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(54) **Pasted air box glass**

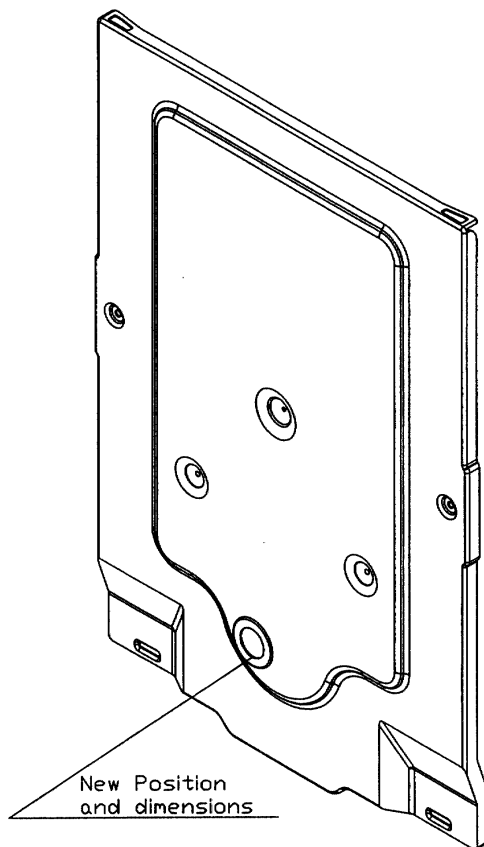
(57) For tight chamber boilers, the possibility to view the flame during boiler's operation is a must.

This is made possible by using a glass allowing to see the flame and at the same time preventing air to

pass through.

The subject solution allows to fix the glass to the air box cover, by using a high temperature resistant silicone.

New Cover with glass $\phi 30\text{mm}$



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Description

1. State of the art

[0001] On all tight chamber boiler, the possibility to view the flame during boiler's operation is a must. This is obtained with a hole on the cover of the combustion chamber. 5

[0002] Since the boilers in question are of the tight chamber type, i.e. they are quipped with flue gases suction fan, no air should be allowed through said hole; actually, this would alter combustion. 10

[0003] This objective is reached through the use of a glass enabling to view the flame, but preventing air to pass through. 15

[0004] At present the glass in question has a diameter of 3.3 mm and is fixed to the cover of the combustion chamber by a ring nut, a gasket and three screws (see figure 1). 20

2. Description of the invention

[0005] This new application provides for a change of the glass fixing system and of its position on the cover of the air box. 25

[0006] Therefore we propose to paste the glass in question with a high temperature resistant silicone. (see figure 2)

3. Application innovation 30

[0007] Fixing the glass with silicone enables to optimize the assembling process of the combustion chamber cover, by reducing the number of required component parts. This results into reduced assembling times. 35

4 Claims

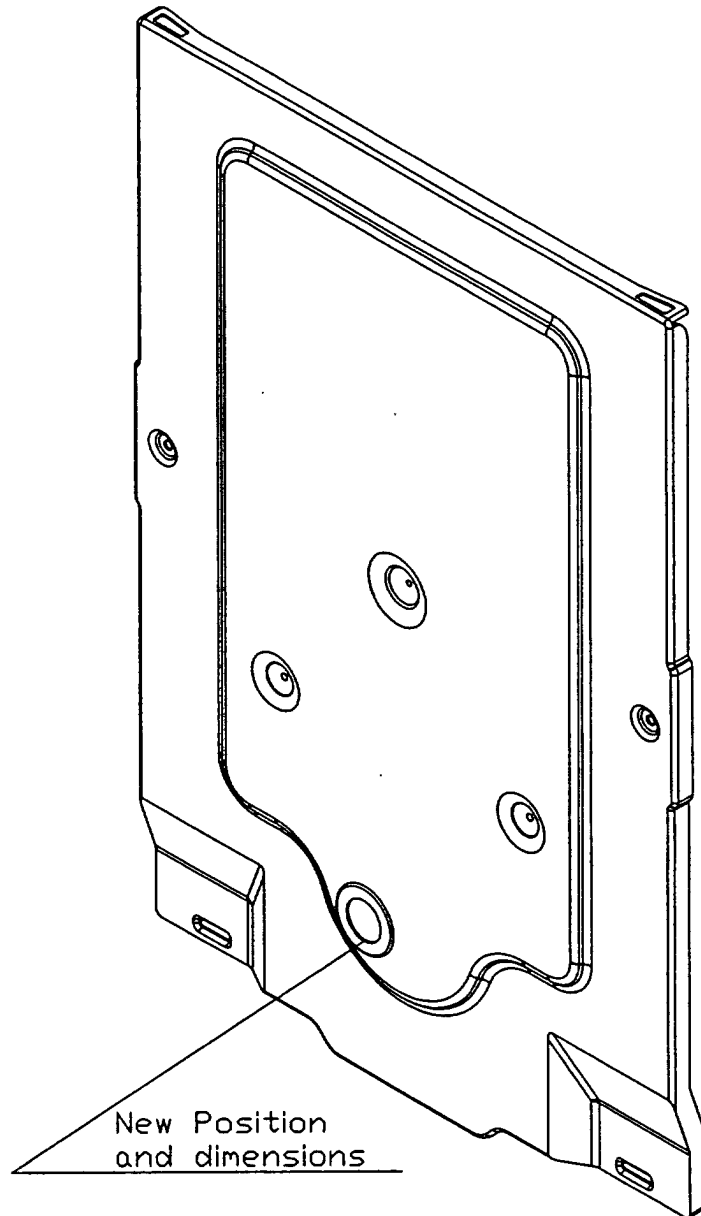
[0008] Purpose of this solution is to protect the new fixing method of the burner's flame inspection glass, using high temperature resistant silicone. 40

Claims

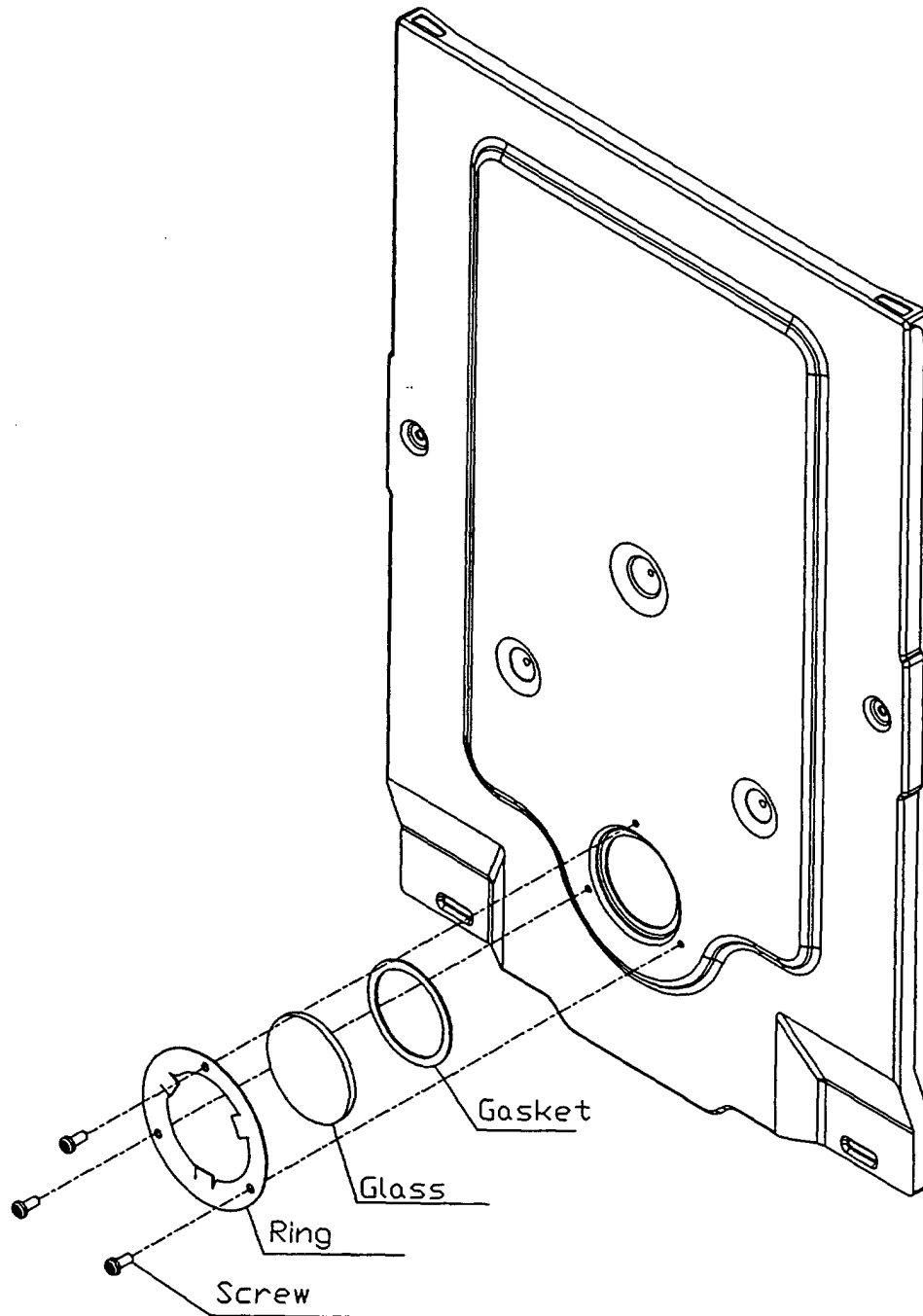
1. it allows to view the flame during boiler's operation 45
2. air is not allowed in during inspection
3. it uses a high temperature resistant silicone to paste the glass to the air box cover. 50

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New Cover with glass $\phi 30\text{mm}$



Old Cover with glass $\phi 48\text{mm}$





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EUROPEAN SEARCH REPORT

Application Number
EP 00 20 0750

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
A	US 3 385 285 A (KING BILLY R) 28 May 1968 (1968-05-28) * column 2, line 62 - column 3, line 63 * * column 4, line 58 - column 5, line 12 * * figures 1-4 *	1	F23M11/04
A	GB 799 804 A (BABCOCK & WILCOX LIMITED) 13 August 1958 (1958-08-13) * page 1, line 40 - page 2, line 112 * * figure 2 *	1	
A	BE 681 003 A (PILKINGTON BROTHERS LIMITED) 14 November 1966 (1966-11-14) * page 5, paragraph 4 - paragraph 5 * * figures 1-3 *	1	
The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (Int.Cl.7)
			F23M
Place of search THE HAGUE		Date of completion of the search 6 July 2000	Examiner Coquau, S
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document 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 & : member of the same patent family, corresponding document			

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

EP 00 20 0750

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06-07-2000

Patent document cited in search report		Publication date	Patent family member(s)		Publication date
US 3385285	A	28-05-1968	NONE		
GB 799804	A		NONE		
BE 681003	A	14-11-1966	CS	162606 B	15-07-1975
			DE	1596598 A	18-03-1971
			ES	337435 A	16-02-1968
			FR	1479926 A	27-07-1967
			GB	1144751 A	
			LU	51083 A	15-07-1966
			NL	6606494 A, B	15-11-1966
			US	3473905 A	21-10-1969

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