



INSPECTION CERTIFICATE

(EN10204:2004 3.1 / ISO 10474:1991 3.1B)

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| Customer | Global Stainless Supply | | Certificate No. | 20130401779 | Date | 2013/04/04 | | |
|------------------------------|--|--------------|---------------------------------|-------------------------|------|------------|----------------|---------------|
| P.O No. | 10822 | | Project Name | HOUSTON | | | | |
| Job No. | | | | | | | | |
| Specification for Material | ASTM/ASME A/SA403 WPS16/316LS(10Ed. & 11Add.) NACE MR0176/ISO 15156:2010Ed.AND NACE MR0103-07 | | Starting Material | STAINLESS SEAMLESS PIPE | | | | |
| Specification for Inspection | ASME B16.9-2007 | | Dimension and Visual Inspection | GOOD | | | | |
| Heat Code No [HCN] | No. | Descriptions | | | | Q'ty (Pcs) | Heat Treatment | |
| CD331S | 0101 | 90° | ELBOW LONG | SCH80S | B.W | 1-1/2" | 25 | ST: 1060°C WQ |
| CD335S | 0102 | 90° | ELBOW LONG | SCH80S | B.W | 2" | 300 | ST: 1060°C WQ |
| CD335S | 0112 | 45° | ELBOW LONG | SCH80S | B.W | 2" | 16 | ST: 1060°C WQ |
| CD337S | 0122 | 90° | ELBOW SHORT | SCH80S | B.W | 3" | 25 | ST: 1060°C WQ |

CHEMICAL COMPOSITION(%)

| Heat Code No [HCN] | Spec. | C Si Mn P S Ni Cr Mo Raw Heat No | | | | | | | | | |
|--------------------|-------|----------------------------------|-------|------|-------|-------|-------|-------|-------|------------|--|
| | | Max. | 0.030 | 1.00 | 2.00 | 0.045 | 0.030 | 14.00 | 18.00 | 3.00 | |
| | Min. | - | - | - | - | - | 10.00 | 16.00 | 2.00 | | |
| CD331S | L | 0.020 | 0.49 | 0.67 | 0.037 | 0.001 | 10.10 | 16.82 | 2.05 | YX1211-131 | |
| CD335S | L | 0.019 | 0.34 | 0.64 | 0.038 | 0.001 | 10.07 | 16.80 | 2.06 | YX1211-177 | |
| CD335S | L | 0.019 | 0.34 | 0.64 | 0.038 | 0.001 | 10.07 | 16.80 | 2.06 | YX1211-177 | |
| CD337S | L | 0.020 | 0.48 | 0.69 | 0.038 | 0.001 | 10.10 | 16.68 | 2.03 | YX1205-181 | |

MECHANICAL PROPERTIES

| Heat Code No [HCN] | Spec | Y.S | | T.S | E.L | Hardness Test | |
|--------------------|------|------|------|------|-----|---------------|-----|
| | | Ksi | | (%) | | HB | |
| | Max. | - | - | - | - | 237 | |
| | Min. | 30 | 75 | 28 | - | | |
| CD331S | P | 41.3 | 83.1 | 57.3 | | 145 | 147 |
| CD335S | P | 40.3 | 84.3 | 59.6 | | 143 | 146 |
| CD335S | P | 40.3 | 84.3 | 59.6 | | 143 | 146 |
| CD337S | P | 42.3 | 85.8 | 60.4 | | 143 | 146 |

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.

Remark: *PMI TEST : GOOD
*A282 Practice E Test : GOOD

Legend:
 HS:Brinell
 ST:Solution Treatment
 SR:Stress Relieving
 AC:Air Cool
 OC:Oil Cool
 WQ:Water Quenched
 WC:Water Cool
 N:Normalized
 T:Tempered
 A:Annealed
 Q:Quenched
 Y.S:D.2% Offset Method
 (G):Hot-Dip Galvanized Coating
 B:Base
 W:Weld
 H:Heat
 L:Ladle
 P:Product

Reviewed by:

Witnessed by:

Approved by: *[Signature]*

Head of Quality Control Dept