



CPA - 1950 (2 pcs) 97464  
 04-RTS-160


C057625

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

	Contract No.: 50005 TECHN.PROTOCOL № 210-11 SPEC.№ 5867/P026458-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 ;ASME SA-193/SA-193M-10GR B8M,CL1;ASTM A320/A320M-08 GR B8M,CL;ASME SA-320/SA-320M-10 GR B8M,CL;NACE MR 0175-03;NACE MR 0103-10		Sheets:9 Sheet: 8 <b>QUALITY CERTIFICATE</b> EN10204/3.1 Nr.260467 PLANT ORDER № 8014905867
	 CUSTOMER <b>DSS INTERNATIONAL SA</b> Switzerland	<b>PRODUCT DESCRIPTION</b> Bars and rods of corrosion-resistant (stainless) steel forged, peeled.Прутки из коррозионностойких (нержавеющих) стальной кованые, обточенные. <b>STEEL MAKING PROCESS: EAF+AOD</b> <b>СПОСОБ ВЫПЛАВКИ: Электродуговая печь + АОР</b> Round 8.000in/203.20 mm L=3.665m/12.016 ft L=3.360m/11.016ft Grade: 316/F316/316L/F316L	QUANTITY: 1bund Q-2156 lb/978 kg (number of pcs) 1 bund Q-1980 lb/898 kg  Delivery condition solution annealed : 1900-2010°F(1040-1100°C)/water 20minutes термообработка: закалка в воду

ANALYSIS, %	C	Si	Mn	P	S	Cr	Ni	Mo	Al	Cu	V	W	Ti	Co	Nb	N <sub>2</sub>		
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 № 97464	.026	.49	1.31	.040	.027	16,85	10.23	2.04	.058	.25	.05	.07	.110	.09	.012	.0260		

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 1.0 1.5 1.0 0.0 0.0 1.0 1.0 ICC-ASTM A262-08 (practice B)-test: O.K. Dimension/surface defects test, anti-mixing test – OK
MECHANICAL PROPERTIES	Yield Strength, Ksi(N/mm <sup>2</sup> ) Re (R <sub>0.2</sub> )	Tensile Strength, Rm,ksi (N/mm <sup>2</sup> )	Elongation A <sub>5</sub> %	Reduction of area, Z %	Brinell Hardness HB	Impact strength, KV, J	
REQUIRED	36(248)	75 (515)	45	50	140-223	100	
EFFECTIVE	37,1(255)	82(563)	60	75	163	244	

Mechanical properties tested in state of delivery		Manufacturer: PJSC DNIPROSPETSSTAL Date: 04.04.12 Manager of quality assurance department - V. Kapaiova Signed:  Zaporozhye Made in Ukraine.
US - testing	yes Results: «ASTM A 388/A 388M-09- FBH 1/5 “ »	
Radiation free; mercury free. No Weld or Weld repair.		