

Title (en)
Steam power plant.

Title (de)
Dampfkraftwerk.

Title (fr)
Centrale à vapeur.

Publication
EP 0079648 A1 19830525 (DE)

Application
EP 82201400 A 19821108

Priority
CH 734381 A 19811116

Abstract (en)
1. Steam power plant comprising an intermediate cooling circuit (1) which operates independently of the working medium and of the condenser coolant (17) of the main circuit (12) and in which an intermediate coolant flows in a closed circuit through the plant components (2, 3) to be cooled and an intercooler (7) charged with a secondary coolant (19) and an additional regenerative heat exchanger (8) is connected into the intermediate cooling circuit (1), in which heat exchanger the intermediate coolant transfers its heat to the working medium of the main circuit (12), characterized in that the regenerative heat exchanger (8) is connected in parallel with the intercooler (7), a controllable three-way mixing valve (5) being provided for the quantitative distribution of the intermediate coolant heated in the plant components (2, 3) to intercooler (7) and regenerative heat exchanger (8), and, in addition, the temperature (11) of the intermediate coolant being used as control parameter after completed heat transfer, recombination and mixing of the two part flows upstream of the components (2, 3) to be cooled.

Abstract (de)
In einem Dampfkraftwerk wird zur teilweisen Rückgewinnung der Abwärme der Anlagekomponenten (2,3), z.B. der Gleitlager, Pumpen, o.ä. ein von einem Nebenkühlmittel beaufschlagter Zwischenkühler (7) in einem Zwischenkühlkreislauf (1) angeordnet. Im Zwischenkühlkreislauf (1) ist ein zusätzlicher Regenerativ-Wärmetauscher (8) vorgesehen, in welchem das Zwischenkühlmittel die Wärme an das Arbeitsmittel des Hauptkreislaufes (12) abgibt. Zur mengenmässigen Aufteilung des erwärmten Zwischenkühlmittels auf Zwischenkühler (7) und Regenerativ-Wärmetauscher (8) ist ein regelbares Dreiwege-Mischventil (5) vorgesehen.

IPC 1-7
F01K 27/02

IPC 8 full level
F01K 27/02 (2006.01)

CPC (source: EP)
F01K 27/02 (2013.01)

Citation (search report)
• [X] US 2491314 A 19491213 - HOPKIRK KENNETH R
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• [A] DE 523899 C 19310429 - OTTO HAPPEL
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Cited by
EP0597305A1; CN110195619A; GB2292791A; GB2292791B

Designated contracting state (EPC)
AT CH DE LI NL SE

DOCDB simple family (publication)
EP 0079648 A1 19830525; EP 0079648 B1 19860910; AT E22153 T1 19860915; DE 3273229 D1 19861016; DK 481182 A 19830517

DOCDB simple family (application)
EP 82201400 A 19821108; AT 82201400 T 19821108; DE 3273229 T 19821108; DK 481182 A 19821029