

Title (en)

Process for pickling and passivating stainless steel without using nitric acid.

Title (de)

Verfahren zum Beizen und Passivieren von rostfreiem Stahl ohne Verwendung von Salpetersäure.

Title (fr)

Procédé de décapage et de passivation de l'acier inoxydable sans utilisation de l'acide nitrique.

Publication

**EP 0505606 A1 19920930 (EN)**

Application

**EP 91113628 A 19910814**

Priority

IT MI910879 A 19910329

Abstract (en)

A process for pickling and passivating stainless steel using a bath of the following initial composition: H<sub>2</sub>SO<sub>4</sub> at least 150 g/l Fe<3><+> at least 15 g/l HF at least 40 g/l stabilized H<sub>2</sub>O<sub>2</sub> 1-20 g/l non-ionic surfactants and acid attack inhibitors 1 g/l, into which an air flow and an H<sub>2</sub>O<sub>2</sub> quantity of between 0.3 and 1 g/l per hour, controlled to maintain the bath Redox potential at >= 350 mV, are fed in continuously.

IPC 1-7

**C23C 22/34**; **C23G 1/08**

IPC 8 full level

**C23C 22/34** (2006.01); **C23G 1/04** (2006.01); **C23G 1/08** (2006.01)

CPC (source: EP)

**C23C 22/34** (2013.01); **C23G 1/00** (2013.01); **C23G 1/086** (2013.01)

Citation (search report)

- [YD] EP 0188975 A1 19860730 - CHETREFF BERNARD
- [AD] GB 2000196 A 19790104 - TOKAI ELECTRO CHEMICAL CO
- [Y] PATENT ABSTRACTS OF JAPAN vol. 11, no. 80 (C-409)(2527) 11 March 1987 & JP-A-61 235 581 (C UYEMURA AND CO LTD) 20 October 1986
- [Y] PATENT ABSTRACTS OF JAPAN vol. 6, no. 106 (C-108)(984) 16 June 1982 & JP-A-57 035 686 (KAWASAKI SEITETSU K.K.) 26 February 1982

Cited by

CN108220937A; EP0922787A1; FR2772050A1; EP0582121A1; EP0776256A4; EP0592892A1; DE4237021C1; EP0596273A1; EP0974682A1; EP0769575A1; US5843240A; DE102012024542A1; US6171409B1; EP0792949A1; FR2745301A1; US5851304A; US5992196A; DE4417284A1; DE4417284C2; GB2499000A; WO2004035861A1; US8192556B2; US10392710B2; EP1793016A1; CN113906162A; EP3951014A4; US7229506B2; US6565735B1; WO03044244A1; WO9931296A1; WO2013113811A1; US9487741B2

Designated contracting state (EPC)

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

DOCDB simple family (publication)

**EP 0505606 A1 19920930**; **EP 0505606 B1 19951102**; **EP 0505606 B2 20030226**; AT E129753 T1 19951115; DE 505606 T1 19940203; DE 69114265 D1 19951207; DE 69114265 T2 19960418; DE 69114265 T3 20040805; DK 0505606 T3 19951204; ES 2082063 T3 19960316; ES 2082063 T5 20031101; FI 101234 B 19980515; FI 920580 A0 19920212; FI 920580 A 19920930; GR 3018681 T3 19960430; IT 1245594 B 19940929; IT MI910879 A0 19910329; IT MI910879 A1 19920929; JP 2655770 B2 19970924; JP H04304391 A 19921027

DOCDB simple family (application)

**EP 91113628 A 19910814**; AT 91113628 T 19910814; DE 69114265 T 19910814; DE 91113628 T 19910814; DK 91113628 T 19910814; ES 91113628 T 19910814; FI 920580 A 19920212; GR 960400082 T 19960117; IT MI910879 A 19910329; JP 28420691 A 19911004