

Title (en)
HEAT-RESISTANT STEEL PRODUCT AND METHOD FOR PRODUCTION THEREOF

Title (de)
HITZEFESTES STAHLPRODUKT UND HERSTELLUNGSVERFAHREN DAFÜR

Title (fr)
PRODUIT EN ACIER RÉSISTANT À LA CHALEUR ET PROCÉDÉ POUR LA PRODUCTION DE CELUI-CI

Publication
EP 1878810 A4 20100217 (EN)

Application
EP 06746178 A 20060428

Priority

- JP 2006309347 W 20060428
- JP 2005134297 A 20050502
- JP 2006118826 A 20060424

Abstract (en)
[origin: EP1878810A1] The present invention provides first resistant steel superior in fire resistance having less variation in material quality and exhibiting a yield strength of 2/3 or more of that at ordinary temperature even at 600 °C and a method of production of the same, that is, fire resistant steel characterized by containing, by mass%, C: 0.01 to 0.03%, Mn: 0.2 to 1.7%, Si: 0.5% or less, Cu: 0.7 to 2%, Mo: 0.8% or less, Nb: 0.01 to 0.3%, Ti: 0.005 to 0.03%, N: 0.006% or less, B: 0.0003 to 0.003%, V: 0.2% or less, Cr: 1% or less, Al: 0.1% or less, P: 0.03% or less, and S: 0.02% or less, containing Ni by mass ratio of Ni/Cu of 0.6 to 0.9, and comprising a balance of Fe and unavoidable impurities, and having a yield strength at 600 °C of 60% of the yield strength at 21 °C.

IPC 8 full level
C21D 8/00 (2006.01); **C22C 38/00** (2006.01)

CPC (source: EP KR US)
C21D 8/0205 (2013.01 - EP KR US); **C22C 38/002** (2013.01 - KR); **C22C 38/008** (2013.01 - KR); **C22C 38/02** (2013.01 - EP KR US); **C22C 38/04** (2013.01 - EP KR US); **C22C 38/08** (2013.01 - EP KR US); **C22C 38/12** (2013.01 - EP KR US); **C22C 38/14** (2013.01 - EP KR US); **C22C 38/16** (2013.01 - EP KR US)

Citation (search report)

- [X] JP 2002115022 A 20020419 - NIPPON STEEL CORP
- See references of WO 2006118339A1

Designated contracting state (EPC)
DE FR GB LU

DOCDB simple family (publication)
EP 1878810 A1 20080116; EP 1878810 A4 20100217; EP 1878810 B1 20140115; CN 101171354 A 20080430; CN 101171354 B 20110420; JP 2006336105 A 20061214; JP 5098210 B2 20121212; KR 20070116686 A 20071210; KR 20100046068 A 20100504; US 2009087335 A1 20090402; WO 2006118339 A1 20061109

DOCDB simple family (application)
EP 06746178 A 20060428; CN 200680015185 A 20060428; JP 2006118826 A 20060424; JP 2006309347 W 20060428; KR 20077025349 A 20071101; KR 20107007869 A 20060428; US 91978106 A 20060428