

CERTIFICATE OF INSPECTION & TEST

ORIGINAL



(EN 10204 3.1)

Certified to ISO9001:2008, ISO14001:2004, PED97/23/EC by LRQA

Certified API Spec Q1 and API Spec 6A (Licence No : 6A-1284)



ST&H CORPORATION

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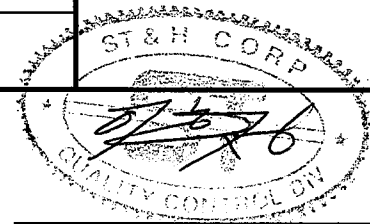
Customer : PLESA ANAHUAC Y CIAS.,S.A DE C.V.				Contract No. : 15090				Report No : MHJ7913				Date: APR.15.2013				
Spec. For Material : ASTM/ASME A/SA105N-11(NACE MR0175/ISO 15156-2009)												Heat Treatment				
Chemical Composition (%)		C	Si	Mn	P	S	Ni	Cr	Mo	Cu	V	N	910°C NORMALIZED & A.C			
Heat 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												
B8419		0.230	0.200	1.000	0.001	0.009	0.012	0.018	0.035	0.010	0.001		Dimensional Inspection			
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	ANSI B16.5 - 2009			
Dia	Gage Length					min	min	Test Result								
12.5	50	MAX								187		GOOD				
		MIN	250.000	485.000	22.000	30.000	①	②	③	Average						
12.5	50		365.000	530.000	36.000	67.000						Ultrasonic Examination				
										142, 143						
ITEM / SIZE		Q'TY		ITEM / SIZE		Q'TY		ITEM / SIZE		Q'TY		N/A Magnetic Particle Examination N/A Remarks : **CE = 0.41 (LONG FORMULAR)				
150LBS SORF 16"		10		150LBS WNRF STD 24"		5		BLANK								
150LBS SORF 18"		5		BLANK												
150LBS WNRF XH 16"		20														
150LBS WNRF STD 18"		5														
150LBS WNRF STD 20"		3														

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



Manage of Q.A Dept/ H. J. LEE