

---

STATUTORY INSTRUMENTS

---

**2001 No. 1701**

**ENVIRONMENTAL PROTECTION**

**The Noise Emission in the Environment by  
Equipment for use Outdoors Regulations 2001**

<i>Made</i>	- - - -	<i>3rd May 2001</i>
<i>Laid before Parliament</i>		<i>3rd May 2001</i>
<i>Coming into force</i>		
	<i>regulations 1, 2 and 14</i>	<i>4th June 2001</i>
	<i>Remaining regulations</i>	<i>3rd July 2001</i>

**THE NOISE EMISSION IN THE ENVIRONMENT BY  
EQUIPMENT FOR USE OUTDOORS REGULATIONS 2001**

1. Citation, commencement and revocation
  2. Interpretation
  3. Application
  4. Excluded equipment
  5. These Regulations shall not apply to equipment placed on the...
  6. (1) Subject to paragraph (2), these Regulations shall not apply...
  7. General duty relating to placing on the market or putting into service
  8. Permissible sound power level of equipment
  9. Exceptions to placing on the market and putting into service of certain equipment
  10. Conformity assessment procedures
  11. CE marking and indication of the guaranteed sound power level
  12. Provision of data
  13. Notified Bodies
  14. (1) The Secretary of State may from time to time...
  15. Fees
  16. Conditions for equipment being taken to conform
  17. Enforcement
  18. Offences
  19. Penalties
  20. Defence of due diligence
  21. Liability of persons other than the principal offender
  22. Consequential amendments
- Signature

SCHEDULE 1 — (Extract from Article 12)

*Equipment subject to noise limits*

builders' hoists for the transport of goods (combustion-engine driven)

Definition: Annex I, Item 3. Measurement: Annex III, Part B,...

compaction machines (only vibrating and non-vibrating rollers, vibratory plates and...

Definition: Annex I, Item 8. Measurement: Annex III, Part B,...

compressors (<350 kW)

Definition: Annex I, Item 9. Measurement: Annex III, Part B,...

concrete-breakers and picks, hand-held

Definition: Annex I, Item 10. Measurement: Annex III, Part B,...

construction winches (combustion-engine driven)

Definition: Annex I, Item 12. Measurement: Annex III, Part B,...

dozers (<500 kW)

Definition: Annex I, Item 16. Measurement : Annex III, Part...

dumpers (<500 kW)

Definition: Annex I, Item 18. Measurement: Annex III, Part B,...

excavators, hydraulic or rope-operated (<500 kW)

Definition: Annex I, Item 20. Measurement: Annex III, Part B,...

excavator-loaders (<500 kW)

Definition: Annex I, Item 21. Measurement: Annex III, Part B,...

graders (<500 kW)

Definition: Annex I, Item 23. Measurement: Annex III, Part B,...

hydraulic power packs

Definition: Annex I, Item 29. Measurement: Annex III, Part B,...

landfill compactors, loader-type with bucket (<500 kW)

Definition: Annex I, Item 31. Measurement: Annex III, Part B,...

lawnmowers (excluding agricultural and forestry equipment, and multi-purpose devices, the...

Definition: Annex I, Item 32. Measurement: Annex III, Part B,...

lawn trimmers/lawn edge trimmers

Definition: Annex I, Item 33. Measurement: Annex III, Part B,...

lift trucks, combustion-engine driven, counterbalanced (excluding "other counterbalanced lift trucks"...

Definition: Annex I, Item 36. Measurement: Annex III, Part B,...

loaders (<500 kW)

Definition: Annex I, Item 37. Measurement: Annex III, Part B,...

mobile cranes

Definition: Annex I, Item 38. Measurement: Annex III, Part B,...

motor hoes (<3 kW)

Definition: Annex I, Item 40. Measurement: Annex III, Part B,...

paver-finishers (excluding paver-finishers equipped with a high-compaction screed)

Definition: Annex I, Item 41. Measurement: Annex III, Part B,...

power generators (<400 kW)

Definition: Annex I, Item 45. Measurement: Annex III, Part B,...

tower cranes

Definition: Annex I, Item 53. Measurement: Annex III, Part B,...

welding generators

Definition: Annex I, Item 57. Measurement: Annex III, Part B,...

## SCHEDULE 2 — (Extract from Article 13)

### *Equipment subject to noise marking only*

aerial access platforms with combustion engine

Definition: Annex I, Item 1. Measurement: Annex III, Part B,...

brush cutters

Definition: Annex I, Item 2. Measurement: Annex III, Part B,...

builders' hoists for the transport of goods (with electric motor)...

Definition: Annex I, Item 3. Measurement: Annex III, Part B,...

building site band saw machines

Definition: Annex I, Item 4. Measurement: Annex III, Part B,...

building site circular saw benches

Definition: Annex I, Item 5. Measurement: Annex III, Part B,...

chain saws, portable

Definition: Annex I, Item 6. Measurement: Annex III, Part B,...

combined high pressure flushers and suction vehicles

Definition: Annex I, Item 7. Measurement: Annex III, Part B,...

compaction machines (explosion rammers only)

Definition: Annex I, Item 8. Measurement: Annex III, Part B,...

concrete or mortar mixers

Definition: Annex I, Item 11. Measurement: Annex III, Part B,...

construction winches (with electric motor)

Definition: Annex I, Item 12. Measurement: Annex III, Part B,...

conveying and spraying machines for concrete and mortar

Definition: Annex I, Item 13. Measurement: Annex III, Part B,...

conveyor belts

Definition: Annex I, Item 14. Measurement: Annex III, Part B,...

cooling equipment on vehicles

Definition: Annex I, Item 15. Measurement: Annex III, Part B,...

drill rigs

Definition: Annex I, Item 17. Measurement: Annex III, Part B,...

equipment for loading and unloading silos or tanks on trucks...

Definition: Annex I, Item 19. Measurement: Annex III, Part B,...

glass recycling containers

Definition: Annex I, Item 22. Measurement: Annex III, Part B,...

grass trimmers/grass edge trimmers

Definition: Annex I, Item 24. Measurement: Annex III, Part B,...

hedge trimmers

Definition: Annex I, Item 25. Measurement: Annex III, Part B,...

high pressure flushers

Definition: Annex I, Item 26. Measurement: Annex III, Part B,...

high pressure water jet machines

Definition: Annex I, Item 27. Measurement: Annex III, Part B,...

hydraulic hammers

Definition: Annex I, Item 28. Measurement: Annex III, Part B,...

joint cutters

Definition: Annex I, Item 30. Measurement: Annex III, Part B,...

leaf blowers

Definition: Annex I, Item 34. Measurement: Annex III, Part B,...

leaf collectors

Definition: Annex I, Item 35. Measurement: Annex III, Part B,...  
lift trucks, combustion-engine driven, counterbalanced (only “other counterbalanced lift trucks”...  
Definition: Annex I, Item 36. Measurement: Annex III, Part B,...  
mobile waste containers  
Definition: Annex I, Item 39. Measurement: Annex III, Part B,...  
paver-finishers (equipped with a high-compaction screed)  
Definition: Annex I, Item 41. Measurement: Annex III, Part B,...  
piling equipment  
Definition: Annex I, Item 42. Measurement: Annex III, Part B,...  
pipelayers  
Definition: Annex I, Item 43. Measurement: Annex III, Part B,...  
piste caterpillars  
Definition: Annex I, Item 44. Measurement: Annex III, Part B,...  
power generators ( $\geq 400$  kW)  
Definition: Annex I, Item 45. Measurement: Annex III, Part B,...  
power sweepers  
Definition: Annex I, Item 46. Measurement: Annex III, Part B,...  
refuse collection vehicles  
Definition: Annex I, Item 47. Measurement: Annex III, Part B,...  
road milling machines  
Definition: Annex I, Item 48. Measurement: Annex III, Part B,...  
scarifiers  
Definition: Annex I, Item 49. Measurement: Annex III, Part B,...  
shredders/chippers  
Definition: Annex I, Item 50. Measurement: Annex III, Part B,...  
snow-removing machines with rotating tools (self-propelled, excluding attachments)  
Definition: Annex I, Item 51. Measurement: Annex III, Part B,...  
suction vehicles  
Definition: Annex I, Item 52. Measurement: Annex III, Part B,...  
trenchers  
Definition: Annex I, Item 54. Measurement: Annex III, Part B,...  
truck mixers  
Definition: Annex I, Item 55. Measurement: Annex III, Part B,...  
water pump units (not for use under water)  
Definition: Annex I, Item 56. Measurement: Annex III, Part B,...

### SCHEDULE 3 — (Extract from Article 12)

### SCHEDULE 4 — (ANNEX I to the Directive) — **Definitions of Equipment**

1. Aerial access platforms with combustion engines
2. Brush cutter
3. Builders' hoist for the transport of goods
4. Building site band saw machine
5. Building site circular saw bench
6. Chain saw, portable
7. Combined high pressure flusher and suction vehicle
8. Compaction machine
9. Compressor
10. Concrete-breakers and picks, hand held
11. Concrete or mortar mixer

12. Construction winch
13. Conveying and spraying machine for concrete and mortar
14. Conveyor belt
15. Cooling equipment on vehicles
16. Dozer
17. Drill rig
18. Dumper
19. Equipment for loading and unloading of silos or tanks on trucks
20. Excavator, hydraulic or rope-operated
21. Excavator-loader
22. Glass recycling container
23. Grader
24. Grass trimmer/grass edge trimmer
25. Hedge trimmer
26. High pressure flusher
27. High pressure water jet machine
28. Hydraulic hammer
29. Hydraulic power pack
30. Joint cutter
31. Landfill compactor, loader-type with bucket
32. Lawnmower
33. Lawn trimmer/lawn edge trimmer
34. Leaf blower
35. Leaf collector
36. Lift truck, combustion-engine driven, counterbalanced
37. Loader
38. Mobile crane
39. Mobile waste container
40. Motor hoe
41. Paver-finisher
42. Piling equipment
43. Pipelayer
44. Piste caterpillar
45. Power generator
46. Power sweeper
47. Refuse collection vehicle
48. Road-milling machine
49. Scarifier
50. Shredder/chipper
51. Snow-removing machine with rotating tools
52. Suction vehicle
53. Tower crane
54. Trencher
55. Truck mixer
56. Water pump unit
57. Welding generator

SCHEDULE 5 — (ANNEX II to the Directive)

— **EC Declaration of conformity**

The EC declaration of conformity must contain the following particulars:...

SCHEDULE 6 — (ANNEX III to the Directive)

— **Method of measurement of airborne noise emitted by equipment  
for use outdoors**

Scope

Part A of this Annex for each type of equipment...

Part B of this Annex for each type of equipment...

When testing specific types of equipment, the manufacturer or his...

**PART A — Basic Noise Emission Standard**

For the determination of the sound power level of equipment...

1. Measurement uncertainty
2. Operating of source during test
- 2.1 *Fan speed*
- 2.2 *Test of powered equipment free of load*
- 2.3 *Test of powered equipment under load*
- 2.4 *Test of hand-operated equipment*
3. Calculation of surface sound pressure level
4. Information to be reported
5. Additional microphone positions on the hemispherical measurement surface (EN ISO 3744:1995)
6. Environmental correction  $K_{2A}$

**PART B — Noise Test Codes for Specific Equipment**

0. Equipment that is tested free of load
  - Basic noise emission standard
  - Test area
  - Reflecting surface of concrete or non-porous asphalt
  - Environmental correction  $K_{2A}$
  - $K_{2A} = 0$
  - Measurement surface/number of microphone positions/measuring distance
  - (i) If the largest...
    - Operating conditions during test
    - The noise tests shall be carried out according to Part...
    - Period(s) of observation/determination of resulting sound power level if more...
      - The period of observation shall at least be 15 seconds....
  - 1. Aerial access platforms with combustion engine
  - 2. Brush Cutters
    - Basic noise emission standard
    - Test area ISO 10884:1995 Measurement surface/number of microphone positions/measuring distance...
    - Operating conditions during test
  - 3. Builders' hoists for the transport of goods
  - 4. Building site band saw machines
    - Basic noise emission standard
    - Operating conditions during test
  - 5. Building site circular saw benches
    - Basic noise emission standard
    - Measurement surface/number of microphone positions/measuring distance
    - ISO 7960:1995, Annex A, measurement distance  $d = 1\text{m}$
    - Operating conditions during test
    - ISO 7960:1995, Annex A (point A2(b) only)
    - Period of observation
    - ISO 7960:1995 Annex A
  - 6. Chain saws, portable
    - Basic noise emission standard

- Test area  
ISO 9207:1995  
Measurement surface/number of microphone positions/measuring distance  
ISO 9207:1995  
Operating conditions during test  
Full load sawing wood/engine at maximum revolution without load  
Period(s) of observation/determination of resulting sound power level if  
more...  
ISO 9207:1995 points 6.3 and 6.4  
The resulting sound power level LWA is calculated by: L...
7. Combined High Pressure Flushers and Suction Vehicles
8. Compaction Machines  
Basic noise emission standard  
Operating conditions during test  
The vibrating roller shall be installed on one or more...  
Test under load  
The machine shall be tested in a stationary position with...  
Period of observation  
The period of observation shall be at least 15 seconds....  
Basic noise emission standard  
Test area  
EN 500-4 rev. 1:1998, Annex C  
Operating conditions during test  
EN 500-4 rev. 1:1998, Annex C  
Period of observation  
EN 500-4 rev. 1:1998, Annex C
9. Compressors  
Basic noise emission standard  
Measurement surface/number of microphone positions/measuring distance  
hemisphere/six microphone positions according to Part A item 5/according  
to...  
or  
parallelepiped according to ISO 3744:1995 with measurement distance d  
=...  
Operating conditions during test  
The compressors shall be installed on the reflecting plane; skid-mounted...  
Test under load  
The compressor under test shall have been warmed up and...  
The determination of the sound power level shall be made...  
Should the layout of the complete plant be such that...  
During test the gas exhausted from the compressor shall be...  
Care shall be taken that air discharge does not introduce...  
Period of observation  
The period of observation shall be at least 15 seconds....
10. Concrete-breakers and picks, hand-held  
Basic noise emission standard  
Measurement surface/number of microphone positions/measuring distance  
Hemisphere/six microphone positions according to Part A item 5 and...  
Operating conditions during test  
All appliances shall be tested in the vertical position.  
If the test appliance has got an air exhaust, its...  
Support of the appliance  
The appliance shall be coupled during the test run to...

- Block characteristics
  - The block shall be in the shape of a cube...
  - Quality of the concrete
    - The quality of the concrete shall correspond to C 50/60...
    - The cube shall be reinforced by 8 mm-diameter steel rods...
  - Supporting tool
    - The tool shall be sealed into the block and shall...
    - Suitable treatment shall be carried out to integrate the two...
    - The block shall remain mechanically sound, particularly at the point...
  - Positioning of the cube
    - The cube shall be set in a pit cemented throughout,...
    - The opening in the screening slab through which the tool...
  - Test under load
    - The appliance tested shall be connected to the supporting tool....
    - The test appliance shall be operated in stable conditions having...
    - The test appliance shall be operated at the maximum power...
  - Period of observation
    - The period of observation shall at least be 15 seconds....
    - The value of A should be such that the screening...
- 11. Concrete or mortar mixers
  - Basic noise emission standard
  - Operating conditions during test
    - The mixing device (drum) shall be filled to its rated...
    - The mixing device shall be operated at least at the...
  - Period of observation
    - The period of observation shall be at least 15 seconds....
- 12. Construction winches
- 13. Conveying and spraying machines for concrete and mortar
  - Basic noise emission standard
  - Operating conditions during test
    - Test under load (i) For machines conveying and spraying concrete:...
    - The conveying system and the pipe shall be filled with...
    - The conveying system and the pipe shall be filled with...
  - Period of observation
    - The period of observation shall at least be 15 seconds....
- 14. Conveyor Belts
- 15. Cooling equipment on vehicles
  - Basic noise emission standard
  - Operating conditions during test
    - The cooling equipment shall be installed in a real or...
    - Cooling equipment installed in cargo-space refrigeration units which have a...
  - Period of observation
    - The period of observation shall be at least 15 seconds....
- 16. Dozers
  - Basic noise emission standard
  - Test area
    - ISO 6395:1988
    - Measurement surface/number of microphone positions/measuring distance
    - ISO 6395:1988
  - Operating conditions during test
    - Crawler dozers shall be tested on the test site corresponding...
  - Test under load

- ISO 6395:1988, Annex B  
Period(s) of observation and consideration of different operating conditions,  
if...
- ISO 6395:1988, Annex B
- 17. Drill rigs  
Basic noise emission standard  
Operating conditions during test  
EN 791:1995, Annex A  
Period of observation  
The period of observation shall at least be 15 seconds....
- 18. Dumpers  
Basic noise emission standard  
Test area  
ISO 6395:1988  
Measurement surface/number of microphone positions/measuring distance  
ISO 6395:1988  
Operating conditions during test  
Equivalent ISO 6395:1988, Annex C, with the following amendment:  
C4.3, second paragraph is replaced by: The engine shall be...  
Period(s) of observation/determination of resulting sound power level if  
more...  
ISO 6395:1988, Annex C
- 19. Equipment for loading and unloading tanks or silos on trucks  
Basic noise emission standard  
Operating conditions during test  
The equipment shall be tested with the truck in a...  
Period of observation  
The period of observation shall at least be 15 seconds....
- 20. Excavators  
Basic noise emission standard  
Test area  
ISO 6395:1988  
Measurement surface/number of microphone positions/measuring distance  
ISO 6395:1988  
Operating conditions during test  
ISO 6395:1988, Annex A  
Period(s) of observation/determination of resulting sound power level if  
more...  
ISO 6395:1988, Annex A
- 21. Excavator-loaders  
Basic noise emission standard  
Test area  
ISO 6395:1988  
Measurement surface/number of microphone positions/measuring distance  
ISO 6395:1988  
Operating conditions during test  
ISO 6395:1988, Annex D  
Period(s) of observation/determination of resulting sound power level if  
more...  
ISO 6395:1988, Annex D
- 22. Glass recycling containers  
Basic noise emission standard  
For the purpose of this noise test code the single-event...

- Environmental correction K2A  
Measurement in the open air  
K2A = 0  
Measurements indoors  
The value of the constant K2A, determined in accordance with...  
Operating conditions during test  
The glass bottles are defined as follows: capacity: 75cl mass:...  
The testing operator holds each bottle by its neck and...  
Period(s) of observation/determination of resulting sound power if more than...  
The A-weighted single-event sound pressure level is preferably simultaneously measured...  
The A-weighted single-event sound power level averaged over the measurement...  
The A-weighted single-event sound pressure level averaged over all 120...
23. Graders  
Basic noise emission standard  
Test area  
ISO 6395:1988  
Measurement surface/number of microphone positions/measuring distance  
ISO 6395:1988  
Operating conditions during test  
Corresponding to ISO 6395:1988, Annex B  
Period(s) of observation/determination of resulting sound power level if more...  
ISO 6395:1988, Annex B
24. Grass trimmers/grass edge trimmers
25. Hedge trimmers  
Basic noise emission standard  
Test area  
ISO 11094:1991  
in case of dispute, measurements shall be carried out in...  
Environmental correction K2A  
Measurement in the open air  
K2A = 0  
Measurements indoors  
The value of the constant K2A, determined without the artificial...  
Measurement surface/number of microphone positions/measuring distance  
ISO 11094:1991  
Operating conditions during test  
The hedge trimmer shall be held in the natural manner...  
Test under load  
The hedge clipper shall be operated at its nominal speed...  
Period of observation  
The period of observation shall at least be 15 seconds....
26. High pressure flushers  
Basic noise emission standard  
Operating conditions during test  
The high pressure flusher shall be tested in a stationary...  
Period of observation  
The period of observation shall at least be 30 seconds....
27. High pressure water jet machines  
Basic noise emission standard

- Measurement surface/number of microphone positions/measuring distance  
Parallelepiped/according to EN ISO 3744:1995 with measurement distance  
d =...
- Operating conditions during test  
The high pressure water jet machine shall be installed on...
- Test under load  
The high-pressure cleaning machine shall be brought to its steady-state...
- Period of observation  
The period of observation shall at least be 15 seconds....
28. Hydraulic hammers
- Basic noise emission standard
- Measurement surface/number of microphone positions/measuring distance  
Hemisphere/six microphone positions according to Part A, item 5/r=10 m...
- Operating conditions during tests  
For the test the hammer is attached to a carrier...
- Carrier  
The carrier for the test hammer shall meet the requirements...
- Mounting  
Mechanical mounting as well as connections (hoses, pipes ...) must...
- Hammer stability and static hold force  
The hammer shall be firmly held down by the carrier...
- Tool  
A blunt tool shall be used in the measurements. The...
- Test under load  
Hydraulic input and power and oil flow  
Operating conditions of the hydraulic hammer shall be appropriately  
adjusted,...
- Care shall be taken that the total uncertainty of the...
- Adjustable components having effect on the hammer power
- Pre-settings of all accumulators, pressure central valves and other  
possible...
- Quantities to be measured
- ps The mean value of the hydraulic supply line pressure...
- Q The mean value of the breaker inlet oil flow...
- T The oil temperature must lie between + 40/+ 60°...
- Pa The prefill gas pressure of all accumulators must be...
- Parameters to be evaluated from the measured operating parameters:
- PIN Hydraulic input power of the breaker  $PIN = ps \cdot Q$ ...
- Hydraulic supply line pressure measurement, ps ps must be measured...
- Breaker inlet oil flow, Q Q must be measured from...
- Measuring point of the oil temperature, T T must be...
- Period of observation/determination of resulting sound power level  
The period of observation shall be at least 15 seconds....
- The measurements are repeated three times, or more if necessary....
- Figure 28.1 Figure 28.2
- Definitions
- d Tool diameter (mm)
- d1 Anvil diameter,  $1200 \pm 100$  mm
- d2 Inner diameter of the anvil support structure,  $\leq 1800$ ...
- d3 Diameter of the test block deck,  $\leq 2200$  mm...
- d4 Diameter of the tool opening in the deck,  $\leq$ ...
- d5 Diameter of the tool seal,  $\leq 1000$  mm
- hsub1; Visible tool length between the lowest part of the...

- h2 Tool seal thickness above the deck,  $\leq 20$  mm...
- h3 Distance between deck upper surface and anvil upper surface,...
- h4 Isolating foam rubber deck seal thickness,  $\leq 30$  mm...
- h5 Anvil thickness,  $350 \pm 50$  mm
- h6 Tool penetration,  $\leq 50$  mm
- If the quadratic shape of the test block structure is...
- The empty space between the deck and the anvil can...
- 29. Hydraulic power packs
  - Basic noise emission standard
  - Operating conditions during test
  - The hydraulic power pack shall be installed on the reflecting...
  - Test under load
  - During testing, no tools shall be coupled to the hydraulic...
  - The hydraulic power pack shall be brought to its steady-state...
  - Period of observation
  - The period of observation shall at least be 15 seconds....
- 30. Joint cutters
  - Basic noise emission standard
  - Operating conditions during test
  - The joint cutter shall be equipped with the largest possible...
  - Period of observation
  - The period of observation shall be at least 15 seconds....
- 31. Landfill compactors
- 32. Lawnmowers
  - Basic noise emission standard
  - Test area
  - ISO 11094:1991
  - In case of dispute, measurements shall be carried out in...
  - Environmental correction K2A
  - Measurement in the open air
  - $K2A = 0$
  - Measurements indoors
  - The value of the constant K2A, determined without the artificial...
  - Measurement surface/number of microphone positions/measuring distance
  - ISO 11094:1991
  - Operating conditions during test
  - If the wheels of the lawnmower could cause a compression...
  - Test free of load
  - ISO 11094:1991
  - Period of observation
  - ISO 11094:1991
- 33. Lawn trimmers/lawn edge trimmers
- 34. Leaf blowers
  - Basic noise emission standard
  - Test area
  - ISO 11094:1991
  - In case of dispute, measurements shall be carried out in...
  - Environmental correction K2A
  - Measurement in the open air
  - $K2A = 0$
  - Measurements indoors
  - The value of the constant K2A, determined without artificial surface...
  - Measurement surface/number of microphone positions/measuring distance

- ISO 11094:1991
  - Operating conditions during test
  - The leaf blower shall be positioned in the natural manner...
  - Test under load
  - The leaf blower shall be operated at its nominal speed...
  - Period of observation
  - The period of observation shall at least be 15 seconds....
  - Note: If a leaf blower can be also used as...
- 35. Leaf collectors
  - Basic noise emission standard
  - Test area
  - ISO 11094:1991
  - In case of dispute, measurements shall be carried out in...
  - Environmental correction K2A
  - Measurement in the open air
  - $K2A = 0$
  - Measurements indoors
  - The value of the constant K2A, determined without artificial surface...
  - Measurement surface/number of microphone positions/measuring distance
  - ISO 11094:1991
  - Operating conditions during test
  - The leaf collector shall be positioned in the natural manner...
  - Test under load
  - The leaf collector shall be operated at its nominal speed...
  - Period of observation
  - The period of observation shall be at least 15 seconds....
  - Note: If a leaf collector can be also used as...
- 36. Lift trucks
  - Basic noise emission standard
  - Operating conditions during test
  - Lifting condition
  - With the truck stationary the load (non-sound absorbent material, eg...
  - Drive condition
  - Drive the truck, without load, at full acceleration from standstill...
  - If the truck has a multi-gear transmission, select the gear...
  - Period(s) of observation/determination of resulting sound power level if more...
  - The periods of observation are: for lifting condition: the whole...
  - The resulting sound power level for all types of lift...
- 37. Loaders
  - Basic noise emission standard
  - Test area
  - ISO 6395:1988
  - Measurement surface/number of microphone positions/measuring distance
  - ISO 6395:1988
  - Operating conditions during test
  - Crawler loaders shall be tested on the test site corresponding...
  - Test under load
  - ISO 6395:1988, Annex C
  - Period(s) of observation/determination of resulting sound power level if more...
  - ISO 6395:1988, Annex C
- 38. Mobile Cranes

- Basic noise emission standard  
 Operating conditions during test  
 If the crane is equipped with outriggers, they shall be...  
 Test under load  
 The mobile crane to be tested shall be presented in...  
 Before carrying out any measurement, the engine and the hydraulic...  
 If the mobile crane is equipped with several engines, the...  
 If the engine of the mobile crane is fitted with...  
 The mobile crane shall be measured under the following three...  
 For all working conditions the following shall apply: Engine speed...  
 The mobile crane shall be loaded with a load which...  
 With the boom adjusted to an angle of 40° to...  
 The test starts with raising the short jib from the...  
 With the jib adjusted to an angle of 40° to...  
 Period(s) of observation/determination of resulting sound power level if more...  
 The resulting sound power level is calculated by:
39. Mobile waste containers  
 Basic noise emission standard  
 Test area Reflecting surface of concrete or non-porous asphalt Laboratory...  
 Environmental correction K2A  
 Measurement in the open air  
 $K2A = 0$   
 Measurement indoors  
 The value of the constant K2A, determined in accordance with...  
 Measurement surface/number of microphone positions/measuring distance  
 Hemisphere/six microphone positions according to Part A item five/r =...  
 Operating conditions during test  
 Test No. 1: Free shutting down of the lid along...  
 To minimise his influence on the measurements, the operator shall...  
 The measurement is carried out during the following cycle, repeated...  
 Note: If necessary the operator can move temporarily to raise...  
 Test No. 2 Complete opening of the lid  
 To minimise his influence on the measurements, the operator shall...  
 To prevent any moving of the container, wheels shall be...  
 The measurement is carried out during the following cycle: initially,...  
 Test No. 3: Rolling of the container over an artificial...  
 For this test, an artificial test track, simulating an irregular...  
 Note: Every strip can be composed of several 400 mm...  
 An example of adequate track is given in Figures 39.1...  
 The operator is situated at the lid hinge side.  
 The measurement is carried out while the operator draws the...  
 During the test, for a 2-wheel container, the angle between...  
 Period(s) of observation/determination of resulting sound power level if more...  
 Test Nos 1 and 2: Free shutting down of the...  
 If possible, the measurements are carried out simultaneously at the...  
 The A-weighted single-event sound pressure level is measured for each...  
 Test No. 3: Rolling the container over an artificial irregular...  
 The period of observation T shall be equal to the...  
 The sound power level  $LWA_{rolling}$  is equal to the mean...  
 The resulting sound power level is calculated by:  $LWA_{rolling}$
40. Motor hoes

- 41. Paver-finishers
  - Basic noise emission standard
  - Operating conditions during test
  - The engine of the machine shall operate at the nominal...
  - Period of observation
  - The period of observation shall at least be 15 seconds....
- 42. Piling equipment
  - Basic noise emission standard
  - Test area
  - Operating conditions during test
  - The piling equipment is installed at the top of a...
  - Period of observation
  - The period of observation shall at least be 15 seconds....
- 43. Pipelayers
- 44. Piste caterpillars
- 45. Power generators
  - Basic noise emission standard
  - Environmental correction K2A
  - Measurement in the open air
  - $K2A = 0$
  - Measurement indoors
  - The value of the constant K2A, determined without artificial surface...
  - Measurement surface/number of microphone positions/measuring distance
  - Hemisphere/six microphone positions according to Part A item 5/according to...
  - Operating conditions during test
  - The power generators shall be installed on the reflecting plane;...
  - Test under load
  - ISO 8528-10:1998, point 9
  - Period of observation
  - The period of observation shall at least be 15 seconds....
- 46. Power sweepers
  - Basic noise emission standard
  - Operating conditions during test
  - The power sweeper shall be tested in a stationary position....
  - Period of observation
  - The period of observation shall at least be 15 seconds....
- 47. Refuse collection vehicles
  - Basic noise emission standard
  - Operating conditions during test
  - The refuse collection vehicle shall be tested in a stationary...
    - 1. Operating conditions during test
    - 2. The compaction system is running. The refuse collection vehicle and...
    - 3. The lifting device is running up and down, without load...
    - 4. Material is falling into the refuse collection vehicle. Materials are...
      - 1. at least 15 seconds. The resulting sound power level shall...
      - 2. at least three complete cycles, if the compaction system is...
      - 3. at least three continuous complete work-cycles, including the entirety of...
      - 4. at least three complete work-cycles, each including the falling of...
- 48. Road milling machines
  - Basic noise emission standard
  - Operating conditions during test
  - The longitudinal axis of the road milling machine shall be...

- Test under load  
The road milling machine shall be brought to its steady...  
Period of observation  
The period of observation shall at least be 15 seconds....
49. Scarifiers  
Basic noise emission standard  
Test area  
ISO 11094:1991  
In case of dispute, measurements shall be carried out in...  
Environmental correction K2A  
Measurement in the open air  
K2A = 0  
Measurement indoors  
The value of the constant K2A, determined without artificial surface...  
Measurement surface/number of microphone positions/measuring distance  
ISO 11094:1991  
Operating conditions during test  
The scarifier shall be operated with the engine at its...  
Period of observation  
The period of observation shall at least be 15 seconds....
50. Shredders/Chippers  
Basic noise emission standard  
Test area  
ISO 11094:1991  
Environmental correction K2A  
Measurement in the open air  
K2A = 0  
Measurements indoors  
The value of the constant K2A, determined without artificial surface...  
Measurement surface/number of microphone positions/measuring distance  
ISO 11094:1991  
Operating conditions during test  
Test under load  
The shredder/chipper shall be tested chipping one or more pieces...  
The work-cycle consists of chipping a round piece of wood...  
Period of observation/determination of resulting sound power level  
The period of observation shall end when there is no...
51. Snow removing machines with rotating tools  
Basic noise emission standard  
Operating conditions during test  
The snow blower shall be tested in a stationary position....  
Period of observation  
The period of observation shall at least be 15 seconds....
52. Suction vehicles  
Basic noise emission standard  
Operating conditions during test  
The suction vehicle shall be tested in a stationary position....  
Period of observation  
The period of observation shall at least be 15 seconds....
53. Tower cranes  
Basic noise emission standard  
Measurement surface/number of microphone positions/measuring distance  
Measurement at ground-level

- Hemisphere/six microphone positions according to Part A paragraph 5/  
according to...  
Measurements carried out at jib-height.  
Where the lifting mechanism is located at the jib-height, the...  
Where the measurement is carried out with the lifting mechanism...  
The microphone positions shall be as follows (see Figure 53.1):...  
Four microphone positions on a horizontal plane passing through the...  
The other two microphone positions shall be located at the...  
Operating conditions during test  
Measurement of lifting mechanism  
The lifting mechanism during the test shall be mounted in...  
The mounted crane shall be placed on a flat reflecting...  
The lifting mechanism shall be at least 12 m above...  
The lifting mechanism shall be fixed to a flat reflecting...  
Measurement of the energy generator.  
Where the energy generator is attached to the crane, whether...  
Where the lifting mechanism is situated on the jib stay...  
Where the energy source powering the crane is independent from...  
Where the energy generator is attached to the crane, the...  
During the test the lifting mechanism and the energy generator...  
Test free of load  
The energy generator incorporated in the crane shall operate at...  
The lifting mechanism shall operate free of load, with its...  
Test under load  
The energy generator incorporated in the crane shall operate at...  
Period(s) of observation/determination of resulting sound power level if  
more...  
For the measurement of the sound pressure level of the...  
(tr + tf) seconds: tr being the period in seconds...  
The root mean square value at microphone position i shall...  
Figure 53.1 Arrangement of microphone positions where the lifting  
mechanism...
54. Trenchers
55. Truck Mixers  
Basic noise emission standard  
Operating conditions during test  
The truck mixer shall be tested in a stationary position....  
Period of observation  
The period of observation shall at least be 15 seconds....
56. Water pump units  
Basic noise emission standard  
Measurement surface/number of microphone positions/measuring distance  
Parallelepiped/according to EN ISO 3744:1995 with measurement distance  
d =...  
Operating conditions during test  
The water pump unit shall be installed on the reflecting...  
Test under load  
The engine must operate at the point of best efficiency...  
Period of observation  
The period of observation shall at least be 15 seconds....
57. Welding generators  
Basic noise emission standard  
Environmental correction K2A

Measurement in the open air

$K2A = 0$

Measurement indoors

The value of the constant  $K2A$ , determined in accordance with...

Measurement surface/number of microphone positions/measuring distance

Hemisphere/6 microphone positions according to Part A item 5/according to...

If  $l > 2$  m: a parallelepiped according to EN ISO 3744:1995...

Operating conditions during test

The welding generators shall be installed on the reflecting plane;...

Test under load

ISO 8528-10:1998, point 9.

Period of observation

The period of observation shall at least be 15 seconds....

SCHEDULE 7 — (ANNEX IV to the Directive)

— **Models of the CE marking of conformity and of the indication of the guaranteed sound power level**

The CE conformity marking must consist of the initials “CE”...

If the CE marking is reduced or enlarged according to...

The indication of the guaranteed sound power level must consist...

If the indication is reduced or enlarged according to the...

SCHEDULE 8 — (ANNEX V to the Directive)

— **Internal control of production**

1. This Annex describes the procedure whereby the manufacturer, or his...
2. The manufacturer, or his authorised representative established in the Community,...
3. The technical documentation must enable the conformity of the equipment...
4. The manufacturer must take all measures necessary in order that...

SCHEDULE 9 — (ANNEX VI to the Directive)

— **Internal control of production with assessment of technical documentation and periodical checking**

1. This Annex describes the procedure whereby the manufacturer, or his...
2. The manufacturer, or his authorised representative established in the Community,...
3. The technical documentation must enable the conformity of the equipment...
4. The manufacturer must take all measures necessary in order that...
5. Evaluation by the notified body prior to placing on the...
6. Evaluation by the notified body during production The manufacturer, or...

SCHEDULE 10 — (ANNEX VII to the Directive)

— **Unit Verification**

1. This Annex describes the procedure whereby the manufacturer, or his...
2. The application for a unit verification must be lodged by...
3. The notified body must: examine whether the equipment has been...
4. Where the equipment meets the provisions of this Directive, the...
5. The manufacturer, or his authorised representative established in the Community,...

SCHEDULE 11 — (ANNEX VIII to the Directive)

— **Full Quality Assurance**

1. This Annex describes the procedure whereby the manufacturer who satisfies...
2. The manufacturer must operate an approved quality assurance system for...
3. Quality assurance system
- 3.1 The manufacturer must lodge an application for assessment of his...
- 3.2 The quality assurance system must ensure compliance of the product...
- 3.3 It must contain in particular an adequate description of: the...
- 3.4 The manufacturer must undertake to fulfil the obligations arising out...
4. Surveillance under the responsibility of the notified body
- 4.1 The purpose of surveillance is to make sure that the...
- 4.2 The manufacturer must allow the notified body entrance for inspection...
- 4.3 The notified body shall periodically carry out audits to make...
- 4.4 Additionally the notified body may pay unexpected visits to the...
5. The manufacturer must, for a period ending at least 10...
6. Each notified body must give the other notified bodies the...

SCHEDULE 12 — (ANNEX X to the Directive)**Unit Verification**

SCHEDULE 13 — **ENFORCEMENT**

1. Enforcement authorities
2. Test purchases
3. Powers of search etc.
4. Provisions supplemental to paragraph 3
5. Appeals against detention of equipment
6. Suspension notices
7. Appeals against suspension notices
8. Power to require production of documents and information etc.
9. Contravention of a suspension notice
10. False information
11. Obstruction etc. of officers of enforcement authorities etc.
12. Extension of time for bringing summary proceedings
13. Forfeiture: England and Wales and Northern Ireland
14. Forfeiture: Scotland
15. Recovery of expenses of enforcement
16. Service of documents etc.
17. Savings for certain privileges
18. Savings for action taken under other enactments

Explanatory Note