



C233811

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:5 INSPECTION CERTIFICATE EN10204/3.1 Nr.341437 PLANT ORDER № 8014901652
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	CUSTOMER DSS INTERNATIONAL SA Switzerland	PRODUCT DESCRIPTION Bars and rods of corrosion-resistant (stainless) steel forged, peeled.Прутки из коррозионностойких (нержавеющих) сталей кованыс, обточенные. STEEL MAKING PROCESS: EAF+AOD СПОСОБ ВЫПЛАВКИ: Электродуговая печь+АКР Round 18.750in/476.25 mm L=10.754 ft/3.280m Grade: 316/316L/1.4401/1.4404	QUANTITY: (number of pcs) 1bund Q-10494 lb/4760 kg Delivery condition solution annealed :1940° F(1060° C)water 30minutes термообработка:закалка в воду
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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		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
				A ₅ % L Q	In 2 inches (50mm) or 4D,min,% L			L	Q	
REQUIRED	205	240	515-690	45 35	40	50	140-217	100	60	
EFFECTIVE	270	310	573	59 48	58	80	167	190 190 190	80 80 80	

Mechanical properties tested in state of delivery

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

Ratio of reduction-7.5:1

US - testing	yes	Results: ASTM A388/A388M-FBH1/5";EN 10228-4 type 1a;class 3:OK	Manufacturer:PrJSC DNIPROSPETSSTAL Date: 08.01.19 Manager of quality assurance department - V. Kapaieva Signed:  Zaporozhye Made in Ukraine.
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Radiation free; mercury free. No Weld or Weld repair.

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