

Title (en)

CASTING PLUNGER SYSTEM AND CASTING METHOD FOR A DIE CASTING MACHINE

Title (de)

GIESSKOLBENSYSTEM UND GIESSVERFAHREN FÜR EINE DRUCKGIESSMASCHINE

Title (fr)

SYSTÈME DE PISTON DE COULÉE ET PROCÉDÉ DE COULÉE POUR UNE MACHINE À COULER SOUS PRESSION

Publication

EP 3892399 B1 20240717 (DE)

Application

EP 21164291 A 20210323

Priority

DE 102020204634 A 20200409

Abstract (en)

[origin: MX2021004019A] A casting plunger system for a die casting machine includes a stationary system part and a system part which moves relative to the stationary system part in a respective casting cycle for the introduction of melt material into a casting mould. The moved system part has a plunger, a plunger rod and a rod drive unit, and is configured to decelerate at the end of a mould filling phase of the casting cycle under the effect of pressure on the melt material. A casting method for a die casting machine is provided with such a plunger system. The moved system part has a mass which can be adjusted variably between different casting cycles, and/or the moved system part consists of a moved main system part and an additional mass unit which is arranged so as to be movable relative to the main system part and is configured to decelerate, at the end of the mould fill phase of the casting cycle, later by a predefined delay time than the main system part.

IPC 8 full level

B22D 17/20 (2006.01)

CPC (source: CN EP US)

B22D 17/20 (2013.01 - EP); **B22D 17/2015** (2013.01 - EP); **B22D 17/2023** (2013.01 - EP); **B22D 17/203** (2013.01 - CN EP US);
B22D 17/2046 (2013.01 - EP); **B22D 17/2053** (2013.01 - EP); **B22D 17/2069** (2013.01 - EP); **B22D 17/32** (2013.01 - CN US)

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 3892399 A1 20211013; EP 3892399 B1 20240717; CN 113510229 A 20211019; DE 102020204634 A1 20211014;
JP 2021167020 A 20211021; MX 2021004019 A 20211011; US 11440087 B2 20220913; US 11969784 B2 20240430;
US 2021316359 A1 20211014; US 2022371083 A1 20221124

DOCDB simple family (application)

EP 21164291 A 20210323; CN 202110382401 A 20210409; DE 102020204634 A 20200409; JP 2021060337 A 20210331;
MX 2021004019 A 20210407; US 202117225782 A 20210408; US 202217879860 A 20220803