

RO RS1 NATURALLY ASPIRATED PRODUCTION CLASS

OEM ENGINE 1000CC MAX

Please note all **BITD** general and safety rules must be followed. All UTV vehicles must use a safety tracking system from www.racingtrax.com 801-836-5198 at all **BITD** races. Any rule changes or updates will be posted on www.bitd.com

GENERAL REGULATIONS:

Class entrants shall comply with all class and applicable general regulations. Note: The SCR abbreviations refer to the cross-reference listings in the front of this book and are part of the class rules. Where a conflict between the cross-referenced listings and a rule contained under this class occurs, the rule contained under this class has precedence.

ANYTHING NOT BUILT IN COMPLIANCE WITH THE SPIRIT OF THE CLASS MAY BE DEEMED INELIGIBLE TO RACE, COLLECT POINTS, TROPHIES, PRIZE FUNDS, AND CONTINGENCY. PLEASE CONTACT THE BITD UTV TECH INSPECTOR WITH ANY QUESTIONS.

All UTV's must be pre-approved before racing in their first BITD event.

All UTV race vehicles must pass all **BITD** safety requirements and be approved by the **BITD** UTV Tech Inspector.

UTV Tech Inspection: Tech inspection is required at each **BITD** race for all UTV race vehicles.

RS1 PRO PRODUCTION UTV CLASS DEFINITION:

The RS1 Pro production UTV class vehicles are built using production UTV's, manufactured by registered companies, i.e. Yamaha, Polaris, Can-Am, Artic Cat, Yamaha, that issues Vin #'s. Companies must produce a minimum number of 1000 units of that exact model and configuration, prior to being allowed to participate in this class in any **BITD** Sanctioned Event. The RS1 UTV's must have 1 seat. All OEM engine electronics must be used. ECM's may be flashed. No aftermarket ECM's are allowed. OEM engines must be used. Maximum engine size is 1000cc. Must use hood, grill, front and rear fenders from the UTV. This Pro Class does have a point's championship, a point's championship fund, and an individual race purse. Minimum age for driver in any UTV Pro class is 14 years old, must be 14 by the date of the event.

UTV-1 PENALTIES:

At the discretion of the race director, any UTV race team caught breaking these rules “cheating” will receive a minimum penalty of, disqualification for the race and a 1 race suspension. **BITD** has the right to mark, tag or seal any part of a race UTV. **BITD** has the right to confiscate any engine at any time for the purpose of class compliance inspection. A fee may be required for the inspection.

UTV-2 OCCUPANTS:

All UTV’s race vehicles must have an arm banded driver in the vehicle for the entire race.

UTV-3 DRIVER'S MEETING:

At least 1 “banded” race team member must attend the **BITD** driver's meeting at each race.

UTV-4 RADIO & COMMUNICATIONS:

A VHF type radio is required in all race vehicles. **All UTV race vehicles must have their team radio frequency posted inside their vehicle on the roof area.** **BITD** official Frequency is 151.490. The **BITD** frequency is required on every radio. All race teams are required to provide team specific radio frequency information to the **BITD**.

UTV-5 SUSPENSION:

All suspension and mounting points must remain the stock design and in the stock location and or position on the frame, as delivered from the manufacturer. Suspension mounting points may be reinforced for strength. No suspension mounts may be moved, added or removed.

UTV-6 OVERALL MEASUREMENT RESTRICTIONS:

The max width 80” and is measured from outside of tire to outside of tire at ride height. Width may be checked at any time. Wheelbase can be increased to 8 inches over the stock dimensions. This can only be achieved through the suspension. **Frames cannot be cut, lengthened or shortened.**

UTV-7 SHOCK ABSORBERS:

There must be at least one and only one coil over shock absorber per wheel in working condition at the start of the race. Shock absorber mounting points may be moved and strengthened.

UTV-8 BUMP STOPS:

Suspension bump stops are allowed. They must be of the solid type. No air bump stops.

UTV-9 TORSION SYSTEM:

The only torsion system that is allowed is a coil-over shock.

UTV-10 TIRES:

Maximum tire size is 33x10.5x15. Tire must have manufacture size on tire and say 33”. No multiple tires per corner permitted.

UTV-11 WHEELS:

Maximum size is 15”. **All wheels must be stamped or engraved on the outside, within 2” of the valve stem, with the race vehicles number, this includes spares.** The minimum stamp size of the number is ¼”.

UTV-12 STEERING:

Power steering is permitted. Turning or steering brakes are not permitted.

UTV-13 BATTERIES:

ALL UTVs MUST HAVE A BATTERY SWITCH.

Batteries must be securely mounted with **metal attachments**. All flooded cell batteries must be fully enclosed including the sides and bottom. Enclosure must be able to contain the quantity of acid contained in the battery if inverted. Gel filled batteries or dry cell batteries are recommended and do not require full enclosures. **Batteries mounted in the drivers compartment must be covered and may not be liquid filled.**

UTV-14 SAFETY LIGHTS:

All 4 rear facing safety lights must be wired to the battery switch. No other switches may be in line to the safety lights. UTV are required a minimum of 2 rear facing safety lights. They must be wired to the, required battery switch. No other switches may be in line to the safety lights (connection plugs or inline fuse may be used)

-**All UTVs must have a minimum** of 2 red tail lights, 2 red brake lights, 1 rear facing Amber steady LED with a minimum of 2000 lumens and no less than 4 LEDs, 1 “KC HiLites” LED spec blue strobe light #KC1313 or adequate replacement. KC HiLites 888-689-5955.

-Safety lights must be approved by the **BITD** UTV Tech Inspector. **BITD** rules state that **all safety lights must be working at all times**, if a light fails to work it must be fixed at the next pit stop, or the vehicle may not continue. All lights must be in operating condition at tech inspection.

-All rearward-facing lights (taillights, brake lights, blue light, and amber lights) must be in operating condition before the vehicle will be permitted to start the race. All rearward-facing lights must be protected against damage in the event of a rollover.

-Tail lights/brake lights must be at least 3 inches in diameter, or be approved by **BITD** Racing. They must be mounted in such a manner as to be clearly visible from the rear of the vehicle.

-Rearward facing amber lights and blue lights must be approved by the **BITD** UTV Tech Inspector. The amber lens must be deep-coated amber in color (no other color is permitted). The blue lens must be medium coated blue in color (no other color is permitted). The amber lights and blue lights must be mounted a minimum of 48 inches from the ground and must be clearly visible, with no obstructions. The amber lights and blue light must remain on during the entire race.

- The amber flashing and blue strobe is an attempt to identify the UTV class vehicle, so that faster vehicles will be able to recognize that they are approaching a slower vehicle.
- **NOTE**--The blue light should only be used during an official race. Blue flashing lights may be illegal in some state.

UTV-15 ENGINE LOCATION AND DISPLACEMENT:

Maximum engine displacement is 1000cc. Engine size will be checked and measured. OEM stock engine cases and cylinder head must be used. All other engine components are open, i.e.; cams, pistons, connecting rods, etc.

UTV-15FD FUEL DELIVERY:

The fuel delivery system must remain the same design and configuration as the stock system delivered from the factory. Aftermarket fuel pumps, fuel regulators and filters are allowed. Aftermarket or modified fuel injectors are allowed.

UTV-16 FLUID COOLERS:

Oil coolers, transmission coolers and radiators located ahead of the driver or in the driver’s compartment must have a shroud that will prevent liquids from blowing back or leaking onto the driver and/or co-driver in the event of a rupture or leakage. All hoses running through the passenger compartment must be shielded. Steel braided hoses do not constitute a shield.

UTV-17 FUEL CELLS:

Safety fuel cells are suggested for all vehicles stock fuel tanks unaltered will be accepted. Auxiliary fuel tanks may be added in all classes except those classes whose class rules do not allow auxiliary fuel tanks. Auxiliary fuel tanks must be safety fuel cells. Alternative fuels (i.e. propane or natural gas) must use an approved. Alternative fueled vehicles may not use auxiliary fuel cells. All fuel tanks must be securely mounted. Fuel tank must be filled from and vented to the outside of the vehicle. There must be a substantial cross member and firewall between the fuel tank and the occupants. No GI-cans or fuel containers similar in construction or purpose will be permitted in or on any vehicle during the race. Use of GI-cans or other fuel containers will subject entrant to a time penalty or disqualification. Safety fuel cells shall consist of a bladder enclosed in a smooth skinned container. The container shall be constructed of 20ga. Steel or .060-inch aluminum. Magnesium is strictly prohibited. Container must be securely attached to vehicles with bolts or steel straps. All fittings must be built into the skin and bonded to the skin as an integral part of the tank or mechanically sealed by a ring and counter ring system by either flat joint or an "O" ring. Internal baffling is mandatory in all fuel cells. Bladder construction shall be of nylon or Dacron woven fabric impregnated and coated with a fuel resistant elastomer. Rotary molded polymer cells are acceptable. The physical properties minimum standards are in accordance with Table 1.

Table 1 Test Type Minimum Standard Test Specification:

Tensile Strength 450 lbs. Spec CCC-T-1916 Method 5102

Tear Strength 50 lbs. Spec CC-T-1916 Method 5134

Puncture Test 175 lbs. Spec MIL-T-6396 Article 4.5.17

These physical properties must be maintained throughout all areas of the finished bladder including seams, joints and fittings.

UTV-17A FUEL FILLER NECK:

Fuel filler must be located as far away from the exhaust and engine as possible. If the filler neck is on the same side as the exhaust, it must be a minimum distance of 12" forward from the exhaust. Fuel filler must be completely separated from the driver's compartment. Splash guards between the engine and or exhaust are highly recommended. If the filler neck is mounted near the driver, a splash guard is required to prevent fuel from splashing on the driver. If standard hose clamps are used, two clamp must be used at each connection. If "T-Bolt" (turbo style) clamps are used only one clamp is required at each connection. T-Bolt hose clamps are highly recommended.

UTV-17B FUEL CELL VENT LINES

The vent line must extend to the highest point of the roll cage nearest the fuel cell, across the width of the vehicle, and down to below the belly pan of the vehicle or 3 inches below the fuel cell, whichever is lower. OPTIONAL PLACEMENT: Where the vent line attaches to the fuel cell there must be a loop above the fuel cell that extends 6" higher than the top of the fuel cell. Then be wrapped one full loop around the outside of the fuel cell near the top of the fuel cell and then 3" below the lowest point of the fuel cell. The breather line must be vented outside of driver's compartment and be directed away from the engine and exhaust system.

UTV-18 FIREWALLS:

All vehicles must have an aluminum or metal firewall separating the driver's compartment from the danger of fire from fuel supplies. Rear mounted fuel cells require a minimum firewall which must be liquid tight and must extend at least 4 inches above the top of the fuel cell, covering from side to side. Any fuel cell placed in the driver compartment must have a fire wall that covers the fuel cell, filler neck and fuel lines and completely separates them from the driver's compartment.

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Any hole placed in the firewall for structure members, lines, etc. must be kept to a minimum. The hole should not have more than 0.0625- inch gap around the items passing through the firewall. Metallic tape may be used to seal a hole between the firewall and the item passing through the firewall. Engine firewall must be metal or aluminum, no plastic firewalls.

UTV-19 FUEL FILLER SPLASH GUARD:

The intent of the splash guard is to keep fuel from being splashed on the driver, exhaust and engine when the UTV is being refueled. Splash guards must surround the fuel filling area in such a way that it provides protection from fuel spilling onto the driver, exhaust and engine when inserting and removing the fuel filler jug.

UTV-20 CHASSIS (FRAME), BODY AND ROOF:

The OEM "stock chassis" (frame) must be used and stock appearance must be maintained. The stock chassis (frame) is defined as, **the main lower rails running along the inner sides of the UTV and the front and rear tubes that connect them.** Each manufacture has a different description. Please contact the **BITD** UTV Tech Inspector for a better description. The stock chassis (frame) may be added to, for durability and strength, but must retain the stock width, length, configuration and design. OEM UTV roll cages cannot be used. All joints must be welded and attached to frame securely.

BODY-

The OEM hood, grill, front and rear fenders must be used. All body parts must remain on the vehicle during the entire length of race (accidental damage excluded).

ROOF-

The roof must be covered with sheet metal or aluminum. Minimum thickness recommended is .060

UTV-21 DOORS, WINDOW SAFETY NETS:

Door area must have "X", "A", "V" or Ladder design bracing and all tubing must be a minimum 1.5"x .095" 4130 chromoly or 1018/1012 CDS/DOM. Doors that latch and/or open and close are not allowed. Door area must be completely covered with aluminum. Minimum thickness recommended is .060.

NETS;

NOTE ALL WINDOW NETS ARE REQUIRED TO BE SFI RATED. Safety nets are mandatory on all vehicles and must cover the complete open area of the cockpit on both sides of the vehicle. The maximum gap allowed between the net and the roll cage tube is 3". Nets must be installed on the inside of the roll cage to prevent them from being damaged or coming off in the event of a roll over or slide on the side. Nets must be installed so that the occupants can release the netting unassisted and exit the vehicle regardless of the position of the vehicle.

Net installation must meet with the approval of the **BITD** UTV technical inspector. The net border or edge and the net attachment must be made of materials that are as strong as or stronger than the net itself. Net attachments must be a minimum of every 6 inches.

Acceptable attachments are not limited to the following: hose clamps, snaps, heavy-duty nylon ties, and lift-a-dot, metal hooks and steel rods. Steel rods are acceptable methods of bottom fastening. **BITD** requires that occupants of all vehicles must be protected during a roll over in such a manner that prevents them from extending from the body or frame of vehicle.

UTV-22 SIREN:

All UTV's are required to have a **SIREN** that is **LOUD**. All sirens must be approved by the **BITD** UTV tech inspector.

UTV-22A BREAK DOWN SAFETY DEVICES:

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All UTV's must have a minimum of one red reflective device must be carried in the vehicle. Reflective devices must be at least 12 inches high and 12 inches long and be free standing (similar to trucker's breakdown triangles). When racing at night, one battery-operated red flashing beacons and two large glow sticks are required. **BITD** is concerned about race areas; thus, flares will not be permitted as a breakdown device. Official **BITD** stuck stubs are supplied to each entrant at registration. The stuck stub must be kept with the vehicle along with a writing instrument. If a break down or out-of-race condition occurs, the stuck stub must be completed and given to another race vehicle to pass on to a race official.

UTV-23 SEATING:

All vehicles must use seats designed specifically for racing applications manufactured by a recognized racing seat manufacturer. Stock seat must be completely removed. A recognized manufacturer that specializes in seats for racing applications must be utilized. All seats must be securely mounted to frame of vehicle and be properly reinforced in such a manner as to keep seat from moving in relationship to the frame. Adjustable track type seats must be securely mounted as to allow no lateral or vertical movement. Head and neck restraints designed and installed to prevent whiplash are mandatory on all vehicles. Restraints must be a headrest constructed of at least 2-inch thick resilient padding and be approximately 36 square inches in area. All portions of the roll bar or bracing that might come into contact with the vehicle occupant's helmets must be padded.

UTV-24 TRANSMISSION/GEAR BOX:

Stock transmission cases and clutch design must be used. A functional reverse gear is required. The stock front and rear differential cases must be used.

UTV-25 ROLL CAGE MATERIAL:

All vehicles in competition are recommended to be equipped with a roll cage based on seamless mild steel or 4130 chromoly steel tubing. Roll cage material may be; Crew, DOM, WHR, WCR mild carbon steel or 4130 chromoly. **BITD HIGHLY RECOMMENDS THE USE OF 4130 CHROMOLY.** All welds must be of high quality and craftsmanship with good penetration and with no undercutting of parent material.

UTV 26 ROLL CAGE TUBING SIZE:

Minimum Tubing Dimension-

UTV weight under 2000lbs OD 1.5" x ID .095"

UTV weight 2001 lbs. to 2500 lbs. OD 1.5" x ID .120" or OD 1.75" x ID .095"

UTV weight 2501 lbs. to 3000 lbs. OD 1.75" x ID .095"

For the purpose of determining tubing size, the UTV weight is a "WET" weight. Wet weight is race UTV with full fuel, spare tires, tools and drivers.

No aluminum or nonferrous materials are allowed to be used in the construction of the roll cage. Minimum tubing material dimension requirements for roll cages apply to this list of required tubes; front vertical hoop, rear vertical hoop, upper door bars, door bracing, top interconnecting bars, rear down braces, diagonal bracing behind drivers head, lower rear interconnecting bar. **This means that the front vertical hoop, rear vertical hoop, upper door bars, door bracing, top interconnecting bars, rear down braces, diagonal bracing behind drivers head, lower rear interconnecting bar must be all made with a minimum 1.5"x.095 if your UTV weights 2000lbs or less and 1.5"x.120 if over 2000lbs.**

UTV-27 ROLL CAGE DESIGN:

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BITD believes that it is each competitor's responsibility to present a safe vehicle for pre-race tech inspection. All competitors must maintain your safety equipment including the roll cage integrity. No changes to the recommended minimum construction specification with respect to diameter or wall thickness are anticipated at this time. As in the past, **BITD** reserves the right to not allow any safety cage design that in the view of the tech inspector, is not fit for competition. You, as the competitor, are ultimately responsible for your own vehicle's safety features with respect to the design, quality of execution, maintenance and repair of the roll cage structure. All roll cages must be designed and constructed with one front vertical hoop, one rear vertical hoop, two interconnecting top bars, two rear down braces, one or more diagonal brace, behind the drivers head and all necessary gussets. Front and rear cross over tubes must be gusseted to the side tube. The two top interconnecting bars must be placed as far to the outside of the top part of the front and rear hoops as possible. Rear down braces and diagonal brace must angle a minimum of 30 degrees from vertical. At the bottom of the diagonal brace there must be a cross member of the same tubing material and dimensions as the hoop. All roll cage components (hoops, braces, gussets, etc.) must have a minimum of 3-inch clearance from the component to the vehicle occupant's helmets when occupants are seated in their normal riding positions. All portions of the roll bar or bracing that might come into contact with the vehicle occupant's helmets must be padded. Roll cages must be securely mounted to the frame or body. All intersecting points must be gusseted and braced. Cab or body mounted roll cages must be bolted through the body structure and be attached by use of a minimum two 0.1875-inch thick plates (one on each side of body structure). Bolts and nuts must be at least 0.375-inch-diameter s.a.e. Grade 8 or equivalent aircraft quality. Welding of cab or body mounted roll cages to body structure is strictly prohibited. Roll cage terminal ends must be attached to a frame or body member that will support maximum impact and not shear or allow more than 1.5 inches of movement in the cage terminal end. Gussets constructed of 0.125-inch x 3-inch x 3-inch flat-plate or split, formed and welded corner-tubing, or tubing-gussets made of the same material and thickness as the roll cage may be used. Gussets must be installed at all major intersections, including diagonal and rear down braces, where single weld fractures can affect occupant's safety Oxy-acetylene brazing on roll cage is strictly forbidden. **4130 chromoly is highly recommended for all roll cage construction. BITD reserves the right to weight any vehicle at any time and check the wall thickness of the tubing used to build the roll cage.** Vehicle weight will be kept private if requested by the competitor.

UTV-28 BUMPERS:

All UTV race vehicles must have rear bumper secured to frame using minimum 1.5" outside diameter, .083" wall thickness. **Front and rear bumpers must stick out a minimum of 2" past the tires, front to back.** This is to prevent tires from touching when nerfing. Bumper ends must be made in such a way as to avoid any sharp edges. Bumpers and nerf bars must be designed in a way as to reasonably inhibit two vehicles from becoming locked together. A safe front and rear bumper is required on all vehicles. **No hazardous front or rear bumpers,** nerf bars, frame heads or other protruding objects from vehicles are permitted.

UTV-29 IDENTIFICATION NUMBERS, MARKERS, AND STICKERS:

All vehicles in competition must display the official **BITD** decal on both sides of the vehicle. All vehicles in competition must have identification numbers in the following locations and sizes: Minimum 8" tall with 1"-wide stroke on each side of vehicle in line with the occupants. Minimum 6" tall with 1"-wide stroke on the rear of vehicle and is plainly visible from the rear. Minimum 4" tall located on the front of vehicle or roof and is plainly visible from the front of the vehicle. All vehicles in competition must be identified with the correct class vehicle numbers and be displayed in the proper locations as described herein. **BITD** assigns vehicle numbers. Call **BITD** to get a race number. **All Pro UTV class vehicles can have any color numbers on any**

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color background. Numbers must be easy to see and read at race speeds. Number color and background must be approved by the **BITD** UTV tech inspector. **ALL NUMBERS MUST BE EASY TO READ. IF THEY ARE NOT, YOU WILL BE REQUIRED TO CHANGE THEM.**

UTV-30 PIT-SUPPORT VEHICLES:

All pit-support vehicles will have minimum 4-inch high white numbers (number of vehicle pitting for) on both sides of vehicle on side windows, on upper passenger side corner of front windshield and on rear window. Some of the **BITD** races require pit support vehicles to have a **BITD** pit pass on the dash, in the front windshield of the driver side. These pit passes are handed out at the race.

IMPORTANT: All rules are tentative and may be changed or updated as the **BITD** season progresses in accordance with the UTV classes. Please contact the **BITD** UTV class Tech Inspector email at aruddcraft@gmail.com with any questions or for more information on these rules. Please check the web site for updates throughout the 2021 season.

Thank you for racing with **BITD**.