



EU: Motorcycle Legislation Update

Sylvia Mohr
July 2013
MR-182

Summary

Safety of motorcycles, scooters, mopeds and tricycles for use on EU roads has been regulated since 1992. In 2002, the European Commission harmonized requirements and consolidated amendments for these two-, three- and four-wheel motorcycles by adopting Directive 2002/24/EC, which is currently in force. In 2013, the Commission published its new Regulation 168/2013 to become mandatory as of December 31, 2015.

Motorcycles that fall within the scope of existing legislation require "type approval" which basically means that the whole motorcycle and its individual parts are subject to a pre-market procedure known as "type-approval."

This report summarizes current requirements and also features an overview of the changes as a result of the adoption of the new Regulation.

1. Existing Directive 2002/24/EC (<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CONSLEG:2002L0024:20081211:EN:PDF>)

Scope

EU Directive 2002/24/EC covers motorcycles (vehicles) intended for use on road. Components, technical units and systems are included in the scope and subject to separate legislation as specified in Annex II of 2002/24/EC. The text differentiates several categories of motorcycles:

- L1e are two wheel vehicles; maximum design speed of not more than 45 km/h
- L2e are three wheel vehicles; maximum design speed of not more than 45 km/h
- L3e are two wheel vehicles without sidecar
- L4e are two wheel vehicles with a sidecar
- L5e are tricycles (engine/speed limitations over 45 km/h)
- L6e are light quadricycles with an unladen mass of not more than 350 kg (treated the same way as L2e)
- L7e are quadricycles with an unladen mass of not more than 400 kg (treated the same way as L5e)

The current law excludes:

- individual motorcycles
- vehicles with a design speed not exceeding 6 km/h
- vehicles used in competition (on- and off-road)
- vehicles for physically handicapped

- vehicles for pedestrian control
- tractors and machines
- vehicles for off-road leisure with 1 wheel in front, 2 in the back
- cycles with pedals and an electric motor, maximum speed not exceeding 25 km/h

Products which are not covered in the scope of the motorcycle Directive may be regulated by other legislation; for example, electric bicycles require compliance with EU electrical safety legislation. Tractors and machines are regulated separately. For example, an all-terrain-vehicle for off-road use is regulated as a machine under the machine safety Directive.

Type approval and certificate of conformity

Whole motorcycle

Current legislation applies to whole motorcycles for serial production based on a type-approved model. The type-approved model consists of type-approved components which were tested and certified separately by individual manufacturers. Already at the stage of design of the motorcycle, the manufacturer should keep EU safety and environmental requirements in mind and document compliance throughout production and testing. Testing can be done in the United States (see relevant at the end of this report). The documented specifications and test results will have to be submitted for approval of the motorcycle as a whole.

EU motorcycle legislation contains a form (Annex II) which specifies the content to be supplied by the manufacturer for approval of the motorcycle, its parts, technical units or systems. This form includes every safety or environmental aspect of the motorcycle – engine, transmission, lighting, noise emissions as well as “position for the mounting of the rear registration plate” among others - all of which are covered by separate Directives, such as Directive 93/14/EC for braking systems. Manufacturers have to comply with the separate Directives listed in Part 2 of Annex II as well as the Directive 2002/24/EC (see further).

The information form/package should be sent to a national approval authority in one of the 28 EU member states*. The national approval authority will check conformity of production and grant type approval subject to testing. The approval authority will present a completed type approval form to the applicant and send a copy of the type approval certificate to all EU member states within one month, as well as listings of approved parts, systems, and separate technical units. This process of information sharing among member states facilitates acceptance of the motorcycle on the market in other EU member countries.

After receipt of type approval, the manufacturer creates a certificate of conformity which accompanies each motorcycle. The certificate model can be found in Annex IV-B.

Separate parts, units and systems

Current legislation also refers to separate legislation covering individual parts, technical units and systems of motorcycles. These have to be manufactured in accordance with specific product legislation as referenced in 2002/24/EC. They will need to be assessed, tested and certified just like the whole vehicle approval procedure described above. Original (OEM) components do not need a certificate of conformity; non-OEM components

do need a certificate of conformity provided by the manufacturer. Parts, units and components usually show a factory or trade mark and, where required, a little e mark (type approval mark) as shown in the Appendix of Annex V.

Custom-made or individual motorcycles

Custom-made or individual motorcycles are subject to type-approval at member state level. The requirements may vary country-by-country. Manufacturers or owners of motorcycles may have to modify certain aspects of their vehicle in order to obtain approval for registration of their vehicle. The assessment will cover, among others, tires, emissions, brakes, headlamps. Certificates of conformity of type-approved parts, technical units and systems will be accepted.

2. New Regulation 168/2013 (<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2013:060:0052:0128:EN:PDF>)

Regulation 168/2013, adopted in January 2013, covers approval and market surveillance of two- and three-wheel vehicles and quadricycles (quads). Other than the whole vehicle type approval, the Regulation also addresses type approval of systems, components and separate technical units, in line with the existing legislation. While this new Regulation is in force since March 22, 2013, it won't become effective until four delegated and one implementing acts have been developed to allow proper implementation of the new Regulation. These acts, covering functional safety, environmental performance, and vehicle construction as well as forms to be used to submit dossiers for type approval, should be available by end of 2014 (weblink for reports about ongoing work - https://circabc.europa.eu/faces/jsp/extension/wai/navigation/container.jsp?FormPrincipal:_idcl=FormPrincipal:_id4&FormPrincipal_SUBMIT=1&id=08880174-18dd-4b1e-80e4-20d488f64231&javax.faces.ViewState=rO0ABXVyABNbTGphdmEubGFuZy5PYmplY3Q7kM5YnxBzKWwCAAB4cAAAAAN0AAEzcHOAKy9qc3AvZXh0ZW5zaW9uL3dhaS9uYXZpZ2F0aW9uL2NvbnRhaW5lci5qc3A=)).

In the meantime, motorcycles and their parts/systems can still be type-approved according to existing legislation to allow a gradual phase-in of the new requirements. The transition period, allowing the new Regulation and the existing Directive to co-exist, ends on December 31, 2015. At that point, Directive 2002/24/EC will be withdrawn.

Key differences between the existing 2002/24 and new 168/2013:

General

The Directive became a Regulation which means that Member States have to implement the text as published in the Official Journal. Unlike the Directive, the Regulation should be considered a framework. The details – such as formats, requirements, etc., – will be adopted separately. While the manufacturer now has more choices and will be looking for information in different places, the general procedure/concept remains the same – manufacturers need to apply for type-approval prior to bringing two- and three-wheel vehicles on the EU market, as described above.

Motorcycle legislation now incorporates fundamental principles of EU single market legislation such as role of manufacturer, importer, distributor, authorized representative as well as market surveillance and safeguards. These articles were added to ensure alignment

with the New Legislative Framework, which addresses product safety in the single market. The emphasis is on traceability, which means that not only does the manufacturer's name have to be on the product, packaging or accompanying document, but also the name of the importer. Moreover, certificates of conformity, issued by the manufacturer upon receipt of type approval, will be numbered in the future, based on a new numbering system to be developed.

In addition, U.S. manufacturers need to appoint a single representative established in the EU to represent them with the approval authority and/or as a contact for market surveillance authorities.

As mentioned previously, between the time of writing this report and the end of 2014, the Commission intends to adopt a number of implementing measures such as specific requirements, templates to present required information for type approval requests, detailed arrangements regarding conformity of production, model of certificate of conformity, plate and markings, etc.

Scope and classification

The scope was clarified: by specifically mentioning travel of two- and three-wheel motorcycles on public roads, vehicles for off-road use are excluded. Enduro, trial and heavy all terrain quads are included in the scope whereas individual motorcycles are not covered.

The general classification – ranging from L1e to L7e – remains unchanged, as follows:

- o L1e light two-wheel powered vehicle
- o L2e three wheel moped
- o L3e two-wheel motorcycle
- o L4e two-wheel motorcycle with side-car
- o L5e powered tricycle
- o L6e light quadricycle
- o L7e heavy quadricycle

As with the existing directive, there are subcategories of vehicles. Annex I is helpful in determining categories based on additional criteria, such as mass, power, seating, etc. Mode of propulsion, such as electric engine, hybrid, or combustion engine, among others, is another element to allow proper classification.

The list of exclusions is longer in the new Regulation as follows:

- o vehicles with a design speed not exceeding 6 km/h
- o vehicles used in competition
- o vehicles for physically handicapped
- o vehicles for pedestrian control
- o vehicles designed and constructed for use by the armed services, civil defense, fire services, forces responsible for maintaining public order and emergency medical services
- o agricultural or forestry vehicles
- o vehicles for off-road use and designed to travel on unpaved surfaces
- o pedal cycles with pedal assistance with and auxiliary electric motor, maximum speed not exceeding 25 km/h, continuous rated power of less than 250 W,

and motor is cut off when cyclist stops pedaling and is otherwise progressively reduced/cut off before the vehicle reaches 25 km/h.

- o self-balancing vehicles
- o vehicles not equipped with at least one seating position
- o vehicles with any seating position in non-standardized height

Type approval stages

The manufacturer has several options when considering type approval.

- o Step-by-step (collection of individual type approvals)
- o Single-step type approval (a single approval process for the part or the whole vehicle)
- o Mixed type approval (step-by-step without necessarily a type approval for the systems other than the whole type approval)

For certain types of vehicles, it is possible to handle type approval in multiple stages. For example, a typed approved commercial vehicle chassis to be equipped with a construction on top.

Unlike existing legislation, the format of the information folder to be submitted to the approval authorities for type approval is not listed in the Annexes. Templates for the new document and the folder still must be developed which is also applies to the test reports to be submitted for type approval.

Specific requirements which have to be met - such as noise testing or electrical safety - are listed in Annex II of the new Regulation. These requirements, in turn, refer to separate regulatory acts that describe the requirements in detail but readers will note the absence of reference numbers in the chart. The Commission intends to refer to UN Regulations where possible rather than develop its own separate regulatory acts. This work is ongoing.

Different type approval systems for innovative systems and small series

Innovative vehicles, systems, components or separate technical units can be subject to type Approval, which is based on a special exemption granted by the Commission through an implementing measure. This EU type approval will be limited to one country and limited in terms of length but it is possible for other Member States to accept the provisional EU type approval.

With regard to two- and three-wheel vehicles produced in limited quantities ('small series'), the Commission allows Members States to waive some of the requirements specified in this new Regulation. The practice currently exists but the numbers of small series exceptions have been reduced.

Other

Euro 5 engine emissions will be gradually phased-in to become mandatory for all types of vehicles as of 2020. The timeline may be subject to review, in light of scientific data and research findings as well as cost effectiveness, pending the outcome of a study due by the end of 2016.

Summing up

Manufacturers of two- and three-wheel motor vehicles, such as mopeds, motorcycles but also quads, have to apply for type approval prior to bringing their vehicles on the EU market. Compliance will be assessed against the current Directive 2002/24/EC until December 2015. As of December 2014, it will be possible to comply with new Regulation 168/2013, which will become mandatory on January 1, 2016. Manufacturers of individual parts, both OEM and non-OEM, also have to ensure that their products are compliant with product specific legislation, if applicable. Relevant documents can be downloaded free of charge from Commission websites:

http://ec.europa.eu/enterprise/sectors/automotive/documents/directives/index_en.htm

Websites

European Associations

Motorcycle Association of Europe (ACEM) - www.acem.eu

Road Riding Motorcyclists Federation of Europe (FEMA) - www.fema-online.eu

European Motorcycle Union (UME) – www.uem-moto.eu

European Two-wheel Retailers Association (ETRA) – www.etra-eu.com

Approval Bodies:

http://ec.europa.eu/enterprise/sectors/automotive/approval-authorities-technical-services/approval-authorities/index_en.htm

Testing/Certification Services:

US (*not an exhaustive list!*)

<http://www.vcana.com/vehicletype/type-approval-for-mo.asp>

http://www.tuev-nord.de/en/Importing_vehicles_2732.htm

EU

http://ec.europa.eu/enterprise/sectors/automotive/approval-authorities-technical-services/technical-services/index_en.htm

* EU member states: Austria, Belgium, Bulgaria, Croatia, Czech Republic, Cyprus, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, United Kingdom

For More Information:

The U.S. Commercial Service at the U.S. Mission to the European Union is located at Boulevard du Regent 27, Brussels BE-1000, Belgium, and can be contacted via e-mail at: brussels.ec.office.box@trade.gov; or by visiting the website: www.export.gov/europeanunion.

One can locate the nearest U.S. Export Assistance Center or Commercial Service offices throughout Europe by visiting www.export.gov.

To the best of our knowledge, the information contained in this report is accurate as of the date published. However, the Department of Commerce does not take responsibility for actions readers may take based on the information contained herein. Readers should always conduct their own due diligence before entering into business ventures or other commercial arrangements. The Department of Commerce can assist companies in these endeavors.

INTERNATIONAL COPYRIGHT, U.S. DEPARTMENT OF COMMERCE, 2011. ALL RIGHTS RESERVED OUTSIDE OF THE UNITED STATES.