



2021

OFFICIAL RULES & REGULATIONS 500cc MINI SPRINT

*NOTE: CHANGES FROM PREVIOUS YEAR **WRITTEN IN RED***

All cars **MUST** be equipped with a working RACEceiver-type one-way scanner and a working MYLAPS timing transponder.

RACEceiver website: www.raceceiver.com

MYLAPS website: www.mylaps.com

Devil's Bowl Speedway
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Website: www.DevilsBowlSpeedwayVT.com

1. DIVISION SPECIFICATIONS

Mini Sprint racing will be sanctioned by Devil's Bowl Speedway as a regular division in 2021. These rules have been developed as an attempt to offer an economical alternative to dirt track stock car racing at the hobby level.

The Mini Sprint division is intended to be a place for hobby-level drivers of all ages to enjoy the sport of racing, and also for young drivers to gain experience. Drivers age 10-15 years old may apply for consideration to compete and will be evaluated on an individual basis.

Safety is the biggest priority. All car construction must meet Devil's Bowl Speedway specifications. No equipment will be considered as having been approved by reason of having passed through inspection unobserved. The technical inspector shall determine whether any type of construction, design, or interpretation of any rule shall be accepted.

2. GENERAL RULES

1. The rules and/or regulations set forth herein are designed to provide for the orderly conduct or racing events and to establish minimum acceptable requirements for such events. These rules shall govern the condition of all events, and by participating in these events all participants are deemed to have obtained, read, understood, and complied with these rules. NO EXPRESSED OR IMPLIED WARRANTY OF SAFETY SHALL RESULT FROM PUBLICATION OF OR COMPLIANCE WITH THESE RULES AND/OR REGULATIONS; they are intended as a guide for the conduct of the sport and are in no way a guarantee against injury and/or death to a participant, spectator, or official. The interpretation and invoking of the rules published herein shall be determined by the officials at their professional discretion.
2. It is the responsibility of the competitor to obtain and become familiar with the current rules pertaining to the division in which he/she chooses to participate, **as well as the additional "Official Rules & Regulations" rulebook for all divisions and participants.** The driver is as responsible as the owner, and it shall be the responsibility of both to know which parts are used in the race car that he/she owns and/or may be driving.
3. Any item not covered in these rules must remain stock or be approved in writing by Devil's Bowl Speedway. If any item being considered by a competitor is not addressed in these rules, the competitor is required to contact management for a judgment of its acceptability.
4. Technical Director and/or Track Manager will have final say on all rules, procedures, regulations, and/or technical authorities.
5. Safety is paramount. A driver must display the ability to control his or her car and be able to keep pace with the field in order to maintain their regular handicap. All rookie and/or novice drivers will be evaluated on a case-by case-basis. Any driver that cannot keep pace may be assigned a starting position at the rear until he or she can display enough control and speed to compete and maintain a regular handicapped position.
6. Management reserves the right to add and/or redistribute weight to any car at any time, and/or to adjust other rules governing any car to ensure a level playing field.
7. All drivers are required to purchase a Devil's Bowl Speedway license prior to competition.
8. There will be a regular purse payoff in 2021. There will not be any complementary pit passes. The base payout, unless otherwise noted, will be as follows: 1. \$ 100; 2. \$75; 3. \$60; 4. \$50; 5. \$40; All others – \$30.

3. CHASSIS & ROLL CAGE

1. Chassis must be an upright Mini Sprint design only, either 600cc or 270cc configuration.
2. Chassis must be professionally built with clean, solid welds. Round tubing only, minimum 1" outside diameter for chromoly tubing, or minimum 1-1/4" outside diameter for steel tubing. No square tubing permitted whatsoever in construction of chassis, other than for brackets or bolt-on part mounts. Tubing and welds may not be kinked or cracked.
3. Main hoop behind driver must have "A" or "X" bracing.
4. No part of the engine/transmission assembly may be located behind driver's seat.
5. All cars must have a working MYLAPS-brand transponder. Transponder must be securely fastened on right side of car, mounted vertically with sensor pointing down to race track.

Centerline of transponder must be located 21" back from the centerline of the front axle, 6" high from bottom of frame rail. Please contact officials with questions. Any car without a working transponder is subject to being omitted from finish order. (The MYLAPS "X2" transponder is highly recommended. Visit www.MYLAPS.com for more information.)

4. SAFETY & DRIVER COCKPIT

1. All cars must have an aluminum racing seat (full containment seat recommended) that must be fastened to roll cage, NOT bolted to the floorboard. No fiberglass seats allowed. Seat must have minimum two (2) bolts in seat pan mounted to chassis/roll cage (not floor) and minimum two (2) bolts on headrest/seatback area mounted to chassis/roll cage, using no less than 3/8" Grade 5 bolts. NO EXCEPTIONS.
2. Approved quick-release or cam lock racing seat belts required. Must be in good condition and not more than three (3) years old from date of manufacture. Belts must be properly wrapped around chassis/cage or bolted (not welded) to chassis/cage (see diagram).
3. **Beginning in 2021 season, approved head-and-neck restraint system will be mandatory for all drivers in the Mini Sprint division.**
4. Safety "on-off" switch required on dashboard, within reach of driver at all times. Switch must immediately kill engine, fuel pump, and all accessories in "off" position. Switch must be highly visible and clearly marked.
5. All roll bars within reach of driver highly recommended to be padded with closed-cell foam.
6. Firewall required between driver cockpit and engine compartment. No flammable materials permitted, such as fiberglass or carbon fiber.
7. Floor pan must extend forward from front edge of driver's seat (minimum) to in front of pedals; floor pan highly recommended to also extend rearward under driver's seat. Must be minimum .063" thickness aluminum or steel.
8. Steel wire stone guard required on roll cage in front of driver, covering full width of cage.
9. Batteries must be non-spillable type. Must be securely mounted and fully enclosed.
10. Throttle pedal must be double-spring design and must return engine to idle when released.
11. No mirrors permitted whatsoever.
12. Driver required to have one-way radio (RACEceiver or similar) for contact with Race Control. Radio must be working and active prior to any on-track activity.
13. Two-way radios, **cell phones, Bluetooth**, other audio or digital devices, and/or any other means of communication other than the required one-way Race Control radio not permitted.
14. NO TRACTION CONTROL DEVICES OF ANY KIND ALLOWED. All electronic and/or computerized wheel spin and/or ignition retardation and/or acceleration limiting and/or traction control devices of any type not permitted. Adjustable ping control devices, dial-a-chip controls, timing controls and/or automated throttle controls not permitted. Remote control components of any type not permitted.

5. ENGINE

1. **Teams must be prepared to have engine removed and impounded for inspection at any time.**
2. Engine must be a four-stroke motorcycle engine. Approved engines:

SINGLE CYLINDER:

Make	Model	Years
Honda	TRX 400 EX*	1999-2017
Honda	FT 500	1978-1983
Honda	XL 500	1978-1982
Honda	XR 500	1978-1982
Yamaha	SR 500	1976-1981
Yamaha	TT 500	1976-1981
Yamaha	XT 500	1976-1981

TWIN CYLINDER:

Make	Model
Honda	CB 500
Honda	CBR 500
Honda	CBX 500
Kawasaki	EN 500 Vulcan
Kawasaki	EX 500 Ninja
Suzuki	GS 500

* - Honda TRX 400 EX engines may use the 416 Big Bore kit

3. Engines must be stock production models only. Maximum compression ratio 12:1. No **2021** production year engines.
4. Dome or fly-cut pistons allowed on single cylinder engines. OEM stock pistons only on twin-cylinder engines.

5. Maximum overbore .080" allowed on single cylinder engines. Maximum overbore .020" allowed on twin-cylinder engines.
6. Cylinders may be sleeved.
7. OEM stock replacement valve seats may be used.
8. Any valve guide seal spring or valve spring retainer may be used. No titanium.
9. Aftermarket camshaft and gear, needle bearing, and machining of cam-bearing surface allowed on single cylinder engines only. No modifications allowed on twin cylinder engines. Slotting of cam gear allowed for all engines.
10. Aftermarket wristpin allowed; must match factory stock weight and dimension.
11. Welding of crankpin allowed.
12. Machining of small end of connecting rod and insertion of a bushing is allowed.
13. Kick start internals may be removed.
14. No lightening of engine parts. No titanium parts allowed.
15. Maximum cylinder head cleanup allowed will be .015" on all engines. No porting, polishing, tooling, or other machine work allowed on twin-cylinder engines.
16. External oil lines, coolers, and filters may be added or modified.
17. Mufflers required on all cars.
18. Computers may be interchanged between engines but must remain in unaltered OEM stock configuration for original make and model.
19. Any aftermarket electronics must be unaltered stock replacement only.

6. MANIFOLD, CARBURETOR, & FUEL INJECTION

1. Fuel injection allowed only on engines which were manufactured with such. Must remain in factory stock configuration.
2. **Stock 500cc carburetors only. Any carburetor allowed, so long as all fuel passes through needle and seat.**
3. Any manifold/carburetor adapter allowed, so long as no modification to the cylinder head is needed for installation.
4. A fuel pump tab is allowed on the intake manifold/carburetor.
5. All air must pass through carburetor throat.
6. Any air filter allowed.

7. FUEL & FUEL TANK

1. Gasoline only – maximum 110 Octane. No methanol, alcohol, additives, or non-oxygenated fuels, and no mixing of fuels. FUEL WILL BE TESTED!
2. Fuel tank must be steel with minimum thickness of .035", or aluminum with minimum thickness of .063", or high-impact plastic or resin.
3. No pressurized fuel tanks.
4. Fuel tank must have check valve to prevent spillage.
5. Fuel lines must be high-pressure line and must be securely fastened at all connection points.
6. Fuel shut-off valve required between fuel tank and carburetor/fuel injection, no more than 18" away from carburetor/fuel injection. Valve must be within reach of driver and/or track safety crew. Valve must be highly visible and clearly marked on/off.
7. Tank bladder and grounding of fuel tank highly recommended.

8. DRIVETRAIN

1. All cars must be self-starting or must be able to be push-started within the pit area before entering the race track surface. Cars that require push-start must provide own ATV, and rider must have helmet and working RACEceiver-type one-way radio.
2. **MANDATORY GEAR RULE FOR 2021: All cars must use a 15-tooth front sprocket and a 46-tooth rear sprocket, with an overall ratio of 3:06.**
3. Must use complete working clutch and transmission assembly; aftermarket parts allowed.
4. No slipper clutches. No centrifugal clutches.
5. All cars must have working clutching device in order to disengage transmission at any time.

6. All cars must be chain-driven to rear axle only.
7. Live rear drive-axle only; must drive both rear wheels at all times.
8. Chain guard must be installed so that driver cannot touch chain or sprocket from cockpit.
9. Chain guard must be minimum 24-gauge steel or .062" aluminum.

9. SUSPENSION

1. All mounting fasteners must be minimum Grade 5 hardware, no less than 3/8" diameter.
2. Adjustability is permitted from driver cockpit.
3. Front and rear axles must be one-piece only. Axles may be steel or splined aluminum.
4. Front axle: Minimum 1.250" O.D. / .120" wall steel
5. Rear axle: Minimum 1.250" O.D. / .250" wall steel
6. Kingpin: Minimum .500" O.D.
7. Front spindle must be steel or aluminum with inside bearing diameter of 1" minimum.
8. Panhard bar ~~and shocks~~ may be adjustable.
9. Minimum one shock on each wheel. Minimum one spring or torsion bar on each wheel.
10. **Shocks must be non-adjustable only. Shocks must remain in stock configuration. No bump stops.**
11. Must use racing-grade heim-type rod ends.
12. Wheelbase must be 55" minimum, 70" maximum, measured at center of axle.
13. Treadwidth must measure 65" maximum, measured from outside bead of wheels.

10. STEERING

1. Steering must be tight, with no play or binding.
2. Steering turns, lock to lock, must be no more than one 360° turn.
3. Full right-turn wheel angle must be minimum 45°.
4. Steering shaft must be minimum .625" O.D. / .125" wall steel tubing. Rod ends must be minimum 3/8" diameter.
5. Steering wheel must use quick-release racing-type connector.
6. All steering components must be secured with bolts, with cotter pins, safety wire, double locknuts, or nylon lockers with thread-lock glue.

11. BRAKES

1. Hydraulic brakes only.
2. Brakes required on rear axle at minimum. Front brakes allowed.
3. Brakes must work at all times and be strong enough to lock rear wheels while in motion.

12. TIRES & WHEELS

1. Wheels may be steel or aluminum. **No carbon fiber.**
2. Wheels must be a maximum diameter of 10".
3. **Hoosier tires only.**
4. Tires must be unaltered, except for grooving and grinding. No chemical treating. No recaps.

13. BODY & WINGS

1. All cars must have complete bodywork in traditional Mini Sprint design.
2. Body may be made of aluminum, fiberglass, or high-impact plastic.
3. Top wing airfoil must have a surface area no larger than 14 square feet.
4. Sideboards on top wing must not exceed 27" high x 57" long.
5. Wing position may be adjusted while racecar is in motion.
6. Nose wings are permitted. Maximum size 18" x 32".
7. No sharp edges on body or wings.
8. See attached diagram for car numbering/decal requirements.

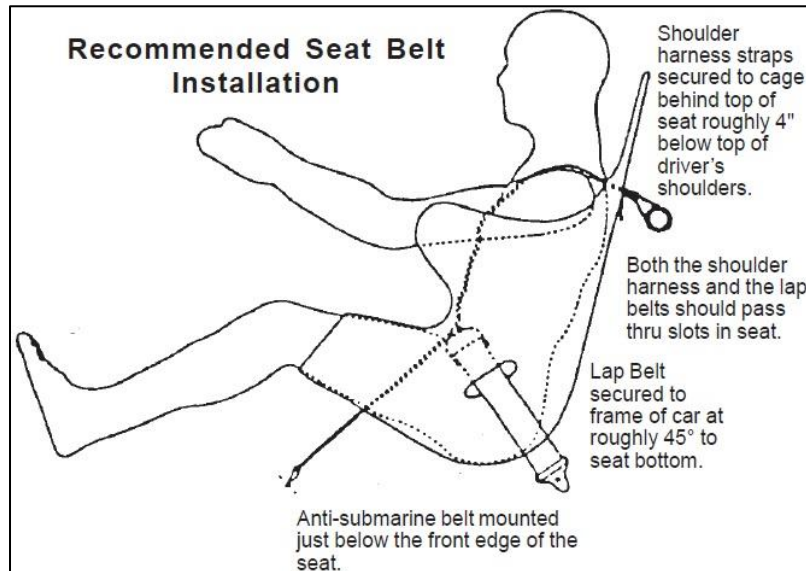
14. BUMPERS

1. All cars must have front and rear bumpers, and left-side and right-side nerf bars.

2. All bumpers and nerf bars must be securely fastened at all times.
3. Front bumper must extend forward from chassis and be further forward than front tires.
4. Rear bumper must extend rearward from the chassis and must protect the fuel tank. The bottom edge of the rear bumper must not be higher than 8" from the ground.
5. Nerf bars may not extend sideways past the rear tires.
6. No sharp edges or open ends. No designs that could "hook" or cause damage to other cars.

15. WEIGHT

1. All cars will be weighed with driver in seat, race-ready.
2. Cars with 400cc engines must weigh minimum 675 lbs.
3. Cars with 416cc engines must weigh minimum 725 lbs.
4. Cars with single-cylinder 500cc engines must weigh minimum 725 lbs.
5. Cars with twin-cylinder 500cc engines must weigh minimum 800 lbs.
6. Maximum weight bias allowed is 60%, left side or right side.
7. All ballast must be lead only, painted white with car number painted in black. Ballast must be secured with minimum Grade 8 bolts and must not be moveable while car is in motion.



***ALL RULES SUBJECT TO CHANGE WITH OR WITHOUT NOTICE. "EIRI" 2/19/21
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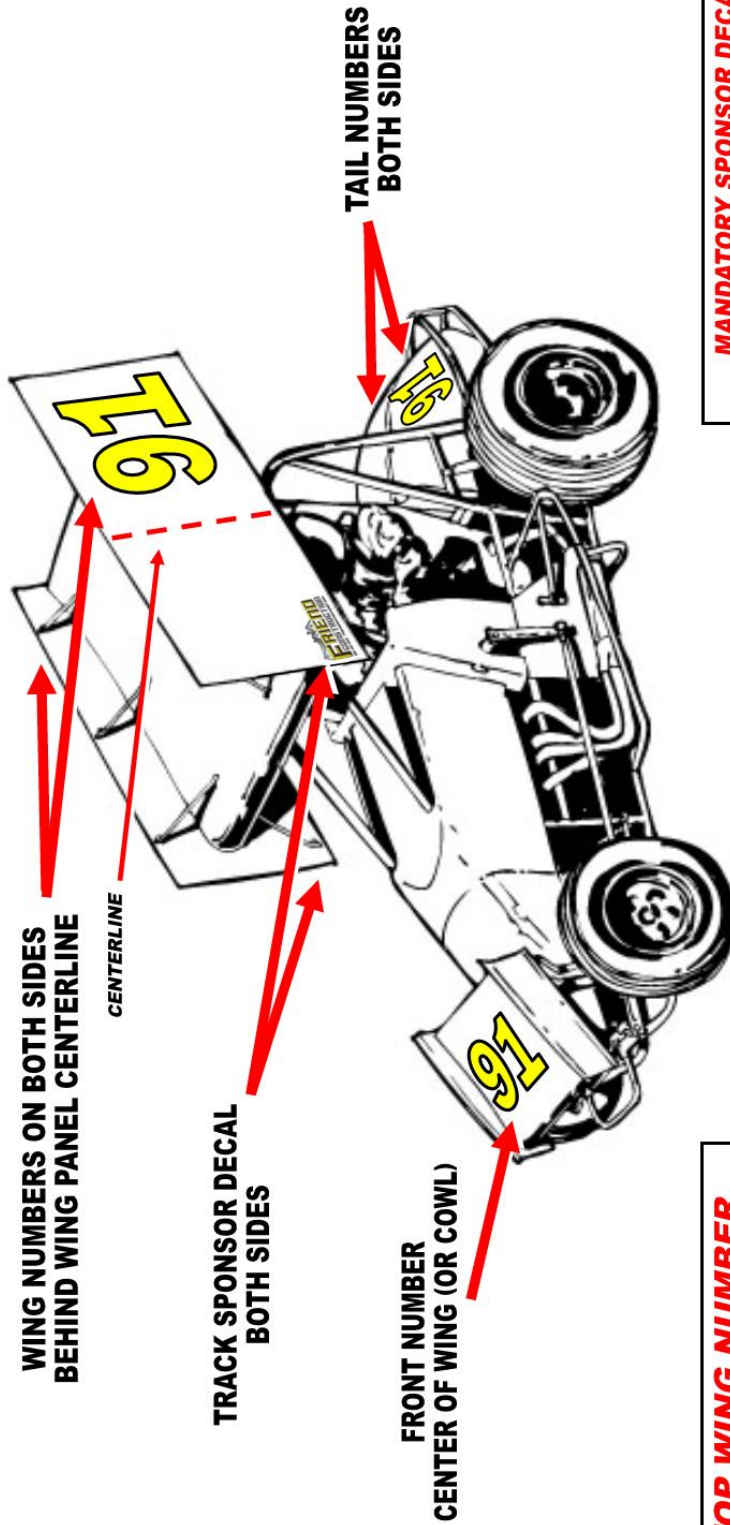
***IF QUESTIONS, CONTACT:
Jeremy Carpenter, Technical Inspector – (518) 420-5445 – Text Message Preferred***

Mike Bruno, Promoter – (802) 236-9141

General Email: devilsbowlspeedway@gmail.com



LETTERING GUIDELINES 500CC MINI SPRINT DIVISION



TOP WING NUMBER

MIN. 14" TALL | MIN. 3" WIDE STROKE

TAIL & FRONT NUMBER

MIN. 9" TALL | MIN. 2" WIDE STROKE

ANY LETTERS
MUST BE
CLEARLY VISIBLE

91 X

MANDATORY SPONSOR DECAL
BOTH SIDES OF TOP WING
LOCATED TOP OR BOTTOM CORNER
(DECAL WILL BE PROVIDED)

**FRIEND
CONSTRUCTION**
802-453-2655 FRIENDCONSTRUCTIONVT.COM

4.5" TALL | 9" WIDE