

CERTIFICATE OF INSPECTION & TEST

ORIGINAL



ST&H CORPORATION
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(EN 10204 3.1)

Certified to ISO9001:2008, PED97/23/EC by LRQA
 Report No : MYM6262 Date: APR.13.2011

Customer : BROWNSVILLE STEEL CITY, LLC										Contract No. : BSC2011-230			Heat Treatment	
Spec. For Material : ASTM/ASME A/SA105-05(NACE MR-0175)														
Chemical Composition (%)		C	Si	Mn	P	S	Ni	Cr	Mo	Cu	V	Nb	AS FORGED	
Heat No.	MAX	0.350	0.350	1.050	0.035	0.040	0.400	0.300	0.120	0.400	0.080			
	MIN		0.100	0.600										
08074		0.195	0.245	0.840	0.014	0.018	0.009	0.017	0.002	0.017	0.002		Dimensional Inspection	
Tension Test						Charpy Impact Test (10x10 mm Specimen Size)				Hardness Test (HB)	Bending Test 90:120(180°)	ANSI B16.5-2003 GOOD		
Size of Specimen(mm)		Yield Strength MPa	Tensile Strength MPa	Elongation %	Red of Area %	Individual	Average	Notch Type						
Dia	Gage Length					min	min							
12.5	50	MAX				Test Result				187				
		MIN	250.000	485.000	22.000	30.000	①	②	③	Average		137		
12.5	50		318.000	551.000	30.000	61.000					139-152		Ultrasonic Examination	
ITEM / SIZE		Q'TY	ITEM / SIZE		Q'TY	ITEM / SIZE		Q'TY	Ultrasonic Examination					
150LBS BLRF 2"		50	BLANK			BLANK			N/A					
150LBS BLRF 4"		100							Magnafux Examination					
150LBS BLRF 6"		100							N/A					
150LBS BLRF 10"		10							Remarks : **CE = 0.34 (LONG FORMULAR)					
300LBS BLRF 6"		10												

NOTE :
 1MPa = 145.037 psi
 1MPa = 0.145037 ksi
 1psi = 0.006895 MPa
 1ksi = 6.89476 MPa

W.C:Water Cool O.C:Oil Cool
 A.C:Air Cool N.A:Non Action
 N:Normalized A:Annealed
 Q.T:Quenched and Tempered
 N.T:Normalized and Tempered

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.

Witnessed by/ K. S. KIM

Manager of Q.A Dept/ Y. M. CHOI