



(12) **EUROPEAN PATENT APPLICATION**  
published in accordance with Art. 153(4) EPC

(43) Date of publication:  
**24.04.2024 Bulletin 2024/17**

(51) International Patent Classification (IPC):  
**B63H 20/08 (2006.01)**

(21) Application number: **22823705.3**

(52) Cooperative Patent Classification (CPC):  
**B63H 20/08**

(22) Date of filing: **25.05.2022**

(86) International application number:  
**PCT/BR2022/050173**

(87) International publication number:  
**WO 2022/261736 (22.12.2022 Gazette 2022/51)**

(84) Designated Contracting States:  
**AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR**  
Designated Extension States:  
**BA ME**  
Designated Validation States:  
**KH MA MD TN**

(71) Applicant: **Sotirios Ghinis, Jorge**  
**12606-090 Lorena - SP (BR)**

(72) Inventor: **Sotirios Ghinis, Jorge**  
**12606-090 Lorena - SP (BR)**

(74) Representative: **Benetazzo, Flavia**  
**Via Cola, 2 F**  
**60027 Osimo (AN) (IT)**

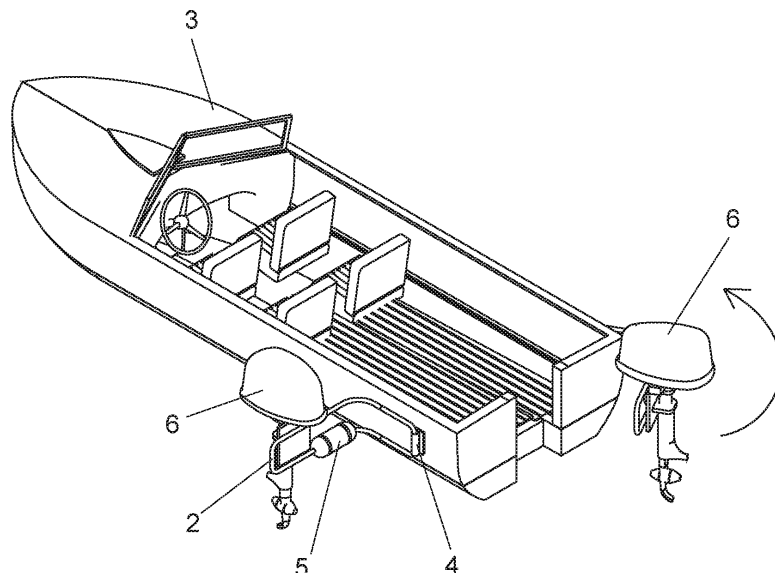
(30) Priority: **14.06.2021 BR 102021011518**

(54) **ARTICULATED MOUNT FOR SECURING AN OUTBOARD MOTOR TO WATER VESSELS**

(57) The present patent application discloses an articulated mount for securing an outboard motor to water vessels, pertaining to the field of articles for watercraft or for steering watercraft, for use more specifically for attaching an outboard motor to watercraft in general; the subject matter of the present application comprises two

high-strength rigid structures (2), consisting of metal tubes reinforced with metal plates, which are attached to the rear portions of the sides of the vessel (3) or to the rear corners by means of bushings (4), the lower portion of each rigid frame having a flotation buoy (5).

**FIG. 5**



## Description

### Field of the invention

**[0001]** The present invention patent has as its purpose a practical and innovative articulated mount for securing the outboard motor in water vessels, belonging to the field of articles for vessels or direction of vessels, used more precisely to secure the outboard motor in vessels in general, and to which an original constructive provision was given, with a view to improving its use and performance in relation to the other products usually found on the market.

**[0002]** It is an articulated mount for outboard motors, which moves the respective motors to the side portions of the vessel, freeing space at the stern for disembarkation and embarkation to the respective water vessel and concomitantly promotes better stabilization to the vessel, in this condition, since said mount is equipped with buoys.

**[0003]** There is, therefore, in the patent application in question, a device specially designed and developed to obtain enormous practicality and that brings great advantages, both in its use and in its manufacture.

**[0004]** It is also the purpose of the present application to present an articulated mount for securing an outboard motor in water vessels with low costs for their industrial feasibility, but combined with the requirements of robustness, safety and utilitarian practicality, thus offering the consumer public an additional option in the congeners market, which unlike the usual products, offers numerous possibilities and benefits to its users, making it a product of great acceptance in the consumer market.

### Background Art

**[0005]** As is known, notably by those skilled in the art, the most different types of motors can equip a boat type vessel. Among them, the most common are the outboard motor and the center-stern motor, since each one has advantages and disadvantages in relation to the other.

**[0006]** Particularly the outboard motor is used to equip water vessels such as speedboats, dinghies and small boats.

**[0007]** In general, outboard motors are lighter than center-stern motors. This type of motor is recommended for navigation in shallow regions, whether for fishing, sport or leisure activities, since its "trim" system, which allows to change the angle of the propeller shaft in relation to the boat, can be raised completely to the water outlet if necessary.

**[0008]** The name refers to the location on the rear portion of the vessels, better known as the stern. Several devices are made available on the nautical equipment market for the coupling of outboard motors on vessels.

**[0009]** In this aspect and in order to specify the state of the art, some patent documents that deal with devices and equipment for the same purpose can be cited, but without achieving the inventive merit and the differentials

disclosed herein, as below.

**[0010]** Patent document AU2018204072A1, entitled "LARGE OUTBOARD MOTOR FOR WATER VESSEL APPLICATION AND RELATED METHODS OF MANUFACTURING AND SIMILAR OPERATION", discloses a mounting system for connecting an outboard motor to a water vehicle. In an aspect, the mounting system comprises: a rotatable mount frame having a steering tube frame and providing a steering axis about which the rotatable mount frame is capable of rotating; a pair of clip mount frames extending from the rotatable mount frame; a first steering yoke frame connected to the rotatable mount frame via the steering tube frame, and including a first cross-piece mounting frame that includes a pair of first steering yoke frame portions that can be used to couple the rotatable mount frame to the outboard motor, the pair of first steering yoke frame portions separated by a first distance; and a second steering yoke frame connected to the rotatable mount frame via the steering tube frame, and including a second steering yoke frame mounting portion that can be used to couple the rotatable mount frame to the outboard motor, the second steering yoke frame mounting part positioned between the pair of the first steering yoke frame portions. The invention also relates to a compound outboard motor: an internal combustion motor; first and second transmission components, in cases where an outboard surface of the internal combustion motor is attached to the first transmission component, in which the first transmission component is attached to the second transmission component, and in which the second transmission component is further connected, at least indirectly by an additional member, to the internal combustion motor; and a mounting system according to the invention coupled at least indirectly to one or more of the internal combustion motor, first transmission component and second transmission component.

**[0011]** Patent document US8011982B1, entitled "OUTBOARD MOTOR MOUNT SYSTEM", discloses a restricted member which is attached to a lower part of the outboard motor and a restrictive member which is attached to a mount frame which in turn is attached to a crossbar of a water vessel. The restrained member is prevented from moving in a starboard or port direction by a magnitude greater than a preset magnitude that is defined by a gap between restrictive and restrained surfaces that move in contact with each other when forces on the outboard cause a lower portion of the outboard to move by a magnitude greater than a preset limit in the port or starboard directions. The pre-established gaps between restrictive and restrained surfaces are sized to allow nominal vibration at low operating speeds of the outboard motor, restricting excessive lateral movement during high-speed operation.

**[0012]** Patent document US6883454B2, entitled "VESSEL SCROLLING SYSTEM", discloses an auxiliary vessel scrolling support system, removable to a stern platform of a boat, consisting of a first set of tilted rollers

attached to the platform and a second set of removable mount rollers attachable to the platform.

**[0013]** Patent document US7644674B1, entitled "WATER VESSEL STABILIZATION SYSTEM", discloses a system of stabilizers mounted with hinges on plates that allow pivoting or rotating movement of each stabilizer between the storage and operating positions. Locking members protect the stabilizers from substantial movement when in the operating position.

**[0014]** Patent document US9555865B2, entitled "BOAT COLLAR SECURING SYSTEM AND METHOD", discloses a vessel with stern stabilizing members in a hull with an arch wrap and port and starboard side sheets with one or more longitudinal channels. The port and starboard stabilizer members comprise floating members in a bay with one or more longitudinal guardians that are configured to be received in the side sheet channels. The tension members extend through the guardians, and are attachable near the stern end of the vessel, and releasably engage the tension mechanisms in the bow wrap, to secure the stabilizer members to the side sheet. Deck access plates through the side walls provide access to tension mechanisms, which may be, for example, crank or electric winch mechanism.

**[0015]** Patent document CA2630228A1, entitled "MOUNT FOR AUXILIARY MOTOR OF OUTBOARD MOTOR" discloses an auxiliary mount for outboard motor for securing an auxiliary motor to an existing outboard motor. The mount comprises an auxiliary plate of motor mounting with divergently extended arms for receiving the body of the outboard motor and secured thereto. A third arm extends from the mounting plate downward and is also secured to the outboard motor.

**[0016]** Patent document US8939103B2, entitled "DEPLOYABLE ASSEMBLY," discloses a deployable assembly for a suspended device, which can lead to stabilization of a vessel, such as kayaks and canoes, that allows an operator to stay or move on the vessel without it swinging or overflying. The deployable assembly with an example pontoon connected to a foldable and rotated arm enables pivotal and rotated movement of each pontoon between the storage and deployed positions. A locking housing secures the substantial movement pontoon when in or between operational and stored positions. The deployable assembly is mounted on a vessel that allows extending a stabilizer pontoon individually on each side of the vessel from a rest position to an operational position, by independent means.

#### Deficient points of the state of the art

**[0017]** The major drawback of outboard motor models lies in the fact that they do not allow access to and egress from the rear portion of the vessel, since at least one motor is coupled at that location.

**[0018]** The mounts for motors found on the market so far only allow the angular movement of the outboard motor in order to change the angle of the propeller axis in

relation to the vessel, in addition to the steering.

**[0019]** It is known to those skilled in the art, that both loading and unloading from the sides of the boat presents great inconveniences to the users of these vessels, especially access, which causes a momentary irregular distribution of weight on board, impairing stability in small boats.

**[0020]** The instant when a user begins to climb the side ladder of the vessel is a critical moment, it is when accidents usually occur. Especially when it comes to a diver, who carries heavy equipment on their back.

**[0021]** When a diver is climbing the ladder of the boat, the support points are their hands and feet, and the hands give the necessary support to maintain the diver's balance on the ladder, allowing them to remain standing, even with the swing of the vessel. If there is no support, climbing the stairs with the equipment on the back becomes more complicated and increases the chances of an accident happening.

#### Proposed solution

**[0022]** It was thinking about these drawbacks that, after numerous researches and studies, the inventor, a person related to the field, created and developed the purpose of the present patent, idealizing an articulated mount for securing the outboard motor in water vessels in which not only the mechanical and functional qualities were considered in the design of its manufacture, but also the shape, arrangement and location of its parts and components that, correctly positioned, brought an increase in efficiency without incurring any burden.

**[0023]** Thus, the present patent was designed in order to obtain a device with as few parts as possible, conveniently configured and arranged to allow the articulated mount for securing an outboard motor in water vessels to perform its functions with unparalleled efficiency and versatility, without the aforementioned drawbacks.

**[0024]** The present patent application presents a practical and innovative articulated mount for securing the outboard motor in water vessels with all aesthetic and functional qualities, designed and developed according to the most modern techniques, thus enabling its use in the most varied models of vessels that use outboard motors, regardless of their power.

**[0025]** Its innovative concept allows an excellent level of functionality to be obtained, offering an articulated mount for securing the outboard motor in water vessels, which has great durability, having been created mainly to enable embarkation and disembarkation by the rear portions of vessels using outboard motors.

**[0026]** The mount consists of two rigid frames, formed by tubes and metal sheets, in order to support the weight and thrust of the motors when used, which are installed in the rear portion of the vessel, so that in their working position the frames are locked transverse to the rear end. And in the open position the frames are orthogonal to the boat, so that the stern be free to embark and disembark

people or objects.

**[0027]** The present frame of the proposed invention may undergo changes to support one or more motors, in accordance with the designer and type of boat on which the support will be applied.

**[0028]** It is emphasized that the rigid structures have inflatable floatation buoys that can be installed in any part of the frame for stabilization of the vessel according to the convenience of the user, when they are in the open position.

**[0029]** It is to be understood that the device in question is extremely simple in its constructiveness, being, therefore, easily feasible, however, excellent practical and functional results are obtained, offering an innovative constructiveness over the known products.

**[0030]** Idealized with an innovative design, it results in a harmonic set, with a very peculiar and, above all, characteristic aspect, and, in addition to the constructive aspect, the product stands out for its versatility and convenience of use.

#### Brief description of drawings

**[0031]** Supplementing the present description in order to obtain a better understanding of the features of the present invention and in accordance with a preferred practical embodiment thereof, the attached description is accompanied by a set of drawings, where, in an exemplary, although not limiting manner, the following is represented:

FIG. 1 - Shows a rear view of a vessel equipped with the articulated mount for securing an outboard motor in water vessels.

FIG. 2 - Shows a top perspective view of a vessel equipped with the articulated mount for securing an outboard motor on water vessels.

FIG. 3 - Shows a rear view of a vessel equipped with the articulated mount for securing an outboard motor in water vessels, where the displaced outboard motors can be seen releasing the rear portion of the vessel.

FIG. 4 - Shows a perspective view of a vessel equipped with the articulated mount for securing an outboard motor on water vessels, where the displaced outboard motors can be seen releasing the rear portion of the vessel.

FIG. 5 - Shows a rear view of a vessel equipped with the articulated mount for securing an outboard motor in water vessels, where the outboard motors can be seen being displaced.

FIG. 6 - Shows a rear view of a vessel equipped with the articulated mount for securing only one motor and the buoys installed at the bottom of the mount, one on each side of the frame.

#### Detailed description of the invention

**[0032]** In accordance with the above figures, the "ARTICULATED MOUNT FOR SECURING AN OUTBOARD MOTOR IN WATER VESSELS", purpose of the present patent, comprises a mount with pivoting movement for securing outboard motors in vessels.

**[0033]** In more detail, the articulated mount (1) consists of two rigid structures (2) of high strength consisting of metal tubes reinforced with metal sheets, which are secured to the rear portions of the sides of the vessel (3) or at the rear corners, by means of bearings (4), making it possible to install inflatable buoys (5) in any portion of said frame. The rigid structures (2) still present appropriate conformations for the couplings of the respective outboard motors (6).

**[0034]** Each rigid frame (2) is installed on the rear portion of the vessel (3), so that in its working position it is locked in transverse to the stern. And in the open position each rigid frame (2) is orthogonal to the vessel (3), so that the stern is free for loading and unloading and the buoys (5) provide greater stability on the vessel, in this position.

**[0035]** Said bearings (4) allow the rigid structures (2) to move rotationally in asymmetry, from the center to the sides, making an arc of the order of 180°.

**[0036]** Locks, not shown in the figures, are envisaged to keep the mount (1) stable both in its working position and in the open position. Said locks are sized according to the power, size and weight of the vessel (3).

**[0037]** The described mount (1) provides for the use of two outboard motors, however optionally for the use of only one motor (6), the mount (1A) may consist of two frames of different sizes, since the frame (2A), to which the outboard motor (6) is secured, has a larger dimension than the frame (2B), so that said motor (6) is positioned in the transverse central portion of the vessel (3).

**[0038]** It is understood that when the present invention is put into practice, modifications may be introduced with regard to certain details of construction and form, without this implying departing from the fundamental principles that are clearly substantiated in the set of claims, thus being understood that the terminology employed was for the purpose of description and not limitation.

#### **Claims**

1. "ARTICULATED MOUNT FOR SECURING AN OUTBOARD MOTOR IN WATER VESSELS", **characterized by** comprising two rigid structures (2) of high strength consisting of metallic tubes reinforced with metal sheets (7), which are secured to the rear portions of the sides of the vessel (3) or at the rear corners, by means of bearings (4).  
[039] "ARTICULATED MOUNT FOR SECURING AN OUTBOARD MOTOR IN WATER VESSELS", according to claim 1, is **characterized in that** the

rigid structures (1) present pivoting movement and move rotationally in asymmetry, from the center to the sides, making an arc of the order of 180° and appropriate conformations for the couplings of the respective outboard motors (6).

2. "ARTICULATED MOUNT FOR SECURING AN OUTBOARD MOTOR IN WATER VESSELS", according to claim 1, **characterized in that** each rigid frame (2) it is possible to install inflatable buoys (5) in any part of the lower portion.

3. "ARTICULATED MOUNT FOR SECURING AN OUTBOARD MOTOR IN WATER VESSELS", according to claim 1, is **characterized in that** each rigid frame (2) is installed on the rear portion of the vessel (3), so that in its working position it is locked transversely to the stern.

4. "ARTICULATED MOUNT FOR SECURING AN OUTBOARD MOTOR IN WATER VESSELS", according to claim 1 it is **characterized in that** in the open position the rigid structures (2) are orthogonal to the vessel (3) and the inflatable buoys (5) act to provide greater stability in the vessel (3).

5. "ARTICULATED MOUNT FOR SECURING AN OUTBOARD MOTOR IN WATER VESSELS", according to claim 1 is **characterized in that** locks, not shown in the figures, are provided to keep the support (1) stable both in its working position and in the open position.

6. "ARTICULATED MOUNT FOR SECURING AN OUTBOARD MOTOR IN WATER VESSELS", according to claim 1 is **characterized in that** optionally the support (1A) may consist of two frames of different sizes, since the frame (2A), on which the outboard motor (6) is secured, has a larger dimension than the frame (2B), so that said motor (6) is positioned in the central transverse portion of the vessel (3).

#### Amended claims under Art. 19.1 PCT

1. "ARTICULATED MOUNT FOR SECURING AN OUTBOARD MOTOR IN WATER VESSELS", **characterized by** comprising two rigid structures (2) of high strength consisting of metallic tubes reinforced with metallic plates, which are secured to the rear portions of the sides of the vessel (3) or at the rear corners, by means of bearings (4).

2. "ARTICULATED MOUNT FOR SECURING AN OUTBOARD MOTOR IN WATER VESSELS", according to claim 1, is **characterized in that** the rigid structures (1) present pivoting movement and move

rotationally in asymmetry, from the center to the sides, making an arc of the order of 180° and appropriate conformations for the couplings of the respective outboard motors (6).

3. "ARTICULATED MOUNT FOR SECURING AN OUTBOARD MOTOR IN WATER VESSELS", according to claim 1, is **characterized in that** each rigid frame (2) is possible to install inflatable buoys (5) in any part of the lower portion.

4. "ARTICULATED MOUNT FOR SECURING AN OUTBOARD MOTOR IN WATER VESSELS", according to claim 1, is **characterized in that** each rigid frame (2) is installed on the rear portion of the vessel (3), so that in its working position it is locked transversely to the stern.

5. "ARTICULATED MOUNT FOR SECURING AN OUTBOARD MOTOR IN WATER VESSELS", according to claim 1 is **characterized in that** in the open position the rigid structures (2) are orthogonal to the vessel (3) and the inflatable buoys (5) act to provide greater stability in the vessel (3).

6. "ARTICULATED MOUNT FOR SECURING AN OUTBOARD MOTOR IN WATER VESSELS" according to claim 1 is **characterized in that** locks, not shown in the figures, are provided to keep the mount (1) stable both in its working position and in the open position.

7. "ARTICULATED MOUNT FOR SECURING AN OUTBOARD MOTOR IN WATER VESSELS", according to claim 1, is **characterized in that** optionally the mount (1A) may consist of two frames of different sizes, since the frame (2A), on which the outboard motor (6) is secured, has a larger dimension than the frame (2B), so that said motor (6) is positioned in the central transverse portion of the vessel (3).

First, in the opportunity to send the patent documents, more specifically regarding the Claims, there was a mistake and, in its numbering, one numbered 039 was added, ignoring the sequence of the document.

On this occasion, we will correct the numbering in its sequential order. Thus, claim 039 becomes claim 02; Claim 02 becomes claim 03, thus succeeding until the end of the document with Claim 07.

As for the claims:

- Claim 01 - it remains unchanged;
- Claim 039 - becomes numbered 02;
- Claim 02 - becomes numbered 03;
- Claim 03 - becomes numbered 04;
- Claim 04 - becomes numbered 05;
- Claim 05 - becomes numbered 06;
- Claim 06 - becomes numbered 07.

There was no need for changes to the wording of the Claims.

The formal modifications included in Table VIII of this document were also made as follows:

5

It should be clarified that changes were also made to the Specification and drawings in order to comply with what was designated by the International Authority with regard to the inadequacies found in these documents. That is:

10

- The numerical reference (7) was removed and the reference (2A) and (2B) of the drawings were rectified.

15

20

25

30

35

40

45

50

55

FIG. 1

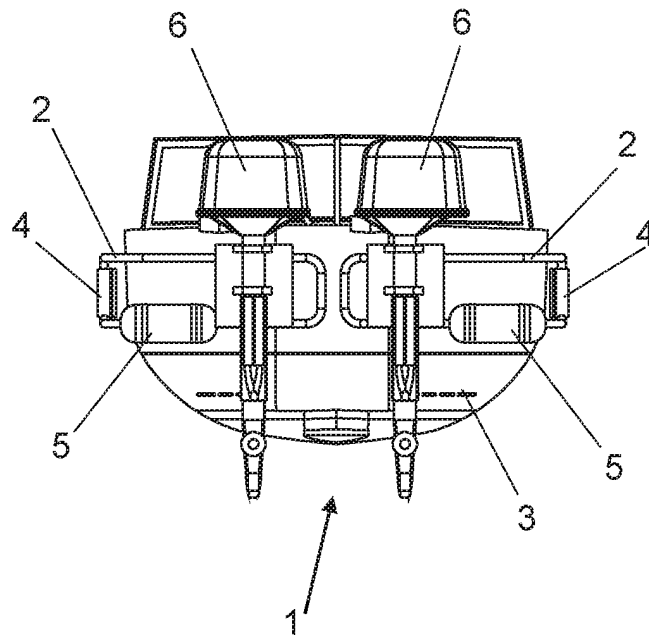


FIG. 2

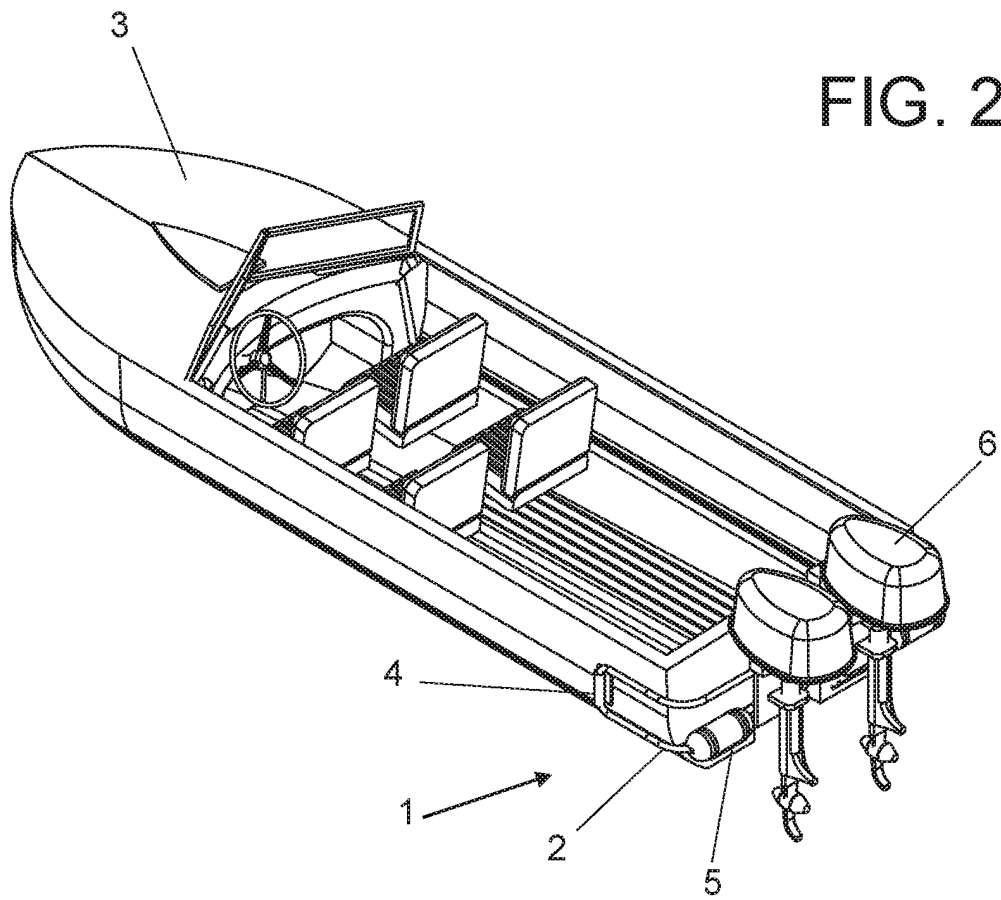


FIG. 3

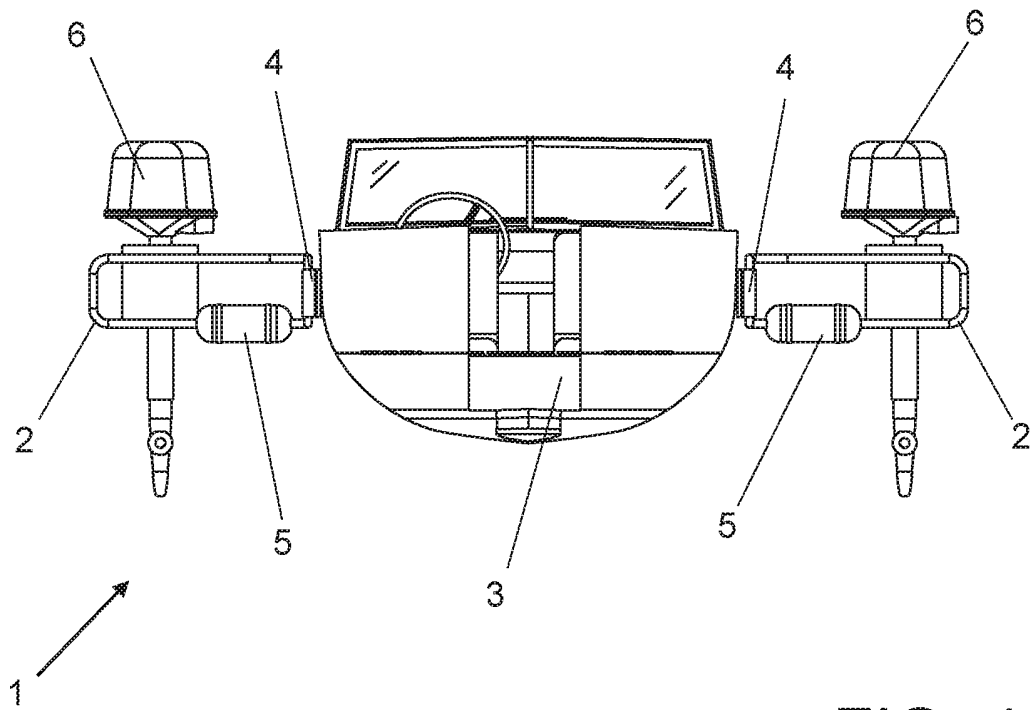


FIG. 4

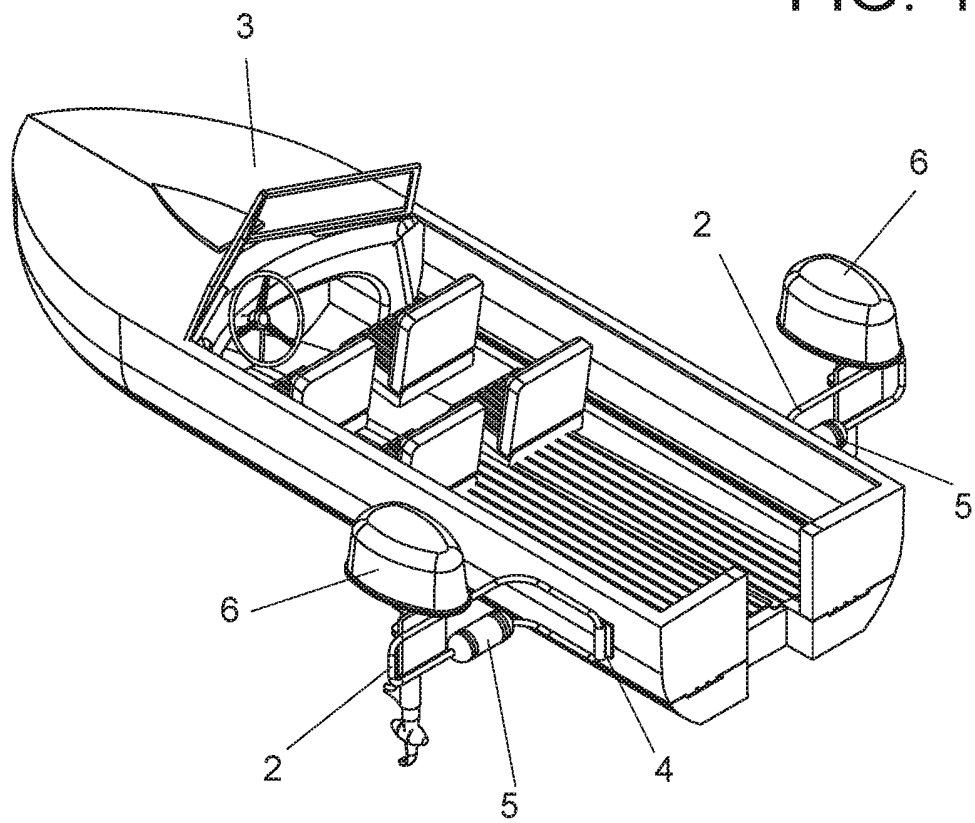




FIG. 5

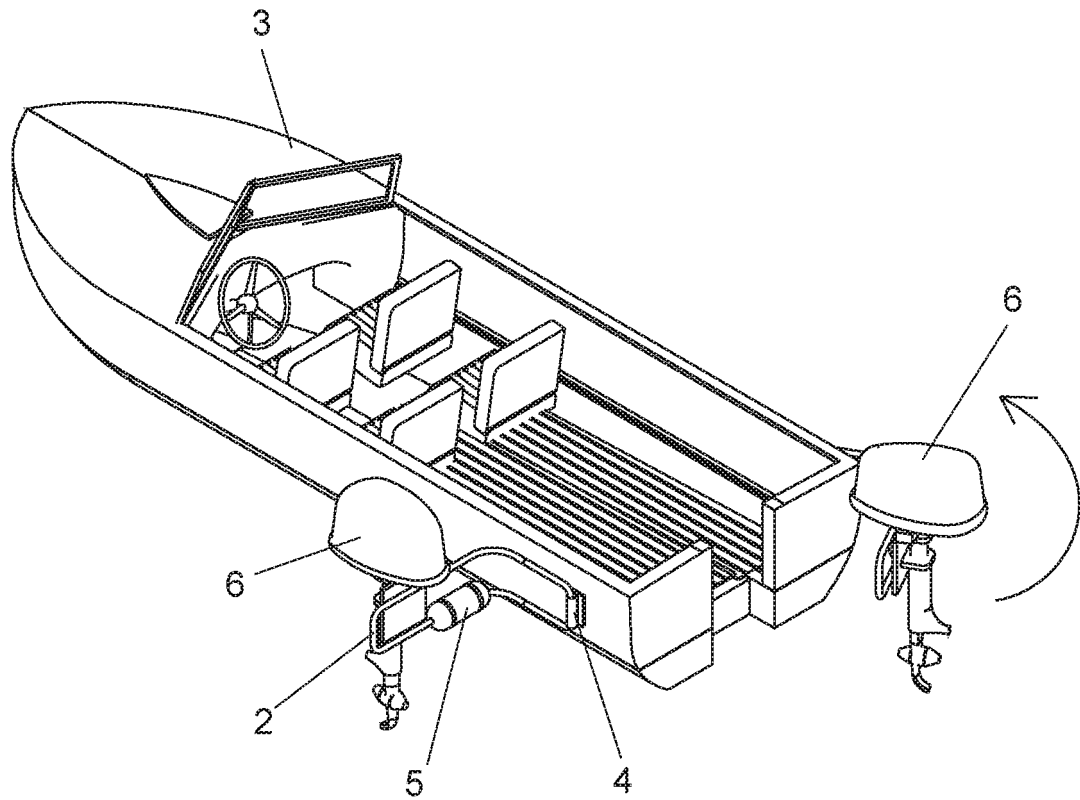
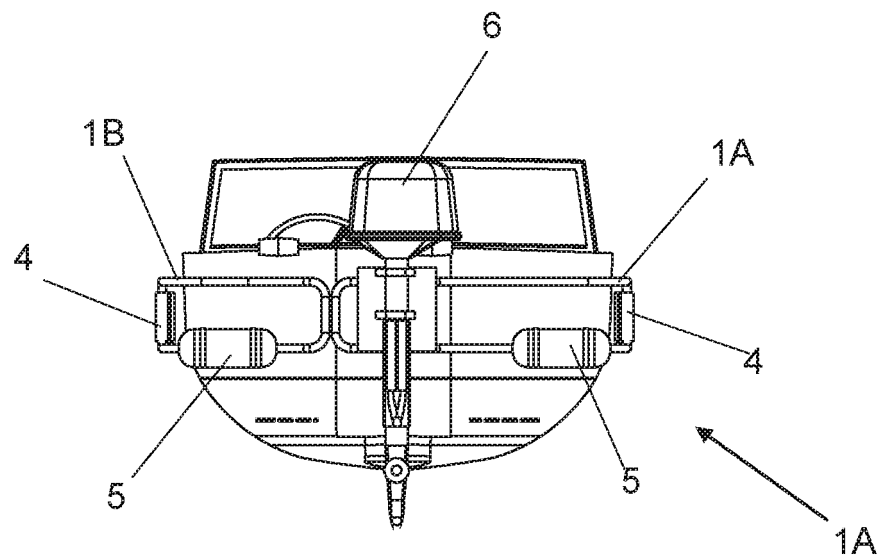


FIG. 6



## INTERNATIONAL SEARCH REPORT

International application No.

PCT/BR2022/050173

## A. CLASSIFICATION OF SUBJECT MATTER

IPC: B63H 20/08 (2006.01).

CPC: B63H 20/08.

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

B63H

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Base de dados do INPI/Br.

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

Derwent Innovation; ESPACENET; Google Patents.

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	BR 102014019264 A2 (JOSE ADILTON MARCZEWSK ME [BR]) 16 February 2016 (2016-02-16) (paragraph 009 (p.2); claim 1; Fig. 1)	1 and 6
Y	EP 3643598 AI (ULTRAFLEX SPA [IT]) 29 April 2020 (2020-04-29) (paragraphs 38 to 40; claim 5; Fig. 3, 5 and 6)	1, 3, 5 and 6
Y	US 7189127 B2 (HONDA MOTOR CO LTD [JP]) 13 March 2007 (2007-03-13) (lines 26 to 38; Fig. 1 and 2)	2 and 4.
A	WO 2010092211 AI (CIFRE MARTI MIQUEL PASQUAL [ES]) 19 August 2010 (2010-08-19) (The whole document)	1 and 6 and 39.

☐ Further documents are listed in the continuation of Box C.
 ☒ See patent family annex.

\* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&amp;" document member of the same patent family

Date of the actual completion of the international search

23 June 2022

Date of mailing of the international search report

30 June 2022

Name and mailing address of the ISA/ BR

Authorized officer

Facsimile No.

Telephone No.

INTERNATIONAL SEARCH REPORT  
Information on patent family members

International application No.

PCT/BR2022/050173

5	BR 102014019264 A2	2016-02-16	None	
	EP 3643598 A1	2020-04-29	EP 3643598 B1	2021-11-24
10			IT 201800009660 A1	2020-04-22
			US 2020130799 A1	2020-04-30
			US 11214345 B2	2022-01-04
	US 7189127 B2	2007-03-13	US 2005221695 A1	2005-10-06
15			JP 2005280625 A	2005-10-13
			JP 4240476 B2	2009-03-18
			JP 2005280627 A	2005-10-13
			JP 4240477 B2	2009-03-18
	WO 2010092211 A1	2010-08-19	ES 2386439 A1	2012-08-21

**REFERENCES CITED IN THE DESCRIPTION**

*This list of references cited by the applicant is for the reader's convenience only. It does not form part of the European patent document. Even though great care has been taken in compiling the references, errors or omissions cannot be excluded and the EPO disclaims all liability in this regard.*

**Patent documents cited in the description**

- AU 2018204072 A1 **[0010]**
- US 8011982 B1 **[0011]**
- US 6883454 B2 **[0012]**
- US 7644674 B1 **[0013]**
- US 9555865 B2 **[0014]**
- CA 2630228 A1 **[0015]**
- US 8939103 B2 **[0016]**