



# A01863 - 11"

C12 5688B


## PJSC DNIPROSPETSSTAL, YUZHNOYE SHOSSE 81, 69008 ZAPOROZHYE, UKRAINE

	Contract No.: 20002 TECHN.PROTOCOL № 390-11 SPEC.№6336/P035069-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; AMS 5653F-07; ASTM A193/A193M-10GR B8M, CL1; 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, CL1; NACE MR 0175-03; NACE MR 0103-10	Sheets: 1                      Sheet: 1 <b>INSPECTION CERTIFICATE EN10204/3.1 Nr.293386</b> PLANT ORDER № 8014906336
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 GMS Certified	<b>CUSTOMER</b> DSS INTERNATIONAL SA Switzerland	<b>PRODUCT DESCRIPTION</b> Bars and rods of corrosion-resistant (stainless) steel forged, peeled. Прутки из коррозионностойких (нержавеющих) сталей кованные, обточенные. <b>STEEL MAKING PROCESS: EAF+AOD</b> <b>СПОСОБ ВЫПЛАВКИ: Электродуговая печь+АКР</b> Round 11.000in/279.40 mm L=4.010m/13.148ft Grade: 316/316L/1.4401/1.4404	<b>QUANTITY:</b> (number of pcs)                      1bund Q-4440 lb/2014 kg  Delivery condition solution annealed : 1958° F(1070° C) water 30minutes термообработка: закалка в воду
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ANALYSIS, %	C	Si	Mn	P	S	Cr	Ni	Mo	Al	Cu	V	W	Ti	Co	Nb	N <sub>2</sub>	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 № A01863	.025	.44	1.36	.040	.021	16,85	10.22	2.09	.072	.20	.05	.08	.005	.07	.013	.032	.009	.001

DIN EN 10002-1, ASTM A370-09										<b>TECHNICAL REQUIREMENTS:</b> Macrostructure – GOOD GRAIN SIZE : 5 to ASTM E 112-96(2004) Nonmetallic inclusions ASTM E 45-05 (Method A) <table style="width: 100%; text-align: center;"> <tr> <td>A</td><td>B</td><td>C</td><td>D</td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>thin</td><td>thick</td><td>thin</td><td>thick</td><td>thin</td><td>thick</td><td>thin</td><td>thick</td><td>thin</td><td>thick</td> </tr> <tr> <td>2.5</td><td>2.0</td><td>2.0</td><td>1.5</td><td>0.0</td><td>0.0</td><td>1.0</td><td>1.0</td><td></td><td></td> </tr> </table> ICC-ASTM A262-08 (practice E)-test: O.K. Dimension/surface defects test, anti-mixing test – OK “We acknowledge that the delivered products conform to the requirements of the order”										A	B	C	D							thin	thick	thin	thick	thin	thick	thin	thick	thin	thick	2.5	2.0	2.0	1.5	0.0	0.0	1.0	1.0		
A	B	C	D																																														
thin	thick	thin	thick	thin	thick	thin	thick	thin	thick																																								
2.5	2.0	2.0	1.5	0.0	0.0	1.0	1.0																																										
MECHANICAL PROPERTIES	Yield Strength, (N/mm <sup>2</sup> ) R0.2% R 1.0%		Tensile Strength, Rm, (N/mm <sup>2</sup> )	Elongation		Reduction of area, Z % L	Brinell Hardness HB	Impact strength, KV, J																																									
	L	Q		In 2 inches (50mm) or 4D, min, % L	L			L	Q																																								
REQUIRED	205	240	515-690	45	35	40	50	140-223	100	60																																							
EFFECTIVE	308 292	330 325	569 571	60	57 60	59 60	73 73	167 167	275 275 275 280 280 280	70 70 70 65 65 65																																							

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	Manufacturer: PJSC DNIPROSPETSSTAL Date: 03.02.15      Manager of quality assurance department - V. Kapaieva Signed:   Zaporozhye Made in Ukraine.
Radiation free; mercury free. No Weld or Weld repair.			