

*1 - To further the lifting operations in workshop when wagons are repaired or overhauled, as well as for re-railing operations after a derailment, wagons must be fitted, on each side, with at least two points at which they can be lifted in the empty or loaded condition. These lifting points must be identified:

- by marks as per Figure 1a of Appendix 1 (lifting without running gear (1));
- or - if the wagon structure so permits - by marks as per Figure 1b of Appendix 1 (lifting with running gear (1)).

Examples of application of these marks are given in Appendix 2.

2 - It is recommended that these lifting points be placed at a distance equal to or exceeding 1400 mm from the axle centre-line in order to allow for the existing installations for the replacement of axles in inspection pit. Figure 2a of Appendix 2 shows examples for the application of this recommendation.

*3 - For purposes of re-railing wagons should be provided with supporting points, level with the headstock and perpendicular to the buffer fixing plane, for lifting the loaded wagon (plus its running gear) (1) at one end. However, when constructional arrangements render this impossible, it shall be acceptable for wagons to be lifted from a point close to the headstock, at a maximum distance of 500 mm from the buffer fixing plane (for example in the case of container-carrying wagons fitted with long-stroke shock-absorbers).

Lifting points shall be marked in accordance with Appendix 1, Figure 1c. Marking examples are given in Appendix 2.

(1) Running gear shall be taken to mean:

- for 2-axle wagons: the axles;
- for bogie wagons: the bogies.

*4 - To allow for the installation of the lifting equipment, clearances must be provided beneath the lifting points. These free spaces must not be occupied by components which cannot easily be removed.

*4.1 - Clearances complying with Figure 3a of Appendix 3 shall be kept free beneath the lifting points marked as per Figures 1a and 1b of Appendix 1.

*4.2 - Clearances complying with Figures 3a and 3b of Appendix 3 shall be kept free beneath the lifting points marked as per Figure 1c of Appendix 1.

4.3 - Furthermore, as regards the lifting points marked as per Figure 1b of Appendix 1, it is recommended to provide the clearances complying with Figure 3b of Appendix 3.

MARQUES «POINT DE LEVAGE»
«LIFTING-POINT» MARKS
ZEICHEN «ANHEBESTELLE»

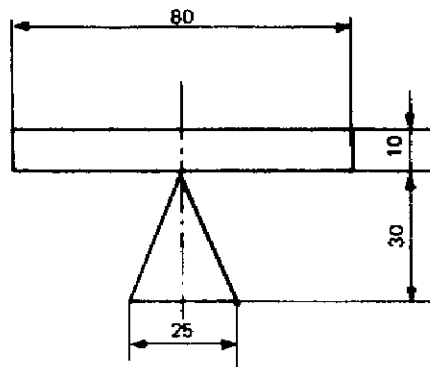


Fig. 1 a - Levage en atelier sans organes de roulement

Lifting without running gear in workshop

Anheben ohne Laufwerke in der Werkstatt.

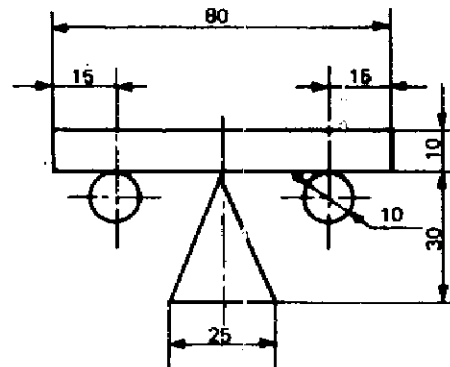


Fig. 1 b - Levage par 4 points avec ou sans organes de roulement

Lifting at 4 points with or without running gear

Anheben an 4 Punkten mit oder ohne Laufwerke.

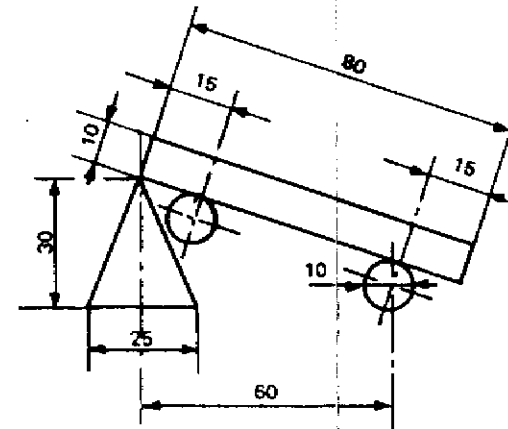


Fig. 1 c - Levage ou relevage avec ou sans organes de roulement par une seule extrémité ou à proximité de l'extrémité

Lifting with or without running gear at one headstock or close to the headstock for re-railing

Anheben mit oder ohne Laufwerke an einem Kopfstück oder in der Nähe des Kopfstückes zum Aufgleisen.

EXEMPLES D'APPLICATION

EXAMPLES OF APPLICATION

ANWENDUNGSBEISPIELE

- 7 -

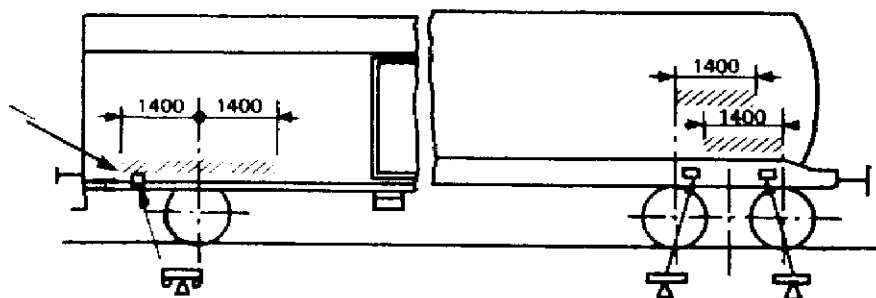


Fig. 2a - Wagons permettant le remplacement en fosse des essieux.
Wagon suitable for replacement of axles in inspection pit.
Wagen geeignet für das Behandeln auf Radsatzsenken.

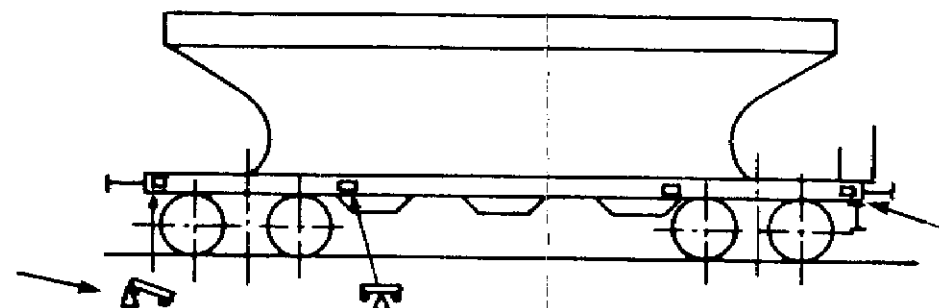


Fig. 2b - Wagon avec 8 points de levage aptes au relevage dont 4 se prêtent au levage en atelier.
Wagon with 8 re-railing points, 4 of which suitable for lifting in workshop.
Wagen bei dem 8 Anhebestellen für das Aufgleisen - davon 4 für das Anheben in der Werkstatt - geeignet sind.

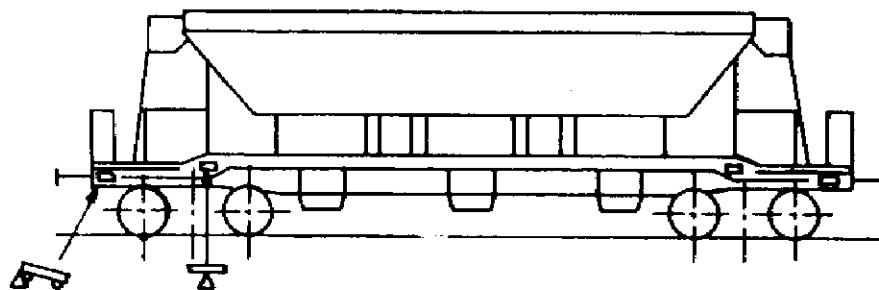


Fig. 2c - Wagons dont 4 points sont aptes au levage et 4 points au relevage par une extrémité.
Wagon with 4 lifting points and 4 re-railing points at one end.
Wagen bei dem 4 Anhebestellen für das Anheben ohne Laufwerke und 4 Anhebestellen für das Aufgleisen jeweils nur an einem Wagenende mit Laufwerken geeignet sind.

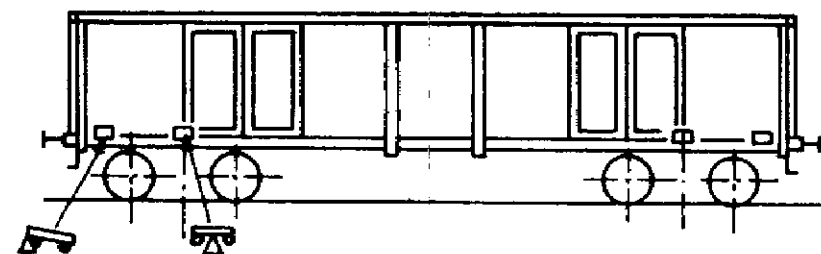


Fig. 2d - Wagon avec 8 points de levage aptes au relevage dont 4 se prêtent au levage en atelier.
Wagon with 8 re-railing points, 4 of which suitable for lifting in workshop.
Wagen bei dem 8 Anhebestellen für das Aufgleisen - davon 4 für das Anheben in der Werkstatt - geeignet sind.

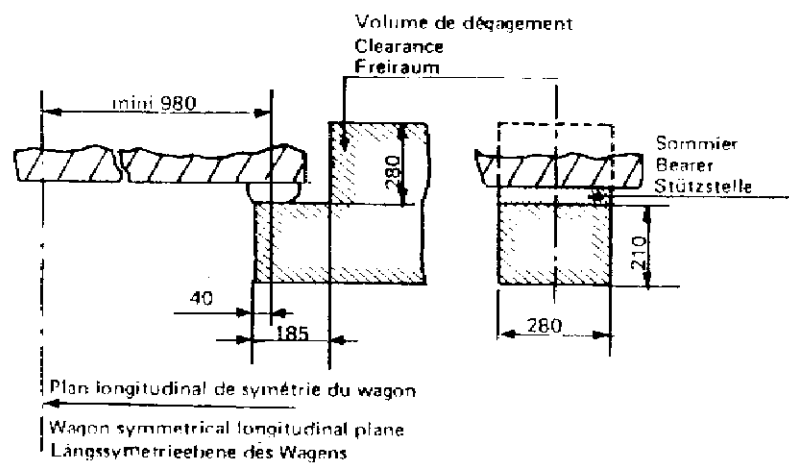
VOLUME DE DEGAGEMENT
CLEARANCE
FREIRAUM

Fig. 3a - Levage en atelier
Lifting in workshop
Anheben in der Werkstatt

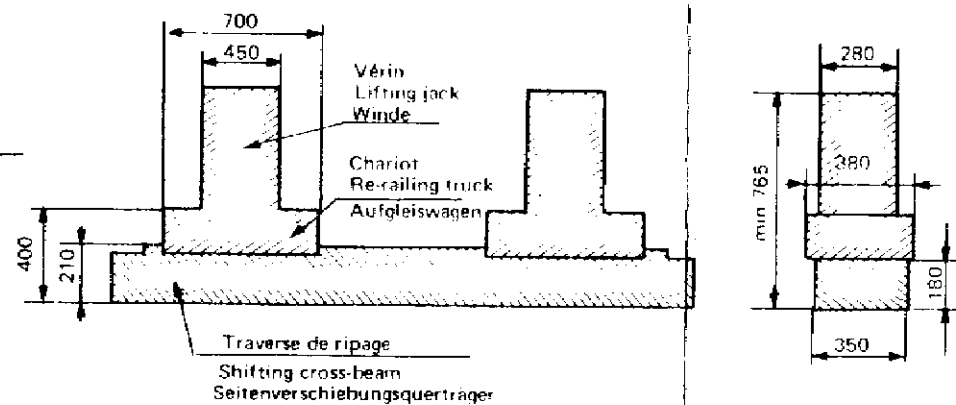


Fig. 3b - Relevage sur la voie
Re-railing
Aufgleisen

Application

With effect from 1 January 1983 for wagons to be built, except:

- Point 3..... 01-07-88

All UIC railways; a derogation is, however granted to the CFR until 31-12-83.

Record references

Headings under which the question has been examined:

- *Question 45/B/FIC - New leaflet 581 - Wagons - Lifting - Re-railing.*
(Traction and Rolling Stock Committee: Paris, October 1982).
- *Question 45/B/FIC - Modifications to Leaflet 581 - Wagons - Lifting - Re-railing.*
(Joint Sub-Committee for Wagons: Paris, January 1988).

1-7-88

1-7-88

APPLICATION

With effect from 1 January 1983 for the wagons to be built.

All Railways in the Union ; a derogation is, however, granted to the CFR until 31-12-83.

RECORD REFERENCES

Headings under which the question has been dealt with :

- Question 45/B/FIC - New leaflet 581 «Wagons - Lifting - Re-railing».*
(Traction and Rolling Stock Committee : Paris, October 1982).