Vehicle Standard (Australian Design Rule 10/00 – Steering Column) 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 31 July 2006

[SIGNED]

James Eric Lloyd
Minister for Local Government, Territories and Roads

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0. LEGISLATIVE PROVISIONS

0.1. NAME OF STANDARD

0.1.1. This Standard is the Vehicle Standard (Australian Design Rule 10/00 – Steering Column) 2006.

0.1.2. This Standard may also be cited as Australian Design Rule 10/00 — Steering Column.

0.2. COMMENCEMENT

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

0.3. REPEAL

0.3.1. This Standard repeals each vehicle standard with the name Australian Design Rule 10/00 — Steering Column that is:

(a) made under section 7 of the Motor Vehicle Standards Act 1989; and

(b) in force at the commencement of this Standard.

0.3.2. This Standard also repeals each instrument made under section 7 of the Motor Vehicle Standards Act 1989 that creates a vehicle standard with the name Australian Design Rule 10/00 — Steering Column, 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.

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 minimise crushing or penetrating injuries to drivers due to the *`Steering Column'* as a result of frontal impact.

APPLICABILITY

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

Vehicle Category	ADR Category Code *	UNECE Category Code *	Manufactured on or After	Acceptable Prior Rules
Moped 2 wheels	LA	L1	Not Applicable	
Moped 3 wheels	LB	L2	Not Applicable	
Motor cycle	LC	L3	Not Applicable	
Motor cycle and sidecar	LD	L4	Not Applicable	
Motor tricycle	LE	L5	Not Applicable	
Passenger car	MA	M1	1 July 1988	Nil
Forward-control passenger vehicle	MB	M1	Not Applicable	
Off-road passenger vehicle	MC	M1	Not Applicable	
Light omnibus	MD	M2		
up to 3.5 tonnes *'GVM'* and up to 12 seats	MD1		Not Applicable	
up to 3.5 tonnes *'GVM'* and more than 12 seats	MD2		Not Applicable	
over 3.5 tonnes and up to 4.5 tonnes *'GVM'*	MD3		Not Applicable	
over 4.5 tonnes and up to 5 tonnes *'GVM'*	MD4		Not Applicable	
Heavy omnibus	ME	M3	Not Applicable	
Light goods vehicle	NA	N1	Not Applicable	
Medium goods vehicle	NB	N2		
over 3.5 tonnes up to 4.5 tonnes *'GVM'*	NB1		Not Applicable	
over 4.5 tonnes up to 12 tonnes *'GVM'*	NB2		Not Applicable	
Heavy goods vehicle	NC	N3	Not Applicable	
Very light trailer	TA	O1	Not Applicable	
Light trailer	TB	O2	Not Applicable	
Medium trailer	TC	O3	Not Applicable	
Heavy trailer	TD	O4	Not Applicable	

10.1. DEFINITIONS

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

10.1.1. *'Steering Column'* - a structural housing that surrounds a *'Steering Shaft'*.

10.1.2. *'Steering Shaft'* - a component that transmits steering torque from the steering wheel to the steering gear.

* The category code may also be in the format L_1, L_A etc.

10.2. REQUIREMENTS

10.2.1. The *'Steering Column'* assembly including the steering device which is actuated by the driver shall be so constructed that when it is impacted by a body block in accordance with SAE Recommended Practice J944 'Steering Wheel Assembly Laboratory Test Procedure, December 1965 or J944a - "Steering Control System Passenger Car - Laboratory Test Procedure', November 1968 or other *'Approved'* procedure, the body block, moving at a speed of not less than 6.7 m/s in a direction equivalent to a horizontal longitudinal direction relative to the top of the *'Steering Column'* in the vehicle, shall be brought to rest in such a manner that at no time shall the load exerted on the body block by the *'Steering Column'* assembly including the steering device which is actuated by the driver exceed 11.1 kN.

10.2.2. The upper end of the *'Steering Column'* and the *'Steering Shaft'* shall not be displaced horizontally *'Rearward'* parallel to the longitudinal axis of the vehicle relative to an undisturbed point on the vehicle more than 127 mm, determined by dynamic measurement, in a barrier collision test at 48 km/h minimum conducted in accordance with SAE Recommended Practice J850, 'Barrier Collision Tests', February 1963 or other *'Approved'* practice.

10.2.3. When conducting the barrier collision test, a dummy may be used providing the dummy does not contact the *'Steering Column'* assembly or steering wheel during the test

10.2.4. The speed at the time of impact shall be at least 48 km/h. If the speed measured is greater than the nominal speed of 48 km/h the measured displacement of the upper end of the *'Steering Column'* and the *'Steering Shaft'* may be reduced to a value appropriate to the nominal speed by multiplying it by the square of the ratio between the nominal speed and either the measured speed or 53.1 km/h, whichever is the lesser.

10.2.5. The minimum mass of the test vehicle shall not be less than the *'Unladen Mass'* of the vehicle.

10.3. EXEMPTION FROM TEST REQUIREMENTS

In cases where passenger cars meet the requirements of Clause 10.2.2, other vehicles in which the forward part of the body form and the greater part of the mechanical equipment are the same as those in the said passenger car need not be tested as specified in Clause 10.2.2 unless they incorporate structural or mechanical variations likely to affect compliance.

10.4. ALTERNATIVE STANDARDS

10.4.1. The technical requirements of ECE R 12/00 or 12/01 - "Protection against the Steering Mechanism" shall be deemed to be equivalent to the technical requirements of this Rule.

10.4.2. The technical requirements of FMVSS 203 32 FR 2414, February 3, 1967 "Impact Protection for the Driver from the Steering Control

System" incorporating amendments 36 FR 232 December 2. 1971 shall be deemed to be equivalent to the technical requirements of Clause 10.2.1 of this Rule.

10.4.3. The technical requirements of FMVSS 204-32 FR 2421 February 3, 1967 “Steering Column Displacement – Passenger Cars” incorporating amendment 36 FR 232 December 2, 1971 shall be deemed to be equivalent to the technical requirements of Clause 10.2.2 of this Rule - provided that the vehicle has met the requirements of S5.1 of that standard.