

Title (en)
METHOD FOR OPERATING AN ELECTRIC PLASTICIZING UNIT AND DEVICE FOR CARRYING OUT SAID METHOD

Title (de)
VERFAHREN ZUM BETRIEB EINER ELEKRISCHEN PLASTIFIZIEREINRICHTUNG UND VORRICHTUNG ZUR DURCHFÜHRUNG DES VERFAHRENS

Title (fr)
PROCEDE D'EXPLOITATION D'UN DISPOSITIF DE PLASTIFICATION ELECTRIQUE ET DISPOSITIF POUR METTRE LEDIT PROCEDE EN OEUVRE

Publication
EP 1853415 A1 20071114 (DE)

Application
EP 06707694 A 20060110

Priority
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• DE 102005007747 A 20050218

Abstract (en)
[origin: DE102005007747B3] A first motor rotates the screw and a second motor moves the screw axially via a spindle and nut arrangement. During the injection stage while the screw is moved forward by the accelerating second motor, the first motor remains fixed and does not rotate. When the first motor reaches maximum acceleration the second motor starts to rotate and the axial speed of the screw increases further(72) and plasticization of melt continues during the injection stage. Operation of the first motor is such that axial screw acceleration continues after the maximum rotational speed of the second motor has been reached. The first motor starts to rotate during injection when the second motor has reached its maximum rotational speed. Axial movement of the screw in the injection direction by the electric motors may be assisted by a hydraulic system. Hydraulic power is applied continuously and the axial movement of the screw is achieved by driving the motors in the same or opposing directions. An independent claim is included for a plasticizing unit with two electric motors and including a nut and spindle system for axial screw movement of the screw. The nut and spindle unit ensures that the screw rotates in the same direction during injection, when assisted by the first motor, as it does during metering. A non-return valve at the front of the screw enables the screw to rotate during injection.

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B29C 45/50 (2006.01)

CPC (source: EP)
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