

ISO

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION

ISO RECOMMENDATION R 1186

PRESSURES IN BRAKE LINES
AND BRAKING EFFICIENCY

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BRIEF HISTORY

The ISO Recommendation R 1186, *Pressures in brake lines and braking efficiency*, was drawn up by Technical Committee ISO/TC 22, *Automobiles*, the Secretariat of which is held by the Association Française de Normalisation (AFNOR).

Work on this question led to the adoption of a Draft ISO Recommendation.

In October 1968, this Draft ISO Recommendation (No. 1727) was circulated to all the ISO Member Bodies for enquiry. It was approved, subject to a few modifications of an editorial nature, by the following Member Bodies :

Belgium	Italy	Switzerland
Chile	Korea, Rep. of	Thailand
Czechoslovakia	Netherlands	Turkey
France	New Zealand	U.A.R.
Greece	Portugal	United Kingdom
Hungary	Romania	U.S.S.R.
Israel	Spain	

Three Member Bodies opposed the approval of the Draft :

Germany
Japan
Sweden

This Draft ISO Recommendation was then submitted by correspondence to the ISO Council, which decided, in March 1970, to accept it as an ISO RECOMMENDATION.

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PRESSURES IN BRAKE LINES AND BRAKING EFFICIENCY

1. SCOPE

This ISO Recommendation

- determines and limits the values of pressures in the compressed-air lines used to ensure pneumatic connections between tractors and trailers;
- determines braking efficiency.

2. FIELD OF APPLICATION

This ISO Recommendation applies to vehicles for international commercial transport with trailers of a total loaded weight greater than 3.5 tonnes-force.

It deals only with compressed-air braking devices with two lines : one direct braking line and one automatic braking line.

3. VALUES OF PRESSURES IN THE LINES

3.1 Preliminary definition of nominal pressure

A pressure of n bar in the brake line conventionally means a pressure of n bar above the atmospheric pressure.

3.2 Direct brake line

3.2.1 *The maximum operating pressure* in the line of the direct brake system should be

$$6.5 \pm 0.5 \text{ bar}$$

The reference value for pressure, as measured at the coupling point of the braking system and used for studying braking performances, should be 4.5 bar in the direct brake line.

3.2.2 *The minimum pressure increase* in the direct brake line leading to brake application should be

$$0.6 \pm 0.4 \text{ bar}$$

This value, measured at the coupling head, should cause contact of the brake linings of each vehicle in the tractor-trailer combination.

In addition, the relay valve should start to operate at a pressure of not more than 0.5 bar, also measured at the coupling head of the direct brake line.