

4" 24110

94968

C015221



QMS Certified


DNEPROSPETSSTAL, YUZHNOYE SHOSSE 81, ZAPOROZHYYE 69008, UKRAINE

EN10204/3.1

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 (EXC PAR 6.3)

ASME SA-193/SA-193M-04 GR B8M, CL1 (EXC PAR 6.3);

Sheets: 8

Sheet: 7

QUALITY CERTIFICATE Nr. 234226

PLANT ORDER № 8071496152

1bund Q-1856 lb/842 kg

 QUANTITY: 1bund Q-1689 lb/766 kg
 (number of pcs) 1bund Q-3395 lb/1540 kg

Delivery condition

 solution annealed : 1900-2010⁰ F (1040-1100⁰ C) / water
 термообработка: закалка в воду

 CUSTOMER
 „DSS INTERNATIONAL SA“
 Switzerland

PRODUCT DESCRIPTION

 Bars and rods of corrosion-resistant (stainless) steel hot rolled, peeled on Landgraf
 line. Прутки из коррозионноустойчивых (нержавеющих) сталей горячекатаные обточенные
 на линии Ландграф.

STEEL MAKING PROCESS: EAF+AOD

СПОСОБ ВЫПЛАВКИ: Электродуговая печь+АКР

Round 6.250in/158.75 mm L=3.40-5.50m/11.15-18.03ft

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 № 94968	.021	.29	1.31	.040	.025	16.69	10.07	2.07	.077	.26	.04	.09	.10	.10	.011	.032

ASTM A 370-08a

MECHANICAL PROPERTIES	Yield Strength, Ksi(N/mm ²) R _e (R _{e2})	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	45.1(310)	85.8(589)	60	77	174	280

Mechanical properties tested in state of delivery

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

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

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
2.5	1.5	2.0	1.0	0.0
0.0	1.0	1.0	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- 12.6:1



Manufacturer: JSC DNEPROSPETSSTAL

Date: 16.06.10 Signed:

V. Kapaieva

 Zaporozhye
 Made in Ukraine.