

A00991 - 15"

C110838

PJSC DNIPROPETSTAL, YUZHNOYE SHOSE 81, 69008 ZAPOROZHYE, UKRAINE

Contract No.: 20002
 TECHN. PROTOCOL № 390-11 SPEC. №3734/P033051-ED
 DIN EN 10088-3-05; DIN EN 10272-08; DIN EN 10222-5-00; 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; ASTM A193/A193M-10; GR B8M, CL.1; 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

INSPECTION CERTIFICATE EN10204/3.1 Nr.: 286612
 PLANT ORDER № 8014903734



CUSTOMER

PRODUCT DESCRIPTION
 Bars and rods of corrosion-resistant (stainless) steel forged, peeled. Прутки из коррозионностойких (нержавеющих) сталей кованные, обточенные.
STEEL MAKING PROCESS: EAF+AOD
СПОСОБ ВЫПЛАВКИ: Электродуговая печь+AOP
 Round 15,000in/381,00 mm L=2,290m/7,508ft
 Grade: 316/316L/1.4401/1.4404

QUANTITY:
 (number of pcs) **1bund Q-4722 lb/2142 kg**

Delivery condition
 solution annealed : 11960°F(1070°C) water 34minutes
 термообработка: закалка в воду

ANALYSIS, %	C	Si	Mn	P	S	Cr	Ni	Mo	Al	Cu	V	W	Ti	Co	Nb	N ₂	Sn	B
REQUIRED	<.030	<1.00	1.20-2.00	<0.040	0.015-0.030	16.50-18.00	10.00-13.00	2.00-2.50	<10	<40	<10	<20	<15	<40	<20	<10		
CAST № A00991	.018	.36	1.36	.034	.026	16,67	10.41	2.06	.066	.24	.04	.13	.005	.07	.01	.032	.011	.001

DIN EN 10002-1, ASTM A370-09

MECHANICAL PROPERTIES	Yield Strength, (N/mm ²) R _{0.2} % R 1.0%	Tensile Strength, (N/mm ²) R _m	Elongation		Reduction of area, Z % L	Brinell Hardness HB	Impact strength, K V, J	
			A ₅ % L Q	In 2 inches (50mm) or 4D _{min} , % L			L	Q
REQUIRED	205	240	515-690	45-35	40	140-223	100	60
EFFECTIVE	283 290	318 324	587 591	59-54 58-55	57 58	170 170	204 197 202 203 200 200	63 61 62 62 63 62

Mechanical properties tested in state of delivery

US - testing	yes	Results: ASME SA-388/SA-388M-10(ASTM A 388/A 388M-09)-FBH1/5"; EN 10228-4 type Ia; class 3-OK
Radiation free; mercury free. No Weld or Weld repair.		Manufacturer: PJSC DNIPROPETSTAL Date: 30.07.14 assurance department - V. Kapateva Signed: Zaporozhye Made in Ukraine
		Manager of quality Department - V. Kapateva