

Title (en)
OSCILLATING APPARATUS FOR THE MOLD OF CONTINUOUS CASTING

Title (de)
OSZILLIERENDE VORRICHTUNG FÜR EINE STRANGGIESSKOKILLE

Title (fr)
APPAREIL D'OSCILLATION POUR MOULE DE MOULAGE CONTINU

Publication
EP 1886746 A4 20110427 (EN)

Application
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Abstract (en)
[origin: EP1886746A1] The present invention discloses an oscillating apparatus for a mold of continuous casting which comprises an oscillating table supporting the mold, spring sets, a foundation, actuators, and a control unit. The actuators are motor cylinders. The rigidity of the spring sets may be changed by adjusting the number or length of the spring sets, such that the natural frequency of the oscillating system, which includes above motor cylinders, may approach a desired vibration frequency, therefore to reduce the power output of the motor cylinders. The control unit provides online-adjustable wave signals of frequencies, declinations and amplitudes to control the operation of the motor cylinders which drive the mold to oscillate sinusoidally or non-sinusoidally, and to further control the operation of corresponding drive systems based on the frequency range so as to adjust the rigidity of the spring sets.

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Citation (search report)
• [XY] GB 2184675 A 19870701 - MANNESMANN AG
• [Y] WO 0185370 A1 20011115 - SMS DEMAG AG [DE], et al
• [Y] US 3154815 A 19641103 - HANS BIERI
• See references of WO 2006102813A1

Cited by
AT516230A1; AT516230B1; EP3354370A1; DE102017201496A1; US9829588B2; WO2009118094A1; WO2015004197A3; WO2019222558A1

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