



UNITED NATIONS

AGREEMENT

**CONCERNING THE ADOPTION OF UNIFORM CONDITIONS OF APPROVAL
AND RECIPROCAL RECOGNITION OF APPROVAL
FOR MOTOR VEHICLE EQUIPMENT AND PARTS**

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**UNIFORM PROVISIONS CONCERNING THE APPROVAL OF MOPEDS
WITH REGARD TO NOISE**

Regulation No.63

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Regulation No.63

UNIFORM PROVISIONS CONCERNING THE APPROVAL OF MOPEDS
WITH REGARD TO NOISE

1. SCOPE

This Regulation applies to the noise made by two-wheeled mopeds. 1/

2. DEFINITIONS

For the purposes of this Regulation

2.1. "Approval of a moped" means the approval of a moped type with regard to noise;

2.2. "Moped type" means a category of mopeds which do not differ in such essential respects as:

2.2.1. the type of engine (two-stroke or four-stroke; number and capacity of cylinders; number of carburettors; arrangement of valves; maximum horse-power and corresponding engine speed (r.p.m.) etc.);

2.2.2. number and ratios of gears;

2.2.3. silencing systems;

2.3. "Silencing system" means a complete set of components necessary for limiting the noise made by a moped and its exhaust;

2.4. "Silencing systems of different types" means silencing systems which differ in such essential respects as:

2.4.1. that their components bear different trade names or marks;

2.4.2. that the characteristics of the materials constituting a component are different or that the components differ in shape or size;

2.4.3. that the operating principles of at least one component are different;

2.4.4. that their components are assembled differently;

2.5. "Silencing system component" 2/ means one of the individual constituent parts which, when assembled, constitute the silencing system.

1/ In conformity with the definition of mopeds in the 1968 Vienna Convention (document E/CONF.56/16/Rev.1).

2/ These components are, in particular, the exhaust manifold, the exhaust piping, the expansion chamber, the silencer proper, etc. If the engine intake is equipped with an air filter and the filter's presence is essential to ensure observance of the prescribed sound-level limits, the filter must be regarded as a component of the "silencing system", appear on the list mentioned in paragraph 3.2.2. and bear the marking prescribed in paragraph 4.1.

3. APPLICATION FOR APPROVAL

- 3.1. The application for approval of a moped type with regard to noise made by mopeds shall be submitted by its manufacturer or by his duly accredited representative.
- 3.2. It shall be accompanied by the undermentioned documents in triplicate and the following particulars:
 - 3.2.1. a description of the moped type with regard to the items mentioned in paragraph 2.2. above. The numbers and/or symbols identifying the engine type and the moped type shall be specified;
 - 3.2.2. a list of the components, duly identified, constituting the silencing system;
 - 3.2.3. a drawing of the assembled silencing system and an indication of its position on the moped;
 - 3.2.4. detailed drawings of each component to enable it to be easily located and identified, and a specification of the materials used.
- 3.3. At the request of the technical service responsible for conducting approval tests, the moped manufacturer shall, in addition, submit a sample of the silencing system.
- 3.4. A moped representative of the moped type to be approved shall be submitted to the technical service responsible for conducting approval tests.

4. MARKINGS

- 4.1. The components of the silencing system shall bear:
 - 4.1.1. the trade name or mark of the manufacturer of the silencing system and of its components; and
 - 4.1.2. the trade description given by the manufacturer.
- 4.2. Such markings shall be clearly legible and be indelible.

5. APPROVAL

- 5.1. If the moped submitted for approval pursuant to paragraph 3 of this Regulation meets the requirements of paragraphs 6. and 7. below, approval of that moped type with regard to noise shall be granted.
- 5.2. An approval number shall be assigned to each type approved. Its first two digits (at present 00 for the Regulation in its original form) shall indicate the series of amendments incorporating the most recent major technical amendments made to the Regulation at the time of issue of the approval. The same Contracting Party may not assign the same number to the same moped type equipped with another type of silencing system, or to another moped type.

- 5.3. Notice of approval or of refusal of approval of a moped type pursuant to this Regulation shall be communicated to the Parties to the Agreement which apply this Regulation, by means of a form conforming to the model in annex 1 to this Regulation and of drawings of the silencing system supplied by the applicant for approval, in a format not exceeding A4 (210 x 297 mm) or folded to that format and on an appropriate scale.
- 5.4. There shall be affixed, conspicuously and in a readily accessible place specified on the approval form, to every moped conforming to a moped type approved under this Regulation an international approval mark consisting of:
- 5.4.1. a circle surrounding the letter "E" followed by the distinguishing number of the country which has granted approval; 1/
- 5.4.2. the number of this Regulation, followed by the letter "R", a dash and the approval number to the right of the circle prescribed in paragraph 5.4.1.
- 5.5. If the moped conforms to a moped type approved, under one or more Regulations annexed to the Agreement, in the country which has granted approval under this Regulation, the symbol prescribed in paragraph 5.4.1. need not be repeated; in such a case the Regulation and approval numbers and the additional symbols of all the Regulations under which approval has been granted in the country which has granted approval under this Regulation shall be placed in vertical columns to the right of the symbol prescribed in paragraph 5.4.1.
- 5.6. The approval mark shall be clearly legible and be indelible.
- 5.7. The approval mark shall be placed close to or on the moped data plate.
- 5.8. Annex 2 to this Regulation gives arrangements of approval marks.

1/ 1 for the Federal Republic of Germany, 2 for France, 3 for Italy, 4 for the Netherlands, 5 for Sweden, 6 for Belgium, 7 for Hungary, 8 for Czechoslovakia, 9 for Spain, 10 for Yugoslavia, 11 for the United Kingdom, 12 for Austria, 13 for Luxembourg, 14 for Switzerland, 15 for the German Democratic Republic, 16 for Norway, 17 for Finland, 18 for Denmark, 19 for Romania, 20 for Poland and 21 for Portugal. Subsequent numbers shall be assigned to other countries in the chronological order in which they ratify or accede to the Agreement concerning the Adoption of Uniform Conditions of Approval and Reciprocal Recognition of Approval for Motor Vehicle Equipment and Parts, and the numbers thus assigned shall be communicated by the Secretary-General of the United Nations to the Contracting Parties to the Agreement.

6. SPECIFICATIONS

6.1. General specifications

6.1.1. The moped, its engine and its silencing system shall be so designed, constructed and assembled as to enable the moped, in normal use, despite the vibration to which it may be subjected, to comply with the provisions of this Regulation.

6.1.2. The silencing system shall be so designed, constructed and assembled as to be able to resist the corrosive action to which it is exposed.

6.2. Specifications regarding sound levels

6.2.1. Methods of measurement

6.2.1.1. The noise made by the moped type submitted for approval shall be measured by the two methods described in annex 3 to this Regulation for the moped in motion and for the moped when stationary. 1/

6.2.1.2. The two values measured in accordance with the provisions of paragraph 6.2.1.1. above shall be entered in the test report and on a form conforming to the model in annex 1 to this Regulation.

6.2.1.3. The sound level measured by the method described in annex 3, paragraph 3.1. to this Regulation when the moped is in motion shall not exceed the limits prescribed (for new mopeds and new silencing systems) in annex 4 to this Regulation for the category to which the moped belongs.

7. MODIFICATIONS OF THE MOPED TYPE OR OF THE TYPE OF SILENCING SYSTEM

7.1. Every modification of the moped type or of the silencing system shall be notified to the administrative department which approved the moped type. The said department may then either:

7.1.1. consider that the modifications made are unlikely to have appreciable adverse effects; or

7.1.2. require a further test report from the technical service responsible for conducting the tests.

7.2. Confirmation or refusal of approval, specifying the alterations, shall be communicated by the procedure specified in paragraph 5.3. above to the Parties to the Agreement which apply this Regulation.

1/ A test is made on a stationary moped in order to provide a reference value for administrations which use this method to check mopeds in use.

8. CONFORMITY OF PRODUCTION

8.1. Every moped bearing an approval mark as prescribed under this Regulation shall conform to the moped type approved, be fitted with the silencing system with which it was approved and satisfy the requirements of paragraph 6. above.

8.2. In order to verify conformity as prescribed in paragraph 8.1. above, a moped, bearing the approval mark required by this Regulation, shall be taken from the series. Production shall be deemed to conform to the requirements of this Regulation if the level measured by the method described in annex 3, paragraph 3.1. does not exceed by more than 3 dB(A) the value measured during type approval nor by more than 1 dB(A) the limits prescribed in annex 4 to this Regulation.

9. PENALTIES FOR NON-CONFORMITY OF PRODUCTION

9.1. The approval granted in respect of a moped type pursuant to this Regulation may be withdrawn if the requirements laid down in paragraph 8.1. above are not complied with, or if the moped has failed to pass the tests provided for in paragraph 8.2. above.

9.2. If a Party to the Agreement which applies this Regulation withdraws an approval it has previously granted, it shall forthwith so notify the other Contracting Parties to the Agreement which apply this Regulation, by means of a copy of the approval form bearing at the end, in large letters, the signed and dated annotation "APPROVAL WITHDRAWN".

10. PRODUCTION DEFINITELY DISCONTINUED

If the holder of the approval completely ceases production of a moped approved in accordance with this Regulation, he shall so inform the authority which granted the approval. Upon receiving the relevant communication that authority shall inform thereof the other Parties to the Agreement applying this Regulation, by means of a copy of the approval form bearing at the end, in large letters, the signed and dated annotation "PRODUCTION DISCONTINUED".

11. NAMES AND ADDRESSES OF TECHNICAL SERVICES RESPONSIBLE FOR CONDUCTING APPROVAL TESTS, AND OF ADMINISTRATIVE DEPARTMENTS

The Parties to the Agreement which apply this Regulation shall communicate to the United Nations Secretariat the names and addresses of the technical services responsible for conducting approval tests and of the administrative departments which grant approval and to which forms certifying approval or refusal or withdrawal of approval, issued in other countries, are to be sent.

Annex 1

(Maximum format: A4 (210 x 297 mm))



Name of
administration

Communication concerning the approval (or refusal or withdrawal
of approval or production definitely discontinued) of a moped
type with regard to noise pursuant to Regulation No. 63

- Approval No.
1. Trade name or mark of the moped
 2. Moped type
 3. Manufacturer's name and address
 4. If applicable, name and address of manufacturer's representative
 5. Kind of engine^{1/}
 6. Cycles: two-stroke or four-stroke (if applicable)
 7. Cylinder capacity
 - 7.1. Bore:
 - 7.2. Stroke:
 8. Engine power (state how measured)
 9. Engine speed at which maximum power is developed (rpm)
 10. Number of gears
 11. Gears used
 12. Final drive ratio(s)
 13. Type and dimensions of tyres
 14. Maximum permissible gross weight
 15. Maximum design speed (as indicated by the manufacturer)
 16. Brief description of the silencing system

^{1/} If a non-conventional engine is used, this should be stated.

17. Load conditions of moped during test
18. For stationary moped test: location and orientation of the microphone (by reference to diagrams in appendix to annex 3)
19. Sound levels:
 Moped in motion dB(A) at approach speed
 (Line A-A') of km/h, rotation speed of the engine rpm
 Moped stationary dB(A) with engine running
 at rpm.
20. Deviations in calibration of sound level meter
21. Moped submitted for approval on
22. Technical service responsible for conducting approval tests
23. Date of report issued by that service
24. Number of report issued by that service
25. Approval granted/refused^{1/}
26. Position of approval mark on the moped
27. Place
28. Date
29. Signature
30. The following documents, bearing the approval number shown above, are annexed to this communication
 ... drawings, diagrams and plans of the engine and of the
 silencing system;
 ... photographs of the engine and of the silencing system;
 ... list of duly identified components constituting the silencing
 system.

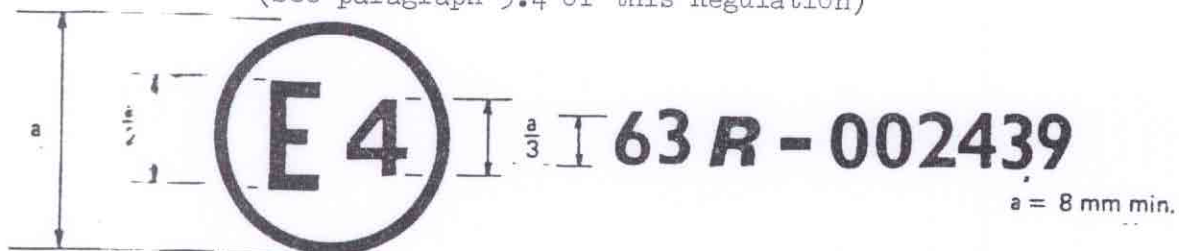
^{1/} Strike out what does not apply.

Annex 2

ARRANGEMENTS OF APPROVAL MARKS

Model A

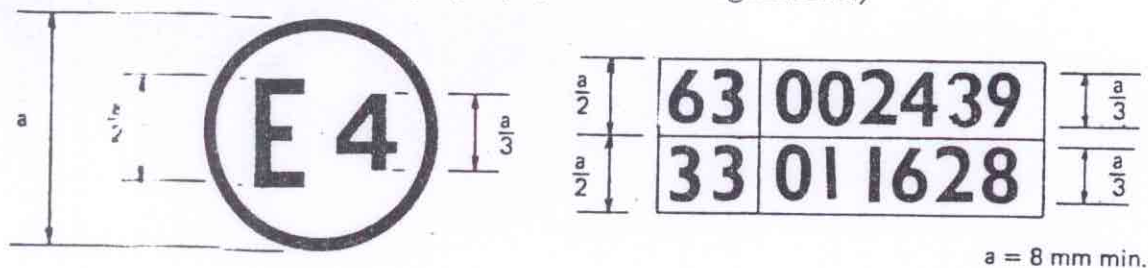
(See paragraph 5.4 of this Regulation)



The above approval mark affixed to a moped shows that the moped type concerned has, with regard to noise, been approved in the Netherlands (E 4) pursuant to Regulation No. 63 under approval number 002439. The approval number indicates that the approval was granted in accordance with the requirements of Regulation No. 63 in its original form.

Model B

(See paragraph 5.5 of this Regulation)



The above approval mark affixed to a moped shows that the moped type concerned has been approved in the Netherlands (E 4) pursuant to Regulations Nos. 63 and 33. ^{1/} The approval numbers indicate that, at the dates when the respective approvals were given, Regulation No. 63 had not been modified, but that Regulation No. 33 ^{1/} included the 01 series of amendments.

^{1/} The latter number is given as an example only.

Annex 3

METHODS AND INSTRUMENTS FOR MEASURING THE
NOISE MADE BY MOPEDS

1. MEASURING INSTRUMENTS

- 1.1. The sound level meter (or the equivalent measuring system) shall at least meet the requirements of a type 1 instrument according to IEC Publication 651 (1979).
- 1.2. The measurements shall be made using the frequency weighting "A", and the time weighting "F".
- 1.3. The calibration of the sound level meter shall be checked and adjusted according to the manufacturer's instructions or with a standard sound source (for example, a pistonphone) at the beginning of the measurements and rechecked and recorded at the end of them. Any deviations shall be recorded in the test report.
- 1.4. If the errors of the sound level meter obtained from these calibrations change by more than 1 dB during a series of measurements, the test shall be considered invalid.

2. CONDITIONS OF MEASUREMENT

2.1. Site

- 2.1.1. The measurements shall be made at an open site where the ambient and wind noise levels are at least 10 dB(A) below the noise level being measured. The above-mentioned area may take the form of an open space of 50 m radius having a central part of at least 10 m radius, practically level, consisting of concrete, asphalt or similar material and not covered with powdery snow, tall grass, loose soil, ashes or the like. Nobody shall be in the measurement area, except the observer and the driver, whose presence must have no influence on the meter reading.
- 2.1.2. The surface of the test track used to measure the noise of mopeds in motion shall be such as not to cause excessive tyre noise.
- 2.1.3. Measurements shall not be made under adverse weather conditions. Any sound peak which appears to be unrelated to the characteristics of the general sound level of the moped shall be ignored in taking the readings. If a wind-guard is used, its influence on the sensitivity and the directional characteristics of the microphone shall be taken into account.

2.2. Moped

- 2.2.1. The combined mass of the driver and test equipment used on the moped shall not be more than 80 kg nor less than 70 kg. Weights

shall be placed on the moped to compensate for any difference between the actual driver and equipment mass and the required 70 kg minimum.

2.2.2. The tyres of the moped shall be of the correct size and shall be inflated to the prescribed pressure(s) for the moped in its unladen condition.

2.2.3. Before the measurements are started, the engine shall be brought to its normal operating conditions as regards:

2.2.3.1. temperatures

2.2.3.2. tuning

2.2.3.3. fuel

2.2.3.4. sparking plugs, carburettor(s), etc., (as appropriate).

2.2.4. If the moped is equipped with devices which are not necessary for its propulsion, but which are used whilst the moped is in normal service on the road, those devices shall be in operation in accordance with the specifications of the manufacturer.

3. METHODS OF TESTING

3.1. Measurement of noise of mopeds in motion

3.1.1. General conditions of test

3.1.1.1. At least two measurements shall be made on each side of the moped. Preliminary measurements may be made for adjustment purposes, but shall be disregarded.

3.1.1.2. The microphone shall be situated $1.2 \text{ m} \pm 0.1 \text{ m}$ above ground level at a distance of $7.5 \text{ m} \pm 0.2 \text{ m}$ from the path of the moped's centre line, measured along the perpendicular PP' to that line (see appendix, fig. 1).

3.1.1.3. Two lines, AA' and BB', parallel to the microphone line PP' and situated respectively 10 m forward and 10 m rearward of that line shall be marked out on the test track. The moped shall approach line AA' at a steady speed as specified below.

3.1.1.4. The maximum sound value recorded at each measurement shall constitute the result of the measurement. The measurements shall be considered valid if the difference between the two consecutive measurements on the same side of the moped is not more than 2 dB(A).

3.1.2. Determination of the approach speed

3.1.2.1. Approach speed

The moped shall approach the line AA' at a steady speed equal to its maximum speed if the latter is below or equal to 30 km/h. If the maximum speed is above 30 km/h, the vehicle shall approach AA' at a steady speed of 30 km/h.

3.1.2.2. Speed on the stretch AA' - BB'

3.1.2.2.1. Mopeds whose maximum speed is below or equal to 30 km/h

The moped shall cover the entire stretch AA' - BB' at a steady speed equal to its maximum speed.

3.1.2.2.2. Mopeds whose maximum speed is above 30 km/h

When the front of the moped reaches the line AA', the throttle shall be fully opened as rapidly as possible and held in the fully-opened position until the rear of the moped crosses the line BB'; the throttle shall then be closed again as rapidly as possible.

3.1.2.3. Choice of gear

If the moped is fitted with a manually-operated gearbox:

If its maximum speed is below or equal to 30 km/h, the highest gear shall be selected (for instance, fourth if there are four gears, fifth if there are five);

If its maximum speed is above 30 km/h, the highest gear which will enable it to pass over line AA' with an engine speed above or equal to one half of the engine speed at which the engine produces its maximum power, shall be selected.

If the moped is fitted with automatic variable transmission, it shall be driven at the speeds indicated in 3.1.2.1. and 3.1.2.2.

3.2. Measurement of noise emitted by stationary mopeds

3.2.1. Test site - local conditions (see appendix, fig. 2)

3.2.1.1. Measurements shall be made on a stationary moped in an area which does not present a great deal of disturbance to the sound field.

3.2.1.2. Every open space shall be considered as a suitable test site if it consists of a flat area covered with concrete, asphalt or some other hard material having a high reflective capacity, excluding compressed or other earth surfaces, in which one can trace a rectangle whose sides are at least three metres from the

extremities of the moped and inside which there is no noticeable obstacle; in particular, the moped shall not be positioned at a distance of less than 1 m from a pavement edge when the exhaust noise is measured.

- 3.2.1.3. Nobody shall be in the measurement area, except the observer and the driver, whose presence must have no influence on the meter reading.

3.2.2. Disturbance noise and wind interference

The ambient noise levels at each measuring point shall be at least 10 dB(A) below the levels measured during the tests at the same points.

3.2.3. Measuring method

3.2.3.1. Number of measurements

At least three measurements shall be carried out at each measuring point. The measurements shall only be considered as valid if the difference between the recordings of three measurements made immediately one after the other is not greater than 2 dB(A). The highest value given by these three measurements will constitute the result.

3.2.3.2. Positioning and preparation of the moped

The moped shall be located in the centre part of the test area with the gear selector in neutral position and the clutch engaged. If the design of the moped does not allow this the moped shall be tested in conformity with the manufacturer's prescriptions for stationary engine testing. Before each series of measurements, the engine must be brought to its normal operating condition, as specified by the manufacturer.

3.2.3.3. Measuring of noise in proximity to the exhaust (see appendix, fig.2)

3.2.3.3.1. Position of the microphone

- 3.2.3.3.1.1. The height of the microphone above the ground must be equal to that of the outlet pipe of the exhaust gases, but in any event shall be limited to a minimum value of 0.2 m.

- 3.2.3.3.1.2. The microphone must be pointed towards the orifice of the gas flow and located at a distance of 0.5 m from the orifice.

- 3.2.3.3.1.3. Its axis of maximum sensitivity must be parallel to the ground and must make an angle of $45^\circ \pm 10^\circ$ with the vertical plane containing the direction of the gas flow. The instructions of the manufacturer of the sound level meter with regard to this axis must be respected.

in relation to this plane, the microphone shall be placed in such a way as to obtain the maximum distance from the longitudinal median plane of the moped; in case of doubt, the position which gives the maximum distance from the contour of the moped shall be selected.

- 3.2.3.3.1.4. In the case of an exhaust provided with two or more outlets spaced less than 0.3 m apart, only one measurement is made; the microphone position is related to the outlet nearest to the external side of the moped or, when such outlet does not exist, to the outlet which is the highest above the ground.
- 3.2.3.3.1.5. For mopeds having an exhaust provided with outlets spaced more than 0.3 m apart, one measurement is made for each outlet as if it were the only one, and the highest level is noted.
- 3.2.3.3.2. Operating conditions of the engine
 - 3.2.3.3.2.1. The engine speed shall be held steady at $\frac{3}{4}$ of the speed at which the maximum power of the engine is developed.
 - 3.2.3.3.2.2. When the constant engine speed is reached, the throttle shall be returned swiftly to the idle position. The sound level shall be measured during a period of operation consisting of a brief maintenance of the constant engine speed and throughout the deceleration period, the maximum deflection of the needle of the sound level meter being taken as the test value.
4. INTERPRETATION OF RESULTS
 - 4.1. The figure recorded shall be that corresponding to the highest sound level. Should that figure exceed by not more than 1 dB(A) the maximum sound level authorized for the category of moped tested, a second series of two measurements shall be made. Three out of the four results so obtained must fall within the prescribed limits.
 - 4.2. To allow for lack of precision in the measurements, the figures read from the measuring instrument shall be reduced by 1 dB(A).

Annex 3 - Appendix

MEASURING POSITIONS FOR MOPEDS IN MOTION

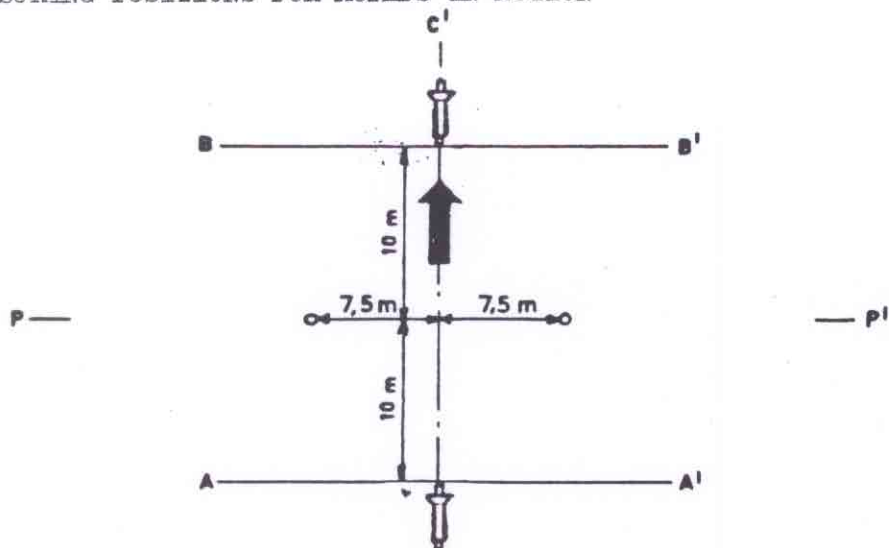


Fig. 1

MEASURING POSITIONS FOR STATIONARY MOPEDS

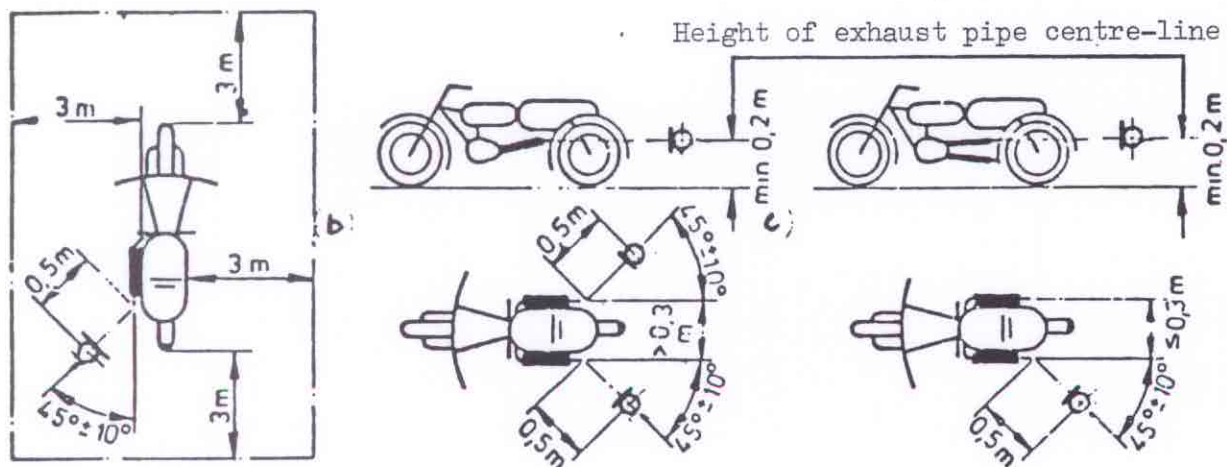


Fig. 2

Annex 4

MAXIMUM SOUND LEVEL LIMITS (NEW MOPEDS)

Category of moped	dB(A)
Vehicles whose maximum speed is below or equal to 30 km/h.	70
Vehicles whose maximum speed is above 30 km/h.	73