(19) Europäisches Patentamt
European Patent Office
Office européen des brevets

(11) **EP 1 952 865 A1**

(12) **EUROPEAN PATENT APPLICATION**

(43) Date of publication:
06.08.2008 Bulletin 2008/32

(51) Int Cl.:
A63G 27/00 *(2006.01)*

(21) Application number: **07075989.9**

(22) Date of filing: **15.11.2007**

(84) Designated Contracting States:
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC MT NL PL PT RO SE SI SK TR
Designated Extension States:
AL BA HR MK RS

(30) Priority: **30.01.2007 IT MO20070033**

(71) Applicant: **Fc Fabbri Park S.R.L.**
45030 Calto (Rovigo) (IT)

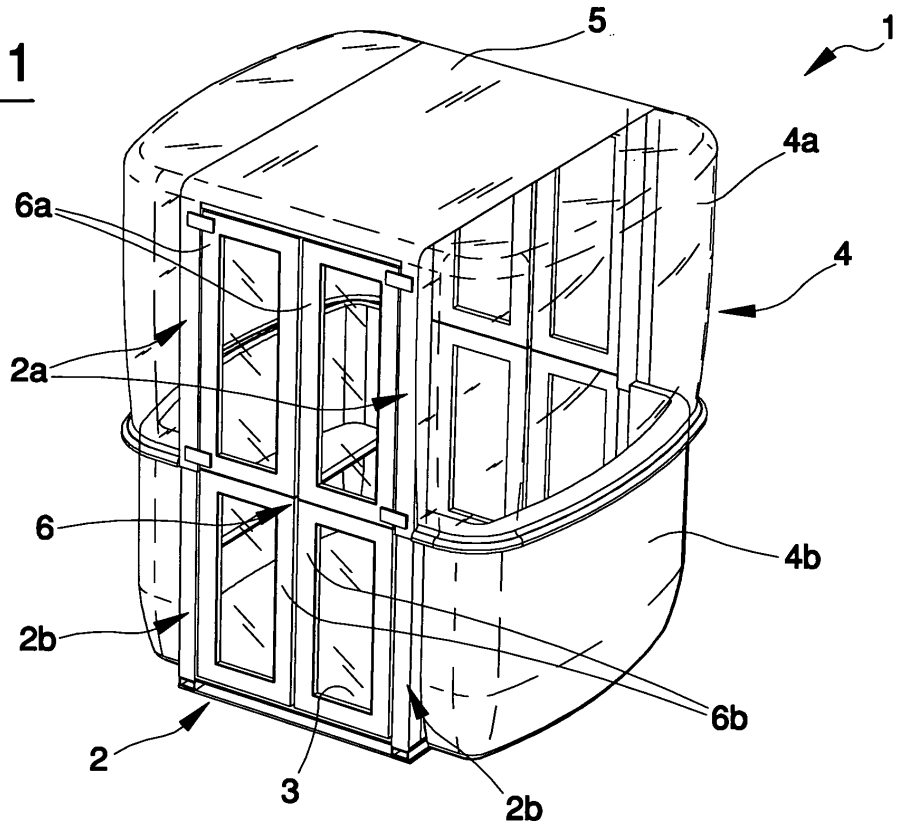
(72) Inventor: **Fabbri, Gian Luca**
45037 Melara (Rovigo) (IT)

(74) Representative: **Gotra, Stefano**
BUGNION S.p.A.
Via Vellani Marchi, 20
41100 Modena (IT)

(54) **A passenger cabin for funfair rides**

(57) A passenger cabin for funfair rides, comprising a bearing frame (2) to which at least a bottom wall (3) and a perimeter wall (4) are associated, the perimeter wall (4) rising vertically from an edge of the bottom wall (3). The bearing frame (2) and the perimeter wall (4) are each structured such as to have an upper portion (2a, 4a) and a lower portion (2b, 4b) which are vertically mobile with respect to one another between a first position, in which the passenger cabin has a greater vertical extension, and a second position, in which the passenger cabin has a smaller vertical extension.

Fig. 1



EP 1 952 865 A1

Description

[0001] The prior art describes a large variety of funfair rides in which a plurality of passenger cabins is associated to a mobile structure which can perform movements with respect to a rest frame on the ground. The passenger cabins are predisposed to receive internally thereof one or more passengers and to be unremovably connected to the mobile structure.

[0002] Some passenger cabins, for example those which are used on Ferris wheels, comprise a bearing structure to which at least a bottom wall and a perimeter wall are associated, which perimeter wall is provided with doors, which perimeter wall rises vertically from the edge of the bottom wall. An upper wall is associated to the perimeter wall in an opposite position to the bottom wall in order to superiorly close the cabin.

[0003] In the majority of cases the rides have to be periodically dismounted and transported to another site to follow the displacements of a funfair or in general a mobile ride. The mobile structure and the frame resting on the ground are largely constituted by tubes and plates which can be mounted to each other and dismounted by means of screws and bolts. When dismounted, they occupy overall an acceptable space as they can easily be piled one on top of another with good overall use of space. The same cannot be said for the passenger cabins which, for safety reasons, cannot be realised using a too-large number of components. In the majority of cases the passenger cabins cannot be dismounted to the point of substantially reducing the overall size thereof, so that during transport of the ride, they need quite large amounts of space and, consequently, the use of a high number of means of transport. The only cabins in the prior art which can be substantially dismounted are of the open type, being without perimeter walls and doors, and these are only suitable for small rides.

[0004] The main aim of the present invention is to provide a passenger cabin the configuration of which can be changed to reduce the overall size thereof without requiring laborious and complex mounting and dismounting operations. This aim is attained by the passenger cabin as illustrated in the following claims.

[0005] Characteristics and advantages of the invention will better emerge from the following detailed description, which is made with reference to the accompanying figures of the drawings, given by way of non-limiting example, in which:

figure 1 is a schematic perspective view of a cabin of the present invention in a configuration of maximum vertical extension, suitable for use of the cabin;
figure 2 is the cabin of figure 1, in a configuration of minimum vertical extension, which is advantageous for transport of the transport of the cabin;
figure 3 is the cabin of figure 1, in section according to a halfway vertical plane;
figure 4 shows the cabin of figure 2, in section according to a halfway vertical plane.

[0006] With reference to the figures of the drawings, the passenger cabin 1 of the present invention comprises a bearing frame 2 to which at least a bottom wall 3 and a perimeter wall 4 are associated, the perimeter wall 4 vertically rising from the edge of the bottom wall 3. An upper wall 5, associated to the bearing frame 2 and to the perimeter wall in an opposite position with respect to the bottom wall 3, superiorly closes the cabin. The cabin can be hooked to the ride at the upper wall 5.

[0007] As can be seen in the accompanying figures of the drawings, the bearing frame 2 and the perimeter wall 4 are structured each with an upper portion 2a, 4a and a lower portion 2b, 4b which are vertically mobile with respect to one another between a first position, in which the passenger cabin has a greater vertical extension, and a second position, in which the passenger cabin has a smaller vertical extension.

[0008] In the first position of the bearing frame 2 and the perimeter wall 4, the cabin 1 can be associated to a ride by means of means for hooking, of known type and therefore not illustrated, associated for example to the upper wall 5. In this position the cabin 1 can further be occupied by one or more passengers in erect or seated position. To facilitate entry and exit of the passengers, the maximum vertical extension of the cabin is such as to enable entry and exit without their having to stoop. Benches and/or seats can be located internally of the cabin to enable the passengers to sit down during the ride.

[0009] In the second position of the bearing structure 2 and the perimeter wall 4, the vertical extension of the cabin 1 is reduced, such as to reduce the overall size of the cabin and thus to facilitate the manipulation operations for transport, necessary for dismounting and transporting the ride. The cabins can be piled one on top of another exploiting a system of joining between the rest legs of one cabin, the superior one in the pile, and seatings arranged in the upper wall 5 of an underlying cabin.

[0010] The upper portion 4a and the lower portion 4b of the perimeter wall 4 are configured such that in the second position to which, as mentioned above, the minimum vertical extension of the cabin corresponds, the lower portion 4b is contained internally of the upper portion 4b .

[0011] In more detail, as can be seen in figure 2, in a preferred embodiment of the cabin 1, the upper portion 4a of the perimeter wall 4 has, in plan view, a perimeter that is greater than the perimeter of the lower portion 4b, so that the lower portion 4b can slide vertically internally of the upper portion 4a. In figure 2, in which the configuration of minimum vertical extension of the cabin is shown, the upper portion 4a of the perimeter wall 4 surrounds and closes down on the lower portion 4b. The lower portion 4b has a smaller vertical extension than the upper portion 4a, such that the overall vertical extension of the cabin, in the configuration of figure 2, is substan-

tially the same as that of the upper portion 4a alone of the perimeter wall 4. Alternatively, owing to special constructional needs, the lower portion 4b could be provided with a greater perimeter extension than the upper portion 4a, so that it could slide vertically internally of the lower portion 4b and/or the vertical extensions of the two portions 4a, 4b could be such that in the second position they project at least partly from one another, still resulting in an overall reduction in the vertical height of the cabin 1.

[0012] The perimeter wall 4 is provided with at least a door 6 which is sub-divided into an upper portion 6a and a lower portion 6b. At least a first of the two portions is hinged about a vertical axis to the upper or lower portion of the bearing frame 2, while a second of the two is removably associated to the first. In the preferred but not exclusive embodiment of the cabin, illustrated in figures 1 and 2, the door 6 is sub-divided into two half-doors, hinged about respective vertical axes arranged at sides of the door 6 itself. The upper portion 6a of the door is hinged to the upper portion of the bearing frame 2. In the maximum vertical extension configuration of the cabin, visible in figure 1, the lower portion 6b of the door 6 is constrained to the upper portion 6a, such that the door 6 takes on a maximum vertical extension and completely closes the perimeter wall 4. To enable the cabin to take on the configuration of minimum vertical extension, visible in figure 2, the lower portion 6b of the door 6 can be removed and located for example internally of the cabin.

[0013] In the preferred embodiment of the cabin the perimeter wall 4 is provided with two doors 6 of the described type, situated in opposite positions with respect to the perimeter wall 4 (in figure 3 the door which is in the background in figure 1 can be seen).

[0014] Alternatively, also the upper portion 6a and the lower portion 6b of the door could be slidable telescopically with respect to one another, such as to adapt to the configuration of maximum or minimum vertical extension of the cabin.

[0015] From a constructional point of view the bearing frame 2 comprises uprights 7, visible in figures 3 and 4, each of which is sub-divided into an upper tract 7a and a lower tract 7b, which are telescopically slidable with respect to one another along a vertical direction between a first position, corresponding to the first position of the bearing frame 2, in which they exhibit a greater vertical extension, and a second position, corresponding to a second position of the bearing frame 2, in which they exhibit a smaller vertical extension. Means for blocking are included to constrain the lower tract 7b and the upper tract 7a of the uprights at least in the first position. Preferably the means for blocking comprise, for each upright, at least a screw 8 which, in the first position of the uprights 7, can be arranged through a seating defined by through-holes, made on the upper tract 7a and the lower tract 7b, which are aligned at the first position of the upper tract 7a and the lower tract 7b.

[0016] The cabin of the present invention solves the technical problem of enabling a reduction in the overall size of the cabin, with particular reference to the operation in which the cabin is dismounted from the ride and transported to another site. The cabin of the invention, thanks to the bearing frame structured in two portions and provided with uprights, leads to the technical result of reducing the size of the cabin very simple and effectively, while at the same time the cabin is light and sturdy.

Claims

1. A passenger cabin for funfair rides, comprising a bearing frame (2) to which at least a bottom wall (3) and a perimeter wall (4) are associated, the perimeter wall (4) rising vertically from an edge of the bottom wall (3), **characterised in that** the bearing frame (2) and the perimeter wall (4) are each structured such as to have an upper portion (2a, 4a) and a lower portion (2b, 4b) which are vertically mobile with respect to one another between a first position, in which the passenger cabin has a greater vertical extension, and a second position, in which the passenger cabin has a smaller vertical extension.

2. The passenger cabin of claim 1, wherein the upper portion (4a) and the lower portion (4b) of the perimeter wall (4) are configured such that, in the second position, in which the cabin is in a smallest vertical extension thereof, one of the upper portion (4a) and lower portion (4b) is at least partially contained inside the other thereof.

3. The passenger cabin of claim 1 or 2, wherein the upper portion (4a) of the perimeter wall (4) has, in plan view, a perimeter extension which is greater than the lower portion (4b) of the perimeter wall (4), such that the lower portion (4b) can slide vertically internally of the upper portion (4a).

4. The passenger cabin of claim 1, wherein the perimeter wall (4) is provided with at least a door (6) which is sub-divided into an upper portion (6a) and a lower portion (6b), at least one of the upper portion (6a) and the lower portion (6b) being hinged about a vertical axis to the upper portion (4a) or the lower portion (4b) of the bearing structure (2), the other of the upper portion (6a) or lower portion (6b) of the at least a door (6) being removably associated to the remaining upper or lower portion (6a, 6b) thereof.

5. The passenger cabin of claim 4, wherein the upper portion of the door (6) is hinged about a vertical axis thereof to the upper portion of the bearing frame (2), the lower portion (6b) being removably associated to the upper portion (6a).

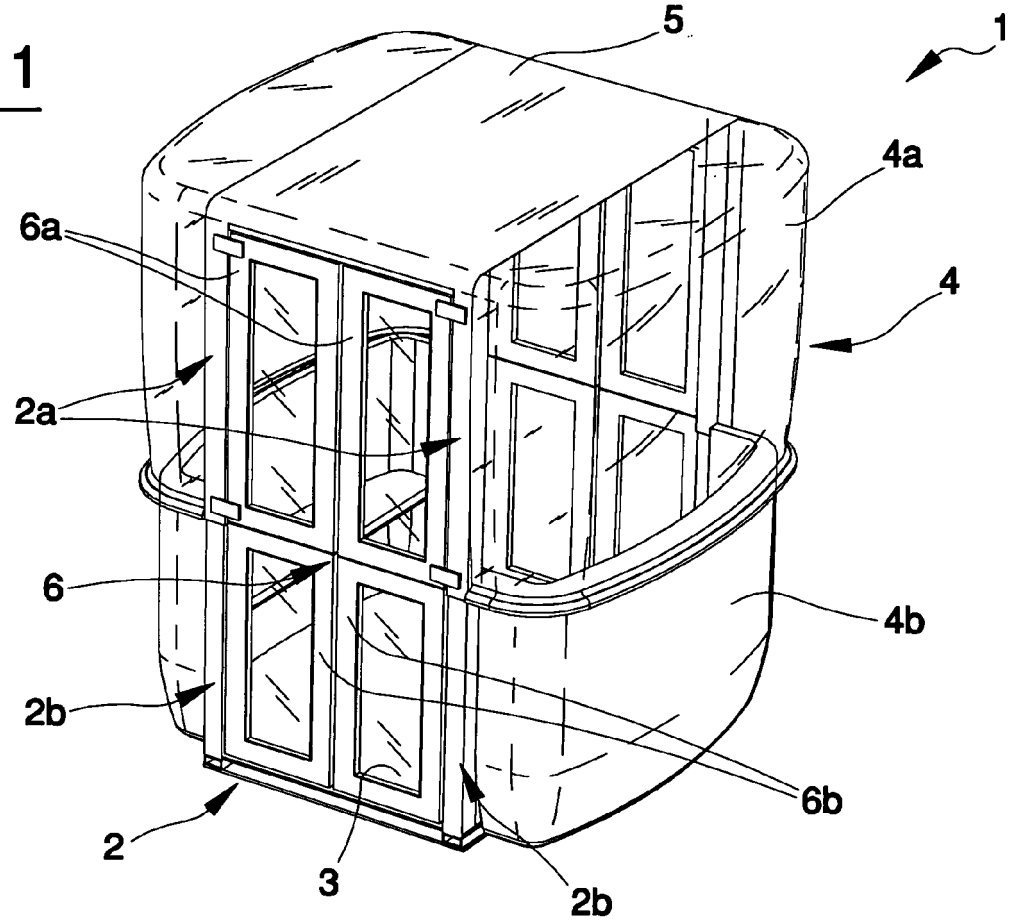
6. The passenger cabin of at least one of the preceding claims, wherein the bearing frame (2) comprises up-

rights (7), each of which is sub-divided into an upper tract (7a) and a lower tract (7b), which are reciprocally telescopically slidable along a vertical direction between a first position, corresponding to the first position of the bearing frame (2), in which the uprights (7) exhibit a greater vertical extension, and a second position, corresponding to the second position of the bearing frame (2), in which they exhibit a smaller vertical extension.

7. The passenger cabin of claim 6, wherein means for blocking are included for constraining the lower tract (7b) and the upper tract (7a) of the uprights (7) together at least in the first position thereof.

8. The passenger cabin of claim 7, wherein the means for blocking comprise, for each upright, at least a screw (8) which, in the first position of the uprights (7), can be arranged in a seating defined by through-holes, afforded on the upper tract (7a) and the lower tract (7b), which are aligned at the first position of the upper tract (7a) and the lower tract (7b).

Fig. 1



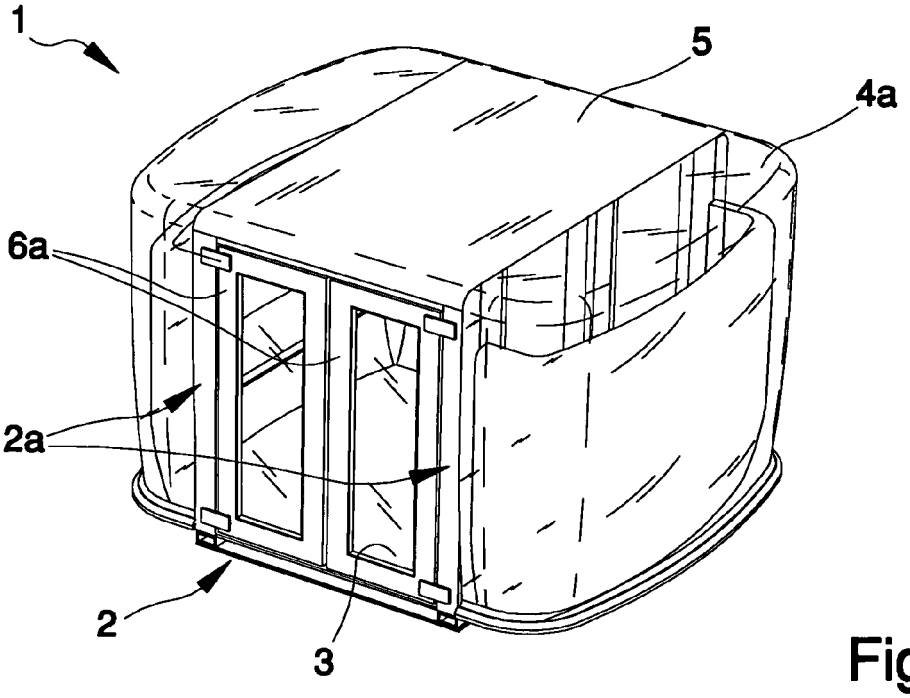
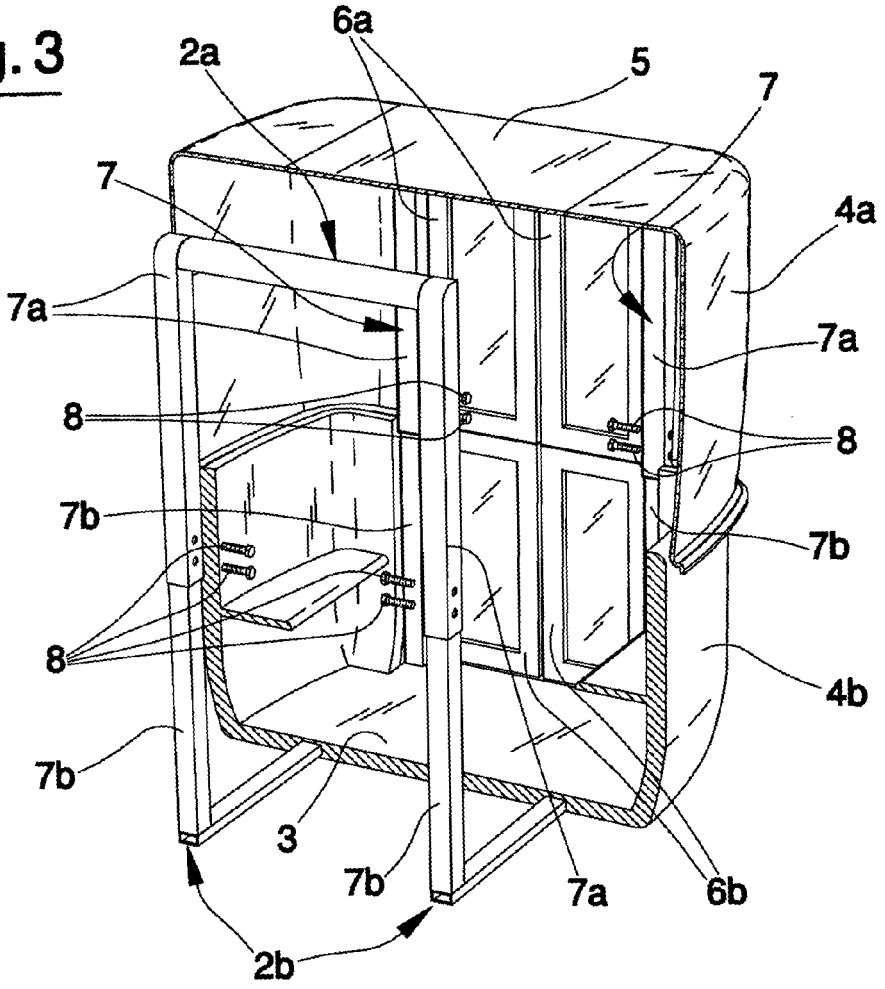


Fig. 2

Fig. 3



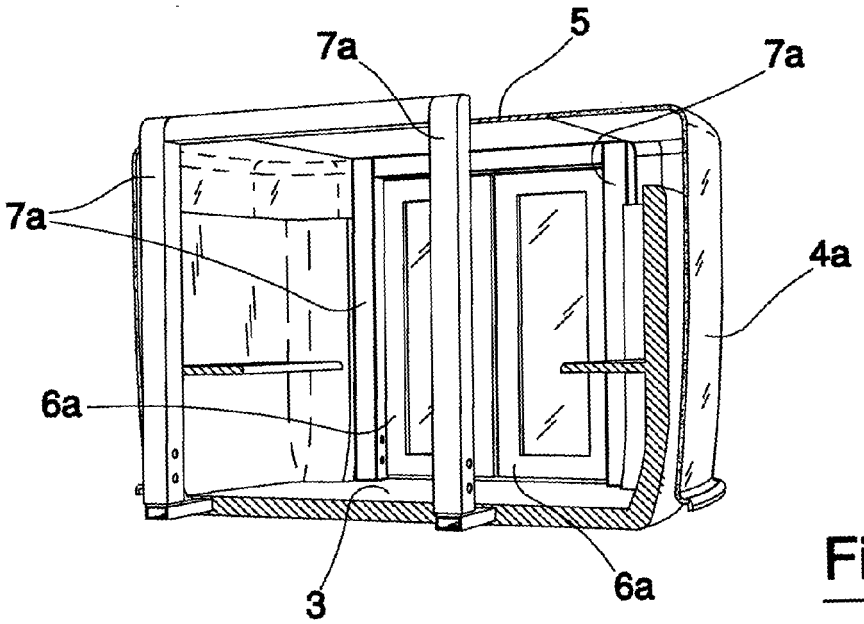


Fig. 4

European Patent Office

EUROPEAN SEARCH REPORT

Application Number
EP 07 07 5989

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
A	DE 41 00 019 A1 (PETZ PETER [DE]) 25 July 1991 (1991-07-25) * column 1, line 61 - column 2, line 8; figures *	1-8	INV. A63G27/00
A	DE 20 2006 008361 U1 (BRUCH SCHNEIDER GMBH [DE]) 3 August 2006 (2006-08-03) * paragraphs [0022] - [0024]; figure 1 *	1-8	
A	DE 34 09 523 A1 (KOERPER FRIEDRICH PAUL) 30 August 1984 (1984-08-30) * the whole document *	1-8	
A	US 1 555 488 A (SIEBERT IRWIN J) 29 September 1925 (1925-09-29) * page 1, line 59 - line 84; figures *	1-8	
			TECHNICAL FIELDS SEARCHED (IPC) A63G

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
Munich	9 April 2008	Lucas, Peter

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

EPO FORM 1503 03.82 (P04C01)

ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO. EP 07 07 5989

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.

09-04-2008

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
DE 4100019 A1	25-07-1991	DE 9000212 U1	15-02-1990
DE 202006008361 U1	03-08-2006	NONE	
DE 3409523 A1	30-08-1984	NONE	
US 1555488 A	29-09-1925	NONE	

EPO FORM P0459

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