

96428(6.25)

QSS SSN  
HK PHX SFI  
AR

C039824



**DNIPROSPETSSTAL, YUZHNOYE SHOSSE 81, ZAPOROZHYE 69008, UKRAINE**

Contract No.: 50005  
 TECHN.PROTOCOL № 210-11 SPEC.№2798/PO24122-ED  
 ASTM A182/A182M-10; ASME SA-182/SA-182M-10; ASTM A276-10; ASTM A314-08; ASTM A479/A479M-10; ASME SA-479/SA-479M-10; ASTM A484/A484M-10; AMS-QQ-S-763B-06 Cond.A; AMS 5648K-07; AMS 5653F-07; ASTM A193/A193M-10 GR B8M, CL 1 (EXC PAR 7.2); ASME SA-193/SA-193M-10GR B8M, CL 1 (EXC PAR 7.3); NACE MR 0175-03; NACE MR 0103-10

EN10204/3.1  
 Sheets:9 Sheet: 4  
 QUALITY CERTIFICATE Nr.249970  
 PLANT ORDER № 8014902798

**CUSTOMER**  
 „DSS INTERNATIONAL SA“  
 Switzerland

**PRODUCT DESCRIPTION**  
 Bars and rods of corrosion-resistant (stainless) steel hot rolled, peeled on Landgraf line. Прутки из коррозионно-стойких (нержавеющих) сталей горячекатаные, обточенные на линии Ландграф.  
 STEEL MAKING PROCESS: EAF+AOB  
 СПОСОБ ВЫПЛАВКИ: Электродуговая печь "АКР"  
 Round 6.250in/158.75 mm L= 11.15-18.01 ft/3.40-5.50m  
 Grade: 316/F316/316L/F316L

**QUANTITY:** 1bund Q-1517 lb/688 kg  
 (number of pcs) 1bund Q-3064 lb/1390 kg

**Delivery condition**  
 solution annealed : 1900-2010° F (1040-1100° C)/water термообработка: закалка в воду

ANALYSES, %	C	Si	Mn	P	S	Cr	Ni	Mo	Al	Cu	V	W	Ti	Co	Nb	N <sub>2</sub>		
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 № 96428	.024	.27	1.33	.036	.020	16.67	10.00	2.05	.065	.25	.04	.08	.088	.07	.01	.033		

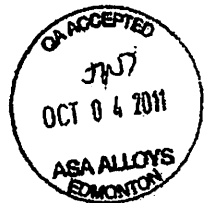
ASTM A370-08a

MECHANICAL PROPERTIES	Yield Strength, Ksi(N/mm <sup>2</sup> ) Re (R <sub>e2</sub> )	Tensile Strength, Rm,ksi (N/mm <sup>2</sup> )	Elongation A <sub>5</sub> , %	Reduction of area, Z, %	Brinell Hardness HB	Impact strength, K V, J
REQUIRED	36(248)	75 (515)	45	50	140-223	100
EFFECTIVE	40.4(275)	83.0(565)	59	75	167	227

**TECHNICAL REQUIREMENTS:**  
 Macrostructure – GOOD  
 GRAIN SIZE : 5 to ASTM E 112-96(2004)  
 Nonmetallic inclusions ASTM E 45-05 (Method A)  

A		B		C		D	
thin	thick	thin	thick	thin	thick	thin	thick
2.0	1.0	2.0	1.0	0.0	0.0	1.0	1.0

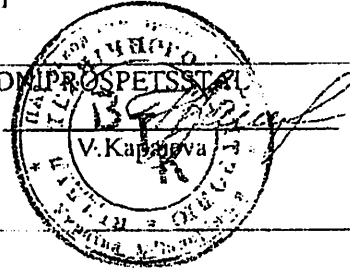
 ICC-ASTM A262-08(practice E)-test: O.K.  
 ..Dimension/surface defects test, anti-mixing test - O.K. "  
 Ratio of reduction- 18,9:1



Mechanical properties tested in state of delivery

US - testing      yes      Results: SEP 1921, group 3/class Dd - OK

Manufacturer: PJSC DNIPROSPETSSTAL  
 Date: 20.07.11 Signed: *[Signature]*  
 V. Kapshova



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

Zaporozhye  
 Made in Ukraine.