



Vehicle Standard (Australian Design Rule 62/01 – Mechanical Connections Between Vehicles) 2006

Compilation: 1 (up to and including Vehicle Standard (Australian Design Rule 62/01 – Mechanical Connections Between Vehicles) 2006 Amendment 1).

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1. LEGISLATIVE PROVISIONS

1.1. NAME OF STANDARD

- 1.1.1. This Standard is the Vehicle Standard (Australian Design Rule 62/01 – Mechanical Connections Between Vehicles) 2006.
- 1.1.2. This Standard may also be cited as Australian Design Rule 62/01 — Mechanical Connections Between Vehicles.

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 62/01 — Mechanical Connections Between Vehicles 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 62/01 — Mechanical Connections Between Vehicles, 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. FUNCTION AND SCOPE

- 2.1. The function of this Australian Design Rule is to specify requirements for devices for mechanical connections between vehicles and their fitment.
- 2.2. This rule is only applicable to vehicles fitted with ‘*Couplings*’ which are designed to be separated in normal operation.
- 2.3. The requirements of this rule do not apply to connection devices mounted at the front of a motor vehicle or devices not intended for towing trailers.
- 2.4. Fitment of ‘*Couplings*’ is:
 - 2.4.1. mandatory for all trailers for the ‘*Couplings*’ which connect to the towing vehicle, and
 - 2.4.2. optional for all other vehicles, but where fitted, must comply with the relevant requirements of this rule.

3. APPLICABILITY AND IMPLEMENTATION

- 3.1. This rule applies to the design and construction of vehicles as set out in the table below.
- 3.2. Vehicles certified to ADR 62/02 or a later version need not comply with this rule.

3.3. Applicability Table

Vehicle Category	ADR Category Code	UNECE Category Code	Manufactured on or After	Acceptable Prior Rules
Moped 2 wheels	LA	L1	1 Mar 1998	Nil
Moped 3 wheels	LB	L2	1 Mar 1998	Nil
Motor cycle	LC	L3	1 Mar 1998	Nil
Motor cycle and sidecar	LD	L4	1 Mar 1998	Nil
Motor tricycle	LE	L5	1 Mar 1998	Nil
Passenger car	MA	M1	1 Jan 1998	Nil
Forward-control passenger vehicle	MB	M1	1 Jan 1998	Nil
Off-road passenger vehicle	MC	M1	1 Jan 1998	Nil
Light omnibus	MD	M2	1 July 1998	Nil
Heavy omnibus	ME	M3	1 July 1998	Nil
Light goods vehicle	NA	N1	1 July 1998	Nil
Medium goods vehicle	NB	N2	1 July 1998	Nil
Heavy goods vehicle	NC	N3	1 July 1998	Nil
Very light trailer	TA	O1	1 Jan 1998	Nil
Light trailer	TB	O2	1 Jan 1998	Nil
Medium trailer	TC	O3	1 July 1998	Nil
Heavy trailer	TD	O4	1 July 1998	Nil

4. DEFINITIONS

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

5. GENERAL APPLICATION REQUIREMENTS

- 5.1. 'Couplings' designed for separation in normal operation for use between tow vehicles and trailers with an 'ATM' up to 3.5 tonnes must be 'Quick Release Couplings'.
- 5.2. 'Couplings' must not be fitted to the rear of 'Pig Trailers' with an 'ATM' over 3.5 tonne.
- 5.3. The 'Tow Coupling Overhang' must not exceed:
- 5.3.1. in the case of an NC vehicle designed for use in 'Road Trains', 2.7m;
- 5.3.2. in the case of a trailer designed for use in 'Road Trains' other than a 'Semi-trailer', 30 percent of the distance from the centre of the front 'Axle Group' to the centre of the rear 'Axle Group';
- 5.3.3. in the case of a 'Semi-trailer' designed for use in 'Road trains', 30 percent of the distance from the 'Point of Articulation' to the centre of the rear 'Axle Group'.

6. FIFTH WHEEL ASSEMBLIES

- 6.1. 'Fifth Wheel Assemblies' must comply with Australian Standard 1773 - 1990 "Articulated Vehicles Fifth Wheel Assemblies" or as amended from time to time.
- 6.2. 'Fifth Wheel Assemblies' must be mounted in conformity with the requirements of Australian Standard 1771 - 1987 "Installation of Fifth Wheel and Turntable Assemblies" or as amended from time to time.

7. KINGPINS

- 7.1. Kingpins must comply with Australian Standard 2175 - 1995 "Articulated Vehicles - Kingpins" or as amended from time to time.
- 7.2. Kingpins must be attached to the 'Semi-Trailer' 'Skid Plate' in conformity with the requirements of Australian Standard 2175-1995 "Articulated Vehicles-Kingpins" Appendix D or as amended from time to time.
- 7.3. 'Skid Plate' of 'Semi-Trailers' in TD category must comply with Australian Standard 4235 - 1994 "Articulated Vehicles - Design criteria for fifth wheel skid plates" or as amended from time to time.
- 7.3.1. 'Skid Plate' assemblies must be designed so that provision is made for draining water from the space above the 'Skid Plate'.
- 7.4. Notwithstanding the requirements of clauses 7.1 - 7.3, the kingpin dimensional requirements for other than M rated kingpins (as per AS2175-1995) need only comply with Figures 1a or 1b.

8. AUTOMATIC PIN COUPLINGS

- 8.1. 'Automatic Pin Couplings' must comply with:
- 8.1.1. Australian Standard 2213 - 1984 "50 mm Pin-type Couplings and Drawbar Rings for Trailers" or as amended from time to time except height requirements (clause 2.4) of AS 2213 - 1984; or
- 8.1.2. ISO 8755 - 1986 "Mechanical connections between towing vehicles and trailers - 40 mm drawbar coupling" and ISO 8718 - 1988 "Commercial road vehicles-Drawbar couplings and eyes for hinged drawbars-Strength test" or as amended from time to time.
- 8.2. Rear tow 'Couplings' fitted to vehicles designed for use in 'Road trains' must be 50 mm 'Automatic Pin Couplings'.
- 8.3. For rigid 'Drawbar' 'Pig Trailers' with an 'ATM' over 3.5 tonne using 'Automatic Pin Couplings', either:
- 8.3.1. The 'Coupling' manufacturer's 'ATM' rating specified for use with rigid 'Drawbar' 'Pig Trailers' must not be exceeded; or
- 8.3.2. the 'Automatic Pin Couplings' must be 'D-value' and 'V-value' rated as determined using the test requirements of Clauses 12.3.3.2 where:
- 8.3.2.1. the 'V - value' is at least:
- $$\text{'V-value' in kN} = 2.4(x/1)^2C$$
- where
- C = 'ATM' of 'Pig Trailer' in tonne

x = the length of the loading area of trailer, in metres as shown in Figure 2.

l = the length of the drawbar, in metres as shown in Figure 2.

Note: $(x/l)^2 \geq 1$ in all cases

9. BALL COUPLINGS

- 9.1. 'Ball Couplings' intended for towing trailers up to 3.5 tonnes 'ATM' must comply with Australian Standard 4177.2 - 1994 "50 mm Towballs" or as amended from time to time.

10. COUPLING BODIES FOR BALL COUPLINGS

- 10.1. The coupling body of a 50 mm 'Ball Coupling' intended for trailers up to 3.5 tonnes 'ATM' must comply with Australian Standard 4177.3 - 1994 "Coupling Body for Ball Couplings" or as amended from time to time.

11. HOOK COUPLING

- 11.1. The hook part of the 'Hook Coupling' must be suitable for use with the towing ring as shown in Figure 3.
- 11.2. The towing ring must comply with Figure 3.
- 11.3. 'Hook Couplings' must also comply with Clauses 12.2 - 12.4 except for clause 12.4.3.2.

12. 'COUPLINGS' OTHER THAN THE ABOVE TYPES

- 12.1. 'Couplings' other than 'Fifth Wheel Assemblies', Kingpins, 'Automatic Pin Couplings', 'Ball Couplings', Coupling Bodies for 50mm Ball Couplings and 'Hook Couplings' must comply with the 'Coupling' manufacturer's location specification and Clauses 12.2 - 12.4.
- 12.2. Locking Mechanism Requirements
- 12.2.1. 'Couplings' must incorporate a positive locking mechanism together with a separate means of retaining this mechanism in the locked position. The locking must be readily verifiable by visual examination.
- 12.2.2. 'Quick Release Couplings' must incorporate a positive locking mechanism together with a separate means of automatically retaining this mechanism in the locked position. The locking must be readily verifiable by visual examination.
- 12.3. Strength Requirements
- 12.3.1. 'Couplings' specially designed for use between LA, LB, LC, LD category and LEM sub category towing vehicles and trailers up to 750Kg 'ATM' when installed in the design configuration must withstand the test requirements as per either clause 12.3.1.1 or clause 12.3.1.2 without either incurring any residual deformation that would interfere or degrade the function of the assembly or any breaks, cracks or separation of components and shall have a capacity to tow trailer of 750Kg 'ATM'.
- 12.3.1.1. the following separately applied static forces:
- 12.3.1.1.1. longitudinal tension and compression of 18.4 kN; and
- 12.3.1.1.2. vertical tension and compression of 7.4 kN; and
- 12.3.1.1.3. transverse tension and compression of 7.4 kN.

- 12.3.1.2. A minimum horizontal alternating force of ± 2.52 kN acting in a line parallel to the ground and in the longitudinal median plane of the towing vehicle passing through the centre of the coupling applied for 2 million cycles. The frequency of the longitudinal forces not to exceed 35Hz, but must be chosen not to coincide with any natural frequency of the system.
- 12.3.2. ‘Couplings’ specially designed for use between towing vehicles and trailers up to 3.5 tonnes ‘ATM’ when installed in the design configuration must withstand the test requirements as per either clause 12.3.2.1 or clause 12.3.2.2 without either incurring any residual deformation that would interfere or degrade the function of the assembly or any breaks, cracks or separation of components and shall have a capacity to tow trailer of 3.5 tonnes ‘ATM’.
- 12.3.2.1. the following separately applied static forces:
- 12.3.2.1.1. longitudinal tension and compression of 86 kN; and
- 12.3.2.1.2. vertical tension and compression of 35 kN; and
- 12.3.2.1.3. transverse tension and compression of 35 kN.
- 12.3.2.2. A minimum horizontal alternating force of ± 12 kN acting in a line parallel to the ground and in the longitudinal median plane of the towing vehicle passing through the centre of the ‘Coupling’ applied for 2 million cycles. The frequency of the longitudinal forces not to exceed 35 Hz, but must be chosen not to coincide with any natural frequency of the system.
- 12.3.3. ‘Couplings’ specially designed for use between towing vehicles and trailers over 3.5 tonnes ‘ATM’ when installed in the design configuration must withstand the test requirements as per either clause 12.3.3.1 or clause 12.3.3.2 without either incurring any residual deformation that would interfere or degrade the function of the assembly or any breaks, cracks or separation of components.
- 12.3.3.1. ‘D-value’ rated Dynamic Test Requirements
- 12.3.3.1.1. A minimum horizontal alternating force of ($\pm 0.6 \times$ ‘Couplings’ ‘D-value’) acting in a line parallel to the ground and in the longitudinal median plane of the towing vehicle passing through the centre of the ‘Coupling’ applied for 2 million cycles. The frequency of the longitudinal forces not to exceed 35 Hz, but must be chosen not to coincide with any natural frequency of the system.
- 12.3.3.2. ‘D and V-value’ rated Dynamic Test Requirements
- 12.3.3.2.1. A minimum horizontal alternating force of ($\pm 0.6 \times$ ‘Coupling’ ‘D-value’) acting in the longitudinal axis of the ‘Coupling’ and a minimum vertical alternating force of (static vertical coupling load $\pm 0.6 \times$ ‘Coupling’ ‘V-value’) in the vertical axis of the ‘Coupling’ applied through the ‘Coupling’ centre asynchronously for 2 million cycles each.
- Static vertical load in kN = $g \times S$
- where:
- g = acceleration due to gravity (assumed to be 9.81 m/sec^2)
- S = vertical load in tonnes (‘ATM’ - ‘GTM’)
- 12.3.3.2.2. The vertical and horizontal components shall be sinusoidal in shape and shall be applied asynchronously where the difference of their frequencies shall be

between 1 % and 3 % and not exceed 35 Hz, but must be chosen not to coincide with any natural frequency of the system.

12.4. Marking Requirements

12.4.1. Both parts of the '*Coupling*' specially designed for use between LA, LB, LC, LD category and LEM sub category towing vehicles and trailers up to 750 Kg '*ATM*' must comply with the following marking requirements:

12.4.1.1. the '*Coupling*' manufacturer's name or trademark; and

12.4.1.2. "750 kg" (ie the maximum allowable trailer '*ATM*' for which the '*Coupling*' is rated),

12.4.1.3. the words "Model (model identifier) use with model (model identifier)".

12.4.2. Both parts of the '*Coupling*' specially designed for use between towing vehicles and trailers up to 3.5 tonne '*ATM*' must be marked with:

12.4.2.1. the '*Coupling*' manufacturer's name or trademark; and

12.4.2.2. "3.5 TONNE" (ie the maximum allowable trailer '*ATM*' for which the '*Coupling*' is rated); and

12.4.2.3. the words "Model (model identifier) use with model (model identifier)".

12.4.3. Both parts of the '*Coupling*' specially designed for use between towing vehicles and trailers over 3.5 tonnes '*ATM*' must be marked with:

12.4.3.1. the '*Coupling*' manufacturer's name or trademark; and

12.4.3.2. the words "Model (model identifier) use with model (model identifier)".

12.4.3.3. either the rated '*D-value*' and '*V-value*' or only the '*D-value*' in kN.

12.4.4. All marking to be stamped or moulded must be with letters of not less than 2.5 mm high and must be visible when the coupling is installed and connected.

13. '*TOWBAR*' REQUIREMENTS

13.1. For vehicles fitted with '*Towbars*' with a '*Towbar*' maximum rated capacity:

13.1.1. of up to 3.5 tonne, the '*Towbar*', towing bracket, towbar attachment and vehicle structure must comply with AS 4177.1 - 1994 "Towbars and towing brackets" or as amended from time to time.

13.1.2. of over 3.5 tonne, the '*Towbars*', towing bracket, towbar attachment and vehicle structure must conform with the Clauses 13.2 - 13.4.

13.2. '*Towbars*' Marking Requirements:

13.2.1. Except where the '*Towbar*' is an integral part of the vehicle the '*Towbar*' must clearly and permanently display the following information:

13.2.1.1. the '*Towbar*' manufacturer's name or trade mark; and

13.2.1.2. the "make and model" shown on the '*Compliance Plate*' or trailer plate fitted to the vehicle for which it is designed or the manufacturer's part number; and

13.2.1.3. its maximum rated capacity expressed in numerals not less than 6 mm high. The maximum rated capacity must be the '*ATM*' in tonnes or the maximum '*Coupling*' '*D-value*' in kN for which the '*Towbar*' is designed and must not exceed the vehicle manufacturer's rated capacity.

- 13.2.2. Where the information required in clause 13.2.1 is not visible when the 'Towbar' is fitted to the vehicle, an additional plate clearly and permanently marked and in a conspicuous position must be affixed to the vehicle adjacent to the 'Towbar' showing the maximum rated capacity of the 'Towbar'.
- 13.3. 'Towbars' Strength Requirements:
- 13.3.1. For vehicles other than those designed for use in 'Road Trains' and up to 23.5 tonnes 'ATM', the vehicle structure including the 'Towbar' must withstand loads as per Clause 13.3.1.1 or 13.3.1.2 without incurring either any residual deformation that would interfere or degrade the function of the assembly or any breaks, cracks and separation of components. Alternatively approval can be by calculation as per Clause 13.3.3.
- 13.3.1.1. the static forces separately applied at the intended 'Coupling' centreline:
- 13.3.1.1.1. longitudinal tension and compression(N) = $1.5 \times 9.81 \times \text{'ATM'}$ (for which towbar is designed)(Kg); and
- 13.3.1.1.2. transverse thrust(N) = $0.5 \times 9.81 \times \text{'ATM'}$ (for which towbar is designed)(Kg); and
- 13.3.1.1.3. vertical tension and compression(N) = $0.5 \times 9.81 \times \text{'ATM'}$ (for which towbar is designed)(Kg)
- 13.3.1.2. A horizontal oscillating force of $\pm 0.6 \times$ the maximum 'Coupling' 'D-value' marked on the 'Towbar' according to clause 13.2.1.3 and a vertical oscillating force of $\pm 0.18 \times \text{'ATM'}$ (for which the towbar is designed) for 2 million cycles, applied asynchronously at the intended 'Coupling' centreline. The frequency not to exceed 35 Hz and must be chosen not to coincide with any natural frequency of the system.
- 13.3.2. For vehicles designed for use in 'Road Trains' or for vehicles over 23.5 tonnes 'ATM', the 'Towbar' must withstand loads as per Clause 13.3.2.1 or 13.3.1.2 without incurring either any residual deformation that would interfere or degrade the function of the assembly or any breaks, cracks and separation of components. Alternatively approval can be by calculation as per Clause 13.3.3.
- 13.3.2.1. the static forces separately applied at the intended 'Coupling' centreline:
- 13.3.2.1.1. the longitudinal tension and compression of 350kN; and
- 13.3.2.1.2. the transverse thrust of 120kN.
- 13.3.2.1.3. the vertical tension and compression of 120kN.
- 13.3.3. The strength of a 'Towbar' to withstand the forces of clauses 13.3.1 or 13.3.2 can be demonstrated by 'Approved' calculation procedures where the calculations take into account both the strength and fatigue resistance.
- 13.4. 'Towbars' Safety Chain Attachment Requirements
- 13.4.1. For vehicles other than those designed for use in 'Road Trains', the 'Towbar' must be fitted with two safety chain attachments, of strength meeting the requirements of clause 13.4.2, mounted one on either side of, and adjacent to, the tow 'Coupling'.
- 13.4.2. Each safety chain attachment provided on the 'Towbar' must withstand the following forces without either any residual deformation that may interfere

with or degrade the function of the assembly or any breaks, cracks, or separation of components:

- 13.4.2.1. longitudinal tension(N) = $9.81 \times \text{'Towbar's' rated capacity(Kg)}$; and
- 13.4.2.2. vertical load (N) = $0.5 \times 9.81 \times \text{'Towbar's' rated capacity (Kg)}$.
- 13.4.3. *'Towbar'* safety chain attachments must be fixed to a part of the *'Towbar'* which is permanently attached to the vehicle.
- 13.4.3.1. Means of permanent attachment include at least either welding or bolting.

14. **'DRAWBAR' REQUIREMENTS**

14.1. The *'Drawbar'* must be securely attached to a substantial portion of the trailer.

14.2. The *'Drawbar'* including the connections between *'Drawbar'* and trailer must withstand loads as per Clause 14.2.1 or 14.2.2 without incurring either any residual deformation that would interfere or degrade the function of the assembly or any breaks, cracks and separation of components. Alternatively approval can be by calculation as per Clause 14.2.3.

14.2.1. *'Drawbars'* to withstand a dynamic endurance test for 2 million cycles:

14.2.1.1. *'Drawbars'* for *'Pig trailers'* up to 3.5 tonnes *'ATM'* and hinged *'Drawbars'* for other trailers to withstand a horizontal oscillating force of $\pm 0.6 \times \text{'Coupling' 'D-value'}$ in the longitudinal direction concurrently for 2 million cycles, applied at the intended *'Coupling'* centreline. The frequency must not exceed 35 Hz, and must be chosen not to coincide with any natural frequency of the system;

14.2.1.2. Rigid *'Drawbars'* for *'Pig trailers'* over 3.5 tonnes *'ATM'*, to withstand a minimum horizontal alternating force of ($\pm 0.6 \times \text{'Coupling' 'D-value'}$) acting in the longitudinal axis of the *'Coupling'* and a minimum vertical alternating force of (static vertical coupling load $\pm 0.6 \times \text{'Coupling' 'V-value'}$) in the vertical axis of the *'Coupling'* applied through the *'Coupling'* centre asynchronously for 2 million cycles.

Static vertical coupling load in kN = $g \times S$

where:

g = acceleration due to gravity (assumed to be 9.81 m/sec^2)

S = vertical load in tonnes (*'ATM'* - *'GTM'*)

The frequency of the longitudinal and vertical forces must differ by between 1 % and 3 % and not exceed 35 Hz, but must be chosen not to coincide with any natural frequency of the system.

14.2.2. *'Drawbars'* to withstand a static test:

14.2.2.1. For trailers other than *'Convertor Dollies'* and up to 23.5 tonnes *'ATM'* the following minimum static forces separately applied at the intended *'Coupling'* centreline:

14.2.2.1.1. longitudinal tension and compression(N) = $1.5 \times 9.81 \times \text{'ATM' (Kg)}$; and

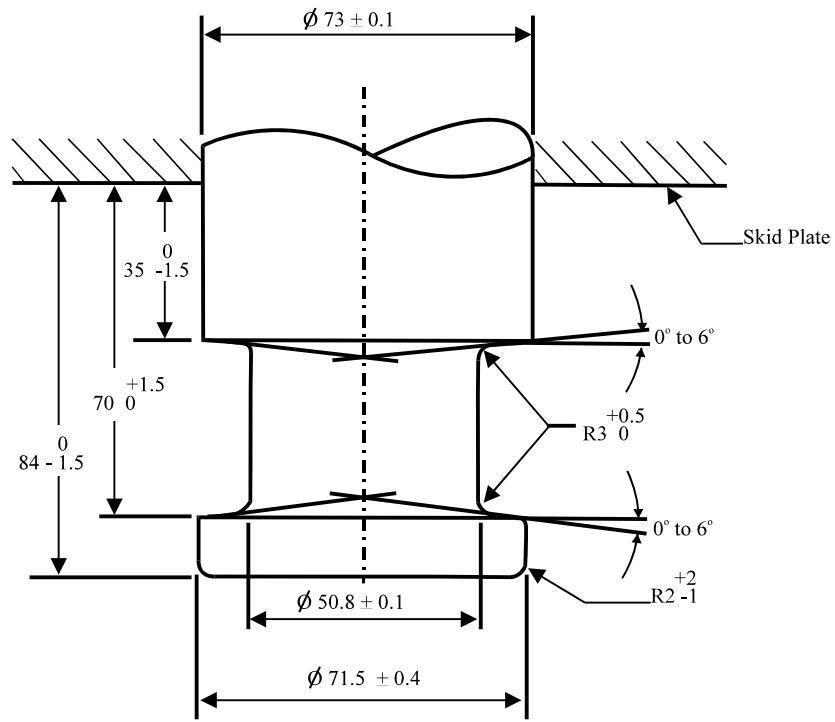
14.2.2.1.2. transverse thrust (N) = $0.5 \times 9.81 \times \text{'ATM' (Kg)}$; and

14.2.2.1.3. except for hinged *'Drawbar'* trailers vertical tension and compression(N) = $0.5 \times 9.81 \times \text{'ATM' (Kg)}$;

- 14.2.2.2. For ‘*Convertor Dollies*’ or trailers over 23.5 tonnes ‘*ATM*’, the following minimum static forces separately applied at the intended ‘*Coupling*’ centreline:
- 14.2.2.2.1. longitudinal tension and compression = 350kN; and
- 14.2.2.2.2. transverse thrust = 120kN; and
- 14.2.2.2.3. except for hinged ‘*Drawbar*’ trailers vertical tension and compression = 120kN
- 14.2.3. The strength of a ‘*Drawbar*’ can be demonstrated for loads as per clause 14.2.2 by ‘*Approved*’ calculation procedures where the calculations take into account both strength and fatigue resistance.
- 14.3. ‘*Drawbars*’ Safety Chain Attachment Requirements.
- 14.3.1. Safety chains must be permanently attached to the trailer.
- 14.3.1.1. Shackles are not permitted.
- 14.3.2. For trailer up to 3.5 tonnes ‘*ATM*’, the safety chain attachment can be by welding.
- 14.3.2.1. the weld must extend around 50% of the circumference of the link and the adjoining link must have free movement.
- 14.3.3. For trailer over 3.5 tonnes ‘*ATM*’ safety chain attachment must not involve welding or deformation of the chain.
- 14.3.4. The safety chain attachment must be located as near as practicable to the ‘*Coupling*’ and where 2 points of attachment are required they must be mounted one on either side of the centreline of the ‘*Drawbar*’.
- 14.3.5. The safety chain attachment must withstand the following minimum forces, separately applied, without incurring either any residual deformation that would interfere or degrade the function of the assembly or any breaks, cracks or separation of components:
- 14.3.5.1. longitudinal tension(N) = $9.81 \times \text{‘ATM’(Kg)}$; and
- 14.3.5.2. vertical load (N) = $0.5 \times 9.81 \times \text{‘ATM’ (Kg)}$.
- 14.4. Safety Chain Requirements
- 14.4.1. Safety chains must be affixed to a substantial portion on every trailer which is not fitted with an ‘*Emergency Brake System*’ in accordance with the Australian Design Rule 38/02 "Trailer Brake Systems", and on every ‘*Drawbar*’ of a Rigid drawbar Trailer except a ‘*Converter Dolly*’.
- 14.4.1.1. Trailers having an ‘*ATM*’ over 2.5 tonnes must be fitted with 2 safety chains for connection to the towing vehicles. Each safety chain must meet separately the strength requirements of clause 14.4.2 or 14.4.3.
- 14.4.2. For trailers up to 3.5 tonnes ‘*ATM*’, the safety chain must comply with Australian Standard 4177.4 -1994 "Safety Chains up to 3500 kg" or as amended from time to time.
- 14.4.3. For trailers over 3.5 tonnes ‘*ATM*’, the safety chain must be made from steel of a minimum 800 MPa breaking stress and conform to the mechanical properties of Grade T chain as specified in Australian Standard 2321-1979 "Short Link Chain for Lifting Purposes (non-calibrated) or as amended from time to time; and must be of a size corresponding with the ‘*ATM*’ of the trailer shown in Table 1.

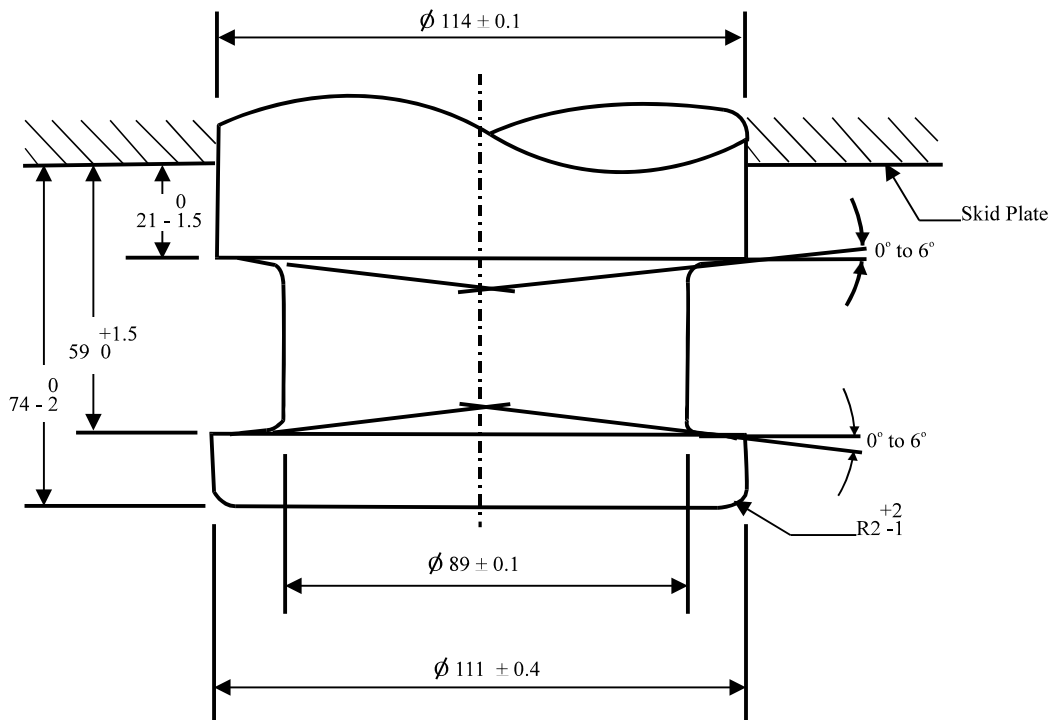
'Aggregate Trailer Mass' (tonnes)	Chain Size (millimetres)	Minimum Chain Breaking Load (tonnes)
Over 3.5 and up to 4.3	7.1	6.4
Over 4.3 and up to 7.5	9.5	11.6
Over 7.5 and up to 13.5	12.7	20.4
Over 13.5 and up to 21.5	15.9	32.0
Over 21.5 and up to 30.0	19.0	46.4
Over 30.0	22.0	63.2

Table 1: Safety Chain Size Selection



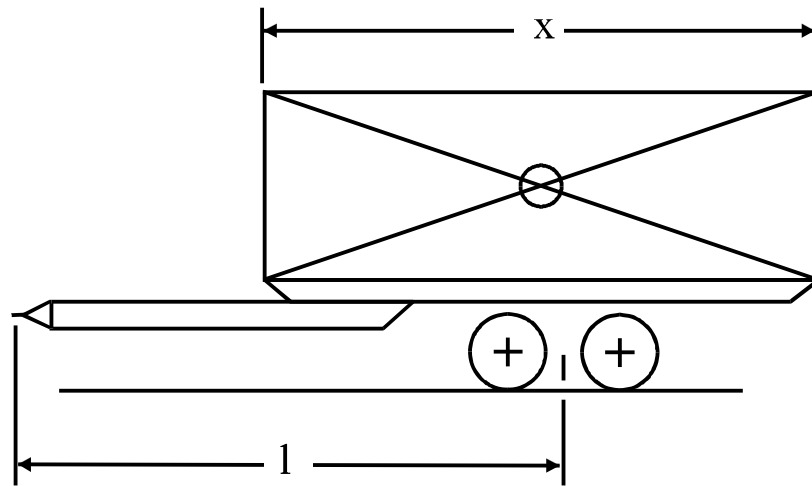
BASIC DIMENSIONS ON 50 mm KINGPINS
Dimensions in millimetres

Figure 1a



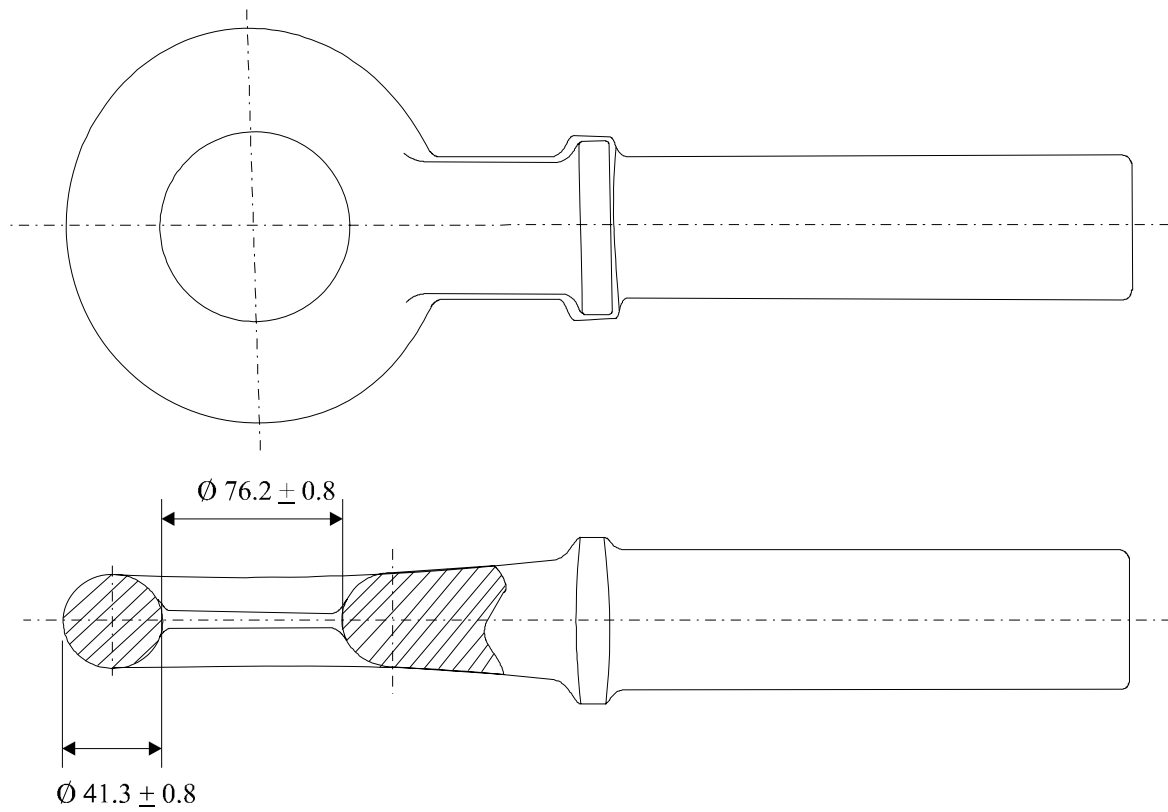
BASIC DIMENSIONS ON 90 mm KINGPINS
Dimensions in millimetres

Figure 1b



V - Value Calculation for Rigid Drawbar Pig Trailer

Figure 2



Towing Ring for Hook Couplings

Figure 3

NOTES

This compilation of Vehicle Standard (Australian Design Rule 62/01 – Mechanical Connections Between Vehicles) 2006 includes all the instruments set out in the Table of Instruments. The Table of Amendments provides a history of clauses that have been amended, inserted or deleted.

Table of Instruments

Name of Instrument	Registration Date	Commencement Date
Vehicle Standard (Australian Design Rule 62/01 – Mechanical Connections Between Vehicles) 2006	11/05/06	12/05/06
Vehicle Standard (Australian Design Rule 62/01 – Mechanical Connections Between Vehicles) 2006 Amendment 1	17/07/07	18/07/07

Table of Amendments

Clause affected	How affected	Amending instrument
3.2	ad	Vehicle Standard (Australian Design Rule 62/01 – Mechanical Connections Between Vehicles) 2006 Amendment 1

ad = added or inserted

am = amended

del = deleted or removed

rr = removed and replaced

→ = clause renumbered. This takes the format of old no. → new no.