

HT # A05970 SN# 4929

C-215982

Pr.JSC DNIPROSPETSSTAL, YUZHNOYE SHOSSE 81, 69008 ZAPOROZHYE, UKRAINE

Contract No.: 20002

TECHN. PROTOCOL № 390-11 SPEC. №9071/PO43762
 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, CL 1; NACE MR 0175-03; NACE MR 0103-10

Sheets:5 **Sheet: 5**
INSPECTION CERTIFICATE EN10204/3.1 Nr.333842
PLANT ORDER № 8014909071

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 ВЫПУСКА: Электроплавочная печь+АКР
 Round 18.750m/476.25 mm L=5.574 ft/1.700m L=5.508 ft/1.680m
Grade: 316/316L/1.4401/1.4404

QUANTITY:
1bund Q-5432 lb/2464 kg
1bund Q-5379 lb/2440 kg
 Delivery condition
 solution annealed :1976°F(1080°C)water 42minutes
 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 № A05970	.018	.47	1.43	.040	.024	16.89	10.27	2.05	.077	.27	.04	.05	.005	.11	.01	.029	.0093	.0023

DIN EN 10002-1, ASTM A370-09

MECHANICAL PROPERTIES	Yield Strength, (N/mm ²) R _{0.2} & R _{1.0} %		Tensile Strength, R _m (N/mm ²)		Elongation A ₅ % L Q		Reduction of area, Z % L	Brinell Hardness HB	Impact strength, KV, J										
	205	240	515-690	45-35	40	50			L	Q	L	Q							
REQUIRED	205	240	515-690	45-35	40	50	140-217		100	60									
EFFECTIVE	282	318	561	60-55	59	75	167		218 218 218	61 61 61									

Mechanical properties tested in state of delivery

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

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: Pr.JSC DNIPROSPETSSTAL
 Date: 18.05.18 **Manager of quality assurance department - V. Kapaieva**
 Signed:
 Zaporozhye
 Made in Ukraine.