

Title (en)

Method of operating a once-through steam generator.

Title (de)

Verfahren zum Betreiben eines Durchlaufdampferzeugers.

Title (fr)

Méthode d'exploitation d'un générateur de vapeur à passage unique.

Publication

EP 0308728 A1 19890329 (DE)

Application

EP 88114622 A 19880907

Priority

DE 3731728 A 19870921

Abstract (en)

[origin: JPH01107003A] PURPOSE: To save a facility cost for a water supplying pump, a supplied water heating device and a water supplying pipe and further reduce an operating expenditure of a once-through boiler by a method wherein a driving output of the water supplying pump is decreased during a full load operation of the once-through boiler. CONSTITUTION: In the case that a mass and a flow rate of supplied water for a once-through boiler exceed the predetermined values, a flow of mass and flow rate of supplied water for a second evaporating and heating device 8 is fed by releasing a water amount control valve 17 pre-connected to the second evaporating and heating device 8. In the case that the value is lower than the predetermined value, a water amount control valve 17 is released and it is shut off again. Mass and flow rate of supplied water to the evaporating and heating device 3 constituting walls of a combustion chamber 2 are not increased more than a predetermined load of the once-through boiler and are not increased more than that. An increased amount of flow rate of supplied water required when the load is increased more flows into the evaporating and heating device 8 placed in a convection flow chamber 6. With such an arrangement as above, a flow speed and a loss of friction force in the heating device 3 are not increased and it is satisfactory that the water supplying pump 12 merely overcomes the loss of friction force.

Abstract (de)

Zur Verringerung der Antriebsleistung der Speisewasserpumpe (12) insbesondere bei Vollast eines Durchlaufdampferzeugers wird bei Überschreiten eines bestimmten Wertes eines Speisewassermassenstromes in den Durchlaufdampferzeuger der Fluß eines Speisewassermassenteilstromes in eine zu einer ersten, durch die Rohrwand (3) einer Brennkammer (2) des Durchlaufdampferzeugers gebildeten Verdampferheizfläche wasserseitig parallelgeschaltete zweite Verdampferheizfläche (8) eingeschaltet, die sich in einem der Brennkammer (2) rauchgasseitig nachgeschalteten Konvektionsraum (6) befindet; bei Unterschreiten des besagten Wertes des Speisewassermassenstromes in den Durchlaufdampferzeuger wird der Fluß des Speisewassermassenteilstromes in die zweite Verdampferheizfläche (8) wieder ausgeschaltet.

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IPC 8 full level

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CPC (source: EP US)

F22B 29/12 (2013.01 - EP US); **F22B 35/10** (2013.01 - EP US)

Citation (search report)

- [A] DE 2950622 A1 19811008 - EVT ENERGIE & VERFAHRENSTECH [DE]
- [A] FR 2121184 A5 19720818 - SULZER AG
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