



U I C CODE

Leaflet to be classified in Volume :

VI - TRACTION

617-4  
OR

1st edition, 1-1-63,

Brought up-to-date on

AND 1 1.01.82

**POSITION OF FRONT AND SIDE  
WINDOWS AND OF OTHER WINDOWS  
SITUATED IN THE DRIVING COMPARTMENTS  
OF ELECTRIC POWERED STOCK**

**NUMERISATION DANS  
L'ETAT DU DOCUMENT**

**1. Scope and obligatory character**

1.1. These regulations apply to locomotives, railcars and electric multiple unit trains, also to electric driving trailers.

1.2. These regulations are :

—of an *obligatory* nature for all new stock likely to be used on international services and specified under Item 1.1.

—of a *recommendatory* nature for all other stock.

(Reprint of 1.6.1982)

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**2. Purpose**

- 2.1. Front windows shall be regarded as those windows situated wholly or partly in external walls or doors positioned transversely to the running direction and used by the driver or second man for observing the track, the signals, and the front of the vehicle.
- 2.2. Side windows shall be regarded as those windows situated in the side walls or doors.
- 2.3. Other windows shall be regarded as all other windows to be found in driving compartments, particularly windows in internal doors, together with windows in equipment cupboards, lamps, measuring instruments, etc., in all cases where the area of such windows is more than 250 cm<sup>2</sup>.

**3. Material**

- 3.1. All windows in the three categories mentioned above must be made of safety glass, in order to provide protection for the staff, especially in the event of a collision or the projection of solid objects.
  - 3.1.1. Safety glass shall be regarded as the various kinds of glass, materials similar to glass, or combinations of the two latter, fragments of which would not normally be expected to cause serious injury. There must definitely be no fragments with bare sharp or cutting edges.
  - 3.1.2. In addition, the safety glass must satisfy all the acceptance conditions laid down by the Railways of the country where the stock was built, especially as regards the optical qualities, and resistance to piercing, bending, changes of temperature, bad weather, etc.
  - 3.1.3. Safety windows must bear a distinctive indelible sign.
- 3.2. A type of safety glass must be used for the front windows of driving compartments which will not disintegrate when pierced or cracked.

in different places, thus affording protection to the staff and ensuring sufficient visibility to continue running. This regulation also applies to the glass in window heaters (anti-moisture) where these are provided.

3.3. A type of safety glass must be used for the side windows of driving compartments which can be broken by a violent blow in an emergency.

#### 4. Dimensions

4.1. The dimensions of at least one of the front or side windows on each side of every driving compartment must be such that, in an emergency, the staff are able to escape from the compartment through a window after breaking the glass.

#### 5. Thickness

5.1. The front windows must be of sufficient thickness to prevent them from normally being pierced by solid objects, e.g. large icicles, birds, etc.

5.1.1. A minimum thickness of 6 mm is recommended for front windows.

### APPLICATION

With effect from 1 January 1963 for obligatory provisions (see point 1).

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The provisions of this leaflet are only valid for vehicles designed up to 31.12.85. In case of major transformation work on these vehicles, every effort must be made to apply the provisions of Leaflet 651. The provisions to be observed for vehicles designed as from 1.1.86 are those contained in Leaflet 651.

All Railways in the Union.

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### RECORD REFERENCES

Latest heading under which the question has been studied:

- Question 5/A/FIC - Revision of leaflets.  
(Traction and Rolling Stock Committee, Dublin, June 1985; Paris, June 1986 - Sub-Committee for Motive Power Units, Paris, January 1986, January 1987).