PrJSC DNIPROSPETSSTAL, YUZHNOYE SHOSSE 81, 69008 ZAPOROZHYE, UKRAINE

Contract No.: 20002
TECHN.PROTOCOL № 390-11 SPEC.№3083/P931996-842
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-.0;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:5 Sheet: 1
INSPECTION CERTIFICATE EN10204/3.1 Nr.347744
PLANT ORDER № 8081903083

QMS Certified

CUSTOMER
DSS INTERNATIONAL
SA Switzerland

Purchase number 509378

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 8.500in/215.90 mm L=15.836 ft/4.830m L=14.557 ft/4.400m L=14.525 ft/4.430m
Grade: 316/316L/1.4401/1.4404

QUANTITY: (number of pcs)
1bund Q-3232 lb/1466 kg
1bund Q-2967 lb/1346 kg
1bund Q-2959 lb/1342 kg

Delivery condition
solution annealed :1920°F(1050°C)water 25minutes
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 № A07302	.021	.46	1.36	.040	.023	17.35	10.23	2.10	.076	.29	.05	.05	.005	.11	.011	.023	.0086	.0025

DIN EN 10002-1,ASTM A370-09

MECHANICAL PROPERTIES	Yield Strength, (N/mm²) R0.2% R 1.0%		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	140-223	100	60
EFFECTIVE	288 290	304 306	559 559	58 51 58 51	57 57	73 73	163 163	200 200 200 198 198 198	65 65 65 64 64 64

Mechanical properties tested in state of delivery

US - testing | yes | Results: ASTM A388/A388M-FBH1/8";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
3.0	2.0	3.0	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
Ratio of reduction-8.3:1

Manufacturer:PrJSC DNIPROSPETSSTAL
Date: 26.07.19 Manager of quality assurance department - V. Kapaieva
Signed:
Zaporozhye
Made in Ukraine.

R781164
509378
SHIP # 20975

INS