UTV TROPHY

MAX ENGINE 2000CC N/A

1000CC FORCED INDUCTION

PRO UTV CLASS DEFINITION:

The Trophy UTV class vehicles are built using a Production based all-wheel drive UTV prior to competition. All vehicles must be approved and homologated by Best In The Desert. Manufactures must prove Unit is readily available to the public for sale and must deliver 25 units before end of race season. If manufacturer fails to provide documentation that a minimum of 25 units were delivered to customers all points and placing will be removed from the manufacturer. In addition, the manufacturer will be levied a $25,000 fine by BITD. Drive Train – must remain OEM design. If delivered with a CVT belt, must use a CVT belt If delivered with an automatic transmission, must use automatic transmission UTV engine must be used. The manufacturers motor transmission combination must be kept. Maximum engine size 2000cc. No car engines. Turbochargers and superchargers are allowed. All vehicles must resemble the production UTV and be based upon manufacturer vehicle that the car is based on. Max wheelbase1 40". The 140" wheelbase can be achieved by cutting the factory frame or built into the custom tube frame. Any type of suspension is allowed. No live axles. This is an **open** UTV class, with the exception of wheelbase 140" and track width of 80" Max tire size 35". This Pro Class does have a point championship, a points 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. Co-driver age not restricted.

UTV-1 PENALTIES:

At the discretion of the race director, Any UTV race team caught breaking these rules "cheating" May receive a maximum penalty of, Disqualification for the race and a 1 race suspension. Best in the Desert has the right to mark, tag or seal any part of a race UTV. Best in the Desert 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:

Single or 2 seat cars allowed seating location open

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 passenger side roof area.** Best In The Desert official Frequency is 151.490. The Best in the Desert 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 designs, components and mounting points are open.

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. Max wheelbase is 135”

UTV-7 SHOCK ABSORBERS:

There must be at least one and no more than 2 shocks per wheel in working condition at the start of the race.

UTV-8 BUMP STOPS:

Any suspension bump stop is allowed.

UTV-9 TORSION SYSTEM:

Must be coil over shock.

UTV-10 TIRES:

Maximum tire size is 35x10.5x open. Tire must have manufacture size on tire and say 35”. No multiple tires per corner permitted.

UTV-11 WHEELS:

All wheels must be stamped or engraved on the outside, within 3" 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 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 driver's 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

UTVs 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 taillights, 2 red brake lights, 1 rear facing Amber steady LED 1 rear facing Amber flashing. With a minimum of 2000 lumens and no less than 4 and1 blue strobe

The amber flashing and blue strobe are an attempt to identify the UTV class vehicle, so that faster vehicles will be able to recognize that they are approaching a slower vehicle. 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 continue.**

NOTE--The blue light should only be used during an official race. Blue flashing lights may be illegal in some state.

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. Taillights/brake lights must be at least 3 inches in diameter or be approved by Best In The Desert 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.

UTV-15 ENGINE LOCATION AND DISPLACEMENT:

Maximum engine displacement is 2000cc naturally aspirated and 1000cc forced induction. UTV engines only are allowed. No automotive engines. Engine electronic Management Open. All engines must use OEM blocks and Cylinder heads. Internal modification allowed but must remain OEM bore and stroke.

Must be rear or mid-engine.

No live axles.

UTV-15FD FUEL DELIVERY:

Fuel delivery is open.

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 advised for all vehicles but can use OEM stock tank in stock location and with stock fuel pump and filling hose. 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 gravity transfer only. Alternative fuels (ie. 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 are required minimum 3" a splash guard is required to prevent fuel from splashing on the driver or navigator. If standard hose clamps are used, two clamps 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 mandatory.

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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 drivers compartment. 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, Complete OEM plastic Tubs accepted.

UTV-19 FUEL FILLER SPLASH GUARD:

The intent of the splash guard is to keep fuel from being splashed on the driver, passenger, 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, passenger, exhaust and engine when inserting and removing the fuel filler jug. Minimum of 3"

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

Chassis/frame is open. All joints must be welded and attached to frame securely.

BODY; Must resemble OEM UTV.

ROOF: The roof must be covered with sheet metal or aluminum. Minimum thickness recommended is .060 Carbon Kevlar fiber on approval only.

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 chrome moly 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 or stronger than the net itself. Net attachments must be a minimum of every 6 inches. NON Acceptable attachments are not limited to the following: hose clamps, snaps, heavy-duty nylon ties, lift-a-dot, metal hooks. Steel rods are acceptable methods of bottom fastening. **Best In The Desert Racing Association** 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:

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. **Best In The Desert Racing Association** is concerned about race areas; thus, flares will not be permitted as a breakdown device. Official **Best In The Desert Racing Association** 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 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:

Must be all wheel drive engine transmission combination must match OEM configuration. If the vehicle came with a CVT belt must remain a CVT belt drive.Stock transmission cases and clutch design must be used. A functional reverse gear is required.

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 chrome moly steel tubing. Roll cage material may be; crew, dom, whr, wcr mild carbon steel or 4130 chrome moly. BITD HIGHLY RECOMMENDS THE USE OF 4130 CROMOLY. All welds must be of high

quality and craftsmanship with good penetration and with no undercutting of parent material.

UTV 26 ROLLCAGE 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 a race UTV with full fuel, spare tires, tools and drivers.

UTV-27 ROLL CAGE DESIGN:

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 "A" Pilar, vertical tube at front of door area "B" pilar, rear vertical hoop "C" Pilar, Torso And Thigh bars, door bracing, top interconnecting bars, rear down braces, diagonal bracing behind drivers head, lower rear interconnecting bar.

Front windshield area not to have open space larger than 30" so all 2 seat cars must run an intrusion bar it may consist of 2- 1"x .095 tubes or a single tube to match the rest of roll cage.

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-28 BUMPERS:

All UTV race vehicles must have rear bumper secured to frame using minimum 1.5" outside diameter, .095" wall thickness. **Front must sick out a minimum of 2" past the tires. Rear bumpers must stick past tires minimum of 4" past tire**

and must be between 30” and 40” from the ground. This is a bump area to prevent tire to tire contact. Front bumpers should be built to match that height requirement . 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:

BACKGROUNDS BLUE WITH WHITE NUMBERS:

All vehicles in competition must display the official Best in the Desert Racing Association 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. Best In The Desert Racing Association assigns vehicle numbers. Call BITD to get a race number. 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 Pro UTV class vehicles must have their specified color numbers and color background**. **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 Best In The Desert Racing Association pit pass on the dash, in the front windshield of the driver side. These pit passes are handed out at the race.

UTV-31 Brakes:

Brakes are open.

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 utvtech@bitd.com with any questions or for more information on these rules. Please check the website for updates throughout the 2023 season.

Thank you for racing with Best in the Desert.