

Miscellaneous items

13-1 Engine and transmission

Summary of legislation

Applicable legislation

- Land Transport Rule: Vehicle Standards Compliance Rule 2002, Section 7.4

Condition and performance

- The vehicle must be safe to be operated.
- The components and materials must be fit for their purpose and within safe tolerance of their state when manufactured or modified.

Modifications

- A modification that affects the engine and transmission must be inspected and certified by an LVV specialist certifier, unless the vehicle:
 - is excluded from the requirement for LVV specialist certification (**Table 13-1-1**), and
 - has been inspected in accordance with the requirements in this manual, including those for equipment, condition and performance.

Reasons for rejection

Condition

- The engine or gearbox is insecurely mounted.
- A chain sprocket:
 - is loose, or
 - has excessively worn teeth.
- A drive chain:
 - is excessively loose, or
 - has excessively worn links.
- A driveshaft is bent or severely damaged.
- A driveshaft flange:
 - is insecure, or
 - has a bolt or nut missing.
- A rubber doughnut-type driveshaft coupling:
 - is worn or damaged beyond manufacturer's specifications, or
 - is split or delaminated so that its mechanical integrity is affected, or
 - securing bolt is loose or missing.
- A driveshaft universal joint spider (cross) bearing:
 - is worn so that the movement in the joint is beyond manufacturer's specifications, or
 - caps have loose or missing cap bolts or circlips, or
 - is damaged, displaced or the seals between the spider journals and bearing caps are missing.
- A driveshaft slip joint (spline) is worn beyond manufacturer's specifications.
- The universals in the driveshaft are not fitted in accordance with manufacturer's specifications.

Modifications

- A modification (**Note 1**) affects the engine and transmission, and:
 - is not excluded from the requirements for LVV specialist certification (**Table 13-1-1**), and

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13-1 Engine and transmission (cont.)

Reasons for rejection

- b) is missing proof of LVV specialist 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.

Table 13-1-1. Modifications that do not require LVV certification

Fitting of or modification to:	LVV certification is not required provided that:
Substitution of engines	<ul style="list-style-type: none"> • when compared with the OE engine, the replacement engine: <ul style="list-style-type: none"> - is of the same or less cubic capacity, and - has equal or less weight, and - has the same or less power output, and - uses the same fuel (petrol, diesel), and - uses the same unmodified attachment points, ie it bolts in, and - uses the same ancillary equipment (accelerator linkages etc).
Minor modifications to OE engine	<ul style="list-style-type: none"> • the modifications result in not more than 20% more power than the OE engine, which may include the fitting of: <ul style="list-style-type: none"> - extractor or free-flow exhaust manifolds, or big bore exhaust systems - changed intake manifolds - changed or multiple carburettors - modified fuel injection systems - changed ignition systems - alternative cold air box induction systems
Gearbox substitution	<ul style="list-style-type: none"> • the gearbox cross member has not been heated, cut or welded, and • the OE gearbox cross member mounting to the OE body or chassis members is unchanged, and • no replacement gearbox cross member is used, and • the OE driveshaft or drive chains are unmodified.
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"> • in-service requirements for condition and performance must be met.

Note 1 Definitions

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.

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13-2 Fuel system

Summary of legislation

Applicable legislation

- Land Transport Rule: Vehicle Equipment 2004

Condition and performance

1. Fuel tanks, fuel lines and associated components must be:
 - a) securely mounted, and
 - b) made of suitable materials, and
 - c) in good condition, and
 - d) free from significant leaks, and
 - e) positioned so that the risk of mechanical damage or heat gain is minimised.

Modification

2. A modification that affects the fuel tank and fuel lines must be inspected and certified by a low volume vehicle specialist certifier, unless the vehicle:
 - a) is excluded from the requirement for LVV certification (**Table 13-2-1**), and
 - b) has been inspected in accordance with the requirements in this manual, including those for equipment, condition and performance.

Reasons for rejection

Condition

1. There is a noticeable fuel leak from the fuel system.
2. The security of the fuel tank is affected by:
 - a) corrosion damage (**Note 1**), or
 - b) cracking or other damage, or
 - c) insecure or loose tank mountings.
3. A fuel line is insecure or loose so that it is likely to be damaged during normal use of the vehicle.
4. A fuel pipe is severely damaged or excessively corroded.
5. A fuel hose is damaged or perished.
6. The fuel pump is insecure.
7. The fuel filler cap or capless fuel filler seal is missing, insecure, or likely to allow fuel spillage when the vehicle is in normal use.
8. The fuel tank is fitted with a 'temporary use' fuel filler cap.

Modification

9. A modification (**Note 1**) affects the fuel system, and:
 - a) is not excluded from the requirements for LVV specialist certification (**Table 13-2-1**), or
 - b) is missing proof of LVV specialist certification, ie:
 - i. the vehicle is not fitted with a valid low volume vehicle certification plate, or
 - ii. the operator is not able to produce a valid modification declaration or authority card.

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13-2 Fuel system (cont.)

Table 13-2-1. Modifications that do not require LVV certification

Fitting of or modification to:	LVV certification is not required provided that:
Fuel system changes and modifications	<ul style="list-style-type: none"> ▪ no structural modifications have occurred to the vehicle during the installation or modification, and ▪ the fuel type (petrol, diesel) has not changed.
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"> ▪ in-service requirements for condition and performance must be met.

Note 1 Definitions

Corrosion damage is where the metal has been eaten away, which is evident by pitting. The outward signs of such corrosion damage is typically displayed by the lifting or bubbling of paint. In extreme cases the area affected by corrosion damage will fall out and leave a hole.

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.