



Guidelines for Modifications to Motorcycles

Introduction

The following guidelines have been prepared to explain the various requirements you must meet if you alter your motor cycle from its original specifications.

Obviously, the alterations must not affect the safe handling of the motor cycle or endanger either the rider or any other road-user. You must not alter your machine in any way such that it will create a nuisance either to other road-users or to any member of the public.

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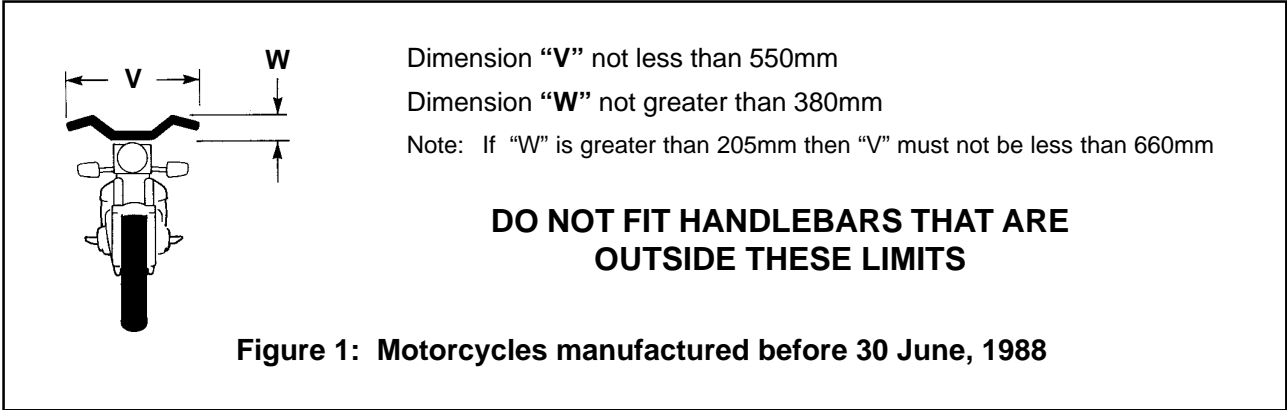
1. Handlebars

Handlebar dimensions have to be limited to ensure that you have adequate control over your motor cycle at all times:

On motorcycles manufactured before 1 July 1988 (Fig.1):

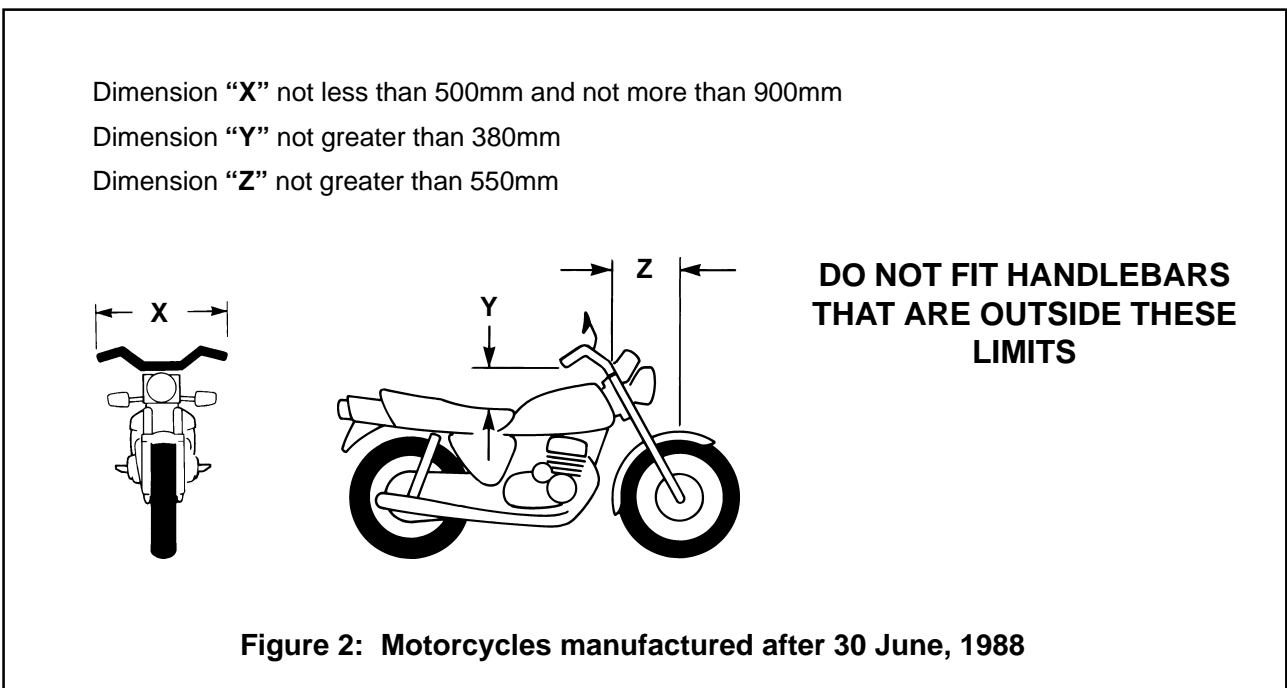
- The handlebar must have the same shape and be of same length on either side of the front wheel and steering head assembly.

- b) The distance between the extreme ends of the handlebar (V) must not be less than 550mm.
- c) The highest point on the handle bar must not be more than 380mm (W) above the top of steering yoke.
- d) Where the highest point of the handle bar is more than 205mm vertically above the top of steering yoke (W), the distance between the extreme ends of the handle bar (V) must not be less than 660mm.



On motorcycles manufactured after 30 June 1988 (Fig.2):

- a) The handlebar must have the same shape and be of same length on either side of the front wheel and steering head assembly.
- b) The distance between the extreme ends of the handle bar (X) must not be less than 500mm and not more than 900mm.
- c) The height of the lowest part of the handgrip must not be more than 380mm above the lowest part of the upper surface of the rider's seat (Y).
- d) The horizontal distance between midpoint of the steering yoke bearing and a point vertically above the centre of the front wheel must not exceed 550mm.



2. Wheels and tyres

On all wheels (including any side-car wheel), the tyre size must be suitable for the rim. Each tyre and rim must be strong enough to support the machine when it is fully loaded. Most major motor cycle tyre specialists can tell you the right tyre and rim for your machine and the appropriate tyre speed rating.

3. Noise nuisance

Motor cycles manufactured from 1st July, 1975, are subject to strict design requirements for noise limitation. In this case, components affecting noise emission (especially exhaust systems) must not be modified and must be maintained in a serviceable condition. Any replacement component must be as near as practicable to the original component specification.

If you modify or replace an exhaust system on a pre-1975 motor cycle, you must remember that the law prohibits all motor vehicles from causing excessive noise due to the condition or construction of the vehicle, or the manner in which it is operated.

**DO NOT REPLACE OR ALTER THE EXHAUST SYSTEM IF THIS IS
LIKELY TO INCREASE ITS NOISE OUTPUT BEYOND THAT OF THE
UNMODIFIED SYSTEM WHEN IN GOOD CONDITION.**

Motorcycles manufactured from 1st July 1988 have all components of the Silencing System marked with the name or trade name of the manufacturer. Every motorcycle carries information of the Stationary Noise Test in the following format:

STATIONARY NOISE TEST INFORMATION

Tested at..... dB(A) at..... r/min

Silencing System: (manufacturer's name)

Identification : (trade description)

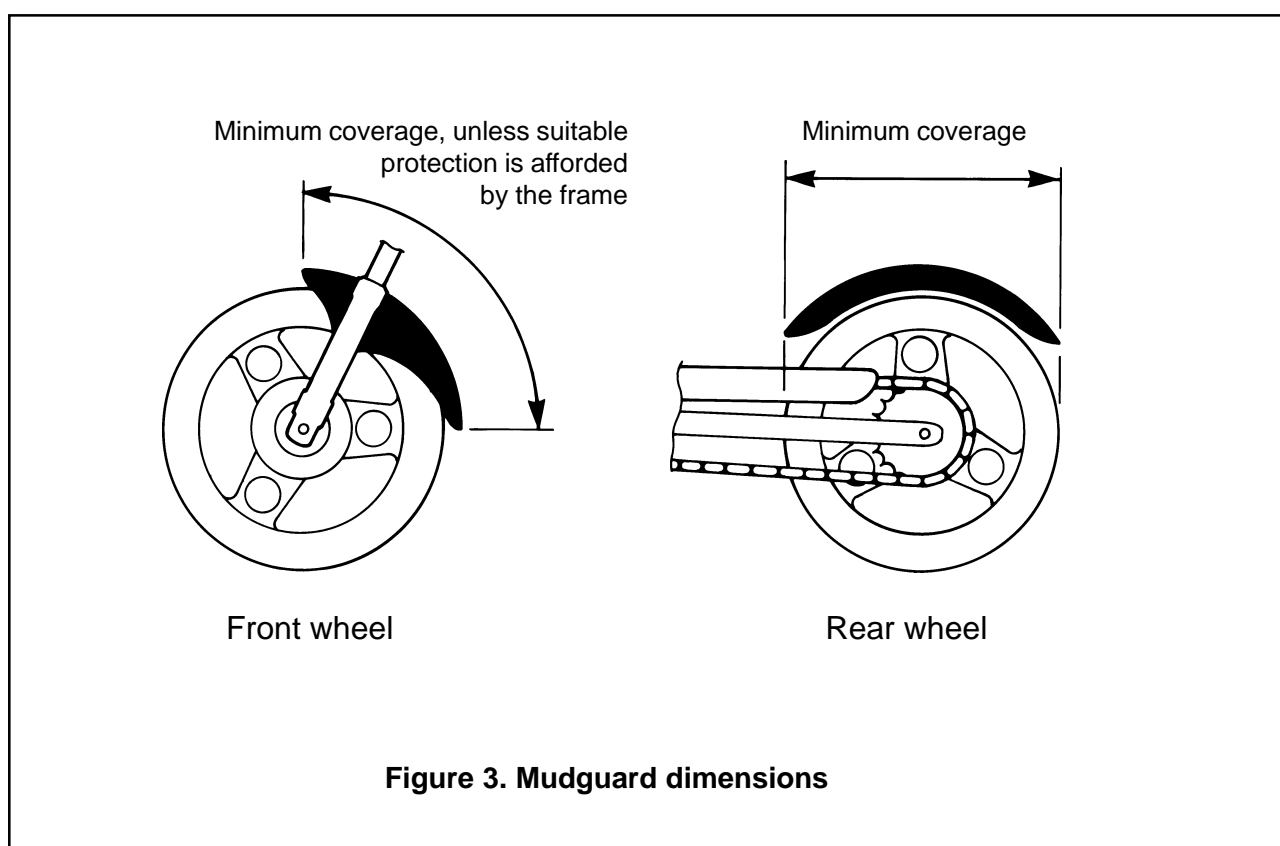
**ANY REPLACEMENT PART OF THE EXHAUST SYSTEM MUST
SHOW THE TRADEMARK OR THE NAME OF THE ORIGINAL
MANUFACTURER OF THE SYSTEM.**

4. Mudguards

Mudguards must be fitted to all wheels (including side-car wheels). Each mudguard must be at least as wide, over its entire length, as its respective tyre.

A front wheel mudguard must cover the rearward section of the wheel through the area between two lines, one vertical and the other horizontal, both drawn through the centre of the wheel. If suitable protection is afforded by the frame or other construction of the motor cycle, the front mudguard need only cover the area that is unprotected.

A rear wheel or side-car wheel mudguard must extend at least from a point vertically above the front of the tyre to a point vertically above the rear of the tyre. It must be mounted as close as practicable to the tyre.

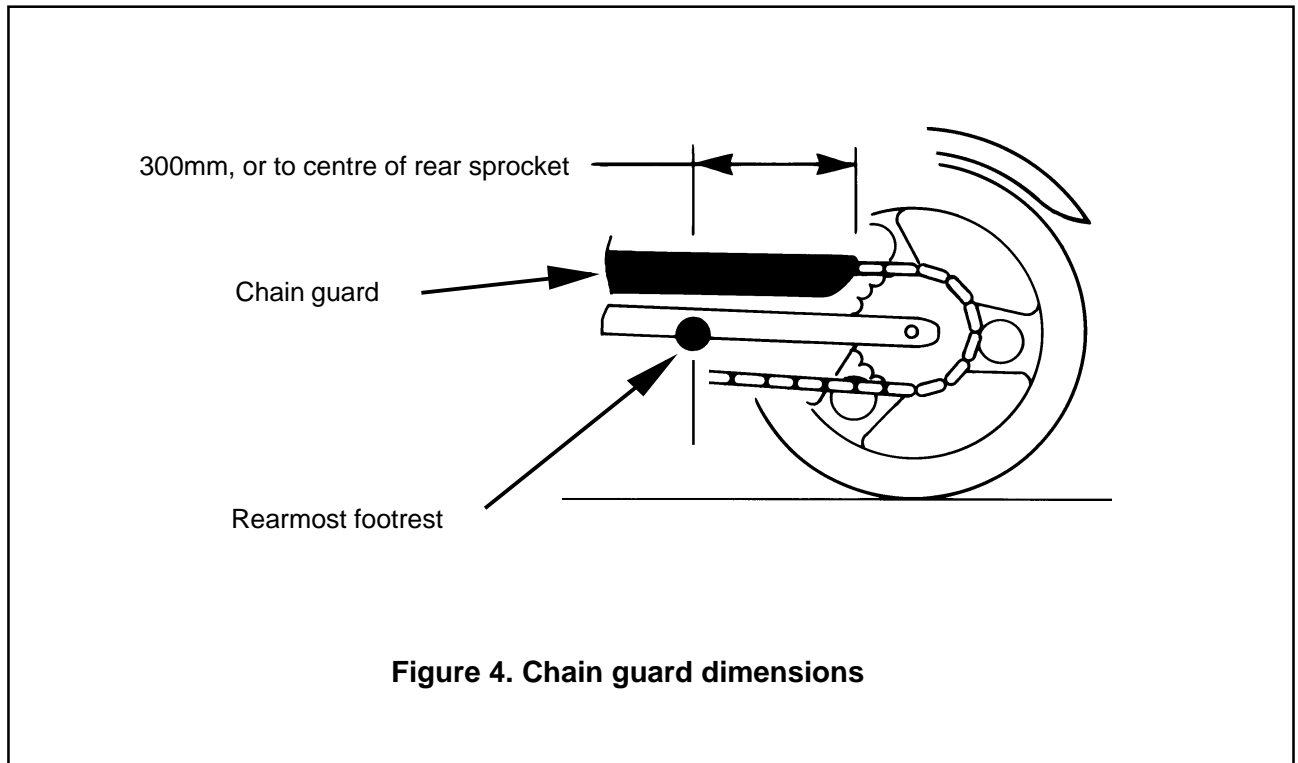


5. Foot and hand controls

The controls for motor cycles are standardised, therefore the position and operation of foot and hand controls must be kept, as far as practicable, to the manufacturer's original specification. For example, if you move the rider's footrests rearwards (that is, convert to "rear sets") it is not permissible to reverse or invert the gear lever. For safety reasons, the only acceptable method for this conversion is to fit a linkage which keeps the gearchange pattern the same as the original. You should always be able to operate the brake pedal without lifting your foot from the footrest.

6. Chain guards

If your motor cycle is chain-driven and the construction of the frame is not sufficient to protect you and/or your pillion passenger from the driving sprocket and the upper run of the chain, the machine must be fitted with a chain guard. The guard must extend at least 300mm rearward of the rearmost footrest or to the vertical centre of the rear sprocket.



7. Frame or suspension modifications

Motor cycle design is a complex task. Before you modify your motor cycle's frame or suspension, you should be aware that structural changes to the frame, steering head, front forks, suspension, brakes or wheels may load vital components well beyond the limits for which they were originally designed; this will increase the probability of failure and will be a danger to the rider and to other road-users.

The RTA will register a modified motor cycle with a properly designed custom frame, extended forks and structural modifications but only if submitted with a report from a recognised engineering signatory, detailing the changes and showing that the changes have not made the cycle unsafe.

It is recommended that you seek the advice of an engineering signatory before the modification is commenced. Vehicle Standards Information sheet No. 15 "Engineering Signatories" lists engineering signatories recognised by the RTA.

8. Other requirements

- a) If your motor cycle is fitted with a “sissy” bar, it must not extend above the rider’s head and should not have any sharp points or edges.
- b) Motor cycles with no rear suspension (that is, “hard tail”) must have a sprung seat for the rider and, where a pillion seat is fitted, it must be sprung too.
- c) Your motor cycle must be fitted with two braking systems; one capable of acting directly on the front wheel and the other on the rear wheel. If a failure occurs in one of the braking systems, then the other system must be operable.
- d) If a side-car or side-box is attached to your motor cycle that was manufactured on or after 1 March 1976, a mechanical parking brake must be fitted.

RECORDING CHANGES

If a motor cycle modification affects any of the details shown on the registration certificate (engine number, engine capacity or the addition of a side-car or side-box), the law requires that you give notification of such alteration and forward such certificate to the RTA for adjustment.

A WORD OF ADVICE: CHECK WITH YOUR INSURANCE COMPANY BEFORE MAKING ANY CHANGES TO YOUR MOTOR CYCLE AS SOME MODIFICATIONS MIGHT MAKE YOUR INSURANCE COVER VOID.

FURTHER INFORMATION

RTA Blacktown:

Vehicle Regulation Unit
Level 1, 85 Flushcombe Road
PO Box 558
BLACKTOWN NSW 2148

Tel: (02) 9830 5555
Fax: (02) 9831 0913

RTA Wollongong:

Vehicle Regulation Unit
104 Market Street
PO Box 5398
WOLLONGONG NSW 2500

Tel: (02) 4226 7007
Fax: (02) 4225 8844

RTA Charlestown:

Vehicle Regulation Unit
Cnr Pacific Hwy & Frederick St
PO Box 585
CHARLESTOWN NSW 2290

Tel: 1 800 049 920
or (02) 4940 5555
Fax: (02) 4921 0827

RTA Parkes:

Vehicle Regulation Unit
PO Box 334
PARKES NSW 2870

Tel: 1 800 809 388
Fax: (02) 6862 8496