

## RULE 22 - TECHNICAL RULES – ALL CLASSES

### 22.1 OVERVIEW

22.1.1 The following are the general requirements and technical rules that apply to all classes (Stock, Limited, Open, Modified and GP). For the Amateur Ski Box Stock class see rule The decision of the Technical Inspector and/or Race Director regarding modifications will be final. Any question regarding the legality of modifications should be directed to the APBA prior to use in competition.

### 22.2 SOUND LEVEL

22.2.1 The sound level shall not exceed 86 decibels measured at a distance of 75 feet. For Runabout Open classes only, the sound level shall not exceed 100 decibels measured at a distance of 75 feet. **For GP Ski class only, the sound level shall not exceed 95 decibels measured at a distance of 75 feet.**

22.2.2 If local regulations prevent a sound increase to 100 decibels for the Runabout Open classes **or 95 decibels for GP Ski**, the Race Director may institute the same 86 decibel limitations that apply to all other classes. If the 86 db limitation is required to be enforced, the Race Director or Promoter must give adequate notice to all competitors. Any notice greater than 20 days will be deemed adequate notice by the APBA.

### 22.3 FUEL

22.3.1 Fuel must consist of unleaded gasoline only. For the purpose of this rulebook "gasoline" is defined as a mixture of hydrocarbons and oxygen bearing compounds with the following clarifications:

- Oxygen content must not increase the specific energy of the gasoline.
- Oxygen content must not exceed 3.7% by weight.
- Oxygen content must have been blended in by the refiner or the fuel manufacturer.
- Specific gravity must be between: .715 - .770 at 60°F (15°C).
- The only allowable oxygenates are ethers and alcohols. Epoxides (example: propylene oxide) will not be considered ethers. Nitrogen bearing compounds are not allowed.
- Most commercially produced unleaded fuels and oils will meet these criteria. However some may contain additional additives that do not to meet these criteria. If a racer is unsure about his/her fuel the racer should have it tested by a Technical Inspector.

22.3.2 **Failure to not meet the APBA fuel criteria is punishable by a fine at the discretion of the Race Director not to exceed \$100.**

## 22.4 TOW STRAP

- 22.4.1 All watercraft must have a flexible tow loop or tow strap attached to the bow of the watercraft. The tow loop should be made of some type of flexible material (example: plastic coated braided steel, nylon strap, etc.) so as not to create a hazard. Watercraft equipped with tow hooks that protrude beyond the plane of the hull must remove the tow hook. It is the rider's responsibility to provide an adequate tow strap on the front of their watercraft. Racers failing to have a tow strap on their watercraft, or having a tow strap that breaks while in tow, may be fined and/or disqualified at the discretion of the Race Director.

## 22.5 TETHER SWITCH/LANYARD

- 22.5.1 In the event that a rider crashed or becomes dislodged from his/her watercraft, and the engine continues to run, and the tether (safety disconnect) switch fails to function, or is not properly fastened or attached to the rider or rider's life vest, the rider will be disqualified from the heat that the infraction occurred. It is the rider's responsibility to fasten the tether securely.
- 22.5.2 Tether/Lanyard may not be wrapped around the handlebar or any other part of the watercraft during a race. The lanyard must be attached to the rider and be able to disconnect and stop the engine in the event the rider becomes separated from their watercraft. Riders wrapping the tether around the handlebar will be subject to penalty or fine at the discretion of the Race Director.
- 22.5.3 Riders are allowed two (2) tethers/lanyards on their person while racing. One will be the primary, and the second will be a backup in the event that the primary lanyard should fail or get lost. Riders plugging in a back up lanyard, while the primary lanyard is held above head, in the case of a dead engine restart (penalty), will receive an automatic disqualification.

## 22.6 GENERAL MAINTENANCE

- 22.6.1 **General Replacement Parts:** Replacement of general maintenance parts (e.g., spark plugs, spark plug wires, spark plug caps, wiring, seals, water hoses, fuel lines, clamps and fasteners) shall not be restricted to original equipment. **Aftermarket pump and driveshaft bearings are allowed.**
- 22.6.2 **Starter:** Replacement starter motor and bendix may be used.
- 22.6.3 **Oil Injection:** The Oil Injection system may be disconnected or removed.
- 22.6.4 **Engine Mounts:** Replacement engine mounts may be used.
- 22.6.5 **Repairing Stripped Threads:** Stripped threads must be repaired to the original size.
- 22.6.6 **Fasteners:** Fasteners (e.g., bolts, nuts and washers) may not be substituted with titanium pieces in Stock and Limited classes unless originally equipped. Fasteners may integrate locking mechanisms.

- 22.6.7 **Batteries:** Replacement batteries are allowed but must fit into the original equipment battery box and must be securely fastened. Relocation is allowed in Limited and Open Runabout classes only.
- 22.6.8 **Bilge Pump:** The original bilge pump may be modified or disconnected. Aftermarket bilge draining systems that do not create a hazard are allowed.
- 22.6.9 **Crankcase Repairs:** Repairs to cracked or punctured crankcases may be made provided only one damaged area affecting one cylinder bank has been repaired. No other modifications or repairs are allowed.

## 22.7 COSMETIC CHANGES

- 22.7.1 **Hull:** Padding and/or mat kits may be added and custom painting is allowed. The surface finish of any metal component outside the hull area above the bond flange may be painted, polished or plated.
- 22.7.2 **Hull Repairs:** Hull and deck repairs may be made to a watercraft. Repairs must not alter the original configuration of the outside hull by more than 2.0 mm (0.08 in.). **Ski division watercraft may reinforce the hull to provide strength for the hull to withstand impact of course obstacles as long as the original configuration of the outside of the hull is not altered by more than 2.0 mm (0.08 in.).**
- 22.7.3 **Storage, Mirrors, Handles and Gauges:** Drop-in type storage buckets, bolt-on type mirrors, handles and gauges may be modified, aftermarket, or removed provided a hazard is not created. Mirrors not removed that contain glass must have the glass covered with tape or some other material to prevent the glass from shattering. No additional airflow may be created by the removal of mirrors in Stock classes.
- 22.7.4 **Engine:** External modifications to the engine finish (e.g., painting, plating or polishing) are allowed for cosmetic purposes only.
- 22.7.5 **Bumpers/Siderails:** Replacement bumpers and side rails may be used provided a hazard is not created.
- 22.7.6 **Spray Deflector:** A soft, flexible type water spray deflector may be attached to the hull sides or to the bond flange of the watercraft provided a hazard is not created. No part of the spray deflector may extend beyond the perimeter of the original equipment bumper or side moldings as measured by a plumb line.

## 22.8 SPONSONS

- 22.8.1 **General Rule:** All watercraft may be equipped with a maximum of two sponsons. Sponsons may be aftermarket, modified, repositioned or removed. The overall length of each sponson shall not exceed 36.0 in (91.45 cm). Sponsons shall not protrude from the side of the hull by more than 3.94 inch (100 mm) when measured in a level horizontal plane. Sponsons must be made of one piece - two pieces that screw together to create one piece is allowed. All parts of the sponson must be made of safe material that would not injure another rider should the part fall off or be struck in the sponson area. Wood is not an acceptable material.

- 22.8.2 **Runabout Division Only:** No part of the sponson shall extend downward below the point at which the side of the hull intersects the bottom surface of the hull by more than 2.5 inch (63.5mm). Aftermarket or modified sponsons must exceed .24 inch (6mm) in thickness. All leading edges must be radiused so as not to create a hazard. Sponsons may not be attached to the planing surfaces of the hull.
- 22.8.3 **Ski Division Only:** Sponsons may be attached to the inside of the bond flange, but no part of the sponson may extend more than 2.0 inch (51.00mm) below the lower part of the bond flange (bumper removed). Sponsons that are attached to the inside of the bond flange shall not protrude outside the bond flange (bumper removed) when measured in a level horizontal plane.

## 22.9 STEERING SYSTEM

- 22.9.1 **Handlebar:** Handlebar, grips, throttle, throttle cable may be modified or aftermarket. The handlebar cover may be modified or removed. The handlebar must be padded at the mounting bracket or, if it has a crossbar, the crossbar must be padded.
- 22.9.2 **Switches:** Aftermarket switches and switch housings may be used.
- 22.9.3 **Steering Shaft and Components:** Steering shaft, steering shaft holder and handlebar holder may be aftermarket. Quick-turn steering modifications to alter steering ratio are allowed. Aftermarket steering cables will be allowed.
- 22.9.4 **Handlepole - Ski Division Only:** Handlepole assemblies and mounting bracket may be modified or aftermarket provided it functions as originally designed. Handlepole length may be shortened or lengthened. Handlepole attaching point may be reinforced. Handlepole springs will be allowed.
- 22.9.4 **O.P.A.S Block-Offs: Off Power Assisted Seering (OPAS) block-offs may be used on Sea-Doo watercraft models equipped with this feature to fill in the void from the removal of this product for racing. Both the Riva Performance OPAS block-offs and Pro Series block off have been approved for APBA racing in all classes. Other types of products by different aftermarket manufacturers will be approved on an individual basis.**

## 22.10 OTHER GENERAL RULES

- 22.10.1 **Intake Grate:** The Intake grate may be modified or aftermarket. The Intake grate must be the full-length type with at least one bar running parallel to the drive shaft. Grates may not extend more than 0.47 in. (12mm) below the flat plane of the pump intake area. All leading edges must have radiuses so as not to create a hazard.
- 22.10.2 **Ride Plate:** The ride plate or pump cover plate may be modified or aftermarket. An extension may be added to the rear of the pump cover plate. The extension shall not exceed the width of the original equipment plate. Modified and aftermarket plates must not extend more than 3.94

in. (100.0mm) beyond the end of the original equipment plate for Ski and Sport Divisions or 7.00 in. (177.80mm) for the Runabout Division. The sides of the extension must be connected to the radiused portion of the pump plate so as not to create a hazard. Fins, rudders, skegs and other appendages that may create a hazard will not be allowed.

- 22.10.3 **Impeller:** Impeller may be modified or aftermarket. The original diameter must be maintained in Stock class.
- 22.10.4 **Pump:** Replacement wear rings that are within OEM internal diameter specifications may be used. **Replacement wear rings must be of the same OEM material in Stock class.** Silicone adhesive sealant may be used in addition to original equipment seal to seal the pump inlet. If equipped, a visibility spout must be removed or plugged.
- 22.10.5 **Fuel Tank:** Fuel tank must be OEM as supplied by the OEM manufacturer. An OEM fuel tank is the only tank that can be used to supply fuel to the engine.

## **RULE 23 - TECHNICAL RULES – STOCK CLASSES**

### **23.1 OVERVIEW**

- 23.1.1 The intent of the Stock class rules is to establish a venue in which all riders and machines can compete at their own level with a relatively modest investment in equipment and maintenance costs. These rules are definitions and guidelines for allowable modifications or alterations. If a definition, modification or alteration is not cited, then it is to be construed that no modification, alteration or change can be made to the component unless it is specifically approved by the APBA Rules Committee. Original equipment parts may be updated to newer original equipment parts of the same model. The part must be a bolt-on type part that requires no modifications to that part or any other parts except where rules allow substitutions or modifications. The rules and regulations below are in addition to all General Technical rules listed in Rule 22.

### **23.2 AMATEUR SKI BOX STOCK**

- 23.2.1 **Overview:** For the 2008 season the APBA has created a new class to provide an inexpensive class with minimal cost and modifications allowed to participate in the class. The class is open to all Ski models with a stock OEM horsepower rating of 85 hp or less. All the General Technical rules listed in Rule 22 are allowed with the following exceptions:
- 23.2.2 **General Replacement Parts:** Replacement of general maintenance parts (e.g., spark plugs, wiring, seals, water hoses, fuel lines, clamps and fasteners) shall not be restricted to original equipment. Aftermarket water hoses must be the same length and size as the OEM hose it is replacing. All fittings must remain OEM. Aftermarket pump and driveshaft bearings must be OEM.