



FEM position paper

on placing on the market forklift trucks, rough-terrain variable-reach trucks and variable-reach tractors without forks or interchangeable equipment

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Executive summary

Directive 2006/42/EC does not preclude manufacturers from placing on the market forklift trucks, rough-terrain variable-reach trucks and variable-reach tractors not fitted with forks or interchangeable equipment provided that obligations for 'machinery' in Article 5 (1) are fulfilled. In particular, manufacturers must provide instructions with the essential characteristics of forks and interchangeable equipment which may be fitted, draw up the EC declaration of conformity of the truck and/or the PME (Permanently Mounted Equipment) of the rough-terrain variable-reach tractor, affix the CE marking.

Introduction

This document provides clarification on the possibility to place on the market¹ units of forklift trucks, rough-terrain variable-reach trucks and variable-reach tractors not provided with forks or interchangeable equipment.

Forklift trucks, rough-terrain variable-reach trucks, rough-terrain variable-reach tractors and their Permanently Mounted Equipment (here-after referred to as 'trucks', 'RTVR tractors' and 'PME' respectively) are defined in ISO 5053-1 and CEN/TS 1459-8 as applicable.

The reference legislation:

- for trucks is Directive 2006/42/EC (Machinery Directive)
- for RTVR tractors is Regulation (EU) No 167/2013 (Tractor Mother Regulation) and Directive 2006/42/EC (Machinery Directive) applicable to the PME (see also FEM Guide 4.104 for their application).

In both cases, fitting attachments (forks or interchangeable equipment) is addressed by Directive 2006/42/EC and the Guide to application of the Machinery Directive.

Conclusions in this position paper applies to trucks and RTVR tractors that are placed on the market complete of all parts with the only exception of attachments (forks or interchangeable equipment). For products also lacking of parts other than forks or interchangeable equipment see "Partly completed machinery" below.

¹ By virtue of the Agreement on the European Economic Area (EEA), machinery and partly completed machinery that complies with the Machinery Directive also benefits from free movement in Iceland, Liechtenstein and Norway. The same is true in Switzerland by virtue of the Mutual Recognition Agreement (MRA) with the EU, and in Turkey, Andorra and San Marino by virtue of the Customs Union Agreements between the EU and these countries. See Paragraph §107 of the Guide to application of the Machinery Directive.



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Placing on the market

Units of trucks or RTVR tractors are sometimes required by customers to be placed on the market not provided with attachments (forks or interchangeable equipment). This is usually due to the fact that customers already own attachments approved for their models or because those can be bought from suppliers other than the truck or the RTVR tractor manufacturer.

According to definition in Article 2 (first indent) of Directive 2006/42/EC, 'machinery' means *an assembly consisting of linked parts, at least one of which moves, which are joined together for a specific application*. Additional information on this definition are provided in Paragraph §35 of the Guide to application of the Machinery Directive, which clarifies that, even though products with parts or components that are not linked together in an assembly are not considered as machinery, this does not preclude the supply of machinery with certain parts disassembled. Reference is made to storage or transport purposes, but these are clearly just examples as given in Paragraph §264 of the Guide to application of the Machinery Directive, which Paragraph §35 refers to.

For this reason, as given in Paragraph §35 of the Guide to application of the Machinery Directive, the manufacturer must provide adequate assembly instructions in order to prevent errors of fitting when the separate parts are assembled. Reference is then made to Section 1.7.4.2 of Directive 2006/42/EC requiring the information that must be contained in the manufacturer's instructions, including:

- i) assembly, installation and connection instructions, including drawings, diagrams and the means of attachment and the designation of the chassis or installation on which the machinery is to be mounted.*

According to Paragraph §264 of the Guide to application of the Machinery Directive, Section 1.7.4.2 (i) of Directive 2006/42/EC covers operations to be carried out by or on behalf of the user before the machinery is put into service. Assembly instructions are necessary for machinery that is not supplied to the user ready to use. Assembly instructions for interchangeable equipment must specify the type or types of basic machinery with which the equipment can be used and include the necessary instructions for the assembly with the basic machinery by the user.

Interchangeable equipment

Paragraph §41 of the Guide to application of the Machinery Directive on Article 2 (b) of Directive 2006/42/EC states that interchangeable equipment may be placed on the market by the manufacturer of the basic machinery or by another manufacturer.

Section 3.6.3.2 of Directive 2006/42/EC underlines that instructions for mobile machinery intended to fulfil different functions using interchangeable equipment must include the information necessary for the assembly and use of the combination of the basic machinery and the interchangeable equipment. Paragraph §326 of the Guide to application of the Machinery Directive clarifies that the manufacturer of the basic machinery must:

- provide information about the mechanical, hydraulic and electrical interface between the basic machinery and the interchangeable equipment
- and
- indicate the essential characteristics of compatible interchangeable equipment or specify the interchangeable equipment (e.g. pressure and hydraulic flow for each feeding hose and voltage for electrical plug) that can be assembled with the machinery.

This requirement is complementary to the requirement of the manufacturer of interchangeable equipment to specify the basic machinery with which the equipment can be used and to provide the necessary assembly instructions on Article 2 (b) and Section 1.7.4.2 (i) of Directive 2006/42/EC.



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Tools

Interchangeable equipment is also distinguished from tools which do not change or attribute a new function to the basic machinery. For trucks and RTVR tractors, this applies to “standard forks”.

Standard forks are the fork type(s) or model(s) approved by the truck or the RTVR tractor manufacturer to determine the rated capacity Q1 of the truck or the RTVR tractor defined in EN ISO 3691-1, EN ISO 3691-2, EN 1459-1, EN 1459-2 or EN 1459-8, as applicable.

Similarly, to interchangeable equipment, the same Paragraph §41 of the Guide to application of the Machinery Directive states that manufacturers must specify the essential characteristics of tools which may be fitted to the basic machinery. Reference is made to Section 1.7.4.2 (n) of Directive 2006/42/EC requiring that the manufacturer's instructions must include:

n) the essential characteristics of tools which may be fitted to the machinery

Section 1.7.4.2 (n) of Directive 2006/42/EC, as given in Paragraph §264 of the Guide to application of the Machinery Directive, deals with instructions relating to tools, which are items not permanently fixed to the machinery and that may be changed by the user. Such tools are not considered as part of the machinery however the use of the machinery depends on the fitting and use of appropriate tools. The instructions must therefore specify the characteristics of the tools on which use depends. The essential characteristics to be specified may include, for example, the maximum or minimum dimensions and mass of tools, the constituent materials and assemblies, the requisite shape or other essential design features, the compatibility with the tool-holders on the machinery (see “Conclusions”, letter c), first indent).

Conclusions – Obligations for the manufacturer of the base machinery

Directive 2006/42/EC does not preclude units of trucks and RTVR tractors from being placed on the market not fitted with forks or interchangeable equipment, provided that the truck and the permanently mounted equipment (PME) of the RVTR tractor are still considered “machinery” under Article 2 (a) 1st and 3rd indent respectively and their manufacturers fulfil the obligations of Article 5 (1) before placing trucks and RVTR tractors on the market or putting them into service, i.e. :

- a) ensure that the truck and the PME of the RVTR tractor, fitted at least with standard forks, satisfy the relevant essential health and safety requirements set out in Annex I of Directive 2006/42/EC;
- b) ensure that the technical file of the truck and the PME of the RVTR tractor, fitted at least with standard forks, referred to in Annex VII, part A of Directive 2006/42/EC is available;
- c) provide in the truck and the RTVR tractor instructions for use:
 - information on the essential characteristics of forks that may be fitted (such as rated capacity, dimensions and mass, centre of gravity, load centre, type of interface, requisite shape or other essential design features) or specify the approved “standard forks”;
 - information on the essential characteristics of compatible interchangeable equipment that can be assembled (such as function, movements, dimensions and mass, centre of gravity, load centre, type of interface and required connections) or specify the approved interchangeable equipment;
 - identification of the interface between the truck or the RVTR tractor and interchangeable equipment or forks;
 - assembly, installation and connection instructions;
 - information necessary for use of the truck and the RVTR tractor fitted with approved forks and interchangeable equipment;
 - reference to the specific load charts of forks and the interchangeable equipment that can be fitted;



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- d) carry out the procedures in Annex VIII of Directive 2006/42/EC for assessing conformity of either the truck and/or of the PME of the RVTR tractor, fitted at least with standard forks, in accordance with Article 12 of Directive 2006/42/EC;
- e) draw up the EC declaration of conformity of either the truck and/or the PME of the RVTR tractor, in accordance with Annex II, part 1, Section A of Directive 2006/42/EC and ensure that it accompanies the truck or the RTVR tractor;
- f) affix the CE marking to either the truck and/or the RVTR tractor in accordance with Article 16 of Directive 2006/42/EC.

For items e) and f), FEM Guideline 4.104 provides uniform guidelines concerning the EC declaration of conformity and the CE marking applicable to the PME of the RVTR tractor.

Final remarks

Obligations for the manufacturer of the interchangeable equipment

The above is without prejudice to the obligations set out in Article 5 (1) of Directive 2006/42/EC to be fulfilled before interchangeable equipment are placed on the market. In this case, according to Paragraph §41 of the Guide to application of the Machinery Directive, the manufacturer of the interchangeable equipment must ensure that the combination of the interchangeable equipment and the basic machinery with which it is intended to be assembled fulfils all the relevant essential health and safety requirements of Annex I of Directive 2006/42/EC and must carry out the appropriate conformity assessment procedure according to Article 12 of Directive 2006/42/EC.

In particular, the manufacturer of the interchangeable equipment must specify in his instructions the basic machinery with which it can be assembled and used, either by reference to the technical characteristics or, where necessary, by reference to specific models of truck or RTVR tractor. He must also provide the necessary instructions for assembly and use of the interchangeable equipment.

The manufacturer of the interchangeable equipment shall also:

- ensure that the technical file of the interchangeable equipment referred to in Annex VII, part A is available;
- draw up the EC declaration of conformity of the interchangeable equipment, in accordance with Annex II, part 1, Section A;
- affix the CE marking to the interchangeable equipment in accordance with Article 16.

Partly completed machinery

Complete machinery missing some parts should not be confused a priori with a “partly completed machinery”.

If the missing parts are not constitutional parts of the basic machinery and have been considered in the conformity assessment and the machinery manufacturer’s instructions provide clear information for the installation of the missing parts such that the safety and compliance of the final machinery is guaranteed with the Machinery Directive, then the product is a “machinery” and its completion can be made later according to those instructions, prior to being put into service for the first time.

Consequently, trucks or RTVR tractors put on the market only missing forks or interchangeable equipment must be considered a machinery rather than “partly completed machinery” if their instruction manuals contain information on the approved “standard forks” which may be fitted or their essential characteristics (according to Section 1.7.4.2 (n) of Directive 2006/42/EC). Indeed, while “partly completed machinery” is a product intended to perform a specific application only after incorporation, information on approved “standard forks” which may be fitted clearly and univocally identifies the product as a truck or PME of a RTVR tractor.

Instead, if products are put on the market also lacking other parts different than forks or interchangeable equipment they should be considered as “Partly completed machinery”.