


INSPECTION CERTIFICATE EN 10204-3.1
 EN 10204:2005-01

Document No.: 465-1270110/001/P
Purchase Order No.: 290992
Benteler Order No.: 48002122
Dispatch Note No.:
Product: SEAMLESS STEEL TUBES

Inspection No.: **Page:** 1 / 3
Manufacturer: BSTMC Shreveport USA
Manufacturer's brand: 
Stamp of the inspection representative: MI
Steelmaking process: ELECTRIC FURNACE

Terms of delivery: ASTM-A 53-2018, ASME SA-53, ASME BPVC.II.A-2019, ASTM-A 106-19a, ASME SA-106, ASME BPVC.II.A-2019, API Specification 5L Forty-Sixth Edition April 2018 incl. Errata 1, May 2018, PSL 2, ANSI/NACE MR0175/ISO 15156-1: 2015, ANSI/NACE MR0175/ISO 15156-2: 2015, ANSI/NACE MR0103/ISO 17945:2015

Dimensions-tolerances: ASTM-A 106-19a, ASME SA-106, ASME BPVC.II.A-2019, ASTM-A 53-2018, ASME SA-53, ASME BPVC.II.A-2019, API Specification 5L Forty-Sixth Edition April 2018 incl. Errata 1, May 2018

Steel grade: GRADE B, GRADE C, GRADE BN, GRADE X42N

Delivery condition: N

Product marking: FS: BENTELER BENTELER-Sign API 5L-1072 API-Sign Month/Year Conditions Dimension: O.D. * t inch Steel Grade
 PSL2 SMLS Inspector's sign Heat No. Tube length feet Test Pressure PSI Production No. Customer's material no.

AEZ = Etching ink marking FK = color marking FS = paint stenciling FSD = Color jet printer FSI = Color jet printer inside LK = Laser marking PKE = tag marking PS = die stamp TS = Ink jet spray marking

Item	Number	Dimensions	Length total feet	Weight lbs	Heat No.	Test pressure	
						PSI	sec
0001	769	2 NPS - SCH 80 35 FT - 45 FT	33021.43	169634	309961	2970	5

Country of melt and pour

Melted & Manufactured in USA
 Nucor, Jewett, TX, US

Heat analysis [%]

Item	Heat No.	C	SI	MN	P	S	CR	MO	NI	CU	V	NB	TI	B
0001	309961	0.160	0.278	0.99	0.010	0.001	0.14	0.03	0.06	0.18	0.004	0.002	0.001	0.0002

- Formula: $CE\ IIW=C+(Mn/6)+((Cr+Mo+V)/5)+((Cu+Ni)/15)\leq 0,43\ %$
- Formula: $Cr+Cu+Mo+Ni+V\leq 1.00\ %$
- Formula: $Nb+V\leq 0.06\ %$
- Formula: $Nb+Ti+V\leq 0.15\ %$

INSPECTION CERTIFICATE EN 10204-3.1

Document No.:

465-1270110/001/P

Inspection No.:

Page: 2 / 3

Formula results

Item	Heat No.	1. Formula	2. Formula	3. Formula	4. Formula
0001	309961	0.376	0.414	0.006	0.007

Product analysis [%]

Item	Heat No.	C	SI	MN	P	S	CR	MO	NI	CU	V	NB	TI	B
0001	309961	0.160	0.280	0.99	0.012	0.002	0.14	0.03	0.07	0.18	0.004	0.001	0.002	0.0002
0001	309961	0.160	0.280	0.98	0.011	0.002	0.14	0.03	0.07	0.18	0.004	0.001	0.002	0.0002

1. Formula: $CE_{IIW} = C + (Mn/6) + ((Cr+Mo+V)/5) + ((Cu+Ni)/15) \leq 0.43 \%$
2. Formula: $Cr+Cu+Mo+Ni+V \leq 1.00 \%$
3. Formula: $Nb+V \leq 0.06 \%$
4. Formula: $Nb+Ti+V \leq 0.15 \%$

Formula results

Item	Heat No.	1. Formula	2. Formula	3. Formula	4. Formula
0001	309961	0.376	0.424	0.005	0.007
0001	309961	0.375	0.424	0.005	0.007

Test results

The tubes have been submitted to a leak tightness test by: Hydrostatic test: acc. to API 5L, Test pressure/Time-record, the test records/charts shall be available for examination by the inspector PASSED

The tubes are non destructive tested: ET - Test standard: acc. to API 5L; ET - Test method: acc. to ASTM-E 309; ET - Test drilled hole: 0.125 IN.; ET - Notch shape/hole: drilled hole PASSED

Visual inspection: PASSED **Bending test:** PASSED **Dimensions examination:** PASSED

Results of mechanical testing

Tensile test longitudinal at RT, Strip test specimen

Item	Specimen No.	Heat No.	Specimen dimensions	Yield strength	Tensile strength	Elongation	1. Formula	Rt 0,5/Rm
Requirements			IN	RT 0,5 % PSI 42100-71800	Rm PSI 70000-95000	A2" %		MAX 0.93
0001	000011	309961	0.747 X 0.229	52794	76290	35.00	19.00	0.69
0001	002212	309961	0.746 X 0.217	52794	77595	35.00	19.00	0.68
0001	004421	309961	0.746 X 0.231	51198	75565	35.00	19.00	0.68

INSPECTION CERTIFICATE EN 10204-3.1

Document No.:

465-1270110/001/P

Inspection No.:

Page: 3 / 3

Elongation formula

1. Formula $AF=625000 * AXC^{0,2} / U^{0,9}$

Protection

outside surface varnished

Item	Heat No.	Production No.
0001	309961	15019737

Remark

NACE Standard: Hardness acc. to ANSI/NACE MR0175/ISO 15156: HRC max 22., Hardness acc. to ANSI/NACE MR0103/ISO 17945: HRC max. 22.; Certificate remarks: material free from mercury contamination, Data converted from SI units, No weld repair has been carried out; Certificate-Remark: LONGHORN