



NHVR Code of Practice for the Approval of Heavy Vehicle Modifications

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Revision history

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Please note: While every attempt has been made to ensure the accuracy of the content of the NHVR Code of Practice for the Approval of Heavy Vehicle Modifications, it should not be relied upon as legal advice.

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1 Introduction

The *NHVR Code of Practice for the Approval of Heavy Vehicle Modifications* (the NHVR Code) sets out the National Heavy Vehicle Regulator's (NHVRs) framework for the approval of modifications made to heavy vehicles.

Under the *Heavy Vehicle National Law* (HVNL), a modification is defined as adding a component to, or removing a component from, a vehicle or making any change to the vehicle that results in the vehicle departing from the manufacturer's specifications. Modifications made and approved under the Federal Second-Stage-of-Manufacture scheme however, are not modifications for the purposes of the HVNL.

This definition covers a broad range of potential modifications, from the installation of accessories through to complex changes that have potential major impacts on critical vehicle safety systems. Given the broad range of modifications covered, it is critical that the NHVR's modification framework is risk-based and does not impose excessive requirements that adversely affect the heavy vehicle industry.

To create the right balance, the NHVR has adopted a framework that matches the safety-risk posed by a modification with an appropriate level of assessment and certification. The structure of this framework is outlined in Section 3 Classification of modifications of the NHVR Code.

2 Application

2.1 Authorisation

This code is the *NHVR Code of Practice for the Approval of Heavy Vehicle Modifications* prescribed by Section 12 of the *Heavy Vehicle (Vehicle Standards) National Regulation* (the Regulation) for the purposes of Sections 85, 86 and 87 of the HVNL.

The NHVR Code commenced on 1 September 2018.

2.2 Definitions

Unless otherwise stated, words and expressions used in the NHVR Code have the same meanings as those defined in the HVNL.

2.3 Resolution of conflict

Given the interaction between the HVNL, the NHVR Code and recognised modification standards, situations may arise where conflicts between these instruments exist. Where such a conflict exists, the requirements of the HVNL are to prevail in the first instance. Where the HVNL is not applicable, the requirements of the NHVR Code prevail.

2.4 Applicability

From time to time, a recognised modification standard may be updated or amended. To remove any doubt, the version of a recognised modification standard that applies to a modification is the version that applies at the date the modification is certified.

3 Classification of modifications

The NHVR's modification framework creates three categories of modifications (minor, common and complex modifications), each with different assessment and certification requirements.

3.1 Minor modifications

The HVNL allows for the NHVR Code to establish types of modifications that do not require approval, these are referred to as minor modifications.

The NHVR has determined that minor modifications do not require approval provided:

- the vehicle continues to be within manufacturer's specifications; and

- complies with the Regulation

Minor modifications include:

- the fitting of optional accessories
- the fitting of accessories that do not affect the safe operation of the vehicle
- any other type of modification determined by the NHVR to be a minor modification.

For routine, minor modifications, the NHVR may provide guidance material, such as Vehicle Standards Guides (VSGs), to assist operators and modifiers understand the requirements of the *Australian Design Rules* (ADRs) and the Regulation and provide advice on how to ensure a vehicle remains compliant.

Section 85(3) of the HVNL provides for minor modifications.

3.2 Common modifications

Common modifications, as the name suggests, are modifications that are regularly performed to heavy vehicles and are well understood by regulators and industry. Common modifications can be assessed and certified by an appropriately qualified and accredited Approved Vehicle Examiner (AVE) if the modification complies with a recognised modification standard adopted by Section 4 of the NHVR Code.

Section 86 of the HVNL provides for common modifications.

3.3 Complex modifications

Complex modifications, for the most part, are unique modifications performed to allow a heavy vehicle to carry out a particular task or function. Due to their unique nature, complex modifications require assessment and approval by the NHVR on a case-by-case basis.

As part of the assessment and approval process, the NHVR may require a person applying for approval to engage the services of a professional engineer (registered with a professional registration body) to carry out an engineering assessment of the vehicle and modifications. Inspection of the modification by an AVE or State or Territory Transport Agency may also be required.

Section 87 of the HVNL provides for complex modifications.

4 Recognised modification standards

The NHVR acknowledges there are a number of established modification standards, including a national code of practice and state specific codes, that are well understood and used by the heavy vehicle industry. As such, the NHVR has accepted several of these standards as suitable for use by AVEs when assessing and certifying modifications under Section 86 of the HVNL.

The national modification standard recognised by the NHVR's Code is *Vehicle Standards Bulletin 6 (VSB6): National Code of Practice for Heavy Vehicle Modifications*, as published and adopted by the NHVR. VSB6 includes all administrative and technical sections and is available online at www.nhvr.gov.au/VSB6.

The state specific modification codes recognised by the NHVR are detailed below.

4.1 Queensland stand-alone modification codes

In addition to VSB6, the following modification code is also a recognised standard for vehicles modified and certified in Queensland:

- Modification Code S10: Concessional Livestock Loading – Vehicle Rating [Version 2.0 July 2019]

Further information about these is available from the Queensland Department of Transport and Main Roads.

4.2 South Australian activity codes

In South Australia, AVEs may be requested by the Department of Planning, Transport and Infrastructure to assess a heavy vehicle that does not have an identification (compliance) plate for compliance with the heavy vehicle safety standards. This assessment, carried out under the Z1 or Z2 activity codes, is not a modification or certification for the purposes of the HVNL or the NHVR Code.

Further information about these assessments is available from the South Australian Department of Planning, Transport and Infrastructure.

5 Approval of modifications

For minor, common and complex modifications, the HVNL sets out clear requirements for how a modification must be approved.

5.1 Minor modifications

Minor modifications do not require approval provided the heavy vehicle continues to be within manufacturer's specifications and complies with the Regulation.

5.2 Common modifications

Section 86 of the HVNL allows an AVE to approve a common modification to a heavy vehicle if the modification complies with the NHVR Code. If an AVE approves a common modification under Section 86 they must:

- affix an approved modification plate/label to the vehicle; and
- give an approved modification certificate to the registered operator or owner of the vehicle; and
- ensure any necessary evidence required by the AVE scheme, under which the person is approved or accredited, is retained.

While an AVE must comply with the requirements set out in the NHVR Code for a modification, these are the minimum requirements that apply. The NHVR relies upon the experience and qualifications of AVEs to ensure the safety of modified vehicles. To do this, an AVE may require a modification to meet standards higher than those specified in the NHVR Code. An AVE may also have obligations under their accreditation or approval to perform and retain certain calculations, simulations or assessments at various points during the modification process.

The NHVR strongly recommends that a person proposing to modify a heavy vehicle engage with an AVE prior to undertaking any design or modification work to ensure the completed modification will meet certification requirements. This will ensure the modification and certification process is efficient and cost effective.

5.3 Complex modifications

Section 87 of the HVNL allows the NHVR to approve a modification to a heavy vehicle. Prior to approving a complex modification, the HVNL requires that the NHVR is satisfied that:

- using the modified vehicle on a road will not pose a significant safety risk; and
- the modified vehicle will comply with all relevant noise and emission requirements, other than those for which an exemption has been issued.

To assess a proposed modification against these requirements, and to ensure that any modification would be performed in accordance with good engineering practice, the NHVR may require the applicant to provide any necessary information which may include engineering designs and reports, simulations, test results or photographs.

If the NHVR decides to approve a complex modification under Section 87, we will issue a Statement of Requirements that outlines:

- the modifications that are approved
- the technical requirements that must be met; and
- the conditions of the approval.

Every modification approval issued will be subject to a condition that it must be inspected by either an AVE or State/Territory Transport Authority to ensure the modification complies with the NHVR's approval. If the person inspecting the modification confirms that it complies, the inspecting officer will:

- affix an approved modification plate/label to the vehicle; and
- give an approved modification certificate to the registered operator or owner of the vehicle; and
- ensure any necessary evidence required by the AVE scheme, under which the person is approved or accredited, is retained.

Given the unique nature of complex modifications, the NHVR strongly recommends that a person modifying a heavy vehicle does not commence any complex modification until a Statement of Requirements has been received. It is also strongly recommended that a professional engineer registered with a professional registration body is engaged to provide services and advice on any proposed complex modifications.

Complex modification certificates are approved under the HVNL and are recognised in all participating jurisdictions.

6 Modification certificates and plates/labels

When a common or complex modification is approved an AVE or State/Territory Transport Authority, an approved modification certificate must be issued and an approved modification plate/label affixed. Modification certificates and plates/labels are currently produced by each State or Territory and are approved by the NHVR. An AVE must use the certificate and plates/labels produced by the State or Territory Transport Authority who accredits them as an AVE.

To promote consistency in the content of modification certificates and plates/labels, the NHVR recommends that the following content be included, as a minimum:

6.1 Modification certificate

A modification certificate should contain, but is not limited to, the following:

- the name, address and telephone contact details of the AVE/ jurisdiction.
- a unique certificate number which may consist of the registered number of the AVE/ jurisdiction followed by a sequential number
- the unique modification plate/label number that was issued for the modification (if applicable)
- the date of examination
- a signed statement to the effect that:
 - if the modification was approved under Section 86 by an AVE, that the vehicle has been personally examined and continues to comply with the heavy vehicle standards and the modifications have been carried out in accordance with VSB6.
 - if the modification was approved under Section 87 by the NHVR, that the vehicle has been personally examined and the modification has been carried out in accordance with the Statement of Requirements.
- a listing of:
 - for Section 86 modifications, the particular modification codes that have been certified; or
 - for Section 87 modifications,
 - the equivalent VSB6 modification codes, prefaced by the letter 'H' for heavy vehicle or,

For example, a complex modification which included a suspension substitution, that has been approved under Section 87 would be listed as 'HF1'.
 - where there is no equivalent modification code, use the applicable VSB6 section, prefaced by the letter 'H' for heavy vehicle.

For example, a complex modification to the brakes that has been approved under Section 87 would be listed as 'HG'.
- the affected ADRs.
- details of the vehicle:
 - owner/operator's name
 - owner/operator's address

- vehicle registration number (if applicable)
- a description of the vehicle, including the make, model and body type
- the vehicle's identifying details, including the date of manufacture and VIN or chassis number
- the vehicle's engine details, including the engine number and capacity (if applicable)
- the vehicle's rating information, including GVM and GCM or ATM and GTM, and any relevant multi-combination ratings (as applicable)
- a general description of the nature of the modifications.

Despite the above requirements, existing modification certificates currently used by jurisdictions are acceptable to the NHVR. However, where a new certificate is to be introduced or an existing certificate is to be re-printed, revised or amended, this new certificate should meet the requirements above as far as practicable.

6.2 Modification plate or label

A modification plate/label should contain, but is not limited to, the following:

- a unique modification plate/label number
- the unique modification plate/label number that was issued for the modification
- the name or registration/reference number of the AVE
- VIN/Chassis number
- engine number
- seating capacity
- tyre size for both the front and rear
- the modified GVM/ GCM/ GTM/ ATM (kg) (if applicable)
- the date the plate/label was issued
- a listing of:
 - for Section 86 modifications, the particular VSB6 modification codes that have been certified; or
 - for Section 87 modifications,
 - the applicable VSB6 modification codes, prefaced by the letter 'H' for heavy vehicle; or,

For example, a complex modification which included a suspension substitution, that has been approved under Section 87 would be listed as 'HF1'.
 - where there is no applicable modification code, use the applicable VSB6 section, prefaced by the letter 'H' for heavy vehicle.

For example, a complex modification to the brakes that has been approved under Section 87 would be listed as 'HG'.
- the affected ADRs.

Despite the above requirements, existing modification plates/ labels currently used by jurisdictions are acceptable to the NHVR. However, where a new modification plate/ label is to be introduced or an existing modification plate/ label is to be re-printed, revised or amended, this new modification plate/label should meet the requirements above as far as practicable.

7 Approved Vehicle Examiners

Approved Vehicle Examiners (AVEs) are persons or organisations that are approved or accredited to approve modifications to heavy vehicles. At the current time, the NHVR recognises AVEs who are approved or accredited by the Transport Authority of each participating jurisdiction (Qld, NSW, ACT, Vic, Tas and SA) to approve heavy vehicle modifications.

As people authorised by the NHVR to provide advice on, assess and approve modifications, AVEs play an important role in ensuring the safety of heavy vehicles and as such, have a number of responsibilities under both the HVNL and the AVE scheme under which they are approved or accredited.

7.1 Responsibilities of AVEs

At all times, an AVE must comply with all obligations imposed under the HVNL, an Australian Road Law, the NHVR Code, a recognised modification standard and the terms or conditions of their accreditation or approval.

7.2 Modifiers from non-participating jurisdictions

From 28 February 2020, the HVNL recognises modification approvals issued in non-participating jurisdiction (WA and NT).

To be recognised under the HVNL, a modification approval must:

- have been issued by either the State or Territory Transport Agency, or a modifier who is accredited or approved by that Agency; and
- be in accordance with the version of VSB6 current at the time of modification; and
- have a modification plate/label affixed.

If a modifier from a non-participating jurisdiction wishes to approve modifications to vehicles that operate in participating jurisdictions, the person must do so in accordance with the requirements for approving heavy vehicle modifications in their jurisdiction. Alternatively, they may choose to obtain approval or accreditation in an AVE scheme of a participating jurisdiction.

8 Recognition of modifications certified prior to HVNL

The HVNL allows for recognition of modifications that were assessed and certified prior to implementation (10 February 2014) if they correspond to the requirements of the HVNL.

The NHVR has determined that provided a modification meets the following requirements, it is considered to be corresponding and accepted under the HVNL:

- the modification was authorised under an Australian road law; and
- the vehicle was fitted with a modification plate/label confirming the certification of the modification; and
- the modification was carried out and certified in accordance with the version of VSB6 current at the time of modification.

If a modification meets these requirements, it is considered as if it was approved under the HVNL and is recognised in all jurisdictions.

Modifications carried out prior to the implementation of the HVNL that do not meet the above requirements may still be eligible for transfer of registration within the jurisdiction where the modification was performed provided that the modification was appropriately certified and meets the recognised modification standards that were in force at the time the modification was made.

Where a modified vehicle does not meet the above, the vehicle must be certified in accordance with the NHVR Code.