C192439

PJSC DNIPROSPETSSTAL, YUZHNOYE SHOSSE 81, 69008 ZAPOROZHYE, UKRAINE

Contract No.: 20002
TECHN.PROTOCOL № 210-11 SPEC.№4061/PO L45870
ASTM A182/A182M-13a;ASME SA-182/SA-182M-10;ASTM A276-13a;ASTM A314-13a;ASTM A479/A479M-13b;ASME SA-479/SA-479M-10;ASTM A484/A484M-13a;AMS-QQ-S-763C-13 Cond.A; AMS 5648L-11;AMS 5653H-12;ASTM A193/A193M-12bGR B8M.CL1 ;ASME SA-193/SA-193M-10GR B8M.CL1;ASTM A320/A320M-11a GR B8M.CL 1;ASME SA-320/SA-320M-10 GR B8M.CL 1;ANSI/NACE MR 0175/ISO 15156-3-09;NACE MR 0103-12

Sheets:4 Sheet: 2
INSPECTION CERTIFICATE EN10204/3.1 Nr.287600
PLANT ORDER № 8023404061

QMS Certified

CUSTOMER
DSS INTERNATIONAL SA
Switzerland

Commodity code
RB6L1500/DS

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=4.660m/15.279ft L=4.340m/14.230ft
Grade: 316/F316/316L/F316L

QUANTITY: 1bund Q-9555 lb/4334 kg
(number of pcs) 1bund Q-8907 lb/4040 kg

Delivery condition
solution annealed :1900-2010^{0}F(1040-1100^{0}C)/water
термообработка:закалка в воду

ANALYSIS, %	C	Si	Mn	P	S	Cr	Ni	Mo	Al	Cu	V	W	Ti	Co	Nb	N_2		
REQUIRED	<.030	<1.00	1.25-2.00	<.040	.020-.030	16.00-18.00	10.00--14.00	2.00--3.00	<.10	<.40	<.10	<.20	<.15	<.40	<.20	<.10		
CAST № A01131	.023	.41	1.30	.038	.023	16,83	10.26	2.09	.069	.22	.04	.11	.01	.08	.01	.027		

MECHANICAL PROPERTIES	Yield Strength, Ksi(N mm^2) Re($R_{0.2}$)	Tensile Strength, Rm,ksi (N mm^2)	Elongation A_5 %	Reduction of area, Z %	Brinell Hardness HB	Impact strength, KV, J
REQUIRED	30(205)	75 (515)	45	50	140-223	100
EFFECTIVE	40.5(278)	79.6(547)	57	73	163	259

Mechanical properties tested in state of delivery

US - testing	yes	Results: SEP 1921,group 3/class Cc - OK

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

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	2.5	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

Manufacturer: PJSC DNIPROSPETSSTAL
Date: 28.08.14 **Manager of quality assurance department** - V. Kapaieva Signed:

Zaporozhye
Made in Ukraine.

DSD2203003-4