




C224523

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 19222-5-00, 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, 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 0193-10										Sheets: 4 Sheet: 3 INSPECTION CERTIFICATE EN10204/3.1 Nr.336960 PLANT ORDER № 8014900111																																																															
	 GMS Certified	CUSTOMER DSS INTERNATIONAL SA Switzerland	PRODUCT DESCRIPTION Bars and rods of corrosion-resistant (stainless) steel forged, peeled. Прутки из коррозионностойких (нержавеющих) сталей кованные, обточенные. STEEL MAKING PROCESS: EAF-AOD СПОСОБ ВЫПЛАВКИ: Электродуговая печь+АКР Round 13.000in/330.20 mm L=10.262 ft/3.13 m; Grade: 316/316L/1.4401/1.4404										QUANTITY: 1bund Q-4859 lb/2204 kg (number of pcs) Delivery condition solution annealed :1940°F(1060°C)water 30minutes термообработка:закалка в воду																																																													
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 15%;">ANALYSIS, %</th> <th style="width: 5%;">C</th> <th style="width: 5%;">Si</th> <th style="width: 5%;">Mn</th> <th style="width: 5%;">P</th> <th style="width: 5%;">S</th> <th style="width: 5%;">Cr</th> <th style="width: 5%;">Ni</th> <th style="width: 5%;">Mo</th> <th style="width: 5%;">Al</th> <th style="width: 5%;">Cu</th> <th style="width: 5%;">V</th> <th style="width: 5%;">W</th> <th style="width: 5%;">Ti</th> <th style="width: 5%;">Co</th> <th style="width: 5%;">Nb</th> <th style="width: 5%;">N</th> <th style="width: 5%;">Sn</th> <th style="width: 5%;">B</th> </tr> </thead> <tbody> <tr> <td>REQUIRED</td> <td><.030</td> <td><1,00</td> <td>1.20-2.00</td> <td><.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><.10</td> <td><.40</td> <td><.10</td> <td><.20</td> <td><.15</td> <td><.40</td> <td><.20</td> <td><.10</td> <td></td> <td></td> </tr> <tr> <td>CAST № A06284</td> <td>.018</td> <td>.45</td> <td>1.29</td> <td>.040</td> <td>.025</td> <td>16,78</td> <td>10.30</td> <td>2.06</td> <td>.076</td> <td>.33</td> <td>.05</td> <td>.07</td> <td>.005</td> <td>.12</td> <td>.011</td> <td>.028</td> <td>.011</td> <td>.0022</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 № A06284	.018	.45	1.29	.040	.025	16,78	10.30	2.06	.076	.33	.05	.07	.005	.12	.011	.028	.011	.0022
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DIN EN 10002-1, ASTM A370-09																																																																										
MECHANICAL PROPERTIES		Yield Strength, (N/mm ²) R0.2% R 1.0%		Tensile Strength, Rm, (N/mm ²)		Elongation		Reduction of area, Z %	Brinell Hardness HB	Impact strength, KV, J		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%; border: none;"> <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> </tr> <tr> <td style="text-align: center;">thin</td> <td style="text-align: center;">thick</td> <td style="text-align: center;">thin</td> <td style="text-align: center;">thick</td> </tr> <tr> <td style="text-align: center;">3.0</td> <td style="text-align: center;">2.0</td> <td style="text-align: center;">2.0</td> <td style="text-align: center;">1.0</td> </tr> <tr> <td style="text-align: center;">0.0</td> <td style="text-align: center;">0.0</td> <td style="text-align: center;">0.0</td> <td style="text-align: center;">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-6.7:1						A	B	C	D	thin	thick	thin	thick	3.0	2.0	2.0	1.0	0.0	0.0	0.0	1.0																																									
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L	Q	L	Q	L	Q																																																																					
REQUIRED	205	240	515-690	45	35	40	50	140-217	100	60																																																																
EFFECTIVE	276	301	555	58	47	57	75	163	189	189	189	67	67	67																																																												
Mechanical properties tested in state of delivery																																																																										
US - testing		yes	Results: ASTM A388/A388M-FBIII/5"; EN 10228-4 type 1a; class 3:OK																																																																							
Radiation free; mercury free. No Weld or Weld repair.																																																																										
Manufacturer: PrJSC DNIPROSPETSSTAL Date: 16.08.18 Manager of quality assurance department - V. Kapaieva Signed:  Zaporozhye Made in Ukraine.																																																																										

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