




**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, 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(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:5                      Sheet: 1 <b>INSPECTION CERTIFICATE EN10204/3.1 Nr. 333842</b> PLANT ORDER № 8014909033
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 GMS Certified	CUSTOMER <b>DSS INTERNATIONAL</b> SA Switzerland	<b>PRODUCT DESCRIPTION</b> Bars and rods of corrosion-resistant (stainless) steel hot rolled, peeled on Landgraf line. Прутки из коррозионностойких (нержавеющих) сталей горячекатаные, обточенные на линии Ландграф. <b>STEEL MAKING PROCESS: EAF+AOD</b> <b>СПОСОБ ВЫПЛАВКИ: Электродуговая печь+АКР</b> Round 3.750in/95.25 mm L=5.570m/18.262ft L=5.340m/17.508ft L=5.570m/18.262ft L=5.390m/17.672ft <b>Grade: 316/316L/1.4401/1.4404</b>	QUANTITY: (number of pcs)	1bund Q-2147 lb/974 kg 1bund Q-683 lb/310 kg 1bund Q-3571 lb/1620 kg 1bund Q-697 lb/316 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 № A05971	.026	.45	1.42	.040	.025	16.94	10.25	2.09	.065	.28	.05	.16	.005	.09	.011	.025	.0086	.0024

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) <table style="width:100%; text-align: center;"> <tr> <td>A</td><td>B</td><td>C</td><td>D</td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>thin</td><td>thick</td><td>thin</td><td>thick</td><td>thin</td><td>thick</td><td>thin</td><td>thick</td><td>thin</td><td>thick</td> </tr> <tr> <td>3.0</td><td>2.0</td><td>3.0</td><td>2.0</td><td>0.0</td><td>0.0</td><td>1.0</td><td>1.0</td><td></td><td></td> </tr> </table> 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										A	B	C	D							thin	thick	thin	thick	thin	thick	thin	thick	thin	thick	3.0	2.0	3.0	2.0	0.0	0.0	1.0	1.0		
A	B	C	D																																														
thin	thick	thin	thick	thin	thick	thin	thick	thin	thick																																								
3.0	2.0	3.0	2.0	0.0	0.0	1.0	1.0																																										
MECHANICAL PROPERTIES	Yield Strength, (N/mm <sup>2</sup> ) R0.2% R 1.0%		Tensile Strength, Rm, (N/mm <sup>2</sup> )	Elongation		Reduction of area, Z % L	Brinell Hardness HB	Impact strength, KV, J																																									
				A5 % L Q	In 2 inches (50mm) or 4D, min, % L																																												
REQUIRED	205	240	515-690	40 -	40	50	140-217	100	-																																								
EFFECTIVE	304 308	341 347	555 562	59 - 60 -	58 59	78 78	163 163	207 207 207 205 205 205	-																																								

Mechanical properties tested in state of delivery		Manufacturer: PrJSC DNIPROSPETSSTAL Date: 18.05.18      Manager of quality assurance department - V. Kapaieva Signed:  Zaporozhye Made in Ukraine.																						
US - testing	yes											Results: ASTM A388/A388M-FBH1/8"; EN 10308 type 1a; class 3:OK												
Radiation free; mercury free. No Weld or Weld repair.																								

ANS