

## **SECTION III** Updated 9-1-2011

**PLEASE NOTE: ALL BITD GENERAL/SAFETY RULES MUST BE FOLLOWED AND ARE LOCATED IN THE CAR/TRUCK RULE BOOK PAGES 7 THRU 32. THESE RULES CAN BE FOUND AT WWW.BITD.COM**

### **UTV and DSR1 Class** **Rules and** **Requirements**

**Pro UTV Production Class definition:** The Pro UTV production class vehicles are built using production UTV's, manufactured by registered companies that issues Vin #'s. Companies must produce a minimum number of units to be accepted. UTV's must have 2 seats. OEM engines must be used. Maximum engine size is 1000cc.

The Pro Class does have a point's championship, a point's championship fund, and an individual race purse.

**Pro DSR1 Class definition:** The Pro DSR1 class vehicles are built using a production UTV frame, A-arm suspension and an engine swap. **Full custom built frames are allowed but must be built with the suspension mounting point dimensions the same as a current UTV and must be preapproved.** A maximum engine size 1000cc. No car engines. Must use Hood, Grill and Fenders from a UTV. Must have 2 seats.

**Sportsman UTV/DSR1 class:** The Sportsman class is for any UTV/DSR1 team that wants to race but does not care, to race for championship points or prize money. The Sportsman class has lower entrée fee. Any other vehicles that are not built to the Pro UTV production class rules or the DSR1 class rules, but are classified as a UTV or a DSR1 by a UTVRA tech inspector will be allowed race in the Sportsman UTV/DSR1 class. **UTV and DSR1 classification must be pre-approved before racing in the first event.**

**Minimum requirements to be classified as a UTV or DSR1 are:** Max width outside of tire to outside of tire is 76" Vehicle wheel base must not exceed 8" over the stock dimension and no longer than 103" No car engines. Max tire size is 30". All vehicles must pass all BITD and UTVRA safety requirements.

**Anything not built in compliance with the spirit of the class may be deemed ineligible to collect points, trophies, prize funds, and contingency. Please contact the UTVRA with any questions at [utvra@hotmail.com](mailto:utvra@hotmail.com)**

#### **MEMBERSHIP REQUIREMENTS**

**UTVRA memberships are required for each UTV or DSR1 race vehicle. Best in the Desert Racing Association requires that all Drivers and Co-drivers must have a Best In The Desert membership participation in any race.**

UTVRA membership fees are \$25.00 per vehicle each race and will be collected at tech.

#### **OCCUPANTS:**

All UTV and DSR1 vehicles must have a driver and a co-driver in the vehicle for the duration of the race.

#### **DRIVER'S MEETING:**

All drivers and passengers must attend a pre-race UTV/DSR1 Class driver's meeting. This meeting will be separate than the official BITD driver's meeting. These meeting do not occur at every race.

#### **RADIO & COMMUNICATIONS:**

UTV Racing Association Frequency – 153.560

Best In The Desert Racing Association Frequency – 151.490

*The UTV Racing Association will monitor this frequency throughout the race in order to provide information to UTV race teams and the Best in the Desert Racing Association.*

**A VHF type radio will be required to be used in the race vehicle. The Best in the Desert and the UTVRA frequencies will be mandatory channels on each radio. All race vehicle teams will be required to provide any team specific frequency information to the UTVRA. All UTVs and DSR1s are required to have their radio frequency posted in the driver's compartment.**

**SUSPENSION:**

All suspension mounting points must remain the stock design and in the stock location and position as delivered from the manufacturer, however they may be reinforced for strength. Any suspension point mounted with a single bolt, may be changed to a 2 bolt mount design. Either side of the original pivot points may be used to remount the 2 suspension points.

**OVERALL MEASUREMENT RESTRICTIONS:**

The maximum width of a UTV or DSR1 measured for outside of tire to outside of tire is 76"  
The maximum overall wheelbase from spindle to spindle can be increased to 8 inches over stock dimensions. Max wheel base for UTV and DSR1 is 103"

**SHOCK ABSORBERS:**

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

**BUMP STOPS:**

Suspension bump stops must be of the solid type.

**TORSION SYSTEM:**

Currently the only torsion system that is acceptable is a coil-over shock.

**TIRES:**

Maximum tire size is 30 inches. No multiple tires per corner permitted.

**STEERING:**

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

**BATTERIES:**

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. The stock battery cover will be safety approved if bolted down. This only applies to the Rhino stock battery box.

**Batteries may be located in the driver's compartment. Batteries located in the drivers compartment may not be liquid filled and must be full surrounded with aluminum or sheet metal.**

**LIGHTS:** All vehicles must have a minimum of **two taillights, two brake lights, two rearward facing amber lights; one flashing, one steady,** and a **rearward facing blue light, steady.** The amber flashing and blue light is an attempt to identify the slower moving UTV/DSR1 class of vehicle, so that faster class vehicles will be able to recognize that they are approaching a slower vehicle.

UTV Racing Association has approved amber and blue lights made by **Federal Signal** (Target Tech). Several other safety lights have been approved by the UTVRA.

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 cannot continue.

NOTE--This blue light should only be used during an official race. Previous incidents report this is illegal on roads and BLM, State, or public lands.

**Headlights for the all Vegas to Reno Races:** All race vehicles must be equipped with a minimum of 2 white-beam headlights wired to the vehicles charging system. Any extra lighting is acceptable and encouraged.

The stock headlights and switch are acceptable as one of two pairs of required headlights.

All lights must be in operating condition at time of inspection. Headlights may not be removed. 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. If during the race any taillight, brake light, blue light if so required or the amber lights are damaged or burned out, the light must be fixed or replaced at the next available pit before proceeding in the race. Any taillight, blue light, or amber lights that are connected to a switch that will allow the vehicle to move in any direction under its own power without the lights being on will cause that vehicle to be disqualified. All rearward-facing lights must be protected against damage in the event of a rollover.

Taillights must be at least 3 inches in diameter, or meet with Best In The Desert Racing Association approval, and must be mounted in such a manner as to be clearly visible from a distance to the rear of the vehicle. Rearward facing amber light and blue light must be at least 40watts but not greater than 55watts. 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 light must be mounted a minimum of 48 inches from the ground and must be clearly visible, with no obstructions (IE: not mounted behind any solid object), from any angle from the rear of the vehicle. The amber lights and blue light must be placed so that an approaching driver's vision is not impaired. The amber lights, blue light, and taillights must be connected to the ignition switch (connecting straight to the battery switch, if vehicle is so equipped, is acceptable) and remain on during the entire race.

**ENGINE LOCATION AND DISPLACEMENT:** All UTV vehicles must use stock engine cases and cylinder head. Maximum engine displacement is 1000cc. This displacement requirement only applies to the UTV Pro Production class. The Sportsman Unlimited is an open Displacement class. Engine displacement and location may be checked by UTV Racing Association at any time. The UTV Racing Association reserves the right to mark engine blocks prior to an event and confiscate engines after the race.

### **FLUID COOLERS:**

#### **Required:**

Oil coolers, transmission coolers and radiators located ahead of the driver and co-driver or in the drivers 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 FIREWALLS:**

#### **Required:**

All vehicles must have an all-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 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 must be used to seal the hole between the firewall and the item passing through the firewall.

Stock UTV engine covers meet the **engine** firewall requirement for the 1900 UTV class. However a fuel container firewall separator is still necessary. For UTVs and DSR1s with fuel injection it is required to completely cover the engine with aluminum.

### **FUEL FILLER SPLASH GUARD:**

The intent of the splash guard is to keep fuel from being splashed on the driver and passenger 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 and passenger when inserting and removing the fuel filler jug.

### **CHASSIS (FRAME), BODY AND ROOF:**

All UTV vehicles **must** utilize the stock chassis (frame) and maintain stock appearance. 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. **Please contact the UTVRA for a better description. Any modifications or repairs to the stock chassis (frame) must be pre-approved by a UTVRA tech inspector.** The stock chassis (frame) may be added to, for durability and strength, but must retain the stock width, length, and configuration. The stock UTV cage may not be used because no bolt on connections to chassis are allowed. All joints must be welded and attached to frame securely.

Any aftermarket UTV hoods and fenders must maintain the appearance of the original UTV. All aftermarket or custom hoods and fenders must be preapproved by the UTVRA. All body parts must remain on the vehicle during the entire length of race (accidental damage excluded). Currently, Maier, and Fulbore UTV bodies have been approved.

The roof must be covered with sheet metal or aluminum. Minimum thickness recommended is .080

**DOORS:**

Must have 'X', 'A' or Ladder design bracing in door area. 'X' or 'A' designs must use a minimum 1.5" outside diameter, .090" wall thickness 4130 chromoly or 1018/1012 CDS/DOM. Ladder design must use a 1.5" diameter, .090" wall thickness for main rails and 1.25" diameter x .090" wall thickness for rungs.

Doors that latch and/or open and close are not allowed.

**SEATING:**

All vehicles must use seats designed specifically for racing applications manufactured by a recognized racing seat manufacturer. Stock seats must be completely removed.

A recognized manufacturer that specializes in seats for racing applications must make all seats. 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.

**TRANSMISSION:**

UTVs must use the stock transmission and clutch design. UTVs must have a functional reverse gear. The stock rear differential must also be used. DSR1 does not require reverse, it is recommended. Stock UTV differential is not required.

**FLOORBOARDS:**

**Required:**

Stock UTV floorboards are acceptable. Although adding extra protection made of metal or aluminum is highly recommended.

**ROLLCAGES:**

**Required:**

**Table 2. Minimum Tubing Dimension**

<b>Vehicle Weight</b>	<b>Open Cockpit</b>	<b>Closed Cockpit</b>
Under 2000 lbs.	1.5" x 0.90"	1.5" x .090"
2000 to 2999 lbs.	1.75" x .120"	1.5" x .120"
3000 to 3999 lbs.	2" x .120"	1.75" x .120"
4000 pounds and over	2.25" x .120"	2" x .120"

**Note:** See manufacturer's reference charts for alloy steel tubing equivalent strengths. No aluminum or other nonferrous materials are permitted.

**Material:**

Roll cage construction material may be crew, dom, whr, wer mild carbon steel or 4130 chromoly.

**UTVRA HIGHLY RECOMMENDS THE USE OF 4130 CROMOLY or 1018/1012/ASTM/DOM. All welds must be of high quality and craftsmanship** with good penetration and with no undercutting of parent material. Stress relieve all welded intersections by flame annealing.

### **Roll cage Design**

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 diagonal brace and all necessary gussets. 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.

All vehicles including those with stock steel doors must have at least one side bar on each side of vehicle that will protect occupants from side impact. The side bars must be of the same tubing material and dimensions as the rest of the roll cage. The side bars must be as close to parallel to the ground as possible, be located to provide maximum protection to the occupants, and be securely welded to the front and rear hoops. The location of the sidebars must not cause difficulty in entering or exiting the vehicle.

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 occupants' safety.

### **Restricted:**

Oxy-acetylene brazing on roll cage is strictly forbidden.

Recommended: 4130 chromoly is highly recommended for all roll cage construction.

### **BUMPERS:**

Must have rear bumper secured to frame using minimum 1.5" outside diameter, .083" wall thickness chromoly, .095 wall thickness if using mild steel.

Bumper ends must be capped and rounded to prevent 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.

### **IDENTIFICATION NUMBERS, MARKERS, AND STICKERS:**

#### **Required:**

All vehicles in competition must display the official Best In The Desert Racing Association and the UTV Racing Association decal on both sides of the vehicle.

All vehicles in competition must be identified with the correct class vehicle numbers and be displayed in the proper locations as prescribed herein. Best In The Desert Racing Association will assign vehicle numbers.

All Pro UTV class vehicles will have **black numbers on a white background**. Sportsman UTV class will have **black numbers on a yellow background**. There must be a gap of at least 1 ¼” between the black line and the numbers. This is mandatory. No other combination will be permitted.

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 **10** inches high with 1-inch-wide stroke on **each side** of vehicle in line with the occupants.

-Minimum **6** inches high with 1-inch-wide stroke on the **rear** of vehicle and is plainly visible from the rear.

-Minimum **4** inches high located on the **front** of vehicle or roof and is plainly visible from the front of the vehicle.

#### **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. Pit support vehicles must have current Best In The Desert Racing Association pit pass attached to lower portion of the front windshield on the passenger side.

**IMPORTANT:** All rules are tentative and may be changed, altered, or updated as the BITD season progresses in accordance with the 1900 UTV class.

Please contact the class representative Cory Sappington at (602) 769-6164 or email at [UTVRA@hotmail.com](mailto:UTVRA@hotmail.com) with any questions or for more information on these rules.