



Vehicle Standards Guide (VSG-14)

NHVIM Fact Sheet – Brake Testing

Purpose

This guide provides advice to heavy vehicle owners, operators and inspectors about brake testing of heavy vehicles in accordance with version 2.2 of the National Heavy Vehicle Inspection Manual (the manual).

Introduction

From 1 July 2017 version 2.2 of the NHVIM will become the national inspection standard for heavy vehicles in all jurisdictions (except Western Australia). This revision of the manual reflects amendments made to the National Heavy Vehicle Standards and in response to feedback provided to the NHVR.

One of the key changes is alignment of the performance standard and unit of measurement used when conducting brake testing using either a decelerometer, skid plate or roller brake tester. In previous versions of the manual, decelerometer and skid plate testing used deceleration (either metres per second per second or a % of gravity) while roller brake testing used brake force per tonne of test mass (kilonewtons (kN) per tonne).

From 1 July all three brake test methods will be measured using:

- deceleration (m/s^2 or %g) as the unit of measure
- peak performance levels of $4.4m/s^2$ or 45%g, or
- average performance levels of $2.8m/s^2$ or 29%g.

Recalibration of roller brake test machines

Currently, some roller brake testers may be configured to only display test results in kilonewtons per tonne and will need to be updated to comply with the aligned performance standard and unit of measurement. The National Heavy Vehicle Regulator (NHVR) understands that these machines are subject to regular service or calibration that may only be carried out every 12 months.

To assist industry manage the update of their machines over their normal service and calibration schedule, the NHVR is implementing the following transitional provisions:

Recalibration

Inspectors or operators who use roller brake test machines must ensure that at their next scheduled service or calibration that the necessary adjustments are made to ensure the machine reports in the correct units and that the pass levels align with those in Table 2.1 of Section 2 Brakes of version 2.2 of the NHVIM.

This recalibration should occur as soon as is possible, but must occur no later than 30 June 2018.

Use of roller brake test machines prior to recalibration

Mathematically, a brake performance reading in kilonewtons per tonne is equal to performance in deceleration (m/s^2). For example if a test produces a reading of 4.7kN/t, this is equal to $4.7m/s^2$.

Until such time as a machine is recalibrated, it is acceptable to continue to use the machine. A vehicle must meet the minimum performance levels in Table 2.1 of Section 2 Brakes of version 2.2 of the NHVIM.

About the NHVR

The NHVR has a dedicated Vehicle Standards team to help with modification applications and advise on any technical aspects.

For more information:

Email: vehiclestandards@nhvr.gov.au

Visit: www.nhvr.gov.au/nhvim

Subscribe: www.nhvr.gov.au/subscribe

Fax: 07 3309 8777

Post: PO Box 492, Fortitude Valley QLD 4006

Phone: 1300 MYNHVR* (1300 696 487)

*Standard 1300 call charges apply. Please check with your phone provider

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