
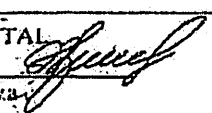


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96384

		DNEPROSPETSSTAL, YUZHNOYE SHOSSE 81, ZAPOROZHYYE 69008, UKRAINE																																																																									
Purchase order No.: 500MS TECHN. PROTOCOL № 390-11 SPEC. № 2423/P01076 DIN EN 10088-3-05, DIN EN 10272-08, AD 2000-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-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 0103-10												Sheets: 8 Sheet: 3 QUALITY CERTIFICATE Nr. 248905 PLANT ORDER № 8033902423		EN10204/3.1																																																													
CUSTOMER „DSS INTERNATIONAL SA“ Switzerland				PRODUCT DESCRIPTION Bars and rods of corrosion-resistant (stainless) steel hot rolled, peeled. Прутки из коррозионностойких (пержавеющих) сталей горячекатаные, обточенные. STEEL MAKING PROCESS: EAF+AOD СПОСОБ ВЫПЛАВКИ: Электродуговая печь+АКР Round 5.250in/133.35 mm L=3.50-5.50m/11.48-18.03ft Grade: 316/316L/1.4401/1.4404										QUANTITY: (number of pcs) 1bundQ-6459 lb/2930 kg																																																													
DELIVERY CONDITION solution annealed :1900°F (1040°C) water 10minutes термообработка: закалка в воду																																																																											
<table border="1"> <thead> <tr> <th>ANALYSES, %</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>N₂</th> <th>Sn</th> <th>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>HEAT № 96384</td> <td>.022</td> <td>.45</td> <td>1.28</td> <td>.037</td> <td>.025</td> <td>16.57</td> <td>10.00</td> <td>2.00</td> <td>.077</td> <td>.25</td> <td>.04</td> <td>.10</td> <td>.124</td> <td>.08</td> <td>.01</td> <td>.032</td> <td>.01</td> <td>.0012</td> </tr> </tbody> </table>																			ANALYSES, %	C	Si	Mn	P	S	Cr	Ni	Mo	Al	Cu	V	W	Ti	Co	Nb	N ₂	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			HEAT № 96384	.022	.45	1.28	.037	.025	16.57	10.00	2.00	.077	.25	.04	.10	.124	.08	.01	.032	.01	.0012
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MECHANICAL PROPERTIES Yield Strength, (N/mm ²) R 0.2 % R1.0 % Tensile Strength, Rm, (N/mm ²) Elongation A ₅ % L Q In 2 inches (50mm) or 4D, min. % L Reduction of area, Z % L Brinell Hardness HB Impact strength, KV, J L Q										TECHNICAL REQUIREMENTS: Macrostructure – GOOD GRAIN SIZE : 5 to ASTM E 112-96(2004) Nonmetallic inclusions ASTM E 45-05 (Method A) A B C D thin thick thin thick thin thick thin thick 2.0 1.0 2.0 1.0 0.0 0.0 1.0 1.0 ICC-ASTM A262-08 (practice E)-test: O.K. ..Dimension/surface defects test. anti-mixing test – O.K. “																																																																	
REQUIRED 205 240 515-700 40 40 50 140-223 100										EFFECTIVE 268 299 530 62 56 78.5 156 206 210 210 218 210 219																																																																	
Mechanical properties tested in state of delivery																																																																											
US - testing YES		Results: ASME SA-388/SA-388M-10 (ASTM A 388/A 388M-09)-FBII1/8"; EN 10308 type 1; class 3; OK										Manufacturer: JSC DNEPROSPETSSTAL Date: 24.06.11 Signed:  V. Kapaieva																																																															
Radiation free; mercury free. No Weld or Weld repair.																																																																											
Zaporozhye Made-in-Ukraine.																																																																											