# Model Amendments Regulations:
## Australian Vehicle Standards Rules – Package No. 8

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Model Amendment Regulations: Australian Vehicle Standards Rules – Package No. 8

The following provisions are intended to provide the basis for nationally consistent transport laws on the topics with which they deal. They do not, of themselves, have any legal effect.

1. Name

These are the Model Amendments Regulations: Australian Vehicle Standards Rules – Package No. 8.

2. Purpose

The purpose of these Regulations is to make miscellaneous amendments to the Australian Vehicle Standards Rules 1999 to update or improve the operation of those Rules.

3. Approval

These Regulations were approved by [to be inserted] on [to be inserted] 2014.

4. Regulations being amended by these Regulations

These Regulations amend the Australian Vehicle Standards Rules 1999.

5. Vehicles to which the Vehicle Standards do not apply

After rule 10(c) insert –

"(ca) a power assisted pedal cycle within the meaning of vehicle standards determined under the Motor Vehicle Standards Act 1989 of the Commonwealth, as amended from time to time; or

(cb) any cycle that was previously a power assisted pedal cycle within the meaning of vehicle standards determined under the Motor Vehicle Standards Act 1989, but that is no longer a power assisted pedal cycle because of a change to the way that concept is defined; or".
After rule 10(f) insert –

“Note With respect to paragraphs (ca) and (cb), power assisted pedal cycle is defined in the Australian Design Rules – Definitions and Vehicle Categories which are standards determined under section 7 of the Motor Vehicles Standard Act 1989 of the Commonwealth. The definition includes vehicles referred to as pedalecs.”.

6. Mudguards and spray suppression

For rule 33 (6) substitute –

“(6) For subrule (5) (a), the width of a vehicle is measured disregarding any —

(a) rear vision mirrors, signalling devices and side-mounted lamps and reflectors; and

(b) anti-skid devices mounted on wheels, central tyre inflation systems, tyre pressure gauges; and

(c) permanently fixed webbing assembly-type devices such as curtain-side devices, providing that the maximum distance across the body including any part of the devices does not exceed 2.55 meters.”.

7. Substitution of rule 35

For rule 35 substitute –

"35 Rear vision mirrors

(1) At least 1 rear vision mirror must be fitted to—

(a) a car; and

(b) a motor trike with 2 front wheels; and

(c) a motor bike, or motor trike with 1 front wheel, built before July 1975.

(2) At least 1 rear vision mirror must be fitted to each side of—

(a) a motor vehicle with a GVM over 3.5 tonnes; and

(b) a motorbike, or motor trike with 1 front wheel, built after June 1975.

(3) A motor vehicle with a GVM not over 3.5 tonnes (except a motor vehicle mentioned in subrule (1) or (2)) must be fitted with—

(a) at least 1 rear vision mirror on the right side of the vehicle; and—

(b) at least 1 rear vision mirror on the left side of the vehicle or inside the vehicle.

(4) A rear vision mirror fitted to a motor vehicle as required by this rule must be fitted so that the vehicle’s driver in a normal driving
position can clearly see by reflection the road behind the vehicle and any following or overtaking vehicle.

(5) A rear vision mirror fitted to a motor vehicle as required by this rule must not project beyond the external bodywork of a vehicle substantially more than is necessary for it to provide adequate rearward vision.

(6) If the lower edge of an exterior rear vision mirror fitted to a motor vehicle as required by this rule is less than 2 meters above the ground when the vehicle is loaded to maximum mass permitted for the vehicle, the mirror must not project more than 250 millimetres beyond the overall width of the vehicle, measured in accordance with the prescribed dimension requirements applying the vehicle.

(7) For subrule (6), the width of a vehicle is measured disregarding any —
   (a) rear vision mirrors, signalling devices and side-mounted lamps and reflectors; and
   (b) anti-skid devices mounted on wheels, central tyre inflation systems, tyre pressure gauges; and
   (c) permanently fixed webbing assembly-type devices such as curtain-side devices, providing that the maximum distance across the body including any part of the devices does not exceed 2.55 meters.”.

8. Substitution of rule 44

For rule 44 substitute –

"44 Window tinting"

(1) Glazing used in a windscreen of a motor vehicle must have a luminous transmittance of at least 70%.

(2) Glazing used in a windscreen of a motor vehicle must not be coated in a way that reduces its luminous transmittance.

(3) However, subrules (1) and (2) do not apply to the greater of the following areas of a windscreen—
   (a) the area above the highest point of the windscreen that is swept by a windscreen wiper;
   (b) the upper 10% of the windscreen.

(4) Glazing used in a window or interior partition of a motor vehicle must have a luminous transmittance of at least 70%.

(5) Glazing used in a window or interior partition of a motor vehicle may be coated to achieve a luminous transmittance of not less than 35%.
(6) The requirements about luminous transmittance applying to glazing used in a window of a motor vehicle stated in a second edition ADR or third edition ADR do not apply to a window that has been coated as provided in subrule (4).

(7) Glazing used in a windscreen, window or interior partition of a motor vehicle that has been coated to reduce its luminous transmittance must not have a reflectance of more than 10%.

(8) In this rule—

*glazing*—

(a) means material that may be used in a windscreen, window or interior partition of a motor vehicle, through which the vehicle’s driver can see the road; but

(b) does not include a coating added after manufacture of the material.

*luminous transmittance*, for glazing means the amount of light that can pass through the glazing as a percentage of the amount of light that would be transmitted if the glazing were absent.

9. **White or silver band on certain vehicles**

For rule 59 (2) substitute –

“(2) For subrule (1) (a), the width of a vehicle is measured disregarding any —

(a) rear vision mirrors, signalling devices and side-mounted lamps and reflectors; and

(b) anti-skid devices mounted on wheels, central tyre inflation systems, tyre pressure gauges; and

(c) permanently fixed webbing assembly-type devices such as curtain-side devices, providing that the maximum distance across the body including any part of the devices does not exceed 2.55 meters.”.

10. **Substitution of rule 66**

For rule 66 substitute –

"66 Width"

(1) A vehicle must not be wider than 2.5m.

(2) For subrule (1), the width of a vehicle is measured disregarding any —

(a) rear vision mirrors, signalling devices and side-mounted lamps and reflectors; and
11. Parking lights

For rule 84(9) substitute –

“(9) For subrule (3), the width of a vehicle is measured disregarding any —

(a) rear vision mirrors, signalling devices and side-mounted lamps and reflectors; and

(b) anti-skid devices mounted on wheels, central tyre inflation systems, tyre pressure gauges; and

(c) permanently fixed webbing assembly-type devices such as curtain-side devices, providing that the maximum distance across the body including any part of the devices does not exceed 2.55 meters.”.

12. Daytime running lights

For rule 85(6) substitute –

“(6) For subrule (3), the width of a vehicle is measured disregarding any —

(a) rear vision mirrors, signalling devices and side-mounted lamps and reflectors; and

(b) anti-skid devices mounted on wheels, central tyre inflation systems, tyre pressure gauges; and

(c) permanently fixed webbing assembly-type devices such as curtain-side devices, providing that the maximum distance across the body including any part of the devices does not exceed 2.55 meters.”.

13. Vehicles needing side marker lights

For rule 94(6) substitute –

“(6) For subrules (1), (4), and (5) the width of a vehicle is measured disregarding any —

(a) rear vision mirrors, signalling devices and side-mounted lamps and reflectors; and
(b) anti-skid devices mounted on wheels, central tyre inflation systems, tyre pressure gauges; and
(c) permanently fixed webbing assembly-type devices such as curtain-side devices, providing that the maximum distance across the body including any part of the devices does not exceed 2.55 meters."

14. **Location of direction indicator lights**

For rule 103(4) substitute –

“(4) For subrule (1), the width of a vehicle is measured disregarding any —
(a) rear vision mirrors, signalling devices and side-mounted lamps and reflectors; and
(b) anti-skid devices mounted on wheels, central tyre inflation systems, tyre pressure gauges; and
(c) permanently fixed webbing assembly-type devices such as curtain-side devices, providing that the maximum distance across the body including any part of the devices does not exceed 2.55 meters.".

15. **Optional front reflectors**

For rule 113(4) substitute –

“(4) For subrule (3) (c), the width of a vehicle is measured disregarding any —
(a) rear vision mirrors, signalling devices and side-mounted lamps and reflectors; and
(b) anti-skid devices mounted on wheels, central tyre inflation systems, tyre pressure gauges; and
(c) permanently fixed webbing assembly-type devices such as curtain-side devices, providing that the maximum distance across the body including any part of the devices does not exceed 2.55 meters.".

16. **Substitution of rule 118**

For rule 118 substitute –

"118 Other lights and reflectors

(1) An exempt vehicle may be fitted with any light or reflector.
(2) A special use vehicle may be fitted with 1 or more flashing yellow lights."
Examples of special use vehicles to which subrule (2) applies
- Tow trucks.
- Vehicle breakdown service vehicles.

(3) A vehicle may not be fitted with any light or reflector not mentioned in this Rule other than as required or permitted by another law of this jurisdiction.

(4) A vehicle, other than an exempt vehicle or a special use vehicle, must not be fitted with a light that flashes other than as required or permitted by another law of this jurisdiction.

(5) A vehicle, other than an exempt vehicle, must not be fitted with a light or reflector that—
   (a) shows a red light to the front; or
   (b) shows a white light to the rear; or
   (c) is shaped or located in a way that reduces the effectiveness of light or reflector required to be fitted to the vehicle under this rule.

(6) Any requirements in a third edition ADR that are inconsistent with subrule (1) do not apply to an exempt vehicle.

(7) Any requirements in a third edition ADR that are inconsistent with subrule (2) do not apply to a special use vehicle.

(8) In this rule—
   dimension exemption means an exemption from a dimension requirement for a vehicle as required by the Vehicle Standards or another law of this jurisdiction.
   special use vehicle means any of the following vehicles—
   (a) a vehicle built or fitted for use in hazardous situations on a road;
   (b) a vehicle used on a road under a dimension exemption;
   (c) a vehicle built or fitted to accompany a heavy vehicle mentioned in paragraph (b);
   (d) a vehicle that is a bus fitted, before July 1999, with a sign telling road users that the bus carries children.

17. Substitution of rule 125

For rule 125 substitute—

"125 Components of a braking system

(1) A brake tube or hose fitted to a vehicle must—
   (a) be manufactured from a material appropriate to its intended use in the vehicle; and
(b) be long enough to allow for the full range of steering and suspension movements of the vehicle; and

(c) be fitted to prevent it being damaged during the vehicle’s operation by—

(i) a source of heat; or

(ii) any movement of the parts to which it is attached or near.

(2) Each component of the braking system of a heavy vehicle must comply with the design and performance requirements of any of the following—

(a) relevant Australian Standard or British Standard; or

(b) a relevant standard approved by any of the following bodies—

(i) American Society of Automotive Engineers

(ii) American National Standards Institute

(iii) Japanese Standards Association

(iv) Deutsches Institut für Normung

(v) International Organisation for Standardisation

(vi) European Committee for Standardization (CEN).

Note 1. A standard approved by a standards body is sometimes identified by a different name or acronym to the approving body. For example, the standards approved by the European Committee for Standardization are identified by the acronym EN.

Note 2. Rule 26 provides that a vehicle need not comply with a standard if that standard is replaced by a later version of the standard and the vehicle complies with that later version."

18. **Widening of Part 10 Subdivision B**

For the heading in to Part 10 Subdivision B for "to pre-2004 vehicles" substitute "to vehicles certified prior to the application of ADR 83/00".

19. **Substitution of rule 147A**

For rule 147A substitute –

"147A exhaust emissions – diesel-powered vehicles"

(1) This rule applies to a motor vehicle—

(a) powered by diesel engines; and

(b) meeting the criteria for a passenger vehicle including omnibuses and goods vehicles as defined under the ADRs."
(2) For subrule (3), a vehicle is taken to have been manufactured in the month shown on its compliance plate (that is, the plate of the kind referred to in section 10A of the Motor Vehicle Standards Act 1989, affixed or taken to be affixed to the vehicle) as its month of manufacture.

(3) When a vehicle is tested in accordance with the procedure described in Schedule 1—

(a) the vehicle must not emit oxides of nitrogen (NOx) at an oxides emission rate greater than that stated for the vehicle according to its GVM rating and age in the following table; and

<table>
<thead>
<tr>
<th>vehicle’s GVM rating (t)</th>
<th>oxides emission rate (g/km/t)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Vehicle manufactured in</td>
</tr>
<tr>
<td></td>
<td>December 1995 or earlier</td>
</tr>
<tr>
<td>Not greater than 3.5</td>
<td>1.5</td>
</tr>
<tr>
<td>More than 3.5 but not</td>
<td>2.0</td>
</tr>
<tr>
<td>greater than 12</td>
<td>2.0</td>
</tr>
<tr>
<td>More than 12 but not</td>
<td>2.0</td>
</tr>
<tr>
<td>greater than 25</td>
<td>2.0</td>
</tr>
<tr>
<td>More than 25</td>
<td>1.5</td>
</tr>
</tbody>
</table>

(b) the vehicle must not emit particles at a particle emissions rate greater than that stated for the vehicle according to its GVM rating and age in the following table; and

<table>
<thead>
<tr>
<th>vehicle’s GVM rating (t)</th>
<th>particle emissions rate (g/km/t)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Vehicle manufactured in</td>
</tr>
<tr>
<td></td>
<td>December 1995 or earlier</td>
</tr>
<tr>
<td>Not greater than 3.5</td>
<td>0.23</td>
</tr>
<tr>
<td>More than 3.5 but not</td>
<td>0.23</td>
</tr>
<tr>
<td>greater than 12</td>
<td>0.23</td>
</tr>
<tr>
<td>More than 12 but not</td>
<td>0.08</td>
</tr>
<tr>
<td>greater than 25</td>
<td>0.08</td>
</tr>
<tr>
<td>More than 25</td>
<td>0.08</td>
</tr>
</tbody>
</table>

(c) the opacity of the exhaust gas emitted by the vehicle must not be greater than 25%, averaged over a DT80 test cycle in the way described or mentioned in the test procedure described in Schedule 1 that complies with the requirements in rule 147B.

(4) In this rule—

**oxides emission rate** means the rate measured in grams of NOx emitted per kilometre travelled per tonne of the vehicle’s test mass;
particle emissions rate means the rate measured in grams of particles emitted per kilometre travelled per tonne of the vehicle’s test mass;

vehicle’s test mass means—

(a) if the vehicle is a prime mover—half the sum of its tare mass and its GCM; or

(c) in any other case—half the sum of its tare mass and its GVM.

Note The vehicle’s test mass is the load applied to the dynamometer, while the vehicle is under test, to simulate half payload operation.”.

20. Insertion of rule 147B

After rule 147A insert –

"147B Requirements of DT80 test cycle

(1) The requirements stated in the following subrules are the minimum standards for the dynamometer, emissions measurement and data management systems necessary to enable the proper conduct of the DT80 test cycle mentioned in rule 147A(3)(c) of this Schedule.

(2) The DT80 test cycle must be conducted on a chassis dynamometer system that—

(a) can undertake a full throttle transient DT80 test cycle, as described in Schedule 1, for the vehicle being tested; and

(b) provides for vehicle speed measurement and display, to an accuracy of ± 1% of actual speed; and

(c) provides internal steady state accuracy of ± 1% of calculated required tractive load over ambient temperatures of 20°C–400°C; and

(d) provides a T95 response time of 3 seconds or less; and

(e) provides inertial loading as required by the DT80 protocol at speeds >15 km/h; and

(f) compensates for aerodynamic drag, rolling resistance and other parasitic losses; and

(g) corrects for ambient temperature, humidity and air density; and

(h) provides torque measurement accuracy of better than 1% full scale; and

(i) maintains roller speed within ± 10 km/h through gear changes; and
(j) restricts overshoot upon initial acceleration of rollers from rest; and

(k) incorporates a driver control panel for remote operation of critical functions from driver's seat, including controls for start test and stop test; and

(l) incorporates an emergency system override function; and

(m) is able to communicate speed, load and status signals to enable the driver to undertake the test in accordance with the DT80 procedure; and

(n) is integrated with the gas and particulate analysis system to initiate the start and finish of sampling and measurement, and generates emission results without the need for post-test processing.

(3) The emissions measurement system used for the DT80 test cycle must—

(a) be integrated with the dynamometer system stated in subrule (2); and

(b) have a data averaging interval of 1 second for all equipment; and

(c) provide emissions data sampling output < 5Hz; and

(d) measure oxides of nitrogen (from a diluted and conditioned sample) with an accuracy of ± 30ppm over the range 0-1000ppm and ± 5% over the range 1001-5000ppm; and

(e) measure particulate matter (from diluted sample) as TSP or PM 10 with an accuracy of ± 10% on a real time continuous basis over a range of 0-1000 mg/m$^3$ actual exhaust concentration at a sample temperature of <51.7$^\circ$C; and

(f) measure opacity (from a raw exhaust gas sample) with an accuracy of ± 1% over a range of 0-100% opacity; and

(g) measure flow rate with an accuracy of ± 5%; and

(h) measure ambient temperature with an accuracy of ± 10$^\circ$C over a range of 0-500$^\circ$C; and

(i) measure ambient humidity with an accuracy of ± 5% over a range of 0-100%; and

(j) compensate/correct for ambient humidity and temperature; and

(k) compensate for exhaust gas transport times and delays; and

(l) provide on-line calibration of the analytical system; and

(m) provide an exhaust sample collection and conditioning system—
(i) that is optimised to accommodate the exhaust temperature and flow rate, and emission concentration, for the vehicle being tested; and

(ii) that provides adequate conditioning of the exhaust gas to eliminate water in the sample stream and reduce temperatures to enable particulate matter to be sampled at < 51.7°C; and

(n) utilise materials and equipment compatible with the exhaust from diesel-fuelled vehicles.

(4) The data management system used for the DT80 test cycle must—

(a) be integrated with the dynamometer and emissions measurement systems stated in subrules (2) and (3); and

(b) record the following items for each test—

- date, time, location and operator
- emissions analyser calibration data
- vehicle input data, including test mass tractive load corrections and identifying information
- dynamometer data on a second by second basis (load, speed, distance)
- test data on a second by second basis from which a mass emission test result in g/km/t can be generated; and

(c) display, store and report all data in the International System of units (SI units); and

(d) provide a system for electronic backup of test data to local and remote media; and

(e) incorporate a quality control system that—

(i) ensures calibrations are carried out in accordance with manufacturers' specifications; and

(ii) provides records consistent with normal audit requirements; and

(f) print a test report containing at least the following items—

- registered business name, ABN and address of the test facility
- registration number, make, model, GVM rating and date of manufacture of the tested vehicle
- date and location of test
- the final calculated NOx and PM results in g/km/t
- the final calculated opacity results in %
21. **Exhaust systems**

After rule 148 (6)(b) insert –

“(7) However subrule (1) does not apply to a vehicle primarily designed for the carriage of goods that has at least 3 wheels and –

(a) is a light vehicle with a GVM exceeding 3.5 tonnes;

(b) is a heavy vehicle with a GVM not exceeding 12 tonnes.

(8) In this section—

*vertical exhaust system* means an exhaust system that emits exhaust gases in an upward direction above or near the top of a vehicle to which it is fitted.”.

22. **Substitution of rule 149**

For rule 149 substitute –

“(1) A motor vehicle propelled by an internal combustion engine must be fitted with a silencing device through which all the exhaust from the engine passes.

(2) For subrule (1), any silencing device designed to be manipulated by the vehicle’s operator, such as by means of in-vehicle controls, must be designed so that it can be tested with the device fully opened.”.

23. **DT80 transient test procedure for testing of diesel-fuelled vehicle exhaust emissions**

In the note to Schedule 1 omit the words "The vehicle test mass for road and inertia settings must be equal to the mass of the vehicle when operating with ½ its normal payload (that is, GVM + tare mass) ÷ 2). ".

24. **Dictionary – changes to definitions**

(1) In the dictionary, insert the following definition—
"exempt vehicle" means any of the following vehicles—
(a) an emergency vehicle;
(b) a police vehicle;
(c) a road enforcement vehicle;
(d) a vehicle driven by an officer of the Australian Customs Service or Air Services Australia in the course of the officer’s duty. ".

(2) In the dictionary, amend the definition of "Standards Australia" by inserting "ACN 087 326 690" after the words "Standards Australia Limited".