

95515 SV

ASA
WCP 5209
NPS 10 80
C023545

Ln# 1

SO# S033818

To: ASA ALLOYS EDMONTON
Heat#: 95515

Date: 1/27/2011
Part: 11413005

Part: P023459



DNEPROSPETSSTAL, YUZHNOYE SHOSSE 81, ZAPOROZHYE 69008, UKRAINE

QMS Certified

Contract No.: 50005

TECHN. PROTOCOL № 210-06 SPEC. № 0693/P00924

ASTM A182/A182M-05; ASME SA-182/SA-182M-04; ASTM A276-04;

ASTM A479/A479M-04; ASME SA-479/SA-479M-04; ASTM A484/A484M-05; AMS-QQ-S-763A-03

Cond. ANACE MR 0175-2003; AMS 5648K-02; AMS 5653F-02; ASTM A193/A193M-04c GR B8M.CLI (EXC PAR 6.3)

ASME SA-193/SA-193M-04GR B8M.CLI

Sheets: 3

Sheet: 2

EN10204/3.1

QUALITY CERTIFICATE № 239778

PLANT ORDER № 8015200693

CUSTOMER
„DSS INTERNATIONAL SA“
Switzerland
Customer's item number 11413005

PRODUCT DESCRIPTION

Bars and rods of corrosion-resistant (stainless) steel forged, peeled

Прутки из коррозионностойких (нержавеющих) сталей кованы и обработаны

STEEL MAKING PROCESS: EAF-AOD

СПОСОБ ВЫПЛАВКИ: Электродуговая печь АКР

Round 13.00in/330.20 mm L=3.86m/12.66ft

Grade: 316/F316/316L/F316L.

QUANTITY: 1bund Q-5930 lb/2690kg
(number of pcs)

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

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 № 95515	.030	.29	1.41	.037	.025	16.65	10.12	2.06	.079	.29	.05	.13	.05	.07	.01	.030

MECHANICAL PROPERTIES	Yield Strength, Ksi(MPA)	Tensile Strength, Rm,ksi (N/mm ²)	Elongation A ₅ , %	Reduction of area, Z, %	Brinell Hardness HB	Impact strength, KV, J
REQUIRED	36(248)	75 (515)	45	50	140-223	100
EFFECTIVE	39.4(271)	86.2(592)	59	74	174	260

TECHNICAL REQUIREMENTS:

Macrostructure - GOOD

GRAIN SIZE: 5 to ASTM E 112

Nonmetallic inclusions ASTM E 45 (Method A)

A		B		C		D	
thin	thick	thin	thick	thin	thick	thin	thick
2.0	2.0	2.0	2.0	0.0	0.0	1.0	1.0

ICC-ASTM A262-02a (Method E) test: O.K.

„Dimension/surface defects test, anti-mixing test - O.K.“

Ratio of reduction- 6.8 : 1

Mechanical properties tested in state of delivery

US - testing yes Results: SEP 1921, 3/ Cc - O.K.

Manufacturer: JSC DNEPROSPETSSTAL

Date: 09.11.10 Signed:

V. Karavayeva

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

This report is a copy of original mill certificate and verifies that the product meets the requirements as originally ordered by Energy Steel Products.

Zaporozhye
Made in Ukraine.

DATE: 1/27/11 VERIFIED BY: WD

