

39617



INSPECTION CERTIFICATE

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

Customer	Forgings, Flanges & Fitting, Inc.		Certificate No.	20111206440	Date	2011/12/27	
P.O No.	172670		Project Name	HOUSTON			
Job No.			PCR/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"	3	N: 910°C
BW109.	0097	CAP	X-S	B.W	36"	20	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
BW109.	L	0.1439	0.246	*1.078	0.0132	0.0033	0.01	0.02	0.00	0.011	0.003	SF08562

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
BW109.	P	43.2	-	67.6	31.5	141	143

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: Ladie
 P: Product

* For each reduction of 0.01% below the specified carbon maximum, an increase of 0.08% manganese above the specified maximum will be permitted, up to a maximum of 1.35%.

Reviewed by :

Witnessed by :

Approved by :