

Title (en)

Method, apparatus and shell mould for casting a cylindrical product

Title (de)

Verfahren, Vorrichtung und Feingiessform zum Giessen zylindrischer Gegenstände

Title (fr)

Procédé, dispositif et moule pour la moulée des pièces cylindriques

Publication

EP 0819485 B1 20020619 (EN)

Application

EP 96111597 A 19960718

Priority

EP 96111597 A 19960718

Abstract (en)

[origin: EP0819485A1] A shell mold includes a plurality of sleeve forming portions. Of the sleeve forming portions, at least an endmost sleeve forming portion located adjacent to a subrunner portion has a modified shape for compensating for deformation of cast sleeves caused by solidification and contraction of molten metal. A shell molding apparatus includes an upper die and a lower die which constitute a die set for molding a shell mold. The lower die is composed of shell molding inserts, each having the shape of a halved cylinder, spiny insert receiving recesses formed in the shell molding inserts, and spiny inserts (22) retractably provided in the spiny insert receiving recesses. In a casting method using a shell mold, many protrusions of a spiny insert are reversely copied to the inner surface of a halved shell mold at the undercut portion of the inner surface, thereby forming many depressions at the undercut portion. The halved shell mold is parted from the lower die. A plurality of bore forming cores are disposed in the halved shell mold. The halved shell mold and another halved shell mold are engaged with each other, thereby forming a shell mold for casting. Casting is performed using the thus formed shell mold. <IMAGE>

IPC 1-7

B22C 7/00

IPC 8 full level

B22C 7/00 (2006.01)

CPC (source: EP)

B22C 7/005 (2013.01)

Designated contracting state (EPC)

DE FR GB IT

DOCDB simple family (publication)

EP 0819485 A1 19980121; EP 0819485 B1 20020619; DE 69621922 D1 20020725; DE 69621922 T2 20030130

DOCDB simple family (application)

EP 96111597 A 19960718; DE 69621922 T 19960718