CLAIMS

What is claimed is:

1. A floating driller comprising:

a. a hull with a hull plan view that is circular or polygonal, wherein the hull comprises:

(i) a bottom surface;

(ii) a top deck surface; and

(iii) at least two connected sections engaging between the bottom surface and the top deck surface, the at least two connected sections joined in series and symmetrically configured about a vertical axis with one of the connected sections extending downwardly from the top deck surface toward the bottom surface, the at least two connected sections comprising a lower conical section and at least one of:

(1) an upper conical portion in profile or section view with a sloping side extending from the top deck surface; and

(2) the cylindrical neck section in profile view; wherein

the lower conical section is in profile view with a sloping side extending from the cylindrical neck section;

b. at least one extending fin with an upper fin surface sloping towards the bottom surface and secured to and extending from the hull, the at least one extending fin configured to provide hydrodynamic performance through linear and quadratic damping, and wherein the hull provides added mass

with improved hydrodynamic performance through linear and quadratic damping to the hull, and wherein the floating driller does not require a retractable center column to control pitch, roll and heave

c. a plurality of sloping connected sides forming the lower conical section, each sloping connected side having at least one of: identical angles for each sloping side and different angles for each sloping side; and

d. a sloping extension segment between the plurality of sloping connected sides.

2. The floating driller of claim 1, wherein the hull is a shape inscribed within a circle.

3. The floating driller of claim 1, comprising a dynamic positioning system with thrusters for providing positioning of the floating driller.

4. The floating driller of claim 1, wherein the at least one extending fin comprises added mass resulting in additional fluid displacement that improves heave control of the floating driller.

5. The floating driller of claim 1, wherein the at least one extending fin is a plurality of segmented extending fins aligned with each other and attached circumferentially around the hull.

6. The floating driller of claim 1, wherein the extending fin comprises a planar face on a distal end of fin, the planar face in parallel with a vertical axis of the floating driller.

7. The floating driller of claim 1 comprising a recess in the hull and wherein the recess is a moon pool.

8. The floating driller of claim 1, wherein the extending fin is a tapered plate extending from the hull.

9. The floating driller of claim 1, wherein the polygonal shape of the hull comprises a plurality of flat planar metal plates forming a curvature of the hull.

10. The floating driller of claim 1, wherein the extending fins are tanks.

11. The floating driller of claim 1, comprising an extending bottom edge extending from the extending fin decreasing hull motion.

12. The floating driller of claim 1, wherein the sloping extension segment comprises a plurality of segments having a multitude of sloping configurations.