SLOVENSKI STANDARD
SIST EN 10225-3:2019/oprA1:2022

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Konstrukcijska jekla za varjene konstrukcije naftnih ploščadi - Tehnični dobavni pogoji - 3. del: Vroče izdelani votli profili - Dopolnilo A1

Weldable structural steels for fixed offshore structures - Technical delivery conditions - Part 3: Hot finished hollow sections

Schweißgeeignete Baustähle für feststehende Offshore-Konstruktionen - Technische Lieferbedingungen - Teil 3: Warmgefertigte Hohlprofile

Aciers de construction soudables destinés à la fabrication de structures marines fixes - Conditions techniques de livraison - Partie 3 : Profils creux finis à chaud

Ta slovenski standard je istoveten z: **EN 10225-3:2019/prA1**

ICS:

75.180.10	Oprema za raziskovanje, vrtanje in odkopavanje	Exploratory, drilling and extraction equipment
77.140.10	Jekla za toplotno obdelavo	Heat-treatable steels
77.140.70	Jekleni profili	Steel profiles

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

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ICS 77.140.10

English Version

Weldable structural steels for fixed offshore structures - Technical delivery conditions - Part 3: Hot finished hollow sections

Aciers de construction soudables destinés à la fabrication de structures marines fixes - Conditions techniques de livraison - Partie 3 : Profils creux finis à chaud

Schweißgeeignete Baustähle für feststehende Offshore-Konstruktionen - Technische Lieferbedingungen - Teil 3: Warmgefertigte Hohlprofile

This draft amendment is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 459/SC 3.

This draft amendment A1, if approved, will modify the European Standard EN 10225-3:2019. 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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

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European foreword

This document (EN 10225-3:2019/prA1:2022) has been prepared by Technical Committee CEN/TC 459/SC 3 “Structural steels other than reinforcements”, the secretariat of which is held by DIN.

This document is currently submitted to the CEN Enquiry.

This document will supersede EN 10225-3:2019.

In comparison with the previous version EN 10225-3:2019, the following technical modifications have been made:

— Steel grades S420NLHHO and S460NLHHO were added.

This European Standard consists of the following parts, under the general title *'Weldable structural steels for fixed offshore structures — Technical delivery conditions*':

— Part 1: Plates

— Part 2: Sections

— Part 3: Hot finished hollow sections

— Part 4: Cold formed welded hollow sections

1 Modification to Clause 3, Terms and definitions

Add at the end of 3.8, definition for normalizing:

“to produce a fine ferritic-pearlitic structure”.

Add at the end of 3.11, definition for quenching:

“, such cooling is intended to produce a predominantly bainitc or martensitic microstructure”.

Add definition 3.14, accelerated cooling: “

3.14
accelerated cooling (+DC)
operation which consists of cooling a ferrous product faster than achieved in still air but with a rate less than achieved by quenching, for this document, such cooling is intended to produce a predominantly ferritic-pearlitic microstructure”.

2 Modification to 6.4, Delivery condition

Add a second paragraph after the first one:

“If normalized grades S420NLHHO and S460NLHHO are delivered with accelerated cooling (+DC) they get the addition +DC in the steel name.”.

3 Modification to 7.3.1, General

Add a second paragraph after the first one

The grades S420NLHHO+DC and S460NLHHO+DC have a predominantly ferritic-pearlitic structure, but they have received an accelerated cooling and therefore it may not be possible to achieve the certified mechanical properties after normalizing again.”.

4 Modification to Table 3, Chemical composition for normalized/normalized rolled steels (heat and product analysis)

Add at the end of footnote c of Table 3:

“When aluminium is used as the grain refining element, the grain size requirement shall be deemed to be fulfilled if the cast analysis shows the aluminium content to be not less than 0,020 % total aluminium or alternatively 0,015 % soluble aluminium. If the Al content is below these values, verification of the grain size or a Charpy test is required.”.

Add a footnote [d] *to grades S420NLHHO and S460NLHHO to Table 3:*

“These steel grades may be delivered in the condition +DC (accelerated cooling), see 6.4 and 7.3.1.”.

Add grades S420NLHHO and S460NLHHO to Table 3:

Steel grade		% (mass fraction) [a] [b]															
Steel name	**Steel number**	**C**	**Si**	**Mn**	**P**	**S**	**Cr**	**Ni**	**Mo**	**N**	**Al_{tot} [c]**	**Cu**	**Nb**	**Ti**	**V**	**Nb+V**	**Nb+V+Ti**
S420NLHHO d	1.8656	0,22	0,15 to 0,55	1,00 to 1,65	0,025	0,015	0,25	–	0,08	0,025	0,020 to 0,060	0,35	0,050	0,025	0,20	0,20	0,22
S460NLHHO d	1.8657	0,22	0,15 to 0,55	1,00 to 1,65	0,025	0,015	0,25	–	0,08	0,025	0,020 to 0,060	0,35	0,050	0,025	0,20	0,22	0,24

5 Modification to Table 4, Maximum carbon equivalent value (CEV) for normalized/normalized rolled steels based on heat and product analysis

Add grades S420NLHHO and S460NLHHO to Table 4:

Steel grade		CEV Hollow sections		P_{cm} Hollow sections	
Steel name	**Steel number**	$t \leq 40$	$40 < t \leq 65$	$t \leq 40$	$40 < t \leq 65$
S420NLHHO [a]	1.8656	0,50	–	0,30	–
S460NLHHO [a]	1.8657	0,53	–	0,30	–
a For steel grades S420NLHHO and S460NLHHO up to 16 mm, higher thicknesses can be agreed.					

Add a footnote [a] to S420NLHHO and S460NLHHO:

"For steel grades S420NLHHO and S460NLHHO up to 16 mm, higher thicknesses can be agreed.".