

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 1993-4-1:2007/AC

April 2009

Avril 2009

April 2009

ICS 65.040.20; 91.010.30; 91.080.10

English version
Version Française
Deutsche Fassung

Eurocode 3 - Design of steel structures - Part 4-1: Silos

**Eurocode 3 - Calcul des structures en acier
- Partie 4-1: Silos**

**Eurocode 3 - Bemessung und Konstruktion
von Stahlbauten - Teil 4-1: Silos**

This corrigendum becomes effective on 22 April 2009 for incorporation in the three official language versions of the EN.

Ce corrigendum prendra effet le 22 avril 2009 pour incorporation dans les trois versions linguistiques officielles de la EN.

Die Berichtigung tritt am 22. April 2009 zur Einarbeitung in die drei offiziellen Sprachfassungen der EN in Kraft.



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

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Ref. No.: EN 1993-4-1:2007/AC:2009 D/E/F

1) Modifications to "Foreword"

"Additional information specific to EN1993-4-1", last paragraph, replace the reference "2.10" with "2.9".

"National Annex for EN1993-4-1", replace "5.4.4 (2), (3) and (4)" with "5.4.4 (2), (3)b) and (3)c)".

2) Modification to 1.1

Paragraph "(8)", replace "10 tonnes" with "100 kN (10 tonnes)".

3) Modifications to 1.2

Reference to "EN 1991", in the line:

"Part 1.5: Actions on structures – Accidental actions;",

replace "Part 1.5" with "Part 1.7".

Title of "EN 10025", correct the title into "Hot rolled products of structural steels".

Reference to "EN 10147", replace "EN 10147" with "EN 10149".

4) Modification to 1.7.1

Paragraph "(1)", "Figure 1.2", Subfigure "a)", Subtitle, replace "general coordinate system" with "global coordinate system".

5) Modification to 1.7.2

Paragraph "(4)", "Figure 1.3", Subfigure "a)", Subtitle, replace "general coordinate system" with "global coordinate system".

6) Modification to 2.6

Paragraph "(3)", replace "EN 10147" with "EN 10149".

7) Modification to 4.3.1

Paragraph "(8)", "NOTE", replace " $n_{ew} = 16$ " with " $n_{ew} = 15\varepsilon$ ".

8) Modification to 4.3.3

Paragraph "(5)", replace "(see 2.3)" with "(see 2.2)".

9) Modification to 4.4

Paragraph "(6)", delete the whole "NOTE 2" and replace "NOTE 1" with "NOTE".

10) Modifications to 5.3.2.3

Paragraph "(3)", "NOTE", replace "are given in below" with "are given in the table below".

Paragraph "(3)", delete the last sentence of the "**NOTE**": "The single welded lap joint should not be used if more than 20% of the $\sigma_{e,Ed}$ in expression 5.4 derives from bending moments."

and add it to the "normal"-formatted paragraph "(3)".

11)Modification to 5.3.2.6

Paragraph "(5)", Equation "(5.55)", replace:

$$\ell_0 = \frac{\tau_{x\theta,Ed,max}}{\left(\frac{d\tau_{x\theta,Ed}}{dx}\right)} \quad (5.55)"$$

with:

$$\ell_0 = \frac{\tau_{x\theta,Ed,max}}{d\tau_{x\theta,Ed} / dy} \quad (5.55)".$$

12)Modification to 5.3.4.1

Paragraph "(6)", delete the whole "**NOTE 1**" and replace "**NOTE 2**" with "**NOTE**".

13)Modifications to 5.3.4.3.3

Paragraph "(5)", replace Equation "(5.70)":

$$n_{x,Rd} = A_s f_y / \gamma_{M1} \quad (5.70)"$$

with the following one:

$$n_{x,Rd} = A_{eff} f_y / (d_s \gamma_{M0}),$$

and right under "where:", add:

" d_s is the distance between the stringer stiffeners;
 A_{eff} is the effective cross-sectional area of the stringer stiffener;"

14)Modification to 5.4.4

Paragraph "(3)", replace "one of the three following criteria" with "one of the following criteria".

15)Modification to 6.3.2.5

Paragraph "(5)",Equation "(6.11)", replace the current last term " $-\left(\frac{6}{t_h^2}\right)F_{e,Ed}x_h$ " with the following one " $-\left(\frac{6}{t_h^2}\right)F_h x_h$ ".

16) Modifications to 8.2.3

Paragraph "(4)", replace equation number "(8.19)" with "(8.19a)".

Paragraph "(4)", replace equation number "(8.20)" with "(8.19b)".

Paragraph "(4)", replace equation number "(8.21)" with "(8.20)".

Paragraph "(4)", between Equation "(8.21)" and "where (see figure 8.6):", add the following new equations:

$$n_{v,Ed} = n_{xc,Ed} + n_{\phi h,Ed} \cos \beta \quad (8.21a)$$

$$n_{r,Ed} = n_{\phi h,Ed} \sin \beta \quad (8.21b).$$

Paragraph "(4)", in Equations "(8.19a)" up to and including "(8.25)" [except in the newly inserted formulae "(8.21a)" and "(8.21b)"], replace " $n_{xc,Ed}$ " with " $n_{v,Ed}$ ".

Paragraph "(4)", in Equations "(8.19a)" up to and including "(8.25)" [except in the newly inserted formulae "(8.21a)" and "(8.21b)"], replace " $n_{\phi h,Ed}$ " with " $n_{r,Ed}$ ".

17) Modification to 8.3.2.3

Paragraph "(2)", Equation "(8.27)", replace " ℓ_{eh} " with " ℓ_{oh} ".

18) Modification to 8.3.4.4

Paragraph "(2)", Equation "(8.42)", replace " σ_p " with " σ_c ".

19) Modification to 9.2.3

Paragraph "(1)", "NOTE", replace "shown in figures 9.1, 9.2 and 9.3" with "shown in figures 9.1 and 9.2".

20) Modification to 9.4.1

Paragraph "(2)", replace "should be designed for:" with "should be designed for (see figure 9.3):".

21) Modification to 9.5.2

Paragraph "(5)", replace "be agreed between the designer and/or the fabricator" with "be agreed between the client, the designer and the fabricator".

22) Modification to A.3.2.1

Paragraph "(6)", "NOTE", replace the text of the note with the following one: "The National Annex may choose the value of j_i . The recommended values of j_i are given in the table below for different joint configurations. The single welded lap joint should not be used if more than 20% of $\sigma_{e,Ed}$ in expression 5.4 derives from bending moments."

23) Modification to A.3.2.2

Paragraph "(2)", replace " $t/2$ " with " t ".