An improved boat hull which is useful for various types of boating activities; having a top or perimeter surface, curvilinear bottom surface, curvilinear side surfaces, curvilinear front and rear surfaces. Hull is formed, fabricated or manufactured as a combination of compound curves and straights. The top or perimeter of the hull is to be attached to a standard or non-standard deck configuration. The front, sides and rear of the hull are convex, concave, compound curves and straights, for engaging in contact with water and with a combination of water and air. The front end or bow section of the hull features primarily convex/outward construction in a rounded or somewhat of a ‘v’ shaped configuration, while the remaining portion of the hull graduating to the rear and exiting at the stern, or transom, features a series of concave and convex curves and straights producing a dual-hull or somewhat of a double ‘v’ tunnel configuration. The hull in cross-section longitudinally is a mirror image of itself and is symmetrical.
BOAT HULL. BOAT HULL DESIGN. BOAT MULTI-HULL DESIGN. BOAT HULL DESIGN COMBINING CONCAVE AND CONVEX CHARACTERISTICS. BOAT HULL DESIGN COMBINING MONO-HULL AND DUAL-HULL. BOAT HULL DESIGN COMBINING SINGLE-HULL AND DOUBLE-HULL. BOAT HULL DESIGN WITH CONVEX BOW AND COMBINATION CONVEX AND CONCAVE STERN.

BACKGROUND OF THE INVENTION

[0001] 1. Field of the invention

[0002] This invention relates to an improved boat hull featuring a combination mono-hull and dual-hull configuration and characteristic, which when under power will remain stable when underway, especially at high speeds. Boat hull has stability characteristics from side to side and end to end when interacting with water, air and wind. Boat hull, as a result of its diversity, can also be used on sailing vessels.


[0004] Previous hulls used in speed and performance situations have experienced serious safety problems, most dramatically, boats flipping as a result of conventional mono-hull or dual-hull designs. Boat hulls, specifically racing, pleasure and or performance boat hulls, have been produced over many years with the ongoing problem of steering, stability and flipping, which can cause serious problems to the occupants or those that are nearby. Conventional boat hulls when underway, especially at high speeds can be jolted to an almost perpendicular configuration, with bow upright sitting on stern, as a result of the unpredictable interaction with water, wind and air, and do not have the ability to right or correct themselves.

SUMMARY OF THE INVENTION

[0005] This boat hull design combines the characteristics of both mono-hull and dual-hull. Approximately ½ to ¼ of bow portion of the boat is mono-hull, while approximately the remaining ⅜ to ⅓ of hull, ending at stern, is dual-hull catamaran type. When underway, this combination convex and concave hull, consisting of compound curve and straits, captures water and air simultaneously, creating both a hydrodynamic and aerodynamic wing, enabling the boat to correct itself. This boat hull design provides better stability and control, especially at high speeds. Boat hull is designed for racing power/performance boats and pleasure/power boats, remote controlled model racing/performance boats and pleasure/power boats. Boat hull design can also be utilized for non-remote controlled model boats. Boat hull design may also have benefits in the sailboat arena.

BRIEF DESCRIPTION OF THE INVENTION

[0006] In the accompanying drawings,

[0007] FIG. 1 is a bottom/underside ¾ view of the boat hull, depicting the hull from the stern perspecting to the bow.

[0008] FIG. 2 is a ¾ view of the boat hull on its side, depicting the hull from the bow perspecting to the stern.

[0009] FIG. 3 is a ¾ view of the boat hull on its side, depicting the boat from the stern perspecting to the bow.

[0010] FIG. 4 is a top ¾ view of the boat hull on an angle, depicting the hull from the stern perspecting to the bow.

[0011] FIG. 5 is a side view elevation of the boat hull bottom, with the hull resting on its side.

DESCRIPTION OF THE INVENTION

[0012] Referring to the accompanying drawings, pertaining the improved hull therein illustrated;

[0013] FIG. 1 illustrates an underside view and depicts a dual-hull concave configuration consisting of compound curves and straits, starting at the stern, gradually detailing a convex mono-hull configuration ending at the bow.

[0014] FIG. 2 illustrates and depicts a mono-hull convex bow configuration, consisting of compound curves and straits, gradually indenting, detailing a concave dual-hull configuration exiting at the stern.

[0015] FIG. 3 illustrates and depicts a dual-hull concave configuration and mono-hull convex configuration, with the dual hull concave characteristic starting at the stern and perspecting to mono-hull convex configuration ending at the bow.

[0016] FIG. 4 depicts a dual-hull convex configuration at the stern which gradually becomes a convex mono-hull configuration at the bow.

[0017] FIG. 5 illustrates and depicts a combination single hull starting at the bow graduating to a combination concave an convex dual-hull ending at the stern.

[0018] Yet other variations and modifications of the illustrated embodiments may be achieved without departing from the spirit and scope of the invention as defined by the following claims.

I claim:

1. A boat hull whose outward appearance somewhat resembles that of conventional hulls but whose underside characteristic reveals a combination of convex, concave, curves and straits; and that this combination of convex, concave, curves and straits, creates a hull which provides both hydrodynamic and aerodynamic characteristics and appearance when stationary or underway, further comprising:

1. A dual propulsion or single propulsion system.
2. A dual rudder or single rudder steering system.
3. An air-cooled or liquid-cooled propulsion system.
4. A gasoline powered, electrical powered, jet powered, diesel powered, turbo powered, ethanol powered, nitro powered, or powered by alternative energy system.
5. A fabrication process typical to the boating industry including fiberglass, wood, aluminum, ferro-cement, carbon fiber, and alternative fabrication processes.
6. A manufacturing process typical to the boating industry including thermo-forming, vacuum-forming, rotational molding, injection molding, and alternative manufacturing systems.
7. A hull that can be used in either fresh, brackish or salt water.
8. A hull that can be used for/with racing craft or pleasure craft.

9. A hull that can be used for full-size power boats or remote control scale models, or non remote control scale models.

10. A boat hull that combines the benefits of hydrodynamics and aerodynamics.

11. A boat hull that when underway captures air and wind simultaneously resulting in an aerodynamic effect.

12. A boat hull that when underway captures air and wind and interacts with water resulting in a hydrodynamic effect.

13. A boat hull that when underway lifts at the convex bow end, as a result of wind and water forces, and corrects or stabilizes itself when combination of air and water make contact with the gradual concave compound curves and straights between the dual-hull configuration exiting at the stern.

14. A boat hull that when underway rides on water and causes a hydrodynamic effect.

15. A boat hull which through its diversity can be used on sailing vessels.

16. A boat hull that when angled side-to-side allows the boat to stabilize itself as both water, air and wind work together simultaneously.

17. A boat hull that features a somewhat conventional appearance from the exterior.

18. A boat hull whose single hull graduates to a dual-hull configuration and whose dual-hull becomes a tunnel, which captures water and air and wind simultaneously, when exiting at the stern, preventing the boat from flipping end over end from stern to bow or bow to stern.

19. A boat hull, whose undercarriage creates a hydrodynamic and aerodynamic wing.

20. A boat hull, whose design is predicated on its combination convex and concave characteristics. This hull starts as a convex bow with compound 3-dimensional curves and graduates to a convex tunnel dual-hull mid section and stern, with a combination of concave and convex compound surfaces.

21. A boat hull design that begins as a single bow front graduating to a dual-hull or catamaran type stern.

22. A boat hull which has the ability to help prevent an end over end potentially uncontrollable catastrophic situation, in situations when air and water interact creating an unpredictable scenario.

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