Title (en)

CONTROL DEVICE FOR THE ADVANCING MOTION OF A CASTING PLUNGER

Title (de)

STEUERUNGSVORRICHTUNG FÜR GIESSKOLBENVORSCHUBBEWEGUNG

Title (fr)

DISPOSITIF DE COMMANDE DU MOUVEMENT D''AVANCE D'UN PISTON D'INJECTION POUR MOULAGE

Publication

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Application

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Abstract (en)

[origin: WO2013107682A2] The invention relates to a device for controlling the advancing motion of a casting plunger in a casting chamber of a cold-chamber die casting machine by means of a control signal, wherein the advancing motion comprises a chamber filling motion segment from a partial filling position having a partially filled casting chamber starting volume to a full filling position having a filled casting chamber remaining volume. According to the invention, a respective associated curve of the control signal is provided in the device for different specified sets of values of a plurality of process parameters that influence the melt motion in the casting chamber during the chamber filling motion segment, which curve of the control signal is defined as the most suitable control-signal curve for the particular parameter value set, and the device is designed to use the most suitable control-signal curve to control the casting plunger advancing motion according to values of the process parameters present at the start of the casting cycle, wherein at least one casting chamber geometry parameter, at least one filling amount parameter, at least one casting shape parameter, and/or at least one casting chamber temperature or melt temperature parameter belongs to the plurality of process parameters. The invention further relates to the use thereof in the cold-chamber die casting technology.

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