

SVENSK STANDARD

SS-EN 1991-3:2006/AC:2013

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Eurokod 1: Laster på bärverk – Del 3: Last av kranar och maskiner

Eurocode 1 – Actions on structures – Part 3: Actions induced by cranes and machinery

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The European Standard EN 1991-3:2006/AC:2012 has the status of a Swedish Standard. This document contains the official English version of EN 1991-3:2006/AC:2012.

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Information about the content of the standard is available from the Swedish Standards Institute (SIS), telephone +46 8 555 520 00. Standards may be ordered from SIS Förlag AB, who can also provide general information about Swedish and foreign standards.

Standarden är framtagen av kommittén för Eurokoder, SIS/TK 203.

Har du synpunkter på innehållet i den här standarden, vill du delta i ett kommande revideringsarbete eller vara med och ta fram andra standarder inom området? Gå in på www.sis.se - där hittar du mer information.

EUROPEAN STANDARD

EN 1991-3:2006/AC

NORME EUROPÉENNE

EUROPÄISCHE NORM

December 2012

ICS 91.010.30

English version

Eurocode 1 - Actions on structures - Part 3: Actions induced by cranes and machinery

Eurocode 1 - Actions sur les structures -
Partie 3: Actions induites par les appareils
de levage et les machines

Eurocode 1 - Einwirkungen auf Tragwerke -
Teil 3: Einwirkungen infolge von Kranen
und Maschinen

This corrigendum becomes effective on 5 December 2012 for incorporation in the three official language versions of the EN.



EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

Management Centre: Avenue Marnix 17, B-1000 Brussels

1 Modifications to 1.2

Just above the reference to EN 1990, add the following new reference:

"

EN 1090-2 Execution of steel structures and aluminium structures – Part 2:
 Technical requirements for steel structures

"

On the last line, replace:

"

EN 1993-6 Design of steel structures – Part 6: Crane runway beams

"

with:

"

EN 1993-6 Design of steel structures – Part 6: Crane supporting structures

"

2 Modification to 1.3

In Paragraph (1), replace "prEN 1991" with "EN 1991".

3 Modification to 1.5

In Paragraph (2), in the list Greek lower case letters, replace:

"

$\varphi_1, \varphi_2, \varphi_3$ dynamic factor applied to actions induced by cranes
 $\varphi_4, \varphi_5, \varphi_6, \varphi_7$

"

with:

"

$\varphi_1, \varphi_2, \varphi_3$ dynamic factor applied to actions induced by cranes
 $\varphi_4, \varphi_5, \varphi_6, \varphi_7$

"

4 Modification to 2.1

Replace the two bullet points with the following ones:

“

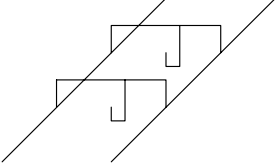
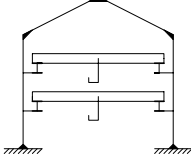
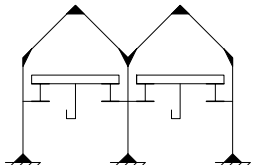
- monorail hoist blocks, see 2.5.1,
- overhead travelling cranes, see 2.5.2.

”

5 Modification to 2.5.3

In Paragraph (2), replace Table 2.3 with the following:

“

	For crane runway	For crane supporting structures	
		Single-bay building	Multi-bay building
			
Vertical crane action	3	4 NOTE: The most unfavourable position of the 4 cranes might be: a) 3 cranes behind each other and 1 on a further runway or b) 2 cranes behind each other and 2 on a further runway or c) 2 cranes behind each other and 2 above each other on 2 further runways	6 NOTE: The most unfavourable position of the 6 cranes might be: a) crane position as in a single bay building plus 2 additional cranes in another bay or b) 6 cranes distributed over several bays
Horizontal crane action	1 NOTE: Consider two cranes if they operate together in order to lift heavy loads and if that is more unfavourable	2 NOTE: 2 cranes per bay operating above each other	4 NOTE: Under consideration of conditions for crane runways and for single-bay buildings

”

6 Modification to 2.6

In Paragraph (2)P, replace the whole Table 2.4 with the following one:

“

Table 2.4 — Dynamic factors φ_1 for vertical loads

	Values of dynamic factors
φ_1	$0,9 < \varphi_1 < 1,1$ The two values 1,1 and 0,9 reflect the upper and lower values of the vibrational pulses.
φ_2	$\varphi_2 = \varphi_{2,\min} + \beta_2 v_h$ v_h - steady hoisting speed in m/s $\varphi_{2,\min}$ and β_2 see Table 2.5
φ_3	$\varphi_3 = 1 - \frac{\Delta m}{m} (1 + \beta_3)$ where Δm released or dropped part of the hoisting mass m total hoisting mass $\beta_3 = 0,5$ for cranes equipped with grabs or similar slow-release devices $\beta_3 = 1,0$ for cranes equipped with magnets or similar rapid-release devices
φ_4	$\varphi_4 = 1,0$ provided that the class 1 functional tolerances for rail tracks as specified in EN 1090-2 are observed.
NOTE: If Class 1 functional tolerances for rail tracks as specified in EN 1090-2 are not observed, the dynamic factor φ_4 can be determined with the model provided by EN 13001-2.	

”

7 Modification to 2.7.4

Paragraph (4), replace Tables 2.8 and 2.9 with the following ones: