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TUV

9148 Certified

DNEPROSPETSSTAL, YUZHNOYE SHOSSE 81, ZAPOROZHIE 69008, UKRAINE

96132

Contract No.: S0005
 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; 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.C1.1;
 ASME SA-193/SA-193M-04GR B8M.C1.1; NACE MR0103

EN10204/3.1
 Sheets: 8 Sheet: 8
QUALITY CERTIFICATE № 245298
 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 ВЫПУСКА: Электродуговая печь + АКП
 Round 13.000in/330.20 mm L=3.055m/10.03ft L=3.09m/10.13ft
 Grade: 316/F316/316L/F316L

QUANTITY: Bund Q-4713 lb/2138 kg
 (number of pcs) Bund Q-4788 lb/2172 kg
Delivery condition
 solution annealed: 1900-2010°F(1040-1100°C)/water 23minutes
 термическая обработка: закалка в воду

ANALYSES, %	C	Si	Mn	P	S	Cr	Ni	Mo	Al	Cu	V	W	Ti	Co	Nb	N ₂		
REQUIRED	<.030	<.100	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 № 96132	.030	.26	1.25	.035	.030	17.02	10.19	2.10	.086	.23	.05	.08	.08	.08	.011	.028		

ASTM A370-08a

MECHANICAL PROPERTIES	Yield Strength, Ksi(N/mm ²) Re (R _{e2})	Tensile Strength, Rm, Ksi (N/mm ²)	Flattening in 2 inches (50mm) or 40, 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	43.8(301)	86.9(597)	59	73	174	187

Mechanical properties tested in state of delivery

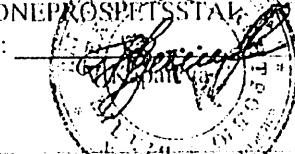
TECHNICAL REQUIREMENTS:
 Macrostructure – GOOD
 GRAIN SIZE : 5 to ASTM E 112
 Nonmetallic inclusions ASTM E 45 (Method A)

A	B	C	D
thin	thick	thin	thick
2.0	2.0	2.0	1.0
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- 6.1:1

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

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

Manufacturer: JSC DNEPROSPETSSTAL
 Date: 30.03.11 Signed: 
 Zaporozhye
 Made in Ukraine.

