

Changes to legislation: There are currently no known outstanding effects for the Regulation (EU) No 168/2013 of the European Parliament and of the Council, ANNEX VIII. (See end of Document for details)

ANNEX VIII

[^{X1}ENHANCED FUNCTIONAL SAFETY REQUIREMENTS⁽²¹⁾]

Topic	Requirements
Mandatory fitting of advanced brake systems	<p>(a) new motorcycles⁽²²⁾ of the L3e-A1 subcategory which are made available on the market, registered and entering into service are to be equipped with either an anti-lock or a combined brake system or both types of advanced brake systems, at the choice of the vehicle manufacturer;</p> <p>(b) new motorcycles of subcategories L3e-A2 and L3e-A3 which are made available on the market, registered and entering into service to be equipped with an anti-lock brake system.</p> <p>Exemption: L3e-AxE (x = 1, 2 or 3, two-wheel Enduro motorcycles) and L3e-AxT (x = 1, 2 or 3, two-wheel Trial motorcycles) are exempted from the obligatory fitting of advanced brake systems.</p>
Safe cornering on hard-surfaced roads	<p>L-category vehicles are to be constructed such that each of the wheels can rotate at different speeds at all times in order to allow safe cornering on hard-surfaced roads. If a vehicle is equipped with a lockable differential, it must be designed to be normally unlocked.</p>
Improvement of vehicle and rider visibility by automatic switching-on of lighting	<p>In order to improve their visibility, L-category vehicles are to be equipped with the following:</p> <p>(a) for L1e vehicles: lighting and light-signalling devices in compliance with UNECE regulation No 74 Rev. 2, which requires the lighting system to be turned on automatically;</p> <p>(b) for L3e vehicles: at the choice of the vehicle manufacturer, either lighting and light-signalling devices in compliance with UNECE regulation No 53 Rev. 2 and its amendments 1 and 2, or dedicated day-time running lights (DRL) complying with UNECE regulation</p>

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	<p>No 87 Rev. 2 and its amendments 1 and 2;</p> <p>(c) for all other subcategories of L-category vehicles: a lighting system automatically turning on or at the choice of the manufacturer, dedicated day-time running lights that automatically switch on⁽²³⁾.</p>
(Annex II (B) 3) Electrical Safety	Vehicles of category L, with respect to the electric power train when equipped with one or more traction motor(s) operated by electric power and not permanently connected to the grid, as well as their high voltage components and systems which are galvanically connected to the high voltage bus of the electric power train, shall be designed so as to avoid any risk to electrical safety, in using relevant requirements of UNECE regulation No 100 and ISO 13063.
(Annex II (B) 4) Requirements on manufacturer declaration requirements regarding endurance testing of functional safety critical systems, parts and equipment	<p>The vehicle manufacturer shall declare that vehicles produced in conformity with Article 22(2), shall be able to withstand normal use as intended for at least the distance travelled as specified below, within five years after first registration.</p> <p>The distance shall be 1,5 times the distance as specified in Annex VII in direct relation to the vehicle category in question and the emission stage (i.e. Euro level) according to which the vehicle is to be type-approved, however, the required distance shall not exceed 60 000 km for any vehicle category.</p>
(Annex II (B) 5) Requirements on front and rear protective structures	Vehicles of category L, with respect to their front and rear structures, shall be designed to avoid pointed or sharp parts or projections which are directed outwards and which are likely to catch on or significantly increase the severity of injuries or chance of lacerations to vulnerable road users in case of a collision. This is applicable both for front and rear structure of the vehicle.
(Annex II (B) 10) Safety belt anchorages and safety belts	Mandatory requirements for safety belt anchorages and the installation of safety belts on vehicles of categories L2e, L5e, L6e and L7e fitted with body work.
(Annex II (B) 15) Requirements concerning vehicle occupant protection including interior fittings and vehicle doors	Vehicles of category L2e, L5e, L6e and L7e which are fitted with bodywork shall be designed to avoid any pointed or sharp parts or projections which are likely to

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	significantly increase the severity of injuries to the driver and the passengers. Vehicles fitted with doors shall be designed to ensure that these doors are constructed with relevant latches and hinges.
(Annex II (B) 17) Requirements on vehicle structure integrity	The vehicle manufacturer shall declare that in case of a recall due to a serious safety risk, specific analysis of vehicle structures, components and/or parts by means of engineering calculations, virtual testing methods and/or structural testing will be made available immediately to the approval authority and the Commission upon request. Vehicle type-approval shall not be granted if there is reason to doubt that the vehicle manufacturer is able to provide such analysis.

Editorial Information

- X1** Substituted by [Corrigendum to Regulation \(EU\) No 168/2013 of the European Parliament and of the Council of 15 January 2013 on the approval and market surveillance of two- or three-wheel vehicles and quadricycles \(Official Journal of the European Union L 60 of 2 March 2013\)](#).

NB: refer to the end of Annex VIII for an overview of the notes to the annexes.

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