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(54) **SPINNING STABILIZED SHIP**

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(57) **ABSTRACT**

MOST ships, whether they are monohulls, multihulls, displacement hulls, planing hulls or semi displacement hulls, have a bow(s), stern(s), starboard, portside, external deck(s), superstructure(s), keel(s) and are oriented along their horizontal central longitudinal axis between their bow and their stern. They are sensitive in how they orient themselves to waves that may occur in Beaufort Scale numbers 0-12 and this sensitivity increases dangerously as Beaufort Scale numbers increase and wave size increases. SSS is a spinning (rotating) stabilized ship and is dissimilar to most ships due to its rotationally symmetrical wetted surface around its vertical axis, active spinning (rotational) ship stabilization and passive ship's shape stabilization. Due to these unique active and passive stabilization features, SSS has extraordinary stability.

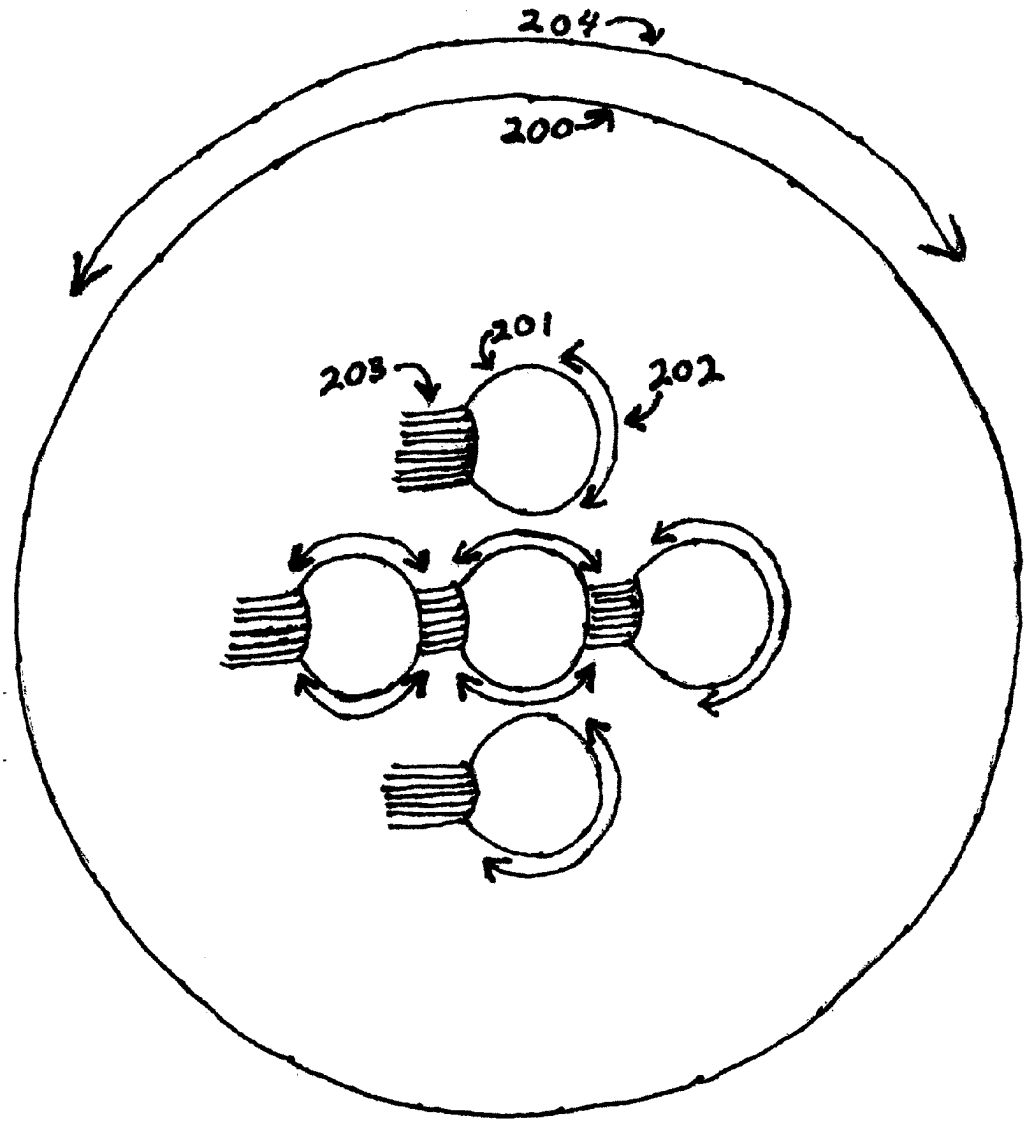

FIG 1

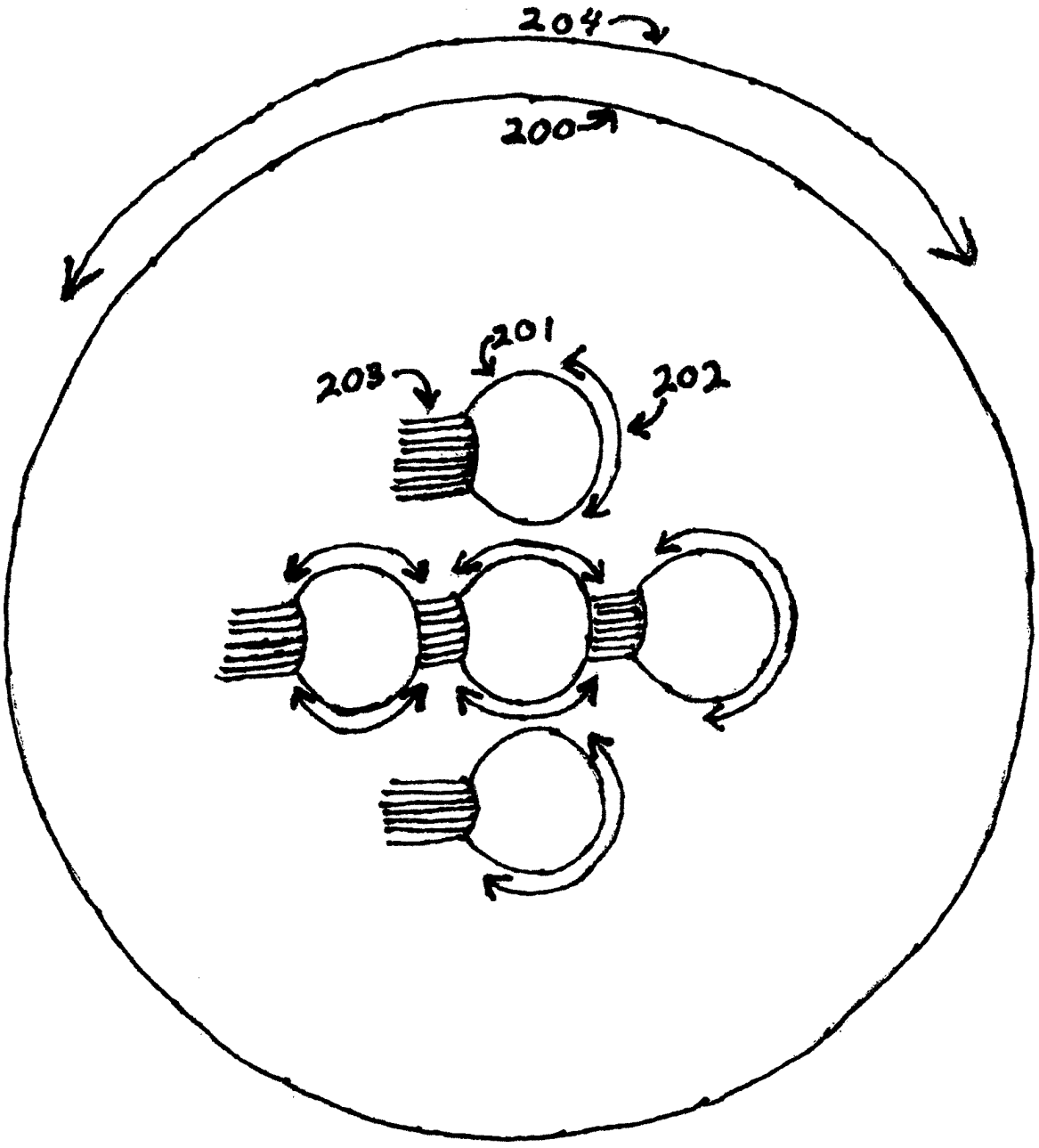

FIG 2

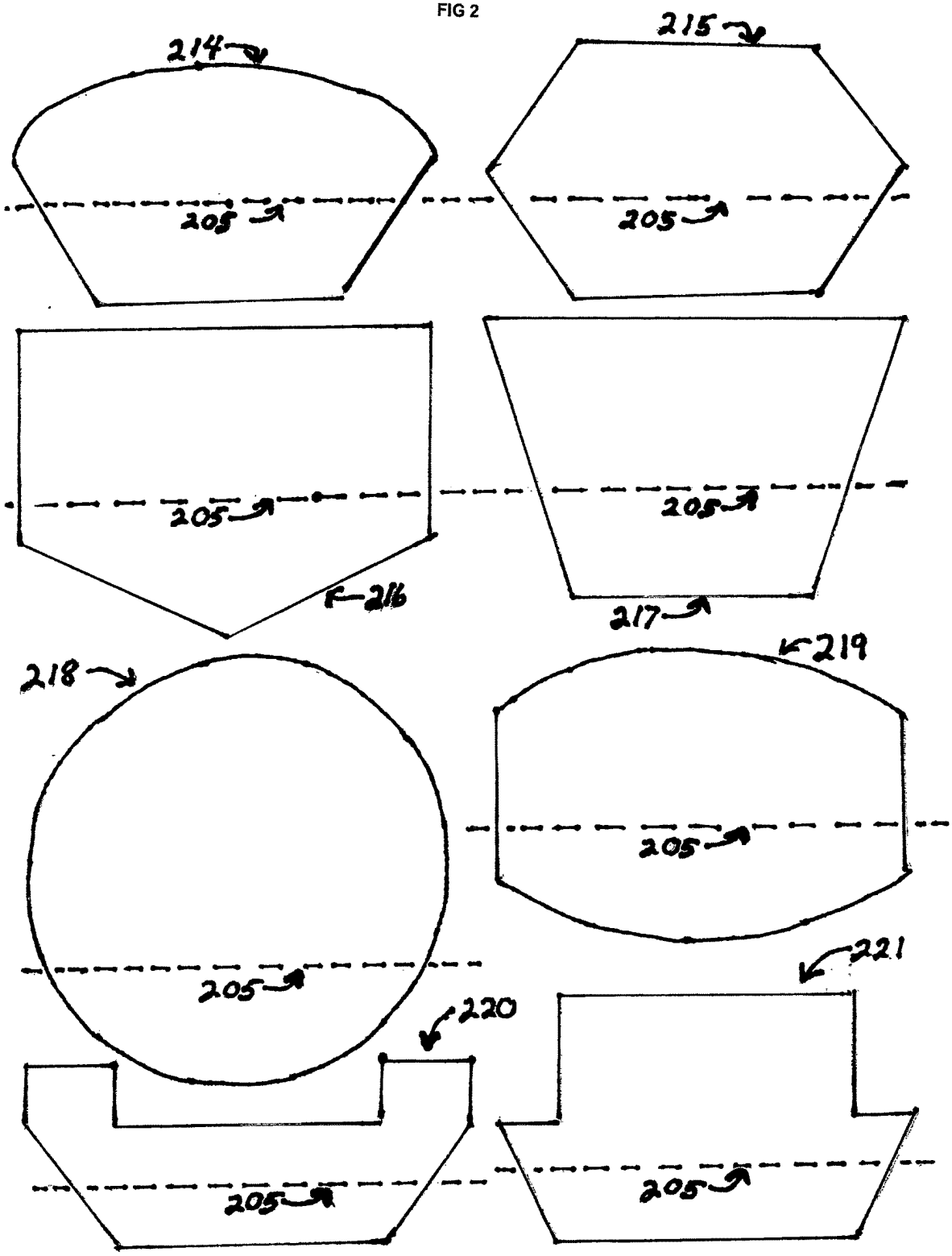
214
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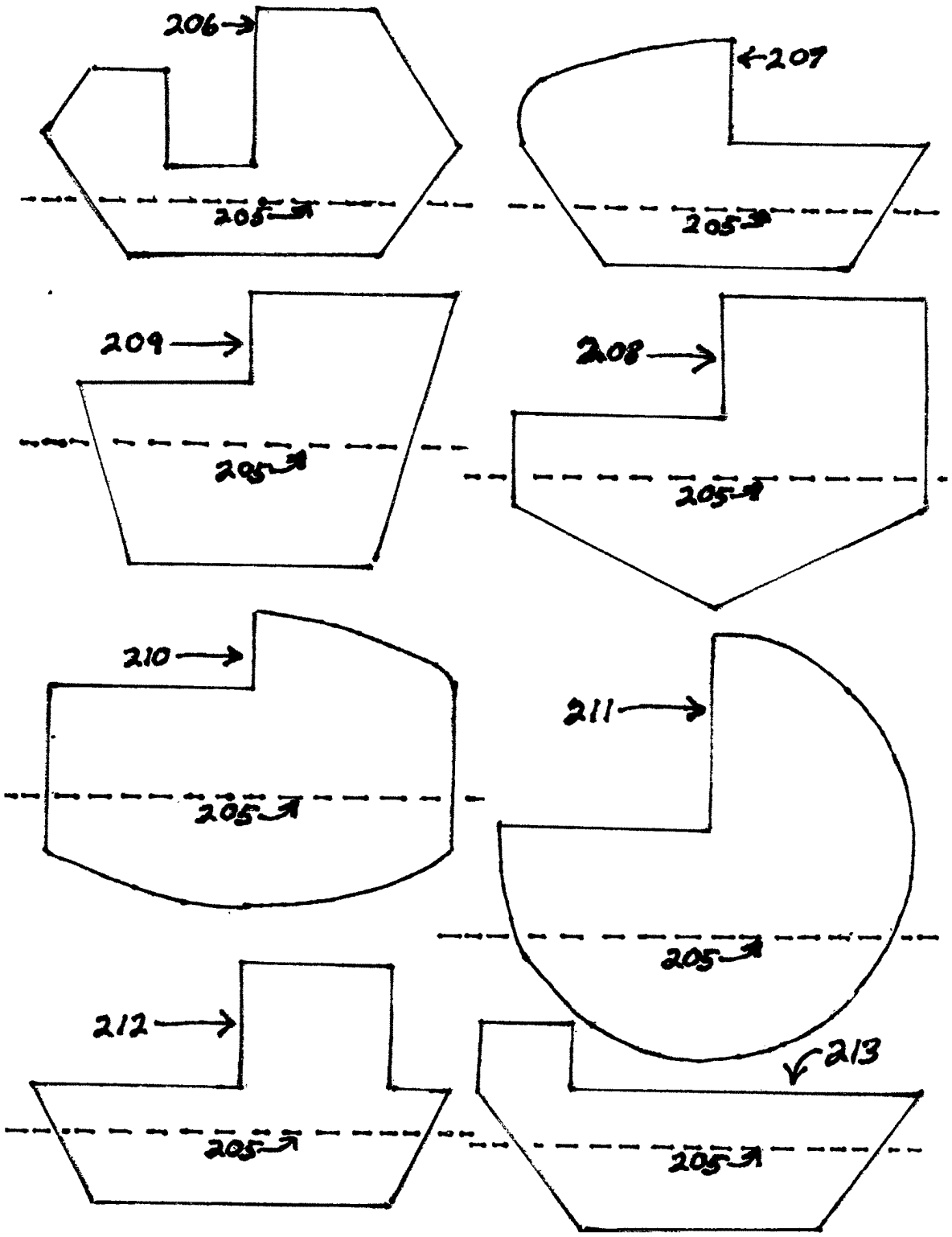
FIG 3



SPINNING STABILIZED SHIP

[0001] The present application is cross referenced to the provisional patent number U.S. 63/630,027.

FIELD

[0002] The present non-provisional utility patent application relates to a spinning stabilized ship.

BACKGROUND

[0003] MOST ships have motions such as yaw, pitch, roll, heave, sway and surge caused by waves throughout the Beaufort Scale numbers 0-12. As Beaufort Scale numbers increase in magnitude, these motions also increase in magnitude and can cause catastrophic capsizing, sinking, hull fracture, hull separation, broaching, pitchpoling, swamping, etc. MOST ships, whether they are monohulls, multihulls, displacement hulls, planing hulls or semi displacement hulls, have a bow(s), stern(s), starboard, portside, external deck(s), superstructure(s), keel(s) and are oriented along their horizontal central longitudinal axis between their bow and their stern. They are sensitive in how they orient themselves to waves that may occur in Beaufort Scale numbers 0-12 and this sensitivity increases dangerously as Beaufort Scale numbers increase and wave size increases. SSS is a spinning (rotating) stabilized ship and is dissimilar to most ships due to its rotationally symmetrical wetted surface around its vertical axis, active spinning (rotational) ship stabilization and passive ship's shape stability stabilization. Due to these unique active and passive stabilization features, SSS has extraordinary stability.

SUMMARY

[0004] SSS is not oriented along a horizontal central longitudinal axis. The wetted surface of all SSS variations must be rotationally symmetrical around their vertical axis. A sphere-shaped SSS is one of many variations which have both a rotationally symmetrical wetted surface and a rotationally symmetrical non-wetted surface around the vertical axis. All SSS variations must have spinning (rotating) ship stabilization. All SSS variations must be able to navigate with their spinning (rotating) ship stabilization either activated or deactivated. Many SSS variations might vary, in their sensitivity to how they orient themselves to waves that occur in Beaufort Scale numbers 0-12, depending on their variations of wetted surfaces and non-wetted surfaces. A sphere-shaped SSS is one variation which is insensitive to how it orients itself to waves. Many SSS variations could have a non-wetted surface which isn't rotationally symmetrical around its vertical axis combined with a wetted surface which is rotationally symmetrical around the vertical axis. SSS's loaded displacement tonnage must be balanced around its vertical axis.

BRIEF DESCRIPTION OF DRAWINGS

[0005] In the following detailed, but not to scale, portion of the present description, the teaching of the present application will be explained in more detail with reference to the example embodiments shown in the drawings, in which:

[0006] FIG. **1** is a view of the bottom of SSS.

[0007] **200** is a view showing the bottom is rotationally symmetrical.

[0008] **201** is a view showing one of several, not limited in quantity or location, 360 degree thrusters.

[0009] **202** is a view showing that the 360 degree thrusters generate thrust in a 360 degree range.

[0010] **203** is a view depicting a thruster's water propulsion wash.

[0011] **204** is a view showing SSS's rotation, which can be spinning in either direction synchronously using several 360 degree thrusters. All 360 degree thrusters provide both SSS's propulsion and rotation.

[0012] **205** is a view showing the waterline of all examples.

[0013] FIG. **2** are side views of eight examples of infinite possibilities of both an SSS's wetted and unwetted surfaces as rotationally symmetrical above and below the waterline.

[0014] **214** is a side view rotationally symmetrical above and below the waterline.

[0015] **215** is a side view rotationally symmetrical above and below the waterline.

[0016] **216** is a side view rotationally symmetrical above and below the waterline.

[0017] **217** is a side view rotationally symmetrical above and below the waterline.

[0018] **218** is a side view rotationally symmetrical above and below the waterline.

[0019] **219** is a side view rotationally symmetrical above and below the waterline.

[0020] **220** is a side view rotationally symmetrical above and below the waterline.

[0021] **221** is a side view rotationally symmetrical above and below the waterline.

[0022] FIG. **3** are side views of eight examples of infinite possibilities of a SSS with a rotationally symmetrical wetted surface below the waterline combined with non rotationally symmetrical unwetted surfaces above the waterline.

[0023] **207** is a side view rotationally symmetrical below the waterline and non rotationally symmetrical above the waterline.

[0024] **208** is a side view rotationally symmetrical below the waterline and non rotationally symmetrical above the waterline.

[0025] **209** is a side view rotationally symmetrical below the waterline and non rotationally symmetrical above the waterline.

[0026] **210** is a side view rotationally symmetrical below the waterline and non rotationally symmetrical above the waterline.

[0027] **211** is a side view rotationally symmetrical below the waterline and non rotationally symmetrical above the waterline.

[0028] **212** is a side view rotationally symmetrical below the waterline and non rotationally symmetrical above the waterline.

[0029] **213** is a side view rotationally symmetrical below the waterline and non rotationally symmetrical above the waterline.

DETAILED DESCRIPTION

[0030] SSS's interior would generally have spaces for propulsion, navigation, shelter wet decks for work and/or recreation, machine shop, hatch covered or uncovered helipad, helm, fuel, passenger and crew quarters, galley, heads, pools, hot tubs, saunas, gyms, libraries, theaters, freshwater system, sewage treatment system, auxiliary craft launch and

haul out wet deck, etc. Depending on the shape of the unwetted surface **213** of SSS, it could have an exterior deck(s) with spaces for some of the aforementioned features.

[0031] The wetted surface **218** of SSS must be rotationally symmetrical around its vertical axis.

[0032] The unwetted surface of SSS can be rotationally symmetrical **219** or not rotationally symmetrical **210** around its vertical axis.

[0033] Multiple 360 degree thrusters **201**, on the SSS's bottom **200**, are programmed to synchronously generate thrust for spinning **204** (rotating) SSS around its vertical axis, which generates gyroscopic stabilization, and generate propulsion capability **203** with a 360 degree range **202** of propulsive thrust.

[0034] SSS generates a 360 degree range of propulsive thrust **203** when it isn't spinning (rotating).

[0035] SSS's wetted surface can be shaped rotationally symmetrical **214** around its vertical axis like a hemisphere **218**, semi ellipse **219**, cylindrical segment, conical frustum **217**, etc.

[0036] The non-wetted surface can be any shape(s) as long as it doesn't interfere with the spinning (rotation) of SSS. SSS's size should be large enough to spin (rotate) its mass at a gyroscopic spin rate which is tolerable and safe for humans onboard without generating excessive centrifugal force inside, like what can happen if too small of a SSS is built. Is SSS a ship or a boat? Consider "ship versus boat". "A ship can carry a boat(s) but a boat can not carry a ship(s)".

1. SSS has a rotationally symmetrical wetted surface around its vertical axis.

2. SSS can generate a 360 degree range of propulsive thrust around its vertical axis using 360 degree thrusters.

3. SSS can generate thrust for spinning (rotating) itself around its vertical axis to generate gyroscopic stabilization using 360 degree thrusters.

4. SSS can generate thrust to synchronously spin (rotate) itself and generate propulsive thrust in a 360 degree range around its vertical axis using 360 degree thrusters.

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