

95279.

CO21501



DNEPROSPETSSTAL, YUZHNOYE SHOSSE 81, ZAPOROZHYE 69008, UKRAINE

DMS Certified

Contract No.: 50005
 ECHN.PROTOCOL. № 210-06 SPEC.№0431/PO21944
 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-04 GR B8M, CL1
 ASME SA-193/SA-193M-04GR B8M, CL1

EN10204/3.1
 Sheets: 11 Sheet: 11
 QUALITY CERTIFICATE №.238155
 PLANT ORDER № 8014900431

QUANTITY: 1bund Q-2778 lb/1260 kg
 (number of pcs) 1bund Q-2800 lb/1270 kg

Delivery condition
 solution annealed : 1900-2010° F(1040-1100°C)/water 16minutes
 термообработка: закалка в воду

CUSTOMER
 „DSS INTERNATIONAL SA“
 Switzerland

PRODUCT DESCRIPTION
 Bars and rods of corrosion-resistant (stainless) steel forged, peeled. Прутки из коррозионностойких (нержавеющих) сталей кованные, обточенные.
 STEEL MAKING PROCESS: EAF+ AOD
 СПОСОБ ВЫПЛАВКИ: Электродуговая печь+ АКР
 Round 8.500in/215.90 mm L=4.16m/13.64ft L=4.27m/14.00ft
 Grade: 316/F316/316L/F316L

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 № 95279	.030	.54	1.43	.037	.030	17.10	10.13	2.08	.078	.24	.05	.09	.087	.08	.01	.027

ASTM A370-08a

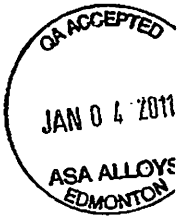
MECHANICAL PROPERTIES	Yield Strength, Ksi(N/mm ²) Re (R _{0.2})	Tensile Strength, Rm, ksi (N/mm ²)	Elongation	Reduction of area, Z %	Brinell Hardness HB	Impact strength, KV, J
			in 2 inches (50mm) or 4D, min, % (ASTM A370)			
REQUIRED	36(248)	75 (515)	45	50	140-223	100
EFFECTIVE	40.8(280)	82.8(569)	56	75	167	273

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
2.0	1.5	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- 8,61:1



Mechanical properties tested in state of delivery

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

Radiation free; mercury free. No Weld or Weld repair.

Manufacturer: JSC DNEPROSPETSSTAL
 Date: 28.09.10 Signed: *[Signature]*

Zaporozhye
 Made in Ukraine.

