

Title (en)

Forged alloy for steam turbine and steam turbine rotor using the same

Title (de)

Geschmiedete Legierung für Dampfturbinen und Dampfturbinenrotor damit

Title (fr)

Alliage forgé pour turbine à vapeur et rotor de turbine à vapeur l'utilisant

Publication

EP 2423342 A1 20120229 (EN)

Application

EP 11178329 A 20110822

Priority

JP 2010188982 A 20100826

Abstract (en)

A forged alloy for a steam turbine of good creep property and fatigue property and a rotor for a steam turbine using the forged alloy, the forged alloy for the steam turbine comprising 15 to 45 wt% of Fe, 14 to 18 wt% of Cr, 1.0 to 1.8 wt% of Ti, 1.0 to 2.0 wt% of Al, 1.25 to 3.0 wt% of Nb, 0.05% or less of C+N and the balance of Ni. The crystal grain size number after heat treatment of the forged alloy is 0 to 2, and the heat treatment includes a plurality of solution heat treatments in different temperature ranges.

IPC 8 full level

C22C 19/05 (2006.01); **C22F 1/10** (2006.01)

CPC (source: EP)

C22C 19/056 (2013.01); **C22F 1/10** (2013.01); **F01D 5/28** (2013.01); **F05D 2220/31** (2013.01)

Citation (applicant)

- JP H09157779 A 19970617 - HITACHI METALS LTD
- JP 2005002929 A 20050106 - HITACHI LTD

Citation (search report)

- [X] EP 1892307 A1 20080227 - HITACHI LTD [JP], et al
- [X] EP 1486578 A1 20041215 - HITACHI LTD [JP]
- [AP] EP 2298946 A2 20110323 - HITACHI LTD [JP]

Cited by

EP2706126A1; US9617856B2

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

EP 2423342 A1 20120229; EP 2423342 B1 20130612; JP 2012046787 A 20120308; JP 5633883 B2 20141203

DOCDB simple family (application)

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