




PrJSC DNIPROSPETSSTAL, YUZHNOYE SHOSSE 81, 69008 ZAPOROZHYE, UKRAINE

	Contract No.: 20002 TECHN.PROTOCOL № 390-11 SPEC.№ 1183/PO45174 DIN EN 10088-3-05, DIN EN 10272-08, 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:6 Sheet: 3 INSPECTION CERTIFICATE EN10204/3.1 Nr. 341884 PLANT ORDER № 8014901183
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 GMS Certified	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 7.250in/184.15 mm L=18.459ft/5.630m L=18.426ft/5.620m Grade: 316/316L/1.4401/1.4404	QUANTITY: 1bund Q-2729 lb/1238 kg (number of pcs) 1bund Q-2725 lb/1236 kg Delivery condition solution annealed :1900°F(1040°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 № A06844	.023	.40	1.35	.036	.026	16.94	10.30	2.08	.066	.38	.06	.07	.005	.13	.016	.022	.0106	.0025

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 thin thick 3.0 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-10.9:1									
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											
	A ₅ % L Q	In 2 inches (50mm) or 4D _{min} , % L		L	Q														
REQUIRED	205	240	515-690	45 35	40	50	140-223	100	60										
EFFECTIVE	298 291	314 312	567 562	60 56 59 56	58 58	77 77	167 167	275 273 277 283 286 282	95 95 98 101 101 102										

Mechanical properties tested in state of delivery		
US - testing	yes	Results: ASTM A388/A388M-FB111/8"; EN 10308 type 1a; class 3:OK
Radiation free; mercury free. No Weld or Weld repair.		
		Manufacturer: PrJSC DNIPROSPETSSTAL Date: 23.01.19 Manager of quality assurance department - V. Kapaieva Signed:  Zaporozhye Made in Ukraine.