



C22447

## 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,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:4 Sheet: 3								
 QMS Certified		CUSTOMER DSS INTERNATIONAL SA Switzerland										INSPECTION CERTIFICATE EN10204/3.1 Nr.336733 PLANT ORDER № 8014900111								
		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 15.000in/381.00 mm L=8.213ft/2.505m Grade: 316/316L/1.4401/1.4404										QUANTITY: (number of pcs) 1bund Q-5106 lb/2316 kg								
												Delivery condition solution annealed :1940 <sup>0</sup> F(1060 <sup>0</sup> C)water 30minutes термообработка:закалка в воду								
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	
DIN EN 10002-1,ASTM A370-09																				
MECHANICAL PROPERTIES		Yield Strength, (N/mm <sup>2</sup> ) R0.2% R 1.0%		Tensile Strength, Rm, (N/mm <sup>2</sup> )	Elongation A <sub>5</sub> % L Q		In 2 inches (50mm) or 4D,min,% L	Reducti on 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 3.0 2.0 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 – OK We acknowledge that the delivered products conform to the requirements of the order/Подтверждаем, что поставленная продукция соответствует требованиям заказа Ratio of reduction-6.3:1								
REQUIRED		205	240	515-690	45 35	40	50	140-217	100	60										
EFFECTIVE		279 281	304 306	549 551	59 48 59 48	57 57	73 73	163 163	190 190 190 187 187 187	66 66 66 65 65 65										
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.																				
Manufacturer:PrJSC DNIPROSPETSSTAL Date: 09.08.18 Manager of quality assurance department - V. Kapaieva Signed: Zaporozhye Made in Ukraine.																				

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