

Vehicle Standard (Australian Design Rule 58/00 – Requirements for Omnibuses Designed for Hire and Reward) 2006

I, JAMES ERIC LLOYD, Minister for Local Government, Territories and Roads, determine this vehicle standard under subsection 7 (1) of the *Motor Vehicle Standards Act 1989*.

Dated 26 April 2006

[SIGNED]

James Eric Lloyd

Minister for Local Government, Territories and Roads

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1. LEGISLATIVE PROVISIONS

1.1. NAME OF STANDARD

- 1.1.1. This Standard is the Vehicle Standard (Australian Design Rule 58/00 Requirements for Omnibuses Designed for Hire and Reward) 2006.
- 1.1.2. This Standard may also be cited as Australian Design Rule 58/00 Requirements for Omnibuses Designed for Hire and Reward.

1.2. COMMENCEMENT

1.2.1. This Standard commences on the day after it is registered.

1.3. REPEAL

- 1.3.1. This Standard repeals each vehicle standard with the name Australian Design Rule 58/00 Requirements for Omnibuses Designed for Hire and Reward that is:
 - (a) made under section 7 of the Motor Vehicles Standard Act 1989; and
 - (b) in force at the commencement of this Standard.
- 1.3.2. This Standard also repeals each instrument made under section 7 of the Motor Vehicles Standard Act 1989 that creates a vehicle standard with the name Australian Design Rule 58/00 Requirements for Omnibuses Designed for Hire and Reward, if there are no other vehicle standards created by that instrument, or amendments to vehicle standards made by that instrument, that are still in force at the commencement of this Standard.

2. PURPOSE AND SCOPE

This Australian Design Rule (ADR) is part of the Australian motor vehicle standards system and is a national standard for the purposes of the Motor Vehicle Standards Act 1989.

The function of this Australian Design Rule is to specify requirements for the construction of omnibuses designed for, and intended for licensing for, hire and reward.

They must also comply with all requirements for omnibuses as set out in individual ADRs.

3. APPLICABILITY AND IMPLEMENTATION

This ADR applies to the design and construction of vehicles as set out in the table hereunder.

Vehicles complying with the requirements of ADR 44/... need not comply with Section 58.12 of this Rule.

Applicability Table

| Vehicle Category | ADR Category Code | UNECE Category Code | Manufactured on or After | Acceptable Prior Rules |
|---|-------------------------|---------------------------|--------------------------|---------------------------|
| Moped 2 wheels | LA | L1 | N/A | |
| Moped 3 wheels | LB | L2 | N/A | |
| Motor cycle | LC | L3 | N/A | |
| Motor cycle and sidecar | LD | L4 | N/A | |
| Motor tricycle | LE | L5 | N/A | |
| | LEM | | N/A | |
| | LEP | | N/A | |
| | LEG | | N/A | |
| Passenger car | MA | M1 | N/A | |
| Forward-control passenger vehicle | MB | M1 | N/A | |
| Off-road passenger vehicle | MC | M1 | N/A | |
| Light omnibus | MD | M2 | | |
| up to 3.5 tonnes 'GVM' and up to 12 seats | MD1 | | 1 July 1988 | Nil |
| up to 3.5 tonnes 'GVM' and more than 12 seats | MD2 | | 1 July 1988 | Nil |
| over 3.5 tonnes and up to 4.5 tonnes 'GVM' | MD3 | | 1 July 1988 | Nil |
| over 4.5 tonnes and up to 5 tonnes 'GVM' | MD4 | | 1 July 1988 | Nil |
| Heavy omnibus | ME | M3 | 1 July 1988 | Nil |
| Light goods vehicle | NA | N1 | N/A | |
| Medium goods vehicle | NB | N2 | N/A | |
| over 3.5 tonnes up to 4.5 tonnes 'GVM' | NB1 | | N/A | |
| over 4.5 tonnes up to 12 tonnes 'GVM' | NB2 | | N/A | |
| Heavy goods vehicle | NC | N3 | N/A | |
| Very light trailer | TA | O1 | N/A | |
| Light trailer | TB | O2 | | |
| Medium trailer | TC | O3 | | |
| Heavy trailer | TD | O4 | | |

58.1. **DEFINITIONS**

58.1.1. Refer to Vehicle Standard (Australian Design Rule Definitions and Vehicle Categories) 2005.

58.2. APPLICABILITY OF REQUIREMENTS

WHERE REQUIREMENTS ARE APPLICABLE TO BOTH 'SMALL OMNIBUSES' AND 'LARGE OMNIBUSES' THE PLAIN WORD "OMNIBUS" IS USED.

58.3. OCCUPANT CAPACITY

- 58.3.1. In determining the occupant capacity of a omnibus, the loading condition shall be that in which a mass of 65 kg is located in each of the 'Manufacturer's' nominated seating and standing positions for driver, passengers and crew.
- 58.3.2. Where luggage space is provided, other than for personal hand luggage, and the vehicle is for carriage of passengers and luggage, a mass of 15 kg shall be added for each passenger and shall be distributed uniformly throughout the luggage space.

58.4. AISLE REQUIREMENTS

- 58.4.1. Single-deck omnibuses may be provided with a longitudinal aisle providing access to one or more rows of 'Seats' provided that the width of such aisle is not less than:
- 58.4.1.1. 380 mm in the case of a 'Large Omnibus' except this may be reduced to 300 mm where a 'Large Omnibus' is used for the carriage of seated passengers only; or
- 58.4.1.2. 300 mm in the case of 'Small Omnibuses' used for the carriage of seated passengers only.
- Double-deck omnibuses other than those used for the carriage of seated passengers only shall be provided with a longitudinal aisle at each deck. The width of such aisles shall be not less than 380 mm. The width of the aisle of double-deck omnibuses used only for the carriage of seated passengers only shall be not less than 300 mm.
- No part of the floor area of any longitudinal aisle shall have a gradient greater than 8% in areas intended for standing passengers or more than 12.5% for areas not intended for standing passengers. For the purpose of this clause, the omnibus shall be considered to be on a flat horizontal surface.

58.5. ACCESS TO AND FROM OMNIBUSES

58.5.1. In the case of any omnibus with a longitudinal aisle there shall be at least one means of access for passengers on the left-hand side of the omnibus. Access to such longitudinal aisle shall be clear of any obstruction and such access shall have a suitable hand grip affixed to each side. The width of the access opening inboard as far as the lower access step shall be not less than 550 mm (exclusive of the width of the handgrips) and the height from the lowest step to the top of the access opening shall be at least 1,800 mm in the case of a 'Large Omnibus' and 1,200 mm in the case of other omnibuses.

- 58.5.2. In the case of a double-deck omnibus provided with an open platform for access to the vehicle, the width of such access shall be not less than 900 mm.
- 58.5.3. Access to a single row of 'Seats' of a omnibus shall be either by a longitudinal aisle or an adjacent door fitted to the left-hand side of the vehicle. The width of such access opening shall be not less than 550 mm when measured at the height of the 'Seat' cushion and the height from the lowest step to the top of the access opening shall be at least 1,375 mm in the case of a 'Large Omnibus' and 1,200 mm in the case of other omnibuses.
- 58.5.4. Except in the case of emergency exits, no means of access shall be provided on the right-hand side of the omnibus other than to provide access to the driver's position.
- 58.5.5. Except in the case of a double-deck omnibus with open access platforms, every omnibus with an occupant capacity of over 15 persons including the driver shall be provided with an access door at every point of access. Each such door shall be capable of being opened or unlocked and closed or locked by the driver from the normal driving position.
- 58.5.6. Unless otherwise '*Approved*', access doors shall not open inwards except that this requirement shall not apply to the doors commonly known as a "jack-knife door", or a "glide-away door", provided that the door is so constructed that it cannot protrude into the omnibus further than the steps provided at the access.
- 58.5.7. No access door shall be provided with an internal fitting designed to cover internal steps when such door is closed.

58.6. HEAD ROOM

- 58.6.1. Where access to 'Seats' is by a longitudinal aisle, the height inside the vehicles from any point on the longitudinal centreline of such aisle to the ceiling shall be not less than:
- 58.6.1.1. 1,800 mm for a 'Large Omnibus' involved in frequent stops for the purpose of taking up or setting down passengers en route;
- 58.6.1.2. 1,650 mm for each deck of a double-deck omnibus and for a '*Large Omnibus*' not involved in frequent stops for the purpose of taking up or setting down passengers en route;
- 58.6.1.3. 1,350 mm for other omnibuses, or 1,200 mm where the aisle length is not more than 2 m.
- 58.6.2. Where access to a single row of 'Seats' in an omnibus is not by a longitudinal aisle, the height inside the vehicle from any point on the longitudinal centreline of the vehicle to the ceiling shall be not less than:
- 58.6.2.1. 1,500 mm for a 'Large Omnibus'; or
- 58.6.2.2. 1,200 mm for other omnibuses.

58.7. ACCESS STEPS

- 58.7.0.1 Except as provided in clause 58.7.0.2, the following requirements shall apply to access steps to an omnibus except those steps providing access between decks of a double-deck omnibus.
- 58.7.0.2 clauses 58.7.3 and 58.7.4 shall not apply where access is to a single row of 'Seats' for a 'Small Omnibus having an occupant capacity of up to 15 persons, including the driver.
- 58.7.1. Any steps provided shall be fitted with a skid-resistant tread.
- 58.7.2. The height of access steps shall be:
- 58.7.2.1. except as provided in clause 58.7.2.3 or 58.7.2.4, not more than 410 mm or less than 250 mm relative to the ground in the case of the lowest access step of the unladen vehicle; or
- 58.7.2.2. not more than 300 mm (i.e. riser height) in the case of other access steps; or
- 58.7.2.3. not more than 450 mm in the case of an access step to a single row of *'Seats'* for a *'Small Omnib*us' having an occupant capacity of up to 15 persons including the driver, or in the case of an access step in the side of an omnibus with multi-axle drive designed for off-road operation; or
- 58.7.2.4. not more than 500 mm in the case of an access step in the back of an omnibus with multi-axle drive designed for off-road operation.
- 58.7.3. The width of access steps shall be not less than:
- 58.7.3.1. the width of the access opening in the case of the lowest access step; or
- 58.7.3.2. 450 mm in the case of other access steps.
- 58.7.4. The tread depth of access steps shall be not less than:
- 58.7.4.1. 225 mm in the case of a 'Large Omnibus';
- 58.7.4.2. 180 mm in the case of a 'Small Omnibus': or
- 58.7.4.2.1. 180 mm for a width of 300 mm in the case of the lowest step of a 'Small Omnibus' having an occupant capacity of up to 15 persons, including the driver.
- 58.7.5. Where more than one step is provided, the tread of one step may undercut the tread of the next highest step provided that, when viewed from above, not less than 180 mm of the lower step is visible, or 140 mm in the case of a 'Small Omnibus' having an occupant capacity of up to 15 persons, including the driver.

58.8. DRIVER'S GUARD RAIL

In the case of 'Large Omnibuses' a suitable guard rail or other structure shall be provided to prevent any passenger from accidentally coming into contact with the driver or control devices of the vehicle, and so as to prevent passengers from obstructing the driver's view.

58.9. EXTERNAL MIRROR

In the case of omnibus having access doors to the rear of the driver's seating position, a mirror of suitable dimensions shall be so located that the driver whilst retaining the normal driving position has an adequate view of such doors and their approaches.

58.10. HAND STRAPS/RAILS/GRIPS

Omnibuses shall be provided with a suitable number of handstraps, hand rails or hand grips for the convenience and safety of passengers.

58.11. FLOORS

Floors of omnibuses shall be finished and maintained with a skidresistant surface, and shall be of sound construction and sealed so as to prevent fumes from the engine and dust from the roadway from entering the interior of the vehicle.

58.12. EMERGENCY EXITS

- 58.12.0 The provisions of clause 58.12.1 shall not apply in the case of an omnibus which:
- 58.12.0.1 is equipped to seat up to 12 persons, including the driver;
- 58.12.0.2 does not exceed 2 m in 'Overall Width';
- 58.12.0.3 is fitted with one or more doors on each side of the vehicle; and
- provides access from any seating position to any door having an area not less than 0.7 square metres with no dimension less than 500 mm.
- 58.12.1. In the case of a single-deck omnibus there shall be a means of emergency exit located:
- 58.12.1.1. in the extreme rear of the vehicle; or
- 58.12.1.2. in the roof of the vehicle in the rear half of the passenger compartment provided that there is an additional means of emergency exit located in the right-hand side of the vehicle in the rear half of the passenger compartment. Such an additional emergency exit shall provide for a minimum area of 0.32 square metres with no dimension less than 500 mm.
- 58.12.1.3. The emergency exit shall provide for a minimum area, clear of obstruction of 0.7 square metres in the case of '*Large Omnibuses*' and 0.52 square metres in the case of other omnibuses. No dimension of the emergency exit area shall be less than 500 mm.
- Unless otherwise 'Approved', in the case of a double-deck omnibus there shall be at the rear at least 2 means of emergency exit one situated above and the other below the level of the upper deck. Such emergency exits shall each provide for a minimum area of 0.7 square metres with no dimension less than 500 mm. For the purpose of this clause a rear platform shall be considered a means of emergency exit if access to such platform extends rearward to the left-hand rear corner of the vehicle and

transversely across the rear of the vehicle a distance of not less than 450 mm.

- Any means of emergency exit shall be clear of obstruction and shall be capable of being opened outwards from both inside and outside and shall be identified by a prominent notice inside and outside displaying the words "EMERGENCY EXIT", and by words and/or symbols indicating the method of opening, unless, by virtue of the exit design, the method of opening is obvious.
- 58.12.3.1. In the case of a 'Small Omnibus' having an occupant capacity of up to 15 persons, including the driver, a hinged and latched door shall be considered an emergency exit for the purpose of this clause, and this door shall be capable of being opened outwards from the inside.
- 58.12.4. The height of the lower edge of a means of emergency exit relative to the floor immediately below it shall be not more than one metre or less than 500 mm, unless such exit is protected up to a height of 500 mm to prevent passenger contact in which case there is no lower limit on the height of such access.
- 58.12.5. Excepting hinged and latched doors of type described in clause 58.12.3.1 any means of emergency exit may be closed by the use of plastics material, sheet metal or heat treated or laminated safety glass carried in extruded rubber weather strips. The force required to remove the closing material when applied either internally or externally adjacent to any corner of such material shall be not more than 700 N nor less than 445 N.

58.13. PASSENGER 'SEATS'

- 58.13.1. Each passenger seating position shall have a dimension of not less than 400 mm when measured along the front of the '*Seat*' cushion.
- 58.13.2. The distance from the foremost point of each 'Seat' squab to the foremost point of its corresponding 'Seat' cushion shall be not less than 350 mm.
- 58.13.3. There shall be no obstruction horizontally 'Forward' of the 'Seat' squab for a distance, when measured on the centreline of the seating position and between the top of the 'Seat' cushion and any point up to 610 mm above the floor, of:
- 58.13.3.1. 1,200 mm in the case of opposite facing seating positions; or
- 58.13.3.2. 660 mm in the case of other seating positions.
- There shall be no obstruction in front of each seating position for a space 200 mm horizontally 'Forward' of the 'Seat cushion, and 300 mm in width but not extending beyond the nominal 'Seat width, and between the floor and the level of the 'Seat' cushion. The spaces described by this requirement shall not intersect each other or any other spaces designated for standing passengers or required minimum aisle width. Smoothly contoured and/or sloping surfaces (e.g. engine cover or wheel arch) are not considered to be obstructions under this requirement for 'Small Omnibuses' having an occupant capacity up to 15 persons, including the driver, provided that there is access to foot space 200 mm by 300 mm.

- 58.13.5. The average height of each unloaded 'Seat' cushion relative to the floor shall not exceed 500 mm and shall be not less than:
- 58.13.5.1. 400 mm in the case of a 'Large Omnibus';
- 58.13.5.2. 380 mm in the case of other omnibuses; or
- 58.13.5.3. 300 mm when the floor level is interrupted by a wheel housing and/or engine housing or similar structure.
- 58.13.6. No 'Seat' shall be provided in such a way that it would interrupt the minimum access and clearance dimensions specified in this Section.
- 58.13.7. The rear and top of the 'Seat' squab, including any hand rail, shall be free of sharp edges and projections.
- 58.13.8. Each 'Seat' shall be securely attached to the vehicle.
- 58.13.9. Upholstered 'Seats' shall be sprung or of resilient material and shall be covered with seating quality material.
- 58.13.10. The minimum concave radius of any 'Seat' squab shall be not less than 450 mm for a 'Route Service Omnibus' or 300 mm for any other omnibus when measured in any horizontal plane between the top of the 'Seat' cushion and 610 mm above the floor and within 150 mm on either side of the centreline of the seating position.

58.14. DRIVER'S 'SEAT'

The driver's 'Seat' shall be securely attached to the vehicle and shall be designed and placed in such a way that the driver can be comfortable and have control of the vehicle.

58.15. INTERIOR DOORS

No interior door shall be provided which separates normal passenger space from access doors or emergency exits.

58.16. PASSENGER STOP SIGNAL

Any omnibuses involved in frequent stops for the purpose of taking up or setting down passengers en route shall be provided with a passenger stop signal, within convenient reach of each passenger, to provide communication with the driver.

58.17. INTERIOR FITTINGS/MATERIALS

Interior roof lining and other interior trimming shall be of a material not readily flammable with a durable non-absorbent surface, and interior fittings shall be firmly attached to the vehicle.

58.18. INTERIOR LIGHTING

- 58.18.1. The interior of the omnibus shall be equipped with lamps which will give light for the convenience of the passengers.
- 58.18.2. Step treads and risers shall be directly illuminated, except in the case of an external access step to a single row of 'Seats' for a 'Small Omnibus' having an occupant capacity of up to 15 persons, including the driver.

58.19. INTERIOR LUGGAGE RACKS

Where luggage racks are provided they shall be affixed so that the vertical distance between the lowest part of the rack and the top of the 'Seat' cushion surface measured at the centre of the seating position, is not less than 950 mm, and such racks shall be so constructed as to reduce to a minimum the possibility of bodily injury to passengers from any projection or by the dislodgement of any luggage during braking or cornering manoeuvres.

58.20. FURTHER REQUIREMENTS FOR DOUBLE-DECK OMNIBUSES

- 58.20.1. There shall be a suitable stairway not less than 400 mm in width, with guard-rail and guard-panel.
- 58.20.2. The height of the floor of the upper deck shall not exceed 2,750 mm from the ground and shall be so constructed and drained as to prevent water entering the lower deck.
- 58.20.3. The upper deck shall be enclosed on all sides.
- 58.20.4. The stability of the vehicle shall be such that with the upper deck loaded to the most critical conditions of loading and representing a full load of passengers on such deck the vehicle shall be stable when positioned on a flat surface with a 28° transverse slope.

58.21. TAIL SHAFT GUARDS

Where the transmission incorporates any longitudinal drive shafts, couplings, or intermediate shafts, provision shall be made to prevent the front end of any such shaft or coupling contacting the road in the event of detachment of the front end from its normal position.

58.22. ADDITIONAL LAMPS

Any omnibus may, in addition to any lamps required by other ADRs, be equipped with a lamp or lamps which illuminate with white light a sign indicating route, destination, or any other necessary sign and/or show coloured light (except red) near the sign.

58.23. 'FUEL SYSTEM 17/00' OF OMNIBUSES

- 58.23.1. The 'Fuel Tank' shall not be located in the interior of the vehicle, in the engine compartment, or in any separate compartment for the driver.
- 58.23.2. No flammable sound-proofing material or material capable of being impregnated with fuel or lubricant shall be used in the engine enclosure or partial enclosure, unless it is protected from impregnation by fuel or lubricant.
- 58.23.3. The engine compartment shall be provided with drainage orifices or otherwise designed to prevent accumulation of fuel or lubricating oil.
- 58.23.4. The engine compartment or other sources of heat shall be separated from the remainder of the omnibus by heat resisting material.
- 58.23.5. Unless shielded, no flammable material shall be located within 100 mm of the exhaust system.

- 58.23.6. The fuel tank filler pipe shall not be located within any occupant or engine compartment.
- 58.23.7. The fuel tank filler inlet shall be so designed that any overflow or leakage cannot accumulate and shall be so located that it:
- 58.23.7.0. does not project beyond the 'Overall Width' of the body work;
- 58.23.7.1. is not less than 900 mm from either side of an access opening or emergency exit, except in the case of a 'Small Omnibus' having an occupant capacity of up to 15 persons, including the driver;
- 58.23.7.2. it is not beneath an access opening or emergency exit, in the case of a 'Small Omnibus' having an occupant capacity of up to 15 persons, including the driver;
- 58.23.7.3. is not located in the interior of the omnibus unless protected by a suitable sealed cover plate to ensure that no fuel leakage to the interior compartment can occur; and
- 58.23.7.4. is not located in the engine compartment.
- 58.23.8. No part of any 'Fuel Tank' shall:
- 58.23.8.1. be less than 1,200 mm from the 'Front End' of the omnibus;
- 58.23.8.2. project beyond the 'Overall Width' of the bodywork; or
- 58.23.8.3. be located in the interior of the omnibus or its engine compartment.
- 58.23.9. *'Fuel System 17/00'* fittings shall be so designed that leaks flow freely to the road and are prevented from contacting the exhaust system either by suitable location of such fittings or by provision of a protective shield.
- 58.23.10. The design of the 'Fuel System 17/00' shall not provide for gravity feed or self-sustaining feed to the carburettor or injector.

58.24. FIRE EXTINGUISHER

There shall be provided on every omnibus in such a position as to be readily available for use a fire extinguisher which is selected and located in accordance with AS 2444-1985 "Portable Fire Extinguishers - Selection and Location".

58.25. DUAL TYRES

Any omnibus (except one having all-wheel drive or being an 'Articulated Omnibus') equipped to seat over 15 persons, including the driver shall, if it has a single rear 'Axle', be fitted with dual tyres on both wheels of the 'Axle'.

58.26. FIELD OF VIEW

- 58.26.1. A vehicle shall be constructed such that the 'Seating Reference Point' of any passenger seating position:
- 58.26.1.1. is not more than 100 mm in front of the drivers 'Seating Reference Point'; and
- 58.26.1.2. is not in front of a vertical plane 80° in an anti-clockwise direction from the driver's 'Seating Reference Plane', the intersection of these two

planes being along a vertical line which passes through the driver's 'Seating Reference Point',

58.26.1.3. when all 'Seats' are in their rearmost position of adjustment.