

RPM 2009 Limited Modified Rules

CAR MUST BE IMCA LEGAL

SAFETY EQUIPMENT

Rules apply at all times car is on track. Snell-rated SA2000 or SA2005 or SFI 31.1/2005 helmet required. (Effective January 1, 2008, SA95 helmets are no longer allowed). Roll bar padding required in driver compartment. SFI-approved full fire suit required. Fire retardant neck brace, gloves and shoes required. Driver-side window net required, ribbon or mesh style, and must be mounted so quick release latch is at top front of window. Minimum three-inch wide SFI-approved five-point safety belt assembly required (Y-type shoulder harness not allowed), must be mounted securely to roll cage. Kill switch required within easy reach of driver and emergency personnel, must be clearly marked 'OFF' and 'ON'.

FRAME

1978-1987 OEM midsize GM metric full frame only. Minimum wheelbase 107-inches, maximum 109-inches, both sides. Frame must be full and complete, cannot be widened, narrowed, shortened, lengthened, or be cut, bent, or altered to change suspension brackets, except upper control arm brackets on front end. All frame bolt holes must remain in OEM location. Front frame horns may be removed in front of steering box. Front frame may be cut for radiator clearance. Frame may be notched for seat clearance. Transmission crossmember mounts may be removed, no further forward than frame welds. Rear of frame, behind upper shock mounts, may be replaced with round, square, or rectangular tubing. No part of frame can be lower than five inches from ground except front crossmember. No other frame alterations allowed.

ROLL CAGE

Must consist of continuous hoops, minimum 1.5 inch O.D. tubing, with a minimum wall thickness of .095 inch for main cage. Cages must be steel or chrome-moly. Main cage no further forward than rear of engine and no further back than front edge of rear tire. Four bars, two per side, may extend from main roll cage to main frame points in front of the upper control arms. These bars may have two additional braces per side to the main frame. Six bars may extend from the main cage to the rear. X-bracing is allowed. Driver's head must not protrude outside cage with helmet on. Roll cage must be securely supported and braced with minimum one cross bar in top halo. All bars forward of cage must be lower than hood.

DOOR BARS

Minimum of three driver side door bars required, minimum 1.5 inch O.D. and .083 inch wall thickness, must be parallel to ground and perpendicular to driver, and welded to front and rear of roll cage. Minimum two passenger side door bars required, must have at least one cross door bar, horizontal or angled. Steel door plate, 18 gauge or .049-inch

BODY

(Same as IMCA Sport Modified) must be same width, front to rear, and parallel to OEM frame. Engine compartment must remain open (no side panels). Aluminum or fiberglass hoods allowed, must completely cover top of radiator and engine, extending from nose to interior deck and enclosed at rear. Must have front and rear roof supports. Aluminum or fiberglass roof allowed, must meet body diagram. No Gremlin roofs. No plastic body panels or filler panels allowed. Must have complete interior deck from side to side, must be aluminum or sheet metal. Quarter panels must remain 90-degrees to ground, maximum 45-degree bend 4-inches from bottom and 2-inches from top of doors and quarters. Rear spoiler may be maximum 8 inches in material height and maximum 67 inches wide. Spoiler may have stiffener, must be 1 inch or more down from top. Maximum 3 spoiler braces allowed, must be mounted in line. Spoiler braces must resemble all aspects of drawing. No fins, lips or wings allowed.

DRIVER COMPARTMENT

Must have minimum three 5/16-inch O.D. windshield bars in front of driver. Aluminum cowl panel in front of driver can be no wider than cockpit. Aluminum high-back seat only, must be securely bolted, using minimum 0.375-inch bolts, to roll cage and support system. Floor pan must be metal or aluminum and cover entire driver compartment. Bottom of seat can be no lower than bottom of frame rail. Driver must be sealed off from track, driveline, engine, fuel cell, canisters and pumps. No oil coolers allowed in driver compartment. No devices that would enable driver adjustment to alter wheelbase or for weight jacking while car is in competition. No mirrors of any kind.

FRONT SUSPENSION

All components must be steel, unaltered OEM, in OEM location, and match frame. No jack bolts allowed. Adjustable spring buckets are allowed. Must use OEM upper and lower A-frames and mounts. OEM upper A-frame may be replaced using aftermarket upper A-frame (STEEL only). Upper A-frame mounts may be modified and moved for caster and camber adjustment, but must remain OEM material. Lower A-frame mounts and bolt holes on frame must be in OEM location, mount may be notched for clearance. All A-frame bushings may be aftermarket, but no bearing/heim type. OEM style ball joints only, may be tacked in. Sway bars (optional) and brackets must remain OEM.

STEERING

All components must be steel, unaltered OEM, in OEM location and match frame. No grinding, lightening or welding on any steering parts. Spindle may be reamed and bolt on spindle savers are allowed. Steel steering shafts and knuckles only. Steering quickener (optional), steering wheel and quick release (required) may be aluminum. Power steering pump and reservoir must remain one unit. Driver compartment steering may be modified, must be kept on left side. No rack and pinion.

SHOCKS

One steel shock per wheel only. Shock must be in OEM mounts and location, using OEM style shock. Mounting spacers and weld or screw-on shock ends allowed. No air or coil-over shocks, remote reservoir shocks, Schrader valves or bladder type valve allowed.

SPRINGS

One steel spring (aftermarket allowed) per wheel only. Minimum 4.5-inches O.D.

REAR SUSPENSION

All control arms and mounts must be steel, unaltered OEM, in OEM location, and match frame. No jack bolts allowed. Adjustable spring buckets allowed, may be dropped as long as they remain in OEM location. If upper spring cup uses all thread, it must be securely welded to chassis. Lower spring cups must be centered on housing. Control arms may be reinforced, but cannot be shortened or lengthened, must remain OEM length. All control arm bushings may be aftermarket, but no bearing/heim type. Bushings cannot be drilled. No aluminum parts allowed.

REAR END

Must use OEM 7.5-inch GM 10 bolt rear end (bracing optional), must remain stock width. No floater rear end allowed. Steel components only. OEM mounts on lower control arms must remain in OEM location on original 7.5-inch tube housing. Aftermarket axles, mini-spools and C-clip eliminators allowed. Locked rear ends only, no torque dividing differentials allowed. No full or aluminum spools allowed. Pinion angle can not be changed. Any gear ratio allowed but housing must remain unaltered. No quick change devices.

BUMPERS/KICK RAILS

Steel only. Two bar front bumper and single bar rear bumper must be used on car at all times and welded, or bolted securely using minimum 0.375 inch bolts. Must be maximum 1.50-inch O.D. tubing, .095-inch wall thickness on front and 1.75-inch tubing, .095 wall thickness on rear. Maximum 1.50-inch O.D. tubing, .095-inch wall thickness fuel cell protection bar required must cover rear and extend past both sides of cell may be welded to rear bumper. Rear bumper may be maximum 6-inches beyond rear deck. All bumpers and kick rails must be capped with no sharp edges. Single bar kick rail from front to rear wheel allowed on each side, no center supports allowed, maximum 1.50-inch O.D. tubing and .095-inch wall thickness, must be mounted to cage at front and rear of kick rail.

TIRES/WHEELS

American Racer 500 or Hoosier '500" Race tire. 27 by 8 by 15 or 26.5 by 8 by 15 'stagger tire' allowed. Siping allowed. No grooving allowed. No re-caps. Steel bolts only. Outer foam or plastic mud cover allowed on right rear only. Inner mud cover allowed on left rear only. No bleeder valves. Must use minimum 1-inch O.D. lug nuts and 0.625-inch studs are recommended. No wheel spacers allowed with OEM studs. Wheel adapters are treated as spacers and may be aluminum.

BRAKES

Must be steel OEM, operative three wheels, drum or disc. Must maintain minimum OEM dimensions for hubs/rotors and calipers cannot be lightened. Bolt pattern may be changed. 0.625-inch studs allowed. Single or dual aftermarket master cylinders allowed. Driver adjustable dual pedal brake bias allowed. Additional proportioning valve (in-line type) allowed, must be out of driver reach. Rear rotors may be aftermarket, minimum 0.810-inch thickness, maximum 12-inch O.D. Vented rotors. Rear caliper brackets must be welded to housing.

EXHAUST

Must use Schoenfeld headers. GM: #161, #151, and #151E with 1.625-inch tubes and 3-inch collector. Chrysler: #461, #461W2, and #462W2. Ford: #351, #361, #362, #562, #562-4B #563-4B. No header modifications allowed. Coated headers allowed. No exhaust sensors, merge collectors, cross overs, turnouts or balance tubes. Mufflers optional.

FUEL SYSTEM

Racing fuel cell required, maximum 22 gallon capacity and must be in a minimum 20 gauge steel container. Must mount with minimum two solid steel straps around entire cell, two inches wide and 0.125 inch thick, between frame rails in trunk area only. Fuel cell vents, including cap vent, must have check valves. If fuel cell does not have aircraft style positive seal filler neck/cap system - a flapper, spring or ball type filler rollover valve is required. No part of cell can be lower than protective tubing. OEM mounted, mechanical push rod fuel pumps only. No regulators, bypass fuel systems, pressurized, or return lines allowed. CARBURETOR (one only): Holley (unaltered) #4412 or #0-80583-1, 500 cfm two barrel may be used on any engine. OEM GM Quadrajet or two-barrel may be used on Chevy. OEM Motorcraft four or two barrel may be used on Ford. OEM Carter or AFB four or two barrel may be used on Chrysler. OEM carburetors must remain unaltered; circle track floats may be installed. No other carburetors allowed. Adapter/spacer allowed, maximum 1.250-inches thick, including gaskets. No driver compartment adjustable carburetors or spacers.

FUEL

Gasoline only. Racing fuel allowed. No performance enhancing product. Fuel must pass both dielectric meter and chemical tests. Fuel sample may be taken from any car at any time.

WEIGHT

Minimum weight limit of 2,300 pounds after race with driver in car. Weights must not be used in driver compartment or outside body. All weights must be securely mounted with at least two, .5-inch bolts, painted white with car number on it. Solid steel fasteners only.

BATTERY/STARTER

One 12-volt battery only. Must be shielded and securely mounted. Aftermarket starter allowed must bolt in OEM location. Must have capability of starting without being pushed or pulled.

GAUGES/ELECTRONICS

No unapproved cameras, transmitting or listening devices, timing retard controls, or digital gauges (including tach). No electronic monitoring computer devices capable of storing or transmitting information except analog tach. OEM style ignitions only. GM: HEI distributor (must remain one unit) or point distributor allowed. Ford/Chrysler: may use OEM ignition, including OEM boxes, or HEI distributor. Any module may be used that fits inside the distributor with no alteration. Vacuum advance may be removed and pick-up coil locked. No external coils allowed, unless using point distributor. No GM or aftermarket ignition boxes allowed. No traction control devices.

TRANSMISSION/DRIVE SHAFT

Only OEM production transmissions allowed. No aftermarket transmissions allowed. No 'in and out' boxes or quick-change devices allowed. With engine running and car in a still position, must be able to engage car in gear and move forward, then backward. Functioning shift levers must be in OEM location. Transmission fluid coolers allowed. Flywheel, flexplate and converter must be steel.

Automatic - Any OEM automatic transmission allowed. Must use functioning, minimum 10-inch diameter steel torque converter. No direct drives, couplers, valved pumps, or bleeder style valve bodies. Must have at least one forward gear and reverse gear, gears must function. Must have an approved scattershield constructed of .125-inch by three-inch steel, 270 degrees around top of flexplate. GM automatic must be used with GM engine, may be used with Ford or Chrysler engine. Stall converters allowed. Steel OEM style flexplate only, must be bolted directly to end of crankshaft.

Manual - 3, 4 or 5 speed OEM manual transmissions only. All gears must function. Must have functioning 10.5-inch minimum diameter clutch and pressure plate bolted directly to steel flywheel. These components must rotate, consistent with engine rpm, while car is in any gear. Must use explosion-proof steel bellhousing 180 degrees around top of clutch and flywheel. No mini-clutches or couplers. Minimum 9-inch diameter Ford clutch allowed. Hydraulic slave cylinder/throw out bearing allowed.

Drive Shaft - Minimum 2-inch diameter, white, steel drive shaft only. Steel slip-yokes only. 360-degree drive shaft loop required, constructed of at least 0.125-inch by 2-inch steel, or 1-inch tubing, mounted 6-inches back from front U-joint.

ENGINE COMPARTMENT

Rear of engine (bellhousing flange) must be mounted at least 70-inches forward from centerline of rear axle. Minimum 11-inch engine height from ground to center of crankshaft. One radiator allowed, steel or aluminum. Racing cap and electric fans allowed. Catch can required. Power steering pump and reservoir must remain one unit and mount in front of engine. Side engine mounts (OEM or 45-degree style) must be steel, aluminum mid-plate allowed.

ENGINE SPECIFICATIONS

Must use OEM cast iron, American make V-8 small block engines only. No bowtie, SVO or W-2 components allowed. All engines must be able to be used in conventional passenger car without alterations. External engine casting and threaded holes cannot be altered. No aluminum, titanium or carbon fiber components allowed.

BLOCK

GM (Chevy only): 283, 302, 305, 307, 327, 350. Ford: 260, 289, 302, 351. Chrysler: 273, 318, 340, 360, no hemis. Maximum cubic inch limits: GM 364 c.i., Ford 360 c.i., Chrysler 370 c.i., no tolerance. No 400 or larger cubic inch parts allowed. Flat top or dished cast pistons only; Chevy must use 4-valve relief. No gas ported or floating pistons. 3.48-inch maximum GM stroke. Maximum 175 lbs. per cylinder compression, no tolerance. Compression checked with one spark plug removed, turned five engine revolutions. Engines may be balanced and block decked. Oil filter system must remain OEM. 'Wet' sump-oiling system only. No accusumps. OEM rods. Chevy must use maximum 5.7-inch rod. Steel or cast OEM crankshafts only. No splayed main caps. Racing oil pans allowed. One-inch inspection hole recommended in pan - no obstructions to crank and rods. If obstructions are present, must remove pan for inspection. Engine bolts may be aftermarket. Fluid dampener balancer allowed. No roller bearings allowed.

INTAKE - Unaltered, approved OEM cast iron low rise, two- or four-barrel; or unaltered Weiand aluminum Chevrolet #7547-1, Edelbrock #EDL-2701, Ford 302 #7515, 351 Windsor #8023, 351 Cleveland #7516, Chrysler #7545. No porting, polishing, or alterations of any kind, including cooling lines or plenum alterations to ANY intake. No OEM hi-rise, marine or bowtie intakes. Ford may use OEM aluminum intake, no under air or hi-rise. All intakes must have unobstructed 0.250-inch vacuum fitting. Belt driven, OEM style water pumps only, no aluminum water pumps on Chevy engine.

CAMSHAFT - Non-roller hydraulic cam/lifters only. Hydraulic lifters must remain UNALTERED OEM. No maximum cam lift. Must pull 12-inches of vacuum at 1200 rpms. Vacuum to be pulled at intake vacuum fitting, not carburetor. No alterations of any kind may be made at time of tech. Track equipment being used for tech is final. Lifter bores cannot be altered. Must be chain driven no gear/belt drives.

CYLINDER HEADS - Only GM OEM approved head numbers are (last 3 digits): 126, 185, 336, 441, 445, 487, 493, 598, 624, 862, 882, 920, 993, 997, with valve no larger than 1.94-inch intake and 1.50-inch exhaust. May use Engine Quest (EQ) Stock Replacement (SR) cylinder head, part number CH350I, head must remain as produced, valve sizes can not be changed. No porting, polishing, or unapproved alterations to ANY cylinder head. Any cast iron OEM Ford and Chrysler heads allowed with valves no larger than 2.04-inch intake and 1.70-inch exhaust. Headers must bolt directly to heads with correct numbers. No vortec, bowtie, SVO, W-2 or aftermarket heads allowed. Flat milling allowed. Guide plates, screw-in shouldered studs (0.375-inch max) and polylocks allowed, no stud girdles. Stamped steel, OEM style, stud mounted (0.375-inch max) rocker arms only. Chrysler may use OEM rocker arm bars. Any length push rods allowed. OEM diameter springs must match heads (no beehive valve springs allowed).

ENGINE PROTEST PROCEDURES

Within 5 minutes after race, any driver starting the feature may, for \$200, protest any engine. \$50 of the protest fee goes to track and will not be refunded, regardless of protest outcome. Driver may not protest another driver finishing in a position behind them. Under this protest, the following **MUST** be inspected: intake manifold, cylinder head (removal required), stroke, and visual inspection of crankshaft (pan may be removed). \$150 will be returned to protestor if engine is found illegal. If engine being protested is found legal, \$150 protest fee will be paid to driver being protested. If parts are found illegal, or if driver refuses to submit to protest, first infraction will result in forfeiture of all cash and contingencies, trophies and points earned in feature. An additional 50 points will be deducted if found illegal.