	ORAVIA :			Aŭ A :		Sheet : 1/ 3		
Manufacture Production n	r: TŘINECKÉ nill : VT – VÁL	ŽELEZÁRNY,a.s. COVNA TRUB / V	/Průmyslová 100 ýstavní 1132 / 70	0 /Staré Město /739 6 02 Ostrava – Vítk	61 Trinec /Czech F ovice / Czech Repu	Republic		
AUT		A08		A06	лостосси нери	Dife		
Purchaser's of	der No.:	Works or	fer NoJ Contract No.:	Consignee:				
013045-A		9700236 0041355	5778 5121 / 176					
A10 Advice-No 15/08/00103	te No.: 38/02 09.08.20	015						
	spection docume In certificate	e 3.1, EN 1020	4:2004					
Pro		01, B09-B11 dimensions, speci	fication	B08, B13 Quantity	802.1 Steel designation	Produc	B02.2 t / Dimensional standard	
Seamless S	teel Line Pipe	s Hot Rolled		4 pcs	X52N/PSL2	API S	PEC 5L 45. EDITION	
16.000 in x	1.031 in			85.30 ft 6508 kgs	X42N/BN/PSL2 Gr.B Gr.C Gr.B Gr.B Gr.B Gr.C	API S ASTM ASTM ASTM ASME ASME S ASME S	PEC 5L 45. EDITION A106/A106M 06/2014 A106/A106M 06/2014 M A53/A53M 03/2012 SA53/SA53M 07/2013 SA106/SA106M 07/2013 SA106/SA106M 07/2013 ME B36.10 10/2004	
normalized B03 Suppleme		nts:	ME SA53/SA53M	- 2013 EDITION, AI	PI MONOGRAM			
Requirement	s:	C10*	C11	C12	C	3	C14	
B07.1 Heat No.	B07.2 Specimen No.	Specimen shape Yield Strength Rt0.5 psi		Tensile Stren Rm psi	gth Elong 2 9	ation	Reduction of area Z %	
		52200-71800		70000-950	00 min C15	22	1	
•		C02 Specimen direction:	Ci L Te	ist temperature(*F):		method:	ASTM A370	
T30157	41259/P	К	55114	75275		8.2		
T30164	41270/P		<u>53374</u> 54099	74259		6.0 6.2		
T30175	41266/P	P - Flat specimer K - Round specim	1	1 7.0420	<u> </u>		L	

202 Confirmed: Marta Uhrová, Ing., Head of Attestation, Releasing and External inspection VT, Independent authorized agent

Z02

Ostrava-Vitkovice : 11.08.2015



tel.: 00420/59/560/2160 fax: 00420/59/560/2164

SE5 0 4110

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TŘINECKÉ ŽELEZÁRNY MORAVIA STEEL

A03 Document No.: A 2015/08/002145-JAN

A01, A05 Manufacturer: TŘINECKÉ ŽELEZÁRNY,a.s. /Průmyslová 1000 /Staré Město /739 61 Třinec /Czech Republic Production mill : VT – VÁLCOVNA TRUB / Výstavní 1132 / 706 02 Ostrava – Vítkovice / Czech Republic

B07.1 Heat No.	B07 Spectme		C40 Impact test KV filb				C44 Lateral expandit mm					ublic C45 Shear fracture area %					
			C41	0.394	in x 0.3	94in						_					
			C02				CO	3				C	1 16				
	1		Specime		n: T			st temper): 3	2		st meth		AST	M A370	
			Indivi	C42 dual valu		C4 Mean		Inda	C44.1 /idual va			4.2 value	(C45.1			45.2
T30157	4125	8/P		>220 ~		-		11101	ruuai va	005	mean	Value	11101	ividual va	Ues	Mean	i valu
T30164	4127	0/P	~195	>220 ~	203	_											
T30175	4126	6/P	~183	~184 >	220	-											
					C40					C44	-				C45		
B07.1 Heat No.	B07.		Impact test					Lab	eral expa	ndit			Shea	r fractur	e area		
Heat NO.	Specime	n NO.	KV fLib C41				mm				%						
		h															
		L		0.394	in x 0.3	94in											
			C02				COS	-				C4	-				
			Specimer		<u>n: T</u>			it temper		<u>: -</u> {	50		st metho		AST	A A 370	
			Indivi	C42 dual valu	85	C4 Mean v		India	C44.1 idual val	1105		4.2 value	Indi	C45.1 vidual val	1105	C4 Mean	15.2 Valu
T30157	4125	8/P		9 98 11		10					thous	VIIIBO		10001 10		1000471	
T30164	41270)/P	91 115 103 103		3												
T30175	4126	6/P	80	111 93		94	1										
					C3)											
B07.1		7.2	Hardness														
Heat No.	Specin	nen No.	IO. HBW NACE MR0103-2012,NACE MR0175-2				0175.20	na									
					max								1				
			C33										1		_		
			Test	method:		ISC	6506-	1									
			C31 Individual values				C32										
T30157	412	58/P		50 14			an value 150	<u>'</u>	-								
T30157		70/P		49 15		_	149						+				
T30175		66/P		50 14			149						1				
70 Steelmakir asic oxyger acuum deg 	fumace																<u> </u>
eat chemical a	inalysis in	%:														eq max.:	0.43
B07.1 Heat No.	C	Mn	SI	Р	S	Cu	NJ	Cr	Mo	v	Ti	AI .	Nb	В	Ceq		
T30157	0.17	1.17	0.20	0.016	0.004	0.04	0.02	0.18	0.006	0.038	0.001	0.028		0.0004	0.41		┣
	0.17	1.16	0.20	0.018	0.004	0.03	0.02	0.19	0.008	0.037	0.001	0.031		0.0005	0.41		
T30164 T30175	0.17	1.16	0.19	0.016													

Z02 Confirmed: Marta Uhrová, Ing., Head of Attestation, Releasing and External inspection VT, Independent authorized agent

Z02

Ostrava-Vitkovice : 11.08.2015

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TŘINECKÉ ŽELEZÁRNY, a.s. Průmyslová 1000. Staró Město 131 739 61 Trinecy L Z03 Independent authorized agent

SEP 0 (201)

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TŘINECKÉ ŽELEZÁRNY MORAVIA STEEL

A03 Document No.: A 2015/08/002145-JAN

Sheet : 3/ 3

A01, A05 Manufacturer: TŘINECKÉ ŽELEZÁRNY, a.s. /Průmyslová 1000 /Staré Město /739 61 Třinec /Czech Republic Production mill : VT – VALCOVNA TRUB / Výstavní 1132 / 706 02 Ostrava – Vítkovice / Czech Republic

0.16 1. 0.17 1. 0.18 1. 0.18 1.	13 0.19 13 0.20 12 0.20 13 0.20 15 0.19 15 0.19	0.018 0.018 0.014	0.003 0.003 0.003 0.003 0.003	2 A	0.02	i/5s	0.006 0 0.008 0 0.008 0 0.004 0 0.004 0	0.037 0.036 0.037 0.033	TI 0.001 0.001 0.001 0.001 0.001	AI 0.028 0.027 0.030 0.031 0.028 0.028	0.001 0.001 0.001 0.001 - sat - sat - sat	B 0.0003 0.0003 0.0004 0.0004 0.0005 Hisfactory Usfactory		
0.16 1. 0.17 1. 0.18 1. 0.18 1. 0.17 1. 0.17 1. 0.17 1. 1. 0.17 1. 1. 0.17 1. 1. 0.17 1. 0.17 1. 0.18 1. 1. 0.18 1. 0.18 1. 0.17 1. 0.18 1. 0.18 1. 0.17 1. 0.18 1. 0.17 1. 0.18 1. 0.18 1. 0.17 1. 0.18 1. 0.18 1. 0.17 1. 0.17 1. 0.18 1. 0.17 1. 0.18 1. 0.17 1. 0.18 1. 0.17 1. 0.18 1. 0.17 1. 0.18 1. 0.17 1. 0.18 1. 0.18 1. 0.18 1. 0.17 1. 0.18	13 0.20 12 0.20 13 0.20 15 0.19 15 0.19 15 0.19	0.015 0.018 0.018 0.014	0.003 0.003 0.003 0.003	0.04 0.02 0.02 0.04 0.04 0.04 0.04	0.02 0.02 0.02 0.02 0.02 0.02 0.02 0.02	0.17 0.19 0.19 0.19 0.19 0.19	0.006 (0.008 (0.008 (0.004 (0.006	0.037 0.036 0.037 0.033	0.001 0.001 0.001 0.001	0.027 0.030 0.031 0.028	0.001 0.001 0.001 0.001 - sat - sat - sat	0.0003 0.0004 0.0003 0.0004 0.0005 tisfactory tisfactory	0.:	
0.17 1. 0.18 1. 0.18 1. 0.17 1.	12 0.20 13 0.20 15 0.19 15 0.19	0.018 0.018 0.014	0.003 0.003 0.003).02).02).04).04).04 2 A	0.02 0.02 0.02 0.02 0.02 0.02 0.02 0.02	0.17 0.19 0.19 0.19 0.19 0.19	0.006 (0.008 (0.008 (0.004 (0.006	0.037 0.036 0.037 0.033	0.001 0.001 0.001 0.001	0.027 0.030 0.031 0.028	0.001 0.001 0.001 0.001 - sat - sat - sat	0.0003 0.0004 0.0003 0.0004 0.0005 tisfactory tisfactory	0.	
0.18 1. 0.18 1. 0.17 1.	13 0.20 15 0.19 15 0.19	0.018 0.014	0.003).02).04).04 2 2 A	0.02 0.02 0.02 0.02 0.02 0.02 0.02	0.19 0.19 0.19 0.19 0.19	0.008 0 0.008 0 0.004 0 0.004 0	0.036 0.037 0.033	0.001 0.001 0.001	0.030 0.031 0.028	0.001 0.001 0.001 - sat - sat - sat	0.0004 0.0003 0.0004 0.0005 Hisfactory Usfactory	0.	
0.18 1. 0.17 1.	15 0.19 15 0.19	0.014	0.003).04).04 2 A	0.02 0.02 0.02 ASTM A 2970 psi ASTM E2	0.19 0.19 0.19 0.19	0.008 0 0.004 0 0.004 0	.037	0.001	0.031	0.001 0.001 - sat - sat - sat	0.0003 0.0004 0.0005 tisfactory tisfactory	0.	
n 1.75 fl, 164-	15 0.19		0.003).04).04 2 A	0.02 0.02 ASTM A 2970 psi	0.19 0.19	0.004 0	.033	0.001	0.028	0.001 0.001 - sat - sat - sat	0.0004 0.0005 tisfactory Usfactory tisfactory	0	
n 1.75 fl, 164-	15 0.19).04	0.02 ASTM A 2970 psi	0.19 A 530 i/5s	0.004 0				0.001 - sat - sat - sat	0.0005 tisfactory Usfactory tisfactory	0.	
n 21.75 fl, 1644				2 A	ASTM A 2970 psi ASTM E2	A 530 I/5s					- sat - sat - sat	tisfactory Usfactory tisfactory Usfactory		
21.75 fl, 1644	4 kgs			2 A	2970 psi ASTM E2	i/5s	2.5 % L				- sat	Usfactory tisfactory Usfactory		
21.75 fl, 164	4 kgs			2 A	2970 psi ASTM E2	i/5s	2.5 % L				- sat	tisfactory		
21.75 fl, 164	4 kgs			A	ASTM E2		2.5 % L				- sat	tisfactory		
21.75 fl, 164	4 kgs					213 12	2.5 % L							
21.75 fl, 164	4 kgs			Ā	API 5L						- sat	Isfactory		
21.75 fl, 164	4 kgs											- satisfactory		
Impact Maci inpy Impact I I HBW confo iny contamin f the tension its were con	hine was Machine v prm to the lation and l test spec	vas exc reques no wel cimen a	eeded at t st max. 22 d repair wa t a room t	ne im HRC (as per	npact Te (max. 23 Informed.	est Val 37 HBI	ues (see W).	ies ma value	arked v as mar	with *>* ked with). 1 " ~ ").			
	Impact Mac arpy Impact I h HBW confe ury contamin f the tensior its were con eport.	arpy Impact Machine v a HBW conform to the ury contamination and f the tension test spec- its were converted fro eport.	Impact Machine was exceed appy Impact Machine was exceed appy Impact Machine was exc h HBW conform to the reques ury contamination and no well f the tension test specimen a its were converted from SI Un eport.	Impact Machine was exceeded at the In appy Impact Machine was exceeded at the h HBW conform to the request max. 22 I ury contamination and no weld repair was f the tension test specimen at a room to its were converted from SI Units. eport.	Impact Machine was exceeded at the Impact arpy Impact Machine was exceeded at the Impact arpy Impact Machine was exceeded at the Impact of HBW conform to the request max. 22 HRC ury contamination and no weld repair was per if the tension test specimen at a room temper its were converted from SI Units. eport.	Impact Machine was exceeded at the Impact Test V arpy Impact Machine was exceeded at the Impact Te h HBW conform to the request max. 22 HRC (max. 2 ury contamination and no weld repair was performed if the tension test specimen at a room temperature - its were converted from SI Units. eport.	Impact Machine was exceeded at the Impact Test Values (arpy Impact Machine was exceeded at the Impact Test Value) A HBW conform to the request max. 22 HRC (max. 237 HB) ury contamination and no weld repair was performed. If the tension test specimen at a room temperature - 0.5 in its were converted from SI Units. eport.	Impact Machine was exceeded at the Impact Test Values (see valuarpy Impact Machine was exceeded at the Impact Test Values (see a HBW conform to the request max. 22 HRC (max. 237 HBW). Juny contamination and no weld repair was performed. If the tension test specimen at a room temperature - 0.5 in. its were converted from SI Units. eport.	Impact Machine was exceeded at the Impact Test Values (see values marpy Impact Machine was exceeded at the Impact Test Values (see values on HBW conform to the request max. 22 HRC (max. 237 HBW). Iny contamination and no weld repair was performed. If the tension test specimen at a room temperature - 0.5 in. its were converted from SI Units. eport.	Impact Machine was exceeded at the Impact Test Values (see values marked of appy Impact Machine was exceeded at the Impact Test Values (see values marked of appy Impact Machine was exceeded at the Impact Test Values (see values marked of appy Impact Machine was exceeded at the Impact Test Values (see values marked of appy Impact Machine was exceeded at the Impact Test Values (see values marked of appy Impact Machine was exceeded at the Impact Test Values (see values marked of appy Impact Machine was exceeded at the Impact Test Values (see values marked of appy Impact Machine was exceeded at the Impact Test Values (see values marked of appy Impact Machine was exceeded at the Impact Test Values (see values marked of appy Impact Machine was exceeded at the Impact Test Values (see values marked of appy Impact Machine was exceeded at the Impact Test Values (see values marked of appy Impact Machine was exceeded at the Impact Test Values (see values marked of appy Impact Machine was exceeded at the Impact Test Values (see values marked of appy Impact Machine was exceeded at the Impact Test Values (see values marked of appy Impact Machine was exceeded at the Impact Test Values (see values marked of appy Impact Impact Test Values (see values marked of appy Impact Impact Test Values (see values marked of appy Impact Impact Test Values (see values marked of appy Impact Test Values (see values marked of appy Impact Impact Test Values (see values marked of appy Impact Impact Test Values (see values marked of appy Impact Impact Test Values (see values marked of appy Impact Impact Test Values (see values marked of appy Impact Impact Test Values (see values marked of appy Impact Impact Test Values (see values marked of appy Impact Impact Test Values (see values marked of appy Impact Impact Test Values (see values	Impact Machine was exceeded at the Impact Test Values (see values marked with ">") arpy Impact Machine was exceeded at the Impact Test Values (see values marked with h HBW conform to the request max. 22 HRC (max. 237 HBW). ury contamination and no weld repair was performed. f the tension test specimen at a room temperature - 0.5 in. its were converted from SI Units. eport. A04 Manufacturer	Impact Machine was exceeded at the Impact Test Values (see values marked with ">"). apy Impact Machine was exceeded at the Impact Test Values (see values marked with " ~ "). h HBW conform to the request max. 22 HRC (max. 237 HBW). ury contamination and no weld repair was performed. f the tension test specimen at a room temperature - 0.5 in. its were converted from SI Units. eport. A04 Manufacturer's mark:	Impact Machine was exceeded at the Impact Test Values (see values marked with ">"). arpy Impact Machine was exceeded at the Impact Test Values (see values marked with " ~ "). A HBW conform to the request max. 22 HRC (max. 237 HBW). ury contamination and no weld repair was performed. If the tension test specimen at a room temperature - 0.5 in. its were converted from SI Units. eport. A04 Manufacturer's mark:	

Z02 Confirmed Marta Uhrová, Ing., Head of Attestation, Releasing and External inspection VT, Independent authorized agent

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Ostrava-Vitkovice : 11.08.2015

tel.: 00420/59/560/2160 fax: 00420/59/560/2164



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TŘINECKÉ ŽI MORAVIA ST		App Inspection A 2015/08	MENT REPORT endix at a certificate 3.1 2/002145-JAN
DIMENSION [inch]:	16.000x1.031	SHOP ORDER No.:	9700236778
HEAT No. :		Т3	0157 0164 0175
MATERIAL SPECIFICA	FION AND GRADE :		52N 5r.B 5r.C 2N/BN
TYPE OF HEAT TREAT	MENT :		IALIZED
		1	
MINIMUM TEMPERATI	JRE:		1652°F
Ostrava-Vítkovice: 11.08.2015 tel: 00420/59/560/2160 fax: 00420/59/560/2164			CKÉ ŽELEZÁRNY, a.s. yslová 1000, Storé Město 739 #1/frinec 131 lependent authorized agent
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