



TRINECKÉ ŽELEZÁRNY
MORAVIA STEEL

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

Sheet : 1 / 3



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

A07 Purchaser's order No.:	A08 Works order No./ Contract No.:	A06 Consignee:
013045-A	9700236778 0041355121 / 176	
A10 Advice-Note No.:		
15/08/001038/02 09.08.2015		
A02 Type of inspection document:		
Inspection certificate 3.1, EN 10204:2004		

B01, B09-B11 Product, product dimensions, specification	B08, B13 Quantity	B02.1 Steel designation	B02.2 Product / Dimensional standard
Seamless Steel Line Pipes Hot Rolled 16.000 in x 1.031 in	4 pcs 85.30 ft 6508 kgs	X52N/PSL2 X42N/BN/PSL2 Gr.B Gr.C Gr.B Gr.B Gr.B Gr.C	API SPEC 5L 45. EDITION API SPEC 5L 45. EDITION ASTM A106/A106M 06/2014 ASTM A106/A106M 06/2014 ASTM A53/A53M 03/2012 ASME SA53/SA53M 07/2013 ASME SA106/SA106M 07/2013 ASME SA106/SA106M 07/2013 ASME B36.10 10/2004

B04 Product delivery condition:
normalized

B03 Supplementary requirements:
ASME SA106/SA106M - 2013 EDITION, ASME SA53/SA53M - 2013 EDITION, API MONOGRAM
Plain square cut ends

Requirements :

B07.1 Heat No.	B07.2 Specimen No.	C10* Specimen shape	C11 Yield Strength Rt0.5 psi	C12 Tensile Strength Rm psi	C13 Elongation 2" %	C14 Reduction of area Z %
			52200-71800	70000-95000	min 22	
		C02 Specimen direction: L	C03 Test temperature(°F): 70	C15 Test method: ASTM A370		
T30157	41259/P	K	55114	75275	38.2	-
T30164	41270/P	K	53374	74259	36.0	-
T30175	41266/P	K	54099	75420	36.2	-

* P - Flat specimen
K - Round specimen

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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TRINECKÉ ŽELEZÁRNY, a.s.

Průmyslová 1000, Staré Město

739 61 Třinec 131

Z03 Independent authorized agent

SEP 04 2016



A01, A05

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

B07.1 Heat No.	B07.2 Specimen No.	C40 Impact test KV ft.lb		C44 Lateral expandit mm		C45 Shear fracture area %											
		C41 0.394in x 0.394in															
C02 Specimen direction: T		C03 Test temperature(*F): 32		C46 Test method: ASTM A370													
		C42 Individual values	C43 Mean value	C44.1 Individual values	C44.2 Mean value	C45.1 Individual values	C45.2 Mean value										
T30157	41258/P	~207 >220 ~178	-														
T30164	41270/P	~195 >220 ~203	-														
T30175	41266/P	~183 ~184 >220	-														
B07.1 Heat No.	B07.2 Specimen No.	C40 Impact test KV ft.lb		C44 Lateral expandit mm		C45 Shear fracture area %											
		C41 0.394in x 0.394in															
C02 Specimen direction: T		C03 Test temperature(*F): -50		C46 Test method: ASTM A370													
		C42 Individual values	C43 Mean value	C44.1 Individual values	C44.2 Mean value	C45.1 Individual values	C45.2 Mean value										
T30157	41258/P	109 98 114	107														
T30164	41270/P	91 115 103	103														
T30175	41266/P	80 111 93	94														
B07.1 Heat No.	B07.2 Specimen No.	C30 Hardness HBW NACE MR0103-2012,NACE MR0175-2009 max 237															
		C33 Test method: ISO 6506-1															
		C31 Individual values	C32 Mean value														
T30157	41258/P	150 149 150	150														
T30164	41270/P	149 150 149	149														
T30175	41266/P	150 149 149	149														
C70 Steelmaking proces: Basic oxygen furnace Vacuum degassed																	
C71-C92 Heat chemical analysis in %: Ceq max.: 0.43																	
B07.1 Heat No.	C	Mn	Si	P	S	Cu	Ni	Cr	Mo	V	Ti	Al	Nb	B	Coq		
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	0.001	0.0004	0.41		
T30164	0.17	1.16	0.20	0.018	0.004	0.03	0.02	0.19	0.008	0.037	0.001	0.031	0.001	0.0005	0.41		
T30175	0.17	1.16	0.19	0.016	0.005	0.04	0.02	0.19	0.005	0.033	0.001	0.029	0.001	0.0005	0.41		

Z02 Confirmed: Marta Uhrová, Ing.,
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TRINECKÉ ŽELEZÁRNY, a.s.
Průmyslová 1000, Staré Město
739 61 Třinec

131

Z03 Independent authorized agent

SEP 0 4 2015



A01, A05

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

Product chemical analysis in %:													Ceq max.: 0.43			
B07.1 Heat No.	B07.2 Specimen No.	C	Mn	Si	P	S	Cu	Ni	Cr	Mo	V	Ti	Al	Nb	B	Ceq
T30157	41258/P	0.17	1.13	0.19	0.016	0.003	0.03	0.02	0.18	0.006	0.036	0.001	0.028	0.001	0.0003	0.41
T30157	41259/P	0.16	1.13	0.20	0.015	0.003	0.04	0.02	0.17	0.006	0.037	0.001	0.027	0.001	0.0003	0.39
T30164	41270/P	0.17	1.12	0.20	0.018	0.003	0.02	0.02	0.19	0.008	0.036	0.001	0.030	0.001	0.0004	0.41
T30164	41271/P	0.18	1.13	0.20	0.018	0.003	0.02	0.02	0.19	0.008	0.037	0.001	0.031	0.001	0.0003	0.42
T30175	41266/P	0.18	1.15	0.19	0.014	0.003	0.04	0.02	0.19	0.004	0.033	0.001	0.028	0.001	0.0004	0.42
T30175	41267/P	0.17	1.15	0.19	0.015	0.003	0.04	0.02	0.19	0.004	0.032	0.001	0.028	0.001	0.0005	0.41

C50, D01, D02-D50, D51
Other requirements:

Visual and dimensional inspection		- satisfactory
Flattening test	ASTM A 530	- satisfactory
Hydrostatic test - test pressure	2970 psi/5s	- satisfactory
Ultrasonic testing	ASTM E213 12.5 % L	- satisfactory
Residual magnetism	API 5L	- satisfactory

B15 Supplementary Information:
Heat No.: T30157 - 1 pcs, 21.75 ft, 1644 kgs
Tube No.: 41261

Heat No.: T30164 - 1 pcs, 22.90 ft, 1750 kgs
Tube No.: 41273

Heat No.: T30175 - 2 pcs, 40.65 ft, 3114 kgs
Tube No.: 41266,41269

The capacity of the Charpy Impact Machine was exceeded at the Impact Test Values (see values marked with ">").
80 % of capacity of the Charpy Impact Machine was exceeded at the Impact Test Values (see values marked with "~").

The hardness test values in HBW conform to the request max. 22 HRC (max. 237 HBW).
The tubes are free of mercury contamination and no weld repair was performed.
Diameter of gauge length of the tension test specimen at a room temperature - 0.5 in.
Data mentioned in USC Units were converted from SI Units.
Appendix: Heat treatment report.

Z01 ALL PRODUCTS MEET REQUIREMENTS OF ABOVE MENTIONED STANDARDS AND REQUIREMENTS SPECIFIED IN ORDER. THE DECLARATION IS ISSUED UNDER THE SOLE RESPONSIBILITY OF THE SUPPLIER.	A04 Manufacturer's mark:
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Z02 Confirmed: Marta Uřová, Ing.,
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Průmyslová 1000, Staré Město

739 61 Třinec

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 TŘINECKÉ ŽELEZÁRNY MORAVIA STEEL		HEAT TREATMENT REPORT Appendix at Inspection certificate 3.1 A 2015/08/002145-JAN	
DIMENSION [inch]:	16.000x1.031	SHOP ORDER No.:	9700236778
HEAT No. :		T30157 T30164 T30175	
MATERIAL SPECIFICATION AND GRADE :		X52N Gr.B Gr.C X42N/BN	
TYPE OF HEAT TREATMENT :		NORMALIZED	
MINIMUM TEMPERATURE:		1652°F	

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