Directive 2000/14/EC of the European Parliament and of the Council of 8 May 2000 on the approximation of the laws of the Member States relating to the noise emission in the environment by equipment for use outdoors

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## ANNEX III

# METHOD OF MEASUREMENT OF AIRBORNE NOISE EMITTED BY EQUIPMENT FOR USE OUTDOORS

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#### PART B

#### NOISE TEST CODES FOR SPECIFIC EQUIPMENT

### CONCRETE-BREAKERS AND PICKS, HAND-HELD

Basic noise emission standard

EN ISO 3744:1995

Measurement surface/number of microphone positions/measuring distance

Hemisphere/six microphone positions according to Part A item 5 and the following table/ according to mass of equipment as given in the following table:

Mass of equipment <i>m</i> in kg	Radius of hemisphere	z for microphone positions 2, 4, 6 and 8
m < 10	2 m	0,75 m
$m \ge 10$	4 m	1,50 m

Operating conditions during test Mounting of equipment

All appliances shall be tested in the vertical position

If the test appliance has got an air exhaust, its axis shall be equidistant from two microphone positions. The noise of the power supply shall not influence the measurement of the noise emission from the tested appliance

Support of the appliance

The appliance shall be coupled during the test run to a tool embedded in a cube-shaped concrete block placed in a concrete pit, sunk into the ground. An intermediate steel piece may be inserted during tests between the appliance and the support tool. This intermediate piece shall form a stable structure between the appliance and the support tool. Figure 10.1 incorporates these requirements

Block characteristics

The block shall be in the shape of a cube  $0.60 \text{ m} \pm 2 \text{ mm}$  long at the edge and as regular as possible; it shall be made of reinforced concrete and thoroughly vibrated in layers of up to 0,20 m to avoid excessive sedimentation

Quality of the concrete

The quality of the concrete shall correspond to C 50/60 of ENV 206

The cube shall be reinforced by 8 mm-diameter steel rods without ties, each rod being independent of the other; the design concept is illustrated in Figure 10.2 Supporting tool

The tool shall be sealed into the block and shall consist of a rammer of no less than 178 mm or no more than 220 mm diameter and a tool chuck component identical to that normally used with the appliance being tested and complying with ISO 1180:1983, but sufficiently long to enable the practical test to be carried out

Suitable treatment shall be carried out to integrate the two components. The tool shall be fixed in the block so that the bottom of the rammer is 0,30 m from the upper face of the block (see Figure 10.2)

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The block shall remain mechanically sound, particularly at the point where the supporting tool and the concrete meet. Before and after each test, it shall be established that the tool sealed in the concrete block is integrated with it

Positioning of the cube

The cube shall be set in a pit cemented throughout, covered by a screening slab of at least 100 kg/m<sup>2</sup>, as indicated in Figure 10.3, so that the upper surface of the screening slab is flush with the ground. To avoid any parasitic noise, the block shall be insulated against the bottom and sides of the pit by elastic blocks, the cut-off frequency of which shall not be more than half the striking rate of the appliance tested, expressed as strokes per second

The opening in the screening slab through which the tool chuck component passes shall be as small as possible and sealed by a flexible sound-proof joint Test under load

The appliance tested shall be connected to the supporting tool

The test appliance shall be operated in stable conditions having the same acoustical stability as in normal service

The test appliance shall be operated at the maximum power specified in the instructions supplied to the purchaser Period of observation

The period of observation shall at least be 15 seconds *Figure 10.1* 

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# Schematic diagram of intermediate piece

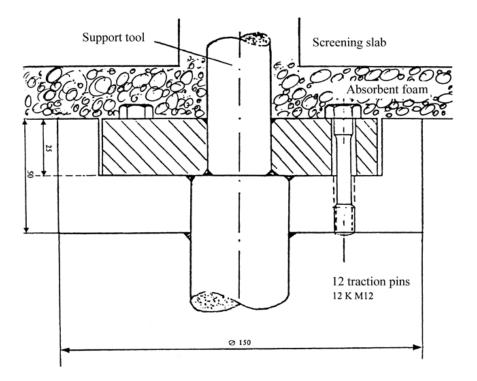


Figure 10.2

Directive 2000/14/EC of the European Parliament and of the Council of 8 May...

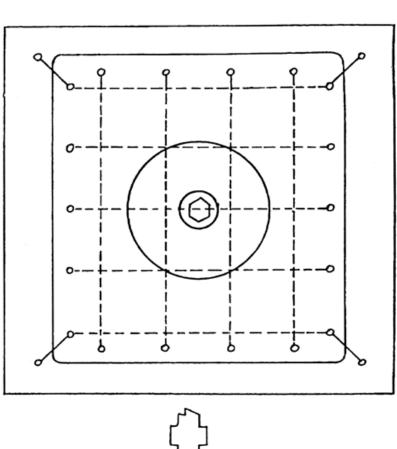
ANNEX III

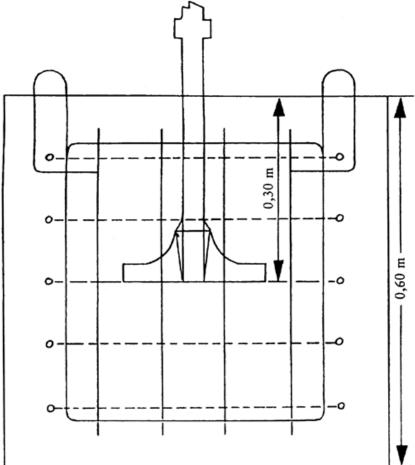
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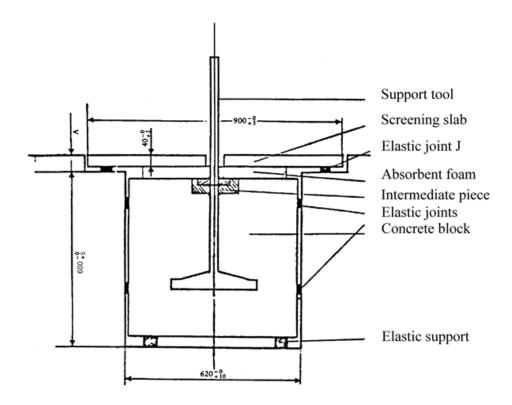
Test block





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Figure 10.3 Testing device



The value of A should be such that the screening slab resting on the elastic joint J is flush with the ground