

C233809

PrJSC DNIPROSPETSSTAL, YUZHNOYE SHOSSE 81, 69008 ZAPOROZHYE, UKRAINE

	Contract No.: 20002 TECHN.PROTOCOL № 390-11 SPEC.№1652/PO45380 DIN EN 10088-3-05, DIN EN 10272-08, DIN EN 10222-5-00, 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:5 Sheet:3 INSPECTION CERTIFICATE EN10204/3.1 Nr.341437 PLANT ORDER № 8014901652
--	---	---

	CUSTOMER DSS INTERNATIONAL SA Switzerland	PRODUCT DESCRIPTION Bars and rods of corrosion-resistant (stainless) steel forged, peeled. Прутки из коррозионноустойчивых (нержавеющих) сталей кованные, обточенные. STEEL MAKING PROCESS: EAF+AOD СПОСОБ ВЫПЛАВКИ: Электродуговая печь+АКР Round 12.000in/304.80 mm L=12.377 ft/3.775m L=13.082 ft/3.990m Grade: 316/316L/1.4401/1.4404	QUANTITY: 1bund Q-4947 lb/2244 kg (number of pcs) 1bund Q-5265 lb/2388 kg
Delivery condition solution annealed :1940 ⁰ F(1060 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	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 № A06796	.023	.40	1.30	.040	.026	16.80	10.23	2.07	.075	.40	.05	.07	.005	.11	.01	.027	.011	.0026

DIN EN 10002-1, ASTM A370-09

MECHANICAL PROPERTIES	Yield Strength, (N/mm ²) R0.2% R 1.0%		Tensile Strength, Rm, (N /mm ²)	Elongation		Reduction of area, Z % L	Brinell Hardness HB	Impact strength, KV, J					
				A5% L	Q			In 2 inches (50mm) or 4D.min,% L	L	Q	Q		
REQUIRED	205	240	515-690	45	35	40	50	140-217	100	60			
EFFECTIVE	268	308	570	59	48	58	79	167	189 189 189	79 79 79			

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
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
 Ratio of reduction-6.6:1

Mechanical properties tested in state of delivery

US - testing	yes	Results: ASTM A388/A388M-FBH1/5"; EN 10228-4 type 1a; class 3:OK
--------------	-----	--

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

Manufacturer: PrJSC DNIPROSPETSSTAL
 Date: 08.01.19 **Manager of quality assurance department - V. Kapaieva**
 Signed:
 Zaporozhye
 Made in Ukraine.

ANS