

# National Heavy Vehicle Inspection Manual

## Amendment Summary

### Version 2.2 (July 2017) to Version 2.3 (July 2018)

#### Section 2 Brakes

##### Added to 2.1 (i)

Note: Automatic condensation drain valves must have a means to allow water from the compressed air reserve to be drained manually.

##### Removed from 2.1 (s):

Note: Some servo units have a stroke indicator to indicate excessive stroke. This may need to be observed when the brakes are applied - see Section 2.2

##### Amended 2.2 (b)

Brake chamber push or pull rods move more than the brake component manufacturers recommendation or where this is unavailable, 80% of their maximum stroke when the brakes are fully applied

Further information on long stroke brake chambers can be sought from the brake component manufacturers or industry advisory documents.

##### Added to 2.2 (c)

Note: Not all automatic slack adjusters which travel past 90 degrees are considered over-stroked.

Further information on slack adjusters can be sought from the brake component manufacturers or industry advisory documents.

##### Added to 2.10

Note: An emergency brake means a brake designed to be used if the vehicle's service brake fails. Generally these are found on vehicles built prior to 1980.

##### Added to 2.11

Note: A parking brake means the brake usually used to keep a vehicle stationary while the vehicle is parked.

##### Amended 2.13

This section should be read in conjunction with the equipment manufacturer's instructions and the National Roller Brake testing Procedure.

[www.nhvr.gov.au/files/201801-0760-national-roller-brake-testing-procedure.pdf](http://www.nhvr.gov.au/files/201801-0760-national-roller-brake-testing-procedure.pdf)

##### Added 2.15

#### Advanced Braking Systems

This section covers vehicles which have advanced braking systems such as anti-lock braking systems (ABS), emergency braking systems (EBS), electronic stability control (ESC), etc.

#### Reasons for rejection

- An advanced braking system warning lamp:
  - is missing
  - does not illuminate as required when ignition is switched to the on position i
  - indicates a fault with a system
- An advanced braking system component (wheel speed sensor, etc.) is missing or damaged to an extent where it does not perform its intended function.
- Advanced braking system wiring or connectors are corroded, damaged, not insulated or are not securely fastened.
- Electrical wiring is located where it can:
  - become exposed to excessive heat
  - come into contact with moving parts.
- An advanced braking system component or system has been modified outside of manufacturer's specifications.
- A truck fitted with an advanced braking system is not fitted with a compliant ABS/EBS connector to attach an ABS/EBS equipped trailer.

## Section 5 Wheels, tyres and hubs

### Amended 5.4 (a)

The tyres do not match the manufacturer's tyre placard (if fitted) or modification approval.

### Amended 5.4 (e)

Note: This excludes elevations due to labelling, decoration or protective bands.

### Removed 5.4 (i)

The tyres on an axle are not of the same carcass construction (e.g. cross ply, radial ply or bias belted)

## Section 6 Structure and Body Condition

### Amended 6.2 (a)

any vehicle with a GVM over 12 tonnes not fitted with retroreflective rear marking plates, except:

- a bus fitted with hand grips or similar equipment for standing passengers to hold
- a vehicle fitted with conspicuity markings

## Section 7 Seats and Seatbelts

### Amended Table 7.5 NC – Heavy Goods Vehicle (GVM exceeds 12 tonnes)

key

(4) A lap type seatbelt may be acceptable if the vehicle's windscreen is in the seating reference zone as per UNECE Regulation R16/06 called up under ADR 4/05

## Section 12 LPG and NG vehicles

### Added definitions of hydrogen and electric powered vehicles

### Added acceptable examples of number plate labels for hydrogen and electric powered vehicles.

### Added 12.2 - Visually inspect for the presence of an approved hydrogen number plate label

Visually inspect for the presence of an approved hydrogen number plate labels.

Acceptable hydrogen number plate labels are shown in Figure 12.3.

Reason for rejection

- A vehicle manufactured from 1 January 2019 does not have acceptable, durable and reflective number

plate labels fitted to the front and rear of the vehicle indicating it is hydrogen fueled.

- The number of labels on the front and rear number plates number do not correspond with:
  - 1 acceptable label on each number plate if the vehicle is fitted with 1 hydrogen fuel container; or
  - 2 acceptable labels on each number plate if the vehicle is fitted with 2 or more hydrogen fuel containers.

### Added 12.3 - Visually inspect for the presence of an approved electric vehicle number plate label

Visually inspect for the presence of an approved electric vehicle number plate label

Visually inspect for the presence of an approved electric vehicle number plate labels.

Acceptable electric vehicle number plate labels are shown in Figure 12.3.

Reason for rejection

- A vehicle manufactured from 1 January 2019 does not have an acceptable, durable and reflective number plate labels fitted to the front and rear of the vehicle indicating its means of propulsion is electric powered/assisted.

### Updated Figure 12.3

## Section 14 Trailers

### Amended 14.1 (n)

Any reservoir or tank for vacuum or air storage is not protected by a check valve with manual function

### Amended 14.1 (p)

Air reservoir drain valves on reservoirs do not work properly, cannot be readily operated by the driver/operator or the valve is not fitted at the lowest point of the reservoir

### Added note to figure 14.1

Note: Not all automatic slack adjusters which travel past 90 degrees are considered over-stroked.

Further information on slack adjusters can be sought from the brake component manufacturers or industry advisory documents.

### Amended 14.1 (r)

Note: The push or pull rod may travel further on long stroke brake chambers.

Further information on long stroke brake chambers can be sought from the brake component manufacturers or industry advisory documents.

### Added 14.3 - Advanced Braking Systems

This section covers trailers which have advanced braking systems such as anti-lock braking systems (ABS), emergency braking systems (EBS), electronic stability control (ESC), etc.

Reasons for rejection

- An advanced braking system warning lamp:
  - indicates a fault with the trailer's system
- An advanced braking system component (wheel speed sensor, etc) is missing or damaged to an extent where it does not perform its intended function.
- Advanced braking system wiring or connectors are corroded, damaged, not insulated or are not securely fastened.
- Electrical wiring is located where it can:
  - become exposed to excessive heat
  - come into contact with moving parts
- An advanced braking system component or system has been modified outside of manufacturer's specifications.
- A trailer, fitted with an advanced braking system, which has the capability of having another trailer coupled behind (i.e lead trailer in a b-double) is not fitted with a ABS/EBS connector which allows to attach an ABS/EBS equipped rear trailer.

### Added 14.5 (c)

Skid plate flatness is outside the limits of Australian/ New Zealand Standard AS/NZS 4968.3 Heavy road vehicles

– *Mechanical coupling between articulated vehicle combinations:*

- is bowed downwards (convex) by more than fifth wheel designated effective diameter (mm) divided by 150
- is bowed upwards (concave) by more than fifth wheel designated effective diameter (mm) divided by 300
- bowing exceeds limits shown in Figure 14.2.

### Added 14.5 (d)

A wedge block fitted to a trailer for use with a ballrace type coupling is excessively worn, cracked or attachment bolts are missing

### Amended 14.6 (h)

A wedge block which forms part of the kingpin for use with a ballrace type coupling is excessively worn, cracked or attachment bolts are missing.

### Amended 14.15

Reasons for rejection

- a) Retroreflective rear marking plates or conspicuity markings are not fitted to a trailer with a GTM greater than 10 tonnes
- b) Rear marking plates or conspicuity markings are not fitted in locations specified by VSB12
- c) Rear marking plates or conspicuity markings are faded, damaged or incorrectly fitted.

## Appendix B – Vehicle modifications

### Table B1 VSB6 modification codes

Updated to reflect content of VSB6 Version 3..

**Please note:** While every attempt has been made to ensure the accuracy of the content of this Amendment Summary, it should not be relied upon as legal advice

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