



INSPECTION CERTIFICATE

Customer : WFF FITTINGS & FLANGES (CANADA) LTD.
 Product : SEAMLESS CARBON STEEL BUTT WELD FITTINGS
 Spec : ASTM A234/ASME SA 234-15 WPB SS
 NACE MR0175/ISO15156-2 Sour Service
 Region 3 Annex A, MRO103 Sour**

(MILL TEST)
 ACCORDANCE WITH EN 10204-3.1
CHUP HSIN ENTERPRISE CO., LTD.
 17, TUNG LI ROAD HSIAO KANG,
 KAHSIUNG, TAIWAN, R.O.C.
 TEL:(07)831-9157 FAX:(07)821-7500, 831-2942

Certificate No : O0600153-0101
 Order No : 23602/ C000642
 Date : 2017/10/17

Starting Material		Specification for Inspection				Visual Inspection			Dimensional Inspection								
ASTM A106 GR.B		ASME B16.9-2012				GOOD			GOOD								
Item	Description		Quantity		Heat ID	Heat No	Raw Certificate No.	NDE MT	Test Temp	Size of specimen	Charpy V-Notch Impact Value J	Ave.					
1 16 19	90 E L/R STD RED TEE XS 90 E L/R S120	2 24 X 20 4	50 3 10	291B 377A 0390	15305291 981377 14300390	BAOSTEEL BGSAG1508310001200 Tenaris 08/13553 BAOSTEEL 1404210003100	PASS										
Specifi- cation	Chemical Composition%											REMARK					
	C	Si	Mn	P	S	Cu	Ni	Cr	Mo	V	Nb		C.E	Y.S	T.S	E	Hardness Test
	X100	X100	X100	X1000	X1000	X100	X100	X100	X100	X1000	X1000	X100	P.S.I	P.S.I	%	HB	
Min.		10	29										35000	60000	30		
Max.	22		135	50	58	40	40	40	15	80	20	50		95000		197	
1	19	23	61	13	6	3	2	4	1	<1	<1	30	43820	70200	33.6	137	620°C TO 980°C HOT FORMED **Service/ CSA Z245.11 GR 241 CAT I SS Region 3 Annex A.
16	14	24	85	12	2	17	12	10	4	10	1	34	47158	69600	45.7	131	
19	18	24	56	9	2	2	2	6	1	<1	<1	29	44546	69500	37.3	141	

C.E. = C+Mn / 6 + (Cr+Mo+V)/5 + (Ni+Cu)/15

We hereby certify that the material herein described has been manufactured, sampled, tested and inspected in accordance with, and was found to meet, the requirements of above specifications and purchaser's order.

L.S. Tsai

Chief of Quality Assurance Section