

# Partly Completed Machinery

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## *Partly completed machinery*

### Part of the whole

"A NEVER ENDING STORY"

in the

### European Single Market for Machinery

The issue "*machinery units*", machines as per Article 4 Clause (2) of the former Machinery Directive 98/37/EC, was laid to rest when the Machinery Directive 2006/42/EC came into force. The frequent practice of "leaving somebody holding the baby" because of very unclear provisions was meant to belong to the past as from 29<sup>th</sup> Dec., 2009. The rules were clearer. However, it soon turned out that even with the new Machinery Directive private contractual agreements could not be waived.

For the first time, the definition of "*partly completed machinery*" was established in the Machinery Directive

2006/42/EC as an attempt to determine these "*machinery units*" more precisely.

The article below aims at clarifying this issue and at explaining how the market players should proceed in accordance with the EC provisions.

## Partly completed machinery

Formerly "*machinery units*", today "*partly completed machinery*" – it is always about the same thing: the free trade with still uncomplete machinery in the European economic area on the basis of uniform Single Market provisions.

Sometimes it seems that not all of the manufacturers of partly completed machinery appreciate the advantages of the European Single Market. There is a persistent endeavor to "*circumvent the Machinery Directive*" which also applies to this issue, in particular by starting "discussions about components". The most frequently heard reason is the supposed bureaucracy. Sometimes, however, the hidden reason is different: The manufacturer's signature on a document reveals his liability for the product. Yet this reason is not admitted frankly.

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**Author:**

**Dipl.-Ing. Hans-J. Ostermann**

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Dipl.-Ing. Hans-J. Ostermann  
www.maschinenrichtlinie.de

RA Carsten Laschet  
Sozietät Friedrich Graf von  
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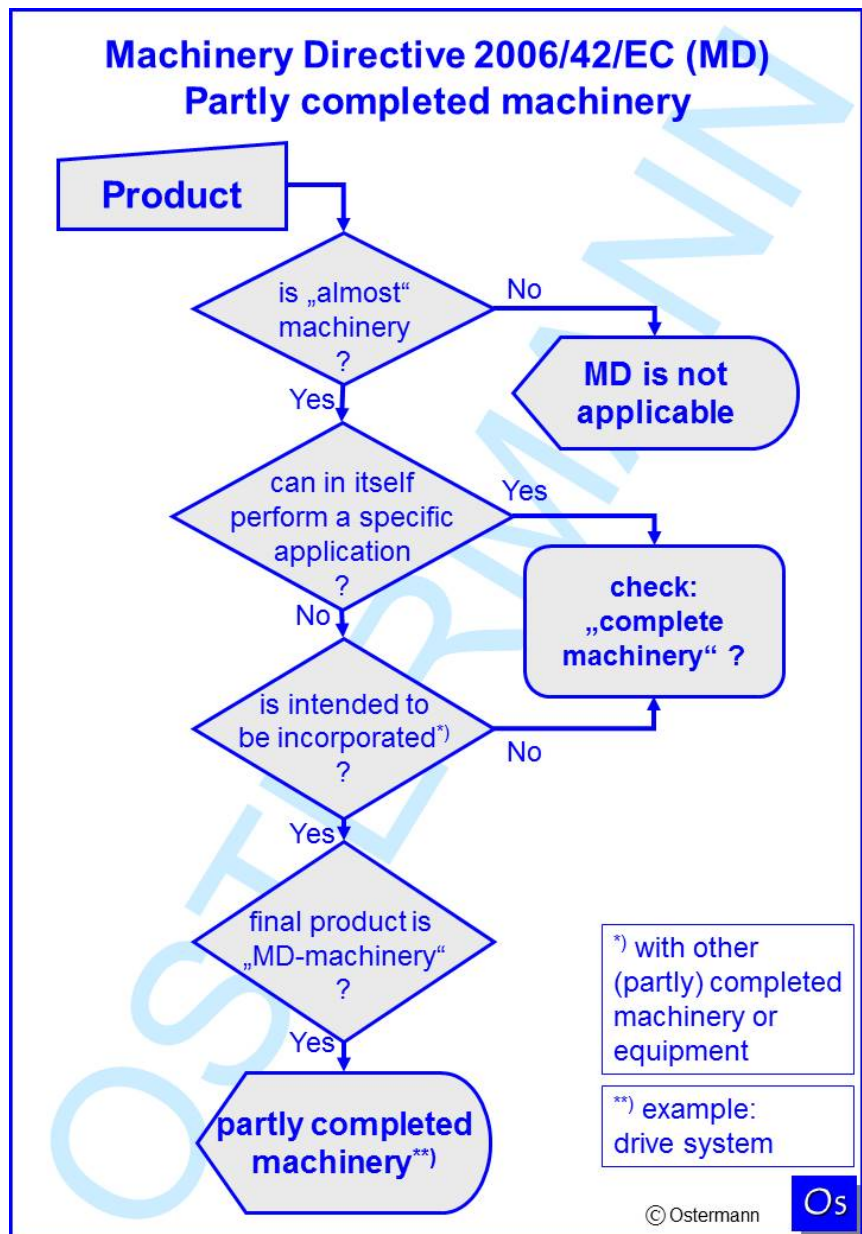
is an annual conference on the machinery law. There will be simultaneous translation German / English on the 12<sup>th</sup> October 2016.

## What is partly completed machinery?

According to Article 2 (g) of the Machinery Directive 2006/42/EC, partly completed machinery is defined as follows:

*“Partly completed machinery’ means an assembly which is almost machinery but which cannot in itself perform a specific application. A drive system is partly completed machinery. Partly completed machinery is only intended to be incorporated into or assembled with other machinery or other partly completed machinery or equipment, thereby forming machinery to which this Directive applies.”*

In principle, today’s provision is based on the “definition” in Article 4 Clause 2 of the “old” Machinery Directive 98/37/EC; but an attempt is made to create clearer criteria in order to improve the classification of a product on that basis. However, new problems arise to distinguish complete from partly completed machinery due to the definition of machinery in Article 2 (a). According to this Article, machinery can be complete even if the manufacturer of the machine leaves out the drive system. Formerly, it was a characteristic of a ma-



chinery unit (now partly completed machinery) if the required drive system was missing.

A close look on the details of the definitions of Article 2 g shows that partly completed machinery has to have three characteristics:

According to this definition a product represents partly completed machinery if the assembly

- is almost machinery and

- cannot in itself perform a specific application, and
- is intended
  - to be incorporated into or assembled with other machinery, or
  - to be incorporated into or assembled with other partly completed machinery, or
  - to be incorporated into or assembled with equipment and



- to become an element of machinery in the sense of the MD.

A “novelty” of the MD is the adoption of an example in the above-mentioned definition of partly completed machinery:

- *A drive system is partly completed machinery.*

### *Assembly which is almost machinery*

An assembly which is almost machinery is a product “almost” meeting the requirements of machinery within the meaning of Article 2 (a). In any case, it has to consist of linked parts, at least one of which moves, the prerequisite of machinery. However, at least one component is missing so that it cannot be regarded as complete machinery in the meaning of the MD. The missing component may be e.g. the control cabinet, a safety component or the drive system.

However, the following items are not among them:

- a missing drive system within the meaning of Article 2 (a), first indent; which means it has to be specified by the manufacturer of the machinery
- missing components to connect it on site or to sources of energy and motion within the

meaning of Article 2 (a), second indent,

- missing installation of an assembly ready to be installed on a means of transport within the meaning of Article 2 (a), third indent,
- missing installation of an assembly ready to be installed in a building or structure within the meaning of Article 2 (a), third indent.

The transition is seamless from complete to partly completed machinery. But the grey area is fairly limited. First and foremost the manufacturer has to decide in every individual case whether his machinery is complete or partly completed. But stress has to be laid on the fact that complete machinery will not turn into partly completed machinery simply because e.g. the cable to the energy supply is missing.

### *Cannot in itself perform a specific application*

A characteristic property of partly completed machinery shall be that it is an assembly which “cannot in itself perform a specific application”.

This requirement is fulfilled

- if an assembly is concerned which is machinery within the

sense of the definition of Article 2 (a) and which cannot perform the “specific application” in itself, i.e. as it stands. It means that the „specific application“ can be performed by the partly completed machinery only in line with the complete machinery after incorporation or assembly;

- if equipment such as safety components is missing which is required for safe application. The partly completed machinery then must not be put into operation so that, consequently, it cannot perform the specific application in itself – safely.

#### **Remark:**

In accordance with the Guide to application of the MD of the EU-Commission (see § 46), really complete machinery except for missing safety components shall not be regarded as partly completed machinery:

*“Machinery that can in itself perform its specific application but which only lacks the necessary protective means or safety components is not to be considered as partly completed machinery.”*

The “desire” behind this interpretation is understandable. But it does not match the legally binding definition of partly completed machinery in re-

spect of the mentioned “equipment”. As a consequence, machinery lacking equipment such as “protective means or safety components” is partly completed machinery within the meaning of the MD – in contrast to the opinion of the Commission of the EC.

- if control units are missing which are required for the - safe - specific application.

An opinion frequently heard says that partly completed machinery does not have a specific application. This is definitely wrong. Just like any other product it has a specific application, but cannot perform it in itself. A gearbox for example has the specific application of transmitting rotational speeds and torques. This specific application can, however, only be performed after assembly with a drive system and (partly completed) machinery moved by the gearbox.

### *Assemble with other (partly completed) machinery*

An assembly intended to be incorporated into or assembled with other (partly completed) machinery can be assumed on the condition that the manufacturer of the

partly completed machinery places it on the market with this specific application. It makes no difference whether the partly completed machinery is incorporated into or assembled to (partly completed) machinery. Here the focus is on the main application of the partly completed machinery, i.e. it is placed on the market to become part of machinery or assembly of machinery. This is exactly the reason why it does not have to be “complete” as otherwise it might include unnecessary or probably even cumbersome components for the user’s individual application.

### *Combination with equipment*

According to its definition, partly completed machinery may have another property, i.e. represent an assembly intended to be assembled with equipment.

Thus, also machinery counts among “partly completed machinery” if it lacks certain equipment such as protective means, control system etc. to become complete machinery. Here, the term “equipment” is not defined in detail and may be interpreted generously. After all, it comprises everything partly completed machinery is lacking to make

it complete machinery meeting the requirements of Article 5 Clause 1 of the Machinery Directive 2006/42/EC.

The term “equipment” used in the definition must not be confused with the term “interchangeable equipment” mentioned in the MD Article 1 Clause 1 (b). They unambiguously describe two different products. Equipment also does not include the lack of tools that are generally provided by the buyer. A circular saw, for example, does not turn into partly completed machinery only because the blade is not supplied by the manufacturer of the circular saw.

### *Become part of the machinery*

It is a fundamental provision that – by definition – partly completed machinery is only intended to become part of machinery in the sense of the MD.

This provision is based on the first sentence of Article 2 “Definitions” of the Machinery Directive 2006/42/EC:

*“For the purpose of this Directive, ‘machinery’ designates the products listed in Article 1 (1) (a) to (f).”*

This clarifies the fact that only that “partly completed

*machinery*” falls in the scope of the Machinery Directive which is intended to become part of machinery in the sense of the MD. However, this means machinery only *in the strict sense*, i.e. machinery as per Article 2 (a) of the MD.

In this respect, it is true that e.g. gearboxes or chassis for means of transport are basically partly completed machinery because as a rule, means of transport correspond to the definition “machinery”. But attention should be paid to the fact that - according to Article 1 Clause 2 of the MD -, defined means of transport are exempted completely from the scope of the Directive. Based on this exception, the components of these vehicles are also exempted from the scope of the MD, i.e. also products which would really meet the definition of partly completed machinery.

### *Become part of “used” machinery*

When designating a product to be machinery within the sense of the MD, it does not matter whether it is new or used. The only decisive issue is the correspondence to the definition of machinery. Therefore and in this case, also used machinery / used assembly of machinery are

machinery in the sense of the MD. This does not depend on the fact that the MD is applicable only on defined cases of placing used machinery on the market. Consequently, placing partly completed machinery on the market which is officially intended to be incorporated into or assembled to used machinery / used assembly of machinery falls within the provisions of the MD.

The issue “*partly completed machinery for incorporation in / attachment to used machinery*” is detailed in:

#### [Unvollständige Maschinen für gebrauchte Maschinenanlagen](#)

which is a commentary in German on the website “[maschinenrichtlinie.de](#)”.

### *Drive system*

The example “*a drive system is partly completed machinery*” highlights the extent of admissible interpretation of the term “*partly completed machinery*” and thus the meaning of “*almost machinery*”.

A drive system is, for example,

- an electric motor (but attention has to be paid to the exception of defined electrical motors mentioned in [Article 1, Clause 2 \(k\)](#) of the MD)

- a combustion engine
- the blade system of a wind power plant
- the turbine of a water power plant
- a hydraulic door closer
- a hydraulic engine
- a pneumatic engine

A drive system may as well consist of several components such as an engine plus flange-connected gearbox (gear motor). Typical examples are

- drive system of a garage door
- drive system of a gate

The gearbox itself also has to be regarded as partly completed machinery. The fundamental items of a gearbox correspond to the definition of machinery and therefore a gearbox is “*almost machinery*”. As a rule, it is undoubtedly intended to be equipped with a drive system.

### *Examples of partly completed machinery*

Below are several examples of what partly completed machinery in the sense of the Machinery Directive 2006/42/EC is:

- press intended to be incorporated into an assembly of machinery so that it is delivered without protective means

- „machinery" delivered without the control system for safety requirements, as the machinery is controlled e.g. via the control system of the assembly into which the partly completed machinery will be incorporated
- pulper or disperser for stock preparation in paper mills
- pump without the control system for safety requirements
- gearbox
- built-in fan
- industrial robot
- electric motor intended for use in potentially explosive atmosphere

**Attention:**

This type of electric motor falls within the scope of the MD no matter what the voltage limits are, as it is excepted from the Low-Voltage Directive.

- generator for power plants
- gripper or automatic tool changer for robots
- quick-change system for excavators
- injection pump for engines to drive machinery
- agitator (electric motors with fixed stirrer) for fixed incorporation into an agitator vessel

## Distinction from components

Not all of the components used in mechanical engineering fall within the scope of the Machinery Directive 2006/42/EC as “partly completed machinery” if they are not complete machinery. For example, many components definitely cannot be called “almost machinery”:

- The merely static construction elements of machinery such as stanchions, metal sheets and the static rack of a high-bay warehouse are in themselves no partly completed machinery. They are intended to be incorporated into or assembled with machinery. However, they do not match the definition of partly completed machinery because they do not have driven linked moving parts.
- Moreover, not all machinery components with moving parts are regarded as partly completed machinery. For example, a ball-bearing can hardly be regarded as “almost machinery”. However, the transition is seamless from partly completed machinery in the sense of the MD, to the component not covered by the MD. The European legislator (deliberately?) kept this context more or less vague. It can be

exploited by the parties in both directions without violating the provisions of the MD.

In the Guide to application of the Machinery Directive 2006/42/EC, the European Commission tries to separate the scope of the MD from components, then called “machinery components”, which do not fall within the Directive. The last paragraph of [§ 35 of the EU Guide](#) says:

*“The Machinery Directive does not apply as such to separate machinery components such as, for example, seals, ball-bearings, pulleys, elastic couplings, solenoid valves, hydraulic cylinders, flange-connected gearboxes and the like, that do not have a specific application and that are intended to be incorporated into machinery. The complete machinery incorporating such components must comply with the relevant essential health and safety requirements. The machinery manufacturer must therefore choose components with adequate specifications and characteristics.”*

No comments will be made here concerning the “soundness” with regard to the “non-applicability of the MD” to the individual “components of machinery”. Details can be found in:

[Abgrenzung zu Komponenten](#)



which is a commentary in German on the website "[maschinenrichtlinie.de](http://maschinenrichtlinie.de)".

Thus, the European Commission tries to establish a limit of the scope of the Machinery Directive "downwards", towards "simple components" of machinery. Simultaneously, they emphasize that in the end, these components / parts also have to meet the requirements of the Machinery Directive. They transfer the liability for this aspect to the manufacturer of the machinery, who uses such components when assembling his machinery.

The European Commission lists several products in § 35, which in their opinion are not partly completed machinery. Care has to be taken that among the examples listed there may be safety components which are never the less in the scope of the MD.

It does not appear very helpful in practice to try to "eliminate" as many components as possible from the scope of the MD "by arguing" about a "generous distinction downwards", as is done by individual parties involved. Remember that these components will not vanish into an area not regulated by law. Instead, they will fall within the scope of

different, namely national regulations, if applicable. In this context, the Law on Product Safety (Produktsicherheitsgesetz – ProdSG) is valid in Germany since 1<sup>st</sup> Dec., 2011. It is an all-round law, so to speak, in particular with respect to § 3, Clause 2. Its requirements from safety aspects to instructions do not really differ from those of the MD even if they are not so detailed. Another negative effect for the manufacturer of these components is the non-validity of the free movements of goods within the European Economic Area. In these cases, the parties involved – particularly the buyers – will have to fix any requirements of the MD exceeding the relevant national law in a private contract, if necessary. Attention should be paid to the fact that the machinery manufacturer has to assess the individual components / parts of the machinery by himself when editing the conformity assessment of the final machinery.

### *Requirements for placing machinery on the market*

The Machinery Directive 2006/42/EC makes a distinction between the require-

ments for (complete) machinery and partly completed machinery, which means that only the special (formal and substantial) requirements for partly completed machinery need to be observed. The requirements for complete machinery do not apply in principle.

For the first time, Article 5 Clause 2 of the MD determines requirements for partly completed machinery:

*„Before placing partly completed machinery on the market, the manufacturer or his authorized representative shall ensure that the procedure referred to in Article 13 has been completed.“*

Article 13 of the MD clarifies the requirements, however, refers to various Annexes of the Directive to find detailed requirements. Safety requirements of partly completed machinery being placed on the market are not mentioned in this context. They may be concluded from the valid MD indirectly by means of the contents of:

- "Relevant technical documentation..." (Annex VII B)
- "Declaration of incorporation of partly completed machinery" (Annex II 1 B)

- “Assembly instructions for partly completed machinery” ([Annex VI](#))

A summary of these provisions results in the following requirements for placing partly completed machinery on the market:

- [risk assessment](#)
- list of relevant hazards and labelling of measures taken against which of these hazards
- list of basic safety requirements chosen by the manufacturer – “applied and fulfilled” ([Annex VII B a](#))
- determination and indication of the residual risks
- measures taken in series manufacture in order to ensure that the partly completed machinery is in conformity with the health and safety requirements applied,
- checks and tests to determine the safe assembly and the safe operation,
- guarantee of the availability of the technical documentation mentioned in Annex VII, Section B – for the competent authorities,
- determination of assembly instructions,
- establishment of assembly instructions according to Annex VI to be attached to the partly completed machinery.

#### **Attention:**

Instructions are not necessary according to the MD, but they should be self-understood due to the product liability involved for the manufacturer.

- establish a declaration of incorporation according to Annex II 1 B and attach it to the partly completed machinery

#### **Attention:**

The declaration has to comprise among other things a list showing - as chosen by the manufacturer - which of the essential safety requirements “*are applied and fulfilled*” (Annex II 1 B, sentence 2, No. 4). This means that it does not have to contain the essential requirements **not observed**. These requirements are revealed only in the “*Relevant technical documentation ...*” As these documents have to be presented only to the relevant authorities, if applicable, the customer has no public-law claim to examination or even handing-over of these documents.

The recommendation then is to establish a private „[Extended declaration of incorporation](#)“

which is a proposal in German on the website “[maschinenrichtlinie.de](#)”.

## *CE Marking*

Partly completed machinery does not have a CE marking

as per Machinery Directive 2006/42/EC. This is not permitted in accordance with Article 16 of the Directive. The German Machinery Ordinance (9<sup>th</sup> Ordinance of the Law on Product Safety – 9<sup>th</sup> ProdSV) also forbids the attachment of a CE-marking on partly completed machinery (§ 6, Clause 3). According to § 8 No. 9 in conjunction with § 39 Clause 1 No. 7a and Clause 2 of the Product Safety Act - [ProdSG](#) -, violation of this regulation is an infringement entraining a fine up to 100,000 €. Manufacturers should take this into consideration before marking partly completed machinery because the customer wants it and otherwise might not place an order.

However, other Directives with which partly completed machinery has to comply as well, may require a CE-marking. If applicable, this information has to be included in the special declarations, but which the manufacturer does not always have to attach to the partly completed machinery (e.g. the EMC-Directive)

## *Conclusion*

The Machinery Directive 2006/42/EC made aspects of partly completed machinery clearer.

The distinction in particular from complete machinery is fairly clear. But the distinction from so-called components remains - largely - vague so that the market players have a more or less large leeway.

In principle, the manufacturer of partly completed machinery decides by himself which of the essential health and safety requirements he observes that are laid down in Annex I of the Machinery Directive 2006/42/EG. According to the

MD, the compulsory data in the declaration of incorporation is a list of only those requirements applied **and** fulfilled. Consequently, the manufacturer needs not disclose here which requirements were not fulfilled. But this is the information the user needs most urgently. It is therefore vital from the viewpoint of the buyer that, prior to the purchase, a private-law agreement be made regarding the safety related interface, e.g. by demanding the establishment of a so-

called “*extended declaration of incorporation*”.

Liberty of the parties involved is necessary for partly completed machinery, in particular because - in the true sense of the word - they are only partly completed and are supposed to be incomplete so that the user is able to use them at all for his individual application. Legislation cannot rule everything or else the flexibility necessary in this particular context will suffer.

*Author*

Dipl.-Ing. Hans-J. Ostermann, [www.maschinenrichtlinie.de](http://www.maschinenrichtlinie.de),

*Translation*

Dipl.-Ing. Monika Paduch, [www.monika.paduch.de](http://www.monika.paduch.de)  
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