

Title (en)
Injection aperture for a steam power plant

Title (de)
Einspritzblende für ein Dampfkraftwerk

Title (fr)
Ecran d'injection pour une centrale à vapeur

Publication
EP 2500549 A1 20120919 (DE)

Application
EP 11158049 A 20110314

Priority
EP 11158049 A 20110314

Abstract (en)
The aperture (1) has two injection pipes (9, 10) for injecting water into an injection aperture flow channel, where the flow channel is formed by an inner-sided injection aperture-flow surface (5) that is designed as a Laval nozzle. Steam and water flow through the respective pipes. The flow channel is tapered in a flow direction (2) of steam, where one of the pipes is arranged at an angle opposite to the flow surface. Regulating and control valves (13, 14) are arranged in the respective pipes, where the aperture is designed rotationally-symmetric to a rotational symmetry axis. An independent claim is also included for a method for cooling steam.

Abstract (de)
Die Erfindung betrifft eine Einspritzblende (1) zur Vermischung von Wasser und Dampf in ersten Rohrleitung (3), wobei statt einer Einspritzleitung mehrere Einspritzleitungen (9, 10), insbesondere zwei Einspritzleitungen (9, 10) berücksichtigt werden.

IPC 8 full level
F02C 7/141 (2006.01); **B01F 5/04** (2006.01); **F01D 19/00** (2006.01); **F01K 9/04** (2006.01)

CPC (source: EP)
F01K 9/04 (2013.01); **F28C 3/06** (2013.01); **B01F 25/31332** (2022.01)

Citation (search report)

- [XY] EP 0108298 A1 19840516 - KRAFTWERK UNION AG [DE]
- [Y] WO 2010034659 A2 20100401 - SIEMENS AG [DE], et al
- [Y] US 4372125 A 19830208 - DICKENSON ROYSTON J
- [Y] JP S595811 A 19840112 - TOKYO SHIBAURA ELECTRIC CO
- [XY] EMERSON PROCESS MANAGEMENT: "Turbine Bypass Condenser Dump Applications", INTERNET CITATION, 1 July 2002 (2002-07-01), pages 1 - 8, XP007909671, Retrieved from the Internet <URL:http://www.documentation.emersonprocess.com/groups/public/documents/bulletins/d102812x012.pdf> [retrieved on 20090903]

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)
BA ME

DOCDB simple family (publication)
EP 2500549 A1 20120919; CN 103443420 A 20131211; CN 103443420 B 20160518; EP 2655834 A1 20131030; EP 2655834 B1 20151028; WO 2012123194 A1 20120920

DOCDB simple family (application)
EP 11158049 A 20110314; CN 201280013635 A 20120209; EP 12704399 A 20120209; EP 2012052192 W 20120209