

Queensland Code of Practice: Vehicle Modifications (QCOP)

Code LS14: Re-rating of a Light Trailer ATM/GTM to Manufacturer's Specifications

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Code LS14

Re-rating of a Light Trailer Aggregate Trailer Mass/Gross Trailer Mass to Manufacturer's Specifications

1.0 Scope

The LS14 modification code allows Approved Persons to re-rate the aggregate trailer mass (ATM) and/or gross trailer mass (GTM) of a light trailer (ATM 4500kg or less) to the trailer manufacturer's specifications. This can occur by comparison of another trailer model from the same manufacturer or by a letter from the trailer's manufacturer.

1.1 Certifications permitted under Code LS14

Light trailer modifications of the following types may be certified under Code LS14:

- Re-rating of a light trailer's ATM and/or GTM by comparing an alternative model of the same trailer manufacturer;
- Re-rating of a light trailer's ATM and/or GTM in accordance with a letter from the trailer's manufacturer for the particular trailer;
- Re-rating of a trailer's ATM and/or GTM by the original trailer manufacturer. *

***Note:** If the original trailer manufacturer re-rates the ATM and/or GTM of a registered trailer two options are available.

Option 1 is for the trailer manufacturer to fit an additional trailer plate (adjacent to the original trailer plate) to show the revised ATM and/or GTM rating. This is the preferred option.

Option 2 is to fit an LS14 modification plate (adjacent to the original trailer plate) meeting the requirements of this code.

1.2 Certifications not permitted under Code LS14:

Light trailer modifications of the following types must not be certified under Code LS14:

- ATM and/or GTM rating for a trailer which has been modified to change the registration category of the trailer e.g. semitrailer to dog trailer, pig trailer to dog trailer, semi to dolly, etc. Such trailers are regarded as newly manufactured;
- ATM and/or GTM re-rating outside of the trailer manufacturer's specifications;
- ATM and/or GTM re-rating of a trailer with an original ATM greater than 4500kg;

- Re-rating of a trailer's ATM and/or GTM to greater than 4500kg;
- Re-rating of a light trailer's ATM and/or GTM by comparing an alternative model of a different trailer manufacturer;
- Re-rating of a light trailer's ATM and/or GTM by comparing a trailer which has previously been re-rated under a modification code;
- Re-rating of a trailer's ATM/GTM based on trailer component specifications or a component manufacturer's specifications only (this requires LS12 modification code);
- Modifications to a trailer prior to first registration. ^

^Note: Modifications prior to first registration are not permitted under the LS14 modification code. For modifications prior to first registration please contact the trailer manufacturer or the Commonwealth Department of Infrastructure and Regional Development for information regarding Second Stage of Manufacture.

2.0 General Requirements

Typical changes involved in re-rating of ATM/GTM may include replacement of axle(s), suspension or braking system with alternative components which collectively may permit a different rating.

In some cases, re-rating of ATM/GTM may not involve physical changes. For example, where a letter is issued by the trailer manufacturer clearly indicates that no changes are required. This may also apply when a reference trailer (by the same manufacturer) is identical in all respects, thus requiring no changes. Care must be taken when comparing as some properties may not be obvious and evident.

In these instances, evidence must be retained to demonstrate that the trailer is identical to the manufacturer's letter or the reference trailer used for comparison.

Modified vehicles must continue to comply with the Australian Design Rules (ADRs) or Vehicle Standards Bulletin 1 (VSB-1) to which they were originally constructed.

2.1 Tyres and Wheel Rims

The sum of the load carrying capacities of the tyres and rims fitted to an axle or axle group must not be less than the load rating of that axle or axle group or the regulation mass limit on that axle or axle group, whichever is less.

Loading of the trailer to its ATM with load distributed normally, must not result in load on any tyre or rim exceeding its rated capacity.

For trailers manufactured to comply with ADR 24/..or ADR 42/.., the tyres and rims must be selected and must comply in all respects with the requirements of that ADR at the revised ATM rating.

Where a tyre placard is fitted to a trailer, this placard must be replaced with a new placard replicating the manufacturer's alternative model trailer or as specified in the manufacturer's letter for the revised ATM and/or GTM rating. The revised tyre size and load rating must also appear on the modification plate.

2.2 Chassis

The chassis of the modified trailer must be equivalent to the manufacturer's chassis material specification, reinforcement and cross-member installation for the reference trailer to which the modified trailer is being compared.

2.3 Tow coupling

The tow coupling fitted to a modified trailer must be adequate for the proposed ATM and the coupling installation must conform to the trailer manufacturer's specifications.

The drawbar of the trailer must be designed to withstand the forces specified in Vehicle Standard Bulletin 1 or ADR 62/..

2.4 Brakes

The complete braking system must be in good operating condition and identical to manufacturer's specifications.

2.5 Dimensions

The maximum dimensions of an individual trailer must not exceed the dimensions specified in VSB-1 or the current issue of ADR 43/..

2.6 Fabrication

All work must be performed in accordance with recognised engineering standards. Cutting, heating, welding or bending of components should be avoided by choosing unmodified production components wherever possible.

2.7 Welding, Fasteners and Electroplating

Mandatory requirements and guidance on the above items are contained in Section LZ *Appendices* of NCOP:

- For the use of fasteners refer to Appendix A *Fasteners*;
- For welding techniques and procedures refer to Appendix C *Heating and Welding of Steering Components*; and
- For electroplating refer to Appendix D *Electroplating*.

2.8 Mating Parts

Standard features such as splines, tapers and keyways must conform to published standards and their mating parts must conform to matching standards.

3.0 Manufacturer's Letter

Re-rating alternative option 1:

In this option a letter issued by the trailer manufacturer is required.

To be considered acceptable the manufacturer's letter must contain at least the following information:

- Trailer Manufacturer's details (i.e. manufacturer's letter head with contact information)
- Make and model of trailer
- Vehicle Identification Number (for the particular trailer being modified)
- Details of any physical changes required to be performed to the trailer (along with specific details of any components required and changes to tow ball rating)
- New ATM and GTM ratings
- Signed and dated by the trailer manufacturer

4.0 Comparison with a manufacturer's alternative model trailer

Re-rating alternative option 2:

When re-rating a trailer's ATM and/or GTM through the comparison of another trailer produced by the same manufacturer, the following evidence must be retained:

- VIN of the trailer which is being used for comparison
- Make/model of the trailer being used for comparison
- Photos of both trailer (including, but not limited to, trailer plates, suspension, brakes, side and front view of trailers) being used for comparison
- Any measurements or technical specifications of components compared

5.0 Compliance with applicable vehicle standards

Trailers modified under code LS14 must continue to comply with the applicable requirements of the *Transport Operations (Road Use Management—Vehicle Standards and Safety) Regulation 2021* and either the ADRs (if certified under a commonwealth identification plate) or VSB-1.

VSB-1 establishes a set of design and construction standards for road trailers (with an ATM of 4.5 tonnes or less) that operate as an alternative to the ADRs.

The standards in VSB-1 are based on the ADRs – but are simpler and more practical to use. They offer a low-cost alternative, by eliminating the need for some of the more expensive forms of vehicle testing and evidence that are required under the ADRs.

VSB-1 is available on the Department of Infrastructure, Transport, Regional Development and Communications website available at:

https://www.infrastructure.gov.au/vehicles/vehicle_regulation/bulletin/

Checklist LS14

CODE LS14: Re-rating of a Light Trailer Aggregate Trailer Mass/Gross Trailer Mass to Manufacturer's Specifications

Form No: LS14

Provide an answer to each of the following (Y=Yes, N=No)

Modification Certificate Number:		
1	General	
1.1	Have all details of the manufacturer's alternate model trailers or a letter from the trailer manufacturer been retained for future audit?	<input type="checkbox"/> Y <input type="checkbox"/> N
2	Chassis	
2.1	Does the chassis conform to the detail construction, section properties and cross-members of the comparison trailer's chassis or to any specified in the manufacturer's letter?	<input type="checkbox"/> Y <input type="checkbox"/> N
2.2	Are the trailer dimensions within the permitted maximum limits?	<input type="checkbox"/> Y <input type="checkbox"/> N
3	Brake system	
3.1	Is the trailer's entire braking system identical to the braking system of the reference trailer or manufacturer's specifications	<input type="checkbox"/> Y <input type="checkbox"/> N
4	Tyres and Rims	
4.1	Does the tyre placard (if fitted) record the correct tyre and rim sizes, axle configurations, axle loads and inflation pressures for the modified trailer?	<input type="checkbox"/> Y <input type="checkbox"/> N
4.2	Are tyres and rims fitted in conformance to the tyre placard?	<input type="checkbox"/> Y <input type="checkbox"/> N
4	Tow Coupling	
4.1	Does the tow coupling, tow coupling mounting and drawbar (if applicable) meet the requirements of VSB-1 or ADR 62/..?	<input type="checkbox"/> Y <input type="checkbox"/> N
5	Mechanical condition	
6.1	Is the trailer in satisfactory mechanical condition?	<input type="checkbox"/> Y <input type="checkbox"/> N

[Continued on the following page]

7	Workmanship	
7.1	Is the quality of the workmanship to a satisfactory standard?	<input type="checkbox"/> Y <input type="checkbox"/> N

Note: If the answer to any question is **N (No)** the modification cannot be certified under Code LS14.

CERTIFICATION DETAILS																
Make						Model						Year of Manufacture				
VIN																
Chassis Number (If applicable)																
Brief Description of Modification/s																
Vehicle Modified By																
Certificate Number (If applicable)																
Vehicle Certified By (<i>Print</i>)																
Signatory's Employer (If applicable)																
Signatory's Signature											Date	_____				