

96638 10"

C048612

Ln#: 4
 SO#: S046200
 Heat#: 86638
 Qty: 3172
 Date: 2/1/2012
 Part: 11410005
 To: ASA ALLOYS EDMONTON
 PO#: P026274



DNIPROSPETSSTAL, YUZHNOYE SHOSSE 81, ZAPOROZHYE 69008, UKRAINE

Contract No.: 50005 TECHN. PROTOCOL № 378-10 SPEC. № 3169 ASTM A182/A182M-09-ASME SA-182/SA-182M-07-ASTM A276-08-ASTM A479/A479M-08-ASME SA-179/SA-179M-07-ASTM A484/A484M-08-AMS-QQ-S-763B-06 Cond.A; AMS 5648K-02:AMS 5653F-02: ASTM A193/A193M-09-GR B8M,CL1 ASME SA-193/SA-193M-07 OR B8M,CL1		EN10204.1 Sheets: 6 Sheet: 5 QUALITY CERTIFICATE Nr.249588 PLANT ORDER № 8043203169
CUSTOMER „DSS INTERNATIONAL SA“ Switzerland Purchase number 207888	PRODUCT DESCRIPTION Bars and rods of corrosion-resistant (stainless) steel, forged, peeled. Прутки из коррозионностойких (нержавеющих) сталей кованные обточенные STEEL MAKING PROCESS: EAF+AOD, ingot cast СПОСОБ ВЫПЛАВКИ: Электродуговая печь+ГКР, разливка в слитки Round 10.0in/254.00 mm L=3.35m/10.98ft; 3.735m/12.23ft; 3.45m/11.31ft; 3.49m/11.44ft; L=3.40m/11.15ft; Grade: 316/F316/F316L/F316L S31600/S31603 (UNS)	QUANTITY: 1bund Q-3086 lb/1400kg 1bund Q-3439 lb/1560kg (number of pcs) 1bund Q-3170 lb/1438kg 1bund Q-3214 lb/1458kg 1bund Q-3135 lb/1422kg Delivery condition solution annealed: 1900-2010° F(1040-1100° C)/water термообработка: закалка в воду

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
HEAT № 96638	.024	.38	1.34	.033	.022	16.67	10.26	2.12	.073	.31	.05	.11	.110	.09	.011	.036

MECHANICAL PROPERTIES	Yield Strength, Ksi(MPA)	Tensile Strength, Rm,ksi (N/mm ²)	Elongation A ₅ %	Reduction of area, Z %	Brinell Hardness -HB	Impact strength, KV, J
REQUIRED	30(205)	75 (515)	45	50	140-223	100
EFFECTIVE	38.5(262)	83 (565)	.60	75	163	211

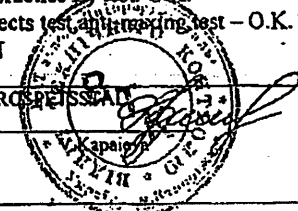
Mechanical properties tested in state of delivery

US - testing	yes	Results: SEP 1921, 3/ Cr - O.K
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Radiation free; mercury free. No Weld or Weld repair.

TECHNICAL REQUIREMENTS:
 Macrostructure - GOOD
 GRAIN SIZE: 5 to ASTM E 112-96
 Nonmetallic inclusions ASTM E 45 (Method A)

A		B		C		D	
thin	thick	thin	thick	thin	thick	thin	thick
2.5	2.0	2.0	1.5	0.0	0.0	1.0	1.0

 ICC-ASTM A262-02a(practice E) test - O.K.
 „Dimension/surface defects test, applicable test - O.K.“
 Ratio of reduction-7.8:1
 Manufacturer: PJSC DNIPROSPETSSTAL
 Date: 10.07.11 Signed: 
 Zaporozhye
 Made in Ukraine.

