

91777

52229 R.477418

BU.S.T. PAR.#: JOB: 3028

JSC DNEPROSPETSSTAL
YUZHNOYE SHOSSE
69008, ZAPOROZHYE
UKRAINE



Purchase order No. 22009
TECHN. PROTOCOL № 212-06 SPEC. № 5970/90066
ASTM A 484/A 484M, ASTM A276, Q2S-763, ASTM A479, ASME SA
479, ASTM A182, ASME SA 182, ASTM A193-GRB8, ASME SA 193-
GRB9, ASTM A320-GRB8, ASME SA 320-GRB8, ASTM A484, ASME SA
484, NACE MR 0175-latest edition, AMS 5648, AMS-3653-latest edition"

Sheets: 6 Sheet: 5
QUALITY CERTIFICATE EN10204/3.1.B. Nr. 18634.
PLANT ORDER № 8220095970

PRODUCT DESCRIPTION

Forged peeled bar of stainless steel. Прутки из
перезакаленных марок сталей, кованные, обточ
STEEL MAKING PROCESS: Electric furnace
СПОСОБ ВЫПЛАВКИ: Электрическая дуговая печь
Round 381.00 mm/15.00in. L=3,00-5.80m
Grade: 316/F316/316L/F316L

QUANTITY: 1 pack Q-4280 kg
1 pack Q-4070 kg
(number of pcs)

Delivery condition
Heat treatment: sol. annealing 1040-1100°C (Water)
После термообработки: закалка 1040-1100°C (вода)

CUSTOMER: Firma „Dniprospetzstahl GmbH“,
Deutschland

ASTM A 276 ASTM A 479/A 479M

ANALYSES, %	C	Si	Mn	P	S	Cr	Ni	Mo	Al	Cu	Nb	W	Ti	Co	N ₂	Va
REQUIRED	<.030	<1.00	<2.00	<.045	<.030	16.00- -18.00	10.00- -14.00	2.00- 3.00	<.10	<.40	<.20	<.20	<.15	<.40	<.10	<.10
CAST № 91777	.025	.38	1.60	.037	.022	16.74	10.30	.206	.033	.27	.010	.06	.080	.066	.030	.04

TECHNICAL REQUIREMENTS:

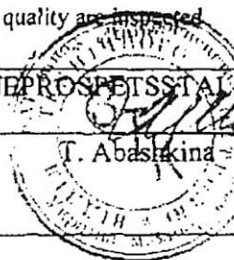
Macrostructure – GOOD
Grain Size: 5 to ASTM E 112
Nonmetallic inclusions ASTM E 45-95 (Method A)
A B C D
thin thick thin thick thin thick thin thick
2.0 1.5 1.5 1.0 0.0 0.0 1.0 1.0
IK-ASTM A 262(Practice E): O.K.
Alpha-phase -
Mixing of material checked: O.K.
Geometrica sizen and surface quality are inspected

Mechanical Properties	Yield Strength, R _e (R _{0.2s}) KSI (N/mm ²)	Tensile Strength, R _m , KSI (N/mm ²)	Elongation A ₅ %	Reduction of area, %	Brinell Hardness HB	Impact strength, KV, J
REQUIRED	30(205)	75(515)	45	50	140-223	100
RECEIVED	43(294)	76.8(528)	58	75	156	242

Delivery condition: Solution annealed

Manufacturer: JSC DNEPROSPETSSTAL
Date: 23.08.06 Signed: T. Abashkina

Zaporozhye
Made in Ukraine.



Earle M. Jorgensen Co. Original test report for the order shown below.
EMJ SID#: T135058 CUSTOMER: ATLANTIS INDUSTRIES INC. P.O. BOX 1000
WYOMING, WY 83001-1000
QTY: 1,402.300 DATE: 08-08-07 SIGNATURE: BUSIEWICK AND
No radiation free; mercury free. No Weld or Weld repair.