

Title (en)

Process for pickling a steel workpiece, in particular stainless steel sheet strip

Title (de)

Verfahren zum Beizen von Stahlwerkstücken, insbesondere Blechband aus rostfreiem Stahl

Title (fr)

Procédé de décapage d'une pièce en acier et notamment d'une bande de tôle en acier inoxydable

Publication

EP 0792949 B1 20010509 (FR)

Application

EP 97400433 A 19970226

Priority

FR 9602405 A 19960227

Abstract (en)

[origin: EP0792949A1] In a steel pickling process, especially for stainless steel strip, employing an aqueous hydrochloric acid pickling solution, the Fe(III) ion concentration is maintained at 1-300 g/l, for constant pickling capacity of the solution of pH less than 1, by oxygenation (preferably aeration) to effect re-oxidation of the Fe(II) ions generated during pickling, the redox potential being maintained at a value of 0-800 (preferably 400-600) mV as measured between a Pt electrode and an Ag/AgCl reference electrode in the solution. Also claimed is a continuous rolled steel (especially stainless steel) strip production line employing the above process, in which the strip is subjected to mechanical treatment (e.g. stretch-levelling and/or peening), primary pickling, working (e.g. rolling), annealing, final pickling and finishing (e.g. skin pass rolling), at least one of the pickling operations being carried out by the above process.

IPC 1-7

C23G 1/08

IPC 8 full level

B21B 45/06 (2006.01); **C23G 1/08** (2006.01); **B21B 1/22** (2006.01); **B21B 1/36** (2006.01); **B21B 3/02** (2006.01); **B21B 15/00** (2006.01)

CPC (source: EP KR US)

B21B 45/06 (2013.01 - EP US); **C23G 1/08** (2013.01 - EP KR US); **C23G 1/086** (2013.01 - EP US); **B21B 1/36** (2013.01 - EP US); **B21B 3/02** (2013.01 - EP US); **B21B 2001/228** (2013.01 - EP US); **B21B 2015/0071** (2013.01 - EP US)

Cited by

EP0949354A1; EP0972854A3; IT202000005848A1; WO9931296A1; US6210491B1; US6428625B1; US6500328B1; WO9927162A1

Designated contracting state (EPC)

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

DOCDB simple family (publication)

EP 0792949 A1 19970903; **EP 0792949 B1 20010509**; AT E201057 T1 20010515; AU 1488497 A 19970911; AU 711782 B2 19991021; BR 9701076 A 19980901; CA 2198631 A1 19970827; CA 2198631 C 20040831; CN 1084801 C 20020515; CN 1168823 A 19971231; DE 69704732 D1 20010613; DE 69704732 T2 20010913; ES 2156344 T3 20010616; FR 2745301 A1 19970829; FR 2745301 B1 19980403; JP 4186131 B2 20081126; JP H101791 A 19980106; KR 100448972 B1 20041208; KR 970062075 A 19970912; MX 9701425 A 19980331; TW 517099 B 20030111; US 5851304 A 19981222; US 5992196 A 19991130; ZA 971647 B 19980826

DOCDB simple family (application)

EP 97400433 A 19970226; AT 97400433 T 19970226; AU 1488497 A 19970225; BR 9701076 A 19970226; CA 2198631 A 19970226; CN 97109913 A 19970226; DE 69704732 T 19970226; ES 97400433 T 19970226; FR 9602405 A 19960227; JP 5701797 A 19970225; KR 19970006274 A 19970227; MX 9701425 A 19970225; TW 86104093 A 19970331; US 15451598 A 19980916; US 80763497 A 19970227; ZA 971647 A 19970226