

Correct as at 25th June 2026. It may be superseded at any time.

Extract taken from: In-service certification (WoF and CoF) > Heavy PSVs > Exhaust

## 11 Exhaust

### 11-1 Exhaust system

#### Reasons for rejection

##### Mandatory equipment

1. Refer to [heavy vehicle pages](#).

##### Condition and performance

2. Refer to [heavy vehicle pages](#).
3. Part of the exhaust system or turbocharger is located where:
  - a) ignitable or heat-sensitive materials could fall on it, or
  - b) adjacent material has been degraded by heat.
4. Exhaust system heat shielding has been removed or does not perform as intended.
5. Ventilation designed to cool part of the exhaust system does not perform as intended.
6. Exhaust heat or fumes can harm occupants.
7. The outlet pipe is not located or shielded to avoid injury to passengers entering or exiting, or to other road users.
8. The outlet pipe discharges on the left-hand side of the vehicle.

#### Summary of legislation

##### Applicable legislation

- [Land Transport Rule: Passenger Service Vehicles 1999](#).

##### Mandatory equipment

1. Refer to [heavy vehicle pages](#).

##### Condition and performance

2. Refer to [heavy vehicle pages](#).
3. The exhaust system, including any turbochargers, must be installed, located, shielded and ventilated so that:
  - a) no ignitable or heat-sensitive materials could fall on the exhaust system, and

b) material adjacent to any hot surface forming part of, or connected to, the exhaust system must not, under any operating condition, be heated sufficiently to cause degradation.

4. The design, construction and maintenance of the exhaust system must ensure that:

- a) emitted heat or fumes cannot harm the occupants of the PSV, and
- b) the outlet pipe is shielded or located in a position where other road users, or passengers entering or exiting the vehicle, cannot be burned by the exhaust, and
- c) the outlet pipe does not discharge on the left-hand side of the vehicle.

## 11-2 Exhaust emissions

### Reasons for rejection

#### Performance

1. A vehicle with the engine at normal operating temperature (Note 1) emits clearly visible smoke ([Technical bulletin 8](#)) from the exhaust tailpipe (Note 2):

- a) for a continuous period of five seconds when the engine is idling and does not meet the additional requirements in Table 11-2-1, or
- b) as the engine is being rapidly accelerated to approximately 2500rpm or approximately half the maximum engine speed (whichever is lower) and does not meet the additional requirements in Table 11-2-1.

2. A vehicle (other than group L vehicle or a class MA or MC motorsport vehicle with a valid motorsport authority card) that was first registered in New Zealand on or after 1 May 2010 and manufactured from 1 January 1990 has a catalytic converter (or diesel particulate filter (DPF) in the case of diesel powered vehicles) removed where there is evidence that one was originally fitted, and there is no written evidence issued by an entry certifier that the vehicle passed a prescribed metered emissions test in this condition (Note 5) (Note 6) (Figure 11-2-1).

#### Note 1 Test procedure:

- a) Carry out the idling and acceleration tests in Reason for rejection 1. A vehicle that passes both tests with the engine below normal operating temperature is deemed to have passed with the engine at normal operating temperature.
- b) If the vehicle has failed either test, ensure the engine is at normal operating temperature. Then purge the system by increasing the engine speed to 2500 rpm (or half the maximum engine speed if this is lower) and holding it there for about 5 seconds. Repeat the idling and acceleration tests in Reasons for rejection 1.

#### Note 2

Visible emissions caused by the condensation of water vapour do not count as smoke.

#### Note 3

Acceptable evidence is:

- a) a letter on the letterhead of the manufacturer or manufacturer's representative, or

- b) a letter on the letterhead of an appropriate automobile club, or
- c) evidence of equal authority to (a) or (b) above, eg from an appropriate expert.

**Note 4**

The vehicle inspector may need to take into account further information about unusual or older vehicles, eg from an appropriate expert such as an office holder in a vintage car club.

**Note 5**

This reason for rejection does not apply if the vehicle operator can provide evidence that the vehicle was first certified for entry before 1 May 2008.

**Note 6**

The metered emissions test can only be carried out at entry certifier sites ([VTNZ](#), [VINZ](#), [NZAA](#)) where entry inspections are carried out. The entry certifiers will issue a document (Figure 11-2-1) that identifies the vehicle, whether or not the vehicle has passed the test, and whether or not the vehicle was tested with any OE catalytic converters removed. A metered emissions test is not required if a catalytic converter is refitted, or if there is evidence that the vehicle was not originally fitted with a catalytic converter.

**Table 11-2-1. Additional requirements**

Type of vehicle	Additional requirements
<p>First registered on or after 1 January 1960 with four-stroke engine, or</p> <p>First registered before 1 January 1960 with four-stroke engine manufactured on or after 1 January 1960.</p>	<p>1. Document produced by the vehicle operator that proves that (Note 3):</p> <ul style="list-style-type: none"> <li>a) the engine is original equipment for the vehicle, and</li> <li>b) its design means that the vehicle cannot reasonably comply with the visible smoke emission requirements.</li> </ul> <p><b>Note</b> No evidence is required if, during the acceleration test, a diesel-powered vehicle emits moderate smoke caused by turbo lag.</p> <p>2. The smoke produced is not noticeably and significantly more visible than it would have been when the vehicle was manufactured and supplied with the fuel recommended by the manufacturer.</p>
<p>First registered before 1 January 1960 with four-stroke engine manufactured before 1 January 1960, or</p> <p>Vehicle with two-stroke engine or rotary engine.</p>	<p>The smoke produced is not noticeably and significantly more visible than it would have been when the vehicle was manufactured and supplied with the fuel recommended by the manufacturer (Note 4).</p>

**Figure 11-2-1. Exhaust emissions test certificate**

## Metered exhaust emissions test

### Vehicle details

Make/model																		
VIN/chassis number																		
Registration plate number																		

### Metered emissions test results

Engine/fuel type	Permitted maximum	Test result	
Petrol 4-stroke or rotary	1% CO 300ppm HC	% CO	ppm HC
Petrol 2-stroke	4.5% CO 7800ppm HC	% CO	ppm HC
Diesel	0.64 OAC <b>or</b> 0.8 OAC average	OAC value	Tick if OAC average value <input type="checkbox"/>

Test result printout attached: **YES / NO** (please circle)

Was the vehicle tested with the catalytic converter(s) fitted? **YES / NO** (please circle)

Test result: **PASS / FAIL** (please circle)

<i>I confirm that I have tested the above vehicle in accordance with the NZTA-prescribed metered emissions test.</i>		
Location	Site ID	TSDA stamp
Inspector ID	Date	
Inspector's signature		

**Note to the vehicle operator:** This document, or a copy of this document, must be kept in the vehicle and produced to a vehicle inspector or enforcement officer on request.

- Download a copy of the [Exhaust emissions test certificate](#)

# Summary of legislation

## Applicable legislation

- [Land Transport Rule: Vehicle Exhaust Emissions 2007](#).

## Performance

1. A motor vehicle must not emit clearly visible smoke (Note 2) when the vehicle's engine is running at its normal operating temperature, under either of the following conditions:

- a) for a continuous period of five seconds when the engine is idling
- b) as the engine is being accelerated rapidly to approximately 2500 revolutions per minute or approximately half the maximum engine speed (whichever is lower).

2. Requirement 1 above does not apply if the driver of the vehicle produces documentation that proves that the engine is original equipment for the vehicle and the engine's design means the vehicle cannot reasonably comply (Note 3).

3. The exhaust emissions system or exhaust control equipment of a vehicle (other than a group L vehicle or a class MA or MC motorsport vehicle) first certified for entry into service on or after 1 May 2008 and manufactured on or after 1 January 1990 must not be modified so as to prevent the vehicle from being able to pass a prescribed metered emissions test.

## Technical Information

- [www.nzta.govt.nz/resources/vehicle-failed-smoky-exhaust/smoky-exhaust-test.html](http://www.nzta.govt.nz/resources/vehicle-failed-smoky-exhaust/smoky-exhaust-test.html)
- Download a copy of the [Exhaust emissions test certificate](#)

Page amended **2 December 2019** (see [amendment details](#)).