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


Key:

1. Feed intake opening (Feed safety opening)
2. Discharge chute
3. Cutting means
4. Interlocked guard

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 combustion engine powered shredders

- **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  - repealed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 shredder/chipper compliant with EU Directives?

- This guide is intended for quick evaluation of integrally (combustion engine) powered shredder / chipper 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 mains operated (electric) shredders / chippers
- 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 include 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
• Nominal power in kW (if over 20 kW)
• Mass in kg (if over 25 kg)
3. Exhaust Emission Marking

According to the manufacturing date of the engine:

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

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

- **After 1\(^{st}\) January 2019**
  - Marking of the engine according to 3.2
### 3.1(a) Engine 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>e11</td>
<td>97/68 SA</td>
<td>2010/26</td>
<td>XXXX</td>
<td>00</td>
</tr>
</tbody>
</table>

- **Section 1**: ‘e’ followed by the number of the Member State issuing the approval (e.g. ‘1’ for Germany, ‘2’ for France, ‘11’ for UK).
- **Section 2**: 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.
- **Section 3**: The number of the latest amending Directive applicable to the approval.
- **Section 4**: A four-digit number to denote the base approval number.
- **Section 5**: A two-digit number to denote the extension.
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 (month and year).(e.g. MM/YYYY), this marking may be a separate mark.
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 petrol engine with variable rpm < 3600 rpm and ≥225 cc, the engine category is NRS and sub-category is NRS-vi-1b so the coding is SYB1.

A) :

<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 2016/1628 which is the number of the Emissions Regulation.</td>
<td>Three elements:</td>
<td>A four-digit number to denote the base type approval Number starting from 0001.</td>
<td>A two-digit number to denote the extension.</td>
</tr>
<tr>
<td>The following characters refer to the different stages and designation of the engine.</td>
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<td>• The number of the latest amending regulation</td>
<td>• Engine category identification code e.g. SYB1 for Non Road Spark Ignition</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Applicable fuel type code, e.g. P for Petrol</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

B) :

| e11 | SYB1/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:

![Example of noise label](image)

- There is no noise limit for integrally powered shredders / chippers but noise marking and declaration of the values in the instructions are required.
5. Documentation / Instructions

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 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
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 of conformity;
- 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*

- Read instructions
- Danger - Rotating blades. Keep hands and feet out of openings while machine is running
- 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