

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											
323Y		0.190	0.220	0.840	0.024	0.020	0.010	0.013	0.007	0.004	0.001				
Tension Test						Charpy Impact Test (10x10 mm Specimen Size)				Hardness Test (HB)		Bending Test 90:120(180°)			
Size of Specimen(mm)		Yield Strength MPa	Tensile Strength MPa	Elongation %	Red of Area %	Individual		Average		Notch Type	Temp	187	137	139-145	
Dia	Gage Length					min	min	Test Result							
12.5	50	MAX				①	②	③	Average						
		MIN	250.000	485.000	22.000	30.000									
12.5	50	287.000	520.750	33.500	57.750										
ITEM / SIZE		Q'TY	ITEM / SIZE		Q'TY	ITEM / SIZE		Q'TY							
150LBS SORF 24"		3	150LBS WNRF STD 20"		3	BLANK									
300LBS SORF 6"		40	150LBS WNRF STD 24"		3										
300LBS SORF 10"		10	BLANK												
150LBS WNRF STD 14"		3													
150LBS WNRF STD 18"		3													

Dimensional Inspection

ANSI B16.5-2003

GOOD

Ultrasonic Examination

N/A

Magnaflux Examination

N/A

Remarks :
 **CE = 0.34
 (LONG FORMULAR)

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

