

Vallourec Tubes France TUBERIE SAINT SAULVE ZONE INDUSTRIELLE 59880 SAINT SAULVE FRANCE	 	INSPECTION CERTIFICATE 3.1 EN 10204:2004 No. : 390Sv18 Page: 1 / 4 Date: 19.02.2018
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(A01) Vallourec Tubes France	(A06.1) Vallourec-Order-No. 240606 (A06.2) Suborder
(A06.1) Customer SOUTHWEST STAINLESS 8505 MONROE ROAD HOUSTON 77061	(A07.1) Customer Order-No. 21007257
(A06.2) Orderer /	(A07.2) Orderer Order-No. 21007257 Date 23.06.2017
	(A07.3) Client's Client Order-No. 559786-00
(B01, B02, B04) Description of the product	Hot finished seamless (boilers) steel pipes ASTM A335, 2015 a ASME SA-335, 2015 ASTM A999, 2016 ASME SA-999, 2015 ASME Boiler and pressure vessel code, Section II, Part A, 2015 NACE MR0175 / ISO 15156-2 : 2009 / EN ISO 15156-2 : 2009, annex A.2.1.2 / NACE MR0103 : 2010 paragraph 2.1 ASME B36.10M:2015 Grade P9 Ends plain, square to tube axis Outside with dry varnish Without inside rust protection Tube ends closed by plastic plugs
NO RADIATION CONTAMINATION	

(A13) Vallourec Item	(A09) Cust. Item	(B14) Item text	(B09) Dimensions	(B10) Single length
6			ASME B36.10 NPS 2 SCH 160 OD Tol ± 0.031 Inches WT Tol : + 20 % -12.5 %	Limited length from 38 to 44 ft Without short lengths

(A13) Vallourec Item	(A09) Cust. Item	(B07.1) Heat	(B08) Quantity	(B11) Total length ft	(B13) Weight lb
6		991362	27	1.102,360	8.483

(C71)

HEAT CHEMICAL ANALYSIS

Vallourec Tubes France TUBERIE SAINT SAULVE ZONE INDUSTRIELLE 59680 SAINT SAULVE FRANCE	 	INSPECTION CERTIFICATE 3.1 EN 10204:2004 No. : 390Sv18 Page: 2 / 4 Date: 19.02.2018
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(C71)

HEAT CHEMICAL ANALYSIS

(B07.1) Heat	(B15) Process	Country of Steel (melt) origin	C %	Si %	Mn %	P %	S %	Cr %	Mo %		
min	-	-	-	0,25	0,30	-	-	8,00	0,90		
max	-	-	0,15	1,00	0,60	0,025	0,025	10,00	1,10		
991362	Electric (EAF)	FRA	0,09	0,31	0,46	0,016	0,001	8,50	0,93		

Country of Steel (melt) origin FRA France

Heats fully killed

(C72)

PRODUCT CHEMICAL ANALYSIS

(B07.1) Heat	(C00.1) Test Piece	C %	Si %	Mn %	P %	S %	Cr %	Mo %			
min		-	0,25	0,30	-	-	8,00	0,90			
max		0,15	1,00	0,60	0,025	0,025	10,00	1,10			
991362	0001BK983	0,09	0,30	0,46	0,017	0,001	8,53	0,93			
991362	0002BK983	0,10	0,31	0,47	0,017	0,001	8,60	0,93			

PROCESS GUARANTEE

Merchandise is free of mercury contamination and no weld repair was performed

(B04)

HEAT TREATMENT

Heat treatment type	Temperature	Soaking time	Cooling
Normalized	1697 °F	10 min	Air
Tempering	1454 °F	60 min	Air

TENSILE TEST RESULTS

Type (C10.1)	Tube strip specimen
Test temperature (C03)	Room temperature
Direction (C02)	longitudinal

SIMPLE LENGTH

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TENSILE TEST RESULTS

(B07.1) Heat	(C00.1) Test Piece	(C10.2) Dimension	(C11) YS	(C12) TS	(C13.2) Elong.						
		in / sq in	R _{p0.2} psi	R _m psi	2" %						
min		-	30000	60000	30,0						
max		-	-	-	-						
991362	0001BK983	0,75x0,38 0,30	68023	94710	30,6						
991362	0002BK983	0,75x0,37 0,28	69618	95000	30,3						

(C10.2)

Dimension

Test piece dimensions

Test piece area

HARDNESS TEST RESULTS

Method of test (C30)

Brinell

(B07.1) Heat	(C00.1) Test Piece	(C31.1) HB	(C31.1) HB	(C31.1) HB	(C32.1) Mean						
min		-	-	-	-						
max		235,0	235,0	235,0	-						
991362	0001BK983	194,6	195,0	195,3	195,0						
991362	0002BK983	196,5	196,7	196,0	196,4						

(C50)

TECHNOLOGICAL AND OTHER TESTS ON SPECIMENS

Test	Conditions	Test rate	Result
Flattening test	Flattening test (specific)	Without Frequency	Satisfactory

(D55)

OTHER TESTS ON PIPE

Test	Conditions	Test rate	Result
UT longitudinal	ASTM E213 LONG NOTCH INTERNAL 12.5 % MINI 0.3 MM EXTERNAL 12.5 % MINI 0.3 MM	100% each lot	Satisfactory
Hydrostatic test	2500 PSI 5 SEC	100% each lot	Satisfactory
Appearance & Dimensions	Aspect & Dimensions (specification)	100% each lot	Satisfactory
Positive Material Identification	Positive Material identification (specif	100% each lot	Satisfactory

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(A04, B06)

MARKING, IDENTIFICATION

6	Die stamping round nose tools		VALLOUREC	VTFR26 FRANCE
6	Paint stenciled on one side		VALLOUREC	VALLOUREC VTFR26 A SA335 NPS2 SCH160 P9 HTHEAT NUMBER 7.47 UT/2500PSI LENGTH K 240606 6 21007257 559786-00 FRANCE

(Z01)

The supplied products are in compliance with the requirements of the order

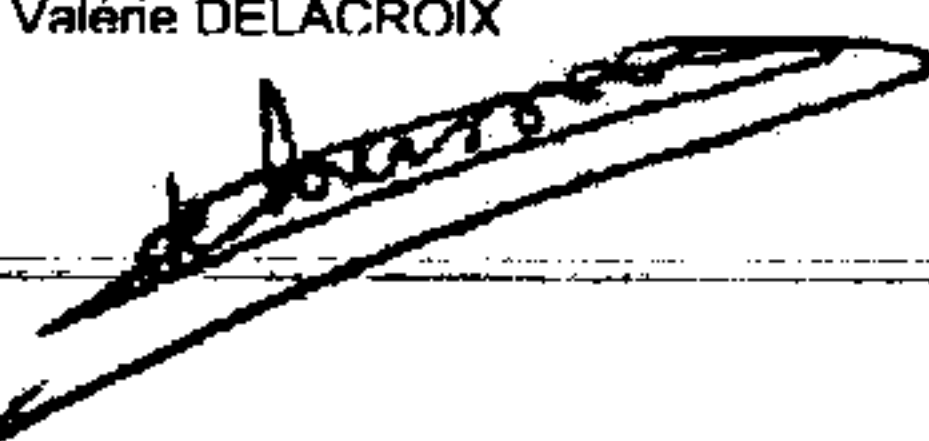
This order has been rolled in the Vallourec mill:

Werk Mülheim
Rohrkontstraße
Schützenstrasse 124
45476 MÜLHEIM AN DER RUHR
GERMANY

This order has been finished in the Vallourec mill:

TUBERIE SAINT SAULVE
Boîte postale BP.2
59880 SAINT SAULVE
FRANCE

(A05, Z02, Z03)

Date	19.02.2018
Validated by	Inspection Representative
	Valérie DELACROIX 
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Stamp	

Indication in parentheses correspond to attributes according to EN 10188

This testimonial and certification respectively may neither be modified nor used for other products. Offences are regarded as falsification of documents and will be subject to criminal prosecution.