Triple Crown Series Technical Rulebook

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Triple Crown Series Technical Rulebook

A. Introduction

A.1 Purpose of the Rulebook

This **Triple Crown Series Technical Rulebook** has been created to provide clear and consistent technical regulations for the following classes**: 800 Limited, Sport Spec** *(also known as Sport Stock),* and **Ski GP**. This rulebook serves as the definitive source for technical standards in these classes during the Triple Crown Series and is intended to ensure fairness, clarity, and uniformity across all participating events.

The Triple Crown Series is an independent, racer-driven initiative that began in 2024 with the goal of spotlighting these specific classes across three premiere events, hosted in collaboration with various regional U.S. personal watercraft racing promoters. After a highly successful inaugural season, the need for a dedicated and consistent set of technical regulations became evident—one that could be applied regardless of the sanctioning body or existing rule structures of the host promoters.

As such, this rulebook **supersedes any conflicting technical rules issued by regional race promoters** for these designated classes during Triple Crown Series events. All promoters who agree to host a Triple Crown Series weekend must acknowledge and accept the use of this rulebook for technical governance. Likewise, all participating racers must understand that **this rulebook will be the final authority in determining technical legality.**

While this rulebook governs technical specifications, race promoters retain full authority to enforce event-specific rules and may impose penalties or disqualifications for racer conduct, safety violations, or other non-technical infractions at their discretion.

This rulebook reflects the shared commitment among racers and promoters to uphold a high standard of competition, integrity, and consistency throughout the Triple Crown Series.

B. Event Operations

B.1 Watercraft Usage Per Class

Competitors are permitted to register and utilize a maximum of two (2) watercraft per class. In the event of qualifying rounds or race formats involving more than two (2) motos, a racer may switch from Watercraft A to Watercraft B and subsequently return to Watercraft A if needed. However, no additional watercraft changes beyond these two will be permitted under any circumstance.

B.2 Watercraft Change During 2-Minute Hold

A competitor may switch watercraft during an official 2-minute hold, provided the change is completed within the allotted 2-minute timeframe and the 2-minute hold us not used on a restarted race. No additional time will be granted beyond the standard hold period to accommodate a watercraft change.

B.3 Watercraft Changes Post-Race Start

Once a race has officially started, no watercraft changes will be permitted under any circumstances, including during a restart. Additionally, competitors who are placed “on the hook” will not be allowed to switch watercraft for the remainder of that race.

C. RUNABOUT 800 LIMITED

C.1 Class Criteria – Runabout Limited 800

To be eligible for competition in the Runabout Limited class, watercraft must meet the following criteria:

- Dry weight must exceed 182 kg (400 lb.)
- For watercraft manufactured before September 1, 1998:

  - Minimum dry weight: 168 kg (370 lb) for 800cc engines.
- Maximum hull length 354 cm (138 inches)
- Hull Width: Between 96.5 cm (38 inches) to 127.0 cm (50 inches)
- Sound level: Must not exceed 86 dB(a) at 22.86 meters (75 feet)

C.2 General Rules – Runabout Limited 800

C.2.1 Replacement Parts

Original equipment parts may be updated or backdated using OEM parts from the same model. The replacement part must be a direct bolt-on and must not require any modifications to itself or to any other parts, unless those parts are specifically allowed to be substituted or modified by rule.

C.2.2 Tow Strap

All watercraft must be equipped with a flexible tow strap or tow loop attached to the bow. The tow loop should be made from a flexible material (such as plastic-coated braided steel or nylon) to avoid creating a safety hazard.

C.2.3 Lanyard/Stop Switch and Usage

All watercraft must be equipped with a properly functioning lanyard-type start/stop switch (tether). Engines may idle as long as the lanyard is securely connected to the watercraft. Modifications that disable or impede the engine stop function are strictly prohibited.

C.2.4 Hull

Hull and deck repairs may be made, but the original configuration should not be altered by more than 2 mm (0.08 in). Replacement bumpers and side rails may be used, provided they do not create a hazard. Flexible water spray deflectors may be added to the hull, as long as they do not extend beyond the original equipment bumper or side moldings.

C.3 Maintenance and Replacement – Runabout Limited 800

General maintenance parts such as spark plugs, wiring, hoses, and clamps may be replaced with aftermarket options, including aftermarket pump and driveshaft bearings. Replacement gaskets are allowed but must be the same type as the OEM part (e.g., sheet, o-ring, etc.). Base gaskets must not exceed 1.52 mm (0.060 in) in thickness. Stripped threads must be repaired to their original size.

C.3.1 Fasteners

Fasteners (bolts, nuts, washers) must not be substituted with titanium unless originally equipped. Locking mechanisms are allowed.

C.3.2 Maintenance

Oil catch cans may be added to the fuel system to prolong engine life. The engine may be updated with original equipment parts of the same model, as long as no modifications to other parts are required, unless specified by other rules.

C.3.3 Engine

Components such as starters, engine mounts, and oil injection systems may be replaced, with the oil injection system being removable or disconnected. Any stripped threads should be repaired to their original size. Cosmetic modifications to the engine's external finish, including painting and plating, are allowed.

C.3.4 Bilge Pump

The bilge pump may be modified or disconnected. Aftermarket bilge draining systems are permitted as long as they do not present a hazard.

C.3.5 Crankcase

Crankcase repairs are allowed for cracks or punctures, but only one damaged area affecting one cylinder bank can be repaired. No other modifications are allowed. RFI cases are not permitted.

C.3.6 Cylinder Repairs

Repairs to cracked or damaged cylinders may include installing a cylinder sleeve. Machining of the cylinder block's head gasket surface is permitted solely to facilitate sleeve installation. A thicker head gasket must be used to restore the block deck height to within 0.155mm (0.006in) of the original height. The repair must not result in any performance enhancements.

C.3.7 Cosmetic Modifications

Custom painting and additions such as padding or mat kits are allowed. The exterior surface of metal components, excluding the hull area above the bond flange, can be painted, polished, or plated.

C.3.8 Ventilation & Storage

Engine compartment ventilation tubes may be modified, aftermarket, or removed, but inlet/outlet openings must not be enlarged. Storage buckets, mirrors, and gauges can be removed or modified, as long as they do not create a hazard.

C.3.9 Ballast Weight

Ballast weight may be added to adjust the handling of the watercraft. The weight must be of a constant mass, and no modifications to other parts are allowed unless specifically outlined by the rules.

C.3.10 Sponsons

Watercraft may be equipped with up to two sponsons. These may be aftermarket, modified, repositioned, or removed, as long as the following conditions are met:

- The overall length of each sponson must not exceed 36 inches (91.45 cm).
- Sponsons should not protrude more than 3.94 inches (100 mm) from the hull in a horizontal plane. The vertical channel beneath the sponson should not exceed 2 inches (51 mm) 2.5 inches (63.5 mm).
- Sponsons may not extend below the point where the hull intersects the bottom surface of the hull by more than 2.5 inches (63.5mm).
- Sponsons must be at least 6 mm (0.24 in) thick, with radiused leading edges to prevent safety hazards.
- Sponsons may not be attached to the planning surfaces of the hull or include fins, rudders, or other appendages.
- Sponsons may be affixed to the inside of the bond flange, but must not protrude beyond it.

C.4 Steering System – Runabout Limited 800

C.4.1 Handlebars & Components

Handlebar grips, throttle, and cables may be modified or replaced with aftermarket parts. The handlebar cover can be modified or removed, but the handlebar must be padded at the mounting bracket or the crossbar must be padded.

C.4.2 Steering Shaft & Pole

The steering shaft, holder, and handlebar holder may be aftermarket. Quick-turn steering modifications are allowed, as well as aftermarket steering cables. Handlebar assemblies and mounting brackets can also be modified or replaced as long as they maintain their original functionality.

C.5 Engine Specs – Runabout Limited 800

C.5.1 Piston Assemblies

Engines may be bored, and replacement piston assemblies may be used, provided that original port timing, compression ratio, dome profile, skirt length, shape, and material are maintained. Replacement pistons must weigh within ±25% of the original. Engine displacement must not exceed 800cc. Cylinders may be machined to accommodate girdle system cylinder heads.

C.5.2 Crankshaft

Crankshafts may be rebuilt using replacement counterweights, crank pins, bearings, and connecting rods, but non-ferrous metals are not allowed for counterweights, crank pins, or connecting rods. Stroke and rod length must remain unchanged. Non-rebuildable crankshafts may be machined to accept a press-through crank pin. Replacement bearings must match the original type and dimensions. Replacement counterweights must resemble the original, with no additional holes or pockets. The total weight of the crankshaft assembly must be within ±5% of the original. Crankpins may be welded or keyed to the counterweights.

C.5.3 Cooling System

The cooling system may be modified or replaced with aftermarket components. Aftermarket water bypass systems and cooling lines are permitted. Additional cooling supply lines and fittings may be added to the pump as needed. Bypass fittings can be modified, relocated, or replaced with aftermarket parts, but they must be directed downward or rearward to prevent hazards for other riders. All valves within the cooling system must be fixed or automatic, including components such as thermostats, pressure regulators, and solenoids. Manually controlled devices that alter the flow of cooling water during operation, regardless of the actuation method, are prohibited. Cooling system flush kits are allowed.

C.5.4 Exhaust

The exhaust manifold, head pipe, expansion chamber, gaskets, and hose between the expansion chamber may be modified, altered, or replaced with aftermarket parts. The exhaust gas location may be modified for the SPX units as long as the exhaust exit remains in the same location as previous models and the original size opening for the exhaust exit is maintained. The original water box must be used and cannot be modified. No tuned portion of the exhaust may extend outside the hull. The through-hull exhaust outlet flap may be removed, and the plastic resonator may be removed.

C.5.5 Cylinder Modifications

Aftermarket or modified cylinder heads and gaskets are allowed. Cylinder interchanges are allowed between watercraft of the same manufacturer. Any modifications to the cylinder or crankcase must be approved.

C.6 Air / Fuel Delivery – Runabout Limited 800

C.6.1 Carburetors

Carburetors may be modified or replaced with aftermarket units, provided they do not vent or spill fuel in any attitude, whether the engine is running or not. The number of venturis cannot exceed the number of cylinders. Slide-type carburetors are not allowed. Aftermarket primers and modified or aftermarket intake manifold assemblies are permitted. Aftermarket crankcase-pressure-operated fuel pumps may be used, with additional pulse line fittings installed on the crankcase.

C.6.2 Fuel Injection Systems

Aftermarket or modified fuel injection systems and components are permitted, provided they adhere to the following: High-pressure fuel hoses must meet SAE J30R9 standards, and A.N. threaded-type fittings or equivalent with non-removable, crimped-type clamps must be used for the high-pressure portion. Only metal-type fuel filters are allowed in the high-pressure system, with other filters placed on the low-pressure portion.

The fuel pump must stop automatically when the engine is shut off; manually operated fuel pumps are prohibited.

C.6.3 Flame Arresters

Flame arresters meeting United States Coast Guard, SAE-J1928 Marine, or UL-1111 Marine backfire flame arrester standards must be installed. Aftermarket flame arresters meeting these standards are allowed. The intake silencer may be removed.

C.6.4 Fuel System

The fuel system must be a closed system that prevents venting or spilling of fuel at any attitude, with or without the engine running. The original equipment fuel tank, filler, and relief valve must be used without modification. Aftermarket or modified fuel pick-up, fuel filter, and petcock assemblies are allowed, and additional filters or fuel cell foam may be added to the original tank. The fuel tank filler cap may be modified or replaced, provided no hazard is created. Aftermarket or modified vapor/air separators must not exceed 2 in by 6 in and must have a return line to the fuel take open at all times.

C.6.5 Fuel Pump

Aftermarket or modified electric fuel pumps, not exceeding 4 psi, are allowed. The fuel pump must automatically stop when the engine shuts off; manually operated fuel pumps are prohibited.

C.6.6 Reed Valves

Reed valve assemblies may be modified or replaced with aftermarket units. Rotary valves may also be modified or replaced with aftermarket parts.

C.7 Ignition and Electronics – Runabout Limited 800

C.7.1 Ignition System

The RPM limiter function may be bypassed or removed. The CDI unit can be replaced with an aftermarket unit or modified, and ignition timing adjustments are permitted. Modifications to the original ignition pickup mount are allowed. However, the original equipment charging system must remain in place, and no other changes to the ignition system are permitted. MSD total loss ignition systems are permitted.

C.7.2 Starter Motor and Bendix

Replacement starter motor and bendix may be used.

C.7.3 Flywheel

The flywheel cover may be modified to accommodate a crankshaft-end bearing support.

C.7.4 Battery

Replacement batteries are permitted but must fit within the original equipment battery box and be securely fastened. Relocating the battery and/or battery box is only allowed to accommodate the installation of an aftermarket exhaust system, and must be limited to the minimum modification necessary to achieve proper fitment.

C.7.5 Engine Temp Sensor

The engine temperature sensor assembly may be removed or disconnected.

C.8 Pump and Driveline Components – Runabout Limited 800

C.8.1 Intake Grate and Ride Plate

The intake grate, ride plate, and pump cover may be aftermarket or modified. The intake grate must be a full-length design with at least one bar running parallel to the driveshaft. It may not extend more than 12.00 mm

(0.47 in) below the flat plane of the pump intake area of the hull and must not pose a safety hazard. Any extensions to the rear of the pump cover plate must not exceed the width of the original plate, must not extend more than 177.80 mm (7 in) beyond the original equipment plate, and must not create a safety hazard.

C.8.2 Trim Tabs and Plates

Aftermarket fixed-position trim tabs are permitted. Detachable trim plates may be removed when installing aftermarket trim tabs. Trim tabs cannot extend beyond the width of the planing surface or more than 100 mm (3.94 inches) beyond the original planing surface. Manual or automatic trim tabs attached to the hull are prohibited. All hull extensions mounted on the hull's transom will be considered as a trim tab. All edges must be radiused to not create a hazard.

C.8.3 Pump and Housing

The impeller, impeller housing, stator vane assembly, pump mounting plate, and nozzle may be aftermarket or modified. No titanium driveshaft, impeller housing, or stator vane assemblies allowed. The total length of the pump and nozzle assembly cannot exceed 50 mm (1.97 inches) longer than the original equipment. Other modifications, such as additional cooling fittings or modified couplers, are allowed, but must maintain the original drive ratio between the engine and pump. Visibility spout must be removed. Silicone adhesive sealant may be used in addition to original equipment seal to seal pump inlet.

C.8.4 Driveshaft

The driveshaft, couplers, and bearing housing may be modified or replaced, as long as the 1:1 drive ratio is maintained.

C.8.5 Wear Ring

Wear rings may be replaced within OEM specifications.

C.8.6 PTO

PTO may be lightened and/or modified.

C.9 Hull – Runabout Limited 800

C.9.1 Seat

Seat covers can be replaced, and the seat assembly may be aftermarket or modified.

C.9.2 Bulkhead

The bulkhead may not be modified other than for the use of fasteners and the placement of allowable relocated parts, ex. ECU.

C.9.3 Engine Compartment Foam

Engine compartment foam may be removed, modified, or replaced with aftermarket foam. Only flotation foam located within the engine compartment may be removed. Foam may only be removed if it does not require modification to any other part, unless those parts are already allowed to be modified by rule. Cutting or modifying the hull's inner liner or deck to access or remove foam is not permitted. Foam located between layers of the hull and/or deck may not be removed.

D. Sport Spec

D.1 Class Criteria – Sport Spec

To be eligible for competition in the Sport Spec class, watercraft must meet the following criteria:

- Dry weight must exceed 113 kg (250 lbs.).
- Maximum hull length 304.8 cm (120 inches).

- Hull Width: Between 66.0 cm (26 inches) and 96.5 cm (38 inches)
- Eligible watercraft models:
    - Kawasaki X2 (Pre-2005)
    - Kawasaki X2 (2005-2007)
    - Sea-Doo HX
    - Yamaha WaveBlaster 701
    - Polaris Hurricane
- Sound level: Must not exceed 86 dB(a) at a distance of 22.86 meters (75 feet).

D.2 General Rules – Sport Spec

D.2.1 Fuel

Engine fuel must consist solely of unleaded gasoline. Gasoline is defined as a mixture of hydrocarbons and oxygen-bearing compounds. The only acceptable oxygenates are ethers and alcohols. Epoxides, such as propylene oxide, are not considered ethers, and nitrogen-bearing compounds are prohibited. While most commercially produced unleaded fuels meet these standards, some may contain additives that do not conform.

D.2.2 Tow Strap

All watercraft must be equipped with a flexible tow strap or tow loop attached to the bow. The tow loop should be made from a flexible material (such as plastic-coated braided steel or nylon) to avoid creating a safety hazard.

D.2.3 Lanyard/Stop Switch and Usage

All watercraft must be equipped with a properly functioning lanyard-type start/stop switch (tether). Engines may idle as long as the lanyard is securely connected to the watercraft. Modifications that disable or impede the engine stop function are strictly prohibited.

D.2.4 Hull

Hull and deck repairs may be made, but the original configuration should not be altered by more than 2 mm (0.08 in). Replacement bumpers and side rails may be used, provided they do not create a hazard. Flexible water spray deflectors may be added to the hull, as long as they do not extend beyond the original equipment bumper or side moldings. This deflector must be securely mounted and must not pose any hazard to the rider or others. No portion of the deflector may extend beyond the outermost edge of the original equipment bumper or side moldings, as determined using a vertical plumb line for reference. Bulkhead and deck may be internally reinforced.

Kawasaki Generation 1 X2 models manufactured prior to 2005 may install front hull fills, provided the added material does not exceed 36 inches in length when measured from the foremost point of the hull toward the rear.

D.3 Maintenance and Replacement – Sport Spec

Common maintenance components such as gaskets, seals, spark plugs, spark plug wires and caps, electrical wiring, water hoses, fuel lines, clamps, and fasteners may be replaced with non-OEM parts, as long as specific conditions are met. Replacement gaskets are permitted, but the base gasket must retain the original equipment thickness for the specific model or follow the specifications outlined in the manufacturer’s service manual. Fasteners, including bolts, nuts, and washers, may not be substituted with titanium unless the original part was titanium from the factory. However, fasteners that include integrated locking mechanisms are allowed. For Sea-Doo HX models specifically, upgrading to larger bolts or studs for the exhaust system is permitted.

D.3.1 Replacement Parts

Original equipment parts may be updated or backdated using OEM parts from the same model. The replacement part must be a direct bolt-on and must not require any modifications to itself or to any other parts, unless those parts are specifically allowed to be substituted or modified by rule.

D.3.2 Fasteners

Fasteners may be installed through the hull, bulkhead and deck for the purposes of securing components to interior surfaces, provided a hazard is not created. Bulkhead may be cut for exhaust or electrical routing. Fire extinguisher, fuel petcock and choke holes may be filled or capped. Fasteners (bolts, nuts, washers) must not be substituted with titanium unless originally equipped. Locking mechanisms are allowed.

D.3.3 Maintenance

Oil catch cans may be added to the fuel system to prolong engine life. The engine may be updated with original equipment parts of the same model, as long as no modifications to other parts are required, unless specified by other rules.

D.3.4 Engine

Components such as starters, engine mounts, and oil injection systems may be replaced, with the oil injection system being removable or disconnected. Any stripped threads should be repaired to their original size. Cosmetic modifications to the engine's external finish, including painting and plating, are allowed.

D.3.5 Bilge Pump

The bilge pump may be modified or disconnected. Aftermarket bilge draining systems are permitted as long as they do not present a hazard. Floatation foam may be removed, modified, or aftermarket.

D.3.6 Crankcase

Crankcase repairs are allowed for cracks or punctures, but only one damaged area affecting one cylinder bank can be repaired. No other modifications are allowed. Crankcase drain and cable may be removed and plugged.

D.3.7 Cylinder Repairs

Repairs to cracked or damaged cylinders may include installing a cylinder sleeve. Machining of the cylinder block's head gasket surface is permitted solely to facilitate sleeve installation. A thicker head gasket must be used to restore the block deck height to within 0.155mm (0.006in) of the original height. The repair must not result in any performance enhancements.

D.3.8 Cosmetic Modifications

Custom painting and additions such as padding or mat kits are allowed. The exterior surface of metal components, excluding the hull area above the bond flange, can be painted, polished, or plated.

D.3.9 Ventilation & Storage

Engine compartment ventilation tubes may be modified, aftermarket, relocated on the original ducting, or removed. Inlet and outlet openings must remain stock size—even if tubes are removed. Vents may be shielded or plugged. No other hood modifications are allowed. On Polaris Hurricane models, the hood and mirror cowling may be replaced if the change does not increase airflow into the engine compartment.

D.3.10 Ballast Weight

Ballast weight may be added to adjust the handling of the watercraft. The weight must be of a constant mass, and no modifications to other parts are allowed unless specifically outlined by the rules.

D.3.11 Sponsons

Watercraft may be equipped with up to four sponsons. These may be aftermarket, modified, repositioned, or removed, as long as the following conditions are met:

- The overall length of each sponson must not exceed 36 inches (91.45 cm).
- Sponson length shall be limited to 1,524 mm (60 in) in a single or two sponson configuration (per side).
- Sponsons should not protrude more than 3.94 inches (100 mm) from the hull in a horizontal plane.
- The vertical channel beneath the sponson should not exceed 2.5 inches (63.5 mm).
- Sponsons may not extend below the point where the hull intersects the bottom surface of the hull by more than 2.5 inches (63.5 mm).
- Sponsons must be at least 6 mm (0.24 in) thick, with radiused leading edges to prevent safety hazards.
- Sponsons may not be attached to the planning surfaces of the hull or include fins, rudders, or other appendages.
- Sponsons may be affixed to the inside of the bond flange, but must not protrude beyond it

D.4 Steering System – Runabout Limited 800

D.4.1 Handlebars & Components

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 will be allowed.

D.4.2 Steering Shaft & Pole

The steering shaft, holder, and handlebar holder may be aftermarket. Quick-turn steering modifications are allowed, as well as aftermarket steering cables. Handlebar assemblies and mounting brackets can also be modified or replaced as long as they maintain their original functionality.

D.5 Engine Specs – Sport Spec

Engines must remain as stock, except where specific modifications are allowed:

D.5.1 Piston Assemblies

All eligible engines may be bored up to a maximum of 1 mm. Yamaha Waveblaster engines may upgrade to 701 62T style cylinders. Pre-1996 Yamaha Waveblaster engines may update to 1996 and newer engine components. Yamaha 760 cylinders may be used, subject to restricted provisions in the Ignition section. Replacement piston assemblies may be used, provided the original port timing, dome profile, skirt length, shape, and type of material remain unchanged. Replacement pistons must weigh within ± 5.00% of the original equipment. Chamfering of cylinder ports is allowed, but must not exceed 1.00 mm (0.04 in.) at a maximum 30-degree angle. Cylinders may be machined to accommodate girdle system cylinder heads.

D.5.2 Crankshaft

The crankshaft may be rebuilt with replacement parts, but non-ferrous metals are prohibited for counterweights, pins, or connecting rods. Crankshaft assembly weight must be within ±5% of the original. Sea-Doo HX must retain the OEM unmodified 720 flywheel. Sea-Doo HX may use older carrier assemblies with grease fittings. Replacement counterweights must resemble original part. Crankpins may be welded and/or keyed to the counterweights.

D.5.3 Exhaust

Kawasaki and Yamaha exhaust manifolds, head pipes, expansion chambers, gaskets, and all hoses between the expansion chamber and exhaust exit may be modified, altered, or aftermarket. Only exhausts originally manufactured as wet-style systems are permitted; dry-type systems are prohibited. Water-jacketed chambers are not allowed. The exhaust exit may be relocated to the rear of the hull. Kawasaki, Yamaha, and Polaris water boxes may be relocated or aftermarket. Sea-Doo HX models may update or backdate to any OEM factory HX water box. Water fittings on the OEM HX water box may be plugged; however, no spray bars may be added to the HX water box. Flow control valves are permitted. No tuned portion of the exhaust system may extend outside the hull. The through-hull exhaust outlet flap may be removed. Electronic water injection is prohibited on all models. Sea-Doo HX models must retain the unmodified stock HX exhaust system and water box. Sea-Doo HX may upgrade exhaust system bolts or studs. Stinger sprayers or water injectors are not permitted on the Sea-Doo HX. Additionally, the HX must maintain the factory stock water routing, and no additional water bypass systems are allowed. Sea-Doo HX may upgrade to larger bolts or studs for the exhaust system.

D.5.4 Cylinder Head

Kawasaki and Yamaha cylinder heads and gaskets may be modified or aftermarket, provided compression does not exceed 190 lbs. Aftermarket or OEM head domes for Kawasaki and Yamaha must maintain a minimum head squish clearance of 0.040 in. (1.02 mm) at any point. Sea-Doo HX cylinder heads may be modified, but compression must not exceed 175 lbs., and the minimum head squish clearance is 0.051 in. (1.30 mm). Drop-down style domes are prohibited on all models.

D.6 Air / Fuel Delivery – Sport Spec

D.6.1 Carburetors

Certain carburetors, such as on the Polaris Hurricane and Yamaha WaveBlaster, may be modified or replaced, provided they do not spill fuel. Sea-Doo HX must retain the stock carburetors but can modify jetting and de-choke them. The number of venturis cannot exceed the number of cylinders. No slide-type carburetors. Aftermarket primer is allowed.

D.6.2 Flame Arresters

Flame arrester(s) meeting United States Coast Guard, SAE-J1928 Marine, or UL-1111 Marine backfire flame arrester test standards are required. Aftermarket flame arresters compliant with these standards are permitted. Intake silencers may be removed. Reed valve assemblies may be modified or aftermarket, and reed spacers may be added. Sea-Doo HX rotary valves must remain OEM stock and retain factory rotary timing.

D.6.3 Intake Manifold and Fuel Pump

The intake manifold assembly may be modified or replaced with an aftermarket version on Polaris Hurricane, Kawasaki X2 (2005–2007), and Yamaha WaveBlaster models. Sea-Doo HX models must retain the OEM intake manifold as originally supplied from the factory. Additionally, Sea-Doo HX ignition timing may not be adjusted by rotating the stator plate—timing marks must remain aligned as per factory specifications.

D.6.4 Fuel System

The fuel system must operate as a closed-loop system, ensuring no fuel is vented or spilled at any time. Aftermarket fuel tanks and filters are allowed, provided the tank is securely fitted within the watercraft without creating a hazard. Aftermarket vapor/air separators, and fuel tanks are permitted. Aftermarket crankcase-pressure-operated fuel pumps are allowed. Extra carburetor pulse line fittings may also be added to the crankcase Electric fuel pumps must not exceed 4 psi. Manually operated fuel pumps are prohibited.

D.6.5 Fuel Tank

The fuel tank shall not be restricted to the original equipment, as supplied by the manufacturer, so long as the replacement is an unmodified tank from another OEM PWC and the tank fits securely in the watercraft without causing a hazard. Original equipment fuel filler and relief valve must be used and cannot be modified. Aftermarket fuel tanks not coming from another OEM PWC may be so long as it is demonstrated that the aftermarket fuel tanks meet or exceed the strengths and safety standards of an OEM fuel tank.

D.7 Ignition and Electronics – Sport Spec

D.7.1 Ignition System

RPM limiter functions may be modified. Yamaha units using a 760 must use a non-programmable ignition system. Zeels are not permitted for use with Yamaha 760 cylinders. Yamaha units that do not use 760 cylinders may use a programmable ignition, as long as charging system features are maintained. Kawasaki Gen2 (2005–2007) model CDI units may be modified, aftermarket, and programmable. All original equipment charging systems must be used. Ignition timing may not be advanced at the stator plate—on all models, the stator must be aligned with the factory timing mark on the cases. Kawasaki X2 models may use an ignition jumper for the heat sensor. Flywheels must be OEM stock and unmodified. Sea-Doo HX models must retain the unmodified OEM 720 flywheel. Coils, spark plugs, plug wires, and plug caps may be aftermarket.

D.7.2 Starter Motor and Bendix

Replacement starter motor and bendix may be used.

D.7.3 Battery

Battery box relocation is permitted.

D.7.4 Engine Temp Sensor

The engine temperature sensor assembly may be removed or disconnected.

D.8 Pump and Driveline Components – Sport Spec

Modifications to driveline components are permitted under the following conditions:

D.8.1 Trim Tabs

Aftermarket fixed-position trim tabs may be used, but they cannot exceed the width of the planning surface or extend more than 100 mm (3.94 inches) beyond the rear of the hull. Manual or automatic trim tabs and any hull extensions attached to the transom are prohibited.

D.8.2 Driveshaft

The driveshaft, couplers, and bearing housing may be modified or replaced, as long as the 1:1 drive ratio is maintained. Titanium driveshafts are not allowed.

D.8.3 Intake Grate

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 of the hull. All leading edges must be radiused so as not to create a hazard.

D.8.4 Pump and Housing

The stator vane assembly is required to remain OEM stock as originally supplied by the manufacturer. For Sea-Doo HX models, OEM plastic pump housings may be used as long as they retain both the original small-diameter hub and the factory number of vanes. Additionally, HX models are allowed to use the older-style carrier assembly equipped with a grease fitting, but the OEM unmodified 720 flywheel must remain in place.

Polaris Hurricane models are permitted to upgrade to the factory-superseded six-vane pump. Across all eligible models, the pump mounting plate and pump shoe may be modified or replaced with aftermarket alternatives. Impellers, pump nozzles, and directional nozzles may also be modified or aftermarket. However, the total length of the combined pump and nozzle assembly—including any spacers or extended nozzles—may not exceed an additional 50.00 mm (1.97 inches) beyond the original factory length.

Aftermarket nozzle-trim systems are allowed. While titanium driveshafts are strictly prohibited, driveshafts, bearing housings, and couplers may be modified or replaced with aftermarket components, provided that the

1:1 drive ratio between the engine and pump is maintained. Additional cooling fittings may be added to Kawasaki, Polaris, and Yamaha models as needed. Visibility spouts must be removed or securely plugged. To enhance the pump inlet seal, racers are allowed to apply silicone adhesive or similar sealing material in conjunction with the original equipment seal. Kawasaki X2 models may also utilize aftermarket pump cones.

D.8.5 Pump Cover Plate

Modifications to the pump cover plate are permitted under specific guidelines. The pump cover plate itself may be modified or replaced with an aftermarket version. Extensions may be added to the rear of the plate; however, the added extension must not exceed the width of the original equipment plate and may not extend more than 100.0 mm (3.94 inches) beyond the rear edge of the stock plate. Additionally, the extension must be integrated with the radiused portion of the pump plate in a manner that does not create a safety hazard.

Pump shoes may also be replaced with aftermarket versions. However, any aftermarket or modified pump shoe must not extend more than 12.00 mm (0.47 inches) below the flat plane of the pump intake area of the hull to ensure consistent performance and safe operation..

D.9 Hull – Sport Spec

D.9.1 Seat

The original equipment seat base must remain in use, although the seat cover may be replaced. Seat height may not be altered by more than +/- 12.7 mm (0.5 inches). The seat cover's additional thickness cannot exceed 12.7 mm (0.5 inches) in any direction.

E. Ski GP

E.1 Class Criteria – Ski GP

To be eligible for competition in the Ski GP class, watercraft must meet the following criteria:

- Dry weight must exceed 114kg (260 lbs.)
- Maximum hull length: 104.52 inches (265.48 cm)
  - Must use OEM hull and top deck only, maintaining original hull dimensions. Aftermarket hulls resembling a Kawasaki SXR are allowed, but they must conform to a maximum allowed length of 104.52 inches
- Hull Width: Between 50.8 cm (20 in.) and 76.2 cm (30 in.).
- Maximum engine displacement :
  - Naturally aspirated four-stroke engines: Maximum of 1500cc.
  - Supercharged or turbocharged four-stroke engines: Maximum of 1100cc.
- Boost Pressure Limit:
  - Forced induction four-stroke engines (displacement under 900cc) must have a boost pressure limit of 11 psi.
  - Forced induction four-stroke engines (displacement over 900cc) must have a boost pressure limit of 9 psi.
- Eligible Watercraft:
  - Aftermarket hulls with OEM four-stroke engines
  - Modified OEM hulls with four-stroke engines
- Sound level: Must not exceed 86 dB(a) at 22.86 meters (75 feet)

E.2 General Rules – Ski GP

E.2.1 Fuel

Engine fuel must consist solely of unleaded gasoline. Gasoline is defined as a mixture of hydrocarbons and oxygen-bearing compounds. The only acceptable oxygenates are ethers and alcohols. Epoxides, such as propylene oxide, are not considered ethers, and nitrogen-bearing compounds are prohibited. While most commercially produced unleaded fuels meet these standards, some may contain additives that do not conform.

E.2.2 Tow Strap

All watercraft must be equipped with a flexible tow strap or tow loop attached to the bow. The tow loop should be made from a flexible material (such as plastic-coated braided steel or nylon) to avoid creating a safety hazard.

E.2.3 Lanyard/Stop Switch and Usage

All watercraft must be equipped with a properly functioning lanyard-type start/stop switch (tether). Engines may idle as long as the lanyard is securely connected to the watercraft. Modifications that disable or impede the engine stop function are strictly prohibited.

E.2.4 Hull

Hull and deck repairs may be made, but the original configuration should not be altered by more than 2 mm (0.08 in). Ski division watercraft may reinforce their hulls to withstand course obstacles, provided the original configuration is not altered beyond this limit. Replacement bumpers and side rails may be used, provided they do not create a hazard. Flexible water spray deflectors may be added to the hull, as long as they do not extend beyond the original equipment bumper or side moldings.

E.3 Maintenance and Replacement – Ski GP

General maintenance parts such as spark plugs, wiring, hoses, and clamps may be replaced with aftermarket options, including aftermarket pump and driveshaft bearings.

E.3.1 Fasteners

Fasteners (bolts, nuts, washers) must not be substituted with titanium unless originally equipped. Locking mechanisms are allowed.

E.3.2 Maintenance

Oil catch cans may be added to the fuel system to prolong engine life. The engine may be updated with original equipment parts of the same model, as long as no modifications to other parts are required, unless specified by other rules.

E.3.3 Engine

Components such as starters, engine mounts, and oil injection systems may be replaced, with the oil injection system being removable or disconnected. Any stripped threads should be repaired to their original size. Cosmetic modifications to the engine's external finish, including painting and plating, are allowed.

E.3.4 Bilge Pump

The bilge pump may be modified or disconnected. Aftermarket bilge draining systems are permitted as long as they do not present a hazard.

E.3.5 Crankcase

Crankcase repairs are allowed for cracks or punctures, but only one damaged area affecting one cylinder bank can be repaired. No other modifications are allowed.

E.3.6 Cylinder Repairs

Repairs to cracked or damaged cylinders may include installing a cylinder sleeve. Machining of the cylinder block's head gasket surface is permitted solely to facilitate sleeve installation. A thicker head gasket must be used to restore the block deck height to within 0.155mm (0.006in) of the original height. The repair must not result in any performance enhancements.

E.3.7 Cosmetic Modifications

Custom painting and additions such as padding or mat kits are allowed. The exterior surface of metal components, excluding the hull area above the bond flange, can be painted, polished, or plated.

E.3.8 Ventilation & Storage

Engine compartment ventilation tubes may be modified, aftermarket, or removed, but inlet/outlet openings must not be enlarged. Storage buckets, mirrors, and gauges can be modified, as long as they do not create a hazard.

E.3.9 Ballast Weight

Ballast weight may be added to adjust the handling of the watercraft. The weight must be of a constant mass, and no modifications to other parts are allowed unless specifically outlined by the rules.

E.3.10 Sponsons

Watercraft may be equipped with up to two sponsons. These may be aftermarket, modified, repositioned, or removed, as long as the following conditions are met:

- The overall length of each sponson must not exceed 36 inches (91.45 cm).
- Sponsons should not protrude more than 3.94 inches (100 mm) from the hull in a horizontal plane. The vertical channel beneath the sponson should not exceed 2 inches (51 mm) for Ski classes and 2.5 inches (63.5 mm) for Runabout classes.
- Sponsons may not extend below the point where the hull intersects the bottom surface of the hull by more than 1.5 inches (38 mm).
- Sponsons must be at least 6 mm (0.24 in) thick, with radiused leading edges to prevent safety hazards. They may not be attached to the planning surfaces of the hull or include fins, rudders, or other appendages.
- Sponsons may be affixed to the inside of the bond flange, but must not protrude beyond it

E.4 Engine Specs - Four-Stroke (1101cc and Above) – Ski GP

E.4.1 Piston Assemblies

Pistons may be replaced or bored. Aftermarket pistons are permitted as long as engine displacement limits are not exceeded.

E.4.2 Crankshaft

Crankshaft modifications are allowed, but the total weight must be within ±5% of the original. Aftermarket connecting rods made of ferrous materials are allowed, rod length may be changed.

E.4.3 Camshaft

Camshaft, cam gears, and other components may be modified or replaced with aftermarket parts. Aftermarket camshafts are permitted, but the number of camshafts must remain the same as the original, and the original bearing type and dimensions must be used. Cam timing, cam gears, tensioners, chains, and belts may be modified or replaced with aftermarket parts.

E.4.4 Cooling System

The cooling system may be modified or replaced with aftermarket components. Additional cooling lines and aftermarket water bypass systems may be added. Cooling system bypass fittings may be modified, aftermarket, or relocated but must be directed downward and/or rearward to avoid creating a hazard for other riders. All valves within the cooling system must be of the fixed or automatic type (e.g., thermostats, pressure regulators, solenoids). Manually controlled devices that alter the flow of cooling water during operation are not permitted. The original thermostat may be removed, modified, or replaced with an aftermarket part. Cooling system flush kits are allowed.

E.4.5 Exhaust

The exhaust system, including the manifold, pipes, hoses, and mufflers, may be modified or replaced with aftermarket parts. The exhaust exit may be relocated to the transom.

E.4.6 Engine Block and Cylinder Modification

Engine blocks may be interchanged between watercraft of any OEM manufacturer, except for the 1500cc Kawasaki SX-R, which must use the engine block provided by the manufacturer. Original OEM engine blocks must be used, with allowances for internal modifications to oil and water exposed surfaces. The head gasket surface of the cylinder block may be machined. The original cylinder head casting must be used, though intake and exhaust runners, ports, and combustion chambers may be modified, including changes in shape, diameter, and the addition of material. The original number of intake and exhaust valves must remain unchanged. Cylinder head repairs affecting one cylinder bank are allowed, and the head gasket surface may be machined.

E.4.7 Valve Train and Components

Aftermarket valve train components are allowed, provided the original activation method is maintained. Valves may be shimmed with either OEM or aftermarket shims, and valve springs may be modified or replaced with aftermarket parts.

E.4.8 Valve Cover

The valve cover may be modified or replaced for cosmetic purposes or weight reduction.

E.4.9 Engine Balancing

Engine balancing assemblies may be modified, replaced with aftermarket components, or removed.

E.4.10 Baffles

Baffles in the oil reservoir may be modified, and additional baffles may be added. The oil pump may be modified or replaced with an aftermarket component.

E.5 Engine Specs – Four-Stroke (1100cc and Below) – Ski GP

E.5.1 Piston Assemblies

Pistons may be replaced or bored. Aftermarket pistons are permitted as long as engine displacement limits are not exceeded.

E.5.2 Crankshaft

Crankshaft modifications are allowed, but the total weight must be within ±5% of the original. Aftermarket connecting rods made of ferrous materials are allowed, rod length may be changed.

E.5.3 Camshaft

Camshaft, cam gears, and other components may be modified or replaced with aftermarket parts. Aftermarket camshafts are permitted, but the number of camshafts must remain the same as the original, and the original bearing type and dimensions must be used. Cam timing, cam gears, tensioners, chains, and belts may be modified or replaced with aftermarket parts.

E.5.4 Cooling System

The cooling system may be modified or replaced with aftermarket components. Additional cooling lines and aftermarket water bypass systems may be added. Cooling system bypass fittings may be modified, aftermarket, or relocated but must be directed downward and/or rearward to avoid creating a hazard for other riders. All valves within the cooling system must be of the fixed or automatic type (e.g., thermostats, pressure regulators, solenoids). Manually controlled devices that alter the flow of cooling water during operation are not permitted. The original thermostat may be removed, modified, or replaced with an aftermarket part. Cooling system flush kits are allowed.

E.5.5 Exhaust

The exhaust system, including the manifold, pipes, hoses, and mufflers, may be modified or replaced with aftermarket parts. The exhaust exit may be relocated to the transom.

E.5.6 Engine Block and Cylinder Modification

The engine block may be interchanged with blocks from watercraft as long as the donor engine displacement is 1100cc or less. Cylinder heads, intake and exhaust ports, and combustion chambers may be modified.

E.5.7 Valve Train and Components

Aftermarket valve train components are allowed, provided the original activation method is maintained. Valves may be shimmed with either OEM or aftermarket shims, and valve springs may be modified or replaced with aftermarket parts.

E.5.8 Valve Cover

The valve cover may be modified or replaced for cosmetic purposes or weight reduction.

E.5.9 Engine Balancing

Engine balancing assemblies may be modified, replaced with aftermarket components, or removed.

E.5.10 Baffles

Baffles in the oil reservoir may be modified, and additional baffles may be added. The oil pump may be modified or replaced with an aftermarket component.

E.6 Air / Fuel Delivery – Ski GP

E.6.1 Throttle Body

Throttle bodies can be aftermarket or modified, including the addition of butterflies, as long as their number does not exceed the number of engine cylinders. Intake manifold assemblies may also be aftermarket or modified.

E.6.2 Fuel System

The fuel system must operate as a closed system, ensuring no venting or fuel spillage under any conditions. The fuel tank does not need to remain original equipment but must be an unmodified tank from another watercraft, securely fitted without creating hazards. Aftermarket fuel fillers are allowed, and fillers may be exchanged between models.

Components such as the fuel pickup, filter, and petcock may be removed or replaced with aftermarket parts. Additional fuel filters and fuel cell foam can be added to the original tank. Modifications to the fuel tank filler cap are allowed if they do not compromise safety. Non-OEM fuel tanks may be permitted if they meet or exceed OEM safety and strength standards, subject to approval by the Technical Director. All high-pressure fuel lines must adhere to SAE J30R9 standards, and only metal fuel filters are allowed on the high-pressure side of the system. Low-pressure inline fuel filters can be utilized elsewhere.

E.6.3 Fuel Delivery

Modifications to fuel delivery components are permitted with safety and performance standards in mind. Fuel injectors may be altered to increase fuel flow, or aftermarket options can be utilized, provided they do not enhance airflow into the combustion chamber. Modifications or replacements to the fuel rail and regulator are allowed, and additional fuel injectors can be added. Aftermarket fuel pumps are permissible; however, they must automatically cease operation when the engine shuts off or stops. Manually operated on/off fuel pumps are prohibited.

E.7 Forced Induction Systems – Ski GP

E.7.1 Turbochargers and Superchargers

For watercraft with engines of 1100cc or less, turbochargers or superchargers are permitted. These components, whether original or aftermarket, may be modified or added to watercraft that were originally naturally aspirated. All turbochargers must feature water-jacketed housings during engine operation. If a turbocharger's water-jacketing adequacy is in question, additional cooling mechanisms or heat wraps must be used to ensure safety. All hoses and pipes connected to these systems may be modified or aftermarket.

E.7.2 Intercoolers

Intercoolers may be modified or replaced with aftermarket options.

E.7.3 Boost Sensors

Boost sensors may be modified or replaced with aftermarket components.

E.8 Ignition and Electronics – Ski GP

E.8.1 Electronic Contril Unit (ECU)

The original Electronic Control Unit (ECU) may be reprogrammed, but it must not offer additional inputs or outputs, and the connections must remain compatible with the original unit.

E.8.2 Ignition System

The ignition system, electrical box, flywheel, and flywheel cover may be modified or replaced with aftermarket components.

E.8.3 Battery

Battery charging circuits may be disabled or removed, and additional batteries can be used, provided they are securely fastened within a proper box.

E.8.4 Engine Temp Sensor

The engine temperature sensor assembly may be removed or disconnected.

E.9 Sponsons – Ski GP

E.9.1 Sponson Modifications

A maximum of four sponsons may be used. Sponsons can be aftermarket, modified, repositioned, or removed.

E.10 Pump and Driveline Components – Ski GP

E.10.1 Trim Tabs

Aftermarket trim tabs, whether fixed, automatic, or rider-controlled, are permitted. Trim tabs cannot extend more than 3.94 inches (100mm) beyond the original planing surface. All edges must be radiused to prevent hazards.

E.10.2 Impeller and Housing

Modifications to the impeller, pump housing, stator, pump mounting plate, and/or pump shoe are allowed. The total length of the pump and nozzle assembly can be up to 1.97 inches (50mm) longer than the original equipment. Aftermarket nozzle trim systems and additional cooling fittings may be installed.

E.10.3 Driveshaft

Modifications to the driveshaft, couplers, and bearing housing are allowed, provided the drive ratio remains 11 between the engine and the pump.

E.11 Hull – Ski GP

E.11.1 Hull and Deck

The hull may be modified or aftermarket but must not exceed the length or width of the upper deck component at the bond flange. Fins, rudders, skegs, or other appendages that could create a hazard are prohibited.. Modifications to the hull, including the top deck, are permitted. The top deck must maintain the general appearance of existing Ski watercraft. This may include legal aftermarket components integrated into the deck, such as rail caps and footholds. Integrated features must not extend beyond the bumper, with a maximum allowable bumper thickness for clearance of 41 mm (1.5 inches).

E.11.2 Hood

Aftermarket hoods are allowed. Decks may be reinforced internally, and fasteners can be used to secure components, provided no hazards are created.

E.11.3 Engine Compartment Foam

Foam may be removed or replaced, but only floatation foam within the engine compartment may be altered. Modifications must not affect any other components or part of the hull.

E.11.4 Bulkheads

Bulkheads may be aftermarket on Ski models where an aftermarket hull is permitted. Deck repairs are allowed, provided they do not alter the standard configuration by more than 2.00 mm (0.08 in). Decks may also be internally reinforced. Fasteners may be installed through the hull and deck to secure components to interior surfaces, provided no hazards are created. If the upper and lower components of the original equipment bond flange are separated and rejoined, they must be rejoined using the original equipment method (e.g., bonded with high-strength adhesive). For watercraft equipped with footwells, the footwells must be blocked off during competition, preventing any indentation into the sides of the footwells.

Triple Crown Series

Event Protest & Appeal Form

Protester Please Complete Details Below

Protest and Appeal information will be handled as confidential.

Event Location & Date:	
Name of Competitor Placing Protest/Appeal:	
Name of Competitor Being Protested:	
Class & Boat # of Protest:	

Select Protest Category: *(a separate protest must be filed for each suspected infraction)*		
☐ Drive System	☐ Electrical System	☐ Engine
☐ Exhaust System	☐ Fuel / Carburetor System	☐ Hull
$150 Cash fee must be supplied at the time of the protest *If the watercraft is found legal and the protest is disallowed, the cash bond will be awarded to the protested rider* **There is no fee to file an appeal.**		

Description of the protester believed infraction:

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Description of protest ruling / Rule Book Reference:

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Official Use Only		
Received By Name:		Date/Time:
Official Outcome: **Granted** / **Denied** (circle one)	Official Comments:	
Officials included in Review:		