

Title (en)

METHOD OF HOT-FORMING METALS PRONE TO CRACK DURING ROLLING.

Title (de)

VERFAHREN ZUR WARMVERFORMUNG VON METALLEN, DIE BEIM WALZEN RISSANFÄLLIG SIND.

Title (fr)

PROCEDE DE FORMAGE A CHAUD DE METAUX SUSCEPTIBLES DE SE FISSURER PENDANT LE LAMINAGE.

Publication

EP 0105368 A4 19840703 (EN)

Application

EP 83902518 A 19830204

Priority

US 34588582 A 19820204

Abstract (en)

[origin: WO8302783A1] A method of continuously casting a molten ferrous alloy in a casting means (12) to obtain a solidified cast bar (20) at a hot-forming temperature, passing the cast bar (20) at a hot-forming temperature from the casting means (12) to a hot-forming means (10), and hot forming the cast bar into a wrought product by a two-stagereduction of its cross-sectional area while it is still at a hot-forming temperature, including, in the first stage, the step of forming a substantially uniform fine grained, equiaxed or cell structure in the outer surface layers of the cast bar by a selected small amount of deformation of the cast bar in its as-cast condition prior to the second stage in which substantial reduction of its cross-sectional area forms the wrought product. The substantially uniform subgrain structure formed on the cast bar during the first stage of deformation produces a bar that has increased ductility compared to bar produced by the prior art processes and permits substantial reduction of the cross-sectional area of the cast bar during the second stage of deformation without the cast bar cracking, even when the cast bar has a relatively high percentage of alloying elements present.

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IPC 8 full level

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CPC (source: EP)

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Citation (search report)

- [X] DE 2019700 A1 19701119 - VOEST AG
- [Y] GB 2014071 A 19790822 - NIPPON KOKAN KK
- [Y] FR 2461010 A1 19810130 - DORYOKURO KAKUNENRYO [JP]
- [Y] GB 1596395 A 19810826 - JERNKONTORET FORSKNINGSAVDELNI
- [A] FR 2223114 A1 19741025 - NIPPON KOKAN KK [JP]

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