

Title (en)

Manufacturing method and equipment for the band metal by a twin roll type casting machine.

Title (de)

Verfahren und Vorrichtung zum Giessen eines Metallbandes zwischen zwei Walzen.

Title (fr)

Procédé et dispositif pour couler une bande métallique entre deux cylindres.

Publication

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Application

EP 84110872 A 19840912

Priority

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Abstract (en)

A manufacturing equipment for band metal by the twin roll type casting machine, which is provided with a tundish (1) having a nozzle (2, 53) pouring molten metal and with a couple of rotating rolls (3, 3 min ; 50, 51) cooling the molten metal poured from the above nozzle (2; 53) to make the solidified crust (24, 24 min) and compressing the solidified crust to be able to manufacture continuously the band metal (6; 55) of the desired thickness. This is characterized as follows. It is equipped with the part material of the short side (13, 13 min ; 13a, 13a min), which is located in the face of the surface of the rolls (3, 3 min ; 50, 51) forming the long side of the section of the above molten metal and made up along the short side of the section of the molten metal by the heat resisting material of lower thermal conductivity than the rolls (3, 3 min ; 50, 51). And it is equipped with a detector (9, 9 min), which detects the compressive load or equivalent quantity of state exerted when the above rolls (3, 3 min ; 50, 51) compress the solidified crust (24, 24 min) of molten metal formed on the each side of rolls (3, 3 min ; 50, 51). And it is equipped with a controller (15-17), which regulates the solidification time of molten metal in solidification range formed between the above twin rolls comparing the detected value from the above detector (9, 9 min) with the setup value. Moreover, it is equipped with a roll gap controller (140), which regulates the value of the narrowest gap between rolls (3, 3 min ; 50, 51) by moving the location of rolls so that the compressibility of solidified crust may become the desired plus value according to the detached value from the above detector (100).

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CPC (source: EP KR)

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Citation (search report)

- [X] US 2058448 A 19361027 - HAZELETT CLARENCE W
- [A] EP 0047218 A2 19820310 - SCAL GP CONDIT ALUMINIUM [FR]
- [A] US 3587708 A 19710628 - KHIMICH GEORGY LUKICH, et al

Cited by

EP0411962A3; EP0250145A3; EP0228038A1; US5727127A; US4987949A; DE3612549A1; FR2738760A1; US4976304A; DE3731781A1; EP0322482A1; EP0572795A1; EP0719607A1; FR2728817A1; US5706882A; AU686912B2; US7156153B2; WO2004028725A1; EP1509350A4; DE102021116380A1; DE102021116380B4

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