



DNIPROSPETSSTAL, YUZHNOYE SHOSSE 81, ZAPOROZHYE 69008, UKRAINE

96428 - (13")

C0388352

Contract No.: 50005
 TECHN.PROTOCOL № 210-11 SPEC.№2798/PO24122-ED
 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-10GR B8M,CL 1;ASTM A320/A320M-08GR B8M,CL 1;ASME SA-320/SA-320M-10 GR B8M,CL 1;NACE MR 0175-03;NACE MR 0103-10

EN10204/3.1

Sheets:1 Sheet: 1
QUALITY CERTIFICATE №.248326
 PLANT ORDER № 8014902798

CUSTOMER
„DSS INTERNATIONAL SA“
 Switzerland

PRODUCT DESCRIPTION
 Bars and rods of corrosion-resistant (stainless) steel forged, peeled.
 Прутки из коррозионноустойчивых (нержавеющих) сталей кованные, обточенные.
STEEL MAKING PROCESS: EAF+AOD
СПОСОБ ВЫПЛАВКИ:Электродуговая печь+АКР
 Round 13.000in/330.20 mm L= 5.57 ft/18.26m
 Grade: 316/F316/316L/F316L

QUANTITY: 1bund Q-8642 lb/3920 kg
 (number of pcs)

Delivery condition
 solution annealed :1900-2010°F(1040-1100°C)/water23minytes
 термообработка:закалка в воду /23 мин.

ANALYSES, %	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		
HEAT № 96428	.024	.27	1.33	.036	.020	16.67	10.00	2.05	.065	.25	.04	.08	.088	.07	.01	.033		

ASTM A370-08a

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
3.0	2.0	2.5	1.5
0.0	0.0	1.0	1.0

 ICC-ASTM A262-08(practice E)-test: O.K.
 „Dimension/surface defects test,anti-mixing test – O.K. “
 Ratio of reduction- 8.1:1

MECHANICAL PROPERTIES	Yield Strength, Ksi(N/mm ²) Re (R _{eL})	Tensile Strength, Rm,ksi (N/mm ²)	Elongation A ₅ , %	Reduction of area, Z %	Brinel Hardness HB	Impact strength, KV, J
REQUIRED	36(248)	75 (515)	45	50	140-223	100
EFFECTIVE	43(296)	87(597)	60	73	174	232

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.

Manufacturer: PJSC DNIPROSPETSSTAL
 Date: 09.06.11 Signed: _____

Zaporozhye
 Made in Ukraine.

