

Title (en)
STEEL MATERIAL

Title (de)
STAHL MATERIAL

Title (fr)
MATÉRIAU EN ACIER

Publication
EP 4130317 A1 20230208 (EN)

Application
EP 20928920 A 20200401

Priority
JP 2020014975 W 20200401

Abstract (en)
Provided is a steel material having excellent SSC resistance. The steel material of the present disclosure includes a chemical composition consisting of, in mass%, C: 0.035% or less, Si: 1.00% or less, Mn: 1.00% or less, P: 0.030% or less, S: 0.0050% or less, sol. Al: 0.005 to 0.100%, N: 0.001 to 0.020%, Ni: 5.00 to 7.00%, Cr: 10.00 to 14.00%, Cu: 1.50 to 3.50%, Mo: 1.00 to 4.00%, V: 0.01 to 1.00%, Ti: 0.02 to 0.30%, Co: 0.01 to 0.50%, Ca: 0.0003 to 0.0030%, O: 0.0050% or less, W: 0 to 1.50%, Nb: 0 to 0.50%, B: 0 to 0.0050%, Mg: 0 to 0.0050%, and rare earth metals (REM): 0 to 0.020%, with the balance being Fe and impurities, in which a total number density of Mn sulfide having an equivalent circular diameter of 1.0 μm or more and Ca sulfide having an equivalent circular diameter of 2.0 μm or more is 0.50 pieces/mm² or less.

IPC 8 full level
C22C 38/00 (2006.01); **C21D 8/10** (2006.01); **C21D 9/08** (2006.01); **C22C 38/54** (2006.01)

CPC (source: EP US)
C21D 1/18 (2013.01 - EP); **C21D 1/22** (2013.01 - EP); **C21D 1/25** (2013.01 - EP); **C21D 1/60** (2013.01 - EP); **C21D 6/004** (2013.01 - EP); **C21D 8/105** (2013.01 - EP); **C21D 9/08** (2013.01 - US); **C21D 9/085** (2013.01 - EP); **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); **C22C 38/04** (2013.01 - EP); **C22C 38/06** (2013.01 - EP); **C22C 38/42** (2013.01 - EP US); **C22C 38/44** (2013.01 - EP US); **C22C 38/46** (2013.01 - EP US); **C22C 38/48** (2013.01 - EP US); **C22C 38/50** (2013.01 - EP US); **C22C 38/52** (2013.01 - EP US); **C22C 38/54** (2013.01 - EP US); **C21D 2211/004** (2013.01 - EP); **C21D 2211/008** (2013.01 - EP)

Cited by
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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

Designated validation state (EPC)
KH MA MD TN

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