

Australian/New Zealand Standard™

**Automotive equipment—Brake force
measuring instruments**



AS/NZS 4613:2017

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee ME-078, Automotive Testing Equipment. It was approved on behalf of the Council of Standards Australia on 1 September 2017 and by the New Zealand Standards Approval Board on 6 September 2017.
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The following are represented on Committee ME-078:

Australian Automotive Aftermarket Association
Australian Road Research Board
Commercial Vehicle Industry Association of Australia
Department of Transport and Main Roads (Qld)
Heavy Vehicle Industry Australia
Maha New Zealand
National Heavy Vehicle Regulator
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**Automotive equipment—Brake force
measuring instruments**

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PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee ME-078, Automotive Testing Equipment. This Standard supersedes AS/NZS 4613:1999, *Automotive brake testing equipment—Roller brake tester*.

The principal differences between this and the previous edition are as follows:

- (a) A general revision of the Standard together with more appropriate definitions and provisions for calibration and manuals.
- (b) A general revision of provisions for roller brake type instruments.
- (c) The removal of some restrictive clauses not relevant to the objective of the Standard.
- (d) The introduction of dynamic weight force.
- (e) The addition of plate type instruments.

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STANDARDS AUSTRALIA/STANDARDS NEW ZEALAND

Australian/New Zealand Standard
Automotive equipment—Brake force measuring instruments

1 SCOPE

This Standard specifies the minimum performance requirements for fixed and portable brake force measuring instruments for measuring the brake force of light vehicles and heavy vehicles designed for normal on-road use. This Standard excludes single-track and three-wheeled vehicles. It also excludes decelerometers of a type that may be mounted in or on a vehicle, permanent or otherwise, for the purpose of on-road dynamic testing.

2 OBJECTIVE

The objective of this Standard is to specify provisions for the design, construction and operation of brake force measuring instruments to ensure repeatable and consistent brake force measurements and brake efficiency determination.

3 REFERENCED DOCUMENTS

The following documents are referred to in this Standard:

AS

3990 Mechanical equipment—Steelwork

4100 Steel structures

4833 Pressure-sensitive labels for stock-paper, stock-plastic and general purpose use

AS ISO/IEC

17025 General requirements for the competence of testing and calibration laboratories

AS/NZS

1664 Aluminium structures (series)

61000 Electromagnetic compatibility (EMC)

61000.3 Part 3: Limits (series)

61000.4 Part 4: Testing and measurement techniques (series)

ISSN

1035–4948 Pattern approval specification for brake force measuring instruments for legal use (NMI 5)

4 DEFINITIONS

For the purpose of this Standard, the definitions below apply.

4.1 Brake efficiency

The brake force measured at a wheel divided by the dynamic weight force acting on that wheel.

4.2 Brake force

The frictional force applied by the wheel of the vehicle to the measuring instrument when the brakes of the vehicle are applied. The periphery of the wheel tyre combination is the interface between the instrument and the wheel.