

Guidelines for modifications to vehicles operated under Victoria's Club Permit Scheme

33

For further information please write to the Manager Vehicle Safety and Compliance 60 Denmark Street Kew 3101 or contact your local Customer Service Centre

1. Purpose

The purpose of these guidelines is to ensure the on-going safety of vehicles operated under Victoria's Club Permit Scheme (CPS) (as established by Chapter 3, Part 3.4 of the *Road Safety (Vehicles) Regulations 2009*), that have been modified from the condition they were in when originally built. These guidelines set out modifications that are permitted without third party certification, the circumstances under which they may be carried out and any limitations to which they may be subject.

2. Scope

These guidelines apply to all light four-wheeled motor vehicles operated under, or applying to be operated under CPS except streetrods*.

Only the more common modifications are addressed. Where indicated, and in the case of modifications not included in these guidelines, the requirements of VSI 8 – *Guide to Modifications for Motor Vehicles*, will apply to club permit vehicles.

*A street rod means a vehicle that has been modified for safe road use and that:

- (a) has a body and frame that were built before 1949; or
- (b) is a replica of a vehicle the body and frame of which were built before 1949.

A street rod can be distinguished from other pre-1949 modified vehicles by virtue of it:

- looking like a traditional Hot Rod style of vehicle;
- having been built in accordance with the *National Guidelines for the Construction and Modification of Street Rods in Australia* as published on the Department of Infrastructure and Regional Development's web site; or
- having been authorised by the Australian Street Rod Federation.

3. Vehicle age categories

For the purposes of these guidelines club permit vehicles are divided into three categories based on their date of manufacture:

- Built before 1949
- Built after 1948 and before 1969
- Built after 1968

Note: A vehicle model that is first released for public sale before 1949 that continues unchanged in production beyond 1948 would be considered a pre-1949 model irrespective of when the vehicle was actually built. However this "carry over" principle does not apply in a like manner in the case of pre-1969 vehicles because the Australian Design Rule system introduced on 1 January 1969 required all vehicles manufactured after 1968 to be certified to all applicable ADRs irrespective of whether they were a continuing model

4. General requirements

For a modification to be acceptable the vehicle must continue to comply with the applicable standards for registration (Victoria's Standards for Registration are set out in Schedule 2 of the *Road Safety (Vehicles) Regulations 2009*). Further, the modification must not adversely affect the vehicle's structural integrity or its handling characteristics for safe use on the road.

The modifications set out below may be considered approved modifications provided they have been carried out in accordance with the specified guidelines. Modifications not mentioned, or not otherwise addressed by VSI 8, or that exceed any stipulated limits will require certification by a Vehicle Assessment Signatory Scheme (VASS) Signatory. For the purpose of certifying modifications to club permit vehicles manufactured before 1969, Signatories will be able to avail themselves of simplified assessment criteria.

Where a modification involves fabrication or welding all such work must be carried out in a professional manner. Any structural welding must be carried out by a competent person and be carried out with correct joint design with proper consideration given to parent metal type and gauge and to the selection of the welding process.

5. Engines

5.1. Replacement engines

5.1.1 Vehicles built before 1949

Any unmodified engine of the era may be fitted provided that:

- it can be accommodated in the space originally provided for the engine without structural modification (save for engine mount bracketry); and that
- the mass supported by an axle of the vehicle does not exceed its rated capacity*; and
- if the mass supported by an axle is increased by more than ten percent, it can be demonstrated that brake balance and effectiveness has not been adversely affected.

*It is the owner's responsibility to ascertain the load capacity of the axle. If this cannot be readily determined any increase in the mass supported by an axle as a result of the engine change should be limited to ten percent.

5.1.2 Vehicles built after 1948 and before 1969

Any unmodified engine offered as an option by the vehicle manufacturer for that model, may be fitted. Any additional equipment fitted to the vehicle as standard equipment by the manufacturer with that engine option must also be fitted.

Any unmodified engine of the era that is of the same configuration and that does not result in a significant power increase* over that of the original (or of that of any optional engine offered by the vehicle manufacturer for that model) may be fitted provided:

- it can be accommodated in the space originally provided for the engine without structural modification (save for engine mount bracketry); and that
- the mass supported by an axle of the vehicle does not exceed its rated capacity; and
- where the mass supported by an axle is increased it can be demonstrated that brake balance and effectiveness has not been adversely affected.

5.1.3 Vehicles built after 1968

VSI 8 requirements apply

5.2 Modified engines

5.2.1 Vehicles built before 1949

Minor modifications such as fitting alternative carburettor(s) or ignition systems etc are permitted. Generally modifications typical of the era are permitted. However modifications resulting in a significant* power increase and that involve the use of more modern (i.e. after 1948) components or technology will require certification.

5.2.2 Vehicles built after 1948 and before 1969

Modifications such as fitting extractors, alternative carburettor(s) or ignition systems etc are permitted. Generally modifications typical of the era are permitted. However modifications resulting in a significant* power increase (e.g. fitting a supercharger with a boost in excess of 5 psi or to a V8 engine) will require certification.

5.2.3 Vehicles built after 1968

VSI 8 requirements apply.

*The term "significant power increase" is to be taken to mean, in the case of engines

- (a) up to 2000 cc – a 40% increase
- (b) from 2001 cc to 3500 cc – a 30% increase
- (b) in any other case – a 20% increase

6. Transmission and final drive

6.1 Vehicles built before 1969

Any transmission, differential or drive axle of the era may be fitted provided that:

- there are no structural alterations to the vehicle;
- the item is adequate for the mass and power of the vehicle; and
- axle flanges, drums, rotors or hubs are not re-drilled for an alternative stud pattern.

For the purposes of these requirements the fabrication of a tailored transmission cross-member is not considered a structural alteration.

6.2 Vehicles built after 1968

VSI 8 requirements apply.

7. Bodywork changes

7.1 Vehicles built before 1949

For vehicles based upon a separate chassis, bodywork changes typical of the era are permitted without certification so long as the vehicle's general appearance is in accord with vehicles of that type with a similar date of manufacture. Different materials may be used.

7.2 Vehicles built after 1948

VSI 8 requirements apply.

8. Brakes

8.1 Vehicles built before 1969

For vehicles manufactured with hydraulic brakes, commercially available brake upgrade kits may be fitted provided:

- the replacement braking system meets the provisions of the General Requirements section of Code LG of Vehicle Standards Bulletin 14; and
- the kit has been manufactured by an entity that is subject to laws governing product liability; and
- the kit has been marketed as suitable for a particular make/model/year of vehicle; and
- comprehensive fitting instructions are provided; and
- the kit is fitted in accordance with the instructions provided; and
- fitting the kit does not involve drilling, cutting or welding.

8.2 Vehicles built after 1968

VSI 8 requirements apply.

9. Fuel systems

9.1 Vehicles built before 1949

9.1.1 Relocation of fuel tank

An original equipment or replacement fuel tank may be relocated on the vehicle provided:

- The tank is securely mounted
- The filler is located on the outside of the vehicle
- The tank is located so that it cannot be contacted by the road surface in the event of a flat tyre
- That if the tank is within 75 mm of an exhaust pipe suitable heat shielding is provided
- Any apertures created to allow for the installation of the fuel tank are suitably sealed to prevent the entry of exhaust or petrol fumes into the cabin of the vehicle
- Any replaced or extended fuel lines comply with the relevant provisions of VSI 8

9.1.2 Any other fuel system modification

VSI 8 requirements apply.

9.2 Vehicles built after 1948

VSI 8 requirements apply.

10. Wheels and Tyres

10.1 Vehicles built before 1949

Alternative rims may be fitted provided:

- they are of a form of construction and made of material(s) typical of rims fitted to vehicle of that type in the period,
- rim diameter may be reduced by up to 3 inches from original but nevertheless must not be less than 15 inches
- rim width may be increased by up to 1 inch.

Tyres must be suitable for the rims and must have an aspect ratio of at least 80%.

10.2 Vehicles manufactured after 1948

VSI 8 requirements apply.

