




PrJSC DNIPROSPETSSTAL, YUZHNOYE SHOSSE 81, 69008 ZAPOROZHYE, UKRAINE

	Contract No.: 20002 TECHN.PROTOCOL № 390-11 SPEC.№9783/PO44380 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-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: 8 INSPECTION CERTIFICATE EN10204/3.1 Nr.336112 PLANT ORDER № 8014909783
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 QMS Certified	CUSTOMER DSS INTERNATIONAL SA Switzerland	PRODUCT DESCRIPTION Bars and rods of corrosion-resistant (stainless) steel forged, peeled. Прутки из коррозионностойких (нержавеющих) сталей кованые, обточенные. STEEL MAKING PROCESS: EAF+AOD СПОСОБ ВЫПЛАВКИ: Электродуговая печь+АКР Round 15.000in/381.00 mm L=7.918 ft/2.415m Grade: 316/316L/1.4401/1.4404	QUANTITY: (number of pcs) 1bund Q-4925 lb/2234 kg Delivery condition solution annealed : 1904° F(1040° C) water 34minutes 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	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 № A06147	.017	.41	1.36	.040	.025	16.85	10.20	2.05	.067	.36	.06	.08	.005	.13	.013	.025	.0129	.0025

DIN EN 10002-1, ASTM A370-09										TECHNICAL REQUIREMENTS:																												
MECHANICAL PROPERTIES	Yield Strength, (N/mm ²) R0.2% R 1.0%		Tensile Strength, Rm, (N/mm ²)	Elongation		Reduction of area, Z, % L	Brinell Hardness HB	Impact strength, KV, J		Macrostructure – GOOD GRAIN SIZE : 5 to ASTM E 112-96(2004) Nonmetallic inclusions ASTM E 45-05 (Method A) <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center;">A</td> <td style="text-align: center;">B</td> <td style="text-align: center;">C</td> <td style="text-align: center;">D</td> <td style="text-align: center;">thin</td> <td style="text-align: center;">thick</td> <td style="text-align: center;">thin</td> <td style="text-align: center;">thick</td> <td style="text-align: center;">thin</td> <td style="text-align: center;">thick</td> <td style="text-align: center;">thin</td> <td style="text-align: center;">thick</td> </tr> <tr> <td style="text-align: center;">3.0</td> <td style="text-align: center;">2.0</td> <td style="text-align: center;">2.0</td> <td style="text-align: center;">1.0</td> <td style="text-align: center;">0.0</td> <td style="text-align: center;">0.0</td> <td style="text-align: center;">1.0</td> <td style="text-align: center;">1.0</td> </tr> </table> 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-5.6:1									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																															
REQUIRED	205	240	515-690	45 35	40	50	140-223	100	60																													
EFFECTIVE	290	312	580	61 55	58	74	170	180 180 180	64 64 64																													

Mechanical properties tested in state of delivery		US - testing yes Results: ASTM A388/A388M)-FBH1/5";EN 10228-4 type 1a;class 3:OK		Manufacturer: PrJSC DNIPROSPETSSTAL Date: 23.07.18 Manager of quality assurance department - V. Kapaieva Signed:  Zaporozhye Made in Ukraine.	
Radiation free; mercury free. No Weld or Weld repair.					