

Title (en)

Roller holder for a line guide segment of a strand casting machine

Title (de)

Rollenträger für ein Strangführungssegment einer Stranggießmaschine

Title (fr)

Support de rouleaux pour un segment de guidage de ligne d'une machine de coulée

Publication

EP 2404686 A1 20120111 (DE)

Application

EP 10168999 A 20100709

Priority

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Abstract (en)

The roller support (2) for supporting three strand guide rollers (8) in a strand guide segment (1) of a strand casting machine for casting a strand with slab or thin slab cross-section, comprises a closed frame, which is formed from transverse bars or transverse ridges and longitudinal bars (15) or longitudinal ridges, and two bearing blocks (12). The transverse bars or transverse ridges are arranged perpendicular to the casting direction, and the longitudinal bars or the longitudinal ridges are arranged in the casting direction. The bearing blocks support the strand guide roller. The roller support (2) for supporting three strand guide rollers (8) in a strand guide segment (1) of a strand casting machine for casting a strand with slab or thin slab cross-section, comprises a closed frame, which is formed from transverse bars or transverse ridges and longitudinal bars (15) or longitudinal ridges, and two bearing blocks (12). The transverse bars or transverse ridges are arranged perpendicular to the casting direction, and the longitudinal bars or the longitudinal ridges are arranged in the casting direction. The bearing blocks support the strand guide roller arranged transversely to the casting direction. The closed frame is arranged within the longitudinal bars and/or longitudinal ridges; and forms a lattice-like structure with mesh windows with the longitudinal bars and/or longitudinal ridges. The mesh windows are formed for accommodating two spray nozzles for cooling the strand. One of the transverse bars is arranged inside the closed frame. A grid-shaped structure with mesh windows is formed with the frame and the longitudinal bar and/or the longitudinal ridge. The continuous longitudinal ridges form a longitudinal support. The continuous transverse ridges form a transverse support. An internal frame or outer frame includes a horizontal or vertical strand casting machine with the roller support. An internal bow frame or outer bow frame includes a bow-type strand casting machine with the roller support. The first spray nozzle is supported: at a first transverse bar or first transverse ridge; and at a first longitudinal bar or first longitudinal ridge. The second spray nozzle is supported: at a second transverse bar or second transverse ridge; and at a second longitudinal bar or second longitudinal ridge. The strand guide roller is supported on the frame and on the longitudinal support or on the longitudinal ridge, where each of the strand guide rollers, upstream and downstream, are supported on the frame. The roller holder, the internal frame, the internal bow frame, the outer frame and/or the outer bow frame are formed by a slider movable relative to the strand guide segments, where the slider is formed as a pressure cylinder such as a hydraulic cylinder.

Abstract (de)

Die Erfindung betrifft einen Rollenträger (2) zur Abstützung von zumindest drei Strangführungsrollen (8) in einem Strangführungssegment (1) einer Stranggießmaschine zum Gießen eines Strangs mit Brammen- oder Dünnbrammen-Querschnitt aus Stahl. Die Aufgabe der Erfindung besteht darin, die Wartungsfreundlichkeit des Strangführungssegments (1) durch eine steife und platzsparende Konstruktion des Rollenträgers (2) zu erhöhen; konkret soll es möglich sein, auch bei einem kompakten Strangführungssegment (1) und ohne längere Montagearbeiten einzelne Spritzdüsen (9) und Spritzwasserrohre (10) demontieren bzw. montieren zu können. Diese Aufgabe wird durch eine Vorrichtung der eingangs genannten Art gelöst, bei der zumindest einem Längsträger (15) oder zumindest einem Längssteg (16), der innerhalb des geschlossenen Rahmens (7) angeordnet ist, zumindest ein Lagerbock (12) zur Abstützung einer Strangführungsrolle (8) zugeordnet ist; und der Rahmen (7) mit dem Längsträger (15) und/oder dem Längssteg (16) eine gitterförmige Struktur mit mehreren Gitterfenstern (17) ausbildet, wobei mehrere Gitterfenster (17) zur Aufnahme von zumindest je einer Spritzdüse (9) zum Kühlen des Strangs ausgebildet sind.

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Citation (search report)

- [X1] WO 02060619 A1 20020808 - SMS DEMAG AG [DE], et al
- [X1] WO 0211923 A1 20020214 - SMS DEMAG AG [DE], et al
- [AD] DE 10203240 A1 20020822 - VOEST ALPINE IND ANLAGEN [AT]
- [A] WO 2009118222 A1 20091001 - SIEMENS VAI METALS TECH GMBH [AT], et al
- [A] WO 2009141244 A1 20091126 - SIEMENS VAI METALS TECH GMBH [AT], et al

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