

Title (en)

WEAR RESISTANT AUSTENITIC STEEL HAVING SUPERIOR DUCTILITY AND METHOD FOR PRODUCING SAME

Title (de)

VERSCHLEISSFESTER AUSTENITISCHER STAHL MIT AUSGEZEICHNETER DUKTILITÄT SOWIE HERSTELLUNGSVERFAHREN DAFÜR

Title (fr)

ACIER AUSTÉNITIQUE RÉSISTANT À L'USURE ET PRÉSENTANT UNE DUCTILITÉ AMÉLIORÉE, ET SON PROCÉDÉ DE PRODUCTION

Publication

EP 2799582 A1 20141105 (EN)

Application

EP 12862562 A 20121227

Priority

- KR 20110145213 A 20111228
- KR 20120151507 A 20121221
- KR 2012011536 W 20121227

Abstract (en)

Provided are a wear resistant austenitic steel having superior machinability and ductility and a method for producing same, the austenitic steel comprising, in weight %, 8 to 15% of manganese (Mn), carbon (C) that satisfies the relationship of $23\% < 33.5C-Mn \leq 37\%$, copper (Cu) that satisfies $1.6C-1.4(\%) \leq Cu \leq 5\%$, 0.03 to 0.1% of sulfur (S), 0.001 to 0.01% of calcium (Ca), the remainder being Fe and other inevitable impurities. According to the present invention, austenitic steel having superior machinability is provided in which the generation of carbide in the steel is inhibited in order to prevent degradation of the steel, and corrosion resistance is sufficiently ensured to enable the steel to be used with a long service life in a corrosive environment.

IPC 8 full level

C22C 38/00 (2006.01); **C21D 6/00** (2006.01); **C21D 8/02** (2006.01); **C21D 9/46** (2006.01); **C22C 38/04** (2006.01); **C22C 38/16** (2006.01); **C22C 38/20** (2006.01); **C22C 38/38** (2006.01); **C22C 38/60** (2006.01)

CPC (source: EP US)

B21B 1/026 (2013.01 - US); **C21D 6/005** (2013.01 - EP US); **C21D 8/0263** (2013.01 - EP US); **C21D 9/46** (2013.01 - EP US); **C22C 38/00** (2013.01 - EP US); **C22C 38/002** (2013.01 - EP US); **C22C 38/04** (2013.01 - EP US); **C22C 38/16** (2013.01 - EP US); **C22C 38/20** (2013.01 - EP US); **C22C 38/36** (2013.01 - US); **C22C 38/38** (2013.01 - EP US); **C22C 38/60** (2013.01 - EP US)

Cited by

EP3561122A4; EP3730649A4; CN104818435A; EP2971211B1

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 2799582 A1 20141105; **EP 2799582 A4 20160224**; **EP 2799582 B1 20190619**; CN 104204262 A 20141210; CN 104204262 B 20180202; JP 2015507700 A 20150312; JP 6014682 B2 20161025; US 2014356220 A1 20141204; WO 2013100613 A1 20130704

DOCDB simple family (application)

EP 12862562 A 20121227; CN 201280070858 A 20121227; JP 2014550002 A 20121227; KR 2012011536 W 20121227; US 201214368897 A 20121227