

Title (en)

Method and device for casting thin metallic products with thickness reduction under the casting mould.

Title (de)

Verfahren und Vorrichtung zum Giessen von dünnen metallischen Produkten mit Dickereduzierung unterhalb der Stranggusslokille.

Title (fr)

Procédé et installation de coulée de produits métalliques minces à réduction d'épaisseur sous la lingotière.

Publication

EP 0391824 A1 19901010 (FR)

Application

EP 90470009 A 19900316

Priority

FR 8904857 A 19890406

Abstract (en)

[origin: JPH02295658A] PURPOSE: To manufacture a thin product of excellent quality by reducing the thickness of only a center area except each solidified edge part of a product out of a mold to the value not more than one half of the thickness of each edge part, and cropping off each edge part whose thickness is not reduced. CONSTITUTION: A molten metal 3 poured into a mold 10 is brought into contact with a cooling wall, and solidified to form a solidified skin 4. The skin which is brought into contact with a wider wall 11 of the mold and solidified, is brought close to each other by the rolling action of a roll at a center area of the product out of the mold. On the other hand, because each edge part of the product is not passed through nips of the roll, its thickness is left unchanged. The thickness of a non-solidified core part 5 is gradually reduced as the product is advanced because the skin 4 is brought close to each other. At the height (c) corresponding to the plane of a roll axis, the skin 4 is integrated with each other to form a web 6' of the product, and the product is of I-shape in section. A flange 7' of the product solidified by passing through between the rolls 22 is cropped by a cropping means 8 to obtain a thin slab 9.

Abstract (fr)

Selon l'invention on coule le métal liquide 3 dans une lingotière de coulée continue 10 et on réduit l'épaisseur du produit 1 issu de la lingotière par un dispositif de réduction d'épaisseur 20, alors que le coeur 5 dudit produit n'est pas encore solidifié. L'épaisseur du produit 1 n'est réduite que dans une zone centrale, à l'exclusion des bords solidifiés du produit, par des moyens de réduction d'épaisseur tels que des cylindres 22 dont la longueur active est inférieure à la largeur des grandes faces 11 de la lingotière. Pour la fabrication de brames minces 9 des moyens 8 sont prévus en aval des cylindres 22 pour chuter les bords 7' du produit.

IPC 1-7

B21B 1/46; B22D 11/12

IPC 8 full level

B22D 11/128 (2006.01); **B21B 1/46** (2006.01); **B22D 11/12** (2006.01)

CPC (source: EP KR US)

B21B 1/463 (2013.01 - EP US); **B22D 11/12** (2013.01 - KR); **B22D 11/1206** (2013.01 - EP US)

Citation (search report)

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