



STOCK CAR - 2011

Revised November, 2010. Revisions/clarifications underlined, *recommendations italicized*. Refer to www.imca.com for General Rules.

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The rules and/or regulations set forth herein are designed to provide for the orderly conduct of 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 complied with these rules. NO EXPRESSED OR IMPLIED WARRANTY

OF SAFETY SHALL RESULT FROM PUBLICATIONS 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 or death to a participant, spectator or official. The race director shall be empowered to permit reasonable and appropriate deviation from any of the specifications herein or impose any further restrictions that in his opinion do not alter the minimum acceptable requirements. NO EXPRESSED OR IMPLIED WARRANTY OF SAFETY SHALL RESULT FROM SUCH ALTERATION OF SPECIFICATIONS. Any interpretation or deviation of these rules is left to the discretion of the officials. Their decision is final.

- 1. SAFETY EQUIPMENT:** Rules apply at all times car is on track. Snell-rated SA2000, SA2005 or SA2010 helmet required. Roll bar padding required in driver compartment (*Fire retardant recommended*). SFI-approved full fire suit required. Fire retardant gloves, shoes and neck brace (or head and neck restraint) required. Right and left seat head supports required if using head restraint system with no neck collar. *Recommended: Fire retardant head sock and underwear; collapsible steering shaft.* Driver-side window net required, minimum 16 inch by 20 inch ribbon or mesh style, and must be mounted to roll cage so latch is at top front of window. Minimum three inch (two-inch with head restraint system) wide SFI-approved five point safety belt assembly required (Y-type shoulder harness not allowed), must be mounted securely to roll cage, *recommended to be no more than two years old*. Kill switch required within easy reach of driver and must be clearly marked 'OFF' and 'ON'.
- 2. FRAME:** Any American OEM full body rear wheel drive passenger car, 1964 or newer, full frame or unibody. Minimum 107.5 inch wheelbase, maximum one inch difference from side to side. Frame must match body — GM to GM, Ford to Ford, Chrysler to Chrysler — AND wheelbase to wheelbase. Exceptions are: 1980 or newer Ford two door unibody may be installed on 1978-1987 GM full frame OR Ford full frame (shortened to minimum 107.5 inch wheelbase). Chrysler engine may be put in 1978-1987 GM full frame. Rear of frame behind rear tires, no further forward than one inch behind factory seam, may be replaced in OEM location with two inch by three inch steel tubing with 0.095 inch wall thickness. Factory seam must remain visible. Unibody must tie rear frame to front frame. Frame may be "X" braced. No Camaros, Firebirds or Mustangs.
- 3. ROLL CAGE:** Roll cage must meet IMCA specifications. Main cage must consist of continuous hoops, minimum 1.75 inch O.D. tubing, with a minimum wall thickness of 0.095 inch, *low carbon or mild steel recommended*. Four-post roll cage required, front down bars and rear hoop must be welded to OEM frame. Driver's head must not protrude outside cage with helmet on. Rear hoop must have "X" brace, consisting of one full horizontal and one full diagonal bar, minimum 1.25 inch O.D. with 0.083 inch wall thickness. Front down bars must be tied together, passenger side front down bars must be maximum 11 inches in from top of door. Must be minimum 40 inches between outside edge of front and rear down bars at top of door panel. Maximum 41 inches (48 inches for 1988-1996 GM bodies) from top center of windshield to front edge of rear hoop; maximum 13 inches (20 inches for 1988-1996 GM bodies) to front edge of top halo. Top halo must be minimum 40 inches across, outside to outside. Rear hoop may be maximum 12 inches in from bottom of opera window. Minimum one cross bar in top halo. May have maximum two horizontal bars, (in addition to bar tying front frame horns together) for radiator protection; must be behind bumper, within confines of body, no wider than stock frame horns. Required rear kickers (down bars) and engine hoop must be minimum 1.25 inch OD tubing, with 0.083 inch wall thickness. Fuel cell protection required, must be mounted frame rail to frame rail, no higher than fuel cell, inside trunk area with maximum 1.75 inch OD tubing. All bars must be inside body. Foot protection bar required.
- 4. DOOR BARS:** All door bars and uprights must be minimum 1.75 inch O.D. with 0.095 inch wall thickness. Minimum three door bars, both sides, parallel to ground, and perpendicular to driver. Minimum four uprights tied from frame to top door bar on driver side, and minimum three uprights on passenger side. Steel door plates, 18 gauge or 0.049 inch minimum thickness, must be securely welded to outside of door bars on driver's side. Plate must cover area from top door bar to frame and from rear down post to five inches in front of seat. Must be visible for inspection.
- 5. BODY:** Must be IMCA approved, unaltered OEM, and centered over wheel wells (front to rear and side to side). Body and engine make must match. Front body mounts must be visible. May use 1988-1996 Cutlass, Grand Prix, Lumina, Regal or Monte Carlo body on 1978-1987 GM 108 inch wheelbase full frame. Sunroofs and T-tops must be enclosed. OEM or aftermarket plastic nose and tail pieces allowed (*recommended to match body*). All body panels may be gutted, including fenders, doors, hood, roof, quarters and trunk, but must remain original size. No overlapping or shortening of body panels. Hood must be separate from fenders, in OEM location, with rear sealed off from driver compartment with metal. All inner wheel wells may be removed. Rear edge of trunk may be trimmed and rear tail light support removed only if aftermarket tail piece is used. Trunk floor must be removed over rear end housing, entire trunk floor may be removed. All windows must remain open, except opera windows may be covered with clear lexan, no decals. All 'B' pillars may be trimmed to minimum 2 inch width, must remain within OEM location. Maximum seven inch metal sun visor may be added to top of windshield opening. Wheel wells may be trimmed for tire clearance. No spoilers, hood scoops or reflective body panels. Rocker skirt/flare allowed between tires only, cannot extend outside tires, minimum 4 inch ground clearance. Car number must be minimum four inches thick and 20 inches tall and clearly visible, on both sides, top and back of car, and front, if possible.
- 6. DRIVER COMPARTMENT:** Minimum of three windshield bars in front of driver. Aluminum high-back seat only, must be bolted in using minimum 0.375 inch bolts. Seat must remain inside all confines of roll cage. Driver must be sealed off from track, driveline, engine and fuel cell. Kick and rocker panels may be removed. Front OEM firewall may be replaced using steel fabricated firewall, 18 gauge or minimum 0.049 inch thickness. Top of firewall can be no further back than 12 inches from the back of engine block, measured horizontally. Bottom of firewall can be no further back than rear of oval body mount frame hole. Dash must not extend more than 24 inches back from top of firewall. Dash must be flat, rear can be no higher than front, except for cowl in front of driver. OEM floor pan may be replaced using steel fabricated floor pan, 18 gauge or minimum 0.049 inch thickness, securely welded to frame. Floor pan may be replaced from front firewall to rear halo supports. Must remain flat/OEM appearing from frame rail to frame rail, can be no higher or lower than frame rail. Exception is maximum 8-inch tall driveshaft tunnel. Tunnel must remain similar to OEM tunnel in size. No cockpits, interior must remain open. Rear firewall may be aluminum or steel and may be located no further forward than rear halo supports and no higher than bottom of rear opera windows. All holes in firewalls must be covered with metal. No driver-adjustable devices allowed while car is in competition except brake adjuster. No mirrors.
- 7. FRONT SUSPENSION:** All components and mounts must be steel, unaltered OEM, in OEM location and match frame. Rubber, nylon or steel lower A-frame bushings only - no offset or bearing type. No sway bars. Exceptions are: weight jacks allowed - must be in original centerline of spring tower; OEM upper A-frame mount may be moved or replaced with aftermarket steel non-adjustable mount matching upper A-frame bolt on design; OEM or OEM replacement ball joints allowed. For 1978-1987 GM mid-sized metric frame, OEM upper A-frame may be replaced using aftermarket upper A-frame, must display "IMCA approved" decal on top of rear tube of A-frame. Shock location may be moved and may go through center of aftermarket upper A-frame, but frame cannot be altered in any way. Single hole shock mounts only.
- 8. STEERING:** No rack and pinion. All components must be steel, unaltered OEM, in OEM location and match frame. Exceptions are: bolt on spindle savers allowed, OEM steering column may be replaced with steel knuckles and steel steering shafts (*collapsible recommended*). Quick release required - steering quickener and steering wheel may be aluminum.
- 9. SHOCKS:** One steel nonadjustable unaltered shock per wheel. No coil over, air, or remote reservoir shocks. No Schrader or bladder type valve allowed. No coil over eliminators. One or all shocks may be claimed per event for \$50 each, counting as one claim on card, following shock claim procedures (Refer to www.imca.com).
- 10. SPRINGS:** One steel spring per wheel only. All coil springs must be minimum 4.5 inches O.D. and non-progressive.
- 11. REAR SUSPENSION:** All components and mounts must be steel, unaltered OEM, in OEM location, and match frame. No independent rear suspension. Rubber or nylon control arm bushings only, no offset or bearing type. Welded single-hole shock mounts only. Exceptions are: coil springs may be moved, but center line of axle tube can be no further forward than the front of spring, or no further back than rear of spring; shocks may be moved, but must remain behind housing; rear end lower control arm mounts maximum 7.5-inches long, may have maximum five holes for adjustment. Upper control arm mounts on rear end must be level with each other.
- 12. REAR END:** Any steel approved OEM passenger car or truck non-cambered rear end (housing and carrier) allowed. Safety hubs (floater) allowed. No sway/panhard bars. All components must be steel, exceptions are: lowering blocks, axle cap, and drive flange may be aluminum. No adjustable lowering blocks. One inch inspection hole in housing required. Full steel spool, steel mini spool or welded rear end only. Steel axles only. No quick change devices. One piece drive flange only. No torque-dividing differentials. No scalloped ring gears.
- 13. BUMPERS/RUB RAILS:** Maximum one inch wide by two inch tall steel or lexan rub rails allowed - bolted flush to body. Front and rear tow hooks mandatory. All front bumpers must be mounted minimum six inches from front frame horns. Steel bumper mounts only. No sharp edges allowed on bumpers, rub rails or bolts. One of two bumper options must be used and must be OEM height: **OEM:** Bumpers not covered by plastic nose or tail piece must be complete, unaltered OEM, capped to fender with steel, welded or bolted. No bars past outside edge of body other than rub rails. **Aftermarket:** Fabricated tubular bumpers allowed, but must be covered by plastic nose or tail piece and bent to fit with rounded ends. Front bumper bar must be minimum 1.5 inch O.D. (maximum two inch) with 0.083 inch (maximum 0.125 inch) wall thickness. Rear bumper must be minimum 1.75 inch O.D. with 0.120 inch wall thickness.
- 14. TIRES/WHEELS:** Must use unaltered Hoosier Race tire, G60-15 with IMCA stamped on sidewall. No chemical softening, conditioning, or grooving of tires (Refer to www.imca.com for automatic penalties). Tires may be ground or siped within confines of tread (not past factory straight line). No re-caps. All wheels must display white "IMCA approved" decal and wheel manufacturer decal. Spacer or offset wheel, or a combination of the two allowed, but cannot exceed two inches total offset per wheel. Aluminum, composite or steel spacers only. May use IMCA approved bead lock, on right rear only. External, steel bead lock only and it cannot make wheel any narrower than 8 inches and no wider than 8.75 inches. Steel bolts only. Foam type or plastic outer mud cover allowed on right side wheels. Inner mud cover allowed on left rear only. No bleeder valves. Steel lug nuts only.
- 15. BRAKES:** Steel, unaltered OEM, or unaltered OEM replacement, operative four wheel, drum or disc allowed. Front components must match frame and maintain minimum OEM dimensions for hubs/rotors and calipers, cannot be lightened. OEM diameter caliper pistons only. Bolt pattern may be changed. Larger studs allowed. Vented rotors only, no scalloped or

- ceramic coated rotors. Rear rotors may be aftermarket 0.810 inch thick (new). No floating brakes. No brake shut-off or pressure sensitive devices. One front to rear proportioning device allowed. Brake lines must be visible. Aftermarket pedal assembly allowed.
- 16. EXHAUST:** Round tube headers only. All primary header tubes must enter directly into one collector at same point at end of header. Must remain dual exhaust, no crossover or "Y" pipes. No exhaust through body panels or fenders. Schoenfeld mufflers, stamped IMCA609, must be used if track has noise reduction rule of 98 d.b. or more (exception is California). All exhaust must go through muffler, two per car, one per header. No merge collectors. No exhaust sensors.
- 17. FUEL SYSTEM:** Racing fuel cell required, maximum 22 gallon (*12 gallon recommended*), must be in minimum 20 gauge steel container. Must be securely fastened in trunk above top of rear frame rails, behind rear tires, no further forward than factory seam where rear frame rail can be replaced, with minimum two solid steel straps around entire cell, two inches wide and 0.125 inch thick. No fuel cells allowed over rear end housing. Metal firewall must be between driver and fuel cell. All cell mounts must be steel, securely welded to frame/cage. No adjustable fuel cell mounts. 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. Fuel lines through driver compartment must run through metal pipe or metal conduit. One fuel filter only, cannot be in driver's compartment. No cool cans. Air cleaner top/stud cannot direct air into carburetor. No top flow air cleaner housings, cold air boxes or air cleaner duct work. Mechanical OEM type push rod fuel pumps only. **CARBURETOR (see engine options):** Unlimited cubic inch limit engines must use unaltered 350 c.f.m. Holley - part no. 0-80787-1- with no modifications, or part no. 0-7448 which may be modified to meet the specs of part no. 0-80787-1. Holley carburetor components only. Any driver caught with non-350 Holley on unlimited cubic inch limit engine will be fined \$500 or suspended for two weeks. Air bleeds cannot be removed, .076 inch maximum diameter. Limited cubic inch limit engine must use unaltered 500 c.f.m. Holley - part no. 0-4412, may be modified to Holley HP Dorton part no. 0-80583-1 specs only. All float bowls must face forward. Carburetor adapter/spacer allowed, maximum 1.20 inches thick, including gaskets. Carburetor may be exchanged (same cfm for same cfm), following same procedure as engine claim. Driver claiming carburetor may not claim engine or shocks on same night.
- 18. FUEL:** Gasoline only. Racing fuel allowed. No E85. No performance enhancing or scented additives. Fuel must pass both dielectric meter and chemical tests (Refer to www.imca for automatic penalties).
- 19. WEIGHT:** Track option to enforce a minimum weight limit of 2,950 pounds, after race with driver in car. No tolerance. No weights and/or loose objects in driver compartment or outside body and must not be visible. Weights must be securely mounted to frame or roll cage and painted white with car number on it. Must be attached with at least two 0.5 inch bolts. No titanium, magnesium or carbon fiber products. No gun-drilled, tubular, hollow bolts or studs. Steel fasteners only.
- 20. BATTERY/STARTER:** One 12 volt battery only, must be securely mounted between frame rails, and positive terminal must be covered. Battery must be in Marine type case if mounted in driver compartment. Starter must bolt in OEM location. 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.
- 21. GAUGES/ELECTRONICS:** No unapproved cameras, transmitting or listening devices (exception is one-way RACEceiver radio by officials), timing retard controls, or digital gauges (including tach). No electronic monitoring computer devices capable of storing or transmitting information except memory recall analog tach. One 12 volt, non adjustable, ignition box allowed. Only change allowed to ignition box is one high-end rev-limiter or an internal setting inside box. No additional ignition accessories allowed. No magnetos or crank triggers. OEM type alternator with internal regulator allowed. No electronic traction control devices. (Refer to www.imca.com for automatic penalties). IMCA reserves the right to implement a rev-limiter chip rule (7200-7400 range) on limited cubic inch engines.
- 22. TRANSMISSION/DRIVE SHAFT:** Must have at least two forward gears and one reverse, plus neutral position. With motor running and car in still position, must be able to engage car in gear and move forward, then backward. Only OEM production type transmissions allowed - two speed, three speed, four speed and automatic. No five speed (or more) transmissions, "in and out" boxes, or quick change devices allowed. Functioning shift levers must be in OEM location. Flywheel/flexplate must be bolted directly to end of crankshaft, and pressure plate must be bolted directly to flywheel/flexplate. One flywheel/flexplate only, and all driveline components within bellhousing must rotate consistent with engine RPM while car is in any gear. Unaltered flexplate must be full OEM, or OEM replacement.
Manual: Must be OEM or OEM replacement case and have a working 7.25 inch minimum diameter, steel and/or aluminum, single or multi-disc clutch inside explosion-proof steel bellhousing - minimum 270 degrees around top of clutch/flywheel area.
Automatic: Must remain in OEM or OEM replacement 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. Manual bump starts allowed.
Drive Shaft: Minimum two inch diameter steel drive shaft, must be painted white. 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.
- 23. ENGINE COMPARTMENT:** Engine must be OEM appearing, must be able to be used in conventional passenger car without alteration. GM with GM, Ford with Ford, Chrysler with Chrysler (see exceptions). For 1978-1987 GM frame and engine combination, center of GM fuel pump must be located minimum 1.75 inches in front of cross member or from back of block to front of crossmember (measured at frame) - 18.75 inches (GM), 22.625 inches (Ford), 21.75 inches (Chrysler). Ford metric frames must have back of fuel pump in front of cross member. GM frame and cross member may not be altered for GM engine placement. Engine mount holes cannot be removed or altered on block. Aftermarket engine mounts allowed, including mid-plate. Radiator must be mounted in front of engine. Cooling system may be modified. Overflow tubes must be directed to ground.
- 24. ENGINE OPTIONS AND SPECIFICATIONS:** All cars must clearly display on driver side front roof post which engine they are competing with. Must be contrasting in color from body, minimum 2-inches tall and display 350 or 500. Markers not acceptable.
Any American make engine allowed. Steel heads, block and oil pan only. OEM passenger vehicle production block only. No GM Bowtie, Ford SVO or Chrysler W blocks. Castings and fittings cannot be changed, no machine work on outside of engine. OEM firing order cannot be changed (GM: 1-8-4-3-6-5-7-2). Steel or aluminum water pumps allowed. No electric water pumps allowed. "Wet" sump oiling system only. Accumulator allowed - cannot be located between seat and door bars. **INTAKE:** All engines must use unaltered, approved OEM cast iron low rise, two- or four-barrel. Only aftermarket aluminum intakes allowed are: Weiland GM #7547-1; Ford #7515, #8023 or #7516; Chrysler #7545; Edelbrock GM #2701, #2716; Ford #7121, #7181, #7183; Chrysler #2915. No porting, polishing or milling allowed on any intake. Exception is OEM cast iron plenum webbing may be removed, maximum one inch down. Cooling lines allowed on aluminum intakes. Disqualification, loss of points, purse and \$250 fine if any unapproved alterations are found to intake. No bow tie or high rise intakes.
(A) 350 cfm CARBURETOR ENGINE: No cubic inch or compression limit. Flat tappet cam/lifters and stud-mounted rocker arms only. No shaft or pedestal rocker arms. No titanium engine components. No stud girdles. No mushroom lifters, lifter diameter and configuration must match OEM passenger block. Full roller rocker arms allowed.
(B) 500 cfm CARBURETOR ENGINE: Maximum 361 cubic inches (GM); 363 (Ford); 370 (Chrysler). GM approved block numbers are: 3892657, 3914660, 3914678, 3932388, 3932386, 3956618, 3970000, 3970006, 3970010, 3970014, 10066033, 10066036, 10243880, 14010207, 14010209, 14010287, 14016376, 14016379, 10054727, 14088528, 14088548, 14088552, 14093638, 14101148. Stroke must match block. No 400 or larger cubic inch parts allowed. Violation of cubic inch limit must be verified by removal of head and will result in disqualification, loss of all IMCA points for the season, \$1,000 fine and a 30-day suspension. No compression limit. Flat top or dished pistons only. OEM or OEM replacement steel crankshaft only - cannot be lightened. No aerowing, bullnose, knife edge, undercut or drilling of second or third rod throws. OEM or OEM replacement steel rods only - GM 5.7 or 6-inch rod allowed. Cap screw allowed. Conventional flat tappet cam and lifters only, cannot alter lifter bores. Mandatory one inch inspection hole in all pans - no obstructions to crank and rods.
CYLINDER HEADS: Steel only. Must be unaltered approved OEM and original minimum 76 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. Maximum size valves on these heads are 2.02 inch intake and 1.60 inch exhaust. May use Engine Quest (EQ) Stock Replacement (SR) cylinder head, part number CH3501, 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). No porting, polishing or unapproved alterations allowed to ANY cylinder head. (Exception is flat milling allowed). Guide plates, screw-in shouldered studs (0.375-inch max) and polylocks allowed. No stud girdles. Full roller rocker arms allowed. GM - 1.250 inch maximum O.D. valve springs allowed. Unaltered OEM type harmonic balancer only.
- 25. ENGINE CLAIMING RULES:** Refer to www.imca.com for claim eligibility requirements.
(A) \$550 cash, or \$100 and exchange, claim on engine using same c.f.m. carburetor, flywheel and balancing plates (\$25 goes to wrecker and \$25 to official for each engine). Claimed driver has option of accepting cash, or exchanging engines with claiming driver.
(B) Claim does not include - 1. clutch, 2. pressure plate, 3. bellhousing, 4. headers, 5. carburetor, 6. starter, 7. motor mounts, 8. oil/temp. sending units, 9. carburetor spacer, 10. fan and pulleys, 11. clutch ball, 12. clutch arm, 13. throw out bearing, 14. dip stick, 15. water pump, 16. fuel pump, rod and plate, 17. distributor, 18. plug wires, 19. water outlet and restrictor, 20. breathers.
- 26. POINT STRUCTURE/PROCEDURES:** Refer to www.imca.com.
- 27. EIRI:** (Except in rare instances) Decisions of IMCA Officials are final and binding without exception. In some cases, track safety rules may take precedence over IMCA rules - any discrepancy between IMCA and track rules should be brought to the attention of IMCA. Any rule revisions or clarifications during the course of the year will be amended at www.imca.com as well as published in **Inside IMCA**, the official newsletter of IMCA, and will be considered as an official part of these rules.

For more information, call Tom Gutowski at 402-350-6120, or Kirk Niehouse at 515-231-9757 .

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