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PrJSC DNIPROSPETSSTAL, YUZHNOYE SHOSSE 81, 69008 ZAPOROZHYE, UKRAINE

 Contract No.: 20002 TECHN. PROTOCOL № 390-11 SPEC. № 9033/PO43694 DIN EN 10088-3-05, DIN EN 10272-08, AD 2000-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 (EXC PAR 7.2); ASME SA-193/SA-193M-10 GR B8, CL 1 (EXC PAR 7.3); NACE MR 0175-03; NACE MR 0103-10	Sheets: 3 Sheet: 1 INSPECTION CERTIFICATE EN10204/3 Nr. 334507 PLANT ORDER № 8014909033
	QUANTITY: (number of pcs) 1bund Q-2019 lb/916 kg Delivery condition solution annealed: 1900°F (1040°C) water 30minutes термообработка: закалка в воду
CUSTOMER DSS INTERNATIONAL SA Switzerland	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 250mm/158.75 mm L=5 620mm/18 426ft Grade: 316/316L/1.4401/1.4404

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 № A06041	.016	.42	1.28	.040	.025	17.14	10.27	2.15	.07	.36	.06	.04	.005	.12	.01	.028	.012	.0028

MECHANICAL PROPERTIES	Yield Strength, (N/mm ²) R0.2% R1.0%	Tensile Strength, Rm, (N/mm ²)	Elongation		Reduction of area, Z, %	Brinell Hardness HB	Impact strength, KV, J	
			A5, %	In 2 inches (50mm) or 4D, min, %			L	Q
REQUIRED	205	515-690	40	40	50	140-217	100	-
EFFECTIVE	299	551	60	59	78	163	205 205 205	-

DIN EN 10002-1, ASTM A370-09

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
 2.0 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
 We acknowledge that the delivered products conform to the requirements of the order
 Ratio of reduction-15.1:1

US - testing yes Results: ASTM A388/A388M-FBH1/8"; EN 10308 type 1a; class 3:OK	Manufacturer: PrJSC DNIPROSPETSSTAL Date: 05.06.18 Manager of quality assurance department - V. Kapaieva Signed:  Zaporozhye Made in Ukraine.
Radiation free; mercury free. No Weld or Weld repair.	

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