

CERTIFICATE OF INSPECTION & TEST (EN 10204 3.1)

ST&H CORPORATION
 74, Jwadongsunhwan-ro, Haeundae-gu, Busan, Korea
 Tel : +82.51.744-4680(5 line) Fax : +82.51.744-4670
 E-mail : qm@stnhcorp.com



Certificate No. MJW8847 Date : MAR. 12. 2015
 Customer PLESA ANAHUAC Y CIAS., S.A. DE C.V.
 Contract No. 20100
 Spec. For Material ASTM/ASME A/SA105-11a, NACE MR0175/ISO 15156-2009
 Heat Treatment AS FORGED

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

Dimensional inspection ASME B16.5 - 2013

ITEM / SIZE	Q'ty	Heat No./ Batch No.	Size of Test Specimen		Tension Test				Hardness Test (HB)		Charpy Impact Test (10X10mm Specimen Size)			
			D	GL	Y.S MPa	T.S MPa	E.L %	R.A %	187	Indiv.	Ave.	Notch	Temp.	
			mm	mm										
AA150TR3 150LBS TH RF 3"	100	4B8466 ✓	12.5	50.0	306	496	35	66	142	147	Test Result (J)			Ave.(J)
AA150SR3 150LBS SO RF 3"	300	4B8466 ✓	12.5	50.0	306	496	35	66	142	147				
AA300SR2 300LBS SO RF 2"	100	4B8466 ✓	12.5	50.0	306	496	35	66	142	147				
AA300WRSTD2 300LBS WN RF STD 2"	50	4B8466 ✓	12.5	50.0	306	496	35	66	142	147				
AA300WR802 300LBS WN RF S80 2"	30	4B8466 ✓	12.5	50.0	306	496	35	66	142	147				
AA150TR2 150LBS TH RF 2"	100	4B8466 ✓	12.5	50.0	306	496	35	66	142	147				
AA150WR802 150LBS WN RF S80 2"	100	4B8466 ✓	12.5	50.0	306	496	35	66	142	147				
AA150SR2 150LBS SO RF 2"	500	4B8466 ✓	12.5	50.0	306	496	35	66	142	147				
AA150BR3 150LBS BL RF 3"	50	4B8490 ✓	12.5	50.0	312	500	32	60	142	145				
AA150BR4 150LBS BL RF 4"	50	4B8490 ✓	12.5	50.0	312	500	32	60	142	145				

Heat No./ Batch No.	Max Min	Chemical Composition (%)										NDE					
		C	Si	Mn	P	S	Ni	Cr	Mo	Cu	V	CE	UT	MT	PT		
4B8466		0.350	0.350	1.050	0.035	0.040	0.400	0.300	0.120	0.400	0.080						
4B8490		0.186	0.234	0.880	0.023	0.007	0.010	0.034	0.002	0.013	0.002						
		0.184	0.226	0.900	0.018	0.007	0.010	0.026	0.002	0.014	0.002						
BLANK												0.341					
												0.341					

REMARK

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.

[Handwritten Signature]

Witnessed by / H. J. LEE



Manager of Q.A Dept. / J. W. PARK