Title (en)

LOW ALLOY STEEL

Title (de)

NIEDRIG LEGIERTER STAHL

Title (fr)

ACIER FAIBLEMENT ALLIÉ

Publication

EP 1873270 A1 20080102 (EN)

Application

EP 06745409 A 20060417

Priority

- JP 2006308018 W 20060417
- JP 2005120239 A 20050418

Abstract (en)

A low alloy steel for a heat-resisting structural member being improved in long time creep ductility at high temperatures and temper softening resistance, characterized by comprising, by mass percent, C: 0.03 to 0.10%, Si: not more than 0.30%, Mn: not more than 1.0%, Cr: more than 1.5% to not more than 2.5%, Mo: 0.01 to 1.0%, V: 0.04 to 0.30%, Nb: 0.001 to 0.10%, Ti: 0.001 to 0.020%, B: 0.0001 to 0.020%, Al: 0.001 to 0.01% and Nd: 0.0001 to 0.050%, with the balance being Fe and impurities, wherein the content of P is not more than 0.020%, the content of S is not more than 0.003%, the content of N is less than 0.0050% and the content of O (oxygen) is not more than 0.0050% among the impurities, in which the value of BSO represented by the following formula (1) is 0.0001 to 0.010: BSO = B - (11 / 14) N - (11 / 32) S - (11 / 16) O wherein each element symbol in the formula (1) represents the content (by mass %) of the element concerned. The steel may further contain one or more element selected from among W, Cu, Ni, Co, Mg, Ca, La, Ce, Y, Sm and Pr.

IPC 8 full level

C22C 38/00 (2006.01); **C22C 38/32** (2006.01); **C22C 38/54** (2006.01)

CPC (source: EP KR US)

C22C 38/002 (2013.01 - KR); **C22C 38/005** (2013.01 - KR); **C22C 38/02** (2013.01 - EP KR US); **C22C 38/04** (2013.01 - EP KR US); **C22C 38/22** (2013.01 - EP KR US); **C22C 38/24** (2013.01 - EP KR US); **C22C 38/26** (2013.01 - KR); **C22C 38/28** (2013.01 - KR); **C22C 38/32** (2013.01 - KR)

Cited by

EP4269642A4; EP1930460A4; US7935303B2

Designated contracting state (EPC)

DE FR GB IT

DOCDB simple family (publication)

EP 1873270 A1 20080102; **EP 1873270 A4 20091202**; **EP 1873270 B1 20120530**; CA 2604428 A1 20061026; CA 2604428 C 20130716; CN 101163808 A 20080416; JP 4561834 B2 20101013; JP WO2006112428 A1 20081211; KR 100915489 B1 20090903; KR 20070110139 A 20071115; US 2008050265 A1 20080228; WO 2006112428 A1 20061026

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