(11) **EP 0 940 636 A3**

(12)

EUROPEAN PATENT APPLICATION

- (88) Date of publication A3: 12.09.2001 Bulletin 2001/37
 - ation A3: (51) Int Cl.⁷: **F24D 3/08 Sulletin 2001/37**
- (43) Date of publication A2: **08.09.1999 Bulletin 1999/36**
- (21) Application number: 99830117.0
- (22) Date of filing: 05.03.1999
- (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:

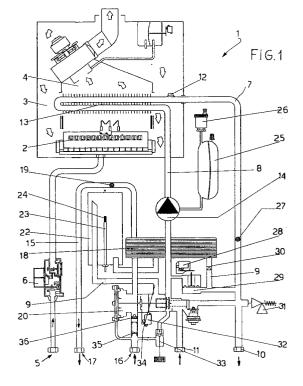
AL LT LV MK RO SI

- (30) Priority: 06.03.1998 IT PR980016
- (71) Applicant: Immergas S.p.A. 42041 Brescello (Reggio Emilia) (IT)

- (72) Inventor: Amadei, Romano 43058 Sorbolo (Parma) (IT)
- (74) Representative: Gotra, Stefano Bugnion S.p.A. Via Garibaldi 22 43100 Parma (IT)

(54) Boiler and process for heating and for producing sanitary hot water

(57)A boiler (1) of the combined type for heating and for producing sanitary hot water, comprising a primary circuit (7, 8, 9) for a heating fluid, having a delivery branch (7) and a return branch (8) intended for connection to a heating system, and a secondary branch (9) which connects the delivery branch to the return branch. A circulation pump (14) operates along the return branch upstream of a primary heat exchanger (13). A secondary heat exchanger (18) which is inserted in the secondary branch (9) exchanges heat between the heating fluid in the primary circuit and the sanitary water in a secondary circuit (15). A storage vessel (22) for the heating fluid in the primary circuit, which is inserted in said secondary branch (9), is located downstream of the secondary heat exchanger (18).





EUROPEAN SEARCH REPORT

Application Number EP 99 83 0117

Category	Citation of document with indication, where appropriate,			Relevant	CLASSIFICATION OF THE	
yo. y	of relevant pass			to claim	APPLICATION	
X	DE 91 15 237 U (JOH 6 February 1992 (199 * figures 2,3 *		CO) 1,	2,4,13	F24D3/08	
Х	DE 43 32 141 A (VAI 31 March 1994 (1994 * abstract *		1,	2,4,13		
X	DE 42 36 967 A (JOH 6 May 1993 (1993-05- * abstract *	. VAILLANT GMBH U. -06)	CO) 1,	2,4,13		
A	DE 89 15 404 U (VIE: 20 December 1990 (19 * figure 3 *		5,	14		
E	EP 0 916 901 A (IABR 19 May 1999 (1999-05 * abstract *		1,	13		
				ŀ	TECHNICAL F SEARCHED	ELDS (Int.Cl.6)
				ł	F24H	(**************************************
					F24D	
-				ĺ	1210	
5						
j						
1				l		
				İ		
]		
			ĺ	1		
}						
	The present energh recent has t	oon drawn up for all states				
***************************************	The present search report has be	Date of completion of the	500.75		Francis	
	THE HAGUE	· ·		Van	Examiner	
		19 July 200		L	Gestel, H	
	ATEGORY OF CITED DOCUMENTS	E : earlier	or principle und patent docume			
Y: partie	cularly relevant if taken alone cularly relevant if combined with anoth	after there after the Document	e filing date ent cited in the	application		
docu A : techr	ment of the same category nological background	L.: docum	ent cited for oth			
O: non-	-written disclosure mediate document	&: memb			corresponding	

EPO FORM 1503 03.82 (P04C01)

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

EP 99 83 0117

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.

19-07-2001

Patent document cited in search report		Publication date	Patent family member(s)		Publication date	
DE 9115237	U	06-02-1992	AT AT	398831 B 248990 A	27-02-1995 15-06-1994	
DE 4332141	Α	31-03-1994	AT AT	398128 B 189692 A	26-09-1994 15-01-1994	
DE 4236967	Α	06-05-1993	AT AT	400362 B 217791 A	27-12-1995 15-04-1995	
DE 8915404	U	20-12-1990	NONE		. MINE SINCE SINCE CALLS SCIENCE SINCE SIN	
EP 0916901	Α	19-05-1999	NONE	Ha did sent des sent des sent des des des des des des des des	- 1-120 - 2-121 - 2-121 - 1220 - 1220 - 1220 - 1220 - 1220 - 1220 - 1220 - 1220 - 1220 - 1220 - 1220 - 1220 -	

FORM P0459

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82