



C229104


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

	Contract No.: 20002 TECHN.PROTOCOL № 390-11 SPEC.№0111/PO44618 DIN EN 10088-3-05, DIN EN 10272-08, DIN EN 10222-5-00, 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, CL.1, 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, CL.1, NACE MR 0175-03, NACE MR 0103-10	Sheets:2                      Sheet: 2 <b>INSPECTION CERTIFICATE EN10204/3.1 Nr.337662</b> PLANT ORDER № 8014900111
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	CUSTOMER <b>DSS INTERNATIONAL</b> SA Switzerland	<b>PRODUCT DESCRIPTION</b> Bars and rods of corrosion-resistant (stainless) steel forged, peeled. Прутки из коррозионностойких (нержавеющих) сталей кованы, обточенные. <b>STEEL MAKING PROCESS: EAF+AOD</b> <b>СПОСОБ ВЫПЛАВКИ: Электродуговая печь+AKP</b> Round 8.500in/215.90 mm L=4.820m/15.803ft L=4.690m/15.377ft <b>Grade: 316/316L/1.4401/1.4404</b>	QUANTITY: <b>1bund Q-3232 lb/1466 kg</b> (number of pcs) <b>1bund Q-3139 lb/1424 kg</b>  Delivery condition solution annealed :1922° F(1050°C) water 25minutes термообработка: закалка в воду
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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 № A06323	.019	.44	1.36	.040	.027	16.86	10.30	2.09	.071	.36	.05	.05	.005	.12	.01	.026	.014	.0027

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>A</td><td>B</td><td>C</td><td>D</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>2.0</td><td>1.0</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 Ratio of reduction-8.3:1								A	B	C	D	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
A	B	C	D	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																																		
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																																	
				As % L Q	ln 2 inches (50mm) or 4D, min, % L			L	Q																																
REQUIRED	205	240	515-700	45	35	40	50	140-217	100	60																															
EFFECTIVE	283	304	557	58	48	57	73	163	190 190 190	65 65 65																															
	285	308	560	58	48	57	73	163	184 184 184	64 64 64																															

US - testing	yes	Results: ASTM A388/A388M-FB111/5"; EN 10228-4 type 1a; class 3:OK	Manufacturer: PrJSC DNIPROSPETSSTAL Date: 07.09.18 <b>Manager of quality assurance department - V. Kapaieva</b> Signed:  Zaporozhye Made in Ukraine.
Radiation free; mercury free. No Weld or Weld repair.			

ANS