



C 09 5262

ASA PO. 78377 WO 7548 CPA 6 FOE 55 80 - 1PC

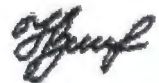
PJSC DNIPROSPETSSTAL, YUZHNOYE SHOSSE 81, 69008 ZAPOROZHYE, UKRAINE

	Contract No.: 50005 TECHN. PROTOCOL № 390-11 SPEC. № 1144/P030989-ED DIN EN 10088-3-05, DIN EN 10272-08, DIN EN 10222-5-00, AD2060-Merkblatt W2; AD 2006-Merkblatt W10; 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, 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; <u>NACE MR 0175-03; NACE MR 0103-10</u>	Sheets: 7 Sheet: 5 QUALITY CERTIFICATE <u>EN10204/3.1</u> Nr. 277141 PLANT ORDER № 8014901144
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	CUSTOMER DSS INTERNATIONAL SA Switzerland	PRODUCT DESCRIPTION Bars and rods of corrosion-resistant (stainless) steel forged, peeled. Прутки из коррозионно-стойких (перекваляющих) сталей кованые, обточенные. STEEL MAKING PROCESS: EAF+AOD СПОСОБ ВЫПЛАВКИ: Электродуговая печь + АКР Round 9.000in/228.60 mm L=3.840m/12.590ft L=3.600m/11.803ft <u>Grade: 316/316L/1.4401/1.4404</u>	QUANTITY: 1bund Q-2853 lb/1294 kg (number of pos) 1bund Q-2676 lb/1214 kg Delivery condition solution annealed : 1904° F (1040°C) water 20minutes термообработка: закалка в воду
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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 Heat # № 99812	.021	.42	1.33	.035	.025	17.15	10.25	2.07	.069	.28	.04	.12	.005	.08	.013	.030	.011	0015

DIN EN 10002-1, ASTM A370-09										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 1.5 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									
MECHANICAL PROPERTIES	Yield Strength, (N/mm ²) 10.2% R 1.0%		Tensile Strength, Rm, (N/mm ²)	Elongation		Reduction of area, Z % L	Brinell Hardness HB	Impact strength, KV, J											
	L	Q		A ₅ % L	In 2 inches (50mm) or 4D, min. % L			L	Q										
REQUIRED	205	240	515-690	45	35	40	50	140-223	100										
EFFECTIVE	305 302	337 331	584 588	59	53 58	56 56	77 78	170 170	279 277 283 270 265 272	61 61 61 61 61 61									

Mechanical properties tested in state of delivery		Results: ASME SA-388/SA-388M-10 (ASTM A 388/A 388M-09)-FBH 1/8"; EN 10228-4 type Ia; class 3: OK	Manufacturer: PJSC DNIPROSPETSSTAL Date: 09.10.13 Manager of quality assurance department - V. Kapaieva Signed:  Zaporozhye Made in Ukraine.
US - testing	yes		

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

ANS