

## Title (en)

Hydrogen peroxide pickling of stainless steel

## Title (de)

Beizen von rostfreiem Stahl mit Wasserstoffperoxid enthaltende Lösungen

## Title (fr)

Décapage d'acier inoxydable avec des solutions contenant du peroxyde d'hydrogène

## Publication

**EP 0808919 A1 19971126 (EN)**

## Application

**EP 97108296 A 19970522**

## Priority

- US 66749896 A 19960524
- US 82115497 A 19970320

## Abstract (en)

A process for removing scale from stainless steel using an aqueous solution containing hydrogen peroxide and an inorganic acid, i.e., hydrochloric or sulfuric acid. A hot rolled or annealed stainless steel strip (10) covered with scale is immersed into hot inorganic acid contained within pickling tanks (12) and (14). Thereafter, the strip may have residual amounts of tightly adherent scale (11). This scale is activated by a solution containing the inorganic acid and hydrogen peroxide applied to the strip such as by a spray header (16) extending completely transversely across and positioned above the strip and another spray header (18) extending completely transversely across and positioned below the strip. It may be desirable to pass the activated strip through the hot inorganic acid again and reactivate the strip at very high line speeds to insure complete removal of scale from the strip. Any hydrogen peroxide spray dripping from the strip is collected on a catch pan (30) and flowed into a tank (28). Preferably, the collected spent aqueous solution containing the inorganic acid and spent hydrogen peroxide is disposed in the pickling tanks. The aqueous solution aids in the removal of any residual scale and smut remaining on the strip thereby improving the cleanliness of the pickled strip. <IMAGE>

## IPC 1-7

**C23G 1/08**

## IPC 8 full level

**C23G 1/08** (2006.01)

## CPC (source: EP KR)

**C23G 1/08** (2013.01 - EP KR); **C23G 1/081** (2013.01 - EP KR)

## Citation (search report)

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- [A] EP 0582121 A1 19940209 - ITB SRL [IT]
- [A] US 2895856 A 19590721 - TONNY HONG
- [A] GB 2058140 A 19810408 - FAGERSTA AB
- [Y] DATABASE WPI Section Ch Week 8134, Derwent World Patents Index; Class M12, AN 81-61187D, XP002037896
- [A] CHEMICAL ABSTRACTS, vol. 84, no. 22, 31 May 1976, Columbus, Ohio, US; abstract no. 154059x, TSUKAMURA: "Descaling of stainless steel" XP002037895 & JP S5096431 A 19750731
- [A] PATENT ABSTRACTS OF JAPAN vol. 007, no. 151 (C - 174) 1 July 1983 (1983-07-01)

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## Designated contracting state (EPC)

AT BE DE DK ES FR GB IT NL SE

## DOCDB simple family (publication)

**EP 0808919 A1 19971126; EP 0808919 B1 20010808**; AR 007285 A1 19991027; AT E204033 T1 20010815; AU 2360197 A 19971127; AU 706523 B2 19990617; BR 9703228 A 19980901; CA 2205122 A1 19971124; CA 2205122 C 20080715; CN 1177082 C 20041124; CN 1178262 A 19980408; DE 69705993 D1 20010913; DE 69705993 T2 20020404; DK 0808919 T3 20011008; ES 2162155 T3 20011216; JP 4032319 B2 20080116; JP H1046373 A 19980217; KR 100492841 B1 20050831; KR 970074980 A 19971210; MX 9703809 A 19980430; TW 416996 B 20010101

## DOCDB simple family (application)

**EP 97108296 A 19970522**; AR P970102223 A 19970526; AT 97108296 T 19970522; AU 2360197 A 19970523; BR 9703228 A 19970523; CA 2205122 A 19970512; CN 97105426 A 19970526; DE 69705993 T 19970522; DK 97108296 T 19970522; ES 97108296 T 19970522; JP 13121597 A 19970521; KR 19970020297 A 19970523; MX 9703809 A 19970523; TW 86105876 A 19970502