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ACEM Press release

New Euro 5 environmental standard for motorcycles and mopeds to enter into force in 2020

As of 1 January 2020, all new type-approved motorcycles and mopeds sold in the European Union (EU) and the European Free Trade Area (EFTA) will have to meet the new Euro 5 environmental standard that will replace the current Euro 4 specification.

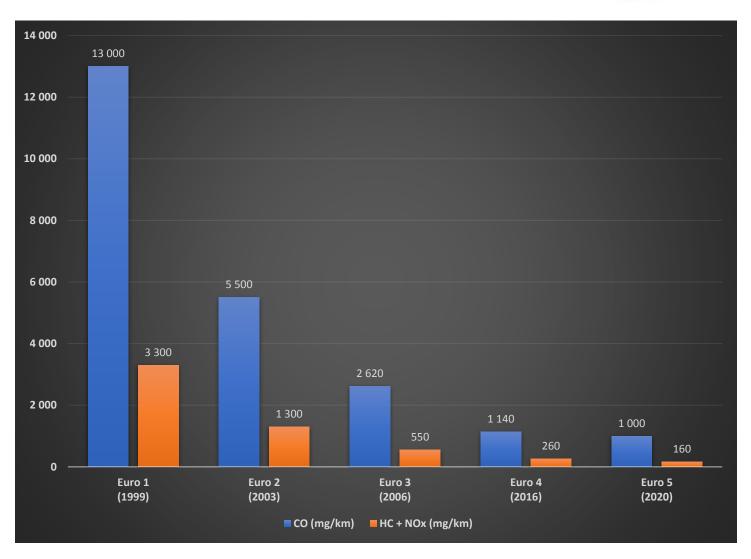
For existing moped and motorcycle models type-approved before the 1 January 2020, Euro 5 will become mandatory as of the first day of 2021. This brings the pollutant emissions of L-category vehicles (i.e. mopeds, motorcycles, tricycles and quadricycles) to the same level as Euro 6 cars.

Improving environmental performance through vehicle technology

Technical innovation in the motorcycle industry has played a key role in progressively lowering vehicle emissions. Since the introduction of the Euro 1 standard for motorcycles and mopeds in 1999, pollutant emissions have been drastically reduced. Combined emissions of hydrocarbons (HC) and nitrogen oxides (NO_x) have gone down by 96.6%, whilst carbon monoxide (CO) emissions have been reduced by 92.3%.

The chart below shows the progress made in the run-up to the introduction of the Euro 5 environmental standard for mopeds and motorcycles in 2020.





Emission reduction process for motorcycles: from Euro 1 to Euro 5

The Euro 5 environmental standard in detail

Under the new Euro 5 standard, tailpipe emissions of mopeds, motorcycles, tricycles and quadricycles will not be allowed to exceed 1,000 mg/km of carbon monoxide (CO), 100 mg/km total hydrocarbons (THC), 68 mg/km non-methane hydrocarbons (NMHC), 60 mg/km of oxides of nitrogen (NO_x) and 4.5 mg/km of particulate matter (PM). These Euro 5 tailpipe pollutant emission limits are the same as those of Euro 6 for cars.

The new Euro 5 standard that will replace the previous one (Euro 4) will become mandatory for all new typeapproved motorcycles and mopeds as of 1 January 2020. Some niche segments (i.e. enduro and trial motorcycles, three-wheeled mopeds designed for utility purposes and light quadrimobiles) have been granted additional lead time. These niche products will have to comply with the new Euro 5 tailpipe emissions limits as of 1 January 2024.



Durability provisions and evaporative emission levels are equally becoming more stringent. Another important innovation is the progressive introduction of a second stage on-board diagnostic (OBD), allowing advanced identification and flagging of malfunction and deterioration of emission control systems.

Quote

Antonio Perlot, ACEM Secretary General, said:

"From a supply side perspective, vehicle technology has been instrumental in improving the environmental performance of motorcycles. ACEM members have invested heavily in research and product development to develop Euro 5 compliant motorcycles equipped with technologies such as 3-way catalysts with oxygen sensor controls, complex electronic engine management systems, advanced fuel injection and variable valve timing and lift technologies".

"As a result of this, the environmental performance of Euro 5 motorcycles will be equivalent to that of Euro 6 cars. ACEM sees this fitting within the vision of the recent European Green Deal of achieving less polluting transport, especially in cities, and further enabling the contribution of our range of vehicles to a multimodal transport system".

Press contact

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NOTE FOR EDITORS

About ACEM

The European Association of Motorcycle Manufacturers (ACEM) represents manufacturers of mopeds, motorcycles, three-wheelers and quadricycles (L-category vehicles) in Europe.

ACEM members include 18 manufacturing companies: BMW Motorrad, Bombardier Recreational Products (BRP), Ducati Motor holding, Harley-Davidson, Honda, Kawasaki, KTM, KYMCO, MV Agusta, Peugeot Scooters, Piaggio, Polaris Industries, Renault, Royal Enfield, Suzuki, Triumph Motorcycles and Yamaha.

ACEM also represents 18 motorcycle industry associations in 15 different European countries.

What are L-category vehicles?

The term "L-category vehicles" is used to design a wide range of different vehicle types with two, three or four wheels. L-category vehicles include amongst others:

- two and three-wheel mopeds
- two and three-wheel motorcycles
- Tricycles
- Light and heavy quadricycles

What is type-approval?

In order to be sold in the EU and EFTA markets L-category vehicles must comply with all applicable legislation to ensure their safety and environmental performance. The assessment of compliance with existing norms is called 'type-approval' or 'homologation'.

The basis for the whole vehicle type-approval of L-category vehicles is <u>EU Regulation 168/2013</u>.

EU Regulation 168/2013 is supplemented by several implementing and delegated acts that provide for safety, construction and new environmental and administrative requirements for the type-approval of new L-category vehicles.

What rules apply to L-category vehicles?

EU Regulation 168/2013 and its delegated and implementing acts provide for detailed technical requirements regarding the construction of vehicles, systems, components and separate technical units. It also establishes rules regarding vehicle emissions (e.g. tailpipe and evaporative emissions), braking systems, anti-tampering and access to repair and maintenance information, among others.