

Title (en)
TWO HIGH HOT ROLLING MILL PROCESS AND NARROW STRIP PRODUCT

Publication
EP 0110556 A3 19860115 (EN)

Application
EP 83306523 A 19831026

Priority
US 43673682 A 19821026

Abstract (en)
[origin: EP0110556A2] A rolling mill capable of forming a hot, continuously cast metallic strand into a strip with a large bite and with one pass per mill stand uses only two small diameter rolls per stand, each mounted for rotation in a pair of chock blocks and each having a comparatively narrow, enlarged diameter working portion. The outer surface of the working portion is profiled to maintain the product centered on the rolls and to accommodate for thermal expansion. An hydraulic motor that produces a large torque at a low rotational speed with good control rotates each roll. The motors are coupled to their associated rolls directly. A pair of hydraulic cylinders mounted on upper frame beams are each connected to one of the chock blocks of the upper roll. The upper frame and the cylinders pivot together to provide a direct overhead access to the rolls and their chock blocks for a rapid replacement of the rolls. The mill includes rotary brushes that are adjustably loaded against the working portions of the rolls to remove adhered strand material and to prevent a release agent from accumulating on the rolls. An entrance guide assembly provides a partial atmosphere control and edge rolls that to some extent steer the strand to the center of the rolls. A narrow strip with a recrystallised grain pattern and accurately controlled dimensions is produced by three such two high mills operating in tandem. The first mill produces the high reduction and sets the width of the strip. The second mill reduces the thickness further. The third mill is a finishing mill that produces a final thickness reduction.

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