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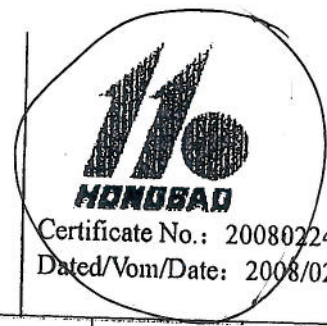
JIANGSU HONGBAO GROUP

VERIFIED TRUE COPY
 Client : ROKEM
 Order no. : 23072008
 Date : 23-07-08

Heat by ZM
 Q.A. Manager

MATERIAL CERTIFICATE

DIN50049/3.1
 Acc. TO EN 10204.3.1



Titanium and Titanium Alloy Seamless Pipe Specification: ASME/ASTM B861 NACE MR01-75 GR.2
 Size: 1/2" sch10s VACUUM ANNEALING ; ANNEAL TEMPERATURE 720°C KEEP TIME: 2hrs
 Batch No.: XB18 Quantity(meter/p' ces): 155/27 Net Weight (kg):90 Heat No.:T0712-119

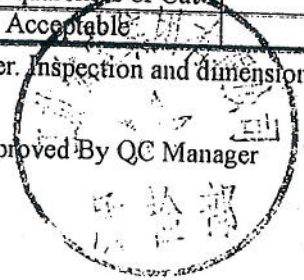
Product Analysis (Composition%)							
Elements	Fe	C	N	H	O	Ti	Impurity Elements
Spec. Value	Max0.07	Max0.08	Max0.03	Max0.006	Max0.25	Residual	Each≤0.1 Total≤0.4
Actual Value	0.06	0.035	0.013	0.0018	0.066	Residual	≤0.1 ≤0.4

Mechanical Properties					
Sample No.	Spec. Value	Tensile Strength [MPa]	Yield Strength0.2%[MPa]	Elongation. (%)	HRB
		Min 345	Min/Max 275/450	Min 20%	≤90
	Actual Value	440	300	40	79

Ultrasonic Test	Hydrostatic Test 17.2MPa Hold 5Sec Min.	Flattening Test	Visual inspections	Flaring Test	Bending Test
N/A	Acceptable	Acceptable	Acceptable	N/A	Acceptable
Tube Length	Tube Outside Dia.	Tube Wall Thickness	Tube straightness	Tube Squareness of Cut	
Acceptable	Acceptable	Acceptable	Acceptable	Acceptable	

We hereby certify that the material described above has been tested; the material complies with the terms of the order. Inspection and dimensional control meet the article of ASME/ASTM B861 without complaints.

Approved By QC Manager



[Handwritten Signature]