



99258 (3")

087392


PJSC DNIPROSPETSSTAL, YUZHNOYE SHOSSE 81, 69008 ZAPOROZHYE, UKRAINE

	Contract No.: 50005 TECHN.PROTOCOL № 390-11 SPEC.№ 0231/P030022-ED DIN EN 10088-3-05, DIN EN 10272-08, 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, CLI (EXC PAR 7.2); ASME SA-193/SA-193M-10 GR B8, CL 1 (EXC PAR 7.3); NACE MR 0175-03; NACE MR 0103-10	Sheets:10 Sheet: 10 QUALITY CERTIFICATE EN10204/3.1 Nr.273900 PLANT ORDER № 8014900231
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 GMS Certified	CUSTOMER DSS INTERNATIONAL SA Switzerland	PRODUCT DESCRIPTION Bars and rods of corrosion-resistant (stainless) steel hot rolled, peeled on Landgraf line. Прутки из коррозионностойких (пержавеющих) сталей горячекатаные, обточенные на линии Ландграф. STEEL MAKING PROCESS: EAF+AOD СПОСОБ ВЫПЛАВКИ: Электродуговая печь+АКР Round 3.000in/76.20 mm L=5.570m/18.262ft Grade: 316/316L/1.4401/1.4404	QUANTITY: (number of pcs) 1bund Q-6367 lb/2888 kg Delivery condition solution annealed :1900-2010 ^o F(1040-1100 ^o C)water 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 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		
CAST № 99258	.020	.43	1.31	.035	.027	16.91	10.25	2.08	.073	.28	.05	.10	.07	.08	.013	.025	.011	.001

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></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>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										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																																								
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 ²) R0.2% R 1.0%		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																														
REQUIRED	205	240	515-700	40	40				50	140-217	100																																
EFFECTIVE	298 300	331 339	586 589	58 57	56 56	77 74	170 170	257 264 260 251 248 250																																			
Mechanical properties tested in state of delivery																																											

US - testing	yes	Results: ASME SA-388/SA-388M-10 (ASTM A 388/A 388M-09)-FBH1/8":EN 10308 type 1a; class 3:OK	Manufacturer: PJSC DNIPROSPETSSTAL Date: 18.06.13 Manager of quality assurance department - V. Kapaieva Signed:  Zaporozhye Made in Ukraine.
Radiation free; mercury free. No Weld or Weld repair.			