

2019 AQUAX AM 300HP & 200HP ENDURO TECHNICAL RULES



IF THE RULES SAY - YOU CAN DO THIS - YOU CAN. IF THE RULES DO NOT SAY YOU CAN DO IT, THEN ASSUME THAT YOU CANNOT UNTIL YOU CHECK WITH THE SERIES ORGANIZER.

AX60. ENDURO CLASS RULES - ENDURO 300, 200, CUP

The AquaX 300hp and 200hp are open to personal watercraft designed for two or more people and have a seat. The must remain strictly stock as supplied by OEM except where rules allow.

Note: Once a specific race series/championship has started new craft that are produced and launched before the completion of the series will not be accepted to race in that series.

To clarify - If a series starts in April and finishes in November, new models produced and launched by the manufactures in September will not be allowed to compete in the remainder of the series. However new models can be used in competition in events that begin after September. This ruling only affects brand new models and not current models that have received no hull or engine upgrades from the previous version.

Entrants are divided into classes according to watercraft engine capacity or rider ability. The Series Organizer retains the right to allow special dispensation to downgrade or upgrade a watercraft into a class less than or more than its OEM rated HP if it is deemed at a disadvantage or advantaged. Watercraft that come under this rule will be named in the specific class rules and will not be reassigned during the course of the season.

- (a) **300hp** - all craft from 200hp up to and including 300bhp when furnished by the manufacturer are allowed to compete in the 300bhp class.
 - 1. Kawasaki 310hp & Belassi 315hp Watercraft have been given special dispensation to compete in the 300hp class. The latter subject to test and technical manual availability.
 - 2. Yamaha SVHO models must compete the AquaX 300hp or Pro class.

- (b) **200hp** - Naturally aspirated four stroke craft up to 200bhp are allowed to compete in the 200bhp class.
 - 1. The Honda AquaTrax (1200cc N/A turbo charged only) Watercraft has been given special dispensation to compete in the 200 class.
 - 2. Kawasaki 15f/LX models will be permitted to run the additional rules set out under Appendix 5. Kawasaki 15f/LX models will be raced and scored with the Am200hp class. EuroTour only.

- (c) **Cup** – AquaX Cup events only - The Cup is open to all comers, including those with modified craft and whose craft are technically illegal for the AquaX championships. Cup class racers are not eligible for World Ranking points.
 - 1. Cup racers are only eligible for event specific points and prizes noted in the Race Instructions. All entrants must adhere to the general rules and regulations of competing in an AquaX event.

AX61. CRAFT COMPLIANCE

- (a) Watercraft competing in 300 and 200 horsepower classes must conform to the specifications that follow.

All watercraft must remain strictly stock as supplied by OEM and comply with maximum speed limits set by P1, except where rules allow. Changes or modifications not listed here are not permitted. P1 may allow additional modifications to Stock Classified PWC which provide for replacement/reinforcements to parts and components (i.e. intercooler end caps, brackets, fittings, etc.) that have known failure risks in race conditions.

TO CLARIFY SPEED LIMIT

The P1 AquaX tech teams will work to a maximum speed of 70mph with a tolerance no greater than 2.5% (71.75mph).

A mandatory P1 tracker system will be fitted to the watercraft and will sample speeds 10 times per second during a race, any craft holding in excess of this speed tolerance for **3 seconds** (30 samples) or more will be disqualified.

The speed limit is set by data gathered from testing race craft in racing conditions. Models are tested for top speed, average speed and acceleration.

- (b) Hull & engine identification Numbers must be displayed as furnished by the manufacturer.
- (c) When rules permit, or require equipment to be installed, replaced, altered or fabricated, it is the sole responsibility of the rider to select components, materials and/or fabricate the same so that the watercraft operates safely in competition.
- (d) Original equipment parts may be updated to original equipment parts of the same make and model providing there is no performance gain. The part must be a bolt-on requiring no modifications to that part or any other parts except where rules allow substitutions or modifications.
- (e) Like for like parts that do not offer any performance enhancing characteristics may be used. If unsure contact the Series Organizer for assistance.
- (f) Bonding agents may be used on threads and shafts.
- (g) Watercraft must conform to the following criteria:
1. The OEM published dry weight for model.
 2. Hull length cannot exceed 394.0cm (156 in.)
 3. Hull width must be greater than 96.5cm (38 in.)
- (a) Engine fuel - must consist of unleaded gasoline only. "Gasoline," for the purpose of this Rule Book, is defined as a mixture of hydrocarbons and oxygen bearing compounds with the following clarifications: Refer to AX19 (g),(h), (i).
- (h) The decision of the AquaX Technical Director and/or AquaX Race Director regarding modifications will be final. Any question regarding the legality of modifications should be directed to the Series Organizer prior to the use in competition.

AX62. HULL - ENDURO CLASSES

- (a) All watercraft must have a flexible tow loop attached to the bow eye. The tow loop should be made of a flexible material (e.g., nylon strap, rope, etc.) so as not to create a hazard. Tow hooks, which protrude beyond the plane of the hull, must be removed.
- (b) Hull and deck repairs may be made. Hulls may be internally reinforced. However, these repairs must not alter the standard configuration by more than 2.00mm (0.08 in.).
- (c) Replacement bumpers may be used provided a hazard is not created. If a bumper comes loose during a race the rider will be black flagged.
- (d) Water-spray deflector - A soft, flexible water-spray deflector may be attached to the hull sides or to the bond flange provided a hazard is not created. No part of the deflector may extend beyond the perimeter of the original equipment bumper or side mouldings as measured by a plumb line. When a spray deflector is used the tow loop must be extended in length allowing for easy hook up should the craft need towing.
- (e) 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 polished, shot peened or painted.
- (f) Original bilge pump may be modified or disconnected. Aftermarket bilge draining systems that do not create a hazard are allowed.
- (g) Buckets, hatches, mirrors and instrument cowlings may be modified or aftermarket (removed) provided seals are intact and no extra air intake or air-flow is provided and a hazard is not created.

AX63. HANDLING - ENDURO CLASSES

- (a) Intake grate may be modified or aftermarket. Intake grate is required and must be the full-length type with at least one bar running parallel to the drive shaft. Grates may not extend more than 12.00mm (0.47 in.) below the flat plane of the pump intake area. All leading edges must be radiused so as not to create a hazard.
- (b) Ride Plate - Pump cover plate may be modified or aftermarket. An extension may be added to the rear of the pump cover plate but shall not exceed the width of the original equipment plate. Modified and aftermarket plates must not extend more than 177.80mm (7.00 in.). 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.
- (c) All watercraft may be equipped with a maximum of two sponsons. Stock sponsons may be modified or aftermarket. Sponsons shall not exceed 91.45cm (36.00in.). Sponsons shall not protrude from the side of the hull by more than 100.00mm (3.94 in.) when measured in a level horizontal plane. The vertical channel created by the underside of the sponson shall not exceed 63.5mm (2.50in). 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 38.00mm (1.50 in.). Aftermarket or modified sponsons must exceed 6mm (0.24 in.) 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. Fins, rudders, skegs and other appendages that may create a hazard will not be allowed.
- (d) Steering system may be after market. Handlebar, throttle, throttle cable, and grips may be modified or aftermarket. Handlebar cover may be modified or removed. Aftermarket switches and switch housings may be used. Steering shaft, steering shaft holder and handlebar holder may be aftermarket. The handlebar must be padded at the mounting bracket or, if it has a crossbar, the crossbar must be padded. Aftermarket steering cables are allowed.

- (e) Seat must remain stock, covers maybe aftermarket. The OEM seat height cannot be changed by more than +/-12.7mm (0.5 in). Original shape and design must not change. No extra air intake allowed.
 - 1. Special dispensation may be allowed. Please contact the Series Admin.
 - 2. Sea-Doo RXTX models – are required to have the removable rear seat in position while racing.
- (f) Original equipment braking devices may be disabled for safety purposes.
- (g) Seats and supporting structure must not be discarded during a race. Riders may remove seats to attend to their engine but must not discard and continue racing. Riders that discard seat/s and continue racing will be disqualified.

AX64. AIR AND FUEL DELIVERY - FOUR STROKE - ENDURO CLASSES

- (a) Air and fuel delivery must remain stock as furnished by the OEM.
- (b) Craft will be allowed to utilize an aftermarket catch-can. Excess oil/fuel exiting the catch-can must be caught and not spill into the engine compartment.

AX65. DRIVELINE/PUMP AREA - ENDURO CLASSES

- (a) Driveline, pump stator, nozzles must remain stock as furnished by the OEM.
- (b) Impeller must remain stock as supplied by the manufacturer.
 - 1. Kawasaki Ultra only - Impeller may be modified or aftermarket, providing that the original diameter is maintained.
- (c) Replacement wear rings that are within OEM internal diameter specifications may be used. Silicone adhesive sealant may be used in addition to original equipment seal to seal pump inlet.
- (d) Yamaha models - Sound suppression plate and bracket (around pump area) may be removed. Exhaust flap must remain in position.
- (e) Visibility spout must be removed or plugged.

AX66. ENGINE - FOUR-STROKE ENDURO CLASSES

- (a) Engine must remain stock as furnished by the OEM. The plastic engine cover must remain in position.
- (b) Engines may be bored. Replacement piston assemblies may be used provided the original port timing, compression ratio, dome profile, skirt length and shape and type of material are not changed. Chamfering of cylinder ports must not exceed 1.00mm (0.04 in.) at a 30-degree maximum angle. Cylinder head combustion chambers may be cleaned by bead blasting with valves seated in place. Intake and exhaust ports may not be bead blasted or cleaned with abrasive material such as steel wool or Scotch-Brite®. Repairs to the cylinder head affecting one-cylinder bank are allowed.
- (c) Engines affixed with superchargers or turbo chargers are not allowed in the 200hp class.
- (d) 200hp class is limited to 200hp naturally aspirated.
- (e) An aftermarket blow off valve (BOV) may be used.
- (f) Aftermarket spark plugs with a different heat rating may be used.

- (g) Replacement batteries are permitted but must fit into the original equipment battery box and be securely fastened.
- (h) Aftermarket water strainers are allowed.
- (i) Replacement hoses and fuel lines may not provide any other function than original equipment hoses. Changes in temperature tolerances are allowed.

AX67. IGNITION AND ELECTRONICS - FOUR STROKE - ENDURO CLASSES

- (a) All electronics must remain stock as furnished by the OEM except for the following.
 - (a) The original electronic control unit may be reprogrammed so long as it does not offer any additional inputs or outputs than the original unit, and it must connect with the original connections. No additional sensors may be added (e.g., exhaust gas temperature, detonation sensors, etc.). Engine temperature sensors may be disabled.
 - 1. AM 300 class craft must adhere to the speed limit restrictions – AX62 (a)

AX68. ELECTRONIC TRANSMITTAL DEVICES

- (a) Electronic transmittal of information, including radio communication to or from a moving watercraft, is prohibited with the following exceptions:
 - 1. AquaX timing and GPS transponders utilized for scoring and technical scrutineering purposes (mandatory equipment assigned by P1 AquaX).
 - 2. Data or video transmitted for the sole use of P1 approved event television production.
 - 3. Data logging is permitted; however, the information may not be downloaded in real time from a moving watercraft. Information downloaded from the watercraft may be reviewed by the Race and Technical Directors at any time.
 - 4. Pro Only – Direct radio comms between rider and pit team during the race is allowed. All communication may be recorded and used in P1 approved event television production.