




PrJSC DNIPROSPETSSTAL, YUZHNOYE SHOSSE 81, 69008 ZAPOROZHYE, UKRAINE

	Contract No.: 20002 TECHN.PROTOCOL № 390-11 SPEC.№ 7683/PO42853-ED 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-10 GR 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: 3 Sheet: 2
	INSPECTION CERTIFICATE EN10204/3.1 Nr. 330050 PLANT ORDER № 8014907683		

 <p>GMS Certified</p>	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 5.250in/133.35 mm L=5.650m/18.525ft L=5.640m/18.492ft L=5.370m/17.607ft Grade: 316/316L/1.4401/1.4404	QUANTITY: (number of pcs)	1bund Q-2835 lb/1286 kg 1bund Q-2835 lb/1286 kg 1bund Q-1349 lb/612 kg
			Delivery condition solution annealed :1900°F(1040°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 № A05604	.018	.40	1.26	.035	.025	16.85	10.26	2.07	.068	.23	.06	.13	.005	.09	.01	.028	.0067	.002

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 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								
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										
	L	Q		A, %	In 2 inches (50mm) or 4D, min, % L			L	Q									
REQUIRED	205	240	515-690	40	-	40	50	140-223	100									
EFFECTIVE	263 270	295 303	568 569	60	-	58 59	77 77	167 167	203 203 203 201 201 201	- -								

Mechanical properties tested in state of delivery		
US - testing	yes	Results: ASTM A388/A388M-FBH1/8"; EN 10308 type 1; class 3:OK
Radiation free; mercury free. No Weld or Weld repair.		Manufacturer: PrJSC DNIPROSPETSSTAL Date: 31.01.18 Manager of quality assurance department - V. Kapaieva Signed:  Zaporozhye Made in Ukraine.

Aug 17/18