Vehicle Standard (Australian Design Rule 25/02 – Anti-Theft Lock) 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 8 August 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 25/02 – Anti-Theft Lock) 2006.

1.1.2. This Standard may also be cited as Australian Design Rule 25/02 — Anti-Theft Lock.

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 25/02 — Anti-Theft Lock 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 25/02 — Anti-Theft Lock, 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

The function of this national standard is to specify requirements for a lock to inhibit unauthorised use of the vehicle and to minimise the possibility of inadvertent adjustment of steering locks to the anti-theft position when the vehicle is in motion.

3. APPLICABILITY AND IMPLEMENTATION

3.1. Applicability Summary

3.1.1. This national standard applies to the design and construction of vehicles as set out in the table below.

3.1.2. Vehicles certified to the requirements of any of the acceptable prior rules as shown below in the Applicability Table for a particular category are deemed to comply with this national standard.

3.2. Applicability Table

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		
	LEM		not applicable	
	LEP		1 July 1992	nil
	LEG		1 July 1992	nil
Passenger car	MA	M1	1 January 1992	/01 **
Forward-control passenger vehicle	MB	M1	1 January 1992	/01 **
Off-road passenger vehicle	MC	M1	1 January 1992	/01 **
Light omnibus	MD	M2		
up to 3.5 tonnes *'GVM'* and up to 12 seats	MD1		1 July 1992	/01 **
up to 3.5 tonnes *'GVM'* and more than 12 seats	MD2		1 July 1992	nil
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	1 July 1992	nil
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	

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

** Only vehicles certified to the requirements of ECE R 18/01 as permitted in the Alternative Standards section of the /01 issue may be deemed to comply with this issue.

4. DEFINITIONS

4.1. Except as provided below, the definitions applicable to this Australian Design Rule are set out in:

(a) Vehicle Standard (Australian Design Rule Definitions and Vehicle Categories) 2005; and

(b) paragraph 2 of Appendix A.

5. REQUIREMENTS

5.1. Protective devices designed to prevent the unauthorised use of vehicles must comply with the requirements of this rule.

5.2. Appendix A is an extract from the ECE document with administrative provisions and certain minor technical provisions not relevant to this Design Rule deleted or identified by strike-through of the text. In the case of deletion of whole sections, annexes or paragraphs, the words “not applicable” are placed beside its sections/annex/ paragraph number.

6. ALTERNATIVE STANDARDS

6.1. The technical requirements of the following alternative standards are deemed to be equivalent to the technical requirements of this vehicle standard.

6.1.1. UNECE Regulation 18 “Power Driven Vehicles - Protection Against Unauthorised Use” up to and including the /01 series of amendments

6.1.2. UNECE Regulation 18 “Uniform Provisions Concerning the Approval of Motor Vehicles With Regard to Their Protection Against Unauthorised Use” up to and including the /02 series of amendments.

6.1.3. for vehicles with three or more wheels with the exception of MA, MB, MC and NA categories, UNECE Regulation 18 “Uniform Provisions Concerning the Approval of Motor Vehicles With Regard to Their Protection Against Unauthorised Use” up to and including the /03 series of amendments.

6.1.4. for MA, MB, MC and NA category vehicles, UNECE Regulation 116 “Uniform Technical Prescriptions Concerning the Protection of Motor Vehicles Against Unauthorized Use”, up to and including the /00 series of amendments.

APPENDIX A

E/ECE/324
E/ECE/TRANS/505 } Rev.1/Add.17/Rev.1

22 April 1980

APPENDIX A

UNITED NATIONS

AGREEMENT

CONCERNING THE ADOPTION OF UNIFORM CONDITIONS OF APPROVAL AND RECIPROCAL RECOGNITION OF APPROVAL FOR MOTOR VEHICLE EQUIPMENT AND PARTS

done at Geneva on 20 March 1958

Addendum 17 : REGULATION No. 18 to be annexed to the Agreement

Revision 1

Incorporating the 01 series of amendments which entered into force on 24 November 1980

UNIFORM PROVISIONS CONCERNING THE APPROVAL OF POWER-DRIVEN VEHICLES WITH REGARD TO THEIR PROTECTION AGAINST UNAUTHORIZED USE

UNIFORM PROVISIONS CONCERNING THE APPROVAL OF POWER-DRIVEN VEHICLES WITH REGARD TO THEIR PROTECTION AGAINST UNAUTHORIZED USE

Regulation No. 18

CONTENTS

Regulation

Regulation No. 18

UNIFORM PROVISIONS CONCERNING THE APPROVAL OF POWER-DRIVEN VEHICLES WITH REGARD TO THEIR PROTECTION AGAINST UNAUTHORIZED USE

1. SCOPE

This Regulation applies to protective devices designed to prevent the unauthorized use of power driven vehicles. ~~having at least 3 wheels.~~

2. DEFINITIONS

For the purposes of this Regulation,

2.1 Not applicable.

2.2 Not applicable.

2.3 "protective device" means a system designed to prevent unauthorized normal activation of the engine or other source of main engine power of the vehicle in combination with at least one system which: locks the steering; or locks the transmission; or locks the gear-shift control;

2.4 "steering" means the steering control, the steering column and its accessory cladding, the steering shaft, the steering gearbox and all other components which directly affect the effectiveness of the protective device;

2.5 "combination" means one of the specifically planned and constructed variations of a locking system which, when properly activated, permits operation of the locking system;

2.6 "key" means any device designed and constructed to provide a method of operating locking system which is designed and constructed to be operated only by that device.

3. Not applicable.

4. Not applicable.

5. GENERAL SPECIFICATIONS

5.1. The protective device shall be so designed that it is necessary to put it out of action in order to enable:

5.1.1. the engine to be started by means of the normal control; and

5.1.2. the vehicle to be steered, driven or moved forward under its own power.

5.2. The requirements of paragraph 5.1. shall be met by the single application of one key.

5.3. Except in the case provided for in paragraph 6.1.5. a system operated with a key inserted in a lock shall not permit removal of the key before the protective device referred to in paragraph 5.1. has come into action or has been set to act.

5.4. The protective device referred to in paragraph 5.1. above, and the vehicle components on which it operates, shall be so designed that it cannot rapidly and without attracting attention, be opened, rendered ineffective, or destroyed by, for example, the use of low-cost, easily-concealed tools, equipment or fabrications readily available to the public at large.

5.5. The protective device shall be mounted on the vehicle as an item of original equipment, i.e. equipment installed by the vehicle manufacturer prior to first retail sale. It shall be fitted in such a way that even after removal of its housing it cannot, when in the blocked condition, be dismantled otherwise than with special tools. If it would be possible to render the protective device ineffective by the removal of screws, the screws shall, unless they are non-removable screws, be covered by parts of the blocked protective device.

5.6. The key locking system shall provide at least 1,000 different key combinations or a number equal to the total number of vehicles manufactured annually if less than 1,000. In

vehicles of one type the frequency of occurrence of each combination shall be roughly one per 1,000.

5.7. The key and lock shall not be visibly coded.

5.8. The lock shall be so designed, constructed and fitted that turning of the lock cylinder, when in the locked position, with a torque of less than 0.245 mdaN is not possible with anything other than the mating key, and

5.8.1 for lock cylinders with pin tumblers no more than two identical tumblers operating in the same direction shall be positioned adjacent to each other, and in a lock there shall not be more than 60 per cent identical tumblers,

5.8.2. for lock cylinders with disc tumblers no more than two identical tumblers operating in the same direction shall be positioned adjacent to each other, and in a lock there shall not be more than 50 per cent identical tumblers.

5.9. Protective devices shall be such as to exclude any risk, while the vehicle is in motion, of accidental blockage likely to compromise safety in particular.

5.9.1. It shall not be possible to activate protective devices acting on the steering, transmission or gear shift control without first setting the engine controls to a stop condition and then performing an action which is not an uninterrupted continuation of stopping the engine.

5.9.2. In the case of devices acting on the steering, transmission or gear shift control, if the action of key withdrawal activates the device it shall either necessitate a minimum movement of 2 mm before activation of the device or incorporate an override facility to prevent accidental removal or partial withdrawal of the key.

5.10. Power assistance may be used only to activate the locking and/or unlocking action of the protective device. The device shall be kept in its operating position by mechanical means only.

5.11. It shall not be possible to activate the motive power of the vehicle by normal means until the protective device has been deactivated.

5.12. Not applicable.

5.13. If the protective system is equipped with a driver warning feature it shall be activated, unless the protective device has been activated and any key removed by the operator, when the operator opens the driver's side door.

6. PARTICULAR SPECIFICATIONS

In addition to the general specifications prescribed in paragraph 5, the protective device shall comply with the particular conditions prescribed below:

6.1 Protective devices acting on the steering

6.1.1. A protective device acting on the steering shall block the steering.

6.1.2. When the protective device is set to act, it shall not be possible to prevent the device from functioning.

6.1.3. The protective device must continue to meet paragraphs 5.9., 6.1.1., 6.1.2. and 6.1.4., after it has undergone 2,500 locking cycles in each direction of the wear-producing test specified in Annex 3.

6.1.4. The protective device shall, in its activated position, be strong enough to withstand, without damage to the steering mechanism likely to compromise safety, the application of a torque of 20 mdaN about the axis of the steering shaft in both directions under static conditions.

6.1.5. If the protective device is such that the key can be removed in a position other than the position in which the steering is locked, it shall be so designed that the manoeuvre required to reach that position and remove the key cannot be effected inadvertently.

6.2 Protective devices acting on the transmission

6.2.1. A protective device acting on the transmission shall prevent the rotation of the vehicle's driving wheels.

6.2.2. When the protective device is set to act, it shall not be possible to prevent the device from functioning.

6.2.3. It shall not be possible for the transmission to be blocked inadvertently when the key is in the lock of the protective device, even if the device preventing starting of the engine has come into action or been set to act.

6.2.4. The protective device shall be so designed and constructed that it remains fully effective even after some degree of wear as a result of 2,500 locking cycles in each direction.

6.2.5. If the protective device is such that the key can be removed in a position other than the position in which the transmission is locked, it shall be so designed that the manoeuvre required to reach that position and remove the key cannot be effected inadvertently.

6.2.6. The protective device shall be strong enough to withstand, without damage likely to compromise safety, the application in both directions and in static conditions of a torque 50 per cent greater than the maximum torque that can normally be applied to the transmission. In determining the level of this testing torque account shall be taken, not of the maximum engine torque, but of the maximum torque that can be transmitted by the clutch or by the automatic transmission.

6.3. Protective devices acting on the gearshift control

6.3.1. A protective device acting on the gearshift control shall be capable of preventing any change of gear.

6.3.2. In the case of manual gearboxes it must be possible to lock the gear shift lever in reverse only; in addition locking in neutral shall be permitted.

6.3.3. In the case of automatic gearboxes provided with a "parking" position it must be possible to lock the mechanism in the "parking" position only; in addition locking in neutral and/or reverse shall be permitted.

6.3.4. In the case of automatic gearboxes not provided with a "parking" position it must be possible to lock the mechanism in the following positions only; neutral and/or reverse.

6.3.5 The protective device shall be so designed and constructed that it remains fully effective even after some degree of wear as a result of 2,500 locking cycles in each direction.

7. Not applicable.

8. Not applicable.

9. Not applicable.

10. Not applicable.

11. DEVICES PROVIDED ADDITIONALLY

11.1. Approval under this Regulation may be granted with respect to a protective device additionally equipped with an acoustic or visual warning device, or with respect to the optional fitting of supplementary devices to prevent the unauthorized use of the vehicle, provided that the supplementary devices require a separate means of activation.

11.2. If the protective device is additionally equipped with an external acoustic and/or visual warning device, the signals emitted by the warning device shall be brief and shall end automatically after not more than 30 seconds; they shall recommence only if the device is actuated again. In addition,

11.2.1. if the signal is acoustic, it may be emitted by the audible warning device normally fitted to the vehicle;

11.2.2. if the signal is visual, it shall be produced solely by flashing of the vehicles passing lights.

25.11.2.2 In clause 11.2.2. above, the visual signal be produced by flashing the other lights of the vehicle, except the main beam headlamps.

12. Not applicable.

13. Not applicable.

Annex 3

WEAR-PRODUCING TEST PROCEDURE FOR PROTECTIVE DEVICES ACTING ON THE STEERING

1. TEST EQUIPMENT

1.1. The test equipment shall consist of:

1.1.1. a fixture suitable for mounting the sample steering complete with the protective device attached, as defined in paragraph 2.3. of this Regulation;

1.1.2. a means for activating and de-activating the protective device which shall include the use of the key;

1.1.3. a means for rotating the steering shaft relative to the protective device. ~~A suitable form ... annex.~~

2. TEST METHOD

2.1. A sample of the steering complete with the protective device is attached to the fixture referred to in paragraph 1.1.1. above.

2.2. One cycle of the test procedure shall consist of the following operations: ~~during ... 0.025:~~

2.2.1. Start position. The protective device shall be de-activated and the steering shaft shall be rotated to a position which prevents engagement of the protective device, unless it is of the type which permits locking in any position of the steering.

2.2.2. Set to activate. The protective device shall be moved from the de-activated to the activated position, using the key.

2.2.3.* Activated. The steering shaft shall be rotated such that the torque on it, at the instant of engagement of the protective device shall be 5.88 N.m $\pm$ 0.25.

2.2.4. De-activated. The protective device shall be de-activated by the normal means, the torque being reduced to zero to facilitate disengagement.

2.2.5.* Return. The steering shaft shall be rotated to a position which prevents engagement of the protective device.

2.2.6. Opposite rotation. Repeat procedures described in paragraphs 2.2.2., 2.2.3., 2.2.4., and 2.2.5. but in the opposite direction of rotation of the steering shaft.

2.2.7. The time interval between two successive engagements of the device shall be at least 10 seconds.

2.3. The wear-producing cycle shall be repeated for the number of times specified in paragraph 6.1.3. of this Regulation.

* If the protective device permits locking in any position of the steering, the procedures described in this paragraph and in paragraph 2.2.5. shall be omitted.