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(54) **Massage spa**

(57) The massage spa comprising the vessel (1), in which there are created at least two relaxation places for sitting or lying of a relaxing person, out of which each comprises the seat and/or the backrest (11), while at least

a portion of surface of the seat and/or backrest designated for sitting, lying or leaning of the body of a relaxing person is formed of at least one board (31, 51) mounted in the vessel (1).

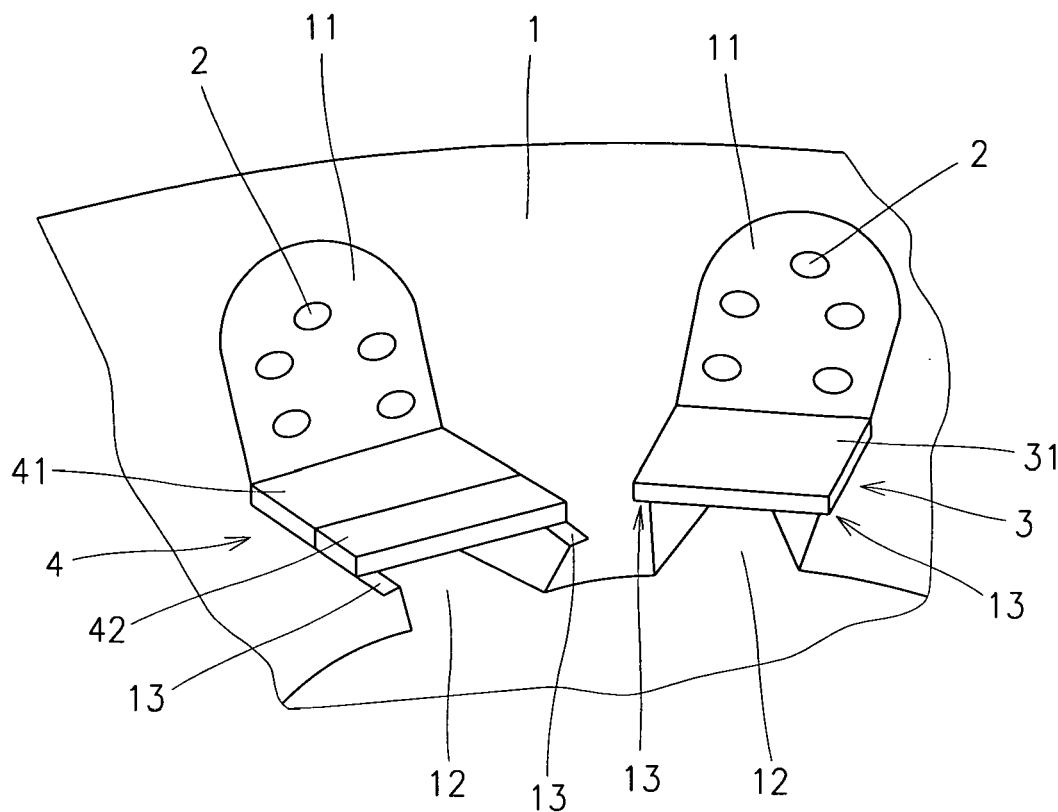


Fig. 1

Description

Technical field

[0001] A massage spa comprising a vessel, in which there are created at least two relaxation places for sitting or lying of relaxing person, out of which each comprises a seat and/or a backrest.

Background art

[0002] The modern trend of lifestyle is to utilise a leisure time for relaxation and overall recovery. One of the means serving to such activities are the massage pools known as massage spa, which are becoming a part of household equipment.

[0003] Massage spas are usually designed so as to accommodate several persons simultaneously. A vessel of such family spa having the ground plan dimensions for example of 2,5 x 2,5 meter is generally made of thermo-plastic material reinforced by means of lamination or polyurethane. Relaxation places are formed directly in a wall of the vessel.

[0004] The common production technology of a monocoque, due to price and quality, requires that this monocoque narrows from its upper border in direction downwards. It is obvious, that if there are five relaxation places, being shaped by the monocoque, only a small space in bottom of the spa remains for stretched legs of five persons. It is not possible to stretch the legs, moreover the surface of the seat is usually rather small, the seats are short and usually do not support the front part of the thigh. This is uncomfortable especially for taller persons. Moreover the taller persons may not either find comfortable the length of the backrest, respectively the position of its upper end with respect to a comfortable leaning of scruff of the neck of sitting person. These circumstances can make the stay in the bath uncomfortable.

[0005] The goal of the invention is to remedy or substantially reduce shortcomings of the background art and to provide a variable arrangement of relaxation place with respect to greater differences in height of persons utilising the spa, also to create in the area of bottom of the spa a space without necessity to change technology of production of the monocoque and to increase production costs arising out of usage of multi-part forms for production of the monocoque.

Principle of the invention

[0006] The goal of the invention has been achieved through the massage spa according to the invention, whose principle consists in that, at least a portion of surface of the seat and/or backrest designated for sitting, lying or leaning of the body of a relaxing person is formed of at least one board mounted in the vessel. The board mounted in the vessel may be removed so that a space is obtained, or it may be moved so, that the sitting person

obtains a necessary comfortable support for his thighs.

[0007] In the preferred embodiment at least a portion of the seat is formed by the board. The rear edge of the board may continue into a small rear portion of the seat being shaped directly by the body of the vessel, at the same time at shifting the board of the seat the portion of the seat being shaped in the wall of the vessel increases the comfort of sitting.

[0008] In the place under the board creating at least a portion of the seat according to another preferred embodiment the cavity is created. The vessel itself may be produced using a common technology, while under the board of relaxation place a space may be obtained for example for legs of a person sitting oppositely and/or for placing of technological devices, for example of suction holes of circulating circuits for pumps.

[0009] According to another preferred embodiment the board creates at least a section of the backrest. It is preferred, if the board is mounted in a removable manner and/or adjustably, especially in a shifting manner, especially if it is possible to secure the seat and/or backrest in the selected position. By removing or replacing the backrest it is possible to accommodate the seat quite good to the height of sitting person.

[0010] The seats of two side by side arranged relaxation places in another of preferred embodiments are formed of one common board, which reduces the costs for production of the spa.

[0011] The board may be created of various materials, while it is important, that the used material is pleasant to touch, is of a sufficient strength, surface hardness, is easy to maintain and simultaneously is easy to work with and to join. At present these conditions are fulfilled the best by an artificial stone which moreover is available in a large assortment of patterns and colourful embodiments.

[0012] At the same time it is preferred if the artificial stone comprises aluminium trihydrate and a binding on basis of polymeric resins.

Description of the drawing

[0013] Exemplary embodiments are schematically represented in the drawing, where the Fig. 1 shows a skew view into an internal section of the spa, the Fig. 2 a cross-section of a section of the spa vessel in place of mounting of two-part seat, the Fig. 3 a cross-section of a section of the spa vessel in place of mounting of single-part seat, the Fig. 4 two relaxation places provided with a common seat for backrests of these relaxation places, the Fig. 5 a cross section of a part of the spa monocoque in place of mounting the relaxation place with shifting backrest in a lower position and the Fig. 6 a cross-section of a part of the spa monocoque in place of mounting the relaxation place with shifting backrest in upper position.

Examples of embodiment

[0014] In the Fig. 1 the vessel 1 of the spa is formed

of a monocoque produced by a known technology. The vessel 1 comprises several relaxation places for sitting or lying of relaxing persons, out of which two relaxation places are represented. The backrests 11 of relaxation places are shaped in the wall of the vessel 1, and in them there are in a known manner arranged the massage noz-
zles 2 of outlets of pressure air and pressure water.

[0015] The backrest 11 does not continue into a usual seat formed of continuing wall of the vessel 1, but in the place of the seat the wall of vessel 1 creates a depression 12, whose edges create narrow contact surfaces 13.

[0016] The seat 3 of relaxation place creates a body in a shape of integral board 31 mounted in the vessel 1 on contact surfaces 13 either in a removable and/or in adjustable manner, preferably in a shifting manner, or the board 31 is mounted firmly in a not represented manner in the monocoque 1.

[0017] In alternative embodiment according to the Fig. 1 and 2 the seat 4 is formed of two boards 41, 42, whereas the board 41 neighbouring with the backrest 11 on the cotact surfaces 13 of the vessel 1 is mounted firmly or in a removable manner. The board 42 of the seat 4 on the contact surfaces 13 is mounted in a sliding guidance, while it may be secured at least in one position in a not represented manner.

[0018] Relaxation place according to the Fig. 3 is an alternative of the seat 5 with one board 51. The rear part of the board 51 of the seat 5 on the bottom side has a recess 52, which enables, that the respective depression 53 of the vessel 1 is very small and at shifting the board 51 in direction forward the small depression 53 in the rear part of the seat 5 will not interfere the sitting person. Of course it is possible to produce the board 51 of material, whose strength enables to reduce the thickness of the board 51 so that the depression 53 is small and the board 51 does not require performance of the recess 52.

[0019] In embodiment represented in the Fig. 4 the seat of two relaxation places arranged in the spa side by side is formed of one common board 6.

[0020] Depression 12 covered by the board 31, 41, 42, 51, 6 creates a cavity, in whose wall there can be with advantage positioned for example a not represented indirect lighting, inlet or outlet of water into filtration circuit, etc. In particular, there is created a space for legs of the opposite sitting person or persons, which makes the stay in the bath more pleasant.

[0021] In exemplary embodiment according to the Fig. 5 and 6 the relaxation place 7 is provided with a backrest with shifting board 71, which with its rear **surface** for example is leaning against the wall of vessel 1 of the spa, whereas on sides it is guided in the guidance 72. In the upper part of exemplary embodiment the board 71 is provided with the headrest 73 for head. Connection of the board 71 and the vessel 1 enables to attach the board 71 as to the height. Structure of the board 71 must enable function of the nozzles 74, whose mouth is usually arranged in backrests and/or seats of relaxation places. Sliding board 71 has a plurality of through holes 75 (here

represented two), whose position is given by position of the board 71 with respect to the vessel 1, whereas the board may be secured against motion in the desired position. In case the board 71 is adjustable as to the height and secured continuously, the holes 75 are of a not represented shape of vertical grooves. Connection of shifting backrest with function of backrest nozzles may be solved through other not represented manners.

[0022] The boards 31, 41, 42, 51, 6, 71 of the seat or of backrest for increased comfort of relaxing persons on their surface designed for sitting, lying or support of the body of relaxing person may be ergonomically shaped.

[0023] The boards 31, 41, 42, 51, 6, 71 in exemplary embodiment are performed of artificial stone. As a filling mass these materials usually comprise aluminium trihydrate, as a binding the polymeric resins are used, usually acrylic or polyester ones. Artificial stone is nonporous, non-absorbing and due to its thermo-insulating properties it is not cold for touch. From ergonomic point of view it may be advantageous, if the board 71 of the backrest in the section in which supporting of the body occurs, is respectively shaped.

[0024] The main advantage of arrangement according to the technical solution first of all is increased comfort during stay in the spa regardless the body height of persons taking bath, because by shifting the boards 42, 51 of the seat 4, 5 a suitable supporting surface for thighs of relaxing person may be adjusted, and as to the height shifting board 71 of backrest of the seat 7 enables individual adjustment of the backrest so that the relaxing persons of various heights may be leaning against the bath comfortably. This is enhanced by increased space of bottom space under the board of the seat usable for legs of oppositely sitting person.

List of referential markings

[0025]

1	vessel (of the spa)
11	backrest of relaxation place
12	depression (in the vessel)
13	contact surface (of the seat)
2	massage nozzle
3	seat
31	board (of the seat)
4	seat
41	board (of "rear" seat)
42	board (of "front" seat)

- 5 seat
- 51 board of seat
- 52 recess (in bottom part of the board)
- 53 depression (of monocoque)
- 6 board (common for two seats)
- 7 relaxation place
- 71 board (of backrest)
- 72 guidance (of board of backrest)
- 73 headrest
- 74 nozzle
- 75 hole (in board of the backrest)

Claims

- 1. The massage spa comprising the vessel (1), in which there are created at least two relaxation places for sitting or lying of relaxing person, out of which each comprises the seat and/or the backrest (11), **characterised in that**, at least a portion of surface of the seat and/or backrest designated for sitting, lying or leaning of the body of a relaxing person is formed of at least one board (31, 51) mounted in the vessel (1). 25
- 2. The massage spa according to the claim 1, **characterised in that**, at least a portion of the seat (3) is formed by the board (31, 51). 30
- 3. The massage spa according to the claim 2, **characterised in that**, in place under the board (31, 51) the cavity is created. 35
- 4. The massage spa according to any of the previous claims, **characterised in that**, the board (71) creates at least a section of the backrest (7). 40
- 5. The massage spa according to any of the previous claims, **characterised in that**, the board (31, 41, 42, 51, 71) is mounted in a removable manner. 45
- 6. The massage spa according to any of the previous claims, **characterised in that**, the board (31, 41, 42, 51, 71) is mounted in an adjustable manner. 50
- 7. The massage spa according to the claim 6, **characterised in that**, the board (42, 51, 71) is mounted in a shifting manner. 55

8. The massage spa according to any of the claims 5 to 7, **characterised in that**, the board (31, 41, 42, 51, 71) may be at least in one position secured.

9. The massage spa according to any of the previous claims, **characterised in that**, the seats and/or backrests of two side by side arranged relaxation places are formed of one common board (6).

10. The massage spa according to any of the previous claims, **characterised in that**, the board (31, 41, 42, 51, 71) on its surface designated for sitting, lying or supporting the body of a relaxing person is ergonomically shaped.

11. The massage spa according to any of the previous claims, **characterised in that**, the board (31, 41, 42, 51, 6, 71) is made of artificial stone.

12. The massage spa according to the claim 11, **characterised in that**, the artificial stone comprises aluminium trihydrate and a binding on basis of polymeric resins.

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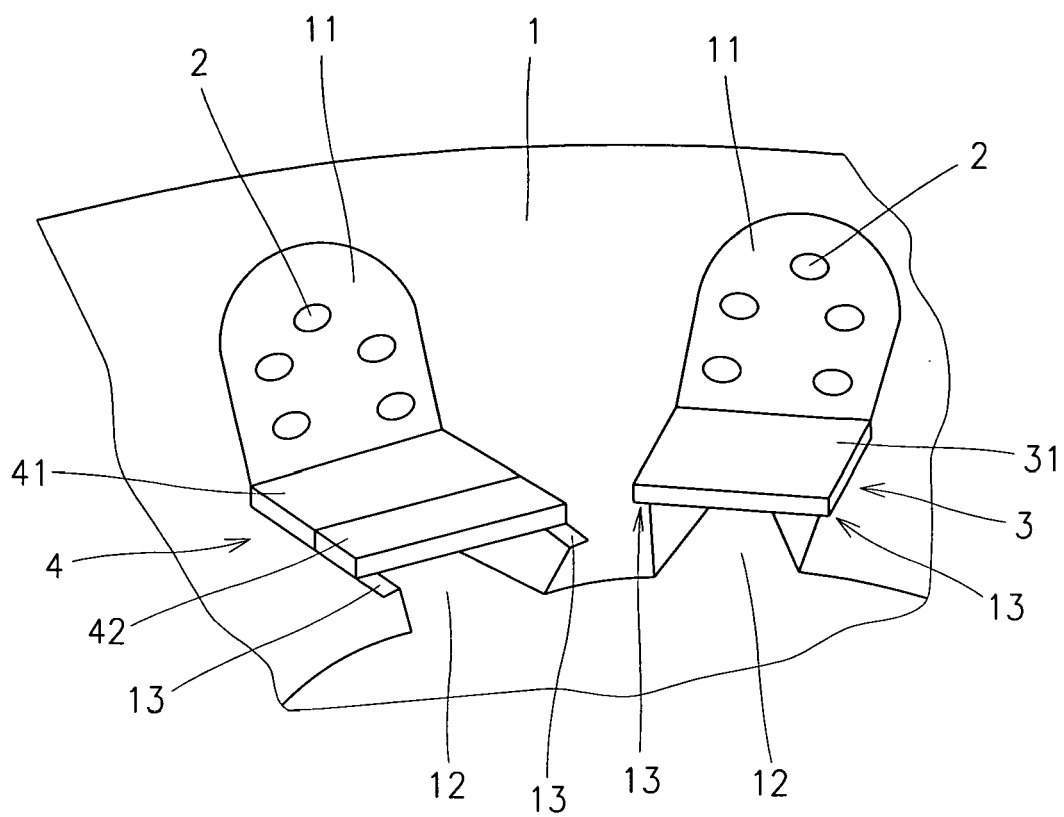


Fig. 1

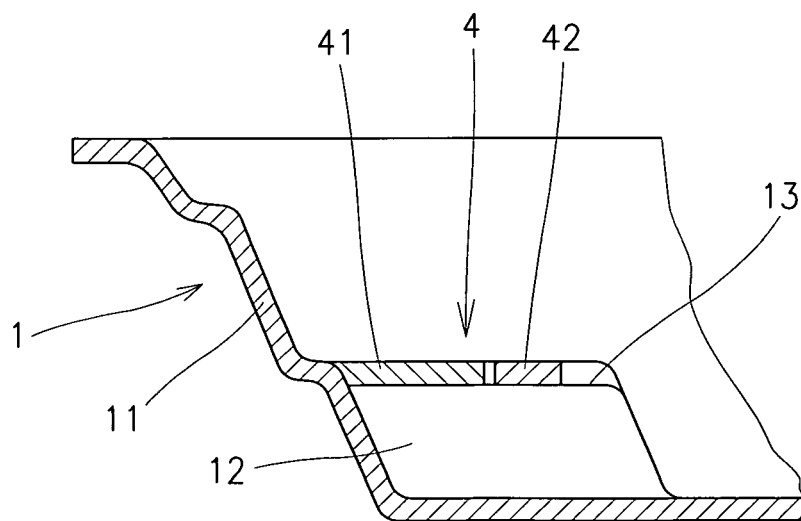


Fig. 2

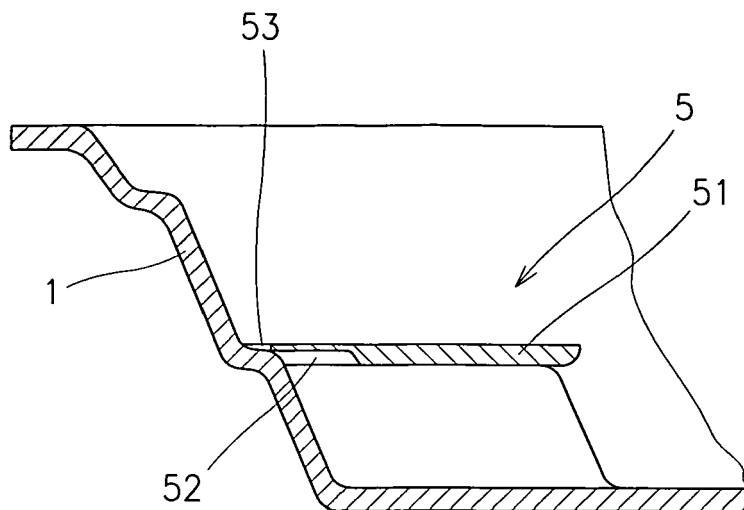


Fig. 3

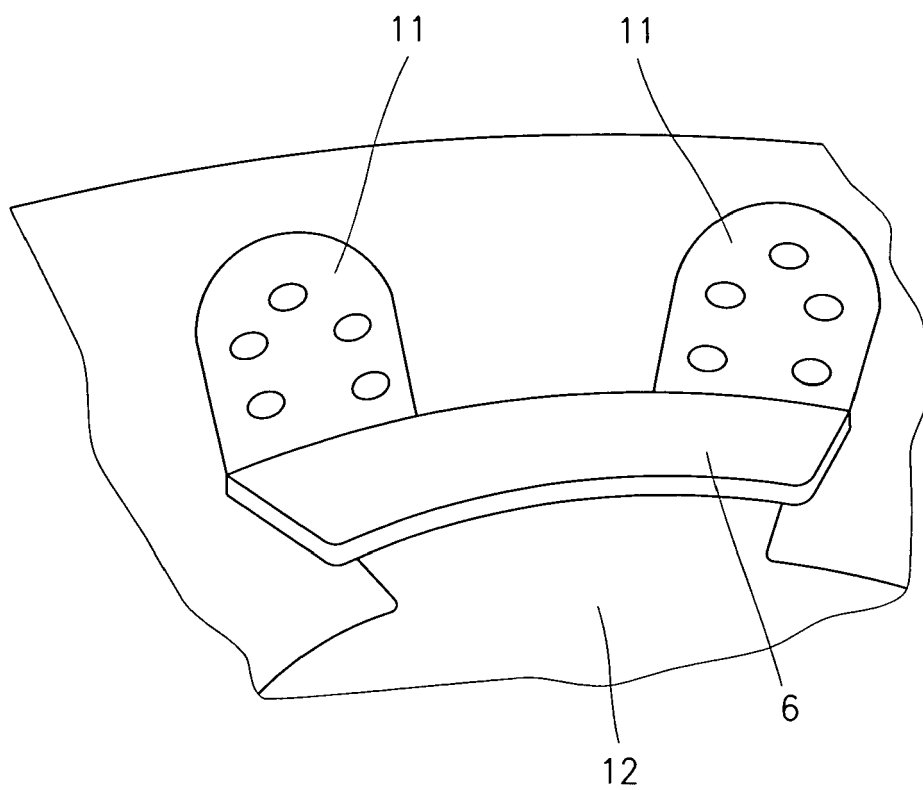


Fig. 4

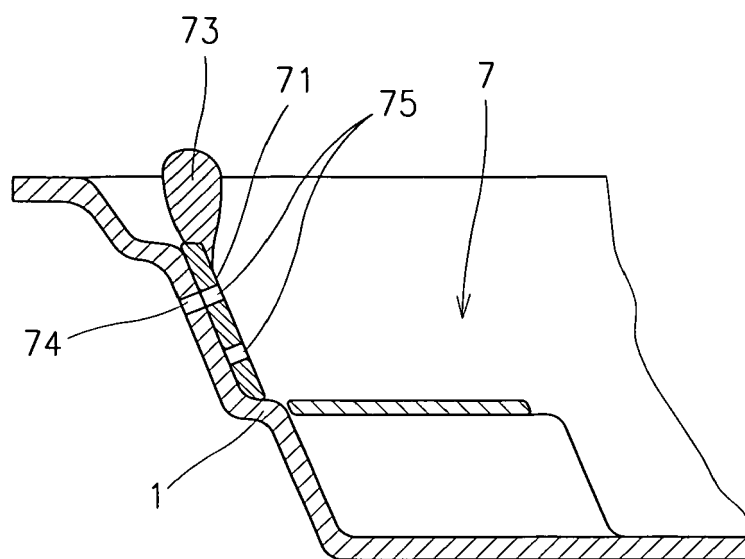


Fig. 5

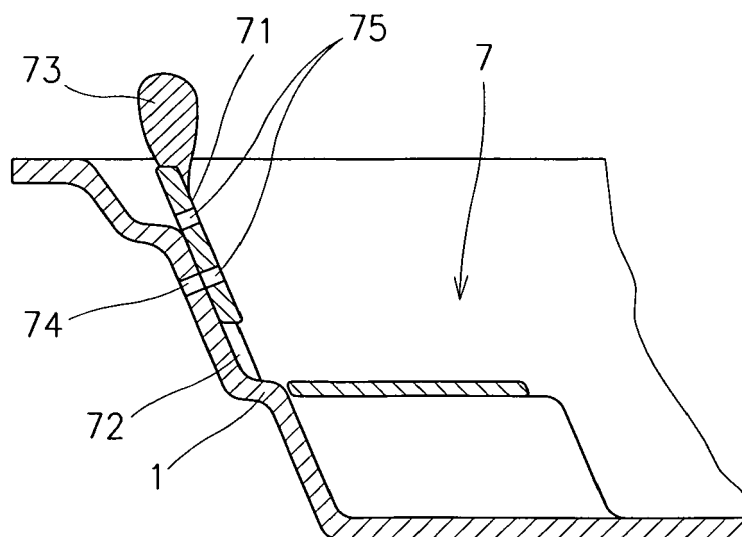


Fig. 6



EUROPEAN SEARCH REPORT

Application Number
EP 10 18 9558

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	* paragraph [0006] * * paragraph [0008] * * paragraph [0026] * * paragraph [0029]; figures *	11,12	
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			TECHNICAL FIELDS SEARCHED (IPC)
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The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 20 March 2012	Examiner Squeri, Michele
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 18 9558

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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