




C290013

PrJSC DNIPROSPETSSTAL, YUZHNOYE SHOSSE 81, 69008 ZAPOROZHYE, UKRAINE

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|---|---|--|--|------------------|---|------------------------------|---------------------|------------------------|----------|---|--|--|------|---|------|------|-------|-------|----|--|
|  | Contract No.: 20002 TECHN.PROTOCOL № 390-11 SPEC.№9684/PO49596 DIN EN 10088-3-05, DIN EN 10272-08, DIN EN 10222-5-00; ASTM A182/A182M-10; ASME SA-182/SA-182M-10; ASTM A276-10; ASTM A314-08, ASTM A479/A479M-10; ASME SA-479/SA-479M-10; ASTM A484/A484M-10; AMS-QQ-S-763B-06 Cond.A; AMS 5648K-07; AMS 5653F-07; ASTM A193/A193M-10GR B8M,CL1; ASME SA-193/SA-193M-10 GR B8,CL 1; ASTM A320/A320M-08 GR B8M,CL 1; ASME SA-320/SA-320M-10 GR B8,CL1; NACE MR 0175-03; NACE MR 0103-10 | | | | | | | | | | INSPECTION CERTIFICATE EN10204/3.1 Nr.367719 PLANT ORDER № 8014909684 | | | | | | | | | |
| |  | CUSTOMER DSS INTERNATIONAL SA Switzerland | | | PRODUCT DESCRIPTION Bars and rods of corrosion-resistant (stainless) steel forged, peeled. Прутки из коррозионноустойких (нержавеющих) сталей кованные, обточенные. STEEL MAKING PROCESS: EAF+AOD СПОСОБ ВЫПЛАВКИ: Электродуговая печь+АКР Round 18.750in/476.25 mm L=4.590ft/1.400m L=4.656 ft/1.420m Grade: 316/316L/1.4401/1.4404 | | | | | | | QUANTITY: 1bund Q-4497 lb/2040 kg (number of pcs) 1bund Q-4541 lb/2060 kg | | Delivery condition solution annealed :1940 ⁰ F(1060 ⁰ C)water 35minutes термообработка:закалка в воду | | | | | | |
| ANALYSIS, % | | | | | | | | | | | | | | | | | | | | |
| | C | Si | Mn | P | S | Cr | Ni | Mo | Al | Cu | V | W | Ti | Co | Nb | N | Sn | B | | |
| REQUIRED | <.030 | <1,00 | 1.20-2.00 | <.040 | .015-.030 | 16.50-18.00 | 10.00-13.00 | 2.00-2.50 | <.10 | <.40 | <.10 | <.20 | <.15 | <.40 | <.20 | <.10 | | | | |
| CAST № A09131 | .020 | .43 | 1.30 | .037 | .025 | 17.06 | 10.15 | 2.08 | .07 | .27 | .05 | .06 | .005 | .13 | .011 | .030 | .0095 | .0022 | | |
| DIN EN 10002-1, ASTM A370-09 | | | | | | | | | | | | | | | | | | | | |
| MECHANICAL PROPERTIES | Yield Strength, (N/mm ²) R0.2% R 1.0% | | Tensile Strength, Rm, (N/mm ²) | Elongation | | Reducti on of area, Z % L | Brinell Hardness HB | Impact strength, KV, J | | TECHNICAL REQUIREMENTS: Macrostructure – GOOD GRAIN SIZE : 5 to ASTM E 112-96(2004) Nonmetallic inclusions ASTM E 45-05 (Method A) A B C D thin thick thin thick thin thick thin thick 3.0 2.0 2.0 1.0 0.0 0.0 1.0 1.0 | | | | | | | | | | |
| | | | | A ₅ % | In 2 inches (50mm) or 4D, min, % L | | | L | Q | | | | | | | | | | | |
| | REQUIRED | 205 | 240 | 515-690 | 45 35 | 40 | 50 | 140-217 | 100 | | | | | | | | | | 60 | |
| EFFECTIVE | 302 | 347 | 564 | 60 53 | 58 | 80 | 163 | 202 202 202 | 69 69 69 | | | | | | | | | | | |
| Mechanical properties tested in state of delivery | | | | | | | | | | Date: 17.03.2021 Manager of quality assurance department - V. Kapaieva Signed:  Zaporozhye Melted and Produced in Ukraine. MELTED and MANUFACTURED PrJSC " Dnipropetsstal" Phone number +380612834255 e-mail: info@dss.com.ua http://www.dss-ua.com | | | | | | | | | | |
| US - testing | yes | Results: ASTM A388/A388M-FBH1/5"; EN 10228-4 type 1a; class 3:OK | | | | | | | | | | | | | | | | | | |
| Radiation free; mercury free. No Weld or Weld repair. | | | | | | | | | | | | | | | | | | | | |

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