

Enterprise and Industry
Sustainable mobility & Automotive
Industry Unit

Screening Serbia
Chapter 1
Automotive Technical
Requirements

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Sustainable mobility & automotive industry unit

Information on EU automotive legislation and much more:
http://ec.europa.eu/enterprise/automotive/index_en.htm

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Type-Approval legislation

- Directive 2007/46/EC on **Motor vehicles** & their trailers and systems, components and separate technical units
Separate directives or regulations listed in Part 1 of Annex IV (including their implementing acts)
- Regulation (EU) No 168/2013 on **two or three-wheel** motor vehicles & their components (includes quadricycles)
List of requirements & regulatory acts in Annex II
Mandatory application start in 2016. EC → EU approvals
- Regulation (EU) 167/2013 on **agricultural** or forestry vehicles, including their trailers and interchangeable towed machinery, together with their systems, components and separate technical units. Mandatory application start in 2016. EC → EU approvals
List of requirements & regulatory acts in Annex I
- Directive 97/68/EC on emissions from internal combustion engines for **non-road mobile machinery**

Need for Type-Approval legislation

To ensure high levels of:

- Road safety
- Health & environmental protection
- Energy efficiency

Additionally to facilitate:

- Trade
- Competition level field for manufacturers
- Economies of scale

Directive 2007 / 46 / EC

Framework for EC type-approval of

- components / separate technical units
- systems
- vehicles (including trailers & special vehicles)

Comprises legislative provisions for

- [amending/updating](#) legislation
- inserting [UNECE Regulations](#) in the EC legislation



Directive 2007 / 46 / EC

Corner-stones of EC type-approval system (1)

- 75 requirements in Annex IV part 1 with separate Directives or Regulations, alternative UNECE regulations and **vehicle category** – Annex II Part A- for which applicable;

Three implementation stages (Annex XIX)

- voluntary basis by the manufacturer
- mandatory basis for new vehicle type
- mandatory basis for all new vehicles

Directive 2007 / 46 / EC

Corner-stones (2)

Several possibilities for vehicle manufacturers

- *EC whole-vehicle type-approval (**mass** production)*
- *EC whole-vehicle type-approval (**small series** production, M1 vehicles = less than 1,000 units per year for a single type)*
- ***National small series** production (very limited number of vehicles; passenger cars = max 75 units per year)*
- ***Individual** approval (not limited)*



Directive 2007 / 46 / EC

Corner-stones (3)

- **Mandatory** application: complying goods must be accepted. Non complying goods cannot be sold
- **Same technical provisions** in all EU Member States: no derogations nor transitional periods
- Provisions are designed to be **performance-oriented** and **technology-neutral**
- Legislation is **constantly adapted** to evolution of construction of vehicles;
- Tests *and* checks are performed by independent bodies (**technical services**) designated by a Member State
- The manufacturer has to show that he fully manages **conformity of production (CoP)**

Directive 2007 / 46 / EC

Corner-stones (4)

- *Approvals are granted by a governmental authority (the **type-approval authority**)*
- Mutual recognition of **approvals**
- Mutual recognition of **approval markings**
- The manufacturer states that each vehicle is built in compliance with EC legislation (**certificate of conformity, CoC**)
- registration of vehicles requires only a **CoC**
- Loss of **validity** of approvals

Type-approval process

- *Initial assessment*
(Quality management – ISO 9000 covering CoP)
- *Application* (Annex I or Annex III – Information document)
- *Testing* by a technical service (EN 17 025)
- *Granting of the approval* by a Governmental authority:
the approval authority
- *Conformity of Production* (CoP) by the Manufacturer
- *Survey of CoP obligations* by the Approval Authority
- *Deliverance of a certificate of compliance* to customers

Member State obligations

- *Administrative capacity*
- *Alignment legislation*
- *Notifications & exchange of information*
- *Application of penalties*
- *Certainty: only issue TAs when wholly prepared*

International aspects

Common technical requirements reduce development costs & uncertainties and avoid duplication of administrative procedures.

The EU promotes common international standards by participating in :

- *UNECE **1958** agreement*
- *UNECE **1998** agreement*
- ***OECD** Codes (tractors)*
- *Agreements: **EEA**, **MRAs**, **Customs Union**, **trade & cooperation**.*

Revised 1958 UNECE Agreement

- 131 Regulations annexed to Agreement
- 74 Regulations deemed to be equivalent to EC Directives (Article 35 of Directive 2007/46/EC)
- Approvals granted in accordance with a UNECE Regulation must be accepted by type-approval authorities if EU has acceded to that Regulation

Two or three-wheel vehicles

Particularities :

- Requirements classified in functional, environmental and construction ones
- Only small series at national level regulated
- Provisions for dangerous parts or equipment

Agricultural tractors

Main particularities are:

- In addition to road safety and environmental protection it also covers occupational safety
- There is no individual approval scheme. Only national approval for small series
- Equivalence of certain UNECE Regulations & OECD codes
- Market surveillance provisions

Emissions from non-road mobile machinery

Mobile machine, transportable industrial equipment or vehicle not intended for passenger/goods transports on road with internal combustion engine

- Wide scope including hand-held engines, engines for public works, harvesters, railcars, locomotives and inland waterway vessels.
- Emission limits vary with the engine destination, power output and stage.
- Approval may be restricted to engine operating in conjunction with other machinery.
- Replacement engines only need to meet the original limits.
- There is a flexibility scheme.
- Approval may be restricted to engine operating in conjunction with other machinery.

Better regulation

- Directives are being replaced by regulations, with uniform entry into application
- Gathering technical provisions into one implementing regulation, for simplification and faster adaptation to technical progress
- Wider use of direct references to international standards
- Clarification of roles for market surveillance
- Especificities of new technologies
- New rules for Commission legislation

Coming legislation

Regulations replacing

- Directive 97/68/EC
- Directive 2007/46/EC



Any questions?

THANK YOU FOR YOUR ATTENTION