

# A01299 - 18.75

C/115808

## PJSC DNIPROSPETSSTAL, YUZHNOYE SHOSSE 81, 69008 ZAPOROZHYE, UKRAINE

Contract No.: 20002  
 TECHN.PROTOCOL № 390-11 SPEC.№5037/P034083-ED  
 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-10 GR B8, CL 1; 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, CL 1; NACE MR 0175-03; NACE MR 0103-10

Sheets: 7 Sheet: 7  
 INSPECTION CERTIFICATE EN10204/3.1 Nr. 288687  
 PLANT ORDER № 8014905037

**CUSTOMER**  
**DSS INTERNATIONAL**  
**SA Switzerland**

**PRODUCT DESCRIPTION**  
 Bars and rods of corrosion-resistant (stainless) steel forged, peeled. Продукти из корозійностійких (нержавеючих) сталей кованих, обточенних.  
**STEEL MAKING PROCESS: EAF+AOD**  
**СПОСІБ ВИПЛАВКИ:** Електроплавка печі + АКР  
 Round 18.750in/476.25 mm L=2.730m/8.951ft  
**Grade: 316/316L/1.4401/1.4404**

**QUANTITY:** 1bund Q-8792 1b/3988 kg  
 (number of pcs)  
**Delivery condition**  
 solution annealed : 1976° F(1080° C) water 42minutes  
 термодобротка: знекарка в воді

ANALYSIS, %	C	Si	Mn	P	S	Cr	Ni	Mo	Al	Cu	V	W	Ti	Co	Nb	N <sub>2</sub>	Sn	B
CAST № A01299	.022	.50	1.39	.035	.021	17.23	10.20	2.10	.066	.27	.06	.15	.005	.12	.012	.030	.0101	.0011


DIN EN 10002-1, ASTM A370-09

MECHANICAL PROPERTIES	Yield Strength, (N/mm <sup>2</sup> ) R0.2% R 1.0%	Tensile Strength, (N/mm <sup>2</sup> ) Rm	Elongation		Reduction of area, Z, % L	Brinell Hardness HB	Impact strength, KV, J	
			A <sub>5</sub> % L Q	In 2 inches (50mm) or 4D, min, % L			L	Q
REQUIRED	205	515-690	45-35	40	50	140-223	100	60
EFFECTIVE	280	583	59-54	57	73	170	214 205 210	62 63 63

Mechanical properties tested in state of delivery

US - testing      yes      Results: ASME SA-388/SA-388M-10(ASTM A 388/A 388M-09)-FBH1/5" EN 10228-4 type 1a class 3: OK

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

Manufacturer: PJSC DNIPROSPETSSTAL  
 Date: 30.09.14      Manager of quality assurance department - V. Kapaleva  
 Signed:   
 Zaporozhye  
 Made in Ukraine.

**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  
 2.5 2.0 2.5 2.0 0.0 0.0 1.0 1.0  
 ICC-ASTM A262-08 (practice E)-test: O.K.  
 Dimension/surface defects test, anti-mixing test - OK