

1.0 Sportsman Buggy Class 1600

OPEN WHEEL - 1600cc

DEFINITION: Single or two seat vehicles limited to 1600cc VW engines and VW Type 1 suspension systems.

This is an open class and all components will be considered open unless restricted herein

Driver Safety Equipment

Helmets – Full face helmets are required for all occupants of the vehicle.

Fire Suits – Full fire suits are highly recommended for all occupants of the vehicle. At a minimum long sleeve shirts and full length pants are required.

1.1 SUSPENSION COMPONENTS

1.1.1: SHOCK ABSORBERS – Any number of shocks but no coilover or air shocks

1.1.2: BUMP STOPS - Hydraulic Bump stops are not permitted

1.1.3: SECONDARY SUSPENSION – No secondary suspension allowed

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

1.2.4: 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.

1.5 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 vehicles must have a minimum of two taillights, two brake lights and four rearward facing safety lights that are bright enough to be seen, lights must be on at all times while vehicle is running. The 4 required rear facing safety lights are; 1 steady amber, 1 flashing amber, 1 blue light steady. All 3 of these safety lights must be LED, a minimum of 2000 lumens and 4 bulbs. **THE 4th MANDATORY REAR SAFETY LIGHT IS A SPEC BLUE STROBE LIGHT. THIS SPEC BLUE LIGHT MUST BE PURCHASED FROM KC HILITES 928-635-2607. THIS LIGHT 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 1600 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 YORR 1600 Tech Inspector. Federal Signal, Rigid, Tribal Whips and KC Hilites have been approved. Other manufactures may be approved call the YORR 1600 Tech inspector for more information. Headlights are required for events where any portion of the on-course event takes place between sunset and sunrise. If during an event any required light fails to operate, the light must be fixed or replaced at the next available pit before the vehicle can continue in the event.

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.

1.7.9: 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

1.8.1: ENGINE AND ENGINE DISPLACEMENT - VW type engine only with a maximum displacement of 1600cc. Dual port heads allowed. Any internal modification allowed. All other modifications ok

Low compression engine option, 8.5 to 1 limited to 1776cc single carb of any make with a max venturi size of 36mm, any heads all other modifications are allowed.

1.9 VEHICLE SAFETY EQUIPMENT

1.9.1: ROLLCAGES - 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.

1.9.3: 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.

1.9.7: 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.

1.9.10: 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.

1.10.3: 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.

1.11: IDENTIFICATION MARKERS

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

1.11.2: Entrant numbers shall be assigned to Drivers of Record on a first-come first-served basis.

1.11.3: Vehicles must display entrant numbers on both sides of vehicle. Numbers must have a contrasting background such as white letters on a black background or black letters with a white background. A reflective material would work best.



1.11.4: Entrants participating in any series will be required to retain their number for all events in the series.

1.11.5: 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.

1.11.6: 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.