

Title (en)
AUSTENITIC STAINLESS STEEL

Title (de)
AUSTENITISCHER EDELSTAHL

Title (fr)
ACIER INOXYDABLE AUSTÉNITIQUE

Publication
EP 3508602 A1 20190710 (EN)

Application
EP 17846569 A 20170830

Priority
• JP 2016168596 A 20160830
• JP 2017031157 W 20170830

Abstract (en)
An objective of the present invention is to provide an austenitic stainless steel that is excellent in polythionic acid SCC resistance and also excellent in creep ductility. An austenitic stainless steel according to the present invention includes a chemical composition consisting of, in mass%, C: 0.030% or less, Si: 0.10 to 1.00%, Mn: 0.20 to 2.00%, P: 0.040% or less, S: 0.010% or less, Cr: 16.0 to 25.0%, Ni: 10.0 to 30.0%, Mo: 0.1 to 5.0%, Nb: 0.20 to 1.00%, N: 0.050 to 0.300%, sol.Al: 0.0005 to 0.100%, and B: 0.0010 to 0.0080%, with the balance being Fe and impurities, and satisfying Formula (1): where symbols of elements in Formula (1) are to be substituted by contents of corresponding elements (mass%).

IPC 8 full level
C22C 38/00 (2006.01); **C22C 38/58** (2006.01)

CPC (source: EP KR US)
C21D 6/004 (2013.01 - EP); **C21D 6/02** (2013.01 - EP); **C21D 8/0205** (2013.01 - EP); **C21D 8/0226** (2013.01 - EP); **C21D 8/0236** (2013.01 - EP);
C21D 9/46 (2013.01 - EP); **C22C 38/00** (2013.01 - EP US); **C22C 38/001** (2013.01 - EP US); **C22C 38/002** (2013.01 - EP US);
C22C 38/004 (2013.01 - EP); **C22C 38/005** (2013.01 - EP US); **C22C 38/02** (2013.01 - EP US); **C22C 38/04** (2013.01 - EP US);
C22C 38/06 (2013.01 - EP US); **C22C 38/42** (2013.01 - EP US); **C22C 38/44** (2013.01 - EP KR US); **C22C 38/46** (2013.01 - EP US);
C22C 38/48 (2013.01 - EP KR US); **C22C 38/52** (2013.01 - EP US); **C22C 38/54** (2013.01 - EP US); **C22C 38/58** (2013.01 - EP KR US);
C21D 2211/001 (2013.01 - KR)

Cited by
EP4006179A4

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 3508602 A1 20190710; EP 3508602 A4 20200401; CA 3035162 A1 20180308; CA 3035162 C 20211214; CN 109642291 A 20190416;
CN 109642291 B 20210706; JP 6904359 B2 20210714; JP WO2018043565 A1 20190624; KR 102223549 B1 20210305;
KR 20190042675 A 20190424; SG 11201901278X A 20190328; US 2019194787 A1 20190627; WO 2018043565 A1 20180308

DOCDB simple family (application)
EP 17846569 A 20170830; CA 3035162 A 20170830; CN 201780052637 A 20170830; JP 2017031157 W 20170830;
JP 2018537347 A 20170830; KR 20197008697 A 20170830; SG 11201901278X A 20170830; US 201716328755 A 20170830