TECHNICAL SHEETS FOR COORDINATION

HORIZONTAL RECOMMENDATION FOR USE SHEETS (RfUs) – Status on August 2017

Number CNB/M/ (1)	Revision (Rev)	Key words	Approved by Horizontal Committee of NBs (2) on	Endorsed by Machinery Working Group on
00.001	37	Key addresses	12/12/2016	
00.100	03	Recommendation for Use sheets (RfUs) - Content - Addressees	26/06/2013	22/11/2013
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(1): CNB/M/xx.xxx RERev yy = Coordination of Notified Bodies/Machinery/Numbering of the RfUs
R: Recommendation for Use E: English version Rev: Revision yy: index of the Revision
(2): NBs = Notified Bodies

	CO-ORDINATION OF NOTIFIED BODIES **Machinery Directive 2006/42/EC + Amendment** **RECOMMENDATION FOR USE**	CNB/M/00.001 Revision 37 Language: E

Date of first stage: 01/03/2010		To be approved by:	Approved on:
Origin: Technical Secretariat		☐ Vertical Group ☑ Horizontal Committee ..... To be endorsed by: ☐ Machinery Working Group....	12/12/2016 xxxxxx Endorsed on: xxxxxxx
Question related to: Annex:	Article: ESR (1):	EN/prEN: Clause: CEN TC concerned:	Other: Other clause:

Key words: Key addresses

Question:

What are the key addresses of the European Co-ordination of the notified bodies for Machinery Directive?

Solution:

The key addresses of the coordination are given in the following pages.

EUROPEAN CO-ORDINATION FOR MACHINERY AND SAFETY COMPONENTS
CHAIRMAN, VICE-CHAIRMAN, SECRETARIATS AND CONVENORS OF THE CO-ORDINATION GROUP FOR NOTIFIED BODIES

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EUROPEAN CO-ORDINATION FOR MACHINERY AND SAFETY COMPONENTS
CHAIRMAN, VICE-CHAIRMAN, SECRETARIATS AND CONVENORS OF THE CO-ORDINATION GROUP FOR NOTIFIED BODIES

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EUROPEAN CO-ORDINATION FOR MACHINERY AND SAFETY COMPONENTS
CHAIRMAN, VICE-CHAIRMAN, SECRETARIATS AND CONVENORS OF THE CO-ORDINATION GROUP FOR NOTIFIED BODIES

V.G.or H.C N°	Title of the group	Convenor	Secretary	Organisation	Address
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EUROPEAN CO-ORDINATION FOR MACHINERY AND SAFETY COMPONENTS
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	CO-ORDINATION OF NOTIFIED BODIES **Machinery Directive 2006/42/EC + Amendment** **RECOMMENDATION FOR USE**	CNB/M/00.100 Revision 03 Language: E

Date of first stage: 22/04/2013	To be approved by:	Approved on:
Origin: Horizontal Committee	☑ Vertical Group..... ☑ Horizontal Committee ..... To be endorsed by: ☑ Machinery Working Group....	26/06/2013 Endorsed on: 22/11/2013

Question related to: Directive 2006/42/EC	Article:	EN/prEN:	Other:
Annex:	ESR (1):	Clause:	Other clause:
		CEN TC concerned:	

Key words: Recommendation for Use sheets (RfUs) – Content - Addressees

Question:

What are the acceptable purposes/contents of the RfUs and who are the addressees of the RfUs?

Solution:

1) Before bringing a Recommendation for Use sheet to the attention of the Horizontal Committee and after to the Machinery Working Group of the European Commission, the writers of the RfUs must apply the following tests:

1.1) Does the Recommendation for Use sheet add value, i.e. does it provide additional information that is not available in the directive or the relevant harmonised standard?

The added values can be for example as follows:

a) to support the interpretation of requirement(s) of standards and provide a solution;
b) to provide a solution that supersedes a too generic requirement of a standard by providing an alternative solution for a specific application;
c) to provide an additional solution besides those from the standard to meet the goal(s) of the MD in an alternative way.

If the RfUs do not add value, the issues raised by the document should be included in the minutes of the meeting of the relevant Vertical Group but not presented as Recommendation for Use sheet.

1.2) Is the Recommendation for Use sheet of a horizontal nature, i.e. applicable to more than one Vertical Group? Such questions should be agreed and documented at Vertical Group level and passed to the chairman of the Horizontal Committee and the Technical Secretariat for agreement and submission as a horizontal document.

1.3) Are the wordings of the Recommendation for Use sheet clear and so that readers who have not attended the Vertical Group or Horizontal Committee meetings can easily understand the question and answer?

1.4) Are the RfUs consistent with the actual safety level to be applied (e.g. wording of directive, standard, decision of the Machinery Working Group, publication of the European Commission, etc)? It is not permissible to specify a level of safety below that described in the above documents. Where realization of an adequate safety level can be achieved by a solution not described in a harmonized standard, evidence shall be provided in a transparent and comprehensible way that the Vertical Group solution meets the requirements and is therefore acceptable. Such evidence should be sufficient to support the solution in the event of challenge from a Member State.

(1) Essential safety requirement

Note: According to point 6.6 of the Guide of the implementation of directives based on the New Approach and the Global Approach, the notified bodies apply as general guidance this recommendation for use.

1.5) If the level of safety specified in the applicable standard appears to be too low, or if an aspect of a standard that is doubtlessly wrong or seems to not fully meet the goal of the MD, the relevant interested parties (CEN/CENELEC TC, European Commission) shall be informed immediately.
Before decision is taken, the Vertical Group shall discuss the matter in order to reach a common agreement on how to proceed with the assessment of the conformity.
However, if the questions require an urgent solution the notified body who detected the possible deficiency(ies) or mistake(s) can start within the VG members a quick enquiry in order to collect answers within a reasonable period of time (less than 3 months).
If the question(s) are deemed to be of general interest, the Horizontal Committee shall also be informed.
The Member States and the European Commission are automatically informed through the minutes of the meetings of the Horizontal Committee.

2) The RfUs, “endorsed” by the Machinery Working Group shall be sent firstly by the Technical Secretariat (TS) to the NBs who are responsible for their implementation. The TS shall send the “endorsed” RfUs to the CEN/CENELEC TCs and to the European Commission in order to be uploaded in EUROPA Website.
The manufacturer of the machinery concerned has the ongoing responsibility of ensuring that he said machinery meets the corresponding state of the art (Annex IX point 9.2). State of the art is described in the harmonised standards; RfUs provide explanations and rules for implementing the clauses of the harmonised standards.

3) The fact of a standard being transferred to the ISO does not change either its status or the status of RfUs.

4) If a manufacturer applies a technical solution described in a Recommendation for Use (RfU) which deviates from the technical solution described in a harmonised C-standard, he must submit an example of the machinery either for the EC type-examination referred to in Annex IX or for the Full quality assurance referred to in Annex X because the machinery would not totally comply with the harmonised C-standard.

	CO-ORDINATION OF NOTIFIED BODIES **MACHINERY DIRECTIVE 2006/42/EC + Amendment** **RECOMMENDATION FOR USE**	CNB/M/00.213 Revision 04 Language: E

Date of first stage: 16/07/1998	To be approved by:	Approved on:
Origin: Horizontal Committee - Generalization of CNB/M/11.018	☑ Vertical Group ..... ☑ Horizontal Committee.....	26/11/2009
	To be endorsed by: ☑ Machinery Working Group.....	Endorsed on: 09/04/2001

Question related to: Dir. 2006/42/EC	Article:	EN/prEN: EN ISO 13849-1:2008	Other:
Annex:	EHSR (1):	Normative clause:	Other clause:
		CEN TC concerned:	

Key words: EC type-examination, safety relevant aspects, omission of tests

Question: Within the framework of an EC type-examination account should be taken of all safety-relevant aspects (category, electrical insulation, environmental factors as vibration, EMC etc.). In which well-founded cases exceptions from this rule are admissible?

Solution:

In general a test can be omitted if a negative influence of performance and safety is not expected. Some examples may demonstrate how omissions can be justified:

1. For indoor applications tests with limited temperature ranges (o to 50°C) are admissible.

2. If the type tested is used in an indoor application and foreseen to be mounted in an enclosure of P-rate IP 54 the IP-rate test can be omitted.

3. In the case that safety-related controls consist only of electromechanical components EMC testing for immunity can be omitted.

4. If the type tested is foreseen to be used with an external converting equipment with fulfils the power supply voltage interruption requirements the supply voltage can be omitted.

All restrictions in the field of applications shall be mentioned in the EC type-examination certificate. However tests of safety relevant aspects cannot be omitted within framework of an EC type-examination, if cannot be ensured that all given requirements are fulfilled.

Adaptation procedure: FORMAL ADAPTATION IN CONFORMITY WITH DIRECTIVE 2006/42/EC

(1) Essential health and safety requirement

Note: According to point 6.6 of the Guide of the implementation of directives based on the New Approach and the Global Approach, the notified bodies apply as general guidance this recommendation for use.

EUROPEAN CO-ORDINATION MACHINERY OF NOTIFIED BODIES	**CO-ORDINATION OF NOTIFIED BODIES** **Machinery Directive 2006/42/EC + Amendment** **RECOMMENDATION FOR USE**	CNB/M/00.220 Revision 03 Language: E

Date of first stage: 17/05/2011	To be approved by:	Approved on:
Origin: Generalisation of CNB/M/01.005/R/E Rev 03 from VG1 Woodworking machinery	☑ Vertical Group ..... ☑ Horizontal Committee ..... To be endorsed by: ☑ Machinery Working Group....	13/12/2011 Endorsed on: 23/04/2012

Question related to: Directive 2006/42/EC Annex: I	Article: ESR (1): 1.3.7 and 1.4	EN/prEN: Clause: CEN TC concerned:	Other: Other clause:

Key words: Guards

Question:

Asuming a machine meets all essential safety requirements of the directive. The manufacturer of this machine adds for any reason an additional guard. Shall this additional guard meet all the requirements of the directive as defined for guards in clause 1.4?

Solution:

Yes.
Any part of a machine regarded as a safety guard shall meet all the requirements of the directive as defined for guards in clause 1.4.

E.g.:
A manufacturer fits a fixed guard, which prevents access to a hazard area, with an interlocking not required by the directive or the relevant standards. The interlocking might be understood as a safe shut off of all hazard movements of machine parts behind the fixed guard and the user may omit turning the power switch. Both the fixed guard and the interlocking shall comply with the relevant requirements in annex I of the machinery directive.

(1) Essential safety requirement
Note: According to point 6.6 of the Guide of the implementation of directives based on the New Approach and the Global Approach, the notified bodies apply as general guidance this recommendation for use.

EUROPEAN CO-ORDINATION MACHINERY OF NOTIFIED BODIES	**CO-ORDINATION OF NOTIFIED BODIES** **MACHINERY DIRECTIVE 2006/42/EC + Amendment** **RECOMMENDATION FOR USE**	CNB/M/00.230 Revision 04 Language: E

Date of first stage: 06/06/1997	To be approved by:	Approved on:
Origin: Horizontal Committee - generalization of CNB/M/11.022	☐ Vertical Group..... ☑ Horizontal Committee ..... To be endorsed by: ☑ Machinery Working Group..	15/06/2010 Endorsed on: 30/12/2010

Question related to: Dir. 2006/42/EC	Article:	EN/prEN:	Other:
Annex: I	EHSR (1): 1.5.1	Clause:	Other clause:
		CEN TC concerned:	

Key words: Low voltage, tests, report, declaration, electrical components

Question:

To what extent can a notified body accept certificates for electromechanical components of machinery?

Solution :

The intention is to create a document that may be used by all Notified Bodies to determine the acceptability of electrical components.

EXAMPLES

I. The list of components given in the columns is non exhaustive and only meant as indication.

2. In all cases, the actual use of the component has to be considered and it has to be decided if it is used as a functional or as a safety component.

3. It should be checked whether the declaration and/or certificate of conformity with a specific directive (EMC, Low voltage) or a standard allow to cover the specific requirements of the machinery directive for the component concerned.

(1) Essential health and safety requirement

Note: According to point 6.6 of the Guide of the implementation of directives based on the New Approach and the Global Approach, the notified bodies apply as general guidance this recommendation for use.

AVAILABLE COMPONENT INFORMATION	COMPONENT IS USED AS:		
	FUNCTIONAL COMPONENT	SAFETY RELATED COMPONENT	SAFETY COMPONENT (not covered by Annex IV)
	Failure of the component does not decrease the safety level	Failure of the component causes a limited decrease of safety	Failure leads to unacceptable decrease of safety
Manufacturer's specifications No conformity mark and no reference to compliance with standards	Y	N	N
Manufacturer's specifications with reference to a standard No conformity mark No declaration of Conformity	Y	Y(1)	N
Manufacturer's specifications +Declaration of Conformity	Y	Y	Y
Voluntary conformity marks	Y	Y	Y(2)
	EXAMPLES Plugs and sockets(3) Cables Push-buttons Pilot lights Switches/contactors/timers El. Magnetic valves Temp. controls Motor start capacitor	See below (A)	See below (B)

In all cases it is assumed that components operate within their specified limits
Y= The notified body may accept the component with the information certificate provided
N= The notified body shall not accept the component as such other types of certificate or additional testing are needed

(1) if manufacturer states in writing that he has followed the standard
(2) only if test report shows that the safety functions have been checked as well
(3) strictly speaking plugs and sockets outlets for domestic use are not under the low voltage directive.

(A): EXAMPLES Transformers. Temp. limiters. Position Switches without positive opening operation. Motor protectors. Overload protectors. Main power switches. Power supply units. Fuses
(B): EXAMPLES: see Machinery Directive Annex V (Note: some of the safety components listed in Annex V are also listed in Annex IV)

	CO-ORDINATION OF NOTIFIED BODIES **MACHINERY DIRECTIVE 2006/42/EC + Amendment** **RECOMMENDATION FOR USE**	CNB/M/00.240 Revision 03 Language: E

Date of first stage: 30/09/1996	To be approved by:	Approved on:
Origin: Horizontal Committee - generalization of CNB/M/03.003	☐ Vertical Group..... ☑ Horizontal Committee ..... To be endorsed by: ☑ Machinery Working Group..	26/11/2009 Endorsed on: 08/06/1998

Question related to: Dir. 2006/42/EC	Article:	EN/prEN:	Other:
Annex: IX-Point 2 et Annex VII-A 1, b)	EHSR (1):	Clause:	Other clause:
		CEN TC concerned:	

Key words: Internal arrangements, series production, quality assurance

Question:

In the EC type-examination requested dossier what shall "the internal arrangements for maintaining the conformity of machines and safety components manufactured in series" contain? What are the acceptance criteria for the Notified Body?

Solution:

Annex IX point 2. and Annex VII-A 1. b) require that the technical dossier contains the internal arrangements established to ensure that the conformity of machines and safety components manufactured in series meet the requirements of the Directive.

The notified body cannot require the manufacturer to present a quality manual conforming to the series EN ISO 9-000 standards (preferably 9001). If the firm has set up such a system it is enough to have a copy of the certificate. Otherwise, the notified body will satisfied with a commitment from the manufacturer to ensure the homogeneity of manufacturing together with a concise description of the means of control. The controlling may rest on :

- foreign bought parts, components,
- during production,
- final check before delivering the machines/safety components.
- check list for the final check
- external compliance

Adaptation procedure: FORMAL ADAPTATION IN CONFORMITY WITH DIRECTIVE 2006/42/EC

(1) Essential health and safety requirement

Note: According to point 6.6 of the Guide of the implementation of directives based on the New Approach and the Global Approach, the notified bodies apply as general guidance this recommendation for use.

	CO-ORDINATION OF NOTIFIED BODIES **Machinery Directive 2006/42/EC + Amendment** **RECOMMENDATION FOR USE**	CNB/M/00.251 Revision 06 Language: E

Date of first stage: 09/11/2010		To be approved by:	Approved on:
Origin: Horizontal Committee		☐ Vertical Group ..... ☑ Horizontal Committee ..... To be endorsed by: ☑ Machinery Working Group....	28/06/2012 Endorsed on: 17/01/2013
Question related to: Directive 2006/42/EC Annex: IX	Article: 12.3 b), 12.4 a) ESR (1):	EN/prEN: Clause: CEN TC concerned:	Other: Other clause:

Key words: EC type-examination of a modified Machinery

Question:

How must a Notified Body (NB2) deal with an application of an assessment of conformity (EC type-examination) for a modified machinery while the base machinery was assessed by a Notified Body (NB1) who is different from NB2 and who delivered an EC type-examination certificate to the base machinery?

Solution:

The manufacturer has to address the NB1 when he makes changes to a machine (see Machinery Directive); NB1 will assess what impact the intended modifications may have on the validity of the EC type-examination certificate he issued. If NB1 reaches the conclusion that machinery, when subject to the envisaged modifications, will no longer be covered by the original EC type-examination certificate, he will inform the manufacturer about his conclusion.

If the manufacturer decides to go ahead and implement the envisaged changes, he must change the type and he has to make a new application in order to assess conformity with essential health and safety requirements of the Machinery directive. Such application may in this case be made to other NB2 that the manufacturer chooses. NB2 is responsible for the whole new type and it's up to the NB2 to accept technical files, certificates (e.g. for type approved Annex IV safety components) and /or test reports.

(1) Essential safety requirement

Note: According to point 6.6 of the Guide of the implementation of directives based on the New Approach and the Global Approach, the notified bodies apply as general guidance this recommendation for use.

EUROPEAN CO-ORDINATION MACHINERY OF NOTIFIED BODIES	**CO-ORDINATION OF NOTIFIED BODIES** **Machinery Directive 2006/42/EC + Amendment** **RECOMMENDATION FOR USE**	CNB/M/00.252 Revision 03 Language: E

Date of first stage: 05/06/2009	To be approved by:	Approved on:
Origin: Generalisation of CNB/M/11.048/R/E Rev 01 from VG11 Safety components	☑ Vertical Group..... ☑ Horizontal Committee	26/10/2010 14/12/2010
	To be endorsed by: ☑ Machinery Working Group....	Endorsed on: 23/05/2011

Question related to: Directive 2006/42/EC	Article:	EN/prEN:	Other:
Annex: IX	ESR (1):	Clause:	Other clause:
		CEN TC concerned:	

Key words: EC type-examination, series manufacture, internal checks

Question:

Article 12 lists as one possible procedure for assessing the conformity in its point 3 (b) the following:
"The EC type-examination procedure provided for in Annex IX, plus the internal checks on the manufacture of machinery provided for in Annex VIII, point 3."

Does a Notified Body carrying out an EC type-examination also have to assess these internal checks, i.e. all measures necessary in order that the manufacturing process ensures compliance of the manufactured machinery with the technical file?

Solution:

Reminder: "EC type-examination is the procedure whereby a notified body ascertains and certifies that a representative model of machinery referred to in Annex IV (hereafter named the type) satisfies the provisions of this Directive."

No, the type-examination procedure described in Annex IX does not include the "assessment of conformity with internal checks on the manufacture of machinery" (Annex VIII).

According to Annex VII, point 1 b) "for series manufacture, the internal measures that will be implemented to ensure that the machinery remains in conformity with the provisions of this Directive" are part of the technical file.

Part of work of a Notified Body in performing an EC type-examination is to examine the technical file (see Annex IX, point 3.1). Therefore in case of series manufacture of a machine the Notified Body has to check also the measures foreseen by the manufacturer. The Notified Body has to check whether such measures exist and whether they seem appropriate, but does not have to perform production surveillance.

(1) Essential safety requirement

Note: According to point 6.6 of the Guide of the implementation of directives based on the New Approach and the Global Approach, the notified bodies apply as general guidance this recommendation for use.

	CO-ORDINATION OF NOTIFIED BODIES **Machinery Directive 2006/42/EC + Amendment** **RECOMMENDATION FOR USE**	CNB/M/00.254 Revision 04 Language: E

Date of first stage: 29.8.2013		To be approved by:	Approved on:
Origin: Horizontal Committee		☐Vertical Group..... ☑ Horizontal Committee..... To be endorsed by: ☑ Machinery Working Group....	18/06/2014 Endorsed on: 08/01/2015
Question related to: Directive 2006/42/EC	Article:	EN/prEN:	Other:
Annex: IX 9.3	ESR (1):	Clause:	Other clause:

		CEN TC concerned:

Key words: EC type-examination certificate, validity, renewal by original NB

§400 of the Guide to the MD states in matters of section 9.3 of annex IX:

“When reviewing an EC type-examination certificate, the Notified Body shall examine the technical file for the machinery in the light of any significant evolution of the state of the art over the elapsed five-year period.”

Question:
What are the minimum information and types of documents the NB has to request from the client when it wants to review the validity of the EC type-examination certificate?

Answer:
A manufacturer who considers his machine not to be modified and who wants to renew his EC type-examination certificate shall be requested to send to the notified body a written request which shall be accompanied, at least, by the following information and documents:

- Confirmation of the name and location of the current manufacturer,
- Confirmation that there were no modifications made to the machine with respect to the former type-examination, including all versions, components and optional assets,
- Pictures and drawings of the current machine,
- Confirmation that the manufacturer has received no complaints related to the safety of the machine during the last five years.

The manufacturer is free to send any additional documents supporting his request for renewal. The NB is in the responsibility to request further documents of its own choice.

All documents shall be examined in relation to the requirements of the current version of the Machinery Directive.

If the NB is convinced that the machine has not been significantly modified and still complies with all requirements of the Machinery Directive, it will renew the EC type-examination certificate according section 4 of Annex IX. In any case it is at the liberty of the NB to not rely on the documents but to carry out verifications on a sample of the machinery.

	CO-ORDINATION OF NOTIFIED BODIES **Machinery Directive 2006/42/EC + Amendment** **RECOMMENDATION FOR USE**	CNB/M/00.255 Revision 03 Language: E

Date of first stage: 07/06/2013	To be approved by:	Approved on:
Origin:	☐ Vertical Group..... ☑ Horizontal Committee ..... To be endorsed by: ☑ Machinery Working Group....	10./12/2013 Endorsed on: 15/04/2014

Question related to: Directive 2006/42/EC	Article:	EN/prEN:	Other:
Annex: I	ESR (1): 1.2.1	Clause:	Other clause:
		CEN TC concerned:	

Key words: Performance Levels, categories, SILs, hardware fault tolerance

Question:

Some type-C standards define requirements on the safety-related parts of the control systems as follows:

"Safety-related parts of control systems shall be designed so that they comply
- with **PL d** with structure **category 3** as described in ISO 13849-1:2006, or
- with **SIL 2** with a **hardware fault tolerance of 1** with a proof test interval of not less than 20 years, as described in IEC 62061:2005."

Will a safety-related part of a control system complying with **SIL 3** with a **hardware fault tolerance of 0** fulfil this requirement?

Solution:

No.

The probability of a dangerous failure, expressed either in PL or in SIL is one requirement.

The structure of the safety-related parts of the control system, expressed in categories or in hardware fault tolerance, is another requirement.

Both requirements have to be fulfilled independently.

(1) Essential safety requirement

Note: According to point 6.6 of the Guide of the implementation of directives based on the New Approach and the Global Approach, the notified bodies apply as general guidance this recommendation for use.

EUROPEAN CO-ORDINATION MACHINERY OF NOTIFIED BODIES	**CO-ORDINATION OF NOTIFIED BODIES** **MACHINERY DIRECTIVE 2006/42/EC + Amendment** **RECOMMENDATION FOR USE**	CNB/M/00.301 Revision 03 Language: E

Date of first stage: 12/05/1997	To be approved by:	Approved on:
Origin: Horizontal Committee	☐ Vertical Group ..... ☑ Horizontal Committee.....	26/11/2009
	To be endorsed by:	Endorsed on:
	☑ Machinery Working Group..	08/06/1998

Question related to: Dir. 2006/42/EC	Article:	EN/prEN: EN 1005-2: 2003/A1 :2008	Other:
Annex:	EHSR (1):	Clause:	Other clause:
		CEN TC concerned:	

Key words: Component, manual handling

Question: What criteria should be taken into account when evaluating if a component can be transported by hand?

Solution:

The principal criteria to be taken into consideration are :

. the mass of the component

by component we mean all components used during the maintenance

. the dimensions of the component.

The maximum permitted mass per person is worked out according to the maximum distance between lifting and laying, as per the following table, and under no circumstances can exceed 25 Kg (in accordance with Directive 90/269/EEC, see also EN 1005-2:2003/A1:2008 safety of machinery. Human safety performance Part 2: Manual handling of machinery and component parts of machinery). Otherwise, standardised gripping devices which can be used in conjunction with slings, hooks, lifting rings or more simply cut holes must be foreseen for handling, and the instruction handbook should give all the necessary instructions.

Regardless of their weight, machine components which are more hazardous due to sharp areas, bulky shapes, slippery lubricated surfaces, etc. must be fitted with appropriate devices to ease handling.

Adaptation procedure: FORMAL ADAPTATION IN CONFORMITY WITH DIRECTIVE 2006/42/EC

(1) Essential health and safety requirement

Note: According to point 6.6 of the Guide of the implementation of directives based on the New Approach and the Global Approach, the notified bodies apply as general guidance this recommendation for use.

Where the mass of a component to be handled is not obvious, (a strengthened, heat insulating guard for example), an indication regarding its sturdiness must be affixed to the guard itself.

The notified body should ensure that the instruction handbook gives all the details pertinent to the handling of these components.
The mass of components exceeding 25 Kg must be mentioned in the instruction handbook.

MASS (m) (kg)	MAXIMUM DISTANCE BETWEEN LIFTING AND LAYING (m)	
	HORIZONTAL DIRECTION	VERTICAL DIRECTION
0<m<=	1,2	1
10<m<=	1	0,8
15<m<=	0,8	0,6

	CO-ORDINATION OF NOTIFIED BODIES **MACHINERY DIRECTIVE 2006/42/EC + Amendment** **RECOMMENDATION FOR USE**	CNB/M/00.302 Revision 04 Language: E

Date of first stage: 30/09/1996		To be approved by:	Approved on:
Origin: Horizontal Committee		☐ Vertical Group ..... ☑ Horizontal Committee.....	26/11/2009
		To be endorsed by: ☑ Machinery Working Group..	Endorsed on: 08/06/1998
Question related to: Dir. 2006/42/EC	Article:	EN/prEN:	Other:
Annex: I	EHSR (1): 1.5.4	Clause: CEN TC concerned:	Other clause:

Key words: Machinery, Errors of fitting

Question:

How can the prevention of errors of fitting components making up machinery or errors of connection likely to leaf to a risk be ensured? What criteria should be retained to ensure that the instructions of the manufacturer prevent errors of fitting or connection?

Solution: Ensure that in the documentation:

1°) in the case of pre-fitting

- the "pre-fitting" of items or couplings has already been carried out by the manufacturer. In these circumstances the handbook must provide the information necessary for any possible dismounting operation as well as on the risks likely to result from an error of fitting where there is the possibility of interchangeability..

2°) without pre-fitting

- the items or couplings are fitted with polarizing slots in the case where "pre-fitting" has not previously been carried out. These devices should be strong enough not to break or deform if incorrect fitting is attempted .
- the items or couplings must be identified by means of markings or distinctive colours when 'pre-fitting' and fitting of polarizing slots are not feasible. These markings must be affixed directly on the items and/or on their housing. If a direction of movement is required this should be indicated on the items and/or on their housing. The handbook must provide information regarding the risks likely to result from an error of fitting.

In all circumstances the handbook must explain the fitting and dismounting phases, and the cautions must de drafted clearly.
Ensure by means of inspection that :

- the pre-fitting is in conformity with the documentation
- the polarising slots are efficient,
- the markings are adequate

Adaptation procedure: FORMAL ADAPTATION IN CONFORMITY WITH DIRECTIVE 2006/42/EC

(1) Essential health and safety requirement

Note: According to point 6.6 of the Guide of the implementation of directives based on the New Approach and the Global Approach, the notified bodies apply as general guidance this recommendation for use.

EUROPEAN CO-ORDINATION MACHINERY OF NOTIFIED BODIES	**CO-ORDINATION OF NOTIFIED BODIES** **MACHINERY DIRECTIVE 2006/42/EC + Amendment** **RECOMMENDATION FOR USE**	CNB/M/00.502 Revision 06 Language: E

Date of first stage: 05/02/1999	To be approved by:	Approved on:
Origin: Horizontal Committee	☐ Vertical Group ..... ☑ Horizontal Committee.....	15/06/2010
	To be endorsed by: ☑ Machinery Working Group.....	Endorsed on: 30/12/2010

Question related to: Dir. 2006/42/EC	Article:	EN/prEN:	Other:
Annex: I	EHSR (1): 1.5.10 and 1.5.11	Clause:	Other clause:
		CEN TC concerned:	

Key words: EMC, Emissions, Immunity.

Question: How to take account of electromagnetic effects in the context of the machinery directive?

Solution:

Generally speaking, the machinery directive and the EMC directive are complementary (see the European Commission's compatibility guide mentioned below). Neither of the directives can be considered specific, given the different nature of the essential requirements defined by the two directives (radiation and employee safety for the machinery directive and electromagnetic compatibility for the EMC directive).

This being said, it should be borne in mind that there are two aspects to the problem:

- Emissions (not causing interference in the environment): this point is raised in paragraph 1.5.10 of Annex I of the machinery directive (risks due to radiation). It has two facets:
  - induced effects on the performance of machinery and equipment: : this aspect is covered by the EMC directive ;
  - the physiological effects on human beings : this aspect is adequately covered by, among others, the IRPA (1) and NRPB (2) guides. For conventional machines, there is normally no risk in this field.

  The analysis of these risks by the manufacturer is compulsory.

- Immunity (not being influenced by electromagnetic interference): this point is raised in paragraph 1.5.11 of Annex I of the machinery directive (risks due to external radiation). Electromagnetic interference also constitutes an external influence under paragraph 1.2.1. The manufacturer must ensure that the interference does not create a dangerous situation. According to the directive, there must not be:
  - the machinery must not start unexpectedly;
  - the parameters of the machinery must not change in an uncontrolled way, where such change may lead to hazardous situations,
  - the machinery must not be prevented from stopping if the stop command has already been given;
  - no moving part of the machinery or piece held by the machinery must fall or be ejected;
  - automatic or manual stopping of the moving parts, whatever they may be, must be unimpeded ;
  - the protective devices must remain fully effective or give a stop command.

  It is also clear that interference must not cause the machine to make sudden random movements.

(1) Essential health and safety requirement

Note: According to point 6.6 of the Guide of the implementation of directives based on the New Approach and the Global Approach, the notified bodies apply as general guidance this recommendation for use.

The manufacturer and any notified body which may be involved in the conformity assessment process must ensure that these rather particular aspects are properly dealt with. We should bear in mind that effects of interference on the machine are covered specifically by the EMC directive and not the machinery directive. The following are possible approaches:

- reports drawn up by competent EMC bodies;
- declarations of conformity to the EMC directive for components, apparatus, systems forming part of the machine;
- analysis of the electrical circuit to determine whether the electromagnetic interference is likely to create a dangerous situation. The designer may have decided to guarantee immunity by using electromechanical devices which are not vulnerable to interference. In this case of complex control circuits, the manufacturer must make a risk analysis to evaluate the effect of faults. This analysis is to be included in the technical file.

It is often impossible to verify by testing whether a large machine is immune. In this case, the immunity of the electronic control systems and safety components is to be checked.

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(2) = National Radiological Protection Board
Chilton - Didcot - Oxon - United Kingdom