## **EUROPEAN PATENT APPLICATION**

- (88) Date of publication A3: **04.09.2002 Bulletin 2002/36** 
  - 02 Bulletin 2002/36 F28D 21/00
- (43) Date of publication A2: 01.12.1999 Bulletin 1999/48
- (21) Application number: 99660083.9
- (22) Date of filing: 21.05.1999
- (84) Designated Contracting States:

  AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU

  MC NL PT SE

Designated Extension States:

AL LT LV MK RO SI

- (30) Priority: 29.05.1998 FI 981204
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(51) Int Cl.7: **F24H 1/52**, F24H 9/12,

### (54) Central heating boiler

(57)The invention relates to a central heating boiler, comprising a fumace (11) whose inlet (11a) is fitted with an oil or gas burner (12) and whose rear section is provided with an outlet (11b) for flue gases, a water space (10) encircling the fumace, through which is extended a heating water circulation (14, 15), as well as at least one heat exchanger for heating warm service water. The heat exchanger comprises a flattish container (3) located in the rear section of the furnace (11) and at a small distance from the rear wall of the fumace. The warm service water has its output (21) fitted with a thermostat (5) which is coupled to control said oil or gas bumer (12) on the basis of the service water temperature. In the boiler of the invention, the heat exchanger (3) is provided with an inlet pipe (31) whose end (32) opens into the interior of the heat exchanger (3) at a point substantially higher than an end (34) of its outlet pipe (33).

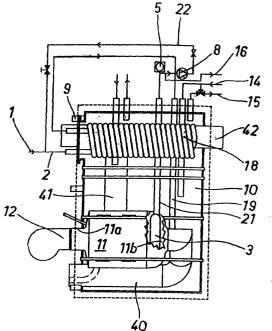


Fig.1



# **EUROPEAN SEARCH REPORT**

Application Number EP 99 66 0083

Category	Citation of document with indicatio of relevant passages	n, where appropriate,	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.6)	
A,D	WO 94 25806 A (UKKI HEA PENTTI (FI)) 10 Novembe * page 1, line 1-6 * *, sentences 8-14; clai * page 3, line 20-25 * * figures 1,2 *	r 1994 (1994-11-10)	1-11	F24H1/52 F24H9/12 F28D21/00	
				TECHNICAL FIELDS SEARCHED (Int.CI.6) F24H F28D	
	The present search report has been dr	Date of completion of the search	Control	Examiner	
MUNICH  CATEGORY OF CITED DOCUMENTS  X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category		E: earlier patent docu after the filing date D: document cited in L: document cited for	T: theory or principle underlying the invention E: earlier patent document, but published on, or after the filing date D: document cited in the application L: document cited for other reasons		
A : technological background O : non-written disclosure P : intermediate document		& : member of the same patent family, corresponding document			

EPO FORM 1503 03.82 (P04C01)



# LACK OF UNITY OF INVENTION SHEET B

Application Number EP 99 66 0083

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

#### 1. Claims: 1-11

Claim 1 and the following dependent claims relate to a central heating boiler which is capable of quickly heating of service water, CHARACTERIZED in that the heat exchanger (3) is provided with an inlet pipe (31) whose end (32) opens into the interior of the heat exchanger (3) at a point substantially higher than the end (34) of its outlet pipe (33).

### 2. Claim: 12

Independent claim 12 relates to a central heating boiler which is capable of achieving an effective heating of heating water CHARACTERIZED in that the heat exchanger container (3) opens at its top and bottom portion into the water space (10) surrounding the furnace (11)

## ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO.

EP 99 66 0083

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

17-04-2002

Patent document cited in search report		Publication date		Patent family member(s)	Publication date
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