

Title (en)

Apparatus for cooling metal sheets or similar products.

Title (de)

Vorrichtung zum Kühlen von Blech und ähnlichen Produkten.

Title (fr)

Perfectionnement aux machines pour le refroidissement des tôles ou produits analogues.

Publication

EP 0021865 A1 19810107 (FR)

Application

EP 80400582 A 19800428

Priority

FR 7915107 A 19790613

Abstract (en)

[origin: US4298188A] The machine for cooling metal sheets has a lower frame and an upper frame, sets of sheet driving and guiding rolls rotatively mounted in the frames. These frames define an enclosure which surrounds the rolls and in which enclosure a cooling fluid circulates. A system of fluid discharge conduits is connected to the upper frames and a system of fluid discharge conduits is connected to the lower frame. These discharge conduits are disposed in the vicinity of input and output ends of the machine. A cooling fluid recovery tank is provided. At least the discharge conduits connected to the upper frame and located in the vicinity of the input and output ends of the machine are connected to the cooling fluid recovery tank with interposition of a siphon. A priming device is combined with the siphon for creating a depression in the siphon. There may also be associated with the cooling fluid discharge system of the lower frame, for instance on at least one discharge conduit connected to the lower frame, apparatus such as a valve, adapted to regulate the flow in the respective conduit, for regulating the pressure drop in the machine.

Abstract (fr)

Le but de ce perfectionnement consiste à diminuer les fuites de liquide aux extrémités d'entrée et de sortie de la machine. Ce résultat est obtenu en reliant les conduits supérieurs d'évacuation (22) au bac de récupération R au moyen d'un siphon (23-26) muni d'un dispositif d'amorçage (27). Par ailleurs des moyens (21) sont prévus pour faire varier la perte de charge dans la machine.

IPC 1-7

B21B 45/02

IPC 8 full level

C21D 1/00 (2006.01); **B21B 45/02** (2006.01); **C21D 1/62** (2006.01); **C21D 9/52** (2006.01)

CPC (source: EP US)

B21B 45/0218 (2013.01 - EP US); **C21D 1/62** (2013.01 - EP US)

Citation (search report)

- US 1998192 A 19350416 - HASWELL ARTHUR B
- FR 2223096 A1 19741025 - USINOR [FR]
- US 3897230 A 19750729 - TAYLOR HAROLD L, et al

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EP0080322A3

Designated contracting state (EPC)

DE GB

DOCDB simple family (publication)

EP 0021865 A1 19810107; **EP 0021865 B1 19830316**; DE 3062323 D1 19830421; FR 2458326 A1 19810102; FR 2458326 B1 19830311; IT 1128470 B 19860528; IT 8067787 A0 19800519; JP S5638417 A 19810413; JP S6036455 B2 19850820; US 4298188 A 19811103

DOCDB simple family (application)

EP 80400582 A 19800428; DE 3062323 T 19800428; FR 7915107 A 19790613; IT 6778780 A 19800519; JP 8008180 A 19800613; US 15634480 A 19800604