
**Road vehicles — Test of braking systems
on vehicles with a maximum authorized
total mass of over 3,5 t using a roller
brake tester**

**Part 1:
Pneumatic braking systems**

*Véhicules routiers — Essai des systèmes de freinage des véhicules
ayant une masse totale maximale autorisée supérieure à 3,5 t effectué
sur banc d'essai de freinage à rouleaux*

Partie 1: Systèmes de freinage pneumatique



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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 21069-1 was prepared by Technical Committee ISO/TC 22, *Road vehicles*, Subcommittee SC 2, *Braking systems and equipment*.

ISO 21069 consists of the following parts, under the general title *Road vehicles — Test of braking systems on vehicles with a maximum authorized total mass of over 3,5 t using a roller brake tester*.

— *Part 1: Pneumatic braking systems*

Air-over-hydraulic braking systems and hydraulic braking systems are to form the subjects of future parts 2 and 3.

Introduction

The present ECE Regulation No. 13 covers only some aspects of the periodic technical inspection of vehicles in use. In order to fulfil the requirements of section 5.1.4 of Regulation 13, ISO 21069 has been conceived to cover the periodic measurement of braking performance of vehicles in service.

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Road vehicles — Test of braking systems on vehicles with a maximum authorized total mass of over 3,5 t using a roller brake tester

Part 1: Pneumatic braking systems

1 Scope

This part ISO 21069 specifies a roller brake test for determining the braking efficiency of road vehicles having a maximum authorized total mass (Code ISO-MO8) as defined in ISO 1176 of more than 3,5 t, being of categories M2, M3, N2, N3, O3 and O4 as defined in UNECE R.E.3 and equipped with full power air (pneumatic) braking systems. Also applicable to electronic braking systems (EBS), its purpose is to ensure comparable measurement results from different testers, leading to reliable assessment of the efficiency of service braking systems wherever roller brake tests are performed.

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.

ISO 611, *Road vehicles — Braking of automotive vehicles and their trailers — Vocabulary*

ISO 1176, *Road vehicles — Masses — Vocabulary and codes*

ISO 3833, *Road vehicles — Types — Terms and definitions*

ECE Regulation No. 13:1996, *Uniform Provisions Concerning the Approval of Vehicles of Categories M, N and O with regard to braking*, incorporating supplements 1 to 5 to the 09 series of amendments

UNECE ¹⁾ R.E.3:1997, *Consolidated Resolution on the Construction of Vehicles*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 611, ISO 1176, ISO 3833 and the following apply.

3.1

braking force

force between the tyre and the rotating roller, produced at the circumference of the tyre during braking, which opposes the force generated at that interface by the roller brake tester in order to cause a rotation of the wheel

1) United Nations Economic Commission for Europe.