

ИТ# А05049

С194477

PrJSC DNIPROSPETSSTAL, YUZHNOYE SHOSSE 81, 69008 ZAPOROZHYE, UKRAINE

Contract No.: 20002
 TECHN.PROTOCOL № 390-11 SPEC.№5152/P041107
 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, 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: 1**
INSPECTION CERTIFICATE EN10204/3.1 Nr.324195
 PLANT ORDER № 8014905152

CUSTOMER
DSS INTERNATIONAL
 SA Switzerland

PRODUCT DESCRIPTION
 Bars and rods of corrosion-resistant (stainless) steel hot rolled, peeled on Landgraf line. Прутки из коррозионностойких (нержавеющих) сталей горячекатаные, обточенные на линии Ландграф.
STEEL MAKING PROCESS: EAF+AOD
СПОСОБ ВЫПЛАВКИ: Электродуговая печь+АКР
 Round 3.25 in/82.55 mm L=5.650m/18.525ft; L=5.640m/18.492ft
Grade: 316/316L/1.4401/1.4307

QUANTITY: **1bund Q-3787 lb/1718 kg**
 (number of pcs) **1bund Q-2703 lb/1226kg**

Delivery condition
 solution annealed :1900° F(1040°C)water 30minutes
 термообработка: закалка в воду

QMS Certified

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 № A05049	.020	.47	1.31	.036	.024	16,88	10,35	2,11	.079	.23	.06	.13	.005	.10	.014	.025	.008	.0022

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) A B C D thin thick thin thick thin thick thin thick 2.5 2.0 2.5 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									
	L	Q		In 2 inches (50mm) or 4D, min, % L	L			L	L										
REQUIRED	205	240	515-690	40 -	40	50	140-217	100	-										
EFFECTIVE	280 285	301 304	590 597	60 - 60 -	58 58	77 75	174 174	230 230 230 235 235 235											

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

Radiation free; mercury free. No Weld or Weld repair.

Manufacturer: PrJSC DNIPROSPETSSTAL
 Date: 24.08.17 Manager of quality assurance department - V. Kapaieva
 Signed: *[Signature]*
 Zaporozhye
 Made in Ukraine.

May 27/18