

Title (en)  
MICROALLOYED STEEL FOR HEAT-FORMING HIGH-RESISTANCE AND HIGH-YIELD-STRENGTH PARTS, AND METHOD FOR PRODUCING COMPONENTS MADE OF SAID STEEL

Title (de)  
MIKROLEGIERTER STAHL ZUM WARMFORMEN VON HOCHBESTÄNDIGEN TEILEN MIT HOHER STRECKGRENZE SOWIE VERFAHREN ZUR HERSTELLUNG VON BAUTEILEN AUS DIESEM STAHL

Title (fr)  
ACIER HAUTE RÉSIDENCE FAIBLEMENT ALLIÉ POUR FORMAGE À CHAUD DE PIÈCES DE HAUTE RÉSIDENCE ET DE LIMITE ÉLASTIQUE ÉLEVÉE ET PROCÉDÉ POUR OBTENIR DES COMPOSANTS DE CET ACIER

Publication  
**EP 3168319 A4 20180124 (EN)**

Application  
**EP 14897352 A 20140708**

Priority  
ES 2014070558 W 20140708

Abstract (en)  
[origin: EP3168319A1] The invention relates to a microalloyed steel for heat-forming high-strength and high-yield strength parts, and to a method for producing components made of said steel, having a specific composition of the following elements: 0.30% # C # 0.50%, 0.50% # Si # 1.50%, 0.50% # Mn # 1.50%, 0.005% # V < 0.50%, 0.001% # Ti < 0.050% which, using a method suitable for producing said steel, achieves low P content and good inclusion cleanliness. In addition, tensile strength values between 1050 and 1200 MPa are achieved using a controlled cooling process.

IPC 8 full level  
**C22C 38/02** (2006.01); **C21C 5/52** (2006.01); **C21C 7/00** (2006.01); **C21C 7/064** (2006.01); **C21C 7/10** (2006.01); **C22C 38/00** (2006.01); **C22C 38/04** (2006.01); **C22C 38/06** (2006.01); **C22C 38/12** (2006.01); **C22C 38/14** (2006.01); **C22C 38/42** (2006.01); **C22C 38/44** (2006.01); **C22C 38/46** (2006.01); **C22C 38/48** (2006.01); **C22C 38/50** (2006.01)

CPC (source: EP)  
**C21C 7/064** (2013.01); **C21C 7/10** (2013.01); **C22C 38/001** (2013.01); **C22C 38/02** (2013.01); **C22C 38/04** (2013.01); **C22C 38/06** (2013.01); **C22C 38/42** (2013.01); **C22C 38/44** (2013.01); **C22C 38/46** (2013.01); **C22C 38/48** (2013.01); **C22C 38/50** (2013.01); **C21C 2300/02** (2013.01); **C21C 2300/08** (2013.01)

Citation (search report)

- [XYI] WO 2013121930 A1 20130822 - NIPPON STEEL & SUMITOMO METAL CORP [JP], et al & EP 2816131 A1 20141224 - NIPPON STEEL & SUMITOMO METAL CORP [JP], et al
- [X] JP H06287677 A 19941011 - NIPPON STEEL CORP
- [Y] EP 2159296 A1 20100303 - SIDENOR INVESTIGACION Y DESARR [ES]
- [A] EP 2057298 A1 20090513 - GEORGSMARIENHUETTE GMBH [DE]
- See references of WO 2016005615A1

Cited by  
US11319609B2; JP2020147810A; CN114667363A; US2022403487A1; JP2023502106A; WO2023014332A1; WO2021099815A1

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 3168319 A1 20170517; EP 3168319 A4 20180124; EP 3168319 B1 20201216**; ES 2860953 T3 20211005; WO 2016005615 A1 20160114

DOCDB simple family (application)  
**EP 14897352 A 20140708**; ES 14897352 T 20140708; ES 2014070558 W 20140708