

Title (en)

STEEL WITH HIGH TEMPER RESISTANCE

Title (de)

STAHL MIT HOHER GLÜHFESTIGKEIT

Title (fr)

ACIER À HAUTE RÉSISTANCE AU REVENU

Publication

EP 2503016 A4 20130626 (EN)

Application

EP 10830974 A 20101110

Priority

- BR PI0904607 A 20091117
- BR 2010000375 W 20101110

Abstract (en)

[origin: EP2503016A1] STEEL WITH HIGH TEMPERING RESISTANCE, characterized by a composition of alloying elements consisting essentially of, in percent by mass, C between 0.20 and 0.50, Si lower than 1.0, P lower than 0.030, Cr between 3.0 and 4.0, Mo between 1.5 and 4.0, V between 0.1 and 2.0, Co lower than 1.5, being the remaining composed of Fe and inevitable deleterious substances. The steel is produced by processes involving ingot casting and hot/cold forming, or used with the cast structure; or by processes involving atomization or dispersion of the molten metal, such as powder metallurgy, powder injection or spray forming.

IPC 8 full level

C22C 38/22 (2006.01); **C22C 38/18** (2006.01); **C22C 38/24** (2006.01)

CPC (source: EP KR US)

C22C 38/02 (2013.01 - EP US); **C22C 38/04** (2013.01 - EP US); **C22C 38/22** (2013.01 - EP KR US); **C22C 38/24** (2013.01 - EP US);
C22C 38/44 (2013.01 - EP US); **C22C 38/46** (2013.01 - EP US); **C22C 38/52** (2013.01 - EP US)

Citation (search report)

- [X] EP 0648852 A1 19950419 - CRUCIBLE MATERIALS CORP [US]
- [X] US 2007110610 A1 20070517 - KURATA SEIJI [JP], et al
- [X] US 2008159901 A1 20080703 - BEGUINOT JEAN [FR], et al
- [X] JP H04180544 A 19920626 - DAIDO STEEL CO LTD
- [X] JP H01201459 A 19890814 - DAIDO STEEL CO LTD
- [A] JP 2001293504 A 20011023 - SUMITOMO METAL IND
- See references of WO 2011060516A1

Cited by

EP3778068A4; US11781204B2; EP2682491B1; WO2019188854A1

Designated contracting state (EPC)

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DOCDB simple family (publication)

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JP 2013510951 A 20130328; KR 20120102081 A 20120917; MX 2012005737 A 20120613; RU 2012125061 A 20131227;
US 2012321505 A1 20121220; WO 2011060516 A1 20110526; ZA 201204354 B 20130131

DOCDB simple family (application)

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