

IS THIS **HYDRAULIC EXCAVATOR** COMPLIANT WITH EUROPEAN LEGISLATION?

A BRIEF GUIDE FOR IDENTIFICATION
OF NON-COMPLIANT
CONSTRUCTION MACHINERY



COMMITTEE FOR EUROPEAN
CONSTRUCTION EQUIPMENT



INTRODUCTION

Construction equipment made available on the EU market for the first time must comply with the relevant EU legislation – and meet all valid safety and environmental requirements. Machinery which does not fulfill these requirements is non-compliant and is not allowed to be placed on the EU market.

This guideline is meant to help identify non-compliant aspects. It describes only criteria which can be checked without in-depth knowledge and technical information. Thus, this brochure is not meant to be comprehensive but is designed to act as an “early warning” tool. If one or more items are out of line with this quick reference guide, then it is likely that the equipment is non-compliant.

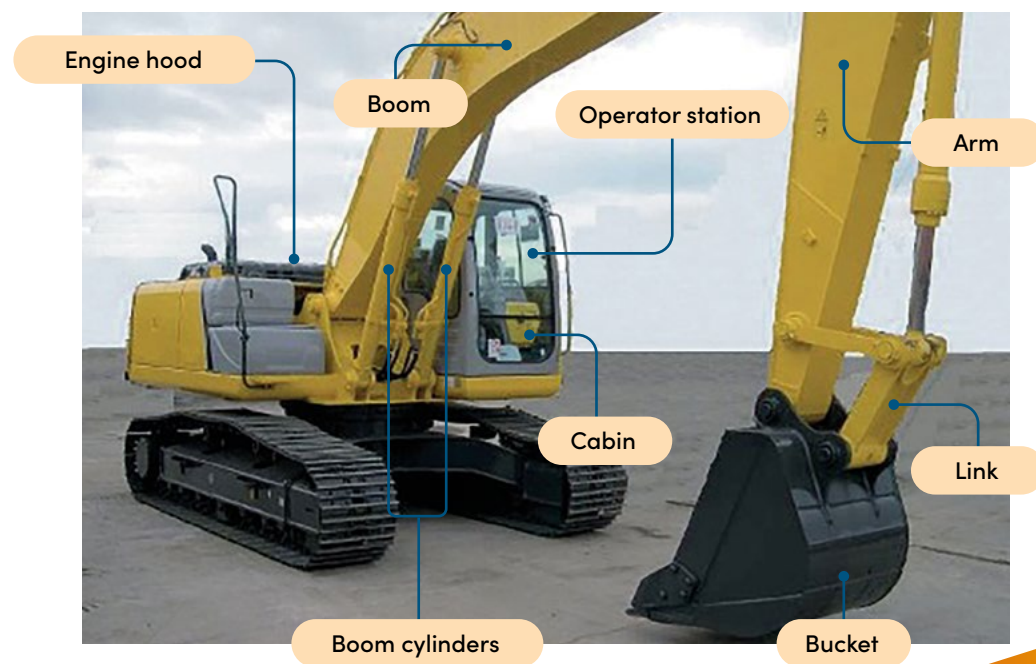
Accidents are more likely to happen with non-compliant machines. Furthermore, non-compliant machines often do not meet the EU environmental regulations which present a risk not only for workers but also for society. Non-compliant construction equipment, its import, sale and use thereof remains a major issue. It is a source of unfair competition and compromises bona fide suppliers. This in turn threatens the competitiveness of the European construction equipment industry and the jobs it provides.

CECE, as the recognized association representing and promoting European construction equipment manufacturers and related industries, calls upon all responsible authorities and stakeholders to work together to foster the use on the EU market of compliant construction equipment only.

REFERENCE GUIDE TO QUICKLY IDENTIFY NON-COMPLIANT EXCAVATORS

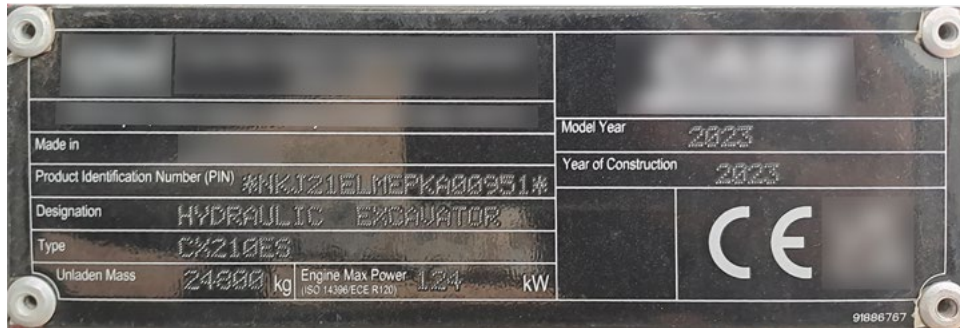
Easy to check items to confirm compliance with EU legislation:

1. Identification of machine and manufacturer;
2. Declaration of Conformity;
3. Instructions;
4. Engine exhaust emission;
5. Form of the compliance marking;
6. Noise emissions;
7. Lifting safety;
8. Safety labels;
9. Access systems;
10. Batteries;
11. Fluorinated greenhouse gases;
12. Operator protective structures;
13. Operator protective guards.



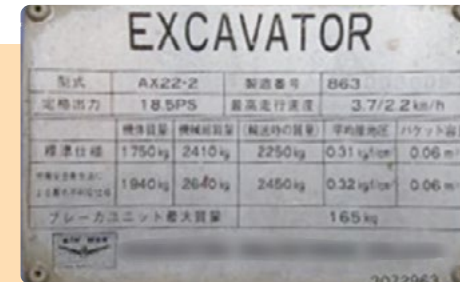
1 IDENTIFICATION OF MACHINE AND MANUFACTURER

All construction machinery placed on the EU market must be marked clearly and permanently with the following, in one of the EU official languages:



> Compliant example

- ✓ Name and address of the manufacturer (and, if applicable, their authorised representative);
- ✓ The CE mark;
- ✓ Designation of the machinery;
- ✓ Type of machine;
- ✓ The year of construction;
- ✓ The power in kW;
- ✓ The machine operating mass in Kg.



> Non-compliant (example 1)

- ✗ Not in an official language;
- ✗ No address;
- ✗ No CE mark;
- ✗ No year of construction.



> Non-compliant (example 2)



- ✗ Missing manufacturer details of the economic operator responsible for CE marking;
- ✗ No unit of measure for power;
- ✗ No year of construction;
- ✗ No designation of the machinery.



> No CE marks: these machines were not designed and constructed for the EU market

2 | DECLARATION OF CONFORMITY

For all construction equipment placed on the EU market a **Declaration of Conformity** (DoC) must be available, in hardcopy accompanying the machine and/or in digital format. The Declaration of Conformity shall be one even if different legislation apply.

The Declaration of Conformity is a critical document which shows which EU legislation the machine complies with. It must be in one¹ of the **official languages** of the Member State where the product is placed on the market or put into service and must include at least the following:

- A statement that the machine meets the requirements of the following EU legislation and subsequent amendments:
 - 2006/42/EC – the Machinery Directive – until 19th January 2027; and as of 20th January 2027, 2023/1230/EU – the Machinery Regulation;
 - 2000/14/EC² – the Directive on Noise Emissions in the Environment by Equipment for Use Outdoors;
 - Either Directive on Electromagnetic Compatibility 2014/30/EU or Radio Equipment Directive 2014/53/EU.
- The name and address of the manufacturer and, if applicable, of the EU authorised representative;
- A description of the machine, including designation and serial number. The serial number on the DoC must be the same as that marked on the machine;
- Name and address of the **person responsible** for compiling the technical file, who shall be **based in the EU**;
- The name and address of the person who keeps the technical documentation on noise emissions and the name of the Notified body involved;
- The conformity assessment procedure followed for noise emissions (e.g. Annex VI);
- The measured sound power level;
- The guaranteed sound power level;
- The date and place of the declaration;
- Identity and signature of the person making the declaration.

¹ Except for legislation 2016/879 where a dedicated DoC is required.

² Required for machines below 500 kW only.

EU DECLARATION OF CONFORMITY

Business name and full address of the manufacturer, or

Name and address of the manufacturer's authorised representative established in the EC & the business name and address of the manufacturer.

Name and address of the person authorised to compile the technical file, who must be established in the Community¹.

Hereby declares that the below mentioned machine:

Description of the machinery:

Make / brand

Type / model

Serial number

Is in accordance with:

- Machinery Directive
- Noise Directive, if applicable, additional information needs to be provided i.e., conformity assessment procedure, notified bodies, guaranteed Sound Power value, measured average noise value and the engine output
- Electro-Magnetic Compatibility Directive
- 2006/42/EC modified and the corresponding national regulations
- 2000/14/EC
- 2014/30/EU or Radio Equipment Directive 2014/53/EU
- 2014/35/EU

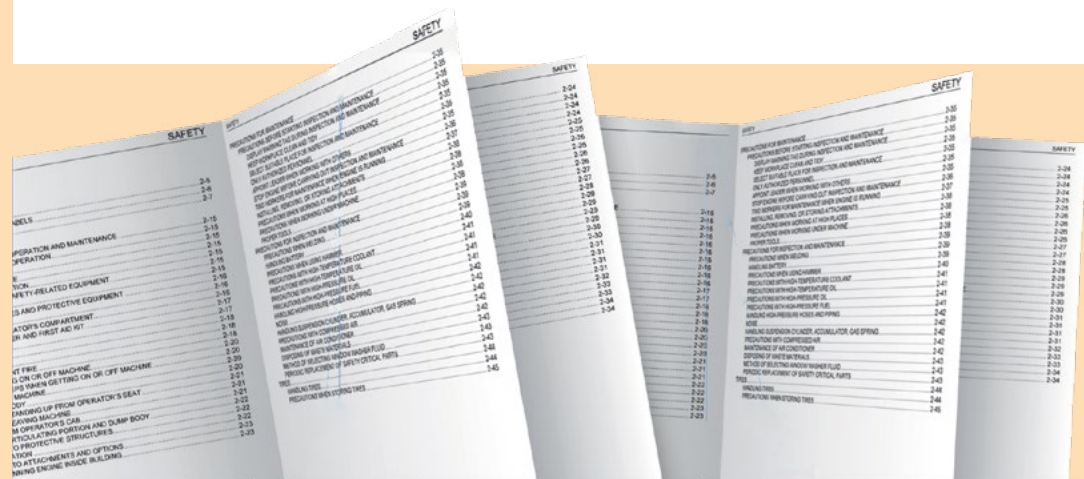
Concerning 2000/14/CE, technical documentation is held at [address], the conformity assessment procedure is [procedure identification], the notified body involved is [name of independent testing organisation]. Measured sound power level: [a value measured in dBA] and guaranteed sound power level: [a value measured in dBA].

Clear identification of the person empowered to sign on behalf of the manufacturer or its authorised representatives, plus the person's title.

A signature, a date and a place.

1. As of January 2027, once the Machinery Regulation will be in place, this particular is no longer needed.

3 | INSTRUCTIONS



Instructions on the safe use are a requirement of EU law and must be available in digital format or hardcopy. The basic requirements are:

- They must be in the language of the member state where the machine is placed on the market and/or put into service;
- They must be either "Original instructions" or a "Translation of the original instructions", in which case the translation must be accompanied by the original instructions;
- The words "Original instructions" must appear on the language version(s) verified by the manufacturer or his authorised representative. Where no "Original instructions" exist and translations have been provided the translations must bear the words "Translation of the original instructions";
- The instructions must include the name and address of the manufacturer;
- The instructions must include a copy of the content of the Declaration of Conformity, except for the serial number and the signature;
- The instructions must contain values of the noise and vibration level at the operating position(s) for this type of machine.

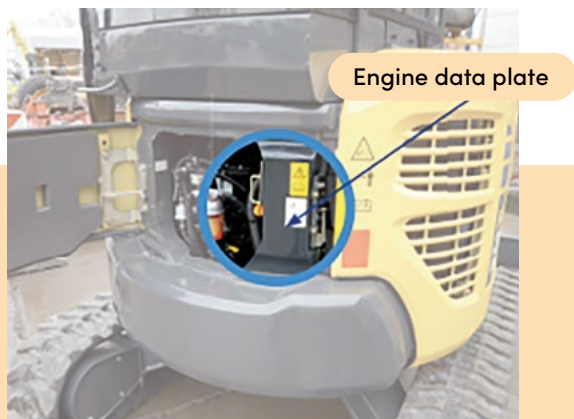
4 | ENGINE EXHAUST EMISSION

Diesel engines used in construction machinery are in scope of the Regulation (EU) 2016/1628, the EU Stage V Regulation. The Regulation applies when the engine is placed on the EU market. For machines, new or used, imported into the EU for the first time the engine is considered to be placed on the market when the machine is Customs cleared.

The compliance of the engine can be checked as follows:

Open the engine hood and look for the data plate on the engine, as in the following example. It is a requirement of the Regulation that the plate should be visible without the need to remove parts. If there is no data plate visible the machine is non-compliant.

The manufacturer may have placed an additional plate at another location to ensure visibility e.g. inside the cabin.



› The engine data plate must include the EU Type Approval Number. If it is not included, the machine is non compliant

IMPORTANT ENGINE INFORMATION	
This engine conforms to Regulation (EU) 2016/1628. This engine is certified to operate on diesel fuel. WARNING Injury may result and warranty is voided if fuel rate, RPM or altitudes exceed published maximum values for this model and application.	
Engine Model	ESN
European Approval No.	
Date of manufacture	
Engine Family	
Space Reserved for the Manufacturers information	

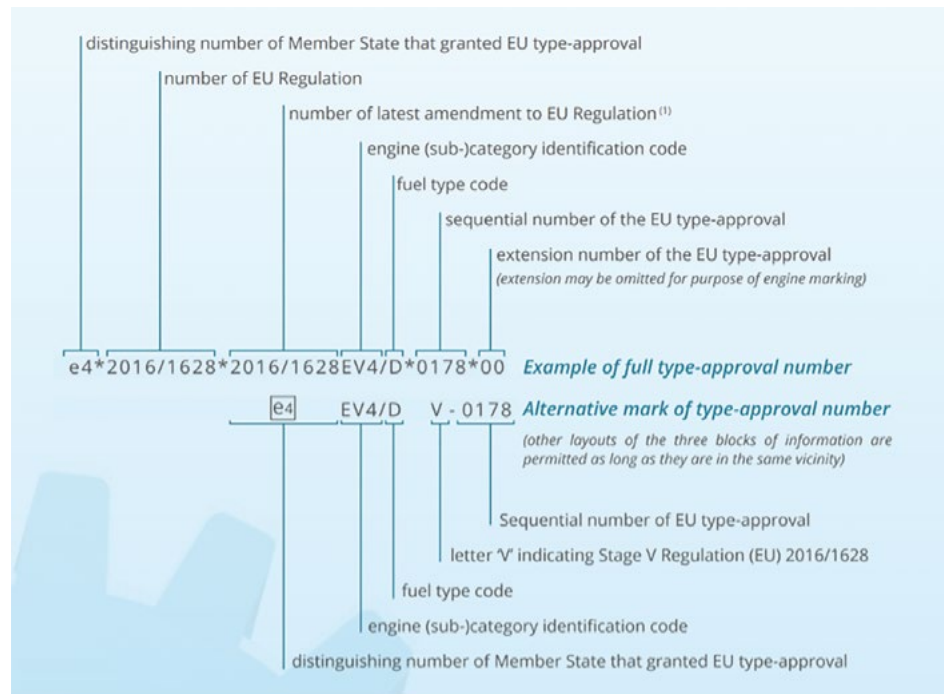
› The Type Approval Number contains critical information on the engine compliance. See next sheet for detail

5 | FORM OF THE COMPLIANCE MARKING

The marking must be affixed using a durable method such as printing, stamping, engraving, etc, and shall include, but is not limited to:

- The name, registered trade name or registered trademark of the engine manufacturer;
- The engine family name (if applicable);
- The engine identification (serial) number and;
- The engine production date (month and year);
- Either the type-approval number or the mark of the type-approval number.

Example of type-approval references:



It is not required for all the information to be contained in a single label or location on the engine.

More detailed information regarding NRMM engine compliance can be found in the following publication: [Guide for Identification of Non-Road Mobile Machinery and Engines Compliant with Regulation \(EU\) 2016/1628](#).

6 | NOISE EMISSIONS

All excavators – with an power output below 500kW³ – must be marked with their guaranteed sound power level. The maximum allowable sound power level depends on the power output. Check the power on the machine marking and check the sound power limit from the table below.

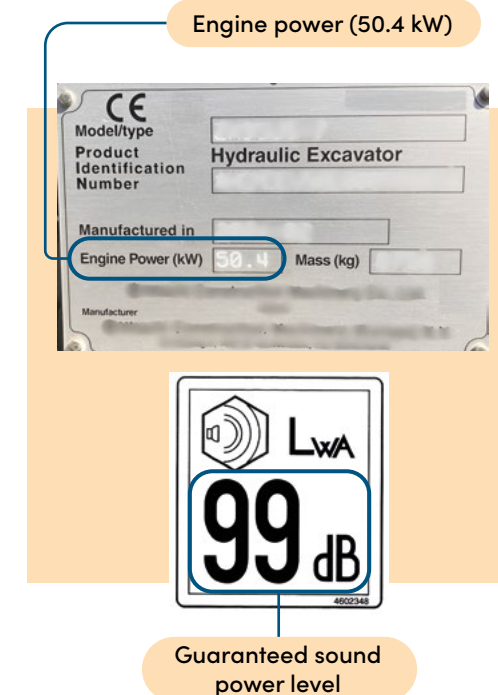
Power		Sound power limit
From	To	
0	16	93
17	20	94
21	25	95
26	31	96
32	38	97
39	48	98
49	59	99
60	73	100
74	90	101
91	111	102
112	136	103
137	168	104
169	208	105
209	256	106
257	316	107
317	389	108
390	480	109
481	500	110

► Table: The values below come from the Outdoor Noise Directive and its amendments. The sound power limits are valid for machines placed on the market after 3rd of January 2006 (Stage II)

³ Walking excavators are excluded.

Example 1: compliant example

A machine with engine power 50.4 kW (as below) must have a guaranteed sound power of no more than 99 dB. The example below complies.

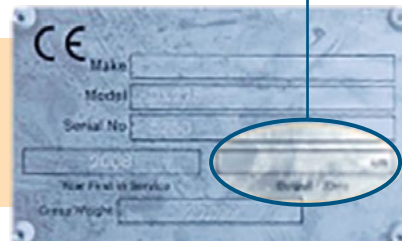


Example 2: non-compliant example

A machine with engine power 110 kW (as below) must have a guaranteed sound power of no more than 102dB. The example below is non-compliant.



Guaranteed sound
power level



Engine power (110 kW)

7 | LIFTING SAFETY

For excavators:

- Up to 50 tons;
- Above 50 tons when intended for use in lifting operations, lifting chart should be affixed in a prominent position.

For excavators with a lifting capacity >1000kg:

- Up to 50 tons;
- Above 50 tons when intended for use in lifting operations, EU safety requirements for lifting apply, e.g., lowering control devices.

Check whether the excavator is equipped with a lifting point, as below:



Lifting points on the bucket



Hook on the link

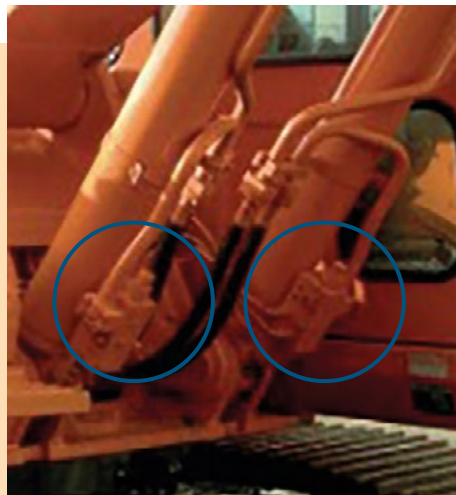


Hook on the bucket

› Lifting devices on attachments (e.g., buckets) or quick couplers shall be marked with the value of the maximum lifting capacity of the device with the unit of measure

All excavators up to 50 tons and excavators above 50 tons when intended for lifting, must have at least the following installed:

1. A lift capacity chart(s) at the operator's station showing the lifting limit in the various positions of the excavator;
2. Lowering control devices on each raising boom and arm cylinders.



> This machine has lowering control devices installed on the boom cylinders



> This machine does not have lowering control devices. The pipes are connected directly to the boom cylinders

8 | SAFETY LABELS

Safety labels on machinery must be in pictograms or in an EU official language for the country in which the machine is placed on the market or put into service.



> Warnings in the cabin written in a non-EU language



> Non-compliant example: warning on the boom in a non-EU language

9 | ACCESS SYSTEMS

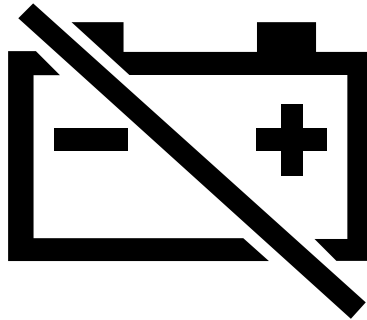


Steps and handrails for climbing up onto machines need to meet European safety standards.

EU standards require the handrail height to be at least 850mm above platform level. Any access system must provide at least that level of safety. This example is approximately 300mm giving poor security.

10 | BATTERIES

Batteries (except industrial batteries) must be firmly attached in a ventilated space and be **easily removable** (measures to allow safe handling shall be provided). Live batteries parts shall be covered with insulation material. Disconnection of batteries shall be easy and the means (switch etc.) shall be identified by the following symbol:



> Source: 9.16 of ISO 6405-1: 2017
ISO 6405-1:2'17/AMD1: 2022

⁴ From 18.08.2026: Rechargeable batteries must display rated capacity (and cold cranking performance for SLI). Non-rechargeable portable batteries must be marked as such with minimum average duration. Additionally, batteries must include manufacturer/importer information, category, manufacturing place/date, chemistry (including critical/recovered materials), weight, and usable extinguishing agent.

⁵ From 18.08.2025.

Labelling

Portable batteries and batteries used for starting, lighting and ignition (SLI) are commonly used in a machine and must be labelled with⁴:

1. Separate waste collection symbol, including the chemical symbol of a restricted substance (Pb, Cd or Hg) used in the chemistry of the battery⁵;
2. When rechargeable: their rated capacity (SLI: and cold cranking performance);
3. When *non-rechargeable portable batteries*, they must be marked as such together with the minimum average duration;
4. Information about the manufacturer/importer;
5. Battery category;
6. Manufacturing place and -date;
7. Chemistry, use of critical raw materials (SLI: and recovered materials);
8. Weight;
9. Usable extinguishing agent.



> Example SLI battery

CE marking

10. Any battery placed on the EU market after 18 August 2024 must be CE marked and an EU Declaration of Conformity must have been issued.

Declarations

EU Declaration of Conformity must be issued. Declarations and other compliance information must be made available and as of 18th of February 2027 online, accessible via a QR-code. The declaration must be available in an official language of the country where it is placed on the market.

For industrial batteries with a capacity >2kWh, placed on the EU market after 18 August 2024, a declaration on chemical performance and durability must be available. Industrial batteries can be found e.g. in electric driven machinery.

11 | FLUORINATED GREENHOUSE GASES

Refrigerants used in equipment, e.g., air-conditioning systems, fire protection equipment or electrical switchgear, when categorized as fluorinated greenhouse gas (f-gas), must comply with Regulation on fluorinated greenhouse gases [\(EU\) 2024/573](#).

Labelling

Systems using f-gas must be provided with a label with an indication that the product or equipment contains fluorinated greenhouse gases or that its functioning relies upon such gases and information on:

- Their accepted industry designation (e.g. HFC-134a or HFC-1234yf);
- The quantity of F-gas contained in the product or equipment or the amount for which it has been designed:
 - Expressed in weight [kg], and
 - Expressed in CO₂e [tons].
- The Global Warming Potential [GWP] of the F-gas.

In addition, and where applicable, the label must indicate:

- A reference that the F-gases are contained in hermetically sealed equipment;
- A reference that the electrical switchgear has a tested leakage rate of less than 0,1% per year as set out in the technical specification of the manufacturer.

This information has to be included in instructions manual.

The label has to be clearly readable and indelible and has to be placed either:

- Adjacent to the service ports for charging or recovering the F-gas, or
- On that part of the product or equipment that contains the F-gas.

Where possible the label is placed adjacent to existing nameplates or product information labels of the product or equipment that contains the F-gas e.g. compressor assembly.

Texts on the label must be written in the official language(s) of the Member State in which it is to be placed on the market, made available or supplied. The language requirements for the f-gas labels follow the same principles as for the machine's EU Declaration of Conformity and the instructions for use.

Declaration of Conformity

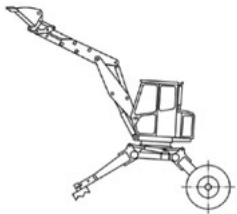
When placing F-gas on the EU market, a dedicated Declaration of Conformity stating the quantity of f-gas in the machine accounted in the quota system must be provided.

The format and content of the declaration must be in accordance with [\(EU\) 2016/879](#).

Authorizations

Importers of F-gas, listed in Annex I section 1 of the regulation, must hold sufficient authorizations to lawfully place the f-gas on the EU market. This can be verified by competent authorities in the [EU Single Window Environment for Customs](#) using the importer's registration ID stated in the f-gas Declaration of Conformity.

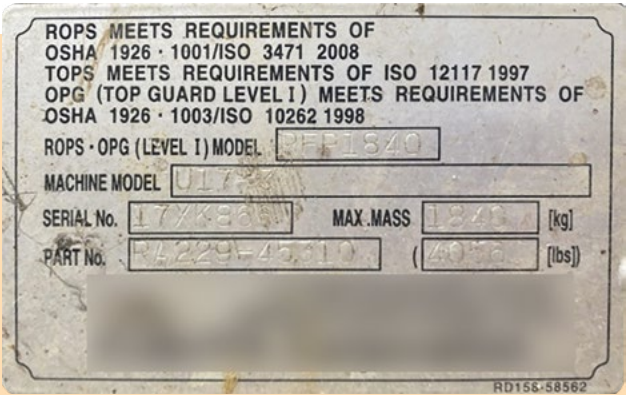
12 | OPERATOR PROTECTIVE STRUCTURES

Operating Mass	Cabin type	Pictures	Requirement	Standard reference
$0 \leq M \leq 1t$	No requirements set		No requirements set	
$1t < M \leq 6t$	Regardless of the type of operator station		Tip-Over Protective Structure (TOPS)	EN 13531:2001 (as amended)
$6t < M \leq 50t$	No cab riser or with fixed cab riser (up to 500mm)		Roll-Over Protective Structure (ROPS)	ISO 12117-2:2008 (as amended)
$6t < M \leq 50t$	Fixed cab riser above 500 mm		TOPS	ISO 12117-2:2008 (as amended) Lateral load energy $U_s (J) = 6\,500 \times (M/10\,000)^{1,25}$.
$6t < M \leq 50t$ if intended to be used where risk of rolling over exists	Fixed cab riser above 500 mm or with movable operator's station		ROPS	ISO 12117-2:2008 (as amended)
Regardless of the mass	Walking excavators		ROPS	EN ISO 3471:2008 (Using backhoe-loaders of equivalent mass)

A label must be present on the protective structure, stating:

- Model(s), or series number(s) of the machines that the protective structure is designed to fit;
- Reference(s) to standard(s) for which the structure meets all of the performance requirements.

Where an operator protective structure is provided, a seat belt must be present.



> Example of ROPS plate

13 | OPERATOR PROTECTIVE GUARDS

Operator protective guards are a system consisting of a top guard and/or a front guard for the operator station of excavators.

For excavators with an operating mass > 1500 kg, fixing points for the operator protective guards shall be provided.

Excavators used in a logging application shall be equipped with a front guard according to ISO 10262:1998 and ISO 10262:1998/Cor 1:2009.

Guards must be fitted with a label.

The label shall be of a permanent type and permanently attached to the structure. The label shall be located on the structure so as to be read easily and to be protected from defacing by weather.

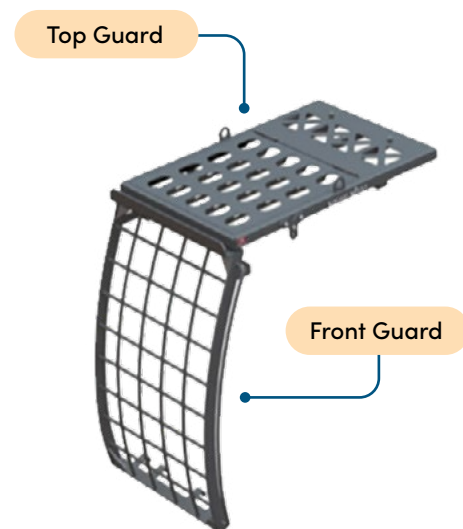
When operator protective guards are installed

Operating Mass (in Kg)	Required protection	Standard Reference
>1500 <= 6000	Level 1	ISO 10262:1998 and ISO 10262:1998/Cor 1:2009
>6000	Level 2	ISO 10262:1998 and ISO 10262:1998/Cor 1:2009

The following information shall be specified on the label:

- a. Name and address of the manufacturer or constructor of the guard;
- b. Identification number of the guard, if any;
- c. Machine make, model(s), or serial number(s) the guard is designed to fit;
- d. Reference to the International Standard(s) for which the guard meets all of the performance requirements and the level being met (national regulations may be included);
- e. The manufacturer may include such other information as deemed appropriate (for example, installation, repair or replacement information).

Excavators used in a logging application shall be equipped with a front guard according to ISO 10262:1998 (as amended).



➤ *Example of a top and front guard*



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