

**Compliance Guide**  
**Rev.2.3 Edition 04/2018**

# **Ride-on lawnmowers (combustion engine powered)**

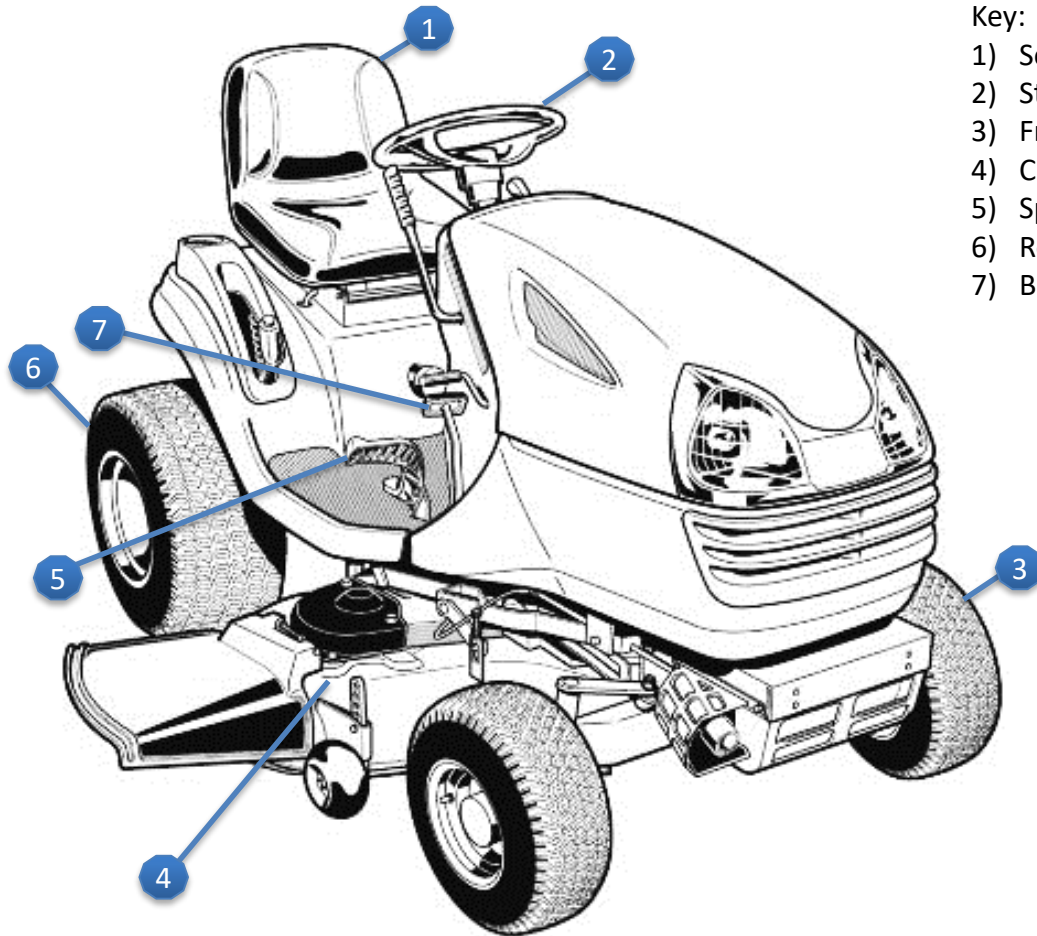
This guide is intended to help market surveillance authorities with the checking of conformity of combustion engine powered brush-cutters and grass trimmers in the European Union. It should only be taken as suggestions or observations for consideration

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This guide is intended to help market surveillance authorities with the checking of conformity of combustion engine powered ride-on lawnmowers in the European Union. It should only be taken as suggestions or observations for consideration.

# 1. Introduction

Ride-on lawnmower, with mid-mounted cutting means assembly in conformity with EN ISO 5395-1:2013 & EN ISO 5395-3:2013/A1:2017



Key:

- 1) Seat with Operator Presence Control (OPC)
- 2) Steering wheel
- 3) Front wheel assembly
- 4) Cutting means assembly
- 5) Speed control pedal
- 6) Rear wheel assembly
- 7) Brake pedal

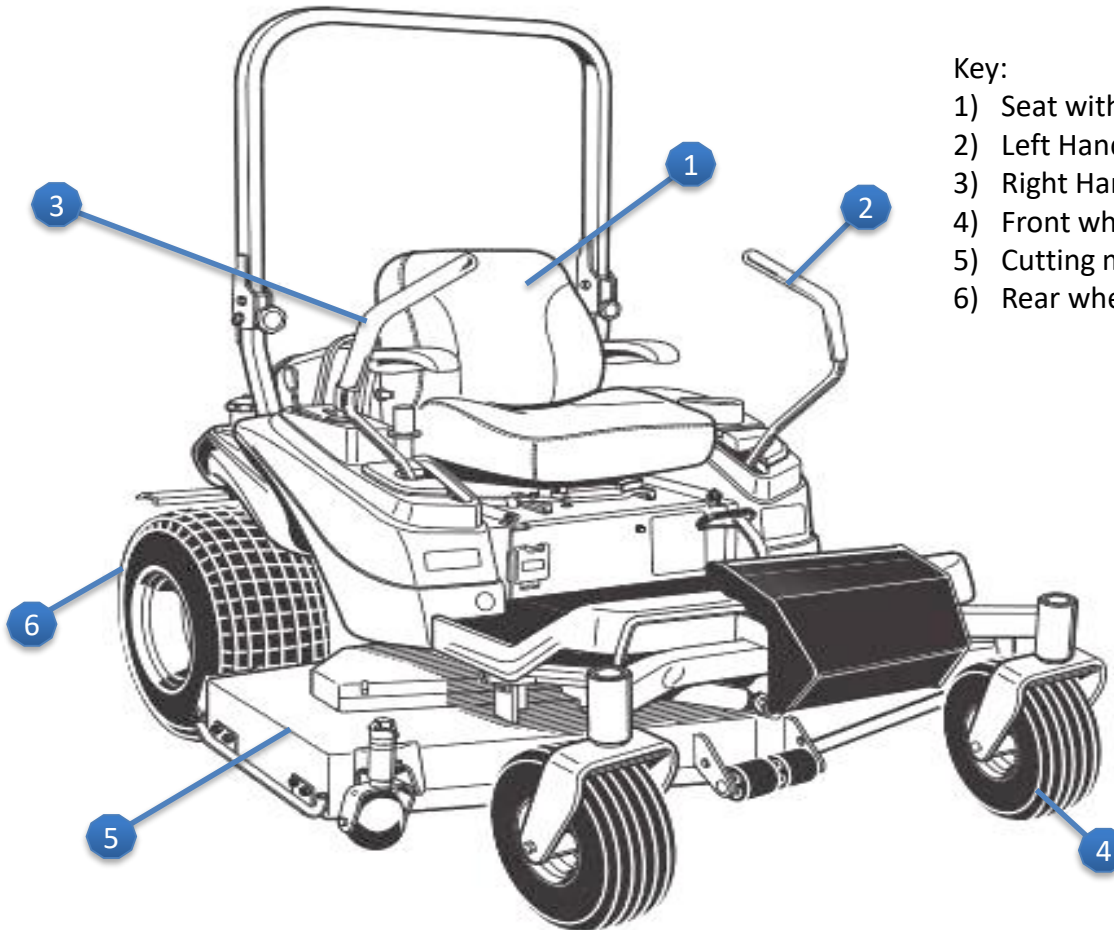
*Note:*

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.
3. A Ride-On Protective Structure (ROPS) is required for machines above 400 kg unladen weight

**Designed for use by one seated operator**

# 1. Introduction

Ride-on lawnmower, with mid-mounted cutting means assembly in conformity with EN ISO 5395-1:2013 & EN ISO 5395-3:2013/A1:2017



Key:

- 1) Seat with Operator Presence Control (OPC)
- 2) Left Hand motion control lever
- 3) Right Hand motion control lever
- 4) Front wheel assembly
- 5) Cutting means assembly
- 6) Rear wheel assembly

*Note 1: These machines are known as Zero Turning Radius "ZTR".*

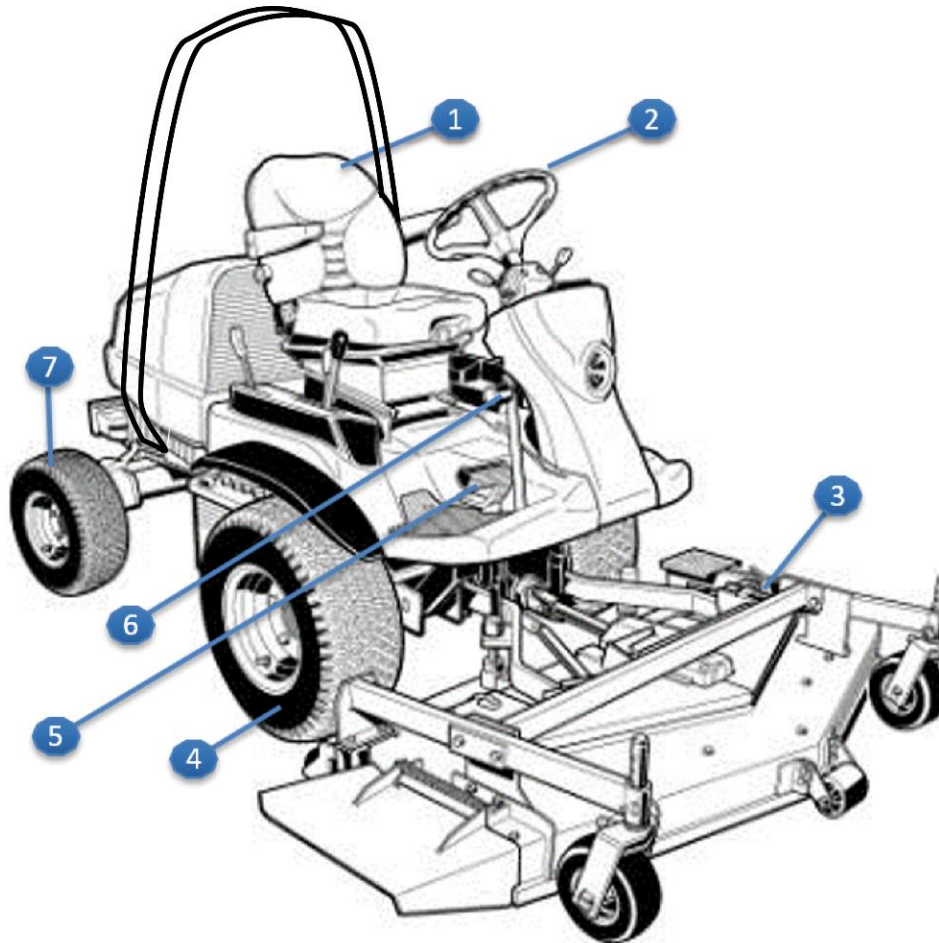
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# 1. Introduction

Ride-on lawnmower, with front-mounted cutting means assembly in conformity with EN ISO 5395-1:2013 & EN ISO 5395-3:2013/A1:2017



Key:

- 1) Seat with Operator Presence Control (OPC)
- 2) Steering wheel
- 3) Cutting means assembly
- 4) Front wheel assembly
- 5) Speed control pedal
- 6) Brake pedal
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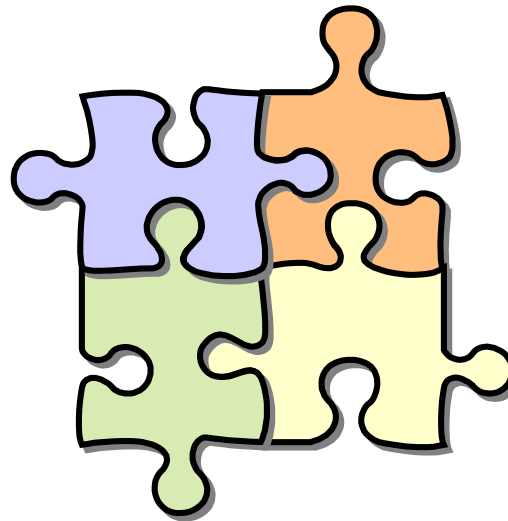
# 1. Introduction

## Main EU technical Directives / Regulations to be applied to ride-on lawnmowers

**Directive 2006/42/EC**  
Machinery

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

**Regulation (EU) 2016/1628**  
Exhaust Emissions plus  
supplementary acts



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

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

## Is this ride-on lawnmower compliant with EU Directives?

- ✓ • This guide is intended for quick evaluation of ride-on lawnmower marking:
  - CE marking
  - Engine exhaust emission marking (EC type approval number, if required)
  - Guaranteed sound power level
  
- ✓ • And documentation:
  - EU declaration of conformity
  - Instructions
  
- ✗ • This guide is not applicable for technical evaluations
- ✗ • This guide contains extracts of relevant regulations and does not claim completeness of contents

# 2. Machinery Identification CE Marking

## Machinery Directive 2006/42/EC

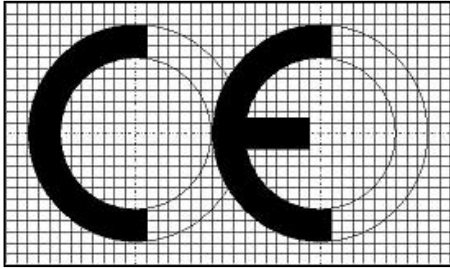


Illustration from 2006/42/EC

### CE marking:

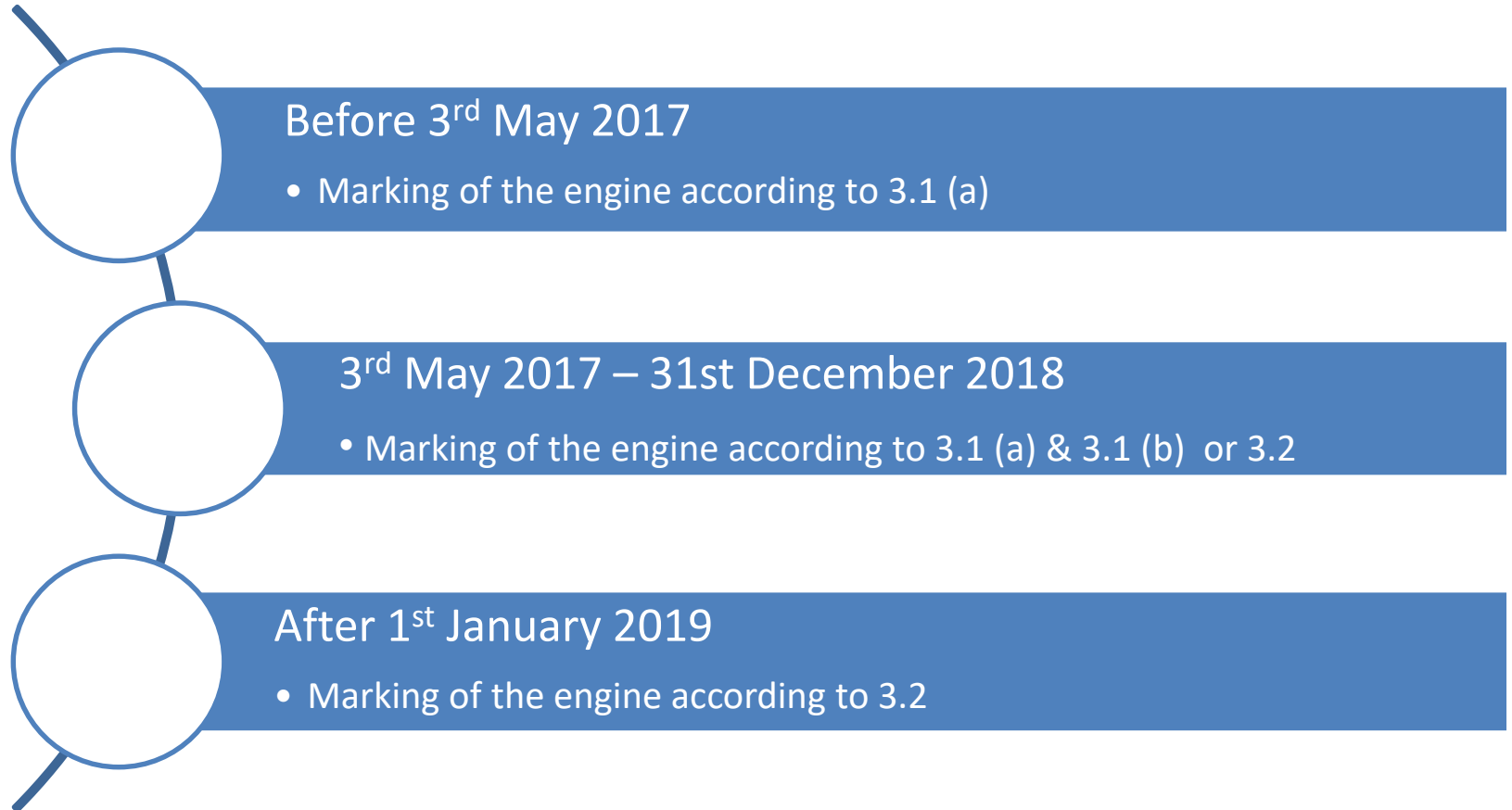
- The CE Conformity marking shall consist of the initials 'CE' as shown left;
- The CE marking shall be affixed to the machinery visibly, legibly and indelibly;
- The CE marking must contain the minimum particulars (on the machine e.g. labelled, printed, embossed, etc.);
- The CE marking must be affixed 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;
- Nominal rated power, in kW;
- Mass of the machine, in kg.

# 3. Exhaust Emission Marking

According to the manufacturing date of the engine:





# 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:

e11

**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).

\*

97/68 SA

**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.

\*

2010/26

**Section 3**  
The number of the latest amending Directive applicable to the approval.

\*

XXXX

**Section 4**  
A four-digit number to denote the base approval number.

\*

00

**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.
  - 31st December, 2020: End of placing on the market of 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 ride-on lawnmower petrol engine of variable speed and  $\geq 225$  cc, and of a power range from 0 kW to 19 kW, the engine category is NRS and sub-category is NRS-vi-1b so the coding is SYB1

A) :

e11

\*

2016/1628

\*

2017/ RRRSYB1/P

\*

XXXX

\*

XX

**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 2016/1628 which is the number of the Emissions Regulation.

The following characters refer to the different stages and designation of the engine.

**Section 3**

Three elements:

- The number of the latest amending regulation
- Engine category identification code e.g. SYB1 for Non Road Spark Ignition
- Applicable fuel type code, e.g. P for Petrol

**Section 4**

A four-digit number to denote the base type approval Number starting from 0001.

**Section 5**

A two-digit number to denote the extension.

B) :

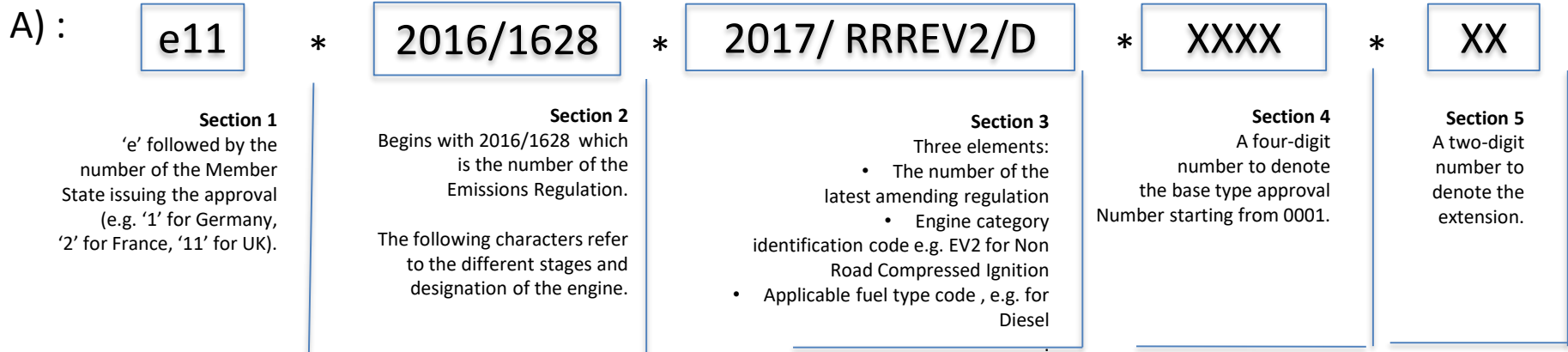
e11

SYB1/P

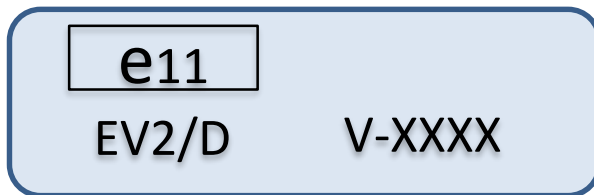
V-XXXX

# 3.3 Engine Marking / EC Engine 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 ride-on lawnmower diesel engine (CI) of variable speed and of rated P power range from 8 kW to < 19 kW, the engine category is NRE and sub-category is NRE-v-2 so the coding is EV2



B) :



# 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

- Noise limits for ride-on lawnmowers by cutting width (L in cm):

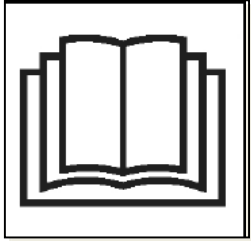
$L \leq 50$	= 96 dB(A)
$50 < L \leq 70$	= 98 dB(A)
$70 < L \leq 120$	= 100 dB(A)
$L > 120$	= 105 dB(A)



# 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 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.

# 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

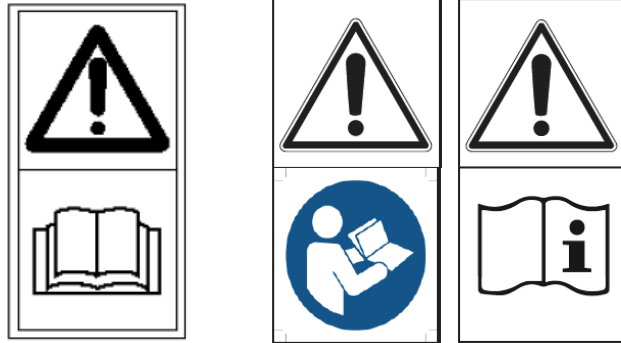
The EU declaration of conformity (D.o.C.) must contain at least the following particulars:



- 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 name and address of the notified body which carried out conformity assessment in accordance with the Outdoor Noise Directive 2000/14/EC;
- 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\*

- Read instructions



alternatives

- Keep bystanders away



- WARNING: Keep hands and feet away from the blades!



\* 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