



C231846

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

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		Contract No. : 20002 TECHN.PROTOCOL № 390-11 SPEC.№0549/PO44837 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: 4 INSPECTION CERTIFICATE EN10204/3.1 Nr.339863 PLANT ORDER № 8014900549											
 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+AKP Round 18.750in/476.25 mm L=10.689 ft/3.260m Grade: 316/316L/1.4401/1.4404						QUANTITY: (number of pcs) 1bund Q-10626 lb/4820 kg  Delivery condition solution annealed :1922°F(1050°C)water 36minutes 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 № A06586		.021	.43	1.31	.037	.026	17.00	10.36	2.13	.078	.27	.05	.05	.005	.10	.01	.023	.009	.0018				
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		Reduction of area, Z % L		Brinell Hardness HB		Impact strength, KV, J L Q									
REQUIRED		205	240	515-690		45 35		40		50		140-223		100		60							
EFFECTIVE		283	323	581		60 53		59		79		170		197 197 197		67 67 67							
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.																							
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 3.0 2.0 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-7.4:1										Manufacturer:PrJSC DNIPROSPETSSTAL Date: 15.11.18 Manager of quality assurance department - V. Kapaieva Signed: Zaporozhye Made in Ukraine.													

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