C171236

PJSC DNIPROSPETSSTAL, YUZHNOYE SHOSSE 81, 69008 ZAPOROZHYE, UKRAINE

Contract No.: 20002
TECHN.PROTOCOL № 390-11 SPEC.№2840/PO39347
DIN EN 10088-3-05,DIN EN 10272-08,DIN EN 10222-5-00,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:1 **Sheet: 1**
INSPECTION CERTIFICATE EN10204/3.1 Nr.314111
PLANT ORDER № 8014902840

QMS Certified

CUSTOMER
DSS INTERNATIONAL
SA Switzerland

PRODUCT DESCRIPTION
Bars and rods of corrosion-resistant (stainless) steel forged, peeled.Прутки из коррозионностойких (нержавеющих) сталей кованые, обточенные.
STEEL MAKING PROCESS: EAF+AOD
СПОСОБ ВЫПЛАВКИ:Электродуговая печь+АКР
Round 15.000in/381.00 mm L=16.393ft/5.000m
Grade: 316/316L/1.4401/1.4404

QUANTITY:
(number of pcs) **1bund Q-10291 lb/4668 kg**

Delivery condition
solution annealed :1958° F(1070° C)water 34minutes
термообработка:закалка в воду

ANALYSIS, %	C	Si	Mn	P	S	Cr	Ni	Mo	Al	Cu	V	W	Ti	Co	Nb	N	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 № A03981	.023	.30	1.33	.039	.027	16.80	10.20	2.09	.073	.28	.06	.05	.005	.11	.01	.025	.034	.001

DIN EN 10002-1,ASTM A370-09

MECHANICAL PROPERTIES	Yield Strength, (N/mm²) R0.2%	R1.0%	Tensile Strength, Rm, (N/mm²)	Elongation A5% L	Q	In 2 inches (50mm) or 4D,min,% L	Reduction of area, Z % L	Brinell Hardness HB	Impact strength, KV, J L	Q
REQUIRED	205	240	515-690	45	35	40	50	140-217	100	60
EFFECTIVE	259 256	295 291	561 563	59 59	48 48	58 58	79 79	167 167	191 191 191 189 189 189	91 91 91 88 88 88

Mechanical properties tested in state of delivery

US - testing	yes	Results: ASME SA-388/SA-388M-10(ASTM A 388/A 388M-09)-FBH1/5";EN 10228-4 type 1a;class 3:OK

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

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	2.5	2.0	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
We acknowledge that the delivered products conform to the requirements of the order/Подтверждаем, что поставленная продукция соответствует требованиям заказа

Manufacturer:PJSC DNIPROSPETSSTAL
Date: 16.11.16 **Manager of quality assurance department** - V. Kapaieva
Signed:
Zaporozhye
Made in Ukraine.