



INSPECTION CERTIFICATE

Customer : WFF FITTINGS & FLANGES (CANADA) LTD.

(MILL TEST)

Certificate No : 00300101-0301

Product : SEAMLESS CARBON STEEL BUTT WELD

ACCORDANCE WITH EN 10204-3.1

Order No : 23216/E000559

FITTINGS

CHUP HSIN ENTERPRISE CO., LTD.

Spec : ASME SA 234/ASTM A234-13 WPB SS

17, TUNG LI ROAD HSIAO KANG,

Date : 2015/01/05

NACE MR0175/ISO15156-2 Sour Service

KAOSHUNG, IAIWAN, R.O.C.

Region 3 Annex A, MR0103 Sour**

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	Impact Test									
								Test Temp	Size of specimen	Charpy V.-Notch Impact Value	Ave.						
20	CON RED SMLS S120/S160	4 X 3	15	739C	332739	TIANJIN 13103752											
22	ECC RED SMLS S120/S160	4 X 3	15	739C	332739	TIANJIN 13103752											
23	ECC RED SMLS S160/XS	4 X 3	30	739C	332739	TIANJIN 13103752											
25	ECC RED SMLS S120	8 X 4	15	996C	312996	TIANJIN 13103769											
Specification	Chemical Composition%										Tension Test			Hardness Test	Heat Treatment	REMARK	
	C	SI	Mn	P	S	CU	NI	Cr	Mo	V	Nb	C.E	YS				T.S
	X100	X100	X100	X1000	X1000	X100	X100	X100	X1000	X1000	X100	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	
20	18	23	62	12	7	8	3	5	1	2	1	30	45735	71026	33.6	136	620°C TO 980°C HOT FORMED **Service/ CSA Z245.11 GR 241 CAT I SS Region 3 Annex A.
22	18	23	62	12	7	8	3	5	1	2	1	30	40918	69900	33.5	136	
23	18	23	62	12	7	8	3	5	1	2	1	30	40918	69900	33.5	136	
25	18	26	64	14	9	9	3	6	2	2	2	31	40773	69600	35.5	136	

$$\text{C.E.} = \text{C} + \text{Mn} / 6 + (\text{Cr} + \text{Mo} + \text{V}) / 5 + (\text{Ni} + \text{Cu}) / 15$$

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.

Chief of Quality Assurance Section

L. S. Vai