

Title (en)

HEAVY DUTY SOFT MAGNETIC STEEL SUITABLE FOR WELDING AND ITS USE IN PARTS OF MAGNETIC LEVITATIONAL RAILWAYS

Title (de)

HOCHLEISTUNGSSCHWEISSGEEIGNETER WEICHMAGNETISCHER STAHL UND SEINE VERWENDUNG FÜR TEILE VON MAGNETSCHWEBEBAHNEN

Title (fr)

ACIER MAGNETIQUE DOUX POUR SOUDAGE HAUTE PERFORMANCE ET SON EMPLOI POUR DES PARTIES DES CHEMINS DE FER A SUSTENTATION MAGNETIQUE

Publication

EP 0917595 A1 19990526 (DE)

Application

EP 97935569 A 19970805

Priority

- DE 19632370 A 19960810
- EP 9704245 W 19970805

Abstract (en)

[origin: US6287395B1] A high-energy weldable soft magnetic steel with high toughness in the heat-affected zone of weld joints, high specific electric resistance to reduce eddy currents, aging resistance and weathering resistance comprises 0.65 to <1.0% chromium, >1.0 to 2.0% silicon, 0.25 to 0.55% copper, 0.003 to 0.008% nitrogen, 0.15 to <0.6% manganese, 0.02 to 0.07% aluminum, 0.01 to 0.02% titanium, 0 to 0.15% carbon, 0 to 0.045% phosphorus, the balance iron and unavoidable impurities.

IPC 1-7

C22C 38/20; C22C 38/28; H01F 1/147

IPC 8 full level

B61B 13/08 (2006.01); **C22C 38/00** (2006.01); **C22C 38/20** (2006.01); **C22C 38/28** (2006.01); **E01B 25/30** (2006.01); **H01F 1/14** (2006.01); **H01F 1/147** (2006.01)

CPC (source: EP KR US)

B61B 13/08 (2013.01 - EP US); **C22C 38/001** (2013.01 - EP US); **C22C 38/20** (2013.01 - EP KR US); **E01B 25/305** (2013.01 - EP US)

Citation (search report)

See references of WO 9806882A1

Designated contracting state (EPC)

AT BE CH DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)

US 6287395 B1 20010911; AT E202157 T1 20010615; AU 3851197 A 19980306; AU 709094 B2 19990819; CA 2262845 A1 19980219; CA 2262845 C 20041214; CN 1072274 C 20011003; CN 1227613 A 19990901; DE 19632370 A1 19980212; DE 19632370 C2 19980702; DE 59703811 D1 20010719; DK 0917595 T3 20010917; EP 0917595 A1 19990526; EP 0917595 B1 20010613; ES 2159873 T3 20011016; GR 3036398 T3 20011130; HK 1021650 A1 20000623; JP 2000517376 A 20001226; KR 100438996 B1 20040703; KR 20000029728 A 20000525; PT 917595 E 20011030; WO 9806882 A1 19980219; ZA 977118 B 19980416

DOCDB simple family (application)

US 23010299 A 19990205; AT 97935569 T 19970805; AU 3851197 A 19970805; CA 2262845 A 19970805; CN 97197182 A 19970805; DE 19632370 A 19960810; DE 59703811 T 19970805; DK 97935569 T 19970805; EP 9704245 W 19970805; EP 97935569 A 19970805; ES 97935569 T 19970805; GR 20010401254 T 20010816; HK 00100634 A 20000202; JP 50935498 A 19970805; KR 19997000831 A 19990130; PT 97935569 T 19970805; ZA 977118 A 19970808