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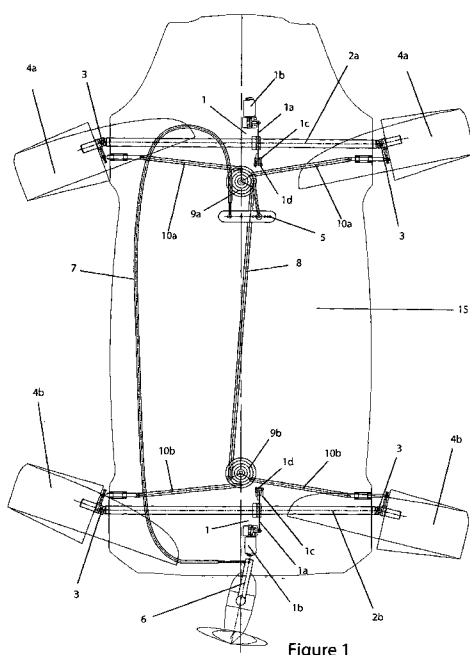
(54) Title: VESSEL CONTROL SYSTEM WITH MOVABLE UNDERWATER WINGS

Figure 1

(57) **Abstract:** The control system of the vessel with moving underwater wings allows steering with the wings (4a and 4b), while in turn the front pair of wings (4a) turns in the direction of the turn, the rear pair of wings (4b) turns in the opposite direction. The wing pairs (4a and 4b) settled in the direction of the turn radius. This reduces the turning radius and the roll of the vessel in comparison with conventional steering systems, increasing the manoeuvrability of the vessel. The minimal roll of the vessel in the turns allows for an even and maximum distance between the surface and the entire hull of the vessel. This is an advantage in wavy waters, because the waves do not crash into the hull of the vessel. This lowers energy consumption and makes for a peaceful and quiet ride. It is possible to steer the with only the motor (6), with only at least two pairs of wings (4a and 4b) at the same time or a separate a pair of wings (4a or 4b), or in a combined manner with the motor (6) and two pairs of wings (4a and 4b) at the same time or a separate pair of wings (4a or 4b). From an energy consumption standpoint the combined steering mode with the motor (6) and two pairs of wings (4a and 4b) is the most optimal type of control. The control system of the vessel with moving underwater wings, is linked to the lifting system (1), the safety brake (1c), which allows one to raise the wings (4a and 4b) over the vessel out of the water and the lower the wings (4a and 4b) under the hull of the vessel at the desired position or angle, which produces lift and thus raises the vessel out of the water during the sail at already very low speed. The brake (1c) keeps the wings (4a in 4b) in their set position. The lifting system (1) with a safety brake (1c) also has a safety function.