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PrJSC DNIPROSPETSSTAL, YUZHNOYE SHOSSE 81, 69008 ZAPOROZHYE, UKRAINE

	Contract No.: 20002 TECHN.PROTOCOL № 390-11 SPEC.№1652/PO45380 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-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:5 Sheet:5 INSPECTION CERTIFICATE EN10204/3.1 Nr.341437 PLANT ORDER № 8014901652

	CUSTOMER DSS INTERNATIONAL SA Switzerland	PRODUCT DESCRIPTION Bars and rods of corrosion-resistant (stainless) steel forged, peeled. Прутки из коррозионноустойчивых (нержавеющих) сталей кованные, обточенные. STEEL MAKING PROCESS: EAF+AOD СПОСОБ ВЫПЛАВКИ: Электродуговая печь+АКР Round 18.750in/476.25 mm L=10.754 ft/3.280m Grade: 316/316L/1.4401/1.4404	QUANTITY: (number of pcs) 1bund Q-10494 lb/4760 kg
			Delivery condition solution annealed :1940 ^o F(1060 ^o 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 № A06796	.023	.40	1.30	.040	.026	16.80	10.23	2.07	.075	.40	.05	.07	.005	.11	.01	.027	.011	.0026

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 border="0" style="width: 100%;"> <tr> <td style="text-align: center;">A</td> <td style="text-align: center;">B</td> <td style="text-align: center;">C</td> <td style="text-align: center;">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>2.5</td> <td>2.0</td> <td>2.5</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/Подтверждаем, что поставленная продукция соответствует требованиям заказа Ratio of reduction-7.5:1										A	B	C	D							thin	thick	thin	thick	thin	thick	thin	thick	thin	thick	2.5	2.0	2.5	2.0	0.0	0.0	1.0	1.0		
A	B	C	D																																														
thin	thick	thin	thick	thin	thick	thin	thick	thin	thick																																								
2.5	2.0	2.5	2.0	0.0	0.0	1.0	1.0																																										
MECHANICAL PROPERTIES	Yield Strength, (N/mm ²) R0.2% R 1.0%		Tensile Strength, Rm, (N/mm ²)	Elongation As% L Q		In 2 inches (50mm) or 4D, min, % L	Reduction of area, Z % L	Brinell Hardness HB	Impact strength, KV, J L Q																																								
REQUIRED	205	240	515-690	45	35	40	50	140-217	100	60																																							
EFFECTIVE	270	310	573	59	48	58	80	167	190 190 190	80 80 80																																							

Mechanical properties tested in state of delivery		Manufacturer: PrJSC DNIPROSPETSSTAL Date: 08.01.19 Manager of quality assurance department - V. Kapaieva Signed: Zaporozhye Made in Ukraine.																			
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.																					

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