# Light Vehicle Inspection Manual – Reasons for Rejection







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#### Introduction

The purpose of this manual is to provide information on the minimum roadworthiness and safety standards for Tasmanian registered vehicles for use on Tasmanian roads.

Every effort has been made to provide comprehensive advice however this manual cannot cover all eventualities, especially in the case of non-standard, modified vehicles and emerging vehicle technology.

If you think a vehicle is deficient or has a safety defect not covered in this manual, please seek advice from Vehicle Standards Unit by phone on 6166 3263, or email: <a href="mailto:vehicle.standards@stategrowth.tas.gov.au">vehicle.standards@stategrowth.tas.gov.au</a>

### Using this Manual

This manual contains 'notes' that are to be read in conjunction with applicable sections or subsections. Where notes are provided, they clarify matters and form an integral part of the applicable 'Reason for Rejection'.

It is important to ensure you are using the most recent version of this document.

When required, Special Information Bulletins (SIBs) may be developed and released to Approved Inspection Station (AIS) Proprietors for the attention of Vehicle Examiners.

SIBs are to be read as an extension of this manual with SIB information incorporated into the Manual in future version releases.

#### Administration of this Manual

This manual has been reviewed and is believed to be accurate at the time of release. The version number and release date is displayed at the bottom of each page.

The applicable legislation takes precedence over the contents of this manual and in the unlikely event there is a discrepancy in the information provided, the legislation will always prevail.

## References to an Appendix

Where this document refers to an appendix, as of version 23 the applicable appendix can be found in the document titled 'Light Vehicle Inspection Manual – Appendices' located on the Departments website at

https://www.transport.tas.gov.au/vehicles\_and\_vehicle\_inspections/vehicle\_inspections\_ais/ais\_in\_spection\_manuals

#### Custodian

This manual is maintained by:
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#### Publication and Distribution

This manual may be downloaded from the Department of State Growth's website at: <a href="https://www.transport.tas.gov.au">https://www.transport.tas.gov.au</a>

#### **Version Control**

This version supersedes and takes precedence over any previous versions.

### Suggestions for Improvement

This manual is a 'live document' requiring revision from time to time to include improvements in vehicle technology and to accommodate changes in legislation, vehicle technology and relevant vehicle standards. Suggestions for improvements and notification of any corrections are welcomed, please phone (03) 6166 3263, email: <a href="mailto:vehicle.standards@stategrowth.tas.gov.au">vehicle.standards@stategrowth.tas.gov.au</a>

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# Acronyms

Frequently used acronyms.

ABS	Antilock Brake System
ADR	Australian Design Rule
ATM	Aggregate Trailer Mass
ESC	Electronic Stability Control
GTM	Gross Trailer Mass
GVM	Gross Vehicle Mass
HID	High Intensity Discharge
kN	Kilo Newton
LED	Light Emitting Diode
MVSA	Motor Vehicle Standards Act 1989
OEM	Original Equipment Manufacturer
RAV	Register of Approved Vehicles
ROH	Rear Overhang
RVSA	Road Vehicle Standards Act 2018
SRS	Supplementary Restraint System
SSM	Second Stage of Manufacture
SVI	Secure Vehicle Identifier Marking
VIN	Vehicle Identification Number

## **Definitions**

Frequently used terms.

- **Australian Design Rules** (ADR) the vehicle standards determined under the Motor Vehicle Standards Act 1989 and as amended or replaced from time to time; or
  - a national road vehicle standard determined under section 12 of the Road Vehicle Standards Act 2018, as amended or replaced from time to time.
- ADR Category the vehicle category nominated on the Identification Plate also referred to as a Compliance Plate or RAV entry where on the RAV. May also be indicated on a modification plate for modified vehicles. ADR Category determines specific ADRs that the vehicle must remain compliant with.
- Aggregate Trailer Mass (ATM) the total mass of the laden trailer when carrying the maximum load recommended by the manufacturer. This will include any mass imposed onto the drawing vehicle when the combination is resting on a horizontal supporting plane.
  - ATM is also specified on the RAV for that vehicle; or if it is not specified on the RAV, as specified by the vehicle's manufacturer on an identification plate on the vehicle; if it is not specified on the RAV or an identification plate, or if the specification is not appropriate because the vehicle has been modified, as certified by a vehicle registration authority.
- **Chassis Number-** a series of characters allocated to a vehicle, manufactured prior to 1989, by the manufacturer. Note; a chassis number is not decodable and is not a VIN.
- **Concessional RAV entry** a RAV entry pathway, approved by the Australian Government, that allows individual vehicles to be provided to the Australian market on a case by case basis.

#### Date of Manufacture -

For Type Approved RAV entries, the most recent RAV entry date.

For Concessional RAV entries, the build date as identified on the RAV entry.

For a vehicle not recorded on the RAV, as identified on the compliance (Identification) plate. For imported vehicles not recorded on the RAV,

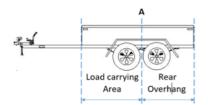
- a) as identified on the import plate (RAWS). Or
- b) where there is no plate, the vehicles build date identified on the manufacturers build tag/plate.

For pre-ADR vehicles, the date identified on the manufacturers build tag/plate.

- **Evidence of previous registration** evidence of the vehicle identifier (chassis number or VIN) being recorded as previously registered, or currently registered for on-road use by a state or territory of Australia. Club permit and various jurisdiction conditional schemes may not be considered as registration. Vehicle Standards Unit may confirm acceptance of previously registered documentation.
  - **Gross Trailer Mass** (GTM) the mass transmitted to the ground by the axle or axles of the trailer when coupled to a drawing vehicle and carrying its maximum load approximately uniformly distributed over the load bearing area.
- **Gross Vehicle Mass** (GVM) the maximum loaded mass of the vehicle as specified on the RAV for that vehicle; or if it is not specified on the RAV, as specified by the vehicle's manufacturer on an identification plate on the vehicle; if it is not specified on the RAV or an identification plate, or if the specification is not appropriate because the vehicle has been modified, as certified by a vehicle registration authority.

- **Identification Plate** (also referred to as a Compliance Plate) a plate placed on a vehicle, authorised to be placed on a vehicle or taken to have been placed on a vehicle, under the MVSA.
- **Low ATM Trailer** A trailer with an ATM of 4.5 tonnes or less.
- **RAV** a publicly searchable database, administered by the Australian Government, of vehicles that have met the requirements of the RVSA legislation and been approved to be provided to the Australian market.
- **RAV** search-identifying a vehicle's VIN on the RAV from the RAV database link on the RVSA website at:
  - https://www.infrastructure.gov.au/infrastructure-transport-vehicles/vehicles/rvs/rav
- **Rear Overhang** the distance measured from the rear overhang line to the rear most point of the vehicle.
- **Rear Overhang line** a vertical line through the centre of the rear axle or where multiple axles are fitted with the same number of tyres on each axle, the centre of the axle group.





- **Secure Vehicle Identifier Marking-** the name of the manufacturer or the vehicle make, and the VIN on a durable metal plate or durable self-adhesive label ,depending on the ADR vehicle category, in accordance with ADR 61/03.
- **Type Approval RAV entry-** a RAV entry approval, issued by the Australian Government, that allows that type of vehicle to be provided to the Australian market in unlimited volume.
- **Vehicle Identification Number** -(VIN) a unique 17 character decodable identifier that is allocated to a vehicle, and permanently recorded on the vehicle, in accordance with ADR 61.

## I Vehicle Identification

OBJECTIVE: To ensure the vehicle being inspected is authentic and correctly identified.

#### Australian Design Rules relevant to this section:

ADR 61/xx Vehicle Markings

ADR 42/xx General Safety Requirements

### 1.1 Vehicle Identity – All vehicles

#### Reason for Rejection

- a) VIN/Chassis number on Identification (compliance) plate, Secure Vehicle Identification label or Import approval document differs from that directly marked on an integral part of the vehicle.
   The VE must contact Vehicle Standards on 61663261 for further advice specific to the situation.
- b) VIN/Chassis number appears to have been altered or tampered with, or not authentic or legible. The VE must contact Vehicle Standards on 61663261 for further advice/options.
- c) A motor vehicle or trailer provided under a Road Vehicle Standards Act 2018 (RVSA) approval is not recorded on the Register of Approved Vehicles (RAV). Note, a vehicle may be provided under either a RVSA or MVSA approval between June 2021 and 1 July 2023 however all vehicles provided from 1 July 2023 onwards must be on the RAV.
- d) A motor vehicle or trailer presented for inspection I July 2023 onwards with no evidence of previous registration in Australia, is not recorded on the RAV.
- e) A vehicle recorded on the RAV that has been subject to Second Stage of Manufacture (SSM), does not have a RAV entry identifying the SSM holder (manufacturer). Note, VE's must contact Vehicle Standards on 61663261 for further advice specific to the situation.
- f) A vehicle that is recorded on the RAV that has a SSM plate affixed identifying "Motor Vehicle Standards Act 1989". Note, VE's must contact Vehicle Standards on 61663261 for further advice.

## 1.2 Vehicle Identity – Motor vehicles

- a) A motor vehicle does not have its VIN/Chassis number directly marked into the chassis for a vehicle with a separate chassis or an integral part of the vehicle where of monocoque construction.
- b) A motor vehicle listed on the RAV with no evidence of previous registration in Australia, is not fitted with a Secure Vehicle Identification Marking. Refer note 1.
- c) A motor vehicle manufactured between August 1972 (June 1975 for motorcycles) and I July 2023 that is not on the RAV, and has no evidence of previous registration in Australia and is not fitted with,
  - I. an Australian Identification (compliance) plate, or
  - 2. a Second Stage of Manufacture plate, or
  - 3. approved Import plate.
- d) No engine number present.
- e) Engine number appears to have been altered or tampered with, or not authentic or legible.

## 1.3 Vehicle Identity – Trailers

- a) A trailer does not have its VIN/Chassis number directly marked into an integral part of the trailer. (e.g., drawbar, chassis).
- b) A trailer manufactured between December 1988 and 1 July 2023 with no evidence of previous registration in Australia, that is not listed on the RAV and is not fitted with a vehicle (trailer) plate identifying 'This trailer was manufactured to comply with the Motor Vehicle Standards Act 1989'. Refer note 3.
- c) A trailer manufactured between December 1988 and 1 July 2023 with no evidence of prior registration in Australia, that is listed on the RAV and is not fitted with a Vehicle plate. Refer note 3.
- d) A trailer presented for inspection from I July 2023 onwards with no evidence of previous registration in Australia, is not fitted with a vehicle (trailer) plate meeting the requirements of note 3 below.
- e) A trailer manufactured from July 1990 onwards with no evidence of previous registration in Australia, is not fitted with a tyre placard.

- 1. A Secure Vehicle Identification label must display the name of the manufacturer or vehicle make, and the VIN and be in the following form.
  - For MA, MB, MC or NA category vehicles, the label must be a durable self-adhesive label.
  - For NB category vehicles the label may be either a durable self-adhesive label or durable metal plate.
  - For low ATM trailers, the label must be a durable metal plate.
- 2. Vehicle plate means, a plate identifying the following (as required):
  - Manufacturer name or vehicle make,
  - Date of manufacture,
  - VIN (from 1 July 1991 onwards).
  - ATM in kg (from I July 1991 onwards).
  - GTM in kg (Between 1 July 1988 to 1 July 1991, and from 1 July 2021 onwards for a trailer listed on the RAV).
  - Tare mass in kg (from 1 July 2023 onwards).
  - The statement 'This trailer was manufactured to comply with the Motor Vehicle Standards Act 1989' (from 1 July 1988 to 1 July 2023).
- 3. For further information, refer to the relevant Appendices.

## 2 Brakes

OBJECTIVE: To ensure that the brakes operate effectively and are correctly adjusted.

#### Australian Design Rules relevant to this section:

- ADR 31 Hydraulic brake systems for passenger cars
- ADR 33 Brake Systems for Motor Cycles
- ADR 35 Commercial vehicle brake systems
- ADR 38 Trailer Brake Systems
- ADR 42 General Safety Requirements

### 2.1 Check the operation of the brake controls

- a) On rubber faced brake pedals, any metal is showing on the foot to pedal contact area.
- b) On metal brake pedals, there is no anti-slip surface on the foot to pedal contact area.
- c) Missing or broken brake pedal or handle, or associated components.
- d) Brake pedals or handles are broken or missing or are outside the scope of manufacturer's original design.
- e) When the service brakes are firmly applied, less than 20% of the pedal travel remains (unless within manufacturer's limits).
- f) When steady moderate pressure is applied to the service brake pedal for 10 seconds, the pedal travels towards the floor or the brake failure indicator light illuminates.
- g) Where ADR 31 or 35 applies, the brake failure warning light does not operate when the ignition is turned to the 'on' position, before the engine is started.
- h) Any park brake handle or control lever is not fitted with a locking device capable of holding in any position.
- i) When not in use, any brake lever, handle or pedal does not return to the fully released position.
- j) Where ADR 31 applies, the park brake warning lamp does not operate when the ignition is 'on' and the parking brake is applied.
- k) The brake controls, when operated, do not cause the corresponding brake to operate (with the engine running, if necessary).
- I) If a vehicle manufactured after I July 1988 is fitted with an 'antilock system' (ABS) and,
  - I. The antilock warning lamp does not illuminate when the ignition is turned to the on position.
  - 2. The ignition is switched to the on position; and the antilock warning lamp does not extinguish after the static check period or the vehicle reaches 10 km/h.
- m) Where a vehicle manufactured after I Nov 2011 that is fitted with an Electronic Stability Control system (ESC), the ESC malfunction tell-tale lamp does not:
  - 1. Illuminate when the ignition is switched to the on position.
  - 2. Extinguish after the check period.
  - 3. Illuminate with the word 'OFF' below the ESC symbol when the ESC is switched off.

### 2.2 Inspect the condition of visible brake components

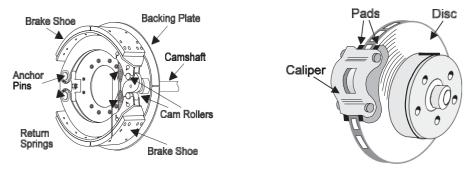
<u>Includes components underneath the vehicle.</u>

#### Reason for rejection

- a) Brake pipes, hoses and connections are damaged, severely deteriorated, not securely mounted, cracked, broken, kinked, crimped, damaged by heat or have visible signs of leakage, swelling or bulging. Note: For example, the reinforcement fabric is exposed or the hose swells or bulges when the brakes are applied. Minor cracking or splits in the outer casing are not a reason for rejection but should be brought to the attention of the owner).
- b) Where visible, any brake component is missing, broken, modified, excessively worn, inoperative, leaking, and contaminated or is not securely mounted. Note: Use manufacturer's limits for assessing wear in components.
- c) Any hydraulic brake hose is of insufficient length to allow for the full range of steering and suspension movement, or is twisted.
- d) Hydraulic pipes or hoses are not constructed of approved material, or are fitted with incompatible fittings.
- e) Any braided hydraulic brake hose that is not marked with the manufacturer's name and compliance with a SAA, SAE, BS, JIS, DIN, ISO or ECE standards for flexible brake hoses.
- f) Hydraulic pipes or hoses are not manufactured, repaired and marked to relevant Australian Standards (or equivalent).
- g) Hydraulic pipes are repaired by heating or welding.
- h) The level of brake fluid is below the minimum indicated level.
- i) Where visible, the brake lining material, at any point, is worn to less than manufacturer's limits or if the limits are not known; 0.8mm above bonded shoe or pad mounting surface and level with the rivet or bolt heads on riveted or bolted linings.
- j) It is evident that any power, vacuum, electro- hydraulic assistance for the brakes is not operating or compressors, vacuum pumps, pulley belts are loose, cracked or worn.
- k) Evidence of brake fluid leaking from any component, joint or seal.
- I) Where ADR 42 applies, any brake hose is not marked with manufacturer's name.

- 1. Threaded bosses used for braking component mounting must have full depth thread engagement of at least the bolt diameter.
- 2. The use of copper pipe/ tube for hydraulic brake plumbing is not permitted.
- 3. Hydraulic brake hoses fitted to vehicles that are required to comply with ADR 7, 7/00 or 42/04 should be manufactured to SAE J1401 or equivalent. Flares for Tubing should be in accordance with SAE J5336 or equivalent.
- 4. Joining hydraulic brake pipes by brazing, silver soldering, etc. is not permitted.

Figure 2.1 - Drum brake components and Disc brake components.



### 2.3 Brake testing with a roller brake tester (where applicable)

This section should be read in conjunction with the equipment manufacturer's instructions

Using a roller brake tester, check the retardation forces on each wheel. Release all brakes, place transmission in 'neutral' (not 'park' for automatic transmission) and slowly apply a braking force until a maximum force is attained, or wheel slip occurs.

#### Reasons for rejection

- a) There is more than 30% difference in the brake force between the wheels on any axle.
- b) The minimum brake force on any wheel is less than the performance requirement specified in Table 2.1.
- c) With the brakes released, the average brake drag is more than the performance requirement specified in Table 2.2.
- d) The parking brake does not give a reading, or the vehicle does not lift out of the roller.

Table 2.1: Minimum Brake Force

TYPE OF VEHICLE	kN (minimum)
Less than 2.5 tonnes tare*	2.0
2.5 tonnes or over	3.0

Table 2.2: Maximum Brake Drag

TYPE OF VEHICLE	kN (minimum)
Loss than 2.F tannas tana	0.5 drive axle
Less than 2.5 tonnes tare	0.25 other axle
2.5.	I.0 drive axle
2.5 tonnes or over	0.5 other axle

- I. On some light vehicles the brake force limit might not be reached as the vehicle will be lifted out of the rollers. Similarly, it might not be reached if a load proportioning valve is fitted to the rear axle. In both cases it is considered a pass if the brake balance is within the specified limit.
- 2. For further information on Brakes, refer to Appendix A 'Brake drums and Discs'

## 3 Towing Attachments

OBJECTIVE: To ensure that all tow couplings, associated components and apparatus are in a serviceable condition and that they provide the necessary load carrying capacity.

#### Australian Design Rules relevant to this section:

ADR 42 General Safety Requirements

ADR 62 Mechanical Connections Between Vehicles

### 3.1 Visually inspect components

- a) Any towing attachment fitted to the vehicle, is not operational, not secure, cracked, excessively worn, deformed, corroded or damaged in a way likely to cause failure.
- b) Towbars, tow hooks, automatic pin type couplings and their attachments, if fitted to a vehicle, are not operational, not secure, or are cracked, excessively worn, deformed or damaged in a way likely to cause failure.
- c) Any mounting bolts, fasteners or weld beads have advanced corrosion or are missing.
- d) Where ADR 62 applies (vehicles manufactured after 1 July 1991), the towbar does not display,
  - I. The 'name' or 'trademark' of the manufacturer
  - 2. Make and model of vehicle for which the towbar is designed for, or a towbar part number
  - 3. The towbars 'maximum rated capacity'. (The 'maximum rated capacity' must be the 'ATM' in kg or maximum 'coupling 'D-value' in kN for which the towbar is designed and must not exceed the vehicle manufacturers rated towing capacity.
- e) The towing attachment is not fitted in accordance with the manufacturer's recommendations.
- f) Where any part of the coupling or towbar (hitch) is removable, the bolts, studs, nuts etc, fastening those parts do not have a locking device such as a U-clip, split pin, spring washer, or nylon lock nut.
- g) Tow coupling tongue (hitch) assemblies (if fitted) are not securely mounted to the tow bar assembly.
- h) Where visible the tow ball mounting bore is excessively worn or too large.
- i) The tow ball (if fitted) is not secure, is cracked or is excessively worn.
- j) The tow ball assembly (50mm type) is not legibly and indelibly marked with the mark '50' in characters not less than 5mm high. (See Note 2).
- k) Safety chain/s or cables are not able to be connected or affixed in such a way that the safety chains/cables are not liable to accidental disconnection and are not readily detachable from the towing vehicle.
- I) Safety chain attachments are not affixed to a part of the towbar that is permanently attached to the vehicle.
- m) All electrical wiring, connectors, couplings, flexible pipes etc. associated with a device for coupling a trailer to a motor vehicle are not securely mounted and operational.
- n) Where a towing attachment is fitted, an electrical connector with at least 7 pins complying with AS2513-1982 is not fitted and within (or able to be within) close proximity to the tow

- hitch/tongue (7 pin round "large" type, 7 pin round "small" type or either a 7 pin inline or 12 pin two row inline type).
- o) A bicycle rack is fitted to the towbar and bicycles are not being carried.
- p) A tow ball other than a 50mm type, that is not marked with; Manufacturer's name or Trademark, the maximum allowable ATM in Kg for up to 750kg and tonnes thereafter, and the words "use with model".

- 1. Towbar Where a vehicle is fitted with a tow ball (regardless of size) via a mounting system in the tray area, the mounting system is a towbar and must comply with applicable towbar requirements.
- 2. A 50mm ball coupling is, generally, not acceptable for trailers which have an Aggregate Trailer Mass (ATM) in excess of 2.3 tonnes. However, 50mm ball couplings meeting the requirements of AS 4177.3 (Caravan and light trailer towing components 50mm tow balls) are suitable for motor vehicles towing light trailers of up to 3.5 tonnes ATM.
- 3. Aggregate Trailer Mass (ATM) is the total mass of the laden trailer when carrying the maximum load recommended by the manufacturer. This includes any mass imposed onto the drawing vehicle when the combination vehicle is resting on a horizontal supporting plane.
- 4. For further information on Safety Chains, refer to Appendix B' Safety chains for trailers.

## 4 Steering and Suspension

OBJECTIVE: To ensure that the steering and suspension is in good working order and allows the driver effective control of the vehicle.

#### Australian Design Rules relevant to this section:

- ADR 10 Steering Column
- ADR 42 General Safety Requirements
- ADR 43 Vehicle Configuration and Dimensions
- ADR 69 Full Frontal Occupant Protection

# 4.1 With the engine running, check the operation of the steering by moving the steering wheel

#### Reasons for rejection

- a) There is more than 50mm of steering wheel rotational free play.
- b) The steering wheel is not free from structural damage.
- c) Accessories fitted to steering wheels (covers etc.) are loose.
- d) Components of the steering wheel are damaged or missing.
- e) The centre of the steering control is to the left of the vehicle's centre line. This reason for rejection does not apply to vehicles more than 30 years of age. Refer to manufacture date for registration purposes in Definitions section.
- f) Steering wheels fitted to passenger vehicles manufactured on or after I January 1971 are not replaced by a steering wheel which complies with ADR 10.
- g) The steering wheel is not securely attached to the steering column.
- h) Where ADR 69 applies, the steering wheel is not of the same specification as the one provided by the vehicle manufacturer.
- i) Where a supplementary restraint system (SRS) airbag is fitted, there is evidence that an airbag or other SRS system is inoperative (check the indicator light, where fitted this usually illuminates when the ignition is first switched 'on' and extinguishes after the system passes a self-test).
- j) A red warning light indicating a steering system failure is illuminated post any applicable self-test sequence.

- 1. The minimum diameter of any replacement steering wheel must not be less than 330mm. The replacement wheel must be designed to a similar configuration as the original (e.g., padded centre hub and dished spokes).
- 2. A vehicle that is over 30 years of age may have the centre of the steering wheel to the left of the centre line of the vehicle, referred to as left hand drive.

## 4.2 Visually inspect all steering components under the bonnet and under the vehicle

Take care with spring-loaded and rubber-bush joints. These components may be designed to have a manufacturer's tolerance of allowable movement.

#### Reasons for rejection

- a) Any steering component is missing, cracked or broken or is worn beyond manufacturer's limits.
- b) Any steering component can be seen to have been repaired or modified by bending, heating or welding. Note: Does not apply where an original component has been fitted by the manufacturer or repairs have been conducted to manufacturer's specifications.
- c) Any nut, bolt or locking device is missing or insecure.
- d) Tie rod and drag link ends are not secured in both the rod and taper with fasteners suitably locked (e.g., split pins, lock-wire, tabs or self- locking nuts).
- e) There is any movement on the spline between pitman arm and the steering box or between any thread or tapered joint.
- f) Free play is evident between any coupling joined by a spline or keyway.
- g) Free play due to wear in any steering component exceeds manufacturer's specification (if that specification is not known, free play exceeds 3mm).
- h) Any power steering component is leaking, damaged or inoperative.
- i) Any steering componentry that is not securely mounted, and free from excessive side or end play, roughness, or binding.
- j) Any steering component fouls another component under any combination of steering and/or suspension travel.
- k) Any power steering belts are loose, broken, frayed, missing, or cracked through to reinforcing plies.

#### 4.3 Examine the idler arm

If fitted, attempt to move the idler arm in the direction of the pivot axis.

#### Reason for rejection

a) The play at the end of the idler arm exceeds 8mm.

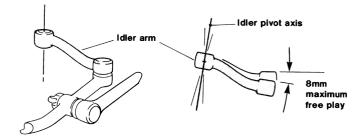


Figure 4.1

### 4.4 Visually inspect the suspension

#### Reasons for rejection

- a) Any suspension component is broken, damaged, misaligned, insecure, cracked, cut, missing, oil soaked, or can be seen to have been repaired or modified by heating bending or welding or is worn beyond manufacturers' limits.
- b) Any shock absorber or strut is inoperative; or is leaking fluid.
- c) Any shock absorber or strut is not securely mounted.
- d) Any nut, bolt or locking device is missing or not secure.
- e) With the wheels raised, the vertical free play of any wheel exceeds 3mm. Refer note 5 below.

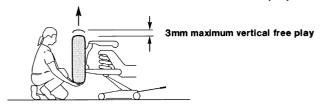


Figure 4.2

f) With the wheels raised, the free play of the wheel measured at the rim exceeds 6mm in total or 3mm from any component. Refer note 5 below.

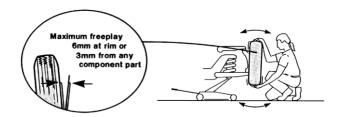


Figure 4.3

- g) Any axle component, U-Bolt, spring hanger, centre bolt etc associated with the axle installation or performance is cracked, loose, broken, missing or worn outside of manufacturers safe working limits.
- h) Nuts do not fully engage the U Bolt thread.
- i) Any springs are cracked, broken, missing, displaced more than 10% of their width or in contact with wheels, brakes or the frame.
- Suspension air bags leak.
- k) The vehicle is raised by more than 50mm from the original manufacturer's height without certification.
- I) For vehicles raised by more than 50mm and certified by the fitment of a modification plate identifying a LS8 modification code, the suspension alone has increased the vehicle's OEM height by more than 75mm. Note, the body of a modified vehicle may be increased up to 150mm under code LS8 however the increase must be by a combination of a max 75mm suspension lift, max 50mm height increase by fitment of body blocks, max 25mm height increase by fitment of larger tyres.
- m) The vehicle is raised and does not maintain at least two thirds of the manufacturer's suspension travel.
- n) The vehicle is lowered by more than one-third of the original suspension travel.
- o) The vehicle is fitted with extended length shackles.
- p) Where lowering blocks are fitted, they

- 1. are not constructed from steel, aluminium, or metal of an equivalent strength,
- 2. do not positively engage in the axle spigot hole and spring centre bolt.
- q) A vehicle does not have a ground clearance equal to or more than:
  - 1. 100mm within one metre of an axle, and
  - 2. One thirtieth of the distance between the centres of adjacent axles at a midway point between them.
- r) Were suspension modifications have been performed that require certification to the National Code of Practice for Light Vehicle Construction and Modification there is no modification plate reflecting the modification(s) certification.

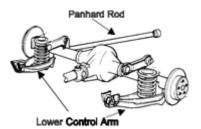


Figure 4.4

- 1. When measuring ground clearance, tyres, wheels and wheel hubs are not taken into consideration.
- 2. Any suspension height modifications must comply with conditions set out in the National Code of Practice for Light Vehicle Construction and Modification Section LS Tyres, Rims, Suspension and Steering.
- 3. Superficial crazing is acceptable on rubber bushes. This is often present on rubber suspension components even when new.
- 4. For further information on suspension modifications, refer to Appendix D 'Suspension modifications and lift kits' and Appendix E 'Ground clearances'
- 5. Manufacturers' tolerances take precedence over specified free play measurements when performing these checks.

## 5 Wheels and Tyres

OBJECTIVE: To ensure that road wheels and tyres are of a suitable type and condition and that they provide the necessary load carrying capacity, speed rating and control of the vehicle.

#### Australian Design Rules relevant to this section:

ADR 23 Passenger Car Tyres

ADR 42 General Safety

### 5.1 Visually inspect the inside and outside of each road wheel

#### Reasons for rejection

- a) Any wheel or rim is cracked, has pieces of casting or pressing missing, or is buckled, shows signs of welding repair or modification; signs of elongation of stud holes or redrilling of stud holes.
- b) A wheel nut or stud does not have a thread engagement length at least equal to the thread diameter, the wheel nut and wheel mounting taper does not match each other.
- c) Any hub has missing or broken wheel mounting nuts, studs or bolts.
- d) Any spoked wheel has any missing, loose, broken, bent or cracked spokes.
- e) The tyre or rim makes contact with or fouls any component at any point over the full range of suspension travel or steering movement.
- f) Wheels/rims are not of an approved type and construction.
- g) Spacer plates are used between hub and wheel, except where fitted by the vehicle manufacturer.
- h) The wheel is of the beadlock type that requires fixtures to penetrate in to or through the tyre.

**Note:** Beadlocks are accepted on compliant rims where the locking device clamps the tyre bead and does not require any bolt, screw or other device to penetrate into or through the tyre.

## 5.2 Visually inspect each road tyre – General Requirements

- a) Any road tyre fitted to the vehicle is not a pneumatic tyre.
- b) A tyre fitted to the vehicle identifies it is not suitable for street, highway or road use. For example, contains the wording "off-road use only" or "not for highway use", "competition use only" etc.
- c) The tyre has less than 1.5mm tread depth in all principal grooves (excluding at any tread depth indicator).
- d) A tyre has excessive uneven (disproportional) wear across its width.
- e) The tyre has deep cuts, bulges, exposed cords, advanced perishing or other signs of decay or carcass failure on either the side wall or tread surface.
- f) Tyres fitted to rims on an axle or axle group are not the same size.
- g) Tyres are not compatible with the rim to which they are fitted and not of a type suitable for normal road use.
- h) The tyre has been re-grooved (except where indicated on the sidewall that the tyres are suitable for re-grooving).
- i) Any retreaded tyre fitted to the vehicle is not marked with the name or identification of the retreader and speed rating of the tyre.

- j) Dual tyre sets contact each other. E.g., sidewall contact.
- k) Tyre load ratings are less than the minimum ratings specified originally by the vehicle manufacturer, or where the vehicle GVM/ATM has been re-rated higher than OEM the load rating are not suitable for the revised GVM/ATM.
- I) When in the straight ahead position the sidewall of any tyre protrudes beyond the extreme width of the mudguard or body for that wheel. Refer notes below.
- m) Alteration of tyres that effects the correct (accurate) operation of the speedometer.
- n) A symmetrical (directional) tyre fitted to the vehicle in the wrong direction.
- o) The tyre width of the narrowest tyre fitted to a vehicle is less than 70 percent of the width of the largest tyre fitted or less than the manufacturer's narrowest optional tyre and rim as indicated on the manufacturer's tyre placard.

#### Notes:

- 1. Retreads must comply with Australian Standards AS 1973-1993 for speed and construction. For further information on retreaded tyres, refer to Appendix F 'Retreaded tyres.'
- 2. **Principal grooves** are the wide circumferential grooves usually positioned in the central zone of the tyre tread, which have the tread wear indicators located in their base.
- 3. **Secondary grooves** are supplementary grooves of the tread pattern and are typically shallower than principal grooves. These grooves may disappear in the course of the tyre's life.
- 4. Scrub/brush bars external to the vehicles body work are not included in the vehicle's width or mudguard for the purpose of assessing tyres.

### 5.3 Tyres fitted to Passenger cars or Passenger car derivatives

- a) For a passenger car or derivative, the maximum tyre width is more than 1.3 times (30%) wider than the vehicle manufacturer's widest optional tyre for that model.
- b) For a passenger car or derivative, the tyre/s have an overall nominal diameter greater than 15mm larger or greater than 26mm smaller than that of any tyre designated by the vehicle manufacturer for that model.
- c) For a passenger car with 4 or more wheels manufactured after 1972, the speed rating of all tyres is not at least 180 km/h (speed rating S) unless a lower rating has been specified by the vehicle manufacturer.

#### Note:

A passenger car derivative is a motor vehicle known as a utility, station wagon or panel van in which the body that is forward of the windscreen and most of the mechanical components are the same or substantially the same as those of a passenger car of that make/model.

## 5.4 Tyres fitted to Goods Vehicles

- a) For a goods vehicle the maximum tyre width is more than 1.5 times larger than the vehicle manufacturer's widest optional tyre width.
- b) For a goods vehicle with 4 or more wheels manufactured after 1972, the speed rating of all the tyres is not at least 120 km/h, unless a lower rating has been specified by the vehicle manufacturer.

c) A tyre is fitted to a goods vehicle originally fitted with light truck tyres, that does not have a load rating equal to or greater than 1.10 times the highest individual wheel load when the vehicle is laden to its GVM.

#### Note:

Maximum regulation dimensional limits must not be exceeded.

### 5.5 Tyres fitted to Four Wheel Drive/Off-Road Vehicles

#### Reasons for rejection:

- a) For an off-road passenger vehicle (four-wheel drive) the maximum tyre width is more than 1.5 times larger than the vehicle manufacturer's widest optional tyre width.
- b) For an off-road passenger vehicle, or goods vehicle (MC or N ADR category vehicles), the tyre/s have a rolling diameter greater than 50mm larger or greater than 26mm smaller than that of any tyre designated by the vehicle manufacturer for that model.
- c) For an off-road vehicle with 4 or more wheels manufactured after 1972, the speed rating of all the tyres is not at least 140 km/h, (speed rating N) unless a lower rating has been specified by the vehicle manufacturer.
- d) For an off-road goods vehicle originally fitted with light truck tyres, the tyre does not have a load rating equal to or greater than 1.10 times the highest individual wheel load when the vehicle is laden to its GVM.

#### Note:

Maximum regulation dimensional limits must not be exceeded.

## 5.6 Measure the wheel track, where modified from standard, taking measurement from the centre of the tyres

#### Reason for rejection

- a) The wheel track of a passenger car or derivative is increased by more than 25mm beyond the maximum specified by the vehicle manufacturer for the particular model.
- b) The wheel track of off-road four wheel drive vehicles and goods vehicles (MC, NA, NB ADR category vehicle) is increased by more than 50mm beyond the maximum specified by the vehicle manufacturer for the particular model.
- c) The wheel track has been reduced below the manufacturer's specification for the vehicle.

#### Note:

Where the manufacturer offers the option of a wider track measurement (e.g. where wider wheels are optional), the maximum allowable track will be the maximum wheel track offered by the manufacturer plus 25mm for passenger car or derivative or 50mm for an off-road or goods vehicle (MC, NA, NB ADR category).

## 6 Body Condition

OBJECTIVE: To ensure the vehicle body is free of protrusions, structurally sound and free from any defects or additional fittings that are likely to increase the risk of bodily injury to any occupant and other road users.

## 6.1 Check the operation of all doors, door locks and latches and the bonnet lock and latches

### Reason for rejection

- a) Any inside or outside door latch, bonnet, tilt cab, boot lid, hatch, or removable covers (including safety catches, as applicable) are not securely fitted, mounted and operating correctly.
- b) Door fastenings, hinges, inside and outside door control handles (as applicable) are not fitted, secure or operating correctly.
- c) Any bonnet or similar panel which covers the engine, luggage space or battery compartment and which is forward of the windscreen, does not have a device to secure the panel in the closed position.
- d) Any bonnet or similar panel which opens from the front, and which, in any open position partially or completely obstructs a driver's forward view through the windscreen does not have a functioning primary and secondary securing device.
- e) Any hinges or slides, for doors, tailgates, side gates, hatches or compartment covers are damaged or worn and likely not to prevent load or passenger from falling off.

## 6.2 Visually inspect vehicles glazing – General requirements

#### Reason for rejection

- a) Glazing used in any motor vehicle built after June 1953 is not safety glass
- b) Where ADR 8 applies (I July 1988 except for LB & LE categories for which I March 1991 applies), the glass does not display an identification mark or symbol.
- c) Applied films are not free of bubbles, scratches or other defects that significantly affect the driver's vision.
- d) Glazing is loose in its frame or cracked to the extent that sharp edges are exposed.
- e) Glazing, other than the windscreen, that is necessary for the driver to see the road is discoloured, obscured, badly scratched, sandblasted or fractured to the extent that it interferes with the driver's view.
- f) At least half the number of windows are not capable of being opened where the vehicle is not provided with an alternative method of ventilation.
- g) Retro fitted sun-roof does not have modification approval and modification plate (code LH 2) affixed.

## 6.3 Visually inspect the windscreen and other laminated glazing

OBJECTIVE: To ensure that the windscreen, windows and associated components are in such a condition that the driver has a clear field of vision at all times under the normal range of climatic conditions and the glazing is structurally sound.

#### Reason for rejection

- a) The windscreen from the centre of the vehicle in front of the driver is deteriorated to the extent it interferes with the drivers view.
- b) Any cracks in laminated glazing (including windscreens and panoramic roofs) penetrate more than one layer of glass laminate or are more than 150mm long.
- c) The wiped area of the windscreen in front of and on the same side of the vehicle as the driver has:
  - 1. Damage (such as scoring, sandblasting or severe discolouration) that interferes with the driver's view.
  - 2. Any bulls-eye or star fracture exceeding 16mm in diameter.
  - 3. Any two (2) of the following
    - i. Hairline crack up to 30mm long.
    - ii. A crack from the edge of the windscreen up to 75mm long.
    - iii. A bullseye crack or star fracture up to 16mm in diameter

**Note:** Grooves in windscreens that are designed specifically to clean the wiper blades are not regarded as damage unless they affect the driver's view. Approved grooving is usually identified by the installer.

- d) Items that obscure the driver's view are placed in the corresponding area on the other side of the windscreen.
- e) Windscreens are removed and not replaced.

EXCEPTION: Any two of the following three types of damage are acceptable:

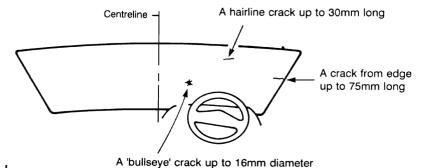


Figure 6 I

- 1. This rule applies to windscreens repaired with clear resins. After repair, there must be no visible damage beyond the limits given above.
- 2. For further information on Windscreens, refer to the Appendix for 'Windscreen Damage and Repair'

## 6.4 Test the light transmittance level of the windscreen, side and rear windows

**Note:** This section should be read in conjunction with the light meter manufacturer's instructions.

A light meter may have up to a 5% measuring inaccuracy. A vehicle is accepted if the readings are up to and including 5% lower than the minimum light transmittance as described below.

#### Reasons for rejection

- a) Any windscreen glazing is coated to reduce the light transmittance (luminous transmittance) in an area other than the greater of; the area above the highest point of the windscreen that is swept by the windscreen wiper or the upper 10% of the windscreen.
- b) Glazing that has a coating to reduce the light transmittance has a reflectance of more than 10% (metallic or mirror like).
- c) The visible light transmittance of any glazing (including any applied film, but excluding privacy glass) is less than the requirements set out in table 1 below.

**Note:** The ADRs allow privacy glass to be fitted to a vehicle rearwards of the driver's vision. Privacy glass has no minimum light transmittance requirements and is often darker than T20 tint. As privacy glass incorporates tint within the manufacturing of the glazing, it is not an applied film and is not required to meet Table I below.

Table 1

Glazing	Condition	Minimum Light Transmittance	NOT TO BE REJECTED until meter readings are LESS than
Windscreen	Above the arc swept by the windscreen wipers, or the upper 10% of the windscreen, whichever is the lesser.	0%	
	All other areas of windscreen.	70%	65%
Windows adjacent	Windows adjacent to the normal driving position		30%
	Where the vehicle has one side rear vision mirror fitted only.	70%	65%
Windows	Vehicle has a rear vision mirror fitted to both sides of the vehicle.	20%	15%
located behind the normal driving position	Vehicle designed primarily for the carriage of goods, fitted with a rear vision mirror to each side of the vehicle, and has at least 4-wheels or for 3-wheels a GVM more than one tonne. Note, a vehicle designed primary for the carriage of goods is an 'N' ADR category vehicle.	0%	

# 6.5 Visually inspect body panels, chassis and sub frame for security of fitments, dangerous protrusions and rust

#### Reasons for rejection

- a) Exterior body work or fittings have sharp edges due to rusted panels or body damage, or protrusions of any after-market object or fittings, not technically essential to the operation of the vehicle, which protrudes from any part of the vehicle that could cause injury to a person coming into contact with the vehicle.
- b) Any structural member, such as a sub frame, floor panel, door sill, seat or seat belt anchorage, is cracked or has advanced rust.
- c) Unrepaired damage or modifications affecting the structural integrity of the vehicle.
- d) Any evidence that body has been cut and joined.
- e) Where ADR 29 applies, the doors of a vehicle have advanced rust.
- f) Chassis frame members or supporting members are cracked, loose, sagging or broken.
- g) Frame members in load areas are missing, damaged or unsecured.
- h) Tilting cabin or tray latches do not hold the cabin or tray securely in the operating position.
- i) A device (including a Vehicle Frontal Protection System and/or any accessories) fitted to the vehicle that is confirmed to affect a vehicle's compliance with applicable Australian Design Rules. Note: Refer to Appendix O Modifications for further information on bull bars
- j) Any repairs carried out do not retain the original strength of the component/section.
- k) Any object or fitting, not technically essential to the vehicle, which protrudes from any part of the vehicle so that it is likely to increase the risk of bodily injury to any person.
- I) Any component that adversely affects the safety of the vehicle, or obscures the drivers view.
- m) Any vehicle control is missing or not securely affixed or displays sharp edges or dangerous protrusions.
- n) Any vehicle trim is missing or not securely affixed so as to uncover or display sharp edges or dangerous protrusions.
- o) Any air cleaner assembly, carburettor, throttle body or other ridged component protrudes through the bonnet that is not protected by a compliant bonnet scoop. Refer to Appendix O for further information on bonnet scoops.

## 6.6 Externally fitted accessories

- a) Any externally fitted accessory that is loose and/or damaged in a manner affecting the security of its mounting or is otherwise not securely attached in a manner to withstand factors that may degrade it.
- b) Tow bar mounted bicycle carrying racks or similar devices are not removed when not in use, unless specifically designed to fold away.
- c) Where fitted a bicycle and the carrier assembly (or similar) obscures any compulsory lighting or the number plate.
- d) Fishing rod holders, driving lights, or fog lights protrude above or forward of the top rail or leading edge of the bumper or bull bar.

#### 6.7 Dimensions – Motor Vehicle

#### Reason for rejection

- a) The width of the vehicle exceeds 2.5 metres.
- b) The height of the vehicle exceeds 4.3 metres or 4.6 metres if the vehicle is a livestock carrier built to carry cattle, sheep, pigs or horses.
- c) The length of the motor vehicle exceeds 12.5 metres.

#### Note:

Total vehicle width is to be measured without taking into account any of the following:

- anti-skid devices mounted on wheels
- central tyre inflation systems
- side mounted lights and reflectors
- rear vision mirrors
- signalling devices
- tyre pressure gauges
- permanently fixed webbing assembly-type devices, such as curtain side devices, if the maximum width across the vehicle and including the devices, does not exceed 2.55 metres.

## 6.8 Rear overhang – Motor Vehicle

#### Reason for rejection

a) The rear overhang (ROH) of the motor vehicle exceeds the <u>lesser</u> of the following two measurements: - 60% of the wheelbase or -3.7 metres. Refer figure 6.1

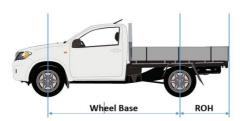


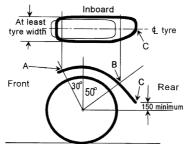
Figure 6.1

**Note:** For the rear overhang requirements of a trailer, refer to the trailers & caravan's section of this document.

# 6.9 Inspect the wheel arches/mudguards and mudflaps, with the wheels in the 'straight ahead' position

- a) Mudguards are not fitted to all wheels of passenger and goods type vehicles.
- b) The mudguard and/or bodywork covering any wheel is not at least as wide as the tyre (when measured at top of tyre) over the arc between points A and B in the diagram below.
- c) Point C (being on the rear edge of the mudguard/mudflap/ bodywork and in line with the centreline of the tyre see diagram below) is more than 150mm in vertical distance above the centre of the wheel.

**Note:** Points along the rear edge which are inboard of Point C should also meet this requirement. A mudflap which is too flexible to maintain its position during normal driving conditions should be disregarded for this check.



- d) For a passenger car the lower edge of the mudflap is more than 230mm above ground level when parked on level ground.
- e) For a vehicle with off road capabilities the lower edge of the mudflap in more than 300mm above ground level when parked on level ground.

#### Note:

For further information on Mudguard requirements, refer to Appendix H' Mudguard and Mudflap Requirements'.

### 6.10 Visually inspect rear vision mirrors

OBJECTIVE: To ensure that the mirrors and associated components are in such a condition that the driver has a clear field of vision by reflection of the road behind the vehicle and any following or overtaking vehicles at all times under the normal range of climatic conditions.

#### Reasons for rejection

- a) Rear vision mirrors are cracked, loss of reflectivity, missing, or do not provide a clear view of the road to the rear of the vehicle.
- b) Where there is no effective rear vision provided by the internal rear vision mirror, the vehicle does not have an external rear vision mirror fitted to each side.
- c) Any light commercial vehicle (except a station wagon) is not fitted with an external rear vision mirror on each side of the vehicle.
- d) Mirrors are not securely mounted and stable
- e) Mirrors are obscured.
- f) The right side rear vision mirror fitted to a vehicle over 3.5 tonnes Gross Vehicle Mass (GVM) is not fitted with a flat reflecting surface.
- g) The rear vision mirror is not adjustable in both horizontal and the vertical plane.
- h) Where the vehicle has extendable side mirrors, the mirrors are not in the minimised position.

## 6.11 Visually inspect and check the operation of the windscreen wipers and windscreen washers

- a) The windscreen wipers are not operational at all speeds and do not return to their normal parked position.
- b) Windscreen wiper blades are missing, cracked, curled, frayed, insecure, torn or otherwise ineffective.

- c) Windscreen washers do not work or are not correctly aimed onto the windscreen.
- d) The windscreen washer is not able to be operated from a normal driving position.

### 6.12 Check the operation of the horn

#### Reasons for rejection

- a) A warning device (horn) is not fitted.
- b) A warning device (horn) is not clearly audible and the actuating mechanism is not located within the reach of the driver in the normal seated position.
- c) The tone is not of a single pitch (sirens or multi-toned are not acceptable).

### 6.13 Visually inspect the front and rear number plates

#### Reasons for rejection

- a) There is no provision for affixing a number plate in a upright position parallel to the vehicle's axles, no higher than 1300mm from the ground at,
  - 1. the rear of the vehicle for motorcycles and trailers.
  - 2. the front and rear of the vehicle for all other vehicles. Note: There must be a number plate light adjacent to the location for the rear number plate
- b) Number plate is obscured, for example by a towing attachment, tow ball, bike rack, bike or other accessory.
- c) Number plate covers are tinted, reflective, rounded, or bubble like.
- d) The number plate shows evidence of tampering, including products applied to its surface.
- e) The number plate has been reduced in size.
- f) The number plate is damaged or faded to the extent that the registration number is not legible from a distance of twenty metres.
- g) Number plate has a substance applied to the reflective surface that would prevent the production of a clear photograph.
- h) The number plate is not issued or approved by a State or Territory Road Transport Authority.
- i) The number plate is mounted more than 1300mm from the ground.
- j) The number plate does not face the front or rear in an upright position parallel to the vehicles axles.
- k) Characters in the number plate are not clearly visible from a distance of 20 metres at any point within an arc of 45 degrees from the surface of the number plate above or to either side of the vehicle.

## 6.14 Where ADR 25 applies, check the operation of the anti-theft/steering lock

- a) The ignition key can be removed in any position except the 'anti-theft' (lock) position.
- b) When engaged, the anti-theft lock does not prevent at least one of the following actions:
  - Steering the vehicle.
  - Engaging the forward drive gears.
  - Release of the brakes.

### 6.15 Check the operation of the windscreen demister

#### Reasons for rejection

a) The motor vehicle is not fitted with a device that is capable of removing condensed moisture from the inside of the windscreen, for the following ADR category vehicles:

MA from I Jan 1971, MB from I Jan 1985,

MC from I Jan 1973, MD1 & MD2 from I July 1983,

MD3 & MD4 from 1 July 1988, NA from 1 July 1973 NB1 from 1 July 1973, NB2 from 1 July 1976.

b) The demister does not demist the window, directly in front of the drivers view, in under 10 minutes

## 6.16 Speedometer

- a) Speedometer is not operational.
- b) Speedometer indicator values are not legible.
- c) A vehicle manufactured from 1 July 1988 onwards, the speedometer does not display increments in km/h.

## 7 Seats and Seatbelts

OBJECTIVE: To ensure that all seating and restraints fitted to the vehicle provide a comfortable and secure position for the driver to control the vehicle and control the deceleration of all vehicle occupants

#### Australian Design Rules relevant to this section:

- ADR 3 Seat Anchorages
- ADR 4 Seatbelts
- ADR 5 Anchorages for Seatbelts and Child Restraints
- ADR 22 Head Restraints
- ADR 42 General Safety Requirements
- ADR 69 Full Frontal Impact Occupant Protection

#### 7.1 Check seats

#### Reasons for rejection

- a) Seat frames or attaching points are loose, cracked, broken or have fasteners missing.
- b) Any seat has an exposed sharp edge or other parts that protrude due to damage.
- c) Seat cushions or backrests are not fitted.
- d) A seat slide or other seat control used for adjustment of a seating position is not operational, does not hold any selected position allowed for in the mechanism's design.
- e) Any reduction, increase, or modification in seating is not certified by an approved modification plate.
- f) The vehicle is fitted with alternative seat/s and there is no appropriate and approved modification plate affixed to the vehicle.
- g) Any passenger car, forward control vehicle passenger vehicle, off-road passenger vehicle or light omnibus (up to 12 seats) that was built after 1 July 1988 is not fitted with head restraints to each front outboard seating position.
- h) Any light goods vehicle (GVM not exceeding 3.5 t) manufactured after I July 1996 is not fitted with head restraints to the front outboard seating positions.
- i) Where aftermarket seat covers are fitted to seats fitted with a Supplementary Restraint System (SRS), there is no SRS compatible label permanently attached to the seat covers.
- j) Installation of a cargo barrier between rows of designated seating positions. Where the seating positions behind the cargo barrier have not been rendered inoperative (unable to be used by passengers) without use of mechanical tools and significant effort to re-establish the seating positions.

# 7.2 Check the operation of seats, seat belts, buckles and other restraints, and inspect webbing and metal stalks

#### Reasons for rejection

a) Seat belt assemblies are not securely attached to the respective anchorage point, or show signs of distortion, cracks, fractures, misalignment or other damage likely to cause failure.

- b) Any retractor, locking mechanism, buckle, tongue, guide or adjustment device is damaged, incomplete or inoperative.
- c) Any metal stalk is missing or has broken wires.
- d) In other than ADR 34 vehicles, where fitted, child restraint anchorage points are loose or cracked.
- e) Where ADR 34 applies, child restraint anchorages or attachment points are loose, cracked or missing.
- f) Child restraints anchor clips or child restraint anchor fittings are installed to luggage restraint anchor points.
- g) Where additional or non OEM child restraint anchorages have been fitted, there is no modification plate affixed to the vehicle representing certification to code LK6.
- h) Non retractable seat belts do not have sufficient adjustment to allow effective use of the belts and do not maintain the adjusted positions.
- i) Where ADR 69 applies, the seatbelt warning light does not operate for a minimum of 4 seconds when the ignition is switched to the on or start position. Note: The warning light does not have to activate if the driver's seatbelt is fastened or withdrawn more than 10cm from the retractor.

ADR 69 applies to the following ADR category vehicles as follows:

MA – January 1996 onwards, MB & MC - January 2000 onwards, NA1 (NA category vehicle with a GVM up to 2.7 tonnes) – July 2000 onwards.

- j) Seatbelt webbing that is.
  - Damaged.
  - Frayed (to the point where the seatbelt strand/s have worn/cut through or separated).
  - Stretched.
  - Tied in a knot.
  - Twisted.
  - Split.
  - Torn.
  - Cut.
  - Altered or modified.
  - Severely deteriorated.
  - Burnt.
  - Repaired. Not correctly and firmly secured to each end fitting.
  - Webbing/stitching becoming detached at any point.

- 1. Discolouration alone is not a reason for rejection, however if there is a texture change as well it should be rejected.
- 2. For further information on Seatbelts, refer to Appendix I' Australian Design Rule Seatbelt Requirements'.

# 8 Lighting

OBJECTIVE: To ensure that all lights, reflectors and other electrical lighting components as required by prescribed standards are operational.

#### Australian Design Rules relevant to this section:

- ADR I Reversing Lamps.
- ADR 6 Direction Indicator Lamps
- ADR 13 Installation of Lighting on Other Than L Group Vehicles
- ADR 19 Installation of Lighting on L Group Vehicles
- ADR 45 Lighting Not Covered by ECE Regulations
- ADR 46 Head Lamps
- ADR 47 Reflex Reflectors
- ADR 48 Rear Registration Plate Illuminating Devices
- ADR 49 Front and Rear Position (Side) lamps, Stop Lamps and End-outline Marker Lamps
- ADR 50 Front Fog Lamps
- ADR 51 Filament globes
- ADR 52 Rear Fog Lamps
- ADR 60 Centre High Mounted Stop Lamps
- ADR 67 Installation of Lighting on Three Wheel Vehicles
- ADR 74 Side Marker Lamps
- ADR 75 Headlamp Cleaners
- ADR 76 Daytime Running Lamps
- ADR 77 Gas Discharge Headlamps
- ADR 78 Gas Discharge Light Sources

## 8.1 Visually inspect the compulsory reflectors fitted to the rear of the vehicle

#### Reason for rejection

- a) Red reflector(s) are damaged, discoloured or missing. Note: reflectors may be incorporated in the lamp assembly.
- 8.2 Visually inspect and check the operation of all mandatory lamps fitted to the vehicle and light emitted.

- a) Any of the following lamps do not work or has a colour other than as specified.
  - I. Headlamp (high/low beam light) (white)
  - 2. Front park or side lights (white)
  - 3. Tail lamps (red light)
  - 4. Brake lamps(s) (red light)
  - 5. Turn signal indicator lamps (yellow lights)

- 6. Clearance lamps (front: yellow/white, side: yellow, rear: yellow/red lights)
- 7. Number plate lamp (white light).
- b) Any rear lamp other than a reversing lamp is in a condition or damaged to the extent that white light shows to the rear of the vehicle.
- c) Any yellow clearance lamp or front turn signal is damaged so that it shows white light.
- d) The number plate lamp is not directing light onto the surface of the rear number plate.
- e) Any optional lamps or reflectors interfere with any compulsory lights or reflectors.
- f) Additional lamps (fitted as accessories) are fitted in such a way that their operation will impair the operation of regulatory lighting, and contravene prescribed standards.
- g) LED lamp assemblies that have more than 20% of the individual LEDs for the particular light not working.
- h) Lamps as follows are not fitted to a vehicle (dimensions at centre of lights).

#### At front of vehicle:

- 1. White light main beam (high) beam headlamps.
- 2. Two white dipped beam headlamps, min 500mm and max 1400mm (1200mm Oct 1991 onwards) off ground, min 600mm separation.
- 3. White light park lamps, min 500mm (350mm Oct 1991 onwards) off ground, max 510mm (400mm October 1991 onwards) inboard of vehicle side, wired to remain 'on' with headlamps if vehicle built after 1969. **Note:** vehicles manufactured prior to June 1953 are not required to be fitted with park lights.
- 4. Yellow turn signal indicators (7/73 onwards, pre 7/73 may be white), min 350mm and max 1500mm from the ground (if 1500mm not practicable 2100mm), min 400mm separation if vehicle less than 1300mm wide or 600mm if vehicle over 1300mm wide, max 500mm inboard of vehicle side. **Note:** vehicles manufactured prior to September 1966 are not required to be fitted with directional indicators, however are recommended.
- 5. Two clearance lamps luminating yellow or white light (where vehicle is over 2.2m wide), min 750mm above headlights, max 400mm inboard of side of vehicle; Note front clearance lamps must not be fitted to a vehicle that is less than 1.8 metres in width.
- 6. Two hazard warning lights (in accordance with ADR 13/00 applicability, 10/91 onwards), incorporated with turn signal indicators.

#### At Rear of vehicle:

- 7. For a vehicle manufactured between 1934 and 1959 vehicle, a single tail light in the centre or to the right side of vehicle.
- 8. For a vehicle manufactured after 1959 two red tail lights, lamps mounted max 1500mm off ground or where this is not practicable a maximum of 2100 mm from the ground.
- 9. Two red reflectors, max 150 mm off ground, max 400mm (250mm if vehicle more than 2.2m wide) inboard of side of vehicle.
- 10. Registration plate lamp/s, producing white light to illuminate registration plate.
- 11. For a vehicle manufactured between 1934 and 1959 vehicle, a single stop lamp in the centre or to the right hand side of vehicle.
- 12. For a vehicle manufactured after 1959 two red brake lamps, min 35 mm and max 1500mm off ground. Note: a brake light may flash as an indicator for a vehicle manufactured prior to 1973.

- 13. One rearward facing centre high mounted brake lamp that illuminates red light is mounted at the rear window or the rear of the vehicle. Applicable 1/7/1989 onwards for passenger cars (MA), I July 1996 onwards for forward control and off road passenger vehicles (MB & MC), and September 2007 onwards for light goods vehicles up to 3.5t GVM (NA) with an enclosed cargo space.
- 14. Yellow light (red permitted prior to 7/73) turn signal indicator lamps, min 350mm and max 1500mm off ground, min 600mm separation. Note: vehicles manufactured prior to September 1966 are not required to be fitted with directional indicators however are recommended.
- 15. Two hazard warning lights (10/91 onwards), incorporated with turn signal indicator lamps.
- 16. I or more white/amber (10/91 onwards the light emitted must be white) rearward facing reverse lamp/s, 01/72 onward for passenger cars and 07/73 onwards for other light motor vehicles, optional on trailers,

# 8.3 Visually inspect and check the installation and operation of all optional lamps fitted to the vehicle and light emitted.

Note; the installation of the lights mentioned in this part (8.3) is optional, however if the lights are fitted, they are required to comply with the following reasons for rejection.

- a) Driving Lights
  - 1. The lamp/s luminate a colour other than white.
  - 2. The number of additional lamps exceeds 4.
  - 3. The lamps are not forward facing.
  - 4. The lamps can be switched on other than when the main beam headlamps are switched on.
  - 5. The lamps are fitted in a way that causes a dangerous protrusion.
  - 6. The lamp projects/protrudes above the front edge of the bonnet line.
  - 7. Due to the mounting position, light is emitted that would cause discomfort to the driver either directly or indirectly from reflected surfaces.
- b) Front Fog lamps (October 1991 onwards)
  - 1. The lamps shows a colour other than white or yellow.
  - 2. More or less than 2 fog lamps are fitted (I lamp is to be fitted to each side).
  - 3. The lamps are not forward facing.
  - 4. The lamps are mounted less than 250mm above the ground or more than 800mm above the ground.
  - 5. The lamps are mounted higher than the dipped beam headlamps.
  - 6. The lamps are mounted more than 400mm in from the extreme outer edge of the vehicle.
  - 7. It is not possible to switch the lights on and off independent of the main and dipped beam headlights.
  - 8. (01/2001 onwards) The fog lamps are not fitted with an independent tell-tale warning light that illuminates when the fog lamps are switched on.

- 9. The fog lamps are not aligned to show light at 5 degrees up and down, and 10 degrees inward and 45 degrees outward.
- 10. The lamps are fitted in a way that causes the light from the lamp to either directly or in-directly cause discomfort to the driver.
- c) Front Fog lamps (pre October 1991)
  - 1. The lamps shows a colour other than white or yellow.
  - 2. More or less than 2 fog lamps are fitted to the vehicle. (I lamp is to be fitted to each side).
  - 3. The lamps are not forward facing.
  - 4. The lamps are mounted higher than the dipped beam headlamps.
  - 5. The lamps are mounted more than 400mm in from the extreme outer edge of the vehicle.
  - 6. It is not possible to switch the lights on and off independent of the main and dipped beam headlights.
  - 7. The lamps are fitted in a way that causes the light from the lamp to either directly or in-directly cause discomfort to the driver.
- d) Rear Fog Lights (October 1991 onwards)
  - 1. The lamp/s show a emit a colour other than red.
  - 2. More than 2 lamp/s are fitted (if a single lamp is fitted it must be mounted centrally or be to the right-hand side of the vehicle)
  - 3. The lamp/s are not mounted to the rear of the vehicle and rearward facing.
  - 4. The lamp/s are mounted less than 250mm above the ground or more than 1000mm above the ground.
  - 5. The rear fog lamp/s can be switched on when the main beam or dipped beam or front fog lights are switched off.
  - 6. The rear fog lamp/s cannot be switched off independent of all other lights.
  - 7. The vehicle fitted with a rear fog light is not fitted with an independent tell-tale warning light that illuminates when the light/s are switched on.
  - 8. The rear fog lamp/s are not aligned to show light at 5 degrees up and down, and 10 degrees inward and 45 degrees outward of the vehicle.
  - 9. The lamps are fitted in a way that causes the light from the lamp to either directly or in-directly cause discomfort to the driver.
- e) Rear Fog Lights (pre October 1991)
  - I. The lamp/s show emit a colour other than red.
  - 2. More than 2 lamps are fitted (if a single lamp is fitted it must be mounted centrally or be to the right-hand side of the vehicle).
  - 3. The lamp/s are not mounted to the rear of the vehicle and rearward facing.
  - 4. The lamp/s use over 27 watts of power singularly or 54 watts collectively.
  - 5. The lamp/s are mounted more than 1500mm above the ground.
  - 6. The fog lamps are not fitted with a tell-tale warning that indicates to the driver that the lamp/s are switched on.
- f) Daytime running lights (October 1991 onwards)
  - I. The lamps shows a colour other than white.
  - 2. Other than two lamps are fitted to the vehicle.
  - 3. The lamps are not mounted at the front of the vehicle and forward facing.

- 4. The lamp is mounted less than 250mm above the ground or more than 1500mm above the ground.
- 5. The lamps are mounted more than 510mm in from the extreme outer edge of the vehicle.
- 6. The inner edges of the daytime running lamps are less than 600mm apart (400mm if the vehicle width is less than 1.3m).
- 7. The daytime running lamps do not automatically switch on when the vehicle ignition is in the on position.
- 8. The daytime running lights do not automatically switch off when headlamps or front fog lamps are switched on.
- 9. The lamps are not aligned to show light at 10 degrees up and down, and 20 degrees to the left and right.
- 10. The lamps are fitted in a way that causes the light from the lamp to either directly or in-directly cause discomfort to the driver.
- g) Daytime Running Lights (pre October 1991)
  - 1. The lamps shows a colour other than white.
  - 2. More or less than 2 lamps are fitted.
  - 3. The lamps are not mounted at the front of the vehicle and forward facing.
  - 4. The lamps are mounted more than 510mm in from the extreme outer edge of the vehicle to the centre of the light.
  - 5. The centres of the daytime running lamps are less than 600mm apart (400mm for vehicle less than 1.3m in width).
  - 6. The daytime running lights do not automatically switch off when headlamps are switched on.
  - 7. A daytime running light uses more than 25 watts of power (singularly).
  - 8. The lamps are fitted in a way that causes the light from the lamp to either directly or in-directly cause discomfort to the driver.

#### h) Cornering lamps

- 1. The lamps shows a colour other than white or yellow.
- 2. More or less than 2 cornering lamps are fitted to each side of the vehicle. (I lamp is to be fitted to each side).
- 3. The lamps are mounted more than 2000mm from the front of the vehicle.
- 4. The lamps are mounted less than 250mm above the ground or more than 900mm above the ground.
- 5. The lamps are mounted higher than the dipped beam headlamps.
- 6. The lamps are mounted more than 400mm in from the extreme outer edge of the vehicle.
- 7. The cornering lamps do not automatically switch on when the headlamp control switch is in the on position; and the directional indicators on the same side of the vehicle are on.

**Note:** The installation and operation of Cornering lamps may also comply with 6.20 of Appendix A, UN ECE regulation R48/04 which mandates different position dimensions; and additional switching and speed related requirements.

### 8.4 Visually inspect and check condition of all lights fitted to the vehicle

#### Reasons for rejection:

- a) Any light is not clearly visible under all normal conditions and of a consistent intensity, or are affected by dirty lenses, lens coatings or poor electrical contact.
- b) Lamp reflector surfaces are not free of tarnish or other damage, which could reduce the intensity of high or low beam.
- c) Headlamp light is not correctly adjusted.
- d) Lenses and light reflectors are not securely mounted, are faded or discoloured and are not free from cracks, holes, or other damage which would allow the entry of moisture or dirt to impair the efficiency of the light or reflector.
- e) The lamps are fitted in a way that causes a dangerous protrusion.

### 8.5 Visually inspect and check light switch operation

#### Reasons for rejection:

- a) The headlamp high beam tell-tale indicator light is not operating.
- b) Additional headlamps (driving lights) do not operate in conjunction with the high beam light circuit.
- c) The high/low headlamp switch and turn signal switch is not readily operable by the driver from the driving position and, if fitted as original equipment by the manufacturer, the turn signal switch is not self-cancelling.
- d) The turn signal lamp operation is not indicated by means of a visible and/or audible tell-tale.
- e) The reverse lamp (if applicable) operates other than when reverse gear is selected and the ignition is in the on position or the engine is running.
- f) Any fog lamps fitted cannot be switched independently of the main or dipped beam headlamps.
- g) Fog lamp switch (after December 2000) does not have a visual tell-tale indicator to indicate that the switch is on.

# 8.6 Visually inspect front and rear lamps for the presence of tinted covers

#### Reasons for rejection

- a) Any lamp has a tinted cover over it, or any tinting applied to it.
- b) There is any opaque cover over a headlamp lens which cannot be readily removed without the use of tools.

### 8.7 Using a headlight tester, check the aim of the headlamps

- a) The aim of the headlight is adjusted such that, when on high beam and measured at an effective distance of 8m, the projected centre of the beam is to the right of the headlight centre and/or is above the headlight centre.
- b) When measured at an effective distance of 8m, any part of the top edge of the high intensity portion of the low beam pattern is above and/or to the right of the centreline of the headlamp.

#### Notes:

- 1. In the region above and to the right of the centreline of the headlamp the luminous intensity must not exceed 437cd.
- 2. The portion of the beam to the left of the centreline of the light may extend above the height of the centreline of the headlamp.
- 3. The 'centreline of the headlamp' passes through the centre of the globe filament, or equivalent.

### 8.8 Visually inspect the headlamps

#### Reasons for rejection

- a) Headlamp reflector is tarnished or peeling to the extent that headlamp projected light performance is impaired.
- b) Headlamp lens is incomplete.
- c) Headlamp assembly is not secured.
- d) Dipped (low) beam headlamps fitted with HID light sources that are not fitted with headlamp self-levelling devices.
- e) Dipped (low) beam headlamps fitted with HID light sources that are not fitted with headlamp cleaners.
- f) Headlight globes have been replaced with aftermarket LED style globes not ADR compliant.
- g) Aftermarket LED headlamp assemblies with a dipped beam greater than 2000 lumens,
  - 1. are adjustable in height from the drivers seating position.
  - 2. Have no headlamp cleaning devices fitted, or the cleaning devices are not operational.

#### Note:

For further information on lighting requirements, refer to Appendix J' Lighting Standards' and Appendix K 'Headlamp testing Screens'.

# 9 Engine Compartment & Driveline

OBJECTIVE: To ensure that engine and driveline components are compliant with the regulations and operate in a safe manner.

#### ADRs applicable to this section:

ADR 42 General Safety Requirements

ADR 79 Emission Control for Light Vehicles

ADR 80 Emission Control for Heavy Vehicles

ADR 83 External Noise

# 9.1 Visually inspect the engine, transmission and driveline for oil/fluid leaks.

#### Reasons for rejection

- a) Oil is leaking from the engine, gearbox, differential, or from any joint or seal onto any of the following:
  - I. Brake friction surfaces.
  - 2. The exhaust system.
- b) Oil or fluid dripping onto the road surface or ground.
- c) Evidence of oil or fluid leaking from any brake or power steering component.

### 9.2 Visually inspect engine, transmission and driveline components

- a) Emission control equipment (where required) is missing or inoperative. For example; the vehicle is fitted with an oil catch can that vents to atmosphere; catalytic converter have been deleted/removed.
- b) Any engine or transmission mounting is cracked or not secured.
- c) Rubber components are severely perished, broken or deteriorated.
- d) Fasteners on couplings in the driveline are cracked, loose or missing.
- e) Any transmission drive shaft is bent, damaged, loose or noticeably misaligned.
- f) Any universal or constant velocity joint has excessive wear, is misaligned, seized, is not securely attached, or has a damaged or missing boot.
- g) Where an automatic transmission is fitted, the engine can be started in any gear position other than neutral or park (ensure that brakes are applied during this test).
- h) Any modifications to engine, transmission or driveline components where there is no approved modification plate reflecting the modification(s) (as required by Vehicle Standards Bulletin 14).
- i) Where there is evidence the drivetrain binds and does not operate freely as intended by the vehicle manufacturer.
- j) A passenger car manufactured I January 1972 onwards operating on or with the ability to operate on petrol fuel has crankcase gases venting to atmosphere. From I January 1972 onwards a petrol powered engine must be fitted with a Positive Crankcase Ventilation (PCV) valve.

#### Notes:

- 1. For further information on modifications, refer to Appendix O modification information.
- 2. For modification codes and their meaning, refer Appendix P Vehicle Modification Codes.

### 9.3 Visually inspect the electrical system

#### Reasons for rejection:

- a) Battery or batteries are not secured in a cradle or carrier using hold down clamps, is cracked, leaking or has missing caps.
- b) A battery mounted in the interior of a vehicle is mounted to allow acid or fumes to come into contact with passengers or goods.
- c) Electrical wiring is not securely mounted and insulated.
- d) Wiring not supported at 600 mm or less intervals.
- e) Chafing is evident to electrical insulators or wiring is located in such a way that would cause danger to the operation of the vehicle.
- f) Electrical wiring hinders driver or passenger movement.
- g) Any electrical wiring or connector that is corroded damaged, not insulated or securely fastened so that it could be damaged.
- h) Electrical wiring is not protected from abrasion.
- i) Wiring is exposed to excessive heat.
- j) Wiring is in contact, or can contact moving parts.

### 9.4 Visually inspect the exhaust system

- a) Any component of the exhaust system that is cracked, or not securely mounted.
- b) The exhaust system is not fitted with an effective silencing device through which all of the vehicles exhaust pass.
- c) There is any leak in the exhaust system, excluding manufacturers' drain holes in the mufflers.
- d) The exhaust system fouls any part of the steering, suspension, brake or fuel system.
- e) The exhaust system does not have a ground clearance equal to or more than 100 mm.
- f) The exhaust system outlet features exposed sharp edges that increase the likelihood of injury to a person making contact with the vehicle.
- g) The engine emits sparks, flames, excessive gases, oil or fuel residue.
- h) For a vehicle manufactured after 1930 and propelled by an internal combustion engine, the vehicle emits visible emissions for a continuous period of more than 10 seconds.
- i) For an NC ADR category vehicle;
  - 1. The exhaust outlet is not rearward of the rearmost seating position and more than 40 mm beyond any floor joint that is not continuously sealed or welded.
  - 2. Exhaust outlet does not extend to the perimeter of the vehicle (excluding vertical outlets).
  - 3. The height of the exhaust is less than 150mm above the cab for vertical exhaust outlets or greater than 750mm above the ground for all other exhaust outlets.

- 4. For above-cab exhausts the section of exposed exhaust above the cabin is not shielded.
- 5. The exhaust outlet discharges to the left.
- j) Exhaust outlets applicable to a Bus:
  - I. For a vertical exhaust outlet:
    - i. The outlet is not located behind the rearmost part of the passenger compartment.
    - ii. Does not discharge the exhaust rearward or vertical.
  - 2. All other bus exhaust systems:
    - i. The exhaust outlet extends beyond the perimeter of the bus.
    - ii. The exhaust outlet does not discharge to the rear or right of the bus.
    - iii. The outlet does not discharge the main exhaust flow; horizontally or downward at an angle more than 45 degrees below horizontal.

#### Notes:

- 1. Further information relating to motor cycles and motor trikes is contained in Section 12.
- 2. A vehicle should not be rejected for emissions that are visible only because of heat or the condensation of water vapour.
- 3. Rust hole/s affecting the outer layer of a silencer only are not deemed a reason for rejection providing there is no exhaust leak evident at the same location.
- 9.5 Where it is evident that a vehicle is emitting significantly higher exhaust noise than normal, conduct a stationary noise test

#### Reason for rejection

a) For a car type vehicle, motor bike or motor trike where ADR 83 is not applicable. The measured noise level when measured in accordance with the specified stationary noise test procedure exceeds the limit shown in the table below.

Date of manufacture on compliance plate	Noise value
Car type vehicle manufactured prior to 1 January 1983	96dB(A)
Car type vehicle manufactured 1 January 1983 onwards	90dB(A)
Motor bike or motor trike built before I February 1985	100dB(A)
Motor bike or motor trike built after 1 February 1985	94dB(A)

b) Where ADR 83 applies – Contact Vehicle Standards on 6166 3263 for specific noise levels.

#### Notes:

- 1. Car type vehicle means a light motor vehicle with at least 4 wheels and a seating capacity of 9 or less including the driver. It includes a passenger car, passenger car derivative, station wagon, utility and panel vans.
- 2. **ADR83 applicability** In the following a 'new model' means a model of vehicle first produced and not that model during production. The following describes when ADR83 became applicable to vehicles with different fuel systems.

#### Petrol

I Jan 2005 for <u>new model</u> vehicles.

I Jan 2007 for all other vehicles.

#### LPG and Natural gas

I Jan 2005 for <u>new model</u> vehicles and vehicles with a GVM  $\leq$  3.5t

I Jan 2007 for <u>new model</u> vehicles with a GVM > 3.5t

I Jan 2007 for all vehicles with a GVM  $\leq 3.5t$ 

29 Feb 2008 for all vehicles with a GVM > 3.5t

#### Diesel

I Jan 2006 for <u>new model</u> vehicles and vehicles with a GVM  $\leq$  3.5t

I Jan 2007 for <u>new model</u> vehicles with a GVM > 3.5t

I Jan 2007 for all vehicles with a GVM  $\leq 3.5t$ 

29 Feb 2008 for all vehicles with a GVM > 3.5t

#### Other

I Jan 2014 for all other vehicles.

# 10 Alternative Fuel / Power Systems

OBJECTIVE: To ensure the alternative fuel/power system and associated components are fitted in accordance with regulations and operate in a safe manner.

Australian Design Rules relevant to this section:					
ADR 44	Special Purpose Vehicle Requirements				
ADR 79	Emission Control for Light Vehicles				
ADR 80	Emission Control for Heavy Vehicles				

#### **Notes:**

- 1. ADR 79 applies to vehicles operating on LPG/CNG with a GVM of 3500kg or less as of 1st January 2004.
- 2. ADR 80 applies to vehicles operating on LPG/LNG with a GVM in excess of 3500kg as of 1st January 2004

### 10.1 Number plate labels

#### Reasons for rejection

- a) Number plate labels are not fitted to the front and rear number plates of the vehicle indicating its Fuel/Power system, to assist emergency first responders, in accordance with the following: Note: This requirement does not apply to a vehicle presented without number plates affixed at the time of inspection. In these instances, it is recommended your client is advised of the applicable requirements below when collecting the vehicle.
  - 1. Vehicles fuelled with LPG, must have;

Fixed conspicuously to the front and rear number plates a label that;

Is not less than 25mm square mounted as a diamond.

The label made from a durable material.

The label colour must be retroreflective red, complying with AS/NZ1906.1, class 2.

The label shall have only letters 'LPG' in white at least 10mm high.



2. Vehicles fuelled with CNG, must have;

Fixed conspicuously to the front and rear number plates a label that;

Is a circle shaped label not less than 35mm diameter.

Is backed by a metal plate that is at least Imm in thickness before it is affixed to the number plate and is the same size and shape as the label.

The label colour shall be retroreflective red, complying with AS/NZ1906.1, class 2. The label shall have only letters 'CNG' in white at least 10mm in height.



#### 3. Vehicles fuelled with LNG, must have;

Fixed conspicuously to the front and rear number plates a label that;

Is a circle shaped label not less than 35mm diameter.

Is backed by a metal plate that is at least Imm in thickness before it is affixed to the number plate and is the same shape as the label.

The label colour shall be retroreflective standard green, complying with AS/NZ1906.1, class 2.

The label shall have only letters 'LNG' in white at least 10mm in height.



#### 4. Vehicles fuelled with Hydrogen and built after 1 January 2019 must have;

Fixed conspicuously to the front and rear number plates a label that;

Is a pentagon shape with each side 20mm in length and each interior angle is 108 degrees.

Is backed by a metal plate that is at least Imm in thickness before it is affixed to the number plate and is the same size and shape as the label.

The label colour shall be retroreflective yellow, complying with AS/NZ1906.1, class 2.

The label shall have only the capital letter 'H' in black that is at least 10mm in height with the base of the 'H' to be on a side of the label.



#### 5. Vehicles powered by electricity and built after 1 January 2019, must have;

Fixed conspicuously to the front and rear number plates a label that;

Is an equilateral triangle shape with all sides 30mm in length and each interior angle is 60 degrees.

Is backed by a metal plate that is at least 1mm in thickness before it is affixed to the number plate and is the same size and shape as the label. The label colour shall be retroreflective blue, complying with AS/NZ1906.1, class 2.

The label shall have only the characters 'EV' in white capital letters, a minimum of 8mm in height.



b) If more than one LPG, LNG, CNG or Hydrogen fuel tank is fitted, the correct number of labels is not affixed.

**Note:** If more than one tank is fitted i.e. 2 tanks, 2 labels must be affixed to the front and two to the rear number plates.

# 10.2 Visually inspect for the presence of an approved LPG/LNG/CNG modification plate

#### Reasons for rejection

- a) A vehicle which has an LPG/LNG/CNG fuel system does not have;
  - I. A metal plate fitted in a prominent position near the installation, showing
    - i. A statement that the installation complies with the Standards Australia code for the fuel type (AS1425 for LPG and AS2739 for LNG & CNG).
    - ii. The date the installation was commissioned.
    - iii. The State or Territory where installation was made.
    - iv. The identification number of the authorised/licensed gas fitter/installer.

OR

- 2. A plate fitted by the vehicle manufacturer, where the LPG/LNG or CNG system was installed by the original vehicle manufacturer.
- b) Three years from the date of the certified installation or three years from the date of the last authorised gas fitter/ installer inspection, the LPG/LNG/CNG fuel system has not passed a safety inspection conducted by an authorised gas fitter or installer. With a certificate of compliance issued validating the inspection outcome.

Note: The following are examples of plate styles that may be fitted by vehicle manufacturers.



#### Notes:

- 1. Installation of alternative fuel/power systems must be done in accordance with State regulations and licensing requirements.
- 2. Gas installations performed by the vehicle manufacturer must be fitted with a plate validating the installation.
- 3. LPG/LNG/CNG fuel systems fitted to in service vehicles must be fitted with a modification plate from a licensed gas fitter/installer as part of the installation.
- 4. Three years from the date of the certified installation or three years from the date of the last safety inspection, a vehicle fitted with LPG/LNG/CNG fuel system must undergo a safety inspection by an authorised gas fitter or installer. A certificate of compliance issued by an authorised gas fitter is required to identify a compliant LPG/LNG/CNG fuel system.

### 10.3 Visually inspect the LPG/LNG or CNG container

- a) The container is removable without the use of tools from any vehicle other than those specified below:
  - I. Fork lift trucks.
  - 2. Vehicles which do not use LPG/LNG or CNG as a means of propulsion.
  - 3. Diesel engine enhancement systems.
- b) The container has:
  - Advanced corrosion.
  - 2. Cuts or dents which penetrate the surface of the container.
  - 3. Any dent on the container which is deeper than 10% of the width of the dent, or which is located on a weld and exceeds 6.5mm in depth.
  - 4. Any dent or crease on the container which is longer than 75mm.

- c) The tank filler valve is not fitted with a cap sealed with an O-ring.
- d) The statutory life of the container has expired. For,
  - I. LPG every ten years.
  - 2. LNG steel containers every five years.
  - 3. Fibreglass reinforced plastic containers every three years.
  - 4. CNG steel containers every five years.
- e) The boot lid torsion bars, coil springs or hinges contact the container.
- f) The container and its surface mounted fittings are not protected from damage by vehicle component (e.g., tail shaft) failure.
- g) Where mounted within a cargo space, the container is not protected from cargo or other objects carried in that area, i.e., it is not installed within an enclosed protective compartment.
- h) The container or its gas carrying components are located within 150mm of a heat source and there is no heat shield. Note: This may be reduced to 40mm if the shield is more than 15mm from a gas carrying component.
- i) The container is incorrectly aligned so that it impedes access to the container service valve.
- j) The container is incorrectly aligned so that it impairs the operation of the ullage valve or the Automatic Fill Limiter (AFL).
- k) Where containers installed on or after I July 1988 have a wall thickness marked to be less than 2.2mm:
  - 1. The container is mounted externally.
  - 2. The container is not installed within a protective compartment.
  - 3. The container is located less than 75mm from the side panels of the vehicle.
  - 4. The container is not marked 'This vessel shall be installed within a compartment inside the vehicle'.

### 10.4 Visually inspect the container anchorages and straps

- a) Any anchorage straps allow the container to move.
- b) There is only one anchorage strap used to secure the container.
- c) The anchorage straps are cut, have advanced rust or are otherwise deteriorated.
- d) The anchorage straps are smaller than the sizes shown in Table 10.1.

LPG/LNG/CNG container size		Minimum anchorage strap dimensions	Bolt or stud diameter for anchorage strap mountings		
(litres)		(mm)	(mm)		
Over -	Up to 100	30 x 3	10		
>100	<150	50 x 6	12		
>150	Approval limit	Approval required from state licensing department			

Table 10.1 Dimensions of Container Attachment Devices

- e) The anchorage bolts or studs are smaller than the sizes shown in Table 10.1.
- f) The anchorage bolts or studs do not have locking devices (such as spring washers, split pins or lock nuts) fitted.
- g) Reinforcement plates are missing or not shaped to the contours of the panel on which the container is mounted.
- h) There are less than four (4) points of attachment to the vehicle structure.

#### **Notes:**

- 1. Reinforcement plates attached to sheet metal panels must be at least 75mm square and 3mm thick.
- 2. Where a gas system compliance plate is fitted, the vehicle should not be rejected if reinforcement plates of mounting points are smaller than typical dimensions in the Standards Australia code, as compliance covers the whole installation.

### 10.5 Visually inspect remote filled internally mounted containers

#### Reasons for rejection

- a) The compartment housing the container and its fittings, or the sub-compartment has electrical equipment other than the wiring connecting the contents gauge.
- b) Wiring is not insulated or secured at interval of not more than 600mm.
- c) Any conduit containing the piping and hoses which pass through an enclosed area of the vehicle is missing or damaged so that it allows venting to the inside of the vehicle.
- d) The clamps for the conduit connections are missing or loose.
- e) The container service valve is inoperable.
- f) The seals for any sub-compartment do not provide a gas-tight seal.

#### Note:

Adhesives or sealing compounds are not acceptable as alternatives to mechanical clamps.

### 10.6 Visually inspect direct filled internally mounted containers

#### Reasons for rejection

- a) The passenger compartment of the vehicle is not sealed from the container space.
- b) The container space vent(s) is obstructed.
- c) The container space vent outlet is less than 250mm from the exhaust system.
- d) Wiring is not insulated or secured at intervals of not more than 600mm.

# 10.7 Visually inspect externally mounted containers for LPG, CNG and ING

On vehicles less than 5 tonnes tare mass or where the chassis has 610mm ground clearance or less:

#### Reasons for rejection

- a) The tank, or any tank component, has less than 200mm ground clearance.
- b) The tank, or any tank component, is not a minimum 200mm inboard of the original equipment bumper bars (measured on the centreline of the vehicle).

**Note:** If a bumper bar is not fitted, the measurement should be taken from the extremity of the permanent body work.

c) The tank, or any tank component, is not above a line which is tangent to the front or rear wheels and slopes upward and outward to the extremities of the vehicle's permanent body work.

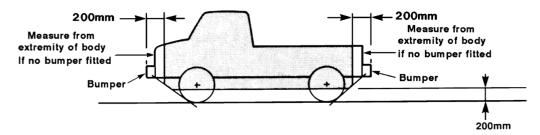


Figure 10.2

### 10.8 Visually inspect ullage and safety valves

#### Reasons for rejection

- a) Where a container is fitted with an Automatic Fill Limiter (AFL), there is no label at the filling point warning the driver 'AFL fitted bleeding during filling not required'.
- b) Where an ullage valve is fitted, the outlet does not have a cap or plug.
- c) Where a container is not fitted with an AFL, there is no label warning the driver to 'Stop filling when liquid appears'.
- d) The safety valve has any damage in the system or blockage to the discharge pipe, if fitted, or allows the discharge to strike the exhaust system, container or a bystander, or the protective cap is not functioning or is missing.

#### Note:

An ullage valve is not required if the vehicle is fitted with an AFL.

### 10.9 Visually inspect hydrostatic relief valves

#### Reason for rejection

a) The hydrostatic relief valve on multiple containers is damaged or is not fitted with a self-closing device which prevents the entry of dirt or water into the outlet.

### 10.10 Visually inspect fuel lines, joints and connections

- a) Where chassis members do not provide protection for fuel lines under the vehicle, the piping is not shielded or encased in a protective sleeve.
- b) The sleeving of any fuel line routed under the vehicle is damaged such that the fuel line is exposed.
- c) Any supporting clips (required to be spaced at intervals of 600mm) are missing or do not provide effective support to the fuel line.
- d) Any provision has been made to allow use of the gas fuel for purposes other than as automotive fuel.
- e) Any fuel line that is less than 150mm (or 50mm when protected by a heat shield) from any exhaust component.

# 10.11 Visually inspect shut off devices, converters (vaporiser regulators), fuel selectors and air/gas mixers

#### Reasons for rejection

- a) The fuel shut off device is not securely mounted.
- b) The fuel shut off device allows the fuel to flow to the converter while the ignition and the engine are off;
- c) The converter is not securely mounted.
- d) Where the converter uses water circulation to assist in vaporisation, the water hoses leak or are deteriorated.
- e) Air/gas mixers are not securely mounted or vapour lines and connections have leaks.
- f) The filling connection does not have a captive cap.
- g) The high tension ignition wiring or electrical contacts in the engine compartment are exposed.
- h) A vehicle operating on liquid petroleum gas (LPG) or compressed natural gas (CNG) and petrol does not have the emission control equipment fitted to enable compliance with emission levels when operating on petrol.
- i) Any gas leaks.

**Note:** Where there are any signs of leakage from any component, the system must be thoroughly leak tested under normal Autogas operating pressure using an approved gas detecting device or foaming agent solution. The solution must be applied to the component having the suspected leak.

### 10.12 Visually inspect the LPG electrical wiring

#### Reasons for rejection:

- a) Electrical wiring is not securely mounted and insulated, is exposed to excessive heat or chafing or located in such a way that would cause danger to the operation of the vehicle.
- b) Electrical wiring hinders driver or passenger movement.
- c) Electrical wiring does not have sufficient insulation.
- d) Wiring is not secured at interval of not more than 600mm.

### 10.13 Test the operation of the fuel containment system

Test as described below depending on the type of system fitted at the container.

#### **Excess flow valve**

Close the service valve and run the engine until the fuel line is empty. With the ignition turned OFF, quickly open the service valve.

#### Reason for rejection

a) The excess flow valve does not produce a click or thud sound, or the owner is not able to produce a letter from State or Territory authorised/licensed gas fitter/installer certifying that the excess flow valve is operating satisfactorily.

#### Notes:

1. The certification is valid for 1 calendar month from the date of issue. The certificate number and licence number of the State or Territory authorised/licensed gas fitter/installer are to be recorded in the inspection report.

- 2. This test can only be conducted by State or Territory authorised examiner, accredited for this purpose.
- 3. If an automatic fuel shut off device is fitted at the container there is no requirement to test the excess flow valve.

#### **Automatic fuel shut off device (AFSOD)**

Deactivate the AFSOD and run the engine until the service line is empty and the engine stalls.

#### Reasons for rejection

b) The engine fails to stall or the engine stalls but then re-starts after a short period.

#### Notes:

- I. Alternatively the owner is to produce a certificate from an Autogas Installer certifying that the excess flow valve is operating satisfactorily.
- 2. The signed certification is valid for I calendar month from the date of issue. The certificate number and licence number of the State or Territory authorised/licensed gas fitter/installer are to be recorded in the inspection report.
- 3. This test can only be conducted by State or Territory authorised examiner, accredited for this purpose.
- 4. Any LPG fitment or repair(s) must comply with Australian Standard AS I 425.
- 5. For further information on LPG or CNG requirements, refer to Appendix L LPG and CNG Certification.

## 11 Petrol / Diesel Vehicles

OBJECTIVE: To ensure that petrol/diesel systems and associated components are fitted in accordance with the regulations and operate in a safe manner.

#### Australian Design Rules relevant to this section:

ADR 17 Fuel System

### 11.1 Visually inspect the fuel system

- a) There is leakage from any part of the fuel system.
- b) Fuel lines are in contact with moving parts, a heat source, are kinked, cracked or not secure.
- c) Fuel tanks are not securely mounted and straps, supports, mounting brackets or fasteners are missing, cracked, broken or loose.
- d) Fuel tanks are damaged or corroded so that leaks could result.
- e) The fuel filler pipe inlet and cap are not located on the outside of the vehicle unless originally fitted inside by the manufacturer.
- f) Vehicles designed to operate on unleaded fuel are not fitted with a smaller filler neck which will only accept the nozzle of an unleaded petrol pump.
- g) Fuel filler cap is missing, insecure or not the correct type.
- h) Fuel filler cap seal is damaged or missing.
- i) The fuel filler restrictor is missing from the filler neck of a vehicle exclusively designed for unleaded fuel and fitted with a catalytic converter.
- j) Nitrous oxide injection equipment is fitted irrespective of its operational ability.
- k) Multiple and/or replacement carburettors fitted to any motor vehicle do not continue to comply with the emission requirements of the Australian Design Rules applicable at the time of the vehicle's manufacture.
- I) Where aftermarket, long range, or additional fuel tanks are installed, and no modification certification plate is present.
- m) The fuel tank is mounted less than I 00mm inboard of the OEM permanent body work (excluding the filler neck and assembly).
- n) The fuel tank is lower than the vehicles departure angle measured as a line from the base of the rear tyres (with the vehicle loaded) to the rearmost extremity of the OEM permanent body work.
- o) There is no air cleaner fitted.
- p) Engine speed does not return to normal idle position upon release of the accelerator pedal/ throttle control.

# 11.2 Visually inspect Fire Extinguisher (where required e.g., omnibuses, motorhomes, caravans and tow trucks)

#### Reasons for rejection

- a) A fire extinguisher is not fitted as follows;
  - I. Caravan must be fitted with at least 1x fire extinguisher with at least a 1A:5B rating for single compartment caravans, and at least 2x fire extinguishers with at least a 1A:5B rating for multi-compartment caravans.
  - 2. For a Tow Truck the extinguisher must have a capacity of at least 4.5 litres (rating 3A:40B).
- b) Fire extinguisher is not filled, charged or under current inspection.
- c) Handle, nozzle or hose of fire extinguisher is missing or damaged.
- d) The extinguisher is not securely mounted in the vehicle.

#### Notes:

- I. Fire extinguishers can become ineffective even though they appear properly charged. For example powder type extinguishers subject to vibration can fail due to compacting of the powder.
- 2. Australian Standards AS 1851.1-1995 Portable Fire Extinguishers, contains suitable procedures for inspecting and testing fire extinguishers
- 3. Australian Standards AS 2444 1985 Portable Fire Extinguishers- Selection and Location outlines the appropriate type, size and location of fire extinguishers for vehicles.

# 12 Motorcycles

OBJECTIVE: To ensure that motorcycles and associated components are fitted in accordance with the regulations and operate in a safe manner.

Australia	Australian Design Rules relevant to this section:					
ADR 19	Installation of Lighting &Light-signalling Devices on L-Group Vehicles					
ADR 33	Brake Systems for Motorcycles and Mopeds					
ADR 42	General Safety Requirements					
ADR 53	Front and Rear Position Lamps, Stop Lamp, Direction Indicators & Rear Registration Plates Lamps for Group Vehicles					
ADR 55	Headlamps for Motor Cycles					
ADR 57	Special Requirements for L-Group Vehicles					

### 12.1 Visually inspect the condition of the brake controls

- a) On rubber faced brake pedals, any metal is showing on the foot to pedal contact area.
- b) On metal brake pedals, there is no anti-slip surface on the foot to pedal contact area.
- c) Any failure indicators, pressure/vacuum gauges and warning devices do not operate correctly.
- d) Any brake lever that is missing, bent, damaged, broken, restricted or misaligned (outside scope of manufacturer's original design).

- e) The levers and associated components are not secure, not correctly adjusted, bind or are worn so as to affect efficient operation.
- f) When not in use, the brake lever, handle or pedal does not return to the fully released position.
- g) The rider cannot operate the foot lever without lifting their foot from the footrest.
- h) Linkages are not complete and/or components are unduly worn.
- i) Cables are frayed, damaged, restricted or seized.
- j) Where the motorcycle is fitted with an 'antilock brake system' (ABS) the antilock warning lamp doesn't illuminate when, the ignition is switched to the on position.
- k) Where the motorcycle is fitted with ABS, the ABS warning lamp remains illuminated after completion of the self-test sequence.

**Note:** From 1 November 2021 most LC ADR category motorcycles with an engine capacity greater than 150cc require ABS to be fitted. For further information contact Vehicle Standards on 61663263.

### 12.2 Check the operation of the brake controls

Sit in the rider's position and put the transmission into neutral or operate the clutch. Apply each brake while attempting to move the cycle forward.

#### Reasons for rejection

- a) When the brakes are firmly applied, less than 20% of the pedal or handle travel remains.
- b) Any wheel brake is not functioning.
- c) When steady moderate pressure is applied for 10 seconds, the pedal or handle does not hold its position or, where ADR33 applies, the brake failure indicator comes on.
- d) The brake controls, when operated, do not cause the corresponding brake to operate.

### 12.3 Inspect the condition of visible brake components

- a) Where visible, any brake component is leaking or is not securely mounted.
- b) Any brake cable is frayed, seized or otherwise damaged.
- c) Where visible, any brake lining is worn to the extent that only 1.0 mm of lining thickness remains at any point.
- d) Where hydraulic brakes are fitted, the level of brake fluid is below the minimum indicated level.
- e) Hydraulic lines are not securely mounted, display damage or corrosion or show evidence of leakage, cracking, chafing or deterioration.
- f) Hydraulic brake lines show evidence of welding or heating repairs (See Note 1).
- g) Flexible hoses are cracked, chafed, deteriorated, show evidence of leakage and are not manufactured and marked to relevant Australian Standards (or equivalent). (See Note 2 and 3).
- h) Hydraulic components, master cylinders, wheel cylinders/callipers etc. are not secured in a manner as recommended by the manufacturer or are seized, restricted or show evidence of leakage.
- i) Any reservoir is not filled to the manufacturers' recommended minimum level and/or show evidence of leakage.
- i) Drums or disc rotors are worn or machined below manufacturer's specifications. (See Note 4).
- k) There are substantial cracks on friction surfaces, external cracks or mechanical damage.

I) Lining material is contaminated with oil, grease or brake fluid.

#### **Notes:**

- 1. Joining hydraulic brake pipes by brazing, soldering, etc. is not permitted.
- 2. The use of copper pipe for hydraulic brake pipe is not permitted.
- 3. Hydraulic brake hoses must be manufactured to SAE J1401 or equivalent. Flares for Tubing should be in accordance with SAE J5336 or equivalent.

### 12.4 Check the operation of the brake controls

Sit in the rider's position and put the transmission into neutral or operate the clutch. Apply each brake while attempting to move the cycle forward.

#### Reasons for rejection

- a) While the brakes are firmly applied, there is less than 20% of the pedal or handle travel remaining.
- b) Any wheel brake is not functioning.
- c) When steady moderate pressure is applied for 10 seconds, the pedal or handle does not hold its position or, where ADR33 applies, the brake failure indicator comes on. Note, ADR 33 brake failure indicators only apply to motorcycles and mopeds that are fitted with a split brake system (all brakes applied by a single control) from 1 March 1976.
- d) Where fitted, a red brake failure indicator remains illuminated (after any applicable self-test is completed) when the ignition is in either the on or start position. The brake controls, when operated, do not cause the corresponding brake/s to operate.

# 12.5 Check the operation of the parking brake on motorcycles fitted with side-car outfits and motor tricycles

Put the transmission in neutral, apply parking brake and attempt to move the vehicle.

#### Reasons for rejection

- a) There is no mechanical parking brake fitted to;
  - I. A motorcycle manufactured I March 1976 onwards fitted with a sidecar.
  - 2. A motor tricycle manufactured I July 1992 onwards.
- b) The mechanical parking brake when applied fails to stop the outfit being moved.

### 12.6 Visually inspect the towbar and its mounting to the frame

#### Australian Design Rules relevant to this section:

ADR 62 Mechanical Connections Between Vehicles

- a) The towing attachment is not fitted in accordance with the manufacturer's recommendations.
- b) Towing attachments are loose or cracked.
- c) The towbar is not mounted directly to the frame or through rigid connections to the frame.
- d) Towing attachments are not operational, not secure, cracked, excessively worn, deformed, corroded or damaged in a way likely to cause failure.
- e) Any mounting bolts, fasteners or weld beads have advanced corrosion or are missing.

- f) For motorcycles manufactured I March 1992 onwards, the towbar does not display the maximum rated capacity in kilograms, manufacturer's name or trademark or either the make and model of vehicle it is designed for or the manufacturer's part number.
- g) Tow coupling tongue assemblies are repaired by heating or welding. (Transverse or circumferential welds on the drawbar eye/block are not permitted under any circumstances).
- h) All electrical wiring, connectors, etc. associated with a device for coupling a trailer to a motorcycle, including motor tricycle(s), are not securely mounted.
- i) Where a towing attachment is fitted, an electrical connector with at least 7 pins complying with AS2513-1982 is not fitted and within (or able to be within) close proximity to the tow hitch/tongue (7 pin round "large" type, 7 pin round "small" type or either a 7 pin inline or 12 pin two row inline type).
- j) Tow coupling tongue assemblies are not securely mounted to the tow bar assembly.
- k) The tow ball assembly (50 mm type) is not legibly and indelibly marked with the mark '50' in characters not less than 5 mm high.
- Safety chain/s or cables are not able to be connected or affixed in such a way that the safety chains/cables are not liable to accidental disconnection and are not readily detachable from the towing vehicle.
- m) A trailer coupling affixed to a motorcycle does not allow for angular movement of the combination about the vertical or horizontal axis.
- n) Where any part of the coupling or towbar is intended to be removable, the bolts, studs, nuts etc. fastening those parts do not have a locking device such as U-clip, split pin, spring washer, nylon lock nut.

### 12.7 Visually inspect all steering components

- a) Where steering linkages are fitted, the rotational free play exceeds 10mm measured at the end of the handlebars.
- b) Steering components have been repaired or modified by heating or welding.
- c) Any repairs carried out do not retain the original strength of the component/section. Note: Does not apply where an original component has been fitted by the manufacturer. Any welding or heating repairs that have been carried out require a satisfactory report from a suitably qualified person(s).
- d) Any nut, bolt, or locking device is missing or insecure.
- e) Any steering component is insecure, broken, missing or has noticeable free play beyond manufacturer's limits.
- f) Steering components are misaligned with the frame and not free from damage, fatigue, corrosion or distortion.
- g) Handlebar grips are not secure and excessively damaged or unduly worn.
- h) The handlebars must not extend:
  - 1. For motorcycles manufactured prior to 1 July 1988;
    - i. Less than 250mm or exceed 450mm on each side of the centreline of the vehicle.
  - 2. For motorcycles manufactured from I July 1988 onwards;
    - Less than 250mm on each side of the centreline of the vehicle for all LA, LC and LD category vehicles;

- ii. More than 450mm on each side of the centreline of the vehicle for LA category vehicles:
- iii. More than 550mm on each side of the centreline of the vehicle for all LC and LD category vehicles.
- i) The height of the lowest part of the handgrip is:
  - 1. For motorcycles manufactured prior to 1 July 1988;
    - i. Higher than 380mm above the attachment point of the handlebars to the motorbike.
  - 2. For motorcycles manufactured from I July 1988 onwards;
    - i. Higher than 380 mm above the upper surface of the riders' seat.
- j) A motor cycle other than a motor tricycle has a modified rake angle (i.e. modified wheelbase).
- k) Where ADR 57 applies, the horizontal distance between the mid-point of the steering yoke bearings and a point vertically above the centre of the front wheel exceeds 550 mm, this does not apply to a motor tricycle. Refer Image below.



Maximum horizontal distance from midpoint between head stem bearings of motor bike to centre of front wheel

- l) Motorcycles, including motor tricycle(s), fitted with offset triple clamps have a trail measurement of less than 75 mm.
- m) Operation of the handlebar is not smooth from lock to lock and equipment fitted to the motorcycle, including motor tricycle(s), prevents free movement (e.g. the handlebar must not come into contact with the fuel tank).
- n) The handlebar assembly is not constructed of suitable material, adequately mounted and free of sharp edges and protrusions.
- o) The handlebar is not symmetrical on either side of the front wheel and steering head assembly.

#### Note:

If offset triple clamps are fitted to the front fork assembly (i.e. the clamps are machined such that the angle of the fork stanchions is at an angle to the steering head axis), then the trail measurement should be checked to ensure that the centre of the front axle is at least 75 mm behind the point where the steering head axis line intersects the ground.

### 12.8 Visually inspect the suspension

- a) Any suspension component that is broken, cracked, bent, misaligned, cut, missing, not secured or can be seen to have been repaired or modified by heating or welding.
- b) Any shock absorber is missing, inoperative or is leaking fluid.

- c) Any shock absorber is not securely mounted.
- d) Any nut, bolt, or locking device is not secured or is missing.
- e) With the wheels raised, the vertical free play of any wheel exceeds 3mm (see figure 12.1).
- f) With the wheels raised, the free play of the wheel measured at the rim exceeds 6mm in total or 3mm from any component part (see fig 12.2).

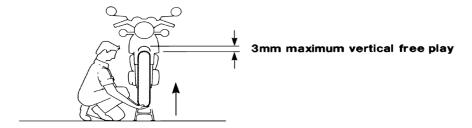


Figure 12.1

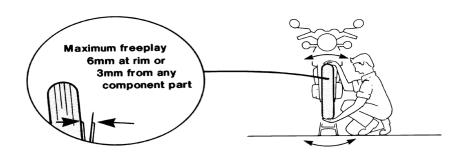


Figure 12.2

#### Note:

The free play measurement given is a guide only, and manufacturers' tolerances take precedence in all cases when performing these checks.

### 12.9 Inspect both sides of each road wheel

#### Reasons for rejection

- a) Any wheel or rim is cracked, has pieces of a casting missing, or is buckled.
- b) Any hub has missing or broken wheel mounting nuts, studs or bolts.
- c) Any spoked wheel has missing, loose, broken, bent or cracked spokes.
- d) The tyre or rim fouls any component at any point over its full range of travel.
- e) Studs/nuts are not securely fitted, are damaged and not engaged for at least the same thread length as provided originally by the motorcycle, including motor tricycle(s), manufacturer.

### 12.10 Visually inspect each road tyre

- a) The tyre has less than I.5mm tread depth that runs continuously around the circumference of the tyre on the surfaces which normally contact the road with exception to tread wear indicators.
- b) The tyre has deep cuts, bulges, exposed cords or other signs of carcass failure.
- c) The tyre is marked for 'off road use only', or marked 'not for highway use'.
- d) Tyres or wheels rub or foul on any part of the motorcycle.

- e) Tyre load ratings are less than the minimum ratings specified originally by the motorcycle, including motor tricycle(s), manufacturer.
- f) Tyres fitted to a two wheel motorcycle are not of motorcycle tyre design.

# 12.11 Visually inspect body panels, chassis and frame for dangerous protrusions and rust

#### Reasons for rejection

- a) Exterior body work, fairings and fittings have sharp edges due to rusted or fractured panels, or other damage that could cause injury to a person coming into contact with them.
- b) Any structural member such as the chassis or frame, is cracked or has advanced rust.
- c) Motorcycles, including motor tricycle(s), are not fitted with adequate protection (for rider and passenger) from any moving part (i.e., chain, road wheels, tyres, exhaust) or any area which would constitute a safety hazard and are not of the same curvature.
- d) A sidecar (if fitted), is not securely attached and mounted to the left hand side of the motorcycle.
- e) Any part of a motorcycle (without a sidecar), including motor tricycle(s), projects more than 150 mm ahead of the front wheel or 300 mm behind the rear wheel.

### 12.12 Inspect the mudguards

#### Reasons for rejection

- a) Mudguards are not fitted to all wheels.
- b) Mudguards are not secure.
- c) Mudguards do not fully cover the section width of the tyres.
- d) The mudguard is not designed to protect other users from the dangers of contacting the moving wheel.
- e) Mudguards are not capable of protecting other road users as far as practicable, against stones, mud, ice, snow and water that maybe thrown upward by the wheels.
- f) The front mudguard does not extend from a point vertical above the centre of the wheel to a point horizontal to the centre of the wheel (as shown in figure 12.1) or to the point where suitable protection is offered by the frame or other construction of the motorcycle.

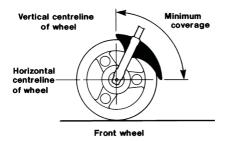


Figure 12.1

### 12.13 Seating

#### Reasons for rejection:

a) Seat cushions (including backrests, if fitted) and seat frames are not fitted, not secure, are structurally damaged, have sharp or jagged edges, or protrusions.

- b) Footrests are not fitted for the driver, or passenger where passenger seating is provided.
- c) Motorcycle manufactured after I July 1988 that has a side car mounted to the right-hand side of the bike

#### **Notes:**

- 1. Any reduction or increase in a motorcycles seating capacity must be completed in accordance with VSB-14 section LL, Chapter 5 Specific Requirements for Seat Conversions.
- 2. No formal certification is required. Seating capacity is to be that as presented.

### 12.14 Visually inspect rear vision mirrors

#### Reason for rejection

- a) Rear vision mirror(s) fitted to any motorcycle, including motor tricycle(s), do not provide a clear view of the road to the rear of the motorcycle, including motor tricycle(s), when the rider is in a natural riding position, and are not of the same curvature.
- b) Two rear vision mirrors are not fitted to motorcycles manufactured after June 1988.
- c) Mirror(s) are not securely mounted and free from damage, blemishes or tarnishing which would reduce the view to the rear of the vehicle.

### 12.15 Check the operation of the horn

#### Reasons for rejection

- a) A warning device is not fitted and operational and the tone is not of a single pitch.
- b) A warning device is not clearly audible and the actuating mechanism is not located within the reach of the driver in the normal seated position.

### 12.16 Visually inspect any exposed drive chain or belt or shaft

#### Reason for rejection

- a) The drive chain, belt or shaft is not protected by the frame or by a guard extending at least 300mm rearward of the rear most footrest, or to the vertical centre of the drive sprocket.
- b) The drive chain or belt is worn beyond OEM specifications or the adjustment is outside the OEM specification.
- c) The drive chain, belt or shaft is fouling on any component of the motorcycle not designed as a guide or wear strip.

### 12.17 Visually inspect the number plate

- a) Number plate is obscured, for example by a towing attachment goose neck, or tow ball.
- b) Number plate covers are tinted, reflective, rounded, or bubble like.
- c) Number plate has a substance applied to the reflective surface that would prevent the production of a clear photograph.
- d) The number plate is damaged or faded to the extent that the registration number is not legible from a distance of 20 metres.
- e) The registration (number) plate is not issued or approved by the State or Territory Road Transport Authority.
- f) The number plate is mounted less than 300mm or more than 1300mm from the ground.

- g) The number plate does not face the rear in an upright position parallel to the vehicle's axles.
- h) Characters in the number plate are not clearly visible from a distance of 20 metres at any point within an arc of 45 degrees from the surface of the number plate above or to either side of the vehicle.

# 12.18 Visually inspect the compulsory reflectors fitted to the rear of the cycle

#### Reason for rejection

a) Red reflector(s) are damaged, discoloured or missing Note: reflectors may be incorporated in the lamp assembly.

### 12.19 Visually inspect and check the operation of all lights fitted to the cycle

#### Reasons for rejection

- a) Lights and reflectors fitted to a motorcycle, including motor tricycle(s), are not operational and not located in positions as required by prescribed standards.
- b) Any of the following lights emit the incorrect colour:
  - I. Headlight (high/low beam) (white).
  - 2. Tail light (red).
  - 3. Brake light(s) (red).
  - 4. Turn signal indicator lights (yellow).
  - 5. Side-car marker light (white/red).
  - 6. Number plate light (white).
- c) Any of the above lights are damaged to the extent that white light shows to the rear of the cycle.
- d) Any amber turn signal light is damaged so that it shows white light.
- e) The number plate light is not directing light on to the surface of the rear number plate.
- f) Headlight (s) is not correctly focused.
- g) Any lenses is not secure and not free of cracks or holes that would permit the entry of dirt or moisture.
- h) Reflector surfaces are not free of tarnish or other damage which could reduce the intensity of high or low beam.
- i) Any light or reflector that is not clearly visible under all normal conditions and of a consistent intensity or are affected by dirty lenses or poor electrical contact.
- j) Additional lighting (fitted as accessories) is fitted in such a way that their operation will impair the operation of statutory lighting and contravene prescribed standards.
- k) Lights are not fitted in accordance with the following:

#### At front of vehicle:

- 1. Ix White Main beam headlight, min 500mm and max 1400mm off ground.
- 2. Ix White Dipped beam headlights, min 500mm and max 1400mm off ground.
- 3. Ix White Park lights, min 500mm off ground.

- 4. Optional white or yellow fog lights, on a separate switch, must be capable of being operated independently of the low or high beam headlamps, not higher than headlights.
- 5. Optional driving lights as per main or dipped beam headlights. The illuminating surface must not exceed 200mm from the edge of the low beam headlamp.

#### At Rear of vehicle:

- 6. Ix Red taillight, max 1000mm (1500mm if 1000mm impractical) off ground.
- 7. Ix (2 for motorcycle and side car and motor tricycles) Red reflectors, max 1000mm (1500mm if 1000mm impractical) off ground, max 400mm (for motorcycle and side car and motor tricycle) inboard of side of vehicle.
- 8. Ix (2 for motorcycle and side car and motor tricycle) Red stop lights, min 350mm off ground, max 400mm (for motorcycle and side car and motor tricycle) inboard from side of vehicle.
- 9. White registration plate lamp/s, to illuminate registration plate.
- 10. For a 2 wheeled motor vehicle, 2 indicators meeting the requirements of Table 12.18a below.
- II. For a 3 wheeled motor vehicle: -
- 12. 2x indicators meeting the requirements of Table 12.2 at the single wheel end of a 3 wheeled motor vehicle; or
- 13. 2x indicators meeting the requirements of Table 12.3 for the two wheeled end of a 3 wheel motor vehicle.

#### **Motorcycle Indicator requirements**

LA, LC ADR Category Motorcycles & Single wheel end of Motor Trikes

Table 12.2

	Year of	Height from ground level		Width	Position	Colour
	manufacture	Minimum	Maximum	(Minimum)		
RS (must be	Prior to June 1975 (No mandatory requirements. However, if fitted)	350mm (ground to centre of the light)	I500mm (ground to centre of the light)	300mm (from the centre of the other light)	-	White/ Amber
INDICATOR	I June 1975 to I Oct 1991 (Mandatory)	350mm (ground to centre of the light)	I500mm (ground to centre of the light)	300mm (from the centre of the other light)	-	White/ Amber
FRONT	I Oct 1991 to I March 1992 (Mandatory)	350mm	1200mm	300mm (between illuminating surfaces of the indicators)	-	Amber

			240mm		
I March 1992 onwards	350mm	1200mm	(between illuminating	-	Amber
(Mandatory)			surfaces of the		
			indicators)		

	Year of manufacture	_	om ground vel	Width Position		Colour
	manulacture	Minimum	Maximum	(Minimum)		
(must be in pairs)	Prior to June 1975 (No mandatory requirements. However, if fitted)	350mm (ground to centre of the light)	I500mm (ground to centre of the light)	300mm (from the centre of the other light)	-	Amber (or pre 1973 Amber/ Red)
ORS (must	I June 1975 to I Oct 1991 (Mandatory)	350mm (ground to centre of the light)	I500mm (ground to centre of the light)	300mm (from the centre of the other light)	-	Amber
INDICATO	I Oct 1991 to I March 1992 (Mandatory)	350mm	1200mm	240mm (between illuminating surfaces of the indicators)	Within 300mm from the rearmost limit of the motorcycle.	Amber
REARI	I March 1992 onwards (Mandatory)	350mm	1200mm	I 80mm (between illuminating surfaces of the indicators)	Within 300mm from the rearmost limit of the motorcycle.	Amber

### Additional indicator requirements - For Motor Trikes ONLY

The following table (table 12.3) is used in conjunction with the above table (table 12.18a) for motor trikes.

Table 12.3

	Year of	Position	_	om ground vel	Width	Colour
	manufacture		Minimum	Maximum	(Minimum)	
CATORS	Prior to June 1975 (No mandatory requirements. However, if fitted)	2 wheel end of motor trike	350mm (ground to centre of the light)	I 500mm (ground to centre of the light)	600mm from centre of other light, Unless centre of each light is within 400mm from near side of vehicle	White/ Amber
IND	I June 1975 to I Oct 1991 (Mandatory)	2 wheel end of motor trike	350mm (ground to centre of the light)	I 500mm (ground to centre of the light)	600mm from centre of other light, unless centre of each light is	White/ Amber

				within 400mm from near side of vehicle	
I Oct 1991 to onwards (Mandatory)	2 wheel end of motor trike	350mm	1200mm	Edge of illuminating surface must be ≤ 400mm from the extreme outer edge of the vehicle	Amber

**Note:** For the purpose of direction indicators, amber includes the colours, yellow and orange.

### 12.20 Inspect electrical control switches

#### Reasons for rejection

- a) A dipping device to change the headlights from the high beam position to the low beam position and operated from the normal driving position is not fitted and operational.
- b) A device to indicate to the driver that the headlights are in the high beam position is not fitted and operational.
- c) The turn signal switch is not readily operable by the driver from the driving position.
- d) The turn signal operation is not indicated by means of a visible and/or audible tell-tale.
- e) Engine speed does not return to normal idle position upon release of the accelerator pedal or throttle control.

### 12.21 Visually inspect front and rear lights for the presence of tinted covers

#### Reasons for rejection

- a) Any light has a tinted cover over it.
- b) There is any type of opaque cover over a headlight which cannot be readily removed without the use of tools.

### 12.22 Using a headlight tester, check the aim of the headlight(s)

#### Reasons for rejection

- a) The aim of the headlights is adjusted such that, when on high beam and measured at an effective distance of 8m, the projected centre of the beam is to the right of the headlight centre and/or is above the headlight centre.
- b) When measured at an effective distance of 8m, any part of the top edge of the high intensity portion of the low beam pattern is above and to the right of the centreline of the headlight.
- c) Headlight high beam indicator light is not operating.

#### **Notes:**

- 1. In the region above and to the right of the centreline of the headlight the luminous intensity must not exceed 437cd.
- 2. The portion of the beam to the left of the centreline of the light may extend above the height of the centreline of the headlight.
- 3. The 'centreline of the headlight' passes through the centre of the globe filament, or equivalent.

### 12.23 Visually inspect the headlight(s)

#### Reasons for rejection

- a) Headlight reflector is tarnished or peeling to the extent that headlight performance is impaired.
- b) Headlight lens is incomplete.
- c) Headlight assembly is not secured.

# 12.24 Visually inspect the engine, remote oil reservoirs, transmission and driveline

#### Reasons for rejection

- a) There are oil leaks from the engine, remote oil reservoir, gearbox or driveline which allow oil to drop onto the road surface, exhaust system or brake components.
- b) The engine or transmission is not securely mounted.
- c) Any reservoir is not filled to the manufacturers' recommended minimum level and/or show evidence of leakage.
- d) Where the engine is non-standard, the engine number does not match the number shown on the registration certificate.

### 12.25 Visually inspect the fuel system

#### Reason for rejection

- a) There is any leakage in the fuel system.
- b) Any part of the fuel system is insecure or damaged so that there is a risk of a fuel leak.
- c) The fuel cap is missing or insecure.
- d) Nitrous oxide injection equipment is fitted irrespective of its operational ability. Note this includes partial systems.

### 12.26 Visually inspect the exhaust system

#### ADRs relevant to this section

ADR 83 External Noise

#### Reasons for rejection.

- a) The motorcycle is not fitted with an effective silencing device through which all of the engines exhaust passes.
- b) Any component in the exhaust system is not securely mounted.
- c) There is any leak in the exhaust system, excluding manufacturer's drain holes in the mufflers.
- d) Where ADR 83 applies.

Note: ADR 83 applies to all motorcycles manufactured on or after I January 2006 and all "new model" motorcycles manufactured on or after I January 2005.

A "new model" is a motorcycle of a model first produced with a date of manufacture on or after I January 2005.

#### For original equipment

1. The exhaust system does not bear the manufacturer's name or trademark;

#### For aftermarket equipment

- 2. The exhaust does not bear a permanent mark showing at least: the manufacturer's name; the model of the cycle for which it is designed; the noise rating in decibels (dB(A)) at a selected rpm (94dB(A) is the maximum allowable rating).
- e) The exhaust outlet extends beyond the perimeter of the motor trike.
- f) For an LE ADR category vehicle;
  - I. The exhaust outlet does not extend at least 40 mm beyond any floor joint that is not continuously sealed or welded.
  - 2. The exhaust outlet discharges to the left of the vehicle.

# 12.27 Where it is evident that a motorcycle is emitting significantly higher exhaust noise than normal, conduct a stationary noise test in accordance with Appendix R

#### Reason for rejection

a) The measured noise level exceeds the limit shown in the table below.

Vehicle manufactured before 1 February 1985	100dB(A)
Vehicle manufactured after 1 February 1985	94dB(A)
Vehicle manufactured after the inception of ADR 83 (16 Nov 2005)	See stationary noise test information on the vehicle. Must not exceed 5dB(A) greater than the noise level when the vehicle was certified.

### 12.28 Stands – After I July 1988 (LA and LC ADR category)

- a) Vehicle does not have a stand that is capable of holding the vehicle in a substantially upright stable position.
- b) If the vehicle is fitted with a side stand it does not automatically:
  - I. Fold back into the closed or riding position when the vehicle is returned to the normal riding position, as a result of the vehicle being moved forward, without disturbing the equilibrium of the vehicle if the stand comes in contact with the ground when the vehicle is moving.
  - 2. Be connected to the ignition system in such a manner that the ignition can only be activated when the stand is in the closed or riding position or be connected in such a way that the vehicle cannot operate under its own power unless the stand is retracted.
  - 3. Be connected to an audible signal and warning lamp visible to the rider in the normal riding position, which are activated when the ignition is turned on if the stand is not retracted or in the riding position.

## 13 Motor Homes

Motor vehicles that are constructed or modified to provide sleeping and cooking facilities OBJECTIVE: To ensure that motor homes/caravans/campervans and associated components are fitted in accordance with regulation and operate in a safe manner.

Australian Design Rules relevant to this section:
ADR 44

### 13.1 Visually inspect the living quarters

- a) There is no permanently affixed sleeping position.
- b) There are no permanently affixed cooking facilities.
- c) There are no permanent storage facilities.
- d) There is no table and associated seating. The table must be a fixed component of the vehicle, it may be designed to be easily removable.
- e) Any motor home manufactured after I July 1998 equipped with fuel burning cooking facilities, or living, or sleeping accommodation that does not have at least one outward opening or sliding door on the left side or rear of the vehicle.
- f) There is no readily accessible fire extinguisher fitted which has a minimum rating of IA:5B and complies with AS 2444 Portable Fire Extinguishers.
- g) The fire extinguisher is not securely mounted in the living quarters.
- h) No second extinguisher fitted in each compartment (rooms) of a vehicle that has multiple compartments.
- i) A motor home has more sleeping births than designated seating position in the vehicle.
- j) A 'designated' seating position is not fitted with a seatbelt in accordance with ADRs.
- k) A designated seating position that swivels is not capable of being securely locked into the correct position for travelling.
- Where gas appliances are fitted to the vehicle and there is no gas installation compliance certification for the vehicle as supplied by a licensed household gas plumber in affect with AS 5601
- m) Where the motor home has a load/goods carrying capacity, the area of the load/goods carrying capacity is greater than 30% of the area of the living/cabin area of the vehicle.
- n) Where a toilet or urinal is installed, there is no catchment tank fitted (black water tank) and the toilet is not vented directly to atmosphere.
- A vehicle modified to be a campervan/motorhome from I January 2011 onwards that does not have an appropriate modification plate identifying code LH II affixed to the vehicle. Refer notes below.
- p) A vehicle modified as a campervan/motorhome prior to I January 2011 that has no modification plate supporting LH II or evidence of previous Tasmanian registration as a campervan/motorhome. Refer notes below.

#### Notes:

- 1. It is a requirement that all motor homes manufactured 1 January 2011 onwards are certified as meeting the requirements of the National Code of practice for Light Vehicle Construction and Modification, known as VSB 14, code LH11.
- 2. Vehicles with a Second Stage of Manufacture (SSM) identification plate relating to a motor home / Campervan configuration are not required to have a modification plate.
- 3. A VE may pass a vehicle modified prior to 1 January 2011 as a campervan/motorhome where evidence of previous <u>Tasmanian</u> registration identifying the vehicle body type as a "campervan" is provided.

# 13.2 Externally fitted accessories

a) Any externally fitted accessory that is loose, damaged in a manner that affects the security of its mounting, or is otherwise not securely attached.

# 14 Light Trailers & Caravans

OBJECTIVE: To ensure that Trailers/Caravans and associated components meet regulations and operate in a safe manner.

Caution: Be extremely careful when inspecting uncoupled trailers, particularly if they do not have a parking brake - use wheel chocks if necessary.

# 14.1 Inspect the trailer for brake requirements.

## Reasons for rejection

- a) Trailer manufactured after I July 1988 with a GTM exceeding 750 kg that is not fitted with brakes.
- b) Trailer manufactured after I July 1988 with a GTM exceeding 2000 kg that is not fitted with brakes on all wheels and an emergency braking system (break-away system)
- c) Trailer manufactured prior to I July 1988 with a GTM exceeding 2000 kg that is not fitted with brakes that automatically apply and hold when detached from the towing vehicle.

# 14.2 Inspect visible brake components

## Reasons for rejection

- a) Where visible, any brake component is leaking, or is not securely mounted.
- b) Any cable operating a brake is missing, broken or frayed.
- c) Any wiring for electric brakes is disconnected, frayed, bared or insecure.
- d) Where hydraulic brakes are fitted, the level of brake fluid is below the minimum indicated level.
- e) Where hydraulic brakes are fitted the brake fluid reservoir is not appropriately sealed to prevent moisture or contaminants from entering reservoir.
- f) Any hydraulic brake line that is damaged, not secure, bulging, severely corroded or leaking.
- g) Any hydraulic brake line that has been repaired by heating or welding.
- h) Any brake component is seized, severely corroded or inoperative or, where visible, is worn beyond manufacturer's limits.
- i) An electric brake controller is mounted to the trailer that is not capable of having the brake performance (amount of braking) adjusted from the towing vehicle.
- j) Note: The use of a mobile phone for adjusting the brake performance is not accepted. Adjustment must be by a dedicated remote control.
- k) An electric brake controller mounted to the trailer that incorporates a method to adjust the brake performance externally on the device. Note: This includes controllers fitted to the trailer with a dial knob for adjusting brake performance.

# 14.3 Brake testing of trailers fitted with override brakes

Where possible, test any override brake system by compressing the brake-actuating device and attempting to move the trailer (usually this can only be carried out where a parking brake is fitted to the trailer – see 14.5).

**Note:** A roller brake tester can be used to test override brakes but extreme caution is needed.

#### Reasons for rejection

a) The brakes do not retard the movement of the trailer.

# 14.4 Brake testing of trailers fitted with brakes other than override brakes

With the trailer attached to a tow vehicle, apply the trailer service brake and attempt to move the trailer forward.

# Reason for rejection

a) The brake does not retard the movement of the trailer.

# 14.5 Where fitted, test the parking brake

Apply the parking brake and attempt to move the trailer. The trailer may be coupled to a hauling vehicle for this test but ensure that the transmission is in neutral, and the brakes are off.

## Reason for rejection

- a) Where fitted the trailer park brake does not retard the movement of the trailer or combination.
- b) Any handle or control lever is not fitted with a locking device capable of holding in any position.

**Note:** Under the ADRs, most light trailers with override brakes are not required to have a parking brake. However, a suitable device can usually be very easily incorporated into the actuating mechanism, and they are highly recommended for improving safety when the trailer is uncoupled from a hauling vehicle.

# 14.6 Where fitted, inspect the emergency braking system/ break-away braking system

# Reason for rejection

a) The emergency braking system / break-away braking system does not automatically apply when the trailer is detached from the towing vehicle.

# 14.7 Visually inspect the trailer coupling, drawbar and mountings on the trailer body

- a) Any coupling component is loose, distorted or is cracked.
- b) The drawbar is not securely mounted or is cracked.
- c) Any mounting bolts, fasteners or weld beads have advanced corrosion.
- d) The coupling does not display the gross mass rating and the manufacturer's name or trademark.
- e) Any coupling that is marked by the manufacturer DO NOT WELD that displays welding.
- f) Any coupling that is not a positive locking type with provision for a secondary independent locking device.
- g) Where any part of the coupling or drawbar is removable, the bolts, studs, nuts etc. fastening those parts do not have locking device such as U-clip, split pin, spring washer, nylon lock nut.
- h) Safety chain/s or cables (as required) are not securely and permanently attached to the trailer drawbar.
- i) Any 50 mm ball coupling on a trailer manufactured after 1 July 1991 that is not marked in accordance with Australian Standard AS 4177.3 or ECE R 55.
- j) Any alternative coupling not meeting the requirements of ADR62/01 and ADR62/02, which requires the following information to be displayed:
  - I. The manufacturers name or trademark
  - 2. The maximum allowable trailer ATM

3. The words 'Model (model Identifier) use with model (model identifier).

# 14.8 Visually inspect safety chains or cables

# Reasons for rejection

- a) A Rigid drawbar trailer manufactured after I July 1991 that is not fitted with safety chain/s in accordance with the table 14.1 and 14.2 below or safety cables that meet the minimum requirement listed below.
- b) A trailer manufactured after I July 1991 that is not fitted with an emergency braking system and is not a rigid drawbar trailer or converter dolly, does not have safety chain/s in accordance with table 14.1 and 14.2 below or safety cables that meet the minimum requirement listed below.
- c) Pig trailers or trailers not fitted with break-away brakes manufactured prior to I July 1991 that are not fitted with at least one safety chain or flexible cable that is capable of keeping the trailer in tow if the coupling brakes or becomes detached from the towing vehicle.
- d) Where a safety chain is welded to the drawbar, the weld does not extend 50% of the circumference of the link.
- e) The safety chain is affixed to the drawbar in a manner that prevents the adjoining link from moving freely.
- f) Safety chains or cables are stretched, nicked, frayed or cracked.
- g) Any safety chain or wire cable touches the ground (when coupled to the hauling vehicle), or its length is such that it prevents any breakaway protection device from operating.
- h) The safety chain(s) or wire cable(s) are not permanently attached to the drawbar. Note: Attachment of safety chains or wire cables to the drawbar by shackles is not permitted.
- i) Where a trailer break-away protection system is not fitted, the size of the chain or rope is less than that specified in the following table, or the safety cable does not meet the minimum requirements listed below and in tables 14.1 and 14.2.

Safety cable may only be used on trailers that do not exceed 3.5 tonne ATM

The Safety Cable minimum requirements:

- The Safety Cable must be certified with a load capacity of the same rating as a safety chain that would be applicable to the specific trailer
- The cable must display the appropriate markings which match certification
- The certification must reflect the markings
- The load capacity must be relevant to the ATM of the trailer
- j) On rigid drawbar pig trailers in excess of 3.5 tonne ATM, there are less than two chains of a diameter specified in table 14-2, and there is at least one chain which is not positioned such that it prevents the drawbar from touching the ground when the drawbar is detached.

#### **Notes:**

- 1. Safety cables are not permitted on trailers that exceed 3.5 tonne ATM.
- 2. A 'pig trailer' is a typical trailer with one axle group and a rigid drawbar. A 'dog trailer' has two axle groups and a hinged drawbar.

Table 14.1 - Minimum chain sizes for trailers with an ATM up to 3500 Kg.

\* For this section nominal means a link diameter plus or minus 0.4mm of the nominal value specified.

ATM (kg)	Minimum Nominal Chain Link Diameter (mm) *	Rating (kg)	Number of Chains (minimum)	Marking (1.5mm for chain ≤ 8.0mm) (2.0mm for chain ≥ 8.0mm)	Minimum Marking Frequency (link)	
0 to 1000	6.3	1000	I	4177-10	4th	
Up to 1600 8.0		1600	I	4177-16	4th	
Up to 2500 10.0		2500	I	4177-25	4th	
Up to 3500	13.0	3500	2	4177-35	4th	

Table 14.2 - Minimum chain sizes for trailers over 3500 Kg ATM

ATM (kg)	Minimum Chain Link Diameter (mm)	Break Load (kg)	Number of Chains (minimum)	Marking	Minimum Marking Frequency (link)	
Up to 4500	6.0	4607	2	(Manufacturer's Mark), 'T', '8', '80' or '800'	20 <sup>th</sup> or 1m	

# 14.9 Visually inspect all suspension components

# Reasons for rejection

- a) Any suspension component is broken, cracked, missing, not secured, excessively corroded or can be seen to have been repaired or modified by heating or welding or is worn beyond manufacturer's limits.
- b) Any nut, bolt, or locking device is not secured or is missing.
- c) With the wheels raised, the vertical free play of the wheel exceeds 3mm.
- d) Nuts do not fully engage U bolt thread.
- e) Components are not correctly aligned.

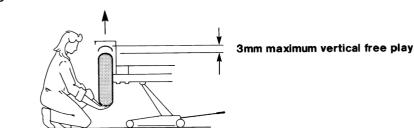


Figure 14.3

f) With the wheels raised, the free play of the wheel measured at the rim exceeds 6mm in total or 3mm from any component part.

**Note:** The free play measurement given is a guide only, and manufacturers' tolerances take precedence in all cases when performing these checks.

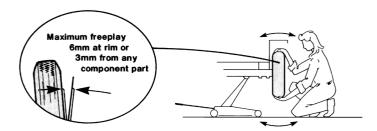


Figure 14. 4

- g) Spring or rocker assemblies do not operate as intended by the component manufacturer. Example, rocker spring assembly with the 'eye' end permanently affixed. Not fitted with leaf spring shackles or slipper systems.
- h) All axles in an axle group are not connected through a load sharing suspension where the axles are spaced more than;
  - I. I metre apart for two axles, or
  - 2. 2 metres apart for three axles, or
  - 3. 3.2 metres apart for four axles.
- i) The axle, wheels or tyres fitted to a trailer that is not required to have load sharing suspension, are not rated with a capacity of at least 120% of the nominal load imposed on that axle when the trailer is loaded to its ATM and on level ground.
- j) The trailer is fitted with leaf springs that either bind, do not function as designed or are incorrectly installed.

# 14.10 Visually inspect the inside and outside of each road wheel

## Reasons for rejection

- a) Any wheel or rim is cracked, has pieces of a casting missing, or is buckled.
- b) The wheel nut does not engage the thread of the wheel stud for the full length of the nut, or the fitting of the wheel nut does not match the taper of the wheel stud hole.
- c) Any hub has missing or broken wheel mounting nuts, studs or bolts.
- d) Any spoked wheel has missing, loose, cracked, broken or bent spokes.
- e) The tyre or rim fouls any component at any point over its full range of travel.

# 14.11 Visually inspect each road tyre

- a) The tyre has less than 1.5mm tread depth in all principal grooves (excluding at any tread depth indicator).
- b) A tyre has excessive uneven (disproportional) wear across its width.
- c) The tyre has deep cuts, bulges, exposed cords or other signs of carcass failure on either the side wall or tread surface.
- d) The tyre has been re-grooved (except where indicated on the sidewall that the tyres are suitable for re-grooving).
- e) Any retreaded tyre fitted to the vehicle is not marked with the name or identification of the retreader and speed rating of the tyre.

- f) Dual tyres contact each other.
- g) Tyre load or speed ratings are less than the minimum rating specified by the vehicle manufacturer.
- h) A tyre that exceeds the maximum width allowed for that trailer.
- i) A tyre that protrudes beyond the body line.

#### **Notes:**

**Principal grooves** are the wide circumferential grooves usually positioned in the central zone of the tyre tread, which have the tread wear indicators located in their base.

**Secondary grooves** are supplementary grooves of the tread pattern and are typically shallower than principal grooves. These grooves may disappear in the course of the tyre's life.

# 14.12 Check Wheel bearings

**Note:** Using safe work practices, check the wheel bearings by lifting the trailer wheels off the ground—disassembly of wheel bearings is not required.

# Reason for rejection

- a) Are incorrectly adjusted, rough, noisy, loose on stub axle, do not rotate freely or are leaking.
- b) Movement between disc brake rotor/brake drum and backing plate exceeds manufacturer's specifications.

# 14.13 Check the operation of doors, gates, flaps and latches

# Reason for rejection

- a) Any door, gate, flap or securing latch cannot be fastened securely in the closed position.
- b) A trailer equipped with fuel burning cooking facilities or living or sleeping accommodation must have only outward opening or sliding doors. At least one such door must be located on the left-hand side or at the rear.

# 14.14 Visually inspect body panels, chassis and frame

## Reasons for rejection

- a) Exterior body work and fittings have sharp edges due to rusted panels or body damage, or protrusions that could cause injury to a person coming into contact with the trailer.
- b) Body componentry (including rear under run protection, where applicable) or chassis frame are cracked, broken, distorted, corroded or otherwise weakened to the point where structural failure of any component is likely to occur.
- c) The body is not securely mounted to the frame or chassis.
- d) Any repairs carried out do not retain the original strength of the component/section.

# 14.15 External fitted accessories

e) Any externally fitted accessory that is loose and/or damaged in a manner affecting the security of its mounting or is otherwise not securely attached in a manner to withstand factors that may degrade it.

**Note:** External accessories include solar panels, bike racks, awnings, etc.

# 14.16 Inspect the mudguards

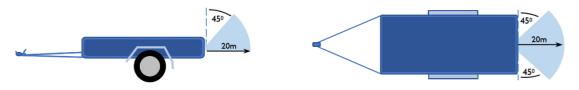
- a) Mudguards are not fitted to all wheels.
- b) Any mudguard does not cover the full width of the tyre.
- c) The lower edge of any mudguard including a mudflap fitted to a road vehicle that is more than 230mm above the ground when parked on level ground.
- d) The lower edge of any mudguard including a mudflap fitted to a vehicle designed with off road capabilities that is more than 300mm above the ground when parked on level ground.

# 14.17 Visually inspect the allocated number plate location

# Reasons for rejection

- a) There is no provision at the rear of the trailer for the fitment of a number plate measuring at least 136mm in height and 372mm in length. This allocated space must permit the characters of the number plate to be visible from a distance of 20 metres at any point within an arc of 45 degrees from the surface of the number plate above or to either side of the vehicle. Refer notes below.
- b) There is no provision for the number plate to be affixed upright and parallel to the trailers axle/s.
- c) Where a number plate is affixed, the characters of the number plate are not clearly visible from a distance of 20 metres at any point within an arc of 45 degrees from the surface of the number plate above or to either side of the vehicle. *Refer notes below*.
- d) Number plate covers are tinted, reflective, rounded, or bubble like.
- e) Number plate has a substance applied to the reflective surface that would prevent the production of a clear photograph.
- f) The number plate is damaged or faded to the extent that the registration number is not legible from a distance of twenty metres.
- g) The registration (number) plate is not issued or approved by the State or Territory Road Transport Authority.
- h) The number plate is mounted more than 1300mm from the ground.
- i) The number plate does not face the rear of the trailer in an upright position parallel to the vehicle axle/s.
- j) The number plate is not illuminated by at least one number plate light.

#### Notes:



# 14.18 Visually inspect mandatory reflectors

#### Reasons for rejection

a) Trailer is not fitted with 2 red non triangular rearward facing reflectors rear reflectors that are more than 400mm in from the outer edge rear reflectors that are lower than 250mm above the ground or more than 900mm above the ground (900mm may be increased to 1500mm if impractical).

- b) Trailer not fitted with 2 white non triangular forward facing reflectors front reflectors that are more than:
  - 1. 150 mm in from the outer edge
  - 2. Front reflectors that are lower than 250mm above the ground or more than 900mm above the ground (900mm may be increased to 1500mm if impractical).
- c) Trailer is not fitted with an orange non triangular side facing reflector to each side of the trailer within the middle third of the trailer's length and,
  - I. Side facing reflectors are positioned more than 3 metres apart, more than 3 metres back from the coupling or more than 1 metre from the rear of the trailer.
  - 2. Side facing reflectors are lower than 250mm above the ground or higher than 900mm above the ground (900mm may be increased to 1500mm if impractical).

#### Notes:

- 1. Additional side facing reflectors may be required to meet the above requirements.
- 2. Trailers that are longer than 4 metres will require more than 1 side facing reflector per side.

# 14.19 Visually inspect and check the operation of all lamps fitted to the trailer

# Reasons for rejection

- a) Regulatory trailer lighting is not permanently affixed to the trailer. **Note:** temporary light boards are not accepted unless <u>permanently</u> affixed to the trailer. They cannot be attached to a load, including a boat.
- b) Any of the following lights do not work or has incorrect colour:
  - I. Tail lamps (red).
  - 2. Brake lamps (red).
  - 3. Direction lamps (yellow).
  - 4. Clearance lamps (white/red).
  - 5. Side marker lamps (yellow).
  - 6. Number plate lamp (white).
- c) Any of the above lamps are damaged or deteriorated to the extent that white light shows to the rear of the vehicle, or in the case of any side marker lamps, any white light shows to the front of the vehicle.
- d) Any lamps or reflectors fitted to a vehicle that are not operational and not located in positions as required by prescribed standards.
- e) Any lamp that is not clearly visible under all normal conditions and of a consistent intensity, or are affected by dirty lenses or poor electrical contact.
- f) Lenses and lamp reflectors are not securely mounted, are faded or discoloured and are not free from cracks, holes, or other damage which would allow the entry of moisture or dirt to impair the efficiency of the light or reflector.
- g) The number plate lamp is not directing light on to the surface of the rear number plate.
- h) Any wiring for compulsory lamps is frayed or bared or is insecure to the extent that it is likely to be damaged.
- i) Lamps as follows are not fitted.

#### At front of vehicle

1. White clearance lamps (if vehicle built after 6/88 and vehicle more than 2.1m wide), min 500mm and max 1500mm off ground, max 150mm inboard of vehicle side.

#### At side of vehicle

Note: Side marker lamps may comply with <u>either</u> option 1 or option 2 below.

- 2. Option I (ADR 13, Subsection 9.2) Amber to front/Red to rear marker lamps are not fitted to each side of the trailer as follows.
  - i. Trailers over 2.1 metres wide, I toward the rear (not more than 300mm from rear of trailer).
  - ii. Trailers over 7.5 metres in total length, I at the rear (not more than 300mm from rear of trailer), I at the front (not more than 300mm from front of the trailer) and I midway between front and rear side marker lamps. Refer note I below.
  - iii. Side marker lamps are positioned more than 150mm from the extreme outer edge of the vehicle (measured from the outer edge of the illuminating surface).
  - iv. Side marker lamps are not positioned a min 600mm and max 1500mm (2100mm if the body works makes it impossible to keep within 1500mm) from the ground.
  - v. The side marker lamp does not comply with ADR 74.
- 3. Option 2 (ADR 13, Appendix A Subsection 6.18 and UNECE R48/02) Amber side marker lamps are not fitted to both sides of a trailer exceeding 6m in total length as follows;
  - i. The side marker lamp does not comply with ADR 74.
  - ii. Side marker lamps are not fitted within the middle third of the trailer's total length. Refer note 2 below.
  - iii. The front side marker lamps (not required where the middle side marker lamp also meets this requirement) are more than 3 metres rearward of the front of the trailer (including the drawbar).
  - iv. The rear side marker lamp are more than I metre forward of the rear of the trailer.
  - v. The distance between adjacent side marker lamps exceeds 3 metres (4 metres if required by trailer shape or operation).
  - vi. A side marker lamp is positioned lower than 250mm above the ground.
  - vii. A side marker lamp is positioned more than 1500mm above the ground.
  - viii. A side marker lamp, other than the rear light, emits a colour other than amber to the front and rear.
  - ix. A rear marker lamp emits a colour other than amber to the front and red to the rear.

#### At rear of vehicle

- 4. Two (one prior to 7/73) Red tail lamps, max 1500mm off ground, min 600mm apart, max 400mm inboard of side of vehicle (single lamp located in centre or right side of vehicle).
- 5. Two Red reflectors, max 1500mm off ground, max 400mm (250mm if vehicle more than 2.2m wide) inboard of side of vehicle.
- 6. White registration plate lamp/s, to illuminate registration plate.
- 7. Two (one prior to 7/73) Red stop lights, min 350mm and max 1500mm off ground, single light to be in centre or on right side of vehicle).

8. Two Yellow (red permitted prior to 7/73) turn signal indicators, min 400mm and max 1500mm off ground, min 600mm separation.

#### **Notes:**

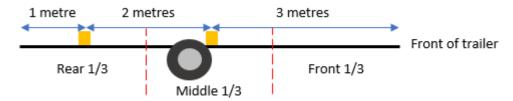
- 1. Where it is reasonably impractical due to the trailer's construction to meet the 300mm requirement for front and/or rear side marker lights, the lights may be fitted as close as possible to the front and/or rear respectively. Where this applies and the distance between the front and rear lights would then be less than 2.5 metres, only the rearmost pair of lights need be fitted.
- 2. Where the middle side marker lamp can be positioned to <u>also</u> meet the requirements of the front side marker lamp, only the middle side marker lamp is required. Refer examples below.

## Examples for option 2 above

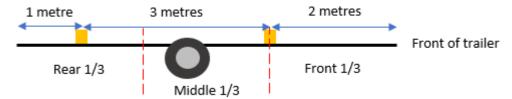
Trailer total length = 6 metres

In the below examples the middle side marker lamp is positioned within the middle third of the trailer's total length. The distance from the front of the trailer to this lamp does not exceed 3 metres, the lamp also meets the requirement for a front position side marker lamp.

There must be a side marker light in the middle third.



Another example where the middle side marker lamp also meets the requirements for a front side marker lamp as it is positioned in the middle third but no further than 3 metres from the front of the trailer.



# 14.20 Angles of visibility

#### Reasons for rejection

a) For a trailer manufactured October 1991 onwards, the angles of geometric visibility identified in table 14.2 are obstructed, when measured from the outer edge of the illuminated surface of the lens, or the light-emitting surface (LED style lamps).

Table 14.2

Lamp Type	Geometric visibility (in degrees)

	Horizontal	Vertical
T-:! !	45 inwards*	
Tail lamp	80 outwards	
<b>D</b> 1 1	45 inwards***	15 above and
Brake lamp	45 outwards	below the horizontal**
Direction	45 inwards*	
indicator lamp	80 outwards	

<sup>\*</sup> Where the lamp is mounted at a height of less than 750mm, the inward angle may be reduced to 20 degrees under the horizontal plane.

# 14.21 Visibility requirements (Tray type trailers)

## Reason for rejection

a) A trailer that is 2.2 metres or more wide not fitted with rear consipicuity markings on the rear of the trailer, does not have a white or silver band 75mm in height across the full width of the rear of the tray. Refer notes

#### **Notes:**

Rear consipicuity markings consist of red or yellow Class 'C' Retroreflective material extending the full width of the tray.

#### 14.22 Dimensions

#### Reason for rejection

- a) The width of the trailer exceeds 2.5 metres.
- b) The height of the trailer exceeds 4.3 metres.
- c) Any of the following dimensions are exceeded.

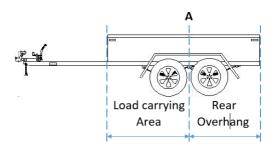
# 1. Pig type trailers

- i. The drawbar length exceeds 8.5 metres. Measured from the centre of the coupling pivot point to the rear overhang line.
- ii. The rear overhang exceeds the lesser of,
  - 1. the length of the load carrying area forward of the rear overhang line, or 3.7 metres.

<sup>\*\*</sup> Where the lamp is mounted at a height of less than 750mm, the downward angle may be reduced to 5 degrees.

<sup>\*\*\*</sup> Where the brake lamp is mounted below 750mm the horizontal angle may be reduced to 20 degrees inwards.

2. The length of the trailer exceeds 12.2 metres. Measured from the centreline of the coupling pivot to the rear of the trailer.



#### 2. Semi-trailers

- i. The length of a semi-trailer manufactured prior to May 2016 exceeds 12.3 metres. Measured from the point of articulation to the rear of the trailer.
- ii. The length of a semi-trailer manufactured May 2016 onwards exceeds 13.2 metres. Measured from the point of articulation and the rear of the trailer.
- iii. For a semi-trailer, the distance from the point of articulation to the rear overhang line exceeds 9.5 metres. Shown as dimension 'B' below.
- iv. The rear overhang exceeds the lesser of;
  - 3. 60% of the distance between the point of articulation and the rear overhang line, or 3.7 metres.

#### Notes:

- 1. The rear overhang line (A) is identified as follows.
  - For a single axle trailer line "A" is to be taken from the centre of the axle.
  - For a tandem or tri-axle trailer "A" is measured from the centre of the axle group.
- 2. Trailer width includes fixtures attached to the trailer body, eaves on caravans (tiny homes are caravans) and protruding body components with the exception of any of the following:
  - anti-skid devices mounted on wheels
  - central tyre inflation systems
  - side mounted lamps and reflectors
  - signalling devices
  - permanently fixed webbing assembly-type devices, such as curtain side devices, if the maximum width across the vehicle and including the devices, does not exceed 2.55 metres.
- 3. When measuring the dimensions of a "tiny home" style caravan it is important to observe and include all overhangs including but not limited to guttering, downpipes, eaves and any other fixture externally mounted to the vehicle.

# 14.23 Projections

- a) Body work or fittings have sharp edges.
- b) Any fitting, after-market object or component not technically essential to the operation of the trailer protrudes from the trailer in a manner that may cause injury to a person coming into contact with the vehicle.

# 14.24 Visually inspect the living area of a caravan

For an enclosed trailer to be considered a caravan

- a) A caravan designed for overnight accommodation, does not have fixed sleeping or cooking facilities.
- b) On a caravan manufactured after I July 1988 that is fitted with fuel burning (cooking) facilities or living or sleeping accommodation that does not have at least one outward opening or sliding door:
  - 1. On the left-hand side that provides access to the accommodation/living space; or
  - 2. That provides access to the accommodation/living space at the rear of the caravan.
- c) There is no readily accessible fire extinguisher fitted which has a minimum rating of IA:5B and complies with AS 2444 Portable Fire Extinguishers and;
  - 1. The fire extinguisher is not securely mounted in the living quarters; or
  - 2. Where a caravan has multiple living (rooms) areas a compliant fire extinguisher, a 2nd fire extinguisher is not securely fitted in each area.
  - 3. Where a caravan has a compartment for living and another for storage (for example a toy hauler), a 2nd fire extinguisher is not provided in the storage area.
- d) Where the vehicle is equipped with gas supply piping and or a fixed regulator, there is no gas installation compliance certification for the vehicle as supplied by a licensed gas fitter in affect with AS 5601.
- e) Where a toilet or urinal is installed, there is no catchment tank fitted (black water tank) and the toilet is not vented directly to atmosphere.

#### Notes:

- 1. A Trailer constructed as a 'tiny home' is a caravan and must meet the additional requirements applicable to caravans.
- 2. The door must be fit for purpose to be used by an average sized person.
- 3. An outward opening screen/security door fitted over another door or inward opening door does not meet these requirements.
- 4. The removal of gas appliances requires decommissioning by a certified gas fitter.

# 15 Light Vehicle Standards Specific to Taxis

OBJECTIVE: To ensure that small passenger vehicles are compliant and meet current regulation standards.

# 15.1 Vehicle Suitability

## Reason for rejection

- a) The vehicle is not a small passenger vehicle. i.e., it has a seating capacity for 10 or more adults, including the driver.
- b) The Commission does not find the vehicle suitable for use as a taxi. Note, where the Department has advised in writing that a certain class, type, primary motive of power or other is not suitable, this forms a reason for rejection.
- c) A sedan type vehicle does not have adequate luggage space external to the passenger compartment. (See Note 1).
- d) The vehicle is a station wagon style vehicle without adequate luggage space to the rear of the rear most seat that can be occupied by a passenger. (See Note 1).
- e) The vehicle is more than 7 years old, has never been licensed as a taxi, and the vehicle was not operated under the authority of a luxury hire car licence immediately prior.
- f) The vehicle is more than 12 years old and is licensed to be used as a taxi.
- g) Where the vehicle does not have a sliding door for the access of passengers, there is no door provided adjacent to each outboard seating position.

#### Notes:

- 1. These criteria will be assessed by the Department at the time of approving the vehicle for use as a taxi.
- 2. The suitability of a vehicle for use as a taxi is to be determined by the Transport Commission.
- 3. The age of a vehicle is determined by the month and year recorded on the vehicle compliance plate, or for a vehicle recorded on the RAV the applicable RAV date as follows.
  - a. Type Approval RAV entries, the RAV entry date, the most recent RAV entry date.
  - b. Concessional RAV entries the RAV build date.
- 4. If the vehicle compliance plate is no longer affixed to the vehicle, the date of manufacture of the vehicle recorded in the Register of Motor Vehicles
- 5. Any concerns regarding the suitability of taxis should be referred to Transport Operator Accreditation on 03 6166 3269.

# 15.2 Visually Inspect Taxi Meter, 2 Way Radio, (Including Radio Dispatch Visual Display Units) and Internal Tariff Indicators

- a) There is no taximeter fitted in the vehicle that calculates the charge for hiring the taxi and indicates that charge in figures.
- b) The taximeter interferes with the operation of other equipment installed in the taxi.

- c) The face of the taximeter is not mounted in such a way that all passengers can be given the opportunity to view the fare displayed on the taximeter on conclusion of hiring.
- d) The taximeter is not capable of displaying the tariff level on which the meter is operating including any hiring charges.
- e) The sealing wire of the taximeter does not seal the taximeter to prevent access to the taximeter.
- f) The taximeter does not operate.
- g) There is not displayed in a prominent place in the taxi a notice of the standard fares and charges or any alternate fares approved in respect of the taxi.
- The taximeter is likely to cause injury to an occupant of the vehicle during normal operation of the vehicle or in the event of severe acceleration or deceleration or in the event of an accident involving the vehicle; or
- i) The taximeter, radio dispatch unit encroachs upon occupant space and or degrades the energy absorption requirement of instrument panels designed to meet the requirements of ADR 21 (Instruments Panels).
- j) The controls for the taximeter or radio dispatch units are not accessible to the driver when seated in the normal driving position.
- k) The controls are located in a position that may cause annoyance to passengers.
- I) A taxi meter or radio dispatch unit is fitted to the upper windscreen area (increasing the risk of head injuries).
- m) Any equipment or accessories (including taximeter and radio dispatch units are fitted in such a manner to obscure the driver's field of view.
- n) The taxi is fitted with a device or modification that interferes or is intended to interfere with the operation of the taximeter.

# 15.3 Visually Inspect External Indicators

# Reason for rejection

- a) The taxi roof sign does not show a white light to the front when activated.
- b) The taxi roof sign shows white light to the rear of the vehicle when illuminated.
- c) The word 'taxi' or similar words to indicate that it is a taxi, are not displayed and clearly legible at a distance of 20 metres from the front of the vehicle during daylight hours.
- d) There is no capability of displaying a 'Not for Hire' sign in a clearly visible and prominent position.
- e) If fitted an illuminated 'not for hire' sign can be activated when the taxi top light is illuminated.
- f) If fitted an illuminated 'not for hire' sign cannot be seen from the front of the vehicle.
- g) If fitted an illuminated 'not for hire' sign is not legible from a distance of 25m at any point in an arc of 45 degrees from the surface of the sign above or to either side of the vehicle.
- h) The vehicle is fitted with 'additional' lights i.e. rear position side lights, stop lights or directional indicator lights not symmetrically positioned on the vehicle and less than 400mm apart.

# 15.4 Visually Inspect Security Camera System

#### Reason for rejection

a) An operating taxi, that is licensed to operate in a security camera taxi area is not fitted with any of the approved "taxi security camera systems" contained in table 15.1 below.

b) An operating taxi, that is licensed to operate outside a security camera taxi area that is fitted with a "taxi security camera system" other than one from table 15.1 below.

**Note: Security camera taxi area** means any of the following taxi areas: Burnie taxi area, Devonport taxi area, Hobart taxi area, Huonville taxi are, Launceston taxi area, Perth taxi area, Ulverstone taxi area as defined in the Taxi and Hire Vehicle Industries Regulations 2023.

Table 15.1

MAKE	MANUFATURER				
I3CABSI model number I	Taxitech Pty Ltd				
Arkive	AMSD Pty Ltd – Bitron Video Australia				
Cabcam Dv	Martin Meters				
Cabcam DVR 300	Cabcam Pty Ltd				
Cabwatch G60	Mobile Witness Australia Pty Ltd				
OiiiCam	Net-Cabs Pty Ltd				
PV3040 Snapshot Mark 4	MT Data Pty Ltd				
RDC 3020	Raywood Communications Pty Ltd				
Sigtec PV3040 Snapshot Mark 4	Sigtec Pty Ltd				
Sigtec Verifeye	Sigtec Pty Ltd				
Streamax G60DT V2	Streamax Australia Pty Ltd				
TaxicamHD	Taxicomms Australia Pty Ltd				
VerifEye Taxicam Mark 5	VerifEye Aust Pty Ltd				
VerifEye Taxicam TSCS Mk IV	VerifEye Aust Pty Ltd				

# 15.5 Visually Inspect the Outside Doors

## Reason for rejection

a) Is not fitted with the following approved 'Security Camera Operating' sign permanently displayed above and adjacent to each external door handle, including the external rear-door handle if the vehicle has rear access for wheelchairs or if the vehicle is a van.



#### SECURITY CAMERA OPERATING

- You will be photographed in the interests of driver and passenger safety.
- Photographs may be used for investigating and acting on complaints and unlawful activity in taxis. Photographs will only be permitted to be accessed by authorised persons.
- By hiring this taxi you give your consent to being photographed in this vehicle.
- It is an offence to obstruct the operation of the security carnera.
   Authorised by the Commissioner for Transport
- b) The 'Security Camera Operating' sign is not at least 50mm high and at least 150mm wide.
- c) Security Camera Operating' signs are not clearly legible.
- d) Security Camera Operating' signs are fitted to a movable glass section that is capable of obstructing clear view of the signs.

e) There is no sign affixed forward of each exterior passenger door handle, identifying the taxi registration number in raised characters.

# 15.6 Visually Inspect Inside the Vehicles

# Reason for rejection

- a) The security camera is not fitted in accordance with the manufacturer's instructions.
- b) The security camera system does not display an illuminated light indicating that it is fully operational.
- c) The security camera system displays an illuminated light indicating that it is a fault.
- d) An approved 'Security Camera Test Label' is not affixed to the upper left-hand side of the inside of the windscreen.
- e) An approved 'Security Camera Test Label' indicating that the camera has not been tested within the preceding 12 months.
- f) The security camera's lens is obstructed.
- g) The internal security camera/s is not readily visible to all vehicle occupants.
- h) The internal rear-vision security camera does not capture all occupants of the vehicle in any image taken by the camera.
- i) The taxi is fitted with a device or modification that interferes or is intended to interfere with the operation of the security camera.

# 15.7 Additional Security Cameras Installed (Optional)

# Reason for rejection

- a) Additional cameras either externally or internally mounted are not the same standard in all aspects as the rear- vision camera or fitted in accordance with the legislation and manufacturer's instructions.
- b) The first external camera if fitted is not positioned to provide a view of any person standing at the window of the driver's door.

# 15.8 Additional Requirements for Wheelchair Accessible Taxis (WAT)

- a) Modifications have been made to the vehicle that significantly alters the original external appearance of the vehicle.
- b) If the vehicle is not fitted with a hoist and it has an external boarding ramp with a width less than 800mm.
- c) If the vehicle is not fitted with a hoist and the external boarding ramp used for assisted access (AS3856.1 (1991) Clause 2.1.8 (e)) has a slope greater than 1 in 4.
- d) If fitted with an external boarding ramp does not have a slip resistant surface.
- e) If fitted with an external boarding ramp it does not have a maximum load label (200kg) affixed to the ramp and next to the accessible entrance on the outside of the vehicle.
- f) The vehicle does not have a clear floor or ground space for a stationary wheelchair 800mm by 1300mm (AS1428.2 (1992) Clause 6.1).
- g) The headroom in the clear floor or ground space is less than 1410mm for vehicles in service prior to 1/1/2013 and 1500mm for post 1/1/2013 vehicles.

- h) The vehicle has a wheel chair entry doorway with an unobstructed vertical height less than 1400mm for vehicles in service prior to 1/1/2013 and 1500mm for post 1/1/2013 vehicles.
- i) The vehicle is not fitted with a wheelchair restraint system that displays a label that states compliance with SAE J2249 or AS2942. (Code K5 on vehicle modification plate), or marked in accordance with ISO 10542. Note: Before any restraint system is rejected for non-marked, you must contact the AIS Compliance Officer.
- j) Restraint anchorage points are not on a rigid frame member.
- k) The restraint system has been modified or repaired.
- I) The restraint system webbing is damaged, frayed or contaminated.
- m) There is evidence that the restraint system has been worn during a severe impact, even if damage to the assembly is not obvious.
- n) If fitted with a wheelchair hoist not complying with AS3856 (this will be shown as code R2 on vehicle modification plate).
- o) The vehicle is not fitted with a blue modification plate.
- p) If fitted with a wheelchair hoist is damaged or in a condition which prevents its safe operation.
- q) The vehicle is not fitted with a secondary emergency-release mechanism on the wheelchair entry door that allows the door to be opened from the inside without the use of a key or any tools and is clearly labelled 'EMERGENCY RELEASE'.
- r) The vehicle is not fitted with a fire extinguisher selected and located in accordance with AS 2444-2001 (See Note 4).
- s) The vehicle is fitted with a fire extinguisher that is not being maintained in accordance with AS 1851-2005 (i.e. should display a AS 1851 Maintenance Record tag/label indicating that it has been tested within the preceding 6 month period).
- t) The vehicle has in excess of 12 seats in any seating configuration.

Note: Vehicle should be fitted with a minimum of one fire extinguisher with a rating of 2A: 20B, fitted with a hose. The fire extinguisher should be located to enable safe access in an emergency situation.

# 15.9 Restricted Hire Vehicle – General (for vehicles over 30 years of age)

- a) The exterior body has visible dents, rust or repairs.
- b) The vehicles paintwork lacks its original lustre and displays major blemishes.
- c) The vehicle has mismatched paintwork.
- d) Electroplated, polished or metallic components are in poor condition and not displayed their original lustre.
- e) Windows have visible scratches and blemishes that detract from the overall appearance of the vehicle.
- f) Ripped, torn or badly worn seats or interior trim.
- g) Headlining and floor coverings are incomplete, dirty and in poor repair.
- h) The dashboard is cracked or faded.
- i) The vehicle is fitted with wheels that do not match the style and age of the vehicle.

# 16 Driving Instructor/Tuition Vehicles

OBJECTIVE: To ensure that driving instructor vehicles are compliant and meet current regulation standards.

# 16.1 Visually inspect the Passenger Side Pedal Controls (also known as dual controls)

## Reasons for rejection

- a) Passenger side pedal controls are not constructed to acceptable engineering practices or degrade the design strength or operation of the original systems.
- b) The installation of passenger side pedal controls compromises the vehicles required compliance with any Australian Design Rule or interfere with any occupant protection system, including any SRS airbag.
- c) Passenger side pedal controls interfere with any other components or driver controls of the vehicle.
- d) A passenger side pedal control does not freely and without delay return to the released position.
- e) Passenger side pedal controls are capable of being operated when not being used for driver instruction.
- f) Passenger side pedal controls are capable of being operated accidentally.
- g) Passenger side pedal controls require the use of tools or equipment to be made inoperative.
- h) To be made inoperative requires removal of one or more of the passenger side pedals.
- i) Any component is loose, excessively worn or not functioning.
- j) The controls do not replicate the layout of driver's side pedal controls where one or more control is fitted.
- k) Passenger side pedal control pedals are not easily accessible in a similar manner to that of the driver's side pedals.
- I) Passenger side pedal controls are not fitted with an anti-slip surface.
- m) A vehicle with a compliance date after I July 2018 does not have a modification plate fitted for passenger side pedal controls (LC2).
- n) A modification plate with code LC2 is fitted to a vehicle other than a driver instructor vehicle that has evidence of a previous inspection for Driving Instruction Vehicle or a vehicle recognised in a driver mentor program.

#### Note:

For further information contact Vehicle Standards on 6166 3261

# 17 Buses

**Note:** The general roadworthiness of buses has been included within the standard vehicle inspection process outlined in each section.

This section deals only with those items that apply exclusively to buses.

Australian Design Rules relevant to this section:					
ADR 42	General safety requirements				
ADR 58	Requirements for omnibuses designed for hire and reward				
ADR 59	Omnibus roll-over strength				
ADR 66	Seat strength, seat anchorage strength and padding in omnibuses				
ADR 68	Occupant protection in buses				

OBJECTIVE: To ensure that buses and associated components are fitted in accordance with regulation and operate in a safe manner.

# 17.1 Check safety equipment and interior fittings

## Reasons for rejection

- a) Any emergency exits do not have clear access, or identification signs and operating instructions, where required, are not clearly visible.
- b) Equipment necessary to operate an exit is not present.
- c) The exit is broken, distorted or damaged in a way that stops it working properly. Note: Some emergency exits are designed to be used only once. Do not operate them for testing purposes.
- d) Any controls for passenger access doors that do not work properly.
- e) Any warning device to indicate the operation or condition of the exit is not in working order.
- f) Any interior body panel or fitting in a bus is not securely mounted or has exposed sharp edges due to damage including corrosion or separated joints that could injure a person who comes into contact with them.
- g) Any floor covering is torn, worn or loose to an extent that it could trip passengers.
- h) Any handgrip, handrail or hand-strap is loose or damaged.
- i) Any passenger stop signal is inoperative.
- j) Any step is damaged to an extent that it could trip or injure a person.
- k) Seat belts are not fitted (where applicable).
- I) There is no fire extinguisher in the vehicle located in a readily accessible position.
- m) Any fire extinguisher is:
  - I. Not securely fastened.
  - 2. Not maintained in a fully charged, useable condition and does not have a Maintenance Record Test Tag fitted indicating the fire extinguisher has been tested within the previous six months.

Note: 'Australian Standard AS1851.1 - 2005 Maintenance of fire protection systems and equipment, details the procedures for inspecting and testing fire extinguishers.'

n) Portable Halon Fire Extinguishers are installed.

- o) Buses first registered after 1/1/1984 do not have a fire extinguisher fitted, which complies with the selection and location requirements of Australian Standard AS2444-1985 Portable Fire Extinguishers and Fire Blankets Selection and Location.
- p) The extinguisher does not have the Standards Australia (SA) approval marking, having a fire test rating (as defined in the standard) of at least 20B and fitted with a hose.
- q) Buses operating outside urban areas on long trips, when fitted with an integral luggage compartment do not have an additional fire extinguisher of the above specifications mounted in a bin or boot near the underfloor or engine.
- r) The operational capacity is not displayed in a clearly visible position upon entering the bus.

# 17.2 Check School Bus Warning System

Buses used to carry school children outside designated urban areas in Tasmania are required to be fitted with flashing warning lights and signs. Where a bus is fitted with lights and signs indicating that it is a school bus the following applies.

## Reasons for rejection

- a) Signs
  - 1. There is not displayed on the front of the bus either:
    - i. An image of the 40 km/h speed limit sign as depicted in AS 1743 Road Signs Specifications (image R4-1 (40)); OR
    - ii. The words 'SCHOOL' or 'SCHOOL BUS' in capital letters at least 100mm high; OR
    - iii. If an electronic sign that also displays the location the bus is travelling, the words 'SCHOOL' or 'SCHOOL BUS' in capital letters at least 100mm high are not displayed while the school bus warning lights are flashing.
  - 2. There is not displayed on the rear of the bus an image of the 40 km/h speed limit sign as depicted in AS 1743 Road Signs Specifications (image R4-I (40)).
  - 3. The 40 km/h speed limit sign does not have a red circle having a diameter of at least:
    - i. 200mm if fitted at the front of the bus, OR
    - ii. 440mm when fitted at the rear of the bus.



4. Any 40 km/h signs are not coated with retro-reflective material of class I or 2 that meets AS 1906 Retro-reflective Materials and Devices for Road Traffic Control Purposes.

**Note:** 40 Km/h signs can be rectangular subject to 40 Km/h annular being central to sign.

- 5. There is not fitted at the rear of the bus;
  - i. A single warning sign with the words 'WHEN LIGHTS FLASH' being 900mm long and 70mm high with the words "WHEN LIGHTS" using the maximum even space possible between the letters of each word over a distance of 450mm and the word "FLASH" using the maximum even space possible over a distance of 450mm; OR
  - ii. Two separate signs. One of which contains the words 'WHEN LIGHTS' being 450mm long and 70mm high using the maximum even space possible between the

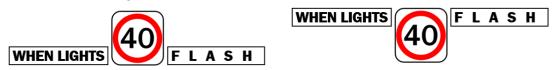
- letters of each word over a 450mm distance with a minimum of 60mm separation between the words. The other containing the word 'FLASH' using the maximum even space possible between the letters over a distance of 450mm; OR
- iii. A single sign that displays each word 'WHEN' 'LIGHTS' 'FLASH' on a single line with each word being centred horizontally on the line. With the sign a minimum of 300mm wide and between 210mm and 440mm high; OR
- iv. Subject to the GVM of the bus not exceeding 6000kg, three separate signs with each word 'WHEN' 'LIGHTS' 'FLASH' on a single line that is aligned horizontally and are vertically stacked (without a space between each sign) to read 'WHEN LIGHTS FLASH'. With each sign 300mm long and 70mm high.

# b) Position of types of signs

- 1. There is not displayed at the rear of a bus a warning sign as identified in (a)(5) in a location as described:
  - i. The single warning sign 'WHEN LIGHTS FLASH' being 900mm long and 70mm high is not displayed either above or below the 40 km/h sign; OR



ii. A warning sign comprising 2 signs 'WHEN LIGHT' and 'FLASH' is not displayed one on either side, aligned as close as possible with the top or bottom perimeter of the 40km/h sign; OR



iii. A single warning sign that displays each word on a single line as per (a)(5)(c) is not fitted to one side of the 40km/h sign; OR



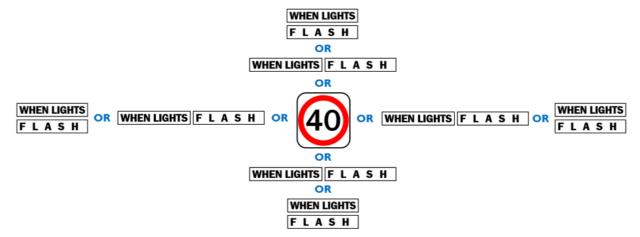
#### For Buses not exceeding 6000kg

iv. Three separate warning signs as identified in (a)(5)(d) fitted to one side of the 40 km/h speed sign at the rear of the bus.



v. If other warning sign location requirements are not met and the GVM of the bus does not exceed 6000 kg a warning sign comprising 2 signs, both pieces of the sign

with the words 'WHEN LIGHTS' and 'FLASH, are not displayed above, below or to one side of the 40 km/h sign.



- 2. If any part of the warning lights at the back of the bus is fitted below the horizontal mid line of the bus the warning sign requirements of (5) is not displayed above the 40 km/h sign.
- 3. The nearest part of the warning sign is greater than 150mm from the 40 Km/h sign
- 4. The font for all variants of the WHEN LIGHTS FLASH warning signs described in (e) of this section are not written in 60mm black lettering using series D characters as specified in AS 1744-1975 Standard Alphabets for Road Signs on a white background.
- 5. The words of signs are not aligned to read WHEN LIGHTS FLASH
- 6. Any warning sign must be fitted as high as practicable on the bus
- c) Warning lights
  - 1. Any warning light has less than 60 square centimetres effective illuminated lens area.
  - 2. Any warning light does not have the luminous intensity of at least the values stated in following table, as measured in accordance third edition ADR 6.0.

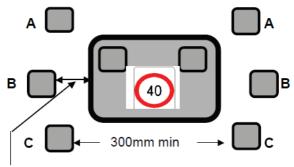
Vertical angle from	Horizontal angle from centre of light								
centre of light	-30°	-20°	-10°	-5°	0°	5°	10°	20°	30°
10°				50	80	50			
50°		180	320	350	450	350	320	180	
0°	75	450	1000	1250	1500	1250	1000	450	75
-5°	40	270	450	570	600	570	450	270	40
-10°				75	75	75			

#### Note:

Special purpose bus warning lights manufactured by the firm 'Hazard' have been shown to meet the luminous intensity requirements above and are therefore approved for use. Lights from other manufactures can only be fitted if an acceptable certificate of compliance is presented prior to inspection.

- 3. There is not a warning light on each side of, and the same distance from the centreline of the 40 km/h speed limit sign; or
- 4. In the case of warning lights both fitted above or below the warning sign, the lights must be fitted so that the centre line of a line between the two lights is within 50mm of the vertical centre line of the 40km/h sign.

- 5. Note: The 50mm tolerance allows for the minor deviation of the symmetrical fitment of the sign due to the design features of the bus.
- 6. Any warning sign or light is not fitted symmetrically, e.g.: AA, BB or CC. With the 50mm tolerance described in (I) applicable to AA and CC.



200mm max (or 300mm if practical)

- 7. A warning light is fitted more than 100 millimetres from the nearest point on the lens of the warning lights, or if this is not practicable, the edge of the warning sign to be not over 300 millimetres from the nearest point on the lens, if not practical.
- 8. Note: If the lights on the front of the bus are mounted higher than 1.8 metres above ground level the above requirement (6) need not apply
- 9. The distance between the warning lights is less than 300 millimetres, at the nearest point.
- 10. The view of any part of a warning light is obstructed by construction of the bus within 30 degrees to the left and right of the centre of each light and 10 degrees above and below the centre of each light.
- 11. Any warning light obstructs any words or images on a 40 km/h speed limit sign.
- 12. The warning lights at the same end of the bus are not at the same height.
- 13. The warning lights at the same end of the bus are not fitted as high as practicable.
- 14. Any 40 km/h speed limit sign or warning light is fitted to the left of centre of the bus and is less than 1800 millimetres above ground level.
- 15. Note: Warning lights and 40 km/h speed limit signs fitted and inspected prior to July 2002 may be placed in the centre or on the driver's side of the bus under 1.8 m and as high as practicable, but must not be on the passenger's side of the bus
- 16. Any warning light is fitted behind tinted glazing where the luminous transmittance is less than;
- 17. 75% for a vehicle built after 1971.
- 18. 70% for any other vehicle.
- 19. Any 40 km/h speed limit sign or warning light extends beneath the top 10% of a front windscreen.
- 20. Any 40 km/h speed limit sign or warning light extends into the swept path of the windscreen wipers.

**Note:** The above requirement (w) does not apply to some buses (e.g. Toyota Coasters) that may have lights and signs fitted at the top of the windscreen within the swept path of wipers if it is not practical for them to fully comply.

21. Any warning light does not flash alternately at a rate of at least 90, and not over 180, flashes a minute

- 22. Any warning light does not operate automatically when a door on the bus opens and for at least 10, and not more than 20, seconds after all the doors on the bus has closed.
- 23. The bus is not fitted with a switch that allows the driver to turn the warning lights off.
- 24. The bus is not fitted with a visible or audible signal that tells the driver when the warning lights are operating.
- 25. Electronic destination board at front of vehicle does not change to SCHOOL or SCHOOL BUS when warning lights are flashing.

# Bus Entrance and Exits

## The following Australian Design Rules are relevant to this section:

ADR 58 Requirements for omnibuses designed for hire and reward

# 17.3 Check Ordinary Entrances and Exits

**Applicable to buses manufactured prior to 1 July 1988 only.** For busses manufactured after July 1988 refer to the National Heavy Vehicle Inspection Manual

## Reason for rejection

- a) Only one ordinary entrance is permitted on the left side of the bus unless otherwise approved by the Registrar.
- b) Must not have an entrance or exit on the right side of the bus except for:
  - An emergency exit required under regulation 159 or
  - The driver's door.
- c) The height of the entrance is less than the interior height of the bus.
- d) The entrance is less than 550 millimetres wide.

# 17.4 Check Emergency Exits

#### For buses manufactured prior to 1 July 1988 only.

For buses manufactured after July 1988 refer to the National Heavy Vehicle Inspection Manual

- a) If an emergency exit is not fitted at the extreme rear of a bus or in the rear half of the roof of the passenger compartment.
- b) Has an area less than 5200 square centimetres in the case of a small bus or 7000 square centimetres in the case of a large bus.
- c) If any dimension is less than 500 millimetres.
- d) If an emergency exit is fitted in the rear half of the roof of the passenger compartment:
  - 1. There is no additional exit provided on the right side of the vehicle in the rear half of the passenger compartment.
  - 2. That the exit has an area less than 3200 square centimetres.
  - 3. If any dimension is less than 500 millimetres.
- e) If there is no suitable means of opening the exit at all times.
- f) Except in the case of a 'push out type' there is no suitable opening and closing device on both the inside and outside of the emergency exit.

- g) There is no 'EMERGENCY EXIT' sign displayed on the exit, both inside and outside the bus. However, a bus is not required to be fitted with an emergency exit if:
  - The bus is designed and constructed to seat not more than 12 adults including the driver; and
  - is fitted with one or more doors on each side; and
  - Has an overall width of not more than 2 metres.
  - A hinged and latched door fitted to a small bus with a seating capacity of not more than 15 adults, including the driver, may be regarded as an emergency exit if it is capable of being opened outwards from inside the bus.

# 17.5 Check Doors

## For buses manufactured prior to 1 July 1988 only.

For busses manufactured after July 1988 refer to the National Heavy Vehicle Inspection Manual

## Reason for rejection

- a) If a bus is fitted with:
- b) An interior door that separates the space normally used by passengers from the access doors or emergency exits; or
- c) An inward opening door other than a 'jack-knife' or 'glide-away' door which is so constructed that no part of it extends beyond the back of the lowest step of the entrance or exit where it is located.

# 17.6 Check Steps and Ramps

# Reason for rejection

- a) If the entrance is not securely fitted.
- b) If the height of the tread of the lowest step from the ground is over 410 millimetres or under 250 millimetres.
- c) The height of any step in relation to an adjacent step is over 300 millimetres.
- d) The transverse depth of the tread of each step in a small bus is less than 180 millimetres.
- e) The transverse depth of the tread of each step in a large bus is less than 225 millimetres.
- f) The width of the tread of the lowest step is less than the width of the entrance.
- g) The width of each step, other than the lowest step, is less than 450 millimetres.
- h) If each step is not fitted with skid-resistant tread.
- i) If step treads and risers are not directly illuminated, except in the case of an external access step to a single row of seats for a small bus having a seating capacity of not more than 15 adults, including the driver.
- j) If fitted, a wheelchair ramp or lifting device is inoperative, displays loose components, damage, cracks or the mounting points, operation or structural integrity has been compromised.

# 17.7 Check Interior Height

#### Reason for rejection

If the distance from the floor of a bus to the centre line of its roof is less than-

- a) 1.2 metres in the case of a small bus with an aisle length not over 2 metres; or
- b) 1.35 metres in the case of any other small bus; or

- c) 1.65 metres in the case of:
  - Each deck of a double-deck bus.
  - A large bus that is not involved in frequent stops for the purpose of picking up or setting down passengers.
  - I.8 metres in the case of a large bus that is involved in frequent stops for the purpose of picking up or setting down passengers.

# 17.8 Check Aisle Width

## Reason for rejection

- a) If the width of an aisle is less than 300 millimetres on a small bus.
- b) If the width an aisle is less than 300 millimetres on a large bus that is used to only carry seated passengers and less than 380 millimetres wide in the case of any other large bus.

# 17.9 Check Passenger Seating

- a) If the seat is not securely fastened to, or form part of, the body of the bus and be so constructed that reasonable comfort and adequate support is provided for passengers.
- b) If a floor space at the front of each seat measured from the vertical plane at the front extremity of the cushion is less than 200 millimetres.
- c) In the case of front facing seats, the horizontal distance between the inside back of each seat and the back of the seat immediately in front is less than-
  - 1. 600 millimetres in the case of a school bus; or
  - 2. 660 millimetres in the case of any other bus.
- d) If the distance between the front of the seat backs of facing seats is less than 1.2 metres.
- e) If the distance from the floor to the top of each cushion is more than 500 millimetres or;
  - 1. Less than 380 millimetres in the case of a school bus.
  - 2. In the case of any other bus, less than 300 millimetres if the floor level is interrupted by a wheel housing, engine housing or similar protuberance.
  - 3. Less than 400 millimetres in the case of a large bus and less than 380 millimetres in the case of a small bus, if the floor level is not interrupted by any protuberance.
- f) If the distance from the top of the cushion to the top of the back of each seat is less than 380 millimetres.
- g) If the distance from the top of the cushion to the bottom of the back of the seat is more than 75 millimetres.
- h) If the space for each passenger, measured along the front of the seat, is less than-
  - 1. 275 millimetres in the case of a school bus; and
  - 2. 400 millimetres in the case of any other bus.
- i) If the distance from the front to the back of each seat cushion is less than 350 millimetres.

# 17.10 Check Driver Seating

# Reasons for rejection

- a) If the driver's seat on a bus is not:
- b) Securely attached to the bus.
- c) Designed and fitted in such a way that the driver can be comfortable and have control of the bus.

# 17.11 Safety and Guard Rails

- a) If a bus is not fitted with a suitable rail or partition in front of any seat located on the left side of the bus immediately behind a step so as to prevent persons from falling into a step well.
- b) If the driving position on a large bus is not otherwise separated from the passenger compartment and is not fitted with a suitable guard rail or other structure so as to prevent passengers from:
  - 1. Coming into contact with the driver or the controls.
  - 2. Obstructing the drivers view.

# 18 Special Interest (SI) VehicleClass (A) – Vehicle condition

OBJECTIVE: To ensure a SI vehicle of a Class A is compliant with the eligibility requirements of the SI scheme of this particular class in addition to relevant sections of the LVIM.

Note: The following reasons for rejections are in addition to the current LVIM reasons for rejections for a light vehicle and the HVIM for a Heavy Vehicle are to be read in conjunction with each other.

# 18.1 Visually Inspect Vehicle Condition

- a) The vehicle is a campervan or motorhome, ie a motor vehicle that is constructed or modified to provide sleeping and cooking facilities.
- b) The vehicle is not 30 years of age or a replica of a body and frame manufactured at least 30 years ago.
- c) The vehicle is not compliant with the LVIM or if a heavy vehicle the HVIM.
- d) The vehicle features modifications that require certification, and no modification plate is affixed to the vehicle.
- e) The vehicle is presented towing a trailer.
- f) The vehicle is carrying a load.
- g) The exterior body has visible dents, rust or repairs.
- h) Holes are visible in panels, where badges were affixed.
- i) Paint is not of a standard consistent with the original production standards of the particular model.
- i) Colour mismatch between panels or unfinished paint repair is visible.
- k) Electroplated, polished or metallic components are in poor condition and not displayed their original lustre.
- I) Any body part is attached with visible tape or other visible temporary means.
- m) Number plates other than those issued to the vehicle under the current registration scheme are displayed.
- n) Windows have visible scratches and blemishes that detract from the overall appearance of the vehicle.
- o) Ripped, torn or badly worn seats or interior trim is visible.
- p) Headlining and floor coverings are incomplete, dirty and in poor repair.
- g) The dashboard is cracked or faded.
- r) Floor coverings are not fitted (where originally factory fitted).
- s) Door handles and window winder control hardware are not fitted.
- t) Any interior trim is secured in place by temporary means.
- u) Rear wheels are not of a matching style and size on each side of the vehicle.
- v) Front wheels are not of a matching style and size on each side of the vehicle.

w) Or Wheel trims, where fitted, are damaged (minor kerb type scuffing is acceptable) and are not of a matching style on each side of the vehicle.

# 19 Special Interest (SI) Vehicle Condition - Classes (B & C)

OBJECTIVE: To ensure a SI vehicles of a Class B or C are compliant with the eligibility requirements of the SI scheme of the particular class in addition to relevant sections of the LVIM.

# 19.1 Visually Inspect 'Approval in Principle'

## Reasons for rejection

a) The vehicle is presented without written authority issued by the Department, authorising the vehicle for Special Interest Class B or C registration.

# 20 Fit for purpose requirements.

OBJECTIVE: To ensure a vehicle is in an operable condition as intended by the vehicle manufacturer.

# 20.1 Vehicle Operations

#### Reasons for rejection

- a) The vehicles driveline does not operate as intended by the manufacturer and would cause a safety risk if driven on the road.
- b) As directed by Vehicle Standards Unit or AIS Compliance following enquiries from the VE as required. Note: where this provision applies, the reason for rejection must be provided to the VE in writing.

**Note:** VE's are not required to conduct a road test for the purpose of a Pre-Registration or General Inspection. However, where driven (including within the AIS premises) items/faults affecting the vehicles normal or safe operation may be identified.

# 21 Modification plates/certificates.

# 21.1 Certification

- a) The modification plate contains a modification code not listed in Appendix P Vehicle Modification Codes. *Refer note 1 below*.
- b) There is a modification certificate/report available, but no modification plate affixed to the vehicle. Refer note 1 below.

#### Note:

1. Before failing the inspection, the VE must contact Vehicle Standards for further advice.

# 22 Modifications - General.

OBJECTIVE: To ensure a modified vehicle is appropriately certified where applicable.

## 22.1 Vehicle Modifications

- a) The vehicle supports modifications that are required to be certified under the National Code of Practice for Light Vehicle Construction and Modification, known as Vehicle Standards Bulletin 14 (VSB 14), or Tasmanian requirements, and there is no modification plate affixed to the vehicle supporting the modifications. Refer to Appendix P for modification codes including Tasmanian specific codes.
- b) The vehicle bears a modification plate identifying modification codes not identified in Appendix P or identified in Department OF State Growth issued Special Information Bulletin (SIB).
- c) A modified vehicle is presented with engineering documentation and/or a modification certificate and the vehicle does not have an appropriate modification plate affixed.





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