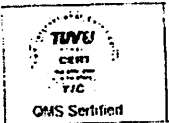


ASA
PO 75781
NO 5411
CPA 8-80

SV

95862

CO31301



DNEPROSPETSSTAL, YUZHNOYE SHOSSE 81, ZAPOROZHYE 69008, UKRAINE

Contract No.: 50005
 TECHN. PROTOCOL № 210-06 SPEC. № 1462/PO23042
 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 0175-2003; AMS 5648K-02; AMS 5653F-02; ASTM A193/A193M-04c GR B8M, CL1;
 ASME SA-193/SA-193M-04GR B8M, CL1 NACE MR103

EN10204/3.1
 Sheets: 6 Sheet: 6
 QUALITY CERTIFICATE № 243760
 PLANT ORDER № 8014901462

6/6/11
[Signature]

CUSTOMER „DSS INTERNATIONAL SA“ Switzerland	PRODUCT DESCRIPTION Bars and rods of corrosion-resistant (stainless) steel forged, peeced Прутки из коррозионностойких (нержавеющих) сталей кованные обточенные	QUANTITY: 1bund Q-4286 lb/1944kg (number of pcs)
	STEEL MAKING PROCESS: EAF+AOD СПОСОБ ВЫПЛАВКИ: Электродуговая печь - АКР Round 11,00in/279,40 mm L=3,86m/12,66ft Grade: 316/F316/316L/F316L	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 № 95862	.024	.40	1.33	.033	.024	16.80	10.13	2.03	.061	.27	.05	.13	.083	.09	.013	.045

MECHANICAL PROPERTIES „ASTM A370-08a“	Yield Strength, Ksi(MPA)	Tensile Strength, Rm,ksi (N/mm ²)	Elongation in 2 inches (50mm) or 40,mm, % (ASTM A370)	Reduction of area, Z, %	Brinell Hardness HB	Impact strength, KV. 1
REQUIRED	36(248)	75 (515)	45	50	140-223	100
EFFECTIVE	38.7(266)	82,1(564)	61	75	167	252

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
2.0	1.0	2.0	1.0
0.0	0.0	0.0	1.0

 ICC-ASTM A262-02a(Method E)-test: O.K.
 „Dimension/surface defects test, anti-mixing test - O.K.“
 Ratio of reduction-8.1 : 1

Mechanical properties tested in state of delivery

US - testing	yes	Results: SEP 1921, 3/ Cc - O.K.
--------------	-----	---------------------------------

Manufacturer: JSC DNEPROSPETSSTAL
 Date: 21.02.11 Signed: *[Signature]*
 V.Kapalya

Radiation free; mercury free. No Weld or Weld repair.
 Zaporozhye
 Made in Ukraine.