COUNCIL DIRECTIVE

of 23 November 1978

on the approximation of the laws of the Member States on the permissible sound level and exhaust system of motorcycles

(78/1015/EEC)

THE COUNCIL OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Economic Community, and in particular Article 100 thereof,

Having regard to the proposal from the Commission (1),

Having regard to the opinion of the European Parliament (2),

Having regard to the opinion of the Economic and Social Committee (3),

Whereas the technical requirements which motorcycles must satisfy pursuant to national laws relate *inter alia* to the permissible sound level and to the exhaust system;

Whereas these requirements differ from one Member State to another; whereas it is therefore necessary that all Member States adopt the same requirements, either in addition to or in place of their existing rules;

Whereas the increased numbers and use of motorcycles aggravate the annoyance caused by noise pollution; whereas therefore the noise emissions of motorcycles should be limited on the basis of a representative method of testing;

Whereas the approximation of national laws relating to motorcycles entails reciprocal recognition by Member States of the checks carried out by each of them on the basis of the common requirements;

Whereas setting limit values for the sound level of motorcycles constitutes a step towards the improvement of the environment; whereas the technical development of less noisy motorcycles should be further encouraged; whereas, particularly in the case of more powerful motorcycles, an endeavour should be made to lower present limit values to around 80 dB(A) by 1985; whereas, in the case of other categories of motorcycles too, it is imperative that efforts to reduce noise should continue to be made; whereas the levels fixed should take account of what would be technically possible by such a date, and furthermore, these levels should be fixed in good time so as to give manufacturers a sufficient period to improve their products,

HAS ADOPTED THIS DIRECTIVE:

Article 1

For the purposes of this Directive, 'motorcycle' means any two-wheeled vehicle, with or without a side-car, fitted with an engine, intended for use on the road and having a maximum design speed of more than 50 km/h.

Article 2

For the purposes of this Directive, 'national type-approval' means the administrative procedure known as:

— 'agréation par type' and 'aanneming' in Belgian law,

— 'standardtypegodkendelse' in Danish law,

— 'allgemeine Betriebserlaubnis' in German law,

— 'réception par type' in French law,

— 'type-approval' in Irish law,

— 'omologazione' or 'approvazione del tipo' in Italian law,

— 'agréation' in Luxembourg law,

— 'typegoedkeuring' in Dutch law,

— 'type-approval' in United Kingdom law.

(1) OJ No C 40, 20. 2. 1975, p. 18.
(2) OJ No C 125, 8. 6. 1976, p. 48.
(3) OJ No C 204, 30. 8 1976, p. 25.

Article 3

1. At the request of a manufacturer or his authorized representative each Member State shall carry out the tests provided for in Annex I to check that a type of motorcycle complies with the harmonized requirements. No application in respect of any one type of motorcycle may be submitted to more than one Member State.

When the tests have been completed, the Member State shall issue the sound level measurement certificate, hereinafter called 'the certificate', using the model given in Annex II and specifying in particular whether or not the type of motorcycle complies with the harmonized requirements.

2. The Member State which issued the certificate attesting conformity of a type of motorcycle with the harmonized requirements shall take the necessary measures to verify, in so far as is necessary and if need be in cooperation with the competent authorities of the other Member States, that production models conform to the type for which this certificate was issued. Such verification shall be carried out by means of spot checks.

Article 4

The competent authorities of each Member State shall send within one month to the competent authorities of the other Member States a copy of the certificates drawn up for each type of motorcycle which they have tested in accordance with this Directive. The applicant shall also be issued with a copy of the certificate. The other Member States shall treat the document as proof that the tests provided for by this Directive have been carried out and shall refrain from repeating the tests.

Article 5

1. In those Member States where motorcycles or certain categories of motorcycles are subject to national type-approval, that approval shall be based on the harmonized technical requirements instead of the corresponding national requirements, if the manufacturer or his authorized representative so requests.

2. No Member State where motorcycles or certain categories of motorcycles are not subject to national type-approval may refuse the registration or prohibit the sale, entry into service or use of such motorcycles on the grounds that the harmonized technical requirements have been complied with instead of the corresponding national requirements.

Article 6

1. The Member State which has issued the certificate attesting conformity of a type of motorcycle with the harmonized requirements shall take the necessary measures to ensure that it is informed of any modification of a part or characteristic referred to in 1.1 of Annex I.

2. If the State in question considers that such a modification does not require an amendment to the data taken into account in drawing up the certificate, the competent authorities of that State shall inform the manufacturer or his authorized representative thereof.

3. If, however, the State in question finds that a modification of this kind warrants fresh checks or fresh tests and that it is accordingly necessary to amend the existing certificate or complete a fresh certificate, the competent authorities of that State shall inform the manufacturer or the authorized agent thereof and shall, within one month of the date on which the new documents were drawn up, forward these documents and the frame number of the last motorcycle manufactured in conformity with the old certificate and, where appropriate, the frame number of the first motorcycle manufactured in conformity with the modified or new certificate to the competent authorities of the other Member States.

Article 7

1. Member States shall put into force provisions needed in order to comply with this Directive before 1 October 1980 and shall forthwith inform the Commission thereof.

However, during a period of 30 months from notification of this Directive, Member States may not refuse national type-approval and/or the registration, sale, entry into service or use of a type of motorcycle, the sound level of which complies with the national provisions in force at the time of notification of this Directive.

2. Member States shall ensure that the texts of the main provisions of national law which they adopt in the field covered by this Directive are communicated to the Commission.

Article 8

Before 31 December 1984, the Council shall, on a proposal from the Commission, decide on a reduction in the maximum permissible sound levels provided for in Annex I to this Directive.

Article 9

Any amendments necessary to adapt the requirements of the Annexes to technical progress shall be adopted in

accordance with the procedure provided for in Article 13 of Council Directive 70/156/EEC of 6 February 1970 on the approximation of the laws of the Member States relating to the type-approval of motor vehicles and their trailers (1) as last amended by Directive 78/547/EEC (2). The maximum permissible sound levels may in no case be raised. However, this procedure shall only apply to point 2.1.1 of Annex I as from 1 July 1984.

Article 10

This Directive is addressed to the Member States.

Done at Brussels, 23 November 1978.

For the Council

The President

J. ERTL

(1) OJ No L 42, 23. 2. 19970, p. 1.
(2) OJ No L 168, 26. 6. 1978, p. 39.

ANNEX I

DEFINITIONS, PERMISSIBLE SOUND LEVELS, EXHAUST SYSTEM

1. DEFINITIONS

1.1. **Type of motorcycle as regards its sound level and exhaust system**

'Type of motorcycle as regards its sound level and exhaust system' means motorcycles which do not differ essentially as regards the following characteristics:

1.1.1. type of engine (two- or four-stroke, reciprocating piston engine or rotary-piston engine, number and capacity of cylinders, number and type of carburettors or injection system, arrangement of valves, maximum power and corresponding speed); for the application of this Directive, double the volume of the chamber should be considered as the cubic capacity of rotary-piston engines;

1.1.2. transmission system, in particular the number of gear ratios;

1.1.3. number, type and arrangement of exhaust systems.

1.2. **Exhaust system**

'Exhaust system' means a complete set of components necessary to limit the noise caused by a motorcycle engine and its exhaust.

1.3. **Exhaust systems of differing types**

'Exhaust systems of differing types' means systems which differ essentially as regards the following characteristics:

1.3.1. systems the components of which bear different factory or trade marks;

1.3.2. systems in which the characteristics of the materials forming any component are different or the components of which are of a different shape or size;

1.3.3. systems in which the operating principles of at least one component are different;

1.3.4. systems the components of which are in different combinations.

1.4. **Component of an exhaust or intake silencer system**

'Component of an exhaust or intake silencer system' means one of the individual components which together form the exhaust system (such as exhaust pipes and tubes, the silencer proper) or the intake system (air filter).

If the engine is equipped with an air filter and/or an intake noise absorber which is (are) indispensable for the purpose of complying with maximum permissible sound levels, the filter and/or the absorber shall be treated as components having the same importance as the exhaust system.

2. PERMISSIBLE SOUND LEVELS

2.1. **Noise of the motorcycle in motion**

2.1.1. *Limits*

The sound level of the motorcycle, when measured under the conditions set out in 2.1.2 to 2.1.5 must not exceed the following limits:

Categories by cubic capacity in cm^3	Maximum permissible sound level in dB(A)
≤ 80	78
≤ 125	80
≤ 350	83
≤ 500	85
> 500	86

2.1.2. *Measuring instruments*

2.1.2.1. Acoustic measurements

The apparatus used for measuring the noise level must be a precision sound-level meter of the type described in Publication 179 'Precision sound-level meters', second edition, of the International Electrotechnical Commission (IEC). Measurements shall be carried out using the 'fast' response and the 'A' weighting curve also described in that publication.

At the beginning and end of each series of measurements the sound-level meter shall be calibrated according to the manufacturer's instructions with a suitable sound source (e.g. pistonphone).

2.1.2.2. Speed measurements

Engine speed and motorcycle speed through the test area shall be determined to within ± 3%.

2.1.3. *Conditions of measurement*

2.1.3.1. Condition of motorcycle

During the measurements the motorcycle must be in running order (including coolant, oils, fuels, tools, spare wheel and rider).

Before the measurements are made the motorcycle engine shall be brought to the normal operating temperature. If the motorcycle is fitted with fans with an automatic actuating mechanism, this system shall not be interfered with during the sound measurements. For motorcycles having more than one driven wheel, only the drive provided for normal road operation shall be used. Where a motorcycle is fitted with a side-car, this shall be removed for the purposes of the test.

2.1.3.2. Test site

The test site must consist of a central acceleration section surrounded by a substantially flat test area. The acceleration section must be flat; its surface must be dry and such that rolling noise remains low.

On the test site the variations in the free sound field between the sound source at the centre of the acceleration section and the microphone must not exceed ± 1 dB. This condition shall be deemed to be met if there are no large objects which reflect sound, such as fences, rocks, bridges or buildings, within 50 m of the centre of the acceleration section. The surface of the site must be made of hard material such as concrete, asphalt or any other acoustically equivalent material within a minimum radius of 10 m around the centre of the acceleration section and be free of powdery snow, tall grass, loose soil or cinders.

The microphone shall not be obstructed in any way which could affect the sound field, and no persons shall stand between the microphone and the sound source. The observer carrying out the measurements must so position himself as not to affect the readings of the measuring instrument.

2.1.3.3. Miscellaneous

Measurements may not be taken in unfavourable meteorological conditions and in particular in gusting winds.