

2021 HOBBY STOCK RULES

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BIG DADDY
Race Cars



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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.

No one with an IMCA license during the same calendar year in any other division may compete in this division, except: licensed Sport Compact or SportMod™ drivers (must still purchase Hobby Stock license). Unless otherwise noted, all parts to be approved OEM and must match make and year of car.

- 1. SAFETY EQUIPMENT:** Rules apply at all times car is on track. Snell-rated SA2010, SA2015 or **SA2020** helmet required. Roll bar padding required in driver compartment. *Recommended: Fire retardant padding.* 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 and neck restraint system. *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. Maximum four inch tall visor attached to window net. Minimum two inch wide SFI-approved five point safety belt assembly required, must be mounted securely to main roll cage. *Recommended: Safety belts no more than two years old.* Kill switch required within easy reach of driver and must be clearly marked 'OFF' and 'ON'.
- 2. FRAME:** (see frame drawing) Any American OEM full body rear wheel drive passenger car, 1964 or newer, full frame or unibody. Frame must match body. Minimum 107.5 inch wheelbase, maximum one inch difference from side to side. 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 minimum 0.083 inch wall thickness, same length as material removed. Fascia seam must remain visible. Unibodies must tie rear frame to front frame. Frames may be "X" braced. No Station Wagons, Camaros, Firebirds, or Mustangs.
- 3. ROLL CAGE:** Main cage must consist of continuous hoops, minimum 1.75 inch O.D. tubing, with wall thickness of at least 0.095 inch. *Recommended: low carbon or mild steel.* 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 from top center of windshield to front edge of rear hoop; maximum 13 inches 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 OEM frame horns. Rear kickers (down bars) and engine hoop required, and must be minimum 1.25 inch O.D. 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 O.D. tubing. All bars must be inside body.
- 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 rocker panel and from rear down post to five inches in front of seat. Must be visible for inspection.
- 5. BODY:** All bodies must be approved unaltered OEM, or OEM replacement, in OEM location and match frame. Maximum 31 inches from back of engine block to front edge of GM metric roof. Front body mounts must be visible. Sunroofs and T-tops must be enclosed. OEM appearing aftermarket fiberglass roof and A-pillars, Shell Valley part #F1015-81-88MCRW, allowed; B and C-pillars must remain OEM dimensions. OEM appearing aftermarket plastic nosepiece allowed (must match body on GM metric car), minimum 9 inch ground clearance. OEM appearing aftermarket plastic tailpiece allowed (*recommended to match body*). Tailpiece must be trimmed for unaltered trunk lid. No metal fabricated rear tailpieces allowed. All body panels may be gutted, including fenders, doors, hood, roof and quarters, but must remain original size. No spoilers, hood scoops, ground effects or skirting altering OEM appearance allowed. OEM STEEL hood only, maximum three inch bow. OEM STEEL unaltered trunk lid only, no gutting. Hood and trunk must be securely fastened and back of hood must be sealed off from driver compartment with metal. Hood must be separate from fenders. Front and rear inner wheel wells may be removed. Trunk floor directly over rear end housing must be removed. Trunk floor may be replaced, frame rail to frame rail, with 0.049 inch thick steel, must be located on top of frame rail. Overlapping of body panels permitted. All glass must be removed, all windows in body must remain open; maximum seven inch metal sun visor allowed across top of windshield opening. All doors must be securely fastened. Fenders and quarter panels may be trimmed for tire clearance. Car number must be minimum four inches thick and 20 inches tall and clearly visible, on both sides and roof of car; six inches tall on front and rear. No Station Wagons, Camaros, Firebirds, or Mustangs.
- 6. DRIVER COMPARTMENT:** Minimum three windshield bars in front of driver. Aluminum high-back seat only and must be bolted in using minimum 0.375 inch bolts. Driver seat may be no further back than rear edge of B-pillar. Driver must be sealed off from track, driveline, engine and fuel cell. Dash not to extend more than 24 inches back from center of lower windshield opening. Dash must be flat, rear can be no higher than front, except for cowl in front of driver. No other interior tin or covers. Kick and rocker panels may be removed. Front OEM firewall may be replaced using steel fabricated full firewall, 18 gauge or minimum 0.049 inch thickness. Front firewall may be no further back than the rear of oval frame hole, must be vertical and 24-26 inches tall. All holes in firewalls and floor must be covered. OEM floor may be replaced from OEM front firewall to OEM rear firewall using steel fabricated floor pan, 18 gauge or minimum 0.049 inch thickness, securely welded to frame. Must remain flat, OEM appearing from frame rail to frame rail, no higher or lower than frame rail. Exception is maximum eight inch tall driveshaft tunnel similar to OEM tunnel in size. Rear firewall and speaker deck must be metal and be of OEM design for that make and model. Firewalls must extend to body. No mirrors of any kind.
- 7. FRONT SUSPENSION:** All components and mounts must be steel, unaltered OEM, in OEM location and match frame. OEM rubber A-frame bushings only. OEM or OEM replacement ball joints allowed. No screw-in or rebuildable ball joints. No sway bars, spring spacers, chains or cables. Exceptions are: for 1978-1987 GM mid-sized metric frame, OEM upper A-frame may be replaced using aftermarket upper A-frame (steel or aluminum cross shaft allowed), must display "IMCA approved" decal on top of rear tube of A-frame. Upper A-frame mount must remain OEM and cannot be moved. No suspension stops of any kind allowed.
- 8. STEERING:** All components must be steel unaltered OEM, in OEM location and match frame. Exceptions are: tie rod adjusting sleeve may be replaced with 5" steel tube; replacement spindle with Speedway Motors raised cast - part number 91034501 (metric frame only); bolt on spindle savers allowed; OEM steering column may be replaced with steel knuckles and steel steering shafts (*collapsible recommended*), steering wheel and quick release (required) may be aluminum. No steering quickeners (minimum 2.5 turns lock to lock), or remote power steering reservoirs.
- 9. SHOCKS:** One unaltered steel, nonadjustable, OEM-mount shock, in OEM location, per wheel. All shocks must completely collapse at any time. **No shock can pre-load or pin any spring.** No external or internal bumpers or stops. No bulb-type, threaded body, coil-over, air, or remote reservoir shocks. Maximum 2.125 inch O.D. shock body. No gas port, Schrader or bladder type valve allowed. No coil-over eliminators. Rear OEM shock location is 4.5 inches from bottom of housing to center of bolt hole, and centered on control arm bracket. \$25 claim on any shock. One or all shocks on car may be claimed per event, counting as one claim on card, following shock claim procedures and penalties (Refer to www.imca.com).
- 10. SPRINGS:** One steel closed end spring per wheel only in OEM location. Minimum 4.5 inches O.D., maximum 14 inch free height, non-progressive coil springs only. No spring rubbers allowed.
- 11. REAR SUSPENSION:** All components and mounts must be steel, unaltered OEM or OEM replacement, in OEM location and match frame. OEM rubber control arm bushings only. Center of GM rear lower control arm bolt hole must be 2.25 to 2.5 inches from bottom of housing. No independent rear suspension. No sway bars, panhard bars, spring spacers, extensions, chains or cables. No suspension stops of any kind allowed.
- 12. REAR END:** Approved OEM housing and carrier only. No floater rear ends. OEM, or OEM replacement (recommended) solid steel axles only. Nine inch Ford rear end allowed, but must be mounted like OEM rear end (centered) for that make and model. One inch inspection hole in housing required. Ring gear, pinion, center section and yoke cannot be lightened. Steel or aluminum U-joint caps allowed. Welded spider gears or mini spool only. No scalloped ring gears, cambered rear ends, heavyweight axle tubes (max .250" wall) or housing braces.
- 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. No sharp edges allowed on bumpers, rub rails or bolts. No bars past outside edge of body other than rub rails. All front bumpers must be mounted minimum six inches from front frame horns. Steel bumper mounts only. 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. Aftermarket: Fabricated tubular bumpers (front and rear) allowed, but must be covered by plastic nose or tail piece and bent to fit with rounded ends. Main bumper bar must be minimum 1.5 inch O.D. (maximum two inch) with 0.083 inch (maximum 0.125 inch) wall thickness.
- 14. TIRES/WHEELS:** Unaltered OEM 205/75, or 205/70, 14 inch or 15 inch passenger car tires only. All four tires and wheels must be same size. Tires must be inside body. No racing, snow, or all-terrain tires. No softening, conditioning, siping/grinding or grooving (Refer www.imca.com for automatic penalties). Maximum seven inch wide, three to four inch offset, unaltered, D.O.T.-stamped steel wheels with standard bead bump - must weigh minimum 21 pounds. No wheel spacers or bleeder valves. One inch O.D. steel lug nuts required.
- 15. BRAKES:** Steel, unaltered OEM, or unaltered OEM replacement, operative four wheel, disc (front) and drum (rear) brakes, must match frame or rear end. Full OEM backing plates, no aftermarket. OEM or OEM appearing master cylinder must be in OEM location. No antilock brake systems. No aftermarket brake pedal assemblies, brake shut-off or bias adjuster. Steel brake lines only, must be visible. No oil bath front hubs. Hubs/rotors, axle flanges and drums may be changed to different bolt pattern and larger studs.
- 16. EXHAUST:** OEM cast iron exhaust manifolds only. No center dump type manifolds. Exhaust manifold can be ported and drilled to fit. No adaptor allowed between manifold and head. All engines must use maximum two inch O.D. exhaust pipes. Exhaust must extend past firewall and turn toward ground. Must remain dual exhaust, no crossover or 'Y' pipes. No pan evac systems, exhaust sensors, coatings or wrap. *Mufflers recommended.*
- 17. FUEL SYSTEM:** Racing fuel cell required, maximum 22 gallon capacity (*Recommended: 12 gallon*), must be in minimum 20 gauge steel container. Must be securely fastened in trunk above level of OEM trunk floor, behind rear tires, no further forward than factory seam where rear frame rail can be replaced, with minimum one inch square tubing or two solid steel straps around entire cell, two inches wide and .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 allowed, 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 ductwork. Mechanical OEM type push rod fuel pumps only. No fuel pressure regulators. *Fuel shut-off recommended.* All engines must use unaltered two barrel Rochester carburetor. Booster may be machined to maximum 0.25 inch ID, 1.375 inch venturi ID and 1.6875 inch throttle bore I.D. Minimum booster height 0.625 inch. Must remove carburetor choke plate. **Unaltered Speedway Motors carburetor adaptor part #135-3502G required with maximum 0.25 inch carburetor gasket and 0.100 inch spacer gasket.** \$50 cash claim on carburetor following carburetor claim procedures and penalties.
- 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.com for automatic penalties).
- 19. WEIGHT:** No ballast allowed. Any item deemed as ballast will be required to be replaced - i.e. fuel cell straps, fuel cell cans, battery boxes, etc. No titanium, magnesium, carbon fiber or tungsten products. No gun-drilled, tubular, hollow bolts or studs. Steel fasteners only.
- 20. BATTERY/STARTER:** One 12 volt battery only. No lithium batteries. Must be securely mounted between and above 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 cell phones, unapproved cameras, transmitting or listening devices (exception is one-way Race Receiver 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. 12 volt ignition system and HEI distributor only. Ford/Chrysler may use HEI distributor. No billet distributors or crank triggers. Ignition rotor, cap, coil and module must remain OEM-appearing. All engines MUST use unaltered MSD #8728 or #8727CT (**#8727CT required January 1, 2022**) rev-control and maximum 6,200 rpm chip for crate engine and maximum 7,000 rpm chip for claim engine. (Refer to www.imca.com for automatic penalties.) Rev-control must be mounted under hood on engine firewall and accessible for inspection with rev limiter facing upward. No ignition boxes. All wiring must be visible for inspection. OEM type alternator with internal regulator allowed. No electronic traction control devices. (Refer to www.imca.com for automatic penalties)
- 22. TRANSMISSION/DRIVE SHAFT:** All forward and reverse gears must be operational.
Manual: Must be unaltered OEM three or four speed, with minimum 10.5 inch steel/organic single disc-type clutch and steel pressure plate assembly inside an explosion-proof steel bellhousing - minimum 270 degrees around top of clutch and flywheel area. No lightweight bellhousings. Hydraulic clutch release bearing allowed. Steel unaltered flywheel only - 16 pound minimum - \$150 fine if illegal.
Automatic: Must be unaltered OEM, with unaltered OEM pump. Aluminum OEM bellhousing may be replaced with aftermarket explosion-proof steel or aluminum bellhousing. Minimum 10 inch diameter torque converter containing a minimum of three quarts of fluid - \$150 fine if illegal. Torque converter must have a minimum 0.125 inch plug. Must have approved scatter shield constructed of minimum 0.125 inch by three inch steel, 270 degrees around flexplate. Flexplate must be full, unaltered OEM, or OEM replacement. No bump starts allowed.
Drive shaft: Steel drive shaft (minimum 2.5 inch diameter) and slip-yokes only. Drive shaft must be painted white. 360-degree driveshaft loop required and must be constructed of minimum 0.25 inch by two inch solid steel, or one inch tubing, mounted six inches back from front U-joint.
- 23. ENGINE COMPARTMENT:** Engine must be in OEM location. On GM metric frame, center of fuel pump must be located minimum 1.75 inches in front of cross member (measured at frame). Ford metric frames must have back of fuel pump in front of cross member. Frame and cross member may not be altered for engine placement. Engine mount holes cannot be removed or altered on block. Aftermarket steel engine mounts allowed. No mid-plate allowed. 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. Minimum two-core radiator, must be mounted in front of engine. Overflow tubes must be directed to ground. (2) Steel or aluminum V-belt pulleys only. No electric fans, surge tanks or vacuum pumps.
- 24. ENGINE OPTIONS AND SPECIFICATIONS:** All cars utilizing the GM602 crate engine must clearly display on both front roof posts the Chevrolet Performance emblem.
(A) CRATE ENGINE: Must use unaltered sealed GM 602 crate engine. All GM 602 Crate engines with Chevy logo cap seals must have IMCA Cable-Lok seals. Upon inspection, any different, altered or missing GM seal bolts will result in automatic IMCA penalty (see www.imca.com, Automatic Penalties for crate engine rule violations). GM seal bolt exception is IMCA approved and issued Cable-Lok repair system, and oil pan may be replaced by IMCA certified repair center with IMCA approved Champ pan and pick-up, or with Kevko pan #1087NRHw/ISP or IMCA87 and Kevko pick-up #1003-1 3/4. Any driver using crate engine cannot claim engine or have engine claimed. During same season, no driver is allowed to claim an engine after competing with a crate. If a driver switches to a crate after claiming an engine, the crate engine is then claimable.
(B) CLAIM ENGINE: Any American make engine allowed. **BLOCK:** OEM steel passenger vehicle production block only. No GM Bowtie, Ford SVO or Chrysler W components allowed. GM approved block numbers are: 10105123, 10066034, 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. Maximum 361 cubic inches (GM); 363 (Ford); 370 (Chrysler). 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. Maximum compression ratio is nine to one, no tolerance. Compression ratio checked using Whistler and cubic inches checked using pump, OR by visual inspection of part and/or casting numbers, pistons, etc (track option which method is used). Flat top or dish pistons only, no gas ported pistons. OEM or OEM appearing replacement steel crankshaft only - cannot be lightened. No aerowing, bullnose, knife edge, undercut or drilling of second or third rod throws. OEM or OEM cast appearing replacement steel rods only - GM 5.7 inch, 6 inch or GM Vortec rod part number 10108688 allowed. Cap screw allowed. No splayed main caps. Conventional flat tappet cam and lifters only, cannot alter lifter bores. OEM firing order cannot be changed (GM: 1-8-4-3-6-5-7-2). May use oil restrictors. 'Wet' sump oiling system only. Steel oil pans only. Racing oil pans allowed. Mandatory one inch inspection hole in all pans - no obstructions to crank and rods. Accumulator allowed, must be mounted under hood. **CYLINDER HEADS:** Steel only. Must be unaltered approved OEM and minimum 76 cc combustion chamber (GM). 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 Stock Replacement (SR) cylinder heads: Engine Quest (EQ) part number CH350I, DART Speedway Motors part number 91624360, (EQ) Chrysler part number CH318B, World Products Ford part number 53030 - 1.250 inch ($\pm .015$ tolerance) maximum O.D. valve springs. All SR heads 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, DART or World Products head, for any reason); Ford - no SVO heads; Chrysler - no W-2 heads, 360 cubic inch heads only. **No porting, polishing or unapproved alterations allowed to any cylinder head or intake, disqualification and \$1,000 fine if illegal.** Guide plates, screw-in shouldered studs (GM 0.375 inch max) and polylocks allowed. No stud girdles. Steel roller tip rocker arms allowed. GM - 1.250 inch ($\pm .015$ tolerance) maximum O.D. valve spring with magnetic steel retainer and maximum 5/16 inch pushrods, no beehive valve springs allowed. **INTAKE:** Must use unaltered aftermarket aluminum intake. Allowed intakes are Weiand GM #7547, #7547-1; Ford #7515, #8023 or #7516; Chrysler #8022; Edelbrock GM #2701; Ford #7121, #7181, #7183; Chrysler #2176. No cooling lines allowed. Unaltered OEM type harmonic balancer only. OEM type steel or aluminum water pumps only.
- 25. ENGINE CLAIM:** Refer to www.imca.com for claim eligibility requirements.
(A) \$500 cash claim on engine, \$25 goes to wrecker for pulling engine and \$25 goes to official.
(B) Claim does not include - 1. flywheel, 2. clutch, 3. pressure plate, 4. bellhousing, 5. breathers, 6. carburetor, 7. starter, 8. motor mounts, 9. oil/temp. sending units, 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. exhaust manifold and pipes.
NOTE: During engine claim, block and head numbers should be verified, heads, intake, connecting rods and crankshaft should be visually inspected, exhaust manifold must be removed to inspect heads, and one spark plug must be removed to check flat top or dish pistons prior to transfer of engine to claiming driver. If, at this time, engine is found illegal, claimed driver is disqualified and suspended from all IMCA sanctioned events until such time as a \$250 fine is paid, for first offense, second offense penalties will be \$500 fine and/or suspension. Claimer then has option to accept or decline engine - if declined, driver is not charged with claim.
- 26. POINT STRUCTURE/PROCEDURES:** Refer to www.imca.com.
- 27. EI/RI:** (Except in rare instances) Decisions of 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 changes 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.