

96137 (9").



QMS Certified



DNEPROSPETSSTAL, YUZHNOYE SHOSSE 81, ZAPOROZHYE 69008, UKRAINE

C033932

Contract No.: 50005

TECHN. PROTOCOL № 210-06 SPEC. № 1882/P023364-ED

ASTM A182/A182M-05; ASME SA-182/SA-182M-04; ASTM A276-04;
 ASTM A479/A479M-04; ASME SA-479/SA-479M-04; ASTM A484/A484M-05; AMS-QQ-S-763A-113
 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 MR0103

EN10204/3.1

Sheets: 6 Sheet: 2
QUALITY CERTIFICATE № 245761
 PLANT ORDER № 8014901882

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 9.000in/228.60 mm L=3.33m/10.92ft

Grade: 316/F316/316L/F316L

QUANTITY:

(number of pcs) 1bund Q: 2469, lb/1120 kg

Delivery condition

solution annealed: 1900-2010° F(1040-1100°C)/water 16minutes
 термообработка: отпуск 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 № 96137	.026	.50	1.38	.035	.020	16.80	10.20	2.05	.061	.22	.05	.10	.11	.07	.01	.033		

ASTM A370-08a

MECHANICAL PROPERTIES	Yield Strength, Ksi(N/mm ²) Re (R _{eL})	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	40.4(275)	84.1(572)	60	77	167	195

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
2.5	2.0	2.0	1.0
0	0	0	1.0

 ICC-ASTM A262-02a(Method B)-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.

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

Manufacturer: JSC DNEPROSPETSSTAL
 Date: 11.04.11 Signed: _____

Zaporozhye
 Made in Ukraine.

