



**SLOVENSKI STANDARD**  
**SIST EN 13001-3-1:2012/kFprA1:2013**  
**01-februar-2013**

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**Žerjavi - Konstrukcija, splošno - 3-1. del: Mejna stanja in dokaz varnosti jeklene nosilne konstrukcije - Dopolnilo A1**

Cranes - General Design - Part 3-1: Limit States and proof competence of steel structure

Krane - Konstruktion allgemein - Teil 3-1: Grenzzustände und Sicherheitsnachweis von Stahltragwerken

Appareils de levage à charge suspendue - Conception générale - Partie 3-1: Etats limites et vérification d'aptitude des charpentes en acier

**Ta slovenski standard je istoveten z: EN 13001-3-1:2012/FprA1**

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**ICS:**

53.020.20      Dvigala      Cranes

**SIST EN 13001-3-1:2012/kFprA1:2013      en,fr,de**



EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**FINAL DRAFT**  
**EN 13001-3-1:2012**

**FprA1**

January 2013

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ICS 53.020.20

English Version

## Cranes - General Design - Part 3-1: Limit States and proof competence of steel structure

Appareils de levage à charge suspendue - Conception  
générale - Partie 3-1: Etats limites et vérification d'aptitude  
des structures en acier

Krane - Konstruktion allgemein - Teil 3-1: Grenzzustände  
und Sicherheitsnachweis von Stahltragwerken

This draft amendment is submitted to CEN members for unique acceptance procedure. It has been drawn up by the Technical Committee CEN/TC 147.

This draft amendment A1, if approved, will modify the European Standard EN 13001-3-1:2012. If this draft becomes an amendment, CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for inclusion of this amendment into the relevant national standard without any alteration.

This draft amendment was established by CEN in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

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

**Management Centre: Avenue Marnix 17, B-1000 Brussels**

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<b>Contents</b>		<b>Page</b>
Foreword.....		<b>3</b>
<b>1</b>	<b>Modification to the Foreword .....</b>	<b>4</b>
<b>2</b>	<b>Modifications to 3.2 .....</b>	<b>4</b>
<b>3</b>	<b>Modifications to 4.2.1 .....</b>	<b>4</b>
<b>4</b>	<b>Modifications to Annex D.....</b>	<b>5</b>
<b>5</b>	<b>Modifications to Annex G .....</b>	<b>7</b>
<b>6</b>	<b>Modification to Annex H.....</b>	<b>9</b>

## Foreword

This document (EN 13001-3-1:2012/FprA1:2013) has been prepared by Technical Committee CEN/TC 147 “Cranes - Safety”, the secretariat of which is held by BSI.

This document is currently submitted to the Unique Acceptance Procedure.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

For relationship with EU Directive(s), see informative Annex ZA, which is an integral part of this document.

**EN 13001-3-1:2012/FprA1:2013 (E)****1 Modification to the Foreword**

After the 6<sup>th</sup> paragraph, add the following one:

"CEN/TC 147/WG 2 has made a new edition of EN 13001-3-1 to adapt the standard as follows:

- Subclause 4.2.1 is changed in such a way that Table 2 is permanently valid and requirements for other materials are added, and
- editorial changes are done to improve the document."

**2 Modifications to 3.2**

In Table 1, regarding the symbol for characteristic value (force), replace " $F_k$ " with " $F_k$ ".

In Table 1, regarding the symbol for characteristic value (stress), replace " $f_k$ " with " $f_k$ ".

In Table 1, replace:

"

$h_d$		distance between weld and contact area of acting load		"
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with:

"

$h_d$		distance between weld and contact level of acting load		"
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In Table 1, in the description of "v", delete "(normalized)".

**3 Modifications to 4.2.1**

Delete the 4<sup>th</sup> paragraph:

"The actual material properties shall satisfy minimum ductility requirements as follows:

- the ratio  $f_u / f_y \geq 1,05$  and
- the percentage elongation at fracture  $A \geq 7\%$  on a gauge length  $L_0 = 5,65 \times \sqrt{S_0}$  (where  $S_0$  is the original cross-sectional area)."

Replace the 6<sup>th</sup> paragraph (that begins with "Grades and qualities") with the following one:

"Grades and qualities other than those mentioned in the above standards and in Table 2 may be used if the mechanical properties and the chemical composition are specified in a manner corresponding to relevant European standard, and the following conditions are fulfilled:

- the design value of  $f_y$  is limited to  $f_u / 1,05$  for materials with  $f_u / f_y < 1,05$ ;
- the percentage elongation at fracture  $A \geq 7\%$  on a gauge length  $L_0 = 5,65 \times \sqrt{S_0}$  (where  $S_0$  is the original cross-sectional area);

- the weldability or non-weldability of the material is specified and, if intended for welding, weldability is demonstrated;
- if the material is intended for cold forming, the pertinent parameters are specified."

Replace the following rows at the bottom of Table 2:

"

S960	EN 10025-6	$3 < t \leq 50$	960	980	873	<b>504</b>
S315	EN 10149-2 (M)	all $t$	315	390	286	<b>165</b>
S355	EN 10149-3 (N)		355	430	323	<b>186</b>
S420			420	480	382	<b>220</b>
S460 (M)			460	520	418	<b>241</b>
S500 (M)			500	550	455	<b>262</b>
S550 (M)			550	600	500	<b>289</b>
S600 (M)	EN 10149-2 (M)	all $t$	600	650	545	<b>315</b>
S650 (M)		$t \leq 8$ $t > 8$	650 630	700	591 573	<b>341</b> <b>331</b>
<b>S700 (M)</b>	EN 10149-3 (N)	$t \leq 8$	<b>700</b>	<b>750</b>	<b>636</b>	<b>367</b>
		$t > 8$	<b>680</b>			

"

with the following ones:

"

S960	EN 10025-6	$3 < t \leq 50$	960	980	873	504
S315	EN 10149-2 (M)	all $t$	315	390	286	165
S355	EN 10149-3 (N)		355	430	323	186
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S700 (M)	EN 10149-3 (N)	$t \leq 8$	700	750	636	367
		$t > 8$	680			

"

#### 4 Modifications to Annex D

In Table D.1, in the rows dedicated to Detail 1.2, in the last column, replace:

EN 13001-3-1:2012/FprA1:2013 (E)

"

- No geometrical notch effects (e. g. cutouts)
- Surface roughness values before surface treatment such as shot blasting"

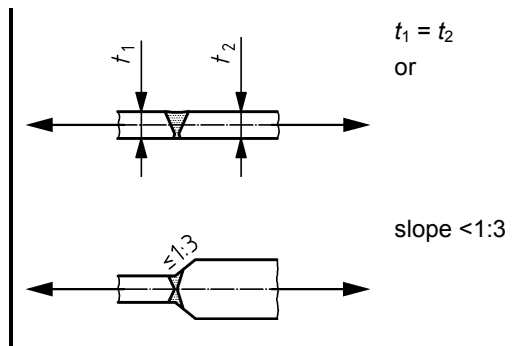
with:

"

- No geometrical notch effects (e. g. cutouts)
- Surface roughness values before surface treatment such as shot blasting".

In Table D.3, in the rows dedicated to Detail 3.1, in the last column, replace the following cells:

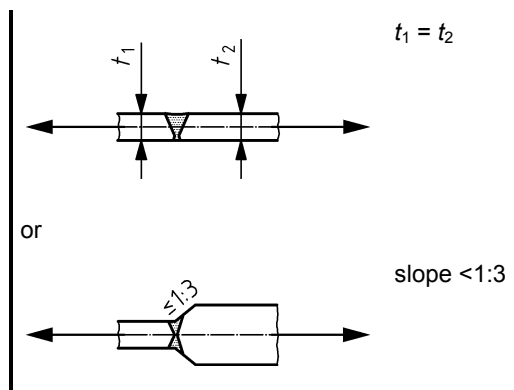
"



"

with:

"

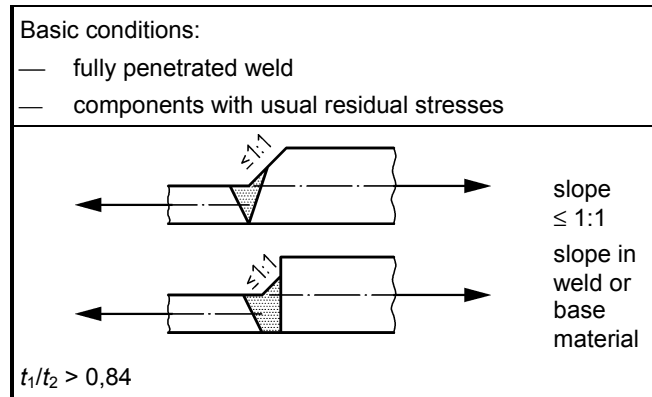


"

In Table D.3, in the rows dedicated to Detail 3.5; in the last column, replace the following cells:



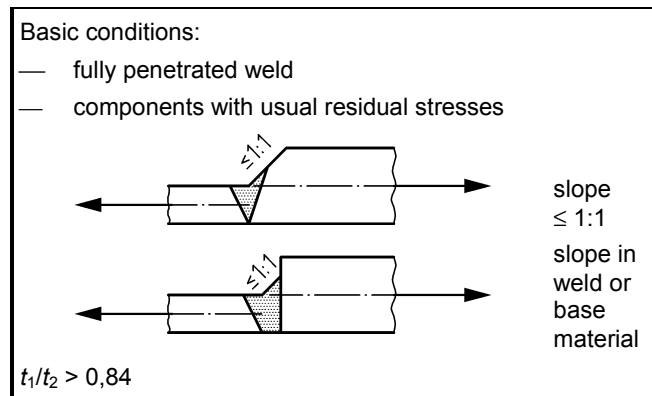
"



"

with:

"



"

## 5 Modifications to Annex G

Replace Figure G.1 with the following one:

"