

FÉDÉRATION EUROPÉENNE DE LA MANUTENTION

Product Group

Krane und Hebezeuge

Cranes and Lifting Equipment

Grues et ponts roulants et Appareils de levage



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Position paper of

FEM Product Group Cranes and Lifting Equipment

Sub-Group

Lifting Equipment (EOT) and Hoisting Equipment

FEM PG CLE EOT POSITION ON WEEE & RoHS (Recast)

Legal Note: *This publication is only for guidance and gives an overview regarding the assessment of WEEE 2 and RoHS 2. It shall not be considered as a binding interpretation of the existing legal framework. It neither claims to cover any aspect of the matter, nor does it reflect all legal aspects in detail. It is not meant to, and cannot, replace own knowledge of the pertaining directives, laws and regulations. Furthermore the specific characteristics of the individual products and the various possible applications have to be taken into account. This is why, apart from the assessments and procedures addressed in this guide, many other scenarios may apply. Manufacturer's instructions and manuals must always be respected.*

The purpose of this position paper is to provide a assistance of the interpretation of the principles of the 2012/19/EU (WEEE 2) and Directive2011/65/EU (RoHS 2) Recast Directives and guidance on their application of winches, chain hoist or rope hoists and EOT cranes (used professional/industrial). It is based on the European Commission's FAQ¹) and Orgalime Guide on RoHS 2², which it complements and refers to.

This Guide represents a living document that may be updated in the future according to progress.

FEM

Created in 1953, the European Materials Handling Federation (www.fem-eur.com) represents, defends and promotes European manufacturers of materials handling, lifting and storage equipment including cranes and lifting equipment and particular Lifting Equipment (EOT) and Hoisting Equipment.

¹ RoHS 2 FAQ guidance document

² September 2012 - update of Orgalime Guide on Recast RoHS Directive (July 2011)

WARNING: *Transposition into the national law of each Member State of Directive 2011/65/EU (RoHS2) is based on the "Treaty on the Functioning of the European Union - PART THREE: UNION POLICIES AND INTERNAL ACTIONS - TITLE VII: COMMON RULES ON COMPETITION, TAXATION AND APPROXIMATION OF LAWS - Chapter 3: Approximation of laws - Article 114 (ex Article 95 TEC)" and that means the transposition is equal in each Member State.*

Transposition into the national law of each Member State of Directive 2012/19/EU (WEEE 2) might differ from the original directive, because it is based on the "Treaty on the Functioning of the European Union - PART THREE: UNION POLICIES AND INTERNAL ACTIONS - TITLE XX: ENVIRONMENT - Article 192 (ex Article 175 TEC)". To clarify any uncertainty, please contact your national professional association which will be able to give advice.

SUMMARY

Winches, rope chains and chain hoists for industrial/professional use, falling under the constituency of FEM Product Group Cranes and Lifting Equipment are not covered by Directive 2011/65/EU (RoHS2) and Directive 2012/19/EU (WEEE 2).

When does the new WEEE Directive start to apply (see Figure 2) regarding Cranes and Lifting Equipment?

- Entry into force: according to Article 26: The Directive entered into force on 14. August 2012.
- Transposition; according to Article 24: The Member States shall bring the directive into force until 14. February 2014. At that time, the old WEEE Directive (Directive 2002/96/EC) will be repealed.
- With respect to its scope, the WEEE 2 distinguished between two main periods:
 - Categories of EEE covered by this Directive during the transition period according to Article 2, (1), (A); ANNEX I, Point 6 Electronic tools (with the **exception of large-scale stationary industrial tools**) until 14. August 2018.
That means no change for Cranes and Lifting Equipment until 14. August 2018, because it is the same scope as 2002/96/EC.
 - The Directive introduces an "Open Scope" from 15. August 2018. Categories of EEE covered by this Directive according to Article 2, (1), (b). Open scope assumes that every EEE product is covered by the Directive, apart from a list of specifically excluded products. The new recast categories are given in ANNEX 3 and 4. Preamble 9 makes it clear that the new WEEE Directive covers all EEE used by consumers and EEE intended for professional use.
In the open-scope period, EEE is out of scope only if it falls under one of the 10 exclusions explicitly mentioned in Article 2, paragraph (3) and (4). Article 2 4(b) is equal to the former exclusion Article 2, (1), (A); Therefore the large-scale stationary industrial tools (e.g. Cranes and Lifting Equipment) are excluded.

When does the new RoHS Directive start to apply (see Figure 1) regarding Cranes and Lifting Equipment?

- Entry into force: according to Article 27: The Directive entered into force on 21. July 2011.
- Transposition; according to Article 25, (1): The Member States shall bring the directive into force until 2. January 2013.
- Scope of the Directive (d) “Large-Scale Stationary Industrial Tools” therefore Cranes and Lifting Equipment excluded.
- Extension to Category 9 (Industrial monitoring and control instruments) from 22. July 2017
- Extension to all EEE except for the ones explicitly excluded from 22nd July 2019; Cranes and Lifting Equipment are excluded according to Article 2, (4), (d) and (c)
- A general review of that Directive by the Commission shall be carried out no later than 22. July 2021 according to Article 25.

DIRECTIVE 2011/65/EU (RoH2) and DIRECTIVE 2012/19/EU (WEEE2)

In practice, the question often arises as to which legal regulations cover and apply to cranes and lifting equipment, **in particular winches and chain hoist and rope hoist**. Among other regulations, cranes and lifting equipment are included in the scope of the Machinery Directive 2006/42/EC.

This position paper only specifically addresses types of crane and lifting equipment including winches, ropes and chain hoists, which are categorised as components/equipment and are usually part of crane systems. These components/this equipment are/is adapted, integrated, used (pre-defined) and have/has a dedicated location as part of machines and/or buildings.

This guide is a revised version of the first publication dated September 2006 (English) and takes into account the recast of the WEEE and RoHS Directives, so-called WEEE 2 and RoHS 2.

DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment (**RoHS2**) was published in the Official Journal of the European Union on 8. June 2011 and had to be transposed into national law by 2. January 2013. At that time RoHS 1 will be repealed.

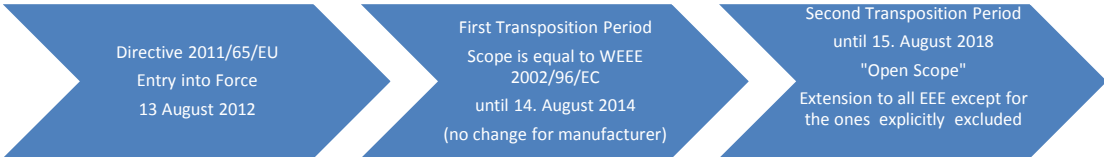
From 22. July 2014 the substance restriction will be gradually extended to new product categories. The following categories are linked to Cranes and Lifting Equipment:

Figure 1 RoHS 2 - Implementation



DIRECTIVE 2012/19/EU on waste electrical and electronic equipment (**WEEE 2**) was published in the Official Journal of the European Union (OJ) on 24. July 2012 and Member States will have to transpose the WEEE 2 Directive into national law by 14. February 2014.

Figure 2 WEEE 2 Implementation as follows:



Both directives aim at enforcing the environmental-friendly disposal of electrical and electronic equipment waste, and limiting the use of hazardous substances in waste from electrical and electronic equipment and components.

The question to be resolved here is whether cranes and lifting equipment, in particular chain and rope hoists and winches, also fall within the scope of the directives and are thus subject to the provisions contained in them.

The opinion of FEM Product Group Cranes and Lifting Equipment is as follows:

After careful study of the scopes of Directive 2012/19/EU (WEEE 2) and 2011/65/EU (RoHS2), FEM considers that neither components/equipment (e.g. chain hoist, rope hoists, winches) nor cranes (e.g. bridge and gantry cranes, wall-mounted cranes, light crane systems, manipulators) are covered by the directives.

A more in-depth analysis is required to answer this question. By interpreting the recitals and individual articles of the directive, the following line of argument can be applied for the various types of cranes and their components/equipment:

1 Justification:

1.1 EOT Cranes

1.1.1. FEM is of the opinion that regarding the Directive 2012/19/EU (WEEE2), EOT Cranes are to be categorised as “large-scale stationary industrial tools” (b); and/or “Large-scale fixed installation” (c) under Article 3.

Crane systems like the crane itself, e.g. bridge and gantry cranes and components like winches, rope and chain hoists control units, (examples 2 and 3), have to be classified as large-scale stationary industrial tools. Examples of crane systems may be tandem-operated chain hoists or cranes functioning together with other machines for a specific application.

Directive 2012/19/EU (WEEE 2) Article 2.4 states that it shall not apply to “large-scale stationary industrial tools” (b); and/or “large-scale fixed installation” (c).

Examples of EOT Cranes:

- **Lifting Equipment (EOT) and Hoisting Equipment**
- **Bridge and gantry cranes**
- **Overhead-travelling cranes of all types**
- **Wall-traveling cranes**
- **Pillar cranes**
- **Underhung-travelling cranes**
- **Jib cranes**
- **Revolving-column cranes**
- **Wall-mounted cranes**
- **Goliath cranes of all types**
- **Cranes equipped with series lifting equipment**
- **Manually-controlled load manipulating devices**
- **Light Crane Systems**

EOT cranes are considered “large scale stationary industrial tools” (LSSIT) as they comply with the criteria given in this definition:

- *Large-size assembly of machines, equipment, and/or components, functioning together for a specific application.*

These cranes are an assembly of equipment and components, in particular bridge, cabins, winches, ropes, hooks etc., which are functioning to lift and transport loads from one place to another. These cranes are typically “large”.

-permanently installed and de-installed by professionals at a given place....

Erection, regular inspection and dismantling of these types of cranes require trained professionals only.

- ...used and maintained by professionals in an industrial manufacturing facility...

EOT cranes can only be used by well-trained operators due to the complexity of these machines.

Some EOT cranes are considered "large-scale fixed installations" (LSFI), as they comply with the criteria given in this definition:

Article 3, (1)

(c) "large-scale fixed installation" means a large-size combination of several types of apparatus and, where applicable, other devices, which:

- (i) are assembled, installed and de-installed by professionals;
- (ii) are intended to be used permanently as part of a building or a structure at a pre-defined and dedicated location; and
- (iii) can only be replaced by the same specifically designed equipment.

Similarly, and in accordance with the same interpretation, **Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment (recast) (RoHS2) does not apply to components/equipment used with cranes. (See Directive 2011/65/EU (RoHS2) Article 2.4 c), d) and e) and j) and ANNEX I.**

See RoHS 2 FAQ dated 12 December 2012, page 11, cranes are excluded (large-scale industrial tools).

1.2. Lifting Equipment, in particular Winches, Chain and Rope Hoists and their control instruments

1.2.1. Industrial Monitoring and control elements from one unit (Annex II, 3 IT and Telecommunication Equipment)

FEM is of the opinion, that as a general rule electrical and electronic equipment (EEE) according to WEEE 2, Annex II, 3 , e.g. associated control units as well as their industrial monitoring and control elements in a plant engineering and construction are excluded as long as they are specifically designed for it.

*An example for the implementation of this definition is a chain hoist that is an integrated bridge and gantry crane and is permanently installed in a building with a **monitoring and control instrument** and is therefore exempt from the directive (example 2 and 3).*

1.2.2 Winches, rope and chain hoists

Winches, rope and chain hoists are an integral part of crane systems, supporting structures or buildings. **Therefore, it can be concluded that they are excluded.**

Article 2.3, (b) - Scope of the Directive 2012/19/EU: "This Directive shall not apply to any of the following EEE: (b) equipment which is specifically designed and installed as part of another type of equipment that is excluded from or does not fall within the scope of this Directive, which can fulfil its function only if it is part of that equipment.

An example for the implementation of this definition is a chain hoist that is integrated into a wind power plant and is therefore exempt from the directive. (example 1) or a chain hoist component incorporated in a bridge and gantry crane and permanently installed in the building (example 3).

An example for the use of chain hoists is the integration of chain hoists in bridge and gantry cranes (examples 2 and 3)., It can be concluded that chain hoists are not subject to the directive because they are a part of another type of equipment listed in Article 2, 4 (b) and (c), Annex I, (6) in conjunction with Article 3, (b) or (c) which itself is exempt; see examples 2, 3 and 4.

The EOT Lifting Equipment, such as winches, chain hoists and rope chains, is specially fitted to LSSIT as supporting structure with following criteria:

- are designed, built, marketed and used in a customary environment for industrial manufacturing facility, entertainment or for research and development facility;
- are large-scale stationary industrial tools (LSSIT), since they can only fulfil their intended function if they are in a fixed, functional connection to a (stationary, non-detachable) supporting structure, e.g. crane, building intended for that purpose (pre-defined and dedicated location);
- have to be assembled, installed, serviced, repaired and de-installed by professionals (qualified specialists, specialised in electrical and mechanical components) and used by professionals (trained personnel);
- can only be replaced by the same specifically designed equipment;
- are disposed of by specialised disposal companies or the manufacturer at the end of the lifetime;
- must be inspected by professionals (skilled, qualified personnel) on a regular basis;
- due to their size, weight and height location point (usually > 2 m) can only be removed from their designated place of operation with a disproportionate amount of effort and using special safety equipment (e.g. telescopic boom lifts) and their connections must be mounted and dismounted by specialised personnel; and
- are only mobile within the scope of their intended purpose and use.

This is a non-exhaustive list, as there are definitely a number of other possible applications.

2. The directive aims at reducing the amount of "electrical and electronic waste" to be handled by municipal disposal companies.

This is clearly expressed in the following sections and recitals:

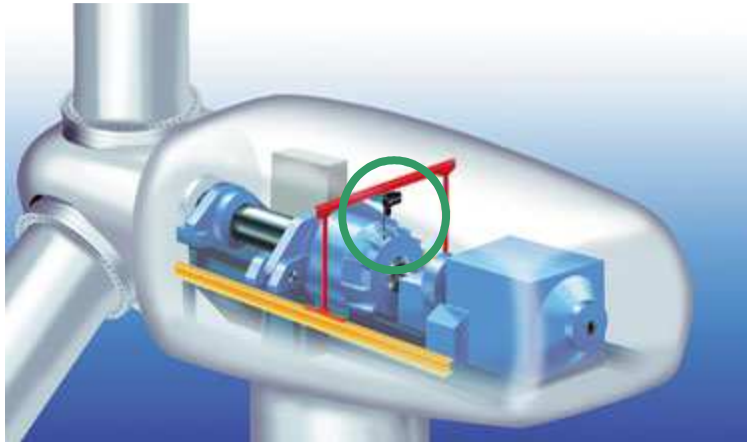
In Article 3, (h), under "Definitions", WEEE Directive defines "waste electrical and electronic equipment from private households" as "waste electrical and electronic equipment which comes from private households and from commercial, industrial, institutional and other sources which, because of its nature and quantity, is similar to that from private households".

In addition, recitals no. 15 and no. 25 state that these types of electrical and electronic devices are products (waste) that could be dispersed in the **municipal waste stream** ("unsorted municipal waste", "rubbish bins", "similar means of municipal waste collection").

Cranes and hoists, particularly chain hoists and other capital goods in machine and plant engineering, are not comparable to those products from private households with regard to neither their nature nor quantity. They are not disposed of via the municipal waste stream according to WEEE 2.

Examples from the cranes and lifting equipment segment – chain hoists

Example 1: Component integrated into a wind power plant



Wind power plants do not fall within the scope of Article 2 Directive 2012/19/EU (WEEE2) or Directive 2011/65/EU (RoHS2).

Chain hoist

In accordance with Article 2.3 (b) of Directive 2012/19/EU (WEEE 2) and Directive 2011/65/EU (RoHS2) Article 2.4 (c), the entire product is exempt.

The chain hoist and e.g. its control units, lamps, as well as its monitoring and control elements are part of the unit as a whole.

If the chain hoist / monitoring & control unit is specifically designed for this application

Example 2: Component incorporated in a bridge and gantry crane and permanently installed in the building



Bridge cranes are categorised as large-scale stationary industrial tools.

Chain hoist

Monitoring and control instruments

In accordance with Article 2.4. (b) of Directive 2012/19/EU (WEEE2), and Directive 2011/65/EU (RoHS2) Article 2.4 (c), the entire product is exempt.

Bridge cranes are categorised as large-scale stationary industrial tool and are excluded.

The chain hoist and e.g. its control units, lamps, as well as its monitoring and control elements are part of the unit as a whole.

If the chain hoist / monitoring & control unit is specifically designed for this application

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Example 3: Chain hoist component incorporated in a bridge crane and permanently installed in the building



Bridge cranes are categorised as large-scale stationary industrial tools

Chain hoist

Monitoring and control instruments

In accordance with Article 2, 4. (b) of Directive 2012/19/EU (WEEE2), and Directive 2011/65/EU (RoHS2) Article 2.4 (c), the entire product is exempt.
 The chain hoist and e.g. its control units, lamps, as well as its monitoring and control elements are part of the unit as a whole.
 If the chain hoist / monitoring & control unit is specifically designed for this application

Example 4: Tandem-operated hoist incorporated in a bridge crane and permanently installed in the building



Bridge cranes are categorised as large-scale stationary industrial tools

Chain hoist

In accordance with Article 2, 4. (b) of Directive 2012/19/EU (WEEE2), and Directive 2011/65/EU (RoHS2) Article 2.4 (c), entire product is exempt.
 The chain hoist and e.g. its control units, lamps, as well as its monitoring and control elements are part of the unit as a whole.
 If the chain hoist / monitoring & control unit is specifically designed for this application

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