

Queensland Road Vehicle Modification Handbook

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Part 1 - Overview QRVM Handbook

1. Purpose

- The *Queensland Road Vehicle Modification Handbook* (QRVM Handbook) sets out the approved modification and certification codes that are as the minimum standards for vehicle modifications. The approved modification and certification codes are based on the Australian Design Rules (ADRs) and acceptable engineering practices for Queensland.
- The QRVM Handbook applies to in-service light and heavy vehicles. Approved modification and certification codes are outlined within their respective Approved code of practice.
- The QRVM Handbook also provides additional information and guidance for vehicle modifiers, certifiers, and owners on vehicle modifications and certifications to ensure compliance with the regulations and vehicle standards.

1.1 QRVM Handbook authority

- The QRVM Handbook is issued in accordance with Section 6(4) of the *Transport Operations (Road Use Management – Vehicle Standards and Safety) Regulation 2021* (<https://www.legislation.qld.gov.au/view/html/inforce/current/sl-2021-0114>).

1.2 How to use this Handbook

- The QRVM Handbook guides Approved Persons and vehicle owners to ensure compliance with vehicle standards and approved modification codes, as well as guidance on modifications that do not require certifications.
- The QRVM Handbook is also designed to supplement the recommendations of the original vehicle manufacturer for vehicle modification techniques or standards, and to provide guidelines where vehicle manufacturer's specifications do not exist.
- It is important to note that the requirements of the ADR and the original vehicle manufacturer's specifications take precedence over the QRVM Handbook and the list of Approved codes of Practice.
- Approved Persons must always ensure that the modifications comply with the Approved Codes of Practice, as well as all applicable ADR and original vehicle manufacturer's recommendations when available.

1.3 Approved code of practice

- The QRVM Handbook covers requirements for vehicles that do and do not require vehicle certifications.
 - The Approved codes of practice are divided into a number of sections which refer to specific modification codes (for both light and heavy vehicles).
1. Vehicle Standards Bulletin 14 (VSB 14): National Code of Practice for Light Vehicle Construction and Modifications (NCOP)
 2. Vehicle Standards Bulletin 6 (VSB 6): National Code of Practice Heavy Vehicle Modifications

3. Queensland Code of Practice: Vehicle Modifications (QCOP)
4. Modification Code S10 – Concessional Livestock Loading – Vehicle Rating

1.4 Approved codes of practice limitations

- Although the NCOP is an Approved code of practice, not all parts have been accepted for use in Queensland, with variations applied for certain sections. Information about these variations can be found within the following Queensland light vehicle specific Vehicle Standards Information:
 1. Engine modifications under the *National Code of Practice for Light Vehicle Construction and Modification* (<https://www.publications.qld.gov.au/dataset/vehicle-standards-instructions/resource/098422fd-cf3f-446d-8cde-ed6c729f8372>).
 2. Gas system installations under the *National Code of Practice for Light Vehicle Construction and Modification* (<https://www.publications.qld.gov.au/dataset/vehicle-standards-instructions/resource/bf11b1a2-8539-4a18-b1c6-8b7ec31ede42>).

1.5 Compliance with Australian Design Rules

- Modified vehicles must continue to comply with the applicable ADRs. If different or additional ADRs apply to the modified vehicle due to the modifications, the vehicle must also comply with these additional ADRs.
- The applicable ADRs are based on the vehicle's category and date of manufacture. It is the responsibility of the Approved Person certifying the modified vehicle to refer to the ADRs applicable to that vehicle.
- Modified vehicles, including pre-ADR vehicles, must comply with the applicable in-service requirements of the VSS Regulation.

1.6 Compliance with other legal requirements

- The QRVM handbook sets out the approved modification and certification codes that are as the minimum standards for vehicle modifications. It does not set out other legal requirements related to provision of professional engineering services within Queensland.
- All Approved Persons certifying modifications to road vehicles are bound by the Professional Engineers Act 2002 (PE Act)

2. Definitions

- Unless otherwise stated, words and expressions used in the QRVM Handbook have the same meanings as those defined in the *Transport Operations (Road Use Management) Act 1995* or the *Transport Operations (Road Use Management—Vehicle Standards and Safety) Regulation 2021*.

ADR means the Australian Design Rules, the national standards for vehicle safety, anti-theft and emissions.

AIS means an Approved Inspection Station

Approved Person means a suitably qualified and experienced individual accredited by The Department of Transport and Main Roads to inspect and certify vehicle modifications for light and/or heavy vehicles

ATM means the Aggregate Trailer Mass, the total mass of the laden trailer when carrying the maximum load recommended by the manufacturer

GVM means the Gross Vehicle Mass, the maximum laden mass recommended by the manufacturer

Heavy vehicle means a vehicle with a GVM or ATM over 4.5t

ICV means an Individually Constructed Vehicle

Light vehicle means a vehicle with a GVM or ATM up to 4.5t

NCOP means the Vehicle Standards Bulletin 14: National Code of Practice for Light Vehicle Construction and Modifications

NHVR means the National Heavy Vehicle Regulator

OVM means the Original Vehicle Manufacturer

QCOP means the Queensland Code of Practice: Vehicle Modifications

TMR means the Department of Transport and Main Roads

VSS Regulation means the *Transport Operations (Road Use Management – Vehicle Standards and Safety) Regulation 2021*

3. Vehicle modifications

3.1 Modification Categories

- Modifications fall into four categories, depending on their complexity. The level of approval required increases with the complexity and risk associated with the modification. These are **Minor**, **Basic**, **Complex** and **Specific**.

3.1.1 Minor modifications

- Minor modifications pose the **lowest risk to vehicle safety**, as such, many can be carried out without obtaining written approval from TMR or an Approved Person. Commonly, minor modifications involve the installation of an accessory (e.g. long-range aerial, tow bars, roof racks etc) and provided the vehicle continues to meet the VSS Regulation, do not require approval.
- For light vehicles, further information about minor modifications is available in the Minor Modifications Vehicle Standards Information (www.tmr.qld.gov.au/safety/vehicle-standards-and-safety/vehicle-standards/vehicle-standards-instructions).

3.1.2 Basic modifications

- Basic modifications are changes to a vehicle that are more significant than a minor modification, but not significant enough to require formal approval from an Approved Person or TMR.
- The technical requirements for basic modifications are provided in the NCOP and the QCOP. Any person performing a basic modification must ensure they meet all the requirements listed in the NCOP or QCOP as applicable, and any applicable requirements of the ADRs and the VSS Regulation.

3.1.3 Complex modifications

- Complex modifications such as engine upgrades, gearbox and rear axle changes, vehicle body modifications, and steering and brake replacements are significant modifications to a vehicle that **can affect the safety of the vehicle if not performed properly**.
- Complex modifications to light vehicles must be performed in accordance with a Queensland approved modification code and require certification by an Approved Person.
- Complex modifications not covered under any Approved code of practice may cause the vehicle to be non-compliant with vehicle standards. These modifications have the potential to seriously affect the safety of the vehicle and its operation on the road.

3.1.4 Specific modifications

- Specific modifications **fall outside the scope of the Approved Codes of Practice** and therefore cannot be certified by an Approved Person. As such, specific modifications must be approved by the Vehicle Standards Unit of TMR before being certified by an Approved Person. This approval will be provided in writing and must be produced when the vehicle is being inspected.
- The Motor Vehicle Modification Application form (F1854) must be used when applying to TMR for a specific modification. Please email the application form and your submission to vehiclestandards@tmr.qld.gov.au or send it to:
 - Vehicle Standards
Department of Transport and Main Roads
PO Box 673
Fortitude Valley QLD 4006
- Applicants should supply as much vehicle and engineering detail as possible to allow the modification to be assessed and avoid delays in processing of submissions.
- **Please note:** Applications to modify a vehicle outside the requirements of an approved code of practice will only be considered by TMR if there is a genuine operational need for the modification.
- The Vehicle Modification Application form above is available online at:
 - www.support.transport.qld.gov.au/qt/formsdat.nsf/forms/QF1854
- For further advice regarding vehicle modifications, contact TMR on 13 23 80 or by email below:
 - vehiclestandards@tmr.qld.gov.au.

4. Queensland approved modification codes

- The minimum standards for the design, fabrication and installation of modifications of in-service light and heavy vehicles are the standards stated in modification codes approved for use in Queensland. A modification to a vehicle covered by a Queensland approved modification code must be performed in accordance with the code.

4.1 Light vehicle modification codes

- Modification codes approved for use in Queensland for light vehicles includes modification codes under the following codes of practice:

4.1.1 Modification codes in NCOP

- A list of the Queensland approved modification codes for light vehicles in NCOP can be found in Appendix A – Vehicle Standards Bulletin 14 (VSB 14): National Code of Practice for Light Vehicle Construction or Modification (NCOP) (page 13).

4.1.2 Modification codes in QCOP

- A list of the Queensland approved modification codes for light vehicles in QCOP can be found in Appendix C – Queensland Code of Practice: Vehicle Modifications (QCOP) (page 19).

4.1.3 Specific Light Vehicle Tow Truck Modifications.

- Light Vehicle tow truck certification is performed under modification codes T1 and T2. *Vehicle Standards Bulletin 6 (VSB 6): National Code of Practice Heavy Vehicle Modifications* is permitted to certify tow truck modifications under the T1 and T2 sections. There are no other VSB6 modification codes permitted to certify light vehicles.

4.2 Heavy vehicle modification codes

- Modification codes approved for use in Queensland for heavy vehicles includes modification codes under the following codes of practice.

4.2.1 Modification codes in VSB 6

- A list of the Queensland approved modification codes for heavy vehicles in VSB 6 can be found in Appendix B – Vehicle Standards Bulletin 6 (VSB 6): National Code of Practice Heavy Vehicle Modifications (page 16).

5. Vehicle certification

5.1 Queensland approved certification codes

- Some vehicles that require certification may not address any specific modifications to a vehicle component. Instead, these vehicles require a full vehicle certification to certify the vehicle complies with applicable ADRs and vehicle standards under Queensland approved certification codes.
- Full vehicle certifications of light and heavy vehicles require certification by an Approved Person. An approved person must inspect the vehicles, and perform the certification, in accordance with a Queensland approved certification code. The approved codes are based on accepted vehicle engineering practices and the requirements of the ADRs.

5.2 Light vehicle certification codes

- Certification codes approved for use in Queensland for light vehicles includes certification codes within the following Approved codes of practice.

5.2.1 Certification codes in NCOP

- A list of the Queensland approved certification codes for light vehicles in NCOP can be found in Appendix A – Vehicle Standards Bulletin 14 (VSB 14): National Code of Practice for Light Vehicle Construction or Modification (NCOP).

5.2.2 Certification codes in QCOP

- A list of the Queensland approved certification codes for light vehicles in QCOP can be found in Appendix C – Queensland Code of Practice: Vehicle Modifications (QCoP).

5.3 Heavy vehicle certification codes

- Certification codes approved for use in Queensland for heavy vehicles includes certification codes within the following approved codes of practice.

5.3.1 Certification codes in VSB 6

- A list of the Queensland approved certification codes for heavy vehicles in VSB 6 can be found in Appendix B – Vehicle Standards Bulletin 6 (VSB 6): National Code of Practice Heavy Vehicle Modifications.
- Modification Code S10, standalone to VSB 6, can be found in Appendix D – Modification Code S10 – Concessional Livestock Loading - Vehicle Rating.

5.3.2 Certification codes in QCOP

- A list of Queensland approved certification codes for heavy vehicles in QCOP can be found in Appendix C – Queensland Code of Practice: Vehicle Modifications (QCOP).

6. Vehicle Standards Information Sheets

- Vehicle Standards Information (VSI) Sheets for light vehicles provide additional advice to enforcement officers, AIS, approved persons, bus operators and vehicle owners in Queensland on various issues. The VSIs provide guidance and advice on a range of vehicle standards. Every VSI is available on the TMR website at: <https://www.publications.qld.gov.au/dataset/vehicle-standards-information>
- The information and guidance provided in the following VSIs are to ensure that vehicle owners comply with regulations and vehicle standards when on the road.
- [Advertising signs and additional lighting fitted to a vehicle](#)
- [Change in seating position](#)
- [Driving lamps, including Light Emitting Diode \(LED\) light bars on light vehicles](#)
- [Engine modifications under the National Code of Practice for Light Vehicle Construction and Modification](#)
- [ESC testing on in-service light vehicles](#)
- [Ex-Australian Defence Force vehicles](#)
- [Front fog lamps and daytime running lamps](#)
- [Gas system installations under the National Code of Practice for Light Vehicle Construction and Modification](#)

- [Individually Constructed Vehicles](#)
- [Minor modifications](#)
- [Modifying wheel track](#)
- [Permanent and temporary removal of seats from light motor vehicles](#)

7. Motorcycle standards

- The Motorcycle Standards are a guide to keeping a motorcycle in a safe and legal condition. The Motorcycle Standards provide further guidance and advice covering the design, construction and legal modifications for motorcycles. The Motorcycle Standards are available online at: <https://www.tmr.qld.gov.au/Safety/Vehicle-standards-and-safety/Vehicle-standards/Motorcycle-standards>

8. Heavy Vehicle Standards Guides

- The NHVR provides Heavy Vehicle Standards Guides (VSG) that contain additional guidance and advice based on frequently asked questions and hot topics that may arise from time to time. The VSGs cover a range of issues regarding heavy vehicle standards and modifications. The VSGs are available from the NHVR website online at:
- <https://www.nhvr.gov.au/safety-accreditation-compliance/vehicle-standards-and-modifications/vehicle-standards-guides>.

PART 2 - Guidance for Vehicle Modifiers and Certifiers

9. Modifications outside an Approved code of practice

- Complex modifications not covered under any Approved code of practice may cause the vehicle to be non-compliant with vehicle standards. These modifications have the potential to seriously affect the safety of the vehicle and its operation on the road.
- If the modification outside an Approved code of practice is required due to an operational need for modification and there are no other alternatives, TMR or the NHVR may consider an application to modify the vehicle outside an Approved code of practice.
- For more information on modifications outside an approved code of practice for light vehicles, refer to Specific modifications (Section 3.1.4, page 4) of this Handbook.
- For more information on modifications outside an Approved code of practice for heavy vehicles, please visit the NHVR website at:
- <https://www.nhvr.gov.au/safety-accreditation-compliance/vehicle-standards-and-modifications/heavy-vehicle-modifications>

10. Provision of Professional Engineering Service

- The PE Act requires that anyone carrying out a professional engineering service in Queensland or for Queensland must meet high standards of professional practice and be registered as an RPEQ.
- Under the PE Act it is an offence for a person who is not a practising professional engineer to carry out professional engineering services, unless they are under the direct supervision of a practising professional engineer who is responsible for the service.
- Further to this, it is an offence for a person who is a person who is practising professional engineer to carry out professional engineering services in an area of engineering other than an area of engineering for which the person is registered under the Act, unless they are under the direct supervision of a practising professional engineer who is registered in the area of engineering and responsible for the services.
- The PE Act defines professional engineering service as:
 - "an engineering service that requires, or is based on, the application of engineering principles and data to a design, or to a construction or production activity, relating to engineering, and does not include an engineering service that is provided only in accordance with a prescriptive standards".
- It is the responsibility of the certifying Approved Person:
 - To be aware of the requirements of the PE Act.
 - To determine if any element of their certification amounts to a Professional Engineering Service as defined in the PE Act.
 - To ensure that they are registered with the Board of Professional Engineers Queensland (BPEQ) as an RPEQ, or
 - Ensure that they are directly and adequately supervised by a person who is registered as an RPEQ.

11. Business Rules for Approved Persons

- The *Business Rules for Approved Persons (Vehicle Modifications)* (Business Rules) provide the administrative requirements to be followed by an Approved Person in relation to, or regarding the certification of, light or heavy vehicle modifications. An Approved Person must comply with these requirements as a condition of their Approved Person accreditation.
- An Approved Person must always have an electronic or hard copy of the current Business Rules and Approved codes of practice while performing their duties as an Approved Person.
- The Business Rules are available online at:
- <https://www.tmr.qld.gov.au/business-industry/Accreditations/Approved-Person-Scheme/About-the-Approved-Person-Scheme>

12. Record keeping and documentation

- When performing a certification of a modification or a vehicle certification, it is important that all records and documents relating to the modification or certification are kept for auditing or investigation purposes. Records are also valuable as supporting evidence during any dispute or litigation after the certification is provided.

- Records can include, but are not limited to, drawings, calculations, test results, and copies of the appropriate issue of Australian Standards and ADRs. A copy of the records and documents must be provided to the vehicle owner, including any information or manuals for equipment or devices that may have been installed as part of the modification.
- Information in the owner's handbook must also be updated and the vehicle owner must be informed of these changes. This may include tyre, rim, and/or load capacity. If the owner's handbook is not available, a copy of the written details must be provided to the vehicle owner.
- Records must be kept as evidence that the vehicle was inspected and certified in accordance with the requirements in this handbook, that you meet your professional obligations to the community, and that the certified vehicle was safe for use on the road. Section 11.1 General Records provides direction as to the types of records that ought to be retained. This section should be read in conjunction with Section 3 of the Business Rules, which provides administrative requirements for record keeping, including retention periods, safe record storage and record accessibility.

12.1 General Records

- This section is a non-exhaustive list of the basic records that must be kept for all modifications.
- Vehicle records, including:
 - Make, Model, Build Year, VIN, Engine/Motor Model, Engine Number, Odometer Reading.
 - Manufacturer specifications of the standard (unmodified) vehicle.
 - Specifications of the modified vehicle.
- Vehicle owner/operator records, including:
 - Name, Address, Email address, Phone number of the vehicle owner/operator.
- Vehicle constructor/modifier records, including:
 - Name, Address, Email address, Phone number, Date of completion of construction/modification.
- Evidence of Certification, including:
 - modification certificate number, modification plate serial number (if fitted)
- Photographic records, including:
 - At least three images of the vehicle showing front, side and rear view of the vehicle
- Image/copy of the modification certificate

12.2 Specific record keeping requirements

12.2.1 Certifications provided by trade qualified APs

- This section is a non-exhaustive list of specific records that must be kept for all modifications that can be certified by trade qualified APs.
- In addition to the copy of the completed checklist and the items listed in Section 11.1 General Requirements, ensure you have the following specific evidence as records of your certification:
 - Photographs of the area of modification, before modification (if possible) and after modification.
 - All applicable test reports.

- Copies of the specifications, installation and servicing instructions of any major parts fitted and record of having provided the same to the customer.
- If the modification requires a design certification, a copy of the design package received from the AP Engineer.
- Completed checklist(s), as stated and required in the design package.
- Drawings, layouts, fitting and assembly instructions used.
- Key measurements, before and after modification.

12.2.2 Certification provided by AP Engineers

- This section is a non-exhaustive list of specific records that must be kept for all modifications that require certification by AP Engineers.
- In addition to the copy of the completed checklist and the items listed in Section 11.1 General Requirements, ensure you have the following specific evidence as records of your certification:
- Photographs of the area of modification, before modification and after modification. In case of design certification, these shall be on a sample or prototype vehicle modification.
- All applicable test reports.
- Copies of the specifications, installation and servicing instructions of any major parts to be fitted and record of having provided the same to the customer or AP certifying the modification.
- If this is a design certification, the design package created and the version of the design package provided to the AP certifying the physical modification.
- Copies of checklist(s), as stated and required in the design package.
- Drawings, layouts, fitting and assembly instructions used and technical standards referred to.
- Key measurements, before and after modification.
- If simulation techniques are used, validation of simulation results using physical testing
- If you are providing a professional engineering service and are registered as an RPEQ, then your RPEQ registration details must be recorded on your modification checklist and modification certificate.
- If you are providing a professional engineering service and are being supervised by an RPEQ, then their RPEQ registration details must be recorded on your modification checklist and modification certificate.

12.2.3 Certification provided for construction of vehicles

- This section covers all the codes that are used for construction of vehicles rather than modifications to production vehicles. (For example: LH11, LV1, LO2, LO4, LO5, LO7, LH9, LH10 and T2.)
- In addition to the copy of the completed check list and the items listed in Section 11.1 General Requirements, ensure you have the following specific evidence as records of your certification:
- Photographs of the vehicle at various stages of construction. At least three stages must be included.
- Test Reports as required in the modification code utilised.
- Copies of the specifications, installation and servicing instructions of all major systems fitted and record of having provided the relevant information to the customer.
- List of applicable ADRs, statements of compliance and the basis of compliance.

- Evidence of exemptions from specific ADR requirement.
- Drawings, layouts, fitting and assembly instructions used.
- Key measurements made.
- If you are providing a professional engineering service and are registered as RPEQ, then your RPEQ registration details must be recorded on your modification checklist and modification certificate.
- If you are providing a professional engineering service and are being supervised by an RPEQ, then their RPEQ registration details must be recorded on your modification checklist and modification certificate.

12.2.4 Certifications provided for specialty codes

- This section covers specialty codes LO1, LO3, LX1, S4, S5, S6, S10 and S13. In addition to the copy of the completed check list and the items listed in Section 11.1 General Requirements, ensure you have the following specific evidence as records of your certification:
 - Photographs of the area of modification, before modification (if possible) and after modification.
 - Test Reports, if applicable.
 - Copies of the specifications, installation and servicing instructions of any major parts fitted and record of having provided the same to the customer.
 - If the certification requires an engineering assessment, a copy of the engineering assessment from the AP Engineer or another professional engineer.
 - Completed check list(s), as stated and required in the specific approvals from the department.
 - Drawings, layouts, fitting and assembly instructions used.
 - Key measurements made.
 - If you are providing a professional engineering service and are registered as RPEQ, then your RPEQ registration details must be recorded on your modification checklist and modification certificate.
 - If you are providing a professional engineering service and are being supervised by an RPEQ, then their RPEQ registration details must be recorded on your modification checklist and modification certificate.
 - More information relevant to records and document keeping is available in the Business Rules for Approved Persons (Vehicle Modifications) through the website link in Section 10 (page 8).

Part 3 - Guidance for Vehicle Owners

13. Effects of modifying a vehicle

- Modifications to a vehicle can reduce vehicle safety, depending on the complexity of the modification. Low risk modifications, such as minor modifications and basic modifications do not require formal approval. However, such modifications must meet the Queensland vehicle standards and, if applicable, approved modification codes for use in Queensland.
- Complex modifications may adversely affect the safety of a vehicle if not performed correctly and hence must be certified by an Approved Person in accordance with an approved code of practice.
- As the vehicle safety levels can be reduced when modified, the modification could affect the vehicle owner's current insurance policy and premiums. An undeclared or illegal modification may result in the

insurer cancelling the policy or refusing to cover a claim. Prior to undertaking a modification, it is best to speak with the vehicle insurer on the effect on your policy.

13.1 Owners Handbook

- It is your responsibility as the vehicle owner to notify TMR of any changes as these are not updated automatically once a modification is complete.
- Records of the modification performed and/or certification of the modified vehicle must be kept by you as the owner and, if necessary, details recorded in your owner's handbook. You as the vehicle owner should ensure that the Approved Person provides the record of the modification and/or certification. The Approved Person must also update your owner's handbook, if necessary, or provide you as the vehicle owner any written details if your owner's handbook is not available. Examples of these details include the tyres, rims and load capacity.
- If a modification requires the installation of equipment or a device, you as vehicle owner should be appropriately informed by the Approved Person of the changes made to the vehicle and the proper use of the equipment or device installed. Information (name, address, and contact information) of the equipment or device manufacturer or distributor, operating instructions, instructions for regular inspection and maintenance, a copy of the installation guide, and service and spare parts guide must be provided to the vehicle owner, if applicable.
- Some modifications may require you as the vehicle owner to update the vehicle details with the Department of Transport and Main Roads (TMR). Modifications may include GVM upgrades, change in seating capacity or change in vehicle classification.

13.2 Transfer of vehicle

- If, as owner of the vehicle you transfer the ownership of your modified or certified vehicle, you should provide the new owner with a copy of the record of modification and inform them of any additional information recorded in the owner's handbook.
- If the owner's handbook was not available at the time, a copy of the information on specific details of the modification, if required, in written form should be provided to the new owner.

13.3 Registering a Queensland modified vehicle interstate

- Modification and certification approvals issued by a Queensland Approved Person may not be recognised in another state. If the vehicle owner is looking to register their Queensland modified and certified vehicle in another state, they should check with the local jurisdiction on registering the vehicle.

Appendix A

Vehicle Standards Bulletin 14 (VSB 14): National Code of Practice for Light Vehicle Construction and Modification (NCOP)

The *Vehicle Standards Bulletin 14 (VSB 14): National Code of Practice for Light Vehicle Construction and Modification (NCOP)* has been prepared by members of the Australian Motor Vehicle Certification Board Working Party in consultation with industry, user groups, government agencies and individuals with an interest in modifying light vehicles and/or building individually constructed light vehicles (ICVs).

NCOP is a 'live' document and will continue to be revised and updated as required. It must be noted that NCOP is currently not accepted by Queensland in full, with variations to some sections for use in Queensland. For further information, see the Approved codes of practice limitations (Section 1.4, page 2).

The *Vehicle Standards Bulletin 14 (VSB 14): National Code of Practice for Light Vehicle Construction and Modification (NCOP)* is available online. Every NCOP modification code is available on the Commonwealth Department of Infrastructure, Transport, Regional Development, Communications and the Arts website at:

<https://www.infrastructure.gov.au/infrastructure-transport-vehicles/vehicles/vehicle-design-regulation/rvs/bulletins/ncop>

The following are the approved modification codes in NCOP for use in Queensland:

Section LA - Engine (refer to the [VSIs for variation to the national version](#))

- **LA1:** Equivalent Engine Installation
- **LA2:** Performance Engine Installation
- **LA3:** Supercharger and Turbo Charger Installation
- **LA4:** Engine Modifications

Section LB - Transmission

- **LB1:** Transmission Substitution
- **LB2:** Rear Axle Substitution

Section LG - Brakes

- **LG1:** Brake System Conversion (Design)
- **LG2:** Brake System Conversion Section

Section LH - Body Modifications

- **LH1:** Roof Conversion (Design)
- **LH2:** Roof Conversion
- **LH3:** Modified Wheelbase Conversion (Design)
- **LH4:** Modified Wheelbase Conversion
- **LH5:** Vehicle Construction (Design)
- **LH6:** Vehicle Construction
- **LH7:** Body/Chassis Variants Conversion
- **LH11:** Campervan, Motorhome Conversion Section

Section LK - Seating and Occupant Protection

- **LK1:** Seat and Seatbelt Installation/Removal
- **LK2:** Seat and Anchorage Certification
- **LK6:** Child Restraint Anchorage Installation
- **LK8:** Construction and Installation of One-Off Roll-bars and Roll-cages by Individuals
- **LK9:** Design and Manufacture of Commercial Aftermarket Roll-bars, Roll-cages and Other Types of Roll Over Protection Systems (ROPS)
- **LK10:** Installation of Aftermarket Roll-bars, Roll-cages and ROPS Section

Section LM - Fuel Systems (refer to the [VSIs for variation to the national version](#))

- **LM1:** Fuel Tank Installation Section

Section LS - Suspension and Steering (refer to [QCOP for Queensland approved codes for high lift](#))

- **LS1:** LHD Vehicle Steering Conversion (Design)
- **LS2:** LHD Vehicle Steering Conversion
- **LS3:** Front Suspension and Steering Modification (Design)
- **LS4:** Front Suspension and Steering Modification
- **LS5:** Rear Suspension Modification (Design)
- **LS6:** Rear Suspension Modification

Section LV - Alternative Power

- **LV1:** Installation of Electric Drives in Motor Vehicles

The following are the approved certification codes in NCOP for use in Queensland:

Section LT - Test Procedures

- **LT1:** Beam and Torsion Tests
- **LT2:** Lane Change Manoeuvre Test
- **LT3:** Exhaust Emissions – IM240 Test
- **LT4:** Noise Test

Section LO - ADRs ICVs

- **LO1:** ADR Compliance
- **LO2:** ICV Passenger Cars and Derivatives
- **LO3:** Personally Imported Vehicle Compliance
- **LO4:** ICV LEM1 Tricycle
- **LO5:** ICV LEP1 Tricycle
- **LO7:** ICV Motorcycle

The following are the Appendices in NCOP that apply to all other Sections and Guidelines of NCOP:

Section LZ - Appendices

- **Appendix A:** Fasteners
- **Appendix B:** Foam Padding for Occupant Protection
- **Appendix C:** Heating and Welding of Steering Components
- **Appendix D:** Electroplating
- **Appendix E:** Proof of Compliance Utilising RAWs Guidelines and Procedures
- **Appendix F:** Summary of Emission Requirements for New Light Vehicles in Australia
- **Appendix G:** Safety Glazing Material and Applied Window Tinting

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Appendix B

Vehicle Standards Bulletin 6 (VSB 6): National Code of Practice Heavy Vehicle Modifications

The *Vehicle Standards Bulletin 6 (VSB 6) – National Code of Practice Heavy Vehicle Modifications* is the national standard for the most common modifications made to heavy vehicles. VSB 6 is a 'live' document and will continue to be revised and updated as required.

The *Vehicle Standards Bulletin 6 (VSB 6) – National Code of Practice Heavy Vehicle Modifications* is available online. Every VSB 6 modification code is available on the National Heavy Vehicle Regulator website at:

<https://www.nhvr.gov.au/safety-accreditation-compliance/vehicle-standards-and-modifications/vehicle-standards-bulletin-6>

The following are the approved modification codes in VSB 6 for use in Queensland:

Section A - Engines

- **A1:** Engine substitution
- **A2:** Air cleaner substitution or additional fitting
- **A3:** Turbocharger installation
- **A4:** Exhaust system alteration
- **A5:** Road speed limiter installation

Section B - Transmissions

- **B1:** Transmission substitution or additional fitting

Section C - Tail Shafts

- **C1:** Tail shaft alterations

Section D - Rear Axles

- **D1:** Rear axle installation
- **D2:** Differential substitution

Section E - Front Axle Steering Wheels & Tyres

- **E1:** Front axle installation
- **E2:** Steering alteration
- **E3:** Fitting of non-standard front wheel components

Section F - Suspension

- **F1:** Suspension substitution
- **F2:** Trailer suspension modifications

Section G - Brakes

- **G1:** Relocation of air brake components
- **G2:** Installation of trailer braking controls
- **G3:** Trailer brake system upgrade
- **G4:** Motor vehicle brake system certification

- **G5:** Fitting of auxiliary and endurance brakes
- **G6:** Fitting of air operated accessories
- **G7:** Brake system substitution / wheelbase extension
- **G8:** Trailer brake system upgrade (design)

Section H - Chassis

- **H1:** Wheelbase extension outside OEM options
- **H2:** Wheelbase reduction outside OEM options
- **H3:** Wheelbase alterations within OEM options
- **H4:** Chassis alteration
- **H5:** Trailer chassis modifications
- **H6:** Install approved front underrun protection
- **H7:** Design or manufacture aftermarket front underrun protection

Section J - Body Mounting

- **J1:** Body mounting
- **J2:** Fitting of truck-bus body
- **J3:** Fitting of roll-over or falling object protection system
- **J4:** Tipper bodies (design)

Section K - Cabin

- **K1:** Seating capacity alteration, seat, seatbelt and anchorage installation
- **K2:** Certification of seat and of seatbelt anchorage
- **K3:** Cabin conversion
- **K5:** Installation of wheelchair occupant restraint system
- **K6:** Child restraint anchorage installation

Section M - Fuel Systems

- **M1:** Fuel system alterations

Section P - Tow Couplings

- **P1:** Towbar and coupling installation other than fifth wheels and kingpins
- **P2:** Fifth wheel and kingpin installation

Section R - Vehicle Mounted Lifting Systems

- **R1:** Installation of vehicle mounted lifting systems
- **R2:** Wheelchair loader installation

Section S - Vehicle Rating

- **S1:** GVM/GCM re-rating
- **S2:** GVM re-rating (design)
- **S3:** GCM re-rating (design)
- **S7:** ATM/GTM re-rating
- **S8:** Motor vehicle road train rating

- **S9:** Prime mover B-double rating
- **S11:** Road train trailer rating
- **S12:** ATM/GTM re-rating (design)

Section T - Tow Trucks

- **T1:** Tow trucks (construction)
- **T2:** Tow trucks (design)

Appendix C

Queensland Code of Practice: Vehicle Modifications (QCOP)

The Queensland Code of Practice – Vehicle Modifications (QCOP) covers modifications which have been specifically designed for use in Queensland and is based on acceptable engineering practices. The QCOP is intended to supplement the recommendations of the original vehicle manufacturer in relation to vehicle modification techniques or standards and to provide guidelines where vehicle manufacturer’s specifications do not exist.

It is important to note that the requirements of the Australian Design Rules and the original vehicle manufacturer’s specifications take precedence over the QCOP. If there is a conflict between two approved codes in the QCOP and NCOP, the requirements of the approved code in NCOP takes precedence over the code in QCOP. Approved Persons must always ensure that the modifications approved under the QCOP comply with all applicable Australian Design Rules and original vehicle manufacturer’s recommendations when available. Vehicles modified in accordance with the QCOP must meet the administrative and technical requirements of the NCOP (for light vehicles) or the Heavy Code (for heavy vehicles).

The administrative requirements relating to the use of the approved codes of practice are found in the preface and introduction sections of the NCOP (for light vehicles) and the Heavy Code (for heavy vehicles). For modifications or general technical specifications not provided in the QCOP, vehicle owners and Approved Persons must comply with any relevant requirement in the NCOP (for light vehicles) and the Heavy Code (for heavy vehicles).

Any reference to approved codes of practice for a light vehicle refers only to the current versions of the QCOP or NCOP that are approved for use, by the Chief Executive of the Queensland Department of Transport and Main Roads, at the time the modification is certified. TMR reserves the right to remove a code from QCOP at any time.

Any reference to the Australian Street Rod Federation Queensland Street Rod LH9 or LH10 Guidelines, are a reference to the versions that are approved for use, by the Chief Executive of the Queensland Department of Transport and Main Roads, at the time the vehicle is certified.

The *Queensland Code of Practice: Vehicle Modifications (QCOP)* is available online. Every QCOP modification code, and a brief summary of QCOP amendments, is available at:

<https://www.publications.qld.gov.au/dataset/queensland-code-of-practice-vehicle-modifications-qcop>

The following are the approved modification codes for light vehicles in QCOP for use in Queensland:

Section LC - Vehicle Controls

- [LC1: Dual-controls for driver trainer vehicles \(Design\)](#)
- [LC2: Dual-controls for driver trainer vehicles \(Modification\)](#)
- [LC3: Vehicle controls for persons with a disability \(Design\)](#)
- [LC4: Vehicle controls for persons with a disability \(Modification\)](#)

Section LG - Brakes

- [LG3: Relocation of air brake components](#)
- [LG4: Non-standard brake system](#)
- [LG5: Fitting of auxiliary and endurance brakes](#)
- [LG6: Fitting of air operated accessories](#)

Section LH - Body Modifications

- [LH9: Street Rod Certification \(Concessional\)](#)
- [LH10: Street Rod Certification \(Full\)](#)

- [LH13: Chassis Alternation \(Design\)](#)
- [LH14: Chassis Alternation \(Modification\)](#)

Section LK - Seating and Occupant Protection

- [LK3: Light vehicle modifications for wheelchair accessibility](#)

Section LL - Motorcycles

- [LL1: Modifications to Motorcycle to convert into Motor Tricycle](#)

Section LR - Vehicle Mounted Lifting Systems

- [LR1: Installations of vehicle mounted lifting systems](#)

Section LS - Suspension and Steering

- [LS9: High Lift – Up to 150mm \(Design\)](#)
- [LS10: High Lift – Up to 150mm \(Modification\)](#)
- [LS11: Gross Vehicle Mass Re-rating](#)
- [LS12: Light Trailer Modifications](#)
- [LS14: Re-rating of Aggregate Trailer Mass \(ATM\)/Gross Trailer Mass \(GTM\) of a Light Trailer to Manufacturer's Specifications](#)
- [LS15: Gross Vehicle Mass Rating of Light Vehicles](#)
- [LS16: Gross Combination Mass Re-rating](#)

Section LX – TMR Individual Approval

- [LX1: Modification of Light Vehicles to TMR Individual Approval](#)

Section S – Vehicle Rating

- [S4: Gross Vehicle Mass Rating – Rigid Omnibus](#)
- [S5: Gross Vehicle Mass Rating – Articulated Omnibus](#)
- [S6: Omnibus Licencing Evaluation](#)
- [S13: Bus Life Vehicle Ratings](#)

A brief summary of amendments made to the QCOP is [available here](#).

Appendix D

Modification Code S10 — Concessional Livestock Loading - Vehicle Rating

In addition to VSB 6, *Modification Code S10 – Concessional Livestock Loading – Vehicle Rating* is a recognised standard for vehicles modified and certified in Queensland. The standard is used to determine the suitability of a vehicle to be used for the carriage of livestock, ensuring that the manufacturer's ratings are not exceeded when the vehicle is loaded with fuel, water, livestock, and any other weight when distributed appropriately.

The S10 certification code and checklists for the different vehicle types is available online on the National Heavy Vehicle Regulator website at:

<https://www.nhvr.gov.au/safety-accreditation-compliance/vehicle-standards-and-modifications/heavy-vehicle-modifications>

The S10 certification code is to be read in conjunction with the current version of the Queensland Class 3 Livestock Loading Exemption Notice, available online on the National Heavy Vehicle Regulator website at:

<https://www.nhvr.gov.au/files/c2019g00126-qld-class-3-livestock-loading-exemption-notice-2019-no2.pdf>