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(54) Stiff tubular structure boat.

(57) The boat is foreseen with a stiff tubular structure and seven independent rooms: six of which are lateral and one on the heading. At the stern end, two hermetic seal chamberts (1 and 2) are foreseen, whereas the remaining five ones (3, 4, 5, 6 and 7) are accessible through seal doors (8) and can be used to stow material and equipments. The stern chambers (1 and 2) can be emptied by means of automatic valves (11 and 12) in order to obviate casual breaks.

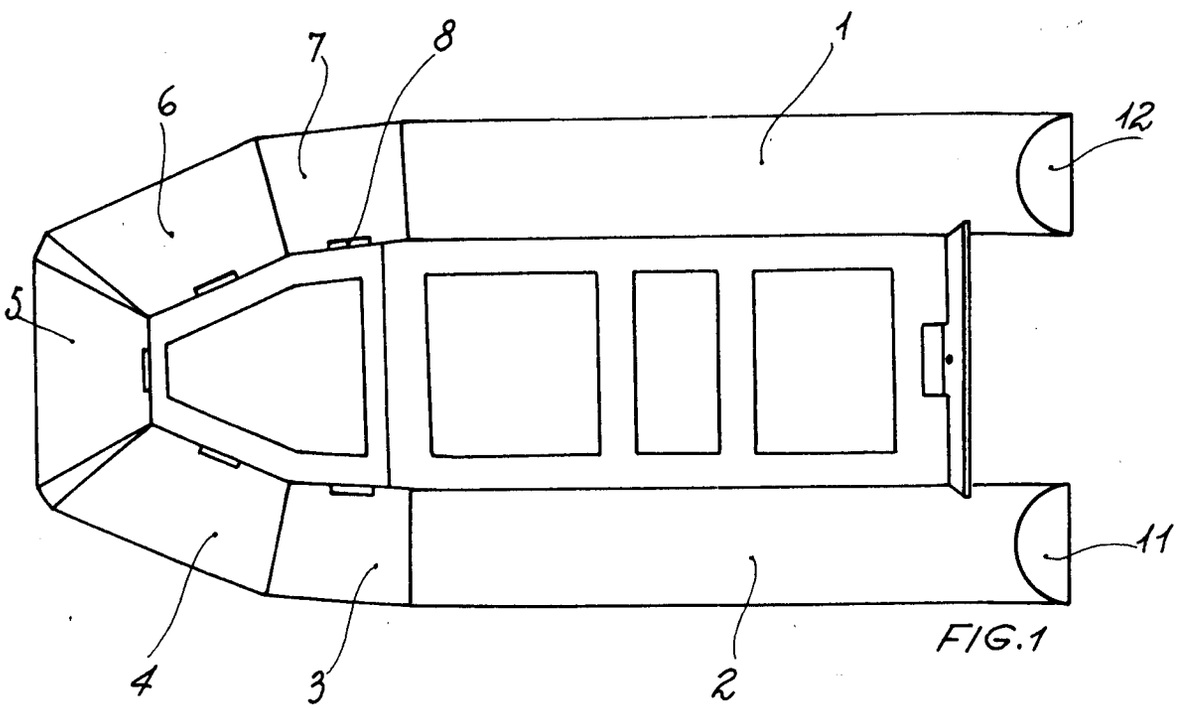

FIG.1

EP 0 496 014 A1

The invention refers to a new conception boat, mainly characterized by a stiff tubular structure subdivided in compartments, independent the one from the others. These compartments form two different types of chambers: the hermetic seal ones operating only as floating means, and others accesible and to be used for stowing materials and rigs. The invention derives its outer shape from the traditional half-stiff boats, but it completely differs from these one as far as the structure and the steering possibilities are concerned. Infact, while in the half-rigid boats the tubulars are manufactured in rubbered cloth, the shape of which is obtained by means of air pressure forced by pressure into them, in the boat according to the invention, the tubulars are obtained completely in structures with permanent trim, thus determining a hull with its own stiff shape and with its own conformation independently from the air presence in the chambers. This boat grants principally many advantages, since the use of the tubular structure with separate and hermetic seal compartments makes the boat unsinkable, a feature which remains even in case of infiltrations into one of the two hermetic seal rooms, furthermore the possibility of stowing materials and rigs into the accessible chambers allows a total reduction of encombrance, with the same available space. A new type boat thus results, to be particularly used in the sector of the lading navigation. The invention furthermore, in comparision with the present half-rigid boats, grants a greater trust and defines precise structural features, which increase the performances, still remaining within the limits of an essentially thrifty kind.

Substantially, the boat has a stiff tubular structure with sides consisting of only one tubular body subdivided in seven compartments, each one independent from the others, of which six are lateral and one on the bow. These compartments determine rooms with different use, the side one of which have different sizes. The two largest rooms start from the stern ends, where they form the so-called "stern cones" and facilitate the boat start as well as the entrance in planing. Furthermore, these chambers are fitted o the sides of the boat up to the heading and their sizes are much larger than the other five ones. The other four chambers on the sides have a circular section too but are slanting inwards in comparison with the other two initial ones, to connect with the heading chamber centrally. Starting from the stern end, the seal rooms 1 and 2 are foreseen, whereas the remaining rooms 3, 4, 5, 6 and 7 can be used as peaks for stowing materials and rigs. The access to these rooms is through openings with seal door 8 fitted inside the boat. The hull is fitted with a system for the automatic water discharge through a bilge 9 which collects the water from the different peaks and conveys it to a stern cockpit with an automatic discharge valve 10. The two hermetic seal compartments 1 and 2 are foreseen with two separate valves 11 and 12 fitted on the stern and foreseen to discharge the filtered water in the case of exceptional breaks.

Execution form of a boat, according to the invention, is illustrated in a merely indicative view not limiting in the drawings of Table 1. With reference to this table, fig. 1 is view from above of said boat to show the different parts which form the tubular structure broadside. Fig. 2 is section view of the same boat, whereas fig. 3 is lateral view. In partitura said boat foresees a "V" bilge with retaining yokes and at stern foresees an enlarged keet to permit a better motor efficiency. The hull is completely realized in fibreglass and it is connected with the tubulars, during construction, twisted the materials. Also the limber board 13 is realized in fibreglass and it consists of four peaks with grooved girth so to contain and concentre the eventual ship water in the bilde, this permits to let the limber board 13 always dry. Furthermore the peaks from limber board 13 are closed by means of sea-plywood covers while the transom is realized in sea-plywood with fibreglass and connected with the tubulars and with the bilge by means of service weavings.

In the execution, the compartments of the stiff tubular structure can be foresee, in different ways both in number and in shape. The hull can be executed in different ways in fibreglass, light alloys or any other equivalent material. The boat shape will likewise be executed in conformity with the different components already described.

Claims

1. Stiff tubular structure boat, characterized by the fact that its broadsides consist of only one stiff tubular body, ideally subdivided in seven independent compartments, six of which are in side position and one on the heading and which alltogether form an unsinkable hull with a high antiupturning effect. From the stern end two initial hermetic seal chambers (1 and 2) are foreseen, whereas the remaining ones (3, 4, 5, 6 and 7) can be used also for stowing materials and equipments. These last rooms can be entered through seal doors (8) disposed in the boat inside.

2. Stiff tubular structure boat, as to claim 1), characterized by the fact that the hull foresees a water automatic drain system by means of a bilge which collects water from the different peaks and conveys it to a stern cockpit with an automatic drain valve (10).

3. Stiff tubular structure boat, as to claim 1), characterized by the fact that the two hermetic seal chamberts (1 and 2) are foreseen with automatic valves (11 and 12) fitted at the stern end which discharge eventual filtered water, due to casual breaks, into the tubular structure hull.

4. Stiff tubular structure boat, as to claim 1), characterized by the fact that the possibility of stowing materials and rigs into the side and heading chambers (3, 4, 5, 6 and 7) allows, with the same space in the boat, a reduction of the charge encumbering volume.

5. Stiff tubular structure boat, as to claim 1), characterized by the fact that the hull is entirely in fibreglass with "V" bilge with retaining yokes and the stern foresees an enlarged keel to allow a better movement efficiency.

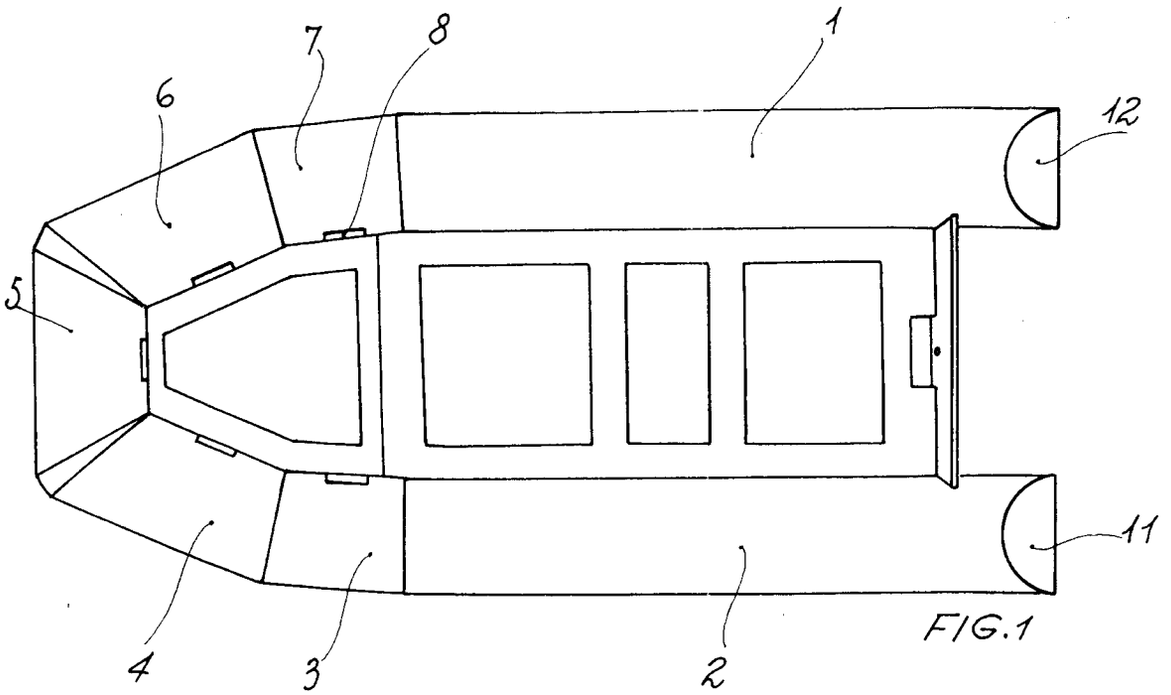

FIG.1

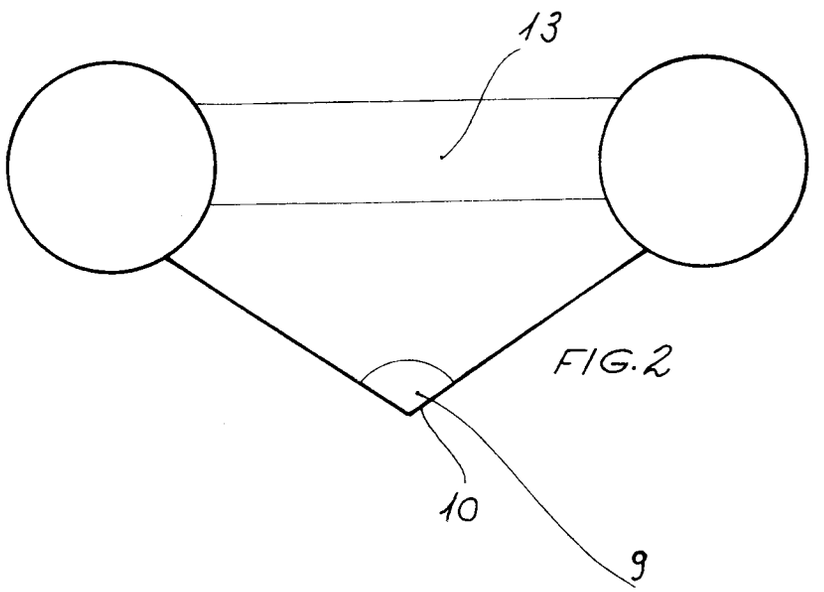

FIG.2

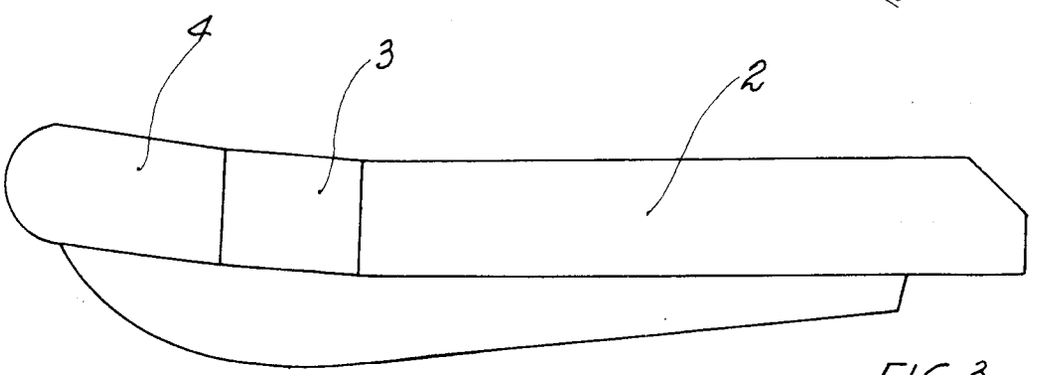

FIG.3

European Patent Office

EUROPEAN SEARCH REPORT

Application Number

EP 91 10 0735

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.5)
Y	DE-C-444 175 (STREICHE)	1-4	B63B1/02
A	* the whole document *	5	B63B35/73
Y	US-A-3 724 011 (SCHOLLE)	1-4	
A	* column 3, line 64 - column 5, line 33; figures 1-8 *	5	
A	FR-A-2 561 196 (LLOBREGA)	1,4,5	
	* the whole document *		

TECHNICAL FIELDS SEARCHED (Int. Cl.5)

B63B

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
THE HAGUE	20 SEPTEMBER 1991	DESENA Y HERNANDOREN

CATEGORY OF CITED DOCUMENTS

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