



mainroads
WESTERN AUSTRALIA

*We're working for
Western Australia.*

WA Performance Based Standards (PBS) Scheme

Vehicle Certification Rules

Printed copies are uncontrolled unless marked otherwise.
Refer to the Main Roads Website for current version.

D20#774907
November 2020

Contents

1	PURPOSE	4
2	SCOPE	4
3	CONDUCTING CERTIFICATIONS	4
3.1	Who May Conduct Certifications	4
3.2	When Certifications Will Be Conducted	4
3.3	Where Will Certifications Be Conducted	4
4	CERTIFICATION INSPECTIONS & DECLARATIONS	4
4.1	Physical Inspection	4
4.2	Third Party Evidence	5
4.3	Manufacturer’s Declaration	5
5	CERTIFICATION PROCESS & EVIDENCE	5
5.1	Certification Certificate	5
5.2	Towing Vehicle Engine, Driveline and Suspension	5
5.3	Trailer Suspension	6
5.4	Tyres	6
5.5	Tow Couplings	6
5.6	Braking and Stability System	6
5.7	Mass	7
5.8	Measurements	7
5.9	Video Evidence	7
5.10	Other Evidence	7
6	COMPLIANT CERTIFICATION INSPECTION	7
7	NON COMPLIANT CERTIFICATION INSPECTION	7
7.1	Incomplete Certification	7
7.2	Rectifying Anomalies	7
7.3	Re-inspection of the Vehicle Combination	8
8	RELATED DOCUMENTS	8
9	APPENDICES	8
	Appendix 1 – WA PBS Scheme – Manufacturer’s Declaration for Towing Vehicle	9
	Appendix 2 – WA PBS Scheme – Manufacturer’s Declaration for Trailer	11
	Appendix 3 – WA PBS Scheme – Manufacturer’s Identical Vehicle Declaration	13
	Appendix 4 – WA PBS Scheme – Trailer Manufacturer Checklist	14

Document Control

Owner	Director Heavy Vehicle Services
Custodian	Manager Heavy Vehicle Road Network Access
Document Number	D20#774907
Issue Date	November 2020
Review Frequency	As required

Amendments

Revision Number	Revision Date	Description of Key Changes	Section / Page No.

1 PURPOSE

The purpose of these rules is to outline the process for certifying a vehicle combination built in accordance with a design approval issued under the WA Performance Based Standards (PBS) Scheme.

2 SCOPE

These rules apply to the WA PBS Scheme only. The NHVR PBS Vehicle Certification Rules must be followed when certifying vehicles under the National PBS Scheme.

3 CONDUCTING CERTIFICATIONS

3.1 Who May Conduct Certifications

- 3.1.1 Main Roads Heavy Vehicle Services (HVS) will conduct vehicle certifications for vehicles that have been built in accordance with a WA PBS Vehicle Design Approval.
- 3.1.2 All vehicle certifications will be undertaken by a minimum of two (2) HVS personnel with appropriate expertise.

3.2 When Certifications Will Be Conducted

Once a WA PBS Vehicle Design Approval has been issued and the vehicle has been built and is ready to be put into service, the applicant will need to submit a *Vehicle Certification Application Form*, to HVS to arrange for a vehicle certification to be conducted.

Note: the Vehicle Certification Application Form is available on the Performance Based Standards (PBS) page on the Main Roads WA website.

3.3 Where Will Certifications Be Conducted

- 3.3.1 Vehicle certifications will be conducted at a suitable location within the Perth Metropolitan Area, wherever practicable.
- 3.3.2 Where it is not practicable to conduct a vehicle certification within the Perth Metropolitan Area, the vehicle certification may be conducted at an agreed suitable location outside the Perth Metropolitan Area, within Western Australia.
- 3.3.3 Where a vehicle certification is conducted outside the Perth Metropolitan Area, the applicant may be liable for the HVS personnel's travel and accommodation costs. HVS will provide a cost estimate prior to the vehicle certification, which must be agreed to by the applicant prior to the vehicle certification being conducted. The applicant will be invoiced for the actual costs once the vehicle certification has been completed.
- 3.3.4 A suitable location is one that is safe, clean, well lit and has suitable facilities for the inspection of heavy vehicles.

4 CERTIFICATION INSPECTIONS & DECLARATIONS

4.1 Physical Inspection

- 4.1.1 HVS will conduct a physical inspection of the first vehicle combination built for each approved WA PBS Vehicle Design.

4.1.2 HVS will conduct random physical inspections to ensure the vehicle combinations are continuing to meet the specifications.

4.2 Third Party Evidence

HVS may engage an independent third party to conduct an inspection and provide evidence of specified vehicle characteristics.

4.3 Manufacturer's Declaration

4.3.1 HVS will accept a declaration, in the format shown in [Appendix 1](#) and [2](#), from a motor vehicle or trailer manufacturer to confirm vehicle characteristics that cannot be confirmed by a visual inspection, such as engine output, gear ratios etc.

4.3.2 HVS will accept a declaration, in the format shown in [Appendix 3](#), from a motor vehicle or trailer manufacturer to confirm every vehicle in a specified production run has the same physical characteristics as a vehicle that has been physically inspected by HVS.

5 CERTIFICATION PROCESS & EVIDENCE

5.1 Certification Certificate

5.1.1 HVS will conduct a vehicle certification in accordance with the WA PBS Vehicle Specifications (Part B) form, provided by the PBS Assessor.

5.1.2 The evidence outlined in this section will be required for HVS to complete the WA PBS Vehicle Specifications (Part B) form and certify the vehicle combination. There is a checklist in [Appendix 4](#) to assist trailer manufacturers in ensuring they have provided the required evidence.

5.2 Towing Vehicle Engine, Driveline and Suspension

5.2.1 HVS will accept manufacturer's specifications for a particular towing vehicle make and model as confirmation of any of the following characteristics:

- (a) Engine power and torque;
- (b) Clutch engagement torque;
- (c) Gearbox ratios;
- (d) Differential final drive ratios;
- (e) Differential torque distribution;
- (f) Suspension.

5.2.2 The manufacturer's specifications must be provided to HVS either in the form of a Manufacturer's Declaration or standard specifications sheet / brochure. It is recommended that the applicant provide this information with their vehicle certification application to avoid delays.

5.2.3 Where the particular towing vehicle make and model has options for the engine, driveline or suspension, HVS will require evidence to show which option has been fitted to the towing vehicle requiring certification. Evidence may be in the form of any of the following:

- (a) A Manufacturer's Declaration;
- (b) An invoice clearly showing the options and chassis number;
- (c) A physical inspection if the particular components can easily be identified by a model / part number, either stamped directly on the component or a compliance plate.

5.3 Trailer Suspension

The trailer suspension details must be provided to HVS in the form of a Manufacturer's Declaration. It is recommended that the applicant provide this information with their application to avoid delays.

5.4 Tyres

- 5.4.1 During the initial vehicle certification, HVS will physically inspect and record the tyre make, model and size.
- 5.4.2 For subsequent vehicle certifications, HVS will accept a Manufacturer's Declaration or video evidence where the tyres have been fitted aftermarket.

5.5 Tow Couplings

- 5.5.1 During the initial vehicle certification, HVS will physically inspect the tow couplings and record the coupling type, position and ratings.
- 5.5.2 If other evidence is required, such as strength testing or angle of lash, HVS will require the manufacturer to provide sufficient evidence in the form of a declaration and / or an Australian Design Rule (ADR) compliance report.
- 5.5.3 If the ratings are not clearly visible during the inspection, HVS will require the manufacturer to provide evidence of the tow coupling ratings.
- 5.5.4 For subsequent vehicle certifications, HVS will accept a Manufacturer's Declaration or video evidence where the prime mover's fifth wheel coupling has been fitted aftermarket.

5.6 Braking and Stability System

- 5.6.1 HVS will physically inspect and record details of the braking system.
- 5.6.2 The trailer manufacturer will be required to provide written confirmation of the following:
 - (a) The prime mover is supplying sufficient power to the Trailer Electronic Braking System (TEBS) to ensure all trailers function as per the manufacturer's specifications when all vehicle units are coupled together, and the electrical system is under maximum load from all current drawing electrical devices in the vehicle combination. At a minimum, the voltage measured from the rearmost trailer must be at least 9 volts under maximum load from all current drawing electrical devices.
 - (b) The prime mover's Electronic Braking System (EBS) system must provide Controlled Area Network (CAN) control signals. A CAN generation device activated by the pneumatic brake control pressure is acceptable.
 - (c) A Rollover Stability System is fully functional.
- 5.6.3 The trailer manufacturer will be required to supply the "End of Line" test results for each until fitted with EBS.

5.7 Mass

HVS will obtain the tare weight of each vehicle forming part of the combination using one of the following methods:

- (a) Physically weigh the vehicle(s) using portable scales;
- (b) Physically weigh the vehicle(s) on a certified weighbridge;
- (c) Accept a weight declaration or weighbridge docket(s) from the manufacturer.

5.8 Measurements

HVS will physically measure each part of the vehicle combination in accordance with the vehicle schematic provided by the PBS Assessor.

5.9 Video Evidence

Under certain circumstances, HVS may accept video evidence of vehicle specifications, provided:

- (a) The video is continuous; and
- (b) The video clearly shows the vehicle identification number (VIN); and
- (c) The video clearly demonstrates the evidence required.

5.10 Other Evidence

The motor vehicle or trailer manufacturers may be required to provide additional information at the request of HVS, such as but not limited to, specific test results, unladen centre of gravity height and steerable trailer axle specifications.

6 COMPLIANT CERTIFICATION INSPECTION

If the vehicle combination meets all of the requirements specified by HVS, the PBS Assessor and the National Heavy Vehicle Regulator (where applicable), the vehicle combination will be certified by HVS and a WA PBS Permit will be issued accordingly.

7 NON COMPLIANT CERTIFICATION INSPECTION

7.1 Incomplete Certification

If the vehicle combination does not meet all of the requirements specified by HVS, the PBS Assessor and the National Heavy Vehicle Regulator (where applicable), the vehicle certification will be deemed incomplete until the anomalies are rectified.

7.2 Rectifying Anomalies

- 7.2.1** If a minor anomaly can be rectified immediately and if time permits, HVS personnel will wait and confirm the issue has been rectified.
- 7.2.2** If the anomaly is unlikely to affect the PBS assessment results and / or is within the allowable variation parameter (i.e. the lesser of 20mm or 1%), however cannot be rectified immediately, the vehicle combination will need to be re-inspected, unless HVS agrees for other evidence to be provided.
- 7.2.3** If the anomaly is likely to affect the PBS assessment results and / or exceeds the allowable variation parameter, the vehicle combination will need to be re-assessed by the PBS Assessor. HVS will advise the applicant accordingly, who will then need to re-engage their chosen PBS Assessor.

7.3 Re-inspection of the Vehicle Combination

If the vehicle combination requires further inspection, the applicant will need to contact HVS to arrange an inspection in accordance with [Section 3](#).

8 RELATED DOCUMENTS

The following documents are related to the WA PBS Scheme and the vehicle certification process. These documents are available on the Performance Based Standards (PBS) page on the Main Roads website.

Document Number	Description
D16#365314	WA PBS Scheme – Application and Approval Process
D16#365331	WA PBS Scheme – Standards and Vehicle Assessment Rules
D16#438044	WA PBS Scheme – Access Levels and Principles
D17#492695	WA PBS Scheme – Audit Framework
D20#870678	WA PBS Scheme – Vehicle Certification Application
D20#857246	WA PBS Scheme – Assessment Results (Part A)
D20#857253	WA PBS Scheme – Vehicle Specifications (Part B)
D20#836031	WA PBS Scheme – Manufacturer’s Declaration for Towing vehicle
D20#840137	WA PBS Scheme – Manufacturer’s Declaration for Trailer
D20#840795	WA PBS Scheme – Manufacturer’s Identical Vehicle Declaration
D20#843374	WA PBS Scheme – Trailer Manufacturer Checklist



9 APPENDICES

Appendix	Title
Appendix 1	WA PBS Scheme – Manufacturer’s Declaration for Towing Vehicle
Appendix 2	WA PBS Scheme – Manufacturer’s Declaration for Trailer
Appendix 3	WA PBS Scheme – Manufacturer’s Identical Vehicle Declaration
Appendix 4	WA PBS Scheme – Trailer Manufacturer Checklist

Appendix 1 – WA PBS Scheme – Manufacturer’s Declaration for Towing Vehicle

The MSWord version of this document is available on the Performance Based Standards (PBS) page on the Main Roads website.

WA Performance Based Standards (PBS)
Scheme – Vehicle Certification






Manufacturer’s Declaration Towing Vehicle

VIN Number: _____	VIN Number: _____
VIN Number: _____	VIN Number: _____
Vehicle Make: _____	Vehicle Model: _____
Vehicle Description: _____	Engine Make & Model: _____
Engine Power: _____	Engine Torque: _____
Engine Emission Rating: _____	Gearbox Make & Model: _____
Gearbox Ratio: _____	
Clutch Engagement Torque / Torque Converter Specifications: _____	Differential Make & Model: _____
Final Drive Ratio: _____	Differential Distribution: _____
Steer Axle Suspension Type, Make & Model: _____	Drive Axle Group Rating: _____
Drive Axle Suspension Type, Make & Model: _____	Steer Axle / Axle Group Rating: _____
Tow Coupling Type: _____	Tow Coupling Make & Model: _____
Brake Type: _____	Tow Coupling D-Rating: _____
Brake Power Supply: _____	Brake Controls: _____
Gross Vehicle Mass (GVM) Rating: _____	Tare Mass: _____
	Gross Combination Mass (GCM) Rating: _____

I, the undersigned, am a duly authorised representative of < *company name* >, and I hereby declare that all the information included in this declaration is true in every particular. I understand that it is an offence to provide false or misleading information to Main Roads WA.

Name: _____	Position: _____
Signature: _____	Date: _____

www.mainroads.wa.gov.au

We're working for
Western Australia.

Explanatory Notes

The following provides an explanation of the information that is expected in the Manufacturer's Declaration.

Term	Explanation
Brake Controls	Specify the braking control system, e.g. ABS / ABS with ESC / EBS / EBS with ESC and if the system provides Controlled Area Network (CAN) control signals.
Brake Power Supply	Specify the power supply (voltage and current) provided from the towing vehicle to the Trailer Electronic Braking System (TEBS).
Brake Type	Specify if the axles are fitted with disc brakes or drum brakes.
Differential Distribution	Specify the tri drive axle group tractive effort distribution / differential torque distribution, e.g. 50:25:25 or 33:33:33.
Engine Emission Rating	Specify the emission rating of the engine, e.g. Euro 5, or ADR 80/02 compliant.
Engine Power	Specify the engine power output at a specified engine RPM, e.g. 448kW@1800rpm.
Engine Torque	Specify the engine torque output at a specified engine RPM, e.g. 2778Nm@1200rpm.
Suspension Type	Specify if suspension is load sharing and if leaf spring or airbag.
Vehicle Description	Provide a description of the vehicle type, i.e. rigid truck or prime mover and the axle configuration, e.g. 10 x 6 / 8 x 6 / 6 x 4 / 8 x 4.

www.mainroads.wa.gov.au



138 138
 enquiries@mainroads.wa.gov.au
www.mainroads.wa.gov.au

Appendix 2 – WA PBS Scheme – Manufacturer’s Declaration for Trailer

The MSWord version of this document is available on the Performance Based Standards (PBS) page on the Main Roads website.

WA Performance Based Standards (PBS)
Scheme – Vehicle Certification



Manufacturer’s Declaration

Trailer

VIN Number: _____	Unit number in combination: _____
Vehicle Make: _____	Vehicle Model: _____
Vehicle Description: _____	Body Type: _____
Front Axle Group Suspension Type, Make & Model: _____	Rear Axle Group Suspension Type, Make & Model: _____
Steerable Axle Make & Model: _____	Steerable Axle Degree of Articulation: _____
Drawbar Tow Eye / Kingpin (Gooseneck) D-Rating: _____	Dolly 5 th Wheel / Ball Race Make & Model: _____
Dolly 5 th Wheel / Ball Race D-Rating: _____	Rear 5 th Wheel / Ringfeder Make & Model: _____
Rear 5 th Wheel / Ringfeder D-Rating: _____	Front Axle Group Brake Type: _____
Front Axle Group Brake Controls: _____	Rear Axle Group Brake Type: _____
Rear Axle Group Brake Controls: _____	Tare Mass: _____
Aggregate Trailer Mass (ATM) Rating: _____	

I, the undersigned, am a duly authorised representative of < *company name* >, and I hereby declare that all the information included in this declaration is true in every particular. I understand that it is an offence to provide false or misleading information to Main Roads WA.

Name: _____	Position: _____
Signature: _____	Date: _____

www.mainroads.wa.gov.au



We're working for
Western Australia.

Page 11 of 14

Explanatory Notes

The following provides an explanation of the information that is expected in the Manufacturer's Declaration.

Term	Explanation
Body Type	Provide a description of the body type, e.g. side tipper, fuel tanker, or skel trailer.
Brake Controls	Specify the braking control system, e.g. ABS / EBS/ LPV and confirm the system has a rollover stability function.
Brake Power Supply	Specify the power supply (voltage and current) provided from the towing vehicle to the Trailer Electronic Braking System (TEBS).
Brake Type	Specify if the axles are fitted with disc brakes or drum brakes.
Suspension Type	Specify if suspension is load sharing and if leaf spring or airbag.
Vehicle Description	Provide a description of the vehicle type, e.g. tri axle semi-trailer or six axle dog trailer.

www.mainroads.wa.gov.au





 138 138
 enquiries@mainroads.wa.gov.au
 www.mainroads.wa.gov.au

Appendix 3 – WA PBS Scheme – Manufacturer’s Identical Vehicle Declaration

The MSWord version of this document is available on the Performance Based Standards (PBS) page on the Main Roads website.

WA Performance Based Standards (PBS)
Scheme – Vehicle Certification



Manufacturer’s Declaration Duplicate Vehicle(s)

Reference Vehicle

VIN Number: _____ MRWA Certification Number: _____

Vehicle Make: _____ Vehicle Model: _____
Vehicle Description: _____ Body Type: _____

Duplicate Vehicle(s)






VIN Number: _____	VIN Number: _____
VIN Number: _____	VIN Number: _____
VIN Number: _____	VIN Number: _____
VIN Number: _____	VIN Number: _____
VIN Number: _____	VIN Number: _____
VIN Number: _____	VIN Number: _____
VIN Number: _____	VIN Number: _____

Additional Information

I, the undersigned, am a duly authorised representative of < *company name* >, and I hereby certify that the "Duplicate Vehicle(s)" listed has/have been manufactured in the same production run and has/have the same physical characteristics as the "Reference Vehicle". Any minor anomalies and other relevant information is included under "Additional Information". I declare this to be true and I am aware it is an offense to make a declaration knowing that it is false or misleading.

Name: _____ Position: _____
Signature: _____ Date: _____

www.mainroads.wa.gov.au




We're working for
Western Australia.

Appendix 4 – WA PBS Scheme – Trailer Manufacturer Checklist

The MSWord version of this document is available on the Performance Based Standards (PBS) page on the Main Roads website.

WA Performance Based Standards (PBS)
Scheme – Vehicle Certification




Trailer Manufacturer's Checklist

To ensure there are no delays with the WA PBS Scheme Vehicle Certification process, it is recommended that all of the following evidence be provided to Main Roads Heavy Vehicle Services with the WA PBS Scheme certification application.

Manufacturer's Declaration	<input type="checkbox"/>	EBS "End of Line" Test Reports	<input type="checkbox"/>
Declaration stating Voltage to the EBS on the Rear Trailer in the Combination is ± 9 Volts	<input type="checkbox"/>	Drawbar Strength Test Report / Declaration (if applicable i.e. for new drawbar designs – refer to clause 5.5.2 in the PBS Vehicle Certification Rules)	<input type="checkbox"/>
Declaration or Video Evidence of Tyres (if applicable – refer to clause 5.4.2 in the PBS Certification Rules)	<input type="checkbox"/>		

www.mainroads.wa.gov.au



We're working for Western Australia.