

Title (en)
STEEL SHEET, STEEL PIPE FOR LINE PIPE, AND PRODUCTION METHOD THEREFOR

Title (de)
STAHLBLECH, STAHLROHR FÜR EIN LEITUNGSROHR UND HERSTELLUNGSVERFAHREN DAFÜR

Title (fr)
TÔLE D'ACIER, TUYAU D'ACIER POUR CONDUITE, ET PROCÉDÉ DE PRODUCTION ASSOCIÉ

Publication
EP 3543366 A1 20190925 (EN)

Application
EP 17871656 A 20171102

Priority
• JP 2016223416 A 20161116
• JP 2017176045 A 20170913
• JP 2017039785 W 20171102

Abstract (en)
Disclosed is a steel plate containing: C: 0.02 to 0.15% by mass, Si: 0.02 to 0.50% by mass, Mn: 0.6 to 2.0% by mass, P: more than 0% by mass and 0.030% by mass or less, S: more than 0% by mass and 0.003% by mass or less, Al: 0.010 to 0.080% by mass, Ca: 0.0003 to 0.0060% by mass, N: 0.001 to 0.01% by mass, O: more than 0% by mass and 0.0045% by mass or less, with the balance being iron and inevitable impurities, wherein a Ca content, a S content and an O content satisfy the following formulae (1) and (2): where [Ca], [S] and [O] are contents (% by mass) of Ca, S and O respectively, and wherein an area ratio of a part that has a defect echo height of 20% or more is 0.05% or less.

IPC 8 full level
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CPC (source: EP KR)
B22D 11/001 (2013.01 - EP); **B22D 11/10** (2013.01 - EP KR); **C21D 8/02** (2013.01 - EP KR); **C21D 8/0205** (2013.01 - EP); **C21D 8/0226** (2013.01 - EP); **C21D 8/0263** (2013.01 - EP); **C21D 9/0081** (2013.01 - EP); **C21D 9/08** (2013.01 - EP); **C22C 38/001** (2013.01 - EP); **C22C 38/002** (2013.01 - EP); **C22C 38/005** (2013.01 - EP); **C22C 38/02** (2013.01 - EP); **C22C 38/04** (2013.01 - EP KR); **C22C 38/06** (2013.01 - EP KR); **C22C 38/42** (2013.01 - EP KR); **C22C 38/44** (2013.01 - EP KR); **C22C 38/46** (2013.01 - EP); **C22C 38/48** (2013.01 - EP); **C22C 38/50** (2013.01 - EP); **C22C 38/54** (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

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EP 3543366 A1 20190925; **EP 3543366 A4 20200527**; **EP 3543366 B1 20221005**; CN 109952387 A 20190628; CN 109952387 B 20210618; JP 2018083981 A 20180531; JP 6869151 B2 20210512; KR 102226990 B1 20210311; KR 20190065337 A 20190611

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