

Title (en)

NATURAL CIRCULATION-TYPE HOT WATER STORAGE HEATER

Publication

**EP 0034186 B1 19840704 (EN)**

Application

**EP 80900988 A 19801215**

Priority

JP 6859079 A 19790601

Abstract (en)

[origin: EP0034186A1] A natural circulation-type hot water storage heater for storing hot water obtained from a water storage tank (as water or hot water) at the bottom through a first circulation pipe, a heat exchanger and a second circulation pipe into a tank. A thermovalve is mounted within the second circulation pipe on the downstream side of the heat exchanger to vary its opening area in response to the hot water temperature to thereby substantially maintain constant the temperature of the hot water from the heat exchanger. As a result, the temperature distribution at the time the water is boiling in the water storage tank is rendered substantially constant instantaneously so as to increase the effective hot water storage amount. In addition, the hot water temperature is held constant without fluctuation regardless of the repetitive ON and OFF operation of a burner, and will not fluctuate even if the burner is turned ON when hot water is supplied. Instead, the time during which the hot water is continuously supplied at constant temperature is prolonged to provide an effective hot water storage amount which is greater than the inside volume of the water storage tank.

IPC 1-7

**F24H 9/20**

IPC 8 full level

**F24H 9/00** (2006.01); **F24H 1/18** (2006.01); **F24H 1/20** (2006.01); **F24H 9/20** (2006.01)

CPC (source: EP US)

**F24H 1/186** (2013.01 - EP); **F24H 15/223** (2022.01 - EP US); **F24D 2220/0271** (2013.01 - EP)

Designated contracting state (EPC)

FR

DOCDB simple family (publication)

**EP 0034186 A1 19810826; EP 0034186 A4 19811013; EP 0034186 B1 19840704;** AU 519498 B2 19811203; AU 5985780 A 19801222;  
BE 883550 A 19800915; DE 3047559 C2 19871008; DE 3047559 T1 19820218; GB 2070210 A 19810903; GB 2070210 B 19830518;  
JP S55160253 A 19801213; WO 8002737 A1 19801211

DOCDB simple family (application)

**EP 80900988 A 19801215;** AU 5985780 A 19800528; BE 2058585 A 19800530; DE 3047559 T 19800528; GB 8103148 A 19800528;  
JP 6859079 A 19790601; JP 8000113 W 19800528