



# A00005

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

	Contract No.: 50005 TECHN.PROTOCOL № 390-11 SPEC.№1816/P031589 DIN EN 10088-3-05, DIN EN 10272-08, DIN EN 10222-5-00, 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; NACB MR 0175-03; NACB MR 0103-10	Sheets: 7                      Sheet: 6 <b>QUALITY CERTIFICATE EN10204/3.1 Nr.278528</b> PLANT ORDER № 8014901816
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 GMS Certified	<b>CUSTOMER</b> DSS INTERNATIONAL SA Switzerland	<b>PRODUCT DESCRIPTION</b> Bars and rods of corrosion-resistant (stainless) steel forged, peeled. Прутки из коррозионноустойчивых (нержавеющих) сталей: кованые, обточенные. <b>STEEL MAKING PROCESS: EAF+AOD</b> <b>СПОСОБ ВЫПЛАВКИ: Электродуговая печь + АКР</b> Round 8.500in/215.90 mm L=4.050m/13.279ft L=4.040m/13.246ft L=3.740m/12.262ft Grade: 316/316L/1.4401/1.4404	QUANTITY:                      1bund Q-2712 lb/1230 kg (number of pcs)              1bund Q-2685 lb/1218 kg 1bund Q-2509 lb/1138 kg  Delivery condition solution annealed :1940°F(1060°C)water 25minutes 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 № A00005	.020	.50	1.33	.035	.025	16,92	10.23	2.03	.059	.24	.05	.12	.005	.11	.015	.032	.012	.0012

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) <table style="width: 100%; text-align: center;"> <tr> <td>A</td><td>B</td><td>C</td><td>D</td> </tr> <tr> <td>thin</td><td>thick</td><td>thin</td><td>thick</td> </tr> <tr> <td>2.0</td><td>1.5</td><td>1.5</td><td>1.0</td> </tr> <tr> <td>0.0</td><td>0.0</td><td>0.0</td><td>1.0</td> </tr> </table> ICC-ASTM A262-08 (practice E)-test: O.K. Dimension/surface defects test, anti-mixing test – OK										A	B	C	D	thin	thick	thin	thick	2.0	1.5	1.5	1.0	0.0	0.0	0.0	1.0
A	B	C	D																																
thin	thick	thin	thick																																
2.0	1.5	1.5	1.0																																
0.0	0.0	0.0	1.0																																
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																											
	L	Q		As %	In 2 inches (50mm) or 4D, min, % L			L	Q																										
REQUIRED	205	240	515-690	45	35	40	50	140-223	100	60																									
EFFECTIVE	291 294	335 338	591 599	60	54 59	53 54	75 75	170 170	197 184 188 190 190 185	62 65 64 63 61 61																									

US - testing	yes	Results: ASME SA-388/SA-388M-10(ASM A 388/A 388M-09)-FBH1/5"; EN 10228-4 type 1a; class 3:OK	Manufacturer: PJSC DNIPROSPETSSTAL Date: 26.11.13      Manager of quality assurance department - V. Kapaieva Signed:   Zaporozhye Made in Ukraine.
Radiation free; mercury free. No Weld or Weld repair.			