




C114278

HT# A01049

PJSC DNIPROSPETSSTAL, YUZHNOYE SHOSSE 81, 69008 ZAPOROZHYE, UKRAINE

| | | | | | | | | | | | | | | | | | | | | | |
|---|--|---|-------|---|-------|---------------------------------|-------------|---------------------------|-----------|--|------|---|------|-------------------|------|------|----------------|------|------|--|--|
|  | | Contract No.: 20002 TECHN. PROTOCOL № 390-11 SPEC. № 3998/P033237-ED DIN EN 10088-3-05; DIN EN 10272-08; DIN EN 10222-5-00; AD2000-Merkblatt W10; ASTM A182/A182M-10; ASME SA-182/SA-182M-10; ASTM A276-10; ASTM A479/A479M-10; ASME SA-479/SA-479M-10; ASTM A484/A484M-10; AMS-QQ-S-763B-06 Cond. A; AMS 5648K-07; ASTM A193/A193M-10GR B8M, CL1; ASME SA-193/SA-193M-10 GR B8, CL1; ASTM A320/A320M-08 GR B8M, CL1; ASME SA-320/SA-320M-10 GR B8, CL1; NACE MR 0175-03; NACE MR 0103-10 | | | | | | | | | | Sheets: 7 Sheet: 7 INSPECTION CERTIFICATE EN10204/3.1 Nr.286788 PLANT ORDER № 8014903998 | | | | | | | | | |
|  | | PRODUCT DESCRIPTION Bars and rods of corrosion-resistant (stainless) steel forged, peeled, Прутки из коррозионностойких (нержавеющих) сталей кованые, обработанные. STEEL MAKING PROCESS: EAF+AOD ШОСОБ ВЫПЛАВКИ: Электродуговая печь+AKP Round 8.500in/215.90 mm L=3.760m/12.328ft L=3.945m/12.934ft L=4.510m/14.787ft Grade: 316/316L/1.4401/1.4404 | | | | | | | | | | QUANTITY: 1bund Q-2500 lb/1134 kg 1bund Q-2628 lb/1192 kg 1bund Q-2998 lb/1360 kg Delivery condition solution annealed :1940° F(1060° C)water 25minutes термообработка:закалка в воду | | | | | | | | | |
| ANALYSIS, % | | C | Si | Mn | P | S | Cr | Ni | Mo | Al | Cu | V | W | Ti | Co | Nb | N ₂ | 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 № A01049 | | .020 | .44 | 1.32 | .034 | .025 | 17,13 | 10.40 | 2.07 | .064 | .22 | .05 | .09 | .011 | .07 | .01 | .030 | .010 | .001 | | |
| DIN EN 10002-1, ASTM A370-09 | | | | | | | | | | | | | | | | | | | | | |
| MECHANICAL PROPERTIES | | Yield Strength, (N/mm ²) R _{0.2%} R 1.0% | | Tensile Strength, R _m , (N/mm ²) | | Elongation A ₅ % L Q | | Reducti on of area, Z % L | | Brinell Hardness HB | | Impact strength, KV, J L Q | | | | | | | | | |
| | | | | 515-690 | | 45 35 | | 50 | | 140-223 | | 100 60 | | | | | | | | | |
| REQUIRED | | 205 240 | | 515-690 | | 45 35 | | 50 | | 140-223 | | 100 60 | | | | | | | | | |
| EFFECTIVE | | 291 324 | | 551 548 | | 60 53 59 | | 81 81 | | 163 163 | | 280 280 282 277 277 277 | | 64 64 63 63 65 65 | | | | | | | |
| Mechanical properties tested in state of delivery | | | | | | | | | | | | | | | | | | | | | |
| US - testing | | Results: ASME SA-388/SA-388M-10(ASTM A 388(A 388M-09)-FBH1/8";EN 10228-4 type Ia;class 3:OK | | | | | | | | | | | | | | | | | | | |
| Radiation free; mercury free. No Weld or Weld repair. | | | | | | | | | | | | | | | | | | | | | |
| Manufacturer: PJSC DNIPROSPETSSTAL Date: 05.08.14 Signed: | | | | | | | | | | Manager of quality assurance department - V. Kapaieva  Zaporozhye Made in Ukraine. | | | | | | | | | | | |

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