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MTR#:DSRB0411.GIF

MILL TEST REPORT  
Customer: ASAALB PO#:P022153 SO#:LHL103  
Item:RB6L0900 Bundle:DS60557012 Heat#:94204

DS 60557012

94204

DSRB 0411

CO13836



**DNEPROSPETSSTAL, YUZHNOYE SHOSSE 81, ZAPOROZHYE 69008, UKRAINE**

QMS Certified

Contract No.: 07234  
TECHN.PROTOCOL № 210-06 SPEC.№4314/L26393  
ASTM A182/A182M-05; ASME SA-182/SA-182M-04; ASTM A276-04;  
ASTM A479/A479M-04; ASTM SA-479/SA-479M-04; ASTM A484/A484M-05; AMS-QQ-S-763A-03  
Cond.A; NACE MR 0175-2000; AMS 5648K-02; AMS 5653F-02; ASTM A193/A193M-04c GR B8M, CL1  
ASME SA-193/SA-193M-04GR B8M, CL1

Sheets: 7 Sheet: 7  
QUALITY CERTIFICATE EN10204/3.1 Nr. 225521  
PLANT ORDER № 8072344314

**CUSTOMER**  
OK  
11/5/10  
"DSS INTERNATIONAL SA"  
Switzerland  
Commodity code RB6L0900/DS

**PRODUCT DESCRIPTION**  
Rods of corrosion-resistant (stainless) steel, forged, peened. Прутки из коррозионностойких (нержавеющих) сталей кованные обточенные.  
**STEEL MAKING PROCESS: EAF+AOD**  
СПОСОБ ВЫПЛАВКИ: Электродуговая печь+АКР  
Round 9.000lb/228.60 mm L=5.55m/18.20ft  
Grade: 316F/316L/316L

**QUANTITY:**  
(number of pcs) 1 load 0-4114 R/1866 kg

**Delivery condition**  
solution annealed: 1900-2010°F (1040-1100°C) water  
термообработка: закалка в воду

| ANALYSES, %         | C     | Si     | Mn        | P     | S         | Cr          | Ni          | Mo        | Al   | Cu   | V    | W    | Ti   | Co   | Nb   | N <sub>2</sub> |  |  |
|---------------------|-------|--------|-----------|-------|-----------|-------------|-------------|-----------|------|------|------|------|------|------|------|----------------|--|--|
| REQUIRED            | <.030 | <.1,00 | 1.25-2.00 | <.040 | .020-.030 | 16.00-18.00 | 10.00-14.00 | 2.00-3.00 | <.10 | <.40 | <.10 | <.20 | <.15 | <.40 | <.20 | <.10           |  |  |
| <b>CAST № 94204</b> | .025  | .48    | 1.59      | .039  | .025      | 17.06       | 10.07       | 2.09      | .068 | .28  | .05  | .09  | .076 | .085 | .013 | .027           |  |  |

| MECHANICAL PROPERTIES | Yield Strength, Kpsi(N/mm <sup>2</sup> )<br>Re (R <sub>eL</sub> ) | Tensile Strength, Rm,kpsi<br>(N/mm <sup>2</sup> ) | Elongation A <sub>5</sub> , % | Reduction of area, Z, % | Brinell Hardness HB | Impact strength, KV, J |
|-----------------------|---|---|-------------------------------|-------------------------|---------------------|------------------------|
| REQUIRED              | 30(205)   | 75 (515)  | 45                            | 50                      | 140-223             | 100                    |
| EFFECTIVE             | 39.8(275)   | 76.6(543)   | 64                            | 75                      | 163                 | 181                    |

**TECHNICAL REQUIREMENTS:**  
Macrostructure - GOOD  
GRAIN SIZE: 4 to ASTM E 112  
Nonmetallic inclusions ASTM E 45 (Method A)  
A B C D  
thin thick thin thick thin thick thin thick  
2.5 2.0 1.5 1.5 0.0 0.0 1.0 1.0  
ICC-ASTM A262-02a(Method E)-test: O.K.  
Dimension/surface defects test, anti-ripping test - O.K.  
Ratio of reduction-7,8:1

Mechanical properties tested in state of delivery

US - testing      yes      Results: SEP 1921, 3/ Cc - O.K.

Radiation free; mercury free. No Weld or Weld repair.

Manufacturer: JSC DNEPROSPETSSTAL  
Date: 02.09.09 Signed:   
Zaporozhye  
Made in Ukraine.

