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**Road vehicles — Brake linings — Shear  
test procedure for disc brake pad and  
drum brake shoe assemblies**

*Véhicules routiers — Garnitures de freins — Méthode d'essai de  
cisaillement des ensembles de plaquettes de freins à disque et  
segments de freins à tambour*



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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 6312 was prepared by Technical Committee ISO/TC 22, *Road vehicles*, Subcommittee SC 2, *Braking systems and equipment*.

This third edition cancels and replaces the second edition (ISO 6312:2001), which has been technically revised.

## Introduction

The shear property relates to stresses at the area of contact between lining and carrier in disc brake pad and drum brake shoe assemblies.

The specification for the average rate of load and the recommendation for variations in the instantaneous rate of load given in this International Standard take into account current practice, based upon an examination of equipment in use.

This third edition of this International Standard incorporates technical updates generated in the course of harmonization efforts during the development of ISO 15484.

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# Road vehicles — Brake linings — Shear test procedure for disc brake pad and drum brake shoe assemblies

## 1 Scope

This International Standard specifies a method for measuring the strength of the bond connection between the lining material and the carrier in disc brake pad and drum brake shoe assemblies (shear strength). This International Standard is applicable to assemblies that are integrally moulded, bonded or that use mechanical retention systems (MRS) of both types used for brakes on road vehicles. This International Standard does not apply to riveted assemblies.

## 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*

## 3 Terms and definitions

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

### 3.1

#### **lining**

friction material component of a brake lining assembly

### 3.2

#### **carrier**

component of a brake lining assembly to which the friction material is attached

### 3.3

#### **bond area**

*A*

contact area between lining and carrier

### 3.4

#### **mechanical retention system**

#### **MRS**

attachment method where mechanical protrusions on the backing plate aid the retention of the friction material or the underlayer

### 3.5

#### **shear force at failure**

*F*

total load applied at the time of shear failure