

Title (en)  
NICKEL-CHROMIUM-COBALT BASE ALLOYS AND CASTINGS THEREOF

Publication  
**EP 0053948 B1 19840926 (EN)**

Application  
**EP 81305828 A 19811210**

Priority  
GB 8039492 A 19801210

Abstract (en)  
[origin: EP0053948A1] Nickel-chromium-cobalt base casting alloys having compositions within the range (in percent by weight) Cr 20-23%, Co 17-23%, W 1-2.5%, Mo 0-0.5%, Nb 0.4-1.2%, Ta 0.6-1.4%, Ti 2.95-3.85%, Al 1.6-2.8%, Hf 0.3-1.3%, Zr 0.005-1%, B 0.001-1%, C 0.01-0.25%, balance Ni and impurities, wherein the contents of Nb, Hf, Ti and Al are further specifically correlated, exhibit at high temperatures a combination of good resistance to corrosion and very high creep-rupture lives, particularly when directionally solidified. The alloys are useful as materials for cast blades and vanes for gas turbines for marine and land-based service.

IPC 1-7  
**C22C 19/05**

IPC 8 full level  
**C22C 19/05** (2006.01)

CPC (source: EP)  
**C22C 19/055** (2013.01)

Cited by  
CN106119608A; CN114921687A; CN114921706A; EP0302302A1; CN115094288A; GB2167440A; GB2167440B; EP2274453A4; US10041153B2; WO2005056852A3

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**EP 81305828 A 19811210**; AT 81305828 T 19811210; CA 391890 A 19811209; DE 3166370 T 19811210; JP 19945081 A 19811210