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Translation

Procedures for air brake tests effected with a powered unit

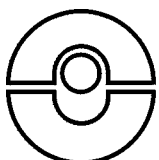
Provisions concerning international trains

*Modalité d'exécution des essais du frein à air comprimé effectués au moyen
d'un engin moteur*

Prescriptions concernant les trains en service international

Bremsproben von Druckluftbremsen mit Hilfe eines Triebfahrzeuges

Bestimmungen für Züge im internationalen Verkehr



*Union Internationale des Chemins de fer
Internationaler Eisenbahnverband
International Union of Railways*

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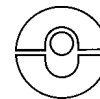
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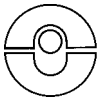
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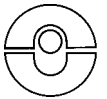
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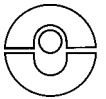
Summary

This leaflet describes the procedures for testing air brakes on international trains at frontiers.

The procedures for electropneumatic and electromagnetic brake tests are, until further notice, covered by bilateral agreements.

The text specifies the type of test to be carried out in the event of various changes being made to the train consist.

In addition to provisions stipulating how the tests are to be carried out, diagrams are provided illustrating the manual signals which the official in charge may use to convey the orders which must be given to the driver.



o 1 - Different types of brake tests

The air brake tests shall be of four types, as follows:

- Type A test: Complete test:

This test consists of checking the application and release of the brake on all the braked vehicles of a train.

- Type B test: Partial test:

This test consists of checking the application and release of the brake on all braked vehicles attached to a train.

- Type C test: Attachment test:

This test consists of checking the application and release of the brake on the first braked vehicle situated behind the point of attachment of the raft of a train (attaching or detaching of vehicles at the front or at one point in the body of the train, change of powered unit, etc.).

- Type D test: continuity test:

This test consists of checking the application and release of the brake of the last braked vehicle of a train.



2 - Cases when a brake test must be carried out and type of brake test to be effected

- 2.1. - Train which has just been completely formed in the formation yard:

Type A test (complete test).

However, when a type A brake test has already been effected by means of a fixed installation, within the last 24 hours (or within a lesser period fixed bilaterally between adjacent Railways) it shall be sufficient to carry out a type D test (continuity test), after attaching the powered unit at the front. The same shall apply in the case of two trains which have undergone the type A test and are joined together to form a single train.

- 2.2. - Attachment of one or more vehicles at the front or at one point in the body of the train:

Type B test (partial test) supplemented with a type C test (attachment test) or type D test (continuity test) provided this does not involve any loss of time.

- 2.3. - Attachment of vehicles at several points in the body of the train:

Type B test (partial test) supplemented with a type D (continuity test).

- 2.4. - Attachment of one or more vehicles behind the last vehicle of the train:

Type B test (partial test).

- 2.5. - Detachment of one or more vehicles at the front or at one point in the body of the train:

Type C test (attachment test) or type D test (continuity test), provided this does not involve any loss of time.

- 2.6. - Detachment of vehicles at several places in the body of the train:

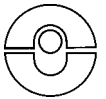
Type D test (continuity test).

- 2.7. - Re-use, by the terminal station of a train, of the same raft (passenger or freight), without modifying its composition to form another train:

Type D test (continuity test) provided that, on this raft, a type A test (complete test) is effected at least once every 24 hours or within a lesser period fixed bilaterally between adjacent Railways.

- 2.8. - Attachment to a train of one or more vehicles from another train, and provided that the brake was functioning satisfactorily on the vehicle(s) in question within 24 hours before their attachment, or within a lesser period fixed bilaterally between adjacent Railways:

- type C test (attachment test) or type D test (continuity test), provided this does not involve any loss of time, in the case of an attachment at the front of the train or at one point in the body of the train;
- type D test (continuity test) in the case of an attachment at the rear of the train;
- type B test (partial test) supplemented with a type D test (continuity test) in the case of an attachment at several points in the body of the train (see Point 2.3 - page 3).



○ 2.9. - Change in the haulage conditions:

1. Changing of the powered units(s) at the front, attachment or detachment of one or more powered units at the front:

Type C test (attachment test) or type D test (continuity test) if the running direction changes after changing of the powered unit.

2. Attachment of a powered unit at the rear of the train, with the main brake-pipe connected:

Type D test (continuity test).

2.10. - Replacing in service of the brake on a vehicle whose brake equipment was isolated for operating purposes:

Type B test (partial test) on the vehicle.

○ 2.11. - Restoration, after interruption, of the continuity of the main brake-pipe:

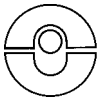
- type C test (attachment test) in the case of an interruption at one point in the body of the train;
- type D test (continuity test) in the case of interruption at several points in the body of the train.

2.12. - By derogation from the conditions of the previous points, a type A test (complete test) may be effected on a train, at frontier stations at the approach to sharp falling gradients and at the request of the transferee Railway, in all cases where, by application of the above conditions, it would be necessary to carry out a test of type B (partial test), C (attachment test) or D (continuity test).



3 - Cases where there is no need to effect a brake test

- **3.1.** - No change of powered unit, or alteration to the composition of the train.
- **3.2.** - Detachment of the last vehicle(s) in the train. In this case, the driver must be informed of the detachment.
- **3.3.** - Detachment of a powered unit in rear, in cases where the main brake-pipe is connected.
- **3.4.** - Change of braking system on one or more vehicles or on all vehicles of the train.



o 4 - Staff taking part in the brake tests

The brake tests shall be directed by a responsible official. They shall be effected with the participation of the driver and, where applicable, by other staff required to assist the official responsible in checking the application or release operations of the brakes or in transmitting orders exchanged for the purpose of the tests.



o 5 - Carrying out of the brake tests

The brake tests shall be carried out as follows:

1. The official responsible for the test:

- after coupling operations and certain preliminary checks, where applicable, have been effected, gives the driver the order "Apply", the latter applying the brake as soon as he is ready;

NB : Coupling operations comprise: the actual coupling, connecting of the brake-pipes opening of the stop cocks, etc.

- where applicable, indicates to the driver that the order "Release" will be transmitted to him by means of a depression in the main brake-pipe.

2. As soon as he has succeeded in filling the main brake-pipe and checked that it is sealed, the driver brings about a depression of at least 0,5 bar in the pipe by means of the driver's valve, to cause the brakes to apply.

3. After confirming this depression by the positive continuous application of the brake shoes on the wheels of the first vehicle covered by the test (or by means of inspection devices in the case of disc brakes, for example), the official carrying out the test shall check the application of the brakes on the vehicles being tested.

This check shall be effected under the conditions of the regulations in force on the Railway to which the official carrying out the test belongs.

4. If the application check is satisfactory, the official carrying out the test gives the order "Release" to the driver.

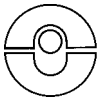
5. On receipt of this order, the driver releases the brakes by commencing with the "filling stroke".

6. The official carrying out the test then checks the release of the brakes on the vehicles being tested.

This check is effected under the conditions of the regulations in force on the Railway to which the official carrying out the test belongs.

7. If the release check is satisfactory, the official carrying out the test advises the driver accordingly by means of the information "Terminated" (or brake satisfactory).

8. In the event of any anomaly detected during the test, the official carrying out the test proceeds in accordance with the regulations in force on the Railway to which he belongs.



6 - Orders or information exchanged for the purpose of carrying out the brake tests

- **6.1.** - The orders or information which must be exchanged to carry out the brake tests shall be as follows:

- Apply,
- Release,
- Terminated (or brake satisfactory).

NB : When the official carrying out the test and the driver belong to the same Railway, orders or information peculiar to the regulations of that Railway may be used.

The order "Apply" tells the driver to effect a depression in the main brake-pipe to bring about application of the brakes.

The order "Release" tells the driver to release the brakes.

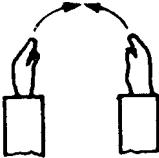


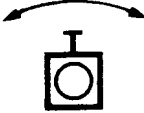


The information "Terminated" (or brake satisfactory) indicates that the brake test has been satisfactory. It is sent to the staff concerned in the test.

- **6.2.** - The orders or information laid down above can be exchanged by word of mouth, by radio, by manual signals or by fixed light signals.

When the orders or information are exchanged by word of mouth or by radio, the language to be used shall be the same as that indicated in the bilateral arrangement provided for in point 5.1 of *UIC-Leaflet No. 471*.



Signals effected manually shall be made as follows:

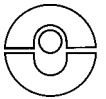
Orders	Manual signals	
	Day	Night
Apply	 <p>Both arms raised vertically, then both hands brought together above the head.</p>	 <p>White light, raised with the hand in a semi-circular movement and lowered quickly in a vertical movement.</p>
Release ^a	 <p>Semi-circular movement of the arm repeated above the head.</p>	 <p>Same movement with the white light.</p>
Terminated	 <p>Arm raised vertically.</p>	 <p>White light raised vertically.</p>

a. When the checking of the application and release is effected on the last vehicle of the train, the order "Release" can be given by opening the rear stop cock of the last vehicle.

Fixed optical signals are made with fixed electric lamps showing:

- a light for the order "Apply";
- two lights for the order "Release";
- three lights for the information "Terminated".

Fixed optical signals shall consist as far as possible of white electric lamps placed in a horizontal or vertical line.



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1. Minutes of meetings

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"Operating committee - Standardisation of operating regulations for braking, in particular: Standardisation of braking procedures", June 1975

"Operating Committee - Question 4/D/6 - Operating instructions for lines crossing frontiers", Oslo, June 1980