



98214 3" TBR.


C068459

PJSC DNIPROSPETSSTAL, YUZHNOYE SHOSSE 81, 69008 ZAPOROZHYE, UKRAINE

	Contract No.: 50005 TECHN.PROTOCOL № 210-11 SPEC.№ 7049/P027673-ED ASTM A182/A182M 10;ASME SA-182/SA-182M-10;ASTM A276-10;ASTM A314-08;ASTM A479A479M-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 B8M,CL1 (EXC PAR 7.2);ASME SA-193/SA-193M-10GR B8M,CL1(EXC PAR 7.3);NACE MR 0175-03;NACE MR 0103-10		Sheets:10 Sheet: 3 QUALITY CERTIFICATE EN10204/3.1 Nr.265616 PLANT ORDER № 8014907049
	 CUSTOMER DSS INTERNATIONAL SA Switzerland GMS Certified	PRODUCT DESCRIPTION Bars and rods of corrosion-resistant (stainless) steel hot rolled, peeled on Landgraf line.Прутки из коррозионностойких (нержавеющих) сталей горячекатаные, обточенные на линии «Ландграф» STEEL MAKING PROCESS: EAF+AOD СПОСОБ ВЫПЛАВКИ: Электроплавка пем. + AOP Round 3.250in/82.55 mm L=4.050m/13.279ft; L=4.000m/13.115ft; Grade: 316/F316/316L/F316L	
		QUANTITY: 1bund Q-3298 lb/1496kg (number of pes) 1bund Q-3360 lb/1524kg	Delivery condition solution annealed :1900-2010° F(1040-1100° C)/water термообработка:закалка в воду

ANALYSIS. %	C	Si	Mn	P	S	Cr	Ni	Mo	Al	Cu	V	W	Ti	Co	Nb	N ₂		
REQUIRED	<.030	<1.00	1.25-2.00	<.040	.020-.030	16.00-18.00	10.00-14.00	2.00-3.00	<.10	<.40	<.10	<.20	<.15	<.40	<.20	<.10		
CAST № 98214	.022	.40	1.31	.036	.025	16.76	10.20	2.10	.080	.27	.04	.13	.005	.08	.01	.0320		

ASTM A370							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 2.0 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
MECHANICAL PROPERTIES	Yield Strength, Ksi(N/mm ²) Re (R _{e2})	Tensile Strength, Rm,ksi (N/mm ²)	Elongation A ₅ %	Reduction of area, Z %	Brinell Hardness HB	Impact strength, KV, J	
REQUIRED	36(248)	75 (515)	45	50	140-223	100	
EFFECTIVE	43.4(298)	84.7(582)	59	77	170	247	

Mechanical properties tested in state of delivery		Manufacturer: PJSC DNIPROSPETSSTAL Date: 11.09.12 Manager of quality assurance department - V. Kapaieva Signed:  Zaporozhyc Made in Ukraine.
US - testing	yes Results: «ASTM A-388 FBH 1/8''(3.175mm)»	
Radiation free; mercury free. No Weld or Weld repair.		