

95829 (B¹)

C027223



DNEPROSPETS TAL, YUZHNOYE SHOSSE 81, ZAPOROZH YE 69008, UKRAINE

Contract No.: 50005
 TECHN. PROTOCOL № 210-06 SPEC. № 1462/PO23042
 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 5653F-02; ASTM A193/A193M-04; GR B8M, CL. 1;
 Cond. A; NACE MR 0175-2003; AMS 5648K-02; AMS 5653F-02; ASTM A193/A193M-04; GR B8M, CL. 1;
 ASME SA-193/SA-193M-04; GR B8M, CL. 1; NACE MR 0103

EN10204/3.1
 Sheets: 9
 Sheet: 8
 QUALITY CERTIFICATE №. 242440
 PLANT ORDER №. 8014901462

PRODUCT DESCRIPTION
 Bars and rods of corrosion-resistant (stainless) steel forged, pecked.
 Іл'ячки із корозійностійкими (непаяєними) елементами конструкції.
CUSTOMER
"DSS INTERNATIONAL SA"
 Switzerland
STEEL MAKING PROCESS: EAF + AOD
СПОСОБ ВИПУШТАВАННЯ: Джек-позитивна температура АКР
 Round 13.000in/330.20 mm L=3.08m/10.10ft L=2.99m/9.80ft
 Grade: 316F316/316L/F316L

QUANTITY: 1band 0-4753 lb/2156 kg
 (number of pcs) 1band 0-4630 lb/2100 kg
 Delivery condition
 solution annealed 1960-2010° F (1040-1100° C) water 23 minutes
 representative material is only

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 № 95829	.025	.38	1.40	.034	.022	16.75	10.26	2.13	.077	.22	.05	.20	.11	.07	.01	.043

MECHANICAL PROPERTIES
 ASTM A370-08a

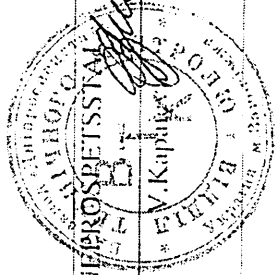
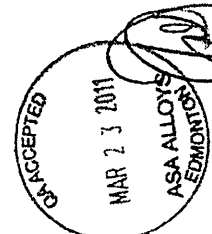
MECHANICAL PROPERTIES	Yield Strength, Ksi (N/mm ²) Re (R _{0.2})	Tensile Strength, Rm, Ksi (N/mm ²)	Elongation in 2 inches (50mm) or 40mm, % (ASTM A370)	Reduction of area, Z, %	Brinell Hardness HB	Impact strength, KV, J
REQUIRED	36(248)	75(515)	45	50	140-223	100
EFFECTIVE	37.8(260)	78.6(540)	55	73	159	197

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
 2.0 1.5 2.0 1.5 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: 5.76:1

US - testing yes Results: SEP 1921.3/ Ce - O.K.

Mechanical properties tested in state of delivery

Manufacturer: JSC DNEPROSPETS TAL
 Date: 18.01.11 Signed: *[Signature]*
 V. Kapala
 Zaporozhye
 Made in Ukraine.



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