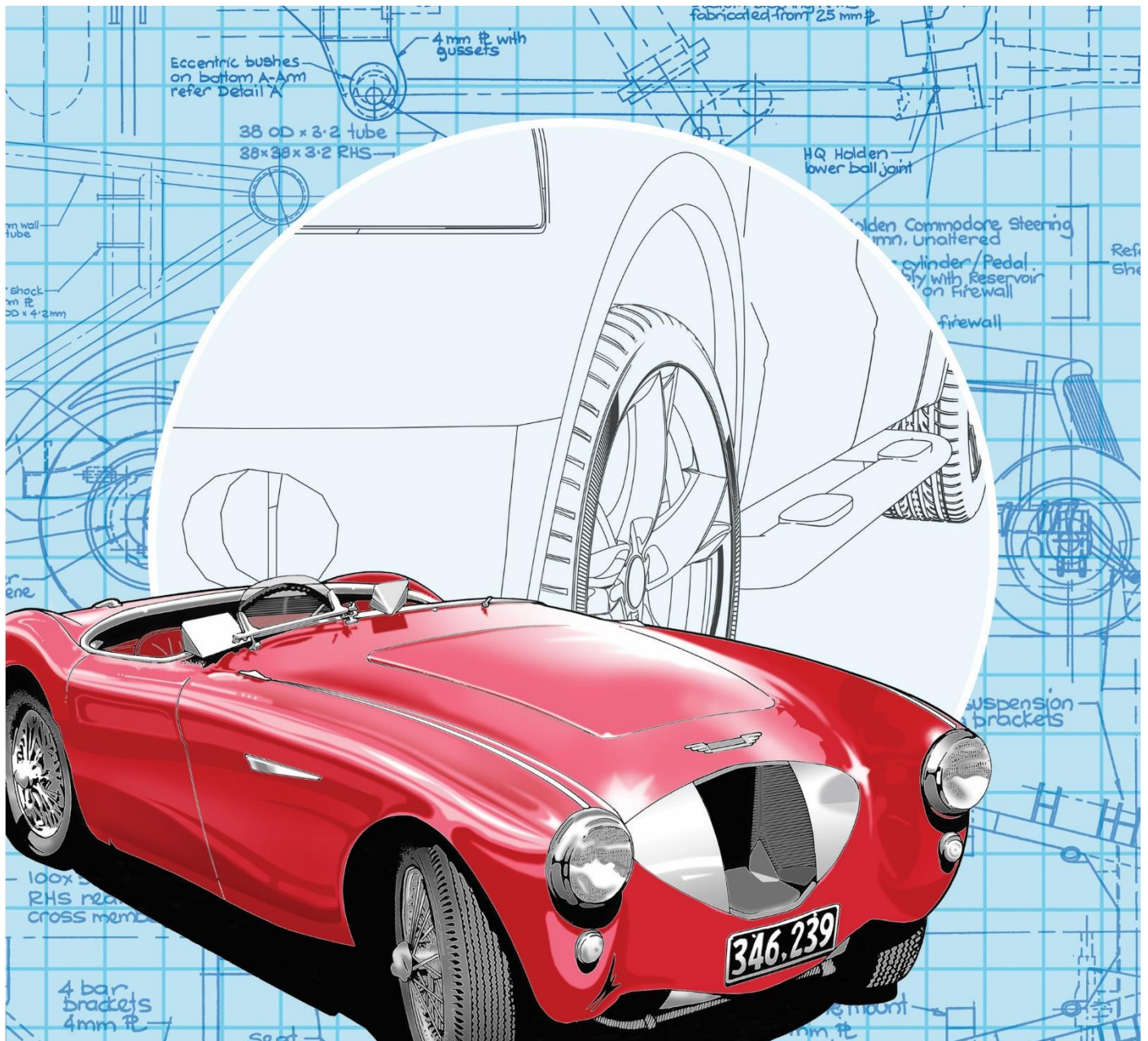


Helping New Zealanders Build & Modify Safe Vehicles

Low Volume Vehicle Standard

205-00(03) Wheels & Tyres

3rd Amendment | Effective from 1 December 2021



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Approval

LVV Standard 205-00 Approval:	
Signed in accordance with clause 1.3(5) of the Low Volume Vehicle Code, on.....by:	
on behalf of New Zealand Transport Agency:	on behalf of Low Volume Vehicle Technical Association:

Amendments

LVV Standard 205-00 Amendment Record:			
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NOTE 1: Text which is high-lit in grey shows amendments that have been made subsequent to the document’s previous version, and a grey vertical stroke to the left of the text denotes new or changed information which is important and needs to be understood.			
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Wheels & Tyres

(205-00[03])

Purpose of this standard

The purpose of this low volume vehicle standard is to specify requirements for aftermarket, one-off, or modified wheels, wheel-related equipment, and non-original fitment tyres, that are fitted to light vehicles, in order to optimise levels of safety performance during all normal and emergency driving conditions.

This standard sets out:

- which vehicles are required to meet this standard; and
- how this standard is applied to those vehicles; and
- the technical requirements which must be met by vehicles required to comply with this standard.

Section 1 Scope and application of this standard

1.1 Scope of this standard

1.1(1) This low volume vehicle standard applies to all light vehicles other than those specified in 1.1(2), that:

(a) are modified either:

- (i) on or after 1 March 1999 in such a way that the vehicle's safe operation may, directly or indirectly, be affected as a result of a wheel or tyre installation or modification; or
- (ii) before 1 March 1999 in such a way that the vehicle's safe operation may, directly or indirectly, be affected as a result of a wheel or tyre installation or modification, and have not been continuously registered since that date;

or

(b) are scratch-built either:

- (i) on or after 1 March 1999; or
- (ii) before 1 March 1999 and have not been continuously registered since that date.

NOTE:

For the avoidance of doubt, 1.1(1) specifies that a low volume vehicle (which has been scratch-built, or modified in such a way that it's safe operation may, directly or indirectly, be affected as a result of a wheel or tyre installation or modification) is not required to be certified to this standard only if the vehicle:

- was scratch-built or modified prior to 1 March 1999; and
- has been issued with a valid Modification Declaration Certificate; and
- has been continuously registered since 1 March 1999; and
- has not been subsequently modified.

1.1(2) This low volume vehicle standard does not apply to:

- (a) powered bicycles of Class AB; or
- (b) motorcycles and mopeds of Class LA or LB; or
- (c) light trailers of Class TA or TB; or
- (d) those vehicles specified in section 4.

1.2 **Application of this standard**

1.2(1) A light vehicle that is scratch-built or modified as in 1.1(1), becomes a low volume vehicle, and must either:

(a) in the case of a vehicle which was scratch-built or modified before 1 March 1999 and has not been continuously registered, or a vehicle which was scratch-built or modified between 1 March 1999 and 1 September 2003:

(i) be certified in accordance with the procedures specified in chapter 2 of the *Low Volume Vehicle Code*; and

(ii) comply with the *General Safety Requirements* contained in 2.1 of this standard; and

(iii) comply with those technical requirements referred to in 2.2 and 2.3 of this standard, as determined to be appropriate by a Low Volume Vehicle Certifier;

or

(b) in the case of a vehicle which was scratch-built or modified after 1 September 2003:

(i) be certified in accordance with the procedures specified in chapter 2 of the *Low Volume Vehicle Code*; and

(ii) comply with the *General Safety Requirements* contained in 2.1 of this standard, and all applicable technical requirements referred to in 2.2 and 2.3 of this standard.

NOTE 1: The date of 1 September 2003 specified in 1.2(1)(a) and 1.2(1)(b) is the implementation date of *LVV Standard 205-00 (Wheels & Tyres) (original version)*, which introduced specific technical requirements which must be met.

NOTE 2: In the case of a low volume vehicle specified in 1.2(1)(a), an LVV Certifier must apply the applicable technical requirements referred to in 2.2 and 2.3 of this standard as a guideline upon which to base their discretionary judgement on the safety of the vehicle, taking into account the modification or construction date of the vehicle.

Section 2 **Technical requirements of this standard**

2.1 **General safety requirements**

2.1(1) A low volume vehicle must:

- (a) be designed and constructed using materials and components that are fit for their purpose; and
- (b) be safe to be operated on the road.

NOTE: The requirements specified in 2.1(1) are selected from 2.3 of *Part 2* of the *Low Volume Vehicle Code*, reproduced here in the interest of convenience, and are over-riding requirements which make it clear that, regardless of what technical requirements are or are not in place, every vehicle certified to the *Low Volume Vehicle Code* must be fit for its purpose, and must be safe.

2.1(2) A tyre must be of good quality and construction, fit for its purpose and maintained in a safe condition.

2.1(3) A tyre must not have worn, damaged or visible cords apparent by external examination.

2.1(4) If fitted, a unidirectional tyre must be fitted to a wheel position corresponding to its direction of rotation.

2.1(5) A tyre on a motor vehicle must have a tread pattern around the entire circumference of the tyre of not less than 1.5 mm (1/16") in depth within all principal grooves that contain moulded tread depth indicators, or for tyres manufactured without moulded tread depth indicators, across at least three-quarters of the width of the tread and around the entire circumference of the tyre.

NOTE: The requirements specified in 2.1(2) to 2.1(5) are the applicable general safety requirements from *Land Transport Rule 32013 Tyres and Wheels 2001*, which are required as part of this low volume vehicle standard and are reproduced here in the interest of convenience.

2.2 Overarching technical requirements

2.2(1) Wheels fitted to a low volume vehicle must be suitable for their intended application, taking into account their size, design, and potential effects on the vehicle's suspension and steering geometry.

2.2(2) The modification or manufacturing of wheels fitted to a low volume vehicle must incorporate good engineering principles and practice.

2.2(3) Wheels fitted to a low volume vehicle must be located and attached in such a way that the wheels remain securely fitted to the vehicle during all normal and emergency operation.

2.2(4) Any ancillary equipment associated with the attachment of wheels and tyres fitted to a low volume vehicle, such as spacers and adaptors, must be correctly designed and fitted.

2.2(5) Tyres fitted to a low volume vehicle must be suitable for their intended application, and must meet all applicable standards.

2.2(6) In order to demonstrate compliance with paragraphs 2.2(1) to 2.2(5), a low volume vehicle must comply with all relevant requirements specified in *Chapter 12 Wheels & Tyres* of the *LVVTA New Zealand Car Construction Manual*.

- NOTE 1:** For the avoidance of duplication, all of the relevant technical requirements for wheel and tyre installations and modifications are contained in *Chapter 12 Wheels & Tyres* of the *New Zealand Car Construction Manual*.
- NOTE 2:** An electronic version of *Chapter 12 Wheels & Tyres*, and all other chapters of the *NZ Car Construction Manual*, can be accessed from www.lvta.org.nz either individually or as a complete Manual, free of charge.

2.3 Associated technical requirements

- 2.3(1) A low volume vehicle that is required to comply with this standard must, where applicable, also comply with *LVVTA Low Volume Vehicle Standard 35-40 (Braking Systems)*.

- NOTE 1:** All documents referred to in 2.3(1) can be accessed from www.lvta.org.nz and are free of charge.
- NOTE 2:** Printed copies of LVV documents may become out of date, and should not be relied upon without ensuring that the version is current – visit www.lvta.org.nz to check that the associated technical requirements referred to above are contained in the latest versions of the documents.

Section 3 Vehicles not required to be certified to this standard

3.1 Vehicles that do not require certification

- 3.1(1) A light vehicle is not required to be certified to this low volume vehicle standard, if the vehicle is either:
- (a) modified for the purposes of law enforcement or the provision of emergency services; or
 - (b) identified as having been modified by a second-stage vehicle manufacturer, and complies with an approved overseas standard that is listed in *Annex 6* of the *Low Volume Vehicle Code*, and is not subsequently modified.

3.2 Modifications that do not require certification

- 3.2(1) A modification to a vehicle is not required to be certified to the *Low Volume Vehicle Code* if the modification:
- (a) has not compromised the safe performance of the vehicle; and
 - (b) is listed as a modification which does not require low volume vehicle certification, within either:
 - (i) the *LVVTA Modification Threshold Schedule*; or
 - (ii) a relevant *Modification Table* in the *Vehicle Inspection Requirements Manual* of the New Zealand Transport Agency.
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