

Title (en)

Device for cooling rolled metallic products.

Title (de)

Vorrichtung zum Kühlen metallischer Walzprodukte.

Title (fr)

Dispositif de refroidissement de produits métalliques laminés.

Publication

EP 0140026 A2 19850508 (FR)

Application

EP 84110373 A 19840831

Priority

LU 84999 A 19830912

Abstract (en)

1. Apparatus for cooling beams, comprising horizontal roller guides (2) on which lean the flanges of the beam (1), vertical roller guides, as well as cooling boxes (3, 4, 5) provided with orifices dispensing a cooling liquid, the boxes (5) which are used for cooling the outer surfaces of the flanges having a total height being at least equal to the height of the flanges and the boxes (3, 4) which are used for cooling the inner surfaces of the flanges having side walls which extend nearly over the whole inner surface of the flanges, characterized - in that the said boxes (3, 4, 5) are provided with equally spaced orifices dispensing water through the walls facing the beam (1) ; - in that the boxes (3, 4) used for cooling the inner surfaces of the flanges as well as the web account together for at least 70 % of the web surface ; - in that the boxes (4) for cooling the inner surfaces of the flanges as well as the upper surface of the web are mounted below arms (10) which can pivot in the direction of the transport of the beams (1) and - in that a damming element, comprising at least one metallic box (32), which is connected to a pressure fluid source and which is provided with openings (33) opposite to the surfaces of the beam, is located at the outlet of the cooling device, this damming element having a cross section which is such that it can be fitted into the upper chamber of the beam (1).

Abstract (fr)

On soumet au cours du laminage, les parties verticales de poutrelles (1) à l'action de jets d'eau laminaires et les parties horizontales en partie à l'action de jets d'eau laminaires et en partie à l'action d'une couche d'eau. Le dispositif comporte des rouleaux de guidage horizontal (2) sur lesquels s'appuient les ailes de la poutrelle, des rouleaux de guidage vertical ainsi que des caissons de refroidissement de section rectangulaire (3, 4, 5) munis d'orifices équidistants sur les faces en regard de la poutrelle (1) et reliés à une source d'eau. Les caissons (5) servant à refroidir les faces extérieures des ailes ont une hauteur totale au moins égale à celle des ailes. Les caissons (3, 4) servant à refroidir les faces intérieures des ailes ainsi que l'âme ont des côtés verticaux qui couvrent pratiquement toute la surface des ailes et des côtés horizontaux qui couvrent au moins 70% de la surface de l'âme. Les caissons (4) servant à refroidir la surface supérieure de l'âme sont escamotables vers le haut.

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IPC 8 full level

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