Garden blowers, vacuums and blower/vacuums (combustion engine powered)

This guide is intended to help market surveillance authorities with the checking of conformity of combustion engine powered garden blowers, vacuums and blower/vacuums in the European Union. It should only be taken as suggestions or observations for consideration.
1. Introduction

Blowers, Vacuums and Blower/Vacuums in conformity with EN 15503:2009+A2:2015

Portable hand-held combustion engine powered garden blower, vacuum and blower/vacuum

Key
1) Throttle control
2) Blower suction tube
3) Power unit
4) Catcher bag

Note:
1. The standards indicated in this guide are the latest published versions.
2. The inspection of a product should be conducted using ONLY the standards as declared by the manufacturer in the D.o.C. delivered with the product.
1. Introduction

Main EU technical Directives & Regulations to be applied to garden blowers, vacuums and blower/vacuums

- **Directive 2006/42/EC**
  Machinery

- **Directive 2000/14/EC** (as amended)
  Outdoor Noise

- **Directive 2014/30/EU**
  Electromagnetic Compatibility

- **Directive 97/68/EC** repealed
  01.01.2017

- **Regulation (EU) 2016/1628**
  Exhaust Emissions plus supplementary acts
1. Introduction

Is this garden blower, vacuum or blower/vacuum compliant with EU Directives?

✓ • This guide is for quick evaluation of combustion engine powered garden blower, vacuum or blower/vacuum marking:
  – CE marking
  – Engine exhaust emission marking (EC type approval number)
  – Guaranteed sound power level

✓ • Documentation:
  – EU declaration of conformity (D.o.C.)
  – Instructions

✗ • This guide is not applicable for technical evaluations
✗ • This guide is not applicable to electric garden blowers / vacuums
✗ • This guide contains extracts of relevant regulations and does not claim completeness of contents
2. Machinery Identification / CE Marking

Machinery Directive 2006/42/EC

CE marking:
- The CE Conformity marking shall consist of the initials ‘CE’ as shown left;
- The CE marking shall be affixed to the machinery visibly, legibly and indelibly;
- The CE marking must contain the minimum particulars (on the machine e.g. labelled, printed, embossed, etc.);
- The CE marking must be affixed in the immediate vicinity of the name of the manufacturer or his authorised representative, using the same technique.

Marking of machinery:
- Business name and address of the manufacturer or his authorised representative;
- Designation of the machinery (may be indicated by a code);
- Designation of series or type (may be indicated by a code and may be combined with the designation of the machinery);
- Serial number, if any;
- Year of construction/assembly.
3. Exhaust Emission Marking

According to the manufacturing date of the engine:

- **Before 3rd May 2017**
  - Marking of the engine according to 3.1 (a)

- **3rd May 2017 – 31st December 2018**
  - Marking of the engine according to 3.1 (a) & 3.1 (b) or 3.2

- **After 1st January 2019**
  - Marking of the engine according to 3.2
### 3.1(a) Marking / EC Type Approval

- Until 31.12.18 engines that are in conformity with Directive 97/68/EC may continue to be produced and shall be marked with the EC Type Approval number according to the format below
- The EC type-approval number must be durable for the useful life of the engine and must be clearly legible and indelible
- The marking must be located so as to be readily visible to the average person after the engine has been completed with all the auxiliaries necessary for engine operation
- The number must consist of five sections separated by the ‘*’ character

#### Example:

<table>
<thead>
<tr>
<th>Section 1</th>
<th>Section 2</th>
<th>Section 3</th>
<th>Section 4</th>
<th>Section 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>'e' followed by the number of the Member State issuing the approval (e.g. ‘1’ for Germany, ‘2’ for France, ‘11’ for UK).</td>
<td>Begins with 97/68 which is the number of the Emissions directive. The following characters refer to the different stages and designation of the engine.</td>
<td>The number of the latest amending Directive applicable to the approval.</td>
<td>A four-digit number to denote the base approval number.</td>
<td>A two-digit number to denote the extension.</td>
</tr>
</tbody>
</table>
3.1(b) Transition Scheme – Reg. (EU) 2016/1628

- Transition scheme allows, during a transition period, the placing on the EU market of engines produced prior to the applicable Stage V placing on the market date. These engines are called transition engines.

- ‘transition period’ means the first 24 months following the dates set out in Annex III for the placing on the market of Stage V engines.

- The applicable dates are:
  - 31st December, 2018: End of production of Transition engines.
  - 30th June 2020: Last date of production for machines incorporating Transition engines.

- For the transition engine, marking shall additionally include the engine production date in month and year (e.g. MM/YYYY), this marking may be a separate mark. For a machine incorporating a transition engine, the machine production date in month and year (e.g. MM/YYYY) can be used instead of the engine production date.
### 3.2 Engine Marking / EC Type Approval

- From 01.01.2019 engines shall be in conformity with Regulation (EU) 2016/1628 and be marked with the EC Type Approval number according to the format below, either by the certificate number (A) or by a simplified mark (B):
- Example for a hand-held petrol engine below 50 cc, the engine category is NRSh and sub-category is NRSh-v-1a so the coding is SHA1

<table>
<thead>
<tr>
<th>A)</th>
<th>B)</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="e11" /></td>
<td><img src="image" alt="e11" /></td>
</tr>
<tr>
<td><strong>Section 1</strong>&lt;br&gt;‘e’ followed by the number of the Member State issuing the approval (e.g. ‘1’ for Germany, ‘2’ for France, ‘11’ for UK).</td>
<td><strong>SHA1/P</strong>&lt;br&gt;Applicable fuel type code, e.g. P for Petrol</td>
</tr>
<tr>
<td><strong>Section 2</strong>&lt;br&gt;Begins with 2016/1628 which is the number of the Emissions Regulation. The following characters refer to the different stages and designation of the engine.</td>
<td><strong>V-XXXX</strong>&lt;br&gt;Engine category identification code e.g. SHA1 for Non Road Spark Ignition</td>
</tr>
<tr>
<td><strong>Section 3</strong>&lt;br&gt;Three elements:</td>
<td><strong>Section 4</strong>&lt;br&gt;A four-digit number to denote the base type approval Number starting from 0001.</td>
</tr>
<tr>
<td>- The number of the latest amending regulation</td>
<td></td>
</tr>
<tr>
<td>- Engine category</td>
<td></td>
</tr>
<tr>
<td>- Applicable fuel type code, e.g. P for Petrol</td>
<td></td>
</tr>
<tr>
<td><strong>Section 5</strong>&lt;br&gt;A two-digit number to denote the extension.</td>
<td></td>
</tr>
</tbody>
</table>

- **Example for a hand-held petrol engine below 50 cc**

  - **A)**: e11 * 2016/1628 * 2017/ RRRSHA1/P * XXXX * XX
  - **B)**: e11 SHA1/P V-XXXX
4. Marking / Outdoor Noise Label

Outdoor Noise Directive 2000/14/EC (as amended)

- The indication of the guaranteed sound power level must consist of:
  - the single number of the guaranteed sound power in dB
  - the sign \( L_{WA} \) and
  - a pictogram taking the following form:

![Pictogram example](image)

- There is no noise limit for combustion engine powered garden blowers, vacuums and blower/vacuums but noise marking and declaration of the values in the instructions are required.
Machinery Directive 2006/42/EC

For clarification, consult the European Commission Guide to application of the Machinery Directive 2006/42/EC

- Machinery must be accompanied by instructions in the official Community language(s) of the Member State in which it is made available
- The instructions must contain at least the following information:
  - business name and full address of the manufacturer and of his authorised representative (if the manufacturer is not located in an EU Member State);
  - descriptions and explanations necessary for safe use, adjustment and maintenance operations that should be carried out by the user, and the preventive maintenance measures that should be taken;
  - a description of the intended use of the machinery (professional use and use by consumers);
  - warnings concerning ways in which the machinery must not be used that experience has shown might occur;
  - hand-arm vibrations.
6. Documentation / EU Declaration of Conformity

2006/42/EC, 2000/14/EC, 2014/30/EU

For clarification, consult the European Commission Guide to application of the Machinery Directive 2006/42/EC.

The EU declaration of conformity (D.o.C.) must contain at least the following particulars:

• business name and full address of the manufacturer and, where appropriate, his authorised representative;
• name and address of the person authorised to compile the technical file, who must be established in the European Union;
• description and identification of the machinery including generic denomination, function, model, type, serial number and commercial name;
• a sentence expressly declaring that the machinery fulfils all the relevant provisions of this Directive and, where appropriate, a similar sentence declaring conformity with other Directives and/or relevant provisions with which the machinery complies;
• the guaranteed and measured sound power level in accordance with the Outdoor Noise Directive 2000/14/EC;
• the place and date of the declaration;
• the identity and signature of the person empowered to draw up the declaration on behalf of the manufacturer or his authorised representative.
7. Warning Text or Pictograms on the Machine*

- Wear ear protection
- Wear eye protection
- Keep bystanders away

* If pictograms are used, they must be explained in the instructions
* If text is used, it must be in the official language(s) of the country where the product is sold