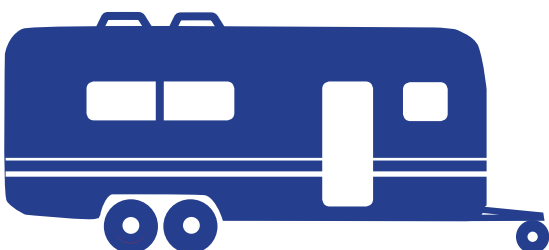


Light Vehicle Inspection Manual

ACT Road Transport Authority



INSPECTION MANUAL

FOR

LIGHT VEHICLES

Produced by Office of Transport, Department of Territory and Municipal Services

Acknowledgment

This document is based on the New South Wales Rules for Authorised Inspection Stations. The assistance of the Roads and Traffic Authority is gratefully acknowledged.

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About this Manual

Purpose and audience

This Manual is for the use by Authorised Examiners (AE) responsible for Safety Checks on light vehicles, motorcycles, trailers and caravans.

How to use this manual

This Manual must be used to familiarise AE with their obligations and responsibilities under the Authorised Examiners Scheme, and as a specific guide to the standards for the inspection of vehicles when carrying out Safety Checks.

This manual is to be used in conjunction with the ACT Heavy Vehicle Inspection Manual, in particular the identity check standards in Section 5, Rules 601 - 604, and referenced documents.

How this manual will be amended

Pages containing sections in which details have changed will be re-issued. Any information which cannot be incorporated in existing sections of the Rules will be issued in the form of an annexure.

About this Manual

Definitions

General

ADR - Australian Design Rule, means a national standard under the Motor Vehicle Standards Act 1989

AE - Authorised Examiner

AES - Authorised Examiner Scheme

ATM - Total trailer mass, including manufacturer specified maximum load

Autogas - Gas fuels (such as LPG and CNG) used in vehicles

Certificate of Inspection (also Inspection Certificate, Inspection Report) - form used to record inspection outcomes

CNG - Compressed Natural Gas, also called Natural Gas for Vehicles

GTM - Mass weighed at trailer axles when coupled to towing vehicle

GVM - Maximum laden mass recommended by the manufacturer

LPG - Liquid Petroleum Gas

MVRIC - Motor Vehicle Repair Industry Council

NGV - Natural Gas for Vehicles, also called Compressed Natural Gas

RUM - Road Use Management (Office of the Road Transport Authority)

RUS - Road User Services (the Motor Vehicle Registry)

TAMS - ACT Department of Territory and Municipal Services

VITU - Vehicle Inspection and Technical Unit

Classes of vehicles

SPV/Plant - means a motor vehicle which comprises an excavator, road grader, road roller, bulldozer, forklift truck or other machinery or apparatus designed not to carry goods or passengers as its primary function, and is not constructed on a chassis of a type normally used in the construction of a motor lorry.

Light truck - means any vehicle such as a utility or truck that has a GVM of not more than 4.5 tonnes.

Light trailer - a trailer that has a GVM of not more than 4.5 tonnes.

About this Manual

Light vehicle - includes motor cars, motor car derivatives, trucks etc. that has a GVM of not more than 4.5 tonnes.

Motor Car or passenger car - means a motor vehicle, not being a motor cycle, constructed principally for the conveyance of persons.

Motor car derivative - means a motor vehicle that is of the kind known as a utility, station wagon or panel van; is of the same make as a factory produced motor car; and in which the part of the body form that is forward of the windscreen and the greater part of the mechanical equipment are the same or substantially the same as in a factory produced motor car.

Motor cycle - is a motor vehicle which has two wheels or, if a side-car or side box is attached, has 3 wheels, and includes a motor tricycle.

Multi-purpose passenger vehicle - means a motor car other than a forward-control passenger vehicle, designed principally for the conveyance of not more than 8 persons and which is constructed either on a motor lorry chassis or with special features for off road operation.

Trailer - means a vehicle without motive power of its own, designed to be towed by a vehicle, and includes a semi-trailer coupled to a converter dolly.

Truck - means a motor vehicle constructed principally for the conveyance of goods or merchandise or for the conveyance of materials used in a trade, business or industry, or for use in any work other than the conveyance of persons, but does not include a motor cycle or tractor.

Braking systems

For the purpose of this Manual, braking systems are defined as follows:

Manually operated brakes - are those systems in which all of the braking effort is provided by the driver of the vehicle, normally through the pedal.

Power assisted hydraulic brakes - are those braking systems in which an energy source is used to provide part of the braking effort. (These are of the type

About this Manual

normally fitted to late model cars and light commercial vehicles, and the energy source used is usually vacuum obtained from the vehicle's engine induction system).

Power operated brakes - are those systems normally used on heavy commercial vehicles and in which the total braking effort is supplied directly by the power source. (In such systems, the driver operates the system by controlling the energy source which is usually compressed air).

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Appendix K Not used in this issue

Appendix L Not used in this issue

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Section 1

Introduction

General

Rule 1

1.01 The Authorised Examiner Scheme (AES) is a system under which vehicles are inspected in the ACT for a number of reasons, the most common being transfer of registration.

1.02 The Department of Territory & Municipal Services (TAMS) is the regulatory body which administers the AES scheme. It performs the following functions:

- a) Develops policy, practices and procedures for the system, in consultation with stakeholders;
- b) Authorises and appoints Proprietors, Nominees, Authorised Examiners, Inspectors, and Approved Inspection Stations;
- c) Controls the issue of inspection report books and deals with lost or stolen books and reports;
- d) Reviews and follows up complaints;
- e) Monitors and audits the system;
- f) Provides advice to government, industry and the general public on the AES system;
- g) Imposes sanctions.



Where to get advice

Rule 2

2.01 From time to time, Proprietors and Authorised Examiners will encounter situations that may not appear to be covered by these Rules. In such cases, the problem should not be put aside or solved by guess-work. Instead, advice should be obtained from the Vehicle Inspection and Technical Unit at Road User Services (RUS).

2.02 RUS maintains a team of technical officers to supervise the AES scheme. These officers visit all Stations on a regular basis and may be consulted during those visits. At other times, enquiries may be directed to the RUS officers responsible for AES matters at any of the offices listed below.

AES enquires

	Telephone number	Fax number
VITU	02-6207 7018 02 6207 7236	02-6207 7007



Section 2

Approved

Inspection

Stations

Personnel

Rule 3

Proprietor

3.01 The Proprietor of an AIS may be an individual, a partnership or a corporation. The Proprietor must be in control of the business which operates the Station.

3.02 To become an AIS Proprietor, the person, partnership or company in control of the business that will conduct the inspections must apply to, and be appointed by TAMS. Appointment is conditional on the applicant demonstrating that they meet the specified requirements and undertake training by RUS.

Proprietor's Nominee

3.03 Where a Proprietor is a corporation or more than one natural person, (i.e. in the case of a partnership) there must be a Proprietor's Nominee.

3.04 The Proprietor's Nominee is the person who has been nominated by the Proprietor of the AIS, and who has the day to day responsibility for overseeing the management of the AIS, including any Authorised Examiners, inspection equipment, and inspection area.

3.05 Appointment is conditional on the applicant demonstrating that they meet the specified requirements and undertake training by RUS.

Alternative Nominee

3.06 Although there can be only one Proprietor's Nominee in place at a Station at any one time, an Alternative Nominee should be put forward by the Proprietor for periods such as annual and other unforeseen leave in excess of five working days. The Alternative Nominee is subject to all requirements specified for the Proprietor's Nominee.



Personnel

Rule 3

Authorised Examiner

3.07 An Authorised Examiner is the person who carries out vehicle inspections in an Approved Inspection Station. An Authorised Examiner can be authorised at more than one AIS provided that each of the Stations has more than one Authorised Examiner.

3.08 To become an Authorised Examiner, a person must apply to, and be approved by TAMS. To gain approval the person must hold qualifications appropriate to the class of vehicle to be inspected, and successfully demonstrate that they meet the specified requirements and undertake training by RUS.

3.09 The categories of Motor Vehicle Tradesman's Certificates acceptable for conduct of an AIS are:

a) **Motor Vehicles and Trailers:**

- (i) A Certificate of Completion of an indentured apprenticeship as a motor mechanic; or
- (ii) A Trades Person's Rights Certificate (Motor Mechanic) issued by the Commonwealth Department of Employment, Education and Training; or
- (iii) An Unrestricted Trades Person's Certificate (Motor Mechanic) issued by the NSW Motor Vehicle Repair Industry Council; or
- (iv) A qualification from another Australian State or the Northern Territory, or country which is recognised by the Registrar as being equivalent to a qualification listed above; or
- (v) Another qualification in a related field if it can be demonstrated by the applicant that the applicant has at least six years experience as a trades person in the motor vehicle services and repair industry.

b) **Motor Cycles:**

- (i) A Certificate of Completion of an indentured apprenticeship as a motorcycle mechanic; or



Personnel

Rule 3

- (ii) A Trades Person's Rights Certificate (Motorcycle Mechanic) issued by the Commonwealth Department of Employment, Education and Training; or
- (iii) An Unrestricted Trades Person's Certificate (Motor Mechanic) issued by the NSW Motor Vehicle Repair Industry Council, which is endorsed 'Motorcycle Mechanic'; or
- (iv) A qualification from another Australian State or the Northern Territory, or country which is recognised by the Registrar as being equivalent to a qualification listed above; or
- (v) Another qualification in a related field if it can be demonstrated by the applicant that the applicant has at least six years experience as a trades person in the motorcycle services and repair industry.

Inspector

3.10 An Inspector is a Government Service Officer performing the duties of an 'authorised person' as described in the Road Transport (Vehicle Registration) Act 1999 and the Road Transport (Vehicle Registration) Regulations 2000.

An Inspector may perform vehicle inspections and auditing tasks as directed by the Road Transport Authority.



Premises and Equipment

Rule 4

What is an Approved Inspection Station

4.01 An Approved Inspection Station (AIS) is an approved establishment, such as a service station, garage or workshop, where motor vehicles are inspected in accordance with vehicle safety standards.

4.02 Each AIS must have a Proprietor and at least one Authorised Examiner. One person may hold both of these positions. If the Proprietor is other than one person, a Proprietor's Nominee must also be appointed. Each AIS must be open to the public for booking and conducting inspections during normal daylight business hours, (e.g. 8am to 5pm). These opening hours may be constrained by other regulatory requirements.

4.03 Depending on the qualifications of its staff and the facilities available, an AIS may be authorised to inspect various classes of vehicles, or only a particular class.

Types of Station

4.04 An AIS is a place where safety check inspections are available for all vehicle types that the AIS has been authorised to inspect in accordance with Identity, Safety and Design Check standards for the purposes of renewal or transfer of registration, unregistered vehicle inspection, change of detail and the clearance of defects.

In addition to this, authority may be granted as:

a) A Heavy Vehicle Inspection Station - where motor vehicles including:

- A truck, bus or van;
- Any vehicle which weighs more than 4.5 tonnes GVM.

are inspected in accordance with Identity, Safety and Design Check standards for the purposes of renewal or transfer of registration, unregistered vehicle inspection, adjustment of records and the clearance of defects.



Premises and Equipment

Rule 4

LPG/CNG Inspections

4.05 Vehicles that are converted to run on Liquefied Petroleum Gas (LPG) or Compressed Natural Gas (CNG) are required to have their fuel systems examined when a vehicle inspection is required. These inspections may only be carried out by an Authorised Gas Fitter accredited by TAMS to inspect LPG or CNG fuelled vehicles and must be carried out prior to the mechanical inspection being conducted.

NOTE: Persons must be authorised by TAMS to carry out inspections of LPG/CNG fuelled vehicles.

4.06 An additional fee is payable for inspection of LPG/CNG fuel systems.

4.07 To qualify as an Authorised LPG or CNG Examiner, specific requirements including the completion of additional training, must be satisfied.

Taxi inspections

4.08 An Authorised Taxi Inspection Station must be an AIS.

4.09 Taxi Inspections are subject to all Rules governing the AIS scheme together with any additional requirements established by the TAMS.

Station specifications

4.11 An AIS must have a clear inspection area with a sealed level surface separate from any space that is regularly used for activities such as petrol sales, and/or any driveways used for entry and/or exit. There is a requirement for the safety check inspection area to be under cover. Further specifications can be found in Rule 31.

4.12 In order to be authorised to inspect a particular class of vehicle the AIS must conform to the requirements set out in the table next page.



Premises and Equipment

Rule 4

Dimensional requirements for vehicle classes

4.13 The following table gives the minimum dimensions of the AIS entrance and inspection area for the major classes of vehicle:

MINIMUM DIMENSIONS (metres)	ENTRANCE		INSPECTION AREA	
	Height	Width	Length	Width
LIGHT VEHICLES	2.4	2.7	6.0	3.5
MOTORCYCLES	-	-	3.0	1.5

Signs and advertising

4.14 An AIS must display a sign which is clearly visible to motorists.

4.15 The AIS sign must be of a TAMS approved design and size. No advertising of other services is allowed on the sign.

Equipment specifications

4.16 In addition to the equipment specified, each AIS must be equipped with testing equipment necessary to carry out inspections for the classes of vehicles which it is authorised to inspect. The equipment must conform to the latest specifications set down by TAMS.

4.17 Detailed equipment specifications are contained in Appendix B of these Rules.

4.18 For road testing of brakes, it is necessary, unless roller or platform brake testers are used, to have a hard level surface which is free from gravel or other loose material. It must be at least 350 metres long for testing of heavy commercial vehicles, or at least 100 metres long for testing of all other vehicle classes. If a public road is used, it is the responsibility of the Examiner to ensure that brake testing is carried out in a safe manner without causing danger to or damage of any person, object or thing.



Premises and Equipment

Rule 4

4.19 Although the inspection standards in Rules 100 to 199 provide general information about inspection requirements, all Stations must have ready access to motor vehicle manufacturers' specifications and technical information about the classes of vehicles that they are authorised to inspect. This is particularly important in the case of steering and suspension systems because allowable wear in these systems can usually be checked only by reference to vehicle manufacturers' specifications.

4.20 Generally, it is satisfactory if the Station has technical reference manuals that are required for issue of a motor vehicle repairer's licence. The vehicle specification indexes issued by some oil companies are also an acceptable form of technical information.



Appointment Procedures

Rule 5

How to become an AIS (includes appointment of Proprietor)

5.01 Any person in control of a business who has premises that conform to the requirements set out in Rules 4.01 to 4.03 may apply to the TAMS for appointment of that business as an AIS. Application forms are available from RUS.

5.02 These forms must be fully completed and must be sent to RUS for assessment. A fee covering the costs of assessing an application and the supply of a copy of the AIS Rules may be applicable.

5.03 The following information must be included with the application form:

- a) Evidence that the required Police character check has been applied for;
- b) Sketch plan of premises on A4 size paper, showing dimensions;
- c) Copy of a listing company directors if a corporation.

5.04 The Proprietor is required to certify that all appropriate equipment and accredited personnel are present before a Station can be approved.

5.06 Where a Proprietor is more than one natural person, there must be a Proprietor's Nominee at the Station.

5.07 When an application is received, it will be assessed by RUS for the applicant's eligibility to join the scheme.

5.08 After assessment of the application, eligible applicants will be advised to attend at RUS with their driver's licence or other Proof of Identity (POI), a passport size personal photograph and the application fee. The applicant will then be provided with a receipt, and a copy of the AIS Rules so that proposed personnel may become familiar with the requirements of the AES.



Appointment Procedures

Rule 5

5.09 Whenever an application for authority to operate a Station is declined, the applicant will be informed in writing and given the reason for the refusal. The applicant may appeal, unless he or she is currently under suspension from the scheme. Any appeal must be lodged with the Administrative Appeals Tribunal within 28 days of the notification.

5.10 A Station cannot be authorised and commence operation until the Proprietor, (or the Proprietor's Nominee if appropriate) and Authorised Examiner(s) have successfully completed appropriate training.

5.11 When a site and personnel have been authorised as an AIS and AES, the Proprietor must purchase books of safety inspection report forms from TAMS.

5.12 The appointment will be immediately revoked if at any time the applicant is found to have provided false or misleading information in the application for authorisation.

How to become an Authorised Examiner

5.13 Any person interested in becoming an Authorised Examiner must complete an application form that is available from RUS and send it to RUS. A copy of the applicant's qualifications must be attached to the form.

5.14 When asked to attend RUS, applicants must take their driver's licence or other Proof Of Identity (POI) and a passport size personal photograph.

5.15 Whenever an application to become an Authorised Examiner is declined, the applicant will be informed in writing and given the reason for the refusal. The applicant may appeal, unless he or she is currently under suspension from the scheme. Any appeal must be lodged the Adminstrative Appeals Tribunal within 28 days of the notification.

5.16 After successfully completing training, the applicant will be authorised by TAMS as an Authorised Examiner.



Appointment Procedures

Rule 5

Changes to station details

5.17 Changes to AIS details, including staff changes, must be notified RUS on the appropriate form within 5 days. Forms may be obtained from RUS.

5.18 For a change of:

- a) Proprietor's details (e.g. deletion or addition of a partner, or for a partnership forming a corporation);
- b) Proprietor's Nominee;
- c) Business Name;

The Proprietor only (a principal in the case of a company or partnership), is to complete the appropriate form. The completed form and attachments are to be delivered to RUS. After the RUS has assessed the papers, the applicant will be formally advised of approval.

- d) Authorised Examiner;

The Proprietor/Proprietor's Nominee is to complete the appropriate form. The completed form is to be delivered to RUS.

The Authorised Examiner's full name and Authorised Examiner's number are to be provided on the form.

- e) Alternative Proprietor's Nominee;

The Proprietor only (a principal in the case of a company or partnership) is to complete the appropriate form. The completed form is to be delivered to RUS.

This form must contain the Alternative Nominee's full name, driver's licence number and confirmation that the Alternative Nominee has completed training.



Appointment Procedures

Rule 5

Temporary cessation of inspections

5.19 If an AIS temporarily ceases inspecting vehicles for any reason, for example, due to having no Authorised Examiner, the inspection report books are to be handed in to RUS for retention. A receipt for the books is to be issued by the RUS.

5.20 Books handed to RUS for retention in the circumstances described in Rule 5.19 will be held for the period of the cessation of inspections.



Responsibilities of Personnel

Rule 6

Responsibilities of the Proprietor and Proprietor's Nominee

6.01 Unless otherwise stated, all references to the Proprietor's responsibilities described in these Rules also apply to the Proprietor's Nominee.

6.02 The Proprietor of an AIS must accept responsibility for their Nominee's conduct of the Station.

6.03 The Proprietor is responsible for making sure that an AIS is operated strictly in accordance with the AES Rules, and that documentation is kept up to date.

6.04 The Proprietor of an AIS must not inspect vehicles or sign inspection reports unless the person in question is also an Authorised Examiner.

6.05 The Proprietor must ensure that no improper or unauthorised use is made of inspection reports. The Proprietor must make sure that all books of inspection reports are kept at the Station during normal working hours and are stored in a secure place at all times.

6.06 The Proprietor must not allow any person to sign AIS or AES documents on their behalf.

6.07 The Proprietor must also ensure that:

- a) all AIS personnel have undertaken training as required by TAMS, and that all personnel attend refresher training as specified by TAMS. Failure to attend refresher training may result in suspension;
- b) an inspection area is available, with equipment necessary to perform the inspection;
- c) all reports required by TAMS are submitted as and when required;
- d) requests for inspections are acknowledged immediately and dealt with as quickly as possible;



Responsibilities of Personnel

Rule 6

- e) Authorised Examiners have access to all technical data and workshop manuals required to perform inspections;
- f) All equipment is kept in good working order;
- g) All equipment is calibrated in accordance with TAMS and manufacturers' requirements;
- h) Equipment calibration records are maintained;
- i) If any inspection equipment becomes unserviceable, no inspections which require use of that equipment are carried out before it is repaired. All repairs to equipment are to be carried out as quickly as possible;
- j) The AIS is operated on an ethical basis. This means that a Proprietor is not to suggest to a vehicle owner that the issue of an inspection report is conditional upon repairs or adjustments to vehicles being carried out at their AIS, or at any other particular place of repair;
- k) Free access is given to any inspector to inspect AIS premises and its AIS or AES records, the equipment or the operation of the AIS. This access must be available during the usual hours of business.

6.08 If an AIS ceases trading from its approved premises, or a suspension or cancellation of the AIS authorisation is invoked, the Proprietor must surrender immediately all books of inspection reports, records, and credentials associated with their appointment as an AIS to an inspector. The Inspector must give a receipt for the reports in all such cases.

Responsibilities of an Authorised Examiner

6.09 An Authorised Examiner must:



Responsibilities of Personnel

Rule 6

- a) Conduct a thorough inspection of all the items contained in vehicle standards of the AES Rules. The inspection is to be carried out strictly in accordance with the Rules of the AES Scheme;
- b) Ascertain whether vehicles are LPG/CNG powered before accepting them for inspection. Authorised Examiners who are not authorised to inspect LPG/CNG fuelled vehicles must not carry out any inspection of these vehicles unless a valid and passed leak certificate is provided by the owner. Authorised LPG or CNG Examiner, as appropriate, can provide these certificates on satisfactory inspection of the vehicle;
- c) Inspect only the classes of vehicle for which authority has been given;
- d) Accurately and legibly record all details in the appropriate space on the inspection report, then sign and date the report for each inspection;
- e) Only sign a report for inspections that have been personally conducted. Inspection reports must be filled out during or immediately **after** the inspection of the vehicle is completed and **not before**. The inspection report must only be signed after **ALL** details required on the form have been completed;
- f) Ensure that all vehicle identification information required for completion of the inspection report is taken directly from the vehicle;
- g) Keep up to date with the Rules, bulletins and other requirements of the AES scheme and attend refresher and other training as required by TAMS. Also consult and be familiar with vehicle manufacturers' technical data to assist in grading components such as steering and suspension;
- h) Ensure that, apart from normal road testing of a vehicle, all inspections are carried out in the premises approved by TAMS for the Station;
- i) Ensure that all inspections are carried out on an ethical basis. This means that an Examiner is not to suggest to a vehicle owner that the issue of an inspection report is conditional on repairs or adjustments to vehicles being carried out at their AIS, or at any other particular place of repair.



When Rules are Broken

Rule 7

7.01 Whenever a breach of the AES Rules is detected by RUS, it will be investigated.

7.02 For minor breaches of the Rules, the AIS personnel may be subject to action such as formal counselling or have a suspension imposed by TAMS.

7.03 For more serious breaches of the Rules, the AIS Proprietor, Nominee and Examiner(s) concerned will be asked for an explanation of the case from their point of view. The case can then be referred by RUS to the Road Transport Authority.

7.04 If the Registrar determines that a breach has occurred, he/she will determine what action will be taken. Depending on the severity of the case, this can range from the issue of a warning notice, to temporary suspension or the outright cancellation of an authority.

7.05 Where the Registrar takes action against a Proprietor or Authorised Examiner, aggrieved parties may appeal to the Administrative Appeals Tribunal. Any appeal must be lodged within 28 days of the date of delivery of notification of the decision.

7.06 An appeal must specify the grounds for the appeal. *Each aggrieved party must lodge a separate appeal.*



Section 3

Inspections and Reporting

Vehicle Inspection

Rule 8

8.01 Rules 8 to 13, together with the Safety Check Inspection Standards, set out the requirements for the inspection of motor vehicles.

8.02 Authorised Examiners must carefully observe these requirements when conducting an inspection.

8.03 Any vehicle submitted for inspection must be checked against the inspection standards. Where a vehicle fails to comply with any applicable part of any standard, the vehicle must not be passed as safe until the problem has been rectified.

8.04 A suggested inspection sequence which includes relevant vehicle systems is set out in Rule 11. Authorised Examiners should refer regularly to the requirements in the standards, including any supplementary material issued.

8.05 Many of the standards can be checked simultaneously by an experienced person, and most Authorised Examiners develop their own particular methods for applying the standards. Inspection standards are grouped according to vehicle class.

8.06 The requirements set out in the inspection standards are not to be regarded as exhaustive but, in most cases, they will cover the great majority of inspection checks. **Where an Authorised Examiner considers that a vehicle is unroadworthy in any way that is not covered in these Rules, the vehicle should on no account be passed.** In cases of doubt, Authorised Examiners should contact RUS. AES personnel should remember that vehicle owners rely on them to make sure their vehicles meet inspection requirements and are safe to drive.

8.07 Where a vehicle is presented with dual steering controls and/or dual foot controls, the inspection requirements apply to both sets of controls and must be inspected accordingly.



Inspection Fees

Rule 9

9.01 Inspection fees are reviewed regularly and appear in the table of fees at the end of this Rule.

9.02 An AIS must not charge more than the fee prescribed for inspections that are conducted in accordance with these Rules and may not conduct inspections or charge fees for inspections which the station is not authorised to conduct.

9.03 An inspection report is to be prepared and a fee, up to the maximum prescribed fee, charged for all inspections listed under *Vehicle Type Inspection* in the attached table of fees. Where the clearance of a Defect Notice is sought, the notice indicates that a full inspection is required, a full inspection fee is applicable. At an inspection, where an appraisal of the vehicle and its defects reveal modifications beyond the owner certified level, a design check must be performed.

9.04 The prescribed fees provide for an additional fee on re-inspection in the case of any vehicle which was found to be in need of repairs at its first inspection, provided that the repaired vehicle is returned for re-inspection within 1 calendar month. Full inspections for which the full fee is applicable are to be carried out once this period has lapsed.

	FIRST INSPECTION	FOLLOW - UP INSPECTION
	MAXIMUM \$	MAXIMUM \$
VEHICLE TYPE INSPECTION		
Light vehicles (GVM not more than 4.5 tonnes)		
Motorcycles (including motor tricycles)		
Light trailer (GTM not more than 4.5 tonnes)		



Inspection Reports

Rule 10

Inspection reports

10.01 A Certificate of Inspection is a statement by an AE that a vehicle has had an inspection carried out in accordance with these Rules. Whenever an AE is asked to perform an inspection of a motor vehicle, a Certificate of Inspection must be prepared and issued in accordance with these Rules.

10.02 Inspections on a vehicle may be requested for any reason whatever. The most common reasons will be:

- Transfer of ownership;
- Original registration; and
- To clear a defect notice.

10.03 Irrespective of the reason for its preparation, **a certificate of inspection must be a true record of the compliance of a vehicle to the inspection standards at the time of inspection**, and all information set out in the report must be accurate. An inspection report may only be prepared in the manner specified in these Rules.

Supply of inspection reports

10.04 Inspection reports are compiled in triplicate and are supplied in books. There is a charge for each book.

10.05 Supplies of books of inspection reports are only obtainable from TAMS.

Use of inspection reports

10.06 An Authorised Examiner can only conduct an inspection and complete and issue inspection reports at an AIS to which he or she is linked.

10.07 A inspection report must not be signed until all of the information about the vehicle and its inspection has been recorded.



Inspection Reports

Rule 10

10.08 A separate inspection report must be prepared for each vehicle that is inspected.

10.09 The results of an inspection may only be recorded on the certificate of inspection.

10.10 All inspection report books are and remain the property of TAMS.

10.11 Inspection reports must be used in numerical sequence and all reports in a book must be used before commencing a new book of reports.

10.12 Unused inspection reports must not be traded, given away, thrown away, or removed from an inspection report book.

10.13 Current books of inspection reports and completed books up to 12 months old must be kept in a secure place at the AIS and must be available at any time for inspection by inspectors.

10.14 All books of inspection reports, whether completed or not, must be surrendered immediately to an inspector if an AIS ceases trading from its approved premises, or a suspension or cancellation of the AIS authorisation is invoked or a station relinquishes its accreditation. The Inspector must give a receipt for the inspection reports.

Lost or stolen inspection reports

10.15 Details of lost or stolen inspection reports or books are to be notified to RUS immediately.



Carrying out an Inspection

Rule 11

11.01 The following are suggested inspection sequences that cover all the vehicle systems required to be examined when conducting an inspection. The Authorised Examiner must carry out **at least** the following inspections, taking into consideration the inspection standards set out in these Rules.

Light vehicles

11.02 Suggested inspection sequence:

- a) As certain whether the vehicle presented is LPG/CNG fuelled. Where the Authorised Examiner is not accredited by TAMS to inspect LPG fuelled vehicles in the case of an LPG fuelled vehicle, or CNG fuelled vehicles in the case of a CNG fuelled vehicle, the owner should be referred to an appropriate inspection station;
- b) Record the make and model. Record the number plate and the chassis number/VIN of the vehicle. If the vehicle identifiers do not correspond, RUS is to be contacted;
- c) Check the LPG/CNG fuel system where appropriate;
- d) Check the engine and other items in the engine bay;
- e) Sit in the driver's seat and test all the driving controls. Check seat belts, mirrors, forward vision through the windscreen and record the odometer reading;
- f) Examine the vehicle's exterior and check all doors, windows, bodywork and trailer coupling (if fitted);
- g) Test the operation of all lights, check the aim of the headlights. Check headlight and number plate covers (if fitted);
- h) Jack up the vehicle and check the suspension, wheel bearings and steering components.



Carrying out an Inspection

Rule 11

- i) Place the vehicle on a hoist, on ramps or stands, or over a pit. Check the underbody chassis, sub-frames, transmission, exhaust and braking system components. Check all road wheels and tyres;
- j) Test the service brake using the brake testing equipment, and attach the printout to the yellow and blue copies of the inspection report. Test the parking brake;
- k) Prepare the inspection report carefully, making sure that all necessary information is recorded. Depending on the result of the inspection, the 'passed' or the 'failed' box must be marked. Sign the inspection report. An incomplete inspection report is not acceptable for registration purposes;
- l) If the certificate of inspection is stamped 'fail', the examiner must decide whether a 'temporary licence' should be authorised. Temporary licences enable a owners and drivers to drive their vehicles for the purpose of having repairs and inspections conducted. Examiners must not authorise a temporary licence where doing so would permit an unsafe vehicle to be driven on the road. An Examiner must also not use this decision as a means of attempting to coerce a client into having repairs conducted at the establishment in which they work;
- m) If the vehicle is modified beyond the safety check standards, Rules 301 - 361 modified vehicles must be followed. In these circumstances a 'passed' certificate of inspection is not to be provided until any necessary engineering certificate indicating that the vehicle meets the ADR requirements applicable to it and that the vehicle is safe, is provided.

Motorcycles

11.03 Suggested inspection sequence:

- a) Record the make and model. Record the number plate and the chassis number/VIN. If the vehicle identifiers do not correspond, RUS should be contacted;



Carrying out an Inspection

Rule 11

- b) Examine the motorcycle and check body condition and trailer coupling (if fitted). Check the engine and any other items listed in the inspection standard;
- c) Record the odometer reading. Sit on the rider's seat and test all the driving controls. Check the mirrors, and forward vision through any fairing windscreen (if fitted);
- d) Test the operation of all lights, check the aim of the headlight(s). Check headlight and number plate covers (if fitted);
- e) Check the chassis, sub-frames, transmission, chain guards, exhaust and braking system components. Check the wheels and the tyres;
- f) Check the suspension, wheel bearings and steering components;
- g) Test the service brakes, and if a side car is attached, the parking brake;
- h) Prepare the inspection report carefully, making sure that all necessary information is recorded. Depending on the result of the inspection, the 'passed' or the 'failed' box must be marked. Sign the inspection report. An incomplete inspection report is not acceptable for registration purposes;
- i) If the vehicle is modified beyond the safety check standards, Rules 301 - 361 modified vehicles must be followed. In these circumstances a 'passed' certificate of inspection is not to be provided until any necessary engineering certificate indicating that the vehicle meets the ADR requirements applicable to it and that the vehicle is safe, is provided.

Light trailers and caravans

11.04 Suggested inspection sequence:

- a) Record the make and model. Record the number plate and the chassis number/VIN. If the vehicle identifiers do not correspond, RUS should be contacted;



Carrying out an Inspection

Rule 11

- b) Check body condition and trailer coupling including safety chains. Test the operation of all lights;
- c) Check the suspension, wheel bearings and brakes;
- d) Check all road wheels and tyres;
- e) Prepare the inspection report carefully, making sure that all necessary information is recorded. Depending on the result of the inspection, the 'passed' or the 'failed' box must be marked. Sign the inspection report. An incomplete inspection report is not acceptable for registration purposes;
- f) If the vehicle is modified beyond the safety check standards, Rules 301 - 361 modified vehicles must be followed. In these circumstances a 'passed' certificate of inspection is not to be provided until any necessary engineering certificate indicating that the vehicle meets the ADR requirements applicable to it and that the vehicle is safe, is provided.

LPG/CNG inspections

11.05 When an LPG or CNG fuelled vehicle is submitted for inspection at an Authorised Inspection Station at which the Authorised Examiner is accredited to inspect LPG or CNG fuelled vehicles, the Authorised Examiner must check for the presence of an approved Autogas compliance plate and a passed leak certificate from an appropriately licenced LPG or CNG installer, before proceeding with the inspection.

11.06 If a vehicle, whether ACT registered or from interstate, does not have an appropriate approved autogas plate fitted and/or passed leak certificate, the Authorised Examiner must not start the inspection. Instead, the owner must be advised to have an approved autogas plate fitted and/or a leak certificate prepared by an appropriately licensed LPG or CNG installer.



Carrying out an Inspection

Rule 11

11.07 If the vehicle is fitted with an approved autogas plate and has a passed leak certificate, the Authorised Examiner should undertake the usual inspection.



Using Certificates of Inspection Rule 12

12.01 Each report has three pages: A yellow copy for the customer when the vehicle is inspected, a green copy to be given to RUS, and a blue copy to be kept in the book. Each page of the report is carbonised and carbon paper is not required.

12.02 A blue or black ball point pen must be used to ensure that all copies are clear and legible.

12.03 The Authorised Examiner must record all details in the appropriate space on the report.

12.04 The fee is payable in advance by the motorist.

12.05 The inspection must be carried out in accordance with the AES Rules.

12.06 Where brake performance tests are required, the original print-out from the brake testing equipment must be attached to the yellow copy, and the duplicate print-out to the blue copy of the inspection report.

12.09 If a form is spoiled, all copies must be left in the book. Two lines must be drawn right across the yellow copy, and the word 'cancelled' written between them.

12.10 One of the following symbols must be marked against each vehicle system on the inspection report to indicate its condition:

✓ for a pass if the vehicle meets the requirements set down in the Rules.

X for a fail if the vehicle fails to meet the requirements set down in the Rules.

N for a system that does not apply to the vehicle.



Using Certificates of Inspection **Rule 12**

12.11 If **all** systems are ticked and the vehicle is safe, the Authorised Examiner should mark the 'passed' box before signing and dating the certificate.

12.12 If any systems are crossed, the Authorised Examiner must mark the 'failed' box. The Authorised Examiner must briefly describe the repairs in the 'comment/repairs needed' box before signing and dating the certificate. If there is not enough space to list all the repairs needed, a continuation sheet should be used. This must be indicated on the inspection report, and the inspection report number is to be recorded on the continuation sheet.

12.13 The green copies of passed and cancelled inspection certificates should be forwarded to RUS at the end of each month.

12.14 The yellow copy of the report must be given to the owner who should be advised that a re-inspection can be obtained if the vehicle is returned within 1 calendar month to the same AIS with the repairs completed on payment of the follow-up fee. Both the green and blue copies must be left in the book.

12.15 **Dangerous Defects.** If the vehicle system fails to meet stated requirements to such an extent that its use will be hazardous either for people travelling in the vehicle or for other road users, the 'restricted - tow away' box must be marked on the form and the owner must be advised not to drive it. If the owner wants to take the vehicle away from the AIS for repairs, he/she must be advised to have it towed or otherwise carried away.

Second inspections

12.16 If the vehicle is re-inspected within 1 calendar month and the repairs needed have been completed satisfactorily, the relevant boxes should be marked on the 'second inspection' column of all copies. The Authorised Examiner must now mark the 'passed' box before completing and signing the certificate.



Using Certificates of Inspection Rule 12

12.17 The yellow copy must now be given to the owner. The blue copy and the green copy must be retained in the book as a record.

12.18 Should the vehicle still need repairs on re-inspection, the repairs needed should be indicated by an 'X' on the 'second inspection' column. The repairs required must also be noted on the 'yellow copy'.

12.19 In either case, the owner should be advised to keep the yellow copy as a record. If the owner does further work and wants the vehicle re-inspected, a further inspection fee is to be charged.

12.21 A fresh report form is to be filled out for an inspection conducted more than 1 calendar month after the first inspection and may be charged for.



Defect Notices

Rule 13

13.01 A defect notice may be issued by a Police Officer, a RUS inspector or any other officer authorised by RUS.

NOTE: *An AIS may be required to inspect a vehicle issued with a defect notice issued by an interstate authority. The defect notice may be in a different form to the one described in this Rule. To inspect a vehicle with an interstate notice, follow the procedures in this Rule, where possible, together with specific requirements set out in the interstate notice.*

13.02 A defect notice may be issued whenever a vehicle is inspected and found to be unroadworthy by the officers above.

13.03 The original copy of the defect notice is blue and the owner's copy is blue. If the fault is serious a 'Defective Vehicle' label is attached to the vehicle's windscreen or in a prominent position on a motor cycle or trailer.

13.04 The category of the defect notice is indicated on the front page under the heading 'What to do next'. Actions which do not apply are crossed out.

13.05 If the notice requires a full inspection to be carried out for the defect to be cleared, the box on the front of the notice which indicates this requirement will be marked. If this box is not marked, only the faults recorded on the notice need to be checked before a passed certificate of inspection is issued.

13.06 Some defects are reported to the vehicle owner on a warning notice. Such notices do **not** require the vehicle to be inspected or cleared.

13.07 When an AIS is requested to perform an inspection for the clearance of a defect notice, the inspection must be performed in accordance with the following instructions, using the original (blue) copy of the defect notice.

Full inspection required

13.08 The Authorised Examiner must make a complete inspection of the vehicle. An inspection report must be prepared as required by these Rules.



Defect Notices

Rule 13

13.09 If any of the faults have not been rectified, or if further faults are detected, normal inspection procedures are to be followed as set out in Rule 12 and a subsequent defect notice may be issued.

Partial inspection required

13.12 The Authorised Examiner is only required to inspect the specified items in the defect notice when the vehicle is presented for inspection. A normal inspection report is still required.

13.13 If the specified items are satisfactory, the Authorised Examiner may complete a 'passed' inspection certificate for the vehicle noting that only the identified faults were inspected. If the items have not been rectified, the person presenting the vehicle should be advised of the problems and provided with a 'failed' certificate of inspection.

Defective Vehicle label

13.14 When the inspection is completed and the vehicle has passed inspection, the defect notice (and the inspection report if a full inspection was required) must be given to the person who presented the vehicle. The 'Defective Vehicle' label (if present) must not be removed. Instead the vehicle owner should be advised to take the defect notice and the vehicle to a Registration counter to have the defect cleared. Once the defect has been cleared, the label may be removed/defaced by the owner/driver.



Section 4

Safety Check Standards

Light Vehicles

Brakes

Rule 101

Light Vehicles

Australian Design Rules relevant to this section:

ADR 7 applies to cars and light commercial vehicles manufactured from 7/70.

ADR31 applies to cars manufactured from Jan. 1977.

ADR35 applies to light commercial vehicles manufactured from July 1979.

101.01 Check the operation of the brake controls

Reasons for rejection

- a) On rubber faced brake pedals, any metal is showing;
- b) On metal brake pedals, there is no anti-slip surface;
- c) Missing or broken brake pedal or handle, or associated components;
- d) When the service brakes are firmly applied, less than 20% of the pedal travel remains (unless within manufacturer's limits);
- e) 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 comes on;
- f) Where ADR 31 or 35 applies, the brake failure warning light does not operate when the ignition is turned 'on', before the engine is started;
- g) The parking brake ratchet or locking device is not holding the parking brake lever in its applied position;
- h) Where ADR 31 applies, the park brake warning lamp does not operate when the ignition is 'on' and the parking brake is applied.

101.02 Inspect the condition of visible brake components.

NOTE: This includes the area underneath the vehicle.



Brakes

Rule 101

Light Vehicles

Reason for rejection

- a) Where visible, any brake component is broken, excessively worn, leaking or is not securely mounted;

NOTE: Use manufacturer's limits for assessing wear in components.

- b) Any hydraulic brake hose is damaged or severely deteriorated;

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);

- c) Any hydraulic brake hose is of insufficient length to allow for the full range of steering and suspension movement, or is twisted;
- d) The level of brake fluid is below the minimum indicated level;
- e) Where visible, the brake lining material, at any point, is worn to less than manufacturers limits or 1.5mm if the limits are not known;
- f) It is evident that any power/vacuum assistance for the brakes is not operating;
- g) Where ADR 7 applies, any brake hose is not marked with manufacturers name, and any braided hose is missing protection sleeves.

101.03 Service brake test with a decelerometer

NOTE: i) Decelerometer standards should be read in conjunction with the equipment specifications in Appendix B1 and the equipment manufacturer's specification.

ii) On some vehicles with light axle loads, or when testing in wet weather, it might be difficult to obtain a brake test result because of wheel lockup. In these cases the pedal pressure should be reduced to a point where only the minimum specified deceleration rates are achieved.



Brakes

Rule 101

Light Vehicles

Set up a suitable decelerometer in the vehicle cabin. With the vehicle unladen, drive it to at least 30 km/h. Put the transmission into neutral. With both hands on the steering wheel, bring the vehicle to a halt as rapidly as possible in a safe manner with one sustained and smooth braking action using the service brakes.

Reasons for rejection

- a) The application of the brakes causes the vehicle to swerve from a straight line path;
- b) For vehicles built after 1930, the service braking system decelerates the vehicle at less than the performance requirement specified in Table 1;
- c) Pedal force exceeds 885N.

TABLE 1 Service Brake Performance

Brake Requirement	Vehicle Category	AVERAGE		PEAK	
		m/s ²	%g	m/s ²	%g
A	Gross Mass Less than 2.5 tonnes	3.8	39	5.8	60
B	Gross Mass 2.5 tonnes or over	2.8	29	4.4	45



Brakes

Rule 101

Light Vehicles

- NOTES:

1. Some decelerometers require a weight category to be selected, the categories shown in the first column equate to the brake requirements A & B;
2. The deceleration values in this table are intended to cover a wide range of vehicles including some older vehicles with outdated braking systems. Vehicles with modern braking systems, such as those designed to comply with ADR31, should be able to achieve much higher decelerations than those prescribed in the Table. If a modern vehicle is found to only just comply with the prescribed values then the owner should be informed that the brakes are likely to be in need of maintenance;
3. For vehicles built before 1930 no service brake performance requirements apply but the on-road brake test should be conducted to assist in determining whether a brake maintenance problem exists - such problems should be followed up by visual inspection of the brake components.

101.04 Parking brake test for vehicles not designed to ADR31, ADR 35 or vehicles not fitted with a tandem master cylinder/dual circuit brakes

After installing a decelerometer, drive the vehicle to at least 15 km/h. Put the transmission into neutral. Bring the vehicle to a halt as rapidly as possible in a safe manner with one sustained and smooth braking action using the parking brake.

Reason for rejection

- a) the parking brake decelerates the vehicle at less than the performance requirement specified in Table 2.



Brakes

Rule 101

Light Vehicles

TABLE 2 Parking Brake Performance

Brake Requirement	Vehicle Category	AVERAGE		PEAK	
		m/s ²	%g	m/s ²	%g
A	Gross Mass less than 2.5 tonnes	1.6	16	1.9	20
B	Gross Mass 2.5 tonnes or over	1.1	11	1.5	15

- NOTE: Some decelerometers require a weight category to be selected, the categories shown in the first column equate to the brake requirements A & B.

101.05 Parking brake test for vehicles designed to ADR 31, ADR 35 or vehicles fitted with a tandem master cylinder/dual circuit brakes

Apply the park brake and attempt to drive off using a *light* throttle.

Reason for rejection

- the parking brake does not hold the vehicle stationary.

101.06 Brake testing with a skid-plate tester

NOTE: This section should be read in conjunction with the equipment specifications in Appendix B3 and the equipment manufacturers' instructions.

Using a skid-plate tester, check the deceleration rates and retardation forces on each axle. Drive the vehicle to the speed nominated by the equipment manufacturer and the transmission into 'neutral'. Bring the vehicle to a halt as rapidly as possible with one sustained braking action.



Brakes

Rule 101

Light Vehicles

Reasons for rejection

- a) There is more than 30% difference in the brake force between the wheels on any axle;
- b) The service braking system decelerates the vehicle at less than the performance requirements specified in Table 1;
- c) In other than ADR31 and 35 vehicles, the parking brake decelerates the vehicle at less than the performance requirements specified in Table 2;
- d) Where ADR 31 or 35 applies, the parking brake does not provide any retardation.



Brakes

Rule 101

Light Vehicles

101.07 Brake testing with a roller brake tester

NOTE: This section should be read in conjunction with the equipment specifications in Appendix B4 and 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 3;
- c) With the brakes released, the average brake drag is more than the performance requirement specified in Table 4;
- d) The parking brake does not give a reading, or the vehicle does not lift out of the roller.

TABLE 3 Minimum Brake Force

TYPE OF VEHICLE	kN (minimum)
Less than 2.5 tonnes tare*	2.0
2.5 tonnes or over	4.0



Brakes

Rule 101

*Light Vehicles***TABLE 4 Maximum Brake Drag**

TYPE OF VEHICLE	kN (maximum)
Less than 2.5 tonnes tare	0.5 drive axle 0.25 other axle
2.5 tonnes or over	1.0 drive axle 0.5 other axle

- *NOTE: 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.*



Towing Attachment

Rule 102

Light Vehicles

Australian Design Rules relevant to this section:

ADR 62 applies to cars manufactured from Jan. 1992

102.01 Visually inspect the towbar and its mounting on the vehicle body.

Reasons for rejection

- a) Any towing attachment such as a tow ball or pintle hook is loose, or is cracked;
- b) The towbar is not securely mounted, or is cracked;
- c) Any mounting bolts, fasteners or weld beads have advanced corrosion or are missing;
- d) Where ADR 62 applies, the towbar does not display the gross mass rating (towing capacity) and manufacturer's name or trademark (a label may be affixed to the vehicle for this purpose);
- e) Where any part of the coupling or towbar 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.



Steering and Suspension Rule 103

Light Vehicles

Australian Design Rules relevant to this section:

ADR 69 applies to cars manufactured from July 1995.

NOTE: To be registered in Australia a vehicle must usually have a steering control to the right of, or in line with, the centreline of the vehicle. In the ACT vehicles which are over 30 years of age may have left-hand-drive.

103.01 With the engine running, check the operation of the steering by moving the steering wheel, or, on cycle type vehicles, the handle.

Reasons for rejection

- a) Where a steering wheel is fitted, there is more than 50mm rotational free play;
- b) The steering wheel is not securely attached to the steering column;
- c) Where steering linkages are fitted to cycle type vehicles, the rotational free play exceeds 10mm measured at the end of the handle bars;
- d) Where ADR 69 applies, the steering wheel is not of the same specification as the one provided by the vehicle manufacturer;
- e) Where an airbag is fitted, there is any evidence that an airbag is inoperative (check the indicator light, where fitted - this usually illuminates when the ignition is first switched 'on' and extinguishes after the engine is started and the airbag system passes a self-test).



Steering and Suspension Rule 103

Light Vehicles

103.02 Visually inspect all steering components under the bonnet and under the vehicle.

NOTE: Take care with spring-loaded and rubber-bush joints. These components might be designed to have a certain amount 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 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) The steering box or rack is not securely fixed to the vehicle;
- 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 due to wear in any steering component exceeds manufacturer's specification (if that specification is not known, free play exceeds 3mm);
- g) Any power steering component is leaking, damaged or inoperative);
- h) Any power steering belts are loose, broken, frayed, missing, or cracked through to reinforcing plies.



Steering and Suspension **Rule 103**

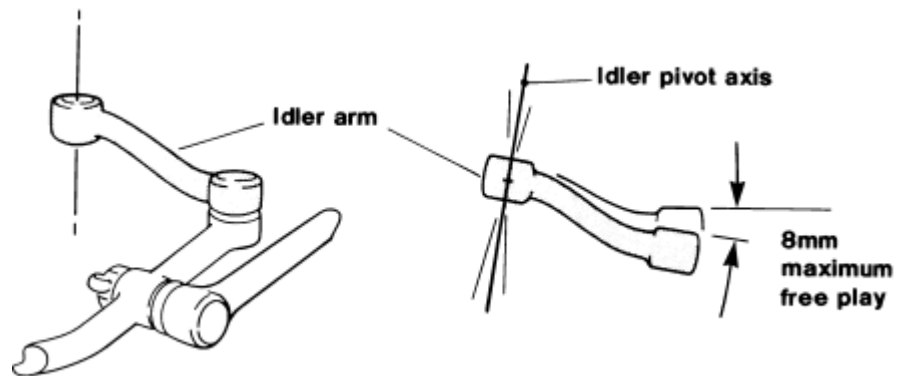
Light Vehicles

103.03 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.



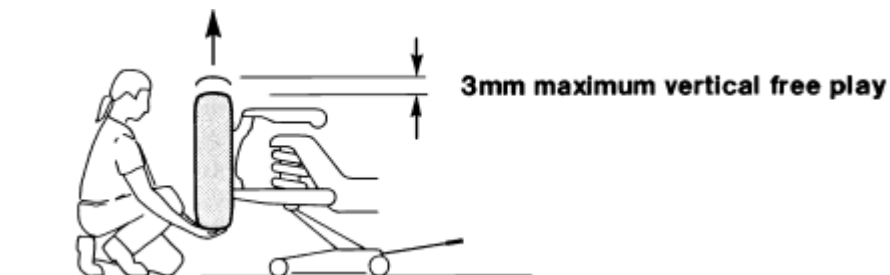
Steering and Suspension Rule 103

Light Vehicles

103.04 Visually inspect the suspension.

Reasons for rejection

- a) Any suspension component is broken, insecure, cracked, cut, missing, or can be seen to have been repaired or modified by heating or welding or is worn beyond manufacturers' limits;
- b) Any shock absorber or strut is inoperative;
- 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;



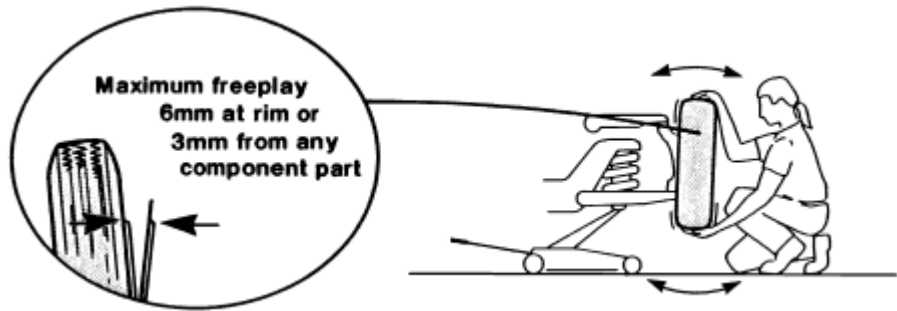
NOTE: Manufacturers' tolerances take precedence over specified free play measurements when performing these checks.



Steering and Suspension Rule 103

Light Vehicles

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



NOTE: Manufacturers' tolerances take precedence over specified free play measurements when performing these checks.



Wheels and Tyres

Rule 104

Light Vehicles

104.01 Visually inspect the inside and outside of each road wheel.

Reasons for rejection

- a) Any wheel or rim is cracked, has pieces of casting missing, or is buckled;
- b) The wheel nut does not engage the thread or 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 (where these can be seen without removing hubcaps or wheel trims);
- c) Any hub has missing or broken wheel mounting nuts, studs or bolts (where these can be seen without removing hubcaps or wheel trims);
- d) Any spoked wheel has any missing, loose, broken, bent or cracked spokes;
- e) The tyre or rim fouls any component at any point over the full range of suspension travel or steering movement.

104.02 Visually inspect each road tyre.

Reasons for rejection

- a) The tyre has less than 1.5mm tread depth on the surfaces which normally contact the road;
- b) The tyre has deep cuts, bulges, exposed cords or other signs of carcass failure;
- c) The tyre construction of all tyres on each axle is not the same (cross ply, radial ply or bias belted);



Wheels and Tyres

Rule 104

Light Vehicles

- 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.

104.03 Measure the wheel track, where modified from standard, taking measurement from the centre of the tyres.

Reason for rejection

- a) The vehicle manufacturer's specified wheel track measurement for the vehicle is exceeded by more than 25mm.



Body Condition

Rule 105

Light Vehicles

ADRs applicable to this section

ADR 15 applies to cars from January 1971

ADR 25 applies to cars from January 1972

ADR 29 applies to cars from January 1977

ADR 34 applies to cars from July 1976.

105.01 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, control or hinge is not secure or functional;
- b) 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;
- c) Any bonnet or similar panel which opens from the front (that is, the hinges are at the back) and which, when opened, would obstruct the driver's view through the windscreen, does not have a primary and secondary securing device.

105.02 Visually inspect the windscreen and front side windows.

Reason for rejection

- a) The area of windscreen from the centre of the vehicle in front of the driver has cracks or is deteriorated to the extent it that interferes with the driver's view.

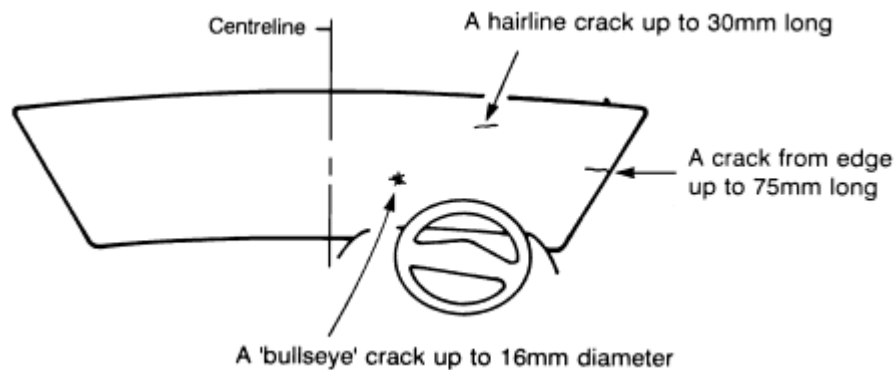
EXCEPTION: Any two of the following three types of damage are acceptable:



Body Condition

Rule 105

Light Vehicles



NOTE: This rule applies to windscreens repaired with clear resins. After repair, there must be no visible damage beyond the limits given above.

105.03 Test the light transmittance level of the windscreen, side and rear windows.

NOTE: (i) This section should be read in conjunction with the equipment specifications in Appendix B2 and the light meter manufacturers' instructions.

(ii) The light meter may have up to a 5% measuring inaccuracy. A vehicle may be accepted if the readings are up to 5% lower than the minimum light transmittance.

(iii) The light transmission requirements do not apply to a tinted or opaque band at the top of the windscreen, provided they are above the arc swept by the windscreen wipers, or 10% of the depth of the windscreen.



Body Condition

Rule 105

Light Vehicles

Reasons for rejection

- a) The visible light transmittance of any glazing (including any applied film) is less than that detailed below:

Glazing	Minimum Light Transmittance	Vehicles NOT TO BE REJECTED until meter readings are LESS than
Windscreen	75%	70%
All other windows	35%	30%
	No limit for windows to the rear of the driver if the vehicle is a light truck or commercial, or other goods carrying vehicle of the type of the following categories: LEG1, LEG2, NA, NB, MD. (See Appendix C1.)	



Body Condition

Rule 105

Light Vehicles

105.04 Visually inspect body panels, chassis and subframe for dangerous protrusions and rust.

NOTE: *This section should be read in conjunction with Appendix A1.*

Reasons for rejection

- a) Exterior body work and 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 subframe, floor panel, door sill, seat or seat belt anchorage, is cracked or has advanced rust;
- c) Where ADR 29 applies, the doors of a vehicle have advanced rust.

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

Reasons for rejection

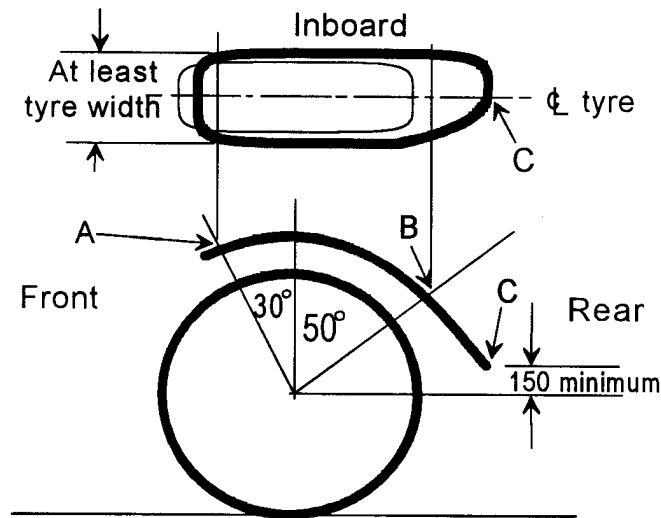
- a) Mudguards are not fitted to all wheels of passenger and goods type vehicles;
- b) The mudguard and/or bodywork covering any wheel is not at least as wide as the tyre over the arc between points A and B in the diagram;
- c) Point C (being on the rear edge of the mudguard/mudflap/ bodywork and in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



Body Condition

Rule 105

Light Vehicles



105.06 Visually inspect rear vision mirrors

Reasons for rejection

- a) Rear vision mirrors are 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.



Body Condition

Rule 105

Light Vehicles

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

Reasons for rejection

- a) Any seat or seat belt is not securely fastened to its mounting;
- b) Any seat belt is missing or the webbing is knotted;
- c) Any seat belt emergency locking retractor is inoperative;
- d) Any seat belt buckle does not lock when the tongue is placed into it;
- e) The webbing, or the stitching of any webbing joint, is cut or severely deteriorated;

NOTE: Discolouring alone is not a reason for rejection.

- f) Any metal stalk is missing or has broken wires;
- g) In other than ADR 34 vehicles, where fitted, child restraint attachment points are loose or cracked;
- h) Where ADR 34 applies, child restraint attachment points are loose, cracked or missing.

105.08 Visually inspect and check the operation of the windscreen wipers.

Reasons for rejection

- a) Windscreen wipers are missing, are not secured, or do not operate;
- b) Windscreen wiper blades are missing, cracked, curled, frayed or torn.



Body Condition

Rule 105

Light Vehicles

105.09 Check the operation of the horn.

Reasons for rejection

- a) The horn is not working;
- b) The horn is of the following types: exhaust whistle, compression whistle, siren or alternating tone (reversing alarms are acceptable).

105.10 Visually inspect the front and rear number plates.

Reasons for rejection

- 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) The number plate is damaged or faded to the extent that the registration number is not legible from a distance of five metres;
- d) The registration (number) plate is not issued or approved by the Registrar.



Body Condition

Rule 105

Light Vehicles

105.11 Where ADR 25 applies, check the operation of the anti-theft/steering lock.

Reasons for rejection

- 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:
 - i) Steering the vehicle;
 - ii) Engaging the forward drive gears;
 - iii) Release of the brakes.

105.12 Where ADR15 applies, check the operation of the windscreen demister.

Reasons for rejection

- a) The demister unit is missing;
- b) There is no warm air being blown onto the windscreen when the demister is turned on.

105.13 Speedometer

Reason for rejection

- a) Speedometer is not operational.



Lighting

Rule 106

Light Vehicles

106.01 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).

106.02 Visually inspect and check the operation of all lights fitted to the vehicle.

Reasons for rejection

- a) Any of the following lights do not work or has incorrect colour:
 - i) Headlight (high/low beam) (white);
 - ii) Front park or side lights (white);
 - iii) Tail lights (red);
 - iv) Brake light(s) (red);
 - v) Turn signal indicator lights (yellow);
 - vi) Clearance lights (trucks and cycle type vehicles only) (white/red);
 - vii) Number plate light (white).
- b) Any rear light other than a reversing light is damaged to the extent that white light shows to the rear of the vehicle;
- c) Any amber clearance light or front turn signal is damaged so that it shows white light;
- d) The number plate light is not directing light onto the surface of the rear number plate;
- e) Lights as follows are not fitted to pre 3rd Edition vehicles (passenger and light goods vehicles and light omnibuses) (dimensions at centre of lights):



Lighting

Rule 106

Light Vehicles

At front of vehicle:

- 1 White Main beam headlights, min 500mm and max 1400mm off ground, with min separation of 600mm;
- 2 White Dipped beam headlights, min 500mm and max 1400mm off ground, min 600mm separation;
- 2 White Parklights, min 500mm off ground, max 500mm inboard of vehicle side, wired to remain 'on' with headlights if vehicle built after 7/71;
- 2 Yellow turn signal indicators (Jan 73 onwards, pre Jan 73 may be white), min 400mm and max 2000mm off ground, min 750mm separation, max 500mm inboard of vehicle side;
- 2 Yellow or White clearance lights (where vehicle is over 2.2m wide), min 750mm above headlights, max 150mm inboard of side of vehicle;
- 2 Hazard warning lights (9/83 onwards), incorporated with turn signal indicators;
- Optional White or yellow fog lights, wired through park lights on a separate switch, not higher than headlights;
- Optional driving lights as per main or dipped beam headlights.

At Side of vehicle:

- 2 Yellow to front, red to rear side marker lamps (where vehicle is more than 2.2m wide and/or 7.5m long), min 600mm and max 1500mm off ground, max 300 mm from rear of vehicle.

At Rear of vehicle:

- 2 (1 prior to 12/88) Red tail lights, max 1500mm off ground, min 600mm apart, max 400mm inboard of side of vehicle (single light located in centre or right side of vehicle);
- 2 Red reflectors, max 1500mm off ground, max 400mm (250mm if vehicle more than 2.2m wide) inboard of side of vehicle;
- 2 (8/72 onwards) white or yellow reverse lights, max 100mm off ground;
- White registration plate lamp/s, to illuminate registration plate;
- 2 (1 prior to 12/88) Red stop lights, min 300mm and max 1500mm off ground (single light to be in centre or on right side of vehicle);
- 2 Yellow (red permitted prior to 1/73) turn signal indicators, min 400mm and max 1500mm off ground, min 600mm separation.



Lighting

Rule 106

Light Vehicles

106.03 Visually inspect front and rear lights for the presence of tinted covers.

Reasons for rejection

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

106.04 Using a headlight tester, check the aim of the headlights.

Reasons for rejection

- 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 to the right** of the centreline of the headlight;

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.

- c) The headlight high beam indicator light is not operating.



Lighting

Rule 106

Light Vehicles

106.05 Visually inspect the headlights.

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;
- d) Headlight is water damage or has incorrect beam pattern.



Engine Compartment & Driveline

Rule 107

Light Vehicles

ADRs applicable to this section

ADR37 applies to cars from January 1986.

See Appendix A2 for modified engines.

107.01 Visually inspect the engine, transmission and driveline. Operate the transmission control.

Reasons for rejection

- a) There are oil leaks from the engine, gearbox or driveline which allow oil to drop onto the road surface, exhaust system or brake components;
- b) Any engine or transmission mounting is not secured;
- c) Fasteners on couplings in the driveline are loose or missing;
- d) Any transmission drive shaft is bent, damaged, loose or noticeably misaligned;
- e) Any universal or constant velocity joint has excessive wear, is misaligned, seized, is not securely attached, or has a damaged or missing boot;
- f) Where the engine is non-standard, the engine number does not match the number shown on the registration certificate;
- 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), or gear selector indicator is not operational or is not illuminated (when headlights are turned on).



Engine Compartment & Driveline

Rule 107

Light Vehicles

107.02 Visually inspect the exhaust system.

Reasons for rejection

- a) Any component of the exhaust system is not securely mounted or is fouling on any other component;
- b) Exhaust pipe outlet is not rearward of all side passenger doors and opening windows or discharges to the left hand side of the vehicle;
- c) There is any leak in the exhaust system, excluding manufacturers' drain holes in the mufflers;
- d) Exhaust outlet does not extend to the outline of the vehicle body;
- e) For a vehicle manufactured after 1930 and propelled by an internal combustion engine, the vehicle emits dense smoke for a continuous period of more than 10 seconds.

Note: this test applies after the engine and exhaust has warmed up - a vehicle should not be rejected due to smoke from choke operation *when the engine is cold* or due to steam from water in the exhaust.

107.03 Where ADR 37 applies, check for the presence of a catalytic converter

Reason for rejection

- a) There is no catalytic converter fitted, where one was originally provided;
- b) The catalytic converter has been bypassed.

107.04 Visually inspect the fuel system.

Reason for rejection

- a) Here is any leakage from the fuel system.



Engine Compartment & Driveline

Rule 107

Light Vehicles

- 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, insecure, or of the incorrect type.

107.05 Where it is evident that a vehicle is emitting significantly higher noise than normal, conduct a stationary noise test in accordance with Appendix A3

Reason for rejection

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

Table of Noise Limits for Cars and Car Derivatives

Noise tests conducted <i>prior to 1 January 2001</i>	
Vehicle manufactured from 1 September 1991	90dB(A)
Vehicle manufactured before 1 September 1991	96dB(A)
Noise tests conducted from 1 January 2001	
Vehicle manufactured from 1 January 1982	90dB(A)
Vehicle manufactured before 1 January 1982	96dB(A)

NOTE: Different limits apply to motorcycles, trucks and buses.



Fuel Systems

LPG / NGV Vehicles

Rule 108

Light Vehicles

108.01 Visually inspect for the presence of an approved LPG/NGV modification plate and number plate labels.

Vehicles with systems installed in ACT

Installation of LPG/NGV fuel systems in ACT is controlled by Authorised Gas Fitters Scheme. *A modification plate must be fitted as part of installation.*

Vehicles with systems installed in another Australian State or Territory

A vehicle which has an LPG/NGV fuel system fitted and which is registered in another State or Territory may be accepted in the ACT if:

1. a metal plate is fitted in a prominent position near the installation, showing:
 - A statement that the installation complies with the Standards Australia code for the fuel type (AS1425 for LPG and AS2739 for CNG/NGV);
 - The date the installation was commissioned;
 - The State or Territory where installation was made;
 - The identification number of the suitably qualified installer; and
2. The installation passes a Safety Check Inspection conducted by an ACT Authorised Gas Fitter.



Fuel Systems

LPG / NGV Vehicles

Rule 108

Light Vehicles

Reasons for rejection

- a) Vehicle does not have an approved LPG/NGV modification plate.

(see diagrams overleaf);

Acceptable plates are shown below:

Plate fitted by an Authorised Gas Fitter

Australian Capital Territory
L.P.G. Modification Plate

MAKE _____
ENGINE No _____
CHASSIS No _____

The above vehicle was converted
in accordance with AS1425 to
use PETROL and L.P.G. only on
/ / by a gas fitter
authorised by THE REGISTRAR
OF MOTOR VEHICLES.

AGF No _____

Australian Capital Territory
N.G.V. Modification Plate

MAKE _____
ENGINE No _____
CHASSIS No _____

The above vehicle was converted
in accordance with AS2739 to
use PETROL and N.G.V. only on
/ / by a gas fitter
authorised by THE REGISTRAR
OF MOTOR VEHICLES.

AGF No _____

Plate fitted by vehicle manufacturer

LPG or NGV/CNG System installed by the original vehicle manufacturer.



Fuel Systems

LPG / NGV Vehicles

Rule 108

Light Vehicles

<p style="text-align: center;">NISSAN MOTOR CO. AUSTRALIA PTY LTD. CERTIFICATION PLATE</p> <p style="text-align: center;">THE LPG INSTALLATION IN THIS VEHICLE COMPLIES WITH THE FOLLOWING APPROVALS</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 33%;">VIC</td> <td style="width: 33%;">V447-80</td> <td style="width: 33%;">SA</td> </tr> <tr> <td>NSW</td> <td>NO255Q</td> <td>NT</td> </tr> <tr> <td>QLD</td> <td></td> <td>ACT</td> </tr> <tr> <td>WA</td> <td></td> <td>TAS</td> </tr> </table>	VIC	V447-80	SA	NSW	NO255Q	NT	QLD		ACT	WA		TAS	<div style="display: flex; justify-content: space-between; align-items: center;"> </div> <p style="text-align: center;">THE LPG SYSTEM COMPLIES WITH ADR44.01 & AS1425-1989 INSTALLED BY LICENCED WORKSHOP No. AFR 00 050</p> <p>VIN. _____</p> <p>ENGINE No. _____ DATE / /</p> <p>L.P.G. SERIAL No. _____</p>
VIC	V447-80	SA											
NSW	NO255Q	NT											
QLD		ACT											
WA		TAS											

**LPG INSTALLATION HOLDEN COMMODORE
MODEL ASSINIE SEDAN**

INSTALLATION REFERENCE No. _____

DATE OF INSTALLATION ____/____/____ STATE/TERRITORY _____

THIS INSTALLATION COMPLIES WITH ADR44.01, AS1425-1989 AND
☒ GM HOLDS AUTOMOTIVE INSTALLATION REQUIREMENTS ☐

ODOMETER _____

VIN _____

ENGINE No. _____

WORKSHOP _____ (LICENCE No.) _____

ENTER _____ (CERTIFICATE No.) _____

- b) Number plate labels are not fitted to the front and rear of the vehicle indicating it is LPG, NGV or CNG fuelled.

Acceptable number plate labels are shown below:

White lettering on red background



Fuel Systems

LPG / NGV Vehicles

Rule 108

Light Vehicles

108.02 Visually inspect the LPG or NGV container

Reasons for rejection

- a) The container is removable without the use of tools from any vehicle other than those specified below:
 - i) Fork lift trucks;
 - ii) Vehicles which do not use LPG or NGV as a means of propulsion;
 - iii) Diesel engine enhancement systems.
- b) The container has:
 - i) Advanced corrosion;
 - ii) Cuts or dents which penetrate the surface of the container;
 - iii) 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;
 - iv) Any dent or crease on the container which is longer than 75mm.
- c) The statutory life of the container has expired;

NOTE: It is a statutory requirement for an LPG/NGV container to be checked for continued service life:

LPG every ten years.

NGV steel containers every five years,

fibreglass reinforced plastic containers every three years.

- d) The boot lid torsion bars, coil springs or hinges contact the container;
- e) The container and its surface mounted fittings are not protected from damage by vehicle component (e.g. tail shaft) failure;



Fuel Systems

LPG / NGV Vehicles

Rule 108

Light Vehicles

- f) 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;
- g) 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.

- h) The container is incorrectly aligned so that it impedes access to the container service valve;
- i) The container is incorrectly aligned so that it impairs the operation of the ullage valve or the automatic fill limiter (AFL);
- j) Where containers installed on or after 1 July 1988 have a wall thickness marked to be less than 2.2mm:
 - i) The container is mounted externally;
 - ii) The container is not installed within a protective compartment;
 - iii) The container is located less than 75mm from the side panels of the vehicle;
 - iv) The container is not marked 'This vessel shall be installed within a compartment inside the vehicle'.

108.03 Visually inspect the container anchorages and straps

Reasons for rejection

- 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 5:



Fuel Systems

LPG / NGV Vehicles

Rule 108

Light Vehicles

TABLE 5 Dimensions Of Container Attachment Devices

LPG/NGV container size (litres)			Minimum anchorage strap dimensions (mm)	Bolt or stud diameter for anchorage strap mountings (mm)
Over	-	Up to		
0	-	100	30 x 3	10
100	-	150	50 x 6	12
150	-	Approval limit	Approval required from TAMS	

- e) The anchorage bolts or studs are smaller than the sizes shown in Table 5;
- 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;

NOTE 1: Reinforcement plates attached to sheet metal panels must be at least 75mm square and 3mm thick.

NOTE 2: Where a 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.

- h) There are less than four (4) points of attachment to the vehicle structure.



Fuel Systems

LPG / NGV Vehicles

Rule 108

Light Vehicles

108.04 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;

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

- e) The container service valve is inoperable;
- f) The seals for any sub-compartment do not provide a gas-tight seal.

108.05 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.



Fuel Systems

LPG / NGV Vehicles

Rule 108

Light Vehicles

108.06 Visually inspect externally mounted containers

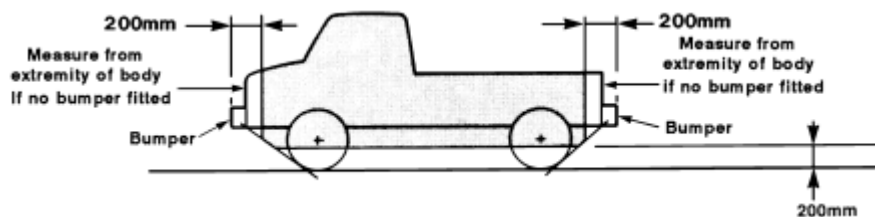
Reasons for rejection

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

- 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.



Fuel Systems

LPG / NGV Vehicles

Rule 108

Light Vehicles

108.07 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';

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

- 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.

108.08 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.



Fuel Systems

LPG / NGV Vehicles

Rule 108

Light Vehicles

108.09 Visually inspect fuel lines, joints and connections

Reasons for rejection

- 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.

108.10 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;

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.



Fuel Systems

LPG / NGV Vehicles

Rule 108

Light Vehicles

- 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.

108.11 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 an Authorised Gas Fitter certifying that the excess flow valve is operating satisfactorily.

NOTE 1: The certification is valid for 1 calendar month from the date of issue. The certificate number and Authorised Gas Fitter licence number are to be recorded in the comment section of the inspection report.

NOTE 2: This test can be conducted by an Authorised Examiner accredited by TAMS for this purpose.

NOTE 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.



Fuel Systems

LPG / NGV Vehicles

Rule 108

Light Vehicles

Reasons for rejection

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

NOTE 1: Alternatively the owner is to produce a certificate from an Autogas Installer certifying that the excess flow valve is operating satisfactorily.

NOTE 2: The certification is valid for 1 calendar month from the date of issue. The certificate number and Authorised Gas Fitter licence number are to be recorded in the comment section of the inspection report.

NOTE 3: This test can only be conducted by an Authorised Examiner accredited by the TAMS for this purpose.



Section 4

Safety Check Standards

Motor Cycles

Brakes

Rule 141

Motorcycles

ADRs applicable to this section

ADR 7 applies to motorcycles manufactured from July 1975.

ADR 33 applies to motorcycles manufactured from March 1976.

141.01 Visually inspect the condition of the brake controls.

Reasons for rejection

- a) On rubber faced brake pedals, any metal is showing;
- b) On metal brake pedals, there is no anti-slip surface;
- c) Missing or broken pedal or handle.

141.02 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.



Brakes

Rule 141

Motorcycles

141.03 Inspect the condition of visible brake components.

Reason for rejection

- a) Where visible, any brake components 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) Where ADR 7 applies, any brake hose is not marked with manufacturers name, and any braided hose is missing protection sleeves.

141.04 Check the operation of the parking brake on ADR 33 cycles fitted with side-car outfits.

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

Reasons for rejection

- a) There is no parking brake fitted;
- b) The parking brake fails to stop the outfit being moved.



Towing Attachment

Rule 142

Motorcycles

ADRs applicable to this section

ADR 62 applies to motorcycles manufactured from March 1992.

142.01 Visually inspect the towbar and its mounting to the frame.

Reasons for rejection

- a) Any towing attachment such as a tow ball is loose or is cracked;
- b) The towbar is not mounted directly to the frame or through rigid connections to the frame;
- c) The towbar is not securely mounted, or is cracked;
- d) Any mounting bolts, fasteners or weld beads have advanced corrosion or are missing;
- e) Where ADR 62 applies, the towbar does not display the gross mass rating and manufacturer's name or trademark (a label may be affixed to the vehicle for this purpose);
- f) 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.



Steering and Suspension Rule 143

Motorcycles

143.01 Visually inspect all steering components.

NOTE: On most motor cycles this will normally only apply to the steering damper, however, there are some specialised cycles fitted with remote steering controls or centre-hub steering to which this check is more appropriate.

Reasons for rejection

- a) Where steering linkages are fitted, the rotational free play exceeds 10mm measured at the end of the handlebars;
- b) Any steering component can be seen to have been repaired or modified by 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) Any steering component is insecure, broken, missing or has noticeable free play beyond manufacturer's limits;
- e) The steering assembly fails to turn from 'lock to lock' position without jamming, fouling or roughness in its operation.

143.02 Visually inspect the suspension.

Reasons for rejection

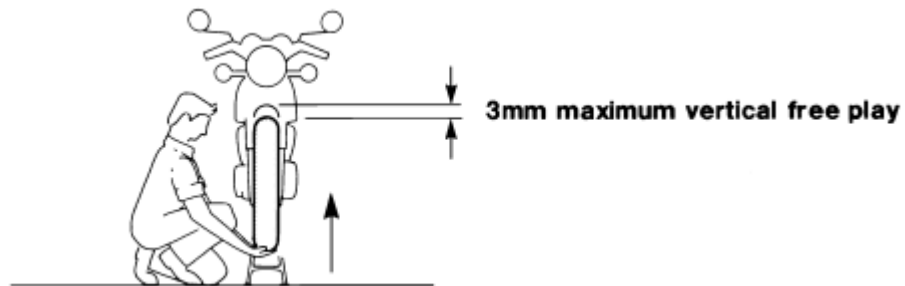
- a) Any suspension component is broken, cracked, cut, missing, not secured or can be seen to have been repaired or modified by heating or welding;



Steering and Suspension Rule 143

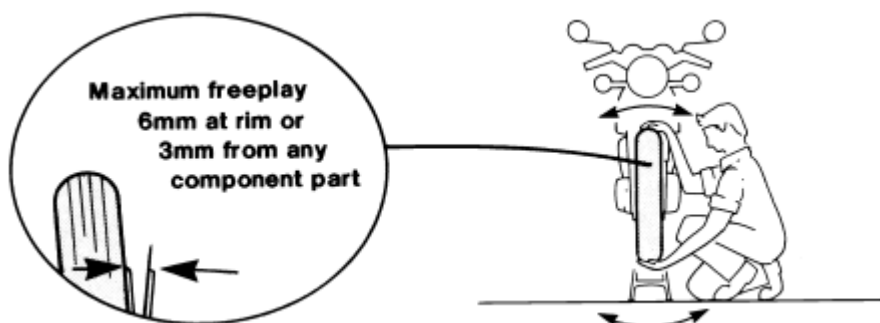
Motorcycles

- 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;



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

- 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.



Wheels and Tyres

Rule 144

Motorcycles

144.01 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.

144.02 Visually inspect each road tyre.

Reasons for rejection

- a) The tyre has less than 1.5mm tread depth on the surfaces which normally contact the road;
- b) The tyre has deep cuts, bulges, exposed cords or other signs of carcass failure.



Body Condition

Rule 145

Motorcycles

145.01 Visually inspect body panels, chassis and frame for dangerous protrusions and rust.

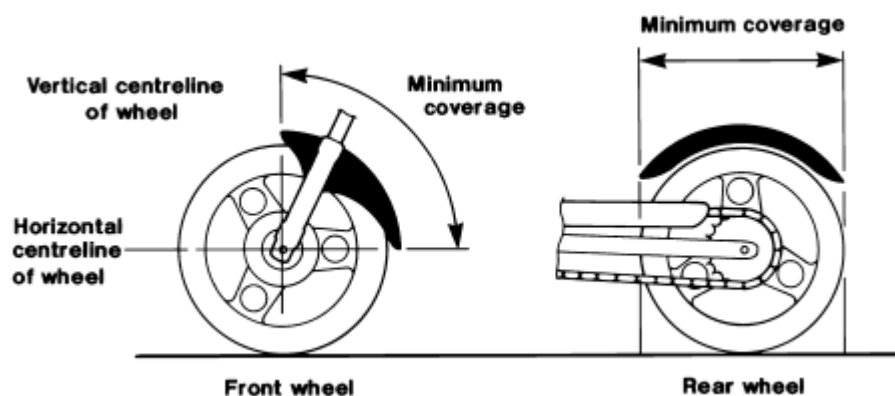
Reasons for rejection

- 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.

145.02 Inspect the mudguards.

Reasons for rejection

- a) Mudguards are not fitted to all wheels;
- b) The cycle or side car mudguard does not fully cover the width of the tyre or does not meet the requirements set out in the illustration below.



Body Condition

Rule 145

Motorcycles

145.03 Visually inspect rear vision mirror(s).

Reason for rejection

- a) Rear vision mirror(s) is (are) missing, or do not provide a clear view of the road to the rear of the cycle;
- b) Two rear vision mirrors are not fitted to motorcycles manufactured after June 1988.

145.04 Check the operation of the horn.

Reasons for rejection

- a) The horn is not working;
- b) The horn is of the following types: exhaust whistle, compression whistle, siren or alternating tone (reversing alarms are acceptable).

145.05 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.



Body Condition

Rule 145

Motorcycles

145.06 Visually inspect the number plate(s).

Reasons for rejection

- a) The number plate cover is tinted, reflective, rounded, or bubble like;
- b) The number plate is obscured, damaged or faded to the extent that the registration number is not legible from a distance of five metres;
- c) The number plate is not issued or approved by the Registrar.



Lighting

Rule 146

Motorcycles

146.01 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).

146.02 Visually inspect and check the operation of all lights fitted to the cycle.

Reasons for rejection

- a) Any of the following lights do not work or has incorrect colour:
 - i) Headlight (high/low beam) (white);
 - ii) Tail light (red);
 - iii) Brake light(s) (red);
 - iv) Turn signal indicator lights (yellow);
 - v) Side-car marker light (white/red);
 - vi) Number plate light (white).
- b) Any of the above lights are damaged to the extent that white light shows to the rear of the cycle;
- c) Any amber turn signal light is damaged so that it shows white light;
- d) The number plate light is not directing light on to the surface of the rear number plate.



e) Lights as follows are not fitted to pre 3rd Edition vehicles (Mopeds, motor cycles, motor cycle and sidecar, and motor tricycle) (dimensions at centre of lights):

At front of vehicle:

- 1 White Main beam headlight, min 500mm and max 1400mm off ground;
 - 1 White Dipped beam headlights, min 500mm and max 1400mm off ground;
 - 1 White Parklights, min 500mm off ground;
 - 2 Yellow turn signal indicators (Jan 83 onwards), min 425mm and max 2000mm off ground, min 300mm separation;
- Optional White or yellow fog lights, wired through park lights on a separate switch, not higher than headlights;
- Optional driving lights as per main or dipped beam headlights;

At Rear of vehicle:

- 1 Red tail light, max 1000mm (1500mm if 1000mm impractical) off ground;
 - 1 (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;
 - 1 (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;
- White registration plate lamp/s, to illuminate registration plate;
- 2 Yellow turn signal indicators (Jan 83 onwards), min 425mm and max 2000mm off ground, min 300mm separation.



Lighting

Rule 146

Motorcycles

146.03 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.

146.04 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;

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.

- c) Headlight high beam indicator light is not operating.



Lighting

Rule 146

Motorcycles

146.05 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.



Engine and Driveline

Rule 147

Motorcycles

ADRs relevant to this section

ADR 28 - applies to motorcycles manufactured from July 1975.

ADR39A - applies to motorcycles manufactured from March 1988.

See Appendix A2 for engine modifications.

147.01 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) Where the engine is non-standard, the engine number does not match the number shown on the registration certificate.

147.02 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.



Engine and Driveline

Rule 147

Motorcycles

147.03 Visually inspect the exhaust system.

Reasons for rejection

- a) Any component in the exhaust system is not securely mounted;
- b) There is any leak in the exhaust system, excluding manufacturer's drain holes in the mufflers;
- c) Where ADR 39A applies.
 - i) **For original equipment**
The exhaust system does not bear the manufacturer's name or trademark; or
 - ii) **For aftermarket equipment**
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).

147.04 Where it is evident that a motorcycle is emitting significantly higher noise than normal, conduct a stationary noise test in accordance with Appendix A3

Reason for rejection

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

Table of Noise Limits for Motorcycles

Noise tests conducted <i>prior to 1 January 2001</i>	
Vehicle manufactured from 1 September 1991	94dB(A)
Vehicle manufactured before 1 September 1991	100dB(A)
Noise tests conducted from 1 January 2001	
Vehicle manufactured from 1 February 1985	94dB(A)
Vehicle manufactured before 1 February 1985	100dB(A)

NOTE: Different limits apply to cars, trucks and buses.



Section 4

Safety Check Standards

Light Trailers and Caravans

Brakes

Rule 181

Light Trailers and Caravans

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

181.01 Inspect the condition of 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) Any brake component is seized, severely corroded or inoperative or, where visible, is worn beyond manufacturer's limits.

181.02 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 181.04).

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;



Brakes

Rule 181

Light Trailers and Caravans

181.03 Brake testing of trailers fitted with brakes other than override brakes.

With the trailer attached to the 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.

181.04 Where fitted, test the parking brake

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.

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) The park brake does not retard the movement of the trailer or combination.



Towing Attachment

Rule 182

Light Trailers and Caravans

182.01 Visually inspect the trailer coupling, drawbar and mountings on the trailer body.

Reasons for rejection

- a) Any coupling component is loose, 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) 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.

182.02 Visually inspect safety chains or ropes.

Reasons for rejection

- a) Any trailer without breakaway brakes is not fitted with at least one safety chain or wire rope;
- b) Any safety chain or wire rope touches the ground (when coupled to the hauling vehicle), or its length is such that it prevents any breakaway protection device from operating;



Towing Attachment

Rule 182

Light Trailers and Caravans

- c) the safety chain(s) or wire rope(s) are not permanently attached to the drawbar;

NOTE: Attachment of safety chains or wire ropes to the drawbar by shackles is not permitted.

- d) if a trailer breakaway protection system is not fitted, the size of the chain or rope and shackles is less than that specified in table 6;

TABLE 6 Minimum chain and shackle sizes

AGGREGATE TRAILER MASS	MINIMUM CHAIN SIZE OR WIRE ROPE SIZE	SHACKLE BODY DIAMETER
Up to 1000kg	6.3 mm	9.5mm
Over 1000kg up to 1600kg	8.0mm	12.7mm
Over 1600 kg up to 2500kg	10.0mm	12.7mm



Towing Attachment

Rule 182

Light Trailers and Caravans

- e) on rigid drawbar pig trailers in excess of 2.5 tonne gross trailer mass there are less than two chains of a diameter specified in table 7, 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.

NOTE: 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 7 Minimum chain sizes

AGGREGATE TRAILER MASS	MINIMUM CHAIN SIZE (2 of)
2500 to 4500 kg	7.1mm
Over 4500 kg up to 7500 kg	9.5mm
Over 7500 kg up to 13500kg	12.7mm



Suspension

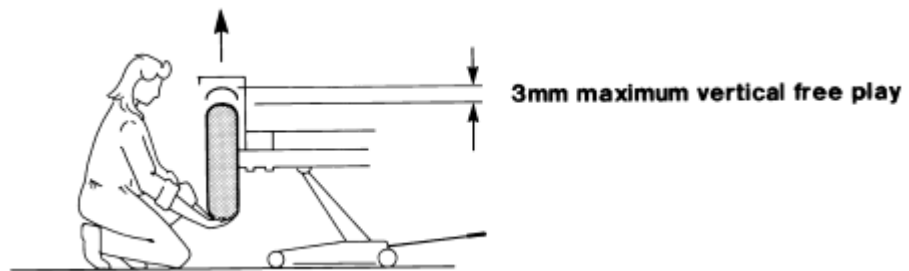
Rule 183

Light Trailers and Caravans

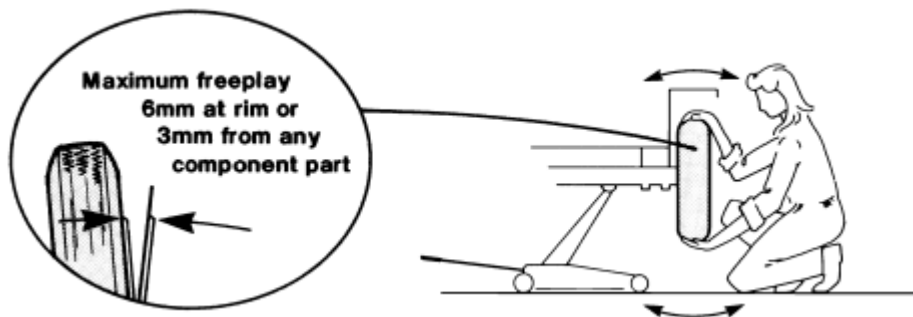
183.01 Visually inspect all suspension components.

Reasons for rejection

- a) Any suspension component is broken, cracked, missing, not secured, 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) 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.



Wheels and Tyres

Rule 184

Light Trailers and Caravans

184.01 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 (where these can be seen without removing hubcaps);
- c) Any hub has missing or broken wheel mounting nuts, studs or bolts (where these can be seen without removing hubcaps);
- 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.

184.02 Visually inspect each road tyre.

Reasons for rejection

- a) The tyre has less than 1.5mm tread depth on the surfaces which normally contact the road;
- b) The tyre has deep cuts, bulges, exposed cords or other signs of carcass failure.



Body Condition

Rule 185

Light Trailers and Caravans

185.01 Check the operation of doors, gates and flap.

Reason for rejection

- a) Any door, gate or flap cannot be fastened securely in the closed position.

185.02 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) Any structural member such as chassis or frame, or, in the case of frameless trailers, any floor or side panel, is cracked or has advanced rust.

185.03 Inspect the mudguards.

Reasons for rejection

- a) Mudguards are not fitted to all wheels;
- b) Any mudguard does not cover the full width of the tyre, or meet the requirements shown in the illustration below.

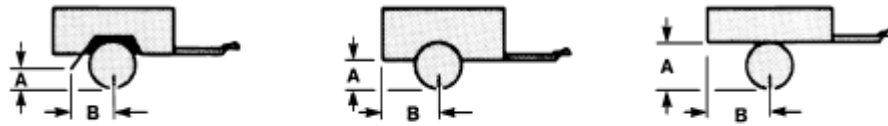
NOTE: For a trailer built to be used off-road, dimension A need not be less than 300mm.



Body Condition

Rule 185

Light Trailers and Caravans



Dimension A must not be more than one third of dimension B
(except that dimension A need not be less than 230 millimetres).

Note that the trailer body may perform the function of the mudguard.

185.04 Visually inspect the number plate.

Reasons for rejection

- a) Number plate cover is tinted, reflective, rounded, or bubble like;
- b) The number plate is obscured, damaged or faded to the extent that the registration number is not legible from a distance of five metres;
- c) The number plate is not issued or approved by the Registrar.



Lighting

Rule 186

Light Trailers and Caravans

186.01 Visually inspect compulsory reflectors fitted to the rear of the vehicle.

Reason for rejection

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

186.02 Visually inspect and check the operation of all lights fitted to the vehicle.

Reasons for rejection

- a) Any of the following lights do not work or has incorrect colour:
 - i) Tail lights (red);
 - ii) Brake light(s) (red);
 - iii) Turn signal indicator lights (yellow);
 - iv) Clearance lights (white/red);
 - v) Side marker lights (yellow);
 - vi) Number plate light (white);
- b) Any of the above lights is damaged or deteriorated to the extent that white light shows to the rear of the vehicle, or in the case of any side marker lights, any white light shows to the front of the vehicle;
- c) The number plate light is not directing light on to the surface of the rear number plate;
- d) Any wiring for compulsory lights is frayed or bared or is insecure to the extent that it is likely to be damaged;
- e) Lights as follows are not fitted to pre 3rd Edition vehicles (passenger and light goods vehicles and light omnibuses) (dimensions at centre of lights):



Lighting

Rule 186

Light Trailers and Caravans

At front of vehicle:

2 White clearance lights (if vehicle built after 6/88 and vehicle more than 2.2m wide), min 500mm and max 1500mm off ground, max 150mm inboard of vehicle side;

At Side of vehicle:

2 Yellow to front, red to rear side clearance lights (where vehicle is more than 2.2m wide and/or 7.5m long), min 500mm and max 1500mm off ground, max 150 inboard, max 300 mm from rear of vehicle (in middle if vehicle over 7.5m long);

At Rear of vehicle:

2 (1 prior to 7/88) Red tail lights, max 1500mm off ground, min 600mm apart, max 400mm inboard of side of vehicle (single light located in centre or right side of vehicle);

2 Red reflectors, max 1500mm off ground, max 400mm (250mm if vehicle more than 2.2m wide) inboard of side of vehicle;

White registration plate lamp/s, to illuminate registration plate;

2 (1 prior to 7/88) Red stop lights, min 300mm and max 1500mm off ground (single light to be in centre or on right side of vehicle);

2 Yellow (red permitted prior to 1/73) turn signal indicators, min 400mm and max 1500mm off ground, min 600mm separation.



Section 5

Taxi inspections

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Driver protection	195



Taxis

190.01 The objectives of the inspection of taxi quality are:

- a) To check that passengers are afforded reasonable comfort and cleanliness;
- b) To ensure that adequate information is displayed about taxi and driver identification, taxi charges and passenger rights and obligations;
- c) To ensure that taximeters operate within an acceptable level of accuracy;
- d) To ensure that, where taxis are provided with optional features which discourage assault of drivers, these features work properly.

190.02 The following Rules apply *in addition to* the Safety Check standards set out in Section 4 of these Rules..

Taxis

191.01 Check the date of manufacture indicated on the ADR Compliance Plate

Reasons for rejection

- a) A vehicle being registered as a taxi for the first time is more than four years of age;
- b) Any vehicle being used as a taxi is over eight years of age.

Taxis

192.01 Check seats, floor coverings and trim

Reasons for rejection

- c) Seats, floor coverings or trim are dirty, torn, stained, missing or insecure (check floor coverings under scatter mats);
 - d) Seat covers, where fitted, are dirty, torn, stained or insecure or the retention straps are exposed;
 - e) Any seat belt is inaccessible or the webbing is dirty or stained.
- (see Rule 105.08 for additional seat and seat belt checks)

192.02 Check operation of interior lights

Reasons for rejection

- a) Interior dome (roof) light does not operate;
- b) Door courtesy lights, where fitted, do not operate.

192.03 Check interior signs and labels

Reasons for rejection

- a) A sign/label displaying the fees and charges is not visible or is deteriorated or insecure;
- b) A sign/label displaying the maximum number of passengers is not visible or is deteriorated or insecure;
- c) A sign/label displaying the rights of hirers is not visible or is deteriorated or insecure.

192.04 Check the fuel gauges (LPG and/or petrol)

Reasons for rejection

- a) Any fuel gauge is inoperative.

Taxis



Taxis

193.01 Visually inspect body panels, windows and exterior signs. Operate opening windows. Inspect the boot.

Reasons for rejection

- a) Body panels are dirty, accident-damaged (dented) or corroded;
- b) Windows are dirty or do not open (where applicable);
- c) There is evidence of rainwater leaking into the interior;
- d) Bumper bars are missing;
- e) There are hazardous external fittings such as a rigid metal bullbar, not complying with ADR69, or projecting towbar which are not essential for the operation of the vehicle as a taxi; (unless authorised in writing by the TAMS);
- f) Number plates or network identification labels are missing or deteriorated;
- g) The luggage space is dirty or unavailable.

193.02 Check the operation the roof sign

Reasons for rejection

- a) The roof sign is missing or insecure;
- b) The roof sign is not capable of being illuminated or does not display the word TAXI to the front and rear;
- c) The roof sign does not illuminate when the taximeter is switched on ('vacant') or does not extinguish when the taximeter is switched to 'fare' mode.

Taxis

194.01 Visually inspect the taximeter. Have the driver operate all functions of the taximeter (vacant, engaged, not-for-hire)

Reasons for rejection

- a) The taximeter is inoperative;
- b) The taximeter is not sealed, or the seals are broken or show evidence of tampering.

194.02 Where applicable, conduct a road test or dynamometer test to check the distance accuracy of the taximeter

Note: The test is conducted by having the taxi driver drive around a set course (or dynamometer equivalent) that is approved for the purpose. The course should have a 'start' sign, a 'finish' sign exactly one kilometre from the start sign and a '1% slow' sign 10 metres after the finish sign. The test commences with the taxi stationary and its front wheel in line with the 'start' sign. Engage the taximeter and drive the vehicle over the course with a minimum of variation in speed. As the 'finish' sign is approached monitor the taximeter and observe the location, relative to the 'finish' sign, at which the correct fare is first displayed.

Do not perform this test if reasons for rejection are found under Rule 194.01.

Reasons for rejection

- a) The location at which the correct fare is displayed is before the 'finish' sign.

Note that, if the correct fare is first displayed *after* the '1% slow' sign, the taxi should not be rejected but the inspection certificate should be endorsed 'taximeter exceeds 1% slow' (the taximeter will be under-charging customers).

Taxis

194.03 Where applicable, conduct a waiting time check of the taximeter

This test is conducted with the vehicle stationary. The taximeter is engaged and the time taken for the meter to indicate a charge equivalent to the one kilometre distance test is noted. Applicable Stations will be notified about the prevailing charges and the required time range.

Do not perform this test if reasons for rejection are found under Rule 194.01 or 194.02.

Reasons for rejection

- a) The time at which the taximeter first displays the nominated fare (equivalent to a one kilometre distance test) is less than the lower value of the prescribed time range.

Note that, if the correct fare is first displayed *after* the higher value of the prescribed time range, the taxi should not be rejected but the inspection certificate should be endorsed 'Taximeter exceeds time range' (the taximeter will be under-charging customers).

Taxis

Important: Unless otherwise indicated, a taxi should not be rejected under the checks described in this section. To ensure that the operator of the taxi is informed about a problem the item of concern should be recorded on the inspection report.

195.01 Where fitted, check the two-way radio and radio alarm

Note: the operation of any radio alarm should be regularly checked by the radio network.

Reasons for concern

- a) Where fitted, a two-way radio is inoperative (visual check only);
- b) A radio alarm has not been checked by the radio network within 21 days of the date of the (initial) inspection;
- c) Any microphone associated with a radio alarm is readily visible or is discernible through the roof lining or door trim.

195.02 Where fitted, check the boot lid lock release device

Note: The boot lid lock release device is intended to provide a means for the boot to be opened by a person who has been locked in the boot. The device can be checked by opening the boot, operating the device with the boot still open and observing that the lock mechanism moves.

Reasons for concern

- a) Where fitted, a boot lid lock release device is inoperative;
- b) Due to its position or manner of operation, the device cannot be readily operated by a person locked within the boot;
- c) The device can be rendered inoperative from outside the vehicle, with the boot closed.

Taxis

195.03 Where fitted, check the driver protection screen

Note: the driver protection screen is intended to provide protection for the driver in the event of physical attack from behind.

Where a driver protection screen is fitted to a taxi in the ACT it must comply with the requirements of Technical Specification 144 issued by the Roads and Traffic Authority of New South Wales. These checks are based on that Specification and they are intended to ensure that the screen does not constitute a hazard or nuisance to the driver or passengers.

An alternative method of discouraging assault on taxi drivers is to locate a video surveillance system within the taxi - there are no practical checks for such devices.

Reasons for *rejection*

- a) Where fitted, a driver protection screen does not bear a label indicating that it complies with Roads and Traffic Authority Technical Specification 144;
- b) Due to its design or condition (for example, scratches or 'crazing'), the screen obstructs any passenger's view of the taximeter or the driver's view to the side or the rear;
- c) The screen is insecurely mounted.

Section 6

Design Checks

for

modified light

vehicles

Introduction

Modified light vehicles

General information

In the ACT vehicles manufactured after particular dates for example:

- Motor vehicles (except for tractors or implements) first registered on or after 1 January 1969;
- Motorcycles manufactured 1 February 1972;

must meet the requirements of relevant Australian Design Rules (ADRs) which are a series of design specifications and performance requirements.

It is an offence to use on public roads any vehicle which has been modified in such a way that it no longer complies with:

- The ACT vehicle inspection manual;
- Applicable Australian Design Rules (ADRs);
- Normal standards of structural soundness in design and construction;
- Applicable environmental standards. (noise and exhaust emissions).

Modification categories

Vehicle modifications fall into three distinct categories:

- 1) Owner certified modifications i.e. minor modifications not requiring an engineering certificate;
- 2) Engineer certified, modified production vehicles;
- 3) Engineer certified, individually constructed vehicles.

Each of these categories are described in more detail in the following sections and details of disallowed modifications are set out under the heading of 'Reasons for rejection' in the section covering light vehicle subsystems.

Notification of modifications

It is the owner's responsibility to advise RUS of certain categories of modification.



Introduction

Modified light vehicles

In the case of owner certified modifications, notification is only required for modifications which affect the registration details as shown on the registration certificate.

Where any of the listed modifications apply, the modified vehicle must be presented to an Authorised Inspection Station for a change of detail inspection.

In the case of engineer certified modifications, whether the details on the certificate of registration are altered or not, the vehicle must be presented to an Authorised Inspection Station together with the engineering certificate and a weighbridge ticket (if the weight of the vehicle has changed).

Vehicle Standards Bulletin No. 5 modifications 'Manufacture of Additional Seats'.

A design Check is not required when a vehicle is modified to Vehicle Standards Bulletin No 5 and affixed with labels which carry statements of compliance to both the seat manufacture and the seat installation are acceptable.



Owner certified modifications

Rule 301

Modified light vehicles

General information

Certain modifications may be carried out by owners without the need to submit an engineering certificate. They are modifications which do not affect the level of safety, strength or reliability of vital systems such as brakes, steering and suspension, and which have little or no impact upon the vehicles level of compliance with the Regulations and Australian Design Rules (ADRs).

These modifications do not require inspection or reporting to RUS except where they affect the registration details as shown on the certificate of registration.

Examples of owner certified modifications are:

- Engine changes where the capacity increase is **less** than 15% providing there are no major structural modifications required to install the engine and compliance with ADRs is unlikely to be affected;
- Fitting of a 'package' available as optional equipment for the vehicle (e.g. front disc brakes, power steering, alternative transmission);
- Wheels and tyres which are within the limits specified in the vehicle Inspection manual.

Review the **modification appraisal table** (see table 1, Rule 301). Where modifications are found, review the subsystem/s to determine whether the modification is 'owner certified' and review the reasons for rejection entering any which are applicable in the comments box.

Request an engineering certificate for any modifications found to be beyond the owner certified level.



Owner certified modifications

Rule 301

Modified light vehicles

Table 1: Modification appraisal

REASONS FOR DESIGN CHECK	APPLICABLE RULE
1. Non-standard replacement engine , unless previously approved for registration with that engine.	Rule 319, 320 & 321
2. Engine modified - relocated, turbocharged, supercharged.	Rule 319, 320 & 321
3. Emission equipment deliberately missing or disconnected	Rule 319 & 321
4. Body structure modifications - e.g. convertibles, bonnet scoops, campervans, wheel tubs	Rule 315
5. Lengthened or shortened chassis/body frame - e.g. limousines	Rule 316
6. Modifications to steering systems beyond manufacturers options	Rule 312
7. Modification to major suspension components - beyond manufacturer's options	Rule 313
8. Ground clearance less than 100mm	Rule 313
9. Non original or repositioned seats, seat belts or anchorages	Rule 317
10. Modified driving controls or dual controls	Rules 311,312 & 315
11. Wheel rim width limits exceeded	Rule 314
12. Vehicle exceeds dimension limits given in Appendix F	Rule 315
13. Indications of non-original lighting fitted	Rule 318
14. Vehicle fitted with gas fridge/stove etc. without a gas plate.	Rule 315



Engineer certified modified production vehicles

Rule 302

Modified light vehicles

General information

These are significant modifications involving the replacement of a vehicle system or changes which affect the Regulations or Australian Design Rules (ADR) compliance and which require certification by an engineering signatory. For registered vehicles these modifications must be reported to RUS in the form of a change of detail inspection certificate.

Register of engineering signatories

RUS maintains a register of acceptable engineering signatories. A list of those signatories who choose to be on a list made available to the public is included at appendix I.

(Note that there are also engineering signatories who are not listed. Where there is doubt about the authenticity of an engineering signatory, contact (02) 6207 7018 or 6207 7236.

TAMS does not accept certificates from unregistered signatories.

Interstate modified vehicles

If a vehicle was registered as a modified vehicle in another state, based on an engineering certificate prepared by a signatory who is not listed, then check with RUS VITU, phone (02) 6207 7018 or 6207 7236. Approval to pass the vehicle for registration may be given in some cases.

Examples of engineer certified modifications

Examples of engineer certified modified production vehicles are:

- Electric drive conversions;
- Left hand drive to right hand drive conversions;
- Campervan and motor home conversions (may include 'pop-up' roof);



Engineer certified modified production vehicles

Rule 302

Modified light vehicles

- Extended cabins with additional seating ('crew' cabins);
- Additional axles on light trucks, commercial vehicles and 4WD's (e.g. 'lazy' axle conversions and tandem drive conversions);
- Turbocharger and supercharger installations;
- Rollbar installations.

302.01 Visually inspect the vehicle, collect and check the documentation

In conjunction with the normal inspection procedure:

- 1) Request the appropriate documentation, including an engineering certificate, and a weighbridge ticket; ensure that the engineering certificate details all the modifications and review all documentation for consistency;
- 2) Conduct an inspection listing any modifications beyond the owner certified level currently evident in the vehicle;
- 3) Review the noted modifications against those described on the engineering certificate. Where modifications are noted which are not covered by the engineering certificate presented then (unless they have been previously certified and are unaffected by the current modifications) the vehicle must be rejected and the owner directed to obtain an engineering certificate covering all modifications;
- 4) Where modifications have affected the wheelbase, measure the wheelbase and ensure that this measurement appears on the engineering certificate.

Reasons for rejection

- a) An engineering certificate is not supplied for any modification in the engineering certified category for the vehicle subsystem being inspected;
- b) The person who signs the engineering certificate is not included in the list of approved signatories.



Engineer certified modified production vehicles

Rule 302

Modified light vehicles

- c) The engineering certificate does not detail all the modifications or include a declaration that the vehicle is sound in its design and construction.



Engineer certified individually constructed vehicles **Rule 303**

Modified light vehicles

General information

This category will apply for persons modifying a vehicle beyond the category of 'modified production' or persons who construct a complete vehicle to a unique design.

Vehicle constructors

Vehicle constructors may build and register up to three vehicles per year each with an engineering certificate which adequately covers all aspects of vehicle design and construction without obtaining compliance plate approval.

Persons building more than three vehicles per year (this includes all vehicles produced not just model variations) are required to seek compliance plate approval from the DOTARS.

This can involve complex and expensive testing requiring the applicant to provide evidence that the vehicle meets all of the necessary requirements before approval is granted.

Individually constructed classification

The following classes of modification will categorise the vehicle as individually constructed:

- A vehicle with a specially constructed chassis (non-production vehicle) or newly manufactured replica chassis;
- A vehicle where the chassis has been widened or narrowed (either in places or along the whole length of the chassis);
- A vehicle with a production chassis which does not retain at least one of the original structural crossmembers for that chassis;



Engineer certified individually constructed vehicles **Rule 303**

Modified light vehicles

- A vehicle where the arrangement of the engine and driveline is substantially changed e.g. engine moved from front to rear or to a 'mid mounted' position. Also where the vehicle is changed from front wheel drive to rear wheel drive;
- A mono-constructed vehicle where the subframe structure has undergone significant structural change. This includes modifications to the inner mudguard panels i.e. 'wheel tubs' if the work requires relocation or modification of the subframe or chassis rails or structural areas of the body. For the purposes of determining whether the modification is a significant structural change in a mono-constructed vehicle, the following guidelines will apply:
 - Removal of and replacement of subframe structures (excluding crossmembers) with structures of a different design are considered to be significant structural changes;
 - Reinforcing or adding to existing structures is not considered to be a significant structural change and therefore would not in itself result in classification as an individually constructed vehicle.

Once classified as 'individually constructed', full current safety and emission control requirements apply. Owners wishing to register vehicles which have been modified to the individually constructed vehicle level must have an engineering certificate which adequately covers all aspects of vehicle design and construction.



Engineer certified individually constructed vehicles **Rule 303**

Modified light vehicles

303.01 Visually inspect the vehicle, collect and check the documentation

In conjunction with the normal inspection procedure:

- 1) Request the appropriate documentation, including an engineering certificate, and a weighbridge ticket; ensure that the engineering certificate includes all necessary information and review all documentation for consistency;
- 2) Review the vehicle against that described on the engineering certificate. The certificate must cover all applicable ADRs as at the date of presentation, describing how the vehicle complies with each;
- 3) Measure the wheelbase;
- 4) On the Certificate of Inspection, enter the make as 'HMADE' and write in the comments box 'Modified as per engineering certificate 'number', 'name', 'date'';
- 5) Where the engineering certificate is found to be inadequate the vehicle must be rejected.

Reasons for rejection

- a) An engineering certificate is not supplied for any modification in the engineering certified category for the vehicle subsystem being inspected;
- b) The person who signs the engineering certificate is not included in the list of approved signatories;
- c) The engineering certificate does not detail all the modifications or include the declaration required.



Light vehicle subsystems

Brakes

Rule 311

Modified light vehicles

General information

Owner certified modifications

These are limited to the fitting of braking assemblies which were options available from the original vehicle manufacturer for the particular make/model. For example:

- Replacing the front drum brakes with a disc brake system where the system was originally available as an option for the vehicle.

Engineer certified modifications

These include all modifications to braking systems which were not options available from the original manufacturer for the particular make/model. Examples are:

- Replacing the front drum brakes with a disc brake system (not a manufacturer's option);
- Conversion from a front disc/rear drum brake system to a four wheel disc brake system;
- The installation of brake management systems such as ABS;
- The fitting of dual braking controls;
- Conversions from left hand drive to right hand drive (Note that these conversions must also meet the requirements of 'Vehicle Standards Bulletin No. 4' issued by DOTARS).

Applicable Australian Design Rules (ADRs)

The Australian Design Rules which are most likely to be affected by a braking system modification are:

ADR 7/--, ADR 31/--, ADR 33/--, ADR 35/--

As part of the function of stop lamps, the following ADRs might also be indirectly affected:

ADR 13/--, ADR 60/--



Brakes

Rule 311

Modified light vehicles

311.01 Visually inspect the brakes on the vehicle

Note: An engineering certificate must be provided for any modification beyond the owner certified level (see Rules 302, 303).

Reasons for rejection

Brakes general

- a) An engineering certificate is not supplied for an engineer certified modification.
- b) Brake components do not clear other vehicle components such as suspension members and chassis members over the full envelope of steering and suspension travel.



Steering

Rule 312

Modified light vehicles

General information

Modifications which directly affect the steering system

Generally, the fitting of any component of a steering system which was not of the same design as that fitted by the original vehicle manufacturer will affect the steering system.

Examples are as follows:

- Replacement of the chassis mounted steering box and linkage with a rack and pinion steering gear;
- Replacement of the existing steering system with a similar system of increased load capacity;
- Conversion from manual to power steering;
- Conversions from left hand drive to right hand drive (where conversions from left hand drive to right hand drive are involved they must meet the requirements of 'Vehicle Standards Bulletin No. 4' issued by the Federal Office of Road Safety);
- Changing the steering ratio or lock angles;
- Changing the steering column;
- Minor changes to steering components to accommodate changes to other vehicle systems - e.g. fitment of a different engine.

Owner certified modifications

These are limited to the fitting of steering assemblies which were options available from the original manufacturer for the particular make/model e.g. fitting power assisted steering.

Engineer certified modifications

These include all modifications to steering components, systems or installations which were not options available from the original manufacturer for the particular make/model.



Steering

Rule 312

Modified light vehicles

Applicable Australian Design Rules (ADRs)

The Australian Design Rules which are most likely to be affected by a steering system modification is:

ADR 10/--, ADR 69/--, ADR 72/--

Where steering columns are altered or relocated as in left hand drive to right hand drive conversions, the following ADRs may also be indirectly affected:

ADR 12/--, ADR 15/--, ADR 18/--, ADR 21/--, ADR 43/--

312.01 Visually inspect the steering on the vehicle

Note: An engineering certificate must be provided for any modification beyond the owner certified level (see Rules 302, 303).

Reasons for rejection

- a) An engineering certificate is not supplied for an engineer certified modification;
- b) Vehicle is fitted with left hand drive steering unless approved by TAMS in that configuration;
- c) The steering column is not securely fixed to the vehicle.



Suspension

Rule 313

Modified light vehicles

General information

Owner certified modifications

These are modifications which do not affect the basic geometry or load carrying members of the suspension. Examples are:

- Additional or uprated stabiliser bars;
- Uprated shock absorbers and/or springs;
- Reduction in vehicle ride height by no more than one third of the manufacturer's original suspension travel;
- Fitting of suspension assemblies which were options from the original manufacturer for the particular make/model.

Engineer certified modifications

These are modifications to suspension components, systems or installations which affect the major load carrying components of the suspension and which were not options available from the original manufacturer for that particular make/model.

Examples are:

- Replacement of the original suspension (front or rear) with a system of a different design e.g. from another make or model of vehicle;
- Changes to suspension components such as changing the front cross member to accommodate an engine change;
- Substantially altering the mass of the vehicle.

Applicable Australian Design Rules (ADRs)

While no ADR is involved directly with suspension systems, the following are examples of ADRs which may be affected indirectly by a suspension modification:

ADR 7/--, ADR 13/--, ADR 14/--, ADR 31/--, ADR 43/--



Suspension

Rule 313

Modified light vehicles

313.01 Visually inspect the suspension on the vehicle

Note: An engineering certificate must be provided for any modification beyond the owner certified level (see Rules 302, 303).

Reasons for rejection

- a) An engineering certificate is not supplied for an engineer certified modification;
- b) Any bump rubber is shortened or missing;
- c) Ground clearance is less than 100mm;
- d) The distance from the ground to the bottom of the low beam headlamp lens is less than 500mm for a vehicle built to comply with ADR 13/--;
- e) The distance from the ground to the bottom of the lens of the indicator light is less than 350mm.



Wheels and tyres

Rule 314

Modified light vehicles

General information

When wheels and tyres outside the manufacturers recommended range are fitted to a vehicle the following requirements must be met:

Wheels

- The rim width must not be less than the minimum width fitted by the vehicle manufacturer for the particular model;
- The wheel (and tyre) must be contained within the body work, or mudguards, which includes 'flares' when the wheels are in the straight ahead position;
- The wheel (and tyre) must not foul any part of the body or suspension under any operating conditions;
- The wheel and tyre combination must be in accordance with the tyre and rim standards published by the *Tyre and Rim Association of Australia*;
- The wheel must be one designed for the particular hub/axle in respect to bolt pitch circle diameter and wheel nut tapers. Wheels with slotted stud holes are not permitted;
- Where the original axle components for the vehicle are retained, the wheel track must not be increased by more than 26mm beyond the maximum specified by the vehicle manufacturer of the particular model. In the case of four wheel drive vehicles built for off road use the wheel track must not be increased by more than 50 mm beyond the maximum specified by the vehicle manufacturer for that particular model;
- The overall diameter of a combination shall not be greater than 15mm larger than the largest diameter combination specified by the vehicle manufacturer for that particular model;
- The overall diameter of a combination shall not be more than 26mm less than the smallest diameter combination specified by the vehicle manufacturer for that particular model;
- All rims fitted to 'an axle' must be of the same diameter, offset, width and mounting configuration (except for spare wheels used in an emergency situation);



Wheels and tyres

Rule 314

Modified light vehicles

- No wheel shall be fitted to a vehicle manufactured on or after 1 July 1985 which is not approved as original equipment replacement by the motor vehicle manufacturer, or is indelibly marked with the wheels nominal diameter and width, offset, and mark of a standard of an approved organisation in a location so that they are readily visible when the wheel is correctly installed on the vehicle;
- The wheel must not prevent the wheel nuts from fully engaging their studs;
- The rim must not have a circumferential weld other than that which attaches the rim to the wheel centre;
- Speedometer accuracy must be maintained for the selected tyre and rim combination;
- The fitment of wheel spacers (or adaptors for dual wheel conversions) between the wheel mounting face and the road wheel is not permitted unless fitted as original equipment by the vehicle manufacturer.

Tyres

A motor vehicle which is required to comply with ADR 24 (1/1/73), 'Tyre selection' may be equipped with tyres other than those listed on the tyre placard provided that:

- The load rating of the tyres is not less than the lowest load rating listed on the tyre placard; and
For modified vehicles where the modification results in additional tare weight, have a load rating suitable for the weight of the modified vehicle;
- The maximum tyre width shall not be more than 30% larger than the vehicle manufacturers largest optional tyre for that particular model except for four wheel drive vehicles constructed for use off roads in which case the maximum tyre width shall not be more than 50% larger than the manufacturers largest optional tyre width (where a tyre placard is fitted, the manufacturers largest optional tyre width shall be the largest width indicated on the placard);



Wheels and tyres

Rule 314

Modified light vehicles

- A tyre fitted to a motor vehicle built after 1972 with a GVM not exceeding 4.5 tonnes and with four or more wheels must be rated by the manufacturer of the tyre as suitable for road use if:
 - a) Fitted to a vehicle not built for off road use - a speed of at least 180 km/h or the vehicle's top speed if less than 180 km/h;
 - b) Fitted to a vehicle built to be used off road - a speed of at least 140 km/h or the vehicle's top speed if less than 140 km/h; or
 - c) If fitted to any other vehicle - a speed of at least 120 km/h or the vehicle's top speed if less than 120 km/h;
- Retreaded tyres fitted to a passenger car, passenger car derivative, forward control passenger vehicle or a multi purpose passenger car shall have been retreaded and marked in accordance with, 'Australian Standard AS1973 - Retreaded Pneumatic Passenger Car Tyres'.

Owner certified modifications

These are limited to:

- The fitting of wheels and tyres listed on the tyre and rim placard (or other approved placard fitted by a tyre/rim dealer); or
- As detailed above.

Engineer certified modifications

More significant alterations to wheels and tyres beyond those specified under the owner certified category may be acceptable for certain vehicle types but will require an engineering certificate.

Applicable Australian Design Rules (ADRs)

Australian Design Rules which are applicable to light vehicle wheels and tyres are:

ADR 23/--, ADR 24/--, ADR 42/-- & 43/--

314.01 Visually inspect the wheels & tyres on the vehicle



Wheels and tyres

Rule 314

Modified light vehicles

Note: An engineering certificate must be provided for any modification beyond the owner certified level (see Rules 302, 303).

Reasons for rejection

- a) An engineering certificate is not supplied for an engineer certified modification.
- b) Rim width is less than the minimum width fitted by the vehicle manufacturer.
- c) Rims with slotted stud holes are fitted.
- d) Wheel spacers (or adaptors for dual wheel conversions) are fitted between the wheel mounting face and the road wheel and they are not the vehicle manufacturer's original equipment for the model.



Body

Rule 315

Modified light vehicles

General information

Owner certified modifications

These are limited to modifications which do not affect the structural capacity of the body or compliance with any ADRs applicable to the body. Allowable modifications are:

- Minor customising of body panels to fit alternative lights on an early model vehicle;
- Replacement of a steel bolt-on mudguard on a pre-ADR 10 vehicle with a fibreglass mudguard;
- The fitting of proprietary sunroofs by an approved installer;
- Bonnet scoops within the limits shown at the end of this section.

Engineer certified modifications

These include all body modifications which involve a structural change to the body or affect ADR compliance, including the fitting of replacement body structures (rebodied vehicles) and the construction of one-off (individually constructed) bodies. Examples are:

- Convertible body conversions;
- Limousine conversions;
- Panel van to utility body conversions;
- Extended cabins with additional seating ('dual cabs');
- 'Tilt front' conversions to pre-ADR 10 vehicles;
- Individually designed roof alterations including the fitting of a sunroof;
- Replacement fibreglass body panels where the original panels were welded on but where the structural body members remain as original;
- 'Wheel tubs'.



Body

Rule 315

Modified light vehicles

Rebodied vehicles

- A new fibreglass body fitted to an early model Volkswagen chassis/floorpan and fitted with a 1975 Subaru engine;
- A 1980 model Holden station wagon body fitted to a 1970 model Toyota 4WD chassis retaining the original 1970 Toyota engine;
- A 1970 model body fitted to a 1980 model chassis.

Applicable Australian Design Rules (ADRs)

The Australian Design Rules likely to be affected by body modifications are:

ADR 2/--, 4/--, 5/--, 8/--, 10/--, 11/--, 14/--, 15/--, 16/--, 29/--, 42/--, 43/--, 44/--, 61/--, 69/--, 72/--

Plus the lighting ADRs: ADR 1/--, 6/--, 13/--, 19/--, 45/--, 46/--, 47/--, 48/--, 49/--, 50/--, 52/--, 53/--, 54/--, 55/--, 60/--

Other ADRs likely to be affected in the case of a re-bodied vehicle are as follows and include some ADRs which body modifications can indirectly affect: ADR 3/--, 12/--, 18/--, 21/--, 22/--, 25/--

315.01 Visually inspect the body of the vehicle

Note: An engineering certificate must be provided for any modification beyond the owner certified level (see Rules 302, 303).

Reasons for rejection

- An engineering certificate is not supplied for an engineer certified modification;
- The body exceeds the dimension limits given in Appendix H;

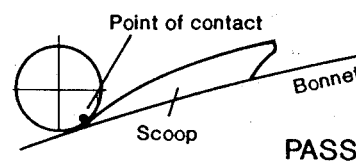
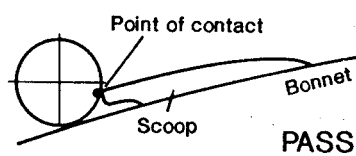
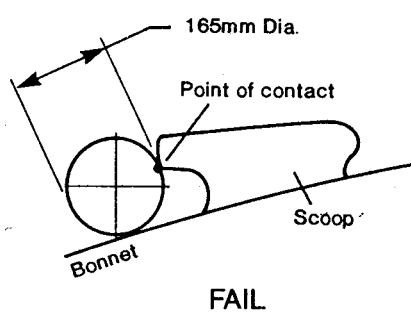
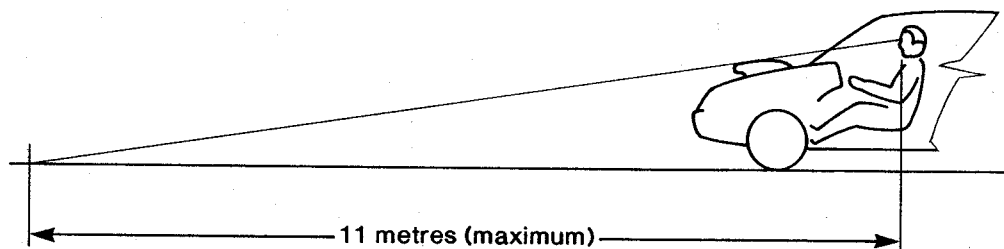


Body

Rule 315

Modified light vehicles

- c) Panels, joints or covers separating the occupant space from the engine are not effectively sealed to prevent the entry of exhaust gases;
- d) The sunroof is other than a proprietary brand. (Engineering certificate required);
- e) A vehicle fitted with a gas stove/fridge (where the installation is not removable without the use of tools) does not have a gas plate fitted by a licensed gas fitter;
- f) Any bonnet scoop prevents the range of vision shown in the diagram below or has projections where the foremost contact point would be above the centre line of a 165mm diameter sphere as shown below.



Structure

Rule 316

Modified light vehicles

General information

Any modification or repair to a chassis frame, sub-frame, cross member or body shell (in the case of mono construction) must be performed in accordance with established engineering practice.

Owner certified modifications

In some cases it may have been necessary to remove small sections of floorpan (or body panel). This type of modification may be carried out, provided the component in question is reinforced to make up for the reduction in strength which results. For instance, any hole that is cut should be edge-stiffened by reinforcing plates.

Any hole cut in a floor (or body) panel must be sealed against the entry of exhaust fumes and must not make it possible for the driver or passenger to contact moving parts.

Engineer certified modifications

These include any modifications to the structure beyond those described above. Examples are:

- Chassis reinforcing (e.g. by boxing the chassis or fitting additional '3/4' chassis/body reinforcing kits);
- Wheelbase alterations (chassis extensions/reductions) to light trucks, commercials and 4WD's).

Applicable Australian Design Rules (ADRs)

ADR 42/--, 72/--



Structure

Rule 316

Modified light vehicles

316.01 Visually inspect the structure of the vehicle

Note: An engineering certificate must be provided for any modification beyond the owner certified level (see Rules 302, 303).

Reasons for rejection

- a) An engineering certificate is not supplied for an engineer certified modification.



Seats and seat belts

Rule 317

Modified light vehicles

General information

Owner certified modifications

These are limited to the fitting of seats and/or seat belts and/or their anchorages and/or other interior vehicle fittings (which are likely to be contacted by occupants in a collision) which were options available from the original manufacturer for the particular make/model.

For example, fitting of bucket seats to replace a bench seat in the case where anchorages are provided for the bucket seats and these seats were an option for the vehicle.

Vehicle Standards Bulletin No. 5 modifications 'Manufacture of Additional Seats'

A design check is not required when a vehicle is modified to Vehicle Standards Bulletin No. 5 and affixed with labels which carry statements of compliance to both the seat manufacture and seat installation. Refer to 'Vehicle Inspectors Bulletin No. 02 'Installation of Additional Seats in Vehicles'.

Engineer certified modifications

These include all modifications to such components and systems which were not options available from the original manufacturer for the particular make/model. For example:

- Fitment of replacement or additional seats;
- Modifications to seats or seat belt installations;
- Modifications to a vehicle structure which affect the strength or location of seats and seat belt anchorages, for example:
 - Convertible conversions;
 - Panel van to utility body conversions;
- Change in seating capacity on small buses i.e.: reduction, resulting in re-classification of the vehicle or increase, resulting in certification of the additional seating;



Seats and seat belts

Rule 317

Modified light vehicles

- Modifications which are likely to affect head impact areas of the cabin, for example:
 - Dash panel modifications;
 - Roll bars.

For further information on the above refer to Vehicle Standards Bulletin No. 5 'Manufacture of Additional Seats'.

Applicable ADRs

The Australian Design Rules which may be affected during a seat, seat belt, anchorage, or other occupant protection system modification are:

ADR 3/--, 4/--, 5/--, 10/--, 11/--, 14/--, 21/--, 22/--, 34/--, 42/--, 69/00, 72/--

317.01 Visually inspect the seats and seat belts on the vehicle

Note: An engineering certificate must be provided for any modification beyond the owner certified level (see Rules 302, 303).

Reasons for rejection

- a) An engineering certificate is not supplied for an engineer certified modification.
- b) Seat belts are not fitted to all seating positions of a passenger car or passenger car derivative (lap/sash outer and lap belts centre) from Jan 1971.
- c) Retractable seat belts in a passenger car or passenger car derivative are not fitted to front outer seat positions from Jan 1975 (ADR 4). Retractable seat belts are not fitted to rear outer seat positions in a passenger car or passenger car derivative manufactured from Jan 1984 (ADR 4).



Lighting

Rule 318

Modified light vehicles

General information

Owner certified modifications

These are limited to modifications which do not affect compliance with the Regulations or any applicable ADRs. Allowable modifications are those which remain within the parameters set out in the Lighting summary in Appendix G. These include:

- The fitting of additional driving lights, fog lights, or beacon lights;
- An increase in the number of lights up to the maximum permissible;
- Relocation of the lights within dimensional limits;
- The fitting of replacement lights of a specification known to comply with the applicable lighting ADRs for that year model.

Engineer certified modifications

Modifications to lighting beyond the owner certified level should be rejected and the owner asked to rectify the anomalies prior to registration. Persons wishing to build an individually constructed vehicle will be required to comply with all current applicable ADRs and MTRs, and would be well advised to consult an engineering signatory with regard to those standards prior to manufacture.

Applicable Australian Design Rules (ADRs)

The Australian Design Rules which may be affected during lighting modifications are:
ADR 1/--, 6/--, 13/--, 45/--, 46/--, 47/--, 48/--, 49/--, 50/--, 51/--, 52/--, 60/--



Lighting

Rule 318

Modified light vehicles

318.01 Visually inspect the lighting on the vehicle

Reasons for rejection

- a) Headlight height is less than 500mm to the underside of the low-beam headlights.
- b) Any clearance light mounted on an external rear vision mirror or it's support is likely to shine into the driver's eyes in the normal driving position.
- c) Optional headlights (except fog lights) are wired to be on with the normal headlights on low beam.
- d) Rotating beacons or flashing warning lights are fitted to any special purpose vehicle other than those listed below or on vehicles specifically approved by TAMS:
 - i) RED: Ambulance, fire fighting, mines rescue and Red Cross urgent blood delivery vehicles.
 - ii) BLUE/RED: Police, ambulance, fire fighting vehicles.
 - iii) AMBER: Public utility vehicles, tow trucks, motor breakdown service trucks, street vending vans, escort vehicles.
 - iv) MAGENTA: Inspector Vehicle Regulation enforcement vehicles.



Engines

Rule 319

Modified light vehicles

General information

Modifications to original engine

There is no restriction on normal engine reconditioning such as reboring the cylinders, providing the reconditioning is kept within the manufacturers recommended limits. However, where noise and/or exhaust emission ADRs apply, all standard equipment (such as carburettors, exhaust systems, exhaust gas recirculating valves, oxygen sensors, catalytic converters etc), relating to noise and emission control need to be retained and operate correctly. Any replacement parts should be of a standard equivalent to the original equipment.

Replacement engines

Owner certified modifications

These include passenger car and passenger car derivatives having replacement engines with less than a 15% engine capacity increase over that of the largest optional engine for the vehicle. They can be treated as owner certified providing no modifications are made affecting any part of the vehicle necessary in maintaining its safety or controllability. To fit within the 15% increase limit the engine must be of the same 'family' or level of technology as the replaced engine.

Engine conversions can also be treated as owner certified if the engine or modification is an original manufacturers model option for the vehicle however, any other components (such as brakes, transmissions, suspension exhaust etc) which were packaged by the manufacturer as part of the original specification for the replacement engine must also be fitted.

Engineer certified modifications

These include :

- Any light vehicle replacement engine with a capacity increase of 15% or more over the largest optional engine for that vehicle;
- Engine conversions where the whole package has not been installed;



Engines

Rule 319

Modified light vehicles

Applicable Australian Design Rules (ADRs)

The Australian Design Rules most likely to be affected by engine changes or modifications are:

ADR 1/--, 10/--, 26/--, 27/--, 27ABC/--, 28/--, 37/--, 41/--, 42/--

319.01 Visually inspect the engine in the vehicle

Note: An engineering certificate must be provided for any modification beyond the owner certified level (see Rules 302, 303).

Reasons for rejection

- a) An engineering certificate is not supplied for an engineer certified modification.
- b) For an owner certified engine replacement in a vehicle subject to an emissions related ADR, the replacement engine is not at least the equivalent to the year model of the vehicle and has all relevant emission control equipment fitted.
- c) Where any emission control related ADR applies, emission control equipment is missing or disconnected.
- d) Engine mounting brackets and fastenings are loose, or cracked.
- e) Engine emitting excessive smoke for 10 seconds continually at or near the discharge end of the exhaust pipe.



Transmission and driveline

Rule 320

Modified light vehicles

General information

Replacement gearbox and driveline components should have adequate torque capacity for the output of the vehicle's engine.

The fitting of a replacement gearbox must not require removal or weakening of subframes, chassis, crossmembers or body members. Modified parts must maintain the strength and integrity of the original design.

Any openings into the floor panel necessary for the gear shift control must be adequately sealed to prevent ingress of exhaust gases into the vehicle cabin.

Owner certified modifications

These include the fitting of assemblies which were options available from the original manufacturer for the particular make/model, or which can be adapted from other vehicle models without major modifications.

Engineer certified modifications

These are modifications involving the fabrication of components or the modification of components which were not options available for the particular make/model. Examples are:

- Modifications to subframes, chassis, crossmembers or floorpan;
- Replacement of a torque tube type driveline with a conventional gearbox, driveshaft and drive axle from another vehicle;
- Replacement of a rear axle and differential assembly from a different make or model vehicle involving fabrication of brackets, spring seats etc.

Applicable ADRs

The Australian Design Rules which might be affected by a transmission or driveline modification are as follows:

ADR 1/--, 18/--, 24/--, 42/--



Transmission and driveline

Rule 320

Modified light vehicles

320.01 Visually inspect the transmission and driveline on the vehicle

Note: An engineering certificate must be provided for any modification beyond the owner certified level (see Rules 302, 303).

Reasons for rejection

- a) An engineering certificate is not supplied for an engineer certified modification.
- b) Any opening in the floor panel or bulkhead is not sealed to prevent exhaust gases entering into the vehicle cabin.
- c) Where ADR 1 applies any reversing light is inoperative when the ignition is on and reverse gear is selected.



Exhaust

Rule 321

Modified light vehicles

General information

When vehicles are fitted with modified or non standard exhaust components the noise level created must not exceed the allowable levels described in Rules 107 and 147.

Where a vehicle upon inspection is found to be excessively noisy the Authorised Examiner must require the owner to have the exhaust repaired.

Owner certified modifications

These include any replacement exhaust systems which are options available for that particular make/model.

Extractors (headers) may be fitted to ADR 37 vehicles provided that all emission control equipment such as, catalytic converter, and EGR valve is re-connected to the extractors (headers) and operates in the specified manner.

Engineer certified modifications

Any replacement system or componentry outside of the above guidelines will require an engineering certificate.

321.01 Visually inspect the exhaust system on the vehicle

Note: An engineering certificate must be provided for any modification beyond the owner certified level (see Rules 302, 303).

Reasons for rejection

- a) An engineering certificate is not supplied for an engineer certified modification.
- b) Emission control equipment has been removed or disconnected.
- c) Any catalytic converter has been removed from the exhaust system (ADR 37).



Vehicles manufactured

for the

Australian market

New locally marketed vehicles	Rule 331
Previously registered vehicles	Rule 332
Low volume manufacture	Rule 333

Locally marketed vehicles

Rule 331

Locally marketed vehicles

General information about new vehicles not covered under the AIS scheme

Vehicles purchased from motor dealers who do not hold Authorised New Vehicle approval will require a Certificate of Inspection for registration purposes. Where these are unmodified production vehicles they require only an Identity and a Inspection to be performed, however where a vehicle appraisal reveals aspects of modification beyond the owner certified level then a Design Check must be carried out and the owner may be required to produce an engineering certificate for the modifications. The inspection will then be conducted in accordance with the procedure given for engineer certified modifications.

These modifications may be of the type described below, where a body has been added to a certified cab and chassis. They do not normally require an engineering certificate and are inspected as described.

Aftermarket body additions

Where a certified cab and chassis has had additions, such as a table top, or new vehicle data does not exist for the finished vehicle, it will require a weighbridge ticket to determine the tare weight. These vehicles will normally carry either a full or low volume compliance plate for completed vehicles which comply with all applicable Australian Design Rules (ADRs) at the date of original manufacture. Any body additions will require a Design Check to ensure that the vehicle continues to comply with lighting requirements, dimensional limits, and any other previously satisfied ADRs affected by the additions.

Body additions involving modification to the chassis will require an engineering certificate and these vehicles should be treated in accordance with the Rules under the section 'Modified vehicles'.



Locally marketed vehicles

Rule 331

Locally marketed vehicles

331.01 Visually inspect the vehicle

In conjunction with the normal inspection procedure:

- 1) request a weighbridge ticket where no new vehicle data sheet is available for that vehicle;
- 2) where the vehicle is a certified cab and chassis, review the reasons for rejection in this section, entering any which are applicable in the Certificate of Inspection comments box;
- 3) appraise the vehicle and in particular the chassis to ensure that it has not been modified. Where the chassis has been modified request an engineering certificate and refer to the 'Modified vehicle' section.

Reasons for rejection

In relation to aftermarket body additions

- a) A weighbridge ticket is not available;
- b) The vehicle does not carry a full volume (silver) or a low volume (green) compliance plate for a completed vehicle;
- c) The vehicle exceeds the dimensional limits given in Appendix H;
- d) The lighting locations and lights are not in accordance with the Rules;
- e) The body is not permanently secured;
- f) Any part of the number plate will be more than 1300mm from the ground;
- g) A vehicle with a tray type body which exceeds 2.2m in width does not show white or silver mudguards to the rear and carry a white or silver reflective strip (min 75mm deep) across the rear;
- h) A vehicle with a tray type body which exceeds 2.2m in width does not have mudguards which are at least 380mm wide;
- i) The bottom edge of mudguard and/or mudflap at the rear of any vehicle is higher off the ground than 1/3 of the horizontal distance between the centre of the axle and the mudguard. (However, this height need not be less than 230mm, or 300mm for tipper type vehicles. From 1st Jan 1993 (ADR 42) 300mm also applies to off-road vehicles).



Previously registered vehicles Rule 332

Locally marketed vehicles

Previously registered in the ACT

Vehicles which have been previously registered in the ACT but where registration has been allowed to lapse by up to twelve months may have their registration renewed through any motor registry provided the owner can produce documentary evidence of the previous registration or that previous registration can be confirmed by the TRIPS database.

Vehicles which have been previously registered in the ACT but where registration has been allowed to lapse for more than twelve months must undergo an unregistered vehicle inspection and obtain a Certificate of Inspection prior to re-registration.

Where these vehicles are found upon inspection **not** to have a compliance plate or a vehicle import plate fitted and they are not a commercial make and model built in Australia for the Australian market, this must be indicated in the appropriate field on the Certificate of Inspection.

Previously registered interstate

In general vehicles may remain in the ACT for up to three months whilst registered in another State or the Northern Territory. After this time their registration must be transferred to the ACT.



Previously registered vehicles Rule 332

Locally marketed vehicles

Vehicles with no compliance plate

Where the vehicle is an interstate vehicle, has no compliance plate fitted and its date of manufacture is later than 1 August 1972 it may only be registered in the ACT if:

- a) The vehicle is a commercial make and model that is made in Australia for the Australian market;
- b) The vehicle has been previously registered in the ACT;
- c) It is a vehicle which has been registered in another State or the Northern Territory for at least two years; or
- d) The requirements for personally imported vehicles were satisfied at the time of registration in another State or the Northern Territory.

Owners of vehicles in category c) must produce documentary evidence (such as an expired certificate of registration or letter from the registering authority) of previous registration in Australia for at least two years. Owners of vehicles in category d) where the period of registration is less than two years, must produce documentary evidence of previous registration in Australia under the personal import scheme.

Interstate vehicles manufactured prior to 1 August 1972 will have no compliance plate and provided they remain unmodified require only a Certificate of Inspection.

Where these vehicles are found upon inspection **not** to have a compliance plate or a vehicle import plate fitted and they are not a commercial make and model built in Australia for the Australian market, this must be indicated on the Certificate of Inspection and if:

- a) The evidence outlined above is available, copies must be attached to the Certificate of inspection. Provided all other requirements for registration are satisfied, the vehicle may be passed for registration; or
- b) The evidence outlined above is **not** available, the vehicle is to be **failed**.



Previously registered vehicles **Rule 332**

Locally marketed vehicles

332.01 Visually inspect the vehicle

In conjunction with the normal inspection procedure:

- 1) Determine whether the vehicle is modified beyond the owner certified level. Where modifications are found, review the reasons for rejection entering any which are applicable in the Certificate of Inspection comments box. Request an engineering certificate for any modifications beyond the owner certified level;
- 2) Request a weighbridge ticket where the weight is not available from a new vehicle data sheet;
- 3) Measure the wheelbase and record this on the Certificate of Inspection.

Reasons for rejection

- a) A vehicle without a compliance plate has not been previously registered in the ACT or:
 - i) It has not been registered in another State or the Northern Territory for at least two years; or
 - ii) It is not a production make and model made for the Australian market; or
 - iii) It is not subject to imported vehicle requirements (Rule 341).
- b) There exists any engineer certified level of modification not covered by an engineering certificate.



Low volume manufacture

Rule 333

General information

The federal Office of Road Safety provides as a concession, alternative methods of demonstrating compliance with certain Australian Design Rules (ADRs) for low volume vehicle manufacturers. These are manufacturers producing up to 25 or 100 vehicles per year:

- Motorcycles and mopeds;
- Passenger cars;
- Forward control passenger vehicles;
- Off-road passenger vehicles;
- Buses up to 3.5 tonne GVM, up to 12 seats;
- Buses over 3.5 tonnes GVM, over 12 seats;
- Goods vehicles up to 4.5 tonnes GVM;
- Goods vehicles over 4.5 tonne GVM.

Vehicles within one of the above categories with different means of motive power (e.g. electric) are aggregated into a separate low volume category. Vehicles currently marketed in Australia or marketed within the last 12 months, in normal volume are not eligible for low volume approval.

Imported vehicles

The (Cwlth) Motor Vehicle Standards Act 1989, which came into effect on 1 August 1989, makes it an offence to import a new or second hand vehicle unless:

- a) It meets the safety and emission standards applying to vehicles to be used on Australian roads (the ADRs) and has a valid Australian compliance plate fitted; or
- b) Arrangements are in place, by way of a written agreement, for an organisation holding compliance plate approval from DOTARS, to modify the vehicle to meet the ADRs and to fit a compliance plate after its arrival in Australia.



Low volume manufacture

Rule 333

Compliance plates can only be fitted with the approval of the DOTARS.

Approval is usually held by the vehicle manufacturer, importer or approved modifier, and is granted when that person provides evidence that the vehicle has been tested and meets all of the necessary design requirements.

Low volume procedures are available to approved modifiers of imported vehicles where the modified vehicle is intended to be marketed in quantities of no more than 25 vehicles per year.

Inspection certificates (0-4-5 Certificates)

An 0-4-5 Certificate is a certificate prepared by a registered consulting engineering signatory specifying that a vehicle has been modified in accordance with the Compliance Plate Approval and meets the applicable ADRs.

Note: Only used, low volume vehicles require an 0-4-5 certificate.

Each subsequent vehicle manufactured in accordance with the compliance plate approval must be supplied with an inspection certificate which:

- Identifies the vehicle;
- Gives a brief description of each modification undertaken to ensure compliance with a specified ADR;
- Has been signed by the manufacturer's certifying officer stating that the information provided is correct;
- Has been endorsed by an engineering signatory who verifies that the vehicle complies with ADR requirements.

A copy of the Low Volume Inspection Certificate, which is **not** required to be numbered, must accompany the Certificate of Inspection.



Low volume manufacture

Rule 333

333.01 Visually inspect the vehicle

In conjunction with the normal inspection undertake the following:

- 1) Undertake the vehicle Identity Check and ensure that the compliance plate is green in colour and that the number matches the low volume inspection certificate;
- 2) Telephone the VITU on (02) 6207 7018 or 6207 7236 to ensure that low volume compliance plate approval is current for the vehicle type;
- 3) Conduct a full inspection listing all modifications beyond the owner certified level;
- 4) Review the low volume inspection certificate for adequacy, it must list the scope of any modifications, the ADRs affected and confirm compliance with those ADRs;
- 5) Review the reasons for rejection entering any which are applicable in the Certificate of Inspection comments box;
- 6) In the case of an imported vehicle refer to that section, and review the relevant reasons for rejection, noting any which are applicable in the Certificate of Inspection comments box;
- 7) Where the vehicle configuration is other than that described on the new vehicle data sheet, request a weighbridge ticket.

Reasons for rejection

- a) A low volume inspection certificate is not available;
- b) VITU advise that compliance plate approval is not current or not for that vehicle type;
- c) The low volume inspection certificate does not carry the same number as the compliance plate;
- d) The compliance plate is not green in colour or authentic;
- e) The inspection certificate has not been signed by the certifying officer and endorsed by an engineering signatory;
- f) The certificate does not list all of the modifications undertaken to the vehicle in the engineering signatory certified category.



Imported vehicles

General requirements for imported vehicles	Rule 341
Personally imported vehicles	Rule 342
General imports less than 15 years old	Rule 343
General imports more than 15 years old	Rule 344
Pre-August 1972 imports	Rule 345

Low volume manufacture

Rule 333

333.01 Visually inspect the vehicle

In conjunction with the normal inspection undertake the following:

- 1) Undertake the vehicle Identity Check and ensure that the compliance plate is green in colour and that the number matches the low volume inspection certificate;
- 2) Telephone the VITU on (02) 6207 7018 or 6207 7236 to ensure that low volume compliance plate approval is current for the vehicle type;
- 3) Conduct a full inspection listing all modifications beyond the owner certified level;
- 4) Review the low volume inspection certificate for adequacy, it must list the scope of any modifications, the ADRs affected and confirm compliance with those ADRs;
- 5) Review the reasons for rejection entering any which are applicable in the Certificate of Inspection comments box;
- 6) In the case of an imported vehicle refer to that section, and review the relevant reasons for rejection, noting any which are applicable in the Certificate of Inspection comments box;
- 7) Where the vehicle configuration is other than that described on the new vehicle data sheet, request a weighbridge ticket.

Reasons for rejection

- a) A low volume inspection certificate is not available;
- b) VITU advise that compliance plate approval is not current or not for that vehicle type;
- c) The low volume inspection certificate does not carry the same number as the compliance plate;
- d) The compliance plate is not green in colour or authentic;
- e) The inspection certificate has not been signed by the certifying officer and endorsed by an engineering signatory;
- f) The certificate does not list all of the modifications undertaken to the vehicle in the engineering signatory certified category.



General requirements for imported vehicles

Rule 341

Imported vehicles

Vehicle import approval

Any vehicle imported into Australia after 1 August 1989, must have a *Vehicle Import Approval* (VIA) form. It is the owners responsibility to ensure prior to importation that the vehicle will be allowed into Australia. Otherwise the owner may be required to export or scrap the vehicle, or be penalised with a fine of up to \$12,000. An example of a vehicle import approval appears at the end of this Rule.

Minimum ACT design standards

Any vehicle imported into Australia for registration in the ACT which does not carry an Australian compliance plate requires certification for compliance with design standards.

Imported vehicles are classified into three categories:

- Personally imported vehicles;
- General import vehicles less than 15 years old;
- Imported vehicles more than 15 years old.

Import plates

These are required for all personally imported vehicles landed in Australia after 1/8/89.



General requirements for imported vehicles

Rule 341

Imported vehicles

Before applying for a personal import plate the vehicle must be brought to acceptable standards. It must be inspected and the statement of compliance on the vehicle import approval signed in triplicate by an Authorised Examiner or an engineering signatory. The top copy must then be faxed to VITU on (02) 6207 7007 for verification and issue of 'VIN' number, where the vehicle does not have a 17 character VIN. The client will also need to attend the VITU counter to have the approval for manufacture of a PI plate completed.

Instructions for correct fitting are forwarded with the plate. The vehicle cannot be registered until the plate has been fitted and the vehicle re-inspected by an Authorised Examiner.

341.01 Visually inspect the vehicle.

Reasons for rejection

- a) The vehicle is not right hand drive;
- b) An engineering certificate is required but not available;
- c) Lap/sash seat belts are not fitted to all front outer seats of passenger cars, wagons, utilities and panel vans, 1 Jan 1971 or later;
- d) Lap/sash seat belts are not fitted to all front outer seats of light goods vehicles or four wheel drives, 1 Jan 1971 or later;
- e) There is no lap belt for the centre front passenger seat, 1 Jan 1971 or later;
- f) There is no lap belt for the centre rear passenger seat, Jan 1971 or later;
- g) There are no lap/sash seat belts fitted to rear outer seats of all vehicles, Jan 1971 or later.
- h) Seat belts don't bear approved markings:
 - i) Standard Association of Australia;
 - ii) British Standards Institution;
 - iii) ECE Regulation No. 16;
 - iv) EEC Directive 77/541;
 - v) Manufacturer's name, date and number.



General requirements for imported vehicles

Rule 341

Imported vehicles

- i) All rear seats do not carry child restraint anchorages, Jan 1976 or later;
- j) All glazing used in the vehicle's, windscreen, windows and internal partitions are not approved safety glass with an appropriate identifying mark such as: LP, LS, LF, TP, TS, TF, WHP, ASI, AS2, or AS2080;
- k) Drivers side rear vision mirrors are convex over their entire surface or a combination mirror does not have 150cm² of flat surface;
- l) The front outer seats do not carry head restraints (from Jan 1972);
- m) The head restraints are of the 'clip-on' type;
- n) A weighbridge ticket is not available for vehicles not manufactured in Australia in full volume;
- o) Vehicle dimensions exceed those given in Appendix H;
- p) Lighting is not in accordance with the rules.



Personally imported vehicles

Rule 342

Imported vehicles

General information

To be eligible for a personal import the owner of the vehicle must:

- Be an Australian citizen or a migrant holding permanent residency in Australia; and
- Have not personally imported another vehicle under the personal import concession in the previous 12 months;
- Have owned and used the vehicle overseas for a continuous period of at least 3 months.

Approval to Personally Import a vehicle is provided by the DOTARS and applicants must satisfy all conditions and requirements of the DOTARS.

Note: Visitors, temporary residents, companies and corporations are not eligible to import a vehicle under the personal import scheme.

Compliance plate concession

The personal import scheme is a concession for migrants and residents returning to Australia from a long term overseas visit. Provided they meet the above criteria their imported vehicle is exempt from carrying a compliance plate. It must however meet the minimum design standards listed under Rule 341. The following table summarises the registration steps for personally imported vehicles.

DATE OF IMPORTATION	REGISTRATION STEPS	REQMT
POST 1/8/89	Vehicle import approval (in triplicate) Steering conversion certificate (as reqd.) Identity Check Safety Check Design Check (reasons for rejection) Personal import plate (yellow)	Yes Eng.Signat Auth.Exam Auth.Exam Auth.Exam Yes



Personally imported vehicles Rule 342

Imported vehicles

DATE OF IMPORTATION	REGISTRATION STEPS	REQMT
PRE 1/8/89	Vehicle import approval or import documents Steering conversion certificate (as reqd.) Identity Check Safety Check Design Check (reasons for rejection) Personal import plate	Yes Eng.Sigmat Auth.Exam Auth.Exam Auth.Exam No

342.01 Visually inspect the vehicle, collect and check the documentation

In conjunction with the normal inspection, undertake the following:

- 1) Request the appropriate documentation, including the vehicle import approval and an engineering certificate for steering conversion and any additional modifications where appropriate. Review the documentation for consistency and where appropriate write in the conditions box of the Certificate of Inspection - Personal import;
- 2) Review the vehicle against the reasons for rejection in this section entering any which are appropriate in the Certificate of Inspection comments box;
- 3) List all vehicle modifications and review the engineering certificate against the reasons for rejection listed under 'Engineer certified modifications';
- 4) Request a weighbridge ticket and measure the wheelbase;
- 5) Fax a copy of the Certificate of Inspection to VITU on (02) 6207 7007;
- 6) Inform the client that they will need to attend the VITU counter to have the approval to manufacture a Personal Import Plate, that they send away, completed;
- 7) Inform the applicant that the vehicle must be re-inspected following the fitting of the import plate;



Personally imported vehicles

Rule 342

Imported vehicles

- 8) upon reinspection of the vehicle verify that the import plate is yellow and that it has been correctly fitted.

Reasons for rejection

- a) A vehicle import approval is not available in triplicate;
- b) Where required the personal import plate is missing, incorrectly fitted or other than yellow in colour;
- c) Any reason for rejection listed under Rule 341.



General imports less than 15 years old

Rule 343

Imported vehicles

General information

Vehicles less than 15 years old

These vehicles must comply with the (Cwlth) Motor Vehicle Standards Act of 1 August 1989 and are required to be fitted with an Australian compliance plate.

The registration steps are as follows:

AGE OF VEHICLE	REGISTRATION STEPS	REQMT
Less than 15yrs	Vehicle import approval Steering conversion certificate Safety Check Identity Check Design Check to current ADRs Compliance plate fitted MFR/Importer	Yes Eng.Signat Auth.Exam Auth.Exam Eng.Signat Yes

343.01 Visually inspect the vehicle, collect and check documentation

In conjunction with the normal inspection undertake the following:

- 1) Check for the existence and authenticity of an Australian compliance plate or enquire into the existence of a letter of compliance. Where neither exist inform the owner of the requirement to have a compliance plate fitted by the vehicle manufacturer or their agent. Refer all cases involving a letter of compliance to VITU;
- 2) Review the documentation for consistency and where appropriate write in the conditions box of the Certificate of Inspection;



General imports less than 15 years old

Rule 343

Imported vehicles

- 3) review the vehicle against the reasons for rejection in this section entering any which are appropriate in the Certificate of Inspection comments box;
- 4) request a weighbridge ticket and measure the wheelbase.

Reasons for rejection

- a) The vehicle does not have a valid Australian compliance plate or a valid letter of compliance from the vehicle manufacturer or their agent;
- b) A weighbridge ticket is not available for vehicles not manufactured in Australia in full volume.



General imports more than 15 years old

Rule 344

Imported vehicles

General information

Vehicles between 15 years old

Department of Transport & Regional Services (DOTARS) provides a concession for general imports which are 15 years old or more. These vehicles are not required to go through the process of having an Australian compliance plate fitted or of obtaining a letter of compliance from the manufacturer.

They must be inspected in the first instance by an Authorised Examiner who must ensure that the vehicle complies with the Design Rules and Regulations applicable at the date of vehicle manufacture.

When the vehicle has been brought to this standard the Authorised Examiner will provide the owner with a Certificate of Inspection.

AGE OF VEHICLE	REGISTRATION STEPS	REQMT
More than 15yrs	Vehicle import approval Steering conversion where required Safety Check Identity Check Must meet minimum safety standards Vehicle import plate	Yes Eng.Signat Auth.Exam Auth.Exam Yes Optional



General imports more than 15 years old

Rule 344

Imported vehicles

344.01 Visually inspect the vehicle, collect and check documentation

In conjunction with the normal inspection, undertake the following:

- 1) Request the appropriate documentation, including the vehicle import approval and an engineering certificate to cover a left to right hand drive steering conversion if applicable. Review the documentation for consistency and where appropriate write in the conditions box of the Certificate of Inspection - General import over 15 years;
- 2) Review the vehicle against the reasons for rejection in this section, entering any which are appropriate in the Certificate of Inspection comments box;
- 3) List all vehicle modifications and review the engineering certificate against the reasons for rejection listed under 'Engineer certified modifications';
- 4) Where a data sheet is not available for the vehicle, request a weighbridge ticket and measure the wheelbase (verify using handbook).

Reasons for rejection

- a) Any reason for rejection listed under Rule 341.



Motorcycles

Owner/Engineer certified modifications	Rule 351
Motorcycle subsystems	Rule 352

Owner/Engineer certified modifications

Rule 351

Owner certified modifications

Certain modifications may be carried out by owners without the need to submit an engineering certificate. They are modifications which do not affect the level of safety, strength or reliability of vital systems such as brakes, suspension and steering, and which have little or no impact upon the motorcycle's level of compliance with the Manual and Australian Design Rules (ADRs).

Owners must also ensure that their motorcycles continue to comply with the manual after a conversion or the installation of a product. Suppliers usually specify motorcycle types for which their products are suitable.

These modifications do not require inspection or reporting to the RUS except where they affect the registration details as shown on the certificate of registration.

Examples of owner certified modifications are:

- Fitting of a 'package' available as optional equipment for the motorcycle (e.g. brakes, suspension);
- Alternative lighting (e.g.: fog & driving lights).

Noise limits

Motorcycles manufactured from 1 July 1988 (ADR 39) have all components of the silencing system marked with the name or tradename of the manufacturer and provides information of the stationary noise test in the following format:

TesteddB(A) atr/min

Silencing Systems: (manufacturer)

Identification: (trade description)

Where a motorcycle upon inspection is found to be excessively noisy the Authorised Examiner must ask the owner to have the exhaust repaired.



Owner/Engineer certified modifications

Rule 351

351.01 Visually inspect the motorcycle

In conjunction with the normal inspection procedure:

- 1) Review the 'Modification Appraisal Table' in this section to ensure that it is not modified beyond the owner certified level. Where modifications are found review the subsystem reasons for rejection entering any which are applicable in the Certificate of Inspection comments box;
- 2) Request an engineering certificate for any modifications found to be beyond the owner certified level.



Owner/Engineer certified modifications

Rule 351

Table 1: Modification appraisal table

REASONS FOR DESIGN CHECK		APPLICABLE RULE	
1.	Replacement engine with any capacity increase over largest manufacturers option (unless previously approved in the ACT for registration with that engine).	Rules	352.09 352.10 352.11
2.	Engine modified - e.g. turbocharged, supercharged.	Rules	352.09 352.10 352.11
3.	Body structure modifications - e.g. fairings	Rules	352.05 352.06
4.	Lengthened or shortened frame - e.g. raking	Rules	352.01 352.02
5.	Modification to major suspension components - beyond manufacturer's options	Rules	352.01 352.02
6.	Ground clearance less than 100mm	Rule	352.03
7.	Modified seating capacity	Rule	352.07
8.	Modified driving controls	Rules	352.01 352.02 352.06
9.	Tyres or rims not as per tyre placard (from 1/7/88)	Rule	352.04
10.	Indications of non-original lighting fitted	Rule	352.08



Owner/Engineer certified modifications

Rule 351

Engineer certified modifications

These are significant modifications involving replacement of a motorcycle system or changes which affect Regulation or Australian Design Rule (ADR) compliance and which require certification by an engineering signatory. These modifications must be reported to the RUS.

Examples of engineer certified modifications

Examples of engineer certified modified production motorcycles are:

- Lengthening of the frame;
- The fitting of extended forks;
- Raking the steering head;
- Engine capacity exceeds manufacturer's options.

351.02 Visually inspect the motorcycle

In conjunction with the normal inspection procedure:

- 1) Request the appropriate documentation, including an engineering certificate, ensure that the engineering certificate contains the information required, and review all documentation for consistency;
- 2) Conduct a full inspection listing all modifications beyond the owner certified level currently evident in the motorcycle;
- 3) Review the noted modifications against those described on the engineering certificate. Where modifications are noted which are not covered by the engineering certificate presented then (unless they have been previously certified and are unaffected by the current modifications) the motorcycle must be rejected and the owner directed to obtain an engineering certificate covering all modifications;
- 4) Measure the wheelbase where it has changed.



Owner/Engineer certified modifications

Rule 351

Reasons for rejection

- a) An engineering certificate is not supplied for any modification in the engineering certified category for the motorcycle subsystem being inspected.



Motorcycle subsystems

Motorcycle subsystems

Rule 352

NOTE: An engineering certificate must be provided for any modification beyond the owner certified level (see Rule 351.01).

352.01 Visually inspect the brakes

Reasons for rejection

- a) An engineering certificate is not supplied for an engineer certified modification.
- b) From 1st March 1976 (ADR 33) brake pads or lining are not easily visible for inspection.
- c) From 1st March 1976 (ADR 33) no brake failure warning lamp is fitted.
- d) From 1st March 1976 (ADR 33) the motorcycle is not fitted with dual braking systems, one for the front and one for the rear wheel.
- e) From 1st July 1975 (ADR 7) any brake hose assembly is not marked with the name or trademark of its manufacturer or the manufacturer's standard.

352.02 Visually inspect the steering

Reasons for rejection

Motorcycles manufactured before 1 July 1988

- a) An engineering certificate is not supplied for an engineer certified modification.
- b) The handlebar is not the same shape and length on either side of the front wheel and steering head assembly.
- c) The distance between the extreme ends of the handlebar is less than 550mm.
- d) The highest point on the handlebar is more than 380mm above the top of steering yoke.
- e) Where the highest point of the handlebar is more than 205mm vertically above the top of steering yoke, the distance between the extreme ends of the handle bar is less than 660mm.



Motorcycle subsystems

Rule 352

Motorcycles manufactured on or after 1 July 1988

- a) An engineering certificate is not supplied for an engineer certified modification.
- b) The handlebar is not the same shape and length on either side of the front wheel and steering head assembly.
- c) The distance between the extreme ends of the handle bar is less than 500mm or more than 900mm.
- d) The height of the lowest part of the handgrip is more than 380mm above the lowest part of the upper surface of the rider's seat.
- e) The horizontal distance between mid-point of the steering yoke bearing and a point vertically above the centre of the front wheel exceeds 550mm.

352.03 Visually inspect the suspension

Reasons for rejection

- a) An engineering certificate is not supplied for an engineer certified modification.
- b) A motorcycle with no rear suspension (that is, 'hard tail') does not have a sprung seat for the rider and pillion seat where fitted.
- c) Ground clearance is less than 100mm.

352.04 Visually inspect the wheels and tyres

Reasons for rejection

- a) An engineering certificate is not supplied for an engineer certified modification.
- b) Tyre size unsuitable for the rim or load rating inadequate for the machine.
- c) Tyre is marked 'NHS', 'off road use only', has buffed side walls, or are otherwise not suitable for on road use.

352.05 Visually inspect the body

Reasons for rejection

- a) An engineering certificate is not supplied for an engineer certified modification.



Motorcycle subsystems

Rule 352

- b) Any fairing modification limits steering travel or presents sharp edges.
- c) 'Sissy' bar extends above the rider's head or has sharp points or edges.
- d) Prior to 1 Jan 1983 no rear vision mirror fitted to right hand side. From 1 Jan 1988 motorcycle not fitted with both left and right rear vision mirrors.
- e) The reflecting surface of any rear vision mirror must be free of any damage or deterioration.
- f) Foot or hand controls altered from original specification.
- g) Any sidecar is fitted to the right hand or offside of the motorcycle.

352.06 Visually inspect the structure

Reasons for rejection

- a) An engineering certificate is not supplied for an engineer certified modification.
- b) Any fastenings between frame members , including welds, are cracked, loose, or distorted.

352.07 Visually inspect the seats

Reasons for rejection

- a) An engineering certificate is not supplied for an engineer certified modification.
- b) A motorcycle fitted with dual seating does not provide left and right footrests for the pillion passenger.

352.08 Visually inspect the lighting

Reasons for rejection

- a) Lighting not in accordance with the lighting requirements.
- b) Any motorcycle fitted with a sidecar does not have a sidelight located within 300mm of the left hand extremity of the sidecar.
- c) Any motorcycle powered by an engine with a capacity exceeding 200ml is not equipped with a headlight incorporating a dipping device.



Motorcycle subsystems

Rule 352

352.09 Visually inspect the engine

Reasons for rejection

- a) An engineering certificate is not supplied for an engineer certified modification.
- b) Any replacement engine has a capacity greater than the largest manufacturer's option for that model (unless previously approved for registration in the ACT in that configuration).
- c) The engine has been modified e.g., turbocharged or supercharged.
- d) The engine emits an undue amount of smoke.
- e) Crankcase ventilation equipment is missing or leaking.

352.10 Visually inspect the transmission

Reasons for rejection

- a) An engineering certificate is not supplied for an engineer certified modification.
- b) From 1st July 1974 the speedometer is disconnected.

352.11 Visually inspect the exhaust

Reasons for rejection

- a) An engineering certificate is not supplied for an engineer certified modification.



Trailers and caravans

Trailers and caravans

Rule 361

Trailers and caravans

Rule 361

Trailers and caravans

General information

Trailers manufactured on or after 1 July 1991

In the ACT the National standards were adopted in the form of their Vehicle Standards Bulletin No. 1 from 1 July 1991. A key issue in Vehicle Standards Bulletin No. 1 is the requirement for a trailer plate which includes a 17 character VIN and the aggregate trailer mass (ATM).

Trailer plate

Trailers with an ATM of less than 4.5 tonnes are not required to affix compliance plates to their trailers. Manufacturers must include instead the following statement on a trailer plate: **'This trailer was manufactured to comply with the applicable Australian Design Rules.'**

It is the responsibility of the person or company manufacturing the trailer to ensure that the trailer when first supplied to the market, meets the requirements of the ADRs. On the outside of every trailer there must be affixed in a prominent position, a plate showing at least the following information:

- a) Manufacturers name;
- b) Trailer model;
- c) Vehicle identification number (VIN);
- d) Date of manufacture;
- e) Aggregate trailer mass (ATM);
- f) The certification statement above.

This plate may also include additional information such as the tare mass and gross trailer mass (GTM) and the tyre placard information.

The detailed requirements for trailers manufactured after 1 July 1991 can be found in the Federal publication Vehicle Standards Bulletin No. 1.

Trailers and caravans

Rule 361

Trailers and caravans

361.01 Visually inspect the trailer

In conjunction with the normal inspection procedure:

- 1) Locate the trailer plate to determine the date of manufacture. Where none exists ask the owner to supply the date of manufacture;
- 2) Review the reasons for rejection entering any which are applicable on the Certificate of Inspection;
- 3) Where the trailer is unsatisfactory fail the Certificate of Inspection handing the applicant the yellow copy (and the relevant details of Vehicle Standards Bulletin No. 1 where appropriate).



Trailers and caravans

Rule 361

Trailers and caravans

CHECKLIST FOR TRAILERS MANUFACTURED ON OR AFTER 1 JULY 1991	
Is a trailer plate fitted?	
Are the trailer plate details complete? <ul style="list-style-type: none"> • Manufacturers name; • Trailer model; • VIN; • Date of manufacture; • Aggregate trailer mass; • The certification statement. 	
Does the trailer have a VIN?	
Is the VIN correctly impressed?	
Is a tyre and rim placard fitted?	
Do the fitted tyres match the size specified on the placard? What is the sum of the tyre load capacities?	a).....
Does the coupling display the manufacturer's name or mark?	
Does the coupling display a gross load rating? What is its rating?	b).....
Is the safety chain of the correct dimension? What is the maximum trailer mass for the size of the chain fitted? (See Vehicle Standards Bulletin No. 1)	c).....
Is the trailer's GTM greater than 750kgs? (see Table 1)	
If so, are the correct brakes fitted? What is the maximum trailer mass for the type of brakes fitted?	d).....
Are all of the appropriate lights and reflectors fitted in the correct positions?	
Is the trailer wiring correctly secured and insulated?	
Is the trailer plug of the correct type? (7 pin after 1/1/88)	
Is the trailer of sound construction?	
Are any of the trailer component load ratings (a), (b), (c) or (d) less than the trailer ATM? Indicate the lowest rating.	e).....

Trailers and caravans

Rule 361

Trailers and caravans

Is the trailer within dimension limits ?	
• Length 12.5m	
• Width 2.5m	
• Height 4.3m	
• Rear overhang dog trailer the lesser of 3.7m or 60% of wheelbase	
other trailers the lesser of 3.7m or front loading space	
• Minimum ground clearance 100mm	

Reasons for rejection

Trailers manufactured on or after 1 July 1991

- a) There is no trailer plate fitted;
- b) Trailer plate does not give the required information;
- c) The tyres or rims do not match the placard;
- d) The tow coupling is not correctly marked (name and load rating);
- e) Safety chain/s is not fitted or is of inadequate dimensions;
- f) Trailers over 750 kg gross trailer mass (GTM) have incorrect or no brakes fitted;
- g) Incorrect lights have been fitted;
- h) The lights or reflectors have been incorrectly positioned;
- i) The trailer wiring is incorrectly secured or insulated;
- j) The trailer plug is not of the correct type;
- k) The trailer is not of sound construction;
- l) A caravan manufactured after 1/7/88 does not have a fire extinguisher fitted;
- m) One or more of the trailer component load ratings (tyres, brakes, chain, coupling), are less than the trailer's aggregate trailer mass (ATM);
- n) The trailer exceeds the dimension limits.



Trailers and caravans

Rule 361

Trailers and caravans

General information

Trailers manufactured before 1 July 1991

The Federal standard is similar in many respects to State and Territory requirements which were already in place at the time. Thus many of the requirements detailed in Vehicle Standards Bulletin No. 1 are directly applicable to trailers manufactured before 1 July 1991. The table below lists by exception the differences for each section of Vehicle Standards Bulletin No. 1 which should be considered whilst inspecting trailers manufactured in the ACT before 1 July 1991. Principal differences are the brake and lighting requirements.

It is necessary to highlight however, the fact that trailer assessment prior to July 1991 in the ACT was undertaken on the basis of laden and tare weights, whereas assessment after July 1991, is undertaken on the basis of aggregate trailer mass (ATM) and gross trailer mass (GTM) (see definitions).

Practically the laden weight is the equivalent of the ATM in Vehicle Standards Bulletin No. 1, the minimum amount of weight imposed on towing vehicle and the tare weight is that recorded by weighbridge with the unladen trailer detached from the towing vehicle.

Trailers with a tare mass of more than 200kg require brakes on at least one axle. Trailers with an Gross trailer mass above 2.0 tonnes or plant trailers above 2.0 tonnes tare require breakaway brakes. These trailers must be inspected with this in mind.

The adjusted requirements for trailers manufactured before July 1991 are listed below in the sequence in which those subjects occur in Vehicle Standards Bulletin No. 1. Thus Vehicle Standards Bulletin No. 1 may be used to inspect these trailers keeping the following differences in mind.

Trailers and caravans

Rule 361

Trailers and caravans

VEHICLE STANDARDS BULLETIN NO. 1 ITEM	REQUIREMENT IF MANUFACTURED BEFORE 1 JULY 1990
1) Trailer plate	Not required.
2) VIN	Must have an impressed chassis no. - if none, one must be allocated: - up to 1/1/89 - an 8 character chassis no. is required; - 1/1/89 - 1/7/90 - must have a 17 character VIN.
3) Brakes	See light trailer brake requirements, Table 1.
4) Lighting	See lighting requirements.
5) Electrical	7 PIN connector required after 1/1/88.
6) Coupling	Not to be welded unless manufacturer specifies (must have name/load rating).
7) Safety chain	Inspect to VSB1 Chains not required to comply AS1872-1976.
8) Axles & suspensions	For close coupled axle groups ATM must not exceed manufacturers rating.
9) Wheels & tyres	No tyre placard required.
10) Max dimensions	Inspect to VSB1.
11) Fire extinguisher (caravan only)	Not required before 1/1/88.



Trailers and caravans

Rule 361

Trailers and caravans

361.02 Visually inspect the trailer

In conjunction with the normal inspection procedure:

- 1) Determine the date of manufacture. Where necessary ask the owner to supply the date of manufacture;
- 2) Undertake the Design Check in accordance with Vehicle Standards Bulletin No. 1 and the amended requirements given above, ensuring that all of the items on the checklist are covered;
- 3) Review the reasons for rejection entering any which are applicable on the Certificate of Inspection;
- 4) Where the trailer is unsatisfactory complete the Certificate of Inspection handing the applicant the yellow copy and details of the trailer requirements where applicable;
- 5) Where the trailer is satisfactory complete the Certificate of Inspection attaching all relevant documentation.

Trailers and caravans

Rule 361

Trailers and caravans

CHECKLIST FOR TRAILERS MANUFACTURED BEFORE 1/7/91		
Is the trailer's date of manufacture known? (If no, ask owner to supply)		
Is the unladen weight known? (If no, request weighbridge ticket)		
Does the coupling display the manufacturer's name or mark?		
Does the coupling display a gross load rating?	What is its rating?	a).....
Is the safety chain of the correct dimension? (See Vehicle Standards Bulletin No 1)	What is the maximum trailer weight for the size of the chain fitted?	b).....
Does the trailer require brakes including a mechanical park brake ?		
If so, are the correct brakes fitted?	What is the maximum trailer mass for the type of brakes fitted?	c).....
Do the fitted tyres match the placard?	What is the sum of the tyre load	d).....
Are all of the appropriate lights and reflectors fitted in the correct positions?		
Is the trailer wiring correctly secured and insulated?		
Is the trailer plug of the correct type?	(7 pin after 1/1/88)	
Is the trailer of sound construction?		
Do the mudguards meet construction standards?		
Is the trailer within dimension limits? <ul style="list-style-type: none"> • Length 12.5m • Width 2.5m • Height 4.3m • Rear overhang dog trailer the lesser of 3.7m or 60% of wheelbase • other trailers the lesser of 3.7m or front loading space • Minimum ground clearance 100mm. 		
Calculate the trailer aggregate weight as the lessor of (a), (b), (c) or (d).		e).....
Are there any conditions to be placed upon the weight of the hauling vehicle?		



Trailers and caravans

Rule 361

Trailers and caravans

Reasons for rejection

Trailers manufactured before 1/7/91

- a) Weighbridge ticket required but not produced.
- b) Incorrect brakes fitted.
- c) Mechanical parking brake not fitted where required.
- d) The tow coupling is not correctly marked (name and load rating).
- e) Safety chain/s is not fitted or is of inadequate dimensions.
- f) Incorrect lights have been fitted.
- g) The lights or reflectors have been incorrectly positioned.
- h) Trailer wiring is incorrectly insulated or secured.
- i) Trailer plug is of incorrect type.
- j) The trailer is not of sound construction.
- k) A caravan fitted with a gas stove (where the installation is not removable without the use of tools) does not have a gas plate fitted by a licensed gas fitter.
- l) A caravan manufactured after 1/7/88 does not have a fire extinguisher fitted.
- m) One or more of the trailer component load ratings (tyres, brakes, chain, coupling) are less than the trailer's aggregate weight.
- n) Trailer exceeds dimension limits.

Note: If a client has a pre 1/7/91 with a Tare mass in excess of 200kg which would require the fitting of brakes which are absent, the client may choose to upgrade the trailer to 3rd edition standards rather than fit brakes. To perform this task the complete vehicle must be upgraded to the latest version of VSB1 and the trailer must be inspected as if it were new. This option is only available where the GTM of the trailer can reasonably be limited to 750kg.

Section 7

Appendices

Appendix A

Safety Check Procedures

Checking for Rust	A1
Modified Vehicles	A2
Stationary Noise Test	A3

Checking for Rust

A1

Classification of Rust

The extent of corrosion in a vehicle can range from light surface rust to the total breakdown of parent metal.

Depending on the individual vehicle's design, there are many different ways in which corrosion can begin and the degree to which a material or structure is attacked can vary widely. In general, though, the formation of rust and resultant loss of metal occurs in areas which retain moisture because of a build-up of road dirt and mud.

In order to simplify identification and classification when carrying out a motor vehicle inspection, this publication classifies the extent of corrosion in three different stages.

Stage 1 - Surface Rust

Light, powdery corrosion on the surface of a section of metal is termed surface rust and is sometimes the first indication of corrosion that can be observed; it should warn the owner of the vehicle to take steps for preventing the rust from spreading.

Surface rust can occur on or behind any body panel of a vehicle particularly if the protective coating is scratched or damaged.

Checking for Rust

A1

Stage 2 - Advanced Rust

Surface rust, if left unattended, will develop into an advanced form of corrosion which can usually be seen as an eruption of oxidised metal, either on bare metal or under paint. This eruption occurs because the rust reaction involves an increase in volume so that pitting or bubbling of paint is the usual indication of penetration.

Stage 3 - Extensive Rust

The final stage of the corrosion process is the formation of heavy encrustation of oxidised metal which completely replace the parent metal. This results in a hole or series of holes in the body panel or structural member of the vehicle when the rust is removed. This category of rust can usually only be rectified by replacement of the affected body panels and parts.

Checking for Rust

A1

Classification of Vehicle Structures

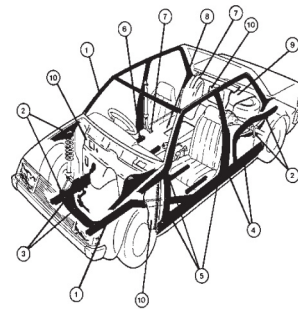
Vehicle structural components can be categorised according to their importance to safety. For instance, subframes and other basic structural sections have to be absolutely free of rust because their failure could make a vehicle difficult to control and might cause it to crash. As already mentioned, such failures will also probably reduce the chances of survival in a crash.

Primary Structure

This category includes any structure or component which, if it collapsed, would make the vehicle uncontrollable or would considerably reduce occupant safety in a crash. Examples of components in this category are illustrated below.

Typical primary structure components

1. Main structural members such as subframes and chassis rails
2. Suspension mountings and parts
3. Steering component mounting points
4. Door sills and pillars
5. Door hinges and latch mounting points
6. Seat anchorage points
7. Seat belt anchorage points
8. All floor panels
9. Boot floor
10. Bulkheads



Checking for Rust

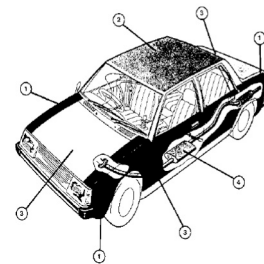
A1

Secondary Structure

The second category includes any structure or component which, if it collapsed, would not immediately affect a vehicle's controllability or the protection provided by its built-in safety systems. Normally, surface rust or advanced rust would not be a cause for rejection in these components but extensive rust is usually either hazardous to persons in or near the vehicle because of its sharp edges or because exhaust fumes can get into the vehicle. In such cases, extensive rust, must therefore be rejected. The illustration below shows examples covered by this category.

Typical secondary components

1. Mudguards or fenders
2. Roof
3. Bootlid, bonnet and doors (areas within 100mm of mounting and locking points are primary structures and must be free of advanced or extensive rust).
4. Exhaust system



NOTE: Because of differing structural designs, it might be difficult to categorise some vehicle components as primary or secondary structure. Where such difficulties are encountered, advice should be sought through the Authority's Technical Enquiries Officers to clarify any uncertainties that might be encountered.

Reasons for Rejection

The following table summarises the acceptability of rusted components in terms of the categories of rust and structures described so far. Remember that it is a general guide only and that in some cases it might be necessary to depart from the table.

Checking for Rust

A1

Type of corrosion	Category of structure	
	Primary	Secondary
Surface Rust	Acceptable	Acceptable
Advanced Rust	Not Acceptable	Acceptable (See Note A)
Extensive Rust	Not Acceptable	Not Acceptable (See Note B.)

NOTE A: Areas within 100mm of hinges and locks (e.g. boot lid, bonnet and doors), are considered primary structures and must be free of advanced and extensive rust.

NOTE B.: Extensive rust is not acceptable in secondary components, if it has resulted in hazardous conditions to persons in or near the vehicle e.g. sharp edges, loose panels or, in the case of exhaust system, gas leaks.

Inspection Method

Visual inspection is usually adequate since advanced corrosion is almost always associated with an eruption of oxidised metal and pitting or bubbling of paint.

However, this method may not be adequate in all cases. In underbody areas prone to rust such as steering and suspension mounting points and major structural components which include chassis, floor, structural sills and sub-frames presence of rust should be checked by probing with a rod. This method should also be used to check for presence of rust in other areas where cosmetic damage is not a problem, such as inside wheel arches.

In using this technique, great care must be taken to ensure that sound panels or paint work are not scratched or damaged in any way. It should be remembered that the purpose of such checks is to find out whether rust is present, not to determine its extent.

Checking for Rust

A1

When checking for advanced rust, you should pay particular attention to seam welds and spot welds: these frequently corrode through from the interior and can result in the eventual detachment of panels. Any panel which is made insecure by such corrosion must be repaired even if it is an area of the component where rust holes are not an immediate danger.

Repairs

Surface rust on a component or structure is not immediately dangerous and is not a reason for rejection of a vehicle for the purpose of registration. However, if it is observed, the owner should be advised to have it rectified before it becomes serious. Rectification is simply a matter of completely removing the deposit and applying a rustproofing coating or oil as is appropriate (body panels should be repainted using a good quality refinishing system).

It should be noted that repairs made to primary structure components solely by using body filling compounds are not acceptable. However, plastic filler or fibreglass can be used to smooth a non-structural component. A vehicle must not be passed for registration if it is found that a repair to a primary component is carried out by methods which do not restore the original strength of the component or part. (A good way to check for continuity of structure, if a fibreglass repair is suspected, is to run a magnet over the surface).

Extensive rust in structural members can only be repaired by replacing the affected member or by completely removing all rusted material and reinforcing it so that the original strength of the affected structural member is re-established.

Where a primary structure is found to be in need of repair and the repaired component would normally be coated with a bituminous coating or covered by another vehicle component such as a seat or a floor mat, it is quite in order to ask the owner to resubmit the repaired vehicle before the repairs are obscured so that the adequacy of the repairs can be assessed. A note to this effect should be made on the inspection report if this is required.

Modified Vehicles

A2

Modified Vehicles

Modified vehicles must continue to comply with:

- The Act and Regulations
- Applicable Australian Design Rules
- Standards of structural soundness in design and construction
- Applicable environmental standards (noise and exhaust emissions).

By law, vehicle owners are obliged to:

- Ensure their vehicle is roadworthy
- Ensure that any modifications are legal, safe and do not affect the vehicle's compliance with applicable ADRs (this can be achieved through modifications being conducted in accordance with published national codes of practice).
- Advise the TAMS if modifications have been made to a vehicle, (by means of an inspection report and an Adjustment of Records form, and engineering certificate where applicable).

Code of Practice

A national code of practice for light vehicle modifications is currently under development nationally. Once finalised, all States and Territories in Australia, including the ACT, will adopt that code of practice for light vehicle modifications. Prior to publication of the national code, the ACT will accept modifications certified in accordance with a published State or Territory code of practice for light vehicle modifications which is current at the time of the modifications being performed.

Special Use Vehicles

Arrangements for conditional registration of vehicles which cannot, through design and construction for particular uses, comply with vehicle standards, are currently being developed. Separate documentation will detail inspection and registration requirements for these vehicles.

Modified Vehicles

A2

Categories of modifications

Vehicle modifications fall into three distinct categories:

1. Owner certified modifications

Certain modifications may be carried out by owners without the need to obtain an engineering certificate. These are modifications which do not affect the level of safety, strength or reliability of vital systems such as brakes, steering and suspension, and which have little or no impact upon the vehicle's level of compliance with the Act and Regulations, and Australian Design Rules. Examples of owner certified modifications are contained in the table overleaf.

2. Engineer certified modified production vehicles

- Engineer certified modifications are significant modifications involving replacement of a vehicle system, modifications to structural components or other changes which affect compliance to the Act and Regulations or Australian Design Rules.

Engineer certified modifications must be certified by an engineering signatory approved by TAMS.

The engineering certificate must detail all the modifications and include the declaration that the vehicle is sound in its design and construction as well as complying with the manual and any affected ADRs.

3. Engineer certified individually constructed vehicles

Regarded as a new vehicle for registration purposes and subject to current ADRs.

Modified Vehicles

A2

Examples of each category are given in the following table.

Examples of Modified and Individually Constructed Vehicles.

Category	ADR related construction requirements	Examples of typical modifications
MINOR MODIFICATION (owner certified)	continued compliance with any ADRs applicable at date of manufacture of vehicle	<ul style="list-style-type: none"> • Engine change where the engine capacity increase is less than 15%
MODIFIED PRODUCTION VEHICLE (MPV) (engineer certified)	continued compliance with any ADRs applicable at date of manufacture of vehicle plus: for engine conversions, the vehicle must meet the minimum emissions and noise standards.	<ul style="list-style-type: none"> • Engine conversions beyond owner certified limits (see 'Engine modifications') • Transmission & driveline conversions • Convertible conversions & limousine conversions • Wheelbase alterations to light commercials & 4WD vehicles • Panel van to utility body conversions • Extended cabins with additional seating (crew cabins) • Campervan conversions • Left hand drive to right hand drive conversions • Seating conversions not performed in accordance with VSB5A or VSB5B as applicable

Modified Vehicles

A2

(continued)
MODIFIED
PRODUCTION
VEHICLE
(MPV)
(engineer certified)

REBODIED VEHICLES

A: where the chassis/floorpan is older than the body and the wheelbase is unaltered:-

- Engine related ADRs applicable to date of manufacture of engine
- Chassis related ADRs applicable to date of manufacture of chassis.
- Body related ADRs applicable to date of manufacture of body.

B: where the chassis/floorpan is newer than the body and the wheelbase is unaltered:-

- ADRs for entire vehicle applicable to date of manufacture of the chassis/floorpan.

C: where the replacement body is a passenger car or passenger car derivative and the wheelbase is altered:-

- Current ADRs on entire vehicle except if the engine was a manufacturers option for the chassis/floorpan, the engine emission standards apply to the date of manufacture of the chassis.

- A new fibreglass body fitted to an early model volkswagen chassis/floorpan and fitted with a 1975 Subaru engine.
- A 1980 model Holden station wagon body fitted to a 1970 model Toyota 4WD chassis retaining the original 1970 Toyota engine
- A 1970 model body fitted to a 1980 model chassis
- A new fibreglass body fitted to a shortened Toyota Crown chassis and fitted with a new Ford Falcon V8 engine.

Modified Vehicles

A2

INDIVIDUALLY CONSTRUCTED VEHICLE (ICV) (engineer certified)	CURRENT ADRs ON ENTIRE VEHICLE	<ul style="list-style-type: none"> • A vehicle with a specially constructed (non production) chassis. • A vehicle where the arrangement of the engine and driveline is substantially changed e.g.: engine moved from front to rear or to a mid mounted position. Also where the vehicle is changed from front wheel drive to rear wheel drive. • A vehicle where the mono-constructed subframe structure has undergone significant structural change e.g.: 'wheel tubs' if the work requires relocation/modification of the subframe rails.
	NOTE: Draft Administrative Circular for ADRs 69, 72 and 73 is applicable	

Engine Modifications

There is no restriction on normal engine reconditioning such as reboring the cylinders, providing the reconditioning is kept within the manufacturers recommended limits. However, where noise and/or exhaust emission ADRs apply, all standard equipment (such as carburettors, exhaust systems, exhaust gas recirculating valves, oxygen sensors, catalytic converters etc), relating to noise and emission control must be retained and operate correctly. Any replacement parts should be of a standard equivalent to the original equipment.

Owner certified (minor modification)

Replacement engines having less than 15% engine capacity increase over that of the largest optional engine for the vehicle and engine modifications likely to increase engine power by no more than 15% are regarded as minor modifications. The 15% increase in capacity is on the basis that the replacement engine is of the same family or technology level as the replaced engine. They can be treated as 'owner certified' providing no modifications are made affecting any part of the

Modified Vehicles

A2

vehicle necessary in maintaining its safety, emissions or controllability. (Some minor engine conversions in light 4WD vehicles require modifications to the steering and must therefore be 'engineer certified').

Engine conversions can also be treated as owner certified if the engine or modification is an original manufacturers option for the vehicle however, any other components (such as brakes, transmissions, suspension exhaust etc) which were packaged by the manufacturer as part of the original specification for the replacement engine must also be fitted.

Engineer certified (modified production vehicle)

Suggested capacity limits for an 'engineer certified' modified production passenger car or passenger car derivative are set out in the table below. While there are no suggested limits for other light vehicles e.g.: commercial vans, light trucks, small buses etc, the engineering signatory should at all times ensure that the replacement engine or engine modification does not overload other systems on the vehicle that are critical to its safety and handling.

Engine capacity limits for passenger cars & derivatives

		Suggested Engine Capacity Limits	
Engineer Certified Modified Production Category		Normally Aspirated	Supercharged or Turbocharged
All vehicles originally having a 4 cylinder engine or a rotary engine as the largest optional engine and weighing less than 1100kg.		In cubic inches	In cubic inches
		Original weight (kg) x 0.183	Original weight (kg) x 0.153
		_____	_____
		In millilitres (cc)	In millilitres (cc)
OTHER VEHICLES (4 cylinders & rotaries over 1100kg,	Mono Constructed	Original weight (kg) x 3.0	Original weight (kg) x 2.5
		In cubic inches	In cubic inches
		Original weight (kg) x 0.294	Original weight (kg) x 0.244
		_____	_____
6 cylinders, 8 cylinders & 12 cylinder cars)	Vehicles with a separate chassis construction (as original construction)	In millilitres	In millilitres
		Original weight (kg) x 4.82	Original weight (kg) x 4.0
		In cubic inches	In cubic inches
		Original weight (kg) x 0.333	Original weight (kg) x 0.286
		_____	_____
		In millilitres	In millilitres
		Original weight (kg) x 5.46	Original weight (kg) x 4.68

Modified Vehicles

A2

NOTES

1. The capacity limits apply to passenger cars and passenger car derivatives only. They do not apply to 'commercial' vehicles or four wheel drive type vehicles.
2. The table lists suggested maximum capacity of engines fitted as part of a vehicle modification. Vehicles with engines of greater capacity than that provided in the table will not be acceptable for registration as a modified production vehicle. However, it remains the responsibility of the 'engineering signatory' to ensure that the engine is suitable for the vehicle. An engine might not be a suitable replacement even though its capacity falls within the specified limits.
3. The weight of the vehicle referred to in the table is the original (unmodified) 'tare' weight of the model vehicle fitted with the largest engine available for the model but without optional accessories (air conditioning, tow bars etc). The weight of the vehicle whether it is a sedan, station wagon, utility etc, should be based on the heaviest sedan version of the model (not station wagon version).
4. Fitting of '3/4' chassis reinforcing frames does not constitute classification of the vehicle as a vehicle with a separate chassis for the purpose of fitting a larger engine than that allowed for mono-construction.
5. For sedans the weight used for the vehicle can be as shown on the certificate for registration if there are no optional accessories (see 3 above) included in this weight.

Other Engine Modifications

Non-original components such as camshafts, carburettors and engine management electronic chips are not permitted in a vehicle built to comply with emissions related ADR's unless it can be demonstrated that their use allows the vehicle to continue to meet the appropriate emission standard.

Modified Vehicles

A2

Upgraded safety equipment

In the case of an engine modification which falls within the engineer certified (modified production vehicle) category, excluding motorcycles, the following vehicle safety systems must be upgraded in order to provide for the increase in vehicle performance. These are the minimum standards required but where any ADR applies, the ADR takes precedence. It is the responsibility of the consulting engineer to certify that the vehicle is safe for road use and he or she must be satisfied in each and every respect that this is the case prior to signing the certificate.

- i) Seat belts should be installed for all seating positions. Lap/sash seat belts are required for all outboard seating positions. Lap/sash or lap belts shall be fitted to inboard seating positions;
- ii) Windscreen washers should be fitted;
- iii) Two speed windscreen wipers with a fast speed of at least 45 cycles per minute and a slow speed of at least 20 cycles per minute should be fitted. (Single speed wipers are acceptable if the speed is 45 cycles per minute or more);
- iv) A windscreen demister should be fitted;
- v) There should be an external mirror on the drivers side (and on the passengers side if there is no effective internal rear view mirror);
- vi) If the replacement engine has a capacity more than 45% above that of the largest optional engine for the vehicle and the vehicle is 'pre ADR 10', then a collapsible steering column should be fitted;
- vii) Flashing turn indicator lights should be fitted at the front and rear of the vehicle;
- viii) Automotive safety glass (marked accordingly or can be proven to be safety glass) should be fitted for the windscreen and other windows in the vehicle.

How to check a modified vehicle

1. When conducting inspections of vehicles with modifications that do not require an engineering report:
 - a) Using the ADR Applicability Table contained in Appendix C1, determine the ADRs affected by the modification or body addition;

Modified Vehicles

A2

- b) Find the relevant ADRs with the Reasons for Rejection contained in Appendices C2 (second edition ADRs) or C3 (third edition ADRs);
 - c) Inspect the modifications and note any areas of non compliance on the inspection report.
2. When conducting inspections of vehicles with modifications that require an engineering report:
- a) Check the engineering certificate lists all the ADRs affected by the modifications;
 - b) Find the relevant ADRs with the Reasons for Rejection contained in Appendices C2 (second edition ADRs) or C3 (third edition ADRs);
 - c) Inspect the modifications and note any areas of non compliance on the inspection report.

Stationary Noise Test

A3

Equipment

1. A sound level meter meeting the following requirements:
 - a) The sound level meter must be capable of measuring noise across the range of 50 to 120dB for the A weighting network;
 - b) The device may have one or more frequency range indicators. Where more than one range is provided adjacent ranges must overlap by a minimum of 10dB;
 - c) The device must be capable of displaying the maximum noise reading and maintaining that reading until reset. The display must be digital and be in increments not exceeding 0.2dB;
 - d) Over the range 50dB to 120dB the device must be accurate to within plus or minus 1.5dB;
 - e) Where more than one range is provided the device must indicate if the measured value is more than 10db plus the maximum value of the range or is less than 5dB minus the minimum value of the range;
 - f) The device must have a means for adjusting the calibration. The device must either be self-calibrating, or an external noise-generating device (accurate to within plus or minus 1 dB) must be used to calibrate the noise level meter *prior to each series of noise tests*;
 - g) An external noise-generating device (accurate to within plus or minus 1 dB) must be used to calibrate the sound level meter in accordance with the manufacturer's instructions. Where the manufacturer does not recommend an interval between calibration this must be carried out every three months;
 - h) A tripod or similar device for accurately positioning the microphone/sound level meter should be available.
2. For measuring engine speed, a tachometer accurate to within plus or minus 3% over the range 2000RPM to 5000RPM.

Test Area

- a) The test area must be paved and substantially level. It is preferred that there is an unobstructed space of at least 3m on each side of the vehicle (see item (c) for clearance requirements);
- b) Background noise level must no more than the prescribed noise limit for the vehicle concerned minus 10dB (for example, where the prescribed noise level is 90dB(A) the background noise level should be no more than 80dB(A));
- c) There must be no object within a 3m horizontal radius of the microphone or 3m above the microphone except for:
 - i) The vehicle;
 - ii) The driver/rider of the vehicle;

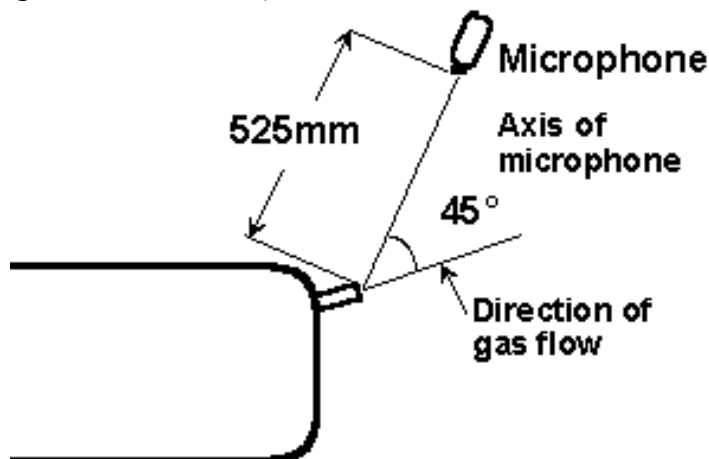
Stationary Noise Test

A3

- iii) The person making the measurement;
 - v) An optional observer;
 - vi) Kerbs, gutters, narrow poles and similar objects which are unlikely to provide excessive acoustic reflection.
- d) The test area may be covered, provided that no part of the canopy is within 3 metres of the microphone.

Position of Microphone - cars, car derivatives and motorcycles

- a) The microphone must be positioned at the same height as the exhaust outlet (plus or minus 25mm) but no lower than 200mm from the ground. The axis of the microphone (axis of maximum sensitivity) must be horizontal and pointing towards the exhaust outlet;
- b) When viewed in plan, the axis of the microphone must make an angle of 45 degrees (plus or minus 10 degrees) to the flow of gas from the exhaust;
- c) The horizontal distance from the microphone to the exhaust outlet must be 525mm (plus or minus 25mm);



PLAN VIEW OF NOISE TEST

Position of Microphone - trucks and buses with exhaust outlets less 1500mm from the ground

- a) The microphone must be positioned at the same height as the exhaust outlet (plus or minus 25mm) but no lower than 200mm from the ground. The axis of the microphone must be horizontal and pointing towards the exhaust outlet;
- b) When viewed in plan, the axis of the microphone must make an angle of 45 degrees (plus or minus 5 degrees) to the flow of gas from the exhaust;
- c) The horizontal distance from the microphone to the exhaust outlet must be 1050mm (plus or minus 50mm).

Stationary Noise Test

A3

Position of Microphone - trucks and buses with exhaust outlets 1500mm or more from the ground

- a) The microphone must be positioned at the same height as the exhaust outlet (plus or minus 25mm). The axis of the microphone must be horizontal and pointing towards the exhaust outlet;
- b) when viewed in plan, the axis of the microphone must be at right angles to the longitudinal centreline of the vehicle. Where this results in the microphone being placed within the flow of exhaust gases it may be relocated provided that the angle does not exceed 45 degrees;
- c) the horizontal distance from the microphone to the exhaust outlet must be 1050mm (plus or minus 50mm).

Multiple exhaust outlets

In the following cases each exhaust outlet must be tested separately and the maximum value is used for the vehicle result:

- Exhaust outlets spaced at more than 500mm apart (300mm in the case of motorcycles);
- Exhaust outlets connected to separate silencers.

However, where the noise level is found to exceed the prescribed limit there is no need to continue with testing of the other outlet(s).

VEHICLE OPERATION

For non-diesel engines:

- a) Determine the speed at which maximum engine power is developed. If this is unknown refer to the following table for engine speed during the test;
- b) For cars, derivatives, trucks and buses the noise level is measured with the engine operating briefly at a steady speed corresponding to either three-quarters of the speed determined in step (a) or the speed prescribed in the table (plus or minus 250RPM);
- c) For motorcycles the noise level is measured with the engine operating briefly at a steady speed corresponding to either half the speed determined in step (a) or the speed prescribed in the table (plus or minus 250RPM).

Note: Where the test speed is not attainable the engine should be operated at the maximum speed possible without undue risk of damage. Although it is not reason for rejection, any engine which is incapable of operating at the speed required for the noise test is likely to be in very poor condition and may be unreliable.

Stationary Noise Test

A3

Engine speeds for noise tests

(where engine speed at maximum power is unknown)

Vehicle Type	Engine speed for noise test (Revolutions per minute)
Car or derivative with 5 cylinders or less	4000 RPM
Car or derivative with 6 cylinders	3200 RPM
Car or derivative with 8 cylinders	3300 RPM
Car or derivative with more than 8 cylinders	4300 RPM
Car or derivative with rotary engine	4500 RPM
Truck or bus with 5 cylinders or more	3000 RPM
Truck or bus built prior to 1970, with 4 cylinders	2500 RPM
Truck or bus built in 1970 or later with 4 cylinders	3500 RPM
Motorcycle with two-stroke engine	3750 RPM
Harley Davidson motorcycle with four stroke engine	2500 RPM
Other motorcycle with four stroke engine	3000 RPM

For diesel engines:

Depress the throttle fully. Hold that position for between five and ten seconds so that the engine speed has stabilised at the 'governed' speed. Quickly release the pedal so that it returns to the idle position.

Test readings

a) A minimum of two readings should be taken, with the vehicle engine returned to idle between each test. If the difference between the readings is not more than 2dB(A) then the test is valid. Otherwise continue repeating the tests until any two reading are within 2dB(A);

Stationary Noise Test

A3

b) Calculate the average of the two readings. Round the resulting value down to the nearest whole decibel. This is the noise level of the vehicle;

Example:

Reading 1 = 92.7 dB(A)

Reading 2 = 95.0 dB(A) - further test required (difference greater than 2dB(A))

Reading 3 = 94.1 dB(A) - within 2dB(A) of Reading 1 therefore accept.

$(92.7 + 94.1)/2 = 93.4$ dB(A)

Rounding down gives a test result of **93db(A)**.

This value is compared with the prescribed limit to determine whether of the vehicle complies.

c) If, after three tests, no readings are within 2dB(A) but all three readings are at least 3dB(A) under the prescribed limit then the vehicle should be regarded as complying;

d) If, after three tests, no readings are within 2dB(A) but all three readings are at least 3dB(A) more than the prescribed limit then the vehicle should be regarded as not complying.

Appendix B

Technical Specifications

Portable Brake Testing Decelerometer	B 1
Light Transmittance Meter	B 2
Skid Plate Brake Testing Machine	B 3
Roller Brake Testing Machine	B 4

Portable Brake Testing Decelerometer

B 1

1 Scope

1.1 This specification establishes the requirements for a device which, when placed in a vehicle, will give a reading of its brake deceleration capability during a specified test.

2 General Requirements

2.1 The device shall be portable, lightweight and robust with a mass preferably not exceeding 5 kg.

2.2 The device shall be completely self-contained. Any power source must be internal to the device.

2.3 To eliminate the possibility of a false reading being produced because of a low reserve within an internal energy source, there must be a means to indicate to the operator either that a power supply is in a low state of charge; an automatic disabling function or some other means to preclude incorrect operation.

2.4 The device or its sensors, if separate from the main body, shall be capable of remaining stationary in its test recording position when subjected to a 1.5g deceleration in the horizontal direction.

2.5 The device shall be capable of testing any motor vehicle with the exception of a motorcycle.

2.6 The device shall be capable of providing an original and duplicate copy of the recorded results on a paper tape, card etc. The print media must remain legible for a period of 12 months.

Portable Brake Testing

Decelerometer

B 1

2.7 The device shall have an in-built clock which records the time and date of test. The clock may only be factory set. A facility to allow for 'daylight saving' hours is optional.

2.8 The device shall be capable of recording a brake pedal force of up to 1000N \pm 2%.

2.9 The device shall have an alpha/numeric keyboard to enter various items of vehicle data.

2.10 The device shall report the peak and average deceleration over the range of 0 to 1g with an accuracy of 5% of full scale and an output resolution of 1%.

The period of time over which average deceleration shall be calculated is defined by either of the following:

a) Start of averaging period - within 0.1g of the vehicle starting to decelerate;

End of averaging period - not earlier than 0.1g of the vehicle coming to rest.

b) A change in velocity of either 15 km/hr or 30 km/hr as appropriate (see paragraph 5.1) is achieved.

2.11 The device shall not be capable of proceeding with a test without having the items detailed in paragraphs 3.1 and 3.2 entered into the machine in the first instance.

Portable Brake Testing Decelerometer

B 1

3 Operator Inputs

3.1 The device shall allow the operator to record a vehicle identifier consisting of at least seven alpha/numeric characters.

3.2 The device shall allow the operator to record a personal identification number, otherwise known as the 'Examiner's No.', consisting of up to seven alpha/numeric characters.

4 Device Outputs

4.1 An original and duplicate copy of the results shall be printed.

4.2 The device shall print:

- i) The peak and average deceleration;
- ii) The serial number of the machine as allocated by its manufacturer;
- iii) The date when the device must next be calibrated, prefaced with the title 'Next Cal';
- iv) the time and date of the test;
- v) the vehicle identifier;
- vi) the maximum brake pedal force during the test;
- vii) the examiner's number;
- viii) a line space prefaced with the word 'signature'.

Portable Brake Testing Decelerometer

B 1

4.3 The device may display the peak and average decelerations.

4.4 The device may display the pedal force applied during the test.

5 Additional information

5.1 The test of brake deceleration capability is taken from a nominal 30 km/hr for the service braking system and 15 km/hr for the emergency (parking) brake system.

5.2 The maximum allowable brake pedal force on a motor vehicle is 885N.

5.3 The items detailed in sections 3 and 4 are the minimum necessary. Other inputs or outputs are optional.

Light Transmittance Meter

B2

1 Scope

1.1 This specification sets the requirements for a device to measure the light transmittance of vehicle windows. The principal intention is to obtain the transmittance when the glass is covered with a tinted plastic media.

2 General Requirements

2.1 The device shall be portable, lightweight, robust and completely self-contained (i.e. have its own energy source).

2.2 To eliminate the possibility of a false reading being produced because of a low reserve within an internal energy source, there must be a means to indicate to the operator either that a power supply is in a low state of charge; an automatic disabling function of some other means to preclude incorrect operation.

2.3 The device shall be in two main components - a light source and receiver.

2.4 If the light source and receiver are connected by a wire, the wire shall be at least long enough to reach from the centre of the inside of a car windscreen to the centre of the opposite side.

2.5 The receiver shall have a digital or analogue display to indicate the light transmittance of the sample test. A peak hold facility is preferable.

2.6 The display shall indicate a figure of 100% when the light source is brought into the test position without a test sample in place. All other readings with a sample under test shall be in proportions of that 100% with a resolution of 1%.

Light Transmittance Meter

B2

2.7 The accuracy of the transmittance reading shall be within 5% of full scale over the range of 20% to 100%.

2.8 The light source shall be an incandescent filament source at a nominal colour temperature of 2856°K representing illuminant A of the International Commission on Illumination (C.I.E.). The voltage to the lamp shall be stabilised within $\pm 0.1\%$.

2.9 The receiver shall have a relative spectral sensitivity conforming to photopic curve $V(\lambda)$ of relative luminous efficiency of the C.I.E. 1931 standard observer for photopic vision.

2.10 There shall be a unique serial number of the device as issued by its manufacturer.

3 Additional Information

3.1 The minimum requirements for light transmission of automotive glazing are in general:

Windscreen	75%
Front side windows	35%
Windows to the rear of the driver	35%

Skid Plate Brake Testing Machine

B3

1 Scope

1.1 This specification sets the requirements for skid-plate or other drive-over platform type brake testing machines. It describes machines which are suitable for testing vehicles up to 5.0 tonnes tare.

2 General Requirements

2.1 The machine shall be capable of accepting vehicles with a wheel track of at least 750mm to 2000mm.

2.2 If the machine is designed to test two axles at the same time, it should be capable of accepting vehicles with a wheelbase of at least 2000mm to 4000mm.

If this requirement is not met, the machine shall be capable of indicating to the operator an invalid test and to report the test on each axle group independently.

2.3 Independent readings of braking force shall be measured at each side of a vehicle.

2.4 Plates shall have a co-efficient of friction of at least 0.6 when measured in combination with dry, original equipment tyres.

2.5 The machine shall be capable of repeatedly supporting an axle load of 3.5 tonnes without damage.

2.6 The machine shall report the peak and average deceleration over the range of 0 to 1g with an accuracy of 5% of full scale and an output resolution of 1%.

Skid Plate Brake Testing Machine

B3

The period of time over which average deceleration shall be calculated is defined by either of the following:

- a) Start of averaging period - within 0.1g of the vehicle starting to decelerate;
- b) End of averaging period - not earlier than 0.1g of the vehicle coming to rest;
- c) A change in velocity from the instant the brakes are applied to zero.

2.7 The manufacturer's recommended test speed shall be indicated on the machine and visible to the vehicle operator in letters not less than 50mm high.

If the recommended test speeds for service and emergency brakes are different, both speeds shall be indicated on the machine.

2.8 The machine shall be capable of providing an original and duplicate copy of the results on a paper tape, card etc. The print media must remain legible for a period of 12 months.

2.9 The machine shall have an in-built clock which records the time and date of the test. The clock may only be factory set. A facility to allow for 'daylight saving' hours is optional.

2.10 The machine shall be capable of recording a brake pedal force of up to $1000\text{N} \pm 2\%$.

The brake pedal force may be measured with a device separate from the machine, in which case the machine shall be designed such that it will not print the brake performance report until the pedal force is entered in it.

Skid Plate Brake Testing Machine

B3

2.11 The machine shall have an alpha/numeric keyboard to enter various items of vehicle data.

2.12 The machine shall not be capable of proceeding with a test without having the items detailed in paragraphs 3.1 and 3.2 entered into it in the first instance.

3 Operator Inputs

3.1 The machine shall allow the operator to record a vehicle identifier consisting of at least seven alpha/numeric characters.

3.2 The machine shall allow the operator to record a personal identification number, otherwise known as the Examiner's No." consisting of up to seven alpha/numeric characters.

4 Device Outputs

4.1 An original and duplicate copy of the results shall be printed.

4.2 The machine shall print:

- i) The peak and average deceleration;
- ii) The percentage difference in brake force between each axle;
- iii) The serial number of the machine as allocated by its manufacturer;

Skid Plate Brake Testing Machine

B3

- iv) the date when the machine must next be calibrated, prefaced with the title 'Next Cal';
- v) the time and date of the test;
- vi) the vehicle identifier;
- vii) the maximum brake pedal force during the test;
- viii) the examiner's number;
- ix) a line space prefaced with the word 'signature'.

5 Additional information

5.1 The maximum allowable brake pedal force on a motor vehicle is 885N.

5.2 The items detailed in sections 3 and 4 are the minimum necessary. Other inputs or outputs are optional.

Roller Brake Testing Machine

B4

1 Scope

1.1 This specification sets the requirements for roller brake testing machines used in Authorised Inspection Stations.

1.2 There are two categories of machines referred to in this specification. Machines classed as light vehicle testers are suitable for vehicles up to 5.0 tonnes tare and heavy vehicle testers are suitable for vehicles above that mass. Some machines might be designed to test both categories of vehicles.

2 General Requirements

2.1 The machine shall measure braking force at the tyre periphery. Independent readings of braking force at each side of the vehicle shall be provided.

2.2 Braking force readings shall be displayed, whilst they are being generated, which can be clearly seen by the operator of the vehicle.

2.3 Roller sets shall be designed to be mounted into the floor of the inspection area. The frame of the testing machine shall be mounted flush with the floor level in such a manner that a vehicle shall remain substantially level when under test.

2.4 Light vehicle testing machines shall accept under load wheel sizes from 450mm diameter (10" nominal rim diameter) and heavy vehicle testing machines from 600mm diameter (14" nominal rim diameter). This may be met by adjustable spacing between rollers provided such adjustment is possible to achieve in not more than 5 seconds and without the use of tools.

Roller Brake Testing Machine

B4

2.5 The distance between the outer and inner roller edges shall be:

	Outer	Inner
Light machines	2000mm min	750mm max
Heavy machines	2700mm min	750mm max

2.6 Rollers shall be given a co-efficient of friction of not less than 0.6 when measured in combination with dry, original equipment tyres.

2.7 If the rotational speed of the testing machine's roller exceeds 0.5 km/h, the rollers shall be coated with coarse grit embedded in a durable plastic matrix.

2.8 Both rollers in each pair of rollers on each side of the brake testing machine shall be coupled together by appropriate gearing and shall be positively driven.

2.9 Light vehicle testing machines shall be capable of repeatedly supporting an axle load of 3.5 tonnes without damage and heavy vehicle testing machines 13 tonnes.

2.10 If the rotational speed of the rollers exceeds 0.5km/h, the machine should have means of automatic switch-off of power to the rollers when a pre-determined level of slip occurs between the rollers and the tyres of the tested vehicle.

2.11 Braking force measurements shall be displayed in kilonewtons (kN).

2.12 Light vehicle testing machines shall be capable of measuring a braking force on each brake of at least 4kN and heavy testing machines at least 10kN.

NOTE: These forces are the minimum required for inspection purposes. Some vehicle braking systems can achieve several times these braking forces and

Roller Brake Testing Machine

B4

therefore the machine should be capable of sustaining higher forces without damage.

2.13 The indicated braking force shall be within $\pm 2\%$ up to 5kN and $\pm 5\%$ above 5kN.

2.14 The machine shall be capable of providing an original and duplicate copy of the results on a paper tape, card, etc. The print media must remain legible for a period of 12 months.

2.15 The machine shall have an in-built clock which records the time and date of the test. The clock may only be factory set. A facility to allow for 'daylight saving' hours is optional.

2.16 The machine shall be capable of recording a brake pedal force of up to 1000N $\pm 2\%$.

2.17 The machine shall have an alpha/numeric keyboard to enter various items of vehicle data.

2.18 The machine shall not be capable of proceeding with a test without having the items detailed in paragraphs 3.1 and 3.2 entered into it in the first instance.

3 Operator Inputs

3.1 The machine shall allow the operator to record a vehicle identifier consisting of at least seven alpha/numeric characters.

3.2 The machine shall allow the operator to record a personal identification number, otherwise known as the 'Examiner's No.', consisting of up to seven alpha/numeric characters.

Roller Brake Testing Machine

B4

4 Device Outputs

4.1 An original and duplicate copy of the results shall be printed.

4.2 The machine shall print:

- i) The brake and drag force* on each wheel;
- ii) The percentage difference in brake force between each axle;
- iii) The serial number of the machine as allocated by its manufacturer;
- iv) The date when the machine must next be calibrated, prefaced with the title 'Next Cal';
- v) The time and date of the test;
- vi) The vehicle identifier;
- vii) The maximum brake pedal force during the test;
- viii) The examiner's number;
- ix) A line space prefaced with the word 'signature'.

* (the drag force is that produced by items such as loaded wheel bearings or brake shoes in contact with the drum when the service system is not energised.)

Roller Brake Testing Machine

B4

5 Additional Information

5.1 The maximum allowable brake pedal force on a motor vehicle is 885N.

5.2 The items detailed in sections 3 and 4 are the minimum necessary. Other inputs or outputs are optional.

Headlight Aim Tester

B5

1 Introduction

1.1 The Rules for Authorised Inspection Stations permit the use of approved headlight aim testers for checking the aim of vehicle headlights.

1.2 Headlight aim testers complying with the requirements of this specification are acceptable for the testing of the aim of vehicle headlights in accordance with those Rules.

1.3 This specification is restricted to headlight aim testers that employ a collimating lens: it does not apply to testers which use other methods of testing headlight aim.

2 Definitions

2.1 Unless otherwise stipulated, angles given in this specification refer to the included angle between the line drawn from the headlight centre to the intersection of the calibration screen axes and the line drawn from the headlight centre to the point of intersection of either the horizontal or vertical axis of the screen with the required respective vertical or horizontal line.

2.2 Headlight - A lighting source mounted on a vehicle to provide illumination of the road and objects ahead of a vehicle.

2.3 Hot Spot - The zone of the headlight beam which is of highest intensity as it appears to an observer viewing the beam on an image screen. For headlights with European beams or where the beam has a sharp angular cut-off, the top of the hot spot shall be taken as the 'elbow point' or intersection of the horizontal and inclined cut-off zones.

2.4 HV Point - The intersection of the central horizontal axis (*H*) and the central vertical axis (*V*) of the image screen.

2.5 Vertical Median Plane - The plane passing through the longitudinal centre line of the vehicle, perpendicular to the plane on which the vehicle is standing.

Headlight Aim Tester

B5

2.6 h - The vertical height of the centre of the headlight above the plane supporting the vehicle (in millimetres).

3 General Requirements

3.1 The headlight aim tester shall consist of a lens which focuses the light beam onto a screen within the tester.

3.2 The screen shall be located in a position that will allow the operator of the tester to readily and conveniently see the image of the headlight's light beam.

3.3 Provision shall be made for immediate adjustment to allow for different headlight heights and vehicle orientations.

3.4 The tester shall be mounted on at least one securely mounted locating guide rail which traverses the inspection lane and shall be easily movable to any point along this rail. The track followed by the tester (whether consisting of two rails, or one rail and a prepared surface) shall be such that the tester is always correctly aligned in the vertical plane.

3.5 Aiming of the tester shall be accomplished by either an electrical or mechanical device. If an electrical aiming device is provided, a back-up mechanical aiming device shall also be provided.

4 Design Requirements

Optical Characteristics

4.1 Headlight aim testers shall enable the headlight beam pattern to be examined on an image screen within the device. The resulting image must be equivalent to that which would be projected onto a flat screen placed in front of the headlight lens at a horizontal distance nominated by the manufacturer (D metres).

4.2 The focused beam on the image screen shall be accurate to within 0.25 degree in the vertical direction at all declinations from horizontal to 3.25 degrees below horizontal.

Headlight Aim Tester

B5

Image Screen

The image screen shall have grid lines provided to assist aiming of headlights, comprising

4.3 A central horizontal and a central vertical axis which intersect on the optical axis of the collimating lens, at the HV point.

4.4 A series of evenly spaced horizontal lines which allows estimation of angular declination below the HV point in the range 0 to 3.25 degrees with a spacing not more than 0.25 degrees. They must be labelled in degrees, or mm declination as measured on an equivalent flat screen as specified in Section 4.1.1.

4.5 A straight line inclined at 15 degrees to the horizontal axis for testing the aim of asymmetric European or Z-beam type headlights. The line shall originate at the intersection of the vertical axis and the horizontal line 0.5 degrees below the horizontal axis and shall project upwards and to the left of the point of origin.

4.6 The requirements of 4.2.2 may be met by movement of the horizontal axis by an external calibrated mechanism which indicates the equivalent angles of declination.

Device Alignment

4.7 The device shall be provided with an indicator or other means to enable an operator to locate rapidly the approximate centre of the headlight lens.

4.8 The following adjustments shall be provided to allow for different headlight positions:

Height adjustments

Allowing the testing of headlights with centres located at or between 600 mm and 1400 mm above the surface supporting the vehicle. The device shall incorporate a means of determining the height (h) with a scale graduated in at least 5 mm increments.

Headlight Aim Tester

B5

Lateral horizontal adjustment

On guide rails (or one rail and prepared surface) to allow for the checking of headlights up to at least 2500 mm apart.

4.9 The following provisions shall be made for aligning the device with the longitudinal axis of the vehicle:

- The optical axis must be able to be set parallel to the vertical median plane. The adjustment mechanism must provide a range of rotational alignment about a vertical axis over a range of not less than 20 degrees in either direction. The adjustment must be able to be made without the use of tools. The adjustment mechanism must permit alignment to an accuracy of 0.25 degrees.
- The optical axis must be able to be set parallel with the plane supporting the vehicle. The adjustment mechanism must provide a range of rotational alignment about a horizontal axis over a range of not less than 5 degrees in either direction. The adjustment must be able to be made without the use of tools. The adjustment mechanism must permit alignment to an accuracy of 0.25 degrees.

5 Operating Instructions

5.1 The device shall be provided with a table or graph clearly informing the user of the acceptable declination of the headlight as required under the New South Wales Motor Traffic Regulations. This shall indicate the location of the top of the hot spot as a function of the vehicle's headlight height h .

5.2 The acceptable range of declination below the optical axis of the top of the hot spot can be determined from Section 6. An example is given below for a device graduated to a reading accuracy of 0.25 degrees.

Headlight Aim Tester

B5

Range of Headlight Height h in mm		Angular Declination Range in degrees	
From	To	From	To
600	709	0.25	9
710	819	0.25	1.75
820	929	0.25	2.00
930	1039	0.25	2.25
1040	1149	0.25	9.50
1150	1249	0.50	9.75
1250	1359	0.75	3.00
1360	1400	1.00	3.95

5.3 The device shall be provided with a label showing the distance the tester should be positioned from the headlight.

6 Location Of The Hot-Spot Band

6.1 To satisfy the requirements of the New South Wales Motor Traffic Regulations, each headlight must be adjusted so that the top of its hot spot lies within a specified band of angle of declination. This band is a function of the headlight height, h .

6.2 To determine this 'band, the distance from the headlight D to the test screen must be known.

6.3 Application of the following formulae, with D fixed, defines the headlight dipping characteristics required under the Motor Traffic Regulations.

6.4 For a linear scale (with h in millimetres and D in metres):

- The top of the band is $D(h-1000)/92$ millimetres below the horizontal, and
- The bottom of the band is $Dh/25$ millimetres below the horizontal.

Headlight Aim Tester

B5

6.5 For an angular scale (with h in millimetres):

- The top of the band is $\text{INV TAN}(h-1000)/22000$ degrees below the horizontal; and
- The bottom of the band is $\text{INV TAN}(h/25000)$ degrees below the horizontal.

6.6 The above formulae may be approximated for tabulation purposes by using a step function such that the tabulated values do not deviate from the exact value by more than 0.25 degrees.

Headlight Testing Screen & Layout of Testing Space

B6

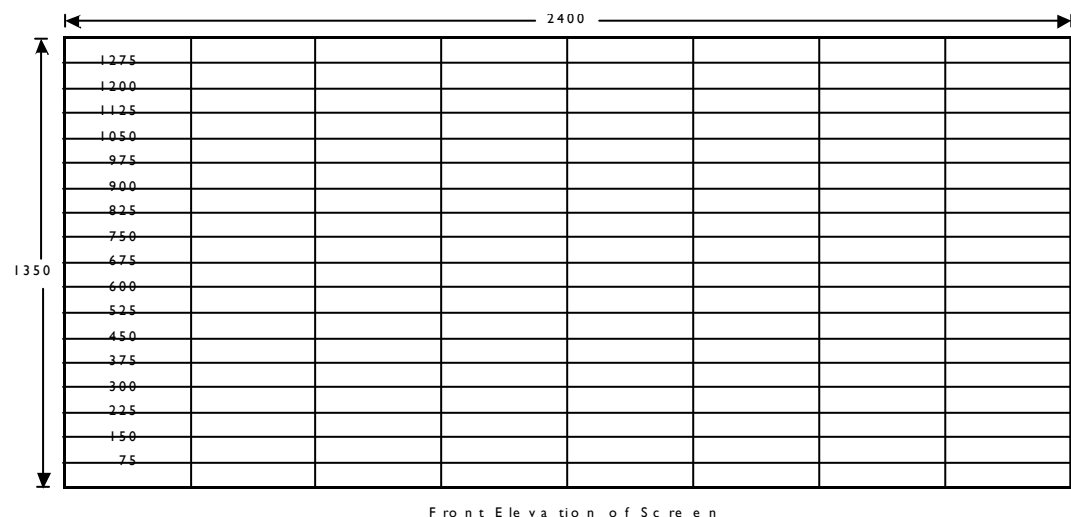
1 Scope

1.1 This Specification describes requirements for the headlight testing screen and the layout of the headlight testing space in accordance with paragraph 19 of Schedule F of the Motor Traffic Regulations 1935.

2 The Headlight Testing Screen

2.1 The surface of the screen should be 'flat' white (gloss finish should be avoided). The screen shall be at least 1300mm in height and 2400mm in width (screens for use with motorcycles only may be 1300mm in height and 1200mm in width) and shall be marked with horizontal and vertical lines. Horizontal lines shall be spaced 75mm apart and vertical lines shall be spaced 300mm apart. Horizontal lines shall be labelled with their height from the bottom of the screen.

Headlight Testing Screen Showing Size of Marking On The Screen



Headlight Testing Screen & Layout of Testing Space

B6

3 Layout Of The Testing Space

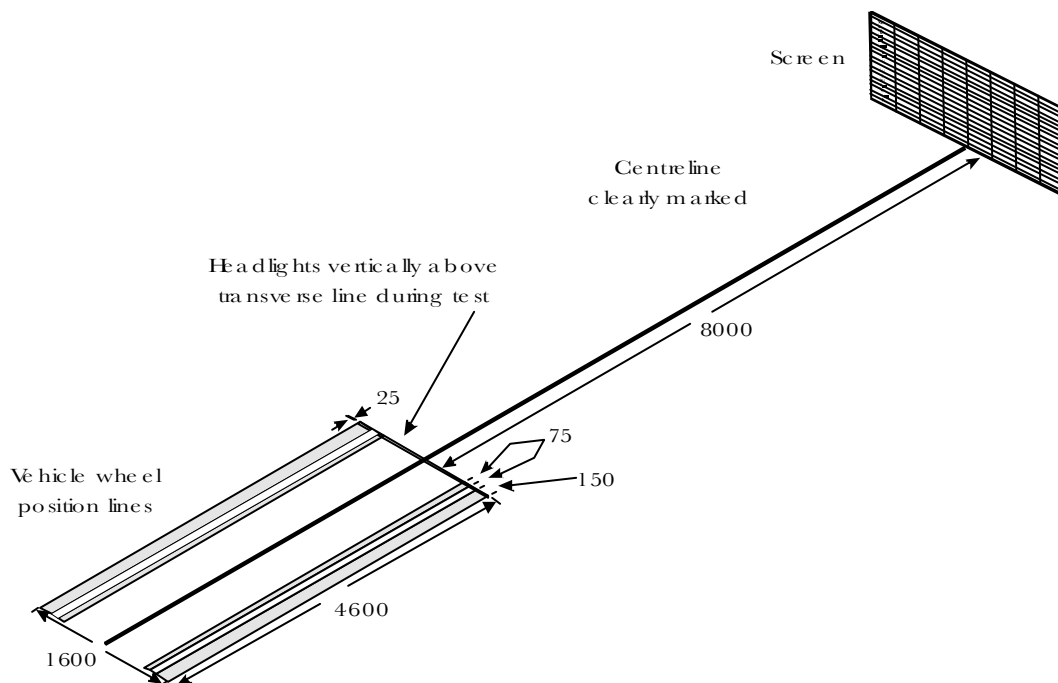
3.1 The ground on which the vehicle stands shall be marked with a centreline which passes through the centreline of the screen and a transverse line which intersects the centreline and is 8000mm from the screen (the headlights of the tested vehicle are positioned directly over this line). Additional longitudinal lines in the region where the vehicle standing would assist alignment and their use is recommended.

3.2 The bottom of the screen is at the same level as the surface on which the vehicle stands.

3.3 The screen and testing space must be adequately shielded from extraneous light.

3.4 The testing space must be clear of obstruction.

General Arrangement Of The Headlight Testing Space



NOTE: All dimensions in the diagrams are in millimetres.

Appendix C

Australian Design Rules

Appendix C1

ADR applicability

tables

Australian Design Rules

The Australian Design Rules (ADRs) are a series of specifications and performance requirements which have been prepared for the purpose of:

- Reducing the possibility of accidents occurring through such measures as improved lights and signals, windscreen washers, wipers and demister, safety rims and rear vision mirrors;
- Mitigating the effects of those accidents which do occur, through such measures as seatbelts, energy absorbing steering columns and instrument panels, anti-burst door latches and head restraint; and
- Reducing the undesirable effects of motor vehicles on the environment by limiting the noise and pollutants emitted.

Vehicles manufactured after particular dates are required meet the requirements of relevant ADRs. Many of the features associated with ADRs are not readily apparent by visual inspection and evidence of a vehicle's compliance with those requirements is shown by a metal compliance plate affixed with the approval of the Australian Motor Vehicle Certification Board. Generally these plates are secured to the panel separating the passenger and engine spaces (or luggage compartment if rear-engined) and are visible when the bonnet is open. In the case of motorcycles they are usually on the steering head below the handlebars.

- Second edition ADRs have relevance to vehicles manufactured between 1972. and June 1988.
- Third edition ADRs have relevance to vehicles manufactured from 1 July 1988.

Australian Design Rules

Vehicle Categories

The following are simplified categories for the purpose of determining the ADRs applicable to a vehicle.

MA - Passenger car or passenger car derivative (includes a station wagon, panel van or utility based on a passenger car design)

MB - Forward control passenger vehicle ('people mover' - steering wheel in forward 25% of vehicle's length)

MC - Multi-purpose passenger vehicle (off-road passenger vehicle - four-wheel-drive)

MD - Bus (more than 9 seats, including the driver) - *see Inspection Manual for Heavy Vehicles*

NA - Light goods vehicle - designed principally for carrying goods, gross mass not exceeding 3.5 tonnes

TA/B - Light trailer - gross trailer mass not exceeding 3.5 tonnes - *see Inspection Manual for Heavy Vehicles*

L - Motorcycles, tricycles and mopeds - several exemptions apply to mopeds and tricycles

Second edition ADRs applicable to vehicle categories

The application date (year/month) is shown for each category (e.g. 01-07-1972 is shown as 7/72)

ADR		MA	MB	MC	NA	L
1	Reversing signal lamps	1/72	7/73	1/73	7/73	
2	Door latches and hinges	1/71	7/74	1/73	7/74	
3	Seat anchorages	1/71	7/74	1/73	7/74	
3A	Seat anchorages	1/77	1/86			
4	Seat belts - front seats	1/69	1/70	1/70	1/70	
	Seat belts - front and rear seats	1/71	1/71	1/71	1/71	
4A	Seat belts	1/74	7/74	1/74	7/74	
4B	Seat belts	1/75	7/75	1/75	7/75	
4C	Seat belts	1/76	7/76	1/76	7/76	
4D	Seat belts	1/84	1/86			
5A	Seat belt anchorages - front	1/69	1/70	1/70	1/70	
	Seat belt anchorages - front and rear	1/71	1/71	1/71	1/71	
5B	Seat belt anchorages	1/75	7/75	1/75	7/75	
6	Direction turn signal	1/73	7/73	1/73	7/73	
6A	Direction turn signal	7/81	7/81	7/81	7/81	1/81
7	Hydraulic brake hoses	7/70	7/70	7/70	7/70	7/75
8	Safety glass	7/71	7/71	7/71	7/71	
9	Automatic transmissions (rescinded January 1976)	7/72		7/72	7/72	
10A	Steering columns	1/71				
10B	Steering columns	1/73				
11	Internal sunvisors	1/72	7/73	1/73	7/73	
12	Glare reduction	1/73	7/73	1/73	7/73	
14	Rear view mirrors	1/72	1/85	1/73		
15	Demisting of windcreens	1/71	7/73	1/73	7/73	
16	Windscreen wipers and washers	1/73	1/85	1/74		
17	Fuel systems - goods vehicles					
18	Location and visibility of instruments					
18A	Location and visibility of instruments					
20	Safety rims	7/70	1/85	1/73		
21	Instrument panel	1/73				
22	Head restraints	1/72		1/74		

Second edition ADRs applicable to vehicle categories

The application date (year/month) is shown for each category (e.g. 01-07-1972 is shown as 7/72)

ADR		MA	MB	MC	NA	L
22A	Head restraints	1/75	1/85	1/75		
23	Pneumatic car tyres	1/74		1/74		
23A	Pneumatic car tyres	1/84	1/85	1/84		
23B	Pneumatic car tyres	1/86	1/86	1/86		
24	Tyre selection	1/73	1/85	1/73		
24A	Tyre selection	1/86	1/86	1/86		
25	Anti-theft locks	1/72		1/73		
25A	Anti-theft locks	1/78	1/85	1/78		
26	Engine emission control	1/72				
27	Engine emission control	1/74				
27A	Engine emission control	7/76				
27B	Engine emission control	1/82				
27C	Engine emission control	1/83				
28	Motor vehicle noise (later for diesels)	1/74	7/74	1/74	7/74	7/75
28A	Motor vehicle noise	1/81	7/80	1/81	7/80	
29	Side door strength	1/77				
30	Diesel engine smoke emissions	7/76	7/76	7/76	7/76	7/76
31	Hydraulic braking system	1/77				
33	Motorcycle and moped braking systems					3/76
34	Child restraint anchorages	7/76	1/86			
35	Braking systems - commercial vehicles		7/79	7/79	7/79	
35A	Braking systems - commercial vehicles		7/80	7/80	7/80	
36	Exhaust emission control		7/78	1/79	7/78	
37	Vehicle emission control	1/86				
39	Motorcycle and moped noise					3/85
39A	Motorcycle noise					3/88
40	Light duty vehicle emission control		1/88	1/88	1/88	
41	Mandatory operation on unleaded petrol		1/88	1/88		

Third edition ADRs applicable to vehicle categories

The application date (year/month) is shown for each category (e.g. 01-07-1972 is shown as 7/72)

ADR		MA	MB	MC	NA	L
01/00	Reversing lamps	7/88	7/88	7/88	7/88	3/91
02/00	Side door latches and hinges	7/88	7/88	7/88	7/88	
03/00	Seat anchorages	7/88	7/88	7/88	7/88	
03/01	Seat anchorages	1/91	1/91		7/91	
03/02	Seats and seat anchorages	1/95	1/95	1/91	7/95	
04/00	Seat belts	7/88	7/88	7/88	7/88	
04/01	Seat belts	1/91	1/91	1/91	7/91	
05/00	Anchorages for seat belts and child restraints	7/88	7/88	7/88	7/88	
05/01	Anchorages for seat belts and child restraints	7/90	7/90	7/90	7/90	
05/02	Anchorages for seat belts and child restraints (also 05/03)	1/91	1/91	1/91	7/91	
06/00	Direction indicator lamps	7/88	7/88	7/88	7/88	10/91
07/00	Hydraulic brake hoses	7/88	7/88	7/88	7/88	7/88
08/00	Safety glazing material	7/88	7/88	7/88	7/88	7/88
08/01	Safety glazing material	1/94	1/94	1/94	7/94	3/94
09/00	NOT YET ALLOCATED IN THIRD EDITION					
10/00	Steering column	7/88	7/88	7/88	7/88	
10/01	Steering column	7/90	7/90	7/90	7/90	
11/00	Internal sun visor	7/88	7/88	7/88	7/88	
12/00	Glare reduction in field of view	7/88	7/88	7/88	7/88	
13/00	Installation of lighting and light signalling	7/88	7/88	7/88	7/88	
14/00	Rear vision mirrors	7/88	7/88	7/88	7/88	7/88
14/01	Rear vision mirrors	1/91	1/91	1/91	7/90	3/91
14/02	Rear vision mirrors	1/93	1/93	1/93	7/92	3/93
15/00	Demisting of windshield	7/88	7/88	7/88	7/88	
15/01	Demisting of windshield	1/93	1/93	1/93	7/92	
16/00	Windscreen wipers and washers	7/88	7/88	7/88	7/88	
16/01	Windscreen wipers and washers	1/93	1/93	1/93	7/92	
17/00	Fuel system					
18/00	Instrumentation	7/88	7/88	7/88	7/88	7/88
18/01	Instrumentation	1/93	1/93	1/93	7/92	3/93

Third edition ADRs applicable to vehicle categories

The application date (year/month) is shown for each category (e.g. 01-07-1972 is shown as 7/72)

ADR		MA	MB	MC	NA	L
18/02	* Instrumentation	7/95	1/95	1/95	7/95	7/95
19/00	Installation of lighting and light-signalling devices on L-group vehicles	10/91				
19/01	Installation of lighting and light-signalling devices on L-group vehicles					3/92
20/00	Safety rims	7/88	7/88	7/88		
21/00	Instrument panel	7/88				
22/00	Head restraints	7/88	7/88	7/88		
23/00	Passenger car tyres	7/88	7/88	7/88		
23/01	Passenger car types	1/90	1/90	1/90	7/90	
24/00	Tyre and rim selection	7/88	7/88	7/88	7/88	
24/01	Tyre and rim selection	1/90	1/90	1/90	7/90	1/90
24/02	Tyre and rim selection	1/93	1/93	1/93	7/92	3/93
25/00	Anti-theft locks	7/88	7/88	7/88		
25/01	Anti-theft locks	1/91	1/91	1/91		
25/02	* Anti-theft locks	1/92	1/92	1/92		
28/00	External noise of motor vehicles other than L-group of vehicles	7/88	7/88	7/88	7/88	
28/01	External noise of motor vehicles other than L-group of vehicles	1/92	1/92	1/92	1/93	
29/00	Side door strength	7/88				
30/00	Diesel engine exhaust smoke emissions	7/88	7/88	7/88	7/88	
31/00	Hydraulic brake systems for passenger cars	7/88				
32/00	NOT ALLOCATED IN THIRD EDITION					
33/00	Brake systems for motorcycles and mopeds					
34/00	Child restraints anchorage and child restraint anchor fittings	1/93	1/93	1/93		
34/01	Child restraints anchorage and child restraint anchor fittings	1/94	1/94	1/94		
35/00	Commercial vehicle brake systems		7/88	7/88	7/88	
36/00	Exhaust emission control for heavy duty vehicles		7/88	7/88	7/88	
37/00	* Emission control for light vehicles	7/88	7/88	7/88	7/88	
38/00	Trailer brake system					
39/00	External noise of motorcycles					7/88
40/00	NOT YET ALLOCATED IN THIRD EDITION					
41/00	* Mandatory operation on unleaded petrol		7/88	7/88	7/88	7/88

Third edition ADRs applicable to vehicle categories

The application date (year/month) is shown for each category (e.g. 01-07-1972 is shown as 7/72)

ADR		MA	MB	MC	NA	L
42/00	General safety requirements	7/88	7/88	7/88	7/88	7/88
42/01	General safety requirements	1/92	1/92	1/92	7/92	3/91
42/02	General safety requirements	1/93	1/93	1/93	7/92	3/93
43/00	Vehicle configuration and marking	7/88	7/88	7/88	7/88	7/88
43/01	Vehicle configuration and marking	1/89	1/89	1/89	1/89	1/89
43/02	Vehicle configuration and dimensions	1/92	1/92	1/92	7/91	3/92
43/03	Vehicle configuration and dimensions	1/94	1/94	1/94	7/94	3/94
44/00	Specific purpose vehicle requirements	7/88	7/88	7/88	7/88	7/88
44/01	Specific purpose vehicle requirements	1/92	1/92	1/92	7/91	3/92
44/02	* Specific purpose vehicle requirements	1/93	1/93	1/93	7/93	3/93
45/00	Lighting and light signalling devices not covered by ECE regulations	7/88	7/88	7/88	7/88	
45/01	Lighting and light signalling devices not covered by ECE regulations	1/92	1/92	1/92	7/92	3/92
46/00	Headlamps	7/88	7/88	7/88	7/88	10/91
47/00	Reflex reflectors	7/88	7/88	7/88	7/88	7/88
48/00	Rear registration plate illuminating devices	7/88	7/88	7/88	7/88	
49/00	* Front and rear position (side) lamps, stop lamps and end outline marker lamps	7/88	7/88	7/88	7/88	
50/00	Front fog lamps (O)	7/88	7/88	7/88	7/88	7/88
52/00	Rear fog lamps (O)	7/88	7/88	7/88	7/88	7/88
53/00	Position lamps, stop lamps etc for L-group vehicles					
54/00	Passing beam headlamps for mopeds					
55/00	Headlamps for L-group vehicles other than mopeds					
56/00	Moped noise					
57/00	Special requirements for L-group vehicles					
60/00	Centre high mounted stop lamp		7/89			
61/00	Vehicle marking	1/92	1/92	1/92	7/91	3/92
61/01	Vehicle marking	1/93	1/93	1/93	7/92	3/93
62/00	Mechanical connections between vehicles	1/92	1/92	1/92	7/91	3/92
67/00	Installation of lighting and light-signalling devices on three wheeled vehicles					7/92
69/00	Full frontal impact occupant protection (#)	7/95				
70/00	Exhaust emission control for diesel engines (#)	1/96	1/96	1/96	7/96	1/96

Third edition ADRs applicable to vehicle categories

The application date (year/month) is shown for each category (e.g. 01-07-1972 is shown as 7/72)

NOTES:

- O = Optional (not mandatory to fit, but if fitted must comply with requirements)
- # = Staggered implementation as between new models and all models. See Rule for details.

Appendix C2

2nd edition

ADR checklist

Second edition checklist

ADR	TITLE
1.	Reversing signal lamps
2.	Door latches and hinges
3.	Seat anchorages
4.	Seat belts
5.	Seat belt anchorages
6.	Direction turn signals
7.	Hydraulic brake hoses
8.	Safety glass
9.	Automatic transmission controls
10.	Steering columns
11.	Internal sun visors
12.	Glare reduction in field of view
13.	Not allocated
14.	Rear vision mirrors
15.	Demisting of windscreens
16.	Windscreen wipers and washers
17.	Fuel system for goods vehicles
18.	Location and visibility of instruments
19.	Not allocated
20.	Safety rims
21.	Instrument panels
22.	Head restraints
23.	New pneumatic passenger car tyres
24.	Tyre selection
25.	Anti-theft locks
26.	Vehicle engine emission control
27.	Vehicle emission control
28.	Motor vehicle noise
29.	Side door strength
30.	Diesel engine exhaust smoke emissions
31.	Hydraulic braking systems
32.	Not allocated
33.	Motor cycles and moped braking systems
34.	Child restraint anchorages
35.	Commercial vehicle braking systems
36.	Exhaust emission control for heavy duty vehicles
37.	Vehicle emission control
38.	Trailer brake systems
39.	Motor cycles and moped noise
40.	Light duty vehicle emission control
41.	Mandatory operation on unleaded petrol

Reasons for rejection

Numbers in (brackets) refer to the ADR clauses

ADR 1 Reversing signal lamps

- A. The lamp colour is not amber or white. (1.2.1)
 - B. The lamps are not continuously lighted when the gear selector is in the 'reverse' position and the ignition is 'on'. (1.3.1)
 - C. The lamps are lighted in any situation other than B. (1.3.1)
 - D. The lamps are not clearly visible from an observation point to the rear of the vehicle. (Preamble)
-

ADR 2 Door latches and hinges

- A. The latches do not have both primary and secondary latch positions. (2.2.1.1)
 - B. The latches do not provide both longitudinal and transverse restraint in both primary and secondary latch positions. (2.2.1.1.2)
 - C. Any side door does not have a locking mechanism with a means of operation in the interior of the vehicle. (2.2.1.3)
 - D. With its locking mechanism engaged, any front door can be opened from outside the vehicle (other than by using a key). (2.2.1.3.1)
 - E. With its interior locking mechanism engaged, any rear door can be opened from inside or outside the vehicle. (2.2.1.3.2)
-

ADR 3 Seat anchorages

- A. Any seat can be removed from its anchorages or guides without either the removal of fasteners or the operation of an adjuster mechanism. (3,3A.2.1)
- B. Hinged or folding seats or seat backs are not equipped with a self locking restraining device and a control for releasing that device. (3,3A.2.3)
- C. Where a seat must fold or hinge to permit access to another seat, a release device is not readily accessible to both the occupant of the seat and a person to the rear More than one release device is permitted). (3,3A.2.3.1)

Reasons for rejection

Numbers in (brackets) refer to the ADR clauses

ADRs 4 & 5 Seat belts and seat belt anchorages

- A. Unless exempted, a lap-sash or harness seat belt is not provided for any outboard seating position. (4,4A,4B,4C,4D.2.1)
- B. No seat belt is provided for any inboard seating position. (4,4A,4B,4C,4D.2.1)
- C. Any seat belt assemblies are not marked in accordance with the requirements of Australian Standard E35 or Australian Standard 2596 or with any of the following standards:
 - New Zealand NZS1662
 - British BS3254,BSAU.160,BSAU.160A
 - Swedish SIS.88.28.51B, SIS.88.28.53B
 - European ECE R15

Note: Seat belts or retractors which bear any mark other than the above may be accepted only if evidence is available to show that they are from a vehicle which is known to comply with ADR's. (4A.2.4 & 4B,4C,4D.2.7)

- D. Any seat belt or seat belt anchorages gives cause for rejection. (5.3 & 5A,5B.2.1)
- E. The seat belt fitted to either of the outboard front seating positions, except in the case of four wheel drive vehicles, does not incorporate an emergency locking retractor. (4B,4C,4D.2.2)
- F. In the case of a bucket seat, the seat belt buckle is not mounted on a stalk or similar device to prevent it falling to the floor. (ADR 4B, 4C, 4D)

ADR 6 Direction turn signals

- A. The turn signals are not amber in colour. (6,6A.2.5.1)
- B. The turn signals do not flash simultaneously on one side of the vehicle when the switch is moved to indicate a turn in that direction. (6,6A.2.4.1)
- C. The front or rear signal lenses cannot be sighted by an observer standing within the shaded area shown on the diagram below: (6,6A.2.1.6)
- D. A vehicle over 7.5m in length or a prime mover does not have signal lamps which are:
 - i) Located forward of the centre of the vehicle; and
 - ii) Visible to an observer located anywhere on the observation lines as shown in the diagram below. (6,6A.2.1.6)

Reasons for rejection

Numbers in (brackets) refer to the ADR clauses

ADR 7 Hydraulic brake hoses

- A. End connections are corroded. (7.3.1)
 - B. Any hose assembly is not marked with the name or trademark of its manufacturer or the manufactured standard. (7.4.1)
 - C. Any braided hydraulic hose assembly has had the end protective sleeves damaged or removed.
-

ADR 8 Safety glass

- A. Any window glass fitted does not bear a permanent mark indicating that it is of a safety type, for example: (8.1)
 - (i) AS R1-1968
 - (ii) AS 2080 -1977
 - (iii) BS 857:1967
 - (iv) BS 5282:1975
 - (v) ECE Reg 43
 - (vi) BS AU178:1980
 - (vii) JISR 3211-1979
 - (viii) ANSIZ 26.1-1980
 - (ix) NZS 325-1967
-

ADR 10A, 10B Steering columns

- A. The steering column shaft has no collapsible joints or sections between the steering wheel and the steering box/rack. (10A,10B.1.1)
-

ADR 11 Internal sunvisors

- A. The sunvisors are not padded. (11.2.1.1)
-

ADR 12 Glare reduction in field of view

- A. Windscreen wiper arms have a gloss finish such as chrome plating.(12.2.1)

Reasons for rejection

Numbers in (brackets) refer to the ADR clauses

ADR 14 Rear vision mirrors

- A. An external mirror is not fitted on the driver's side of the vehicle. (14.2.1)
 - B. The external mirror, on the driver's side of the vehicle, is not adjustable from the driver's seating position. (14.2.3.1.2)
 - C. Where there is no internal rear vision mirror or the construction of the body is such as to prevent its use, an externally mounted mirror is not fitted on the left side of the vehicle. (14.2.1)
 - D. The reflecting surface on the driver's side mirror is not flat. (14.2.3.1.1)
-

ADR 15 Demisting of windscreens

- A. No provision exists for demisting the windscreen. (15.2)
-

ADR 16 Windscreen wipers and washers

- A. Power operated windscreen wipers are not fitted. (16.2)
- B. Single speed wipers are fitted. (16.3)
- C. Wiper speeds are not independent of engine speed and load. (16.3.3)
- D. A windscreen washer system is not fitted. (16.5)

Reasons for rejection

Numbers in (brackets) refer to the ADR clauses

ADR 17 Fuel systems for goods vehicles using liquid fuel

- A. Any section of the fuel system is located at the widest extremity of the vehicle (rear vision mirrors and side mounted lights should not be considered in determination of vehicle extremity). (17.3.1)
- B. Any section of the fuel tank is forward of the front axle. (17.3.2)
- C. Any section of the fuel system is below the level of the front axle or the level of any chassis cross members forward of the tank. (17.3.3.2)
- D. Any section of the fuel tank or filler pipe is located within or above the vehicle cabin. (17.3.4)
- E. The top of the fuel tank is above the carburettor or the fuel injectors. (17.4.1)
- F. A device controlling the flow of fuel from or between fuel tanks (if it is in the driver's cabin) cannot be reached by the driver from the driver's normal seating position. (17.4.2)
- G. In the case of diesel engines, there is no device to shut off the fuel flow to the engine. (17.4.3)
- H. Tank drain fittings, where provided, protrude more than 20mm below the tank body. (17.4.9)
- J. No safety vent is fitted to the top of the fuel tank. (17.4.6)
- K. Any fuel tank safety vent discharges into an enclosed space. (17.4.6)
- L. Overflow from the filling pipe is likely to spill onto a part of the exhaust or electrical system. (17.4.4)

ADR 18 Location and visibility of instruments

- A. Provision is not made for instruments to be illuminated. (18,18A.4.3)
- B. Any instrument which informs the driver of the state of the vehicle (speedometer, fuel gauge, etc) is on the passenger's side of the vehicle. (18,8A.3.2)

Reasons for rejection

Numbers in (brackets) refer to the ADR clauses

ADR 20 Safety rims

NO CHECKS

ADR 21 Instrument panels

- A. The instrument panel to the left of the steering wheel is not firmly padded. (21.2.2)
-

ADR 22 Head restraints

- A. Head restraints are not provided for each outboard front seating position. (22,22A.2.1)
- B. Any head restraint is of the clip-on type (these are likely to be dislodged in a crash). (22,22A.3.2)
- C. Any head restraint is less than 170mm in width for individual seats and 250mm for bench seats. (22,22A.2.3)
- D. The top of any head restraint is less than 700mm in height from the junction of the seat backrest and seating cushion, for any position of adjustment. (22,22A.2.2)
- E. Any head restraint is less than 115mm in height (see diagram). (22,22A.2.2)
-

ADR 23 New pneumatic passenger car tyres

- A. Treadwear indicators are not incorporated in the tread pattern of every tyre (raised blocks in the centre groove). (23, 23B.2.2.1, 23A.2.3.1)
- B. Any tyre is not labelled with tyre size designation and manufacturer's identification. (23,23B.2.3, 23A.2.4)

Reasons for rejection

Numbers in (brackets) refer to the ADR clauses

ADR 24 Tyre selection

- A. For production vehicles, a tyre selection placard is not affixed to an accessible location. (24, 2.2.1, 24A.2.1.1)

ADR 25 Anti-theft locks

- A. The vehicle is not fitted with an ignition lock which incorporates an anti-theft setting. (25,25A.2.1)
- B. When engaged, the anti-theft lock does not prevent at least one of the following actions: (25,25A.2.6)
 - a) Steering the vehicle; or
 - b) Engaging the forward drive gears; or
 - c) Releasing of brakes.
- C. The key can be removed with the lock in any position except the 'anti-theft' position. (25,25A.2.5)

Note: Some European vehicles are provided with a 'garage' position on the lock. The key can be removed in this position without engaging the 'anti-theft' action. A 'garage' lock position is not cause for rejection if the vehicle concerned has been personally imported or has been imported for an Engineering or Market Evaluation.

- D. Movement of the locking control from the engine on position to the anti-theft position is possible by a single motion of the key. (25,25A.2.6.1)

ADR 26 Vehicle engine emission control

- A. The engine is not of the same specifications as an engine from a vehicle which is known to comply with ADR 26 or more stringent standards. (26.3)

Reasons for rejection

Numbers in (brackets) refer to the ADR clauses

ADR 27 Vehicle emission control

- A. The engine is not of the same specifications as an engine from a vehicle which is known to comply with ADR 27 or more stringent standards
-

ADR 27A, 27B, 27C Vehicle emission control

- A. The fuel tank is fitted with a vented cap. (*Note: the cap may incorporate a pressure relief valve*).
 - B. The fuel tank is vented directly to the atmosphere.
 - C. The engine is not of the same specifications as an engine from a vehicle which is known to comply with the appropriate ADR or more stringent standards or does not comply with any acceptable overseas standards. This does not apply to exhaust extractors.
-

ADR 28 Motor vehicle noise

- A. The engine and exhaust systems are not of the same specifications as those from a vehicle which is known to comply with ADR 28 or 28A or ECE Regulation 9. This does not apply to exhaust extractors.
-

ADR 29 Side door strength

NO CHECKS

ADR 30 Diesel engine exhaust smoke emissions

- A. Any diesel engine does not bear a durable label which indicates that the engine was manufactured to comply with either ADR 30 or any one of the following standards: (30.2.3)

Reasons for rejection

Numbers in (brackets) refer to the ADR clauses

USA, Environmental Protection Agency.
Federal Regulations, Part 8, Subpart I.
British Standard AU 141 a:1971
ECE Regulation 24.

ADR 31 Hydraulic brake systems

- A. No service brake failure indicator lamp is provided. (31.2.3.1)
- B. The service brake failure indicator lamp fails to operate when: (31.2.3.3)
 - i) The ignition or electrical control switch is turned from the 'engine off' position to the 'engine on' position, and the engine is not operating and it does not deactivate when the engine is running; or
 - ii) The ignition or electrical control switch is in the 'engine start' position, and it does not deactivate after the return of the ignition or electrical control switch to the 'engine on' position; or
 - iii) The ignition or electrical control switch is in a position between the 'engine on' position and the 'engine start' position, which is designated by the manufacturer as a check position, and it does not deactivate after the return of the ignition or electrical control switch to the 'engine on' position.
- Note: a) For the purpose of this check, on vehicles equipped with an automatic transmission, the transmission control lever should be set to the 'neutral' or 'park' position.*
 - b) If the indicator fails to deactivate it means that either a brake failure exists or the indicator system is defective. In either case the vehicle should be rejected.*
- C. No parking brake indicator lamp is provided (this may be common with the service brake failure indicator lamp). (31.2.4.1)
- D. The parking brake lamp does not activate when the ignition is on the parking brake is engaged. (31.2.4.1)
- E. The design of the service brake system is such that it will become inoperative or ineffective in the event of a single failure of any component in the system. (31.2.6)

Reasons for rejection

Numbers in (brackets) refer to the ADR clauses

ADR 32 Seat belts for heavy vehicles

- A. The driver's seating position and the outboard passenger seating position are not provided with seat belts (lap seat belts are acceptable). (32,32A.2.1)
 - B. Seat belts are not marked to indicate compliance with Australian Standards E35, 2596, FMVSS209, ECE R16 or other approved standards. (32,32A.2.4)
-

ADR 33 Motor cycle brake systems

- A. The service brake system consists of a single circuit which operates both front and rear wheels (dual circuit systems are acceptable). (33,33A.2.1)
 - B. The brake pads or linings cannot be visually inspected without removal of the brake calliper or drum. (33,33A.2.1.4)
-

ADR 34 Child restraint anchorages

- A. An upper anchorage for use with a child restraint system is not provided for each rear seating position. (34.2.1)

Note: a) At least 3 child restraint anchorages are required if there are 3 or more rear seating positions.

b) A child restraint anchorage point is not required on the centre seat of a split folding rear seat.

ADR 35 Commercial vehicle braking systems

Note: These requirements do not apply to the semi-trailer portion of articulated vehicles (See ADR38)

- A. The service brake system does not operate on all road wheels. (35,35A.2.1.1)
- B. The service brake system is not actuated by a single pedal. (35,35A.2.1.1)

Reasons for rejection

Numbers in (brackets) refer to the ADR clauses

- C. In the case of air operated service brake systems, there is no air pressure gauge for each separate supply system. (35,35A.2.1.2.1)
- D. No parking brake system is provided. (35,35A.2.2.1)
- E. No parking brake indicator lamp is provided. (Not applicable to spring brake systems). (35,35A.2.2.3)
- F. The parking brake uses pneumatic, electric or hydraulic devices to hold the brakes on. (35,35A.2.2.2)
- G. No device is incorporated in the service brake system as a viable indicator of brake failure. (35,35A.2.1.2)
- H. The service brake failure indicator device fails to operate when in the case of air brake systems, the ignition switch is on and pressure in any one brake power unit drops below 65% of the average operating pressure. (35,35A.2.1.2.1.3)
- J. The service brake failure visible indicator fails to operate when: (35,35A.2.1.2.3)
 - i) The ignition or electrical control switch is turned from the 'engine off' position to the 'engine on', position, and the engine is not operating, and the device does not deactivate when the engine is running; or
 - ii) The ignition or electrical control switch is in the 'engine start' position, and the device does not deactivate after the return of the ignition or electrical control switch to the 'engine on' position; or
 - iii) The ignition or electrical control switch is in a position between the 'engine on' position and the 'engine start' position, which is designated by the manufacturer as a check position, and the device does not deactivate after the return of the ignition or electrical control switch to the 'engine on' position; or
 - iv) The engine start circuit is energised and the device does not deactivate when the engine start circuit is not energised.

- Notes:*
- a) *For the purpose of this check, on vehicles equipped with an automatic transmission, the transmission control lever should be set to the 'neutral' or 'park' position.*
 - b) *If the indicator fails to deactivate, it means that either a brake failure exists or the indicator system is defective. In either case the vehicle should be rejected. Note that some systems may take up to ten seconds to deactivate. This is acceptable.*

Reasons for rejection

Numbers in (brackets) refer to the ADR clauses

K. No secondary brake system is provided. (35,35A.2.3.1)

Note: A secondary brake system provides emergency braking in the event of a single fluid failure in the service brake system. It may be:

- i) Independent of service and parking brake systems (that is, a third system) or*
- ii) Part of a split service brake system; or*
- iii) Part of a parking brake system.*

L. The secondary brake system becomes inoperative in the event of a pressure failure in the service brake system (in the case of split service brake systems the secondary brake system must remain operative when one half of the service brake system fails). (35,35A.2.3.6.2)

M. In the case of spring brakes, there is no air reservoir for release of the spring brakes in the event of a failure of the air supply. (35,35A.2.3.6.1)

Notes a) The air reservoir should provide for at least two releases of the spring brakes.

b) A separate reservoir, for release of the spring brakes, is not required in the case of vehicles with dual circuit service brake systems.

N. Any control for operation of the service brakes, secondary brakes or the parking brakes is out of reach of the driver. (35,35A.2.3.4)

ADR 36, 36A Exhaust emission control for heavy duty vehicles

A. The engine does not bear a durable label which identifies the engine, gives tune-up specifications and indicates that the engine was built to comply with either ADR 36 or 36A or the USA Environmental Protection Agency's Emission Regulation 85 or 86. (36,36a.2.2)

ADR 37 Vehicle emission control

A. The fuel tank is fitted with a vented cap. (*Note: the cap may incorporate a pressure relief valve*).

B. The fuel tank is vented directly to the atmosphere.

Reasons for rejection

Numbers in (brackets) refer to the ADR clauses

- C. The engine is not of the same specifications as an engine from a vehicle which is known to comply with the appropriate ADR or more stringent standards. (37.4.3.3)
- D. The vehicle is not designed to operate on Unleaded Petrol. (37.3.1.3)
- E. A label with the words 'UNLEADED PETROL ONLY' is not affixed adjacent to the fuel filler inlet. (37.3.6)
- F. The fuel filler inlet allows the insertion of a nozzle having a diameter of 23.6 or greater. (37.3.7)

ADR 38 Heavy trailer braking systems

- A. Any axle is not fitted with a brake. (38.2.1.1)
- B. A parking brake (which can be operated when the trailer is detached) is not fitted. (38.2.1.3)
- C. In the case of air brake systems, there is not at least one air reservoir incorporating a condensate drain fitted to the trailer. (38.2.1.1)
- D. The trailer service brakes are not able to be actuated by a control signal from the towing vehicle. (38.2.1.2)

ADR 39, 39A Motor cycle noise

- A. The engine and exhaust system are not of the same specifications as those of a vehicle which is known to comply with ADR 39 or 39A. (39/39A.1.1)
- B. The silencing system components are not marked with the manufacturer's name or trademark. (39A.2.1.1)
- C. A stationary noise test label is not fitted to the cycle, with this information: (39A.3.1.4)
 - Tested dB(A) at (.....)rpm
 - Silencing System : (manufacturer)
 - Identification : (trade description)

Reasons for rejection

Numbers in (brackets) refer to the ADR clauses

ADR 40 Light duty vehicle emission control

- A. The fuel tank is fitted with a vented cap. (*Note: the cap may incorporate a pressure relief valve*).
- B. The fuel tank is vented directly to the atmosphere.
- C. The engine is not of the same specifications as an engine from a vehicle which is known to comply with the appropriate ADR or more stringent standards. (40.4.3.3)
- D. The vehicle is not designed to operate on Unleaded Petrol. (40.3.1.3)
- E. A label with the words 'UNLEADED PETROL ONLY' is not affixed adjacent to the fuel filler inlet. (40.3.6)
- F. The fuel filler inlet allows the insertion of a nozzle having a diameter of 23.6 or greater. (40.3.7)

ADR 41 Mandatory operation on unleaded petrol

- A. Vehicle is not designed for operation on unleaded petrol. (41.2.1)
- B. A label with the words 'UNLEADED PETROL ONLY' (or equivalent) is not affixed adjacent to the fuel filler inlet. (41.2.2)
- C. The fuel filler inlet allows the insertion of a nozzle having a diameter of 23.6 mm or greater. (41.2.3)

Appendix C3

3rd edition

ADR checklist

3rd edition checklist

ADR	TITLE
1/00	Reversing lamps
2/00	Side door latches and hinges
3/02	Seat anchorages
4/02	Seat belts
5/03	Anchorage for seat belts child restrains
6/00	Direction indicator lamps
7/00	Hydraulic brake hoses
8/01	Safety glazing material
(9)	<i>Not yet allocated in 3rd edition</i>
10/01	Steering column
11/00	Internal sun visor
12/00	Glare reduction in field of view
13/00	Installation of lighting and light-signalling devices on other than L-group vehicles
14/02	Rear vision mirrors
15/01	Demisting of windscreen
16/01	Windscreen wipers and washers
17/00	Fuel system
18/02	Instrumentation
19/01	Installation of lighting and light-signalling devices on L-group vehicles
20/01	Safety rims
21/02	Instrument panel
22/02	Head restraints
23/01	Passenger car tyres
24/00	Tyre and rim selection
25/00	Anti-theft lock
(26,27)	<i>Not allocated in 3rd edition</i>
28/00	External noise of motor vehicles other than L-group vehicles
29/00	Side door strength
30/00	Diesel engine exhaust smoke emissions

3rd edition checklist

31/00	Hydraulic brake systems for passenger cars
32/00	Not allocated in 3rd edition
33/00	Brake systems for motor cycles and mopeds
34/01	Child restraint anchorages and child restraint anchor fittings
35/00	Commercial vehicle brake systems
36/00	Exhaust emission control for heavy duty vehicles
37/00	Emission control for light vehicles
38/00	Trailer brake systems
39/00	External noise of motor cycles
(40)	<i>Not allocated in 3rd edition</i>
41/00	Mandatory operation on unleaded petrol
42/02	General safety requirements
43/03	Vehicle configuration and marking
44/01	Specific purpose vehicle requirements
45/00	Lighting and light-signalling devices not covered by ECE regulations
46/00	Headlamps for other than L-group vehicles
47/00	Reflex reflectors
48/00	Rear registration plate illuminating devices for other than L-group vehicles
49/00	Front and rear position (side) lamps, stop lamps and end-outline marker lamps for other than L-group vehicles
50/00	Front fog lamps
51/00	Filament globes
52/00	Rear fog lamps
53/00	Position lamps, stop lamps, direction indicators and rear plate lamps for L-group vehicles
54/00	Passing beam headlamps for mopeds
55/00	Headlamps for L-group vehicles other than mopeds
56/00	Moped noise
57/00	Special requirements for L-group vehicles
58/00	Requirements for omnibuses designed for hire and reward
59/00	Omnibus rollover strength
60/00	Centre high-mounted stop lamp

3rd edition checklist

61/00	Vehicle marking
62/00	Mechanical connections between vehicles
63/00	Trailers designed for use in road trains
64/00	Heavy goods vehicles designed for use in road trains and B-doubles
65/00	Maximum road speed limiting for heavy goods vehicles and heavy omnibuses
66/00	Seat strength, seat anchorage strength and padding in omnibuses
67/00	Installation of lighting and light-signalling devices on three-wheeled vehicles
68/00	Occupant protection in buses
69/00	Full frontal occupant protection
70/00	Exhaust emission control for diesel engined vehicles

Reasons for rejection

Numbers in (brackets) refer to ADR clauses

ADR 1 Reversing lamps

Note: In the 3rd edition ADRs, fitting of reversing lamps is required under ADR13/00. Checks for non-compliance with the relevant section of that ADR are included below. Values of light intensity and angles of visibility are specified in the ADRs but are NOT included in the following checks.

- A. There is not at least one reversing lamp clearly visible from an observation point at the rear of the vehicle. (13/-.6.4.2) a maximum number of two lamps is permitted.
 - B. The reversing lamp(s) are not continuously lit when the gear selector is in the 'reverse' position and the ignition is 'on'. (13/-.6.4.10)
 - C. The lamps are alight in any situation other than B. (13/-.6.4.10)
 - D. The lamp colour is not white. (13/-.5.15)
 - E. Any illuminated part of the lens of a compulsory reversing lamp is more than 1.2m or less than 250mm from the ground. (13/-.6.4.4.2)
-

ADR 2 Side door latches and hinges

Note: This ADR only applies if the vehicle is fitted with side doors. Side doors primarily intended for loading goods are not subject to items A, C, D and E. Sliding doors are not subject to any of these checks.

- A. The side door latches do not have both primary and secondary latch positions. (2/-.2.1.1)
- B. The side door latches do not provide both longitudinal and traverse restraint in both primary and secondary latch positions. (2/-.2.1.1)
- C. Any side door does not have a locking mechanism with a means of operation from the interior of the vehicle. (2/-.2.1.3)
- D. With its locking mechanism engaged, any front door can be opened from outside the vehicle (i.e. without the use of a key or security device). (2/-.2.1.3.1)
- E. With its locking mechanism and child safety lock engaged, any rear side door of a passenger car (MA) can be opened from inside or outside the vehicle. (2/2.1.3.2)

Reasons for rejection

Numbers in (brackets) refer to ADR clauses

ADR 3 Seat anchorages

- A. Any passenger seat can be removed from its anchorages or guide without either disassembly or operation of an adjuster mechanism. (3/00, 3/01.2.1)
 - B. Hinged or folding seats or seat backs are not equipped with a self-locking restraining device and a control for releasing that device. (Continuously adjustable controls are acceptable provided that the seat or seat back is restrained in all positions). (3/00, 3/01.2.3.0)
 - C. Where a seat must fold or hinge to permit access to another seat, a release device is not readily accessible to both the occupant of the seat and a person to the rear. (More than one release device is permitted). (3/00, 3/01.2.3.1)
-

ADR 4 Seat belts

This section includes checks for ADR 5.

- A. Unless exempted, any seating position does not have a seat belt. (5/00, 5/01, 5/02.2.1), (4/00, 4/01.2.1) Exemptions are:
 - i) Any passenger seat on a route service bus;
 - ii) 'Protected' passenger seats on buses with more than 12 seats (a protected seat has a seat or similar energy absorbing structure directly ahead);
 - iii) Any centre seat on a bus with more than 12 seats manufactured prior to 1 July 1992 or on any truck with a GVM in excess 4.5t manufactured prior to 1 July 1992;
 - iv) Seats in rows rearward of the driver on a bus with more than 12 seats manufactured prior to 1 July 1992 or on any truck with a GVM in excess of 4.5t manufactured prior TO 1 July 1992;
 - v) Any truck with a GVM in excess of 4.5t manufactured prior to 1 July 1977;
 - vi) Any bus with a GVM in excess of 3.5t manufactured prior to 1 July 1987.
- B. Unless exempted, a lap-sash seat belt is not provided for any outboard seating position. (5/00, 5/01, 5/02.2.1), (4/00, 4/01.2.1). Exemptions are:
 - i) As for 'A', above plus;
 - ii) Where there is no permanent structure above the height of the seat cushion;

Reasons for rejection

Numbers in (brackets) refer to ADR clauses

- iii) Any bus with a GVM in excess of 5t;
 - iv) Any truck with a GVM in excess of 4.5t;
 - v) Any side facing seat;
 - vi) Any seat which is adjustable for conversion to goods space AND is behind the second row of seats;
 - vii) A harness type seat belt is fitted (this should be avoided where possible).
- C. Unless exempted, the seat belt for any outboard seating position does not have an emergency locking retractor (or automatic length adjusting and locking retractor).(4/00, 4/01.2.2). Exemptions are:
- i) Seats in rows rearward of the driver on MC vehicles, N-Group vehicles (trucks) and buses with more than 12 seats (light buses).
- D. Any seat belt or retractor is not marked in accordance with the requirements of Australian Standard E35 or Australian Standard 2596 or with any of the following standards (4/00, 4/01.2.7):

New Zealand NZS1662

British BS3254, BSAU.160, BSAU.160A

Swedish SIS.88.28.51B, SIS.88.28.53B

European ECE R15

Note: Seat belts or retractors which bear any mark other than the above may be accepted only if evidence is available to show that they are from a vehicle which is known to comply with the relevant ADR.

- E. In the case of a bucket seat, the seat belt buckle is not mounted on a stalk or similar device to prevent it falling to the floor. (4/00, 4/01.4.5)
- F. Any manually adjusted seat belt (i.e. no retractor) requires more than a single action for proper adjustment or the adjustment device is not readily accessible. (4/00, 4/01.3.2.1)
- G. In the case of ADR 4, an upper anchorage for use with a child restraint system is not provided for each rear seating position equipped with an adult seat belt. (4/00, 4/01.2.2), (5/00, 5/01, 5/02.2.1)

Reasons for rejection

Numbers in (brackets) refer to ADR clauses

Notes:

- a) ADR34 originally applied to pre-1988 vehicles. (Refer to ADR 34 for post 1/1/93 vehicles).
- b) For MB, MC and MD1 vehicles at least 3 child restraint anchorages are required if there are 3 or more rear seating positions.
- c) A child restraint anchorage point is not required on the centre seat of a split folding rear seat.
- e) Each anchorage point must have a fitting to take a 5/16" 18 UNC bolt.
- d) See ADR 4 for other special provisions.

ADR 5 Anchorages for seat belts and child restraints

See checks for ADR 4

ADR 6 Direction indicator lamps other than L-group

Direction indicator lamps are compulsory lamps at the front and rear of the vehicle which flash to indicate to other motorists the driver's intention to turn or change lanes.

- A. Any direction turn indicator lamp is not amber in colour. (13/00.5.15)
- B. The lamps do not flash simultaneously on one side of the vehicle when the switch is moved to indicate a turn in that direction. (13/00- 6.5.10)
- C. The front or rear signal lens cannot be sighted by an observer standing within the areas shown by the diagrams. (13/00.6.5.5)
- D. A vehicle over 7.5m in length or a prime mover does not have signal lamps which:
 - i) Are located forward of the centre of the vehicle; and
 - ii) Are visible to an observer located anywhere on the observation lines as shown in the diagram. (13/00.6.5.1)

Note: This ADR also specifies upper and lower limits on angles of visibility but it is not practical to include such checks here. The angles shown in the diagram should be checked with the observer's eyes at the same height as the lamps.

Reasons for rejection

Numbers in (brackets) refer to ADR clauses

- E. Any illuminated part of the lens of a compulsory direction indicator lamp is less than 350mm or more than 1.5m from the ground. (13/00.6.5.4.2.2)
- F. No illuminated part of the lens of a compulsory direction indicator lamp is within 400mm of the extreme width of the vehicle. (13/00.6.5.4.1)
- G. Any illuminated part of a compulsory direction indicator lamp is closer than 600mm to the corresponding lamp on the other side of the vehicle. (13/00.6.5.4.1)
- H. The flashing rate is less than 60 or more than 120 times per minute. (13/00.6.5.12)

Note: ADR 13/00.6.5.11 requires the direction indicator lamp system to have a tell-tale visual and/or optical indicator to warn the driver of a failure in the system.

ADR 7 Hydraulic brake hoses

- A. Any brake hose end connections are corroded. (7/00.6.8)
- B. Any hose assembly is not marked with the name or trademark of its manufacturer or the manufactured standard. (7/00.4)
- C. Any braided hydraulic hose assembly has had the protective end sleeves damaged or removed. (7/00.6.4)

ADR 8 Safety glazing material

- A. Any window glass fitted does not bear a permanent mark indicating that it is of a safety type as shown in (8/00.2.1).

ADR 10 Steering columns

- A. The steering column shaft has no collapsible joints or sections between the steering wheel and the steering box/rack. (10/00, 10/01.2.1)
- B. The centre boss or spokes of the steering wheel have sharp edges or hazardous projections.

Reasons for rejection

Numbers in (brackets) refer to ADR clauses

ADR 11 Internal sun visors

- A. The sunvisors are not padded. (11/00.3.3)
-

ADR 12 Glare reduction in field of view

- A. Windscreen wiper arms have a gloss finish such as chrome plating. (12/00.2.1.1)
-

ADR 13 Installation of lights

Note: Lamp colour and intensity requirements are contained in ADRs 45, 49, 50 and 52. The requirements of those ADRs are included below, where appropriate. Measurement of intensity is not practical.

1. Compulsory lamps

1.1 Reversing lamps - See checks for ADR 1.

1.2 Direction turn indicator lamps - See checks for ADR 6.

1.3 Headlamps - (Refer to AIS RULES for checks of headlight aim).

- A. There is not at least one pair of high-beam headlamps. (13/00.6.1.2)
- B. There is not at least one pair of dipped-beam headlamps (these may be combined with the high-beam headlamps). (13/00.6.2.2)
- C. The colour of any headlamp is other than white. (13/00.5.15)
- D. No illuminated part of a dipped-beam lens is within 400mm of the extreme outer edge of the vehicle. (13/00.6.2.4.1)
- E. The inner illuminated edge of a dipped-beam lens is closer than 600mm to the opposite corresponding headlamp. (13/00.6.2.4.1)
- F. Any illuminated part of a dipped-beam lens is less than 500mm or more than 1.2m above the ground. (13/00.6.2.4.2)
- G. Any illuminated part of the high-beam lens is closer to the extreme width of the vehicle than the outer point of a dipped-beam headlamp. (13/00.6.1.4.1)
- H. The high-beam switch is not within reach of the driver (it may be a hand or foot switch). (13/00.6.2.10)

Reasons for rejection

Numbers in (brackets) refer to ADR clauses

- I. Any high-beam headlamp (or component of a dual headlamp) remains illuminated when the driver switches to dipped beam. (13/00.6.2.10)
- J. A blue tell-tale lamp is not visible to the driver when high-beam is on. (13/00.6.1.11)
- K. Any dipped-beam headlamp swivels with the steering system. (13/00.6.2.9.1)
- L. Where a pair of high-beam headlamps swivels with the steering system there is not at least one other pair of high-beam headlamps which remain in the straight-ahead position. (13/00.6.1.6)

1.4 Stop lamps - are compulsory lamps at the rear of the vehicle which illuminate when the service brakes are applied.

- A. Less than two stop lamps are fitted at the rear. (13/00.6.7.2)
- B. Any stop lamp is not red. (13/00.5.15)
- C. Any illuminated part of the lens of a compulsory stop lamp is less than 350 mm or more than 1.5 m from the ground. (13/00.6.7.4.2). (Note: 2.1 m is acceptable if lower dimension is not practical).
- D. In the case of a vehicle more than 1.3 m in width, any illuminated part of the lens of a compulsory stop lamp is closer than 600 mm to the corresponding lamp on the other side of the vehicle. (13/00.6.7.4.1)
- E. The stop lamps do not illuminate when the ignition is 'on' and the service brake pedal is applied. (13/00.6.7.10)
- F. The stop lamps are not noticeably brighter than the rear position lamps. (49/00.6)

1.5 Rear registration plate lamp

- A. No lamp is provided to illuminate the rear registration plate. (13/00.6.8.1)
- B. Any registration plate lamp is not white. (13.5.15)

1.6 FRONT position (side) lamps - are compulsory lamps to mark the front corners of the vehicle.

- A. Lamps are not provided on each side at the front of the vehicle. (Note: they are optional on trailers not more than 1.6 m in overall width). (13/00.6.9.1)
- B. The lamps are not white. (13/00.5.15)
- C. No part of the illuminated lens of a compulsory front position lamp is within 400 mm of the extreme outer edge of the vehicle (180 mm in the case of trailers). (13/00.6.9.4.1)

Reasons for rejection

Numbers in (brackets) refer to ADR clauses

- D. Any part of the illuminated lens of a compulsory front position lamp is less than 350mm or more than 1.5m from the ground. (Note: 2.1 m is acceptable if dimension is not practical). (13/00.6.9.4.2)
- E. Any compulsory front position lamp is not visible within the corresponding shaded area shown in the diagram. (13/00.6.9.5)

1.7 REAR position (side) lamps - are compulsory lamps to mark the rear corners of the vehicle.

- A. Lamps are not provided on each side at the rear of the vehicle. (13/00.6.10.1)
- B. The lamps are not red. (13/00.5.15)
- C. No part of the illuminated lens of a compulsory rear position lamp is within 400mm of the extreme outer edge of the vehicle. (13/00.6.10.4.1)
- D. Any part of the illuminated lens of a compulsory rear position lamp is less than 350mm or more than 1.5m from the ground. (Note: 2.1m is acceptable if lower dimension is not practical). (13/00.6.10.4.2)
- E. Any compulsory rear position lamp is not visible within the corresponding shaded area shown in the diagram. (13/00.6.10.5)
- F. As item D of Stop Cams. (13/00.6.10.4.1)

1.8 Reflectors - Devices which reflect incident light in order to make the vehicle conspicuous when its lights are not illuminated. Reflectors may be incorporated in lamp lenses.

- A. Any vehicle does not have at least two red reflectors at the rear. (13/00.6.14.1)
- B. Any trailer does not have at least two white or silver reflectors at the front. (13/00.6.16.1)
- C. Any vehicle (other than MA, MB or MC) with an overall length more than 6m or any trailer does do not have at least one amber reflector on each side. (Note: the ADR requires several reflectors on long vehicles but this is not a reason for rejection). (13/00.6.17.1)
- D. Any COMPULSORY reflector is less than 350mm or more than 900mm above the ground. (Note: compulsory front and side reflectors may be up to 1.5m from the ground. if made necessary by the construction of the vehicle). (13/00.6.14.4.2, 13/00.6.16.4.2, 13/00.6.17.4.2)
- E. No part of a compulsory REAR reflector lens is within 400mm of the extreme outer edge of the vehicle. (13/00.6.14.4.1)

Reasons for rejection

Numbers in (brackets) refer to ADR clauses

- F. No part of a compulsory FRONT reflector lens is within 400mm of the extreme width of the vehicle (150mm in the case of trailers). (13/00.6.16.4.1)
- G. Any reflectors show other than white light to the front, red light to the rear or amber light to the side. (Note: emergency vehicles are exempt for this requirement). (13/00.5.15)

2. Additional compulsory lamps on commercial vehicles

2.1 Side marker lamps - On wide or long vehicles, compulsory lamps to mark the sides of the vehicle. Optional extra lamps may be fitted.

- A. Any side marker lamp does not show amber to the front and red to the rear. (13/00.5.15)
- B. Any truck or bus with an overall length over 7.5m does not have at least one side marker lamps on each side at rear. (13/00.6.106.3.2)
- C. Any trailer with a width over 2.1m or any semi-trailer does not have at least one side marker lamp on each side at the front (of the trailer) and one side marker lamp on each side at the rear. (13/00.6.106.3.3/4)
- D. Any trailer (including a semi-trailer) with an overall length over 7.5m does not have at least one side marker lamp on each side, approximately mid-way between the front and rear side marker lamps. (13/00.6.106.3.4)
- E. Any part of the illuminated lens of any compulsory side marker lamp is less than 600mm or higher than 1.5m from the ground (2.1m is acceptable if lower dimension is not practical). (13/00.6.106.4.2)
- F. No part of the illuminated lens of any compulsory side marker lamp is within 150mm of the extreme outer edge of the vehicle. (13/00.6.106.4.1)
- G. Any compulsory side marker lamp at the rear is more than 300mm forward of the rear of the vehicle, at that side. (13/00.6.106.4.3.1)
- H. Any compulsory side marker lamp at the front of a trailer is more than 300mm rearward of the bodywork of the trailer at that side. (13/00.6.106.4.3.2.1)

2.2 End-outline marker lamps - are compulsory high-mounted lamps at the front and rear of commercial vehicles.

- A. Any truck, bus or trailer exceeding 2.1m in overall width is not fitted with two end-outline marker lamps which are visible on each side at the front and on each side at the rear (lamps visible from the rear are not compulsory on cab-chassis vehicles). (13/00.6.13.1)

Reasons for rejection

Numbers in (brackets) refer to ADR clauses

- B. Any end-outline marker lamp visible from the front is not white (13/00.5.15) or yellow (AVSRs).
- C. Any end-outline marker lamp visible from the rear is not red. (13/00.5.15)
- D. Any illuminated part of the lens of a compulsory end-outline marker lamp visible at the front is lower than the top of the windscreen, unless it is mounted on an external mirror. (13/00.6.13.4.2)
- E. Any illuminated part of an end-outline marker lamp which is mounted on an external mirror is visible to the driver. (13/00.6.13.4)

Notes: 1) The end-outline marker lamp visible at the rear of the vehicle should be mounted as high as is practicable for the construction and use of the vehicle. This is not a reason for rejection. (13/00.6.4.2)

2) The front and rear end-outline marker lamps may be combined in one device, provided that the visibility requirements are met. This is probably only practical in the case of trailers. (13/00.6.13.7)

3. Optional lamps

3.1 Search lamp - Optional, for the temporary purpose of reading signs, making repairs or checking loads.

- A. Any search lamp has other than white light. (13/00.5.15)

3.2 Passenger car side marker lamps. - Optional, on each side of a passenger car, to improve conspicuity from the side. These lamps are additional to the front (side) position marker lamps and rear (side) position marker lamps.

- B. Any passenger side marker lamp at the front is other than amber. (13/00.5.15)
- C. Any passenger side marker lamp at the rear is other than red. (13/00.5.15)
- D. Any illuminated part of the lens of a passenger car side marker lamp is lower than 350mm from the ground or higher than 1.5m from the ground. (13/00.6.103.4.2)

3.3 Daytime running lamps - are relatively bright lamps at the front of the vehicle which are alight whenever the ignition is on and the headlamps or parking lamps are off. They are optional.

- E. Any daytime running lamp is not white. (13/00.5.15)

Reasons for rejection

Numbers in (brackets) refer to ADR clauses

- F Any daytime running lamp fails to extinguish when the headlamps or parking lamps are switched on. (13/00.6.107.10.1.2)
 - G Any part of the illuminated lens of a daytime running lamp is less than 500mm or more than 1.5m from the ground. (13/00.6.107.4.2)
 - H No part of the illuminated lens of a daytime running lamp is within 400mm inboard from the extreme outer edge of the vehicle. (13/00.6.107.4.1)
 - I Only one of a pair of daytime running lamps is operative (vehicles should not be rejected if both optional lamps are in-operative).
- 3.4 Cornering lamps** - are lamps which illuminate to the side when the headlamps AND direction indicators are on. They are optional.
- J Any cornering lamp is other than white or amber. (13/00.6.108.2)
 - K Any cornering lamp is alight when either the headlamps are off or the direction turn indicators on that side are off. (13/00.6.108.10.1), (13/00.6.108.10.2)
 - L Any cornering lamp is higher than the dipped-beam headlamp. (13/00.6.108.4.2)
- 3.5 External cabin lamps** - are optional lamps fitted across the top of a truck cabin to show amber light to the front.
- M Any vehicle less than 2.1m overall width is fitted with external cabin lamps. (13/00.6.104.1)
 - N Any external cabin lamps are other amber. (45/00.3.1)
 - O More than five external cabin lamps are fitted (13/00.6.104.2)
 - P The centres of any two external cabin lamps are closer than 120mm apart. (13/00.6.104.4.1)
- 3.6 Front fog lamps** - Front fog lamps are optional pairs of lamps at the front of the vehicle with a fan shaped beam to assist visibility in fog.
- Q Any front fog lamp is other than white or yellow. (50/00.7)
 - R No part of the illuminated lens of a front fog lamp is within 400mm of the extreme side edge of the vehicle. (13/00.6.3.4.1)
 - S Any part of the illuminated lens of a front fog lamp is higher than the top of the highest dipped-beam headlamp or it is less than 250mm from ground. (13/00.6.3.4.2)
 - T Any front fog lamp cannot be switched off separately from the headlamps. (13.6.3.10)

Reasons for rejection

Numbers in (brackets) refer to ADR clauses

3.7 Rear fog lamps - Optional, (one or two) at the rear of the vehicle to improve rearward conspicuity in fog.

U. Any rear fog lamp is other than red. (52/00.9)

V. Any part of the illuminated lens of a rear fog lamp is higher than 1.0m or less than 250mm from the ground. (13/00.6.11.4.2)

W. Any rear fog lamp cannot be switched off separately from the headlamps. (13/00.6.11.10)

3.8 Parking lamps - optional, at front and rear to provide conspicuity when the vehicle is parked on the street. They may be used in place of front and rear position marker lamps when the vehicle is stationary (not applicable to vehicles exceeding 6m in overall length or 2m in overall width; parking lamps are not permitted on these vehicles)

X. Any parking lamp shows other than white light to front or red light to the rear, unless it is part of an amber direction indicator lamp. (13/00.5.15)

ADR 14 Rear vision mirrors

A. An external mirror is not fitted on the driver's side of the vehicle. (14/00, 14/01.2.3.1), (14/00, 14/01.4.2)

B. The external mirror, on the driver's side of the vehicle, is not adjustable from the driver's seating position. (14/00, 14/01.2.3.1.2)

C. Where there is no internal rear vision mirror or the construction of the vehicle is such that it prevents its use, an externally mounted mirror is not fitted on the left side of the vehicle. (14/00, 14/01.2.1)

D. The reflecting surface on the driver's side mirror is not flat. (14/00, 14/01.2.0)

Note: Separate regulations require two external mirrors on all vans and utilities and on vehicles seating more than eight persons. Also, on vehicles subject to 14/01, that external passenger side mirror may be slightly convex.

ADR 15 Demisting of windscreens

A. No provision exists for demisting the windscreen. (15/00.2.1)

Reasons for rejection

Numbers in (brackets) refer to ADR clauses

ADR 16 Windscreen wipers and washers

- A. Power-operated windscreen wipers are not fitted. (16/00.2.0)
 - B. Single speed only wipers are fitted. (16/00.3.1)
 - C. Wiper speeds are not independent of engine speed and load. (16/00.3.3)
 - D. A windscreen washer system is not fitted. (16/00.5.1 and 16/00.6.1)
-

ADR 17 Fuel systems

- A. Any section of the fuel system is located at the widest extremity of the vehicle (rear vision mirrors and side mounted lights should not be considered in determination of vehicle extremity). (17/00.3.1)
- B. Any section of the fuel tank is forward of the front axle. (17/00.3.2)
- C. Any section of the fuel tank or filler pipe is located within or above the vehicle cabin. (17/00.3.4)
- D. The top of the fuel tank is above the carburettor or the fuel injectors. (17/00.4.1)
- E. Any device controlling the flow of fuel from or between fuel tanks (if it is in the driver's cabin) cannot be reached by the driver from the driver's normal seating position. (17/00.4.2)
- F. In the case of diesel engines, there is no device to shut off the fuel flow to the engine. (17/00.4.3)
- G. Tank drain fittings, where provided, protrude more than 20mm below the tank body. (17/00.4.9)
- H. No safety vent is fitted to the top of the fuel tank. (17/00.4.6)
- I. Any fuel tank safety vent discharges into an enclosed space. (17/00.4.7)
- J. Overflow from the filling pipe is likely to spill onto a part of the exhaust or electrical system. (17/00.4.4)

Reasons for rejection

Numbers in (brackets) refer to ADR clauses

ADR 18 Instrumentation

- A. Provision is not made for instruments to be illuminated (Note: ADR18 requires the instrument light intensity to be adjustable but that lack of a dimmer is not a reason for rejection under these checks). (18/00, 18/01, 18/02.4.3)
- B. Any instrument which informs the driver of the state of the vehicle (speedometer, fuel gauge, etc) is on the passenger's side of the vehicle. (18/00, 18/01, 18/02.3.1)
- C. A speedometer calibrated in km, and is not fitted. (18/00, 18/01, 18/02.5.1)

ADR 19 Installation of lighting on L-group vehicles

1. Reversing lamp

- A. Any LB, LC or LD vehicle which has a reverse gear is not fitted with one or two white reversing lamps. (19/00.5.14.102)

- ### **2. Conspicuity lamps**
- are white, forward facing lamps which are intended to improve the conspicuity of the vehicle in the daytime. They are required on LC and LD category vehicles (motorcycles and motorcycles with side-car) under ADR19/01. They may be incorporated in other lamps.

- B. Two conspicuity lamps are not provided on an LC or LD vehicle. (19/01.5.14.103).
- C. The conspicuity lamps are not illuminated whenever the engine is running and other lamps are not illuminated. (19/00, 19/01.6.106.9.1)

3. Driving lamps, passing lamps and headlamps

- A. In the case of LC, LD and LE vehicles, at least one high-beam headlamp is not provided.(19/00, 19/01.6.1.1) (Note: tricycle configuration vehicles with two wheels at the front are required to have two headlamps).
- B. At least one dipped-beam headlamp is not provided. (19/00, 19/01.6.2.1)
- C. Any headlamp is other than white. (19/00, 19/01.5.13)
- D. No single control is provided to switch from high-beam to dipped-beam, where both types of lamp are fitted. (19/00, 19/01.6.2.9)

Reasons for rejection

Numbers in (brackets) refer to ADR clauses

4. Direction indicator lamps - flashing amber lamps to indicate the intention to turn or change lanes.

- A. Less than four direction indicator lamps (two at the front and two at the rear) are provided. (19/00.6.3.1)
- B. The direction indicator lamps are not amber. (19/00.5.13)
- C. Any part of the illuminated lens of a front direction indicator lamp is within 300mm of the other front lamp. (19/00.6.3.3.1)
- E. Any part of the illuminated lens of a rear direction indicator lamp is within 240mm of the other rear lamp. (19/00.6.3.3.1)
- F. Any part of the illuminated lens of a compulsory direction indicator lamp (front or rear) is less than 350mm or more than 1.2m from the ground. (19/00.6.3.3.2)
- G. Any rear direction indicator lamp is more than 300mm forward of the extreme rear of the vehicle. (19/00.6.3.3.3)
- H. The lamps on one side are not operated by use of a single control. (19/00.6.3.9)
- I. In the case of systems powered by a DC electrical supply, the flashing rate is not in the range 60 to 120 times per minute. (19/00.6.3.11.1)

5. Stop lamp - a red rearward-facing lamp to indicate when the service brakes have been applied.

- A. No stop lamp is provided. (Note: tricycle configurations with two wheels at the rear require two stop lamps). (19/00.6.4.1)
- B. Any stop lamp is not red. (19/00.5.13)
- C. Any illuminated part of the lens of a compulsory stop lamp is less than 350mm or more than 1.2m from the ground. (19/00.6.4.3.2)
- D. The stop lamp(s) fails to illuminate when the service brake is applied and the engine is running. (19/00.6.4.9)

6. Rear registration plate lamp

- A. A white lamp to illuminate the rear registration plate is not provided. (19/00.6.5)

7. Front position lamp - a white lamp which marks the front of the vehicle. It may be incorporated in headlamps. A moped or a vehicle fitted with conspicuity lamps does not require a front position lamp.

- A. Except for mopeds and vehicles fitted with conspicuity lamps, at least one front position lamp is not provided (tricycle configuration vehicles with two wheels at the front and motorcycles with sidecars require two front position lamps). (19/00.6.6.1)

Reasons for rejection

Numbers in (brackets) refer to ADR clauses

- B. Any front position lamp is not white. (19/00.5.13)
- C. Any illuminated part of the lens of a compulsory front position lamp is less than 350mm or more than 1.2m from the ground. (19/00.6.6.3.2)
- D. A green non-flashing tell-tale lamp, to indicate to the rider that the lamp is alight, is not provided. (19.6.6.9)

8. Rear position lamp - a red lamp which marks the rear of the vehicle.

- A. At least one rear position lamp is not provided. (tricycle configuration vehicles with two wheels at the rear and motorcycles with sidecars require two rear position lamps). (19/00.6.7.1)
- B. Any rear position lamp is not red. (19/00.5.13)
- C. Any illuminated part of the lens of a compulsory rear position lamp is less than 350mm or more than 1.2m from the ground. (19/00.6.7.3.2)

9. Reflectors

- A. At least one rear-facing reflector is not provided side of the vehicle. (19/00.6.8.1)
- B. Any rearward facing reflector is not red. (19/00.5.13)
- C. Any compulsory rearward facing reflector is less than 350mm or higher than 900mm from the ground. (19/00.6.8.3.2)
- D. Any (optional) side facing reflector is not amber. (19/00.5.13)
- E. Any (optional) forward facing reflector is not white or silver. (19/00.5.13)

10. FOG LAMPS - Optional.

- A. Any front fog lamps is not white or yellow. (19/00.5.13)
- B. Any rear fog lamps is not red. (19/00.5.13)
- C. Any illuminated part of the lens of a front fog lamp is less than 250mm from the ground or is more than the highest dipped-beam headlamp. (19/00.6.10.3.2)
- D. Any illuminated part of the lens of a rear fog lamp is less than 350mm or higher than 900mm from the ground. (19/00.6.11.3.2)
- E. Any rear fog lamp is closer than 100mm to the stop lamp. (19/00.6.11.3.4)
- F. Any rear fog lamp remains alight when all other lamps are switched 'off'. (19/00.6.11.9)

Reasons for rejection

Numbers in (brackets) refer to ADR clauses

ADR 20 Safety rims

Note: No checks are practical for this ADR. Wherever possible vehicles should be fitted with wheels which are available as standard or optional equipment for a vehicle which complies with ADR20. (See ADR 24 for Tyre and Rim placard)

ADR 21 Instrument panels

- A. The instrument panel to the left of the steering wheel is not firmly padded. (21/00.2.1)
-

ADR 22 Head restraints

- A. Head restraints are not provided for each outboard front seating position. (22/00.2.1)
- B. Any head restraint is of the clip-on type (these are likely to be dislodged in a crash). (22/00.3.1)
- C. Any head restraint is less than 170mm in width for individual seats or 250mm for bench seats. (22/00.2.3)
- D. The top of any head restraint is less than 700mm in height from the junction of the seat backrest and seating cushion, for any position of adjustment. (22/00.2.2.2)
- E. Any head restraint is less than 115mm in depth. (22/00.2.2.1)
-

ADR 23 Passenger car tyres

- A. Treadwear indicators are not incorporated in the tread pattern of every tyre (raised blocks in the centre groove minimum no. 4). (23/00, 23/01.2.2.1.2)
- B. Any tyre is not labelled with a tyre size, speed, and load designation and the manufacturer's identification. (23/00, 23/01.2.3)

Reasons for rejection

Numbers in (brackets) refer to ADR clauses

ADR 24 Tyre and rim selection

- A. A tyre and rim selection placard is not affixed in an accessible location. (24/00, 24/01.2.1)
-

ADR 25 Anti-theft locks

- A. The vehicle is not fitted with an ignition lock which incorporates an anti-theft setting. (25/00, 25/01, 25/02.1.3)
- B. When engaged, the anti-theft lock does not prevent at least one of the following actions:
- a) Steering the vehicle; or (25/00, 25/01, 25/02.2.5)
 - b) Engaging the forward drive gears; or (25/00, 25/01, 25/02.2.5)
 - c) Releasing of brakes. (25/00, 25/01, 25/02.2.5)
- C. The key can be removed with the lock in any position other than the anti-theft position. (Imported vehicles and Engineering/Market evaluation vehicles are exempted). (25/00, 25/01, 25/02.2.4)
- D. Movement of the locking control from the engine on position to the anti-theft position is possible by a single motion of the key. (25/00, 25/01, 25/02.2.6.1)
-

ADR 28 External noise of motor vehicles

- A. The exhaust system is not of the same specifications as an exhaust system from a vehicle which is known to comply with ADR 28 or a more stringent standard. Catalytic convertors may be incorporated in the exhaust systems of ADR 37 vehicles and must be retained.

Note. The fitting of exhaust extractors is not a reason for rejection.

Reasons for rejection

Numbers in (brackets) refer to ADR clauses

ADR 29 Side door strength

Note: No checks are practical for this ADR. Manufacturers must fit structural members to each door to achieve compliance with this ADR.

ADR 30 Diesel engine exhaust smoke emissions

- A. Any diesel engine does not bear a durable label which indicates that the engine was manufactured to comply with ADR 30 and shows the month and year of its manufacture or any one of the following standards: (30/00.2.3) (30/00.5.1)

USA, Environmental Protection Agency.
Federal Regulations, Part 8, Sub part I.
British Standard AU 141 a:1971
ECE Regulation 24.

ADR 31 Hydraulic brake systems for passenger cars

- A. No service brake failure indicator lamp is provided. (31/00.2.3.1)
- B. The service brake failure indicator lamp fails to operate when: (31/00.2.3.3)
- i) The ignition or electrical control switch is turned from the 'engine off' position to the 'engine on' position, and the engine is not operating and it does not deactivate when the engine is running; or
 - ii) The ignition or electrical control switch is in the engine start position, and it does not deactivate after the return of the ignition or electrical control switch to the engine on position; or
 - iii) The ignition or electrical control switch is in a position between the engine on position and the engine start position, which is designated by the manufacturer as a check position, and it does not deactivate after the return of the ignition or electrical control switch to the 'engine on' position.

Note:

- 1) For the purpose of this check, on vehicles equipped with an automatic transmission, the transmission control lever should be set to the neutral or park position.
- 2) If the indicator fails to deactivate it means that either a brake failure exists or the indicator system is defective. In either case the vehicle should be rejected.

Reasons for rejection

Numbers in (brackets) refer to ADR clauses

- C. No parking brake indicator lamp is provided (this may be common with the service brake failure indicator lamp). (31/00.2.4.1)
- D. The parking brake lamp does not activate when the ignition is on the parking brake is engaged. (31/00.2.4.1)
- E. The design of the service brake system is such that it will become inoperative or ineffective in the event of a single failure of any non-mechanical component in the system. (3/00.2.6.3)

ADR 33 Brake systems for motorcycles and mopeds

- A. The service brake system consists only of a single circuit which operates both front and rear wheels (dual circuit systems are acceptable). (33/00.2.1.1)
- B. The brake pads or linings cannot be visually inspected without removal of the brake caliper or drum. (33/00.2.1.4)

ADR 34 Child restraint anchorages and fittings

Specifies requirements for child restraints to provide for the connection of standard attaching clips so the child restraints may be adequately secured to the vehicle.

APPLICABLE TO	DATE OF MANUFACTURE
Passenger cars (4 wheel drive not included)	1 July 1976
Passenger car derivatives (4 wheel drive not included)	1 January 1977
Forward control passenger vehicle	1 January 1986
Passenger cars and derivatives including 4 wheel drive	1 January 1994
Omnibuses up to 12 seats and up to 3.5 GVM	1 July 1988
Off road vehicle (4 wheel drive)	1 July 1990

- A. Every nominated seating position does not provide a facility to attach an attaching clip to a child restraint anchor fitting; or
- B. A Child Restraint Anchor package is not installed in at least one (1) seating position. This shall be in the centre rear seating position, if applicable; and

Reasons for rejection

Numbers in (brackets) refer to ADR clauses

- C. other positions are not supplied with one (1) 5/16" UNC-2A hexagon headed bolt and appropriate spacer.

ADR 35 Commercial vehicle brake systems

Notes: 1) These requirements do not apply to the semi-trailer portion of articulated vehicles (see ADR38/00).

2) See Appendix H for the operational checks of air brake systems.

- A. The service brake system does not operate on all road wheels. (35/00.2.1.1)
- B. The service brake system is not actuated by a single pedal. (35/00.2.1.1)
- C. In the case of air operated service brake systems, there is no air pressure gauge for each separate supply system. (35/00.2.5.5)
- D. No parking brake system is provided. (35/00.2.2.1)
- E. No parking brake indicator lamp is provided. (Not applicable to spring brake systems). (35/00.2.2.3)
- F. The parking brake uses non-mechanical i.e.: pneumatic, electric or hydraulic devices to hold the brakes on. (35/00.2.2.1)
- G. No device is incorporated in the service brake system as a visible indicator of brake failure. (35/00.2.1.2)
- H. The service brake failure indicator device fails to operate when in the case of air brake systems, the ignition switch is on and pressure in any one brake power unit drops below 65% of the average operating pressure. (35/00.2.1.2.1.3)
- J. The service brake failure visible indicator fails to operate when: (35/00.2.1.2)
 - i) The ignition or electrical control switch is turned from the 'engine off' position to the 'engine on', position, and the engine is not operating, and the device does not deactivate when the engine is running; or
 - ii) The ignition or electrical control switch is in the 'engine start' position, and the device does not deactivate after the return of the ignition or electrical control switch to the 'engine on' position; or
 - iii) The ignition or electrical control switch is in a position between the 'engine on' position and the 'engine start' position, which is designated by the manufacturer as a check position, and the device does not deactivate after the return of the ignition or electrical control switch to the 'engine on' position; or

Reasons for rejection

Numbers in (brackets) refer to ADR clauses

- iv) The engine start circuit is energised and the device does not deactivate when the engine start circuit is not energised.

Notes: 1) For the purpose of this check, on vehicles equipped with an automatic transmission, the transmission control lever should be set to the 'neutral' or 'park' position.

- 2) If the indicator fails to deactivate, it means that either a brake failure exists or the indicator system is defective. In either case the vehicle should be rejected. Note that some systems may take up to ten seconds to deactivate.*

K. No secondary brake system is provided. (35/00.2.3.1)

Note: A secondary brake system provides emergency braking in the event of a single fluid failure in the service brake system. It may be:

- i) Independent of service and parking brake systems (that is, a third system); or*
- ii) Part of a split service brake system; or*
- iii) Part of a parking brake system.*

L. The secondary brake system becomes inoperative in the event of a pressure failure in the service brake system (in the case of split service brake systems the secondary brake system must remain operative when one half of the service brake system fails. (35/00.2.3.1)

M. In the case of spring brakes, there is no air reservoir for release of the spring brakes in the event of a failure of the air supply. (35/00.2.3.6.3)

Notes: 1) The air reservoir should provide for at least two releases of the spring brakes.

- 2) A separate reservoir, for release of the spring brakes, is not required in the case of vehicles with dual circuit service brake systems.(this assumes that either circuit can release the spring brakes).*

N. Any control for operation of the service brakes, secondary brakes or the parking brakes is out of reach of the driver. (35/00.2.1.1, 35/00.2.3.4, 35/00.2.5.5)

Reasons for rejection

Numbers in (brackets) refer to ADR clauses

ADR 36 Exhaust emission control heavy duty vehicles

- A. The engine does not bear a durable label which identifies the engine, gives tune-up specifications and indicates that the engine was built to comply with ADR 36 or the USA Environmental Protection Agency's Emission Regulation 85 or 86.9. (36/00.2.2.1)
- B. Vehicle is not designed for operation on unleaded petrol. (36/00.2.0.1)
- C. A label with the words 'UNLEADED PETROL ONLY', is not affixed adjacent to the fuel filler inlet. (36/00.2.0.1)
- D. The fuel filler inlet allows the insertion of a nozzle having a diameter of 23.6mm or greater. (36/00.2.0.1)

ADR 37 Emission control for light vehicles

- A. The fuel tank is fitted with a vented cap. (Note, the tank cap may incorporate a pressure relief valve).
- B. The fuel tank is vented directly to atmosphere.
- C. The engine is not of the same specification as an engine from a vehicle which is known to comply with this ADR or a more stringent standard. (37/00.4.3)
- D. The vehicle is not designed to operate on unleaded petrol.
- E. A label with the words 'UNLEADED PETROL ONLY' is not affixed adjacent to the fuel filler inlet. (37/00.3.6)
- F. The fuel filler inlet allows the insertion of a nozzle having a diameter of 23.6 or greater. (37/00.3.7.1)

ADR 38 Trailer brake systems

- A. Any trailer over 750kg GTM is not fitted with a brake on at least one axle (see Vehicle Standards Bulletin 1). (38/00.2.0.1)
- B. Any trailer over 2.0t GTM, is not fitted with a brake on all wheels. (38/00.2.0.1)

Reasons for rejection

Numbers in (brackets) refer to ADR clauses

- C. Any trailer over 4.5t ATM is not fitted with a parking brake which can be applied when the trailer is detached from the towing vehicle (spring brakes are acceptable). (38/00.2.1.3)
- E. In the case of air brake systems, there is not at least one air reservoir fitted to the trailer. (38/00.2.1.8)
- F. Any trailer with a GTM over 2.0t is not fitted with a break-away protection system which:
 - i) Applies the trailer brakes in the event that the trailer accidentally becomes detached from the towing vehicle; and
 - ii) Retains the braking effort for at least 15 minutes.
- G. In the case of trailers over 4.5t ATM, the service brakes are not able to be modulated by a control signal from the towing vehicle. (Note: it appears that, under ADR 38, over-run brakes are acceptable on trailers up to 4.5t, despite advice to the contrary in Vehicle Standards Bulletin 1. However, combinations towing such trailers might not meet the combination brake performance requirements of the MTRs). (38/00.2.2.1)

ADR 39 External noise of motorcycles

- A. The engine and exhaust system are not of the same specifications as those of a vehicle which is known to comply with ADR. (39/00.1.6)
- B. The silencing system components are not marked with manufacturers name or trademark. (39/00.2.1.1)
- C. A stationary noise test label is not fitted to the cycle. (39/00.3.1.4)

ADR 41 Mandatory operation on unleaded petrol

- A. Vehicle is not designed for operation on unleaded petrol. (41/00.2.1)
- B. A label with the words 'UNLEADED PETROL ONLY' (or equivalent) is not affixed adjacent to the fuel filler inlet. (41/00.2.2.1)
- C. The fuel filler inlet allows the insertion of a nozzle having a diameter of 23.6mm or greater. (41/00.2.3.1)

Reasons for rejection

Numbers in (brackets) refer to ADR clauses

ADR 42 General safety requirements

1. TRAILERS

Applicable ADR categories: T, only.

- A. Electrical wiring is not insulated, supported at least every 600mm or protected from chafing or heat. (42.7.1)
- B. The electrical plug for connection to the towing vehicle is not one of those listed below (Note that an adaptor plug may be fitted but the permanent wiring must be one of the following): (42/00.7.2)
 - Circular 7-pin 13mm PCD plug
 - Straight 7-pin plug
 - Straight 12-pin plug
 - Circular 7-pin 20mm PCD plug
- C. Any 240V AC wiring is not completely separate from the automotive wiring. (Note that AS3001-1981 applies to 240V AC systems). (42/00,42/01.7.3)
- D. Any object which is likely to injure any person due to protrusions or sharp edges. (42/00.9.1).
- E. Any toilet discharges directly onto the roadway. (42/00.11)
- F. Any wheel is unprotected by a mudguard and/or bodywork which meets the specifications of figure 42.2 (Note that where two or more axles are fitted, the mudguard may provide continuous protection from Area A of the foremost wheel to Area B of the rearmost wheel). (42/00.12.2).
- G. Any tubing/pipes for air, vacuum or hydraulic brake systems is not intended for this purpose (e.g. garden hose not acceptable). (42/00.13)
- H. Any semi-trailer is not provided with a rear bumper bar which meets the following requirements: (42/00, 42/01.6)
 - i) Is higher than 600mm from the ground;
 - ii) Is more than 600mm forward of the rear of the vehicle and the colour is not white;
 - iii) Is not within 300mm of each side of the vehicle;
 - iv) Has a strength not less than that of 100mm diameter, 8mm wall thickness steel tubing. (A bumper bar is not required if other structures afford comparable protection or if the rearmost surface of the rear tyre is within 1.55m of the rear of the vehicle).

Reasons for rejection

Numbers in (brackets) refer to ADR clauses

2. GENERAL REQUIREMENTS

Applicable ADR categories: All except T.

- A. A forward opening bonnet is not fitted with two latch positions/systems. (42/00.2)
- B. A cigarette lighter, if fitted, can be operated with the ignition in the 'off' position. (42/00.3)
- C. For diesel-engined vehicles, there is no engine start switch. (42/00.4)
- D. The steering wheel is located on the left-hand side of the vehicle. (42/00.5.1.1)
- E. The steering system is of a construction which would become inoperative in the event of a failure of a non-mechanical component. (Note that power assisted steering is acceptable provided it is fail-safe). (42/00, 42/01.5.1.2.1)
- F. Electrical wiring is not insulated, supported at least every 600mm or protected from chafing or heat. (42/00.7.1)
- G. If fitted, the electrical socket for connection to a trailer is not one of those listed below (Note that an adaptor plug may be fitted but the permanent wiring must be one of the following): (42/00, 42/01.7.2)

Circular 7-pin 13mm PCD socket

Straight 7-pin socket

Straight 12-pin socket

Circular 7-pin 20mm PCD socket

- H. Any 240V AC wiring is not completely separate from the automotive wiring, (Note that AS3001-1981 applies to 240V AC systems). (42/00.7.3)
- I. Any exhaust outlet discharges to the left-hand side of the vehicle, (42/00.8.1.2/2, 42/00.8.2.2, 42/00.8.3.3.1/2 and 42/00.8.4.3)
- J. Any non-vertical exhaust outlet extends substantially beyond the perimeter of the vehicle, when viewed in plan. (42/00.8.1.1, 42/00.8.2.2, 42/00.8.3.1)
- K. The direction of discharge (i.e centreline of the discharge) is not within the range:

MA,MB,MC with side exhausts

MA,MB,MC with rear exhausts

also enclosed LE vehicles

Horizontal

15° below - 45° below

10° above - 45° below

Reasons for rejection

Numbers in (brackets) refer to ADR clauses

Other non-vertical exhausts	horizontal - 45° below
Vertical exhaust systems	above horizontal
(42/00.8.1.2/3, 42/00.8.2.2, 42/00.8.3.3.2 and 42/00.8.3.31).	

- L. In the case of MD and ME vehicles (buses) and N-Group vehicles (trucks), the exhaust outlet is not rearward of the rearmost seating position. (42/00.8.2.3 and 42/00.8.3.1)

Note that, in effect, MA and other vehicles could be rejected on this requirement if there are any holes in the floorpan which are not sealed or are sealed by rubber plugs or similar non-permanent devices).
- M. In the case of N-Group vehicles, the exhaust outlet is higher than 750mm from the ground but not higher than 150mm above the maximum height of the cab (the latter requirement applies to vertical exhausts. Note that additional requirements apply in NSW under the Clean Air Act). (42/00.8.3.2)
- N. Any object which is likely to injury any person due to protrusions or sharp edges. (42/00.9.1)
- O. Any toilet discharges directly onto the roadway. (42/00.11)
- P. In the case of MA vehicles, any wheel is unprotected by a mudguard and/or bodywork which meets the specifications of figure 42.1. (42/00.12.1.2)
- Q. In the case of MA vehicles, the point at the centre of the lower, rearmost edge of a rear-wheel mudguard is higher than 150mm above the axle of the wheel. (42/00.12.1.2.1.2)
- R. In the case of MB, MC, MD, ME and N-Group vehicles, any wheel is unprotected by a mudguard and/or bodywork which meets the specifications of figure 42.2 (Note that where two or more axles are fitted, the mudguard may provide continuous protection from Area A of the foremost wheel to Area B of the rearmost wheel). (42/00.12.2)
- R. In the case of L-Group vehicles, any wheel is unprotected by a mudguard and/or bodywork which meets the specifications of figure 42.3. (42/00.12.3.2.1)
- S. Any tubing/pipes for air, vacuum or hydraulic brake systems is not intended for this purpose (e.g. garden hose not acceptable.) (42/00.13)
- T. Any vehicle (other than L-Group and T-Group) is not provided with a reverse gear. (42/00.14)
- U. Where an N-Group vehicle is provided with a sleeper berth which is separate from the driver's cab, that berth has less than two exits or does not have a means of communication with the driver or is unventilated or is likely to become filled with exhaust gases. (42/00.15)

Reasons for rejection

Numbers in (brackets) refer to ADR clauses

- V. Unless used as a driver's aid, any television screen is visible to the driver from the normal driving position. (42/00.16.2)
- X. In the case of MA, MB, MC and enclosed LE vehicles, less than half of the windows open to permit ventilation and there is no alternative means of ventilation. (42/00.17.1)
- Y. In the case of MD, ME and N-group vehicles, there is no alternative to windows as a means of ventilation. (42/00.17.2)
- Z. In the case of MA, MB and MC vehicles, power window switches, other than the driver's door window, are other than momentary type switches. (42/00.17.3.2.4)
- AA. For all vehicles other than T-Group vehicles, no audible warning device (horn) is available to the driver. (42/00.18.2)
- AB. A device which emits a sound resembling an emergency vehicle audible warning device (e.g. siren, alternating dual tone horn) is fitted to other than an emergency vehicle. (42/00.18.1)
- AC. Where an audible reversing alarm is fitted, that alarm operates at any time other than when the reverse gear is selected or it emits excessive noise. (42/00.18.3)
- AD. Where an automatic transmission is fitted, there is no neutral position between reverse and forward gear selection positions. (42/00.5.2.2.1)
- AE. Where an automatic transmission has a park position, it is not at the end of the selector sequence. (42/00.5.2.2.2)
- AF. Where an automatic transmission is fitted, it is possible to start the engine in either forward or reverse gear. (42/00.5.2.5)

ADR 43 Vehicle configuration and marking

1. Dimensions and configuration

Dimension limits are based on ADR43/02.

- Notes:*
- 1) *Various exemptions and special provisions apply to vehicle dimensions. If a vehicle is rejected on the grounds of dimensions check whether an exemption applies.*
 - 2) *The 'centre' of an axle group depends on the number of tyres fitted to each axle.*

Reasons for rejection

Numbers in (brackets) refer to ADR clauses

- A. The turning circle, measured from the outer edge of the front tyre, exceeds 25.0m in diameter.(43.2) (Note that a turning envelope applies to articulated buses but is not practical to test this - see 43/00.4.4.2).
- B. Overall length exceeds:
 - i) 12.5m in the case of a bus; (43/00.4.1.2)
 - ii) 12.5m in the case of other rigid vehicles; (43/00.4.1.1.2)
 - iii) 19.0m in the case of an articulated truck; (43/00.4.1.3.1)
 - iv) 18.0m in the case of an articulated bus. (43/00.4.1.4.1)
- C. The distance from the front of a rigid vehicle to the centre of the rear axle group exceeds 8.3m or, in the case of a bus, 8.3m plus the amount by which the bus overall length exceeds 11m. (43/00.4.1.1 and 43/00.4.1.1.2)
- D. In the case of a semi-trailer, the distance from the king-pin to the 'centre' of the trailer axle group exceeds 9.5m or, to the rear of the vehicle, exceeds 12.3m. (43/00.4.1.2.2 and 43/00.4.1.2.5).
- E. In the case of a semi-trailer, any portion is forward of an arc of 1.9m radius centred on the king-pin. (43/00.4.1.2.3)
- F. In the case of trailers, other than semi-trailers, the distance from the coupling to the 'centre' of the (first) axle group is more than:
 - i) 5.0m in the case of dog trailers (i.e. two axle groups)
 - ii) 8.5m in the case of pig trailers (i.e. one axle group, including caravans). (43/00.4.1.3.2)
- G. The rear overhang exceeds the lesser of:
 - i) 3.2m or 60% of the wheelbase, in the case of a rigid truck up to 9.5m overall length or a bus with a single rear axle.
 - ii) 3.7m or 60% of the wheelbase, in the case of a rigid truck over 9.5m overall length or a bus with more than one rear axle or a dog trailer.
 - iii) 3.2m or 50% of the distance from the king-pin to the centre of the trailer axle group, in the case of a semi-trailer.
 - iv) 3.7m or the length of the load space ahead of the centre of the trailer axle group, in the case of pig trailers, including caravans.

Note: Wheelbase is measured from the front axle to the centre of the rear axle group.(i.e. the second axle in a twin steer is ignored). (43/00.4.2)

- H. Overall height exceeds 4.3m. (43/00.4.3)
- I. Ground clearance is less than 100mm for any point within 1.0m fore or aft of an axle. (43/00.4.4.1)

Reasons for rejection

Numbers in (brackets) refer to ADR clauses

- J. Ground clearance at a point midway between any two consecutive axles is less than 33.33 x (distance between axles, in metres) mm (43/00.4.4.2). (Note: the ADR also has a ramp clearance requirement but it is not practical to carry out check of this requirement).
- K. Overall width exceeds:
 - i) 1.0m in the case of a two wheel vehicle;
 - ii) 1.85m in the case of a three wheel vehicle;
 - iii) 2.5m for other vehicles (43/00.4.5).
- L. The number of axle groups exceeds:
 - i) 2 in the case of rigid vehicles or dog trailers;
 - ii) 1 in the case of semi-trailers or pig trailers. (43/00.6.0)
- M. Any axle in the front axle group of a rigid vehicle or dog trailer does not steer. (43/00.6.1 and 43.6.3)
- N. In the case of a semi-trailer, a sliding rear axle assembly is not fitted with positive locking device or slide stops. (43/00.6.2.1)
- O. Except as indicated below, an axle group with more than one axle does not have a 'loadsharing' suspension system (linkage between the axles to enable them to follow an uneven road profile). Exceptions are: (43/00.7)
 - i) Twin steer axle groups;
 - ii) Tandem axle groups with axles 1.0m or less apart on vehicles up to 4.5t GVM;
 - iii) Tri-axle groups with extreme axles 2.0m or less apart on vehicles up to 4.5t GVM;
 - iv) Axle groups with 4 or more axles with extreme axles 3.2m or less apart on vehicles up to 4.5t GVM.

2. Marking and identification (incorporates ADR 61)

- A. No Vehicle Identification Number (VIN). (61/00.2.1 and 43/01.3.0)
- B. Unless exempt under administrative provisions, no ADR compliance plate is fitted. (61/00.3 and 43/01.3.1)
- C. No readily visible 'engine number' stamped, cast or engraved on the engine block. (61/00.4 and 43/01.3.2).
- D. Any ME (heavy bus), NC (heavy truck) or T (trailer) group vehicle is not fitted with a 'vehicle plate' showing the following details: (61/00.5.1)

Note: ADR43/01.3.3 requires a similar plate on trailers only).

Reasons for rejection

Numbers in (brackets) refer to ADR clauses

- i) Name of manufacturer;
 - ii) VIN;
 - iii) GCM, in the case of NC vehicles or Maximum 'Aggregate trailer mass' to be towed by an ME vehicle or 'Aggregate trailer mass' in the case of trailers;
 - iv) The words ROAD TRAIN and/or BDOUBLE in the case of vehicles designed for such operations.(61/00.5).
- E. There is no provision for mounting a registration (number) plate at the rear of the vehicle. (61/00.6.1.1.1 and 61/00.6.1.2.1)
- F. Except in the case of L-Group and T-Group vehicles, there is no provision for mounting a registration plate at the front of the vehicle. (Note: the ADR appears to require provision for a front registration plate on trailers but this is not intended because the term MOTOR vehicle is used!). (61/00.6.1.1.2)
- F. In the case of L-Group vehicles (motorcycles), the centre of the registration plate is less than 300mm from the ground. (61/00.6.1.2.1)
- G. In the case of other vehicles, the top of the registration plate is higher than 1.3m above the ground or the registration plate is obscured by any other component. (Note: it is acceptable to re-locate the registration plate provided that applicable requirements are met). (61/00.6.1.1.1 and 61/00.6.1.1.2)
- H. In the case of any vehicle without a windscreen, there is no registration label holder provided. (61/00.6.2)
- I. In the case of a vehicle with an extreme width of 2.2m or more which does not have rear marking plates and which has a tray type body, does not have a horizontal strip of white or silver paint/material which is at least 75mm in height across the full width of the tray. (61/00.7)
- J. In the case of a road train convertor dolly manufactured prior to 1 Jul 91 (i.e. prior to ADR63/..), the dolly is not marked with:
- i) Name of trademark of manufacturer;
 - ii) Gross Trailer Mass rating;
 - iii) A unique serial number. (43/01.3.6)

Note: A compliance plate may fulfil this purpose.

ADR 44 Specific purpose vehicle requirements

Reasons for rejection

Numbers in (brackets) refer to ADR clauses

1. Special provisions for taxis

Only applicable to category: M vehicles.

- A. In the case of MA vehicles (cars), any outboard seating position does not have an adjacent door that has a door handle. (44/00.2.1.2)
- B. The exposed surface of any passenger seat is constructed from an absorbent material. (Note: Removable seat covers may be absorbent, provided they are washable). (44/00.2.1.3)
- C. The exposed surface of the roof lining, door trim or luggage space is an absorbent material. (44/00.2.1.4)
- D. An interior lamp which has a switch position so that it illuminates when any access door is opened, is not provided. (44/00.2.1.5)
- E. No space for luggage is provided. (44/00.2.1.6)
- F. No 'Taxi' roof sign, which illuminates when the taxi is available for hire, is provided. (44/00.2.1.7)
- G. No 'Not for Hire' roof sign, which illuminates when the taxi is not available for hire, is provided. (44/00.2.1.8)
- H. Any part of a two-way radio extends below the instrument panel directly in front of any seating position. (44/00.2.1.9.1)

In the case where a taximeter is fitted:

- I. The taximeter display is not illuminated or cannot be readily seen by all occupants. (44/00.2.1.9.2.1)
- J. The centreline of the taximeter display is not within 200mm of the vehicle longitudinal centreline (unless evidence is available of special approval in another location). (44/00.2.1.9.2.2)
- K. Any part of the taximeter extends below the instrument panel. (44/00.2.1.9.2.3)
- L. Any part of a taximeter or two-way radio constitutes a hazard to vehicle occupants due to projections or encroachment on a portion of the instrument panel which is required to be padded under ADR21/. (44/00.2.1.9.3)
- M. The controls for the taximeter or two-way radio are not within reach of the driver from the normal seating position. (44/00.2.1.9.4)

2. Special requirements for tow trucks

Only applicable to category: N vehicles.

Reasons for rejection

Numbers in (brackets) refer to ADR clauses

Notes: 1) NSW requirements have provision for the determination of a lift capacity of a tow truck. This is not the same as 'load capacity', which is the difference between the tow truck GVM and tare mass.

- 2) Tilt-tray tow truck are not covered by these requirements.
- 3) Tow truck requirements depend on the 'class' of tow truck. The class determines the maximum gross mass of the vehicle to be towed or carried, as following definitions:

Class 1 - Maximum gross mass to be towed or carried: 2 tonnes: (44/00.2.2.1.1)

- A. The load capacity is less than 1.2t.
- B. The safe working load of the crane is less than 1t.

Class 2 - Maximum gross mass to be towed or carried: 5 tonnes: (44/00.2.2.1.2)

- A. The load capacity is less than 3t.
- B. The safe working load of the crane is less than 2.5t.

Class 3 - Maximum gross mass to be towed or carried: 12t: (44/00.2.2.1.3)

- A. Tow truck GCM is less than 18t.
- B. The safe working load of the crane is less than 5t.

Class 4 - Maximum gross mass to be towed - limited by GCM and axle loads: (44/00.2.2.1.4)

- A4. Tow truck GCM is less than 25t.
- B4. The safe working load of the crane is less than 5t.
- C4. The tow truck does not have a tandem rear axle.
- D4. A power winch is not fitted.
- E4. There is no provision for interconnection of air brake systems.

3. General requirements for all tow trucks

- A. There is no evidence of approval of the mounted crane by the relevant authority. (44/00.2.2.2.1).
- B. There is no provision for supporting a raised portion of the vehicle under tow by other than the crane mechanism. (44/00.2.2.2.3)
- C. Dual tyres are not fitted to the rear axle(s). (44/00.2.2.3.1)

Reasons for rejection

Numbers in (brackets) refer to ADR clauses

- D. There are no spacer bars and safety chains or similar devices to provide proper control of the vehicle under tow without damage. (44/00.2.2.3.2.1)
- E. There is no conspicuous lettering (at least 50mm high by 25mm wide) on the off-side of the tow truck which indicates its class.(44/00.2.2.3.3)
- F. A flashing amber warning lamp is not provided. (44/00.2.2.4.1.1)
- G. A search white light lamp, which can illuminate the rear of the tow truck, is not provided. (44/00.2.2.4.1.2)
- H. A de-mountable lamp assembly, for attachment to the rear of the vehicle under tow, is not provided. (44/00.2.2.4.2)
- I. Less than three portable warning signs (for placement on the roadway) are provided. (44/00.2.2.4.3)
- J. A fire extinguisher with a capacity of at least 4.5 litres is not provided. (44/00.2.2.5)

4. Special requirements for LPG fuelled vehicles

Only applicable to LPG fuelled vehicles.

Note: NSW Rules for Authorised Inspection Stations include comprehensive checks of LPG installations. ADR44/.. is confined to marking requirements.

- A. The engine bay does not have a plate or label indicating that the LPG installation complies with Australian Standard AS1425-1989 and identifying the installer and the date of installation. (44/00.2.6.1)
- B. The LPG storage vessel is not marked to indicate compliance with Australian Standard AS3509-1988 and AS1425-1989. (44/00.2.6.2)
- C. Red, 25mm square labels are not affixed to front and rear registration plates. (44/00.2.6.3)

5. Special requirements for caravans and motorhomes

Note: ADR 44. requires compliance with the 'Code governing the installation in caravans of LPG equipment and appliances'. These requirements have now been incorporated in section 6.6 of the 'Gas Installation Code' AG601 published by the Australian LPG Association. Requirements which can be readily checked are included below but there are numerous other requirements within that Code.

- A. Any caravan or motorhome has inward opening doors. (44/00.2.8.1)
- B. An LPG cylinder cannot be removed for filling purposes. (AG601.6.6.2.1)

Reasons for rejection

Numbers in (brackets) refer to ADR clauses

- C. Any part of an LPG cylinder is less than 200mm above the ground. (AG601.6.6.2.4)
- D. An LPG cylinder is installed with the valve not at the top. (AG601.6.6.2.6)
- E. An LPG cylinder which is intended to remain connected to the LPG supply system while the vehicle is moving, is located within the enclosed living space of the vehicle (a vented, gas-tight compartment is acceptable). (AG601.6.6.2.5)
- F. An LPG cylinder is mounted in such a way that it is unlikely to be able to withstand a 4g load in any direction. (AG601.6.6.2.7)
- G. A regulator is not fitted to an LPG supply system (Note: all permanent appliances should be designed for a gas pressure of not more than 2.75kPa - high pressure appliances such as 'Primus' are prohibited). (AG601.6.6.4.1 and 6.6.6.1)
- F. A fire extinguisher is not provided within the living quarters. (44.2.8.3)

ADR 45 **Lighting not covered by ECE** - see ADR 13

ADR 46 **Headlamps** - see ADR 13

ADR 47 **Reflectors** - see ADR 13 Reflectors

ADR 48 **Registration plate light** - see ADR 13 rear registration plate lamp

ADR 49 **Lights - (design)** - see ADR 13

ADR 50 **Fog lamps** - see ADR 13 Fog lamps

Reasons for rejection

Numbers in (brackets) refer to ADR clauses

ADR 51 Filament globes - No practical checks

ADR 52 Rear fog lamps - see ADR 13

ADR 53 Motorcycle lamps - see ADR 19

ADR 54 Moped headlamps - see ADR 19

ADR 55 Motorcycle headlamps - see ADR 19

ADR 56 Moped noise

- A. The engine and exhaust system are not of the same specifications as those of a vehicle which is known to comply with ADR 56/ or 39/.
-

ADR 57 Motorcycle requirements

- A. The width of the handlebars is more than 900mm or less than 500mm. (57/00.2.2.1)
- B. The vertical distance between the lowest part of the handgrip on the handlebars and the lowest part of the top surface of the driver's seat is more than 380mm. (57/00.2.2.2)

Reasons for rejection

Numbers in (brackets) refer to ADR clauses

- C. The horizontal distance from the steering axis, at a point mid-way between the head stem bearings, to the centre of the front wheel is more than 550mm. (57/00.2.2.4)
- D. The handlebars are not symmetrical on either side of the front wheel. (57/00.2.2.5)

6. VEHICLE CONTROLS (57/00.2.3.1)

- E. In the case of a manual transmission, the clutch control is not a lever located on the left handlebar. (57/00.2.3.1.3.1)
- F. A headlamp dip switch is not provided on the left handlebar. (57/00.2.3.1.3.4)
- G. A horn button is not provided on the left handlebar. (57/00.2.3.1.3.3)
- H. A direction indicator switch is not provided on either the left or right handlebar. (57/00.2.3.1.3.2)
- I. The throttle control is not a twist grip on the right handlebar. (57/00.2.3.10)
- J. An engine cut-out button/switch is not provided on the right handlebar. (57/00.2.3.1)
- K. A front wheel brake control lever is not provided on the right handlebar. (57/00.2.3.1)
- L. In the case of motorcycles with manual transmissions, a right foot pedal is not provided for applying the rear wheel brake. (57/00.2.3.1)
- M. In the case of motorcycles with an automatic transmission, the rear wheel brake control is not a right foot pedal or a left handlebar lever. (57/00.2.3.1)
- N. In the case of mopeds, a lever on the left handlebar is not provided for applying the rear brake. (57/00.2.3.1)
- O. In the case of manual transmissions, the gear change control is not a left foot pedal or part of the clutch control (on the left handlebar). (57/00.2.3.1)
- P. In the case of a manual transmission, no clutch or equivalent device is provided. (57/00.2.4)
- Q. No electrical generator is provided. (57/00.2.5)
- R. No footrests are provided for the driver. (57/00.2.6)
- S. No footrest is provided for any passenger seat fitted. (57/00.2.6)
- T. Any two-wheeled vehicle is not provided with a stand capable of supporting the stationary vehicle. (57/00.2.7.1)
- U. No provision is made to avoid the possibility of the vehicle being ridden with the stand in its extended position (various means of achieving this are specified, including automatic retraction, interconnection with the ignition system or an audible alarm). (57/00.2.7.2)

Reasons for rejection

Numbers in (brackets) refer to ADR clauses

ADR 58 Bus requirements

Note: These requirements only apply to buses used for hire and reward.

- A. 'Small bus' has an occupant capacity of 25 or less, including the driver and standees. (58/00.1.2)

1. Passenger access and comfort

- A. Any passenger seat cannot be accessed from either a longitudinal aisle or a near-side door or a rear door (Note: access in not permitted to be blocked by a folding seat). (58/00.5.3)
- B. The minimum width of any longitudinal aisle is less than:
- i) 300mm in the case of small buses with only seated passengers.
 - ii) 380mm in the case of any other bus. (58/00.4.1)
- C. The minimum height along the centreline of any longitudinal aisle is less than:
- i) 1.35m in the case of small buses or buses with an aisle length not more than 2m (1.65m in the case of double decker buses and tourist vehicles)
 - ii) 1.8m in the case of any other bus. (58/00.6)
- D. In the case of any row of seats which only has access to a side door the internal height at the longitudinal centreline of the vehicle is less than:
- i) 1.2m in the case of small buses
 - ii) 1.5m in the case of any other bus. (58/00.6.2)
- E. Any longitudinal aisle does not have access to a near-side door. (58/00.5.1)
- F. The opening width of an access door (excluding handrails) is less than 550mm. (58/00.5.1)
- G. The opening height of an access door is less than 1.8m (1.2m in the case of small buses). (58/00.5.1)
- H. There is a passenger access door (other than an emergency exit) on the off-side of the vehicle. (58/00.5.4)
- I. In the case of buses with an occupant capacity in excess of 15 persons, any passenger access door is not capable of being opened and closed from the driver's seat. (58/00.5.5)

Reasons for rejection

Numbers in (brackets) refer to ADR clauses

- J. Any one-piece passenger door opens inwards (folding doors are acceptable). (58/00.5.7)
- K. Any step tread does not have a skid-resistant surface. (58/00.7.1)
- L. The height of any step is more than:
 - i) 450mm in the case of an access door to a single row of seats on a small bus with an occupant capacity up to 15;
 - ii) 450mm in the case of a side door of a bus designed for off-road operations;
 - iii) 500mm in the case of a rear door of a bus designed for off-road operations 410mm in the case of the bottom step on other buses (a minimum height of 250mm is also prescribed) 300mm in the case of other steps; (58.7.2)
 - iv) Access step requirements do not apply to the steps between decks of a double decker bus;
 - v) Step height is measured from the ground in the case of bottom steps or its riser height in the case of other steps.
- M. The width of any access step is less than 450mm. (Note: the width of the bottom step should be no less than the width of the door opening). (58/00.7.3.2)
- N. The tread depth (horizontal distance) of any step is less than:
 - i) 180mm measured over a width of at least 300mm in the case of the bottom step of a bus with an occupant capacity up to 15;
 - ii) 180mm over a width of at least 450mm in the case of other steps on small buses 225mm over a width of at least 450mm in the case of other buses. (Note: steps may be undercut up 45mm in order to meet these requirements). (58/00.7.4)
- O. Hand-grips are not provided on either side of any access steps. (58/00.5.1)
- P. In the case of large buses, no guard rail is provided to prevent passengers accidentally coming into contact with the driver or a driving control. (58/00.8)
- Q. In the case of any passenger door rearward of the driver, no external mirror is provided to give the driver a view of that door. (58/00.9)
- R. Handstraps, handrails or similar devices are not provided at convenient locations along any longitudinal aisle. (58/00.10)
- S. Any floor does not have a skid-resistant finish or any portion of a longitudinal aisle has a slope in excess of 1 in 10. (58/00.11)
- T. Access steps are not capable of being illuminated (not applicable to small buses with an occupant capacity not more than 15 where the steps only provide access to a single row of seats). (58/00.18.2)
- U. The bus interior is not capable of being illuminated. (58/00.18.1)

Reasons for rejection

Numbers in (brackets) refer to ADR clauses

- V. In the case of route service buses, any passenger seat does not have convenient access to a passenger stop signalling device. (58/00.16)
- W. Interior roof lining or other interior trim (including seat covers) is made from material which is known to be readily flammable or absorbent. (58/00.17)
- X. No fire extinguisher is provided. (see Australian Standard AS2444-1985 for selection requirements). (58/00.24)

Note: the ADR contains additional requirements for double decker buses.

2. Emergency exits

- A. In the case of a bus with no emergency exits:
 - i) There are more than 12 seats, including the driver; or
 - ii) The extreme width of the bus is more than 2m; or
 - iii) The bus has no doors (including a driver's door) on the off-side; or
 - iv) Any passenger access door has an area of less than 0.7 square meters or an opening with a minimum dimension less than 500mm. (58/00.12.0)
- B. A compulsory emergency exit is not:
 - i) At the rear of the vehicle; or
 - ii) in the rear part of the roof of the vehicle, provided that an emergency exit is also provided on the off-side of the vehicle. (58/00.12.1)
- C. A compulsory emergency exit has an area less than:
 - i) 0.52 square metres in the case of small buses;
 - ii) 0.7 square metres in the case of other buses; or
 - iii) 0.32 square meters in the case of the additional (off-side) emergency exit of a bus with a roof exit (see B(ii)). (58/00.12.1.3 and 58/00.12.1.2)
- D. The minimum distance across any compulsory emergency exit opening is less than 500mm. (58/00.12.1.2 and 58/00.12.1.3)
- F. Any emergency exit is not capable of being opened outwards from inside and outside of the vehicle. (58/00.12.3)
- G. Any emergency exit does not have the words 'EMERGENCY EXIT' prominently displayed. (58/00.12.3)
- H. The vertical distance from the floor to the lower edge of a compulsory rear or side emergency exit exceeds 1m. (Note: if the lower edge is lower than 500mm it should be protected to prevent accident contact by passengers but the absence of protection is not a reason for rejection). (58/00.12.4)
- I. Any interior door separates passengers from an emergency exit. (58/00.15)

Reasons for rejection

Numbers in (brackets) refer to ADR clauses

Note: ADR58 also sets minimum and maximum operating forces for pop-out type emergency exits - see 58/00.12.5.

3. Passenger seats

- A. Any passenger seat has a width of less than 400mm measured along the front of the seat cushion (use multiples of 400mm for bench seats). (58/00.13.1).
- B. Any passenger seat has a seat cushion depth of less than 350mm measured horizontally from the foremost part of the seat back to the front of the seat cushion, along the centreline of the seat. (58/00.13.2).
- C. The minimum horizontal distance (clearance) between the seat back of a passenger seat and any object in front of that seat is less than 660mm. (58/00.13.3.2).
- D. The minimum horizontal distance between the seat backs of opposite facing seats is less than 1200mm. (58/00.13.3.1).
- E. There is any obstruction within a rectangular space 200mm ahead of the seat, 150mm on either side of the seat centreline (i.e. 300mm in width) and from the floor to the top of the seat cushion (Note that wheel arches or contoured engine covers are permitted to encroach on this space in the case of buses with an occupant capacity up to 15, provided that the foot space is at least 200mm by 300mm). (58/00.13.4).
- F. The height between the floor and the lowest part of a seat cushion is more than:
 - i) 300mm where the floor level is raised to accommodate a wheel housing or engine cover;
 - ii) 380mm in the case of a small bus, other than (i);
 - iii) 400mm in the case of other buses, other than (i) (58/00.13.5).
- G. The top edge of any seat back has sharp edges or hazardous projections. (58/00.13.7)
- H. Any passenger seat is not securely attached to the vehicle. (58/00.13.8)
- I. In the case of a concave seat back, the radius is less than 300mm, measured at a height of 610mm above the floor and within 150mm on either side of the centreline of the seat.(58/00.13.10) (Note: the ADR sets a minimum radius of 450mm for 'route service buses').
- J. The seat back of any passenger seat is more than 100mm forward of the seat back of the driver's seat (an adjustable passenger seat should be in its rearmost position for this check). (Note: it is assumed that this requirement does not apply where the passenger seat is on a different deck to the driver's seat). (58/00.26.1.1)

Reasons for rejection

Numbers in (brackets) refer to ADR clauses

4. General vehicle design

- A. Any longitudinal tailshaft incorporated in the vehicle driveline is not designed or protected so that it will not strike the roadway in the event of the front of the tailshaft becoming detached. (58/00.21)
- B. Any fuel tank or fuel tank filler pipe is located in the interior of the bus or in the engine bay. (58/00.23.1, 58/00.23.6)
- C. The fuel filler pipe projects beyond the bodywork. (58/00.23.7.0)
- D. The fuel filler is within 900mm horizontally, of any access door or emergency exit (not applicable to a small bus with an occupant capacity up to 15). (58/00.23.7.1)
- E. The fuel system is of a design which would allow any overflow or leak to accumulate on the vehicle or to contact the exhaust system. (58/00.23.7, 58/00.23.9)
- F. The fuel system provides gravity feed to the carburettor or fuel injector. (58/00.23.10)
- G. Unless shielded, any flammable material is within 100mm of the exhaust system. (58/00.23.5)

ADR 59 Bus rollover strength

- A. Any roof pillar or roof structural member which was provided by the original vehicle manufacturer has been removed or modified in any way which might reduce its strength (not applicable if there is evidence that the modifications/repairs are in accordance with the manufacturer's specifications).

ADR 60 High-mounted brake lights

Only applicable to MA and LEP category vehicles.

- A. A rearward-facing brake lamp, which is additional to those required under ADR13/., is not provided. (60/00.4.1)
- B. The lamp is not red. (60/00.2.1)
- C. The lamps flashes or is not steady. (60/00.2.4.4)

Reasons for rejection

Numbers in (brackets) refer to ADR clauses

- D. The lamp is not mounted on the longitudinal centreline of the vehicle. (60/00.4.4.1)
- E. Any illuminated part of the lens is more than 152mm below the bottom edge of the rear window (maximum of 77mm preferred). (60/00.4.4.2)
- F. There is no provision for conveniently changing the globe. (60/00.2.4.3)
- G. Any interior mounted lamp is not shrouded to minimise the entry of light to the interior of the vehicle. (60/00.4.12)

ADR 62 Mechanical connection between vehicles

1. Checks of towing vehicle - trucks

Only applicable to Towing Vehicles.

(see separate checklist for trailers and passenger cars)

- A. In the case of MB vehicles, the height of the centre of the towball is less than 350mm when the vehicle is unladen (Note: The ADR requires the tow ball height to be in the range 350mm to 420mm when the vehicle is laden but a laden test is not required for these checks). (62/00.5.2.3.2)
- B. In the case of vehicles fitted with 50mm PIN coupling or 127mm ball coupling, the height of the centre of the coupling is not within the ranges 800mm to 950mm OR 550mm to 650mm when the vehicle is unladen. (62/00.5.2.3.1)
- C. For NC vehicles manufactured from 1 July 1991, the longitudinal distance from the centre of the rear axle group to the centre of the coupling exceeds 2.7m. (62/00.5.2.2)
- D. 50mm pin couplings are not marked to indicate compliance with Australian Standard AS2213-1984. (62/00.5.3.3)
- E. The tow bar and its attachment points have any cracks, breaks or distortion which indicate inadequate strength or any attachments fastenings are missing or insecure. (62/00.6.1)
- F. There is no provision for the attachment of safety chains to the tow bar (rams horn type attachments are not acceptable). (62/00.6.2)
- G. The tow bar is not permanently marked with the following information:
 - i) Manufacturer's name or trade mark;
 - ii) Make and Model of vehicle for which it is designed;

Reasons for rejection

Numbers in (brackets) refer to ADR clauses

- iii) Maximum rated capacity (Aggregate Trailer Mass). (62/00.6.3)
- H. Where the information specified in item G is not readily visible with the tow bar installed on the vehicle, a separate label, showing the maximum rated capacity, is not affixed to the vehicle adjacent to the tow bar, in a clearly visible position. (62/00.6.3.2)

2. Prime mover fifth wheels and turntables

(Where fitted 62/00.5.2.4.1)

Note: Where there is no evidence that the fifth wheel and turntable mounting comply with the prime-mover manufacturer's specifications or, in the case of ball-race turntables, the ball race turntable manufacturer's recommendations, the following checks apply. They are based on Australian Standard 1771-1987. Refer to the AIS Rules for maintenance checks and additional requirements:

- A. No base plate or sub-chassis is fitted (e.g. reject if the feet are mounted directly onto the truck chassis).
- B. The baseplate or sub-chassis attachments are not bolted to the web (side section) of the truck chassis.
- C. There is no clearance between the base plate/sub-chassis and the truck chassis flange (top section).
- D. There are less than four M20(3/4") or six M16(5/8") grade 8.8 bolts per side, attaching the baseplate or sub-chassis attachment angle/fishplate to the truck chassis web.
- E. Where bolted, there are less than four M20 or six M16 grade 8.8 bolts per side attaching the base plate or sub-chassis to its attachment angle/fishplates.
- F. Where welded, there is less than 450mm total length of 10mm weld per side, attaching the base plate or sub-chassis to its attachment angle/fishplate.
- G. Where bolted, there are less than four M20 grade 8.8 bolts attaching each of the fifth wheel feet to the base plate/sub-chassis.
- H. Where welded, there is less than 450mm total length of 10mm weld attaching each of the fifth wheel feet to the baseplate/sub-chassis.
- I. Where a sliding assembly is fitted, there are no slide stops fitted.
- J. Where a sliding assembly is fitted, no positive locking mechanism is provided.
- K. The base plate is less than: 12mm in the case of flat base plates or 8mm in the case of ripple baseplates.

Reasons for rejection

Numbers in (brackets) refer to ADR clauses

3. Trailer couplings and drawbars

(For electrical connections, see ADR 42)

- A. The coupling and its attachment points have any cracks, breaks or distortion which indicate inadequate strength or any attachments fastenings are missing or insecure. (62.7/00.1)
- B. The coupling is not permanently marked to indicate its capacity.
(Ed: check AS D18-1968)(62/00.5.3.4)
- C. Safety chains are not fitted in accordance with the following table:

Aggregate Trailer Mass (kg)	Chain Size	Minimum Nominal	Minimum Shackle
	Designation	Link Dia	BodyDia
Up to 1000	1000kg	6.3mm	9.5mm
Over 1000 up to 1600	1600kg	8.0mm	12.7mm
Over 1600 up to 2500	2500kg	10.0mm	12.7mm
Over 2500 up to 4300	Two chains	7.1mm	-
Over 4300 up to 7500	Two chains	9.5mm	-
Over 7500 up to 13500	Two chains	12.7mm	-
Over 13500 up to 21500	Two chains	15.9mm	-
Over 21500 up to 30000	Two chains	19.0mm	-
Over 30000	Two chains	22.0mm	-

(62.8.4 and VSB1)

- D. The safety chain is not permanently attached to the drawbar (i.e. shackles are not permitted). (62/00.8.3)
- E. For trailers over 2500 ATM, the safety chain is welded as a means of attachment to the drawbar. (62/00.8.4.2)
- F. For trailers up to 2500 ATM, where the safety chain is welded to the drawbar, the weld extends for less than 50% of the circumference of link. (62/00.8.4.1)

4. Checks of towing vehicle - towbars (where fitted)

Only applicable to TOWING VEHICLES (MA category) (see separate checklist for trailers)

- A. In the case of MA and MB vehicles, the height of the centre of the towball is less than 350mm when the vehicle is laden (Note: The ADR requires the tow ball height to be in the range 350mm to 420mm when the vehicle is laden but a laden test is not required for these checks). (62/00.5.2.3.2)

Reasons for rejection

Numbers in (brackets) refer to ADR clauses

- B. The tow bar and its attachment points have any cracks, breaks or distortion which indicate inadequate strength or any attachments fastenings are missing or insecure. (62/00.6.1)
- C. There is no provision for the attachment of safety chains to the tow bar (rams horn type attachments are not acceptable). (62/00.6.2)
- D. The tow bar is not permanently marked with the following information:
 - i) Manufacturer's name or trade mark;
 - ii) Make and Model of vehicle for which it is designed;
 - iii) Maximum rated capacity (Aggregate Trailer Mass). (62/00.6.3)
- E. Where the information specified in item D is not readily visible with the tow bar installed on the vehicle, a separate label, showing the maximum rated capacity, is not affixed to the vehicle adjacent to the tow bar, in a clearly visible position. (62/00.6.3.2)

ADR 63 Trailers designed for use in road trains

These checks apply to dog trailers and convertor dollies used in road train combinations.

- A. Any electrical connector between vehicles does not have earth conductor.(63/00.4.3).
- B. The longitudinal distance from the rear tow coupling to the centre of the rear axle group exceeds 30% of
 - i) The distance between the centre of the front axle group to the centre of the rear axle group, in the case of dog trailers;
 - ii) The distance between the king-pin and the centre of the rear axle group, in the case of semi-trailers. (63/00.5.1.1)
- C. The height of the rear coupling is less than 800mm or more than 950mm (vehicle to be unladen for this check). (63/00.5.1.2)
- D. The rear coupling is more than 300mm forward of the rearmost point on the vehicle. (63/00.5.1.3)
- E. The length of the drawbar is less than 3m or more than 5m. (63/00.5.1.4)
- F. Any fifth wheel assembly is not marked with a 'D-rating' of 162kN or more. (63/00.5.2.1)
- G. Any fifth wheel king-pin is not marked with a 'D-rating' of 162kN or more. (63/00.5.2.2)
- H. Any Pin coupling is not marked with a 'D-rating' of 186kN or more. (63/00.5.2.3)

Reasons for rejection

Numbers in (brackets) refer to ADR clauses

- I. Any coupling or drawbar components have any cracks, breaks or distortion which indicate inadequate strength or any attachments or fastenings which are missing or insecure. (63/00.5.2.4)

ADR 64 Road train and B-double prime movers

These checks only apply to prime movers used in road trains or B-double combinations.

- A. Any prime mover to be used in a B-double (except a twin-steer prime mover) has a turning circle more than 17m, as specified by the manufacturer.(64/00.2) (Note: the ADR requires the prime mover to be capable of turning between walls 17m apart but this is not to be checked).
- B. More than one electrical connector is provided for connection to the trailer. (64/00.4.2)
- C. Any prime mover used in a road train does not have electrical protection of lighting and signalling devices provided by resettable circuit breakers. (64/00.4.3)
- D. Any axle group of a prime mover to be used in a B-double does not have an anti-lock braking system on at least one axle in the group. (64/00.5.2)

ADR 65 Speed limiting

Note: It is not practical to check whether a speed limiting device is functioning correctly by road test. The following checks determine whether some types of tampering have occurred.

First it is necessary to determine how road speed limiting is achieved.

There are three methods:

1. Maximum engine power is insufficient to maintain speed in excess of the limit (the ADR requires this to be demonstrated by test on a level road). It is unusual for modern trucks and buses to meet the ADR by this method.
2. Overall vehicle gearing (including tyres) , combined with maximum governed engine speed is such that a speed in excess of the limit cannot be maintained.

Reasons for rejection

Numbers in (brackets) refer to ADR clauses

3. A device is fitted to the engine (or included in an engine management system) so that engine power is reduced when the prescribed speed is exceeded. This system must be verified by test on a level road.

CHECKS FOR SYSTEM 1 - Speed limited by engine power (65/00.3.1)

- A. A replacement engine with substantially more power than that available from the original engine, has been fitted.
- B. A turbo-charger has been fitted where the original engine did not have a turbo-charger.
- C. The vehicle unladen mass has been substantially reduced.

CHECKS FOR SYSTEM 2 - Speed limited by gearing.

Applicable if there is no evidence that the calculated speed has been re-assessed in accordance with the formula provided in the ADR and shown to comply. (65/00.3)

- A. A replacement engine with a higher rated speed than that of the original engine, has been fitted.
- B. Any replacement or additional driveline component (including transmission, over-drive unit, differentials and axles) which provides less overall gear reduction (i.e. higher road speed for the same engine speed) than the original driveline system, is fitted.
- C. Any engine speed governing device has been removed, rendered inoperative or set higher than the manufacturer's rating.
- D. The drive wheels are fitted with tyres which have a substantially larger rolling radius than the tyres recommended for the vehicle by the vehicle manufacturer.

CHECKS FOR SYSTEM 3 - Speed limiting by road speed governor. (65/00.4)

- A. A replacement engine which is not of the same specifications as the original engine, has been fitted.
- B. Any replacement or additional driveline component (including transmission, over-drive unit, differentials and axles) which provides less overall gear reduction (i.e. higher road speed for the same engine speed) than the original driveline system, is fitted so that it affects the calibration of the speed sensing unit (Note: because most speed sensing systems are fitted to the transmission, virtually any change in the driveline will affect the calibration).
- C. Any part of the governing system has been removed or rendered inoperative or ineffective.

Reasons for rejection

Numbers in (brackets) refer to ADR clauses

- D. Any seal on the following parts is missing or broken:
- i) The road speed governor adjustment mechanism or the case containing the mechanism
 - ii) Both ends of any linkage between the governor and the injector pump
 - iii) Both ends of any linkage between the governor and the speed sensing unit (e.g. transmission).

ADR 66 Bus seat strength and padding

This ADR sets strength and design requirements for bus seats and anchorages.

In addition to tests of seats and seat mountings specified in ECE 80, the ADR includes the testing of accessories such as ash trays, hand grips etc mounted on the back of seats and tests of arm rests to ensure that no hazardous projections result from the failure of these components. It is not practical to check these items without destructive testing therefore, in the absence of appropriate test results, only seats from buses which are known to comply with the ADR can be accepted under these checks.

- A. Any passenger seat is not of the same design and construction as a seat from a bus which is known to comply with ADR68.
- B. Any passenger seat is located so that the occupant is not protected in the event of a frontal collision by either:
 - i) A the rear of a seat directly in front of that seat; or
 - ii) A suitably padded structure which provides at least the same protection as the rear of a seat; or
 - iii) A seat belt (Note: if the seat in front is lower by more than 60mm then item (i) is not applicable - 68/00.2.9). (66/00.2.5)
- C. Where protection is provided by a lap seat belt, any obstruction (other than the rear of a seat or a padded structure) is located within the space 1.3m directly forward of the seat back. (65/00.2.5.1)
- D. Where protection is provided by a seat belt and there is a seat directly to the rear of the seat, the seat belt is not mounted on the seat structure (i.e. seat belt anchorages on the floor are not permitted where a passenger in the seat behind could get their feet entangled in the seat belt). (68/00.2.5.3)
- E. Any seat has an adjustment mechanism which does not lock automatically. (68/00.5.1)
- F. Any part of the seat structure or mounting is cracked, broken or insecure. (68/00.5.2.3)

Reasons for rejection

Numbers in (brackets) refer to ADR clauses

- G. The back of any seat which is directly in front of a passenger seat contains any sharp edges (i.e. radius less than 5mm) higher than 400mm above the floor level. (68/00.5.3)

ADR 67 Installation of lighting and light-signalling devices on three wheeled vehicles

See Main body of Rules

ADR 68 Occupant protection in buses

This section applies to all buses over 3.5 tonnes GVM (MD3, MD4) manufactured after 1 July 1995 and heavy buses (ME) manufactured after 1 July 1994.

It does not apply to 'route service buses' or buses with less than 17 seats including the driver and crew, or vehicles in which all passenger seats have a reference height of less than 1.0 metres.

- A. Any seat or seatbelt is not of the same specifications as a seat or seatbelt provided by the manufacturer of the vehicle.
- B. Any front facing seat is not fitted with a lap-sash seatbelt.
- C. Any rear facing seat is not fitted with a lap-sash or lap seatbelt.

ADR 69 Full Frontal Impact Occupant Protection

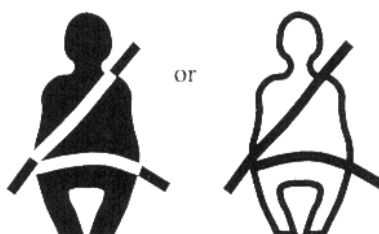
This section applies to all new model MA category vehicles from 1/1/1995 and all MA category vehicles from 1/1/1996.

- A. The vehicle is not fitted with a seat belt warning system.
- B. The warning system is not a visual indicator.

Reasons for rejection

Numbers in (brackets) refer to ADR clauses

- C. The visual indicator does not activate or flash for at least four (4) seconds when the vehicles ignition switch is switched to the 'ON' or 'START' position.
- D. The visual indicator does not display the words 'Fasten Seat Belts' or 'Fasten Belts' or the seat belt telltale below.



ADR 70 Exhaust emission control for diesel engined vehicles

This section applies to :

all new model LEP, MA, MB and MC category vehicles from 1/1/1995 and all new model LEG, MD, ME, NA, NB and NC category vehicles from 1/1/1996.

on all LEP, MA, MB and MC category vehicles from 1/1/1996 and LEG, MD ME, NA, NB and NC category vehicles from 1/7/1996

Note: A 'new model' is a vehicle model first produced with a date of manufacture on or after 1/1/1995 for LEP, MA, MB and MC category vehicles; and 1/7/1995 on all LEG, MD, ME, NA, NB and NC category vehicles.

There are no physical checks able to be carried in the field to determine compliance with this ADR.

Appendix D

Not Used

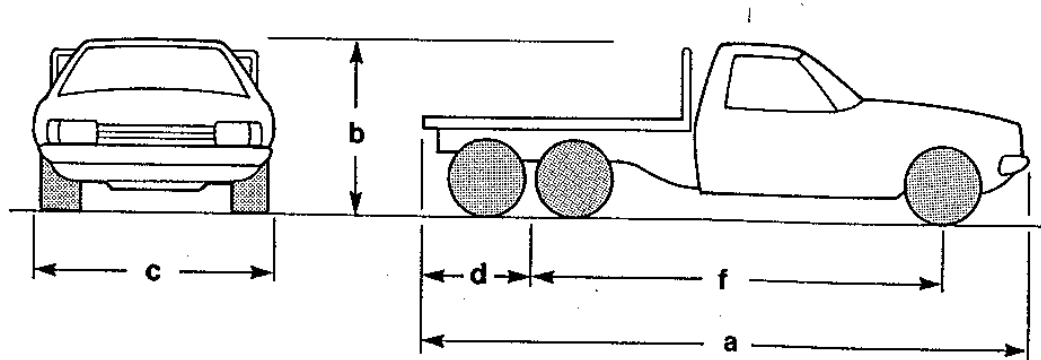
Appendix E

Not Used

Appendix F

Vehicle dimension limits

Light vehicles



Length	a	12.5m
Height	b	4.3m
Width	c	2.5m
Rear overhang	d	3.7m or 60% of 'F'
Projection forward of headlamps	e	1.2m
Wheelbase	f	-

Appendix G

Not Used

Appendix I

Engineering Signatories

Requirements for Engineering Signatories in the ACT

- a) Recognised Degree in Mechanical or Automotive Engineering, or Acceptance as a full member of the Institution of Engineers, Australia as Mechanical or Automotive Engineer.
- b) Demonstration of a minimum of five (5) years relevant experience in the automotive engineering field.
- c) Professional Indemnity Insurance of at least two (2) and preferably five (5) million dollars.

Note: Assessment of qualifications and experience can be performed prior to obtaining insurance coverage, however approval will only be provided when cover is obtained.

ACT Engineering Signatories

The following list includes those engineers approved through TAMS and wish to have their names published. The ACT will also accept engineering reports from engineers approved in other Australian jurisdictions (most of these are listed in the NSW Vehicle Standards Information Sheet No. 15).

Some other engineers may be accepted but do not wish to have their names published on a list. If an engineer you intend to utilise is not included on the list below or that of another jurisdiction, you should contact RUS on (02) 6207 7012 or 6207 7236 to ascertain whether an engineering report will be accepted.

In publishing this list, and accepting reports from other engineers, TAMS does not endorse their services or take any responsibility for the quality of their work. Fees arrangements are a matter between the engineering consultant and the person engaging the engineer to perform work and TAMS cannot become involved in those arrangements.

Mr Mario Larrocca
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11 Shropshire Street
QUEANBEYAN NSW 2620
Phone: (02) 6299 3400
Unrestricted

John Wilson
AKZ Vehicle Engineering
96 Newcastle St
Fyshwick ACT 2609
Phone: (02) 6286 3258
Fax: (02) 6286 3258
Mobile: 0417 230 074
Unrestricted

Mr Ray Spence
Canberra Motor Works
38 Hoskins Street
MITCHELL ACT 2911
Phone: (02) 6241 8777
Unrestricted

Appendix J

Not Used

Appendix K

Not USed

Appendix L

Not Used

Appendix M

ALS bulletins