

REGULATIONS FOR POWERED TWO AND THREE-WHEELED VEHICLES

Statement

This fact sheet is produced as general guidance and provides details of legislative regulations in Great Britain for powered two and three wheeled vehicles, including certain quadricycles. Every effort has been made to ensure that it is factually correct but recipients should check with the producers of this document if they are unsure about the validity of a particular regulation after the date of publication or if you have reason to believe any part is not correct or is now out of date.

1. General Requirements

It is the responsibility of the importers, sellers, owners and users of any powered two and three wheel vehicle to ensure that a vehicle used on the road complies with all the relevant regulations. Riders must also ensure that the vehicles are maintained in a road-worthy condition. Areas to pay particular attention to are brakes, tyres, steering, speedometer, lighting and noise.

2. European Whole Vehicle Type Approval

A system of European Whole Vehicle Type Approval (ECWVTA) for powered two and three-wheel vehicles (including some quadricycles) capable of more than 6km/h, came into operation on 17 June 1999. Any newly designed, volume produced, model or type of vehicle within the scope of ECWVTA and first introduced and placed on the market of an EU Member State from that date must have ECWVTA and a Certificate of Conformity issued by the manufacturer must be made available. To be valid in the UK, the Certificate of Conformity should indicate that the vehicle is suitable for use in left hand rule of the road traffic and has a speedometer calibrated in miles per hour.

Any model of vehicle which was being sold in the UK before 17 June 1999 could continue to be sold up to 16 June 2003 if it complied with The Road Vehicles (Construction and Use) Regulations 1986, as amended (C&U) and The Road Vehicles Lighting Regulations 1989, as amended (RVLR). After 16 June 2003 it had to have ECWVTA.

European Whole Vehicle Type Approval is a system of assessment of technical requirements for powered two and three-wheeled vehicles (including lightweight, low powered four wheeled vehicles referred to as quadricycles). The assessment and testing is carried out by authorised Type Approval Authorities based in each European Union Member State, to harmonised technical requirements given in various separate Directives and in accordance with the procedures given in a framework Directive 92/61/EEC, recently repealed and replaced by 2002/24/EC. The type approval process also includes an assessment of the production and quality control procedures of the manufacturer and a follow-up procedure known as Conformity of Production to ensure that the original conditions for granting type approval are maintained during the production life of the vehicle.

The purpose of ECWVTA is to harmonise the technical requirements for two and three wheeled vehicles, including certain quadricycles, and thus create a single market where vehicles which have been type approved in one of the Member States will be automatically accepted in all other Member States.

The authorised Type Approval Authority for the United Kingdom is The Vehicle Certification Agency, 1 The Eastgate Office Centre, Eastgate Road, Bristol BS5 6XX, Telephone +44 (0) 117 951 5151. There are limited exceptions to ECWVTA for vehicles produced in very low volume, amateur built vehicles, vehicles built from kits and some imported non-type approved vehicles. These are dealt with under a single vehicle approval scheme.

Electrically Assisted Pedal Cycles (EAPCs), are exempt from ECWVTA **provided that** the maximum continuous rated power of the motor does not exceed 0,25kW and that the output of the motor is

gradually reduced and finally cut off altogether when the machine reaches a speed of 25km/h or sooner if the cyclist stops pedalling. The following are also exempt from ECWVTA: pedestrian controlled vehicles, vehicles intended for use by the physically handicapped, vehicles intended for competition use, agricultural tractors and machines and three wheel vehicles with symmetrically arranged wheels (single front wheel) designed primarily for off-road leisure.

The subject areas of ECWVTA and the Directive numbers are as follows:

Directive	Subject
93/14/EEC	Braking
93/29/EEC	Identification of Controls
2000/74/EC	Amendment to 93/29/EEC
93/30/EEC	Audible Warning Devices
93/31/EEC	Stands
2000/72/EC	Amendment to 93/31/EEC
93/32/EEC	Hand Holds
1999/24/EC	Amendment to 93/32/EC
93/33/EEC	Devices to prevent unauthorised use
1999/23/EC	Amendment to 93/33/EC
93/34/EEC	Statutory Markings
1999/25/EC	Amendment to 93/34/EC
93/92/EEC	Installation of Lighting
2000/73/EC	Amendment to 93/92/EEC
93/93/EEC	Masses and Dimensions
93/94/EEC	Space for Rear Registration Plate
1999/26/EC	Amendment to 93/94/EC
95/1/EC	Measurement of Power, Torque and Maximum Speed
97/24/EC	“multi-Directive” comprising 12 Chapters each dealing with one of the remaining subject areas of the framework Directive
	Chapter 1 Tyres
	Chapter 2 Lights and signalling devices
	Chapter 3 External Projections
	Chapter 4 Rear View Mirrors
	Chapter 5 Air Pollution – see also Directive 2002/51/EC
	Chapter 6 Fuel Tanks
	Chapter 7 Anti-tampering measures
	Chapter 8 Electro-magnetic compatibility
	Chapter 9 Permissible sound level
	Chapter 10 Trailer Coupling Devices
	Chapter 11 Safety belts and anchorages
	Chapter 12 Glazing, wipers, washers, demisters and de-icers.
2000/7/EC	Speedometers

Directives may be accessed on the EU web site at <http://europa.eu.int/eur-lex>.

The definitions for powered two and three wheel vehicles in ECWVTA differ from those of the Road Vehicles (Construction and Use) Regulations 1986 (C&U) and the Road Vehicles Lighting Regulations 1989 (RVLR). Any vehicle, which is outside the definitions given in C&U must have ECWVTA or, if it is a three wheel motorcycle that is outside the definitions of C&U, it may be submitted for Single Vehicle Approval (SVA) under the “car” SVA scheme.

The ECWVTA definitions are:

Category L1e - Moped -Two wheel having a maximum speed of 45km/h, maximum internal combustion engine capacity of 50cm³ or a maximum electric motor power of 4kW.

Category L2e - Moped -Three wheel having a maximum speed of 45km/h, maximum spark ignition internal combustion engine capacity 50cm³ or maximum power of any

other internal combustion engine of 4kW or maximum electric motor power of 4kW.

Category L3e - Motorcycle – Two wheel, without a sidecar with an internal combustion engine capacity greater than 50cm³ and/or a maximum speed greater than 45km/h.

Category L4e - Motorcycle – Two wheel, with a sidecar with an internal combustion engine capacity greater than 50cm³ and/or a maximum speed greater than 45km/h.

Category L5e - Motor Tricycle – Three wheels, symmetrically arranged with an internal combustion engine capacity greater than 50cm³ and/or a maximum speed greater than 45km/h.

Category L6e – Light quadricycle – Four wheels, with a maximum unladen mass of 350kg (not including the mass of the batteries in an electrically powered vehicle), a maximum speed of 45km/h, a maximum spark ignition internal combustion engine capacity of 50cm³, or maximum power of any other internal combustion engine of 4kW or maximum electric motor power of 4kW. The construction requirements are those for a three wheel moped unless otherwise specified in a particular Directive.

Category L7e – Quadricycle - Four wheels, with a maximum unladen mass of 400kg or 550kg for a goods carrying vehicle (not including the mass of the batteries in an electrically powered vehicle) and a maximum net power, whatever the type of engine or motor, of 15kW. The construction requirements are those for a motor tricycle unless otherwise specified in a particular Directive.

Note – The Masses and Dimensions Directive, 93/93/EEC, applies controls on maximum dimensions and laden/unladen masses for vehicles.

3 UK National Regulations – The Road Vehicles (Construction and Use) Regulations 1986 and The Road Vehicles Lighting Regulations 1989 (C&U and RVLRL)

3.1 Definitions

Motorcycle - a vehicle having less than four wheels and weighing less than 410kg unladen.

This definition includes three wheeled motorcycles and three-wheel mopeds:

Three Wheeled Motorcycle - a motorcycle having three wheels, **not including** a motorcycle and sidecar.

Moped - a motorcycle weighing less than 250kg and with a maximum design speed not greater than 30mph. If the engine is an internal combustion engine its capacity must not exceed 50cm³. Propelling pedals are not required.

3.2 Regulations and their Availability

(a) The Road Vehicles (Construction and Use) Regulations 1986 (Statutory Instrument [SI] 1986 No.1078) as amended, usually referred to as C&U.

(b) The Road Vehicles Lighting Regulations 1989 (Statutory Instrument [SI] 1989 No.1778) as amended, usually referred to as RVLRL.

There have been many amendments to these base documents, some of which will not apply to motorcycles. Whilst copies can be obtained from 'The Stationery Office' (formerly HMSO) it may be easier to view the regulations in "The Encyclopaedia of Road Traffic Law and Practice" published by Sweet and Maxwell (www.smlawpub.co.uk). This publication is continually updated and contains both C&U and RVLRL. It is available in most city reference libraries.

The Stationery Office has published Statutory Instruments on its web site but only those dating back to 1988.

The address of the Stationery Office is The Publications Centre, PO Box 276, London, SW8 5DT (tel 0870 600 5522, website: www.hms.gov.uk, Virtual Bookstore: www.tso.co.uk).

3.3. Components and Component Systems

If vehicle systems or components are type approved to any of the separate Directives listed under ECWVTA this will be accepted in place of any corresponding requirement in C&U or RVLRL.

The following systems or parts must either be of an approved type or carry specific markings.

(a) **Ignition Suppression** on motorcycles first used on or after 1 April 1974 - must be approved to European Community Directive 72/245/EEC or to Chapter 8 of Directive 97/24/EC or to UN Economic Commission for Europe (ECE) Regulation 10;

(b) **Mirrors** optional fitment but if fitted on motorcycles first used on or after 1 October 1978 - must be approved to EC Directive 71/127, 79/795, 80/780, 85/205, 86/562, 88/321, Chapter 4 of Directive 97/24 or to ECE Regulation 46.01;

(c) **Lighting Equipment and Reflectors:**

(i) **Direction Indicators** - on motorcycles first used on or after 1 April 1986 must be approved to EC Directive 76/759, 93/92, Chapter 2 of 97/24 or to ECE Regulation 6 or 50;

(ii) **Stop Lamps and Front and Rear Position Lamps** - on motorcycles first used on or after 1 April 1986 must be approved to EC Directive 76/758, 93/92, Chapter 2 of 97/24 or ECE Regulation 7 or 50;

(iii) **Rear Reflectors** - on motorcycles first used before 1 April 1991 must comply with the requirements of British Standard AU 40. If first used after 1 April 1991 they must be approved to EC Directive 76/757, 93/92, Chapter 2 of 97/24 or to ECE Regulation 3;

(iv) **Rear Registration Plate Lamp** - on motorcycles first used on or after 1 April 1986 must be approved to EC Directive 76/760, 93/92 and Chapter 2 of 97/24 or to ECE Regulation 4 or 50;

(v) **Headlamps** - the regulations set minimum wattage requirements for dipped and main beam headlamps according to the cubic capacity of motorcycles. Headlamps on motorcycles are not required to have any approval markings, and

(vi) As a general condition the regulations require riders to keep obligatory lamps and reflectors clean and in good working order.

(d) **Exhausts - Replacement Silencer** (any silencer not fitted to the vehicle when it was originally manufactured). A replacement silencer for motorcycles and mopeds first used on or after 1 January 1985 must be constructed so that if it was fitted to an unused machine of the same model and date of first use, the machine would comply with the requirements of the Directive or British Standard applicable at that date.

Silencers are also subject to a number of marking requirements. No machine used on the road may be fitted with a silencer marked "Not For Road Use" or words to that effect. Similarly, any silencer fitted to a machine first used after 1 January 1985 must be clearly and indelibly marked as follows:

Date of first use	Marking
01/01/85 – 31/03/91	<ul style="list-style-type: none"> • Make and type of silencer, or • Manufacturer's name or mark, and part number, or • Manufacturer's name or mark, AND "e" or "E" mark with approval number, or • BS AU 193/T2, or BS AU 193a: 1990/T2, or • BS AU 193a: 1990/T3, or • Equivalent international standard marking.

01/04/91 – 31/01/96	<ul style="list-style-type: none"> • Manufacturer's name or mark, and part number, or • Manufacturer's name or mark, AND "e" or "E" mark with approval number, or • Make and type of silencer, or • BS AU 193a: 1990/T3, or • Equivalent international standard marking.
01/02/96 – 31/01/97	<ul style="list-style-type: none"> • Manufacturer's name or mark, and part number, or • Manufacturer's name or mark, AND "e" or "E" mark with approval number, or • BS AU 193a: 1990/T3, or • Equivalent international standard marking.
01/02/97 onwards	<ul style="list-style-type: none"> • Manufacturer's name or mark, AND "e" or "E" mark with approval number, or • BS AU 193a: 1990/T3, or • Equivalent international standard marking.

The European Community noise limits applicable to new motorcycles first used from 1 April 1991 are:

<u>Motorcycle Category by cm³</u>	<u>Limits in dB(A)</u>
Up to and including 80	77
Between 80 and 175 (incl.)	79
Above 175	82

Motorcycles approved to EU Directive 97/24/EC, Chapter 9 will be 2dB(A) less than the above figures.

(Note: the precise regulations for motorcycle exhausts are complex and it is recommended that they are studied closely to obtain accurate and complete details of the requirements).

Before buying any replacement parts for systems listed in this section, riders should check for the relevant marks, where applicable. These will include an "e" mark for EC Directives, an "E" mark for ECE Regulations and "BS" for British Standards.

(Note: amateur motorcycle builders may be exempt from some or all of the requirements)

3.4 Brakes

(a) Two Wheeled Motorcycles:

Two wheeled motorcycles (with or without sidecar) and mopeds, first used on or after 1 April 1987*, are subject to C&U Regulations 16 (5) and (5a). These Regulations require compliance with either UNECE Regulation 78 (including the appropriate "E" marking on the vehicle) or EU Directive 93/14/EEC, this provides an easy method for checking the legality of use for a particular machine. Motorcycles first used before 1 April 1987 are subject to C&U Regulation 16 (4) and subsequently the requirements of Schedule 3.

(b) Three Wheeled Motorcycles (Trikes):

Three wheeled motorcycles with an engine capacity of less than 50cc if of the internal combustion engine type and a design speed of less than 30mph, first used on or after 1 April 1987*, are subject to C&U Regulations 16 (5) and (5a). These regulations require compliance with either UNECE Regulations 78 or EU Directive 93/14/EEC; including the appropriate "E" marking on the vehicle, this provides an easy method for checking the legality of use for a particular machine.

Other three wheeled motorcycles are subject to C&U regulation 16 (4)a and subsequently the requirements of Schedule 3.

**Amateur built motorcycles (i.e.: those not built as part of a commercial enterprise) and motorcycles first used before 1 April 1987, are not subject to C&U regulations 16 (5) or 16 (5a) but must comply with C&U regulation 16 (4) and the relevant parts of Schedule 3.*

3.5 Motor Cycle Data Plates

The following motorcycles must be fitted with a motorcycle data plate:

- (a) Mopeds, if first used on or after 1 August 1977;
- (b) Standard motorcycles not exceeding 150cm³, if first used between 1 August 1977 and 31 December 1981;
- (c) Standard motorcycles not exceeding 125cm³, if first used on or after 1 January 1982;

Details of the plate and information required are given in Regulation 69 and Schedule 9 of the Road Vehicles (C&U) Regulations 1986. If the machine's specification is changed (derestricted) then the plate must be amended and the Driver and Vehicle Licensing Agency (DVLA) at Swansea must be notified using the relevant section on the back of the vehicle registration document (V5). Alternatively the data plate may comply with Directive 93/94/EEC indicating that the vehicle is type approved in accordance with Directive 92/61/EEC. The data plate will have an 'e' number and details of the noise output in dB(A) at a specified engine speed.

3.6. Speedometers

Every motorcycle first used on or after 1 April 1984 and capable of more than 25 mph must have a speedometer which reads in both miles per hour and kilometres per hour either simultaneously or separately by the use of a switch. A speedometer which is approved to Community Directives 75/443/EEC as amended by 97/39/EC, 2000/7/EC or to UNECE Regulation No.39 is acceptable.

4. Further Information

If you require any further information regarding the regulations covered by this fact sheet, please contact the DfT at the address below:

Transport Technology and Standards 6
Department for Transport
Zone 2/06
Great Minster House
76 Marsham Street
London
SW1P 4DR

Tel: (0207) 944 2078
Fax: (0207) 944 2069
Email: ts6.enquiries@dft.gsi.gov.uk