Vehicle Standards Instruction (VSI) Light 2.3

Individually Constructed Vehicles (ICVs)

Updated July 2020

1. Introduction

This Vehicle Standards Instruction (VSI) has been produced by the Department of Transport and Main Roads (TMR) to explain the process of designing, constructing, certifying and registering an Individually Constructed Vehicle (ICV).

2. What is an ICV?

VSB-14 defines an ICV as:

"*An Individually Constructed Vehicle is a vehicle that is not a Production Vehicle or a Modified Production Vehicle. An ICV is a unique, one-off homemade vehicle, specially designed and constructed by a person for his/her use. The term ICV may also be used to describe a vehicle that has been modified beyond the category of Modified Production Vehicle.*"

Definitions of the terms *Production Vehicle* and *Modified Production Vehicle* are also provided in VSB-14.

In Queensland, certain kit cars and replicas of certain production cars are also treated as ICVs.

3. What is Not an ICV?

By its definition, an ICV does not include a production vehicle or modified production vehicle.

As further clarification, a vehicle built on or adapted from the floor pan or chassis frame of a production vehicle (that is normally known to carry the production vehicle's identifier) is not an ICV.

Similarly, a vehicle built using a production body-in-white (that is, a production body without identifier) whether an Original Vehicle Manufacturer (OEM) or aftermarket body or using a body/chassis frame sourced from (a) a statutory write off vehicle or (b) an imported vehicle (that is not otherwise supplied to Australian market) is not an ICV.

4. Standards Applicable to ICVs

ICVs must comply with LO1 code of VSB-14, and this must be verified using the appropriate checklist provided in LO section of VSB-14.

For example:
Checklist LO1-3 - ICV Motor Vehicle Checklist (ADR Category MA, MB and MC)
Checklist LO7 ICV Motor Cycle

An ICV is considered a new vehicle and all ADRs applicable to its category on the date when the ICV is being certified apply, unless specific exemptions are granted.

5. Standards Exemptions Applicable to ICVs

ICVs must be designed and constructed to comply with all the ADRs that apply to them at the point of certification. However, considering that ICVs are one-off vehicles, they are exempt from having to show formal evidence of compliance to following ADRs, provided the relevant conditions are met:

5.1. Occupant Protection standards ADR 69/…, ADR 72/…, ADR 73/…, ADR85/… provided a warning label is affixed prominently in front of the front passenger and driver stating;

"This vehicle has not been tested to Australian Design Rules 69/00 Full Frontal Impact Occupant Protection, 72/00 Dynamic Side Impact Occupant Protection, 73/00 Offset Frontal Impact Protection, 85/00 Pole Side Impact Performance. It may not provide the same level of safety as a production vehicle fitted with such safety systems".

Note that ICVs are not exempt from ADR 29/… and if no side doors are fitted, the design features to meet the intent of ADR 29/… must be included.

5.2. Electronic Stability Control (ESC) System standard in ADR 88/… and Brake Assist System standard in ADR 89/… provided a warning label is affixed prominently in front of the front passenger and driver stating;

"This vehicle has not been tested to Australian Design Rules 88/00 Electronic Stability Control and 89/00 Brake Assist Systems. It may not provide the same level of safety as a production vehicle fitted with such safety systems".

5.3. Emission Control standards in ADR 79/… provided the vehicle is shown to comply with ADR 37/01 for petrol engines and ADR 30/00 for diesel engines.

5.4. Vehicle Marking standards in ADR 61/… provided the vehicle meets all the requirements of that standard except the requirement to have an identification plate/label fitted.

It is important that the AP Engineer advises the vehicle owner of any ADRs which may potentially change during the construction process, as it may be several years before the vehicle is ready for certification.

6. Design of an ICV

The design of a safe and complying ICV is a complex undertaking and may involve provision of Professional Engineering Service, as defined in the Professional Engineers Act 2002. In Queensland, to provide Professional Engineering Services, it is a requirement under that Act that the person must be either a Registered Professional Engineer of Queensland (RPEQ) or must be directly supervised by someone who is a RPEQ. While the matter of deciding if a service is or is not a Professional Engineering Service is left to the AP Engineer, TMR will consider reporting any breaches of the Act that it becomes aware during regular audits to the Board of Professional Engineers of Queensland (BPEQ).

7. Construction of an ICV

An ICV construction should be undertaken only by persons with satisfactory skills. The construction, in addition to complying with the design specifications, must adopt good engineering practices and clearly reflect high quality of workmanship.

Stage inspections will need to be conducted by the certifying AP Engineer and evidence, in the form of photos, reports and corrective actions issued must be retained. The stage inspection requirements will vary on each ICV build and dependent on the complexity of the specific vehicle being built. The AP engineer should consult with the ICV builder as to proposed stage inspections.

8. Build number

Before a formal surrogate VIN is assigned to an ICV, an ICV must be assigned a unique Build Number by the certifying AP Engineer. The Build Number is to be stamped on a substantial part of the vehicle, like frame or firewall of the body shell. The build number ensures the vehicle, associated paperwork and inspections can be tracked and retrieved more easily throughout the design, construction and testing process. The build number will also assist if a vehicle is sold part way through construction. TMR does not prescribe any particular format for the ICV Build Number.

9. Registering an ICV

Registration of an ICV involves three steps.

Step 1 - Submit the ICV Completion Report to TMR Vehicle Standards to obtain (a) a surrogate VIN and (b) an exemption permit for not fitting an identification plate. At this stage, the ICV should be ready for certification to appropriate LO code, except that the modification plate and identification certificate will be awaiting the surrogate VIN. The ICV Completion Report must include an image of the completed LO Modification Plate. It should show, on a removable decal, the Build Number, in place of VIN.

Note - for more details about the ICV Completion Report, see Appendix A.

Step 2 - Once the surrogate VIN is obtained, it should be clearly and legibly stamped to a relatively permanent part of the vehicle, such as chassis frame or firewall, at a location that is clearly visible. The characters of the VIN must be:

(i) at least 7mm high on all motor vehicles other than motorcycles;
(ii) at least 4mm high on motorcycles; and
(iii) legible, uniform, in one line and without any gap or space between the characters. Binding asterisk markings are optional (*VIN*)

Complete the LO Modification Plate by replacing the Build Number decal with the clearly and legibly stamped surrogate VIN. The VIN should be legible, uniform, in one line and without any gap or space between the characters. Binding asterisk markings are optional (*VIN*). The completed Modification Plate should be fitted to the ICV, preferably adjacent to the stamped VIN and the Build Number. The Modification Plate should be clearly visible. At this stage, a modification certificate should be completed and issued to the vehicle owner.

Step 3 - Once Step 1 and Step 2 above are completed, the ICV may be registered.
Since an ICV is considered a new vehicle, normally a Safety Certificate is not required, unless the certifying AP Engineer has requested one.

TMR Customer Service Centre may request to sight one or more of the following:

1. ADR Exemption Permit
2. LO Modification Certificate
3. LO Modification Plate

10. Modifying an ICV after approval

Once an ICV is approved and registered further modifications may be performed. If so, they must be certified under an approved code of practice prescribed by the *Transport Operations (Road Use Management - Vehicle Standards and Safety) Regulation 2010*. Some limitations may apply.

Additional Information

National Code of Practice for Light Vehicle Construction and Modification (Vehicle Standards Bulletin 14)
http://www.infrastructure.gov.au/roads/vehicle_regulation/bulletin/index.aspx

Transport Operations (Road Use Management—Vehicle Standards and Safety) Regulation 2010
http://www.legislation.qld.gov.au/LEGISLTN/CURRENT/T/TrantOpRUVSSR10.pdf

Third Edition Australian Design Rules
http://www.infrastructure.gov.au/roads/motor/design/adr_online.aspx

Australian Standards
http://www.saiglobal.com/online/

Professional Engineers Act 2002
https://www.legislation.qld.gov.au/LEGISLTN/CURRENT/P/ProfEnginA02.pdf

Form F5050 - Individually Constructed Vehicle Completion Certificate
http://www.support.transport.qld.gov.au/qt/formsdat.nsf/Forms/QF5050

Appendix-A

ICV Completion Report

An ICV Completion Report must contain, as a minimum, the following:

Note: In place of VIN, insert the Build Number of the ICV

1. A brief signed statement for each applicable ADR, explaining how the ICV complies with the ADR requirements. While photographs can help clarify the statements, they are not an adequate replacement for clear and concise statements in text. Each statement document must refer to the Build Number of the ICV.
2. Copies of the test reports, where compliance is established by conducting tests. All test reports must refer to the Build Number of the ICV, except where the report is of generic kind and covers the particular ICV Build Number.
3. Copies of the stage inspections carried out by the AP Engineer at various stages. While photographs can help clarify the statements, they are not adequate replacement for clear and concise statements in text. All reports must refer to the Build Number of the ICV.
4. A photo of the completed LO Modification Plate. The plate must show a decal with the Build Number in place of the VIN.
5. A photocopy of the completed LO Modification Certificate, annotated with the Build Number in place of the VIN.
6. A completed and signed Index Sheet. An example template is below.
7. Completed appropriate checklist for the LO Modification Code.
8. Individually Constructed Vehicle Completion Certificate (Form F5050).
9. Any other documents relevant to the design and construction of the ICV.
10. All photographs attached must clearly show, as far as possible, the Build Number displayed in them.

Template for Index Sheet

Ref Number	Document Description	Confirmation by AP Engineer	TMR Check	Remarks
for example, *1. ADR number, or* *2. Test Report number, or* *3. Stage Inspection Report number*	*Describe here what the document is about.* *for example,* *1. ADR 1/00 statement, or* *2. Noise test report, or* *3. Stage inspection report, or* *4. LO checklist*	Yes / No	Yes / No	*Free text comment*
Signature of Approved Person Date / / Full name of Approved Person (printed)			*Signature of TMR officer* Date / /	