

CERTIFICATE OF INSPECTION & TEST

ORIGINAL



ST&H CORPORATION
 411-3 Shinwol-ri, Jinryemyun, Gimhae-si Gyungnam, Korea
 Tel: 82.51.744-4680(5 line) Fax: 82.51.744-4670
 E-mail: stcorp@kornet.net

(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)



| | | | | | | | | | | | | | | | |
|---|-------------|--------------------|----------------------|----------------------|---------------|---|-------|---------------------|---------|-------------|-------|--|--|--|--|
| Customer : PLESA ANAHUAC Y CIAS..S.A DE C.V. | | | | Contract No. : 15982 | | | | Report No : MSH8188 | | | | Date: SEP.09.2013 | | | |
| 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 | 910°C NORMALIZED & AC | | | |
| Heat No./Batch 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 | | | | | | | | | | | |
| 03816B | | 0.187 | 0.216 | 0.970 | 0.012 | 0.006 | 0.003 | 0.004 | 0.026 | 0.010 | 0.003 | Dimensional Inspection | | | |
| Tension Test | | | | | | Charpy Impact Test (10x10 mm Specimen Size) | | | | | | | | | |
| Size of Specimen(mm) | | Yield Strength MPa | Tensile Strength MPa | Elongation % | Red of Area % | Individual min | | Average min | | Notch Type | | GOOD | | | |
| Dia | Gage Length | | | | | Test Result | | Temp | | 187 | | | | | |
| 12.5 | 50 | MAX | | | | ① | ② | ③ | Average | | | | | | |
| 12.5 | 50 | MIN | 250.000 | 485.000 | 22.000 | 30.000 | | | | | | ANSI B16.5 - 2009 | | | |
| 12.5 | 50 | | 337.000 | 542.000 | 29.000 | 50.000 | | | | 146, 149 | | | | | |
| ITEM / SIZE | | | Q'TY | | ITEM / SIZE | | | Q'TY | | ITEM / SIZE | | | Q'TY | | |
| 300LBS SORF 6" | | | 9 | | BLANK | | | | | BLANK | | | | | |
| BLANK | | | | | | | | | | | | | Ultrasonic Examination N/A Magnetic Particle Examination N/A Remarks : **CE = 0.36 (LONG FORMULAR) | | |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| NOTE : W.C:Water Cool O.C:Oil Cool 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 / H. J. LEE Manager of Q.A Dept. / S. H. LEE | | | |
| 1MPa = 145.037 psi A.C:Air Cool N.A:Non Action 1MPa = 0.145037 ksi N:Normalized A:Annealed 1psi = 0.006895 MPa Q.T:Quenched and Tempered 1ksi = 6.89476 MPa N.T:Normalized and Tempered | | | | | | | | | | | | | | | |