Title (en)

PEARLITE RAIL HAVING SUPERIOR ABRASION RESISTANCE AND EXCELLENT TOUGHNESS

Title (de)

PERLITSCHIENE MIT HOHER ABRIEBFESTIGKEIT UND HERVORRAGENDER FESTIGKEIT

Title (fr)

RAIL DE PERLITE PRÉSENTANT UNE RÉSISTANCE À L'ABRASION SUPÉRIEURE ET UNE EXCELLENTE TÉNACITÉ

Publication

**EP 2343390 A4 20140625 (EN)**

Application

**EP 09823351 A 20091030**

Priority

- JP 2009005800 W 20091030
- JP 2008281847 A 20081031

Abstract (en)

[origin: EP2343390A1] This pearlite rail consists of a steel including: in terms of percent by mass, C: 0.65 to 1.20%; Si: 0.05 to 2.00%; Mn: 0.05 to 2.00%; P#¤ 0.0150%; S#¤ 0.0100%; Ca: 0.0005 to 0.0200%, and Fe and inevitable impurities as the balance, wherein a head surface portion which ranges from surfaces of head corner portions and a head top portion to a depth of 10 mm has a pearlite structure, a hardness Hv of the pearlite structure is in a range of 320 to 500, and Mn sulfide-based inclusions having major lengths in a range of 10 to 100 μm are present at an amount per unit area in a range of 10 to 200/mm 2 in a cross-section taken along a lengthwise direction in the pearlite structure.

IPC 8 full level

**C22C 38/04** (2006.01); **C21C 7/00** (2006.01); **C21C 7/04** (2006.01); **C22C 38/58** (2006.01)

CPC (source: EP KR US)

**C21C 7/0025** (2013.01 - EP US); **C21C 7/04** (2013.01 - KR); **C21C 7/064** (2013.01 - EP US); **C22C 38/002** (2013.01 - EP US); **C22C 38/02** (2013.01 - EP US); **C22C 38/04** (2013.01 - EP KR US); **C22C 38/58** (2013.01 - KR)

Citation (search report)

- [XY] WO 2007111285 A1 20071004 - JFE STEEL CORP [JP], et al
- [Y] WO 2005085481 A1 20050915 - NIPPON STEEL CORP [JP], et al
- [A] JP 2005171327 A 20050630 - NIPPON STEEL CORP
- [A] JP 2004315928 A 20041111 - NIPPON STEEL CORP
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Designated contracting state (EPC)

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 SE SI SK SM TR

DOCDB simple family (publication)

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