

GRAND BEND SPEEDWAY

440cc OUTLAW SPRINT RULE BOOK “ 2010 “

ENGINE SPECIFICATIONS:

Engine

- 450cc ATV, MOTORCYCLE, 4 STOCK WATER COOLED STOCK
- 440cc snowmobile engine, fan or air cooled only
- Engine must have original casting number
- Cylinders may be bored to a maximum of .060 over standard size
- Original stroke must be retained
- “Turbos” are not permitted
- Engines will be randomly checked for displacement
- For heavier Driver's – 650 LBS or more can run a 570 cc Snowmobile fan cooled.

Carburetors

- Fuel Injected allowed
- Round slide, flat slide, or butterfly carburetors only
- Twin carbs, 38mm maximum
- Single carbs, 44mm maximum

Mufflers

- Mufflers / silencers are mandatory
- A decibel rating will be determined
- No open headers
- Turned down towards infield or ground

CHASSIS:

- Frame must be constructed out of (min.):
 - 1 1/8" x .083" wall cond N chrome-moly
 - 1 1/8" x .095" wall DOM seamless tubing
 - 1 1/4" x .095 wall mild steel tubing
- Chassis must be constructed to allow maximum driver's feet protection, a foot bar must be welded to the chassis.
- Sidebars, if constructing a downtube chassis, min. 1" x .083" wall mild steel round tubing. If constructing a midrail chassis, min. 1 1/8" x .083" wall 4130 cond N chrome-moly round tubing.
- Home built or Manufactured (Hyper Racing or Spike chassis exp.)
- Left or right hand drive
- A third door bar on drivers side (left side) must be installed. See diagram on next page. 25.
- Floor plate with a min. thickness of .100" steel or 3/16" aluminum must be bolted or welded under the seat or cross bar min. 1 1/8" under seat.
- All 440 sprints shall have a metal belly pan under the frame of the car from the front of the frame to at least the front of the driver's seat. (Alum., or Steel)
- Spindle tethers must be bolted to frame

Side Bars:

- All side bars must be constructed of at least 3/4" x .083" wall steel tubing
- Right side – at least one side bar mounted 20-26" above the bottom frame rail and lower bars mounted 6-8" (inside dimension) below the top bar
- Left side – three door bars mandatory
- An additional bar will be mounted vertically between the upper side bar and the top roll cage bar.
- Refer to drawing 1 for additional dimensions
- All side bars are to be constructed and mounted to provide maximum driver protection
- All horizontal bars must be welded, vertical bar may be welded, coupled, coupled and pinned

SUSPENSION:

- small steel body non- adjustable shocks
- 1500 - 1600 serues shocks (afco, pro, carrera)
- Torsion or coil springs allowed
- No remote adjustable panhard sliders
- No remote adjustable shocks or springs
- No independent or a-arm type front ends, straight axle only
- must be 1". solid bar behind front axle for a foot stop.

TIRES AND WHEELS

- small steel body non- adjustable
- 5", 6", 7", 8" tires will be allowed
- If using 8" wheels, max. width of wheel will be 8"
- If using 8" wheels on the front, spindle shaft must be at least 3/4", kingpin minimum 1/2".
- All newly built cars must have left hand thread spindles on the left side.
- Slick tires only (your opinion)
- No bead locking devices (including screws) allowed.
- No clip-on wheel weights

STEERING:

- Steering wheels can be mounted with quick release (MANDATORY)
- The quick release must be snug and tight. No loose fitting steering wheels will be allowed
- All nuts and bolts used for steering must be drilled , pinned and wired
- rack and pinion allowed

CLUTCH:

- Engine mounted clutches only
- No direct drives allowed
- disc or Pad type Allowed
- Dry or wet

CHAIN GUARDS:

- Chain guards must be 3" wide: 1/8" steel plate, no alum.
- Chain guard must be fastened at the back of the roll cage and run over the top of the chain no more than 3" above the chain. The guard must curve 90 degrees around the clutch
- A side plate is mandatory on the driver's side of the guard
- The side plate must cover the clutch-retaining bolt.

BRAKES:

- Hydraulic brakes only
- Steel braided brake lines required
- All nuts / bolts used for brakes must be drilled and pinned
- front and rear allowed (Front to Rear bias adjuster allowed)

WEIGHT:

- 450 cc suspended no less than 650 LBS with driver @ 60% L.S
- Solid chassis will be no less than 525 lbs with driver
- Suspended chassis will weigh no less than 600 lbs with driver
- These weights must be met at the end of the feature race. The top four cars may be weighed after the feature race
- Any removable weight must be painted white and display the car's number on it in black in clear view. Min. of two 3/8" bolts must firmly attach weight to chassis
- Loss of weight on the track will result in a black flag for the night as a safety violation
- If the car is found to be illegal, it shall be immediately disqualified and the next car finishing will be called to the scales

BUMPERS:

- All outlaws must have a front and rear bumper, minimum 3/4" x .065" wall round steel tubing
- Front bumper can be a single hoop (min. 3" off the ground, max. 6" off the ground, must mount in two locations)
- Front bumpers listed above must extend at least 16" from the front axle out.
- Rear bumpers will be constructed the same as micro sprint rules
- Rear bumper must extend a minimum 13" from the center of the rear axle to the inside of the rear bumper
- Both front and rear bumper must not be any wider than the chassis where they attach
- The bottom of the rear bumper must be at least 4" off the ground
- and top bar must be min. 6" off ground

NERF BARS:

- All outlaws must have nerf bars
- Standard sprint car type nerfs, min. 3/4" x .065" wall round steel tubing
- Must mount in two locations
- Max. 7" between top and bottom bar
- Nerf bars must always be inside the rear tires on both sides

CAR DIMENSIONS & BODY DESIGN:

- The wheelbase on 2nd design sprints (solid) – min. 45", max. 58"
- The wheelbase shall be a min. 50" and max. 60" on all suspended sprints
- Maximum width – 56"
- Maximum length –(chassis) 105"
- Outlaw cars will have a fiberglass or aluminum hood and tail
- Hood must be inside of the front tires
- Tail must be mounted between the roll cage hoops
- Body panels shall be changed if the tech inspector feels there is a safety or visibility issue
- Outlaws must have a top wing, center section min. 4 square feet, max. 10 square feet
- Front wings allowed 2 square feet max.
- Left side panel – 24" high x 45" long
- Right side panel – 13" high x 45" long
- Top wing must pivot at front
- Top wing maybe adjustable from drivers seat.

LEG PROTECTION:

- Loop of ¾" O.D. x .083" wall (min.) seamless round tubing, must extend forward from the roll cage to a point at least as far forward as the drivers heels and be attached to front of chassis

ROLL CAGE AND COCKPIT:

- The roll cage must have a minimum height of 38" and a maximum height of 44" (see drawing 1)
- The top of the driver's helmet must be completely below the bottom of the horizontal roll cage bars after being wrapped with safety approved roll cage padding
- A 4" distance between the top of the driver's helmet and the bottom of the horizontal bars is highly recommended
- The roll cage must be made of minimum 1 1/8" x .083" wall 4130 cond N chromoly or 1 1/8" x .095" wall DOM seamless tubing or 1 ¼ x.095 mild tubing
- The roll cage must be mounted to the chassis in front of and behind the driver
- The roll cage must be welded to the chassis at four locations
- The top of the roll cage shall be gusseted in all four corners
- No sharp edges shall be left anywhere on the roll cage
- The roll cage shall be equipped with an inverted V-type or an X-type brace behind the driver's head
- The driver must be able to climb through the hole in the top of the roll cage
- Side nets are mandatory on both sides, left side must be quick release
- All top bars of the roll cage must be padded with approved roll bar padding (No pipe insulation)

FUEL AND FUEL TANKS:

- Fuel cells are required and may be a plastic cell with foam or a bladder type – max. capacity is 4 U.S. gallons
- Bottom fitting must be secured inside the fuel cell
- Cells will be fitted with a cap and either a roll over valve or a vent line long enough to go below the bottom of the fuel cell to prevent leakage if overturned
- Fuel cells will be located in the tail section
- There must be a fire wall between the fuel cell and the driver's seat, either the front of the tail, a piece of aluminum, etc.
- Braided fuel line must be used between the fuel cell to the fuel pump
- Fuel shut off valve must be visible
- Tail section bottom must be vented with a minimum 2" diameter hole
- Fuel lines must be clamped on in a manner that cannot be easily removed and the fuel lines will be enclosed in a protective outer casing
- If a fuel cell cap is found to be missing or fall off during a race the car will be disqualified
- For night plus \$50 fine due to a safety violation

COCKPIT AND DRIVER SAFETY:

- High back aluminum drivers seat required, mounted with four 5/16" bolts minimum
- 3" driver seat belts and shoulder harness are mandatory (5 point harness) and shall be bolted or fastened to the frame. Each belt should fasten separately to a common quick release type unit. Any belts showing wear or deterioration will not be allowed. Seat belts must be stamped within 3 years or newer and are subject to tech approval. The complete belt assembly shall be worn at all time while the driver is on the racing surface.
- The lap belt is designed to hold the lower abdomen, hip, and pelvic area into the seat and to provide the majority of control in holding your body down into the seat bottom. The lap belt should be mounted at a 45 degree angle to the spine no matter what inclination your seating position provides. Always allow the lap belt to lie across your lower abdomen and route smoothly all the way around the hips to provide as much distribution of weight as possible. The lap belt should not be routed over the top of the sides of the seat. We want belts to hold your body, not the seat. It is important to route the lap belt through the slot provided in the seat, to provide proper distribution of pull.
- The shoulder harness is the most abused belt in the harness system. Used improperly, these belts will hurt you in a crash. The main function of the shoulder harness is to hold your torso back into the seat. The shoulder harness should be routed so they pass over the top of the shoulder, traverse at a 90 degree angle to the spine no matter what the inclination you seating position provides. This allows you to provide the proper tension required to hold your upper body back into the seat without taking your breath. The belts should not be allowed to run down your back below shoulder height before crossing through the shoulder harness slot in the seat, or permit the belts to run across the bony structure at the perimeter of the shoulder or damage will result. The shoulder belts should be routed through the holes provided in the seat and across the cage tube to provide the best control of location of the belt
- Side nets are required on both sides of the cockpit. Left side net must be quick release type
- A rock screen is required to be attached to the front roll bars by steel clamps. Screen is to be painted flat black. The screen is to be made of 1/8" wire mesh with a hole size of 2" x 2" squares. Screen must cover completely from left to right roll bars and may have a max. gap 4" top and bottom from horizontal roll cage tubes additional
- All protrusions, brackets, and bracing in the cockpit are (including roll cage) shall have smooth or rounded edges
- An engine kill-switch is mandatory and must be mounted in a location accessible to both the driver and safety crew
- Engine components, body panels, etc. shall not obstruct driver's vision, no mirrors will be allowed
- Radio communications between the driver and the pit crew is not allowed
- All critical bolts must be drilled and pinned (steering, brakes, spin plates)

DRIVER APPAREL:

- The driver shall wear full protective racing apparel
- A full-face helmet with proper fastening and protective eye shield. Helmet must be current Snell Foundation testing standard (Snell 2005 or newer). A fire resistant helmet is recommended. A nomex balaclava (head sock) is also recommended.
- A minimum of a single layer proban driving suit, one or two piece is mandatory
- Safety approved neck collar is mandatory
- Arm restraints worn below elbow are mandatory
- Nomex driving gloves are mandatory
- The track management reserves the right to disallow any safety equipment that is questionable in nature
- left and right side head supports are MANDATORY!!!