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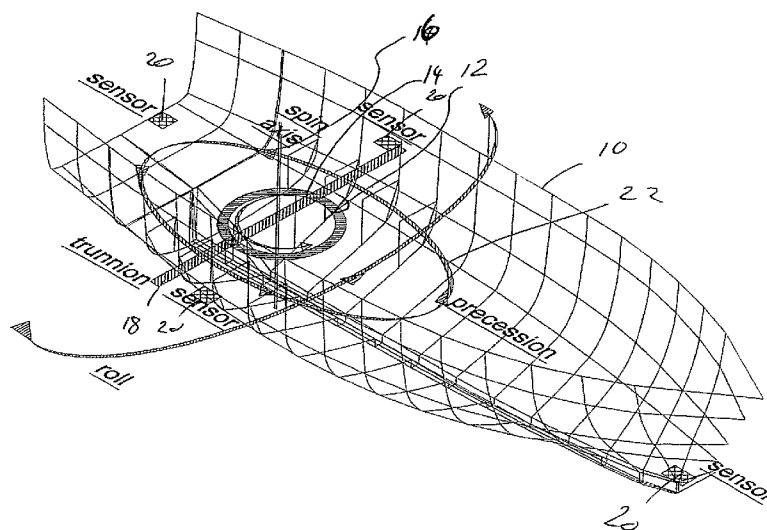
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(54) Title: VESSEL STABILISATION APPARATUS AND METHOD



(57) Abstract: A method for controlling the motion of marine vessel (10) comprises mounting a gyroscope (12) in a gimbal and fixing the gimbal inside the vessel. In one arrangement, a trunnion axis (18) of the gimbal is mounted athwart the vessel (10). Sensors (20) are mounted at various locations on the vessel (10), as well as on the gyroscope (12), to measure the motion of the vessel (10), including motion caused by wave action. Signals from the sensors (20) are processed by a computer that in turn controls a motor to apply a force about the trunnion axis (18) to the gyroscope (12) in a direction that causes the gyroscope (12) to provide a reactive torque urging the vessel (10) to follow the slope of the wave and reduce the motion in the vessel (10). Thus, the method causes the gyroscope to apply reactive force that causes the vessel (10) to follow the slope of the waves acting on the vessel. This in essence eliminates hydrodynamic and hydrostatic force on the vessel and therefore prevents resonance of the vessel (10) with the waves.



— *with amended claims*

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