

Certificate/Serial/Job No:

YH77

Quality Department: *John Ho*

| Quantity | Size (NPS) | Class | Product | Description | Type | SONumber | Line | Sold to | Date |
|----------|------------|-------|----------|-------------|-------|----------|------|---------|-----------|
| 4 | 4 | 300 | / 103269 | DSI 149LUN | SWING | | | | 7/17/2012 |

| | | | | | | | | | |
|------------------------------|--|------------------|------------------------|------------|------------|---------------|------------------------|-------------------|------------|
| Pressure Test: API598 | <input checked="" type="checkbox"/> Satisfactory | Shell Pressure : | 1125 psi 7756.6 kPa | BackSeat : | psi kPa | Seat Pressure | 825 psi 5688.17 kPa | Seat Air Pressure | psi kPa |
|------------------------------|--|------------------|------------------------|------------|------------|---------------|------------------------|-------------------|------------|

| Part | Specif. | HEAT# | Chemical Composition [%] | | | | | | | | | | | | | Mechanical Properties | | | | | Heat | | | |
|------|---------|-------|--------------------------|----|----|---|---|----|----|----|----|---|---|----|----|-----------------------|-----|---------------------------|-------------------------|--------------|------|--------------|--------------|-------------|
| | | | C | Si | Mn | P | S | Ni | Cr | Mo | Cu | V | W | Nb | Al | N | Ceq | Tensile [ksi] [MPa] | Yield [ksi] [MPa] | Elong [%] | | Reduc [%] | Hard [HB] | Ch.1 [J] |

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| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------|--------------------|---------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--|-------|------|-------|-------|----|----|-----|--|--|--|--|--|--|--|---|
| BODY | ASTM A216 WCB-2008 | W 17207 | 0.207 | 0.427 | 0.876 | 0.029 | 0.009 | 0.029 | 0.039 | 0.005 | 0.032 | 0.007 | | 0.037 | 0.37 | 80.91 | 48.43 | 26 | 52 | 169 | | | | | | | | N |
| CLAPPER | ASTM A105-2005 | C 11170 | 0.20 | 0.20 | 0.9 | 0.018 | 0.006 | 0.02 | 0.04 | 0.004 | 0.06 | 0.000 | | | 0.36 | 78.30 | 50.03 | 27 | 69 | 161 | | | | | | | | N |
| COVER | ASTM A105-2005 | C 30967 | 0.18 | 0.17 | 0.95 | 0.024 | 0.008 | 0.02 | 0.06 | 0.004 | 0.05 | 0.003 | | | 0.36 | 74.68 | 52.20 | 30 | 65 | 150 | | | | | | | | N |

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|---------|--------------------|---------|-------|------|------|-------|-------|-------|-------|-------|-------|-------|--|-------|------|-------|-------|----|----|-----|--|--|--|--|--|--|--|---|
| BODY | ASTM A216 WCB-2008 | W 16892 | 0.196 | 0.51 | 0.92 | 0.022 | 0.010 | 0.045 | 0.044 | 0.004 | 0.033 | 0.005 | | 0.052 | 0.37 | 77.43 | 56.70 | 29 | 54 | 171 | | | | | | | | N |
| CLAPPER | ASTM A105-2005 | C 11170 | 0.20 | 0.20 | 0.9 | 0.018 | 0.006 | 0.02 | 0.04 | 0.004 | 0.06 | 0.000 | | | 0.36 | 78.30 | 50.03 | 27 | 69 | 161 | | | | | | | | N |
| COVER | ASTM A105-2005 | C 30967 | 0.18 | 0.17 | 0.95 | 0.024 | 0.008 | 0.02 | 0.06 | 0.004 | 0.05 | 0.003 | | | 0.36 | 74.68 | 52.20 | 30 | 65 | 150 | | | | | | | | N |

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| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------|--------------------|---------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--|-------|------|-------|-------|----|----|-----|--|--|--|--|--|--|--|---|
| BODY | ASTM A216 WCB-2008 | W 17204 | 0.207 | 0.480 | 0.940 | 0.028 | 0.014 | 0.020 | 0.036 | 0.030 | 0.020 | 0.020 | | 0.050 | 0.38 | 79.75 | 50.75 | 27 | 58 | 161 | | | | | | | | N |
| CLAPPER | ASTM A105-2005 | C 11170 | 0.20 | 0.20 | 0.9 | 0.018 | 0.006 | 0.02 | 0.04 | 0.004 | 0.06 | 0.000 | | | 0.36 | 78.30 | 50.03 | 27 | 69 | 161 | | | | | | | | N |
| COVER | ASTM A105-2005 | C 30967 | 0.18 | 0.17 | 0.95 | 0.024 | 0.008 | 0.02 | 0.06 | 0.004 | 0.05 | 0.003 | | | 0.36 | 74.68 | 52.20 | 30 | 65 | 150 | | | | | | | | N |

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| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------|--------------------|---------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--|-------|------|-------|-------|----|----|-----|--|--|--|--|--|--|--|---|
| BODY | ASTM A216 WCB-2008 | W 17239 | 0.205 | 0.456 | 0.962 | 0.026 | 0.008 | 0.026 | 0.039 | 0.004 | 0.040 | 0.008 | | 0.045 | 0.39 | 82.07 | 54.38 | 28 | 52 | 164 | | | | | | | | N |
| CLAPPER | ASTM A105-2005 | C 11170 | 0.20 | 0.20 | 0.9 | 0.018 | 0.006 | 0.02 | 0.04 | 0.004 | 0.06 | 0.000 | | | 0.36 | 78.30 | 50.03 | 27 | 69 | 161 | | | | | | | | N |
| COVER | ASTM A105-2005 | C 30967 | 0.18 | 0.17 | 0.95 | 0.024 | 0.008 | 0.02 | 0.06 | 0.004 | 0.05 | 0.003 | | | 0.36 | 74.68 | 52.20 | 30 | 65 | 150 | | | | | | | | N |