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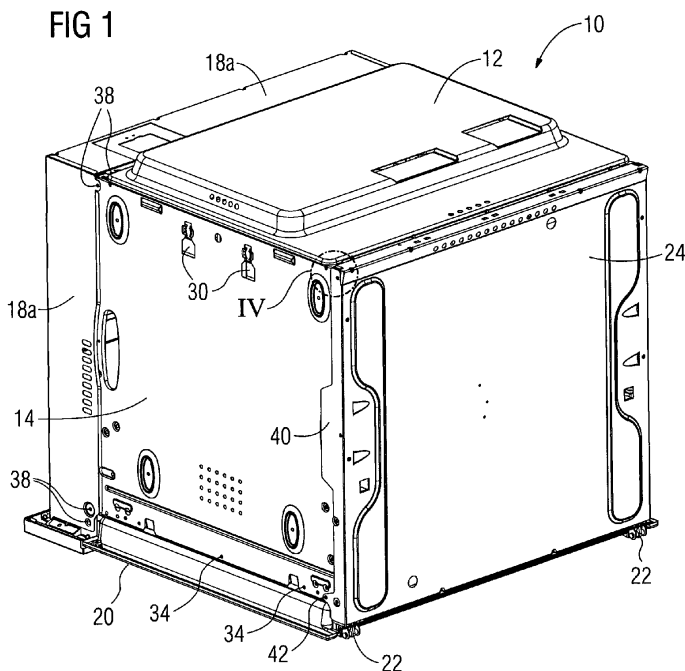
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(54)

Cabinet for a domestic appliance

(57)

A cabinet (10) for a domestic appliance, in particular an oven cabinet, comprising a rear panel (12), two side panels (14, 16) arranged at either side end of the rear panel (12), a top panel (18) arranged at the upper ends of the rear panel (12) and of the side panels (14, 16), a front door (20) pivotally arranged by means of hinges (22), and a bottom panel (24) receiving at least one electronic component, in particular a steam generator (26) or a heating element, and being arranged at the bottom ends of the rear panel (12) and of the side panels (14, 16), wherein the rear panel (12), the side panels (14, 16), the top panel (18) and the front door (20) are attached to each other in such a manner that they together form an inherently stable and stiff unit and wherein the bottom panel (24) is detachably fixed to said unit.



Description

TECHNICAL FIELD

[0001] The present invention refers to a cabinet for a domestic appliance, in particular an oven cabinet, comprising a rear panel, two side panels arranged at either side end of the rear panel, a top panel arranged at the upper ends of the rear panel and of the side panels, a front door pivotally arranged by means of hinges, and a bottom panel receiving at least one electronic component, in particular a steam generator and/or a heating element, and being arranged at the bottom ends of the rear panel and of the side panels.

[0002] Oven cabinets of the above mentioned kind are already known in the prior art. The bottom panel, which receives the steam generator and other electronic components, normally serves as the constructional base, onto which the rear panel, the two side panels as well as the hinges of the front door are fixed, mostly by means of screw connections. However, in the case of a breakdown of the steam generator or other electronic components arranged in the area of the bottom panel, such a construction of the cabinet makes the repair and maintenance work very cumbersome, because the side panels and the hinges of the front door need to be removed in order to gain access to the broken electronic components.

[0003] Starting from this prior art it is an object of the present invention to provide a cabinet of the above mentioned kind, in particular an oven cabinet, having a construction which is easy to maintain.

[0004] In order to solve this object the present invention provides a cabinet of the above mentioned kind, in particular an oven cabinet, wherein the rear panel, the side panels, the top panel and the front door are attached to each other in such a manner that they together form an inherently stable and stiff unit, and the bottom panel is detachably fixed to said unit.

[0005] Since the rear panel, the side panels, the top panel and the front door together form an inherently stable and stiff unit in their assembled state, these components serve as the constructional base of the cabinet. Accordingly, the bottom panel can be removed from this unit without any problems in order to gain access to broken down electronic components received at the bottom panel during repair and maintenance work.

[0006] According to an embodiment of the present invention, the hinges of the front door are attached to the side panels. Thus, the bottom panel can be removed without the necessity to dismount the door hinges, too.

[0007] Preferably, the unit comprising the rear panel, the side panels, the top panel and the front door is provided with additional stiffening means in order to enhance the stability and stiffness of the unit.

[0008] The stiffening means may be provided in the form of brackets, to which at least the side panels are fixed, in particular by means of screw connections. Preferably, also the hinges of the front door and/or the bottom panel is/are fixed to such brackets too, in particular by means of screw connections.

erably, also the hinges of the front door and/or the bottom panel is/are fixed to such brackets too, in particular by means of screw connections.

[0009] According to a further embodiment of the present invention, the bottom panel is provided at its side ends with upwardly projecting upstandings, which encompass the side panels, in particular from the outside, and which are detachably fixed to the side panels, in particular by means of screw connections. Accordingly, the upstandings of the bottom panel can be easily put over the side panels, where upon they can be fixed to the side panels and/or the stiffening means, in particular the brackets, e.g. by means of screw connections.

[0010] According to a further embodiment of the present invention, at least one of the upwardly projecting upstandings comprises a lug to be engagable into a corresponding recess arranged at the side panels and/or the rear panel. By means of this embodiment the worker is enabled to pre-fix the bottom panel to the cabinet and to finally screw it thereto without the need of holding the bottom panel by himself or to adjust the bottom panel precisely.

[0011] Further features and advantages of the present invention will become apparent by means of the following description of an embodiment of an oven cabinet according to the present invention with reference to the accompanying drawing.

[0012] In the drawing:

Figure 1 is a perspective view of a oven cabinet according to an embodiment of the present invention; and

Figure 2 is a side view of the oven cabinet shown in Figure 1.

Figure 3 is a side view of the muffle to be arranged in the oven cabinet

Figure 4 is detailed view of a lower rear corner of the oven cabinet

[0013] Figures 1 and 2 show an oven cabinet 10 according to an embodiment of the present invention. The cabinet 10 comprises a rear panel 12, two side panels 14 and 16, which are arranged at either side end of the rear panel 12, a top panel 18, which is arranged at the upper ends of the rear panel 12 and of the side panels 14 and 16, a front door 20 for opening and closing the cabinet 10, which is pivotally arranged by means of hinges 22, and a bottom panel 24, which receives a steam generator 26 and other electronic components and is arranged at the bottom ends of the rear panel 12 and of the side panels 14 and 16. The steam generator 26 and/or the heating element are mounted by means of a cover 44 to a muffle of the oven which is not shown in the figures.

[0014] Figure 3 shows a muffle 54 to be arranged within the oven cabinet shown in the figures 1 and 2. Stiffening

means in the form of brackets 32 are provided in the inside of the oven cabinet 10. The muffle of the oven is mounted to the cabinet 10 by means of these brackets. At these brackets 32 the side panels 14 and 16 are fixed by means of screws 34. Moreover, the hinges 22 of the front door 20 are attached to these brackets 32 by means of screws 36.

[0015] In order to fix the top panel 18 to the side panels 14 and 16 as well as to the rear panel 12, the top panel 18 is provided with downwardly bent side edges 18a, which are fixed to the rear panel 12 as well as to the side panels 14 and 16 by means of screws 38.

[0016] Thus, the rear panel 12, the side panels 14 and 16, the top panel 18 and the front door 20 together form an inherently stable and stiff unit, which is supported by the brackets 32 and the screws 34, 36 and 38.

[0017] To this unit the bottom panel 24 is detachably fixed. For that purpose the bottom panel 24 is provided at its side ends with upwardly projecting upstandings 40, which encompass the side panels 14 and 16 from the outside and which are detachably fixed to the side panels 14 and 16 by means of screws 42.

[0018] According to figure 4 a lower rear corner of the oven cabinet 10 is shown which is provided with a pre-fixing arrangement 46. The bottom panel 24 has upwardly projecting upstandings 40 at its lateral side 40a and at its rear side 40b. The side panel 14 has a bent off edge 48 which is provided with a recess 50. The recess 50 is adapted to receive a lug which is integrally formed to the upwardly projecting upstanding 40b. For mounting the bottom panel 24 to the cabinet 10, the bottom panel is attached to the side panels 14, 16 and is moved in a frontward direction until the lug engages into the recess 50 and a pre-fixed state of the bottom panel 24 is reached. After that the bottom panel 24 can be screwed to the cabinet 10. For demounting the screws have to be detached and the bottom panel 24 can be removed by moving it in a rearward direction.

[0019] In the case of a breakdown of the steam generator 26 or other electronic components arranged in the area of the bottom panel 24, the bottom panel 24 can be removed by simply releasing the screws 42. Thanks to the inherently stable and stiff unit, which is provided by means of the rear panel 12, the side panels 14 and 16, the top panel 18, the front door 20, the brackets 32 and the screws 34, 36 and 38, a removal of the side panels 14 and 16 or of the hinges 22 of the front door 20 is not necessary in order to perform the repair and maintenance work.

Claims

1. A cabinet (10) for a domestic appliance, in particular an oven cabinet, comprising
 - a rear panel (12),
 - two side panels (14, 16) arranged at either side

end of the rear panel (12),

- a top panel (18) arranged at the upper ends of the rear panel (12) and of the side panels (14, 16),

- a front door (20) pivotally arranged by means of hinges (22), and

- a bottom panel (24) receiving at least one electronic component, in particular a steam generator (26) or a heating element, and being arranged at the bottom ends of the rear panel (12) and of the side panels (14, 16),

characterised in that

- the rear panel (12), the side panels (14, 16), the top panel (18) and the front door (20) are attached to each other in such a manner that they together form an inherently stable and stiff unit, and

- the bottom panel (24) is detachably fixed to said unit.

2. Cabinet (10) according to claim 1, **characterised in that** the hinges (22) of the front door (20) are attached to the side panels (14, 16).
3. Cabinet (10) according to claim 1 or 2, **characterised in that** the unit comprising the rear panel (12), the side panels (14, 16), the top panel (18) and the front door (20) is provided with additional stiffening means (32).
4. Cabinet (10) according to claim 3, **characterised in that** stiffening means are provided in the form of brackets (32), to which at least the side panels (14, 16) are fixed, in particular by means of screw connections (34).
5. Cabinet (10) according to claim 4, **characterised in that** the hinges (22) of the front door (20) and/or the bottom panel (24) is/are fixed to the brackets (32), in particular by means of screw connections (40; 42).
6. Cabinet (10) according to one of the foregoing claims, **characterised in that** the bottom panel (24) is provided at its side ends with upwardly projecting upstandings (40), which encompass the side panels (14, 16), in particular from the outside, and which are detachably fixed to the side panels (14, 16), in particular by means of screw connections (42).
7. Cabinet (10) according to claim 7, **characterized in that** at least one of the upwardly projecting upstandings (40) comprises a lug (52) to be engagable into a corresponding recess (50) arranged at the side panels (14, 16) and/or the rear panel (12).

Amended claims in accordance with Rule 137(2) EPC.

1. A cabinet (10) for a domestic appliance, in particular an oven cabinet, comprising 5
 - a rear panel (12),
 - two side panels (14, 16) arranged at either side end of the rear panel (12),
 - a top panel (18) arranged at the upper ends of the rear panel (12) and of the side panels (14, 16), 10
 - a front door (20) pivotally arranged by means of hinges (22), and
 - a bottom panel (24) comprising at least one electronic component, in particular a steam generator (26) or a heating element, and being arranged at the bottom ends of the rear panel (12) and of the side panels (14, 16), 15

characterised in that 20

 - the rear panel (12), the side panels (14, 16), the top panel (18) and the front door (20) are attached to each other in such a manner that they together form an inherently stable and stiff unit, and 25
 - the bottom panel (24) is detachably fixed to said unit.

2. Cabinet (10) according to claim 1, **characterised in that** the hinges (22) of the front door (20) are attached to the side panels (14, 16). 30

3. Cabinet (10) according to claim 1 or 2, **characterised in that** the unit comprising the rear panel (12), the side panels (14, 16), the top panel (18) and the front door (20) is provided with additional stiffening means (32). 35

4. Cabinet (10) according to claim 3, **characterised in that** stiffening means are provided in the form of brackets (32), to which at least the side panels (14, 16) are fixed, in particular by means of screw connections (34). 40

5. Cabinet (10) according to claim 4, **characterised in that** the hinges (22) of the front door (20) and/or the bottom panel (24) is/are fixed to the brackets (32), in particular by means of screw connections (40; 42). 45

6. Cabinet (10) according to one of the foregoing claims, **characterised in that** the bottom panel (24) is provided at its side ends with upwardly projecting upstandings (40), which encompass the side panels (14, 16), in particular from the outside, and which are detachably fixed to the side panels (14, 16), in particular by means of screw connections (42). 50 55

7. Cabinet (10) according to claim 7, **characterized in that** at least one of the upwardly projecting upstandings (40) comprises a lug (52) to be engagable into a corresponding recess (50) arranged at the side panels (14, 16) and/or the rear panel (12).

FIG 1

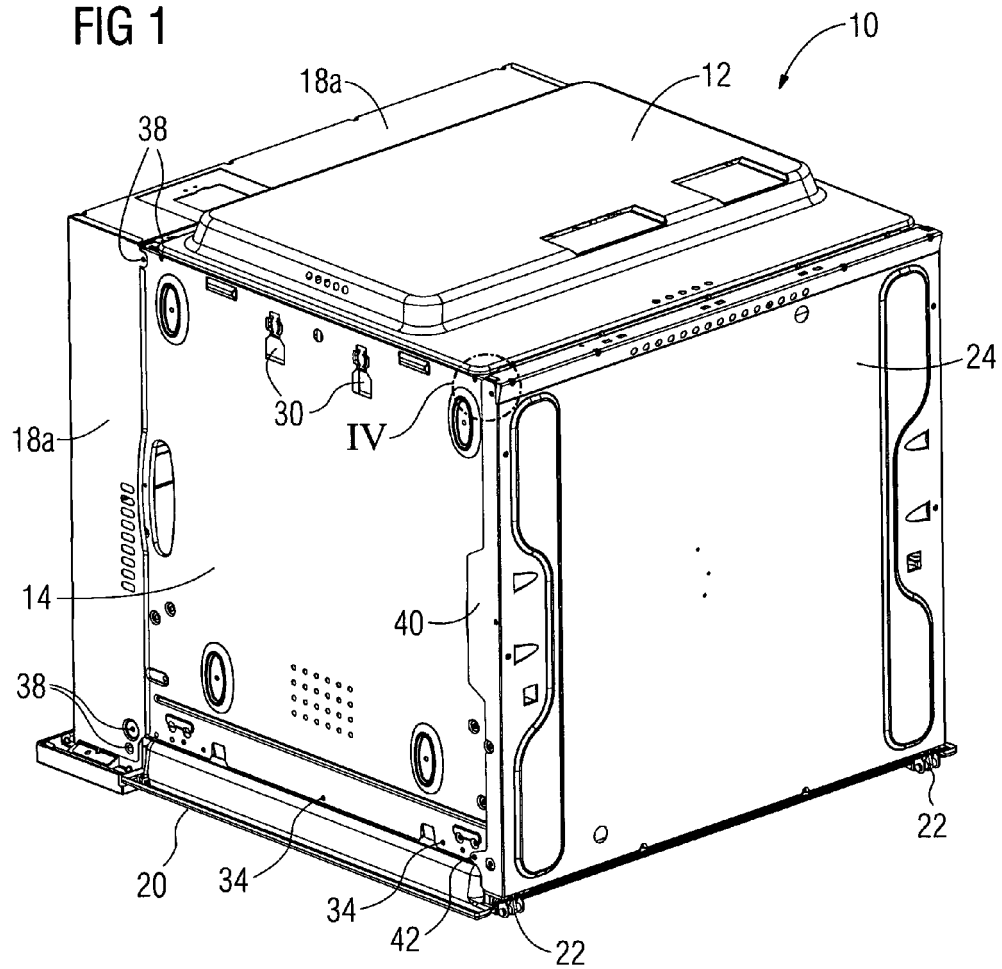


FIG 4

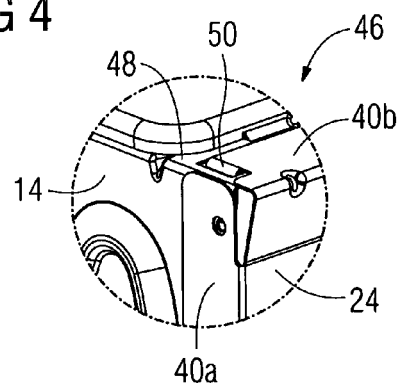


FIG 2

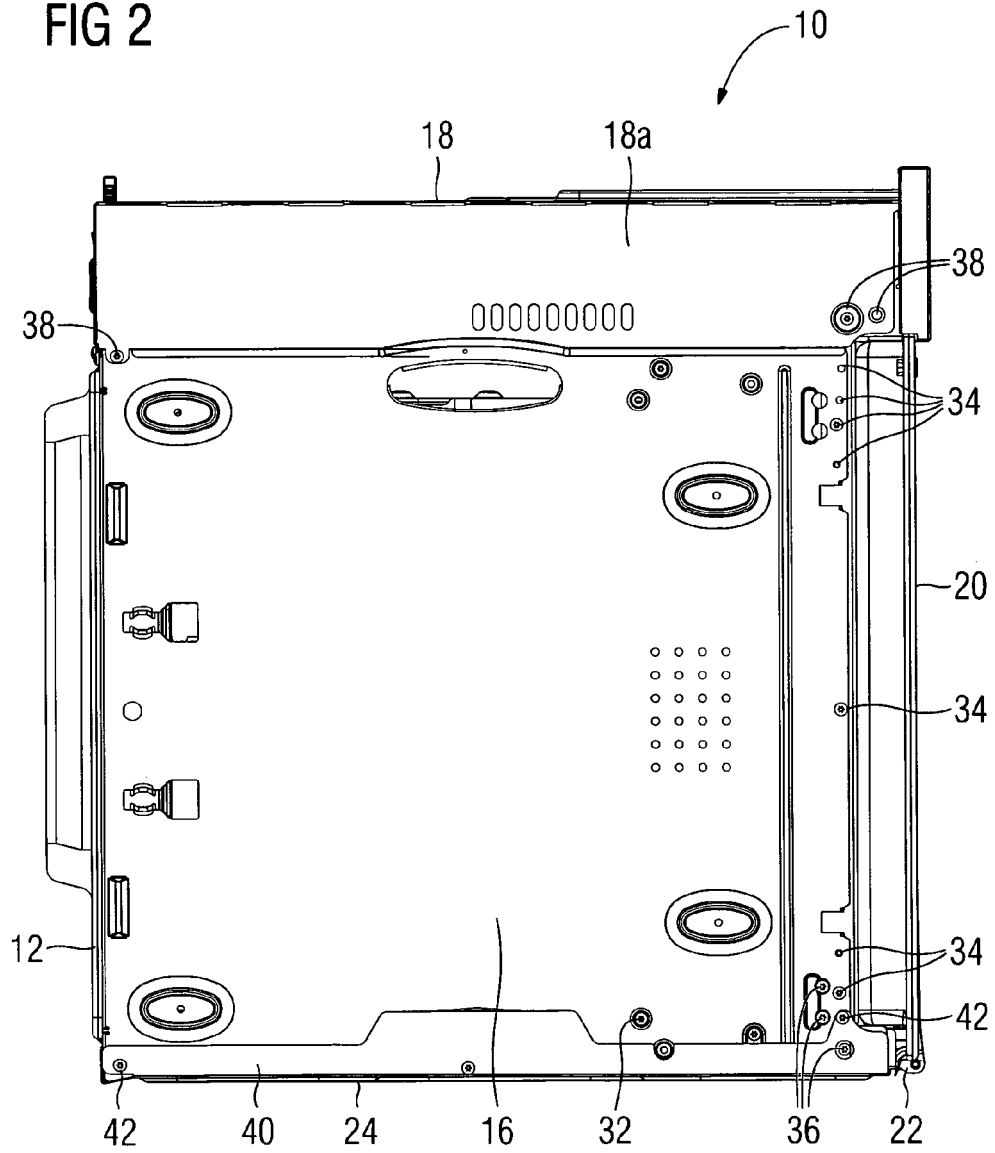
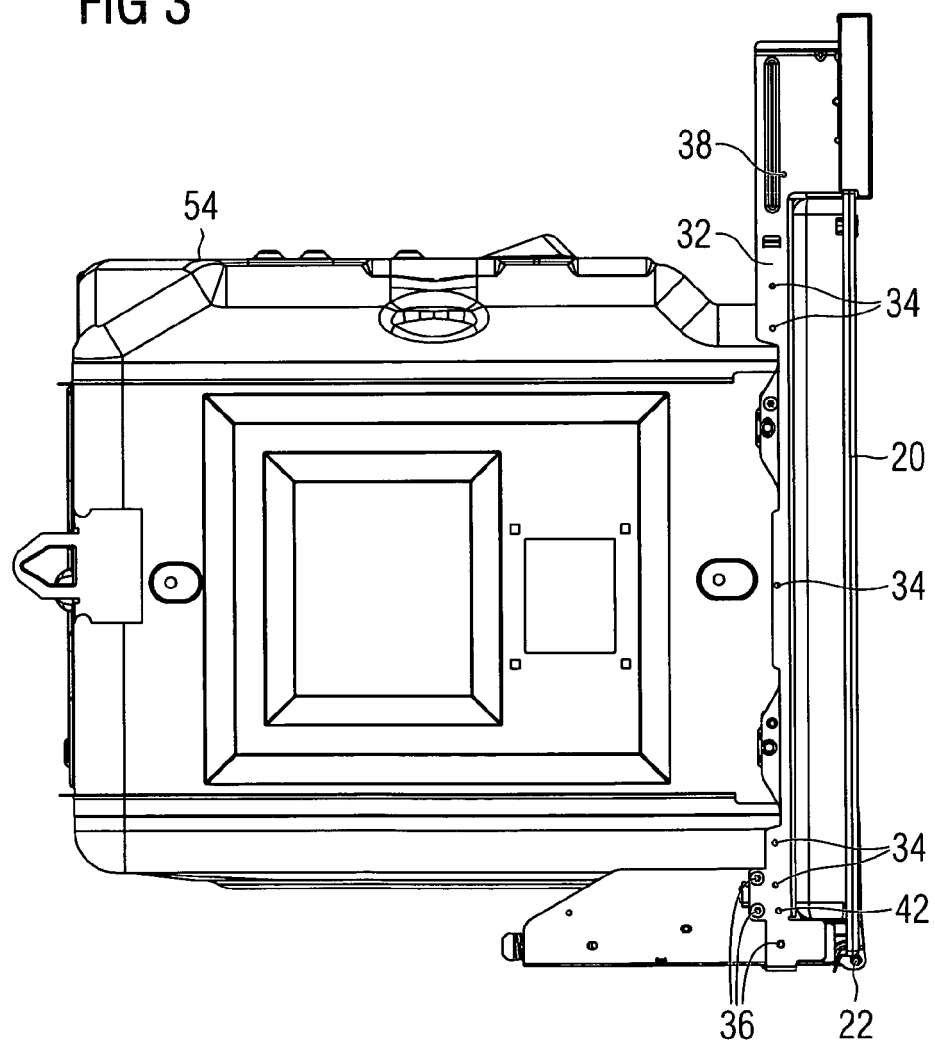


FIG 3





EUROPEAN SEARCH REPORT

Application Number
EP 10 00 5609

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
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Y	* figures 1,2,5,14 * -----	6	
X	US 2008/264933 A1 (JEONG SANG JIN [KR]) 30 October 2008 (2008-10-30) * figure 1 *	1	
Y	DE 10 2006 004384 A1 (BSH BOSCH SIEMENS HAUSGERAETE [DE]) 16 August 2007 (2007-08-16) * figure 4 *	6	
A	DE 103 14 500 A1 (BSH BOSCH SIEMENS HAUSGERAETE [DE]) 21 October 2004 (2004-10-21) * figure 1 * -----	1	
The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (IPC)
			F24C
Place of search		Date of completion of the search	Examiner
The Hague		28 December 2010	Meyers, Jerry
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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EPO FORM 1503 03.82 (P04C01)

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

EP 10 00 5609

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
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28-12-2010

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