

Title (en)

METHOD AND DEVICE FOR COOLING A LOW-PRESSURE STAGE OF A STEAM TURBINE

Title (de)

VERFAHREN UND VORRICHTUNG ZUR KÜHLUNG EINER NIEDERDRUCKSTUFE EINER DAMPFTURBINE

Title (fr)

PROCEDE ET DISPOSITIF POUR LE REFROIDISSEMENT D'UN ETAGE BASSE PRESSION D'UNE TURBINE A VAPEUR

Publication

EP 1090208 B1 20030502 (DE)

Application

EP 99936273 A 19990519

Priority

- DE 9901493 W 19990519
- DE 19823251 A 19980526

Abstract (en)

[origin: DE19823251C1] The invention relates to a method and device for cooling at least one low-pressure stage (4) of a steam turbine (1) comprising a steam admission area (2) and a steam exhaust area (3). The steam turbine (1) is connected to at least one condenser (5) or is configured as a back pressure turbine. Condensate and/or steam from a cooling system (6) is injected as a cooling medium into the low-pressure stage (4) via a dosing device (7). Said condensate and/or steam is injected according to a temperature value which is measured in the low-pressure stage (4) and according to a parameter which is directly or indirectly correlated to the mass flow rate through the low-pressure stage (4). In an advantageous manner, such a method for cooling a low-pressure stage (4) of a steam turbine (1) reduces the exposure of the steam turbine (1) blades to the risk of erosion resulting from the beating of drops and is easier to control than control systems which are only dependent on temperature.

IPC 1-7

F01D 25/12; **F01K 13/02**

IPC 8 full level

F01D 25/12 (2006.01); **F01D 25/30** (2006.01); **F01K 9/04** (2006.01); **F01K 13/02** (2006.01)

CPC (source: EP)

F01D 25/12 (2013.01); **F01K 13/025** (2013.01); **F05D 2220/31** (2013.01)

Cited by

US10301965B2

Designated contracting state (EPC)

CH DE FR GB LI

DOCDB simple family (publication)

DE 19823251 C1 19990708; CN 1119506 C 20030827; CN 1306600 A 20010801; DE 59905336 D1 20030605; EP 1090208 A2 20010411; EP 1090208 B1 20030502; JP 2002516946 A 20020611; JP 4253128 B2 20090408; WO 9961758 A2 19991202; WO 9961758 A3 20000113

DOCDB simple family (application)

DE 19823251 A 19980526; CN 99807563 A 19990519; DE 59905336 T 19990519; DE 9901493 W 19990519; EP 99936273 A 19990519; JP 2000551126 A 19990519