

## 2016 Modified Rules

**NOTE:** It is the intent of the Modified Class to move to IMCA or WISSOTA type cars and to follow rules similar to IMCA or WISSOTA.

### Roll Cages:

1. Must consist of hoops not less than 1.666" outside diameter with a wall thickness of at least .095". Low carbon, mild steel tubing is recommended. The only exceptions to this rule are all cars built prior to the 2003 race season are legal as long as the Tech. and Safety Committee decides that the car is constructed safely.
2. Must be frame mounted in at least six places. No brazing or soldering allowed.
3. Must consist of a configuration of front and rear hoops connected by tubing on the sides or side hoops. Driver's head must not protrude outside of the cage with helmet on and strapped in the driver's seat. Must have a minimum of one cross bar in top halo of roll cage. Roll cage must be securely supported and braced.
4. Protection of feet is mandatory. Bar across back of engine with vertical bars and rub rails, or similar. No brace bars forward of the cage may be higher than the stock hood height. Main cage no further forward than the engine plate.

### Door Bars:

1. A minimum of three driver's side door bars, at least 1.5" O.D. must be parallel with the ground as possible and located perpendicular to the driver as to provide maximum protection for the driver, without causing undue difficulty getting into or out of the vehicle. The sidebars must be welded to the front and rear of roll cage members. Must have at least one cross bar, minimum of 1.25" O.D. on the passenger side of car, either horizontal or angled.
2. All cars must have steel door plates, 18 gauge or .049" minimum thickness metal, must be securely welded to outside of door bars on drivers side. Plate must cover the area from the top door bar to the bottom door bar and from the rear down post to 5" in front of seat. Must be visible for inspection.

### Safety - All GFRA safety rules apply:

1. Helmets are required and must be Snell 2000 or newer rated. Helmets must be worn at all times car is on the track and must accompany vehicle at the time of inspection. Roll bar padding required in driver compartment. Fire retardant padding recommended. SFI approved full fire suits of a flame retardant nature must be worn by all competitors. Not required but strongly recommended you wear fire retardant neck braces, fire retardant gloves and fire retardant shoes. Full size (minimum 16" x 20") driver's side window net required. Window net to be mounted so latch is at top front window. Five point safety belts, sub belt, shoulder harness required. The shoulder harness must be mounted securely to the roll cage. Belts and harness recommended not being more than two years old.
2. Must have approved racing seat, aluminum high-back seats strongly recommended, must be bolted in and mounted inside frame rails, and ahead of rear tire. Bottom of seat can be no lower than the bottom of the frame rail. Kill switch required within easy reach of the driver and clearly marked ON/OFF. 360 Degree drive shaft loop required and must be constructed of at least ¼" by 2" strap or 1" tubing mounted 6" back from U-joint. Steel drive shafts (minimum 2" in diameter) and yokes only. Drive shafts must be painted white.

### Electronics:

No electronic computer devices capable of storing or transmitting information except tachometers. No digital gauges, timing retard controls, oxygen sensors allowed. One 12 volt non-adjustable ignition box and coil allowed and must be out of drivers reach. No additional ignition accessories allowed. The only change that can be made with the ignition box is rev-limiter setting, and only one high-end setting is allowed. This setting can be changed through one chip, or an internal setting inside the box. No electronic traction control devices allowed, penalty is forfeit of all points up to that point.

**Exhaust:**

1. Exhaust system must be mounted in such a way as to direct spent gases away from the cockpit of vehicle and away from areas of possible fuel spillage.
2. All cars will run mufflers.

**Fuel System:**

1. Racing fuel cells required and must be mounted by at least two solid steel straps, 2" wide around the cell. Fuel cells must be enclosed in the steel container and must be mounted securely behind rear axle and between the rear tires, no lower than 6" off the ground, protected by roll cage tubing. Protective tubing must cover the rear and extend past both sides of the fuel cell. Fuel cell must be a minimum of 4" ahead of rear bumper and no part of fuel cell shall be lower than protective tubing. Fuel cell vents including cap vent must have check valves, and bladders are highly recommended. Fuel cells are limited to 32 gallons maximum capacity. Pick up must not be underneath the fuel cell. A limit of one standard fuel filter allowed between the fuel cell and the carburetor.
2. Exception to the fuel cell rule: Any car running a poly type fuel cell is allowed. Any car built after the beginning of the 2003 race season must meet the IMCA fuel cell rule.

**Fuel:**

Racing gas, aviation gas, alcohol (methanol), or regular pump gas allowed. No nitrous or nitro allowed. One 2 or 4 barrel carburetor allowed must be naturally aspirated, no fuel injectors. Mechanical or electric fuel pumps allowed if equipped with electric fuel pump must have clearly marked ON/OFF toggle switch in easy reach of the driver.

**Batteries:**

One battery only! Must be securely mounted and shielded. All vehicles must have the capability of starting without being pushed or pulled. All cars must join line-up on demand, unaided, or goes to the back of the pack for that race.

**Weight Rule:**

GFRA will determine which cars are weighed either by finishing position or by random drawing. All cars are allowed to have a crew member meet them at the scales to cool the car off, but shall not go into the pits first unless you are not required to weigh.

1. 2,450 pound minimum with Hoosier or IMCA tires. Older existing cars may run their existing tire and wheel configuration. All weights are wet with driver in the car coming off the track at the end of the main event or as the tech director sees fit. All tires will measure at tread width, not bulge of tire. All tires must not exceed maximum width on all four corners of car coming off the track at the end of the main event or as the tech director sees fit to check. If an over-width tire is found prior to race night, car will be required to add weight. If over-width tire is discovered during the course of the night coming off the track, that car will be disqualified and all points for that day will be revoked.
2. Loose objects and/or weights must not be used in driver's compartment or outside of the body or hood area. Any weights added to other areas of vehicle must be securely mounted with at least two ½" bolts, painted white and have the car number on it. No titanium, magnesium, or carbon fiber products, parts or components allowed. No gun drilled tubular bolts or studs.

**Tires and Wheels:**

1. No wide five wheel adaptor allowed.
2. Aluminum or steel spacers allowed.
3. May use bead lock. One foam type or plastic mud cap allowed.



4. Car must be open wheel with maximum 8" wide tires or wheels as marked by the manufacturer.
5. Use of DOT "Doughnut Tires" is prohibited.

**Frame:**

1. No part of racecar can be lower than 4" from the ground (exception is front cross member and oil pan).
2. Factory production complete full 1960 or newer parallel American passenger car frames only. Frame may be cut in rear only at point not further than 36" from center of rear end housing. Maximum 2" wide by 4" tall frame stiffener may be welded directly to outside of frame rail.
3. Frames may not be widened or narrowed and must be able to support roll cage on both sides. Must be full complete both sides. Front cross member must remain full and intact; center of cross member may be notched and boxed for radiator, steering clearance, or fuel pump only.
4. No Jeep, Bronco, etc., 4-wheel drive or full frames allowed. Maximum overall width (front to rear) shall not exceed 78" from outside of tire to outside of tire. All current cars racing at GFRA are allowed as long as they conform to these rules and the safety rules.

**Suspension and Steering:**

1. Front suspension and steering must be unaltered approved OEM and be in stock location, and must be replaceable by stock parts. Lower control arms may be replaced with remanufactured OEM. Outer end and adjustment may be replaced by a minimum .625" rod end and steel tube. Weight jack must be in original center line of spring. Stock passenger spindles only. No fabricated spindles. Spindles can be found for brake caliper clearance only. Bottom A-frame cannot be altered or moved (exception: can weld shock mount on A-frame). No offset or bearing type lower control arm bushings. Tube type upper A-frames allowed and can be moved. Front sway bar must be approved OEM. Suspension steering and rear end parts must be steel. Steering box must be steel approved OEM and must remain within original bolt pattern for type of frame used. No rack and pinion allowed. Steel steering shafts and knuckles only. In cockpit, steering may be modified to suit driver's taste but must be kept on left side of cockpit. No center steering allowed.
2. Rear frame may be altered to accept leaf or coil springs; any coil spring must be at least 4.5" outside diameter. One steel coil per wheel only. No torsion bars allowed in rear. One additional spring allowed on pull bar or lift bar, may be progressive. No air shock or airbags allowed.
3. One shock per wheel only.

**Brakes:**

Must have a working caliper and rotor and/or drum on each wheel and must lock up all four wheels. No brake shut off or pressure sensitive device allowed. One proportioning device is allowed, front or rear only. Brake lines must be outside frame rails and visible. Vented rotors only, no scalloped rotors. Rotors cannot be lightened. Rotors may be predrilled for different lug patterns or larger studs. Must be steel OEM calipers, and they cannot be lightened.

**Bodies:**

1. 1970 or newer American compact passenger car only, no panel vans or station wagons. Stock appearing front windshield and rear window support unit, painted roll bars not acceptable substitute. May utilize a flat half windshield with no wings, mounted on the roll cage. Mirrors not allowed. Must have a minimum of three windshield bars in front of driver. Cowl panel in front of driver can be no wider than cockpit and farther back than the steering wheel.

2. May run IMCA-modified body, must be fender less. All cars will run with all body panels unless they are damaged during that race day.
3. All IMCA cars must be numbered with large legible numbers on both sides, on top, and on rear panel. Numbers on sides and top of car must be in contrasting color from body, be at least 2" thick and at least 16" high. Recommended that no holographic or reflective numbers be used.
4. Sponsors names must not interfere with car numbers and must be neatly lettered.
5. Engine compartments will remain open, no side panels, hood sides may have a maximum 4" drop and must be enclosed at rear of hood, maximum hood scoop height 6". Passenger side of body must be no further forward than the rear of the block. No panel in front of right door to engine compartment. No inner panels. No car covers. (Exception to the side panel and hood rule only if your car is equipped with front fenders and a full width hood.)
6. Driver and passenger side windows must have at least 12" opening, measured at center of window, between the lowest point of the top of the window, whether the roof or roll cage, and the highest point of the bottom of the window, whether the interior or body.

**Transmission:**

1. Must have at least one gear forward and one reverse, plus a neutral position. With motor running and car in a still position, driver must be able to engage car in gear and move forward then backwards. Only OEM production type transmissions will be allowed - 3 speed, 4 speed and automatic. No five speed transmissions, in-and-out boxes, or quick change devices allowed. Functioning shifter must be in stock location on transmission.
2. A manual gear type transmission must have a standard OEM case and must have a working disc type clutch or approved cone coupler or disc coupler inside explosion proof steel bell housing. One flywheel only, minimum 8.5" diameter. Diameter of clutch disc must be a minimum of 5.5". The clutch assembly must be steel, except the housing which must be steel and/or aluminum. Bell housing can only have a hole for throw out bearing lever or hose, must be 270 degrees around the top of the clutch, and all pumps must be mounted on the front of the engine. The flywheel must be bolted to the engine between the clutch assembly and the crankshaft and all driveline components within the bell housing must rotate while the car is in any gear. The starter must directly engage the flywheel.
3. Automatic transmissions must remain in OEM stock appearing automatic case with a functioning stock appearing pump. Original bell housing must remain.
4. Any car with a standard transmission must run approved scatter shield type bell housing.
5. The use of Brinn, Bert or Falcon race transmissions is allowed.

**Bumpers:**

1. Center of bumper, front and rear, must be 18" +/- 2" from the ground.
2. Steel bumpers must be used for both front and rear at all times and securely mounted with minimum .375" bolts. Must be made of a minimum 1.25" O.D. tubing, .065 wall thickness on front, .095 wall thickness on the rear, and must be able to support the car if lifted by the wrecker. Two-bar front bumpers must be mounted frame end to frame end, no wider than the width of the material outside frame horn, with the bottom loop parallel to the ground. Top bar must be directly above bottom bar, minimum 6.5" apart, measured center to center at front of bumper so bumper is parallel to the ground.

3. Rear bumper must resemble 1 of 3 set-ups in IMCA bumper diagram.

**Rear End:**

1. Any approved OEM passenger type car or truck rear end may be used.
2. No aluminum allowed, except lowering blocks, axle cap, and drive flange. A 1" inspection hole in center section is recommended. Full steel spool, steel mini spool, or welded rear ends only. Steel axles only.
3. No chamber rear ends, one-piece drive flange only. No electronic or mechanical traction control devices allowed.
4. Quick-change rear ends allowed but no gear changes allowed at the track.

**Engine:**

1. No aluminum head, blocks, or oil pans. No magnetos.
2. Any American make engine may be used as long as rear of housing (bell housing flange) is mounted at least 72" forward from the centerline of the rear axle. Engine offset must be kept within 2" of centerline of front cross member with engine level. 11" Engine height minimum from top front center of crankshaft.
3. All engines used in competition must be able to be used in conventional passenger car without alterations. Motor mounts cannot be removed or altered. Castings and fittings must not be changed. No machine work allowed on outside of engine.
4. Wet oiling system only. No external oiling systems. Oil coolers must not protrude into interior. Accumulators cannot be mounted between driver and left side door.
5. Cooling system may be modified. Any overflow tubes must be directed to the ground below frame rails. Radiators to be mounted in front of engine only.
6. Conventional air cleaner housings only. No top flow air cleaner housings allowed.

**FAILURE TO COMPLY WITH THESE SAFETY RULES MAY RESULT IN THE CAR BEING INELIGIBLE TO COMPETE IN THE RACES. ANY QUESTIONS, INTERPRETATIONS OR DEVIATIONS FROM THESE RULES MUST BE APPROVED BY THE GREATER FAIRBANKS RACING ASSOCIATION AND YOUR RESPECTIVE CLASS PRIOR TO THE FIRST RACE DAY YOUR CAR ATTENDS.**