



E-bike and Pedelec Legislation in the European Union

Presentation by
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What is ETRA?

- n 8 countries
- n 6,500 independent bicycle, moped and motorcycle retailers

n Main objective:



to voice retailers' opinion in the EU in order to defend and further their market position

n Means:



monitoring European legislative initiatives involving 2-wheel interests



actively lobbying European authorities

Why is ETRA concerned with E-bike & Pedelec Legislation?



For commercial reasons:

- 4 Since end of mountain bike-rage, European bicycle market is stagnating. Sale can receive new impetus from E-bike & Pedelec
- 4 E-bike & Pedelec involve R&D that can contribute to overall innovation in bicycle industry
- 4 E-bike & Pedelec can convert consumers who are now averse to cycling



For environmental reasons:

- 4 Every year, 80,000 people in EU die due to particle air pollution. E-bike & Pedelec can help to reduce those casualties
- 4 E-bike & Pedelec can contribute to reducing overall noise level



For social reasons:

- 4 E-bike & Pedelec can contribute to reducing traffic casualties
- 4 Use of E-bike & Pedelec results in individual and common health benefits
- 4 E-bike & Pedelec produce no “external costs”

Current European Legal Status of E-bike & Pedelec

n E-bike:

= can be propelled solely by means of its motor



= legal status of mopeds applies



- * has to obtain European type-approval
- * each member state can create its own provisions concerning insurance, age limit, helmet obligation

n Pedelec:

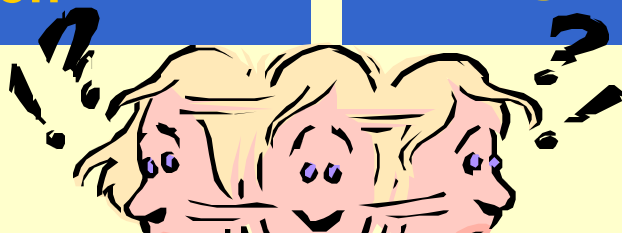
= cannot be propelled solely by means of its motor



= legal status is uncertain



- * member states continue to apply specific national legislation
- * each member state can create its own provisions concerning insurance, age limit, helmet obligation



Type-Approval of E-bike

- ≈ European type-approval procedure for mopeds & motorcycles
- ≈ entered definitively into force on 17 June 1999
- ≈ type-approval in 1 member state applies in all 15 member states
- ≈ specific requirements for 35 components & characteristics of which 9 exceptions for low-performance mopeds



Checklist of European Type-Approval

The European type -approval procedure contains specific requirements for 47 components and characteristics to which the conformity of the new vehicles must be checked. E -bikes are exempted of 12 of these requirements. The remaining items to which they must conform are:

- 1 Make
- 2 Type/Variant/Version
- 3 Name and address of vehicle manufacturer
- 4 Name and address of vehicle manufacturer's authorized representative, if any
- 5 Category of vehicle
- 6 Number of wheels and their position in the case of a three -wheel vehicle
- 7 Outline drawing of frame
- 8 Name and address of engine manufacturer (if different from vehicle manufacturer)
- 9 Make and description of engine
- 10 Type of engine ignition
- 12 Type of engine cooling
- 14 Number and configuration of cylinder or stators (in the case of rotary - pistons engines) in the engine
- 18 Maximum torque and maximum net power, whether this is: (*)
 - of the spark -ignition or compression -ignition type or
 - electric
- 19 Anti -tampering measures for mopeds and motorcycles (*)
- 21 Traction battery (ies)
- 23 Electrical system (nominal voltage)
- 25 Maximum design speed of the vehicle
- 26 Masses and dimensions
- 27 Coupling devices and their attachment
- 29 Tyres (*)
- 30 Transmission
- 31 Braking system
- 32 Installation of lighting and light -signalling devices on the vehicle (*)
- 33 Lighting and light -signalling devices the mandatory or optional presence of which is laid down in the installation requirements under the previous heading (*)
- 34 Audible warning device (*)
- 35 Position of rear registration plate
- 36 Electromagnetic compatibility
- 38 Rear -view mirror(s)
- 39 External projections
- 40 Stand (except in the case of vehicles having three or more wheels)
- 41 Devices to prevent unauthorized use of the vehicle (*)
- 43 Passenger hand -hold for two -wheel vehicles (*)
- 45 Speedometer and odometer
- 46 Identification of controls, tell -tales and indicators (*)
- 47 Statutory inscriptions (content, location and method of affixing)

(*) The Directives concerned contain specific requirements for so -called low-performance mopeds. a term which includes E -bikes .

Functioning of the E.U.



n Co-decision procedure

European Commission (EC) drafts proposal
(consists of civil servants)



First reading by European Parliament (EP)
(represents the people)



EC reviews proposal



Council adopts common position
(represents member states)



Second reading by European Parliament



Council approves
amendments



Council does not
approve amendments



Conciliation Committee



Common position



**Member states must transpose Directive
in their national legislation**

European Technical Harmonisation of Mopeds and Motorcycles

n 17 June 1999: European type-approval procedure for mopeds and motorcycles entered into force

↓
Pedelec must be type-approved

n 25 June 1999: EC proposes to Parliament & Council to exclude Pedelec from type-approval

↓
In expectation of Parliament & Council's decision member states continue to apply specific national Pedelec legislation

Current National Pedelec Legislation in EU Member States

Country	Legal status	Type-approval	Speed limit	Motor output limit	Insurance	Helmet	Age limit
Austria	bicycle	no	25 km/h	n.a.	no	no	no
Belgium	bicycle	no	no	300 W	no	no	no
Denmark	bicycle	no	25 km/h	250 W	no	no	no
Finland	bicycle	no	25 km/h	250 W	no	no	no
France	bicycle	no	25 km/h	500 W	no	no	no
Germany	bicycle	no ¶	24 km/h	250 W	no	no	no
Holland	bicycle -	no	25 km/h	250 W	yes	no	no
Ireland	moped	yes	n.a.	n.a.	n.a.	n.a.	n.a.
Italy	bicycle	no	no	no	no	no	no
Luxembourg	bicycle	no	no	no	no	no	no
Spain	bicycle	no	25 km/h	500 W	no	no	no
Sweden	moped	yes	30 km/h	no	yes	yes	15
UK	bicycle	no ?	15 mph	200 W	no	no	14

No information available for Greece and Portugal.

¶ Vehicles should comply with DIN-standard for bicycles.

- Based on a gentlemen's agreement between the industry and the national government and only for as long as the European Commission does not rule otherwise.

Ì moped insurance

? Homologation according to British standard for bicycles

Exclusion of Pedelec from European Type-Approval

- n Original wording proposed by European sector:

“vehicles, equipped with pedals and an auxiliary electric motor, wchich cannot be propelled exclusively by means of this auxiliary engine”

- n Wording proposed by EC to Parliament & Council:

“cycles with pedal assistance which are equipped with an auxiliary electric motor having a maximum power of 0.25 kilowatts, of which the output is progressively reduced as the vehicle speed increases, being cut off altogether at a speed of 25 km/h, and which cannot be propelled solely by means of such motor”



Adopted in first reading by EP



- Council changes wording:

“cycles with pedal assistance which are equipped with an auxiliary electric motor having a maximum continuous rated power of 0.25 kilowatts, of which the output is progressively reduced and finally cut off as the vehicle reaches a speed of 25 km/h, or as soon as the cyclist stops pedalling”*

*maximum continuous rated power= definition CEI/IEC 60034-1
= maximum continuous mechanical power available at the shaft



Currently awaiting common position

ETRA's Position regarding European Pedelec Legislation

exclusion of Pedelec from European type-approval for mopeds and motor-cycles without technical specifications

because :



European harmonisation should not jeopardise R&D



Type-approval for mopeds and motorcycles is not the appropriate framework for regulations on a vehicle that is a bicycle



Technical regulations on a bicycle should be developed in consultation with the bicycle sector



European type-approval for mopeds and motorcycles is technically not designed for Pedelec



Type-approval will result in useless additional costs, thus in price increase for consumers



The CEN TC "Cycles" offers an appropriate framework for developing Pedelec regulations



In expectation of harmonised European Pedelec legislation, member states have authority to maintain or adopt special national provisions

Technical Harmonisation of Bicycles

n Today :

w non existing at European level

w each member state has own technical regulations and/or outfit obligations, in most cases basic

n 2 European solutions:

w Directive drafted by E.C.

w European standard developed by CEN-TC

n State of affairs :

w E.C. has taken no initiative

w CEN has created TC "Cycles" including WG5 "Electric Power Assisted Cycles" with a view to develop a European Pedelec standard

Possible Outcome I

ETRA continues lobbying Council and Parliament



exclusion of Pedelec from type-approval without technical specifications



A: Member states continue to apply their national Pedelec legislation until European harmonisation is achieved

B: European harmonisation:

*** WG5 at CEN TC "Cycles" develops specific standard for Pedelec**

or

*** New Approach: EC develops general framework for technical harmonisation of Pedelec after which WG5 at CEN TC "Cycles" works out the details**

Possible Outcome II

ETRA continues lobbying Council and Parliament



exemption of Pedelec from type-approval with technical specifications



A: Member States have the obligation to transpose European legislation in their national legislation, consequently to replace national Pedelec-provisions by European provisions.



- * All Pedelec with maximum continuous rated power >0.25 kW and assistance >25 km/h will have to be type-approved**
- * All Pedelec with maximum continuous rated power < 0.25 kW and assistance <25 km/h will have to be granted legal status of bicycle**

B: European standard to be developed by WG5 will only apply to Pedelec with maximum continuous rated power <0.25 kW and assistance <25 km/h