

Title (en)  
THERMALLY OPERATED SAFETY DEVICE FOR BOILERS IN CLOSED-CIRCUIT HEATING PLANTS

Publication  
**EP 0041163 A3 19820120 (DE)**

Application  
**EP 81103711 A 19810514**

Priority  
DE 3020797 A 19800531

Abstract (en)  
[origin: EP0041163A2] 1. Thermically controlled safety device for boilers (10) heated with solid fuels in closed heating installations, with which, in case of an over temperature in the heating installation, cold fresh water from the delivery conduit is taken into the system of the heating installation and hot heating water is let off into a drain (44), comprising a fresh water supply conduit (20) conducted to the system of the heating installation and connected to the delivery conduit, in which supply conduit a pressure reducer (22), a temperature controlled valve (34) and a tube separator (24) are arranged in series, and a drain conduit (42) connected to the system of the heating installation, in which a thermic drain safety device (38) is provided, the thermic drain safety device (38) being controlled by the same temperature sensor (36) as the temperature controlled valve (34), which temperature sensor (36) is exposed to the heating water temperature, and opening at a slightly higher temperature than this valve, characterized in that (a) the tube separator (24) has a passage port (30) of large diameter and a control port (32) of small diameter (b) the passage port (30) is connected directly to the outlet (66) of the pressure reducer (22), and (c) the control port (32) likewise connected to the outlet (66) of the pressure reducer is governed by the temperature controlled valve (34) formed as disc valve, which is controlled by a valve stem (46) longitudinally movable by the actuating member (40) of the temperature sensor (36) and also controlling the valve disc (104) of the thermic drain safety device (38).

IPC 1-7  
**F24H 9/20**; **F24D 19/10**

IPC 8 full level  
**F24D 19/10** (2006.01); **F24H 9/20** (2006.01)

CPC (source: EP US)  
**F24D 19/1009** (2013.01 - US); **F24H 9/2057** (2013.01 - EP)

Citation (search report)  
• [A] DE 2713155 A1 19781005 - KRUPP GMBH  
• [A] DE 6927453 U 19691030 - VERLEGER GUENTER [DE]  
• [A] DE 1600977 B2 19731011

Cited by  
EP0179271A3; GB2488395A; GB2488395B

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AT CH DE FR SE

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