

Title (en)  
STEEL

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STAHL

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ACIER

Publication  
**EP 3418411 A4 20190821 (EN)**

Application  
**EP 16890565 A 20160219**

Priority  
JP 2016054852 W 20160219

Abstract (en)  
[origin: EP3418411A1] According to an aspect of the present invention, there is provided a steel containing, by mass%, C: 0.08% to 0.12%, Si: 0.05% to 0.50%, Mn: 1.00% to 3.00%, P: 0.040% or less, S: 0.020% or less, Cr: 1.0% to 2.5%, Cu: 0.01% to 0.50%, Ni: 0.75% to 3.20%, Mo: 0.10% to 0.50%, Nb: 0.005% to 0.050%, Al: 0.010% to 0.100%, N: 0.0050% to 0.0150%, V: 0% to 0.300%, Ca: 0% to 0.0100%, Zr: 0% to 0.0100%, Mg: 0% to 0.0100%, and a remainder including Fe and impurities, in which a number density of Mn sulfides having an equivalent circle diameter of more than 5  $\mu\text{m}$  is 0 pieces/mm<sup>2</sup> to 10 pieces/mm<sup>2</sup>, and an average aspect ratio of the Mn sulfides having an equivalent circle diameter of 1.0  $\mu\text{m}$  to 5.0  $\mu\text{m}$  is 1.0 or more and 10.0 or less.

IPC 8 full level  
**C22C 38/00** (2006.01); **C21D 8/06** (2006.01); **C22C 38/02** (2006.01); **C22C 38/04** (2006.01); **C22C 38/06** (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); **C22C 38/58** (2006.01)

CPC (source: EP KR US)  
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