

Title (en)
DEVICE FOR DE-SCALING SEMI-FINISHED PRODUCTS

Title (de)
EINRICHTUNG ZUM ENTZUNDERN VON HALBZEUGEN

Title (fr)
DISPOSITIF DE DECALAMINAGE DE PRODUITS SEMI-FINIS

Publication
EP 0852521 B1 19990623 (DE)

Application
EP 96933348 A 19960920

Priority
• DE 19535789 A 19950926
• EP 9604126 W 19960920

Abstract (en)
[origin: US6029681A] PCT No. PCT/EP96/04126 Sec. 371 Date May 20, 1998 Sec. 102(e) Date May 20, 1998 PCT Filed Sep. 20, 1996 PCT Pub. No. WO97/11797 PCT Pub. Date Apr. 3, 1997An apparatus for descaling semi-finished products, such as thin slabs or steel strips in rolling mills by highly pressurized water that is sprayed through a nozzle device onto the surface of the semi-finished product is characterized in that the nozzle device is movable with a vertical component above the surface of the semi-finished product by means of a drive. The drive can be controlled by a control device that receives a target distance as input value and an actual distance between the nozzle device and the surface of the semi-finished product detected by means of a distance sensor. The control device supplies an output signal via a signal line to the drive for resetting any deviation to zero. Hence, the nozzle device is always kept at a desired target distance even if humps such as bulgings occur on the surface of the semi-finished product.

IPC 1-7
B21B 45/08

IPC 8 full level
B21B 45/08 (2006.01)

CPC (source: EP KR US)
B21B 45/08 (2013.01 - EP KR US)

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 6029681 A 20000229; AT E181521 T1 19990715; AU 7212196 A 19970417; AU 728947 B2 20010118; BR 9610717 A 19990713; CA 2233085 A1 19970403; CN 1120063 C 20030903; CN 1197416 A 19981028; DE 19535789 A1 19970327; DE 19535789 C2 19970911; DE 59602292 D1 19990729; EP 0852521 A1 19980715; EP 0852521 B1 19990623; ES 2135921 T3 19991101; JP H11513311 A 19991116; KR 100426979 B1 20040616; KR 19990063765 A 19990726; MX 9802351 A 19981130; TW 312634 B 19970811; WO 9711797 A1 19970403; ZA 968047 B 19970527

DOCDB simple family (application)
US 4349598 A 19980520; AT 96933348 T 19960920; AU 7212196 A 19960920; BR 9610717 A 19980325; CA 2233085 A 19960920; CN 96197229 A 19960920; DE 19535789 A 19950926; DE 59602292 T 19960920; EP 9604126 W 19960920; EP 96933348 A 19960920; ES 96933348 T 19960920; JP 51312696 A 19960920; KR 19980702232 A 19980326; MX 9802351 A 19980325; TW 85111653 A 19960924; ZA 968047 A 19960925