




C231844

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

	Contract No.: 20002 TECHN.PROTOCOL № 390-11 SPEC.№0549/PO44837 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; NACE MR 0175-03; NACE MR 0103-10													<b>Sheets:4</b> <b>Sheet: 2</b>																												
	<b>CUSTOMER</b> <b>DSS INTERNATIONAL</b> <b>SA Switzerland</b>													<b>INSPECTION CERTIFICATE EN10204/3.1 Nr.339863</b> <b>PLANT ORDER № 8014900549</b>																												
 GMS Certified	<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=15.721 ft/4.795m <b>Grade: 316/316L/1.4401/1.4404</b>													<b>QUANTITY:</b> (number of pcs) <b>1bund Q-9819 lb/4454 kg</b>																												
														Delivery condition solution annealed :1922 <sup>o</sup> F(1050 <sup>o</sup> C)water 36minutes 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 № A06586	.021	.43	1.31	.037	.026	17.00	10.36	2.13	.078	.27	.05	.05	.005	.10	.01	.023	.009	.0018																								
DIN EN 10002-1, ASTM A370-09																																										
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		<b>TECHNICAL REQUIREMENTS:</b> Macrostructure – GOOD GRAIN SIZE : 5 to ASTM E 112-96(2004) Nonmetallic inclusions ASTM E 45-05 (Method A) <table border="1"> <tr> <td>A</td> <td>B</td> <td>C</td> <td>D</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> </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> </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-6.4:1									A	B	C	D					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																																			
3.0	2.0	3.0	2.0	0.0	0.0	1.0	1.0																																			
REQUIRED	205	240	515-690	45 35	40	50	140-223	100	60																																	
EFFECTIVE	289	321	577	61 53	59	77	170	199 199 199	71 71 71																																	
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: 15.11.18 <b>Manager of quality assurance department - V. Kapaieva</b> Signed:  Zaporozhye Made in Ukraine.																																

ANS