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

	Contract No.: 50005 TECHN.PROTOCOL № 210-11 SPEC.№ 7695/P028087-ED ASTM A182/A182M-10;ASME SA-182/SA-182M-10;ASTM A276-10;ASTM A314-08;ASTM A479A479M-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 (EXC PAR 7.2);ASME SA-193/SA-193M-10GR B8M,CL1(EXC PAR 7.3);NACE MR 0175-03;NACE MR 0103-10	Sheets:5                      Sheet: 1 <b>QUALITY CERTIFICATE</b> EN10204/3.1 Nr.266939 PLANT ORDER № 8014907695
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	CUSTOMER <b>DSS INTERNATIONAL SA</b> Switzerland	<b>PRODUCT DESCRIPTION</b> Bars and rods of corrosion-resistant (stainless) steel hot rolled, peeled on Landgraf line.Прутки из коррозионностойких (нержавеющих) сталей горячекатаные, обточенные на линии «Ландграф». <b>STEEL MAKING PROCESS:</b> EAF+AOD <b>СПОСОБ ВЫПЛАВКИ:</b> Электродуговая печь+АКР Round 5.000in/127.00 mm L=4.970m/16.295ft,L=5.170m/16.951ft, L=3.630m/11.902ft <b>Grade: 316/F316/316L/F316L</b>	QUANTITY: <b>1bund Q-3382 lb/1534 kg</b> (number of pcs) <b>1bund Q-2306 lb/1046 kg</b> <b>1bund Q-829 lb/376 kg</b>
Delivery condition solution annealed :1900-2010 <sup>0</sup> F(1040-1100 <sup>0</sup> C)/water термообработка:закалка в воду			

ANALYSIS, %	C	Si	Mn	P	S	Cr	Ni	Mo	Al	Cu	V	W	Ti	Co	Nb	N <sub>2</sub>		
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		
CAST № 98434	.020	.47	1.36	.036	.029	17,07	10.16	2.05	.078	.24	.04	.09	.006	.08	.01	.029		

ASTM A370							<b>TECHNICAL REQUIREMENTS:</b> 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 2.0 1.5 1.0 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	Yield Strength, Ksi(N/mm <sup>2</sup> ) Re (R <sub>0.2</sub> )	Tensile Strength, Rm,ksi (N/mm <sup>2</sup> )	Elongation A <sub>5</sub> %	Reduction of area, Z %	Brinell Hardness HB	Impact strength, KV, J	
REQUIRED	36(248)	75 (515)	45	50	140-223	100	
EFFECTIVE	39.7(272)	78.4(538)	63	79	156	290	

Mechanical properties tested in state of delivery		
US - testing	yes	Results: «ASTM A 388 FBH 1/8 “ »
Radiation free; mercury free. No Weld or Weld repair.		
Manufacturer: PJSC DNIPROSPETSSTAL Date: 27.10.12 <b>Manager of quality assurance department - V. Kapaieva</b> Signed:		
Zaporozhye Made in Ukraine.		

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