

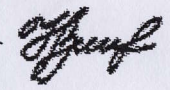


C114787

HT# A01073

PJSC DNIPROSPETSSTAL, YUZHNOYE SHOSSE 81, 69008 ZAPOROZHYE, UKRAINE																																																																											
	Contract No.: 20002 TECHN.PROTOCOL № 390-11 SPEC.№3734/P033051-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-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:7 Sheet: 1 INSPECTION CERTIFICATE EN10204/3.1 Nr.287092 PLANT ORDER № 8014903734																																																															
		CUSTOMER DSS INTERNATIONAL SA Switzerland			PRODUCT DESCRIPTION Bars and rods of corrosion-resistant (stainless) steel forged, peeled. Прутки из коррозионностойких (нержавеющих) сталей кованные, обточенные. STEEL MAKING PROCESS: EAF+AOD СПОСОБ ВЫПУСКА: Электродуговая печь+АКР Round 15.000in/381.00 mm L=4.630m/15.180ft Grade: 316/316L/1.4401/1.4404											QUANTITY: (number of pcs) 1bund Q-9546 lb/4330 kg Delivery condition solution annealed :1940° F(1060° C)water 34minutes термообработка:закалка в воду																																																											
ANALYSIS, % <table border="1"> <thead> <tr> <th></th> <th>C</th> <th>Si</th> <th>Mn</th> <th>P</th> <th>S</th> <th>Cr</th> <th>Ni</th> <th>Mo</th> <th>Al</th> <th>Cu</th> <th>V</th> <th>W</th> <th>Ti</th> <th>Co</th> <th>Nb</th> <th>N₂</th> <th>Sn</th> <th>B</th> </tr> </thead> <tbody> <tr> <td>REQUIRED</td> <td><.030</td> <td><1,00</td> <td>1.20-2.00</td> <td><.040</td> <td>.015-.030</td> <td>16.50-18.00</td> <td>10.00-13.00</td> <td>2.00-2.50</td> <td><.10</td> <td><.40</td> <td><.10</td> <td><.20</td> <td><.15</td> <td><.40</td> <td><.20</td> <td><.10</td> <td></td> <td></td> </tr> <tr> <td>CAST № A01073</td> <td>.023</td> <td>.44</td> <td>1.32</td> <td>.034</td> <td>.022</td> <td>16,89</td> <td>10,26</td> <td>2,09</td> <td>.076</td> <td>.21</td> <td>.04</td> <td>.11</td> <td>.005</td> <td>.07</td> <td>.01</td> <td>.027</td> <td>.012</td> <td>.0011</td> </tr> </tbody> </table>																				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 № A01073	.023	.44	1.32	.034	.022	16,89	10,26	2,09	.076	.21	.04	.11	.005	.07	.01	.027	.012	.0011
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DIN EN 10002-1, ASTM A370-09																																																																											
MECHANICAL PROPERTIES		Yield Strength, (N/mm ²) R0.2% R 1.0%		Tensile Strength, Rm, (N/mm ²)		Elongation A ₅ % L Q In 2 inches (50mm) or 4D, min, % L		Reducti on of area, Z % L		Brinell Hardness HB		Impact strength, KV, J L Q		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 2.5 2.0 1.0 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																																																													
REQUIRED		205	240	515-690		45	35	40	50	140-223		100	60																																																														
EFFECTIVE		265	297	561		61	54	60	79	163		204	200	197	65	65	65																																																										
		263	295	565		61	54	60	79	163		199	200	206	64	64	64																																																										
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											Manufacturer: PJSC DNIPROSPETSSTAL Date: 14.08.14 Manager of quality assurance department - V. Kapaieva Signed: 																																																												
Radiation free; mercury free. No Weld or Weld repair.																			Zaporozhye Made in Ukraine.																																																								