NATIONAL
HEAVY
VEHICLE
REGULATOR

National Heavy Vehicle Inspection Manual

VERSION 3.0

NHVR

Contents

1. Application

The National Heavy Vehicle Inspection Manual (NHVIM) has been revised by the National Heavy Vehicle Regulator (NHVR) as part of its task to develop and introduce a single national approach to ensuring heavy vehicle roadworthiness. The NHVIM applies to all vehicles that have a gross vehicle mass (GVM) or aggregate trailer mass (ATM) greater than4.5 tonnes.

The National Heavy Vehicle Inspection Manual (NHVIM) applies to all vehicles that have a gross vehicle mass (GVM) or aggregate trailer mass (ATM) greater than 4.5 tonnes. It provides consistent criteria for when a vehicle should fail a heavy vehicle inspection and therefore be considered defective. The NHVIM details practical information about wear, damage or change to important systems regarding vehicle in-service inspections for owners, operators and administrators in each state and territory.

For a vehicle to be considered roadworthy it must comply with the Heavy Vehicle (Vehicle Standards) National Regulation (known as Vehicle Standards), and the Australian Design Rules (ADRs) relevant to the manufacture date of the vehicle. These contain mandatory requirements for the safe design, construction and maintenance of vehicles and for the control of emissions and noise. Relevant legislation as applicable in each jurisdiction should also be checked for requirements (e.g. specific regulations for passenger transport vehicles).

When using the NHVIM, the following principles are relevant:

Equipment required by the Vehicle Standards or ADRs to be part of a vehicle must be present and work properly

Equipment that is essential for compulsory components to function, the safe operation of a vehicle, or the control of its emissions, must be kept in good condition.

Equipment that is not required by the Vehicle Standards and has no direct effect on the vehicle's safe operation or the control of its emissions does not have to function, as long as it does not interfere with compulsory equipment that is required

Manufacturers' recommendations relevant to the safety of particular vehicle parts or to the control of emissions must be considered

Test methods or other conditions have not been specified except where they are necessary to determine whether criteria are met.

Examiners will utilise their qualifications and experience in vehicle repairs and maintenance and refer to any relevant information regarding vehicle manufacturer's specifications to ensure that the vehicle meets the requirements of the Vehicle Standards or ADRs.

Relevant ADRs are noted at the beginning of each section of the NHVIM. Some of the ADRs may have been repealed or updated since publication of the NHVIM, however, depending on the age of the vehicle being inspected, the ADR or aspects of the ADR may still be applicable. All relevant documents should be consulted for a complete list of the requirements.

Some inspection processes and standards apply only to certain heavy vehicles. Similarly, a heavy vehicle may have been exempted from a Vehicle Standard, dimension or ADR[1].

An ADR, Heavy Vehicle (Vehicle Standards) National Regulation or Heavy Vehicle (Mass, Dimension and Loading) National Regulation developed after publication of the NHVIM may allow a variation or exemption.

There are some common vehicle types which are often provided exemptions from Vehicle Standards, dimensions or ADRs. Where such vehicles do not meet a standard, an exemption will be provided. Examples of these vehicles and there exemption types are provided in the table below.

Vehicle type	Typical Exemptions	Exemption tool
SPV	Dimensions, Axle groups and axle spacing	VS Exemption permit, Notice, IPA Schedule 5 exemption
PBS vehicle	Dimensions, Axle groups and axle spacing	PBS Vehicle Approval, VS Exemption permit, IPA Schedule 5 exemption
Modified vehicle	Any non-compliances possible	VS Exemption permit
Oversize vehicles	Dimensions	IPA Schedule 5 exemption

2. Purpose

The purpose of the NHVIM is to provide authorised officers (including safety compliance officers and police), approved vehicle examiners (AVEs) and other vehicle inspectors with a nationally consistent set of failure criteria to be applied when conducting a heavy vehicle inspection. It also provides vehicle operators with an easy to follow set of requirements to know when a vehicle is considered defective.

3. Scope

The NHVIM will provide guidance to Authorised Officers, AVEs and other vehicle inspectors on the national failure criteria for heavy vehicle roadworthiness.

The NHVIM is intended to apply to in-service heavy vehicles. Where heavy vehicles have been modified, Authorised Officers and AVEs will need to assess the vehicle against whatever approvals have been issued for the heavy vehicle in question. These may be in the form of an engineer's report, a Vehicle Standards exemption, a second stage manufacturer identification plate or a modification plate or label which signifies that the modifications have been carried out to an accepted standard.

The NHVIM will be supplemented by administrative processes and procedures.

As vehicle technologies are forever evolving it isn't possible to include all of them in the HVIM. However, the NHVR constantly observes these developing technologies and include them on our forward work program for consideration in future revisions to the NHVIM.

For the present, if systems are included on a vehicle but a failure criteria has not yet been included in the NHVIM authorised officers and AVEs are requested to refer to the original manufacturer specifications.

It is important to note that the Vehicle Standards, including the ADRs and the original heavy vehicle manufacturer's specifications take precedence over the requirements of the NHVIM.

4. Objectives

The use of the same failure criteria in all jurisdictions for heavy vehicle inspections will ensure a more consistent approach to the management and detection of vehicles which are unsafe.

As a general rule the application of consistent failure criteria will prevent duplication of effort within and between jurisdictions and through mutual recognition lead to a more efficient transfer of heavy vehicles between states and territories.

5. Consultation

The failure criteria set out in the NHVIM reflect current consultation with road user groups, road transport authorities, police agencies, manufacturers and suppliers. The NHVR seeks to continually update and improve the NHVIM. Contributions and feedback may be made by sending an email to vehiclestandards@nhvr.gov.au

6. Heavy Vehicle Inspection Checklist

This checklist has been provided as a guide to the types of information that may need to be collected, or components that need to be inspected, during a vehicle inspection. This checklist is not a reason for rejection.

NHVR
National Heavy Vehicle Regulator

Version 1.1
March 2021

Heavy Vehicle Inspection Checklist

This checklist is used to complete a vehicle inspection that meets maintenance management standard 4 criteria(4). The inspection must be completed or supervised by a suitably qualified person whose name and signature must appear on the form.

*These fields are not mandatory.

Registration #		**Owner's Details**	
Reason for inspection*		**Inspection location***	
Inspection date		**Make***	
Inspection time*		**Model***	
Odometer		**VIN or fleet #**	
Registration expiry date*		**Vehicle colour***	

Cross out those items not applicable.

Tick for Pass Cross for Fail ☑ ☒

Item		Pass	Fail
Identification			
1	Registration plates affixed and legible	☐	☐
2	Compliance plate affixed	☐	☐
Lights / electrical			
3	Park / tail / number plate / clearance	☐	☐
4	Head lights / auxiliary lights	☐	☐
5	Brake lights	☐	☐
6	Reflectors / lenses	☐	☐
7	Warning device / turning indicators	☐	☐
8	Wipers / washers	☐	☐
Glazing			
9	Material / visibility	☐	☐
10	Window operation	☐	☐
Seats / seat belts			
11	Mountings / construction	☐	☐
12	Fitting/ operation/ condition	☐	☐
Wheels & tyres			
13	Wheels / security	☐	☐
14	Wheel bearings	☐	☐
15	Tyres tread depth & condition	☐	☐
Body / fittings/ protrusions			
16	Corrosion / security / damage	☐	☐
17	Door / bonnet / catches	☐	☐
18	Rear vision mirrors	☐	☐
19	Rear marker plates	☐	☐
20	Body fittings / bumper bars	☐	☐
Tow couplings			
21	Auto tow couplings	☐	☐
22	King pin / skid plate	☐	☐
23	Tow eye / drawbar / safety chains	☐	☐
24	Ball race turn table	☐	☐
25	Goose neck	☐	☐

Tick for Pass Cross for Fail ☑ ☒

Item		Pass	Fail
Braking			
26	Brake components	☐	☐
27	Brake operation (refer notes)	☐	☐
Steering			
28	Steering box / pitman arm	☐	☐
29	Arms / linkages / wheel	☐	☐
30	King pins	☐	☐
31	Free play	☐	☐
Suspension			
32	Springs	☐	☐
33	Hangers / pins / bushes	☐	☐
34	Air bags / air suspension	☐	☐
35	Shock absorbers	☐	☐
36	Axles / cross members	☐	☐
Oil / fuel leaks			
37	Engine / driveline	☐	☐
38	Steering / accessories	☐	☐
Exhaust			
39	Leaks / design / security	☐	☐
40	Emissions	☐	☐
Mountings			
41	Engine / transmission	☐	☐
42	Body	☐	☐
Air systems			
43	Leaks / low air warning / contamination	☐	☐
44	Breakaway protection	☐	☐
Under body / chassis			
45	Cracks / security	☐	☐
46	Corrosion	☐	☐
Mudguards / mud flaps			
47	Fitted as required	☐	☐

Notes:
1. If manufacture specifications are unknown refer to the Heavy Vehicle Inspection Manual for minimum requirements.
2. For a heavy vehicle built after 1930, the service brake must bring the vehicle or combination to a stop within 16.5m from a speed of 35km/h.
3. Trailer breakaway protection must be checked for operation.

Name: _____ Signature: _____

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7. Heavy Trailer Inspection Checklist

This checklist has been provided as a guide to the types of information that may need to be collected, or components that need to be inspected, during a vehicle inspection. This checklist is not a reason for rejection.

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National Heavy Vehicle Regulator

Version 1.0
June 2021

Heavy Trailer Inspection Checklist

This checklist has been provided as a guide to the types of information that may need to be collected, or components that need to be inspected, during a vehicle inspection. This checklist is not a reason for rejection.

*These fields are not mandatory.

Registration #		Owner's details	
Reason for inspection*		Inspection location*	
Inspection date		Make/model*	
Inspection time*		Body type*	
Registration expiry date*		Main body colour*	

Cross out those items not applicable.

Tick for Pass Cross for Fail ☑ ☒

Item		Pass	Fail
Identification			
1	Registration plates affixed and legible	☐	☐
2	Compliance plate affixed	☐	☐
Braking			
3	Brake components	☐	☐
4	Breakaway protection	☐	☐
5	Service break	☐	☐
6	Park break	☐	☐
7	Brake connections	☐	☐
Couplings			
8	Drawbar	☐	☐
9	Towing attachments	☐	☐
10	Skid plates	☐	☐
11	Kingpin	☐	☐
12	Safety chains	☐	☐
Wheels, tyres and hubs			
13	Wheels/rims	☐	☐
14	Wheel nuts/fasteners	☐	☐
15	Tyres	☐	☐
16	Hubs	☐	☐
17	Wheel bearings	☐	☐

Tick for Pass Cross for Fail ☑ ☒

Item		Pass	Fail
Structure and body condition			
18	Mudguards	☐	☐
19	Mudflaps	☐	☐
20	Chasis,sub-frame	☐	☐
21	Number plates	☐	☐
22	Rear marking plates (as per VSB12)	☐	☐
23	Tray/body condition (if applicable)	☐	☐
Lights /and reflectors			
24	Brake lights	☐	☐
25	Direction indicator lights	☐	☐
26	Tail lights	☐	☐
27	Reversing lights (optional)		
28	Reflectors (front / side / rear)	☐	☐
29	Front position light	☐	☐
30	Number plate light	☐	☐
31	Clearance/end outline marker lights (front / rear)	☐	☐
32	Side marker lights	☐	☐

Notes:
1. If manufacture specifications are unknown refer to the Heavy Vehicle Inspection Manual for minimum requirements.
2. For a heavy vehicle built after 1930, the service brake must bring the vehicle or combination to a stop within 16.5m from a speed of 35km/h.
3. Trailer breakaway protection must be checked for operation.

Name: _____ Signature: _____

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