

Title (en)

METHOD OF RETROFITTING A TREATMENT APPARATUS FOR CLEANING A METAL STRIP

Title (de)

VERFAHREN ZUM UMBAU EINER BEHANDLUNGSVORRICHTUNG ZUR REINIGUNG EINES METALLBANDES

Title (fr)

PROCEDE DE TRANSFORMATION D'UN DISPOSITIF DE TRAITEMENT POUR LE NETTOYAGE D'UNE BANDE METALLIQUE

Publication

EP 1565595 A2 20050824 (DE)

Application

EP 03812134 A 20030821

Priority

- AT 17892002 A 20021129
- EP 0309280 W 20030821

Abstract (en)

[origin: WO2004050953A2] The invention relates to a device for operating and a method for modifying an installation for effecting the, in particular, continuous treatment, preferably the cleaning, of a metal strip (2) by using a treatment liquid, particularly a pickling liquid. According to the invention, the metal strip (2) is guided in a preferably horizontal manner through at least one tank (1) for accommodating the treatment liquid, particularly a pickling tank, comprising at least one pump circulation tank, preferably two pump circulation tanks (3), serving to prepare or store and/or hold the treatment liquid. At least one pump circulation tank (3) is directly placed under the tank (1) for accommodating a treatment liquid.

IPC 1-7

C23G 3/02

IPC 8 full level

B08B 1/20 (2024.01); **C23G 3/02** (2006.01)

CPC (source: EP US)

C23G 3/021 (2013.01 - EP US)

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PT RO SE SI SK TR

DOCDB simple family (publication)

WO 2004050953 A2 20040617; WO 2004050953 A3 20041021; AT 413220 B 20051215; AT A17892002 A 20050515; AT E447052 T1 20091115; AU 2003260442 A1 20040623; DE 50312073 D1 20091210; EP 1565595 A2 20050824; EP 1565595 B1 20091028; ES 2333864 T3 20100302; PL 206712 B1 20100930; PL 376740 A1 20060109; RU 2005120382 A 20060210; RU 2324768 C2 20080520; US 2006162752 A1 20060727

DOCDB simple family (application)

EP 0309280 W 20030821; AT 03812134 T 20030821; AT 17892002 A 20021129; AU 2003260442 A 20030821; DE 50312073 T 20030821; EP 03812134 A 20030821; ES 03812134 T 20030821; PL 37674003 A 20030821; RU 2005120382 A 20030821; US 53672805 A 20050805