

Title (en)

HIGH Cr FERRITIC HEAT RESISTANCE STEEL

Title (de)

HOCHCHROMHALTIGER, WÄRMEBESTÄNDIGER, FERITISCHER STAHL

Title (fr)

ACIER FERRITIQUE THERMORESISTANT A TENEUR ELEVEE EN Cr

Publication

EP 1103626 A4 20020116 (EN)

Application

EP 99925355 A 19990616

Priority

- JP 9903231 W 19990616
- JP 19308498 A 19980708

Abstract (en)

[origin: WO0003050A1] A Cr ferritic heat resistance steel containing 0.02 to 0.15 % of C, 0.05 to 1.5 % of Mn, 0.03 % or less of P, 0.015 % or less of S, 8 to 13 % of Cr, 1.5 to 4 % of W, 2 to 6 % of Co, 0.1 to 0.5 % of V, 0.01 to 0.15 % of Ta, 0.01 to 0.15 % of Nb, 0.001 to 0.2 % of Nd, less than 0.02 % of N, 0.0005 to 0.02 % of B, 0.001 to 0.05 % of Al, with the proviso that the contents of Nb and N satisfy the formula, which is excellent in the creep strength under a condition of a high temperature and long duration and in toughness, and can be used under an extra supercritical pressure condition of 650 DEG C or higher and 300 atm.

IPC 1-7

C22C 38/32; **C22C 38/18**; **C22C 38/22**; **C22C 38/24**; **C22C 38/26**; **C22C 38/30**; **C22C 38/00**

IPC 8 full level

C22C 38/00 (2006.01); **C22C 38/22** (2006.01); **C22C 38/24** (2006.01); **C22C 38/26** (2006.01); **C22C 38/30** (2006.01); **C22C 38/32** (2006.01); **C21D 8/02** (2006.01)

CPC (source: EP US)

C22C 38/002 (2013.01 - EP US); **C22C 38/005** (2013.01 - EP US); **C22C 38/22** (2013.01 - EP US); **C22C 38/24** (2013.01 - EP US); **C22C 38/26** (2013.01 - EP US); **C22C 38/30** (2013.01 - EP US); **C22C 38/32** (2013.01 - EP US); **C21D 8/0205** (2013.01 - EP US)

Citation (search report)

- [PX] EP 0887431 A1 19981230 - MITSUBISHI HEAVY IND LTD [JP]
- [A] EP 0703301 A1 19960327 - SUMITOMO METAL IND [JP]
- [A] EP 0754774 A1 19970122 - MITSUBISHI HEAVY IND LTD [JP]
- [A] PATENT ABSTRACTS OF JAPAN vol. 1997, no. 09 30 September 1997 (1997-09-30)
- See references of WO 0003050A1

Cited by

CN104907470A; CN108754335A; EP3943634A4; US7128791B2; WO02061162A1

Designated contracting state (EPC)

DE FR GB

DOCDB simple family (publication)

WO 0003050 A1 20000120; DE 69904336 D1 20030116; DE 69904336 T2 20030821; EP 1103626 A1 20010530; EP 1103626 A4 20020116; EP 1103626 B1 20021204; JP 2000026940 A 20000125; JP 3982069 B2 20070926; US 2002020473 A1 20020221

DOCDB simple family (application)

JP 9903231 W 19990616; DE 69904336 T 19990616; EP 99925355 A 19990616; JP 19308498 A 19980708; US 75405001 A 20010105