



Department
for Transport

EU Regulation on the Approval of L-Category Vehicles

Adrian Burrows

International Vehicle Standards

December 2013



**REGULATION (EU) No 168/2013
on the approval and market surveillance of two-
or three-wheel vehicles and quadricycles**

Entered into force: February 2013

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



2 Wheels (L1e, L3e)

Powered Cycles (L1e-A)

Pedals

Power up to 1000w (Electric or combustion)

Power assist cuts off at speeds above 25 km/h

Can also have 3 or 4 wheels



Mopeds (L1e-B)

Power up to 4kW

Max speed 45 km/h

Motorcycles (L3e)

3 sub categories



	L3e-A1	L3e-A2	L3e-A3
Power	≤11kW	≤35kW	>35kW
Power to weight	≤ 0,1 kW/kg	≤ 0,2 kW/kg	-





3 Wheels (L2e, L5e)

Mopeds (L2e)

Mass in running order

≤ 270kg

1-2 seats



Tricycles (L5e)

Mass in running order

≤1000 kg

Maximum 5 seats (2 for
commercial trikes)



4 Wheels (L6e)

Light quads

- maximum design speed ≤ 45 km/h
- mass in running order ≤ 425 kg
- engine capacity ≤ 50 cm³ if a PI engine or engine capacity ≤ 500 cm³ if a CI engine
- maximum of two seating positions



Light Quad

A Power ≤ 4 kW



Light quadri-mobile (L6e-B)

enclosed passenger
compartment maximum
power ≤ 6 kW
BP- passenger
BU- Goods





4 Wheels (L7e)

Heavy on road quad (L7e-A)

Power $\leq 15\text{kW}$

A1- maximum 2 straddle seats and handlebar steering

A2 – maximum 2 non-straddle seats



Heavy quadri-mobile (L7e-C)

maximum power $\leq 15\text{ kW}$ and maximum design

speed $\leq 90\text{ km/h}$ and enclosed passenger compartment

CP - maximum four non-straddle seats

CU - maximum two non-straddle seats and loading area criteria.





4 Wheels (L7e)

Heavy all terrain quad (L7e-B)

B1- maximum 2 straddle seats and handlebar steering

maximum design speed ≤ 90 km/h and wheelbase to ground clearance ratio ≤ 6 .



B2 - maximum 3 non-straddle seats, maximum power ≤ 15 kW and wheelbase to ground clearance ratio ≤ 8 .





Out of Scope

EAPC

Electric assist, power \leq 250W (UK 200W)

Pedals

Power cuts off when speed exceeds 25 kph



Self balancing vehicles



Maximum speed not exceeding 6 km/h



No seating position



vehicles equipped with any seating position of the driver or rider having an R-point height \leq 540 mm in case of categories L1e, L3e and L4e or \leq 400 mm in case of categories L2e, L5e, L6e and L7e.



Vehicles intended exclusively for physically handicapped



Euro 4 January 2016

Test cycles:

Mopeds and light quads: R47,

Heavy quads and tricycles: R40

Motorcycle: WMTC (GTR 2)

Euro 5* January 2020

Test Cycle: Revised WMTC

Limits Broadly aligned with M1 Euro 6

* Subject to Environmental Effect Study

CO₂ & Fuel Consumption

Obligation to report for first time:

- CO₂
- Fuel Consumption and/or electric energy consumption
- Electric range

Provide information at point of sale (but no Consumer info regs)





Vehicle functional safety requirements

Front and Rear Protective structures

Vehicle Structure Integrity

Steer-ability

AVAS permitted on electric vehicles

Additional requirements for L7e-A2

Commission Study (TRL)

Front, Side impacts?

Pedestrian protection?

Advanced assistance systems?



Driver Licensing

Vehicle Category	Driving Licence Category Pre 19/1/2013	Driving Licence Category post-19/1/2013	Min. Age
L7e Heavy Quadricycle	B1 (3 or 4 wheel vehicles up to 550 kg unladen)	B1 (4 wheel vehicles up to 550 kg unladen), or B (up to 3.5 tonnes Maximum Authorised Mass – MAM)	17
L6e Light Quadricycle	B1 (3 or 4 wheel vehicles up to 550 kg unladen)	AM (up to 350 kg unladen), or B1 (4 wheel vehicles up to 550 kg unladen)	16 for AM, 17 for B1
L5e (Powered Tricycle)	B1 (3 or 4 wheel vehicles up to 550 kg unladen), or B (up to 3.5 tonnes Maximum Authorised Mass – MAM);	A1 or A	17 (B1 or B now); 17, 21 or 24 (A1 or A post 2013)



Driver Licensing

Vehicle category	Driving Licence Category Pre 19/1/2013	Driving Licence Category post-19/1/2013	Min. Age
L1e Moped	P	AM Q $\leq 50\text{cc}$, $\leq 25\text{ km/h}$	16
L2e 3 Wheel Moped	P	AM Q $\leq 50\text{cc}$, $\leq 25\text{ km/h}$	16
L3e Motorcycle	A1, A	A1 $\leq 125\text{cc}$, $\leq 11\text{kW}$, $\leq 0.1\text{ kW/kg}$ A2 $\leq 35\text{kW}$, $\leq 0.2\text{ kW/kg}$ A $\geq 35\text{kW}$, $\geq 0.2\text{kW/kg}$	17 19 24



Timing - Regulation

Entry into force	Applies from	New types obligatory ²	Existing types obligatory ²	Last date of registration ²
February 2013 ¹	1 January 2016	1 January 2016/17 & 20 ³	1 January 2017/18	31 December 2020

¹First approvals possible mid 2014

²These are the most common dates

³Euro 5 Obligatory from 2020



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Thank You