



NATIONAL CODE OF PRACTICE

VSB6

Heavy Vehicle
Modifications

CHANGE TABLE

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General Changes

Formatting (General)

- General formatting changes made to correct existing issues.
- Multiple diagrams replaced with new versions.
- Applied minimal set of MS Word styles consistently.

Introduction

Overview

- Amended government departments
- Re-order of legislation, design rules and standards

Section A - Engines

Overview

- Amended reference in related standards from code K4 to K3.

Section B - Transmission

B1-Transmission substitution or additional fitting

- Include reference to vehicle on the Register of Approved Vehicles (RAV).

Section C – Tail shaft

C1-Tail Shaft Alterations

- Added note that the information relating to calculations is applicable to steel tubular tail shafts. For tail shafts manufactured from other materials please contact the tail shaft manufacturer.

Section D – Rear axle

D-Overview

- Additional related ADRs added.

D3-Fitting of non-standards rear wheel components

- Additional related ADRs added.
- Included clarification wheel spacers are not permitted unless originally fitted by the vehicle manufacturer.
- Additional ADRs added throughout code.
- Included note “When converting from a dual wheels to single wheel arrangement ensure tyre pressure specified correlates with the load rating as per the Tyre and Rim Association of Australia.”
- Included note “Some vehicles are required to have dual tyre fitted to the rear axle e.g. Tow trucks, single axle non-all-wheel drive omnibuses, etc”

Section E – Front axle, steering, wheels and tyres

E-Overview

- Additional related ADRs added.

E2-Steering alteration

- Additional related ADRs added.

- Included note “ADR 90/.. also provides guidance on steering systems that can be followed when modifying a vehicle’s steering.”

E3-Fitting of non-standard front wheel components

- Additional related ADRs added.
- Included clarification that wheel spacers are not permitted to be fitted unless originally fitted by the vehicle manufacturer.
- Included note that when fitting non-standard tyres ensure tyre pressure specified correlates with the load rating as per the Tyre and Rim Association of Australia.
- Additional ADRs added throughout code.

Section F - Suspension

F1-Suspension Substitution

- Include reference to the component type approval system.

F2-Trailer Suspension Modifications

- Include reference to vehicle on the Register of Approved Vehicles (RAV) and component type approval system.

Section G - Brakes

G-Overview

- Corrected G2 description from prime mover to heavy motor vehicle.

G2-Installation of trailer brake controls

- Amended reference from prime mover to heavy motor vehicle

G3-Trailer brake system upgrade

- Include new dot point under modifications covered section “Trailer brake system upgrade according to a design certified in accordance with VSB6 Modification Code G8”
- Include reference to vehicle on the Register of Approved Vehicles (RAV)

G4-Brake System Certification

- Reordered test requirements and added additional text for clarification “Abridged ADR 35/.. Test Procedure” is taken to be satisfying all applicable requirements of ADR 35/.. (by normal methods) apart from the following tests, which can be excluded:”
- Include reference to vehicle on the Register of Approved Vehicles (RAV)

G6-Fitting of air operated accessories

- Include reference to vehicle on the Register of Approved Vehicles (RAV)

G7-Brake system substitution or wheelbase extension powered vehicles

- Include reference to vehicle on the Register of Approved Vehicles (RAV)

G8-Trailer brake system upgrade (Design)

- Updated wording under modifications “not covered” from “upgrading brake system of road train trailers (VSB6 Modification Code S11) or B-double trailers (VSB6 Modification Code S9)” to “certifying road train trailers (VSB6 Modification Code S11) Trailer brake system

upgrade according to a design certified in accordance with VSB6 Modification Code G8”

- Include references to the Register of Approved Vehicles (RAV) and the component type approval system.
- Amended testing requirement to state that load sensing proportion valves must be certified in accordance with G3 not G4

Section H - Chassis

H-Overview

- Included clarification that top hat and box section are permitted to be modified under Section H provided vehicle manufacturers are followed.
- Include reference to vehicle on the Register of Approved Vehicles (RAV).
- Updated list of related ADRs.

H5-Trailer Chassis Modification

- Include new dot point under modifications covered section “chassis repairs”.
- Include references to the Register of Approved Vehicles (RAV).
- Included section on Chassis repairs.
- Amended figure numbering.

H6-Install approved Front Underrun Protection

- Code removed

H7-Design or manufacture aftermarket Front Underrun Protection

- Code removed

Section J – Body mounting

J-Overview

- Additional related ADRs added

J1-Body Mounting

- Additional related ADRs added
- Additional picture added to Figure 5
- Include certification process for J2, J4 designs

J2- Truck-Bus Body (Design)

- Title change
- Code has been reconfigured as a design code

J3-Roll-over or falling object protection system (Design)

- Title change

J4-Tipper body (Design)

- New tipper body design code developed to expand on previous requires specified under J1

Section K - Cabin

K-Overview

- Additional related ADRs added

K1-Seating capacity alteration, seat, seatbelt and anchorage installation

- Include references to the Register of Approved Vehicles (RAV) and Vehicle Type Approvals.

K3-Cabin Conversion

- Additional related ADRs added

Section P – Tow couplings

P1-Towbar and coupling installation other than fifth wheels and kingpins

- Amendment under “modifications not covered” section from “installation of trailer air brake controls (see VSB6 Modification Code G5)” to “installation of trailer air brake controls (see VSB6 Modification Code G2)”
- Reference to Road Vehicle Certification System under “Installation Requirements” corrected.

P2- Fifth wheel and kingpin installation

- Note detailing what attachment assembly includes.
- Note that certification for low friction plates is not required if VSG18 is met.

Section R – Vehicle mounted lifting systems

R-Overview

- Additional related ADRs added
- Added note that the R1 Assessment Report must be completed for all vehicles certified under the R1 modification code.

R1-Installation of vehicle mounted lifting systems

- Additional wording added clarifying that a checklist is required for all lifting system installations.

Section S – Vehicle rating

S-Overview

- Include references to the Register of Approved Vehicles (RAV).

S7-ATM / GTM re-rating

- Include references to the Register of Approved Vehicles (RAV) and the component type approval system.
- Include note “Brake system electrical supply requirements for vehicles equipped to tow a trailer are contained in ADR 35/.. and may vary depending on if the vehicle is designed to a single trailer, B-double or road train.”
- Heading changed from “Fifth wheel” to “Coupling”.
- Changed certain references from “fifth wheel” to “coupling”

S11-Road train trailer rating

- Include note “Brake system electrical supply requirements for vehicles equipped to tow a trailer are contained in ADR 35/.. and may vary depending on if the vehicle is designed to a single trailer, B-double or road train.”

S12-ATM / GTM re-rating (Design)

- Include references to the Register of Approved Vehicles (RAV) and the component type approval system.

Section T – Tow trucks

T-Overview

- Clarify T1 and T2 codes are only required when certifying a “vehicle towing device”.

T1-Tow Trucks (Construction)

- Full review and re-write of T1 construction code

T2-Tow Trucks (Design)

- Full review and re-write of T2 construction code

Minor post-publication changes

- NIL

Version 3.1 to 3.2 changes

Published 2023

Following publication of VSB6 Version 3.1 in November 2018, the NHVR has made a small number of changes to address issues that were identified and updated a number of included diagrams. In addition to these changes an additional modification code has been included.

T1 – Construction of tow trucks

- Review and re-write of the existing tow truck modification code.

T2 – Design of tow trucks

- Review and re-write of the existing tow truck design code.

J4 – Tipper bodies (design)

- Development of a tipper body design code to expand on the requirements previously set under modification code J1.

T1 – Construction of tow trucks

- Review and re-write of the existing tow truck modification code.