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**PrJSC DNIPROSPETSSTAL, YUZHNOYE SHOSSE 81, 69008 ZAPOROZHYE, UKRAINE**

	Contract No.: 20002 TECHN.PROTOCOL № 390-11 SPEC.№2914/PO46181 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; <b>NACE MR 0175-03</b> ; NACE MR 0103-10	<b>INSPECTION CERTIFICATE EN10204/3.1 Nr.346135</b> PLANT ORDER № 8014902914
 GMS Certified	<b>CUSTOMER</b> <b>DSS INTERNATIONAL</b> <b>SA Switzerland</b>	<b>PRODUCT DESCRIPTION</b> Bars and rods of corrosion-resistant (stainless) steel forged, peeled. Прутки из коррозионностойких (нержавеющих) сталей кованные, обточенные. <b>STEEL MAKING PROCESS: EAF+AOD</b> <b>СПОСОБ ВЫПЛАВКИ: Электродуговая печь+АКР</b> Round 15.000in/381.00 mm L=8.033 ft/2.450m L=8.000 ft/2.440m <b>Grade: 316/316L/1.4401/1.4404</b>
<b>QUANTITY:</b> (number of pcs) <b>1bund Q-5018 lb/2276 kg</b> <b>1bund Q-4987 lb/2262 kg</b>		<b>Delivery condition</b> solution annealed : 1950 <sup>0</sup> F(1065 <sup>0</sup> 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 № A07299	.021	.47	1.38	.035	.027	16.85	10.24	2.07	.083	.34	.05	.08	.007	.12	.027	.029	.012	.0024

DIN EN 10002-1, ASTM A370-09										<b>TECHNICAL REQUIREMENTS:</b> Macrostructure – GOOD <b>GRAIN SIZE : 5 to ASTM E 112-96(2004)</b> 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/Подтверждаем, что поставленная продукция соответствует требованиям заказа Ratio of reduction-6.7:1									
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											
	L	Q		A <sub>5</sub> %	In 2 inches (50mm) or 4D, min, % L			L	Q										
REQUIRED	205	240	515-690	45	35	40	50	140-217	100										
EFFECTIVE	278	300	584	61	55	59	72	174	184 184 184	66 66 66									

Mechanical properties tested in state of delivery																					
US - testing	yes	Results: ASTM A388/A388M-FBH1/5"; EN 10228-4 type 1a; class 3:OK																			
Radiation free; mercury free. No Weld or Weld repair.												Manufacturer: PrJSC DNIPROSPETSSTAL Date: 07.06.19 <b>Manager of quality assurance department - V. Kapaieva</b> Signed:  Zaporozhye Made in Ukraine.									

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