

Heavy Vehicle Brakes Rule and its implementation



Heavy Vehicle Brakes Rule (HVBR)

The HVBR covers two implementation issues:

- >> Standards Compliance
- >> In-Service Brakes testing – to ensure adequate braking in all conditions of loading.

Standards Compliance

The Heavy Vehicle Brakes Rule (HVBR) applies to all heavy vehicles. Heavy vehicles are vehicles with a gross vehicle mass of 3500 kg or more.

Imported Heavy Vehicles

As at 1 July 2008 all first registered imported class NB, NC, TC, TD, MD3, MD4 and ME vehicles have to be manufactured to a specified international standard, normally including anti-lock brake systems (ABS) or Load Sensing Valves (LSVs). This only applies to first registered vehicles.

Modified and New Zealand Built Heavy Vehicles

As at 1 July 2008 these vehicles need to be certified to Schedule 5 of HVBR by a Heavy Vehicle Specialist Certifier (HVS Certifier) holding the HVEK approval from Land Transport New Zealand.

In-Service Brake Testing changes

The brake testing component of the CoF inspection will change and vehicles will be tested in a semi-laden condition to a minimum of 60 percent of the manufacturer's axle rating or the statutory axle limit. This loading can be achieved by an actual load or simulated load by axle or chassis tie down.

What you need to do before the new testing regime begins

The brake testing method

The new in-service brakes testing regime will be available from December 2008 and will be progressively rolled out through to early 2009. Operators need to start considering which testing method will be applied by their current Transport Service Delivery Agent (TSDA) testing station.

The test method options are:

1. Load Simulation by Axle or Chassis tie down
2. Actual load (this option may require more than one visit to the testing station).

Load Simulation

Load Simulation is where an artificial load is applied directly by hydraulic or mechanical pressure to a vehicles axles or chassis using strops or clamps (see photo).

Heavy Vehicle Manufacturers recommend that Heavy Vehicles have engineered tie down points however a de-cluttered chassis may be sufficient where load simulation by tie down is required. Many operators believe it takes a great deal of preparation work to de-clutter a chassis but very little space is required. The space required is 70mm high by 80mm wide and full depth of chassis rail to accommodate the Roller Brake Machine's (RBM's) load simulation equipment.

For the chassis tie down test method, operators may need to fit engineered tie down fittings to provide attachment points for the RBM to apply load to the vehicle. Engineered tie down fittings will need to be certified by a HVS Certifier if they require chassis modifications and the locations of these fittings should be discussed with your manufacturer, TSDA and HVS Certifier.

KEY FACTS

- >> 77 truck crashes between 1997 and 2005 due to brake problems.
- >> 49 moderate to serious injuries.
- >> 4 fatalities.
- >> 26% failure at CoF inspections in 2005 due to brakes.
- >> 23% failure at CVIU roadside checks in July 2004.
- >> Lack of maintenance on vehicles.



Load Simulation by chassis tie down. Picture kindly supplied by VTNZ.

WHAT YOU NEED TO DO AND WHEN

1. Talk to your testing station about what method of testing can be used.
 - Simulated Load
 - Actual load
2. Have your vehicle fitted with engineered tie down points by a HVS Certifier or the chassis de-cluttered before 1 March 2009.

Actual load testing

If you prefer to test by actual load then it is your responsibility to meet the minimum 60 percent load requirements. This should be discussed with your TSDA prior to visiting the testing station.

Note: This option may not be available for some trucks and trailers such as Stock trucks and trailers for OSH reasons. Please discuss your requirements with your TSDA.

Load Restrictions

Operators should determine any restrictions on load that can be applied to their vehicle's chassis by the load simulation equipment. This should be discussed in conjunction with the vehicle manufacturer, HVS Certifier and your testing station.

TSDA site upgrade activity

All TSDA's have or are in the process of upgrading their RBM's to provide simulated load application.

Vehicle Testing New Zealand Ltd (VTNZ)

VTNZ is New Zealand's largest provider of vehicle inspections and is working closely with Land Transport NZ to ensure that they are able to test brakes to the requirements of the new Rule as soon as possible. This will require VTNZ to upgrade their extensive network with installation of new equipment and some structural alterations. For more information go to www.vtnz.co.nz/HVBR

On Road New Zealand Ltd

On Road have three testing stations that carry out Certificate of Fitness inspections on heavy vehicles (two testing stations in Auckland, one in New Plymouth). On Road will ensure they will be ready for the new brake testing regime and intend to communicate directly with their customers prior to any station upgrades, well in advance of the new testing procedure.

Vehicle Inspection New Zealand (VINZ)

VINZ has equipment capable of meeting the requirements of the Heavy Vehicle Brakes Rule installed and operating in most centres where CoF B sites are located. Contact your local station for further information. Planning for upgrades of other sites is underway.

Automobile Association NZ (AA)

The AA has two heavy vehicle inspection sites, one in Christchurch and the other in New Plymouth. The Christchurch site is already capable of chassis load simulation tests and new testing equipment and procedures will be in place at both sites in early in 2008. For more information go to www.aa.co.nz

NZ Police enforcement activity

NZ Police CVIU has four computerised mobile brake test machines used throughout New Zealand. Testing started with an education program aimed at operators and drivers when the Heavy Vehicle Brakes Rule came into force (March 2007). Each brake test takes between 10 to 35 minutes depending on vehicle type or combination.

Enforcement of the HVBR can be achieved because the CVIU machines normally test the vehicle in a fully laden state which checks the full performance of the brake system. The CVIU RBM's may give a different result from a testing station as the majority of stations will still test the vehicle unladen until they are upgraded.

Look out for upcoming fact sheets, which will detail:

- >> How consistency of testing is being addressed
- >> How Land Transport NZ inspection organization audits work
- >> Load Simulation
- >> TSDA site upgrade activity
- >> NZ Police enforcement activity
- >> Staged implementation of the new testing method
- >> Specific applications of the CoF testing regime for special vehicles

Missed something? The November fact sheet covered:

- >> What is the Heavy Vehicle Brakes Rule (HVBR)?
- >> Why is this change needed?
- >> Testing at CoF – what changes
- >> Roller brake machines (RBMs)

COMING SOON ... the HVBR Road Show

For most operators the HVBR is just two CoF's away. To keep you informed of the standards compliance and the new in-service testing procedures the HVBR Road Show will be coming to a town near you from late April to early May. We look forward to seeing you there.

Details available soon on www.landtransport.govt.nz

To find out more...

For further information on the Heavy Vehicle Brakes Rule, visit www.landtransport.govt.nz (rules/question and answers) or search Heavy Vehicle Brakes Rule.

Or visit your testing station web sites www.vtnz.co.nz or www.vinz.co.nz or www.aa.co.nz

Or contact your representative
Paul Asquith, Bus and Coach Association (BCA)
Phone 0274 969 689

Mark Ngatuere Road Transport Forum (RTF)
Phone 04 471 8285