



HT# A05334

200712

PrJSC DNIPROSPETSSTAL, YUZHNOYE SHOSSE 81, 69008 ZAPOROZHYE, UKRAINE

	Contract No.: 20002 TECHN.PROTOCOL № 390-11 SPEC.№6955/PO42378-ED DIN EN 10088-3-05, DIN EN 10272-08, DIN EN 10222-5-00, 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, CL1; ASME SA-193/SA-193M-10 GR B8, CL1; ASTM A320/A320M-08 GR B8M, CL1; ASME SA-320/SA-320M-10 GR B8, CL1; NACE MR 0175-03; NACE MR 0103-10		Sheets: 4 Sheet: 2 INSPECTION CERTIFICATE EN10204/3.1 Nr.327100 PLANT ORDER № 8014906955
	 <p>GMS Certified</p>	CUSTOMER DSS INTERNATIONAL SA Switzerland	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+АКР Round 11.000in/279.40 mm L=15.672ft/4.78 m; L=14.393ft/4.39 m Grade: 316/316L/1.4401/1.4404

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	<.040	.015-.030	16.50-18.00	10.00-13.00	2.00-2.50	<10	<.40	<.10	<.20	<.15	<.40	<.20	<.10		
CAST № A05334	.021	.44	1.32	.039	.024	17.15	10.32	2.08	.072	.30	.05	.12	.005	.10	.023	.032	.009	.0026

DIN EN 10002-1, ASTM A370-09

MECHANICAL PROPERTIES	Yield Strength, (N/mm ²) R0.2% R 1.0%		Tensile Strength, Rm, (N/mm ²)	Elongation		Reduction of area, Z % L	Brinell Hardness HB	Impact strength, KV, J										
	L	Q		A, % L	In 2 inches (50mm) or 4D, min, % L			L	Q	L	Q							
REQUIRED	205	240	515-690	45	35	40	50	140-217	100	60								
EFFECTIVE	274 277	296 299	565 569	58	53 52	57 57	73 73	167 167	220 217	220 217	220 217	65 64	65 64	65 64				


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
 2.0 1.5 2.0 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 – OK

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 1a; class 3:OK
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Radiation free; mercury free. No Weld or Weld repair.

We acknowledge that the delivered products conform to the requirements of the order/Подтверждаем, что поставленная продукция соответствует требованиям заказа

Manufacturer: PrJSC DNIPROSPETSSTAL
 Date: 10.11.17 Manager of quality assurance department - V. Kapaieva
 Signed: 
 Zaporozhye
 Made in Ukraine.