

# 2022 Birch Run Speedway Modified Rules

NOTE: BIRCH RUN SPEEDWAY DOES NOT EXPRESS OR IMPLY ANY WARRANTY OF SAFETY RESULTING FROM THE PUBLICATION OF, OR COMPLIANCE WITH THESE RULES AND/OR REGULATIONS. THESE RULES ARE INTENDED AS A GUIDE TO CONDUCT OF THIS SPORT AND ARE NOT IN ANY WAY A GUARANTEE AGAINST INJURY OR DEATH TO ANY PARTICIPANT, SPECTATOR, OR OFFICIAL.THE ABSENCE OF A PARTICULAR RULE DOES NOT NECESSARILY MEAN ITS APPROVAL! ANY INFRACTIONS OF THE RULES MAY RESULT IN A WEIGHT PENALTY (FOR THAT EVENT) OR NOT BEING ABLE TO COMPETE ENTIRELY.

ALL IDENTIFIED RULE INFRACTIONS MUST BE RESOLVED PRIOR TO FOLLOWING EVENT (NO ON-GOING WEIGHT PENALTY SUBSTITUTE).

#### BIRCH RUN SPEEDWAY MOTORSPORTS DIRECTOR HAS FINAL DECISION IN ALL RULINGS.

#### 1. SAFETY EQUIPMENT:

- A. Snell-rated SA2010 or newer helmet required.
- B. Roll bar padding required in drivers' compartment. (FIRE RETARDANT IS HIGHLY RECOMMENDED.)
- C. SFI full fire suit required. Fire retardant neck brace, gloves and shoes required. (FIRE RETARDANT HEAD SOCK AND
- UNDERWEAR; HEAD AND NECK RESTRAINTS AND COLLAPSIBLE STEERING SHAFT ARE HIGHLY RECOMMENDED.)
- D. Driver side window net required and MUST be mounted so that the latch is at the top front of window.
- E. Minimum three-inch-wide, five-point safety belt assembly required and must be mounted securely to the roll cage. (IT IS HIGHLY RECOMMENDED NOT TO BE MORE THAN THREE YEARS YEAR OLD.)
- F. Fire Bottle system required. (A SEPARATE, HEAT ACTIVATED, FIRE BOTTLE ON THE FUEL CELL IS HIGHLY RECOMMENDED.)
- G. Kill switch required within easy reach of the driver and must be clearly marked 'OFF' and 'ON.'
- H. There must be a full shut off valve at the fuel tank.

#### 2. DRIVER COMPARTMENT:

A. Aluminum high back seat only and must be bolted in securely, inside the left OEM frame and ahead of the rear tires. Bottom of seat can be no lower than bottom of frame. (NASCAR STYLE RIGHT AND LEFT HEAD, SHOULDER SUPPORTS AND LEG RESTRAINTS HIGHLY RECOMMENDED).

- B. Driver must be sealed off from track, driveline, engine, fuel cell, battery, and pumps.
- C. No driver adjustable devices allowed in cockpit except brake adjusters.
- D. NO Radios allowed.

#### 3. FRAME:

A. Steel OEM perimeter American made rear wheel drive passenger car frame only. (Reproduction 68-72 Chevelle frames are approved.) No sports car frames allowed. Howe fabricated clips - i.e. Chevelle, and Big GM Metric clips are legal at Birch Run Speedway -Must conform without deviation to Manufacturer supplied certified template upon inspection.

- B. Ford style strut front suspension of any kind allowed must add 50 lbs.
- C. Frame must be full and complete, cannot be widened or narrowed, and must be able to support roll cage on both sides. Exceptions:
- a. Weight jack located in the original centerline of the spring tower.
- b. Frame may be cut a maximum 36" forward from the center of rear housing.
- c. Horns may be removed in front of steering box
- d. Front cross-member may be notched and boxed for radiator and/or steering clearance
- e. 7-10" maximum opening on side of spring tower for spring removal.
- f. OEM upper A-frame mounts may be replaced with aftermarket mounts.
- g. Maximum 4" x 4" tall frame stiffener may be welded directly to the outside of the left OEM frame rail.
- h. Left side OEM frame rail may be notched within the cockpit for safety and foot clearance.
- i. Right side frame rail must have the top and bottom of the frame (No lightening of frame rail).
- j. Seat must be mounted between stock frame rails.
- k. Wheelbase will be between 108" and 112" on both sides.
- I. Maximum overall track width, front and rear, shall not exceed 78" from outside of tire, to outside of tire measured at spindle pin height.



#### 4. ROLL CAGE:

- A. Must consist of continuous hoops, minimum 1.75" O.D. tubing, with a minimum wall thickness of .095" for the main cage.
- B. Frame must be mounted in at least 6 places, low carbon, or mild steel recommended.
- C. Roll cage must consist of a configuration of front, rear, and top hoops connected by tubing on the sides or side hoops.
- D. Driver's head must not protrude outside cage with helmet on.
- E. Roll cage must be securely supported and braced with minimum 1 cross bar in top halo.
- F. Foot protection bar(s) required. Main cage may not be further forward than the rear of the engine.
- G. All bars forward of the cage must be lower than the hood.
- H. "X" OR "Z" BAR BEHIND THE DRIVER'S HEAD IS HIGHLY RECOMMENDED.
- I. All driver side door bars and uprights must be a minimum 1.75" and .095" wall thickness.
- J. Minimum 4 driver side door bars, parallel to the ground and perpendicular to the driver, and welded to the front and rear roll cage.
- K. Passenger side must have at least 1 cross door bar, horizontal or angled, and 1 top door bar, minimum 1.5" O.D.
- L. Steel door plate, 16 gauge (.065") minimum thickness, must be securely welded to the outside of the driver side door bars and cover the area from top door bar to bottom door bar and from rear hoop down post to front cage down post.

#### 5. FRONT SUSPENSION AND STEERING:

A. All components must be steel, unaltered OEM, in OEM location, and replaceable by OEM parts.

#### Exceptions:

- a. Tube type upper A frames with or without aluminum or steel cross shaft.
- b. Upper control arm mounts can be moved.
- c. Stamped steel OEM replacement lower a-frames
- d. Rubber, nylon, or steel lower a-frame bushings; no offset bushings
- e. Welded or bolted shock mounts on lower a-frames
- f. Lower a-frames must be right and left, and of the same design for both sides. (Mixing of lowers allowed)
- g. Lower a-frame mounts and bolt holes on frame must be in OEM location.
- h. OEM or aftermarket steel ball-joints allowed.
- i. Sway bar must be OEM type, no spline style bars.
- j. Two-piece steel hub and rotor may be used. (No Aluminum Hubs)
- B. All spindles must have a min of 3/16" stainless cable or NASCAR type tethers attaching to the hoop of the car.
- C. No rack and pinion steering.
- D. All steering components must be steel, OEM type, in OEM location.

# Exceptions:

- a. Tie rod ends and adjuster sleeves may be replaced by a minimum .625" steel rod ends and steel tubes
- b. OEM spindles can be reamed for ball joints and modified to accept heim style outer tie rod ends.
- i. May be modified for caliper mounting purposes only.
- ii. Bolt on or weld on spindle savers allowed.
- c. Spindles arms must be the same length on both sides as measured from the center of the ball-joint pin to the center of the tie rod end.
- d. Passenger car drop spindles allowed (OEM passenger car spindles ONLY. NO MADE FOR RACING OR FABRICATED SPINDLES.)
- e. Spindles must be right and left, the same height and of the same make (Example- Pinto, Metric, Chevelle)
- f. Steel steering shafts and knuckles only; steering quickener, steering wheel and quick release may be aluminum
- g. Driver compartment steering may be modified but must be kept on the left side.
- h. Center-link must be steel and can be OEM, aftermarket or made for racing.

#### 6. SHOCKS:

- A. ONE shock per wheel.
- B. No external canister shocks (SCHRADER VALVES PERMITTED)
- C. Single adjustable shocks permitted.
- a. No double adjustable shocks or blow off shafts.
- D. Bump Springs and Bump Stops are allowed.
- E. All shocks must be easily removed and uncovered.
- F. No Coil-overs allowed on front but may be used on the rear shocks.
- G. One additional shock allowed in the lift/pull-bar area.

#### 7. SPRINGS:

- A. Steel coil and leaf springs allowed.
- B. Coil springs must be at least 4.5" O.D. and made of spring steel. (No exotic spring materials.)
- C. No torsion bars or air bags.

#### Exception:

a. Pull bar and bump springs may utilize smaller O.D. springs.

#### 8. REAR SUSPENSION:

- A. No independent rear suspension.
- B. All components must be steel. (Aluminum hex tubes acceptable)
- C. Rear of frame may be altered to accept leaf or coil springs.
- D. Steel coil-over eliminators, and steel or aluminum (5") coil-over kits, are allowed on the rear only, and must conform to shock and spring rules.

#### 9. REAR END:

- A. Any steel approved OEM passenger car or truck rear end allowed.
- B. Closed, steel tube Quick changes allowed.
- C. Floating steel safety hubs are mandatory.
- D. Axles must be made of steel.
- E. No cambered rear ends.
- F. One-piece drive flange only.
- G. All components must be steel.

#### **Exceptions:**

- a. lowering blocks
- b. axle caps
- c. rotor plates
- d. drive flanges
- e. third link bracket (Example Sweet Style)
- H. No covers allowed on the rear of the body.
- I. All cars running a birdcage type rear suspension must have a 1/16" steel plate or 1/8" alum plate behind the seat. The plate must attach from the top bar to bottom, and from the left side to right at least 3" past the seat.

#### **10. WHEELS:**

- A. 8" steel wheels only, measured from inside of the bead to inside of the bead.
- B. No screws or rim mounted bleeder valves.
- C. Steel and aluminum wheel spacers are allowed.

#### **11. TIRES:**

- A. Hoosier F70 tires only.
- B. No recaps.
- C. No softening, soaking, conditioning, siping, or grooving of tires.
- a. SOAKING OF TIRES IS STRICTLY ENFORCED. (This rule applies to ALL tires in the pits, on the car, in the trailer or hauler, ALL tires). Tires may be checked at any time.
- i. First soaking violation results in a 4-week suspension and a \$500 Fine. Loss of points to date for season.
- ii. Second soaking violation results in a season long suspension and a \$1000 fine. Loss of points to date for season.

**Methodology for testing tires is as follows:** Tire will be collected after feature event. Tire will be cleaned at inspection area by clean abrasive tool. Tire surface will be heated with an electric heat gun to the temp of 200\* Farenheit. If upon inspection from that point, tire durometers at a range of 49 or less, or is out of the spectrum of the norm of the parameter, the tire will be confiscated and sent for laboratory testing. Winnings and points will be frozen upon failed inspection period. Winnings will be awarded upon cleared inspection from laboratory. If the tire tests above 49 winnings will be paid immediately and points awarded (provided all other tech inspections pass for event) All tires sold at birch run speedway are to be powdered prior to mounting.

#### 12. BRAKES:

- A. MUST be steel OEM type only and operative on all 4 wheels.
- B. Must maintain minimum OEM dimensions for hub/rotor and calipers.
- C. Bolt pattern may be changed.
- D. Larger studs allowed.
- E. No hat style front rotors.
- F. Rear rotors may be aftermarket, minimum .810-inch-thick, vented rotors only.
- G. No scalloped or drilled rotors.

## 13. EXHAUST:

A. Mufflers are required.

#### 14. FUEL SYSTEM AND FUEL:

- A. Mechanical or belt driven pump only and must be mounted on front of motor.
- B. Racing fuel cell required with a 22-gallon maximum capacity, square or rectangle in shape
- a. (no tear drop, wedge, or exotic F-1 type fuel cells allowed).
- C. Fuel cell must be in a minimum 22-gauge steel container.
- D. Cell must be securely mounted behind the rear axles and between the rear tires.
- E. Cell shall be mounted between frame rails and maintain a minimum 6" of ground clearance
- F. Cell must be mounted with a minimum of 2 solid steel straps around the entire cell, 2" wide and .125" thick or equivalent
- G. All cell mounts must be steel and securely welded or bolted to the frame.



# 14. FUEL SYSTEM AND FUEL (CONT):

- H. Fuel cell guard must cover rear of cell and extend past both ends of the cell.
- I. Fuel cell guard must extend below the bottom of the fuel cell.
- J. Vents and lids must have check valves.
- K. Fuel line pickup must be on top of cell.
- L. Racing gasoline or alcohol allowed. E85 will be allowed.
- M. CARS THAT RUN ALCOHOL MUST HAVE AN "A" ON BOTH OUTER SIDES OF SAIL PANELS

#### 15. WEIGHT:

- A. Minimum weight limit of 2,450 pounds with 1,000 pounds right side (No Tolerance) before the race with driver and helmet in the car sitting in a normal driving position.
- B. Weights must be securely mounted with at least two (2) half inch bolts to frame or roll cage and painted white with car number on it.
- C. No weight outside of the body.
- D. No titanium, carbon fiber, or exotic materials used on race car.
- E. No gun-drilled, tubular, hollow bolts/studs. Steel fasteners only.

#### 16. BATTERY / STARTER:

A. One 12/16-volt battery only, must be securely mounted between frame rails, behind crossmember, in front of rear end and outside of driver cockpit with positive terminal covered.

B. Car must have the capacity of starting without being pushed or pulled.

#### 17. GAUGES / ELECTRONICS:

A. No electronic monitoring computer devices capable of storing or transmitting information.

Exception:

- a. Analog tachometer.
- b. Lap timers allowed during practice only.
- B. No adjustable ignition control boxes (excluding digital MSD rev limiter adjustment.)
- C. One 12/16-volt ignition box allowed.
- D. No additional ignition accessories allowed.
- E. No magnetos.
- F. No traction control devices.

#### 18. TRANSMISSION:

- A. Must have at least two forward gears and one reverse, plus a neutral position.
- B. With engine running and car in still position, must be able to engage car in gear and move forward, then backward.
- $\hbox{C. OEM production type or approved aftermarket transmissions (Bert, Brinn, Falcon) allowed.}$
- D. No 5-speed or more transmissions. (2-speed, 3-speed, 4-speed and automatic allowed).
- E. No 'in and out' boxes allowed.
- F. Standard clutch type transmissions must have a blow-proof bellhousing (steel or aluminum).
- G. Automatic transmissions must have an approved scatter shield.

#### 19. DRIVE SHAFT:

- A. Minimum 2.0" diameter, steel drive shaft, painted white.
- B. Steel slip-yokes only.
- C. 360-degree drive shaft loop required and must be constructed of at least .25 inch by 2-inch steel or equivalent, mounted 6" back from front u-joint.

# **20. ENGINE COMPARTMENT:**

- A. Rear of engine must be mounted at least 72" forward from centerline of rear axle.
- B. Engine offset must be kept within 2" of centerline of front cross member with engine level.
- C. 11" crank height
- D. Radiator must be mounted in front of engine.
- E. Cooling system may be modified as needed.
- F. No antifreeze allowed.

# **21. ENGINE:**

- A. Any American make cast iron block engine allowed.
- B. No machine work to the outside of the block (lightening).
- C. Wet sump oiling system only.
- D. Single stage external pump allowed if oil remains in the pan (No external tanks).
- E. One naturally aspirated two- or four-barrel carburetor only. (No fuel injection).
- $\label{eq:F.LS} \textbf{F. LS motors no coil packs}, \ \textbf{must have distributor.}$



#### 22. NUMBERS / DECALS:

A. All numbers shall be in contrasting color from body, affixed to both doors and top of the roof, be at least 4 inches thick and 20 inches tall, and be readable from the passenger side of the car.

# 23. BUMPERS: (See body diagrams/dimensions below for reference)

- A. Steel bumpers must always be on front and rear
- a. Welded or bolted securely to the frame.
- b. Must be a minimum 1.25" O.D. tubing, .065" wall thickness.
- c. Aluminum I-Beam rear bumper is allowed.
- B. Two bar front bumper must be mounted frame end to frame end, no wider than width of OEM frame horns.
- C. Bottom loop must be parallel to the ground. Top bar must be directly above bottom bar, minimum 6.5" apart, measured center to center.
- D. No sharp edges.
- E. Rear bumper must have rounded nerf bars that follow quarter panel and connect back to frame on both sides.
- F. Bumper must be same width of quarter panels.

# 24. BODIES: (See body diagrams/dimensions below for reference)

# ROOF:

- A. You may run an aluminum roof if it meets the specs of a fiberglass roof.
- B. Roof Rake:
- a. Must be a MINIMUM of 3" and MAXIMUM of 5" at the front.
- b. Must be a MINIMUM of 1.5" and a MAXIMUM of 2" at the rear.
- c. All parts of the front and rear edges of the roof must fall between the maximum and minimum rake dimensions.
- C. Roof must mount within 1/2" to the top of the cage and still meet existing roof rules, and Diagram (M).
- D. ROOFS MUST BE FIBERGLASS OR ALUMINUM (NO CARBON FIBER) FULL SIZE, ROUNDED AND STOCK APPEARING (NO FLAT ROOFS).

#### INTERIOR:

- A. It is highly recommended that you keep the interior open in the cockpit around the driver in case of emergency.
- B. The body must be same width, front to rear, and parallel to the OEM frame.
- C. Engine compartment must remain open on both sides.
- D. Hood must be enclosed at rear.
- E. No panel in front of the right door to engine compartment.
- F. No inner panels.
- $\mbox{G.}$  Roof must attach to decking with A, B and C Pillars.
- H. Driver and passenger side windows must have at least 12" X 18" opening (height and width), measured at the center of the window, between the lowest points at top of window, whether roof or roll cage, and the highest point at bottom of window, whether interior or body.
- I. No full windshields allowed.
- J. Must have a minimum 3 windshield bars in front of the driver.
- K. Lexan or aluminum cowl panel in front of the driver can be no wider than the cockpit and no farther back than the steering wheel.
- L. Minimum .125" aluminum, or 22 (.035") gauge steel, complete floor pan required.

#### SPOILER:

- A. 4" x 66" maximum spoiler. (Lexan is recommended)
- B. Must be 45° to deck lid
- C. Spoiler must be solid.
- D. Braces may support from rear. No verticals of any kind allowed.

#### SAIL PANELS:

- A. Must not be wider than the body and must attach to the quarters in a single stock appearing plane that angle inward to the roof
- B. No fins or lips on body, however, you may run a lip of 3/4" x 3/4" on sail panel for strength only.
- C. May use Lexan in sail panels.
- D. Quarter panels and B/C pillars must be 2 distinct pieces.

#### NOSES

- A. Plastic noses are allowed if they meet body dimensions outlined below.
- B. All cars must run a full upper and lower nose.
- C. Noses will be allowed a maximum 3" front lower valance/splitter around the bottom of the nose.
- D. Aluminum noses are allowed vertical sides with a maximum lip width of 1.5".

#### BODY MISC:

- A. No plastic body parts other than approved noses or hood scoops.
- B. No wings or aerodynamic devices or lips inside or outside the car.
- C. Outside of tires must be the widest part of car.
- D. Oil coolers/radiator must not protrude above interior or outside of the body.

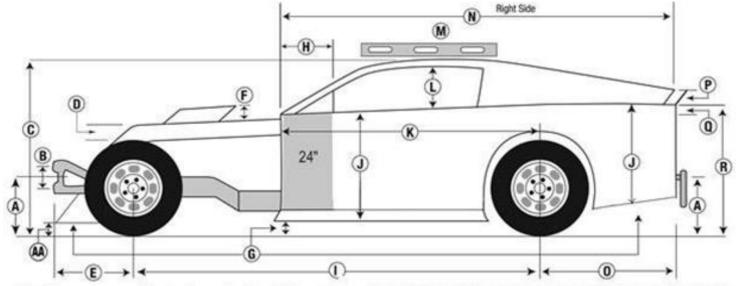


#### **BODY DIMENSIONS**

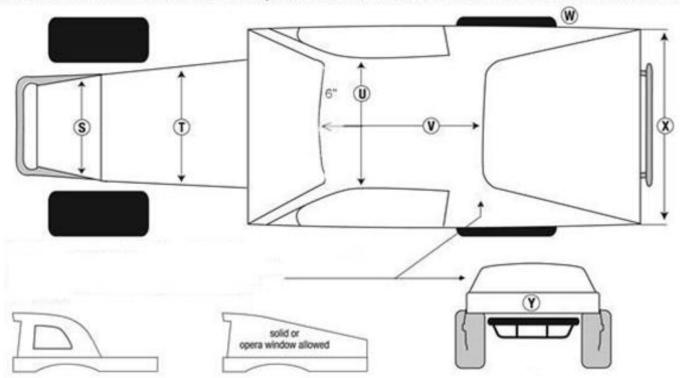
- (A) 20" Max. 16" Min. (Ground to center of bumper front & rear)
- (B) 6.5" Min. (Center to center)
- (C) 46" Max. 42" Min.
- (D) 6" Max. Hood sides 3" Max. Rake in hood.
- (E) 36" Max. Dimension applies to bumper and nose length and includes 3" splitter.
- (F) 6" Max. (Scoop/Deflector)
- (G) Side skirts can hang no lower than the bottom plane of the frame. Bottom of Quarters must be 8" from ground.
- (H) 19" Max. (Same both sides)
- (I) 112" Max. 108" Min.
- (J) 29" Max. 22" Min.
- (K) 72" Max. Or not past back of block, right side. Left side may extend forward to cover foot box if necessary.
- (L) 18" Max. 12" Min. Opening, both sides.
- (M) With a 6' level, you must have a minimum of 1.5" and a maximum of 2" of gradual clearance at the rear edge of the roof and 3" minimum and 5" maximum at the front edge of the roof. The rake of the roof may be measured at any point from side to side.
- (N) 117" Max. 106" Min.
- (O) 45" Max. 34" Min.
- (P) 3" Max. height at rear of sail panel with a gradual slope from the roof to this point.
- (Q) Interior rake is 6" Maximum front to rear and flat across.
- a. If flat at front half of interior, you have used up 50% of your 6" so from behind the driver to the rear you only have 3" of available slope remaining.
- b. Top of interior must be flush with the top of doors and quarter panels.
- c. Interior rake measurement will be the difference in height between the top, front edge of the door and the highest point of the rear quarter panel.
- (R) 38" Max. 28" Min.
- (S) 38" Max. 24" Min.
- (T) 66" Max. 24" Min. No narrower than radiator
- (U) 52" Max. 44" Min.
- (V) 56" Max. 41" Min.
- (W) Tires must be the widest part of the car. Must be able to see sidewall of tire from front, top, and rear.
- (X) 66" Max. 53" Min.
- (Y) Rear panel must be solid 8" Panel. It must be 90 degrees to the ground, attached to the deck, extend to the quart panels, and be fastened securely

For pictorial representation of body rules see next page





Shaded area reserved for Series and/or Track Sponsor Decals. MUST DISPLAY DECALS TO BE ELIGIBLE FOR FULL PURSE.



# Modified Body Rule Set

# 25. OVERALL:

A. Sanctioning Body and/or Track reserves the right to change, modify, add, or delete to these rules as they deem necessary.

B. Sanctioning Body and/or Track reserves the right to confiscate any part or parts deemed by their Officials to be outside the rules. This includes tires, or any other part(s) of any race car, at any event, at any time.

C. All decisions of the Officials are final and binding without exception.

#### 26. GENERAL COMPETITION:

- A. Drivers shall be responsible for the conduct and actions of all crewmembers, and any unsportsmanlike conduct shall be grounds for disqualification or punitive action as determined by Sanctioning Body and/or Track.
- B. Sanctioning Body and/or Track shall have the authority to disqualify members and assess fines.
- C. All discussions with Officials shall be conducted in a professional manner and at a proper distance.
- D. Drivers under the age of 18 must produce a signed and notarized Parental Consent form by Parent or Legal Guardian.
- E. Sanctioning Body and/or Track may require, at its option, any competitor to undergo a physical or drug testing before said individual can compete.

#### THE ABSENCE OF A PARTICULAR RULE DOES NOT NECESSARILY MEAN ITS APPROVAL!

Revision date 11/10/2021. Always check for the latest rules on <a href="www.birchrunracing.com">www.birchrunracing.com</a> Questions may be submitted to <a href="jeffparish@birchrunracing.com">jeffparish@birchrunracing.com</a> Questions may be submitted to <a href="jeffparish">jeffparish@birchrunracing.com</a> Questions may be submitted to <a href="jeffparish">jeffparish@birchrunracing.com