the door.

2.9.8 - It is recommended that a horizontal protective bar be placed in front of windows with a fixed frame and toughened glass.

* 2.9.8.1 - This bar must not obstruct the emergency exit.

2.9.9 - Tables and table-tops.

2.9.9.1 - The provision of fold-down table-tops or small shelves for passengers on the corridor side is recommended.

* 2.9.9.2 - The tables and table-tops must have a smooth surface, which is colour-fast, resistant against drinks, crayons, scratches and approved cleaning agents, etc.

The table profile and any surround must be designed so that no dirt can accumulate at the edges.

* 2.9.9.3 - Table legs must be of the fold-away type.

* 2.9.10 - The emergency brake, lighting and loudspeaker switches and ventilation controls, if any, together with the relevant inscriptions or pictograms shall be placed over the door.

* 2.9.11 - The compartment markings must indicate the compartment class, whether "Smoking" or "Non-smoking" as well as the number.

* 2.9.12 - If provided, bottle holders shall be arranged to be near the tables so that no liquid can drop on to the seat upholstery.

* 2.9.13 - Picture frames shall be designed so that after cleaning no trace of running or moisture remains on the picture.

Areas adjoining the frame must be easily accessible.

2.9.14 - Parts attached to the walls such as switches, hooks, signs, etc.

* 2.9.14.1 - They must be resistant against approved cleaning agents and easy to wipe clean.

2.9.14.2 - It is recommended that these parts be attached so that no dirt can accumulate especially at transitions to the base surface.

2.10 - Fittings in the side corridor

* 2.10.1 - The side corridor must be provided with :

- folding seats in 2nd class,
- a longitudinal luggage rack placed along the top of the partition separating the corridor from the compartments,
- an ashtray in accordance with Leaflet 563 placed on the wall opposite each compartment. ~~It must protrude from the wall as little as possible.~~

2.10.2 - It is recommended that a horizontal protective bar be placed in front of windows with a fixed frame and toughened glass.

* 2.10.2.1 - This bar must not obstruct the emergency exit.

* 2.10.3 - Each compartment side wall must be marked to show the class and "Smoking" or "Non-smoking" assignment.

* 2.11 - **Fittings in entrances and vestibules**

2.11.1 - Implementation in accordance with Leaflet 567-1, Point 2.11.

2.11.2 - The introduction of additional comfort amenities on international trains shall be based on bi- or multi-lateral agreements.

2.11.3 - The space reserved for various facilities in coaches and marked "M" in Plates IIIa, IIIb, IVa and IVb may be used as :

space for perambulators, wheel chairs, cumbersome luggage (e.g. ski-holders)

or for :

additional comfort amenities, such as pay phones on train, ticket dating machine, vending machine for food and drinks, dish heaters, folding seats.

* 2.12 - **Fittings in washrooms and WCs**

2.12.1 - Implementation in accordance with Leaflet 563.

2.12.2 - Each WC must be fitted with an electric socket in accordance with Leaflet 563.

* 2.13 - **Exterior coach surfaces**

Implementation in accordance with Leaflet 567-1.

2.14 - **Acoustic and thermal body insulation**

Implementation in accordance with Leaflet 567-1, Point 2.15.

2.15 - **Interior partitions and wall coverings**

* 2.15.1 - The wall coverings on partitions and WC doors must comply with Leaflet 563.

* 2.15.2 - The thickness of the partitions separating the compartments, including their coverings, should be approximately 20 mm. They must provide good acoustic insulation between the individual compartments.

* 2.15.3 - The partition separating the compartments and the corridor should be approx. 20 mm thick. Its upper part shall be provided with fixed glazing. Its lower part shall be provided with ventilation grilles to permit air to circulate between the compartments and the side corridor. The ventilation grille must be easy to clean, easy to remove and resistant to approved cleaning agents.

2.15.4 - Interior wall and door coverings

* 2.15.4.1 - They must comply with the following requirements for easy cleaning :

- surfaces smooth, or with a large dimensional pattern, or with a vertical pattern,
- colour-fast, water-proof, resistant to cleaning agents, scratching and, in the lower parts, to impacts (e.g. : laminates in accordance with Leaflet 844-4),
- elastomers or soft synthetic materials (except strips covering joints and profile strips) must not be used,
- the side wall adjoining the corridor and the doors should be glazed only in easily accessible areas.

2.15.4.2 - It is recommended that the lower guide track of the compartment doors be interrupted on a length of approx. 350 mm and not to use lower guide tracks set into the floor.

* 2.16 - Floors and floor coverings

* 2.16.1 - Except in the WCs, the floor should be constructed of :

- water-proof plywood with a thickness of at least 15 mm or a material of similar quality ;
- a water-tight covering, which is easy to clean, resistant to approved cleaning agents, scratching and slipping. The decorative pattern shall be of a somber colour, which does not show up dirt.

If the decorative pattern includes raised buttons, they must be rounded off so that not dirt ridges can form.

If the transition between floor and wall is rounded, its radius must be at least 30 mm.

Carpeting must :

- be made of a heavy shrink-resistant and dirt repellent quality,
- facilitate vacuum, spray/extraction cleaning and stain removal by approved cleaning agents :
 - detachable carpeting in corridors must be easy to remove,
 - accumulation of water or dust under glued down carpeting must not be possible.

2.16.2 - The choice of a decorative pattern, which does not suffer under the influence of dirt, is recommended for floor covering and carpeting.

2.16.3 - Fixed laying of carpeting is recommended in order to prevent accidents.

2.16.4 - Boot scrapers :

It is recommended to avoid the use of mats.

If the use of mats cannot be avoided, they should be laid in a tray, from which they can be removed easily (small mats).

The mat should be made of a wear resistant material, from which fluff and dirt can be removed easily.

It is recommended that the tray be provided with a drainage facility.

*** 2.17 - Ceiling**

The following requirements must be fulfilled :

- the surface must be smooth or covered with a large dimensioned pattern which can be easily dried,
- covering to be colour-fast, water-proof, resistant to approved cleaning agents and scratching and, in the luggage rack area, to impacts.

2.18 - Installation of electric plugs for cleaning equipment

See Leaflet 567-1, Point 2.16.4.

2.19 - Lighting

The provisions of Leaflet 555 shall apply.

2.20 - Air-conditioning and heating

* 2.20.1 - Unless otherwise required, the air-conditioning installations of Z₁-type coaches and the air-heating systems of Z₂-type coaches shall comply with the provisions of Leaflet 553, especially Appendix 1.

2.20.2 - It is recommended that air-conditioning also be provided in WCs and vestibules.

* 2.20.3 - The heater guards must fulfil the following requirements :

- edges must be rounded,
- coverings must be provided, which are resistant to :
 - impacts, scratching, footwear marks,
 - discolouring,
 - approved cleaning agents,
- easy to wipe clean even when constructed in the form of ribs.

If a space between the bottom of the air-conditioning duct and the floor is unavoidable, it must be at least 100 mm high.

2.20.4 - It is recommended that :

- the upper sides of heating ducts be inclined in order to prevent empty packaging to settle on it,
- the metal surfaces of the heater guards and ducts should not be polished.

*** 2.21 - Heating of wash water**

Implementation in accordance with Leaflet 563.

3 - Special provisions for 2nd class couchette coaches

* 3.1 - Contrary to Point 0.1 of this leaflet, 2nd class couchette coaches must be designed for a maximum speed of 160 km/h.

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* 3.1.1 - Bogies of air-conditioned couchette coaches must be designed so that they can be adapted at minimum cost for running at a maximum speed of 200 km/h.

3.2 - General

See Leaflet 567-1, Point 6.1.

3.3 - Number of washrooms

* 3.3.1 - Generally, couchette coaches shall be provided with 3 washrooms.

3.3.2 - Couchette coaches with air-conditioning may be provided with only 2 washrooms.

3.4 - Plan view

* 3.4.1 - The plan view shown on Plate II, Fig. 1, applies to coaches with 3 washrooms.

* 3.4.2 - The plan view shown on Plate II, Fig. 2, applies to coaches with 2 washrooms.

3.4.3 - Couchette coaches with 2 washrooms may have one washroom at each coach end.

3.5 - Compartment fittings

* 3.5.1 - Each 2nd class couchette coach compartment must be provided with 6 seats in the day arrangement and 6 couchettes in the night arrangement.

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* 3.5.1.1 - In the night arrangement the couchette must provide a minimum length of 1900 mm for the reclining passenger.

3.5.2 - A design offering a choice of 4 or 6 couchettes per compartment may be adopted.

3.5.3 - The provisions of Points 2.9.3.3 and 2.9.3.3.1 of this leaflet shall not apply to couchette coaches.

3.5.4 - The recommendation set out in Point 2.9.3.5 for the incorporation of ashtrays in the arm rests of "Smoker" compartments shall not apply to couchette coaches.

3.5.5 - The luggage racks specified in Point 2.9.4.1 in accordance with Leaflet 562 shall be fitted in couchette coaches in a simplified form.

Neither cane and umbrella holders nor mirrors shall be provided (in accordance with Leaflet 564-1).

3.5.6 - Slide tracks for the storage of suitcases may be provided under the seats (Protection tracks).

3.6 - The provision of insulating floor covering to attenuate footstep noise is recommended in compartments and side corridors.

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3.7 - Fittings in the side corridor

* 3.7.1 - Point 2.10 shall apply, except for the provisions regarding folding seats and luggage racks.

3.7.2 - It is recommended that a folding seat per compartment be provided in the side corridor.

* 3.7.3 - In addition, the following fittings must be provided in the side corridor :

- 4 electric sockets for razors,
- at least 4 mirrors.

4 - Special provisions for day coaches with centre aisle

The provisions of this leaflet shall apply, except for the following :

2.6, 2.9.1, 2.9.3.1, 2.9.3.3, 2.9.3.3.1, 2.9.3.6, 2.9.3.6.1, 2.9.3.6.2, 2.9.4.1, 2.9.5, 2.9.7, 2.9.7.1, 2.9.9.1, 2.9.10, 2.9.11, 2.10, 2.11, 2.15.2, 2.15.3 and 3.

The provisions mentioned below apply only to 1st and 2nd class day coaches with centre aisle.

*** 4.1 - Interior coach fittings**

The coach fittings must conform with one of the plan views shown on Plates IIIa, IIIb, IVa and IVb.

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4.2 - Provisions common to 1st class and 2nd class coaches

* 4.2.1 - Provision of air-conditioned coaches with hinged fanlights, which are locked with an RIC square socket key.

4.2.1.1 - Coaches running on normal lines :

- 4 on each coach side.

These are to be arranged :

* 4.2.1.1.1 - At each end of the coach at the first saloon window on each side of the coach and, in addition :

*** 4.2.1.1.2 - In the case of compound glass :**

On each side of the coach the windows of the face-to-face seat group in the middle of the coach.

Implementation examples are shown on Plates IIIa and IVa.

In the case of hardened glass :

On both coach sides one window each before and behind the partition between the two saloons.

Implementation examples of this variant are shown on Plates IIIb and IVb.

4.2.1.2 - Pressure-tight coaches running on high speed traffic tunnel lines :

At least one window at each saloon end (one on each coach side), i.e. 4 hinged fanlights per coach.

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4.2.2 - Seats

4.2.2.1 - It is recommended that seats be designed so that the slope of the seat back rest can be adjusted.

4.2.2.2 - Each seat must be provided with a head rest.

4.2.2.2.1 - The head rest may form an integral part of the back rest.

4.2.3 - Open saloon doors, doors between coaches

* **4.2.3.1** - The entrance doors of open saloons must have one or two leaves and must leave a clear passage way of at least 700 mm in width.

4.2.3.1.1 - It is recommended that a wider clear passage way be provided in new coaches to be built.

4.2.3.1.2 - It is recommended that the operation of the open saloon entrance doors be automated.

4.2.3.2 - If the partition separating the open saloons is fitted with a door, it is recommended that the operation of this door be automated.

4.2.3.3 - See Leaflet 560, Point 5.2.2.

* **4.2.4 - Fittings in vestibules**

Implementation in accordance with Leaflet 567-1, Points 2.11.1, 2.11.2, 2.11.3 and 2.11.5.

* **4.2.4.1** - The vestibule end with the screw brake must also be equipped with a cupboard housing the air-conditioning and lighting control and monitoring facilities as well as, if provided, the wheel-slide protection equipment.

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4.2.4.2 - Coaches with a plan view corresponding either to Plate IIIb or Plate IVb may be arranged so that the cupboard with the lighting and air-conditioning control and monitoring equipment and the spare parts cupboard are grouped together.

4.2.5 - Entrance steps

* **4.2.5.1** - The entrance steps of coaches must comply with the conditions of Leaflet 567-1, Point 2.6.

4.2.5.2 - In derogation from provisions 2.6.2 and 2.6.3 of Leaflet 567-1 the entrance steps of coaches built in accordance with Plate IIIb or Plate IVb may be designed with 3 fixed levels spaced apart as uniformly as possible, provided that the vestibule height above rail top is less than 1160 mm.

* **4.2.5.2.1** - In this case, the entrance steps must have a uniform slope of less than 55° in relation to the horizontal, measured at the edge of the steps. The minimum step depth must be 200 mm and the maximum distance between steps must be 270 mm.

4.2.6 - Lighting

The provisions for lighting in coaches with side corridor apply analogously.

4.3 - Special provisions for 1st class coaches

* **4.3.1** - 1st class coaches with centre aisle shall be provided with 58 seats arranged in 3-seat rows.

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4.3.1.1 - The distribution of seats in open saloons for "Smokers" and "Non-smokers" may vary as follows :

— 20 to 23 smokers as compared with 35 to 38 non-smokers.

4.4 - Special provisions for 2nd class coaches

* 4.4.1 - 2nd class coaches with centre aisle shall be provided with 80 seats arranged in rows with 2 seats on each side of the centre aisle.

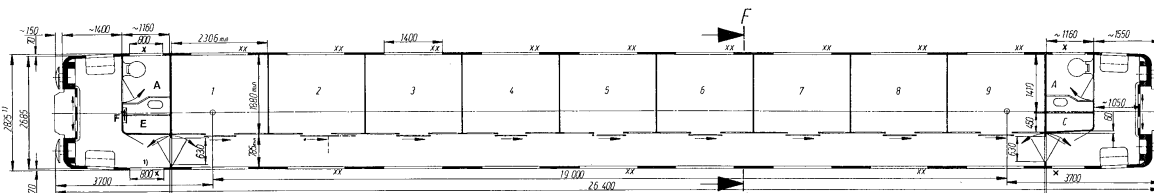
4.4.1.1 - The distribution of seats in open saloons for "Smokers" and "Non-smokers" may vary as follows :

— 28 to 32 smokers as compared with 52 to 48 non-smokers.

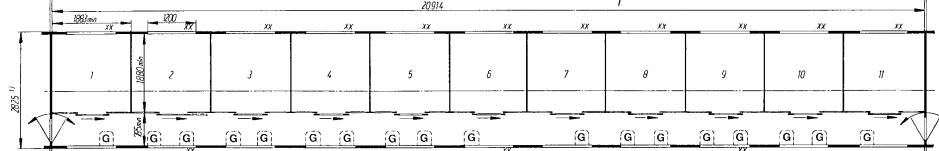
Day
Voiture à places assises - Sitzwagen - Seating coach

Voiture de 1re classe
1. Klasse-Wagen
1st class coach

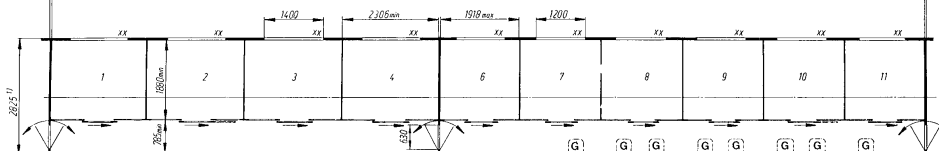
1) Hors tîles
über Außenverkleidung
over external panelling



Voiture de 2e classe
2. Klasse-Wagen
2nd class coach



Voiture de 1re et 2e classe
Wagen 1. und 2. Klasse
1st and 2nd class coach

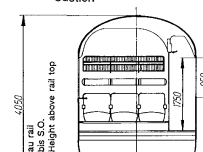


X = Type Z1 - Fenêtre fixe avec imposte basculante b)
XX = Type Z1 - Fenêtre fixe avec imposte basculante et, le cas échéant, avec sortie de secours éventuelle b)

X = bei Bauart Z1 - festes Fenster mit Klappfenster b)
XX = bei Bauart Z1 - festes Fenster mit Klappfenster und eventuell mit Notausstieg b)

X = on type Z1 - fixed window with pivot-hung panel b)
XX = on type Z1 - fixed window with pivot-hung panel and, possibly, emergency exit b)

Coupe
Schnitt
Section } F - F



N° du compartiment Nr. des Abteils Compartment no.	1	2	3	4	5	6	7	8	9	10	11
49	○	○	○	○	○	○	○	○	○	○	○
50	○	○	○	○	○	○	○	○	○	○	○
51	●	●	●	●	●	●	●	●	●	●	●

○ = Non-fumeur - Nichtraucher - Non-smoker
● = Fumeur - Raucher - Smoker

- A - WC
- C - Armoire de l'appareillage électrique
Schaltkasten
Switch cabinet
- E - Armoire des pièces de rechange
Schrank für Ersatzteile
Spare-parts locker
- F - Frein à vis
Handbremse
Hand brake
- G - Strapontin
Klappstuhl
Folding seat

a) Réparation obligatoire pour toutes les voitures à partir du 01.01.90.

Eintellung verbindlich für alle Wagen ab 01.01.90.
Mandatory distribution for all coaches as from 1.1.90.

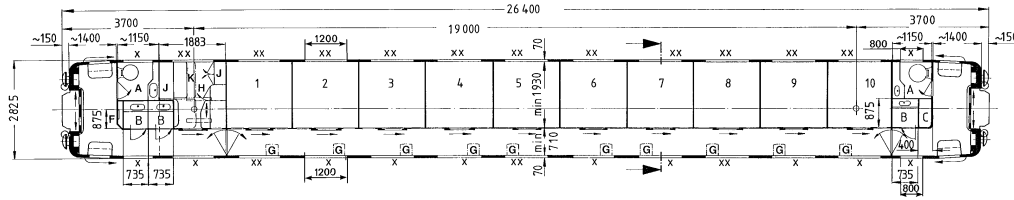
b) La désignation des fenêtres fixes à imposte basculante est valable pour les voitures qui ne sont pas utilisées sur les lignes à grande vitesse.

Die Kennzeichnung der festen Fenster mit Klappfenster gilt für Wagen, die nicht auf Strecken für den Schnellverkehr eingesetzt werden.

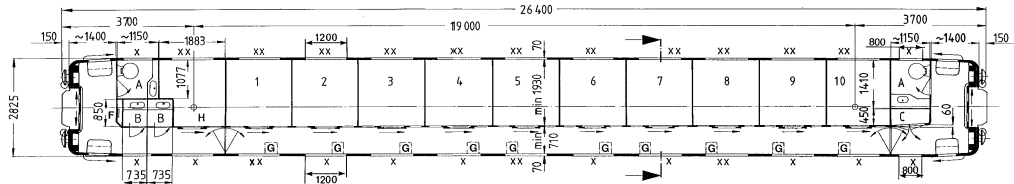
The indication of fixed windows with pivot-hung panel is valid for coaches that are not worked on high-speed lines.

Voiture-couchettes 2e classe, Liegewagen 2. Klasse, 2nd class couchette coach

1) Voiture-couchettes avec 3 toilettes - 1) Liegewagen mit 3 Waschräumen - 1) Couchette coach with 3 washrooms



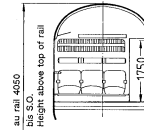
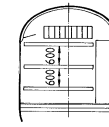
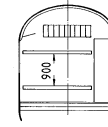
2) Voiture - couchettes avec 2 toilettes - 2) Liegewagen mit 2 Waschräumen - 2) Couchette coach with 2 washrooms



X = type Z1 - Fenêtre fixe avec imposte basculante a)
XX = type Z1 - Fenêtre fixe avec imposte basculante et, le cas échéant, avec sortie de secours éventuelle b)

X = bei Bauart Z1 - festes Fenster mit Klappfenster a)
XX = bei Bauart Z1 - festes Fenster mit Klappfenster und eventuell mit Notausstieg b)

X = on type Z1 - fixed window with pivot-hung panel a)
XX = on type Z1 - fixed window with pivot-hung panel and, possibly, emergency exit b)



N° du compartiment Nr. des Abteile Compartment No	1	2	3	4	5	6	7	8	9	10
position jour Tagstellung day position	o	o	o	o	o	o	o	o	o	o
position nuit Nachtstellung night position	o	o	o	o	o	o	o	o	o	o

o = Non-fumeur - Nichtraucher - Non-smoker
● = Fumeur - Raucher - Smoker

- A - WC
- B - Toilette
Waschraum
Washroom
- C - Armoire d'appareillage électrique
Schaltkasten
Switch cabinet
- F - Frein à vis
Handbrake
Hand brake
- G - Strapontin
Raspitz
Facing Seat
- H - Compartiment de service
Bepflichterabteil
Attendant's compartment
- J - Armoire à linge
Schrank für Wäsche
Linen cupboard
- X - Couchette retrayable (en 2 pièces)
Verschiebbare Liege (zweiteilig)
Pull-out berth (two-piece)

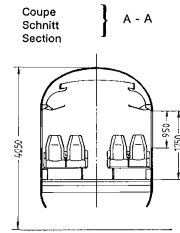
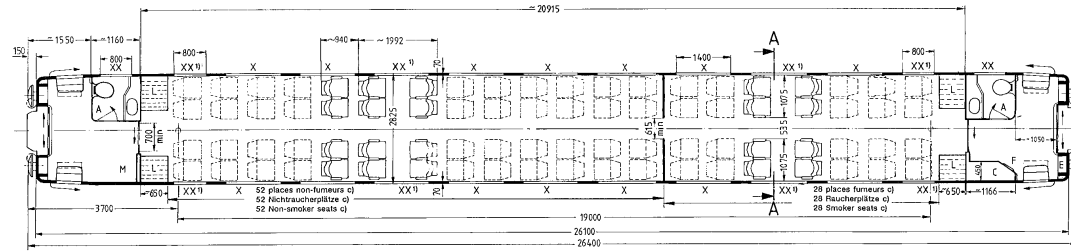
a) Répartition obligatoire pour toutes les voitures à partir du 01-01-90.
Einkellung verbindlich für alle Wagen ab 01.01.90.
Mandatory distribution for all coaches as from 1.1.90.

b) La désignation des fenêtres fixes à imposte basculante est valable pour les voitures qui ne sont pas utilisées sur les lignes à grande vitesse.
Die Kennzeichnung der festen Fenster mit Klappfenster gilt für Wagen, die nicht auf Strecken für den Schienenverkehr eingesetzt werden.
The indication of fixed windows with pivot-hung panel is valid for coaches that are not worked on high-speed lines.

Voiture à places assises de 2e classe avec couloir central (type unifié Z)
Sitzwagen 2. Klasse mit Mittelgang (Einheitsbauart Z)
2nd class : 2nd class day coach with centre-aisle
 (Standard - type Z)

- 39 -

5 6 7 - 2
 PLANCHE IIIa
 TAFEL IIIa
 PLATE IIIa



X = fenêtre fixe
 XX = fenêtre fixe avec imposte basculante et, le cas échéant, avec sortie de secours éventuelle 1)
 X = festes Fenster
 XX = festes Fenster mit Klappfenster und eventuell mit Notausstieg 1)
 X = fixed window
 XX = fixed window with pivoting panel and, possibly, emergency exit 1)

La construction de la voiture doit prévoir, pour les deux salles, au total 10 ou 11 fenêtres de chaque côté.

Der Wagen ist so zu bauen, daß beide Großräume zusammen auf jeder Wagenseite 10 oder 11 Fenster besitzen.

The coach is to be designed so that both open compartments combined have 10 or 11 windows on each side.

Affectation des places aux fumeurs et aux non-fumeurs :

Aufteilung der Nichtraucher- und Raucherabteile :

Layout of Non-smoker and Smoker compartments :

Non-fumeurs : 52 places a)	Fumeurs : 28 places b)	} c)
Nichtraucher : 52 Plätze a)	Raucher : 28 Plätze b)	
Non-smoker : 52 Seats a)	Smoker : 28 Seats b)	

A - WC

C - Armoire de l'appareillage électrique
 Schaltschrank
 Switch cabinet

E - Armoire des pièces de rechange
 Schrank für Ersatzteile
 Spare-parts locker

F - Frein à vis
 Handbremse
 Hand brake

L - Case à bagages
 Gepäckablage
 Luggage rack

M - Emplacement réservé à des installations diverses éventuelles
 Stellfläche
 Storage space

a) pour les voitures à couloir central et disposition des sièges en vis-à-vis : 48 places
 Für Großraumwagen mit Vis-à-vis-Bestuhlung : 48 Sitze
 For centre-aisle coaches with facing seats: 48 seats

b) pour les voitures à couloir central et disposition des sièges en vis-à-vis : 32 places
 Für Großraumwagen mit Vis-à-vis-Bestuhlung : 32 Sitze
 For centre-aisle coaches with facing seats: 32 seats

c) Répartition obligatoire pour les voitures construites à partir du 01.01.90.
 Répartition recommandée pour les voitures existant avant le 01.01.90.
 Einteilung verbindlich für Wagen, die ab 01.01.90, gebaut werden.
 Einteilung empfehlend für vor dem 01.01.90, existierende Wagen.
 Mandatory distribution for coaches built from 1.1.90.
 Recommended distribution for coaches built before 1.1.90.

1) La désignation des fenêtres fixes à imposte basculante est valable pour les voitures ne circulant pas sur les lignes à grande vitesse (conformément point 4.2.1.1).
 Le point 4.2.1.2 s'applique aux voitures circulant sur les lignes à grande vitesse (non représentées dans cette planche).

Die Kennzeichnung der festes Fenster mit Klappfenster gilt für Wagen, die nicht auf Strecken für den Schnellverkehr eingesetzt werden (s. Ziffer 4.2.1.1).

Für Wagen, die auf Strecken für den Schnellverkehr eingesetzt werden, gilt Ziffer 4.2.1.2 (in dieser Tafel nicht dargestellt).

The indication of fixed windows with pivoting panel is valid for coaches that are not worked on high-speed lines (as per point 4.2.1.1).

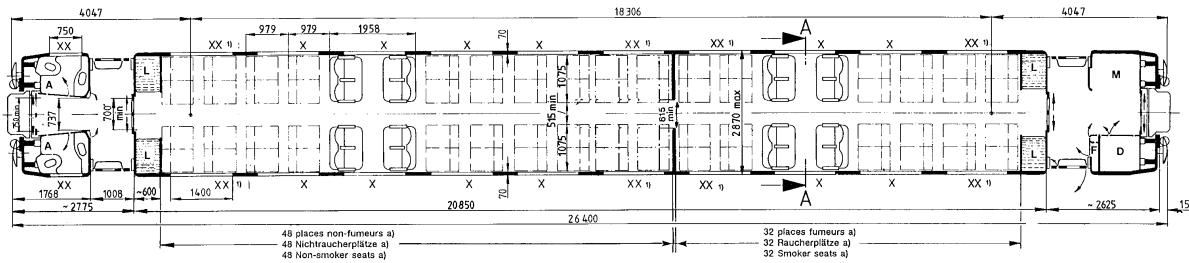
Point 4.2.1.2 applies to coaches worked on high speed-lines (not depicted on this plate).

01.01.90

Voiture à places assises de 2e classe avec couloir central (type unifié VTU)
Sitzwagen 2. Klasse mit Mittelgang (Einheitsbauart VTU)
 2nd class day coach with centre-aisle (Standard-type VTU)

- 41 -

5 6 7 - 2
 PLANCHE IIIb
 TAFEL IIIb
 PLATE IIIb



X = fenêtre fixe
 XX = fenêtre fixe avec imposte basculante et, le cas échéant, avec sortie de secours éventuelle 1)
 (Sortie de secours spéciale uniquement en cas de vitrage en verre feuilleté; conformément à la fiche n° 564-1 points 5 et 6)

X = festes Fenster
 XX = festes Fenster mit Klappfenster und eventuell mit Notausstieg 1)
 (Besonderer Notausstieg nur bei Fensterscheiben aus Verbundglas; siehe Merkblatt Nr. 564-1, Ziffern 5 und 6)

X = fixed window
 XX = fixed window with pivot-hung panel and, possibly, emergency exit 1)
 (Special emergency exit only if compound glass used; as per Leaflet 564-1, points 5 and 6)

Affectation des places aux fumeurs et aux non-fumeurs :

Zuteilung der Nichtraucher- und Raucherplätze:

Layout on Non-smoker and Smoker compartments:

Non-fumeurs : 48 places a)	Fumeurs : 32 places a)
Nichtraucher : 48 Plätze a)	Raucher : 32 Plätze a)
Non-smoker : 48 Seats a)	Smoker : 32 Seats a)

A - WC

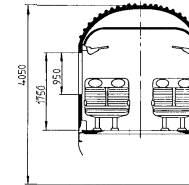
D - Armoire de l'appareillage électrique, armoire de pièces de rechange
 Schaltschrank, Schrank für Ersatzteile
 Switch cabinet, spare-parts locker

F - Frein à vis
 Handbrake

L - Case à bagages
 Gepäckablage
 Luggage rack

M - Emplacement réservé à des installations diverses éventuelles
 Stellfläche
 Storage space

Coupe
 Schnitt
 Section } A - A



a) Répartition obligatoire pour les voitures construites à partir du 01.01.90.

Répartition recommandée pour les voitures existant avant le 01.01.90.

Einteilung verbindlich für Wagen, die ab 01.01.90 gebaut werden.

Einteilung empfehlend für vor dem 01.01.90 existierende Wagen.

Mandatory distribution for coaches built from 1.1.90.

Recommended distribution for coaches built before 1.1.90.

1) La désignation des fenêtres fixes à imposte rabattable s'applique aux voitures ne circulant pas sur les lignes à grande vitesse (conformément point 4.2.1.1).

Le point 4.2.1.2 s'applique aux voitures circulant sur les lignes à grande vitesse (non représentées dans cette planche).

Die Kennzeichnung der festen Fenster mit Klappfenster gilt für Wagen, die nicht auf Strecken für den Schnellverkehr eingesetzt werden (s. Ziffer 4.2.1.1).

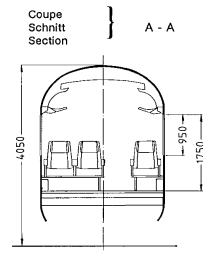
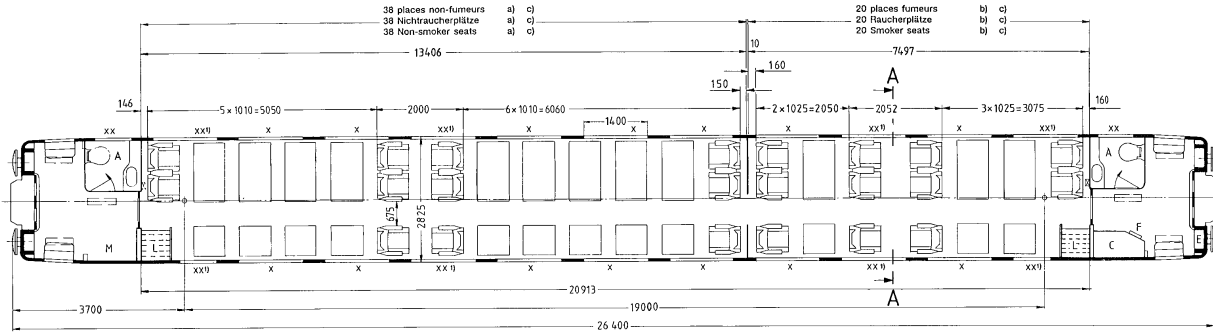
Für Wagen, die auf Strecken für den Schnellverkehr eingesetzt werden, gilt Ziffer 4.2.1.2 (in dieser Tafel nicht dargestellt).

The indication of fixed windows with hinged panel is valid for coaches that are not worked on high-speed lines (as per point 4.2.1.1).

Point 4.2.1.2 applies to coaches worked on high speed lines (not depicted on this plate).

01.01.90

Voiture à places assises de 1re classe avec couloir central (type unifié Z)
Sitzwagen 1. Klasse mit Mittelgang (Einheitsbauart Z)
1st class day coach with centre-aisle (Standard - type Z)



X = fenêtre fixe
XX = fenêtre fixe avec imposte basculante et, le cas échéant, avec sortie de secours éventuelle 1)
X = festes Fenster
XX = festes Fenster mit Klappfenster und eventuell mit Notausstieg 1)
X = fixed window
XX = fixed window with pivot-hung panel and, possibly, emergency exit 1)

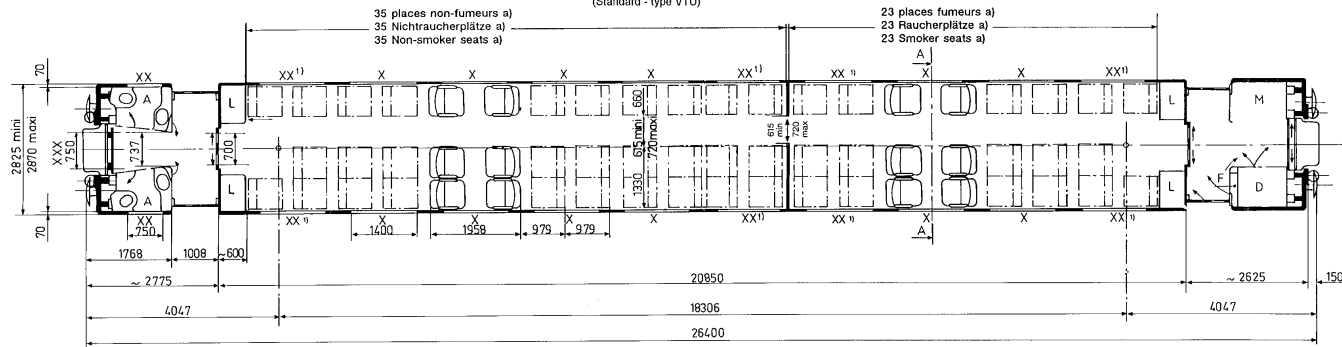
La construction de la voiture doit prévoir, pour les deux saisis, au total de 10 ou 11 fenêtres de chaque côté.
Der Wagen ist so zu bauen, daß beide Großräume zusammen auf jeder Wagen-seite 10 oder 11 Fenster besitzen.
The coach is to be designed so that both open compartments combined have 10 or 11 windows on each side.

A - WC
C - Armoire de l'appareillage électrique
Schaltschrank
Switch cabinet
E - Armoire des pièces de rechange
Schränk für Ersatzteile
Spare-parts locker
F - Frein à vis
Handbremse
Hand brake
L - Case à bagages
Gepäckablage
Luggage rack
M - Emplacement réservé à des installations diverses éventuelles
Spezialfläche
Storage space

a) Pour les voitures à couloir central et disposition des sièges en vis-à-vis : 35 places
Für Großraumwagen mit Vis-à-vis-Bestuhlung : 35 Sitze
For centre-aisle coaches with facing seats: 35 seats
b) Pour les voitures à couloir central et disposition des sièges en vis-à-vis : 23 places
Für Großraumwagen mit Vis-à-vis-Bestuhlung : 23 Sitze
For centre-aisle coaches with facing seats: 23 seats
c) Répartition obligatoire pour toutes les voitures.
Einteilung verbindlich für alle Wagen.
Mandatory distribution for coaches.

1) La désignation des fenêtres fixes à imposte rabattable s'applique aux voitures ne circulant pas sur les lignes à grande vitesse (conformément point 4.2.1.1).
Le point 4.2.1.2 s'applique aux voitures circulant sur les lignes à grande vitesse (non représentées sur la planche).
1) Die Kennzeichnung der festen Fenster mit Klappfenster gilt für Wagen, die nicht auf Strecken für den Schnellverkehr eingesetzt werden (s. Ziffer 4.2.1.1).
Für Wagen, die auf Strecken für den Schnellverkehr eingesetzt werden, gilt Ziffer 4.2.1.2 (in dieser Tafel nicht dargestellt).
1) The indication of fixed windows with hinged panel is valid for coaches that are not worked on high-speed lines (as per point 4.2.1.1).
Point 4.2.1.2 applies to coaches worked on high-speed-lines (not depicted on this plate).

Voiture à places assises de 1re classe avec couloir central (type unifié VTU)
Sitzwagen 1. Klasse mit Mittelgang (Einheitsbauart VTU)
 : 1st class day coach with centre-aisle (Standard-type VTU)



X = fenêtre fixe
 XX = fenêtre avec imposte basculante et, le cas échéant, avec sortie de secours éventuelle 1)
 (Sortie de secours spésialisée uniquement en cas de vitrage en verre feuilleté, conformément à la fiche n° 564-1 points 5 et 6.)

X = festes Fenster
 XX = Fenster mit Klappfenster und eventuell mit Notausstieg 1)
 (Besonderer Notausstieg nur bei Fensterscheiben aus Verbundglas; siehe Merkblatt Nr. 564-1, Ziffern 5 und 6)

X = fixed window
 XX = fixed window with pivot-hung panel and, possibly, emergency exit 1)
 (special emergency exit only if compound glass used; as per Leaflet 564-1, points 5 and 6.)

XXX = Cote admise en dérogation à la fiche N° 560 pour faciliter l'organisation des WC

XXX = Zulässiges Maß abweichend vom Merkblatt Nr. 560, um die Gestaltung der WC zu erleichtern

XXX = Permissible dimension deviating from Leaflet 560 to facilitate WC layout

Affectation des places aux fumeurs et aux non-fumeurs 1.
Aufteilung der Nichtraucher- und Raucherabteile:
Layout of Non-smoker and Smoker compartments:

Non-fumeurs : 35 places a) Fumeurs : 23 places a)
 Nichtraucher : 35 Plätze a) Raucher : 23 Plätze a)
 Non-smoker : 35 Seats a) Smoker : 23 Seats a)

Entre la salle "Fumeurs" et la salle "Non-fumeurs" est montée une cloison de séparation

Zwischen "Raucher-" und "Nichtraucher-" Abteilen ist eine Trennwand eingebaut

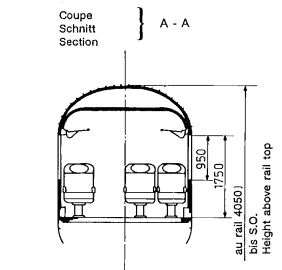
A partition shall separate "Smoker" and "Non-smoker" compartments

A - WC
 D - Armoire de l'appareillage électrique, armoire de pièces de rechange
 Schaltkasten, Schrank für Ersatzteile
 Switch cabinet, spare parts locker

F - Frein à vis
 Handbremse
 Hand brake

L - Case à bagages
 Gepäckablage
 Luggage rack

M - Emplacement réservé à des installations diverses éventuelles
 Stellfläche
 Storage space



1) Répartition obligatoire pour les voitures construites à partir du 01.01.90.
 Répartition recommandée par les voitures existant avant le 01.01.90.
 Einteilung verbindlich für Wagen, die ab 01.01.90 gebaut werden.
 Einteilung empfehlend für vor dem 01.01.90 existierende Wagen.
 Mandatory distribution for coaches built from 1.1.90.
 Recommended distribution for coaches built before 1.1.90.

1) La désignation des fenêtres fixes à imposte rabattable s'applique aux voitures ne circulant pas sur les lignes à grande vitesse (conformément point 4.2.1.1).

La point 4.2.1.2 s'applique aux voitures circulant sur les lignes à grande vitesse (non représentées dans cette planche).

1) Die Kennzeichnung der festen Fenster mit Klappfenstern gilt für Wagen, die nicht auf Strecken für den Schnellverkehr eingesetzt werden.

Für Wagen, die auf Strecken für den Schnellverkehr eingesetzt werden, gilt Ziffer 4.2.1.2 (in dieser Tafel nicht dargestellt).

1) The indication of fixed windows with hinged panel is valid for coaches that are not worked on high speed lines (as per point 4.2.1.1).

Point 4.2.1.2 applies to coaches worked on high speed lines (not depicted on this plate).

Application

As from 1st January 1978 for obligatory provisions, except:

- point 2.7 1.1.87
 - point 2.9.3.7.1
 - point 2.9.3.9.1
 - points 2.9.6.1, 2.9.6.2
 - point 2.9.9.2
 - points 2.9.12, 2.9.13, 2.9.14.1
 - point 2.10.1 (3rd indent)
- } 1.1.90
- point 2.11 1.1.83
 - points 2.15.1, 2.15.2, 2.15.3, 2.15.4.1
 - point 2.16.1
 - point 2.17.1
 - point 2.20.3
- } 1.1.90
- points 4.2.1, 4.2.1.1.1, 4.2.1.1.2, 4.2.1.2
 - plates I, II, IIIa, IIIb, IVa, IVb
 - plates I, II
- 1.1.89
1.1.90
1.1.94

All UIC railways.

An unlimited derogation with respect to point 2.3.3 is granted to FS and ÖBB.

Record references

Latest headings under which the subject has been examined:

- *Question 45/A/20C* - Standardisation of coaches.
(Joint Meeting of the "Operating" and "Traction and Rolling Stock Committee; Paris, October 1982).
- *Question 45/A/22C* - Rules concerning the fastening of construction parts in and on coaches.
(*"Traction and Rolling Stock"* Committee: Paris, October 1982)
- *Question 45/A/FIC* - Revision of Leaflets
15-4 Approval of the modifications of Leaflet 567-2.
(*"Traction and Rolling Stock"* Committee: Paris, June 1984)
- *Question additional to the programme* - 7.3 - Proportion of smoker/non-smoker accomodation in new coaches
(Joint Sub-Committee for Coaches: Paris, January 1987).
- *Question 45/A/FIC* - Revision of leaflets.
Point 12.1 - Reduction of the number of hinged fanlights for emergency ventilation in air-conditioned coaches.
(*"Traction and Rolling Stock"* Committee: Paris, June 1988)
- *Question 45/A/FIC* - Revision of leaflets.
(Joint Sub-Committee for Coaches: Paris, May 1989).
- *Question 45/A/FIC* - Revision of leaflets.
Items 17.5 and 17.6 - Approval of modifications and additions to Leaflet 567-2.
(*Traction and Rolling Stock Committee*: Paris, June 1990).
- *Question 45/A/20* - Standardisation of coaches.
(Sub-Committee for Coaches: Paris, June 1993).