

Title (en)
STEEL AND METHOD FOR MANUFACTURING SAME

Title (de)
STAHL UND VERFAHREN ZUR HERSTELLUNG DAVON

Title (fr)
ACIER, ET PROCÉDÉ DE FABRICATION DE CELUI-CI

Publication
EP 4019656 A1 20220629 (EN)

Application
EP 20853747 A 20200818

Priority
• JP 2019151345 A 20190821
• JP 2020031165 W 20200818

Abstract (en)
The steel of the present disclosure includes: a chemical composition containing, in mass%, C: 0.100% or more and 0.700% or less; Si: 1.00% or less; Mn: 20.0% or more and 40.0% or less; P: 0.030% or less; S: 0.0070 % or less; Al: 0.01% or more and 5.00% or less; Cr: 0.5% or more and 7.0% or less; N: 0.0050% or more and 0.0500% or less; O: 0.0050% or less; Ti: 0.005% or less; and Nb: 0.005% or less with the balance being Fe and inevitable impurities; a microstructure having austenite as a base phase and an average grain size of 80µm or more; an absorbed energy of a Charpy impact test at -269°C of 150 J or more; and a total elongation of a tensile test at -269°C of 30% or more.

IPC 8 full level
C21D 6/00 (2006.01); **C21D 8/02** (2006.01); **C21D 9/46** (2006.01); **C22C 38/00** (2006.01); **C22C 38/02** (2006.01); **C22C 38/06** (2006.01); **C22C 38/20** (2006.01); **C22C 38/22** (2006.01); **C22C 38/24** (2006.01); **C22C 38/26** (2006.01); **C22C 38/28** (2006.01); **C22C 38/38** (2006.01); **C22C 38/48** (2006.01); **C22C 38/50** (2006.01); **C22C 38/58** (2006.01)

CPC (source: EP KR)
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Designated extension state (EPC)
BA ME

DOCDB simple family (publication)
EP 4019656 A1 20220629; **EP 4019656 A4 20220629**; CN 114302977 A 20220408; CN 114302977 B 20221206; JP 6947330 B2 20211013; JP WO2021033694 A1 20210913; KR 20220030292 A 20220310; TW 202113100 A 20210401; TW I726798 B 20210501; WO 2021033694 A1 20210225

DOCDB simple family (application)
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