



Mill Test Certificate

Bri-Steel Manufacturing Inc.
2125-64 Avenue, Edmonton, AB Canada T6P 1Z4
Tel: 001 (780) 469-6603
Fax: 001 (780) 469-6986
www.bri-steel.com

Product: Seamless Carbon Steel Pipe Product Heat Number: BSM-2377 Product Size: 18STD Production Date: May 04, 2015
Production Method: Hot Expansion Product Heat Treatment: As-rolled Certificate No.: MTR- 001760
Product Standards: ASME B36.10-2004, ASTM/ASME A106-2014/SA106-2013 Grade B/C NDE, AS3-2012/SA33-2013 Grade B Type S, NACE MR0175-2009 MR0103-2012

Product Markings



NPS 18 STD 0.375 INCHWT 70.59LB/FT SMLS 2015/05 NDE 1000PSI
HEAT BSM-2377 (PIPE # LENGTH MASS) 70.59lb/ft ASTM/ASME A/SA106 GR B/C A/SA53 GR B NACE MR0175/MR0103 MADE IN CANADA

Product: Details						Non-Destructive Testing								
Heat	Test Type	Product Size	Pieces	Length	Mass lb/ft	Geliger µR/hr	Res. Mag. Gauss	Visual Insp.	OD	UT WT	UT ASTM E213	ET ASTM E309	HydroTest 1000 PSI/ 5 s	End Condition
BSM-2377	Heat	NPS 18 STD 0.375in. WT	14	DRL	70.59	<5	<20	Pass	Pass	Pass	Pass	Pass	Pass	32.5° Bevel

Heat		Steelmaking Method	Test Type	C	Mn	P	S	Si	Cr	Cu	Mo	Ni	V	Ti	Nb	B	CE(IW)	CE(CSA)
BSM-2377		Blast Furnace; EAF; Ladle Refining; Vacuum Degass; Fully Killed	Heat	0.17	1.23	0.013	0.001	0.29	0.03	0.02	0.01	0.01	0.053	-	-	-	-	-
			Product	0.18	1.19	0.012	0.004	0.28	0.03	0.02	0.01	0.01	0.050	0.002	0.001	0.0004	0.40	0.40
				0.17	1.20	0.010	0.003	0.27	0.03	0.02	0.01	0.01	0.052	0.002	0.001	0.0004	0.39	0.39

Mechanical Properties

Heat	Test Type	Microstructure	Hardness	Flattening Test	Tension Test 2 in. GL	Yield (Rt0.5) psi	Tensile (Rm) psi	V/T (Rt0.5/Rm)	Elongation (A) %
BSM-2377	Heat	Ferrite & Pearlite	80 HRBW	Pass	Longitudinal; 1.5 in. x WT	50,500	74,000	0.68	41

Heat	Test	Test Standard	Impact Test Sample Details	Temp °C	Impact Energy J				% Shear			Lateral Expansion mm				AVG
BSM-2377				-	J	J	J	AVG	%	%	%	AVG	mm	mm	mm	-

Additional Details:

✓ We hereby certify that this pipe product was manufactured, sampled, tested and inspected by Bri-Steel Manufacturing in accordance with ASTM/ASME A106-2014/SA106-2013 Grade B/C AS3-2012/SA33-2013, and the purchase order requirements, and that the results meet the corresponding requirements. Bri-Steel Manufacturing is registered and certified to ISO-9001:2008 and API Q1.

✓ This pipe product meets the sour service requirements of NACE MR0175/ISO 15156-2:2009 Annex A2 for Region 3 Sour Service-2009 NACE MR0103-2012 Section 2.1

✓ No weld repairs have been performed on this product.

✓ This product has not come into contact with mercury during the Bri-Steel Manufacturing processes.

✓ This certificate represents a quality control system that is compliant with EN 10204:2004 Type 3.1.

Mill Test Certificate approved by:


Tanya May 10/06/2015

Tanya Lam, C.I.E.T.
Assistant QA Manager



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Product Markings
 <API & L/C No.> API SPEC 5L NPS 18 STD 0.375 INCHWT 70.59LB/FT GR B PS1.1 SM15 2015/05 NDE 1000PSI
HEAT BSM-2377 (PIPE # LENGTH MASS) 70.59lb/ft ASTM/ASME A/SA106 GR B/C A/SA53 GR B NACE MR0175/MR0103 MADE IN CANADA

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 May 10/6/2015

Tonya Lam, C.E.T.
Assistant QA Manager