

# 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/SA105N-05(NACE MR-0175)														
Chemical Composition (%)		C	Si	Mn	P	S	Ni	Cr	Mo	Cu	V	Nb	910°C NORMALIZED	
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										
5900Y			0.160	0.230	0.750	0.012	0.011	0.010	0.010	0.005	0.003	0.001	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			Temp	187				
		MIN	250.000	485.000	22.000	30.000	①	②		③	Average	137		
12.5	50		283.500	513.750	31.500	61.500					138-143	Ultrasonic Examination		
ITEM / SIZE		Q'TY	ITEM / SIZE		Q'TY	ITEM / SIZE		Q'TY	Remarks : **CE = 0.29 (LONG FORMULAR)					
600LBS BLRF 12"		10	BLANK			BLANK					PASS			
600LBS BLRF 20"		3											Magnafux Examination	
600LBS BLRF 16"		3									N/A			
600LBS BLRF 24"		3											BLANK	
BLANK														

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 O.A Dept/ Y. M. CHOI