



PrJSC DNIPROSPETSSTAL, YUZHNOYE SHOSSE 81, 69008 ZAPOROZHYE, UKRAINE

	Contract No.: 20002 TECHN.PROTOCOL № 390-11 SPEC.№7660/P006556 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,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:9 Sheet 2 INSPECTION CERTIFICATE EN10204/3.1 Nr.331617 PLANT ORDER № 8033907660
		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+AOB СПОСОБ ВЫПЛАВКИ: Электродуговая печь+АКР Round 12.000in/304.80 mm L=3.860m/12.656ft L=3.260m/10.689ft Grade: 316/316L/1.4401/1.4404

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 № A05579	.019	.48	1.30	.037	.022	17.13	10.27	2.07	.065	.38	.07	.04	.006	.16	.025	.030	.0094	.0022

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) A B C D thin thick thin thick thin thick thin thick 2.5 2.0 2.0 1.5 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									
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, KJ, J											
	L	Q		As %	In 2 inches (50mm) or 40, min. %			L	Q										
REQUIRED	205	240	515-700	45	35	40	50	140-223	100										
EFFECTIVE	271	311	568	59	48	58	79	167	198 198 198	78 78 78									

US - testing		yes	Results: ASTM A388/A388M-FBI11/5";EN 10228-4 type 1a;class 3:OK	Manufacturer:PrJSC DNIPROSPETSSTAL Date: 20.03.18 Manager of quality assurance department - V. Kapaieva Signed: Zaporozhye Made in Ukraine.
Radiation free; mercury free. No Weld or Weld repair.				



ANS