

93723

DNEPROSPETSSTAL, YUZHNOYE SHOSSE 81, ZAPOROZHYE 69008, UKRAINE

Contract No.: 07149
 TECHN. PROTOCOL № 210-06 SPEC № 2445/PO16248
 ASTM A182/A182M-05; ASME SA-182/SA-182M-04; ASTM A276-04;
 ASTM A479/A479M-04; ASTM SA-479/SA-479M-04; ASTM A484/A484M-05; AMS-QQ-S-763A-03
 Cond. A; NACE MR 0175-2000; AMS 5648K-02; AMS 5653F-02; ASTM A193/A193M-04c GR B8M, CL1;
 ASME SA-193/SA-193M-04GR B8M, CL1 NACE MR 0175

Sheets: 7 Sheet: 5
 QUALITY CERTIFICATE EN10204/J.1 Nr. 216943
 PLANT ORDER № 8071492445

CUSTOMER „DSS INTERNATIONAL SA“ Switzerland	PRODUCT DESCRIPTION Rods of corrosion-resistant (stainless) steel, forged peeled Прутки из коррозионностойких (нержавеющих) сталей кованные обточен. STEEL MAKING PROCESS: EAF+AOD СПОСОБ ВЫПЛАВКИ: Электродуговая печь+АКР Round 15.00/381,00 mm L=4,09m Grade: 316/F316/F316L	QUANTITY: 1bund Q-8377 lb/3800kg (number of pcs) Delivery condition solution annealed: 1900-2010° F(1040-1100°C)/water термообработка: закалка в воду
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ANALYSES, %	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 № 93723	.020	.43	1.35	.038	.022	16.84	10.00	2.11	.037	.33	.04	.10	.072	.119	.013	.037		

MECHANICAL PROPERTIES	Yield Strength, Ksi(N/mm ²) Re (R _{0.2})	Tensile Strength, Rm,ksi (N/mm ²)	Elongation A ₅ %	Reduction of area, Z %	Brinell Hardness HB	Impact strength, KV, J	TECHNICAL REQUIREMENTS:			
							Macrostructure - GOOD GRAIN SIZE: 5 to ASTM E 112 Nonmetallic inclusions ASTM E 45 (Method A) A B C D thin thick thin thick thin thick thin thick 1.5 1.0 1.5 1.0 0.0 0.0 1.0 1.0 ICC-ASTM A262-02a(Method E)-test: O.K. „Dimension/surface defects test, anti-mixing test - O.K.“ Ratio of reduction-5,28:1			
REQUIRED	30(205)	75 (515)	45	50	140-223	100				
EFFECTIVE	36,5(251)	79,3(545)	59	75	159	284				
Mechanical properties tested in state of delivery										

US - testing	yes	Results: SEP 1921, 3/ Cc - O.K.	Manufacturer: JSC DNEPROSPETSSTAL Date: 16.09.08 Signed:
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Radiation free; mercury free. No Weld or Weld repair.

Zaporozhye
Made in Ukraine.



E17355