

Title (en)  
WATER HEATING APPARATUS AND METHOD FOR CONTROLLING THE SAME

Title (de)  
WASSERHEIZVORRICHTUNG UND VERFAHREN ZUR STEUERUNG DAVON

Title (fr)  
APPAREIL DE CHAUFFAGE D'EAU ET SON PROCÉDÉ DE COMMANDE

Publication  
**EP 4177534 A1 20230510 (EN)**

Application  
**EP 22202740 A 20221020**

Priority  
KR 20210152132 A 20211108

Abstract (en)  
Disclosed is a water heating apparatus including an outer container having openings formed at opposite ends thereof with respect to a reference direction, an interior hollow communicated with the openings at the opposite ends, an outer container outlet formed at one end thereof to deliver heated water to a heating passage, and an outer container inlet provided at an opposite end thereof to retrieve the water from the heating passage, a combustion chamber covering the opening at one end of the outer container and defining a combustion space in an interior thereof, a burner coupled to the combustion chamber and the outer container to cause a combustion reaction in the combustion space, a pipe plate spaced apart from the combustion chamber along the reference direction, and covering the opening at an opposite end of the outer container, a plurality of flues provided in the hollow of the outer container to guide a combustion gas generated through the combustion reaction from the combustion chamber to an outside of the pipe plate, a hot water heat exchange part that transfers heat received from the water accommodated in the hollow to introduced direct water and discharge the direct water after making the direct water hot, and a circulation part coupled to the outer container inlet and the outer container outlet to circulate the water accommodated in the hollow from one end to an opposite end thereof.

IPC 8 full level  
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Citation (search report)  
• [XAY] KR 20040080517 A 20040920 - KYUNG DONG BOILER CO LTD  
• [X] US 2019041092 A1 20190207 - NIU ZHONGSHENG [US], et al  
• [Y] EP 3734151 A1 20201104 - KYUNG DONG NAVIEN CO LTD [KR]

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