	FEDERATION EUROPEENNE DE LA MANUTENTION Product Group Cranes and Lifting Equipment	FEM N 0089
	A brief guide for identification of non-compliant winches and hoists - marking, documents, features -	09/2015 (EN)

Legal Note: This guideline neither addresses each and every imaginable scenario, nor is it a binding interpretation of the existing legal framework. It does not and cannot replace the study of the relevant directives, laws and regulations. In addition, the specific features of different products and their various applications have to be taken into account (see related operating instructions of the equipment used). This is why the assessments and procedures referred to in this paper may be impacted by a large variety of circumstances.

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Available in English (EN) Sources see end of the document

1. INTRODUCTION

Since its establishment, the European Union has always been driven by the objective to abolish barriers between the Member States and to promote European harmony by common policies regarding legal, human and social rights.

Of particular importance in the European Union is the establishment and functioning of the internal market: an area without internal borders between the Member States of the European Union which ensures the free movement of goods, persons, services and capital. In this regard, the Social Policy of the European Union has the important aim to emphasise safe working conditions and working environment to protect workers' health and safety. Especially in the engineering industry, the inherent safe design and construction of machinery and proper installation and maintenance are key objectives to be achieved (refer to Machinery Directive 2006/42/EC, preamble, recital 2).

In this context the, the import of non-compliant winches and hoists into the EU, and its sale and use remains a big problem for the European lifting equipment industry. It is a source of unfair competition and threatens the efforts, competence and ability of the European lifting equipment industry supplying products compliant with applicable EU legislation. Accidents with non-compliant products are more likely to happen, breaching the EU Social Policy efforts to ensure safe working conditions and working environment.

Winches and hoists placed on the internal market of the EU for the first time must comply with all EU legislation applicable at this moment in time. '*Placing on the market' means to make a product available for the first time in the Community,* i.e. in the internal market of the EU. Either a manufacturer or his authorised representative or an importer is the only economic operator who places a product on the market. If either one of these involved parties supply a product to a distributor or an end user for the first time, this operation is always labelled in legal terms as 'placing on the market'. Another important operation for power driven winches and hoists is 'putting into service', which means the product is used for its intended purpose for the first time in the EU internal market. Both 'placing on the market' and 'putting into service are important milestones in the supply chain of power driven winches. Especially the essential health and safety requirements stated in Machinery Directive 2006/42/EC must be met at the moment when power driven winches and hoists are placed on the market and/or put into service.

It is important to keep in mind, that products which do not fulfil all necessary requirements are non-compliant to the applicable EU legislation and therefore it is not allowed to place those products on the internal market or to put them into service.

Purpose of this document is to help to easily distinguish between compliant and non-compliant winch and hoist. This guide will focus only on those essential criteria which can be checked even without in-depth knowledge and technical information, concerning the operation of 'placing on the market', when a winch or hoist enters for the very first time the European internal market. The subsequent operation of 'putting into service' will not be discussed in this document.

Thus, this guide is not comprehensive, but aims to act as an early warning tool to detect non-compliant equipment if one or more criteria are not met.

Product Group Cranes and Lifting Equipment of FEM, as the recognised organisation representing and promoting European winch and hoist manufacturers and related industries, calls upon all responsible authorities and stakeholders to work together to eliminate non-compliant winches and hoists in the EU internal market.

2. TARGET GROUP

This document is exclusively dedicated to market surveillance authorities of the European Union and the Member States.

3. SCOPE

Scope of this document is on power driven winches and hoists fulfilling the requirements of the Machinery Directive 2006/42/EC; products whose only power source is directly applied human effort are disregarded. Power driven winches and hoists can be machinery or partly completed machinery as defined by the Machinery Directive 2006/42/EC. Therefore, this document will cover both.

This document intends to provide a guide explaining the main characteristics of machinery or partly completed machinery, and what minimum criteria have to be fulfilled in order to be compliant with the Machinery Directive 2006/42/EC.

Annex I of this guide summarises the information provided in this document. The checklists of Annex I deal in a condensed format with the non-compliance of power driven winches and hoists with regards to marking, product declaration and instructions according to the applicable directive

- Machinery Directive 2006/42/EC

and the harmonised product standards

- EN 14492-1:2006+A1:2009 Cranes – Power driven winches and hoists – Part 1: Power driven winches
- EN 14492-2:2006+A1:2009 Cranes – Power driven winches and hoists – Part 1: Power driven hoists

In addition, power driven winches and hoists shall fulfil requirements of other European directives if applicable, e.g.

- Low Voltage Directive 2006/95/EC and recast 2014/35/EU
- Electromagnetic Compatibility Directive 2004/108/EC and recast 2014/30/EU

and/ or further applicable harmonised standards (normative references of the product standards).

This guide will only cover contents and requirements from Machinery Directive 2006/42/EC and European standards EN 14492-1 and EN 14492-2 regarding winches and hoists.

4. DIRECTIVE 2006/42/EC ON MACHINERY (MACHINERY DIRECTIVE)

Safety and health are essential objectives of the Social Policy of the Community. The Machinery Directive 2006/42/EC takes a major role in achieving these objectives and sets out clear requirements, which specify the overall safety and health objectives for the machinery sector. Purpose of the Machinery Directive 2006/42/EC is to ensure that equipment as defined in Article 2 (a) of the Directive is safe.

The Machinery Directive 2006/42/EC clearly sets out that fulfilling the safety and health requirements is an essential prerequisite of products prior to place them on the internal market of the European Union. The manufacturer is required to declare a product's conformity with the contents of the Machinery Directive 2006/42/EC, through mandatory marking of the product and by drawing up and providing the relevant documents The contents of the Machinery Directive 2006/42/EC will be explained in separate sections (refer to section 6 ff) of this guide.

5. EUROPEAN STANDARD EN 14492: POWER DRIVEN WINCHES AND HOISTS

Power driven winches and hoists are defined according to European standard EN 14492-1 and EN 14492-2. Both standards are harmonised standards and specify relevant requirements of the Machinery Directive 2006/42/EC for power driven winches and hoists placed on the market. The standards facilitate the necessary measures to be taken to conform to the essential health and safety requirements of the Machinery Directive 2006/42/EC.

In general, products manufactured in conformity with a harmonised standard, the references to which have been published in the Official Journal of the European Union, shall be presumed to comply with the essential health and safety requirements covered by such a harmonised standard (refer to Machinery Directive 2006/42/EC, Art. 7, section 2; “presumption of conformity”). Harmonised standards and its recognition refer to one of the four fundamental principles of the new approach to technical harmonisation within the European Union established by the Council Resolution 85/C 136/01.

Beside the Machinery Directive 2006/42/EC, the harmonised European standards EN 14492-1 and EN 14492-2 on power driven winches and hoists are important to take into account on a minimum level.

According to EN 14492-1 (refer to clause 3) winch is defined as follows:

“machines designed for the lifting and lowering of loads which are suspended on hooks or other load handling devices, or for the moving (pulling and lowering) of loads on inclined planes, or the exclusive pulling of loads on planes which are normally horizontal. They use ropes, chains or belts wound in one or more layers onto a drum or ropes in traction sheave drives.”

Examples of winches:

- Drum winch
- Traction winch
- Vehicle recovery winch
- Winches for boat trailers
- Forestry winches

According to EN 14492-2 (refer to clause 3) hoist is defined as follows:

“machines for lifting and lowering suspended loads over predetermined distances, with or without trolleys, using different hoist media.”

A hoist medium as part of the hoist can either be a rope, belt, steel link chain or roller chain

Examples of hoists:

- Rope hoist
  - Monorail trolley
  - Crab
  - Travel carriages (hoist mounted)
- Chain hoist
  - Monorail trolley
  - Crab
  - Travel carriages (hoist mounted)
- Belt hoist
  - Monorail trolley
- Open type hoist
- Non Guided Load (NGL) building hoists

Pictures of winches and hoists:

Drum winch (1,2)

Chain hoist (3)

Wire rope hoist (4)

Belt hoist (5)

6. MACHINERY VS. PARTLY COMPLETED MACHINERY

The Machinery Directive 2006/42/EC lists in Art. 1 which products are in scope and not in scope of the Directive. Special attention, also with regards to the scope of this guide, has to be on two terms: machinery and partly completed machinery.

According to Art. 2, section (a) of the Machinery Directive 2006/42/EC, "*machinery means an assembly, fitted with or intended to be fitted with a drive system other than directly applied human or animal effort, consisting of linked parts or components, at least one of which moves, and which are joined together for a specific application.*"

The moving part(s) of the machinery are empowered by a drive system using one or more sources of energy such as thermal, electric, pneumatic, hydraulic or mechanical energy (refer to Guide to application of the Machinery Directive 2006/42/EC, §35).

It is important to keep in mind that the supply of the machinery could take place with certain parts disassembled for storage or transportation purposes.

According to Art. 2, section (g) of the Machinery Directive 2006/42/EC, *"partly completed machinery means an assembly which is almost machinery but which cannot in itself perform a specific application."*

Almost machinery means, that the assembly consists of linked parts or components, at least one of which moves, but which lacks some element(s) necessary to perform its specific application. Further construction is necessary to become finally machinery. A partly completed machinery intends to form machinery after its incorporation.

For example, a drive system is partly completed machinery. (Refer to Guide to application of the Machinery Directive 2006/42/EC, §46).

The distinction between machinery and partly completed machinery has impacts on the requirements of marking, product declaration and instructions of the product when placing on the market. Therefore it is necessary to be able to recognise if a hoist or winch fulfils the definition of "machinery" or "partly completed machinery".

6.1. Examples

The following overview on hoists and winches emphasise the difference between machinery and partly completed machinery as defined by the Machinery Directive 2006/42/EC.

Power driven chain hoist:

Chain Hoist,
Monorail Trolley (6)

Chain Hoist,
Monorail Trolley (7)

Chain Hoist,
fixed suspension (8)

#	Part or Component
A	Body (incl. Gear, Hoisting Motor, Control, Chain Drive)
B	Trolley
C	Travelling Motor
D	Chain Bucket
E	Hook/ Hook Block
F	Chain
G	Control Pendant (here: cable-connected; wireless control unit instead also possible)

The following configuration(s) would be machinery:

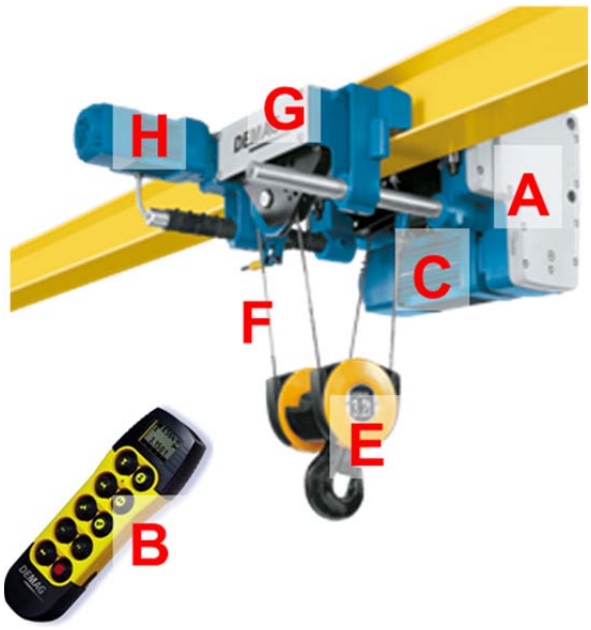
- A + B + C + D + E + F + G
- A + D + E + F + G

An electric chain hoist would be partly completed machinery if at least one of the following components is missing:

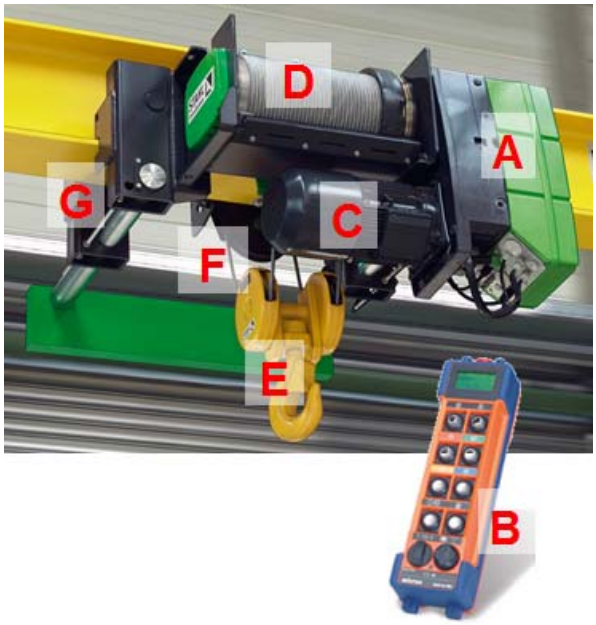
- E
- F (D would then be empty, too)
- G

An electric chain hoist would also be a partly completed machinery if inside Component A (Body), the control or parts thereof is/are missing. For further explanations on this special case, please refer to section 6.2 of this guide.

Power driven wire rope hoist



Wire Rope Hoist, Monorail Trolley; wireless controlled (9)



Wire Rope Hoist; Monorail Trolley, wireless controlled (10)

#	Part or Component
A	Body (incl. Gear, Control, Drive, Rope Reeving)
B	Wireless Control Unit (cable-connected control pendant instead also possible)
C	Hoisting Motor
D	Rope Drum
E	Hook / Hook Block
F	Wire Rope
G	Trolley
H	Travelling Motor

The following configuration(s) would be machinery:

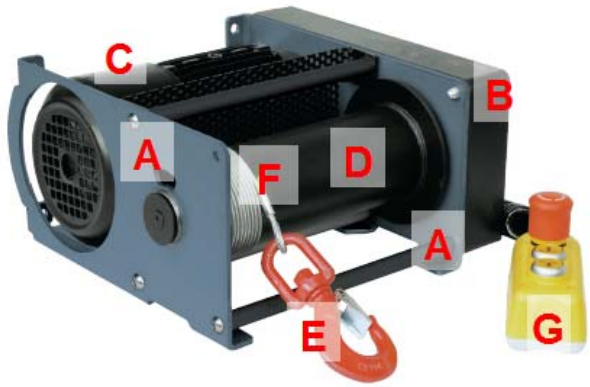
- A+B+C+D+E+F+G+H
- A+B+C+D+E+F

An electric wire rope hoist would be partly completed machinery if at least one of the following components is missing:

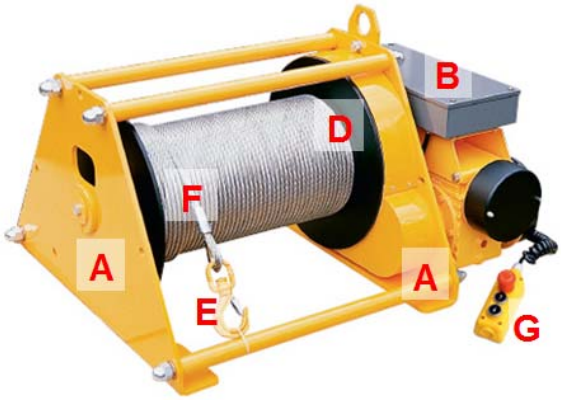
- E
- F
- B

An electric wire rope hoist would also be a partly completed machinery if inside Component A (Body), the control or parts thereof is/are missing. For further explanations on this special case, please refer to section 6.2 of this guide.

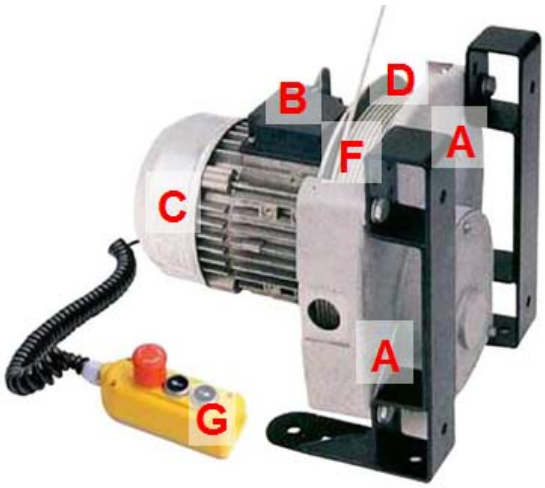
Power driven winch



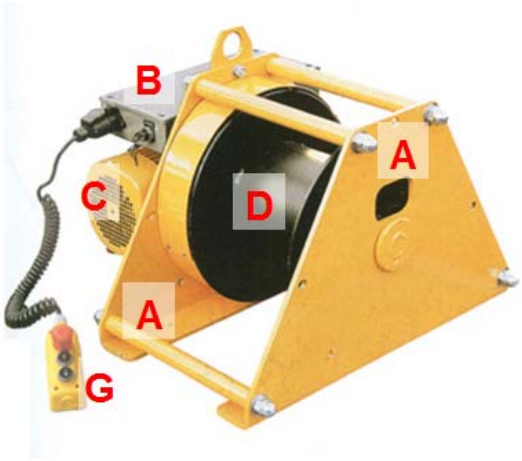
Winch (11)



Winch (12)



Winch (13)



Winch (14)

#	Part or Component
A	Body
B	Control
C	Electric Motor
D	Rope Drum
E	Hook / Hook Block
F	Wire Rope
G	Control Pendant (here: cable-connected)

The following configuration would be machinery:

- A+B+C+D+E+F+G

An electric-driven winch would be partly completed machinery if at least one of the following components is missing:

- E
- F
- G

An electric-driven winch would also be a partly completed machinery if inside component B, the control or parts thereof is/are missing. For further explanations on this special case, please refer to section 6.2 of this guide.

6.2. Control

In the previous section it was emphasised, that a winch or hoist would be partly completed machinery as defined by the Machinery Directive 2006/42/EC if the control system is missing. The control system responds to input signals from parts and components of the winch or hoists and from external control equipment as well as from operators and generates output signal(s) corresponding on the respective input signal(s). The control system is one of the key components of a winch/ hoist causing the product to perform its intended application. If the control system is missing, the winch/ hoist cannot in itself perform its specific application and therefore categorised as partly completed machinery in the sense of the Machinery Directive 2006/42/EC.

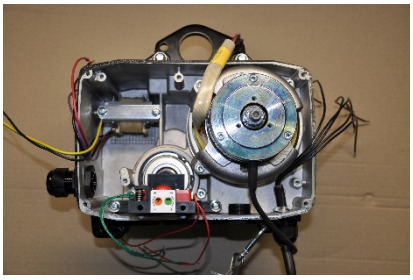
In general it is difficult and quite often even impossible to recognise from the outside through visual inspection of the winch/ hoist if the product contains a control system or not. In many cases, a winch/ hoist does contain the control box, but not necessarily the control system inside the box. In case of a partly completed machinery, the control box would be nearly empty, only the connecting terminal plate would be part of the control box.

In such cases, where visual inspection of the control system of a winch/ hoist is not possible, the inspection of the product to assess if it is either machinery or partly completed machinery as defined by the Machinery Directive 2006/42/EC has to be done according the accompanying documents. For further details, please refer to Annex I of this guide.

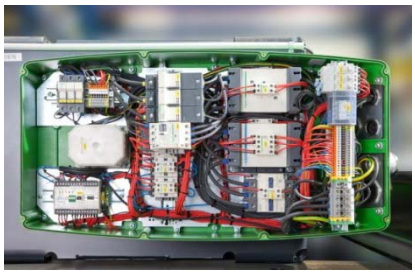
Example pictures:

Chain hoist,
control system located
behind the yellow cover (15)

Chain hoist,
control box opened,
full control system visible (16)



Chain hoist,
control box opened,
controll system missing (17)

 Wire rope hoist, control system located inside the green control box (18)	 Wire rope hoist, control box opened, full control system visible (19)

7. MACHINERY: REQUIREMENTS ON MARKING, PRODUCT DECLARATION AND INSTRUCTIONS

Before placing machinery on the market in the EU, a manufacturer is obligated to fulfil the following provisions (refer to Machinery Directive 2006/42/EC, Art. 5):

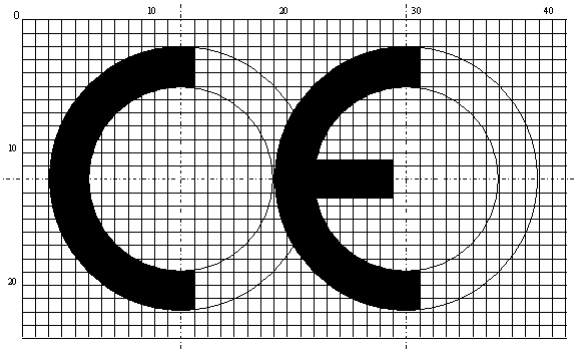
- ensure that the essential health and safety requirements are satisfied
- provide necessary information, such as instructions
- draw up the EC declaration of conformity and ensure that it accompanies the machinery
- affix the CE marking

The list above contains the relevant provisions to be checked if machinery complies with the requirements of the Machinery Directive 2006/42/EC when a product enters the EU market.

7.1. Marking

CE marking

If a product is machinery as defined by the Machinery Directive 2006/42/EC and complies with the provisions and obligations set out in this Directive, the CE marking must be affixed to the machinery visibly, legibly and indelibly, in the immediate vicinity of the name of the manufacturer (refer to Machinery Directive 2006/42/EC, Art. 16, Annex III). To ensure that the proportions of the initials 'CE' are preserved, Annex III of the Machinery Directive 2006/42/EC sets out the mandatory graphic form of the CE marking.



The various components of the CE marking must have substantially the same vertical dimensions, which may not be less than 5 mm.

Source: http://ec.europa.eu/enterprise/faq/ce-mark.htm, 08/11/2014

The grid and dotted lines must not be printed in the CE marking. They shall only help to define the shape of the letters.

"The CE marking should be fully recognised as being the only marking which guarantees that machinery conforms to the requirements of this Directive" (refer to Machinery Directive 2006/42/EC, preamble, recital 21).

"To avoid confusion between any CE markings which might appear on certain components and the CE marking corresponding to the machinery, it is important that the latter marking be affixed alongside the name of the […] manufacturer" (refer to Machinery Directive 2006/42/EC, preamble, recital 22).

The recital 22 also indicates that there can be more than one CE marking affixed on the machinery. There can be CE marking for components of the machinery, e.g. an electrical machine of a hoist could be CE marked. In this case, the CE marking is part of the marking of the electrical machine and confirms that electrical machine complies with requirements on applicable European directive(s). Also machinery could be CE marked to indicate, that machinery complies to further applicable European directives, e.g. to comply with the requirements of the Electromagnetic Compatibility Directive 2004/108/EC.

Only CE marking which is part of machinery marking and affixed alongside the name of the manufacturer indicates that the machinery complies with the requirements of the Machinery Directive 2006/42/EC.

Marking of machinery

According to Annex I, part 1, section 1.7.3. of the Machinery Directive 2006/42/EC, "all machinery must be marked visibly, legibly and indelibly with the following minimum particulars:

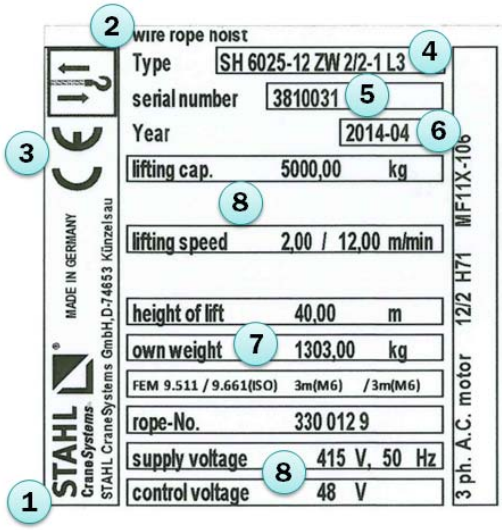
- business name and full address of the manufacturer (1)
- designation of the machinery (2)
- CE marking (3)
- designation of series or type (4)
- serial number, if any (5)
- year of construction (= year in which the manufacturing process is completed) (6)

"[…] *Where a machine part must be handled during use with lifting equipment, its mass (7) must be indicated legibly, indelibly and unambiguously.*"

This marking is also known as the type plate or name plate of the machinery. In addition to the information listed above, there can be more information provided on the marking, e.g. rated capacity, group of mechanisms or rated hoisting speed information (refer to EN 14492-2, clause 7.3) (8).

In anticipation of the next section 7.2., the particulars required for the designation of the machinery and the information identifying the machinery such as series, type or even a serial number must be the same as those written in the EC Declaration of Conformity.

Example of compliant marking of machinery:

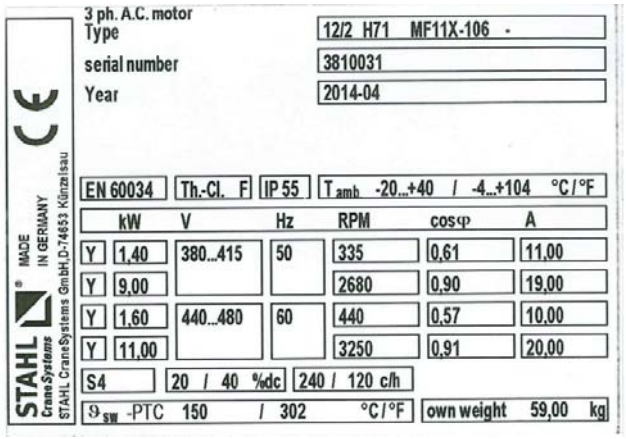


(20)

There can be additional marking on the components of the machinery. Those component markings are not mandatory according the Machinery Directive 2006/42/EC, but might be required according to other applicable European directives or applicable harmonised standards. Such a component marking can even bear a CE marking, expressing the compliance to other applicable European directives.

For example, an electrical machine of a hoist could have marking with particulars as required according harmonised European standard EN 60034-1:2010, clause 10.2.

Example of marking for electrical machine:

 (21)	Please note, below stated information required on marking of an electrical machine makes no claim to be complete: • manufacturer's name or mark • manufacturer's serial number or identification mark • year of manufacture • manufacturer's machine code • number of phases • degree of protection • class(es) of rating • rated output(s) • rated voltage(s) • rated frequency etc.

7.2. Declaration of Conformity

For each machinery, there must be an EC Declaration of Conformity (DoC) drawn up which relates exclusively to the machinery in the state in which it was placed on the market. The Machinery Directive 2006/42/EC (refer to Annex II, part 1, section A.) provides clear guidelines on the minimum required information a DoC must contain:

- business name and full address of the manufacturer (1)
- name and address of the person authorised to compile the technical file (2)
- description and identification of the machinery (3)
- a sentence expressly declaring that the machinery fulfils all the relevant provision of the Machinery Directive (4)
- place and date of the declaration (7)
- identity and signature of the person empowered to draw up the declaration on behalf of the manufacturer (8)

Besides that, a DoC could contain further information like references to harmonised standards (5) or other technical standards used as well as a statement declaring the conformity with other Directives (6).

In any case, a DoC must be typewritten or else handwritten in capital letters and be drafted in one or more official Community languages. The word "Original" must appear on the language version(s). In case where no "Original EC Declaration of Conformity" exists in the official language(s), a translation of the DoC must be provided. The translations must bear the words "Translation of the original EC Declaration of Conformity" (Machinery Directive 2006/42/EC, section 1.7.4. accordingly).

The DoC is a very important document, because together with the CE-marking affixed on the machinery, the presumption of conformity of the machinery complying with the provisions of the Machinery Directive 2006/42/EC is expressed (refer to Machinery Directive, Art. 7).

Example of a compliant EC Declaration of Conformity (22):

DEMAG A TEREX BRAND	Original EC conformity declaration for a machine according to Directive 2006/42/EC, Annex IIA	Ident. number / Language 19961044 / EN Issue 0714 / Page 1/ 1

Hereby we,

Terex MHPS GmbH (1)
Forststrasse 16, 40597 Düsseldorf, Germany

declare that the electrically driven hoist for lifting loads

CE

Demag DC chain hoist (3)

Serial no.:

ready for service - as a series product or manufactured to order - with a cable-connected control pendant/wireless control unit complies with all relevant requirements of (4)

EC Machinery Directive 2006/42/EC.

The safety objectives of **Low Voltage Directive 2006/95/EC** are achieved. (6)
The product additionally complies with the following relevant directives/provisions:
EC EMC Directive 2004/108/EC

Applied harmonised standards and/or C standard drafts, in particular: (5)

EN 14492-2	**Cranes - Power driven winches and hoists - Part 2: Power driven hoists**
EN 60204-32	**Safety of machinery - Electrical equipment of machines - Part 32: Requirements for hoisting machines**

The relevant technical documentation according to Annex VII Part A of Directive 2006/42/EC has been compiled and will be made available to authorised national authorities by the designated authorised representative in response to a justified request. (2)
Authorised representative for technical documentation:
Hans-Jörg Böttcher, Terex MHPS GmbH, Forststrasse 16, 40597 Düsseldorf, Germany

Düsseldorf, 10.09.2015 (7)

ppa. Dr. Rainer Harkort	**i.V. Dirk Schulte** (8)
Head of Plant Wetter	**Handling Technology & Drives Engineering & Development**

U04281	Terex Material Handling	

Subject to change. No liability for errors or omissions

7.3. Instructions

Instructions on the safe use and maintenance are a requirement of EU law and must accompany the machinery.

Instructions must be in the official Community language or languages of the Member State in which it is placed on the market and be either ‘Original instructions’, or a ‘Translation of the original instructions’ in case where no ‘Original instructions’ exists in the official language(s). In latter case, the translation must be accompanied by the original instructions (refer to Machinery Directive 2006/42/EC, Annex I, section 1.7.4.).

To ensure the accessibility of the instructions without additional access to the means of reading the instructions, the instructions shall be provided in paper form. For example, in cases where the instructions are provided in electronic format, it can’t be assumed that the user has access to an eBook reader, a computer or an Internet site. The electronic form of instructions could be provided in addition to the paper form. (Refer to Guide to application of the Machinery Directive 2006/42/EC, §254)

Regarding the content of the instructions, the intended use but also any foreseeable misuse of the machinery must be covered. Each instruction manual must contain, where applicable, at least the following information (refer to Machinery Directive 2006/42/EC, Annex I, section 1.7.4.2.):

- business name and full address of the manufacturer
- designation of the machinery as marked on the machinery itself
- EC Declaration of Conformity or a document setting out the contents of the EC Declaration of Conformity
- general description of the machinery
- drawings, diagrams, descriptions and explanations necessary for the use, maintenance and repair of the machinery
- description of the workstation(s)
- description of the intended use of the machinery
- warnings
- assembly, installation and connection instructions
- installation and assembly instructions for reducing noise or vibration
- instructions for the putting into service and use of the machinery
- information about the residual risks
- instructions on the protective measures to be taken by the user
- essential characteristics of tools which may be fitted to the machinery
- conditions in which the machinery meets the requirements of stability
- instructions ensuring that transport, handling and storage operations can be made safely
- mass of the machinery
- operation method to be followed in the event of an accident or breakdown
- descriptions of the spare parts to be used
- information on airborne noise emissions (refer to section 9 of this guide)
- information concerning the radiation emitted, where machinery is likely to emit non-ionising radiation which may cause harm to persons

8. PARTLY COMPLETED MACHINERY: REQUIREMENTS ON MARKING, PRODUCT DECLARATION AND INSTRUCTIONS

Before placing partly completed machinery on the market in the EU, a manufacturer is obligated to fulfil the following provisions (refer to Machinery Directive 2006/42/EC, Art. 13):

- assembly instructions are prepared
- Declaration of Incorporation has been drawn up

and must accompany the partly completed machinery until it is incorporated into the final machinery.

A partly completed machinery has to comply with the essential health and safety requirements stated in Machinery Directive 2006/42/EC, but not in its entirety as it is considered for machinery. A manufacturer of a partly completed machinery only needs to specify which essential health and safety requirements of the Machinery Directive 2006/42/EC are applied and met.

To assess if partly completed machinery complies with the requirements of the Machinery Directive when it enters the EU market, the relevant provisions listed above have to be checked.

8.1. Marking

CE marking

A partly completed machinery must not be CE marked.

According the Machinery Directive 2006/42/EC, Art.2, section (g), partly completed machinery cannot in itself perform a specific application and intends to form machinery only after its incorporation. Therefore, a partly completed machinery is not eligible to bear a CE marking to indicate its full compliance with all requirements set out in Machinery Directive 2006/42/EC.

A partly completed machinery could only be CE marked to indicate that it complies with other applicable European directives, e.g. to comply with the requirements of the Electromagnetic Compatibility Directive 2004/108/EC. In Declaration of Incorporation of the partly completed machinery (refer to section 8.2 of this guide) this fact is emphasised by a sentence declaring the conformity with other applicable European directives.

There can be CE marking for components of the machinery, e.g. an electrical machine of a hoist could be CE marked. In this case, the CE marking is part of the marking of the electrical machine and confirms that electrical machine complies with requirements on applicable European directive(s).

Marking of partly completed machinery

In regards to the marking of partly completed machinery, the provisions set out in Annex I, part 1, section 1.7.3. of the Machinery Directive 2006/42/EC have to be applied accordingly. All partly completed machinery must be marked visibly, legibly and indelibly with the following minimum particulars:

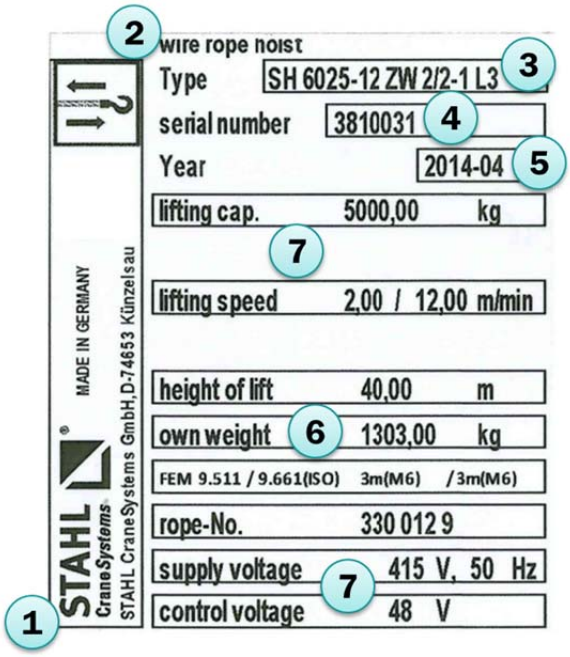
- business name and full address of the manufacturer (1)
- designation of the partly completed machinery (2)
- designation of series or type (3)
- serial number, if any (4)
- year of construction (= year in which the manufacturing process is completed) (5)

Where a machine part must be handled during use with lifting equipment, its mass (6) must be indicated legibly, indelibly and unambiguously.

This marking is also known as the type plate or name plate of the partly completed machinery. In addition to the information listed above, there can be more information provided on the marking, e.g. rated capacity, group of mechanisms or rated hoisting speed information (refer to EN 14492, clause 7.3) (7).

In anticipation of the section 8.2., the particulars required for the description of the partly completed machinery and the information identifying the partly completed machinery such as series, type or even a serial number must be the same as those written in the Declaration of Incorporation.

Example of compliant marking of partly completed machinery:



(23)

There can be additional marking on the components of the machinery. Those component markings are not mandatory according the Machinery Directive 2006/42/EC, but might be required according to other applicable European directives or applicable harmonised standards.

As mentioned in section 7.1. of this guide, e.g. an electrical machine of a hoist could have marking with particulars as required according harmonised European standard EN 60034-1:2010, clause 10.2.

8.2. Declaration of Incorporation

For each partly completed machinery, there must be a Declaration of Incorporation (DoI) drawn up. The Machinery Directive 2006/42/EC (refer to Annex II, part 1, section B.) provides clear guidelines on the minimum required information a DoI must contain:

- business name and full address of the manufacturer (1)
- name and address of the person authorised to compile the relevant technical documentation (2)
- description and identification of the partly completed machinery (3)
- a sentence declaring which essential requirements of the Machinery Directive are applied and fulfilled and that the relevant technical documentation is compiled (4)
- an undertaking to transmit, in response to a reasoned request by the national authorities, relevant information on the partly completed machinery (5)
- a statement, that the partly completed machinery must not be put into service until the final machinery into which it is to be incorporated has been declared in conformity with the provisions of the Machinery Directive (6)
- place and date of the declaration (7)
- identity and signature of the person empowered to draw up the declaration on behalf of the manufacturer (8)

Besides that, a DoI could contain further information like a statement declaring the conformity with other Directives.

In any case, a DoI must be typewritten or else handwritten in capital letters and be drafted in one or more official Community languages. The word" Original" must appear on the language version(s). In case where no "Original Declaration of Incorporation" exists in the official language(s), a translation of the DoI must be provided. The translations must bear the words "Translation of the original Declaration of Incorporation" (Machinery Directive 2006/42/EC, section 1.7.4. accordingly).

Example of a compliant Declaration of Incorporation (24):

DEMAG A TEREX BRAND	Original Declaration for fitting partly completed machinery according to Machinery Directive 2006/42/EC, Annex IIB	Ident. number / Language 19963944 / EN Issue 0714 | Page 1/ 1

Hereby we,

1 **Terex MHPS GmbH**
Forststrasse 16, 40597 Düsseldorf, Germany

declare that the product

3 **Demag EKDR monorail hoist**

Serial no.:

6 supplied as **partly completed machinery** is intended to be incorporated into machinery and its initial bringing into service is prohibited until the machinery* into which this partly completed machinery is to be incorporated has been declared in conformity with all relevant provisions of

4 **EC Machinery Directive 2006/42/EC.**
(* insofar as this machinery is subject to the scope of application)

Basic requirements of the EC Machinery Directive, insofar as they are relevant for the scope of delivery, are met by application of the following harmonised standards or C standard drafts:

EN 14492-2	**Cranes - Power driven winches and hoists - Part 2: Power driven hoists**
EN 60204-32	**Safety of machinery - Electrical equipment of machines - Part 32: Requirements for hoisting machines**
EN 61000-6-2	**Electro-magnetic compatibility (EMC), Part 6-2: Generic standards - Immunity for industrial environments**
EN 61000-6-4	**Electro-magnetic compatibility (EMC), Part 6-4: Generic standards - Emission for industrial environments**

The safety objectives of **Low Voltage Directive 2006/95/EC** are achieved
The product additionally complies with the following relevant directives/provisions:
EC EMC Directive 2004/108/EC

5 The special technical documentation according to Annex VII Part B of Directive 2006/42/EC has been compiled and will be made available to authorised national authorities by the designated authorised representative in response to a justified request.

2 **Authorised representative for technical documentation**
Hans-Jörg Böttcher, Terex MHPS GmbH, Forststrasse 16, 40597 Düsseldorf, Germany

7 **Düsseldorf, 10.09.2015**

8

ppa. Dr. Rainer Harkort	**i.V. Franz Schulte**
Head of Plant Wetter	**Industrial Cranes & Components**
	Engineering & Development

U04281	Terex Material Handling	

Subject to change. No liability for errors or omissions

8.3. Assembly instructions

Due to the fact, that partly completed machinery intends to form machinery after its incorporation, it is necessary for the manufacturer of the final machinery to have relevant information on the system interfaces available as well as guidance on the assembly of the partly completed machinery. Therefore, the Machinery Directive 2006/42/EC requires in Annex VI:

"The assembly instructions for partly completed machinery must contain a description of the conditions which must be met with a view to correct incorporation in the final machinery, so as not to compromise safety and health."

The Guide to application of the Machinery Directive 2006/42/EC provides in §390 a good summary on requirements to be considered when drawing up the assembly instructions for partly completed machinery. The assembly instructions

- must be drawn up by the manufacturer of the partly completed machinery
- shall deal with all safety-related aspects of the partly completed machinery and of the interface between the partly completed machinery and the final machinery
- shall indicate the need to take the necessary measures to deal with the essential health and safety requirements applicable to the partly completed machinery that have not been applied and fulfilled or that have only been partly fulfilled
- are addressed to the manufacturer of the final machinery
- must be written in one of the official EU languages acceptable to the manufacturer of the final machinery

9. NOISE EMISSION

The Machinery Directive 2006/42/EC requires that the design and construction of the equipment must consider the reduction of airborne noise emission to the lowest level (refer to section 1.5.8.) and that the information on airborne noise emissions have to be stated in the instructions of the equipment (refer to section 1.7.4.2.). In some cases this might also be called the noise emission declaration and must provide the following:

- A-weighted emission sound pressure level at workstations where this exceeds 70 dB(A); where this level is not exceeded, this fact must be indicated
- peak C-weighted instantaneous sound pressure value (also known as the C-weighted peak sound pressure level) at workstations where this exceeds 63 Pa
- A-weighted sound power level emitted by the machinery, where the A-weighted emission sound pressure level at workstations exceeds 80 dB(A)

Regarding winches and hoists, the EN 14492 (refer to clause 5.13) concretises the objective to reduce the airborne noise emission. The main noise sources are winch/ hoist mechanisms (motor, gearbox, brake, chain, rope or belt drives), control cabinets, hydraulic pumps, pneumatic drives, or external devices like motor fans.

Noise can be seen as a significant hazard, in case of operator's position close to any of the above mentioned noise sources.

The required information on noise emission of a winch/hoist which must be provided according EN 14492-1/ EN 14492-2 (refer to clause 7.2) are in accordance with the Machinery Directive 2006/42/EC and shall be provided by the manufacturer in operating instructions of the winch/ hoist.

Example of noise emission declaration (25):

3.6 Noise emission / sound pressure level

The sound pressure level acc. to DIN 45635 (L_{pAF}) at a distance of 1 m from the chain hoist is:

Type		DC-Pro 1	DC-Pro 2	DC-Pro 5	DC-Pro 10	DC-Pro 15
Hoist speed up to	[m/min]	8	16	12	12	8
Sound pressure level	[dB (A)]	65^{+2}	65^{+2}	69^{+2}	69^{+2}	69^{+2}

Tab. 19

These noise emission levels were measured under maximum load.

Structural influences such as

- transmission of noise via steel structures,
- reflection of noise from walls, etc. were not allowed for in the above measurements.

10. INFORMATION AND WARNINGS: SAFETY DECALS

Any information and warning on a hoist or winch should preferably be provided in the form of readily understandable symbols or pictograms. Any written or verbal information and warnings must be expressed in an official Community language or languages by the Member State in which the winch or hoist is placed on the market (refer to Machinery Directive 2006/42/EC, Annex I, section 1.7.1.). Especially for its safe use, the equipment must bear the necessary information and warnings.

In case of pictorials they shall comply with ISO standards on graphical symbols, e.g. ISO 7010 – Graphical symbols – Safety colours and safety signs.

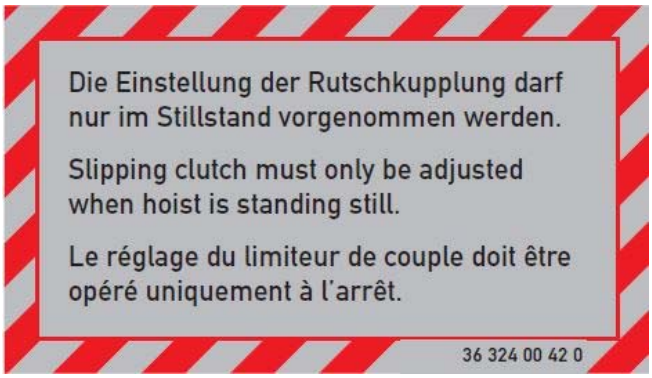
 General Warning	 Warning; Electricity	**Warning signs** usually represented as a yellow triangle with black border and black symbol.

 General Prohibition	 Do Not Enter	**Prohibition signs** are usually represented as a red ring and diagonal bar with black symbol on white background.

 Ear Protection	 Protective Footwear	**Mandatory action signs** are usually shown as blue circle with white symbol.

Examples of written safety decals:

 (26, 27)	 (28)	 (29)

 (30)	 (31)

It is also possible to utilise the graphical symbols of IEC 60417 database. The IEC 60417 graphical symbols are black and white coloured and follow common basic principles of graphical symbols covered by IEC and ISO.

Regarding winches and hoists, it is important to mark electrical equipment as stated in EN 60204-32. Each cubicle and/or box has to be marked with warning pictorials to indicate danger due to electricity if it is not obvious and clearly seen that they contain electrical equipment.

	Safety symbol: Warning. Dangerous Voltage. Pictorial according IEC 60417-5036:2002-10

Same applies to danger in case of hot surfaces of electrical equipment. If the result from risk assessment of the hoist's/ winch's electrical equipment shows a potential of dangerous surface temperature of electrical equipment, it has to be marked with a graphical symbol.

	Safety symbol: Caution. Hot surface. Pictorial according IEC 60417-5041:2002-10

Example of **non-compliant** safety decals (not in a European official language):

(32)

Examples of **non-compliant** safety decals (written in an official Community language and in a non-official Community language):

(33)

(34)

11. SAFETY FEATURES

As mentioned earlier, the purpose of the Machinery Directive 2006/42/EC is to state essential health and safety requirements which shall be met to ensure, that products as defined by this Directive are safe. Coming back to the difference between machinery and partly completed machinery determined in the Machinery Directive 2006/42/EC, the requirements on health and safety do not apply to partly completed machinery in their entirety. It is in the obligation of the manufacturer of the partly completed machinery to declare which essential health and safety requirements of the Machinery Directive 2006/42/EC are applied and met, which should be based on the risk assessment of the partly completed machinery.

Applicable harmonised standards concretise those requirements focusing on the specific product. Regarding the scope of this guide, EN 14492-1 and EN 14492-2 specify required safety features of winches and hoists. In addition, further harmonised standards shall be consulted in regards to safety features of electric and/or electronic components.

Some of the safety features are easily visible, others need further detailed inspection. For the first check, it is helpful to look the accompanying manual if the safety features are mentioned

The following list makes no claim to be complete, but would like to name some of the minimum required safety features of winches and hoists (refer to EN 14492-1 and EN 14492-2, clause 5):

11.1. Rated capacity limiter

Required for any hoist with a rated capacity of 1,000kg or more. Required for any winch for lifting and lowering purposes with a rated capacity of 1,000kg or more and any winch for pulling purposes with a pulling force of 10,000 N and more.
Purpose of this device is to prevent overloading, which means it prevents the winch/hoist from handling loads in excess of its rated capacity, taking into account the dynamic effects during normal operational use. This can be achieved by limiting the force flow (direct acting rated capacity limiter) or by switching off the energy supply to the lifting drive and stopping the lifting movement (indirect acting rated capacity limiter).

11.2. Emergency stop function

Required for any winch/hoist, available and operational at all times regardless of operating mode. According the European standard EN 60204-1 an emergency stop device takes priority over every other function in any operation mode of the machine. All emergency stop devices have to be red coloured.

Examples of emergency stop device:

(35)

(36)

(37)

11.3. Lifting/Hoisting and lowering limiters

Winches have to be equipped with lifting and lowering limiters which can be e.g. electrical limits switches and/or adjustable friction torque limiters. Hoists have to be equipped with hoisting and lowering limiters which can be e.g. electrical limit switches and/or adjustable friction clutch.

11.4. Hooks

Hooks need to ensure that unintentional detachment of the load is prevented either by a safety device like a safety latch or by the shape of the hook itself.

Example of hook with safety latch:

(38)

(39)

12. REFRENCES

(a) Directive 2006/42/EC of the European Parliament and of the Council of 17 May 2006 on machinery, and amending Directive 95/16/EC (recast) [2006] OJ L 157

(b) European Standard EN 14492-1:2006+A1:2009 Cranes – Power driven winches and hoists – Part 1: Power driven winches

(c) European Standard EN 14492-2:2006+A1:2009 Cranes – Power driven winches and hoists – Part 1: Power driven hoists

(d) European Commission – Enterprise and Industry, Guide to application of the Machinery Directive 2006/42/EC, 2nd Edition, June 2010

(e) European Standard EN 60034-1:2010 Rotating electrical machines – Part 1: Rating and performance

(f) ISO 7010:2011 Graphical symbols – Safety colours and safety signs – Registered safety signs

(g) IEC 60417 – Graphical symbols for use on equipment

(h) European Standard EN 60204-1:2006+A1:2009 Safety of machinery – Electrical equipment of machines – Part 1: General requirements

PICTURE SOURCES

(1) http://www.huchez.fr/

(2) http://www.huchez.fr/uk/zoom.php?id_article=16&photo=3

(3) http://www.gis-ag.ch/index.php?nav=4,31,229

(4) http://www.ghsa.com/en/products/hoist/new-hoist-generation-gha12-ghb11-ghd13-until-12-5t-/

(5) http://www.konecranes.com/equipment/hoists/electric-chain-hoists/electric-belt-hoists

(6) http://www.stahlcranes.com/de/produkte/kettenzuege/kettenzuege-st.php

(7) http://www.stahlcranes.com/de/produkte/kettenzuege/kettenzuege-sc.php

(8) http://www.demagcranes.de/Hoist-units/Compact-hoists

(9) Terex MHPS GmbH

(10) STAHL CraneSystems GmbH

(11) http://www.huchez.fr/uk/zoom.php?id_article=82&photo=3

(12) http://www.huchez.fr/uk/zoom.php?id_article=16&photo=3
(13) http://www.huchez.fr/uk/zoom.php?id_article=13&photo=3
(14) http://www.huchez.fr/uk/zoom.php?id_article=16&photo=1
(15) http://www.gis-ag.ch/index.php?nav=4,31,67
(16) http://www.gis-ag.ch/index.php?nav=4,31,67
(17) GIS AG
(18) STAHL CraneSystems GmbH
(19) STAHL CraneSystems GmbH
(20) STAHL CraneSystems GmbH
(21) STAHL CraneSystems GmbH
(22) Terex MHPS GmbH
(23) STAHL CraneSystems GmbH
(24) Terex MHPS GmbH
(25) Terex MHPS GmbH
(26) Safety decal “passenger transport”
(27) Safety decal “load”
(28) Safety decal “main switch”
(29) Safety decal “high voltage”
(30) STAHL CraneSystems GmbH
(31) STAHL CraneSystems GmbH
(32) FEM Guide of non-compliance of mobile cranes
(33) Non-compliant safety decal “main power supply”
(34) Non-compliant safety decal “hoisting limit switch”
(35) http://www.demagcranes.de/Components/Contorl-pendants-and-wireless-control-systems/DRC-MP-ratio-control-system
(36) http://www.demagcranes.de/Hoist-units/Compact-hoists/DC-Pro-chain-hoist
(37) http://www.demagcranes.de/Components/Control-pendants-and-wireless-control-systems/DSE-control-pendants
(38) Terex MHPS GmbH
(39) Terex MHPS GmbH

13. PUBLISHER

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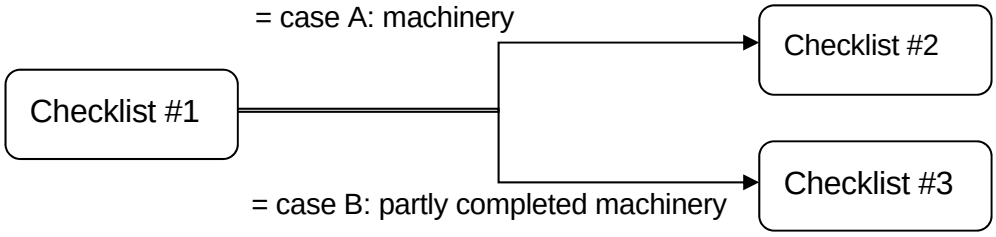
ANNEX I

Annex I provide checklists which shall support the market surveillance authorities of the EU and the Member States in assessing the conformance/ non-conformance of winches and hoists when entering the European market.

Non-compliance to a question/checkpoint does not necessarily mean that the winch or hoist cannot be placed or imported into the EU-market; it nevertheless gives a hint and the equipment shall be further inspected.

Procedure:



Starting with checklist #1, the purpose is to assess whether the winch or hoist is machinery or partly completed machinery as defined by the Machinery Directive 2006/42/EC. This distinction is essential for the continuing inspection. As presented in this guide, requirements on marking, product declaration and instructions differ for machinery and partly completed machinery.

If in checklist #1 it turns out, that the winch or hoist seems to be machinery, it shall be continued with checklist #2. Checklist #3 has to be chosen in case of partly completed machinery.

The checklists as such handle the most common items of compliance with the Machinery Directive 2006/42/EC:

- Marking
- Documents
- Instructions
- Safety decals/ warnings

CHECKLIST #1: Machinery or partly completed machinery?

In some cases it might be difficult to conduct a visual check of the product due to the packaging or due to the accessibility of the product. In latter case, it might be difficult to identify all main components. Therefore, first the accompanying documents shall be referenced to figure out if the winch or hoist is machinery or partly completed machinery as defined by the Machinery Directive 2006/42/EC. In addition, marking of the product is a valuable source, too.

Furthermore, if it is possible to conduct a visual check of the product, this should be done in addition to the documents' check to assess based on the available parts and components of the specific product whether it is machinery or partly completed machinery as defined by the Machinery Directive 2006/42/EC. Please note, the supply of the product could take place with certain parts disassembled for storage and transportation purposes.

Visual check of accompanying documents

Item	Questions: Case A	Y	N
1	Is the winch/ hoist accompanied by an EC Declaration of Conformity?		
2	Does the marking of the winch/ hoist bear a CE marking?		
3	Is the winch/ hoist accompanied by instructions on the safe use and maintenance?		

If all questions are answered with YES, the product is most likely machinery.
If possible, conduct a visual check of the product prior to continue with checklist #2.

If all questions are answered with NO, the questions of case B shall be answered.

If one of the questions is answered with NO, then the product is most likely not compliant with the Machinery Directive 2006/42/EC and should be further inspected by an expert.

Item	Questions: Case B	Y	N
1	Is the winch/ hoist accompanied by a Declaration of Incorporation?		
2	Does marking of the winch/ hoist NOT bear a CE marking?		
3	Is the winch/ hoist accompanied by assembly instructions?		

If all questions are answered with YES, the product is most likely partly completed machinery. If possible, conduct a visual check of the product prior to continue with checklist #3.

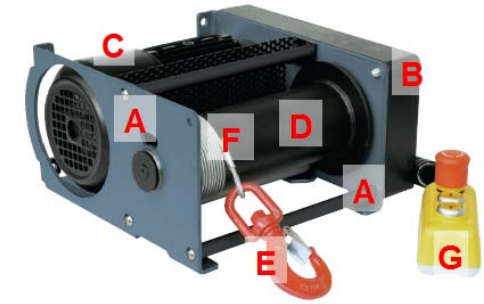
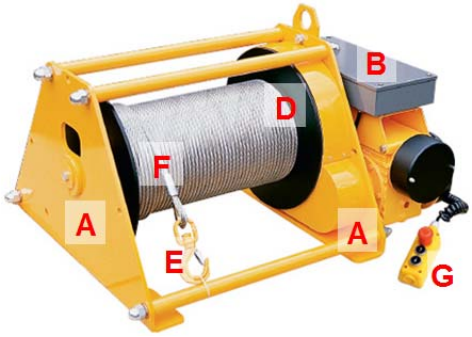
If one of the questions is answered with NO, then the product is most likely not compliant with the Machinery Directive 2006/42/EC and should be further inspected by an expert.

In general, the important outward sign(s) of compliance are

- the EC Declaration of Conformity with CE marking on the type plate (=marking) of the product in case of a machinery
- The Declaration of Incorporation without CE marking on the type plate (=marking) of the product in case of a partly completed machinery

Visual check of the product

Determine according the following example pictures a visual check if the winch or hoist is machinery or partly completed machinery as defined by the Machinery Directive 2006/42/EC.

Winch (11,12)	#	Part of Component
	A	Body
	B	Control
	C	Electric Motor
	D	Rope Drum
	E	Hook / Hook Block
	F	Wire Rope
	G	Control Pendant (here: cable-connected)

Winch:

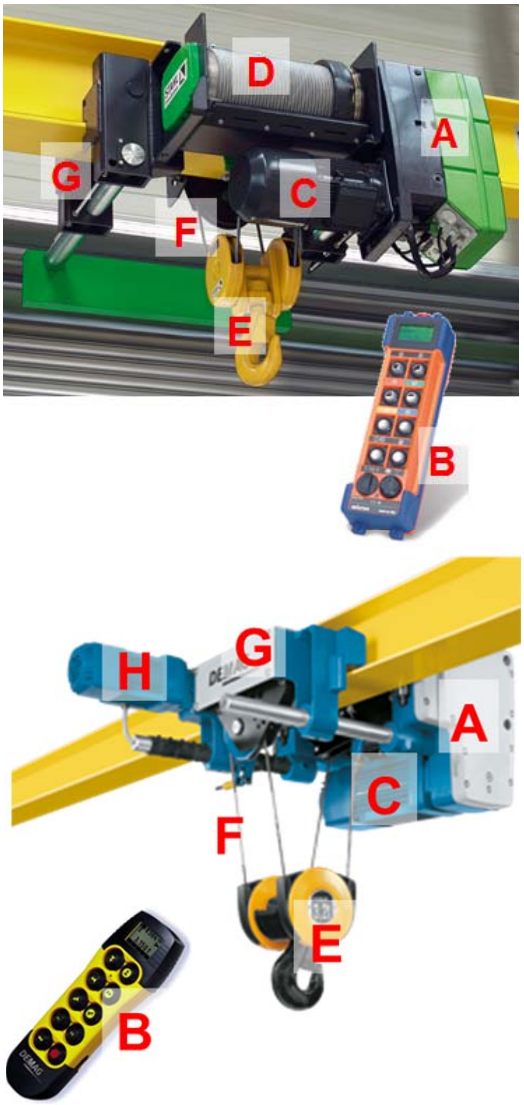
If a winch consists out of A+B+C+D+E+F+G → machinery → CHECKLIST #2

If either E, F or G is missing → partly completed machinery → CHECKLIST #3

If control system inside B is missing* → partly completed machinery → CHECKLIST #3

* not visible, indication given by accompanying documents referring to control system

It is important to keep in mind that the supply of the machinery could take place with certain parts disassembled for storage or transportation purposes.

Wire rope hoist (9, 10)	#	Part or Component
	A	Body (incl. Gear, Control, Drive, Rope Reeving)
	B	Wireless Control Unit (cable-connected control pendant instead possible)
	C	Hoisting Motor
	D	Rope Drum
	E	Hook / Hook Block
	F	Wire Rope
	G	Trolley
	H	Travelling Motor

Wire rope hoist:
If a wire rope hoist consists out of A+B+C+D+E+F+G+H or A+B+C+D+E+F
→ machinery → CHECKLIST #2

If either E, F or B is missing → partly completed machinery → CHECKLIST #3

If control system inside A is missing* → partly completed machinery → CHECKLIST #3

* not visible, indication given by accompanying documents referring to control system

It is important to keep in mind that the supply of the machinery could take place with certain parts disassembled for storage or transportation purposes.

Chain hoist (6, 8)	#	Part or Component
 	A	Body (incl. Gear, Hoisting Motor, Control, Chain Drive)
	B	Trolley
	C	Travelling Motor
	D	Chain Bucket
	E	Hook / Hook Block
	F	Chain
	G	Control Pendant (here: cable-connected; wireless control unit instead possible

Chain hoist:
If a chain hoist consists out of A+B+C+D+E+F+G or A+D+E+F+G
→ machinery → CHECKLIST #2

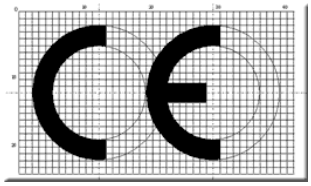
If either E, F (D would be empty) or G is missing
→ partly completed machinery → CHECKLIST #3

If control system inside A is missing* → partly completed machinery → CHECKLIST #3

* not visible, indication given by accompanying documents referring to control system

It is important to keep in mind that the supply of the machinery could take place with certain parts disassembled for storage or transportation purposes.

CHECKLIST #2: Machinery

Item	Questions relative to marking of the machinery	Y	N
1	Is the marking permanently affixed?		
2	Is the marking visibly and legibly?		
3	Is the marking written in one of the official Community languages?		
4	Does the marking contain business name and full address of the manufacturer?		
5	Does the marking show the designation of the hoist/winch?		
6	Does the marking show a designation of series or type of the hoist/winch?		
7	Does the marking show the year of construction?		
8	Does the marking bear the CE marking?		
9	Is the CE sign in compliance with the required shape and dimensions? Note: The various components of the CE marking must have substantially the same vertical dimensions, which may not be less than 5mm. 		
10	Is the CE marking affixed to the machinery visibly, legibly and indelibly?		
11	Is the CE marking in the immediate vicinity of the name of the manufacturer?		
12	Is the text written on the marking plate correct? (e.g. no typing error, accent or special characters as needed, à, é, è, ê, ä, ü, ö, ß, etc.)?		

Item	Questions relative to the EC Declaration of Conformity (DoC)	Y	N
1	Is the hoist/winch accompanied by a DoC?		
2	Is the DoC typewritten or else handwritten in capital letters?		
3	Is the DoC written in one or more official Community language(s)?		
4	Does the word “Original” appear on the DoC OR is a translation of the original DoC provided (words “Translation of the original...” appear)?		
5	Does the DoC include the business name and full address of the manufacturer?		
6	Does the DoC mentions a name and address of the person authorised to compile the technical file, who must be established in the EU?		
7	Does the DoC contain a description of the machine, e.g. "hoist" or “winch”?		
8	Does the DoC contain an identification of the hoist/winch, e.g. a model, type or a serial number?		
9	Does the DoC contain a statement that the hoist/winch meets the requirements of the Machinery Directive 2006/42/EC? Note: There can be further directives and (harmonised) standards be mentioned,		

	whose requirements are met, e.g. Electromagnetic Compatibility Directive 2004/108/EC, EN 14492-1 or EN 14492-2.		
10	Does the DoC contain date and place of the declaration?		
11	Does the DoC contain identity and signature of the person empowered to draw up the declaration on behalf of the manufacturer?		

Item	Questions relative to the Instructions of the machinery	Y	N
1	Is the hoist/winch accompanied by instructions?		
2	Are the instructions addressed on the safe use and maintenance of the product?		
3	Are the instructions written in one or more official Community language(s)?		
4	Does the word “Original” appear on the instructions OR is a translation of the original instructions provided (words “Translation of the original...” appear)?		
5	Do the instructions include the business name and full address of the manufacturer?		
6	Do the instructions contain a designation of the machinery as marked on the machinery itself?		
7	Do the instructions include a repeat of the contents of the EC Declaration of Conformity (it can also include a copy of the DoC)?		
8	Do the instructions contain information on airborne noise emission: • A-weighted emission sound pressure level at workstations where this exceeds 70 dB(A); where this level is not exceeded, this fact must be indicated • Peak C-weighted instantaneous sound pressure value (also known as the C-weighted peak sound pressure level) at workstations where this exceeds 63 Pa • A-weighted sound power level emitted by the machinery, where the A-weighted emission sound pressure level at workstations exceeds 80 dB(A)		

Item	Questions relative to consistency of information	Y	N
1	Are the business name and full address of the manufacturer on marking, DoC and instructions identical to each other?		
2	Is the designation/description of the product on marking, DoC and instructions identical to each other?		
3	Is the series or type of the product on marking, DoC and instructions identical to each other?		
4	Is the serial number (if any) on marking and DoC identical to each other?		

Item	Questions relative to information and warnings (safety decals)	Y	N
1	Are symbols and/or pictograms affixed on the hoist/winch? Note: If answer is YES, continue with item 2; otherwise continue with item 3.		
2	Are symbols and/or pictograms readily understandable, e.g. graphical symbols from standard ISO 7010 and/or IEC 60417 are utilised?		
3	Are written information and/or warnings affixed on the hoist/winch? Note: If answer is YES, continue with item 4; otherwise continue with next table.		
4	Are written information and/or warnings expressed in an official Community language?		

Non-compliance to a question (questions is answered with NO) tends to determine the non-conformity of the hoist or winch according the Machinery Directive 2006/42/EC. It does not necessarily mean that the winch or hoist cannot be placed on the EU market. The result of this questionnaire, where at least one question has been answered with NO, nevertheless gives a hint on a potentially non-conformity of the hoist or winch and in this respect, the equipment shall be further inspected.

CHECKLIST #3: Partly completed machinery

Item	Questions relative to marking of the partly completed machinery	Y	N
1	Is the marking permanently affixed?		
2	Is the marking visibly and legibly?		
3	Is the marking written in one of the official Community languages?		
4	Does the marking contain business name and full address of the manufacturer?		
5	Does the marking show the designation of the hoist/winch?		
6	Does the marking show a designation of series or type of the hoist/winch?		
7	Does the marking show the year of construction?		
8	Does the marking NOT bear the CE marking?		
9	Is the text written on the marking plate correct? (e.g. no typing error, accent or special characters as needed, à, é, è, ê, ä, ü, ö, ß, etc.)?		

Item	Questions relative to the Declaration of Incorporation (DoI)	Y	N
1	Is the hoist/winch accompanied by a DoI?		
2	Is the DoI typewritten or else handwritten in capital letters?		
3	Is the DoI written in one or more official Community language(s)?		
4	Does the word “Original” appear on the DoI OR is a translation of the original DoI provided (words “Translation of the original...” appear)?		
5	Does the DoI include the business name and full address of the manufacturer?		
6	Does the DoI mentions a name and address of the person authorised to compile the technical documentation, who must be established in the EU?		
7	Does the DoI contain a description of the machine, e.g. "hoist" or “winch”?		
8	Does the DoI contain an identification of the hoist/winch, e.g. a model, type or a serial number?		
9	Does the DoI contain a statement declaring which essential requirements of the Machinery Directive 2006/42/EC are applied and met? Note: There can be further directives and (harmonised) standards be mentioned, whose requirements are met, e.g. Electromagnetic Compatibility Directive 2004/108/EC, EN 14492-1 or EN 14492-2.		
10	Does the DoI contain a statement, that the partly completed machinery must not be put into service until the final machinery, into which it is to be incorporated, complies with the Machinery Directive 2006/42/EC?		

11	Does the DoI contain date and place of the declaration?		
12	Does the DoI contain identity and signature of the person empowered to draw up the declaration on behalf of the manufacturer?		

Item	Questions relative to the Instructions of the partly completed machinery	Y	N
1	Is the hoist/winch accompanied by instructions?		
2	Are the instructions addressed on the assembly of the product and its correct incorporation into the final machinery?		
3	Are the instructions written in one or more official Community language(s)?		
4	Do the instructions include the business name and full address of the manufacturer?		

Item	Questions relative to consistency of information	Y	N
1	Are the business name and full address of the manufacturer on marking, DoI and instructions identical to each other?		
2	Is the designation/description of the product on marking and DoI identical to each other?		
3	Is the series or type of the product on marking and DoI identical to each other?		
4	Is the serial number (if any) on marking and DoI identical to each other?		

Item	Questions relative to information and warnings (safety decals)	Y	N
1	Are symbols and/or pictograms affixed on the hoist/winch? Note: If answer is YES, continue with item 2; otherwise continue with item 3.		
2	Are symbols and/or pictograms readily understandable, e.g. graphical symbols from standard ISO 7010 and/or IEC 60417 are utilised?		
3	Are written information and/or warnings affixed on the hoist/winch? Note: If answer is YES, continue with item 4; otherwise continue with next table.		
4	Are written information and/or warnings expressed in an official Community language?		

Non-compliance to a question (questions is answered with NO) tends to determine the non-conformity of the hoist or winch according the Machinery Directive 2006/42/EC. It does not necessarily mean that the winch or hoist cannot be placed on the EU market. The result of this questionnaire, where at least one question has been answered with NO, nevertheless gives a hint on a potentially non-conformity of the hoist or winch and in this respect, the equipment shall be further inspected.