

Title (en)

METHOD OF, AND PATTERN FOR USE IN, FORMING A SAND MOULD, AND METHOD OF PRODUCING AN ANNULAR CASTING USING THE MOULD

Publication

EP 0036273 A3 19811209 (EN)

Application

EP 81300927 A 19810305

Priority

US 8000268 W 19800313

Abstract (en)

[origin: EP0036273A2] A pattern (11) for forming a sand mould for use in producing a one-piece annular casting (1) having a radially inner shell (12), a radially outer blade support (13), and a plurality of angled blades (14) extending in a spaced, annular array (22). The pattern includes a plurality of similar segments (15), each having an inner end portion (18) defining a portion of the profile of the shell, and an outer end portion (21) defining the profile of the blade. The segments are supported in annular array about a mandrel (25) and are circumscribed by a split ring (26) defining the pattern for the outer blade support portion of the wheel (10). The inner portions of the segments are defined by inclined side surfaces (16,17) which, in alternate ones of the segments in the annular array, converge and diverge toward the centre of the array. Upon completion of the forming of the sand mould about the pattern, the mandrel and outer ring are removed, permitting the segments having the inwardly diverging side faces to be withdrawn inwardly from the array and permit the remaining segments then to be withdrawn inwardly therefrom.

IPC 1-7

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CPC (source: EP)

B22C 7/00 (2013.01); **B22C 9/28** (2013.01)

Citation (search report)

- DE 2360339 A1 19740612 - TEMPCRAFT TOOL & MOLD
- US 3552480 A 19710105 - HARRIS GEORGE V
- US 3570585 A 19710316 - HARRIS GEORGE V
- US 4231413 A 19801104 - BRETZGER GRAHAM
- US 4043385 A 19770823 - PETRENCHIK JOHN R

Cited by

CN110434283A; EP0962270A1; CN105290336A; DE10041505A1; DE10064268A1

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