



C256722

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

	Contract No.: 20002 TECHN.PROTOCOL № 390-11 SPEC.№4721/PO47340 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										Sheets:11 Sheet: 6																																																																
	CUSTOMER <b>DSS INTERNATIONAL</b> SA Switzerland										INSPECTION CERTIFICATE EN10204/3.1 Nr.351763 PLANT ORDER № 8014904721																																																																
	<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=2.430m/7.967ft L=2.590m/8.492ft <b>Grade: 316/316L/1.4401/1.4404</b>										QUANTITY: (number of pcs) <b>1bund Q-4974 lb/2256 kg</b> <b>1bund Q-5287 lb/2398 kg</b>																																																																
	Delivery condition solution annealed : 1922 <sup>o</sup> F(1050 <sup>o</sup> C) water 36minutes термообработка: закалка в воду																																																																										
<table border="1"> <thead> <tr> <th>ANALYSIS, %</th> <th>C</th> <th>Si</th> <th>Mn</th> <th>P</th> <th>S</th> <th>Cr</th> <th>Ni</th> <th>Mo</th> <th>Al</th> <th>Cu</th> <th>V</th> <th>W</th> <th>Ti</th> <th>Co</th> <th>Nb</th> <th>N</th> <th>Sn</th> <th>B</th> </tr> </thead> <tbody> <tr> <td>REQUIRED</td> <td>&lt;.030</td> <td>&lt;1,00</td> <td>1.20-2.00</td> <td>&lt;.040</td> <td>.015-.030</td> <td>16.50-18.00</td> <td>10.00-13.00</td> <td>2.00-2.50</td> <td>&lt;.10</td> <td>&lt;.40</td> <td>&lt;.10</td> <td>&lt;.20</td> <td>&lt;.15</td> <td>&lt;.40</td> <td>&lt;.20</td> <td>&lt;.10</td> <td></td> <td></td> </tr> <tr> <td>CAST № A07839</td> <td>.021</td> <td>.38</td> <td>1.30</td> <td>.035</td> <td>.024</td> <td>16.85</td> <td>10.25</td> <td>2.05</td> <td>.065</td> <td>.35</td> <td>.06</td> <td>.07</td> <td>.005</td> <td>.16</td> <td>.01</td> <td>.030</td> <td>.010</td> <td>.0023</td> </tr> </tbody> </table>																			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 № A07839	.021	.38	1.30	.035	.024	16.85	10.25	2.05	.065	.35	.06	.07	.005	.16	.01	.030	.010	.0023
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DIN EN 10002-1, ASTM A370-09																																																																											
<b>MECHANICAL PROPERTIES</b>										<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"> <thead> <tr> <th colspan="2"></th> <th colspan="2">A</th> <th colspan="2">B</th> <th colspan="2">C</th> <th colspan="2">D</th> </tr> <tr> <th colspan="2"></th> <th>thin</th> <th>thick</th> <th>thin</th> <th>thick</th> <th>thin</th> <th>thick</th> <th>thin</th> <th>thick</th> </tr> </thead> <tbody> <tr> <td colspan="2"></td> <td>2.0</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> </tbody> </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-6.13:1											A		B		C		D				thin	thick	thin	thick	thin	thick	thin	thick			2.0	2.0	2.0	1.0	0.0	0.0	1.0	1.0																											
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REQUIRED										205   240   515-700   45 35   40   50   140-217   100   60																																																																	
EFFECTIVE										284   310   590   60 55   59   75   174   201 201 201   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.										Date: 29.11.19 <b>Manager of quality assurance</b> department - V. Kapaieva   Signed: Zaporozhye Melted and Produced in Ukraine. MELTED and MANUFACTURED PrJSC " Dniprospeetsstal" Phone number +380612834255 e-mail: info@dss.com.ua http://www.dss-ua.com																																																																	

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