99269

ASA PO 78074 WO 5957/8 CPA 4FOE40/80

217"

C086570

PJSC DNIPROSPETSSTAL, YUZHNOYE SHOSSE 81, 69008 ZAPOROZHYE, UKRAINE

Contract No.: 50005
TECHN.PROTOCOL № 390-11 SPEC.№0231/P030022-ED
DIN EN 10088-3-05,DIN EN 10272-08,AD2000-Merkblatt W2;AD 2000-Merkblatt W10;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-10GR B8M,CL1; ASME SA-193/SA-193M-10 GR B8,CL 1 ;ASTM A320/A320M-08 GR B8M,CL 1;ASME SA-320/SA-320M-10 GR B8,CL1;NACE MR 0175-03;NACE MR 0103-10

Sheets:8 Sheet: 7
QUALITY CERTIFICATE EN10204/3.1 Nr.273199
PLANT ORDER № 8014900231

QMS Certified

CUSTOMER
DSS INTERNATIONAL
SA Switzerland

8/26/13

PRODUCT DESCRIPTION
Bars and rods of corrosion-resistant (stainless) steel hot rolled, peeled on Landgraf line.Прутки из коррозионностойких (нержавеющих) сталей горячекатаные, обточенные на линии Ландграф.
STEEL MAKING PROCESS: EAF+AOD
СПОСОБ ВЫПЛАВКИ:Электродуговая печь+АКР
Round 6.250in/158.75 mm L=5.530m/18.131ft L=5.530m/18.131ft
Grade: 316/316L/1.4404/1.4404

QUANTITY: **1bund Q-5935 lb/2692 kg**
(number of pcs) **1bund Q-1984 lb/900 kg**

Delivery condition
solution annealed :1900^0 F(1040^{0}C)water 30minutes
термообработка:закалка в воду

ANALYSIS, %	C	Si	Mn	P	S	Cr	Ni	Mo	Al	Cu	V	W	Ti	Co	Nb	N_2	Sn	B
REQUIRED	<.030	<1,00	1.20-2.00	<.040	.015-.030	16.50-18.00	10.00--13.00	2.00--2.50	<.10	<.40	<.10	<.20	<.15	<.40	<.20	<.10		
CAST Heat # № 99269	.016	.51	1.36	.035	.026	16,92 ✓	10.14 ✓	2.07 ✓	.058	.37	.05	.07	.005	.11	.015	.027	.012	.001

DIN EN 10002-1,ASTM A370-09

MECHANICAL PROPERTIES	Yield Strength, (N/mm^2) R0.2% R t.0%		Tensile Strength, Rm, (N/mm^2)	Elongation A, % L Q	Elongation In 2 inches (50mm) or 4D,min,% L	Reduction of area, Z % L	Brinell Hardness HB	Impact strength, KV, J L	Impact strength, KV, J Q
REQUIRED	205	240	515-700	40	40	50	140-217	100	
EFFECTIVE	292 290	324 325	580 572	59 60	54 54	82 82	170 170	298 297 298 298 299 294	

Mechanical properties tested in state of delivery

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
2.5	2.0	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 – OK

US - testing	yes	Results: ASME SA-388/SA-388M-10(ASTM A 388/A 388M-09)-FBH1/8";EN 10308 type 1a;class 3:OK

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

Manufacturer:PJSC DNIPROSPETSSTAL
Date: 27.05.13 **Manager of quality assurance department** - V. Kapaieva
Signed:

Zaporozhye
Made in Ukraine.

SV
MC