

# 1.0 UTV Classes

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## **Pro Turbo Production UTV Class definition:**

The Pro Turbo production class vehicles are built using production Turbo UTV's, manufactured by registered companies, i.e. Polaris, Can-Am, Artic Cat, that issues Vin #'s. Companies must produce a minimum number of 1000 units per year. UTV's must have a minimum of 2 seats. OEM engines must be used unless specified for the class. All OEM engine electronics must be used unless specified for the class. Maximum engine size is 1000cc. Transmissions must be of a CVT design (belt driven). Must use hood, grill, front and rear fenders from the UTV. The Pro Classes do have a points championship, a points championship fund, and an individual race purse. Must not exceed an outside track width of 77". Maximum tire size 35". **All Can AM Mav R vehicles will race in the Pro Unlimited UTV Class**

## **Pro Production UTV Class definition:**

The Pro UTV production class vehicles are built using production UTV's, manufactured by registered companies, i.e. Yamaha, Polaris, Can-Am that issues Vin #'s. Companies must produce a minimum of 1000 units per year to be accepted. UTV's must have 2 seats. OEM engines must be used. Maximum engine size is 1000cc. Transmissions must be of a CVT design (belt driven). Must use hood, grill, front and rear fenders from the UTV. This Pro Class does have a points championship, a points championship fund, and an individual race purse. Must not exceed an outside track width of 77". Maximum tire size 35"

## **Pro Unlimited UTV class definition:**

The Pro Unlimited UTV class vehicles are built using a factory UTV frame or a full tube custom frame. Motorcycle, snow mobile or UTV engine must be used. Maximum engine size 2000cc. No car engines. Turbo chargers and superchargers are allowed. Must use Hood and front fenders from a UTV. Max wheelbase 134". The 134" wheel base can be achieved by cutting the factory frame or built into the custom tube frame. Any type of suspension is allowed. This is an open UTV class, with the exception of wheelbase 134". This Pro Class does have a points championship, a points championship fund, and an individual race purse. **Any UTV is legal to race in the Unlimited UTV class. Any racer that enters this class must stay in this class for the remainder of the season, although, they can move to the sportsman class if they do not want to race Pro class.**

## **Sportsman UTV class definition:**

The Sportsman class is for any UTV 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 UTV vehicles that are not built to the Pro UTV production class rules, but are classified as a UTV by a YORR UTV tech inspector will be allowed race in the Sportsman UTV class.

## **Driver Safety Equipment**

**Helmets** – Helmets must meet the following requirements; Snell memorial foundation, SAH2015, SA2015, or SA2020 with a legible Snell sticker attached, FIA Standard 8860-2004, 8860-2018, 8860-2018-ABP, 8860-2010, and 8859-2015 with a legible with a legible FIA sticker attached.

**Protective Clothing – Driving suits** are required that cover the body from the neck to the ankles and to the wrist. Suits must be manufactured from fire resistant material with the manufacturer's fire-resistant label attached. Suits must be labeled SFI 3.2A/5 or higher. **DRIVING SUITS ARE MANDATORY.** Drivers' suits must be in good condition, clean and free of damage (i.e., holes, tears, rips, etc.). **Driving gloves and shoes** must meet SFI 3.3 requirements and be free of holes are **mandatory.** Leather boots are acceptable. Only cotton undergarments or fire-retardant long sleeve tops, and long bottom undergarments as well as fire retardant socks rated to the SFI 3.3 specification are allowed.

**NECK RESTRAINTS-** All competitors shall utilize a Head and Neck Restraint System in accordance with one of the following specifications:

- SFI 38.1 specifications.

- FIA standards 8858-2002 or FIA 8858-2010
- Donuts and neck collars are not allowed

## **1.1 SUSPENSION COMPONENTS**

**1.1.1: SHOCK ABSORBERS** - Stock shocks or aftermarket replacement shocks are permitted so as far as the original chassis mounting points are retained. Factory mounting position may have material added for the purpose to strengthen, but must retain the factory material, and specifications. Upper shock mount can be repositioned but must be an off the shelf bolt in kit. No weld in mounts allowed.

**1.1.2: BUMP STOPS** - Hydraulic Bump stops are not permitted

**1.1.3: Long Travel Suspension** - Suspension kits must be aftermarket off the shelf suspension kits readily available for sale.

**1.1.4:** Stock factory suspension pivot point specifications must be retained and connecting points must be free of cracks and in good physical condition as determined by the Chief Technical Inspector or his/her delegate. Factory suspension pivot points may have additional material added for the purpose of strengthening but factory material must not be removed.

## **1.2: WHEELS & TIRES**

**1.2.1:** Tires shall be visually checked for condition and must not be considered obviously unsafe by the Chief Technical Inspector.

**1.2.2:** Maximum tire size is unlimited.

**1.2.3:** Tires must be factory-built readily available. Tires from any ATV/UTV tire manufacturer are permitted.

**1.2.4:** Tire studs, screws, or any other items added to the tire are not permitted.

**1.2.5:** Grooving, sipping, or other modifications that involve removing material from the tire are permitted.

## **1.3: FASTENERS**

**1.3.1:** It is recommended that all component parts of the vehicle's steering, suspension, chassis, drivetrain, and running gear be secured with fasteners suitable to the task, and in good working order. Male threaded fasteners should be secured with either: lock nuts, lock washers, cotter pins or safety wire and shall have at least one full thread showing through the nut.

## **1.4 STEERING**

**1.4.1:** Drag link and tie rod ends designed for use with a castellated nut and cotter pin must be secured with a cotter pin. Spherical rod ends (Heim joints) are a permitted replacement for OEM-style tapered tie rod ends.

**1.4.2:** Aftermarket steering racks are permitted but must retain factory type.

**1.4.3:** Factory power steering is permitted. Aftermarket electric power steering is approved.

## **1.5 BRAKES**

**1.5.1:** Brakes are considered the system used for slowing and stopping the wheels.

**1.5.2:** Brakes must be able to apply adequate force to lock up all four tires. Brakes must be in a safe operating condition and free of leaks during the entire event. If brake system problems occur during the event they must be repaired before continuing in competition.

**1.5.3:** Turning, cutting, or steering brakes are not permitted.

**1.5.4:** Aftermarket brake products are permitted.

**1.5.5:** Brake pedal(s) mounted in driver's foot-well must be able to operate all brakes with a single foot. Adjustable brake bias is not allowed. Factory brake pedal assembly needs to be retained.

**1.5.6:** Each vehicle should have a means of applying continuous brake pressure while vehicle is parked with occupant(s) outside the vehicle. Hydraulic "line-locks" or mechanical "park" mechanisms are permitted.

## **1.6 ELECTRICAL SYSTEM**

**1.6.1: IGNITION** - Each vehicle must have a positive action on/off ignition switch. The switch must be labeled "ignition on/off" and be located within easy reach of the driver and from the outside of the vehicle.

**1.6.2: BATTERIES** - Batteries must be securely mounted.

**1.6.3: LIGHTS** - All UTVs must have a minimum of two taillights, two brake lights. All UTVs must have 3 rear facing safety lights. The 3 required rear facing safety lights are; 1 steady amber, 1 flashing amber, 1 blue light steady or flashing. All 3 of these safety lights must be LED, a minimum of 2000 lumens and 4 bulbs. **The Safety LIGHTs MUST BE MOUNTED AS HIGH UP ON THE CAGE AS POSSIBLE AT A MINIMUM OF 48" AND REAR FACING.** 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. **YORR 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--The blue light should only be used during an official race. Previous incidents report this is illegal on roads and BLM, State, or public lands. All lights must be in operating condition at time of 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 meet YORR approval. 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 light must be approved by the YORR 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 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 and blue light must remain on during the entire race.

**1.6.4: STARTER** - All vehicles must be self-starting by use of an onboard electric starter.

**1.6.5: HORN** - All vehicles must be equipped with a horn or siren. The horn or siren must be loud enough that it can be clearly heard over a running engine. The horn or horn switch must be mounted in a location that can be reached by the driver or co driver while wearing a safety harness.



## **1.7. FUEL SYSTEM**

**1.7.1: FUEL** - Any of the following commercially available fuels may be used:

**1.7.1.A:** Service station pump gasoline (the type normally used in passenger vehicles for highway use, this also includes E85.)

**1.7.1.B:** Racing gasoline as manufactured

**1.7.1.C:** Commercial aviation gas

**1.7.1.D:** Diesel fuel (including bio-diesel)

**1.7.1.E:** Propane or natural gas.

**1.7.1.F:** Commercially produced, nationally advertised fuel additives may be used.

**1.7.1.G:** No alcohol, or nitro-methane is permitted. Nitrous Oxide is not permitted.

**1.7.2: Stock fuel systems** - Unmodified stock fuel systems are approved

**1.7.3: Modified fuel systems** - Safety fuel cells are required for any vehicle that has modified its factory fuel system. Safety fuel cells shall consist of a bladder enclosed in a smooth skinned container. The container shall be constructed of 20-gage steel, 0.060 Inch aluminum, or 0.125 inch marlex. All fittings must be built into the container skin and bonded to the container 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. Foam is an acceptable internal baffling. Bladder construction shall be of nylon or Delcron woven fabric impregnated and coated with a fuel resistant elastomer, rotary molded polymer cells are acceptable when encapsulated in a container constructed of 20-gage steel, or 0.060 inch aluminum.

**1.7.4:** Fuel tanks shall be mounted in a fashion to protect the tank from damage due to a rear-end or side collision, impact from debris or rocks from below the vehicle, damage due to roll over, or the possibility of damage from chassis flex. Firewalls and/or bulkheads must separate the driving compartment from any fuels, engine fluids, and acids. Rear mounted Fuel cells higher than drivers shoulder must extend fire wall to 2 inches above fuel cell.

**1.7.5:** Fuel filler lines and positive-locking, non-vented fuel filler caps must be located and secured in such a manner as to prevent them from being knocked off or open during vehicle movement, rollover, or accidental impact.

**1.7.6:** The fuel vent line if so equipped must vent outside of occupants' compartment and be directed away from the engine and exhaust system.

**1.7.7:** All fuel fillers attached to the frame or a body panel must use a flexible coupling to the tank. All fuel fillers must be surrounded by a boot or splashguard. (Body panel is acceptable as a splashguard if it is sealed.) Splashguard must direct fuel out of the vehicle and away from occupants.

**1.7.8:** Factory ECU's must be retained; aftermarket tuners are approved. Stand-alone aftermarket ECU's are prohibited. Aftermarket CDI is acceptable for carbureted rhino models.

**1.7.9:** Fuel mats are recommended for all refueling. No vehicles shall be refueled outside approved pit locations. Storage of fuel in the pits shall consider safety the highest priority. Check with local event restrictions concerning the storage, transportation, and transfer of fuel. Y.O.R.R. highly recommends the use of safety tape and "No smoking/No open flame" signs in the area surrounding fuel storage and transfer locations.

## **1.8 ENGINE TRANSMISSIONS TRANSFERCASE & DRIVELINE**

**1.8.1:** Engine make is limited to the **stock configuration** from the manufacture not to exceed 1000CC. No snowmobile or motorcycle engines allowed. Air cleaner, header pipe, exhaust pipe, muffler and clutch can be changed and or modified.

**1.8.1a:** Factory installed turbos are allowed in the **Pro Turbo Production UTV Class**, however factory geometry must be maintained on the turbine and impeller. No aftermarket intercoolers will be allowed. Turbochargers must be OEM stock. No modifications or changes are allowed.

**1.8.1b: Unlimited and Sportsman UTV classes;** Any turbocharger is allowed. Any modifications are allowed. Any ECM/ECU is allowed. Any fuel controller is allowed. Any engine electronics are allowed.

**1.8.1c: FUEL CONTROLLERS** Pro Production class is allowed to use aftermarket fuel controllers. Pro Turbo Production class is **NOT** allowed to use aftermarket fuel controllers.

**1.8.2:** Engine shall be free of leaks.

**1.8.3:** Entrant may replace a complete engine during an event. Entrant will be deemed to have replaced a complete engine if the case has been replaced.

**1.8.4:** Every vehicle must have a functional reverse gear.

**1.8.5:** Transmissions are limited to stock as supplied from the manufacture. Transmission shall be free of leaks.

**1.8.6:** All vehicles shall be 4-wheel drive

**1.8.7:** All throttles, whether controlled by hand or foot, must have at least one return spring of sufficient stiffness to instantly close the throttle plate when the throttle is released. Carbureted vehicles must have at least two throttle-return springs, at least one of which must be attached to the carburetor. All vehicles should have at least one throttle return spring at the throttle plate and one at the throttle control (pedal or hand control). Computer controlled throttles (Electronic Throttle Control or "drive-by-wire" systems) are exempt from the requirement to have a return spring at the throttle body, but must have a return spring at the throttle control (pedal or hand control) or maintain the stock OEM system. A positive stop or throttle override system must be used to prevent throttle linkage from sticking in an open position.

**1.8.8:** A hand throttle may be used if physical limitations require use of such device. Hand throttles must meet the same requirements as foot throttles, and must meet with the approval of Y.O.R.R.

**1.8.9:** Oil coolers, transmission coolers, and radiators located in front of the vehicle occupants must have a shroud that, in the event of a rupture or leak, will prevent liquids from blowing back or leaking onto the occupants. All hoses running through the passenger compartment must be shielded. Steel braided hoses do not constitute a shield.

**1.8.10:** All vehicles must start event in good working condition.

## **1.9 VEHICLE SAFETY EQUIPMENT**

**1.9.1: ROLL CAGES** - It is each competitor's responsibility to present a safe vehicle for pre-event technical inspection. Competitors must maintain their safety equipment including the roll cage integrity. Y.O.R.R. reserves the right to not allow any cage designs that, in the opinion of the Chief Technical Inspector, is not fit for competition. Competitors are ultimately responsible for their vehicle's safety features, including the design, fabrication, quality of execution, maintenance, and repair of the roll cage structure. The roll cage is considered to be the main 6-point structure that surrounds and protects the vehicle's occupants.

**1.9.2:** Six (6) point or higher roll cages are required surrounding the occupants. Stock factory roll cages that are made from .095" wall thickness tubing or higher and have 6 points of contact are acceptable but not recommended. Main tubes of the roll cage must be of one piece design with no removable sections. The only bolted joint allowed on the main hoops is at the connection to the vehicle frame. 2 front window bars towards the center of the vehicle are highly recommended.

**1.9.3:** All welds must be of high quality, with good penetration and no undercutting of parent material.

**1.9.4:** All roll cage components (hoops, braces, gussets, etc.) must have a minimum of 3" of clearance from any vehicle occupant's helmet when occupant is seated in normal driving/riding position. All roll cage components that might come into contact with the vehicle occupants' helmets must be padded.

**1.9.5:** Roll cages must be securely mounted to the frame, chassis, or body. Roll cage mounting fasteners must be at least 3/8" diameter S.A.E. or metric equivalent, Grade 8 or equivalent or better when utilizing the stock mounting positions. Sandwich plates, if used, must be oriented only in the horizontal plane. No vertical or other non-horizontal sandwich plate orientations are permitted.

**1.9.6:** 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 movement in the cage terminal end.

**1.9.7:** All vehicles must include factory or aftermarket door with permanent or secondary latching system to protect occupants in the event of a roll over, or collision. A chassis integrated door bar with an aluminum skin is approved.

**1.9.8:** Gussets should be installed at all major intersections, including diagonal and rear down braces, where single weld fractures can affect occupants' safety. Gussets of the same material and thickness as the roll cage may be used.

**1.9.9:** A minimum 0.040" expanded or flat sheet steel or 0.125" aluminum should cover the area immediately above the occupants' seats and be attached via welding or bolting to a steel tubing frame work.

**1.9.10: DRIVER RESTRAINT SYSTEMS** - All vehicles must have a five-point H-style driver restraint system for each occupant. Driver restraints must incorporate a lap belt, anti-submarine strap, and shoulder straps.

**1.9.11:** The driver restraint system shall consist of one 2" wide anti-submarine strap, one 3" wide lap belt and two 3" wide shoulder straps. Sternum straps and chest buckles may be used. Hybrid Head & neck restraint belts allowed when used in conjunction with a head and neck restraint system. The use of some form of neck protection is highly recommended.

**1.9.12:** Belt/strap material shall be nylon or Dacron polyester. Driver restraint system must be in new or perfect condition with no cuts, frayed layers, chemical stains, or excessive dirt and must be in flexible condition (i.e. material must not be stiff).



**1.9.13:** No portion of the driver restraint system may be altered in any fashion from the manufacturer's standard design.

**1.9.14:** All driver restraint systems must be properly mounted in accordance with manufacturer's directions and recommendations. Bolt in, wrap-around, and snap-in mounting styles are permitted, except that lap belts may not be mounted by wrap-around method.

**1.9.15:** In addition to conforming to the manufacturer's directions, driver restraint system installations must also conform to the following:

**1.9.15.A:** The driver restraint system must be mounted to structural members able to withstand the load the restraint system will place on them in a crash, without rupturing or failing.

**1.9.15.B:** Driver restraint must be matched to a properly constructed, fitted, and installed seat securely mounted to the frame / chassis / roll-cage.

**1.9.15.C:** Seats must not be modified to create belt slots.

**1.9.15.D:** All belts should be as short as possible to minimize the belt's stretch.

**1.9.15.E:** Belt routing must allow webbing to pull in a straight line against anchor point. Mounting brackets must be at an angle that is compatible with the direction of pull on the webbing.

**1.9.15.F:** Preferred anchor mount is a double-shear bracket.

**1.9.15.G:** Driver restraint systems must be mounted using high-quality hardware appropriate for the installation. 1/2" or 7/16" OR Metric equivalent fine-thread Grade 8 bolts and Grade 8 deformed thread locknuts (or better) are recommended.

**1.9.15.H:** Belts must not rub against any surface that will cause them to fray.

**1.9.15.I:** 3-bar slides must be located as close as possible to the anchor plate, or if belt is wraparound style, to the bar around which they wrap.

**1.9.15.J:** Belts using non-sewn anchor plates must be wrapped back a fourth time through the 3-bar slide.

**1.9.15.K:** Wrap-around style mounting should be confined to shoulder and 5th point belt installation and must include some method to prevent lateral movement of the belts.

**1.9.16:** Driver restraint systems must be worn properly tightened, by all occupants; at any time the vehicle is in motion.

**1.9.17: SAFETY NETS** - Approved safety nets are mandatory on all vehicles and must cover the complete open area of the cockpit on both sides of the vehicle to the extent that it is impossible for any limb or body part of any occupant to protrude from the vehicle at any time when the occupant is properly seated and strapped in their normal driving / riding position.

**1.9.18:** Nets must be installed on the inside of the roll cage to prevent them from being damaged or coming off in a roll over or slide on the side.

**1.9.19:** Nets attached to doorframes are permitted when Door frame is equipped with a latch that prevents it from opening and locked permanently closed.

**1.9.20:** Nets must be installed so that the occupants can release the netting unassisted and exit the vehicle regardless of the position of the vehicle.

**1.9.21:** 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 at a minimum of every 6 inches. Acceptable attachments include, but are not limited to: steel hose clamps, snaps, lift-a-dot, metal hooks, and steel rods. Nets must be tight so that when subject to a pushing force of approximately 50lbs the net deflects no more than four inches.

**1.9.22: SEATING** - All seats must be manufactured by a recognized manufacturer and approved for racing application for human beings. Seats must be interchangeable between left and right sides. Mock seats are not approved.

**1.9.23:** All seats must be securely mounted to frame of vehicle.

**1.9.24:** Adjustable track-type seat mounts must be securely mounted to frame of vehicle to allow no lateral or vertical movement between seat and frame or mounting track and frame.

**1.9.25:** Headrests constructed of at least 2" thick resilient padding and being approximately 36 square inches in area are required or the use of a high back seat.

**1.9.26: Fire Extinguishers** – It is required that each vehicle carry at least two fire extinguishers. The fire extinguishers must be mounted so that one or both is accessible to the occupants and that one or both are accessible to someone on the outside of the vehicle. In addition the mounts constructed in a manner that will keep the fire extinguishers secure in the event of a roll over, collision, etc.

## **1.10 GENERAL VEHICLE COMPONENTS**

**1.10.1:** The vehicle occupants must be able to easily enter and exit unassisted with the vehicle in any position. Firewalls and/or bulkheads must separate the driving compartment from any fuels, engine fluids, and acids.

**1.10.2:** Official vehicle weight shall be the empty dry weight of the vehicle. Empty dry weight is measured without fuel, spare tires, tools, spare parts or occupants in vehicle. Official weight will be the weight as shown on the Y.O.R.R. official scales where applicable.

**1.10.3:** Stock floorboards as delivered from manufacture are required on all vehicles. Floorboards must cover the entire area from in front of the pedal assembly to behind the seat(s), and from the outside edge to the outside edge of the vehicle.

**1.10.4:** No hazardous front or rear bumpers, nerf bars, frame heads or other protruding objects from vehicles are permitted. Ends must be capped and rounded to prevent any sharp edges. Bumpers and nerf bars must be designed in a way that reasonably minimizes the chance of two vehicles becoming locked together.

**1.10.5:** A rear view mirror is required on all vehicles. Mirrors must have at least six square inches of mirror surface. Mirror must have a reasonably unobstructed view of area behind vehicle.

**1.10.6:** All spare parts and extra equipment carried on or in a vehicle must be securely attached or stowed to prevent movement during competition. All spare parts and extra equipment must be carried in a manner that minimizes the risk of injury to the vehicle occupants.

**1.10.7:** All vehicle body parts must remain on the vehicle (accidental damage excluded) during the entire event.

**1.10.8:** Chassis frame may not be modified from factory specifications. Vehicles are to retain overall UTV appearance as delivered from the factory.

**1.10.9:** Minimum dry vehicle weight less occupants is 1200 lbs.



### **1.11: IDENTIFICATION MARKERS**

**1.11.1:** All vehicles in competition must be identified with the correct entrant number.

**1.11.2:** Entrant numbers shall be composed of a combination of digits 0 through 9 only (no letters).

**1.11.3:** All vehicles must utilize a “shark fin” style number plate located on the roof behind the “B” pillar and offset in from the side panels of the vehicle to protect it from mud. In addition to the “shark fin”, all vehicles must have one front facing and one rear facing number plate with the same color combination as the “shark fin”. Shark fin numbers must be 7” tall with 1” brush stroke. Front and rear facing numbers must be 6” tall. Black numbers with a white or yellow background. Any number location that is deemed to be too hard to read will have to be changed before the vehicle is allowed to compete in the event.

**1.11.4:** Y.O.R.R. assumes no responsibility for scoring vehicles with unrecognizable numbers. It is the vehicle driver’s responsibility to maintain numbers in recognizable condition. This includes mud, dust, etc. If we can’t see your numbers we will not score your times.

**1.11.5:** Advertising, symbols, and names may be displayed on competition and support vehicles provided that they do not interfere with required official identification markings and that they are in good taste as judged by Y.O.R.R. sanctioned representatives.

