

Title (en)

SALT BATH FOR NITRIDING OF STEEL WORKPIECES AND ITS RELATED PRODUCTION METHOD

Title (de)

SALZBAD ZUM NITRIEREN VON MECHANISCHEN TEILEN AUS STAHL UND ANWENDUNGSVERFAHREN

Title (fr)

BAIN DE SELS FONDUS POUR LA NITRURATION DE PIECES MECANIQUES EN ACIER, ET UN PROCEDE DE MISE EN OEUVRE

Publication

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Application

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Priority

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Abstract (en)

[origin: WO2012146839A1] The invention relates to a molten-salt bath for nitriding mechanical steel parts, essentially consisting of the following (the contents being expressed in wt %): 25 to 60 wt % of alkali-metal chlorides; 10 to 40 wt % of alkali-metal carbonates; 20 to 50 wt % of alkali-metal cyanates; and a maximum of 3 wt % of cyanide ions (formed during the use of the bath), wherein the total of the contents is 100 wt %. Preferably, the bath contains: 25 to 30 wt % of sodium cyanate; 25 to 30 wt % of sodium carbonate and lithium carbonate; 40 to 50 wt % of potassium chlorides; and a maximum of 3 wt % of cyanide ions (formed during the use of the bath), the total of the contents being 100 wt %.

IPC 8 full level

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Citation (examination)

- US 2008099108 A1 20080501 - BAUDIS ULRICH [DE], et al
- US 2013327604 A1 20131212 - HOLLY MICHAEL L [US], et al
- US 4019928 A 19770426 - BEYER HERMANN, et al
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CN 103502501 A 20140108; CN 103502501 B 20160525; EP 2683845 A1 20140115; EP 2683845 B1 20190626; ES 2745150 T3 20200227;
HU E046077 T2 20200228; JP 2014510840 A 20140501; JP 6129752 B2 20170517; KR 101953523 B1 20190228; KR 20140010141 A 20140123;
KR 20190011318 A 20190201; MA 34884 B1 20140201; MX 2013010431 A 20131003; MX 342937 B 20161019; MY 164965 A 20180228;
PL 2683845 T3 20200131; RU 2013145569 A 20150420; RU 2590752 C2 20160710; SG 192765 A1 20130930; TN 2013000300 A1 20150120;
UA 112312 C2 20160825; US 2013327445 A1 20131212; US 9611534 B2 20170404; WO 2012146839 A1 20121101; ZA 201306476 B 20140528

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ZA 201306476 A 20130828