

99281

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

	Contract No.: 50005 TECHN.PROTOCOL № 390-11 SPEC.№0231/P030022-ED DIN EN 10088-3-05,DIN EN 10272-08,AD2000-Merkblatt W2;AD 2000-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,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	Sheets:8 Sheet: 8 <b>QUALITY CERTIFICATE EN10204/3.1 Nr.273199</b> PLANT ORDER № 8014900231
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	<b>CUSTOMER</b> DSS INTERNATIONAL SA Switzerland	<b>PRODUCT DESCRIPTION</b> Bars and rods of corrosion-resistant (stainless) steel hot rolled, peeled.Прутки из коррозионностойких (нержавеющих) сталей горячекатаные, обточенные. <b>STEEL MAKING PROCESS: EAF+AOD</b> <b>СПОСОБ ВЫПЛАВКИ: Электродуговая печь+АКР</b> Round 7.250in/184.15 mm L=5.510m/18.066ft L=5.560m/18.230ft Grade: 316/316L/1.4404/1.4404	QUANTITY: 1bund Q-2668 lb/1210 kg (number of pcs) 1bund Q-2690 lb/1220 kg  Delivery condition solution annealed :1900° F(1040° C)water 30minutes 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 <sub>2</sub>	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 № 99281	.018	.46	1.31	.035	.024	17,19	10.26	2.10	.062	.33	.04	.08	.01	.09	.012	.026	.011	.001

DIN EN 10002-1,ASTM A370-09										<b>TECHNICAL REQUIREMENTS:</b> 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 2.0 2.0 2.5 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 <sup>2</sup> ) R0.2% R 1.0%		Tensile Strength, Rm, (N/mm <sup>2</sup> )	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	240	515-690	45 35	40	50	140-223	100	60										
EFFECTIVE	298 300	330 332	578 580	56 51 57 52	56 57	75 75	163 163	297 295 293 295 295 291	80 74 70 75 71 69										

US - testing	yes	Results: ASME SA-388/SA-388M-10(ASTM A 388/A 388M-09)-FBH1/8";EN 10308 type 1;class 3:OK	Manufacturer: PJSC DNIPROSPETSSTAL Date: 27.05.13 Manager of quality assurance department - V. Kapaieva Signed:  Zaporozhye Made in Ukraine.
Radiation free; mercury free. No Weld or Weld repair.			