

Correct as at 26th April 2026. It may be superseded at any time.

Extract taken from: In-service certification (WoF and CoF) > General vehicles > Tyres, wheels and hubs > Hubs and axles

## 10-2 Hubs and axles

### Reasons for rejection

#### Condition

1. A hub:

- a) is not securely attached to the vehicle, or
- b) has a visible crack, or
- c) is significantly damaged, distorted or has deteriorated, or
- d) has a broken or missing wheel stud.

2. A wheel bearing:

- a) has play beyond the manufacturer's specifications, or
- b) is over-tight or **binding, or**
- c) feels/sounds rough when rotated.**

3. An axle:

- a) is insecure, eg has loose U-bolts, or
- b) is visibly cracked, or
- c) is significantly damaged, distorted or has deteriorated, or
- d) shows signs of welding or heating after original manufacture, or
- e) shows signs of fouling the vehicle structure or a brake, suspension or steering component.

#### Performance

4. The geometry of a hub or axle causes:

- a) the vehicle to veer significantly to one side, or
- b) the wheels not to self centre.

#### Modification

(see also [Introduction 3.1.2: Note 3](#))

5. A modification affects the hubs or axles, and:

- a) is not excluded from the requirements for LVV specialist certification (Table 10-2-1), and

b) is missing proof of LVV specialist or accepted overseas certification, ie:

- i. the vehicle is not fitted with a valid LVV certification plate, or
- ii. the operator is not able to produce a valid modification declaration or authority card , or
- iii. the vehicle has not been certified to an accepted overseas system as described in [Technical bulletin 13](#).

**Note 1 Definitions**

**Hub** means that part of a vehicle that is attached to the axle and rotates on, or with, the axle, and to which the wheel is attached, and includes any bearings.

**Modify** means to change a vehicle from its original state by altering, substituting, adding or removing a structure, system, component or equipment, but does not include repair.

**Repair** means to restore a damaged or worn vehicle, its structure, systems, components or equipment to within safe tolerance of its condition when manufactured, including replacement with undamaged or new structures, systems, components or equipment.

**Table 10-2-1. Modifications that do not require LVV certification**

Fitting of or modification to:	LVV certification is not required provided that:
Differential ratio changes	<ul style="list-style-type: none"> <li>• only the differential centre or gear-set is changed, and</li> <li>• the OE axle housing is retained.</li> </ul>
Axle housing replacement	<ul style="list-style-type: none"> <li>• the axle housing fits the vehicle without adaptation, and</li> <li>• no change to the OE suspension geometry occurs, and</li> <li>• the OE drive-shafts(s) is unmodified, and</li> <li>• no changes are made to the OE brake system.</li> </ul>
Fitting of or modification to:	LVV certification is never required:
Any modification for the purposes of law enforcement or the provision of emergency services	<ul style="list-style-type: none"> <li>• in-service requirements for condition and performance must be met.</li> </ul>

**Summary of legislation**

**Applicable legislation**

- [Land Transport Rule: Tyres and Wheels 2001](#).

**Condition**

1. The components of the assembly must be in good condition.

2. The hub and axle must be sufficiently strong for the type of vehicle to which they are fitted.
3. The hub and axle must have a suitable and correctly adjusted geometry.

#### **Modification**

4. A modification that affects the hubs or axles must be inspected and certified by a Low Volume Vehicle Specialist Certifier, unless the vehicle:
  - a) is excluded from the requirement for LVV specialist certification (Table 10-2-1), and
  - b) has been inspected in accordance with the requirements in this manual, including those for equipment, condition and performance.

Page amended **1 April 2024** (see [amendment details](#)).