

## LATE MODEL - 2020

Revised November 2019. <u>Revisions/clarifications underlined</u>, *recomendations italicized*. Refer to www.imca.com for General Rules. IMCA 1800 West D Street P.O. Box 921 Vinton IA 52349-0921 phone: 319-472-2201 fax: 319-472-2218 www.imca.com

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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 SA2010 or SA2015 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. <u>Minimum two inch wide SFI-approved five point safety belt assembly required</u>, 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:** Must be constructed of two inch by two inch square steel tubing, or minimum 1.75 inch round tubing with minimum 0.083 wall thickness. Minimum wheelbase of 103 inches, maximum 105 inches, both sides.
- 3. ROLL CAGE: Main roll cage must be at least 1.5 inch O.D. tubing with minimum wall thickness of 0.083 inches. Driver's head must not protrude outside cage with helmet on.
- **4. DOOR BARS:** Minimum three driver door bars must be at least 1.5 inch O.D. tubing with minimum wall thickness of 0.083 inches. Steel door plate, 18 gauge or 0.049 inch minimum thickness, must be securely welded or bolted to driver side door bars. Minimum 16"x26".
- **5. BODY** (see body diagram for specific dimensions): No composite, carbon fiber or plastic body panels allowed except roof rock guard and hood scoop. No fins or lips anywhere along length of car. Maximum body width at bottom of doors is 82 inches. Minimum ground clearance is three inches. Must have IMCA approved stock-appearing nose piece (molded type material) mounted in unaltered approved manner. Headlight decal package required. No part of body can be wider than 90 inches. Roof must be stock appearing, mounted directly to the roll cage with no more than 1/2 inch spacer, mounted level, parallel to body, centered on car and rounded down in all directions. Roof and hood may be aluminum or fiberglass. Maximum 1.5 inch rolled down rock guard allowed on roof front. Roof supports and window side panels must extend to edge of body. Window side panels must resemble all aspects of drawing must have opera window and be same on both sides. Rear spoiler may be maximum eight inches in material height (including hinge) and maximum 72.5 inches wide. Spoiler may have rear stiffener, must be one inch or more down from top. Maximum of three spoiler braces allowed, must be mounted in line, and must resemble all aspects of drawing. <u>Right side inner panel permitted</u>. No complete car covers, rear tail cover allowed in personal pit area only. No rear filler panel required. 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 three windshield bars in front of driver. Lexan or aluminum cowl panel in front of driver allowed, but can be no wider than cockpit and no farther back than steering wheel. Driver must be sealed off from track, driveline, engine, fuel cell, suspension components, battery, coolers, pumps, fuel and oil lines. Aluminum high back seats only, must be bolted in with 0.375 inch bolts. No mirrors. No driver-adjustable devices allowed while car is in competition except brake adjuster and right front brake shut-off.
- 7.FRONT SUSPENSION: Must be of A-frame or strut configuration. Drop chain and bump stops allowed. No air bumps or spring stops allowed.
- 8. STEERING: Rack and pinion steering allowed. Quick-release steering wheel required.
- **9. SHOCKS:** Approved conventional closed end shock absorbers only. Must be constructed of aluminum or steel. Coil over covers allowed, must be easily removed for inspection. Remote-reservoir shocks allowed. No air, <u>air dumps</u>, inerter, crossover, cross connected, electronic, or three or fourway adjustable shocks. One shock per wheel, plus may have one traction shock on left rear and one shock on lift bar.
- 10. SPRINGS: One steel coil spring per wheel only. Exceptions are: left front "take up" spring allowed and one additional spring allowed on pull bar. All coil springs must be maximum 16 inch (or less) free height with 0.5 inch tolerance. Progressive springs are allowed. No torsion bars, air bags, <u>air springs</u> or inner liners. Spring rubbers allowed. Leaf springs may be composite or steel.
- 11. REAR SUSPENSION: No independent rear suspension. Only one mechanical traction device is permitted, pull bar or lift arm. One bird cage attached with two solid radius rods to chassis per side. Birdcage brackets and attachments must be welded or bolted solid to birdcage except pivoting shock bolt. Chassis mounts must be solidly welded or bolted to frame.
- 12. REAR END: Quick changes allowed. Standard weight aluminum or steel axle tubes only. No open tube or cambered rear ends. Rear end coolers allowed.

13. BUMPERS: Must be either capped, or bent forward at ends, no sharp edges. All cars must be equipped with tow hook or similar device front and rear.

- 14. TIRES/WHEELS: Hoosier 88, 90, 92, WRS 2-D55 Hoosier tire only. No softening, conditioning, or grooving (Refer to www.imca.com for automatic penalties). Grinding allowed on tire tread only. No tire siping allowed after June 1, 2020. Maximum 14 inch wide, aluminum or steel wheels and lug nuts only. Bead locks allowed on all four corners. External bead lock only, cannot make wheel any wider than 14.75 inches. Foam type or securely bolted plastic or aluminum mud plugs allowed on any wheel.
- **15.BRAKES:** Must be operative and lock up all four wheels during any inspection. Steel brake rotors only. Brake shut-off allowed on right front only (electric or mechanical).

16. EXHAUST: Round tube headers only. All primary header tubes must enter directly into one collector, at same point, at end of header. No merge collectors.

- 17. FUEL SYSTEM: Any Holley type four barrel carburetor only with Holley type OEM or OEM replacement booster, float bowls and main body. Main body, metering blocks and base plate may be billet aluminum. No ICT type or aerosol type boosters allowed. No air dams or devices allowed to increase air flow to carburetor outside of air cleaner. Maximum two inch tall spacer between carburetor and air cleaner base. No cold air boxes, air cleaner duct work, or fuel cooling devices. No electric fuel pumps. Racing fuel cell required, maximum 32 gallon capacity, must be in minimum 20 gauge steel container. Must mount with minimum one inch square tubing or two solid steel straps around entire cell, two inches wide and 0.125 inch thick. Cell must be mounted between frame rails, behind rearend, bottom of cell can be no lower than center section. Fuel cell vents, including cap vent, must have check valves, and *bladders are highly recommended*. 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 cell guard must come to bottom of fuel cell and be minimum 1.5 inch O.D. tubing. *Fuel shut-off recommended*.
- 18. FUEL: Racing fuel allowed. No alcohol allowed. No performance enhancing additives or pressurized fuel systems. Fuel must pass both dielectric meter and chemical tests for additives. Fuel sample may be taken from any car at any time (Refer to www.imca.com for automatic penalties). Spec engines Gasoline only, no E85 allowed. Crate engines Gasoline or E85 allowed.
- **19. WEIGHT:** All cars must weigh minimum 2,300 pounds after race with driver. Ballast must be painted white with car number on them. Must be securely fastened to frame or roll cage with minimum two 0.5 inch steel bolts, inside body panels, not on rear bumper. No ballast and/or loose objects in driver's compartment. Only carbon fiber components allowed are rock guard, hood scoop and driveshaft.

- 20. BATTERY/STARTER: Battery must be securely mounted to chassis, protected by tubing, and positive terminal must be covered. Starter must be in working order. Car must start under its own power. Car must leave initial staging area on demand, unaided, or go to rear of that race.
- 21. GAUGES/ELECTRONICS: No <u>cell phones</u>, unapproved cameras, transmitting or listening devices (exception is one-way Race Receiver radio by officials), timing retard controls, or digital gauges (Exception is digital tach). No electronic monitoring computer devices capable of storing or transmitting information except memory recall tach. All spec engines MUST use maximum 8,000 rpm rev limiter. All crate engines MUST use maximum 6,800 rpm rev limiter. This may be accomplished using one, non-adjustable, unaltered ignition box with one high-end rev-limiter chip or an internal setting inside box. \$1,000 fine for altered rev-limiter components. No electronic advance curve ignitions allowed. No additional ignition accessories allowed. All components must be out of reach of driver, but accessible for inspection with rev limiter facing upward. No crank triggers. No electronic traction control devices. (Refer to www.imca.com for automatic penalties and approved ignition systems and rev-limiters.)
- 22. TRANSMISSION/DRIVESHAFT: Must have at least two gears forward and one gear reverse, plus a neutral position. Must be able to put in and out of gear with car sitting still and engine running. No overdrive transmissions. All transmissions must bolt directly to back of bellhousing that bolts directly to engine block. Must use steel, aluminum or carbon fiber driveshaft and be painted white. 360-degree drive shaft loop required, minimum 0.25 inch by two inch steel strap, or one inch tubing, mounted six inches back from front U-joint.
- 23. ENGINE LOCATION: Measured from centerline of upper ball joints to center of number one spark plug hole. Maximum setback is eight inches.
- 24. (A) IMCA SPEC ENGINE: At all weekly sanctioned point events, spec engines must run unaltered one inch carburetor spacer The Governor carburetor spacer #100-125000 with (4) 0.950-inch restrictors #100-125095. Maximum 0.100-inch thickness gaskets only, one on top and one on bottom of spacer. Steel blocks only. Maximum 361 c.i. (GM), 362 c.i. (Ford) 364 c.i. (Chrysler). Minimum four-inch bore. Minimum stroke: GM 3.48 inch, Ford 3.40 inch, Chrysler 3.313 inch. Maximum compression 10.5 to 1, checked at any time with Whistler. No tolerance. Brodix/IMCA spec cylinder heads only. No grinding, polishing or altering of any kind. No use of any substance that may change or alter shape or size of ports, runners or combustion chambers. Only alteration allowed to heads are for push rod clearance and to install shaft rocker system. Maximum valve sizes are 2.08 intake and 1.600 exhaust. Valve seats and guides to remain as manufactured and in as-cast positions. Minimum combustion chamber size to be 62 cc volume. Valve angle to remain as manufactured. Approved cylinder heads as follows: General Motors (i.e. small block Chevrolet) Brodix # 46 221, Ford Motor Company (i.e. small block Windsor) Brodix #46 223, Chrysler Corporation Mopar Brodix #46 222. No modification to intake manifolds, must be used as produced by manufacturer. List of approved intakes as follows: General Motors Brodix #HV 100946, Ford Motor Company Edelbrock #2981 or 2980 (351) or #2921 (302), Chrysler Corporation- Edelbrock #2915. Camshafts may be of roller, flat tappet or mushroom design. Crankshafts and connecting rods must be steel. One inch inspection hole required in pan no obstructions to crank and rods. If obstructions are present, must remove pan for inspection. Flat top pistons only.

(B) CRATE ENGINE: If carburetor spacer is used on crate, must use Speedway Motors part #545-64940 or Moroso part #64940 carburetor spacer. Maximum 0.100-inch thickness gaskets only, one on top and one on bottom of spacer. Must use unaltered sealed GM 604 crate engine with additional IMCA Cable-Lok system – exception is new track sanctions with an existing Late Model division. Upon inspection, any different, altered or missing GM seal bolts or IMCA Cable-Loks will result in 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, oil pan may be replaced by IMCA certified repair center with Champ pan #CP100LTRB and Champ pick-up #100SB, or with Kevko pan IMCA92 and Kevko pick-up #1005-3/4.

- 25. ENGINE PROTEST PROCEDURES: Refer to www.imca.com for protest requirements.
- 26. POINT STRUCTURE/PROCEDURES: Refer to www.imca.com.
- 27. EIRI: (Except in rare instances) Decisions of IMCA Official(s) 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 on 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 rule information, call Late Model Competition Director Randy Anderson at 309-269-6694,

Dave Brenn at 785-307-8482 or IMCA at 319-472-2201.

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## All body measurements are Max. unless otherwise specified. Dimensions have zero tolerance.



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