

C209094

PrJSC DNIPROPETSTAL, YUZHNOYE SHOSSE 81, 69008 ZAPOROZHYE, UKRAINE

Contract No. 200002
 TECHN. PROTOCOL № 390-11 SPEC № 0111/P044618
 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 5653I-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

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 INSPECTION CERTIFICATE EN10204/3.1 Nr.: 337468
 PLANT ORDER № 8014900111
 Sheet: 1



CUSTOMER
DSS INTERNATIONAL
SA Switzerland

PRODUCT DESCRIPTION
 Bars and rods of corrosion-resistant (stainless) steel hot rolled, peeled on Landgraf line; Трутки из коррозионно-стойких (нержавеющих) сталей горячекатаные, обработанные на линии Ландграф.

STEEL MAKING PROCESS: EAF+AOD
СТЕКОБ ВЫПУЛВКИ: ЕАФ+АОД
 Round 6 250mm/158.75 mm L=5 640m/18 492ft
 Grade: 316/316L/1.4401/1.4404

QUANTITY:
 (number of pcs) 1bund Q=4048 lb/1836 kg

Delivery condition
 solution annealed : 1900° F/1040° C/water 30minutes
 термодобработка: 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 № A06341	.020	.43	1.29	.040	.027	16.87	10.20	2.03	.064	.29	.05	.06	.005	.12	.01	.026	0.108	.0025

DIN EN 10002-1, ASTM A370-09

MECHANICAL PROPERTIES	Yield Strength, (N/mm ²) R0.2% R 1.0%	Tensile Strength, (N/mm ²) Rm	Elongation		Reduction of area, Z% L	Brinell Hardness HB	Impact strength, KJ, J	
			A ₅ % L Q	In 2 inches (50mm) or 4D, min. % L			L	Q
REQUIRED	205	240	45 -	40	50	140-217	100	-
EFFECTIVE	280 282	317 329	62 - 61 -	57 57	77 77	167 167	230 230 230 226 226 226	-

Mechanical properties tested in state of delivery

US - testing yes Results: ASTM A388/A388M-FBH/8" EN 10308 type Ia: class 3:OK

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

July 3/15

[Signature]

MNS

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 1.5 1.5 1.0 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
 Ratio of reduction-15.1:1

Manufacturer: PrJSC DNIPROPETSTAL
 Date: 31.08.18 Manager of quality
 assurance department - V. Kapaieva
 Signed:
 Zaporozhye
 Made in Ukraine.