

3rd edition, March 2003

Translation

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Static loading diagrams to be taken into consideration for the design of rail carrying structures on lines used by international services

*Modèles de charge à prendre en considération dans le calcul des ouvrages sous rail sur les lignes
internationales*

Ruhende Lastbilder für die Berechnung der Tragwerke internationaler Strecken



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

Leaflet to be classified in Volume :

Chapter VII - Way and Works

Application :

With effect from 1 January 2003

All members of the International Union of Railways

Record of updates

1st edition, January 1967

First issue under the title: "Loading diagram for the calculation of rail carrying structures on lines used by international services"

2nd edition, January 1974

3rd edition, March 2003

Addition of the Load Model 2000
Retyped in FrameMaker
New lay-out

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

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Summary

UIC Leaflet 702 contains rules governing vertical static rail traffic loads (characteristic values) required for the calculation of rail structures on international lines.

Section 1 lists two load models, **Load Model 71** and **Load Model SW/O** which are obligatory for member railway companies.

Section two contains the recommended **Load Model 2000**, designed to take on board the future trend towards higher axle and metric loads (rail freight network).

Reference is made to the theoretical principles underpinning the load models in order to create a link with rolling stock and its load. The leaflet also specifies how the load models should be taken into account during calculations.

Other information required for the calculation of rail structures in connection with Load Models 71 and SW/O, such as effects (e.g. heavy haul, dynamic effects, centrifugal force, braking, starting, etc.) load combinations and γ and ψ values should be taken from *UIC Leaflet 776*.

Rules governing the permissible axle and metric loads in traffic are set out in *UIC Leaflet 700*.

1 - Load Models 71 and SW/0

1.1 - Rail carrying structures on international routes shall be designed to carry the vertical static loads shown in the following diagrams (the loads are nominal values that may be used as characteristic values with appropriate safety factors):

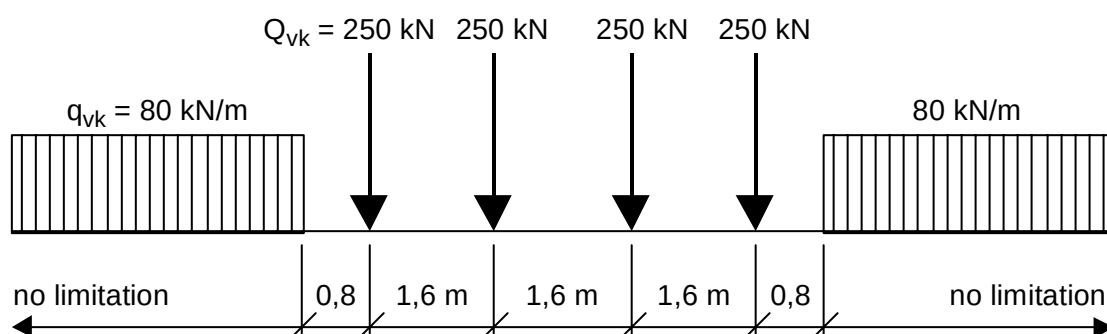


Fig. 1 - Load Model 71

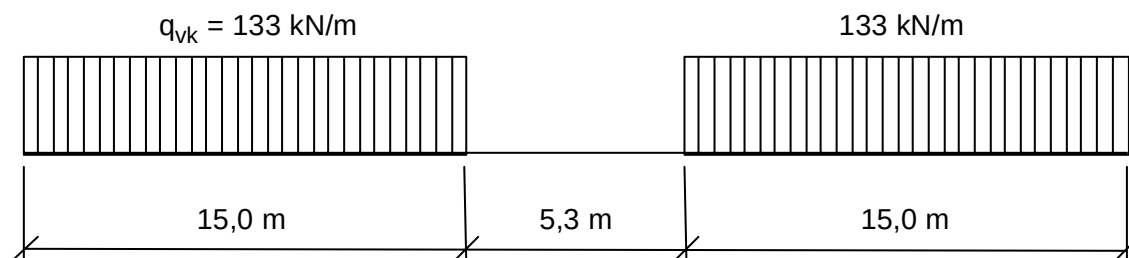


Fig. 2 - Load Model SW/0

1.2 - All continuous beams and similar constructions designed for Load Model 71 shall be checked additionally for Load Model SW/0.

1.3 - The loads shall be placed in the most unfavourable position for the part of the structure in question. Loads which produce a relieving effect shall be neglected.

1.4 - Rules for application see appendix A - page 5 and UIC Leaflet 776-1 (see Bibliography - page 10).

1.5 - Railway companies may use, if they consider this advisable for their internal traffic, heavier loading than LM71 and SW/0 on international lines, or lighter loading on other lines.

For international lines Load Models 71 and SW/0 (individual loads and loads per linear metre) may be classified by a factor 1,10 - 1,21 - 1,33 or 1,46.

For other lines Load Models 71 and SW/0 may be classified by a factor 0,75 - 0,83 or 0,91.