

Title (en)

CLOSURE PLATE, AND A SLIDING CLOSURE ON THE SPOUT OF A CONTAINER CONTAINING MOLTEN METAL

Title (de)

VERSCHLUSSPLATTE SOWIE EIN SCHIEBEVERSCHLUSS AM AUSGUSS EINES METALLSCHMELZE ENTHALTENDEN BEHÄLTERS

Title (fr)

PLAQUE DE FERMETURE ET FERMETURE COULISSANTE SUR LE BEC DE COULÉE D'UN RÉCIPIENT CONTENANT UN MÉTAL EN FUSION

Publication

EP 2670546 A1 20131211 (DE)

Application

EP 12701680 A 20120124

Priority

- EP 11000737 A 20110131
- EP 2012000306 W 20120124
- EP 12701680 A 20120124

Abstract (en)

[origin: EP2481500A1] Locking plate (20) comprises a discharge opening (21) arranged on a central longitudinal axis of the locking plate and a closing surface emerging from the discharge opening to the two outer longitudinal sides. At least two shoulder surfaces (20a) are formed as interlocking surfaces or as centering surfaces of the locking plate on the two outer longitudinal sides, which exhibits an angle forming a plate tapering and at least outer sides are provided at the shoulder surfaces on the side of the closing surface. Locking plate (20) for a sliding closure on the spout of a metal melt containing container comprises a discharge opening (21) arranged on a central longitudinal axis of the locking plate and a closing surface emerging from the discharge opening are provided to the two outer longitudinal sides. At least two shoulder surfaces (20a) are formed as interlocking surfaces or as centering surfaces of the locking plate on the two outer longitudinal sides, which exhibits an angle (alpha , beta) forming a plate tapering to the longitudinal axis and at least outer sides are provided at the shoulder surfaces on the side of the closing surface. The outer sides exhibit a smaller angle (gamma) respectively to the longitudinal axis or are arranged parallel to the longitudinal axis. An independent claim is also included for the sliding closure comprising at least one metal frame for holding the locking plate, where many clamping elements (17a) are arranged in the metal frame so that the locking plates are firmly clamped at the shoulder surfaces.

IPC 8 full level

B22D 41/28 (2006.01); **B22D 41/34** (2006.01)

CPC (source: EP KR US)

B22D 41/28 (2013.01 - EP KR US); **B22D 41/34** (2013.01 - EP KR US)

Citation (search report)

See references of WO 2012104028A1

Cited by

EP3943212A1; WO2022017673A1; US12103070B2

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)

EP 2481500 A1 20120801; AR 085043 A1 20130807; AU 2012213730 A1 20130725; AU 2012213730 B2 20160922; BR 112013017582 A2 20161004; BR 112013017582 B1 20190820; CA 2823560 A1 20120809; CA 2823560 C 20210601; CN 103476520 A 20131225; CN 103476520 B 20151125; EP 2670546 A1 20131211; EP 2670546 B1 20170222; ES 2625826 T3 20170720; HR P20170699 T1 20170728; HU E034283 T2 20180228; JP 2014503364 A 20140213; JP 5938051 B2 20160622; KR 101826386 B1 20180206; KR 20130140763 A 20131224; MX 2013008307 A 20130906; MX 352785 B 20171208; MY 162676 A 20170630; PL 2670546 T3 20170831; RS 55969 B1 20170929; RU 2013135234 A 20150310; RU 2598422 C2 20160927; SI 2670546 T1 20170731; TW 201240749 A 20121016; TW I615218 B 20180221; UA 105344 C2 20140425; US 2013270308 A1 20131017; US 2016121393 A1 20160505; US 9266169 B2 20160223; US 9884366 B2 20180206; WO 2012104028 A1 20120809

DOCDB simple family (application)

EP 11000737 A 20110131; AR P120100300 A 20120130; AU 2012213730 A 20120124; BR 112013017582 A 20120124; CA 2823560 A 20120124; CN 201280006989 A 20120124; EP 12701680 A 20120124; EP 2012000306 W 20120124; ES 12701680 T 20120124; HR P20170699 T 20170509; HU E12701680 A 20120124; JP 2013550800 A 20120124; KR 20137014243 A 20120124; MX 2013008307 A 20120124; MY PI2013002807 A 20120124; PL 12701680 T 20120124; RS P20170512 A 20120124; RU 2013135234 A 20120124; SI 201230960 A 20120124; TW 101102193 A 20120119; UA A201309797 A 20120124; US 201213976506 A 20120124; US 201614990936 A 20160108