qc

??

?1???Cr?Ni?Si????????????????Ni???Si????????????????Cr?????????????????????

Cr ?????????????????????????5.1?????????????????????????????????????

?????1/8????Cr?????????1?8???l?8?2?8?3/8????

????????????????????????????Cr????12.%????????11.7%???????

?2???

Cr,Si.Al????? ?????????????????Cr2O3,SiO2,Al2O3?????????????????

?3???Cr?Cr?Ni,?????????????????????

?4???Mo?Cu????????????

?5???Ti?Nb??????Cr?????????????????????

?6???Mn?N????????Ni??????????????????????????????????????

????????

???

????????????????????????M????F????A????A?F??????

????????

?????????????1Cr13?4Cr13?9Cr18?

1Cr13?????????????????????????????????2Crl3?????????????????????1Crl3?2Cr13?????????????????????????3Cr13?4Cr13?????????????????????????9Crl8?????

????????

???????Cr????13??30??????0.25%??<=>???

?????????Crl7??Cr25??Cr28??

????????

??Crl8??Ni8???18?8???????????0.1????Cr?Ni????????????

??

??

?????????????

???????450?850???

????????????????Cr?Cr23C6???

?????????????????????

?1???Cr23C6?????????????????????????0.03?????????????????????

?2???Ti?Nb?????????????TiC?NbC????????????????Cr23C6?????????????????????

?3???+?????????????????5??12?????????????????????

?4?????????????????????????????????????

2.?????????????

??SCC?Stress Crack

Corrosion???Ni???8??10?????????????????????????????Ni??45?50?????????????????????

????????????????????????Si2?4???????N?????0.04????????????????P?Sb?Bi?As????????????????A-F??????Cl-?OH-???

3.?????????????

??

????????????????????????????? 2000 MPa?????????????????????????????M???

??->M?????????????????????????????????

????????????????????60?????????????650?????????????????????850?1050??850?????3h?1050????????????????

4.??????????

??

?1?????????????1050?1150???

??Cr23C6????????????????????????????????????

?2?????????????????????????Ti?Nb?18-8????????????850?880??????

???Cr??

?3???300?350????????????????Ti?Nb??????????450????????????????????????????????Ti?Nb????????????????500?

?????-????????

???????????????Cr?????Ni????????????????????????????????????

?40?60??-???????????????0Cr21Ni5Ti?1Cr21Ni5Ti?OCr21Ni6Mo2Ti??Cr?????????????????????