

TEST REPORT

NO. 201312-1

MATERIAL: NON-MAG SST DWNM102

HEAT NO.: 130586

TEST DATE: NOVEMBER 26, 2013

CHEMICAL TEST RESULTS

C	Si	Mn	P	S	Cr	Mo	Ni	N
0.02	0.54	18.8	0.023	0.001	16.6	0.6	0.7	0.5

TENSILE TEST RESULTS

Tensile test 1

Test Temperature ℃	Tensile Strength R _m		Yield Strength R _{eL}		Elongation A (%)	Reduction of Area Z (%)
	MPa	KSI	MPa	KSI		
25	1120	162	990	144	24	63

Tensile test 2

Test Temperature ℃	Tensile Strength R _m		Yield Strength R _{eL}		Elongation A (%)	Reduction of Area Z (%)
	MPa	KSI	MPa	KSI		
180	861	125	726	105	25	71

CHARPY V NOTCH ENERGY

150J

HARDNESS (BHN)

360

GRAIN SIZE (25MM FROM THE SURFACE)

GRADE 7

TEST REPORT

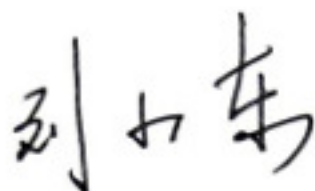
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CORROSION TEST RESULTS

According to ASTM A262-01 Practice E, the specimens were immersed for 24h in boiling copper sulfuric-sulfuric acid solution. After immersion, the 135° bent specimens were examined under 10X magnification. The test result showed no intergranular attack on the specimens of Non-mag SST (Sample-A) .

According to ASTM A262-02 Practice A, the specimens were etched for 90s in the solution of 10% oxalic acid and then the etched surface was examined on a metallurgical microscope. The etch structure of the Non-mag SST (Sample-B) were Step Structure (No precipitates of chromium carbide or chromium nitride on grain boundaries).

APPROVED BY:

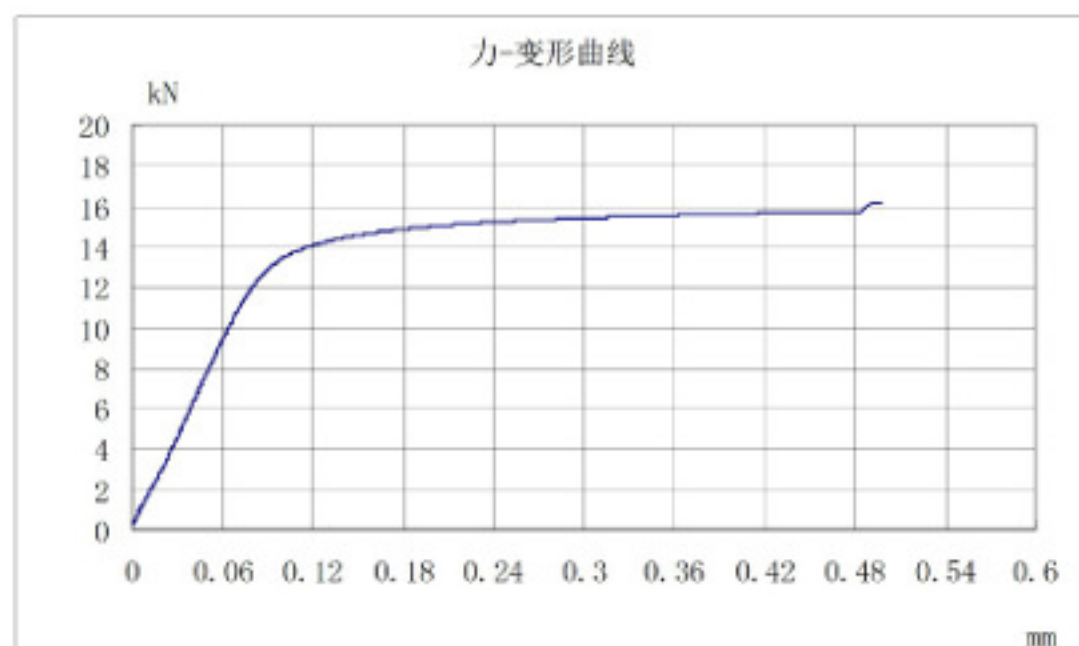
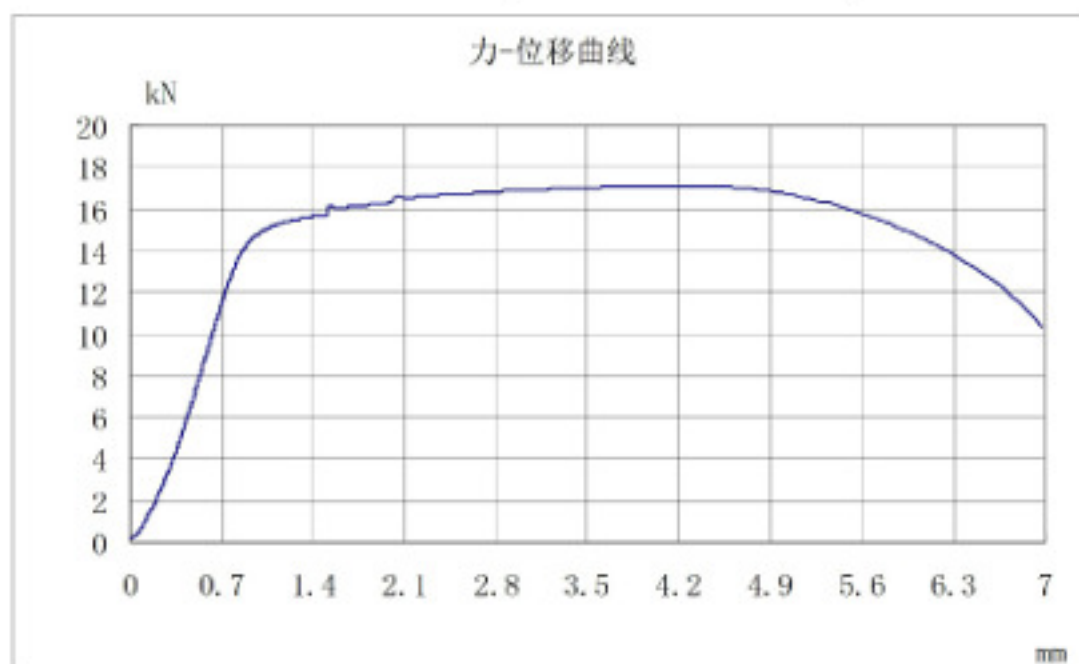


LIU XIAODONG
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DECEMBER 16, 2013

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TENSILE TEST 2 (TEMPERATURE 180 °C)



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CORROSION TEST (ASTM A262 PRACTICE E)

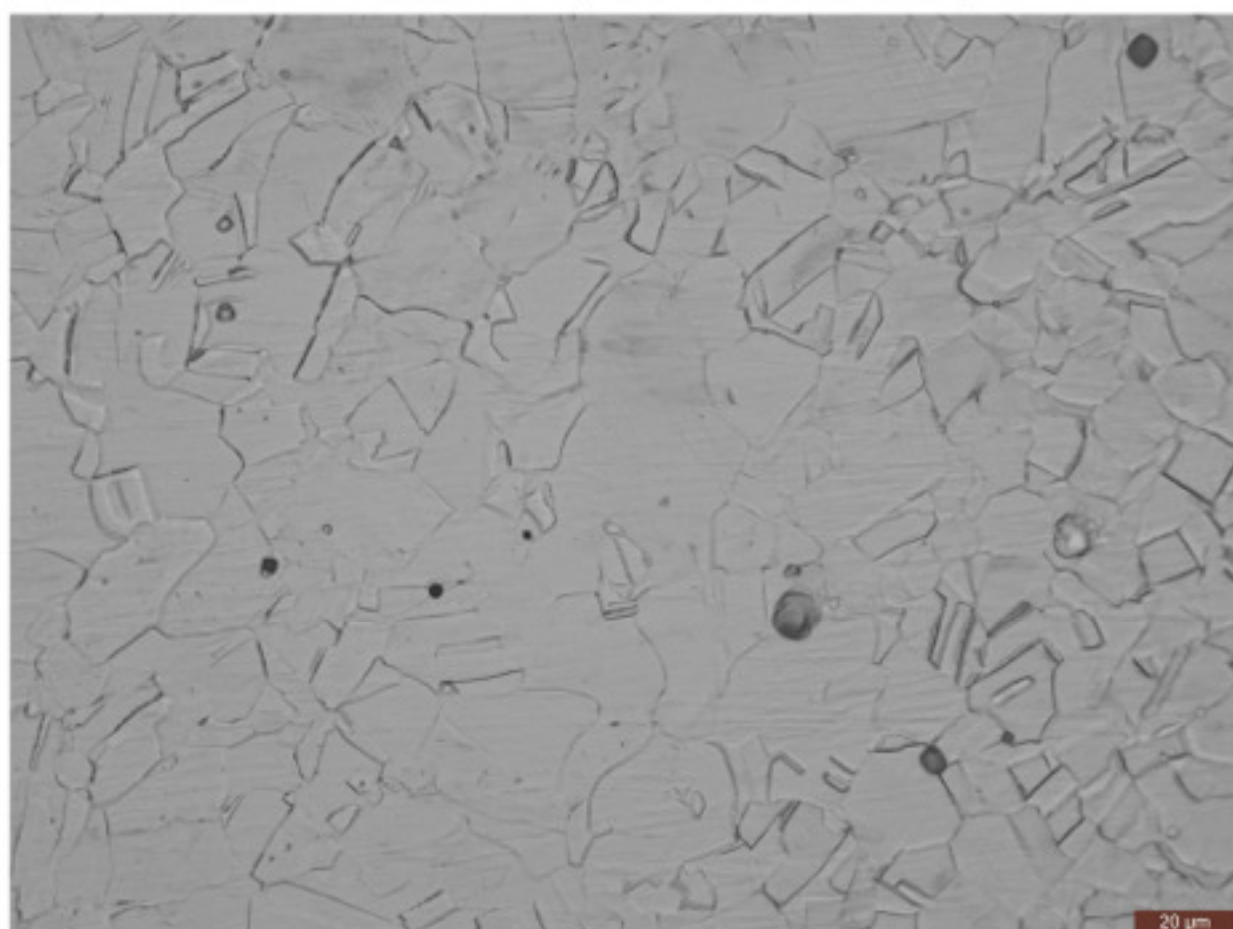


SAMPLE-A

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CORROSION TEST (ASTM A262 PRACTICE A)



SAMPLE-B

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GRAIN SIZE (25MM FROM THE SUFACE)

