# Convertible Sport B Modified

These rules may be adjusted to ensure competitive fairness.

# 1. BODY REQUIREMENTS:

- a) All bodies are subject to Tech Official approval and are expected to resemble IMCA Modified type racecars.
- b) NO ROOFS ALLOWED, THIS IS A CONVERTIBLE (TOPLESS) CLASS.
- c) All sheet metal seams shall have the lip on the underside leaving a smooth top finish.
- d) Must have a minimum of three windshield bars in front of driver.
- e) Cowl panel in front of driver can be no wider than cockpit and no farther back than the steering wheel. Firewall and floorboards are mandatory, .125-inch aluminum, or 16 gauge or .060-inch steel, complete floor required.
- f) Fiberglass or metal duplicates of body parts are permitted.
- g) Passenger side of body must be no further forward than rear of block.
- h) No panel in front of right door to engine compartment.
- i) No wings or any other type of air/ground effects are allowed anywhere inside or outside of the car.
- j) Bodies should extend no further forward than back of block. Minimum of three (3) safety bars must be installed in front of driver, and may have screen attached.
- k) Nose panel must be flat with no fins or scoops allowed. Cooling holes allowed. Nose panel may be no wider, or lower than two inches outside of front frame horns. Nose panel must remain within confines of front bumper.
- 1) Engine compartment must remain open (no side panels).
- m) <u>Hood must be level or sloped down at front and be enclosed at rear. No reverse</u> hood rake allowed.
- n) No inner panels. No car covers.
- o) Rear spoiler (optional) may be <u>minimum one inch to</u> maximum five inches in material height and maximum 66 inches wide. Spoiler may have rear stiffener, must be one inch or more down from top. Maximum three spoiler braces allowed, must be mounted in line.
- p) Bottom of seat can be no lower than bottom of frame rail.
- q) Driver must be sealed off from track, driveline, engine, fuel cell, cannisters and pumps.
- r) Oil coolers must not protrude above interior.
- s) Accumulators cannot be mounted between driver and left-side door bars.
- t) No driver-adjustable devices allowed while car is in competition except brake adjuster.
- u) No mirrors of any kind.

# 2. ELIGIBLE ENGINES.

- a) CRATE Motor Option:
  - 1. Must use unaltered sealed GM #88958602 or #19258602 crate engine.
  - 2. Upon inspection, any different, altered or missing GM seal bolts will result in disqualification, loss of all points for the season, \$1,000 fine and a one year suspension.
  - 3. \$250 fine and two week suspension for any crate engine not using required

- i. spacer, (may use 1" thick carburetor spacer, must use Moroso part #64940).
- ii. distributor,
- iii. rev limiter,
- iv. pushrods,
- v. valve springs or
- vi. rocker arms.

## b) Other than crate motors:

- 1. Must be OEM Cast Iron Blocks and Heads.
- 2. No GM Bowtie, Ford SVO or Chrysler W components allowed.
- 3. FORD and CHRYSLER Any OEM production block.
- 4. GM approved block numbers are: 3892657, 3914660, 3914678, 3932388, 3932386, 3956618, 3970000, 3970006, 3970010, 3970014, 10066033, 10066034, 10066036, 10243880, 10066098, 10105123. 14010207, 14010209, 14010287, 14016376, 14016379, 10054727, 14088528, 14088548, 14088552, 14093638, 14101148
- 5. Engine casting numbers cannot be altered.
- 6. Stroke must match block.
- 7. Maximum cubic-inch limits GM 361 CID, Ford 360 CID, and Chrysler 370 CID.
- 8. No Aluminum, Titanium, or Carbon-Fiber components allowed.
- 9. MUST have a one (1) inch Inspection Hole on either side of oil pan with screw-in type plug
- 10. Flat top or dished pistons only, no gas-ported pistons.
- 11. OEM or OEM replacement steel crankshaft only cannot be lightened. No aero wing, bullnose, knife edge, undercut or drilling of second or third rod throws.
- 12. OEM or OEM replacement steel rods only GM 5.7 or 6-inch rod allowed. Cap screw allowed.
- 13. OEM firing order cannot be changed (GM: 1-8-4-3-6-5-7-2).
- 14. May use oil restrictors.
- 15. 'Wet' sump oiling system only.
- 16. Steel oil pans only. Racing oil pans allowed.
- 17. HEADS: Steel only. Must be unaltered approved OEM and minimum 70 cc combustion chamber. Only GM OEM approved head numbers are: 14079267, 3986336, 3986339, 3986339X, 3986388, 3932441, 376445, 3928454, 3932454, 3876487, 3973487, 3973487X, 3973493, 3951598, 468642, 330862, 333882, 3998920, 3998991, 3998993, 3998997, 3970126. Ford any OEM production head with inline valves. No canted valves and no SVO heads. Chrysler any OEM production head with inline valves. No canted valves and no w-2 heads. May use Engine Quest (EQ) Stock Replacement (SR) cylinder head, part number CH350I, head must remain as produced, seat angles and valve sizes can not be changed: three angle valve job only (absolutely no casting removal in valve pocket of EQ head, for any reason).

- 18. Maximum size valves on these GM heads are 2.02 inch intake and 1.60 inch exhaust. On Ford and Chrysler maximum 2.04-inch intake valves and 1.70 exhaust valves.
- 19. No porting, polishing or unapproved alterations allowed to ANY cylinder head.
- 20. Guide plates, screw-in shouldered studs and polylocks allowed.
- 21. No stud girdles.
- 22. Steel roller tip rocker arms allowed.
- 23. GM 1.250 inch maximum O.D. valve springs, no beehive valve springs allowed
- 24. **INTAKE:** Unaltered, approved OEM cast iron low rise, two- or fourbarrel. Only unaltered (no porting or polishing) aftermarket aluminum intakes allowed are: Weiand GM #7547-1; Ford #7515, #8023 or #7516; Chrysler #7545; Edelbrock GM #2701or #2101; Ford #7121 or #2121, #7181, #7183; Chrysler #2915 or #2176. Cooling lines allowed on aluminum intakes.
- 25. Unaltered OEM type harmonic balancer only.
- 26. OEM type steel or aluminum water pumps only.
- 27. Must use one of two adapters: Mr. Gasket part no. 1933 or Moroso part no. 64966.
- 28. Flat top or dished pistons.
- 29. Must use flat tapped cam and lifters. No mushroom or roller lifters allowed. No roller or hydraulic cams allowed. CANNOT ALTER LIFTER BORES. May use oil restrictors.
- c) Rear of engine (bell-housing flange) must be at least 72 inches forward from the center line of the rear axle. The center of the crankshaft must be within two and one half  $(2 \ 1/2)$  inches of the center line of the car.
- d) Oil pump must mount in stock position.

### 3. CARBURETOR.

- a) **CRATE Motor Option**: may use any Holley 4 barrel carburetor, all components (float bowls and main body) must be Holley manufactured. Metering blocks and base plate may be billet aluminum non-Holley. No aerosol-style carburetors allowed. May use one inch thick carburetor spacer, must use Moroso part #64940 with GM crate. Maximum 0.100 inch thick carburetor gaskets only.
- b) Other than crate motor: Holley 4412 500 CFM Carburetor. No adjustable metering blocks allowed. Choke horn must be intact. May remove choke butterfly. Throttle bore not to exceed 1 11/16 inch. Carburetor must pass track go/no-go gauges. No aftermarket fuel metering blocks.

# 4. CAR WEIGHT/BALLAST.

- a) A minimum weight of 2,500 lbs. with driver at end of race.
- b) Weights must not be used in driver compartment or outside body.
- c) No titanium, magnesium, stainless steel or carbon fiber components.
- d) Solid steel fasteners only.

# 5. ELECTRICAL/ELECTRONIC SYSTEM.

- a) Crate motor option: MUST use original HEI distributor with MSD #8728 rev-control. RPM chip must not exceed 6200.
- b) Other than crate motor: Distributor may be O.E.M. style single point or H.E.I. module style distributor. Ignition rotor, cap, coil and module must remain OEM appearing. May use MSD #8728 rev-control with any rpm chip.
- c) Chips may be tested at anytime by the officials and/or exchanged with track supplied chips.
- d) No unapproved cameras, transmitting or listening devices (<u>exception is one-way RACEceiver radio by officials</u>), timing retard controls, or digital gauges (including tach).
- e) No electronic monitoring computer devices capable of storing or transmitting information except memory recall analog tach.
- f) No billet housings or crank triggers.
- g) Rev-control must be out of reach of driver, but accessible for inspection.
- h) No ignition boxes, remote coil or accessories.
- i) All wiring must be visible for inspection.
- j) Only gauges allowed are analog oil pressure, fuel pressure, brake bias, water temperature and tach.
- k) OEM type alternator with internal regulator allowed.
- 1) No electronic traction control devices.
- m) Engine must have working starter and be capable of starting car on demand.
- n) One 12 volt battery only, must be securely mounted between frame rails, and positive terminal must be covered.
- o) Starter must bolt on block in OEM location and directly engage flexplate/flywheel. Car must have capability of starting without being pushed or pulled. Car must leave initial staging area on demand, unaided, or go to rear of that race.

#### 6. EXHAUST SYSTEM.

- a) Round tube headers only. All primary header tubes must enter directly into one collector, at same point, at end of header.
- b) Turn down allowed.
- c) No heat wrap, or exotic coatings on headers.
- d) No exhaust sensors, merge collectors, cross-overs, extensions, inserts or balance tubes.

### 7. DIFFERENTIALS.

- a) Any steel approved OEM passenger car or truck non-cambered rear end (housing and carrier) allowed must be centered in chassis.
- b) Safety hubs (floater) allowed.
- c) All components must be steel, except lowering blocks, axle cap, and drive flange.
- d) No quick-change devices.
- e) Inspection hole in housing required.
- f) Mini-spools and full-spools allowed.
- g) Ring gear, center section and yoke cannot be lightened.
- h) Solid steel axles and one-piece drive flanges only.

#### 8. WHEELS & TIRES.

- a) The track tire is the BTC (Boubin Tire Company) stamped McCreary American Racer G-60. Also allowed will be the Hoosier G60 with IMCA stamp.
- b) Tire siping, grooving, and grinding allowed. No conditioning of tires allowed. Tire durometer cannot be less than 50.
- c) Wheel width must not exceed eight (8) inches. Cannot make wheel any narrower than 8 inches and no wider than 8.75 inches.
- d) No aluminum wheels.
- e) Bead locks allowed on right front and right rear only.
- f) Mud plugs allowed but must be bolted or welded or foam type.
- g) No DZUS fasteners.
- h) Inner mud cover allowed on left rear only.
- i) Must use minimum one inch O.D. steel lug nuts.

### 9. FRAMES.

- a) Factory production full complete American passenger frames only.
- b) No sports car frames.
- c) Cannot be widened or narrowed, and must be able to support roll cage on both sides.
- d) Frame may be cut a maximum 36 inches forward from center of rear end housing.
- e) Horns may be removed in front of steering box and notched maximum one inch at bottom for tie rod clearance.
- f) Front crossmember may be notched and boxed for radiator and/or steering clearance.
- g) Maximum two inch wide by four inch tall frame stiffener may be welded directly to outside of left side frame rail.
- h) Maximum overall width shall not exceed 78 inches from outside of tire to outside of tire.
- i) Rear of frame behind rear tires no further forward than one inch behind factory seam, may be replaced with two inch by three inch steel tubing with 0.095 inch wall thickness.
- j) No part of frame can be lower than four inches from ground except front crossmember.
- k) Wheelbase: Must be the same on each side, 108 inches minimum to 112 inches maximum.

## 10. SUSPENSION & STEERING:

- a) Front suspension must match frame and be in stock location.
- b) Parts must be replaceable from stock OEM type parts from same type suspension except upper A-frame and A-frame mount.
- c) Tube type upper A-frame may be used.
- d) Fabricated A-frame mount may be used.
- e) Lower A-frame cannot be altered. Lower A-frames must be right and left, and of same design. Nova lower A-arms are allowed on GM metric frames.
- f) Adjustable A-frame and shocks must be steel.
- g) Stock passenger car spindles only. No fabricated spindles.
- h) Adjustable strut bars may be used on front end only.
- i) Steering box must be stock OEM type and be in stock location.
- j) No rack and pinion steering.
- k) No center steering.
- 1) Adjustable sway bars allowed.
- m) Outer tie rod and adjustable sleeve may be replaced by a minimum .625-inch steel rod end and steel tube.
- n) Quick steers are allowed.

- o) REAR SUSPENSION: After-market three-link design or multi-leaf spring design. All components must be steel. All mounts and brackets must be welded or bolted solid.
- p) Three-link rear suspension design requirements: must use minimum 16-inch long lower control arms. Must use one upper-control arm, solid tube only, (no pull-bar spring to biscuit assembly), located at the top center of rear-end housing. Pull bar must run parallel with drive shafts close to center of drive shaft as possible. (Interior configuration will be considered on this ruling). May use minimum 19-inch long panhard bar located behind rear-end housing or minimum 19-inch long J-bar (biscuit or solid type) mounted to a steel pinion bracket. Measurements are from center of heim joint to center of heim joint. Rear spring may be mounted directly over axle housing or use coil-over eliminators (sliders). Lower spring perch or coil-over mount must be welded to rear-end housing. No bird cages or floating mounts allowed. Must use steel upper weight jack if springs are mounted over axle housing.
- q) Multi-leaf spring design requirements: must use steel multi-leaf springs with no additional suspension components besides one shock per wheel. Adjustable lowering blocks allowed.
- r) One steel, nonadjustable, unaltered shock per wheel only.
- s) All shock mounts must be welded.
- t) No shocks allowed on screw jacks.
- u) No external or internal bumpers or stops.
- v) No coil over, air, or remote reservoir shocks.
- w) No Schrader valves or bladder type valve allowed.
- x) Front half of any shock may be shielded.
- y) **SPRINGS:** One steel coil or multi-leaf (rear) spring per wheel only. Minimum 4.5 inches O.D., non-progressive coils only. No torsion bars, air bags or inner liners.

# 11. TRANSMISSION & DRIVE SHAFT:

- a) All forward and reverse gears must be operational, plus a neutral position. With engine running and car in still position, driver must be able to engage car in gear and move forward, then backward. Only OEM production transmissions allowed. No 'in and out' boxes or quick change devices allowed. Functioning shift levers must be in OEM location. One steel or aluminum OEM style/size flywheel or steel OEM style/size flexplate allowed, must be bolted directly to end of crankshaft.
- b) **Automatic:** Must be unaltered, two or three speed, OEM production case with a functioning OEM appearing pump. Aluminum OEM bellhousing may be replaced with aftermarket explosion-proof aluminum bellhousing. Original OEM bellhousing must have approved scattershield constructed of minimum 0.125 inch by three inch steel, 270 degrees around flexplate. Only external lines allowed are for transmission cooler. Splined drive flange coupler or torque converter (10 inch minimum) only.
- c) **Manual:** Must be unaltered, three or four speed, OEM production case and have a working single or multi-disc clutch and pressure plate bolted directly to

flywheel/flexplate. These components must rotate, consistent with engine rpm, while car is in any gear. Must use explosion-proof steel bellhousing with one hole for throw out bearing lever or hose, must be 270 degrees around top of clutch and flywheel/flexplate area. Hydraulic clutch pedal allowed with manual transmission only.

d) **Drive Shaft:** Minimum two inch diameter, white, steel drive shaft. Steel slip-yokes only. 360-degree drive shaft loop required and must be constructed of at least 0.25 inch by two inch steel, or one inch tubing, mounted six inches back from front U-joint.

## 12. BRAKES.

- a) Must be steel approved OEM, operative four wheel, drum or disc. Must maintain minimum OEM dimensions for hubs/rotors and calipers, cannot be lightened.
- b) No oil bath front hubs.
- c) Rear rotors may be aftermarket 0.81 inch thickness (new). Vented rotors only, no scalloped or ceramic coated rotors.
- d) One proportioning device allowed (one-to-one ratio), front to rear only.
- e) Brake lines must be visible and must connect directly from master cylinder to calipers with no devices in between.
- f) Rear caliper brackets must be welded or bolted solid to rear-end housing

#### 13. FUEL.

- a) Fuel: Gasoline, racing fuel, and E85 allowed. No performance enhancing additives or scented additives. Fuel must pass dielectric, chemical, and specific gravity tests.
- b) No oxygen-bearing additives.
- c) No pressurized fuel systems.
- d) No electric fuel pumps.
- e) Pick-up must be on top or right side of cell.
- f) One fuel filter allowed.
- g) No cool cans.
- h) Air cleaner top/stud cannot direct air into carburetor.
- i) No top flow air cleaner housings.
- j) Mechanical OEM type push rod fuel pumps only.

# 14. BUMPERS:

- a) Front and rear tow hooks mandatory.
- b) Bumpers must be used front and rear.
- c) Front bumper must be mounted on frame end and be of a semicircle configuration with the bottom loop parallel to the ground. Front bumper must be ten (10) inches high from bottom bar to top bar. Material must be one and one-quarter inch minimum, two-inch maximum O.D. steel pipe.
- d) Rear bumpers may be constructed of pipe, square tubing, but must not have sharp edges. Rear bumpers and nurf bars must not extend beyond width of rear tire. Bumpers must be able to support car when lifted by wrecker.

# 15. REAR VIEW MIRROR and RACEIVER.

- a) Mirrors or reflective material not allowed.
- b) Raceiver required.

### 16. IDENTIFICATION AND MARKING.

- a) All car numerals must be applied in bold, contrasting, non-reflective, non-mirror colors.
- b) Numbers must be at least 18 inches high; letters if used must be 12 inches high and all neatly attached. Numbers must be at least 4" wide.
- c) Sponsors' names must not interfere with car numbers and must be neatly lettered. If numbers cannot be read then driver loses all rights to question finish.

#### **17. SAFETY:**

- a) A toggle type ignition kill switch boldly marked ON and OFF must be connected and located directly behind the driver's seat.
- b) Helmets are required and must be a minimum of SA2005 with certification label inside helmet
- c) Helmet must be worn at all times car is on the track and must be provided for inspection.
- d) Roll bar padding (fire retardant recommended) on all roll bars within the reach of the driver's head must be covered with roll bar padding. Roll bar padding in conjunction with a containment seat will be determined on an individual basis by Lakeside Officials.
- e) An approved head and neck restraint system (i.e. Hutchens, G-Force, Hans, etc.) is required. An approved head and neck restraint system means a system tested and subsequently approved for sale by vendors.
- f) SFI approved full fire suits of a flame-retardant nature must be worn by all competitors. Nomex underwear highly recommended.
- g) Fire retardant gloves and fire retardant shoes are required.
- h) Minimum 6-point safety belts, sub belt, and shoulder harness required and securely mounted as prescribed by manufacturer. Excess belt must be secured.
- i) Seat belts and shoulder harness cannot be more than three years old.
- j) Aluminum seat only, must be bolted in using minimum 0.375 inch bolts with oversize washers to keep bolt from pulling through seat (fender washers). Head and shoulder supports are highly recommended.
- k) Seat must be mounted inside the frame rail and ahead of the "B" Post of the roll cage.
- 1) Bottom of seat can be no lower than the bottom of the frame rail.
- m) All cars must have an approved rib type, made from minimum 3/4 inch, maximum one inch wide nylon material with a minimum one-inch square opening between the ribs, window net in the driver's side window at all times the car is on the track. No mesh nets.
- n) Window nets, minimum 22" wide and 16" high, must latch at top of car so that window net hangs down on door or inside door when unlatched. Triangle window nets in addition to regular window net recommended on each side of seat.
- o) The bottom of the window net must be securely connected to door bars (pop rivets, hose clamps, and/or wire tied is not acceptable).
- p) It is recommended that cars be equipped with a fully charged Halon On Board Fire Suppression System.
- q) Minimum requirement is a 2.5 lb. fire extinguisher securely mounted in vehicle and within driver's reach for activation.
- r) Each team must have a minimum 10 lb. Dry chemical and/or 10 lb. CO2 and/or 2.5 gallon water fire extinguisher in their pit area. Fire extinguishers must be visible.
- s) Steel drive shafts and yokes only.
- t) Drive shaft must be painted white.
- u) Rear Coil Springs must be cable or rope tethered so that they do not come out of a car. Cable must be 1/8" minimum diameter or rope must be 3/8" minimum diameter.

# ROLL CAGES.

- a) Car builders and drivers/owners are responsible for roll bar installation. Officials will examine all workmanship to check that roll cage welds are completed and may test to ensure the proper metal diameter and wall thickness was used.
- b) Round steel tubing, seamless roll-over bars are required for the basic roll cage. Acceptable minimum size tubing is as follows: one and three-quarters (1-3/4) inches by .090 of an inch or one and one-half (1-1/2) inches by .095 of an inch for mild steel and DOM tubing (one and three-quarters (1-3/4) inches by .083 of an inch for chrome-moly tubing). Aluminum and/or other soft metals are not allowed. Roll bar connections must be properly welded.
- c) Low carbon, mild steel tubing is recommended.
- d) Must be frame-mounted in at least six places.
- e) No brazing or soldering allowed.
- f) Must consist of a configuration of front and rear hoops connected by tubing on the sides or side hoops.
- g) Driver's head must not protrude outside cage with helmet on and strapped in driver's seat.
- h) Must have minimum of one cross bar in top halo of roll cage.
- i) Roll cage must be securely supported and braced.
- j) Protection of feet is mandatory.
- k) Bar across back of engine with vertical bars and rub rails, or similar protection.
- 1) No brace bars forward of cage may be higher than stock hood height.
- m) Main cage no further forward than engine plate.
- n) Modifications shall be made to ensure trailing arm will not penetrate the driver's compartment. Any modifications are subject to the Competition Director's or Technical Director's approval.

#### DOOR BARS.

- a) A minimum of three driver side door bars, at least 1.5-inch O.D and .083 wall thickness, must be as parallel with the ground as possible, and located perpendicular to the driver so as to provide maximum protection for driver, but without causing undue difficulty in getting into or out of vehicle.
- b) The side bars must be welded to the front and rear of the roll cage members.
- c) Must have at least one cross door bar, minimum 1.25-inch O.D., on passenger side of car, either horizontal or angled.
- d) A minimum of 18 gauge steel doorplates welded from 'A' post to 'B' post top to bottom of the door bars will be required.

## **FUEL CELLS:**

- a) Racing fuel cells required and must be securely mounted by at least two solid steel straps, two inches wide, or 1" square tubing around cell.
- b) Fuel cells must be enclosed in steel container and must be mounted securely behind rear axle and between the rear tires, no lower than 10 inches off the ground, protected by roll-cage tubing.
- c) Protective tubing must cover the rear and extend past both sides of fuel cell.
- d) Fuel cell shall be a minimum of four inches ahead of rear bumper.
- e) Fuel cells shall have check valves, and bladders are highly recommended.
- f) Fuel cells are limited to 32 gallon.
- g) Pick-up must not be underneath (bottom side) fuel cell.
- h) No plastic or urethane fuel lines allowed.
- i) Fuel cell must have in internal flapper valve.

# **WEIGHT:**

- a) If weight/ballast needs to be added it must be securely fastened, but cannot be in driver's compartment.
- b) Weight/ballast must be painted white with car number on it. The driver is subject to a \$100 fine if the car number is not on the weight or the incorrect car number is on the weight.
- c) All weight/ballast must be lead.
- d) All weight/ballast must be securely mounted and not exposed at any point to outside interference.
- e) Race vehicles losing weight/ballast on racetrack will be disqualified and weight/ballast retained by Lakeside Speedway.

Speedway Officials will have the final word on all matters of rules. Speedway officials will be empowered to restrict any car from competing. Any other alterations or modifications not specifically allowed for in these rules will be considered illegal.

IMPORTANT NOTE: COMPETITIVE RACING CAN RESULT IN INJURY AND/OR DEATH TO THE PARTICIPANT. NO EXPRESSED OR IMPLIED WARRANTY OF SAFETY SHALL RESULT FROM PUBLICATION OF OR COMPLIANCE WITH THESE RULES AND/OR REGULATIONS. The rules and regulations are intended as guides for the conduct of the sport. They are in no way a guarantee against injury or death to a participant, spectator, officials, or other.

Questions regarding these rules may be forwarded to either <u>JDG48@AOL.com</u> or lopezbobby86@yahoo.com. Questions and answers will be posted on the Lakeside Speedway WEB site: www.Lakesidespeedway.net.