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Road vehicles — Test of vehicle air braking systems with a permissible mass of over 3,5 t — Acquisition and use of reference values using a roller brake tester

Véhicules routiers — Essais des systèmes de freinage à air comprimé des véhicules de masse admissible de plus de 3,5 t — Acquisition et utilisation des valeurs de référence en utilisant un banc de freinage à rouleaux



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Foreword

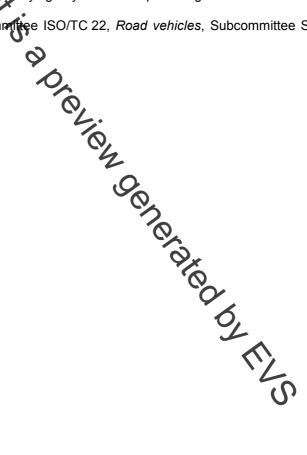
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ISO 21995 was prepared by Technical Committee ISO/TC 22, Road vehicles, Subcommittee SC 2, Braking systems and equipment.



Introduction

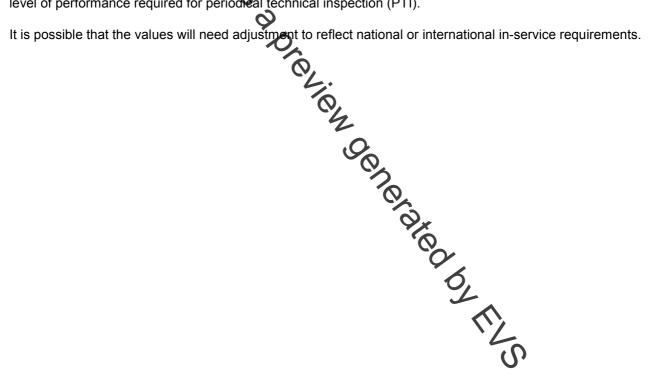
UNECE Regulation No.13, paragraph 5.1.4.6 (on reference braking forces) requires, as part of the type approval process, that the manufacturer provides the Type 0 braking performance figures as reference values arranged in a tabular or graphical form.

The purpose of reference values is to make adequate data available for conducting periodical vehicle tests, which are most easily performed on roller test benches. Within Council Directive 96/96/EC, testing in service is required to achieve a heavy truck brake efficiency of at least 45 %, and this can be performed by road testing or, more conveniently, on roller brake test benches. The roller brake tests are based on the available reference values declared by the vehicle manufacturer at type approval.

NOTE The minimum requirements are:

- 50 % in the case of vehicles of gategories M2, M3, N2, N3, O3 and O4, except semi-trailers;
- 45 % in the case of semi-trailers.

This International Standard provides a procedure for testing both motor vehicles and trailers in service to the level of performance required for periodical technical inspection (PTI).



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Road vehicles — Test of vehicle air braking systems with a permissible mass of over 3,5 t — Acquisition and use of reference values using a roller brake tester

Scope

1

This International Standard provides a method for the acquisition of suitable braking reference values that the manufacturer is required to provide, and for the use of these reference values in periodical technical inspection (PTI) on air brake systems.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

UNECE Regulation No.13, Rev. 6, 2008, Uniform provisions concerning the approval of vehicles of categories *M*, *N* and O with regard to braking

3 Terms, definitions and symbols

3.1 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1.1

braking system

combination of parts which either progressively reduces the speed of the moving vehicle, or brings the vehicle to a halt and/or holds it stationary, or fulfils both functions

3.1.2

brake

part of a **braking system** (3.1.1) in which the forces opposing the movement or tendency to movement, of the vehicle are developed

3.1.3

braking force

force at the contact surface between a wheel and the ground, produced by the effect of a braking system, which opposes the rotation of the wheel or the tendency for movement of the vehicle

NOTE The force between the tyre and the rotating roller, produced at the circumference of the tyre during braking, opposes the force generated at the interface by the roller brake tester attempting to cause continuing rotation of the wheel.

3.1.4

total braking force

sum of the braking forces at all wheels of a vehicle