

INSPECTION CERTIFICATE

(EN10204:2004 3.1 / ISO 10474:1991 3.1B)

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Customer	Forgings, Flanges & Fitting, Inc.	Certificate No.	20120105118	Date	2012/01/27
P.O No.	172670	Project Name	HOUSTON		
Job No.		POR/Req'n No.			
Specification for Material	ASTM/ASME A/SA234 WPB(2010Ed.) NACE MR0175-03/NACE MR0103-2010	Starting Material	STEEL PLATE		
Specification for inspection	ASME B16.9-2007	Dimension and Visual Inspection	GOOD		

Heat Code No [HCN]	No.	Descriptions	Q'ty (Pcs)	Heat Treatment
BV913.	0096	CAP X-S B.W 30"	47	N: 910°C

CHEMICAL COMPOSITION (%)

Heat Code No [HCN]	Spec.	C	Si	Mn	P	S	Ni	Cr	Mo	Cu	V	Raw Heat No
	Max.	0.30	-	1.06	0.050	0.058	0.40	0.40	0.15	0.40	0.080	
	Min.	-	0.10	0.29	-	-	-	-	-	-	-	
BV913.	L	0.1447	0.258	*1.095	0.0101	0.0027	0.01	0.02	0.01	0.010	0.002	SF08559

MECHANICAL PROPERTIES

Heat Code No [HCN]	Spec.	Y.S	T.S	E.L (%)	Hardness Test	
		Ksi			HB	
	Max.	-	95	-	197	
	Min.	35	60	17	-	
BV913.	P	43.2	67.5	32.6	142	144

We hereby certify that the material herein has been made and tested in accordance with the above specification and also with the requirements called for by the above order.

Remark :

Legend:
 HB: Brinell
 ST: Solution Treatment
 SR: Stress Relieving
 N: Normalized
 T: Tempered
 A: Annealed
 Q: Quenched
 (G): Hot-Dip Galvanized Coating
 Y.S : 0.2% Offset Method
 AC: Air Cool
 OC: Oil Cool
 WQ: Water Quenched
 WC: Water Cool
 L: Ladle
 P: Product

* For each reduction of 0.01% below the specified carbon maximum, an increase of 0.06% manganese above the specified maximum will be permitted, up to a maximum of 1.35%.

Reviewed by :

Witnessed by :

Approved by :

S. A. Lee

Director of Quality Control Dep't