

Market access for trapped-key systems



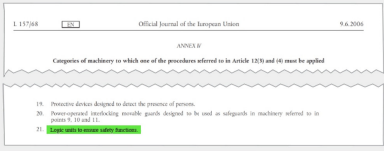
**DO NOT LET YOURSELF BE FOOLED:**

**BEWARE OF THE REQUIREMENTS OF THE MACHINERY DIRECTIVE 2006/42/EC**



**Market access for trapped-key systems is only possible via special conformance assessment!**

Haake & ISS Safety Ltd pay great attention to the fulfillment of all relevant requirements of the Machinery Directive 2006/42/EC for their trapped-key systems. According to the "Recommendations for use (RecUse)" trapped-key systems are logic units to ensure safety functions. This is how they are classified in Annex IV No. 21 of the Machinery Directive.



All member states of the European Machinery Commission are represented in the European Machinery Committee. The European Commission publishes the full text of the "RecUse" on their website: [http://ec.europa.eu/enterprise/sectors/mechanical/documents/legislation/machinery/notified-bodies/index\\_en.htm](http://ec.europa.eu/enterprise/sectors/mechanical/documents/legislation/machinery/notified-bodies/index_en.htm)

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		<b>CO-ORDINATION OF NOTIFIED BODIES</b> Machinery Directive 2006/42/EC + Amendment <b>RECOMMENDATION FOR USE</b>		CNBM/11.045 Revision 06 Language: E
Date of first stage: 25/10/2010 Origin: VG11 Safety components		To be approved by: <input checked="" type="checkbox"/> Vertical Group <input checked="" type="checkbox"/> Horizontal Committee		Approved on: 17/10/2011 13/12/2011
Question related to: Directive 2006/42/EC Article: Annex: IV-21 ESR (1):		To be endorsed by: <input checked="" type="checkbox"/> Machinery Working Group		Endorsed on: 04/07/2012
Key words: Logic units to ensure safety functions		EN/prEN: Clause: CEN TC concerned:		Other: Other clause:
Question: What are logic units to ensure safety functions according to Annex IV, 21?				
Solution: Logic units to ensure safety functions are sub-systems, which perform safety functions by the interconnecting of elements. They process				

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**Logic units to ensure safety functions according to Annex IV, 21 include e.g.:**

- Proximity devices for safety functions (for example PDF-X according to EN 60947-5-3);
- Interlocking devices with electromagnetic guard locking (e.g. locking by magnetic force as opposed to locking with a bolt) for safety functions according to EN ISO 14119 (for protection of persons);  
Note: EN ISO 14119 is currently under examination
- Trapped-key interlocking systems for safety functions, where the algorithm is included in the system;**
- Protective devices for indirect detection of the presence of persons, for example by the use of non-UV technology;
- Protective devices for the detection and deactivation of possible hazards (not a warning system only), such as the detection of laser radiation;

For trapped-key systems no harmonised standards exist. In this case the article 12 of the Machinery Directive allows two conformance assessment procedures. The manufacturers of trapped-key systems can choose one of them.

Article 12  
**Procedures for assessing the conformity of machinery**

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4. Where the machinery is referred to in Annex IV and has not been manufactured in accordance with the harmonised standards referred to in Article 7(2), or only partly in accordance with such standards, or if the **harmonised standards do not cover** all the relevant essential health and safety requirements, the manufacturer or his authorised representative shall apply one of the following procedures:

(a) **the EC type-examination procedure provided for in Annex X, plus the internal checks on the manufacture of machinery provided for in Annex VIII, point 3;**

(b) **the full quality assurance procedure provided for in Annex X.**



- Procedures 1:** EC type-examination procedure plus the internal checks during the manufacture of safety components.
- Procedures 2:** The full quality assurance system

In both procedures notified bodies are to be contacted. To be able to react to customer demands as quickly as possible, Haake & ISS have opted for the full quality assurance system. Consequently for implemented Quality Management System ISO 9001 the directive standards to the competence areas:

- Design,
- Manufacture
- Final inspection and testing

are integrated. The notified body "Test and certification body Fachausschuss Elektrotechnik" values and approves the quality system and monitors its application. Thus it is guaranteed that especially in the design area the relevant safety aspects of the Machinery Directive are already integrated. The annual monitoring of the full quality assurance system by the notified body gives our designers, as well as all workers integrated in the manufacturing process the security, that our customers always get trapped-key systems that fulfill the standards of the Machinery Directive. If you order trapped-key systems you must be aware of the procedures for assessing the conformity which the manufacturer applies. If in doubt, ask before ordering. The procedure of conformity to trapped-key systems must be declared in the EC conformity declaration. Check the statement. Only trapped-key systems which run through one of the two procedures fulfill the standards of the Machinery Directive.

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**SAFETY FOR MAN, MACHINERY AND PROCESS**

Should you have any questions to the current Machinery Directive 2006/42/EC do not hesitate to contact us.