



2017 ARROW EXPRESS CANADIAN SPRINT CAR NATIONALS - September 16, 2017
2017 BURGER BARN NIGHT BEFORE THE NATIONALS - September 15, 2017

TECHNICAL RULES:

- **1.0 - Engine:**
 - a. 360 cubic inches, plus 1% tolerance for a 363.6 maximum C.I. displacement.

- **2.0 - Block:**
 - a. Steel blocks only. No aluminium blocks. No titanium in engines, excluding valves and valve retainers. There must be an inspection plug in the oil pan - either a #12AN fitting or a one-inch pipe plug - or the pan may be removed at any time for inspection.

- **3.0 - Fuel Injection:**
 - a. 2-3/16 inches (2.187") maximum inside stack diameter; at least 3" in length for those used in conjunction with Ford #27-223, Mopar #27-222, or Chevy #27-211 Brodix spec heads. Larger injectors may be used, but they must have 2-3/16" sleeves at least 3 inches in length installed above the butterflies. (Note: Due to manufacturing processes, some injector restrictor sleeves may be slightly larger and a tolerance of .005" will be allowed on no more than 3 stacks). No relief hole may be drilled above the butterfly on any injector. No throttle body, computer-controlled or plenum-type injectors allowed. Injection unit shall have one shaft operated butterfly per cylinder. The immediate area of the butterfly **MUST BE ROUND**. No slide or barrel type injectors will be allowed. No down-nozzle injectors may be used. Only one injector nozzle and one injector line per cylinder is allowed and it must be in the injector casting.

- **4.0 - Heads:**
 - 4.1 – Spec heads, part #27-211 (Chevy), #27-223 (Ford), and #27-222 (Mopar), with American Sprint Car Series (ASCS) stamp may not be altered in any way for performance enhancements.
 - 4.2 – Intake opening no larger than original opening, except: intake port floors and sides may be ground or polished 3/4 of an inch or no further into port than the closest edge of the closest letter of the ASCS logo. During this polishing, the left side of the letter "A" is sometimes inadvertently brushed with the polish wheel. This is permissible as long as the letter is still intact. During polishing of inlet port, polish marks may go slightly further than the 3/4-inch mark.
 - 4.3—Porting and polishing of intake ports is allowed with the following restrictions:
 - 4.3.1 – A) All ASCS logos must remain completely intact
 - B) Pushrod area and intake openings must meet previous requirements and checking fixtures currently utilized by sanctioned ASCS tracks.

C) Valve spring pockets may not be welded or altered in any way with the intent to relocate.

4.3.2 – Intake port openings must match the following gaskets:

A) ASCS Chevy Fel-Pro #1206 or equivalent

B) Ford Fel-Pro #1262 or equivalent

C) Mopar Fel-Pro #1213 or equivalent

- 4.4 – Intake port polishing will be allowed no more than 1-1/2 inches below the bottom of the original seat ring on the back side of the bowl area and no more than one inch on the short side.
- 4.5 – Polishing will be allowed in the combustion chamber area to avoid hot spot chaffing. Polishing will be allowed in exhaust ports, as long as the original "ASCS" logo is not affected or port shape is not altered substantially.
- 4.6 – Absolutely no intake or exhaust port relocation, raising, enlargement or reshaping of any type.
- 4.7 – Valve angle and placement may not be altered in any way on the ASCS spec head or on any other head.
- 4.8 – ASCS checking fixtures to check the above specifications and dimensions will be utilized.
- 4.9 – Any internally-repaired ASCS spec head must be re-certified by Brodix.
- 4.10 – Non-spec Chevrolet heads will be allowed, but must have an unaltered ASCS or Fel-Pro (#8E89208) intake restrictor gaskets installed.
 - 4.10.1 – Unaltered means absolutely no modifications to bolt holes or port sizing.
 - 4.10.2 – The ASCS restrictor gaskets must be installed right side up with the logo on top.
 - 4.10.3 – The 0.150 inch protrusion must extend fully across the roof line of both the intake port in both the manifold and cylinder head.
 - 4.10.4 – There shall be no streamlining or re-contouring of intake ports or injectors to reduce the effect of the restrictor gasket.
 - 4.10.5 – Non-spec heads must have stock bolt size (3/8"), location (no step studs) and remain within one degree of OEM angle specifications (must accept a stock intake manifold).
 - 4.10.6 – Restrictor gasket bolt holes may not be enlarged or relocated.
 - 4.10.7 – No Brodix #12 heads. No 18-degree heads. No canted-valve heads. No heads other than the original 23-degree valve angle heads.
 - 4.10.8 – A maximum of one-degree tolerance of original manufacturing of valve angle is allowed.
- 4.11 – Airflow Research 360 spec heads (part #1056) will be allowed with absolutely no altering of the ports. Clearance and polishing work in the combustion chamber is allowed, but no work may go beyond the valve seat.
- 4.12 – No All-Pro Heads Allowed.
- 4.13 – Penalty for altered spec head or altering gasket will be suspension (possibly for one calendar year), forfeiture of all points and monies won for that race, and a fine of not less than \$500, payable to Ohsweken Speedway before reinstatement.
- 4.14 – Front intake manifold bolt and water outlet bolt must have 1/8" hole for tagging engines.
- 4.15 – Any V-8 U.S.-production engine may be used after the heads have been approved.

- 4.16 – No V-6 engines will be allowed.

- **5.0 - Weight:**
 - a. Minimum 1475 lbs. weight (with driver; no fuel added) after the race. **Zero tolerance.**
 - b. No bolt-on weights will be allowed *without approval of the Head of the CSCN technical committee.*
 - c. Tubing and nerf bars must be hollow.

- **6.0 - Brakes:**
 - a. Steel, aluminium, or titanium brake rotors allowed.

- **7.0 - Chassis:**
 - a. Any sprint chassis is allowed.
 - b. The roll cage must be of a four-post design.
 - c. No dirt champ cars.
 - d. No elliptical tubing used on or as part of the main frame structure.
 - e. No chassis/suspension cockpit-adjustable devices (excluding top wing slider) are allowed.

- **8.0 - Fuel Tank:**
 - a. All fuel tanks must have a bladder.
 - b. Fuel tanks must be securely fastened.
 - c. Any means of mounting the tank must meet the approval of the officials.
 - d. Tank size used for qualifying must remain for all events.

- **9.0 - Wheels:**
 - a. No dual wheels are allowed. No carbon fibre wheels. Maximum allowed width of 18 inches for right rear wheel. Maximum allowed width of 15 inches for left rear wheel.
 - b. Mud covers must have a minimum of 3 Steel dzus buttons holding cover to wheel. No aluminium dzus buttons allowed. 5 Steel dzus buttons recommended.

- **10.0 - Carbon fibre:**
 - a. No carbon fibre parts allowed in the suspension or drive line.

- **11.0 - Mufflers:**
 - a. Mufflers are not required.

- **12.0 - Driveline System:**
 - a. All driveline systems must be properly installed, reinforced and/or covered.
 - b. A driveline hoop or restraint is required.
 - c. A Torque Tube Tether and U-Joint scatter shield is Highly Recommended.

- **13.0 - Wings:**
 - a. Maximum top wing size of 25 square feet with 30-inch side panels. Maximum centre foil width 60 inches covered with aluminium. The deepest point allowed in the top surface of the wing will be 2-1/2 inches measured from top front of wing to the rear edge. Top surface of the wing measuring crosswise must be flat. *NO turn-up (wicker bill) on 90 degree angle allowed at rear of centre foil on*

dished wings. Flat top wings may utilize a 1" turn-up (wicker bill) on 90 degree angle at the back edge of the top wing. Centre foil must be one piece. No split wings or bi-wings. No vent holes. Top wings must not extend beyond outside of rear tires. Top wing sideboards maximum size: 72 inches long and 30 inches tall. Panels must be of one-piece construction. Panels must be fabricated flat so as to have no turnouts or flaps exceeding 1.25 inches including reinforcement. (reinforcement not to exceed 1.25 inches). Sideboards must be mounted at 90 degrees to the centre foil.

- b.** Two stationary rudders will be allowed to run under the entire length of the underneath portion of the top wing. Nowhere shall the rudder exceed 3 inches in height.
 - c.** *No car will be allowed to compete without top wing.*
 - d.** Maximum front wing size to be 6 square feet total with a maximum width of 36 inches and 12-inch side panels. The leading edge of the front wing cannot be further than 20 inches forward of the leading edge of the front axle. *One-inch maximum turn-up (wicker bill) allowed on any front wing.* Front wing side boards maximum size, 12 inches tall and 26 inches long with no more than one inch overhang from the centre foil front edge to the side board front edge. Sideboards may have front, back, top, and bottom turnouts of no more than 1 inch.
 - e.** Wings must be fabricated of metal alloys only. NO fibreglass, carbon fibre, or other similar material may be used.
 - f.** No body pieces to extend beyond or underneath front torsion tube except hood. No wedges or foils underneath race car. No pieces may be added to the frame so as to resemble, imitate or be specifically designed to deflect, trap or form a wind break of any nature, except those used to cool/protect the motor & braking system.
 - g.** Sunshields cannot restrict vision.
 - h.** Cockpit adjustable front-to-rear (hydraulic) sliders are allowed.
- **13.1 – Front (Wing, Axle, Bumper) Locations:**
 - a.** Leading edge of Front Wing, Front Axle, and Front Bumper in relationship to location of front Torsion Tubes must be maintained.
 - b.** The leading edge of the front wing cannot be further than 20 inches forward of the leading edge of the front axle.
 - c.** The distance from the leading edge of the front bumper to the leading edge of the front torsion tube is a maximum of 8".
 - d.** The maximum distance from the leading edge of the front bumper to the leading edge of the front axle is 23.5 inches.
 - e.** The Front Wing leading edge must remain at least 1 inch behind the front edge of the front bumper.
- **14.0 - Bumpers:**
 - a.** All rear bumpers must be steel.
 - b.** Diameter must be a minimum of one inch.
 - c.** Minimum .065 thickness, and must be bolted in place (no pins, cotter keys, or pop rivets).
- **15.0 - Front axle:**
 - a.** Steel only.
 - b.** Minimum sizes: 2 inches by .156
 - c.** 2-1/4 inches by .120
 - d.** 2-3/8 inches by .095
 - e.** 2-1/2 inches by .095

- **16.0 - Nerf bars:**
 - a. Steel only.
 - b. Must be bolted in place (no pins, cotter keys, or pop rivets).

- **17.0 - Floor pan:**
 - a. Steel or aluminum only.

- **18.0 - Tires:**
 - a. Open tire rule except right rear tire.
 - b. Right rear tires are limited to only the approved right rear spec tires of each affiliate sanction:
 - .b.1 Empire Super Sprints (ESS)
 - .b.1.1 Hoosier 105/18-15 stamped HTC
 - .b.1.2 Hoosier D-20/RD-20
 - .b.1.3 Hoosier D-25
 - .b.2 Great Lakes Super Sprints (GLSS)
 - .b.2.1 Hoosier 105/16-15 Medium
 - .b.2.2 Hoosier 105/16-15 Hard
 - .b.3 National Racing Alliance Sprint Invaders (NRA)
 - .b.3.1 Hoosier 105/16-15 Medium
 - .b.3.2 Hoosier stamped NRA
 - .b.4 Ohsweken Speedway 360 Sprint Cars (OHS)
 - .b.4.1 Hoosier 105/18-15 stamped HTC
 - .b.5 Patriot Sprint Tour (PST)
 - .b.5.1 Hoosier 105/18-15 stamped HTC
 - .b.5.2 Hoosier 105/18-15 D25
 - .b.5.3 Hoosier 105/18-15 RD20
 - .b.6 Southern Ontario Sprints (SOS)
 - .b.6.1 American Racer MC2
 - .b.6.2 American Racer MC3
 - c. The Hoosier 98/14.0W-15 and Hoosier 96/14.0W-15 RD12 will not be allowed.

- **19.0 - Fuel:**
 - a. Methanol or ethanol fuel only.
 - b. Top lube or fuel-colouring agent are the only additives allowed; performance-enhancing fuel additives are not allowed.
 - c. Suspected fuel will be tested at the team's expense and moneys will be withheld until results are returned to Ohsweken Speedway.
 - d. If fuel found to contain performance-enhancing additives, disqualification will result in forfeiture of all monies won.

- **20.0 - Numbers:** Numbers must be visible and neat in appearance. Numbers must be on both the left and right side of the tail, as well as the side panels and center foil of the top wing. Numbers must be at least 18 inches high, and letters at least 12 inches high, on the top wing. In the event of duplicate numbers, teams may be asked to temporarily add a unique letter to their number in all locations on the car. Numbers will be assigned on a first-come, first-served basis by order of receipt of entry.

- **21.0 Car's equipment:**
 - a. Use a securely-fastened steering wheel with a quick disconnect and removable steering wheel.

- b.** No aluminium roll cages, front axles, frames, rear bumpers or nerf bars.
 - c.** All roll cages must be higher than the driver's helmet.
 - d.** Opening on left-hand side of cockpit must be a minimum of 14 inches.
 - e.** Opening on right-hand side of cockpit must be a minimum of 12 inches.
 - f.** Minimum wheel base of 83 inches; maximum wheel base of 90 inches.
 - g.** No pop rivets or cotter keys to be used to fasten wings, bumpers or nerf bars to race car.
 - h.** No drilled or hollowed bolts in the car's steering components.
 - i.** Only two valves and one spark plug per cylinder allowed.
 - j.** No titanium crankshafts or rods allowed.
 - k.** The sprint car cannot be raced without a hood.
 - l.** If a rear bumper is lost during a race, the car may continue until the car is stopped.
 - m.** If a red flag situation occurs, the rear bumper must be replaced in the allotted time before it can be restarted.
 - n.** A right-hand side head restraint system is recommended; it is also recommended for the left-hand side.
 - o.** In some cases, head nets may not be required if the seat restraint system is approved by track officials.
 - p.** Metal fasteners are strongly suggested.
 - q.** Knee pads or other devices to keep the knees from banging around on objects and causing injuries are encouraged.
 - r.** Shoulder/helmet restraints are also encouraged.
 - s.** A padded head rest, and roll cage padding around the cranial area is encouraged.
 - t.** A type of Styrofoam or fibreglass insulation of one-inch thick with an upholstery-type covering is suggested. If arm-a-fax or foam rubber is used, it should be considerably thicker.
 - u.** A tether is MANDATORY on the drag-link, attached to the frame.
- **22.0 - Driver seat:**
 - a.** A fuel/fume deflector is recommended. Fuel/fume deflector should be wider than driver's seat and extend from floor pan underneath seat to turn-up behind seat.
- **23.0 - Seatbelts:**
 - a.** Seatbelts should have the five- or six-point configuration of attachment to the frame or roll cage.
 - b.** The shoulder belts should be attached behind the seat to the frame or roll cage lower than the driver's shoulders.
 - c.** Safety belts and arm restraints must be no more than three years old and contain unaltered SFI safety labels. Arm restraints built into driver's suit must be in good repair and subject to approval of technical director.
- **24.0 - Driver's equipment:**
 - a.** Drivers are required to wear a proper-fitting SA 2010 or newer SNELL-approved full-face helmet.
 - b.** A flame-retardant driver's suit, gloves, socks, underwear (unless three-layer suit is utilized), and shoes are required. A head sock is also suggested.
 - c.** Helmets, flame-retardant driver's suits, fastened seat belts, shoulder harnesses, anti-sub straps, and arm restraints are to be used anytime the car is started.
 - d.** A head and neck support or restraint system is mandatory. (Use of HANS or NecksGen Device is highly recommended).
- **25.0 - In-Car Communication:**
 - a.** No two-way radios are allowed.

- b. One-way radios are mandatory for this event and must be in place and operational anytime the car is on the racetrack.
 - c. Radios may be checked prior to A-Feature. Failure to prove use of a working one-way radio prior to the start of the A-Feature will result in disqualification and forfeiture of monies won.
 - d. No Mobile Devices (cell phones, tablets, etc...) allowed in cars during competition.
- **26.0 - Technical Inspection:**
 - a. All Cars must pass pre-race tech inspection in order to compete.
 - b. Cars that fail pre-race tech for suspected illegal head work shall have the option of removal of intake manifold for further inspection.
 - c. Cars will be subject to further technical inspection at the discretion of the technical inspection committee assembled by Ohsweken Speedway at any time.
 - d. Intake manifolds may be required to be removed during post-race technical inspection on any car competing in the A-Feature.
 - e. All illegal parts are subject to confiscation; the responsibility for proving the parts are legal rests with the team being checked.
 - f. No protests on technical rules will be accepted, either written or verbal.
 - g. All decisions are final.
 - h. Post-Race technical inspection carried out within the confines of the Tech Barn will be completed under the following guideline:
 - .h.1 Cars to be inspected MUST proceed immediately to the Tech Inspection area after exiting the race track;
 - .h.2 No team members are allowed to touch or remove any part of the race car without receiving prior approval of the HEAD TECH OFFICIAL; (remember the area between the tech barn and the turn two exit is restricted)
 - .h.3 Cars (with Driver) must enter the tech area as instructed by inspectors. Drivers must move their race car onto scales or be assisted by track officials only if needed;
 - .h.4 Access in the tech barn will be restricted to the car's driver and two crew members.
 - .h.5 The team is responsible for preparing only the area(s) of the race car for inspection as requested by the HEAD TECH OFFICIAL in a timely manner;
 - i. Any participant (team) who refuses to allow tech officials to inspect their car at any time or follow inspection directions and procedures will be subject to the following
 - .i.1 Immediate disqualification from the event.
 - .i.2 Loss of prize money for that event.
 - j. Participants found to be illegal and disqualified during technical inspection shall be subject to the following:
 - .j.1 Disqualification from the event.
 - .j.2 Loss of prize money for that event.
 - k. If car does not meet our rules, it will not be able to compete. No exceptions.
 - l. All cars are subject to inspection by Ohsweken Speedway officials at any time and in any manner determined by track officials. All decisions regarding the timing and manner of the inspections, as well as which cars will be inspected, are final.
- **27.0 - Technology:**
 - a. No traction control devices of any kind allowed.
 - b. This includes mechanical and electronic traction control devices.
 - c. No wheel speed sensors permitted.
 - d. No microprocessor-operated or controlled parts (such as fuel injections, fuel systems, Swindell Bleeders, etc).
 - e. ALL wiring, connectors, and terminations must be outside of the cockpit and located within the engine compartment.

- f. Cars may be asked to disconnect tachometers at the discretion of the technical committee.

28.0 – Cockpit adjustments

- 28.1 – Other than wing sliders, NO cockpit adjustable devices are allowed.
- 28.2 – This includes, but is not limited to, brake bias, shocks, suspension, and fuel.
- 28.3 – No wiring will be allowed inside the cockpit.
- 28.4 – All wiring to instruments must protrude from the engine compartment through the firewall and directly into the instrument.

29.0 - Torsion Stop Retainers

- 29.1 -Torsion stop retainers will be mandatory on all four corners. The retainer may be of the rod-type with a securing cap, or insert with an expanding mandrel, and/or any other approved torsion stop retainer design. Torsion stop retainers must be installed and used in accordance with the manufacturer's instructions.

The following torsion bar retainers have been approved for competition;

- a.) Moose Block 1200 Retainer Kit
- b.) All Star Performance All Star 10730 Retainer
- c.) Maring Safety Retainer
- d.) Butlerbuilt Mandrel
- e.) KKR grove and clip
- f.) Kaeding Clip
- g.) DMI – T-REX (Torsion Restraint Express System)
- h.) Schroeder Part number “BARS” (for Schroeder bars with relief in ends)
- i.) Schroeder Part Number: “RWLAR” (Wedge Lock)

30.0 – Protective rock screen

- 30.1 - An industry standard protective rock screen must be installed in front of the driver and run at all times.

****Ohsweken Speedway reserves the right to ask any team to forfeit their electronic ignition box for a replacement supplied by Ohsweken Speedway while competing.****

Questions? Please contact Tech Director Mike Miller at ohswekentech@gmail.com

NOTE: *CANADIAN SPRINT CAR NATIONALS* is an open-competition event. All sprint car teams which abide by the administrative, technical, and procedural rules as set forth by **Ohsweken Speedway** are welcome. **Ohsweken Speedway** reserves the right to reject any pre-entry/entry for any reason. **Entry fee applies to car and is not transferable to other teams.** Driver changes are allowed as per event rules. **All decisions by Nationals Managing Officials are final.**