

Title (en)
MOLDING DEVICE FOR CONTINUOUS CASTING HAVING STIRRING DEVICE

Title (de)
FORMVORRICHTUNG FÜR STRANGGUSSVORGÄNGE MIT EINER RÜHRVORRICHTUNG

Title (fr)
DISPOSITIF DE MOULE POUR COULÉE EN CONTINU AVEC DISPOSITIF D'AGITATION

Publication
EP 2650063 A1 20131016 (EN)

Application
EP 12848633 A 20120202

Priority
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• JP 2012052412 W 20120202

Abstract (en)
There is provided a molding device for continuous casting equipped with an agitator that reduces the amount of generated heat, is easy to carry out maintenance, is inexpensive, and is easy to use in practice. The molding device for continuous casting equipped with an agitator of the invention receives liquid-phase melt of a conductive material, and a solid-phase cast product is taken out from the molding device through the cooling of the melt. The molding device includes a casting mold and an agitator provided so as to correspond to the casting mold. The casting mold includes a casting space that includes an inlet and an outlet at a central portion of a substantially cylindrical side wall, and a magnetic field generation device receiving chamber that is formed in the side wall and is positioned outside the casting space. The casting mold receives the liquid-phase melt from the inlet into the casting space and discharges the solid-phase cast product from the outlet through the cooling in the casting space. The agitator includes a magnetic field generation device having an electrode unit that includes first and second electrodes supplying current to at least the liquid-phase melt present in the casting space, and a permanent magnet that applies a magnetic field to the liquid-phase melt. The magnetic field generation device is received in the magnetic field generation device receiving chamber of the casting mold, generates magnetic lines of force toward a center in a lateral direction, makes the magnetic lines of force pass through a part of the side wall of the casting mold and reach the casting space, and applies lateral magnetic lines of force, which cross the current, to the melt.

IPC 8 full level
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CN 103459064 A 20131218; CN 103459064 B 20160113; JP 2013103229 A 20130530; JP 5431438 B2 20140305; KR 101562876 B1 20151026;
KR 20130100210 A 20130909; NZ 612696 A 20161028; US 2014069602 A1 20140313; US 2015343523 A1 20151203;
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