

Title (en)

Superduplex stainless steel having high corrosion resistance and high yield strength in the solution annealed condition

Title (de)

Rostfreies Superduplexstahl mit hoher Korrosionsbeständigkeit und hoher Dehngrenze in lösungsgeglühten Zustand

Title (fr)

Acier inoxydable superduplex présentant une haute résistance à la corrosion et une limite élastique élevée à l'état recuit de mise en solution

Publication

EP 0566814 B1 19970903 (EN)

Application

EP 92830586 A 19921026

Priority

IT RM920309 A 19920424

Abstract (en)

[origin: EP0566814A1] The steel, object of our invention is highly resistant to stress corrosion in acid and alkaline environment, and has furthermore high pitting and crevice corrosion resistance. This steel has a very high yield strength, even in the solution annealed condition. The steel consists of: (in weight percent) C 0.025 max Mn 0.80 max Si 0.80 max Cr 24 - 26 Ni 6.5 - 8.0 Mo 3.0 - 4.0 Cu 1.2 - 2.0 W 0.8 - 1.2 N 0.23 - 0.33 S 0.002 max P 0.025 max Fe balance with the proviso: Pitting Index = Cr + 3.3 Mo + 16N > 42

IPC 1-7

C22C 38/42; **C22C 38/44**

IPC 8 full level

C22C 38/42 (2006.01); **C22C 38/44** (2006.01)

CPC (source: EP)

C22C 38/42 (2013.01); **C22C 38/44** (2013.01)

Cited by

EP0594935A1; CN103966522A; EP0683241A3; US8710405B2; DE10357653A1; EP0757112A4; US5849111A; US5352406A; JP2019505677A; CN111197144A; EP0649913A1; FR2711674A1; US5494636A; JP6747628B1; WO2020158111A1; EP0692547B1

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