

Title (en)
STEEL PRODUCT USED IN CONTACT WITH STEEL MATERIAL

Title (de)
STAHLPRODUKT IN KONTAKT MIT STAHLMATERIAL

Title (fr)
PRODUIT EN ACIER UTILISÉ EN CONTACT AVEC UN MATÉRIAU EN ACIER

Publication
EP 3708688 A4 20210721 (EN)

Application
EP 18873522 A 20180823

Priority

- JP 2017213609 A 20171106
- JP 2018031132 W 20180823

Abstract (en)
[origin: EP3708688A1] The present invention provides a steel product that has excellent oxidation resistance on a surface thereof that is to come into contact with a steel material and that also has excellent weldability. The steel product for use in contact with a steel material according to the present invention is a steel product for use in contact with a steel material, the steel product including a centrifugally-cast portion formed on a surface of the steel product that is to come into contact with the steel material, the centrifugally-cast portion being made through centrifugal casting, and a statically-cast portion to which the centrifugally-cast portion is welded, the statically-cast portion being formed through static casting, the centrifugally-cast portion containing, in terms of mass%, C: 0.2% to 0.7%; Si: more than 0% and 2.0% or less; Mn: more than 0% and 3.0% or less; Cr: 15.0% to 40.0%; Ni: 18.0% to 55.0%; Al: 1.0% to 5.5%; and at least one type selected from the group consisting of Ti: 0.01% to 0.6% and/or Nb: 0.1% to 1.8%, the balance being composed of Fe and inevitable impurities.

IPC 8 full level
C22C 38/00 (2006.01); **B22D 13/00** (2006.01); **B22D 13/02** (2006.01); **B22D 13/10** (2006.01); **C22C 19/05** (2006.01); **C22C 30/00** (2006.01); **C22C 38/06** (2006.01); **C22C 38/40** (2006.01); **C22C 38/44** (2006.01); **C22C 38/48** (2006.01); **C22C 38/50** (2006.01); **C22C 38/58** (2006.01); **C23C 4/10** (2016.01); **C23C 8/10** (2006.01)

CPC (source: EP US)
B22D 13/02 (2013.01 - EP); **B22D 15/005** (2013.01 - EP); **B22D 19/16** (2013.01 - EP); **C21D 9/563** (2013.01 - US); **C21D 9/68** (2013.01 - US); **C22C 19/05** (2013.01 - EP); **C22C 30/00** (2013.01 - EP); **C22C 38/00** (2013.01 - EP); **C22C 38/005** (2013.01 - EP US); **C22C 38/02** (2013.01 - EP US); **C22C 38/04** (2013.01 - EP); **C22C 38/06** (2013.01 - EP US); **C22C 38/44** (2013.01 - EP US); **C22C 38/48** (2013.01 - EP US); **C22C 38/50** (2013.01 - EP US); **C22C 38/58** (2013.01 - EP US); **C23C 4/10** (2013.01 - EP); **C23C 8/10** (2013.01 - EP)

Citation (search report)

- [E] JP 2019210516 A 20191212 - KUBOTA KK
- [E] WO 2019088075 A1 20190509 - KUBOTA KK [JP]
- [X] JP 2016223017 A 20161228 - KUBOTA KK
- [E] EP 3683325 A1 20200722 - KUBOTA KK [JP]
- [X] US 2014205802 A1 20140724 - ENJO YOUHEI [JP], et al
- [X] JP 2013227655 A 20131107 - KUBOTA KK
- See references of WO 2019087539A1

Cited by
WO2023047142A1

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

DOCDB simple family (publication)
EP 3708688 A1 20200916; **EP 3708688 A4 20210721**; CA 3030503 A1 20190506; CA 3030503 C 20201222; JP 2019085605 A 20190606; JP 6339284 B1 20180606; TW 201922377 A 20190616; US 2021332466 A1 20211028; WO 2019087539 A1 20190509

DOCDB simple family (application)
EP 18873522 A 20180823; CA 3030503 A 20180823; JP 2017213609 A 20171106; JP 2018031132 W 20180823; TW 107133951 A 20180927; US 201816317632 A 20180823