

C 010758

94921. (C) 15.75



QMS Certified

DNEPROSPETSSTAL, YUZHNOYE SHOSSE 81, ZAPOROZHYE 69008, UKRAINE

Contract No.: 07149

TECHN.PROTOCOL № 210-06 SPEC.№6152/P021010

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

EN10204/3.1

Sheets:5

Sheet: 4

QUALITY CERTIFICATE №.233033

PLANT ORDER № 8071496152

 CUSTOMER
 „DSS INTERNATIONAL SA“
 Switzerland

PRODUCT DESCRIPTION

Bars and rods of corrosion-resistant (stainless) steel forged, peeled.

Прутки из коррозионноустойчивых (нержавеющих) сталей кованные обточенные

STEEL MAKING PROCESS: EAF+AOD

СПОСОБ ВЫПЛАВКИ: Электродуговая печь+АКР

Round 15.750in/400.05 mm L=4.20m/13.77ft

Grade: 316/F316/316L/F316L

QUANTITY:

(number of pcs) 1bund Q-9513 lb/4315 kg

Delivery condition

solution annealed :1900-2010°F(1040-1100°C)/water 27minutes

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 № 94921	.025	.35	1.43	.039	.023	16.84	10.26	2.05	.068	.21	.04	.07	.07	.06	.010	.030		

ASTM A 370-08a

MECHANICAL PROPERTIES	Yield Strength, Ksi(N/mm ²) Re (R _{eL})	Tensile Strength, Rm,ksi (N/mm ²)	Elongation in 2 inches (50mm) or 4D,min,% (ASTM A370)	Reduction of area, Z %	Brinell Hardness HB	Impact strength, KV, J
REQUIRED	36(248)	75 (515)	45	50	140-223	100
EFFECTIVE	41.8(287)	83.4(573)	58	75	167	265

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
2.5	2.0	2.5	1.5	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- 5.7:1

Mechanical properties tested in state of delivery

US - testing

yes

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

Manufacturer: JSC DNEPROSPETSSTAL

Date: 17.05.10 Signed:

Zaporozhye

Made in Ukraine.



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