



Evaluation of 2009/104/EC Work Equipment Directive and its interplay with related Directives

Committee of Senior Labour Inspectors (SLIC)

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This paper on the evaluation of Directive 2009/104/EC and its interplay with 2006/42/EC was prepared by the SLIC WG MACHEX sub-group Review EU OSH legislation (Portugal, Italy, Netherlands, Cyprus, France, Sweden, United Kingdom and Spain)

Clauses of Directive 2009/104/EC	Related presentations made by member states	Improvement proposals
<p>Article 5 - Inspection of work equipment</p> <p>1. The employer shall ensure that where the safety of work equipment depends on the installation conditions, it shall be subject to an initial inspection (after installation and before first being put into service) and an inspection after assembly at a new site or in a new location by competent persons within the meaning of national laws and/or practices, to ensure that the work equipment has been installed correctly and is operating properly.</p> <p>2. In order to ensure that health and safety conditions are maintained and that deterioration liable to result in dangerous situations can be detected and remedied in good time, the employer shall ensure that work equipment exposed to conditions causing such deterioration is subject to:</p> <p>(a) periodic inspections and, where appropriate, testing by competent persons within the meaning of national laws and/or practices;</p> <p>(b) special inspections by competent persons within the meaning of national laws and/or practices each time that exceptional circumstances which are liable to jeopardise the safety of the work equipment have occurred, such as modification work, accidents, natural phenomena or prolonged periods of inactivity.</p> <p>3. The results of inspections shall be recorded and kept at the disposal of the authorities concerned. They must be kept for a suitable period of time.</p> <p>When work equipment is used outside the undertaking it shall be accompanied by physical evidence that the last inspection has been carried out.</p> <p>4. Member States shall determine the conditions under which such inspections are made.</p>	<p>Crane project Doc. (CY, Machex 2008.13)</p> <p>ESTA presentation at MACHEX 2011 meeting in Luxembourg (ESTA, Machex 2011_19)</p> <p><i>ESTA: The overload testing in these 11 European countries are based on requirements from the authorities, requirements, that in most countries dates back to the 1970'ties, not reflecting the significant change in steel types used today in the booms and other vital crane parts, and not taking into consideration, today's very sophisticated calculation methods used, during design and construction of a new mobile crane.</i></p> <p>Overload testing of cranes in use (DK, Machex 2013_20)</p> <p><i>DK, FEM: FEM supports CEN/TC 147/WG11 in the development of an amendment of EN13000:2010 with recommendations on inspections and examinations to be included in the manual of mobile cranes.</i></p>	<p>Note 1: COM_EMPL published non binding guidance:</p> <p><i>“Non-binding guidance to ensure a minimum standard of competence of persons who carry-out periodic and assembly examinations of tower and mobile cranes” (Doc.1598_EN).</i></p> <p>Note 2:</p> <p>Users should take into account manufacturers recommendation for inspection</p> <p>Note 3:</p> <p>This is a complex and difficult area. Member states have their own regulatory approach to this issue.</p> <p>The commission might wish to consider a sectoral approach when considering additional guidance.</p>
<p>Article 4 - Rules concerning work equipment</p> <p>1. Without prejudice to Article 3, the employer shall obtain and/or use:</p> <p>(a) work equipment which, if provided to workers in the undertaking or establishment for the first time after 31 December 1992, complies with:</p> <p>(i) the provisions of any relevant Community directive which is applicable;</p> <p>(ii) the minimum requirements laid down in Annex I, to the extent that no other Community directive is applicable or is so only partially;</p> <p>(b) work equipment which, if already provided to workers in the undertaking or establishment by 31 December 1992, complies with the minimum requirements laid down in Annex I no later than 4 years after that date;</p> <p>(c) without prejudice to point (a)(i), and by way of derogation from point (a)(ii) and point (b), specific work equipment subject to the requirements of point 3 of Annex I, which, if already provided to workers in the undertaking or establishment by 5 December 1998, complies with the minimum requirements laid down in Annex I, no later than 4 years after that date.</p> <p>2. The employer shall take the measures necessary to ensure that, throughout its</p>	<p>Case 1: new standards</p> <p>How to deal with machinery in use manufactured according to older standards. Interplay with directive 2006/42/EC (SE, Machex 2014_14, 2014_15)</p> <p><i>SE: A new harmonized standard has been published in OJ. The old standard contained a technical requirement which is no longer acceptable and is also considered unsafe.</i></p> <p><i>Since it is no longer possible to make a formal objection against the standard requirements have to be based on the Machinery Directive itself.</i></p> <p><i>The requirements will be directed to users and shall not be considered as a recall or withdrawal to be made by the manufacturer.</i></p> <p><i>This will be handled by the national Health and Safety Authority</i></p>	<p>Note 4:</p> <p>The risks of machinery should be reassessed by the employer taking into account the evolution of the state of the art in matter of worker protection.</p>

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<p>Article 8 - Informing workers</p> <p>1. Without prejudice to Article 10 of Directive 89/391/EEC, the employer shall take the measures necessary to ensure that workers have at their disposal adequate information and, where appropriate, written instructions on the work equipment used at work.</p> <p>2. The information and the written instructions shall contain at least adequate safety and health information concerning:</p> <p>(a) the conditions of use of work equipment;</p> <p>(b) foreseeable abnormal situations;</p> <p>(c) the conclusions to be drawn from experience, where appropriate, in using work equipment.</p> <p>Workers shall be made aware of dangers relevant to them, work equipment present in the work area or site, and any changes affecting them, inasmuch as they affect work equipment situated in their immediate work area or site, even if they do not use such equipment directly.</p> <p>3. The information and the written instructions shall be comprehensible to the workers concerned.</p>	<p>SLIC-KSS Labour Inspection Network and Exchange System (COM-EMPL, 2009_13)</p> <p>Safety alert system (UK, Machex 2010_012)</p> <p><i>“The employer shall take the measures necessary to ensure that workers have at their disposal adequate information....”</i></p> <p><i>Authorities should provide information regarding unsafe situations detected during use of work equipment</i></p>	<p>Note 6:</p> <p>Provisions should be taken at national and european level to ensure the systematic exchange of information on safety of work equipment between member states authorities.</p> <p>The Commission should consider to make a better use of existing systems for the exchange of information (ICSMS, KSS, ...) not only related with machinery safety but also with other work equipment.</p>
<p>Article 9 - Training of workers</p> <p>Without prejudice to Article 12 of Directive 89/391/EEC, the employer shall take the measures necessary to ensure that:</p> <p>(a) workers given the task of using work equipment receive adequate training, including training on any risks which such use may entail;</p> <p>(b) workers referred to in Article 6(b) receive adequate specific training.</p> <p>Annex 2 - 2. Provisions concerning the use of mobile equipment, whether or not self-propelled</p> <p>2.1. Self-propelled work equipment shall be driven only by workers who have been appropriately trained in the safe driving of such equipment.</p> <p>Annex 2 – 4.3.6</p> <p>4.3.6. Scaffolding may be assembled, dismantled or significantly altered only under the supervision of a competent person and by workers who must have received appropriate and specific training in the operations envisaged</p> <p>a) understanding of the plan for the assembly, dismantling or alteration of the scaffolding concerned;</p> <p>(b) safety during the assembly, dismantling or alteration of the scaffolding concerned;</p>	<p>The European crane operator (ESTA, Machex 2013)</p> <p>Crane project Doc. (CY, Machex 2008.13):</p> <p>AT: Competence of the Operator: Special training required for the operators of cranes above 50kN or 100kNm (AT),</p> <p>DK: Special education is required. 6 different certificate types depending on crane type (DK).</p> <p>FI: There are requirements concerning operator's competence for truck loading cranes (with loading moment of more than 25 ton meters, and when the crane is used or meant to be used primarily for any other purposes than vehicle loading), and for tower cranes, and for carrier mounted cranes</p> <p>IE: Must possess relevant construction skills certificate</p> <p>LT: The crane operators must have competence/accreditation/to operate namely the categories/types/of cranes</p> <p>SK: The crane operator has to have a licence for each type of crane except for the MOC-in that case he has to be assigned to the task by the employer.</p> <p>NL: For types CC,CRC,TC,TLC>2t(also outside construction sites see www.tcv.nl)</p> <p>An update for MACHEX colleagues on the outcome of the recent survey undertaken on fork lift truck training across EU November 2007 – January 2008 (UK, Machex 2008_23)</p>	<p>Note7/8: The Directive identifies basic training requirements for self-propelled machinery and scaffolding assembly, but not for load lifting equipment.</p> <p>Note 9: Clarify the difference between “Adequate” vs “appropriate” vs “specific training” or use the same wording in all of the text.</p> <p>Note 10: The Commission should also consider adding minimum content for the training of self-propelled machinery and load lifting equipment operators.</p>

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<p>(c) measures to prevent the risk of persons or objects falling;</p> <p>(d) safety measures in the event of changing weather conditions which could adversely affect the safety of the scaffolding concerned;</p> <p>(e) permissible loads;</p> <p>(f) any other risks which the abovementioned assembly, dismantling or alteration operations may entail.</p> <p>The person supervising and the workers concerned must have available the assembly and dismantling plan referred to in 4.3.2., including any instructions it may contain.</p>	<p>Crane-operators from outside (NL, Machex 2007:11);</p> <p>Role of Accrediting bodies in Member States for FLT (and other workplace transport) training (UK, Machex 2007:18);</p> <p>ESTA presentation at MACHEX 2011 meeting in Luxembourg (ESTA, Machex 2011_19)</p>	
<p>Annex 1 - 3.1.6. Self-propelled work equipment which may, when in motion, engender risks for persons must fulfil the following conditions:</p> <p>(a) the equipment must have facilities for preventing unauthorised start-up;</p> <p>(b) it must have appropriate facilities for minimising the consequences of a collision where there is more than one item of track-mounted work equipment in motion at the same time;</p> <p>(c) there must be a device for braking and stopping equipment. Where safety constraints so require, emergency facilities operated by readily accessible controls or automatic systems must be available for braking and stopping equipment in the event of failure of the main facility;</p> <p>(d) where <i>the driver's direct field of vision is inadequate</i> to ensure safety, adequate auxiliary devices must be installed to improve visibility;</p> <p>(e) work equipment designed for use at night or in dark places must be equipped with lighting appropriate to the work to be carried out and must ensure sufficient safety for workers;</p> <p>(f) work equipment which constitutes a fire hazard, either on its own or in respect of whatever it is towing or carrying, and which is liable to endanger workers must be equipped with appropriate fire-fighting appliances where such appliances are not available sufficiently nearby at the place of use;</p> <p>(g) remote-controlled work equipment must stop automatically once it leaves the control range;</p> <p>(h) remote-controlled work equipment which may in normal conditions engender a crushing or impact hazard must have facilities to guard against this risk, unless other appropriate devices are present to control the impact risk.</p>	<p>Safety with Telehandlers, practical aspects and experiences for getting better vision for the driver (UK, Doc Machex 2004:11)</p> <p>Surveillance project concerning industrial forklift trucks (FI, Machex 2008:27)</p> <p>Earth moving machinery imported from outside EU. (FI, Machex 2006:5, 2006:11)</p> <p>ACSHW Safety of Mobile Machinery in use in Mines and Quarries and need for feedback to get "Safety by Design" (Presented in Machex meeting 2011)</p> <p><i>Poor formulation: where the driver's direct field of vision is inadequate to ensure safety, adequate auxiliary devices must be installed to improve visibility</i></p>	<p>Note 11:</p> <p>The Commission should consider to produce a guidance document regarding workplace transport safety that includes references to the current evolution of devices for the detection of pedestrians (cameras, proximity sensors, ...)</p> <p>Improve the formulation of the requirement "where the driver's direct field of vision is inadequate to ensure safety, adequate auxiliary devices must be installed to improve visibility", so that warning devices can also be used to detect pedestrians (align the sentence with Machinery Directive ESHR 3.2.1)</p> <p>See Note 4</p>
<p>Annex 2 - 2. Provisions concerning the use of mobile equipment, whether or not self-propelled</p>	<p>Refuse collection trucks – a user's viewpoint (FR, Doc. Machex</p>	

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<p>2.1. Self-propelled work equipment shall be driven only by workers who have been appropriately trained in the safe driving of such equipment.</p> <p>2.2. If work equipment is moving around in a work area, appropriate traffic rules must be drawn up and followed.</p> <p>2.3. Organisational measures must be taken to prevent workers on foot coming within the area of operation of self-propelled work equipment.</p> <p>If work can be done properly only if workers on foot are present, appropriate measures must be taken to prevent them from being injured by the equipment.</p> <p>2.4. The transport of workers on mechanically driven mobile work equipment is authorised only where safe facilities are provided for that purpose. If work must be carried out during the journey, speeds must be adjusted as necessary.</p> <p>2.5. Mobile work equipment with a combustion engine may not be used in working areas unless sufficient quantities of air presenting no health or safety risk to workers can be guaranteed.</p>	<p>2004:16)</p> <p>Industrial trucks – how to improve user’s safety? (FR, Doc. Machex 2004:17)</p> <p>Risks related to use of lift trucks (FR, Machex 2007:13)</p> <p>Effectiveness of regulations regarding safety of mobile machinery (PT, Machex 2008:32, Machex 2009:02)</p> <p>“Utilisation des véhicules utilitaires légers dans le cadre professionnel” (FR, Machex 2010:13)</p>	<p>See Notes 7, 9 and 10</p>
<p>Annex 2 - 3.1.2. Persons may be lifted only by means of work equipment and accessories provided for that purpose.</p> <p>Without prejudice to Article 5 of Directive 89/391/EEC, exceptionally, work equipment which is not specifically designed for the purpose of lifting persons may be used for that purpose, provided appropriate action has been taken to ensure safety in accordance with national legislation and/or practice providing for appropriate supervision.</p> <p>While workers are on work equipment designed for lifting loads the control position must be manned at all times. Persons being lifted must have reliable means of communication. In the event of danger, there must be reliable means of evacuating them.</p>	<p>Lifting of persons and working at height (UK, Machex 2006:8; COM, 2006:9)</p> <p>Equipment not intended to lift persons, but used to lift persons exceptionally (NO, Machex 2010_011)</p> <p>Technical Rules on Operational Safety (TROS) TROS 2121 Part 4 Risks to persons due to falling (DE, Machex 2011_25)</p> <p>Selection of work equipment for work at height in a cold store (UK, Machex 2009_10)</p> <p>Work Equipment and Machinery Safety (PT, Machex2012_07)</p> <p>What are the main challenges in developing MD compliant (annex 1, sections 4 and 6) lifting equipment (i.e. attachments to give additional functions to existing equipment, including those involving man-riding) (presented in Machex Meeting 2011)</p> <p>Meaning of “exceptionally” as presented in the Use of Work Equipment Directive 2009/104/EC and its interplay with the Machinery Directive 2006/42/EC (NO, Machex 2011_02)</p> <p><i>Work ongoing at Machex (questionnaire) Doc 2015_06, 2015_06A</i></p>	<p>Note 12: interpretation of the word exceptionally is a problem, since member states have different approaches of how to deal with exceptions to the rule of not using load lifting equipment to lift persons.</p> <p>So the wording in the directive should be kept as it is.</p> <p>The analysis made at Machex meeting in 2015 showed that almost all member states allow this operation in certain cases. That why it is important to produce guidance to be used in this situations</p>
<p>Annex 2 – 3. Provisions concerning the use of work equipment for lifting loads</p>		

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<p>3.1. General considerations</p> <p>3.1.1. Work equipment which is mobile or can be dismantled and which is designed for lifting loads must be used in such a way as to ensure the stability of the work equipment during use under all foreseeable conditions, taking into account the nature of the ground.</p> <p>3.1.2. [...]</p> <p>3.1.3. Measures must be taken to ensure that workers are not present under suspended loads, unless such presence is required for the effective operation of the work. Loads may not be moved above unprotected workplaces usually occupied by workers. Where that is the case, if work cannot be carried out properly any other way, appropriate procedures must be laid down and applied.</p> <p>3.1.4. Lifting accessories must be selected according to the loads to be handled, gripping points, attachment tackle and atmospheric conditions having regard to the mode and configuration of slinging. Lifting accessory tackle must be clearly marked so that users are aware of its characteristics where such tackle is not dismantled after use.</p> <p>3.1.5. Lifting accessories must be stored in a way that ensures that they will not be damaged or degraded.</p> <p>3.2. Work equipment for lifting non-guided loads</p> <p>3.2.1. When two or more items of work equipment used for lifting non-guided loads are installed or erected on a site in such a way that their working radii overlap, appropriate measures must be taken to avoid collision between loads or the work equipment parts themselves.</p> <p>3.2.2. When using mobile work equipment for lifting non-guided loads, measures must be taken to prevent the equipment from tilting, overturning or, as the case may be, moving or slipping. Checks must be carried out to ensure that these measures are executed properly.</p> <p>3.2.3. If the operator of work equipment designed for lifting non-guided loads cannot observe the full path of the load either directly or by means of auxiliary equipment providing the necessary information, a competent person must be in communication with the operator to guide him and organizational measures must be taken to prevent collisions of the load which could endanger workers.</p> <p>3.2.4. Work must be organized in such a way that, when a worker is attaching or detaching a load by hand, it can be done safely, in particular through the worker retaining direct or indirect control of the work equipment.</p> <p>3.2.5. All lifting operations must be properly planned, appropriately supervised and carried out in such a way as to protect the safety of workers.</p> <p>In particular, if a load has to be lifted simultaneously by two or more items of work equipment designed for lifting non-guided loads, a procedure must be established and applied to ensure good coordination on the part of the operators.</p> <p>3.2.6. If work equipment designed for lifting non-guided loads cannot maintain its hold on the load in the event of a complete or partial power failure, appropriate measures must be taken to avoid exposing workers to any resultant risks.</p> <p>Suspended loads must not be left unsupervised unless access to the danger zone is</p>	<p>Result of campaign on cranes. (FR, Machex 2006:14)</p> <p><i>Maintenance log book for cranes</i></p> <p>Crane project Doc. (CY, Machex 2008.13)</p>	<p>Note 13:</p> <p>The commission should consider adding a requirement in the directive that the "results of maintenance of lifting equipment shall be recorded and kept at the disposal of the authorities concerned. They must be kept for a suitable period of time."</p>

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<p>prevented and the load has been safely suspended and is safely held.</p> <p>3.2.7. Open-air use of work equipment designed for lifting non-guided loads must be halted when meteorological conditions deteriorate to the point of jeopardizing the safe use of the equipment and exposing workers to risks. Adequate protection measures, in particular measures to avoid work equipment turning over, must be taken to avoid any risks to workers.</p>		
<p>Annex 2 – 4.3.6</p> <p>4.3.6. Scaffolding may be assembled, dismantled or significantly altered only under the supervision of a competent person and by workers who must have received appropriate and specific training in the operations envisaged, addressing specific risks in accordance with Article 7, and more particularly in:</p> <p>(a) understanding of the plan for the assembly, dismantling or alteration of the scaffolding concerned;</p> <p>(b) safety during the assembly, dismantling or alteration of the scaffolding concerned;</p> <p>(c) measures to prevent the risk of persons or objects falling;</p> <p>(d) safety measures in the event of changing weather conditions which could adversely affect the safety of the scaffolding concerned;</p> <p>(e) permissible loads;</p> <p>(f) any other risks which the abovementioned assembly, dismantling or alteration operations may entail.</p> <p>The person supervising and the workers concerned must have available the assembly and dismantling plan referred to in 4.3.2., including any instructions it may contain.</p>	<p>No presentation made.</p>	<p>See Note 9</p> <p>Note 14 and 15: The existing guidance "Non-binding guide to good practice for implementing Directive 2001/45/EC" should be reviewed to take into account the current state of art in terms of standardization (EN 12810 Façade scaffolds made of prefabricated components and EN 12811 Temporary works equipment)</p> <p>The common approach should make the free circulation of people between the member states easier.</p>
<p>Annex 2 – 4.3.1</p> <p>4.3. Specific provisions regarding the use of scaffolding</p> <p>4.3.1. When a note of the calculations for the scaffolding selected is not available or the note does not cover the structural arrangements contemplated, strength and stability calculations must be carried out unless the scaffolding is assembled in conformity with a generally recognised standard configuration.</p>		<p>See Note 14 and 15</p>