

SECTION - 1

FRRC RULES

1.1 DEFINITIONS

Terms which appear throughout this Rule Book have the following meanings:

FRRC

The trade name of Fox River Racing Club, Inc.

FRRC Rules

The rules in this Rule Book, as amended from time to time.

FRRC Officers

The President, Vice President, Secretary, and Treasurer of FRRC.

FRRC Officials

Independent Contractors, Employees, or agents of FRRC.

FRRC Technical Officials

FRRC Officials responsible for determining whether a car meets applicable specifications.

FRRC Member

An individual who has been accepted by FRRC as a member, and whose membership is current, has not expired, been canceled, suspended, or terminated.

Event

A FRRC sponsored event which includes: registration; inspection; practice; qualifying; and races.

FRRC events also include: meetings; awards banquet; car shows; and any activity in which FRRC is a sponsor.

Competitor

A driver, car owner, crew member, FRRC Member, or other person who participates in a FRRC event.

Major Infraction

Major infractions include: violation of cubic inch displacement, compression limit, using non-approved cylinder block, crankshaft, connecting rods, valves, valve lifters, rocker arms, cylinder heads, intake manifold, carburetor spacer, carburetor (including altering of stock boosters), traction control; fuel; failure to tear down car for inspection when requested; failure to surrender to FRRC any part and/or equipment found during an inspection that does not meet FRRC specifications; harassment, verbal abuse, or assault to any FRRC Officer, FRRC Technical Official, or any persons serving under the direction of FRRC.

Minor Infraction

An infraction that is not a Major Infraction.

1.2 EFFECTIVE DATE

The FRRC Rules are effective on the date of adoption by FRRC, regardless of when published. Once adopted, the FRRC Rules are in effect until the end of the competition season.

1.3 AMENDMENTS

The FRRC Rules may only be amended by publication of a bulletin by FRRC. An amendment is effective on the date of publication by FRRC, regardless of when received by a Competitor.

1.4 APPLICABILITY

The FRRC Rules are applicable to all events sponsored by FRRC.

1.5 INTERPRETATION and APPLICATION

FRRC Rules are intended to ensure that FRRC sponsored Events are conducted in a manner that is as fair as possible for all Competitors.

If there is a dispute regarding the interpretation or application of FRRC Rules, the decision by FRRC Technical Officials, at the Event, is final.

1.6 FINALITY of INTERPRETATION and APPLICATION

The interpretation and application of the FRRC Rules by the FRRC Officials at the track are final. ALL FRRC MEMBERS AND COMPETITORS EXPRESSLY AGREE THAT DETERMINATIONS BY FRRC OFFICIALS AS TO THE INTERPRETATION AND APPLICATION OF THE FRRC RULES ARE NON-LITIGABLE, AND THAT THEY WILL NOT INITIATE OR MAINTAIN ANY KIND OF LITIGATION AGAINST FRRC OR ANYONE ACTING ON BEHALF OF FRRC, TO REVERSE OR MODIFY DETERMINATIONS, OR TO RECOVER DAMAGES, OR TO SEEK ANY OTHER KIND OF RELIEF. A FRRC MEMBER OR COMPETITOR WHO INITIATES OR MAINTAINS LITIGATION AGREES TO REIMBURSE FRRC FOR ALL COSTS OF LITIGATION, INCLUDING ATTORNEY'S FEES.

1.7 COMPETITOR REQUIREMENTS

1.7.1 Eligibility

Any individual is entitled to participate in a FRRC Event provided that the individual has signed all required forms, waivers, & releases, and paid the required fee(s). Any individual participating as a Competitor agrees to abide by FRRC Rules as described herein.

A Competitor who is not a FRRC Member is not eligible for any end of season point fund or awards.

A Competitor who is a FRRC Member must participate in at least 65 percent of the scheduled Events to be eligible for any end of season point fund or awards.

To enter the pit area of a FRRC Event, a Competitor must be at least 16 years of age. Competitors between the ages of 16 and 18 must have an insurance waiver signed by a parent or legal guardian.

To **compete** in a FRRC Event, a Competitor must be at least 16 years of age. Competitors between the ages of 16 and 18 must have a **notarized** insurance waiver signed by a parent or legal guardian.

A 14 or 15 year old competitor may be allowed to compete in ONLY the Sizzlin' 4 or Super Stock Division if they can provide documented proof of a minimum of 3 years of consistent competitive racing experience. A formally submitted request will need to be submitted to the club officers for review, including the documented past race experience. After reviewing this formal request, the final decision will be made by the club officers.

1.7.2 Independent Contractor Status

All Competitors are considered independent contractors. A FRRC Officer or Official who participates in an Event is considered a Competitor while on the race track. The Competitor is responsible for compensation of, and for all actions of, their employees or representatives. The Competitor is responsible for reporting and paying all fees, expenses, or taxes, if any, on any funds received as a result of activities as a Competitor. All trackside help are considered Independent Contractors.

1.8 SAFETY

Racing is an inherently dangerous sport. Each Competitor assumes the risk of injury or death when he/she participates in an Event. Competitors are solely, and directly, responsible for the safety of their race cars and racing equipment. FRRC IS NOT RESPONSIBLE FOR THE ADEQUACY OF A COMPETITORS RACE CAR OR RACING EQUIPMENT. NO EXPRESS, OR IMPLIED, WARRANTY SHALL RESULT FROM THE PUBLICATION OF, OR COMPLIANCE, WITH THESE RULES. These rules govern the conduct of an Event, and, by participating, Competitors are deemed to be in compliance with these rules.

SECTION - 2 TRACK PROCEDURES

2.1 GENERAL

2.1.1 Race Decisions

All decisions by FRRC Officials involving track procedures are final, and non-appealable. The FRRC officers have the right to experiment with new procedures to better the show, provided it is communicated to the teams first.

2.1.2 Rain Outs

FRRC Officers will consult with the track owner to determine if the Event will be postponed.

In the event of a rain out prior to the opening of the pit gate, information can be obtained by calling the race track. The track phone number is **1 (920) 766-5577**.

In the event of a rain out after the pit gates are open, all heat races and dashes, on both tracks, must be completed in order to receive points and purse. Completed races will receive full points and purse. Uncompleted races will receive total points for the race and one half of the purse for the race, divided equally among the race cars. Cars that would have transferred into the feature by means of their finishing position in the Semi-Feature, will be paid for the Semi-Feature if the Feature is rained out before the cars take the one to go signal to start the race.

2.1.3 Weigh In

All drivers are encouraged to weigh their race car prior to qualifying. Any race car under the allowable weight is subject to disciplinary action. Penalties will be imposed in accordance with **SECTION 4 - PENALTIES**. Random weight checks may be conducted at any time. Weights will be determined by the track scale, which is considered official. Crew members may NOT jack car prior to scaling and tech inspection.

All heat race and dash winners must weigh their car after the race. The top five finishers in the Limited Late Model, Late Model, and Super Stock semi feature and feature race must weigh their cars immediately after the race, **plus any other designated cars**.

2.1.4 Order of Events

As posted nightly at the Pit Office and at the Scale.

2.1.5 Qualifying

Wisconsin Sport Trucks and Super Stocks will receive one qualifying lap. If a driver receives the green or white flags during qualifying, the lap will be considered complete. A driver may not wave off or disallow qualifying time. In the event of duplicate official laps, the car having the duplicate qualifying time first will receive the highest qualifying position.

Super Stock, Limited Late Model and Late Model cars must scale before or immediately after qualifying.

Limited Late Model, Late Model and Super Stock qualifying order will be determined by random number draw. Drivers will present their car for qualifying in car number sequence and will be allowed two consecutive laps. Cars breaking the qualifying line or the pre-tech line before qualifying will only receive one lap. A break in the qualifying line is constituted by not having a car in the staging box when the car timing receives the white flag, or failure to present a car within two minutes of the initial qualifying start time.

Limited Late Models and Late Models will receive two consecutive qualifying laps. If a driver receives the green or white flags during qualifying, the lap(s) will be considered complete. A driver may not wave off or disallow qualifying times. The fastest lap will be the official lap. In the event of duplicate official laps, the car having the duplicate qualifying time first will receive the highest qualifying position. A driver that spins out on both laps, or has mechanical problems, will be positioned into all races according to the driver's past average qualifying times, if available, and must start all races in the last row. Past average qualifying time is not eligible for qualifying points and may not be used to earn a position in the fast dash or feature race.

If the timing system fails, or weather eliminates qualifying, average qualifying times will be used for drivers who have competed in 65% of the current year's FRRC Events. Drivers will not receive qualifying points and prize money. Drivers who have not competed in 65% of the current year's FRRC Events will start in the last row of the heat races and semi feature or feature race at the FRRC Officer's discretion.

If circumstances demand it, qualifying may be eliminated and all races lined up according to average qualifying time. Drivers with fast dash qualifying averages but less than 65% participation will not be placed into the fast dash, but at the rear of the fast heat and added to the feature race as an “extra”, starting behind the winner from the previous week. Drivers with no average qualifying time will be placed in the race at the official’s discretion and be considered a “promoters choice”.

Late arrivals will receive one qualifying lap. No qualifying or late timing at intermission.

2.1.6 Race Line Up

2.1.6.1 Heat Races & Dashes

Wisconsin Sports Truck, Super Stocks, Limited Late Model and Late Model heat races and dashes will be lined up according to qualifying times, with the field inverted. The top two finishers in the Wisconsin Sport Truck qualifying heat will be given the option to transfer to the feature and start in the last row.

2.1.6.2 Semi Feature & Feature Races

Wisconsin Sports Truck’s semi feature will be lined up according to qualifying times, with the field totally inverted. Limited Late Model, Late Model and Super Stock semi features will be lined up according to qualifying times. The cars in the Limited Late Model, Late Model and Super Stock semi feature races will be lined up straight up. The top four finishers in the Late Model semi feature and the top four finishers of the Limited Late Model semi feature, as well as the top four finishers of the Super Stock semi-feature will be given the option to transfer to the feature and start in the last two rows.

Wisconsin Sports Truck, Limited Late Model and Late Model feature will be lined up according to qualifying times, with the field partially inverted. The fast qualifier for Limited Late Model and Late Model feature will roll the die to determine starting position for the feature race. Eight will be added to the number rolled to determine the number of cars inverted. The feature winner from the previous week will start ~~ahead of the four transfers from~~ **behind the fast qualifier** in the Limited Late Model and Late Model feature. If a car(s) in the Limited Late Model and Late Model feature is(are) not within ~~0.650-0.750~~ seconds of the fast qualifier, the car(s) will be placed behind the feature winner from the previous week, straight up, according to qualifying time.

Super Stock feature race will be lined up according to qualifying times, with the field partially inverted. The Feature winner from the previous week will roll the die to determine the number of cars inverted for the feature race. Eight will be added to the number rolled to determine the number of cars inverted. Inverted cars will start the feature race ahead of the feature winner from the previous week. The feature winner from the previous week will start ~~ahead of the four transfers from~~ **behind the fast qualifier** in the feature.

Figure 8 race(s) will be lined up according to FRRC point standings, with the field totally inverted. The winner from the previous week will start in the last row, ahead of drivers without FRRC points. Figure 8 drivers signing in after 6:30 PM must start in the last row.

2.1.7 Race Start

All cars must be lined up in the proper position, when the pace lap starts. Cars entering the race field after the pace vehicle begins to move, must start the race at the rear in the order they join the field. If there is a caution without 1 completed lap on the initial start of the race, all cars involved in the yellow are given original position back in lineup, provided all cars involved can continue.

2.1.7.1 RACE RE-STARTS

All feature and semi-feature races on the ½ mile will be restarted double file until ~~the end of the race.~~ **5 to go in the race, the last 5 laps of the race will restart single file regardless of previous double file counts. Regular nights will have a maximum of 2 double file restarts and RWB events will have a maximum of 3 double file restarts. After maximum is met, the remainder of the race will be single file restarts regardless of lap count.** Heat races on the ½ mile will be started single file.

All restarts on the 1/4 mile track for Wisconsin Sport Trucks will be double file. All restarts on the 1/4 mile track for Super Stocks will be double file, except for the leader who will be alone in the first row. All restarts for Figure eight will be single file if there are eight cars or less and double file if there are nine cars or more. (moved from Green Flag section)

2.1.7.2 PICK-A-LANE

When the caution flag comes out, cars will get in single file, based on FRRC scoring. After this has been completed, a cone will be placed in the middle of the track. Each driver must choose the inside or the outside lane prior to passing this cone and remain there until the race resumes under green flag conditions. If a driver changes lanes after the cone, but before the race starts, they will be instructed by our spotters tower to go to the rear of the field. If they do not comply, they will be black flagged. If a complete lap is not finished prior to another caution, the scorers will go back to the original lineup prior to the last pick-a-lane procedure, as no car had advanced a spot fully under green flag conditions and not rightfully secured ~~any~~ new starting position.

2.1.7.3 CARS INVOLVED IN CAUTION

If a car is deemed to be involved in the reason for the caution, they will go to the rear of the field per our scoring tower. When the pick-a-lane procedure is implemented prior to the restart, these car(s) will start at the end of the longest line on the restart

2.1.8 Race Length

All heat races **are** subject to a time and caution limit. If the race is not completed within the allotted time or caution limit, the car leading will be declared the winner. The laps, ~~and~~ time limits and caution limits for division races is as follows:

Late Model ONLY Car & Lap Counts:

- Based on 26 or less cars qualified
 - 14 cars qualify for feature by time
 - 6 car dash – 6 laps
 - 2 equal car heats – 8 laps
- Based on 27-30 cars qualified
 - 16 cars qualify for the feature by time
 - 6 car dash + additional cars over 26 start behind fast qualifier. – Lap count will equal cars in the race
 - (Example: 28 cars qualified... Top 8 make the dash... 7th & 8th place qualifiers start behind the fast qualifier... Total of 8 laps.)
 - 2 heats of 10 cars a piece – 8 laps
- Based on 31 or more cars qualified
 - 18 cars qualify for the feature by time
 - 6 car dash – 6 laps
 - 3 heats of equal car counts – 8 laps

<u>Division</u>	<u>Laps</u>	<u>Time Limit</u>	<u>Transfers</u>
Wisconsin Sports Truck			
Qualifying Race	8	8 min. or 2 cautions	(top two finishers option to transfer to feature)
Semi feature	10		
Feature	20		
Limited Late Model			
Heat races	8	8 min. or 2 cautions	
Dash	6	6 min. or 2 cautions	
Semi feature	12		top four finishers option to transfer to feature
Feature	20		
Late Model			
Heat races	8	8 min. or 2 cautions	
Dash	6	6 min. or 2 cautions	
Semi feature	15		top four finishers option to transfer to feature
Feature	30 -35		
Super Stock			
Heat races	8	8 min. or 2 cautions	
Semi feature	12	12 min.	top four finishers option to transfer to feature
Feature	20	15 min.	

Figure 8 Must have a minimum of 8 cars to race.

8 to 10 cars	10	10 min.
11 to 16 cars	15	10 min.
17 cars or more	12	10 min.

(2 races)

All semi-feature and feature races **may be** subject to a time limit. If the race cannot be completed due to unforeseen circumstances, the car leading will be declared the winner. Semi-Feature laps may be adjusted according to car count.

Any single driver causing two (2) yellow flags in one race, or spinning out, unassisted, two (2) times in one race will receive the black flag.

If slowing down and preparing to exit the track:

- 1/4 mile track – move to the outside lane and exit onto the 1/2 mile track.
- 1/2 mile track – move to the inside lane and exit on the back straightaway.

2.1.9 Car Repair

All car repairs must be performed in the pit area. Repair of cars on the track, or pit lane, will result in disqualification. When entering the pits, cars must slow to a reasonable speed. Failure to slow to a "reasonable speed" may result in disqualification. The determination of reasonable speed is a judgment call by FRRC Officials, which is final.

2.1.10 Testing

No in-race car testing without the permission of the pit steward. The test driver must exit the track when the "one lap to go" signal is given. Failure to follow testing provision will result in the driver starting the next race in the last row.

2.1.11 Flags

FRRC Officials will use flags and/or light signals to provide information to the drivers.

2.1.11.1 Green Flag

The green flag indicates the start of the race or the restart of the race after a caution period.

All race starts will be double file. At the start of the race, cars must maintain their assigned starting position until they have crossed the start/finish line. The car on the inside of the front row controls the start of the race. Any cars passing prior to the start/finish line are subject to disciplinary action.

On restarts, the race resumes when the green flag is displayed. The car leading the race controls the restart. Any cars passing prior to the green flag display are subject to disciplinary action.

At the start of a race, or on restarts, the lead car must maintain a uniform speed and may not unnecessarily speed up or slow down so as to cause the field to expand and contract (brake checking). Failure of the lead car to maintain a uniform speed until the green flag is displayed will result in the lead car being placed at the rear of the field. The determination of whether the lead car is maintaining a uniform speed is the decision of the flagman, which is final.

2.1.11.2 White Flag

The white flag indicates that there is one lap remaining.

2.1.11.3 Checkered Flag

The checkered flag indicates that the race is complete. All cars receiving this flag must slow to a reasonable speed and, with the exception of the winner, return to the pit area. Failure to slow to a "reasonable speed" may result in disqualification. The determination of reasonable speed is a judgment call by FRRC Officials, which is final.

Race winners will report to the "X" on the figure 8 track or start/finish line on the 1/2 mile track for post race ceremonies.

Finishing positions will be determined by the number of laps completed, whether the car is running, or not.

2.1.11.4 Yellow Flag

The yellow flag indicates caution on the track. All cars receiving this flag must slow, hold their position, and form a single line behind the lead car. **Absolutely no racing back to the yellow flag.** The penalty for racing back to the yellow flag, as determined by the scorer, is restarting the race at the rear. If a pace vehicle is used, the leader must line up behind it. Cars will be lined up as they were scored on the last completed lap. Lapped cars must maintain their track position. Any cars entering the pits during the caution period must restart the race at the rear, in the order they return to the track.

If the yellow flag occurs before the completion of one lap, the cars will be lined up in their original starting order **except** those cars involved in the incident, which must restart the race at the rear.

No car may pass the pace vehicle unless directed by a FRRC Official. Any car illegally passing the pace vehicle is subject to the black flag. Prior to restarting the race, the flag man will signal one lap to go. No scuffing of tires is allowed after the one lap to go signal. Scuffing of tires after the one lap to go signal is subject to disciplinary action. Any car spinning out as a result of contact will go to the rear of the field.

2.1.11.5 Red Flag

The red flag indicates that the race must stop immediately, regardless of the position of the cars on the track. If possible, cars should be brought to the start/finish line and remain on the track. Any cars entering the pits during a red flag must restart the race at the rear, in the order they return to the track.

If the red flag occurs before the completion of one lap, the cars will be lined up in their original starting order **except** those cars involved in the incident, which must restart the race at the rear.

If the red flag occurs after one complete lap, the cars will be lined up in single file according to the last completed lap. Lapped cars must maintain their track position.

Prior to restarting the race, the flag man will signal one lap to go. No scuffing of tires is allowed after the one lap to go signal. Scuffing of tires after the one lap to go signal is subject to disciplinary action.

2.1.11.6 Blue Flag with Diagonal Yellow Stripe (Move Over)

The blue flag with the diagonal yellow stripe indicates that faster traffic is approaching. Cars receiving this flag must prepare to yield to faster traffic. Failure to obey a “move over” flag is subject to disciplinary action. Cars on the 1/4 mile should move to the **outside** of the track. Cars on the 1/2 mile should move to the **inside** of the track.

2.1.11.7 Green Flag with Two White Stripes (Pick a Lane)

The green flag with two white stripes indicates that a driver is intentionally blocking the car behind. Car(s) receiving this flag must choose either the inside or outside lane. Failure to obey a “pick a lane” flag is subject to disciplinary action.

2.1.11.8 Black Flag

The black flag means go to the pit lane immediately. The driver receiving the black flag will also be notified by a sign board, at the flag stand, with the car number displayed. Failure to obey a black flag is subject to disciplinary action.

2.1.11.9 Pink Flag (Time Limit)

The pink flag means that the time limit for the race has expired. This flag will be displayed at the flag stand. Once this flag has been displayed, the race will end under caution and finishing positions will be as the cars were scored on the last completed lap, with the cars involved in the caution moved to the end of their last completed lap.

2.1.12 Car Disqualification

If a car is disqualified in a race, every car below the disqualified car will move up in position, points, and purse. Adjustments will be made the following week as “contingency” money.

2.1.13 Car and Driver Changes

Race cars may compete in only one division per night. Drivers may compete in any or all divisions as long as the driver has paid an entry fee for each division and a separate car is raced in each division

The driver must qualify and race the same car. If the primary car becomes disabled before or during qualifying, the primary car must be withdrawn before the driver can switch to a second car. The driver must re-qualify in the second car and start all remaining races in the last row. ~~The driver may use past average qualifying times to determine heat race position, and start heat race and semi feature in the last row. Past average qualifying time is not eligible for qualifying points and may not be used to earn a position in the fast dash or feature race.~~

If the primary car becomes disabled during a heat race, the car must be repaired or scratched from the semi feature or feature. Switching to a second car is not permitted after qualifying is completed.

2.1.14 Conduct

One individual must be designated as the sole spokesman for the driver, pit crew, and car owner in any and all matters pertaining to an Event. This individual assumes responsibility for the actions of the driver, pit crew, and owner.

Harassment or abuse of FRRC Officials will not be tolerated and is subject to disciplinary action. Penalties will be imposed in accordance with **SECTION 4 - PENALTIES**.

2.1.15 Injuries

All injuries must be reported to a FRRC Official prior to leaving the race premises. Track insurance will not cover any unreported injuries.

2.2 POINTS and PRIZE MONEY

Points for any FRRC Event are awarded to the **driver**, regardless of the car he/she is driving, ~~except for the Super Stock Division, where up to two drivers per season can share points in a "Team Car" arrangement, as long as they are registered as such prior to the start of the season.~~

Prize money for any FRRC Event and point fund money are paid to the **car owner**.

2.3 1/2 MILE TRACK PROCEDURES

Three wide racing on the 1/2 mile track is prohibited. The decision of the flag man is final.

2.4 FIGURE 8 TRACK PROCEDURES

2.4.1 Flat Tire or Open Hood

Any car, during a race, with a flat tire or open hood is automatically disqualified and must leave the track immediately. The black flag will be displayed to the driver and scoring of the car will stop.

2.4.2 "X"

At the "X", **all cars must yield to the car coming from the right**. Drivers striking another drivers door are subject to disciplinary action.

SECTION - 3 INSPECTIONS

3.1 TIME and MANNER

All cars are subject to inspection by FRRC, at any time and in any manner, as determined by FRRC Technical Officials. All decisions by FRRC Technical Officials regarding the timing and manner of inspection, as well as which cars will be inspected, are final. FRRC is responsible solely for the cost of standard gaskets and seals.

Any car using an aluminum head concept engine may be required, at any time, to remove the cylinder heads for inspection by the manufacturer. At the end of the FRRC racing season, the top three (or more) cars using aluminum head concept engines may be required to remove their cylinder heads for inspection by the manufacturer. All monies for Event and point fund will be withheld until the cylinder heads pass inspection and are returned by the manufacturer.

3.2 INSPECTION AREA

Only those persons authorized by FRRC Technical Officials are permitted in the inspection area.

3.3 CAR ELIGIBILITY

FRRC Technical Officials will determine whether a car meets the applicable specifications as set forth in the Rule Book, as amended from time to time. Only cars meeting the applicable specifications are eligible to compete in FRRC events. FRRC equipment, gauges, and measuring devices will be used to determine whether a car meets the applicable specifications.

The scales at the track are considered the "official" scales and will be used to determine whether a car meets the applicable weight requirements. Either set of scales may be used to determine whether a car meets the applicable weight requirements.

Any car black flagged for mechanical reasons or involved in an accident requiring assistance off the track by the safety crew, must pass inspection before returning to the race track.

3.4 COMPETITOR OBLIGATIONS

A Competitor must take whatever steps are required by a FRRC Technical Official to accommodate inspection of the car.

3.5 INSPECTIONS PRIOR to the RACE

If a FRRC Technical Official determines that a car does not meet the applicable specifications, the car will not be allowed to compete unless the deficiency is corrected. However, the car may be allowed to compete in the event if, in the determination of the FRRC Technical Official, the deficiency (a) is not safety related, (b) will not adversely affect the orderly conduct of the event, (c) cannot be corrected prior to the start of the event and, (d) will not provide the Competitor with a noticeable advantage over the competition, and (e) is insignificant. The car will not be allowed to compete in future events until the deficiency is corrected.

A car that fails post qualifying inspection will be disqualified from the heat race or fast dash and must start the semi feature race in the last row. The qualifying time will be disallowed for future average time consideration. Penalties will be imposed in accordance with **SECTION 4 – PENALTIES**.

3.6 INSPECTIONS AFTER the RACE

If a FRRC Technical Official determines after the race that a car does not meet the applicable specifications, FRRC may impose a penalty. Penalties will be imposed in accordance with **SECTION 4 - PENALTIES**.

Any car may be impounded, after post race inspection, for additional inspection. The time and location of inspection will be determined by FRRC Officers and Technical Officials.

3.7 PROTESTS

If a Competitor believes that a car does not comply with FRRC Rules, the Competitor may protest the alleged violation. Protests must be made, by the Competitor, to a FRRC Officer within five minutes after the completion of the division Feature race.

Protests must be accompanied by a cash fee as specified in **Section 3.7.2**.

A car that has been protested may be impounded for additional inspection. The time and location of inspection will be determined by FRRC Officers and Technical Officials.

3.7.1 Protest Procedure

After receiving the protest, and protest fee, the FRRC Technical Official will conduct an inspection, as necessary, to determine if the car complies with FRRC Rules.

The party losing the protest shall pay all inspection costs incurred by FRRC in connection with the protest. FRRC inspection costs make up 25 percent of the protest fee, and will not exceed \$250.00

If the car is found to be in violation of FRRC Rules, the protest fee will be returned to the protesting competitor. The protested competitor will be responsible for inspection costs incurred by FRRC Technical Officials, plus any imposed penalties.

If the car is found in compliance with FRRC Rules, the protest fee will go to the protested competitor, minus any inspection costs incurred by FRRC.

The decision of the FRRC Technical Official regarding any protest is final, non-appealable, and non-litigable.

3.7.2 Protest Fees

P&G and compression test any-4 cylinders, inspect rocker arms and push rods: Late Model and Limited Late Model, \$100.00.

Remove intake manifold and inspect camshaft: Limited Late Model, \$75.00

Inspect crankshaft and connecting rod thru inspection plug: Late Model and Limited Late Model, \$100.00.

Remove one (1) cylinder head and inspect ports and valve size, "cc" combustion chambers and intake runners, check bore and stroke, inspect camshaft, and measure lifter size: Late Model, and Limited Late Model (excluding Sealed Crate Engines) \$250.00

Remove engine from car, remove oil pan, remove and weigh crankshaft, and check connecting rods: Late Model, and Limited Late Model \$1,000.

3.8 EQUIPMENT or PARTS FAILING INSPECTION

FRRC has the right to confiscate any parts and/or equipment that do not meet FRRC specifications.

3.9 CLAIMS

Claims listed here will be for the Late Model and Limited Late Model Divisions. See Super Stock Division for Super Stock claim rule, Sizzlin 4's Division for Sizzlin 4's claim rule, and Figure 8 Division for Figure 8 Claim rule.

Claims must be made, by the Competitor, to a FRRC Officer within 5 minutes after the completion of the division semi feature or feature race (see appropriate division for equipment and claim fees). Claimee must have competed in semi feature or feature race, and finished within 3 positions of claimant. Cash or cashiers check must be given to a FRRC Officer and include an additional 20% fee which will go to FRRC point fund for the division in which the claim occurred. If the claimee refuses to sell the claimed equipment, he/she loses all points and money up to and including that race (this includes car and driver).

SECTION - 4 PENALTIES

4.1 GENERAL PROCEDURE

If a FRRC Technical Official observes, or is made aware of, a violation of the FRRC Rules, by a Competitor, FRRC can impose an appropriate penalty.

4.2 EMERGENCY ACTION

If an act by a Competitor is determined by FRRC Officers, FRRC Technical Officials, to threaten the orderly conduct of an Event, the FRRC Officers can take emergency action against the Competitor. Such action may include: ejection from the racing premises; suspension from competition; or any other action to remove the threat created by the Competitor. Examples of conduct warranting emergency action include, but are not limited to: consumption of alcoholic beverages in pit area before or during an event; use of illegal drugs before or during an event; harassment, verbal abuse, or assault of any FRRC Officer, FRRC Technical Official, or Competitor; fighting; reckless driving; and failure to obey a black flag or directions of an Official. The emergency action will remain in effect for the period of time determined by the Officials, except for an ejection, which is final and non-appealable.

4.3 PAYMENT of FINES

Fines must be paid to FRRC and will be deposited in the current year point fund. Failure to pay fines may result in suspension from competition. All unpaid fines may be collected, by FRRC, by deducting the amount from the purse or point fund. If the Competitor is not a driver, the fine may be deducted from the purse or point fund of the driver with whom the competitor is associated at the time of the violation. Any unpaid fines remaining at the end of the racing season will be carried over to the next racing season and be deducted from the purse or point fund until all monies are collected.

4.4 SCOPE of PENALTIES

Penalties for violation of FRRC Rules are determined by the severity of the violation. Penalties include, but are not limited to: fines; loss of points; loss of purse; disqualification; suspension of driving privileges and/or membership; termination of membership. FRRC will use the following guidelines for determining penalties. **A greater or lesser penalty may be imposed depending on the circumstances.**

4.4.1 General

Any Competitor or Member who performs an act or participates in an act deemed by FRRC as detrimental to auto racing or FRRC: a fine determined by FRRC Officers, and/or suspension, and/or loss of points and money for Event, and/or loss of accumulated points for current year. A FRRC Member may also have their membership terminated.

Any Competitor who signs the release sheet for any one else: ejection.

Any Competitor who harasses, verbally abuses, or assaults any FRRC Officer, Technical Official, FRRC Member, or persons serving under FRRC direction: ejection; a fine determined by FRRC Officers, and/or suspension, and/or loss of points and money for Event, and/or loss of accumulated points for current year.

Any Competitor who participates in fights on the racing premises: ejection; a fine determined by FRRC Officers, and/or suspension, and/or loss of points and money for Event, and/or loss of accumulated points for current year.

Any Competitor who, while participating in a FRRC Event, consumes any alcoholic beverages and/or illegal drugs in pit area, or is under the influence of alcohol and/or illegal drugs: a fine determined by FRRC Officers, ejection & disqualification.

Any Competitor who stops on the track to argue with a FRRC Official or FRRC Officer: a fine determined by FRRC Officers, and/or suspension, and/or loss of points and money for Event, and/or loss of accumulated points for current year.

Any driver not wearing a full driver's suit and/or gloves during an event: "disciplinary" black flag, a fine of \$25.00; or both.

Any Competitor suspended by FRRC is also subject to additional suspension by W.I.R. upon consultation by the FRRC Officers with the W.I.R promoter.

4.4.2 Inspection and Claim Procedures

Any Competitor who fails to tear down a car for inspection when requested to by a FRRRC Technical Official: a fine determined by FRRRC Officers; suspension; and/or disqualification.

Any Competitor who fails to sell claimed equipment: a fine of \$200.00, loss of points and money for Event and accumulated points for current year.

4.4.3 Race Procedures

Any car after qualifying or after a race that is 1 or more pounds under minimum weight: loss of points and money for qualifying or race. A car will be allowed to be repositioned on the scale a maximum of three times to make minimum weight.

Any car after qualifying or after a race that has less than the minimum required right side weight percent: loss of points and money for qualifying or race. A car will be allowed to be repositioned on the scale a maximum of three times to make minimum weight.

Any driver failing to obey the "pick a lane" flag: stop and go penalty.

Any driver receiving a "disciplinary" black flag: stop and go penalty; and/or loss of points and money for race.

Any driver scuffing tires after one lap to go signal: loss of one position at next caution flag. If no caution occurs, the driver will be penalized one position at the end of the race.

Any Figure 8 driver, negligently, striking another drivers door: three week suspension.

4.4.4 Bodies, Parts, and Equipment

Any Competitor who fails to surrender to FRRRC any part and/or equipment found during an inspection that does not meet FRRRC specifications: loss of points and money for Event; and/or accumulated points for current year; and suspension.

Any part and/or equipment found during an inspection that does not meet FRRRC specifications: confiscation of non-approved parts; loss of points and money for Event and/or accumulated points for current year.

Any engine that exceeds the maximum allowable cubic inch displacement, compression limit, or that is using non-approved cylinder block, crankshaft, connecting rods, valves, valve lifters, rocker arms, rev-kits, cylinder heads, intake manifold, carburetor spacer; carburetor (including altering of stock boosters): confiscation of non-approved parts; and/or suspension; and/or disqualification.

Any aluminum head concept engine modifications, changes, or deviations to any part of the block, crankshaft, camshaft, lifters, cylinder heads, intake manifold, or any bolt-on parts, without prior approval: confiscation of non-approved parts, loss of points and money for Event, loss of accumulated points for current year, and 4 week suspension at all tracks using aluminum head concept engine.

Any car with a decibel reading of 105 or more: first offense, a loss of 5 points; second offense, a loss of 10 points; third offense, a loss of 15 points; etc.

4.4.5 Fuel

Use of a fuel that does not meet FRRRC specifications: loss of points and money for Event and/or accumulated points for current year. Failure to cooperate with FRRRC Officials in obtaining a fuel sample during an event will subject the car to disqualification.

4.4.6 Tires

Any use of one or more tires during qualifying, or race, that are not FRRRC approved, are buffed, or treated, or are not in FRRRC approved positions: loss of points and money for Event and/or accumulated points for current year.

SECTION - 5 LATE MODEL DIVISION – ~~2009~~ 2010

Open to two-wheel drive American automobiles provided they comply with, and adhere to, specifications as outlined for this division.

NOTICE

ALL EQUIPMENT IS SUBJECT TO THE APPROVAL OF FRRC OFFICIALS. NO EQUIPMENT WILL BE CONSIDERED AS HAVING BEEN APPROVED BY REASON OF HAVING PASSED THRU INSPECTION UNNOTICED. EFFORTS TO TAKE ADVANTAGE OF “LOOP HOLES” IN THESE RULES WILL NOT BE TOLERATED. ALL RACE CARS ARE SUBJECT TO INSPECTION BY TRACK OFFICIALS AT ANY TIME.

5.1 COMPETING MODELS AS APPROVED BY FRRC

FRRC Late Model races are open to approved 1996 to ~~2009~~ 2010 models of American made passenger cars.

5.1.1 Approved Competition Models

All ABC bodies are approved for competition.

All cars must maintain a wheelbase of 103.0 +/- 2.0 inches at all times. The maximum overall width of all cars, as measured from the outside of the right body or tires to the outside left body or tires, is 82 inches. The maximum tread width for these cars is 64 inches plus or minus 1 inch, measured at spindle height. Cars with a width of 65.0 inches to 66.0 inches must ADD 25lbs. Any car over 66.0 inches is deemed illegal and DQ'ed.

Max Tread Width to be measured without driver in car. Car must comply with the 4” ground clearance rule (No shock tie down allowed during tread width inspections)

5.1.2 Other Approved Models

A 3 race maximum to all non ABC approved models.

Other models may be approved, provided they are of the same body configuration and meet the spirit and intent of competitive racing.

~~ASA Late Model Series cars may compete in the Late Model Division as long as the car is in compliance with all ASA Late Model Series rules. ASA Limited Late Model Series cars must comply with Section 5.7.3.3 Tires. FRRC reserves the right to exchange any carburetor, on any ASA Late Model Series engine, at any time.~~

5.1.3 Identification and Marking

FRRC reserves the right to assign car numbers, and to assign or restrict the display of graphics and advertising on race cars. Offensive graphics or slogans are not permitted. All Competitors agree to accept FRRC's decision in this matter. Officially issued numbers must be at least 16 inches high by 3 inches wide and neatly applied (paint or decals) to both doors. Numbers, as large as possible and in contrasting colors to the body, must be applied to the right front corner of the roof, front headlight cover, and rear taillight cover.

Where requested, participating sponsor's emblems, or decals will be placed in the position designated by FRRC Officials. Failure to place participating sponsor's emblems on a race car may result in ineligibility for contingency prizes.

5.2 GENERAL CAR WEIGHT REQUIREMENTS

5.2.1 Overall Car Weight

The specific minimum weights for all cars are listed below. No fuel burnoff allowance for qualifying. All weights are with the driver. All cars must maintain the minimum right side percentage of the total car weight, at all times. **FRRC Officers reserve the right to adjust weight at any point during the season to ensure fair competition.**

<u>Car Type</u>	<u>Minimum Weight</u>	<u>Minimum Right Side Percentage</u>	<u>(NOTE)</u>
Template Body, Cast Iron Heads	2750 lbs.	42.0%	FUEL BURNOFF ALLOWANCE
Template Body, Aluminum Heads, 9.50 to 1	2800 lbs. 2825	42.0%	
Template Body, Aluminum Head Concept Engine	2750 lbs.	42.0%	1 lb. per scheduled lap
NASCAR approved tour car (must have 2-barrel carburetor and exhaust under car)	2900 lbs.	44.0 %	
FRRC Chevy Crate Motor Car (GM P/N 88958604 ONLY)	2600 lbs.	40.0%	
Wagner LS Spec Motor (must have 2bbl carburetor)	2775 lbs	42%	

The following weight adjustments will be made to individual cars:

<u>Deduct</u>	<u>Weight</u>
Full perimeter car (Refer to 5.4.1.1 Perimeter Frame) (Right side door bars cannot be "X" design) and template body	25 lbs.

<u>Add</u>	<u>Weight</u>
Lightweight Bolts	25 lbs.
Cars without: leg & shoulder protectors; 1/8" floor & tunnel; seat 16-1/2" to 18-1/2" from door bars	50 lbs.

Template Body Car

An ABC, Short Track Bodied Car that conforms to a FRRC template (\pm 1/2-inch) and Five Star Guideline Dimensions, and has the following: 3 front and 2 rear inside window stiffeners; dash board; 1/8 inch steel floor and tunnel; padded door bars; padded aluminum seat mounted 16 1/2 - 18 1/2 inches (centerline of seat to inside edge of outermost door bar) inward; single lever shifter; and 11 inch high fuel cell.

An ABC Template Body Car is a 2004 model, and newer, Chevrolet Monte Carlo, Dodge Intrepid, Ford Taurus, or Pontiac Grand Prix, Short Track Bodied Car, manufactured by Five Star or ARP. Fenders must be contoured fiberglass or plastic. Opening in windshield cowl panel may not be altered. Stickers on ABC body components must be visible, and not painted over.

Any Non-ABC Template Body Car are prohibited for the 2008 season. Non-ABC Template Body Cars will be allowed to compete on a maximum of 3 nights during the season as a provision to travelers visiting on Thursday nights.

5.2.2 Added Weight

Any weight (ballast) added to the car must be secured by 1/2-inch diameter bolts. Loose weights are prohibited. No weights may be added outside the body. Added weights must be painted a bright color (safety orange or white) and have car number on weight.

5.2.3 Car Weights After Race

All heat race winners and the top 5 finishers in the semi and feature races must weigh in immediately after the race.

Any ballast that falls off a car during competition cannot be returned to the car for determining weight after a race. A fine of \$1.00 per pound of weight lost will be assessed to car.

Crew Members may NOT jack the car prior to scaling and tech inspection.

5.3 GENERAL CAR REQUIREMENTS

5.3.1 Car Bodies

The car body must meet the following requirements:

Standard approved bodies may compete with an approved V-8 engine equipped with an approved carburetor.

Cars must be neat appearing and standard in appearance.

All cars must have complete bodies, full size roofs, hoods, fenders, and an approved front and rear bumper. Bodies may be steel, aluminum, fiberglass, or plastic. Kevlar hood and roof are permitted. Wheel wells on steel and aluminum bodies must have a rolled edge. All body panels must be fastened in an approved manner. The use of hood, roof, or trunk, rails, wings, or ridges are prohibited. Rub rails mounted on the outside of the body are prohibited. Only pin type hood and trunk pins permitted.

Bodies must retain the general contours of stock components. The roof must be centered on the body. Shortening, narrowing, lengthening, or excessive deforming of bodies is prohibited. Templates will be used by FRRC Officials to check any cars with questionable dimensions or configurations. The tolerance for template cars is $\pm \frac{1}{2}$ -inch. Cars with questionable dimensions or configurations **may be** required to add additional weight. FRRC Officials will determine the amount and location of additional weight. The decision of the FRRC Official regarding any additional weight is final, non-appealable, and non-litigable.

Full windshield and rear window of lexan are mandatory. A minimum of three stiffeners must be installed inside the windshield. The stiffeners must be attached to the roof panel or roll bar and dash panel in an approved manner. Stiffeners must be installed so as not to obstruct the driver's vision. Rear window must be equipped with a minimum of two stiffeners attached inside, in an approved manner. Stiffeners must be attached at the mid point of the window and adequate to prevent deflection.

Side door windows are not allowed. A 12-inch vent window is permitted on ABC Body cars, and a 10-inch vent window is permitted on Non-ABC Body cars. Back side of vent window must be at right angle to top of door. Hinged or removable trunk lid mandatory.

Interior area of car must be completely enclosed from front to rear firewalls. The floor area to the right of the seat may be raised to the top of the drive shaft tunnel and extend at an angle to the top right side door bar and seal off below the right window opening.

Underbody aerodynamic enhancing trays, shelves, wings, deflectors, or panels are prohibited.

5.3.2 Body Height and Body Ground Clearance Requirements

All body height and body ground clearance measurements are made without the driver in the car. No tolerance for measurements for cars without driver.

5.3.2.1 Body Height Requirements

The roof height will be measured at a point 10 inches behind the top of the windshield on the roof centerline. The minimum allowable roof height is 46 inches for a Minimum Specification car and 47 inches for a Template Body car. Quarter panel height, where it attaches to the rear bumper cover, shall be a minimum of 33½ inches left side and a maximum of 35½ inches right side.

Body heights may not be changed after qualifying.

5.3.2.2 Body Ground Clearance Requirements

Front air dam clearance shall be no less than 4 inches. Rocker panel clearance shall be no less than 4 inches. Minimum height of quarter panels, behind rear tire, shall be 10 inches.

5.3.3 Rear Spoiler

Rear spoiler must not exceed 5 inches in height or 60 inches in width. No rudders or forward mounting brackets are allowed.

5.4 FRAME AND ROLL CAGE

All frames and roll cages must be acceptable to FRRC Officials. The frame and roll cage must meet the requirements described in the following paragraphs.

All chassis must have safety vehicle pickup points clearly marked, front and rear.

All chassis's must be equipped with a fuel cell protector bar that extends to the bottom of the fuel cell and is adequately braced.

All cars must have a front bumper of round steel tubing. All cars must have a rear bumper of round steel tubing no less than 1¾ inches in diameter that extends 6 inches, or more, beyond frame rails.

5.4.1 Frame

All main frames must be after market construction. No stock passenger car frames allowed. All main frame rails must be steel box tubing minimum 10 inches in circumference and must have a minimum wall thickness of 0.083 inches.

The front stub may be stock passenger car or after market construction.

5.4.1.1 Perimeter Frame

Perimeter frames must meet the following requirements: side rails must be magnetic steel box tubing a minimum of two (2) inches in width by three (3) inches in height, maximum 3 inches by 4 inches and must have a minimum wall thickness of no less than 1/8 inch. All frame rails must be parallel. The minimum distance when measured from outside of the left frame rail to the outside of the right frame rail will be no less than 57 inches. Three horizontal right side door bars with 6 vertical uprights required, minimum size 1¾" x 0.083 tubing. Weight boxes permitted to be welded to the outside of the frame rail cannot exceed six (6) inches measured from the inside edge of the frame rail. The weight box cannot exceed the length of the straight frame side rail. Rocker panels must remain in standard location. The centerline of the frame side rails must be within one (1) inch of the centerline of the front and rear tread width.

5.4.2 Roll Cage

Roll cage installation and workmanship must be acceptable to FRRC Officials.

The roll cage must be a four-post design consisting, in general, of: a vertical main hoop; roof or top hoop; and left and right front post. It is recommended that all right angles must be gusseted.

The main hoop must connect to the left and right frame rails, behind the driver, and be diagonally braced. The main hoop must have a horizontal bar at the midpoint. All bars in the main hoop must be round steel tubing no less than 1¾ inches in diameter and have a minimum wall thickness of 0.095 inches.

The top hoop must attach to the main hoop, and left and right front posts. The left and right front posts must be connected by a horizontal "dash" bar. All bars in the top hoop, left and right front posts, and dash bar must be round steel tubing no less than 1¾ inches in diameter and have a minimum wall thickness of 0.095 inches.

The driver's side must be equipped with four, or more, equally spaced horizontal bars. The door bars must be connected by two, or more, equally spaced vertical braces and must attach to the main frame by two, or more, equally spaced vertical braces. A foot protector bar is mandatory. All driver side door bars and braces must be round steel tubing no less than 1¾ inches in diameter and have a minimum wall thickness of 0.095 inches. **All door bars on the driver's side must be plated.** Plating must extend from the front pedal plate to rear main hoop and from top door bar to bottom frame rail.

The top door bar must be no less than 29 inches from the ground.

The passenger side must be equipped with a minimum of three door bars. Two of the bars may be "X" design. Horizontal bars must be equally spaced and connected by two, or more, equally spaced vertical braces. All passenger side door bars and braces must be round steel tubing no less than 1 $\frac{3}{4}$ inches in diameter and have a minimum wall thickness of 0.083 inches.

On offset chassis cars, the outward passenger side bars must be steel and curve inward at the front and attach to the frame.

The jack posts must be guarded, or inside the body.

All roll bars exposed to the driver, and left side door bars, must be padded.

5.5 SUSPENSION

The front suspension must be independent. McPherson Strut type suspensions are prohibited.

Independent rear suspensions are prohibited.

Remote reservoir shock absorbers are permitted.

Computerized, electric, hydraulic, pneumatic, or remote controlled devices, which can change the handling characteristics of the car, during the race, are prohibited.

5.5.1 Spindles, Wheel Bearings, and Hubs

Spindles, wheel bearings, and hubs must be heavy duty and are subject to approval by FRRC Officials.

5.5.2 Brake Components - Front and Rear

Each wheel must be equipped with a brake in proper working condition. No computerized or electronic traction control devices permitted.

Disc brakes mandatory. Inboard brakes are prohibited. Maximum of 4 pistons per caliper. Retail cost must not exceed \$500.00 per caliper. Disc brake rotors must be steel. Aluminum or composite rotors are prohibited. No floating style rotors.

Brake balance bar, or brake proportioning valve is permitted.

5.6 ENGINE REQUIREMENTS

5.6.1 Engine Location

All General Motors V-8 engines must be located so that the centerline of the forward most spark plug hole is no more than 2 inches back from the center of the upper ball joint. Ford, Mopar and Chevy 604 Crate engines may be located so the center of the forward most spark plug hole of the engine is a maximum of four (4) inches rearward of the centerline of the upper ball joint.

5.6.2 Engine Ground Clearance Requirements

Engine ground clearance measurements are made without the driver in the car. No tolerance for measurements for cars without driver.

The engine ground clearance will be measured from the center of the crankshaft at the water pump belt pulley. A minimum of 10.0 inches from the center of the crankshaft to the ground must be maintained at all times.

5.6.3 9.50 to 1 Aluminum Cylinder Head Engine

Only V-8 engines with a minimum displacement of 350.0 cubic inches and a maximum displacement of 358.0 inches are permitted. The maximum compression ratio is 9.50 to 1.

5.6.3.1 Engine Block

Any size “small block” may be used. Engine displacement may be increased or decreased by boring and/or stroking to provide the required displacement.

Block must be a factory production **cast iron** block with external measurements identical to the standard production engine. Angle milling of block is prohibited. **All engine block markings must remain.** No aluminum engine blocks permitted. The maximum cylinder bore is 4.045 inches.

5.6.3.2 Crankshaft and Harmonic Balancer

Only cast iron or forged steel crankshafts are permitted. **Titanium crankshafts are prohibited.** Crankshafts with journal sizes less than 1.980 inches or undersized journals less than original factory specifications are prohibited. Minimum crankshaft weight is 43 lbs. Lightweight, knife-edge, and undercut counterweight, crankshafts are prohibited.

Steel type balancer only - aluminum balancers are prohibited.

5.6.3.3 Pistons and Rods

Any flat top, dished, or inverted dome piston may be used. Valve reliefs may be cut into pistons. No part of the piston may protrude above the top of the block.

Only magnetic steel connecting rods are permitted. **Titanium rods are prohibited.**

5.6.3.4 Oil Pans

Steel oil pan only. Oil pan must be equipped with a ¾ inch plug for inspection. The plug must be directly inline with a rod journal. Engines equipped with a windage tray must provide a hole in the tray, in line with the plug.

5.6.3.5 Cylinder Heads

Cylinder heads must be FRRC approved. GM cylinder head 23 degree plus or minus 2 degrees, FORD cylinder head 10 degrees & MOPAR cylinder head 18 degrees.

Use of titanium exhaust valves is prohibited. Titanium intake valves permitted. Maximum valve spring diameter 1.57 inches.

5.6.3.6 Camshaft, Valve Lifters, & Rocker Arms

Any steel or cast-iron camshaft may be used. Roller tappets and rev kits are permitted. Any steel lifter is permitted.

5.6.3.7 Intake Manifold

Any readily available, production type, intake manifold is permitted. Grinding or polishing of the intake manifold ports is permissible.

An adapter plate, with a straight bore and a maximum thickness of 1½ inches, may be used between the intake manifold and carburetor. NO chamfering, tapering, or beveling of the adapter plate is permitted.

Only 2 gaskets (1 per side), with a maximum thickness of 0.065 inches, may be used on the adapter plate.

Adapter plate may be claimed for \$75.00.

~~5.6.4 Cast Iron Head Engine~~

~~Only V 8 engines with a minimum displacement of 350.0 cubic inches and a maximum displacement of 358.0 inches are permitted. The maximum compression ratio is 10.80 to 1.~~

~~5.6.4.1 Engine Block~~

~~Block must be a factory production cast iron block with external measurements identical to the standard production engine. Angle milling of block is prohibited. All engine block markings must remain. No aluminum engine blocks permitted. The maximum cylinder bore is 4.045 inches.~~

~~5.6.4.2 Crankshaft and Harmonic Balancer~~

~~Only cast iron or forged steel crankshafts are permitted. Titanium crankshafts are prohibited. Crankshafts with journal sizes less than 1.980 inches or undersized journals less than original factory specifications are prohibited. Minimum crankshaft weight is 43 lbs. Lightweight, knife-edge, and undercut counterweight, crankshafts are prohibited.~~

~~Steel type balancer only—aluminum balancers are prohibited.~~

~~5.6.4.3 Pistons and Rods~~

~~Any flat top piston may be used. Valve reliefs may be cut into pistons. No part of the piston may protrude above the top of the block.~~

~~Only magnetic steel connecting rods are permitted. Titanium rods are prohibited.~~

~~5.6.4.4 Oil Pans~~

~~Steel oil pan only. Oil pan must be equipped with a 3/4 inch plug for inspection. The plug must be directly inline with a rod journal. Engines equipped with a windage tray must provide a hole in the tray, in line with the plug.~~

~~5.6.4.5 Cylinder Heads~~

~~Only the following FRRC approved cylinder heads may be used:~~

Manufacturer	Cylinder head	Intake Runner Volume Measured in cc's
GENERAL MOTORS	Part # 14011058	187 cc's
	Part # 10134392	187 cc's
	Cast # 14011034	187 cc's
CHRYSLER CORP.	P249769	198 cc's
	P452946	198 cc's
FORD	M 6049 N351	197 cc's
	M 6049 E351	197 cc's

~~Cylinder heads must remain stock. All cylinder head markings must remain. Angle milling, chemical treating, acid dipping, acid flowing, abrasive blasting, bowl cutting, addition of material to the ports or combustion chamber, or other alterations to the original, as cast, head is prohibited. Valves, rocker studs, head bolts, and spark plugs may not be relocated. No polishing or grinding of ports or runners is permitted (combustion chamber may be polished). The cylinder head to block surface may only be machined a maximum of 0.050 inches from OEM. Minimum combustion chamber size shall be 62.0 Cc's for all models. A three angle valve job may be done as long as no machining marks are more than 1/8" above the head of the valve.~~

~~The maximum valve sizes, as measured across the face, are as follows:~~

Manufacturer	Intake	Exhaust
GENERAL MOTORS	2.020 inches	1.600 inches
CHRYSLER CORP.	2.020 inches	1.625 inches
FORD "CLEVELAND"	2.046 inches	1.656 inches
FORD "WINDSOR"	2.020 inches	1.600 inches

~~Use of titanium valves is prohibited. The maximum allowable spring diameter is 1.57 inches.~~

~~5.6.4.6 Camshaft, Valve Lifters, & Rocker Arms~~

~~Any steel or cast iron camshaft may be used. Camshaft journals must be stock for engine. Rollerized camshaft bearings are prohibited. The maximum camshaft lift is 0.625 inches, measured at the valve. Roller tappets and rev kits are permitted. Any, all steel lifter is permitted. Only steel push rods are allowed.~~

~~Roller rocker arms are permitted. Maximum rocker arm ratio is 1.6 to 1. Shaft type rocker arms are permitted on Chrysler motors only. Stud girdles are permitted.~~

5.6.4.7 Intake Manifold

~~Any readily available, production type, intake manifold is permitted. Retail cost must not exceed \$350.00. No material may be added to the manifold. Grinding or polishing of the ports is prohibited. Port matching of the intake manifold is permitted to a maximum of 1 inch.~~

~~The maximum height of the manifold, as measured from the top of the cylinder block to the base of the carburetor (including adapter plate and gaskets), is 7 inches. Only a straight bore adapter plate permitted. NO chamfering, tapering, or beveling of the adapter plate is permitted.~~

~~Only one flat gasket, with a maximum thickness of 0.120 inches, may be used between the intake manifold and cylinder head. No spacer or wedge type gaskets are permitted between the intake manifold and head.~~

5.6.4 Chevy 604 FRRC Sealed Crate Engine

All rules for Late Model are the same as the Limited Late Models.

See Limited Late Model Rules (6.6.4 FRRC Sealed Crate Engine)

5.6.5 Aluminum Head Concept Engine

Only V-8 engines with a minimum displacement of 350.0 cubic inches and, except for the Mopar engine, a maximum displacement of 358.0 inches are permitted. The maximum displacement for a Mopar aluminum engine is 360.0 cubic inches. The maximum compression ratio is 10.50 to 1.

Engines may only run a dry sump pump with a maximum of 4 stages.

5.6.5.1 Engine Block

Block must be a factory production **cast iron** block with external measurements identical to the standard production engine. Angle milling of block is prohibited. **All** engine block markings must remain. No aluminum engine blocks permitted. The maximum cylinder bore is 4.045 inches. The minimum cylinder bore is 4.000 inches.

5.6.5.2 Crankshaft and Harmonic Balancer

Only cast iron or forged steel crankshafts are permitted. **Titanium crankshafts are prohibited.** The maximum stroke is 3.500 inches. Crankshafts with journal sizes less than 1.980 inches or undersized journals less than original factory specifications are prohibited. Minimum crankshaft weight is 43 lbs. Lightweight, knife-edge, and undercut counterweight, crankshafts are prohibited.

Steel type balancer only - aluminum balancers are prohibited.

5.6.5.3 Pistons and Rods

Any flat top, dished, or inverted dome piston may be used. Valve reliefs may be cut into pistons. No part of the piston may protrude above the top of the block.

Only magnetic steel connecting rods, with minimum 3/8 inch rod bolts, are permitted. **Titanium, aluminum, or composite rods are prohibited.**

5.6.5.4 Oil Pans

Steel oil pan only. Oil pan must be equipped with a 1 inch plug for inspection. The plug must be directly inline with a rod journal. Engines equipped with a windage tray must provide a hole in the tray, in line with the plug.

5.6.5.5 Cylinder Heads

Only BRODIX ACE cylinder heads may be used. All cylinder heads must be registered with FRRC. Coating of the cylinder heads is prohibited.

Cylinder heads must be unmodified. Machining, cutting, grinding, abrasive blasting, or any alterations to the cylinder head is prohibited. A three angle valve job is permitted. No cutting down or reshaping of the valve guides is permitted. Exhaust port matching is prohibited. Intake port matching is prohibited.

Use of titanium valves is prohibited. Valve stem diameter may be 11/32 or 5/16 inch. Only the following valves may be used:

<u>Engine</u>	<u>Manufacturer</u>	<u>Intake</u>	<u>Exhaust</u>
GENERAL MOTORS / FORD	BRODIX	BR81019	BR81621
	Engine Tech	BR810198	BR81621
	FERREA	F1121P	F1476P
	MANLEY	11818	11595
	REV	CL-1643	CL-1604
CHRYSLER CORP.	BRODIX	CL-8003	CL-1171
		BR60029	BR60037

The maximum allowable spring diameter is 1.55 inches. Steel or titanium valve spring retainers are permitted. Cylinder heads may have one extra water line per head. Metal valve covers only.

5.6.5.6 Camshaft, Valve Lifters, & Rocker Arms

Any magnetic steel, or cast-iron camshafts may be used. Camshaft journals must be stock for engine. Rollerized camshaft bearings are prohibited. The maximum camshaft lift is 0.625 inches, measured at the valve. The maximum camshaft duration is 270 degrees at 0.050 inches lift. Roller tappets and rev kits are permitted. Any, all steel, lifter is permitted. Only steel push rods are allowed.

Roller rocker arms are permitted. Maximum rocker arm ratio is 1.6 to 1. Shaft type rocker arms are permitted on Chrysler motors only. Stud girdles are permitted.

5.6.5.7 Intake Manifold

Any readily available, production type, intake manifold is permitted. Retail cost must not exceed \$ 350.00. No material may be added to the manifold. Grinding or polishing of the ports is prohibited. Port matching of the intake manifold is permitted to a maximum of 1 inch.

The maximum height of the manifold, as measured from the top of the cylinder block to the base of the carburetor (including adapter plate and gaskets), is 7 inches. Only a straight bore adapter plate, is permitted. NO chamfering, tapering, or beveling of the adapter plate is permitted.

Only one flat gasket, with a maximum thickness of 0.120 inches, may be used between the intake manifold and cylinder head. No spacer or wedge type gaskets are permitted between the intake manifold and head.

5.6.6 Carburetor

All Late Model engines must run a Holley, 500 cfm., Model# 0-4412S or 0-4412C 2bbl. Carburetor.

The carburetor must meet the following:

- A. Carburetor Body - No polishing, grinding, or drilling permitted.
- B. Choke - The choke may be removed.
- C. Choke Horn - The choke horn may not be removed.
- D. Boosters - The boosters may not be changed. The size or shape must not be altered. Boosters may not be tapered. Height must remain standard.
- E. Venturi - Venturi area must not be altered. Casting ring must remain.
- F. Butterflies - Butterflies must not be thinned or tapered.
- G. Throttle Shafts - Throttle shafts must not be thinned.

Only one flat gasket may be used between the intake manifold and adapter plate, and adapter plate and carburetor.

Any attempt to pull outside air other than down thru the venturies is prohibited.

5.6.7.1 Air Cleaner

All cars must be equipped with an air cleaner during competition.

5.6.7.2 Air Intake

Forward intakes are not allowed. Air boxes are permitted. The back of the air box must be flat, with a vertical face at 90 degrees to the floor of the air box. Cars may also run the ABC fiberglass air deflector at the back of the air box. No devices for directing the flow of air into the air cleaner are permitted. The maximum opening in the hood, or Windshield Cowl Panel, for air intake, is 2½" x 20".

5.6.8 Ignition System and Battery – All Engines

A labeled, centrally located, master on-off switch, to cut off all electrical power to the car, is required.

The battery must be located between the frame rails, must be securely installed, and have a suitable cover. The battery may not be located forward of the radiator, or behind the rear end of the car.

TWO MSD compatible ignition boxes, mounted out of the reach of the driver, permitted. Crank trigger ignition, magnetos, computerized ignitions, adjustable timing controls, or ignition retard or delay devices are not permitted.

5.6.9 Exhaust System – All Engines

All cars must have a complete exhaust system that must be equipped with a muffler. All exhaust must exit the car behind the driver but not past the rear axle of the car. All exhaust exit pipes must be pointed down toward the ground. Max of 5.0 inches o.d. after the collector.

Under car exhaust systems are allowed.

Exhaust systems are allowed to exit the side of the car. Side exhaust systems must be equipped with a braced plate located on the inside of the body panels. Exhaust exit pipes are to be welded in the center of the plate with the ends flush to the plate. A maximum of 2 holes are allowed in the side of the body panel.

All decibel readings will be taken from a location in ~~front of the inner pit "officer's shack"~~. **In a consistent location throughout the year. Exhaust systems that exit under the car may have a maximum decibel limit of 104 db. Exhaust systems that exit the side of the car may have a maximum decibel limit of 95 db. All exhaust must meet the maximum decibel limit of 95 db.**

5.6.10 Cooling System

Electric fans are permitted. Use of antifreeze is prohibited. Water recommended.

All cars must be equipped with an overflow or catch tank. Factory catch tanks are permitted. Tin cans are prohibited.

Radiator must mount in front of engine. Fan shroud mandatory when using pump mounted fan. Shroud must be a minimum of 3" wide and in line with fan.

5.7 DRIVE TRAIN

5.7.1 Clutch, Bell Housing, Transmission, and Drive Shaft

Any two, three or four speed, American made, manual transmission, or automatic transmission is permitted. Bert and Brin transmissions will be permitted for 2008. Any transmissions other than the Bert and Brin with internal clutches are prohibited. Bert and Brin transmissions having the internal clutches are permitted. Five speed manual transmissions are prohibited. Bottom load transmissions are prohibited. Torque converters on automatic transmissions are not allowed.

All transmissions must work in reverse.

All cars must be equipped with either a scatter-proof bell housing or metal shield no less than 6 inches wide by 1/8 inch thick, covering the top and bottom half of the flywheel. Cars using a 7½ inch, or less, diameter clutch do not require a scatter-proof bell housing or metal shield. The clutch must be mounted to the crankshaft. The minimum clutch diameter is 5.5 inches. (Carbon fiber clutches are prohibited). Retail cost of clutch must not exceed \$1,000.

All cars must be equipped with a loop that surrounds the drive shaft. The loop must be a minimum of 1/8" x 2" steel and attached to the frame or cross member 6" to 8" behind front universal joint. Steel or aluminum drive shafts only (Carbon fiber drive shafts are prohibited).

5.7.2 Rear End

Quick change or full floating rear ends are mandatory. Axle tubes must be steel.

Aluminum axle tubes are prohibited. Cambered axle tubes are prohibited. Tolerance \pm 1 degree.

Axles must be steel. **Titanium axles are prohibited.**

5.7.3 Wheels and Tires

5.7.3.1 Wheels

The wheels must meet the following requirements:

- A. Only after market steel wheels, designed for racing, are permitted (no passenger car wheels allowed).
- B. All wheels must be 15 inches in diameter and no more than 10.0 inches wide.
- C. Wheels, less tire, weights, and valve, must weigh a minimum of 17.0 pounds.
- D. Wheel studs must be a minimum of 5/8 inch diameter.
- E. Wheels must be attached with 1-inch, steel, lug nuts. Lug nuts may not be altered.

Wheel covers are prohibited.

5.7.3.2 Tires

Approved tires for the ~~2006~~ 2010 season are: ~~Hoosier F3035 10.0/27.0 15 Economy (left side).~~ ~~Hoosier F3045 10.0/27.0 15 Economy (right side).~~ ~~Hoosier F40 (left side) & Hoosier F50 (right side)~~ The tires used for qualifying, must be used all night. **2 tire rule will be strictly enforced, 2 tires must have an FRRC or WIR brand, except for the first FRRC Event. Three-Four new tires are permitted the first week, only, and after an any FRRC Event with an extended feature. In order to be eligible for the three new tires, the car must have competed in the Event with the extended feature.** No buffing or treatment of tires allowed. Two tires will be impounded.

Two (2) warm tires, with the current night's markings, must be brought to the scale area, for impound, within 5 minutes after completion of the semi feature race for semi feature cars and within 5 minutes after completion of the feature race for feature cars.

The impounded tires will be returned at the beginning of the next FRRC event and must be used on the car all night, including qualifying. Any car that has more than the allotted new tires, will have their qualifying time disallowed, and must start the first heat and semi feature in the last row. If there is no semi feature, the car must start the feature in the last row.

A car that has a flat tire during a race must replace the flat tire with a used tire with FRRC markings. The replacement tire must be inspected by a FRRC Technical Official prior to use.

5.8 FUEL SYSTEM

Electric fuel pumps are prohibited. Fuel filler must be mounted on the inside of the quarter panel.

5.8.1 Fuel Cell

All cars must be equipped with, either a 1/8-inch thick fuel cell tub, or 18 or 20-gauge fuel cell container protected by 1/8-inch thick steel plates. The installation must be FRRC approved.

Fuel cell must be located behind the rear end, between the frame rails. The fuel cell must meet FIA - FT3 specifications. Rubber type fuel cell bladders mandatory. Fuel cell must be filled with foam manufactured for use in fuel cells.

All fuel cells must be equipped with check balls or flaps.

Minimum height to the bottom of the fuel cell container is 11 inches.

5.8.2 1/8 Inch Fuel Cell Tub

The fuel cell tub must be 1/8-inch thick steel (10 gauge) and must have a 1 inch lip. The front, bottom, and rear must

be one piece. The top may be either 18 or 20 gauge steel, and have, two, 1 inch by 1/8-inch steel straps, in each direction.

5.8.3 Fuel Cell Container with 1/8 Inch Protector Plates

The fuel cell container may be either 18 or 20 gauge steel and must have a 1-inch lip. The container must have, two, 1 inch by 1/8-inch steel straps, around the top, sides, and bottom, in both directions. The top may be either 18 or 20 gauge, steel.

The 1/8-inch, steel, fuel cell protector plates must be mounted on the outside of the frame. The plates must cover both sides and rear of the fuel cell. The only holes allowed in the plates are for attachment or a 2 inch hole for safety vehicle pickup points.

Any over the axle style rear tail style chassis must use approved 1/8 inch magnetic steel fuel cell can. Any chassis with incorrect fuel cell can, will be asked to change or be disqualified. The cell must be bolted in with a minimum of 14-3/8 bolts with flat washers on top and lock washers on bottom. The top for this cell will be 18 gauge steel with straps in both directions. A sonic tester will be used to check fuel cell can thickness.

5.8.4 Fuel

The fuel must be automotive gasoline only. The gasoline must not be blended with alcohols (such as methanol or ethanol), ethers, aniline or its derivatives, or oxygenated additives (such as nitro methane or nitro propane). The use of nitrous oxide is prohibited.

FRRC has the right to sample a competitor's fuel at any time, during an event. Samples will be tested by FRRC and/or any outside laboratory at FRRC discretion.

5.9 MISCELLANEOUS EQUIPMENT

5.9.1 Steering components

A metal (no plastic) quick release coupling, acceptable to FRRC, on the steering wheel is mandatory.

The steering column must be collapsible or have an impact collar, no less than 1½ inches in diameter, welded to, or bolted to the column forward of the column support inside the drivers' compartment.

The center of the steering wheel must be padded with resilient material.

5.9.2 Seat

Seat must be made of aluminum and installed in a manner acceptable to FRRC Officials. No less than 4, ½-inch diameter, bolts must be used to attach seat to frame and cage. A flat steel washer no less than 1½ inches in diameter must be installed between the head of the bolt and seat. Seat must be equipped with a fully padded cover. Headrest on seat is mandatory.

5.9.3 Seat Belts and Shoulder Harness

A quick release lap belt and double shoulder belt no less than 3 inches wide is mandatory. A submarine belt is also mandatory. Seat belt and shoulder harness must be date stamped and not more than two years old for SFI rated belts and not more than 5 years old for FIA rated belts. Seat belt and shoulder harness must be installed according to manufacturer's recommendations. The belts and harness must be attached to the roll bar cage with high quality hardware, no less than 3/8 inch in diameter.

Seat belts and shoulder harness must be worn at all times when car is on racetrack.

5.9.4 Helmet

A helmet that meets SA2005 Snell Foundation specifications is mandatory. Head and neck restraint system mandatory.

5.9.5 Drivers Suit

It is mandatory that a driver wears a fire retardant suit (free of rips and tears) and gloves while on the racetrack. It is recommended that a driver wear fire retardant socks and shoes.

Drivers will not be allowed on the track unless wearing a fire retardant suit and gloves. If a driver removes his/her

gloves during an event, the driver will be black-flagged.

5.9.6 Fire Control System

It is mandatory that each car be equipped with a fully charged on-board fire control system. The extinguisher must be equipped with a gauge to indicate state of charge. The system must be at least 5-pound capacity and Halon 1301 or equivalent.

5.9.7 Window Net

It is mandatory that each car be equipped with an approved window net on the driver's side. The minimum allowable length is 12 inches. The window net must attach to the roll cage at the bottom and release with a seat belt snap or FRRC approved retainer on the top front corner of the window. Window net must be in place when car is on racetrack.

Each car must be equipped with a head restraint net, mounted between the window net and seat. Net may be rectangular or triangular. Net must be mounted according to manufacturer's recommendations.

5.9.8 Two Way Radios

Two Way radios are permitted. It is required that all teams submit their frequency to FRRC officials.

A spotter, with a two way radio, must be located in the area designated for spotters.

5.10 Transponders

Transponders are required on every car and are to be working and turned on whenever the car is on the racing surface. Only 1 transponder allowed per car. Transponder to be located 8 inches forward of the front side of the rear end axle tube to the center of the transponder.

SECTION - 6

LIMITED LATE MODEL DIVISION – 2009-2010

Open to two-wheel drive American automobiles provided they comply with, and adhere to, specifications as outlined for this division.

ALL EQUIPMENT IS SUBJECT TO THE APPROVAL OF FRRC OFFICIALS. NO EQUIPMENT WILL BE CONSIDERED AS HAVING BEEN APPROVED BY REASON OF HAVING PASSED THRU INSPECTION UNNOTICED. EFFORTS TO TAKE ADVANTAGE OF “LOOP HOLES” IN THESE RULES WILL NOT BE TOLERATED. ALL RACE CARS WILL BE SUBJECT TO INSPECTION BY TRACK OFFICIALS AT ANY TIME.

6.1 COMPETING MODELS AS APPROVED BY FRRC

FRRC Limited Late Model races are open to approved 1988 to ~~2009~~ 2010 models of American made passenger cars.

6.1.1 Approved Competition Models

The following are approved competition models:

All ABC Bodies are approved for competition.

CHEVROLET

1988-2008 Monte Carlo

DODGE

1998-2004 Avenger

2001-2008 Intrepid

2005-2008 Charger

FORD

1998-2008 Taurus

PONTIAC

1988-2008 Grand Prix

All cars must maintain a wheelbase of 104.0 to 108.0 inches at all times. The maximum overall width of all cars, as measured from the outside of the right body or tires to the outside left body or tires, is 82 inches. The maximum tread width for these cars is 66.0 inches, measured at spindle height.

Max tread width to be measured without driver in car. Car must comply with the 4 inch ground clearance rule. No shock tie down allowed during tread width inspections.

6.1.2 Other Approved Models

Other models may be approved, provided they are of the same body configuration and meet the spirit and intent of competitive racing.

Mid American Series cars may compete in the Limited Late Model Division as long as the car is in compliance with all Mid American Series rules.

6.1.3 Identification and Marking

FRRC reserves the right to assign car numbers, and to assign or restrict the display of graphics and advertising on race cars. Offensive graphics or slogans are not permitted. All Competitors agree to accept FRRC's decision in this matter.

Officially issued numbers must be at least 16 inches high by 3 inches wide and neatly applied (paint or decals) to both doors. Numbers, as large as possible and in contrasting colors to the body, must be applied to the front headlight cover, rear taillight cover, and upper right corner of windshield.

Where requested, participating sponsor's emblems, or decals will be placed in the position designated by FRRC Officials. Failure to place participating sponsor's emblems on a race car may result in ineligibility for contingency prizes.

6.2 GENERAL CAR WEIGHT REQUIREMENTS

6.2.1 Overall Car Weight

The specific minimum weights for all cars are listed below. All weights are with the driver. All cars must maintain a minimum of 42.0% right side weight at all times. No fuel burnoff allowance for qualifying.

<u>Car Type</u>	<u>Minimum Weight</u>	<u>(NOTE)</u>
Template Body cars		
FRRC Sealed Crate Engine Car (GM P/N 88958604 ONLY)	2725 lbs.	
FRRC Spec Engine Car	2750 lbs.	FUEL BURNOFF ALLOWANCE
Un-ported Head Car	2850lbs	
BIG 8 Legal Car (No weight penalties for suspension upgrades)	2800lbs	1 lb. per scheduled lap
Mid American Series cars	See Mid-American Stock Car Rules	

All weights will be reviewed after the 4th competition week for possible adjustments.

The following weight adjustments will be made to individual cars:

<u>Deduct</u>	<u>Weight</u>
Full perimeter car (Refer to 6.4.1.1 Perimeter Frame) (Right side door bars cannot be "X" design) and template body	25 lbs.
<u>Add</u>	<u>Weight</u>
Cars without: leg & shoulder protectors; 1/8" floor & tunnel; seat 16-1/2" to 18-1/2" from door bars	50 lbs.
Minimum Specification Car	75 lbs.
Lightweight Bolts	25 lbs.
Cars exceeding 66.0 inch tread width	100 lb. / inch over 66.0
Any kevlar body parts	25 lb.

Template Body Car

A Short Track Bodied Car that conforms to a FRRC template (\pm 1/2-inch) and Five Star Guideline Dimensions, and has the following: 3 front and 2 rear inside window stiffeners; dash board; 1/8 inch steel floor and tunnel; padded door bars; padded aluminum seat; single lever shifter; and 11 inch high fuel cell.

Minimum Specification Car

A car that is not a Template Body Car.

6.2.2 Added Weight

Any weight (ballast) added to the car must be secured by no less than two 1/2-inch diameter bolts. The maximum spacing between bolts is 10 inches. Loose weights are prohibited. No weights may be added outside the body. The front weight must be angled at 45 degrees. Added weights must be painted a bright color (safety orange preferred) and have car number on weight.

6.2.3 Car Weights After Race

All heat race winners and the top 5 finishers in the semi and feature races must weigh in immediately after the race.

Any weight that falls off a car during competition cannot be returned to the car for determining weight after a race. A fine of \$1.00 per pound of weight lost will be assessed to car.

6.3 GENERAL CAR REQUIREMENTS

6.3.1 Car Bodies

The car body must meet the following requirements:

Standard approved bodies may compete with an approved V-8 engine equipped with an approved carburetor.

Bodies may be steel, aluminum, fiberglass, or plastic. Wheel wells on steel and aluminum bodies must have a rolled edge.

Cars must be neat appearing and standard in appearance. Body panels damaged during an event must be repaired or replaced in a reasonable period of time. Cars with unrepaired or unpainted body panels may not be allowed to compete. The decision of FRRC Officials about appearance is final.

Templates will be used by FRRC Officials to check any cars with questionable dimensions or configurations. The tolerance for template cars is $\pm \frac{1}{2}$ inch. Cars with questionable dimensions or configurations **may be** required to add additional weight. FRRC Officials will determine the amount and location of additional weight. The decision of the FRRC Official regarding any additional weight is final, non-appealable, and non-litigable.

All cars must have complete bodies, hoods, fenders, and an approved front and rear bumper. Push bars on front bumper are prohibited. Rear of car between bumper and deck lid must be enclosed. All body panels must be fastened in an approved manner. The use of hood, roof, or trunk, rails, wings, or ridges are prohibited. Rub rails mounted on the outside of the body are prohibited. Only pin type hood and trunk pins permitted.

Full windshield and rear window of lexan are mandatory. A minimum of three stiffeners must be installed inside the windshield. The stiffeners must be attached to the roof panel or roll bar and dash panel in an approved manner. Stiffeners must be installed so as not to obstruct the driver's vision. Rear window must be equipped with two stiffeners attached, inside, in an approved manner. Stiffeners must be attached at the mid point of the window and adequate to prevent deflection. Side door windows are not allowed. A 10-inch vent window is permitted. Back side of vent window must be at right angle to top of door. Hinged or removable trunk lid mandatory.

All cars must have a 1/8-inch steel floor and drive shaft tunnel. The tunnel must extend above drive shaft and have a 1-inch, 90-degree lip. The floor area to the right of the seat may be raised to the top of the drive shaft tunnel and extend at an angle to the top right side door bar and seal off below the right window opening.

Interior area of car must be of steel or aluminum and be completely enclosed from front to rear firewalls.

Underbody aerodynamic enhancing trays, shelves, wings, deflectors, or panels are prohibited.

6.3.2 Body Height and Body Ground Clearance Requirements

All body height and body ground clearance measurements are made without the driver in the car. No tolerance for measurements for cars without driver.

6.3.2.1 Body Height Requirements

The roof height will be measured at a point 8 to 10 inches behind the top of the windshield on the roof centerline. The minimum allowable roof height for a Minimum Specification Car is 46 inches, with a maximum slope of 3 inches, and 47 inches for a Template Body car. Quarter panel height, where it attaches to the rear bumper cover, shall be a minimum of 33½ inches left side and a maximum of 35½ inches right side.

Front and rear bumper height, measured at the top of the bumper, shall be a minimum of 15 inches, and a maximum of 18 inches.

6.3.2.2 Body Ground Clearance Requirements

Front air dam clearance shall be no less than 4 inches. Rocker panel clearance shall be no less than 4 inches. Minimum height of quarter panels, behind rear tire, shall be 10 inches.

6.3.3 Rear Spoiler

Rear spoiler on all cars must be 6.50 inches in height, 60 inches in width and must have a 70 degree angle. No rudders or forward mounting brackets are allowed. Maximum height from ground to top of spoiler is 41 inches.

6.4 FRAME AND ROLL CAGE

All frames and roll cages must be acceptable to FRRC Officials. The frame and roll cage must meet the requirements described in the following paragraphs.

All chassis must have safety vehicle pickup points clearly marked, front and rear.

All chassis's must be equipped with a fuel cell protector bar that is adequately braced and extends a minimum of 1 inch below the bottom of the fuel cell.

All cars must have a front bumper of round steel tubing. All cars must have a rear bumper of round steel tubing no less than 1¼-inches in diameter that extends 6 inches, or more, beyond frame rails.

6.4.1 Frame

All main frames must be either stock passenger car frames or after market construction. All after market main frame rails must be steel box tubing minimum 10 inches in circumference and must have a minimum wall thickness of 0.083 inches. Drilling or hole sawing of frame is prohibited.

Plating of stock frame for strength or rust repair is permitted.

Stock passenger car front stubs or fabricated front stubs permitted.

6.4.1.1 Perimeter Frame

Perimeter frames must meet the following requirements: side rails must be magnetic steel box tubing a minimum of two (2) inches in width by three (3) inches in height, maximum 3 inches by 4 inches and must have a minimum wall thickness of no less than 1/8 inch. All frame rails must be parallel. The minimum distance when measured from outside of the left frame rail to the outside of the right frame rail will be no less than 57 inches. Three horizontal right side door bars with 6 vertical uprights required, minimum size 1¼" x 0.083 tubing. Weight boxes permitted to be welded to the outside of the frame rail cannot exceed six (6) inches measured from the inside edge of the frame rail. The weight box cannot exceed the length of the straight frame side rail. Rocker panels must remain in standard location. The centerline of the frame side rails must be within one (1) inch of the centerline of the front and rear tread width.

6.4.2 Roll Cage

Roll cage installation and workmanship must be acceptable to FRRC Officials.

The roll cage must be a four-post design consisting, in general, a vertical main hoop; roof or top hoop; and left and right front post. It is recommended that all right angles must be gusseted.

The main hoop must connect to the left and right frame rails, behind the driver, and be diagonally braced. The main hoop must have a horizontal bar at the midpoint. All bars in the main hoop must be round steel tubing no less than 1¼-inches in diameter and have a minimum wall thickness of 0.095 inches.

The top hoop must attach to the main hoop, and left and right front posts. The left and right front posts must be connected by a horizontal "dash" bar. All bars in the top hoop, left and right front posts, and dash bar must be round steel tubing no less than 1¼-inches in diameter and have a minimum wall thickness of 0.095 inches.

The driver's side must be equipped with four, or more, equally spaced horizontal bars. The door bars must be connected by two, or more, equally spaced vertical braces and must attach to the main frame by two, or more, equally spaced vertical braces. A foot protector bar is mandatory. All driver side door bars and braces must be round steel tubing no less than 1¼-inches in diameter and have a minimum wall thickness of 0.095 inches. **All door bars on the driver's side must be plated.**

The top door bar must be no less than 29 inches from the ground.

The passenger side must be equipped with a minimum of two door bars. The bars may be "X" design. Horizontal bars must be equally spaced and connected by two, or more, equally spaced vertical braces. All passenger side door bars and braces must be round steel tubing no less than 1¼-inches in diameter and have a minimum wall thickness of 0.083 inches.

On offset chassis cars, the outward passenger side bars must be steel and curve inward at the front and attach to the frame.

The jack posts must be guarded, or inside the body.

All roll bars exposed to the driver, and left side door bars, must be padded.

6.5 SUSPENSION

The front suspension must be independent. McPherson Strut type suspensions and leaf spring front suspensions are prohibited. Steel tubular upper control arms, only, are permitted. Stock power steering or power rack allowed.

Independent rear suspensions are prohibited. Solid upper, lower and panhard links only. Spring loaded upper & lower links, 5th spring, Watts linkages, or slider rear suspensions are prohibited. Damper shock permitted on leaf spring cars.

Non adjustable, steel or aluminum coil over shocks permitted. No external adjustments (compression, rebound) permitted on shock absorbers. Schrader valves are permitted. Also see 6.10 for claim rule. Remote reservoir shock absorbers are prohibited.

Computerized, electric, hydraulic, pneumatic, or remote controlled devices, which can change the handling characteristics of the car, during the race, are prohibited.

No external bump stop systems of any type

Rubber bushing style shock limiters are allowed as long as they are captured on the shock shaft. All spring type limiters are prohibited.

Shocks must have a solid shaft. Hollow shaft shocks are prohibited.

6.5.1 Spindles, Wheel Bearings, and Hubs

Spindles, wheel bearings, and hubs must be heavy duty. Wide 5 hub allowed.

Steering arm may be modified and ball joint holes may be enlarged or reduced to fit ball joints.

6.5.2 Brake Components - Front and Rear

Each wheel must be equipped with a brake in proper working condition.

Disc or drum brakes are permitted. Maximum of 4 pistons per caliper. Inboard brakes are prohibited. Disc brake calipers may be claimed for \$150.00 per wheel. Disc brake rotors must be steel. Aluminum or composite rotors are prohibited. No floating style rotors.

Brake balance bar, or brake proportioning valve is permitted.

6.6 ENGINE REQUIREMENTS

6.6.1 General Eligibility

Only V-8 engines with a maximum displacement of 362.0 for General Motors and Ford engines and 368.0 cubic inches for Mopar engines are permitted. The maximum compression ratio is 10.80 to 1 with flat top pistons and valve reliefs cut into pistons.

6.6.2 Engine Location

All General Motors V-8 Spec and Un-ported engines must be located so that the centerline of the forward most spark plug hole is no more than 2 inches back from the center of the upper ball joint on fabricated style stubs and 3 inches back from the center of the upper ball joint on stock style stubs. All General Motors V-8 Sealed Crate engines must be located so that the centerline of the forward most spark plug hole is no more than 4 inches back from the center of the upper ball joint. Ford and Mopar engines may be located so the center of the forward most spark plug hole of the engine is a maximum of four (4) inches rearward of the centerline of the upper ball joint.

6.6.3 Engine Ground Clearance Requirements

Engine ground clearance measurements are made without the driver in the car. No tolerance for measurements for cars without driver.

Engine ground clearance, measured from the center of the crankshaft at the water pump belt pulley, shall be a minimum of 11.0 inches without a skid plate or a minimum of 10.0 inches with an 1/8" steel or 1/4" aluminum skid plate under the oil pan.

The skid plate shall be fabricated from steel no less than 1/8 inch thick or aluminum no less than 1/4 inch thick. The skid plate shall extend from the back of the front cross member to the front of the bell housing. The skid plate shall be wider than the oil pan at its widest part. The skid plate shall attach to the front cross member and front frame rails, in an approved manner, by a minimum of four bolts.

6.6.4 FRRC Sealed Crate Engine

Only the following, factory sealed, engines are approved:

<u>Manufacturer</u>	<u>Part Number</u>
GENERAL MOTORS	88958604

All engines must be sealed by the factory, or FRRC approved factory repair facility. **All ASALM series approved vendors are acceptable. All motors must have signed documentation from that vendor and it must be presented to the FRRC Officers prior to competition.** Any engine seals that have been tampered with, or removed, will result in an immediate two year suspension from FRRC Events.

Engines Internal Engine Components must remain as they came from the manufacturer. No modifications are permitted. FRRC reserves the right to impound a Sealed Crate Engine, at any time, for additional inspection.

6.6.4.1 Engine Block

Block must be a factory production **cast iron** block with external measurements identical to standard production engine. **All engine block markings must remain.** Grinding of any kind on the engine block, including the valley under the intake manifold, is prohibited. Angle milling of block is prohibited.

6.6.4.2 Harmonic Balancer

The original OEM harmonic balancer that came with the engine may be used. Smaller harmonic balancers than the original OEM will be allowed ~~on all crates EXCEPT the Ford M-6007-D347SR which must run the original OEM balancer.~~

6.6.4.3 Oil Pump, Pan and Cooler

Wet sump oil pumps only. Dry sump oil pumps are prohibited. Only the OEM oil pan that came with the engine may be used **or the ASA style upgrade.**

All inspection and drain plugs must be safety wired.

External engine oil coolers are permitted. Oil cooler may not be located in the driver's compartment.

6.6.4.4 Cylinder Heads

Cylinder heads must remain stock. All cylinder head markings must remain. Angle milling, chemical treating, acid dipping, acid flowing, abrasive blasting, bowl cutting, addition of material to the ports or combustion chamber, or other alterations to the original, as cast, head is prohibited. Valves, rocker studs, head bolts, and spark plugs may not be relocated. No polishing or grinding of ports or runners is permitted. No material may be added to the combustion chamber.

6.6.4.5 Camshaft, Valve Lifters, & Rocker Arms

Only the original OEM camshaft that came with the engine may be used. Only the original OEM chain and sprocket camshaft drive system may be used. Camshaft journals must be stock for engine. Rev kits are prohibited.

Bee Hive Valve Springs are allowed.

Only the original OEM valve lifters that came with the engine may be used. 1.6 rocker arms will be allowed on GM Crates (88958604) ONLY.

6.6.4.6 Intake Manifold

Only the OEM intake manifold that came with the engine may be used. Grinding or polishing of the ports is prohibited. Chemical treating, acid dipping, acid flowing, abrasive blasting, addition of material, or other alterations to the original, as cast, intake manifold is prohibited.

A 1 inch carb spacer is allowed. ~~Only one flat gasket~~, **Only 2 gaskets (1 per side)**, with a maximum thickness of 0.065 inches **each**, may be used between the intake manifold and carburetor.

6.6.5 FRRC Spec Engine

FRRC Spec Engine must be obtained from a FRRC approved engine builder. Any Spec Engine from a non-approved engine builder must have all components checked and weighed prior to final assembly.

All approved Spec Engine builders must provide FRRC with a written statement that their Current Spec Engines comply with FRRC Spec Engine rules. FRRC Spec Engine builders must be re-certified annually. Any FRRC approved engine builder who's Spec Engine is found to be illegal will be permanently prohibited from providing Spec Engines for the Limited Late Model Division.

6.6.5.1 Engine Block

Block must be a factory production **cast iron** block with external measurements identical to standard production engine.

Block may be align honed, bored and honed, and decked for zero deck.

6.6.5.2 Crankshaft and Harmonic Balancer

Only an OEM GM crank or a steel Callies Dragonslayer crankshaft is permitted. Minimum journal diameter is 2.100 inches. Maximum stroke is 3.480 inches. Minimum crankshaft weight is 47.0 lbs., after balancing.

Only solid steel type harmonic balancers are permitted.

6.6.5.3 Pistons and Rods

Any, non coated, flat top piston may be used. Valve reliefs may be cut into pistons. Minimum weight of piston plus pin is 450 grams.

Only the following magnetic steel connecting rods are permitted:

<u>Manufacturer</u>	<u>Rod Length</u>	<u>Part #</u>
Manley Sportsmaster	6.000 inches	14103-8
Manley Sportsmaster	5.700 inches	14101-8
Crower Sportsman	6.000 inches	SP 93206
Crower Sportsman	5.700 inches	SP 93205

Minimum rod weight is 560 grams.

6.6.5.4 Oil Pump and Pan

Wet sump oil pumps only. Dry sump oil pumps are prohibited. Steel oil pan only. Any after market oil pan, without an oil recovery pouch or power kickout on passenger side, may be used.

All oil pans must be equipped with a 3/4 inch plug for inspection. The plug must be directly in-line with a rod journal. Engines equipped with a windage tray must provide a hole in the tray, in line with the plug. All inspection and drain plugs must be safety wired.

6.6.5.5 Cylinder Heads

FRRC Spec Engine must run only General Motors Cast Iron Vortec cylinder heads (Casting P/N 10239906 or 12558062). General Motors Vortec cylinder head P/N 25534351 & 25534371 are prohibited. **Titanium valves are prohibited.**

Cylinder heads must remain stock. All cylinder head markings must remain. Angle milling, chemical treating, acid dipping, acid flowing, abrasive blasting, bowl cutting, addition of material to the ports or combustion chamber, or other alterations to the original, as cast, head is prohibited. Valves, rocker studs, head bolts, and spark plugs may not be relocated. No polishing or grinding of ports or runners is permitted. No material may be added to the combustion chamber. The cylinder head to block surface may only be machined a maximum of 0.050 inches from OEM. A three angle valve job may be done as long as no machining marks are more than 1/8" above the head of the valve.

The maximum valve sizes, as measured across the face, are as follows:

<u>Intake</u>	<u>Exhaust</u>
1.940 inches	1.500 inches

The maximum allowable spring diameter is 1.26 inches.

6.6.5.6 Camshaft, Valve Lifters, & Rocker Arms

Only an Iskenderian Grind Number RR-294 HYD hydraulic roller camshaft may be used. Chain and sprocket camshaft drive system only. Any all steel, hydraulic roller lifter is permitted. Camshaft journals must be stock for engine. Rollerized camshaft bearings are prohibited. The maximum camshaft lift is 0.550 inches, measured at the valve. Lobe center is 110 degrees. Overlap is 74 degrees. The maximum camshaft intake and exhaust duration is 246 degrees at 0.050 inches lift. Rev kits are permitted. Only steel push rods are allowed.

Roller rocker arms are permitted. Maximum rocker arm ratio is 1.5 to 1. Shaft type rocker arms are prohibited. Stud girdles are permitted.

6.6.5.7 Intake Manifold

Intake manifold must be "7116" Performer RPM Intake for Vortec heads. Grinding or polishing of the ports is prohibited. Chemical treating, acid dipping, acid flowing, abrasive blasting, addition of material, or other modifications to the original, as cast, intake manifold is prohibited.

An adapter plate, with a straight bore and a maximum thickness of 1½-inches, may be used between the intake manifold and carburetor. No chamfering, grinding, or drilling of the adapter plate is permitted.

Only 2 gaskets (1 per side), with a maximum thickness of 0.065 inches, may be used on the adapter plate.

6.6.6 Un-ported Head Engine

(See BIG 8 Rules – Car competing with Unported Head Engine must follow ALL BIG 8 rules)

~~6.6.6.1 Engine Blocks~~

~~Block must be a factory production cast iron block with external measurements identical to the standard production engine. Angle milling of block is prohibited.~~

~~Engines may use any size "small block". Engine displacement may be increased or decreased by boring and/or~~

~~stroking to provide the required displacement.~~

~~6.6.6.2 Crankshaft and Harmonic Balancer~~

~~Only cast iron or forged steel crankshafts are permitted. Titanium crankshafts are prohibited.~~

~~Only solid steel type harmonic balancers are permitted.~~

~~Minimum crankshaft weight is 43 lbs. Light weight, knife edge, and undercut counterweight, crankshafts are prohibited.~~

~~6.6.6.3 Pistons and Rods~~

~~Any flat top piston may be used. Valve reliefs may be cut into pistons.~~

~~Only magnetic steel connecting rods are permitted. Titanium rods are prohibited.~~

~~6.6.6.4 Oil Pump and Pan~~

~~Wet sump oil pumps only. Dry sump oil pumps are prohibited. Steel oil pan only. After market oil pan may be used.~~

~~All oil pans must be equipped with a 3/4 inch plug for inspection. The plug must be directly in line with a rod journal. Engines equipped with a windage tray must provide a hole in the tray, in line with the plug. All inspection and drain plugs must be safety wired.~~

~~6.6.6.5 Cylinder Heads~~

~~Aluminum cylinder heads are prohibited. Titanium valves are prohibited. Motors may run any FRRC approved cast iron cylinder heads.~~

~~GM cylinder head 23 degree plus or minus 2 degrees, FORD cylinder head 10 degrees & Mopar cylinder head 18 degrees.~~

~~Approved cylinder heads are as follows:~~

Manufacturer	Cylinder head
GENERAL MOTORS	Part # 14011058
_____	Part # 10134392
_____	Cast # 14011034

~~DART and DART II~~

DART Iron Eagle	Part # DRT 10120010
_____	Part # DRT 10320010
_____	Part # DRT 10310010

Pro Action	Part# PAM 223400080A
_____	Part# PAM 223400000A
_____	Part# PAM 223400020A

CHRYSLER CORP.	P249769
_____	P452946

FORD	M 6049 N351
_____	_____

~~Angle milling, chemical treating, acid dipping, acid flowing, abrasive blasting, bowl cutting, addition of material to the ports or combustion chamber, or other alterations to the original, as cast, DART Iron Eagle or Pro Action head is prohibited.~~

~~Exhaust port matching is prohibited. Intake port matching is prohibited.~~

~~The maximum valve sizes, as measured across the face, are as follows:~~

<u>Manufacturer</u>	<u>Intake</u>	<u>Exhaust</u>
GENERAL MOTORS	2.020 inches	1.600 inches
CHRYSLER CORP.	2.020 inches	1.625 inches
FORD "CLEVELAND"	2.046 inches	1.656 inches
FORD "WINDSOR"	2.020 inches	1.600 inches

~~The maximum allowable spring diameter is 1.57 inches.~~

~~6.6.6.6 Camshafts, Valve Lifters, & Rocker Arms~~

~~Only flat tappet, steel, camshafts may be used. Gear or belt driven camshafts are prohibited. No roller tappets, or mushroom lifters are allowed. Only the following steel, straight barrel lifters are allowed:~~

<u>Manufacturer</u>	<u>Maximum Diameter</u>
GENERAL MOTORS	0.843 inches
FORD	0.875 inches
CHRYSLER CORP.	0.904 inches

~~Rev kits are prohibited. Only steel push rods are allowed.~~

~~Roller rocker arms are permitted. Maximum rocker arm ratio is 1.6 to 1 on all engines, except Ford. The maximum rocker arm ratio on Ford engines is 1.75 to 1. No shaft style rocker arms allowed on GM or Ford V-8's. Stud girdles are permitted.~~

~~6.6.6.7 Intake Manifold~~

~~Intake manifold must be small port intake Edelbrock 2975 and must be stock with no modifications of any kind.~~

~~Only 2 gaskets (1 per side), with a maximum thickness of 0.065 inches, may be used on the adapter plate.~~

6.6.7 Carburetor

Limited Late Model Spec and **Un-ported BIG 8 Legal Cars** engines must run a Holley Model 4412 two-barrel carburetor. **No carburetor spacer is allowed on the Un-ported engine.**

Sealed Crate Engines must run a 650 cfm. 4bbl Holley 4150HP carburetor (model # 80541-1). A 1 inch carburetor spacer plate is allowed on the crate motor. **FRRC reserves the right to exchange any carburetor, on any Sealed Crate engine, at any time.**

The carburetor must meet the following:

- A. Carburetor Body - No polishing, grinding, or drilling permitted.
- B. Choke - The choke may be removed.
- C. Choke Horn - The choke horn may not be removed.
- D. Boosters - The boosters may not be changed. The size or shape must not be altered. Boosters may not be tapered. Height must remain standard.
- E. Venturi - Venturi area must not be altered. Casting ring must remain.
- F. Butterflies - Butterflies must not be thinned or tapered.
- G. Throttle Shafts - Throttle shafts must not be thinned.
- H. Metering Block - Metering block may not be changed, or modified.

Any attempt to pull outside air other than down thru the venturies is prohibited.

6.6.8 Air Cleaner and Air Intake

6.6.8.1 Air Cleaner

All cars must be equipped with an air cleaner during competition. The air cleaner must be no more than 14 inches in diameter and may not protrude thru the hood.

6.6.8.2 Air Intake

Forward intakes are not allowed. Air boxes are permitted. The back of the air box must be flat, with a vertical face at 90 degrees to the floor of the air box. Cars may also run the ABC fiberglass air deflector at the back of the air box. No devices for directing the flow of air into the air cleaner are permitted. The maximum opening in the hood, or Windshield Cowl Panel, for air intake, is 2½" x 20".

6.6.9 Ignition System and Battery

Only one MSD compatible ignition box, mounted out of the reach of the driver, permitted. Sealed Crate engines must run a MSD 6-AL ignition box, mounted out of reach of the driver. Magnetos and crankshaft-triggered ignitions are prohibited. 12-volt battery and electrical systems only.

A, labeled, centrally located, master on-off switch, to cut off all electrical power to the car, is required.

The battery must be located between the frame rails, and be securely installed. The battery may not be located in the driver compartment. The battery may not be located forward of the radiator, or behind the rear end of the car.

6.6.10 Exhaust System

All cars must have a complete exhaust system that must be equipped with a muffler. All exhaust must exit the car behind the driver but not past the rear axle of the car. All exhaust exit pipes must be pointed down toward the ground. Max of 5.0 inches o.d. after the collector.

Under car exhaust systems are allowed.

Exhaust systems are allowed to exit the side of the car. Side exhaust systems must be equipped with a braced plate located on the inside of the body panels. Exhaust exit pipes are to be welded in the center of the plate with the ends flush to the plate. A maximum of 2 holes are allowed in the side of the body panel.

All decibel readings will be taken from a location in ~~front of the inner pit "officer's shack"~~. **In a consistent location throughout the year. Exhaust systems that exit under the car may have a maximum decibel limit of 104 db. Exhaust systems that exit the side of the car may have a maximum decibel limit of 95 db. All exhaust must meet the maximum decibel limit of 95 db.**

6.6.11 Cooling System

Electric fans are permitted. Use of antifreeze is prohibited.

All cars must be equipped with an overflow or catch tank. Factory catch tanks are permitted. Tin cans are prohibited.

Radiator must mount in front of engine. Radiator shrouds must retain the same shape as OEM shrouds. Shrouds must be metal or OEM and extend to fan blades.

6.7 DRIVE TRAIN

6.7.1 Clutch, Bell Housing, Transmission, and Drive Shaft

Any two, three, or four, speed, American made, manual transmission is permitted. Transmissions with internal clutch are prohibited. Bottom load transmissions are prohibited. Automatic transmissions are prohibited. Drop Cluster transmissions are prohibited

All transmissions must work in reverse.

All cars must be equipped with a scatter-proof bell housing. Cars equipped with an enclosed clutch are not required to have a scatter-proof bell housing. A 3-inch diameter hole is required in the bottom of the bell housing for inspection purposes.

The clutch on Spec and Un-ported engines must be no less than 7 inches in diameter and be mounted to the crankshaft. Carbon fiber clutches are prohibited.

The clutch on Sealed Crate engines must be no less than 5.5 inches in diameter and be mounted to the crankshaft. Carbon fiber clutches are prohibited. Retail cost of clutch must not exceed \$1,000.

All cars must be equipped with a loop that surrounds the drive shaft. The loop must be a minimum of 1/8" x 2" steel and fastened to the frame or cross member and be approx. 6" to 8" behind front universal joint. Drive shaft must be minimum 2½ inches, o.d. All driveshafts must be made of aluminum or steel. All other materials including carbon fiber are prohibited.

6.7.2 Rear End

Only quick-change rear ends **with a minimum ring gear O.D. of 10"** are permitted. Only fully locked rear ends and open rear ends are permitted. Axle tubes must be steel. Aluminum axle tubes are prohibited.

Cambered axle tubes are prohibited. **(Tolerance ± 1 degree)** Aluminum drive plates are permitted.

Axles must be steel. Titanium axles are prohibited.

6.7.3 Wheels and Tires

6.7.3.1 Wheels

The wheels must be steel and meet the following requirements:

- A. After market steel racing wheels only.
- B. All wheels must be 15 inches in diameter and no more than 8.0 inches wide.
- C. Wheels, less tire, weights, and valve, must weigh a minimum of 15.0 pounds.
- D. Wheel studs must be a minimum of 9/16 inch diameter. Eight bolt rear ends may use stock studs if all 8 are used. Only four 9/16 wheel studs are required in eight bolt rear-ends.
- E. Wheels must be attached with 1-inch, steel, lug nuts. Lug nuts may not be altered.
- F. 5x5 spacer plates must be same diameter as hub face, and a full ring, not individual spacers. Wide five must have full ring, not individual spacers.
- G. Wheel covers are prohibited.

6.7.3.2 Tires

Only approved tires allowed. Tires must be used in approved positions. Approved tires and positions are: **8.0/27.0-15 Hoosier F75 (both sides)-Hoosier 800 Series** The tires used for qualifying, must be used all night. ~~One tire rule will be enforced, three tires must be branded, except for the first FRRC Event. Two new tires are permitted the first week, only, after an FRRC Event with an extended feature. In order to be eligible for the two new tires, the car must have competed in the Event with the extended feature.~~—No buffing or treatment of tires allowed. Tire warming blankets are not allowed. Three tires will be impounded.

Three (3) warm tires, with the current night's markings, must be brought to the scale area, for impound, within 5 minutes after completion of the semi feature race for semi feature cars and within 5 minutes after completion of the feature race for feature cars.

The impounded tires will be returned at the beginning of the next FRRC event and must be used on the car all night, including qualifying. Any car that has more than the allotted new tires, will have their qualifying time disallowed, and must start the first heat and semi feature in the last row. If there is no semi feature, the car must start the feature in the last row.

A car that has a flat tire during a race must replace the flat tire with a used tire with FRRC markings. The replacement tire must be inspected by a FRRC Technical Official prior to use.

6.8 FUEL SYSTEM

Electric fuel pumps are prohibited. Fuel filler must be mounted on the inside of the quarter panel.

Fuel line may not be exposed in driver's compartment.

6.8.1 Fuel Cell

All cars must be equipped with, either a 1/8 inch thick fuel cell tub, or 18 or 20-gauge fuel cell container protected by 1/8 inch thick steel plates. The installation must be FRRC approved.

Fuel cell must be located behind the rear end, between the frame rails. The fuel cell must meet FIA - FT3 specifications. Rubber type fuel cell bladders mandatory. Fuel cell must be filled with foam manufactured for use in fuel cells. Minimum height to the bottom of the fuel cell container is 11 inches. All fuel cells must be equipped with

check balls or flaps.

6.8.2 1/8 Inch Fuel Cell Tub

The fuel cell tub must be 1/8 inch thick steel (10 gauge) and must have a 1 inch lip. The front, bottom, and rear must be one piece. The top may be either 18 or 20 gauge steel, and have, two, 1 inch by 1/8 inch steel straps, in each direction.

6.8.3 Fuel Cell Container with 1/8 Inch Protector Plates

The fuel cell container may be either 18 or 20 gauge steel and must have a 1-inch lip. The container must have, two, 1 inch by 1/8-inch steel straps, around the top, sides, and bottom, in both directions. The top may be either 18 or 20 gauge, steel. The 1/8-inch, steel, fuel cell protector plates must be mounted on the outside of the frame. The plates must cover both sides and rear of the fuel cell. The only holes allowed in the plates are for attachment or a 2 inch hole for safety vehicle pickup points.

Any over the axle style rear tail style chassis must use approved 1/8 inch magnetic steel fuel cell can. Any chassis with incorrect fuel cell can, will be asked to change or be disqualified. The cell must be bolted in with a minimum of 14-3/8 bolts with flat washers on top and lock washers on bottom. The top for this cell will be 18 gauge steel with straps in both directions. A sonic tester will be used to check fuel cell can thickness.

6.8.4 Fuel

The fuel must be automotive gasoline only. The gasoline must not be blended with alcohols (such as methanol or ethanol), ethers, aniline or its derivatives, or oxygenated additives (such as nitro methane or nitro propane). The use of nitrous oxide is prohibited.

FRRC has the right to sample a competitor's fuel at any time, during an event. Samples will be tested by FRRC and/or any outside laboratory at FRRC discretion.

6.9 MISCELLANEOUS EQUIPMENT

6.9.1 Steering Components

All cars must have either a collapsible, two piece steering column, or a minimum of two swivel joints. The steering column must have an impact collar, no less than 1½ inches in diameter, welded to, or bolted to the column forward of the column support inside the driver's compartment. A metal (no plastic) quick release coupling, acceptable to FRRC, on the steering wheel is mandatory. The center of the steering wheel must be padded with resilient material.

6.9.2 Seat

Seat must be made of aluminum and installed in a manner acceptable to FRRC Officials. Highly recommended that the center of the seat be a minimum of 17½ inches from the inside of driver's door bar. No less than 4, ½ diameter inch, bolts must be used to attach seat to frame and cage. A flat steel washer no less than 1½ inches in diameter must be installed between the head of the bolt and seat. Seat must be equipped with a fully padded cover. Headrest on seat is mandatory.

6.9.3 Seat Belts and Shoulder Harness

A quick release lap belt and double shoulder belt no less than 3 inches wide is mandatory. A submarine belt is also mandatory. Seat belt and shoulder harness must be date stamped and not more than two years old for SFI rated belts and not more than 5 years old for FIA rated belts. Seat belt and shoulder harness must be installed according to manufacturer's recommendations. The belts and harness must be attached to the roll bar cage with high quality hardware, no less than 3/8 inch in diameter.

6.9.4 Helmet

A helmet that meets-SA2005 Snell Foundation specifications is mandatory. Head and neck restraint system mandatory.

6.9.5 Drivers Suit

It is mandatory that a driver wear a fire retardant suit (free of rips and tears) and gloves while on the race track. It is recommended that a driver wear fire retardant socks and shoes.

Drivers will not be allowed on the track unless wearing a fire retardant suit and gloves. If a driver removes his/her

gloves during an event, the driver will be black-flagged.

6.9.6 Fire Control System

It is mandatory that each car be equipped with a on-board fire control system. The on-board system should be at least 5-pound capacity and Halon 1301 or equivalent.

6.9.7 Window Net

It is mandatory that each car be equipped with either a 1-inch web or knitted mesh window net on the driver's side. The minimum allowable length is 12 inches. The window net must attach to the roll cage at the bottom and release with a seat belt snap or FRRRC approved release on the top front corner of the window net. Window net must be in place while competing.

Each car must be equipped with a head restraint net, mounted between the window net and seat. Net may be rectangular or triangular. Net must be mounted according to manufacturer's recommendations.

6.9.8 Two Way Radios

Two Way radios are mandatory. It is required that all teams submit their frequency to FRRRC officials.

A spotter, with a two way radio, must be located in the area designated for spotters.

6.10 CLAIMS

Claim on disc brake calipers is \$150.00 per wheel pads (plus 20% fee which goes to FRRRC limited late model point fund). Claim does not include brake hose, caliper hose fitting, or brake.

Claim on all shock absorbers is \$165.00 per shock (plus 20% fee which goes to FRRRC limited late model point fund). Claim does not include shock hardware, coil-over kit (if so equipped) or any springs.

6.11 Transponders

Transponders are required on every car and are to be working and turned on whenever the car is on the racing surface. Only 1 transponder allowed per car. Transponder to be located 8 inches forward of the front side of the rear end axle tube to the center of the transponder.

SECTION - 7 SUPER STOCK DIVISION – 2009 2010

Open to two-wheel drive American automobiles provided they comply with, and adhere to, specifications as outlined for this division.

NOTICE

ALL EQUIPMENT IS SUBJECT TO THE APPROVAL OF FRRC OFFICIALS. NO EQUIPMENT WILL BE CONSIDERED AS HAVING BEEN APPROVED BY REASON OF HAVING PASSED THRU INSPECTION UNNOTICED. EFFORTS TO TAKE ADVANTAGE OF “LOOP HOLES” IN THESE RULES WILL NOT BE TOLERATED. ALL RACE CARS WILL BE SUBJECT TO INSPECTION BY TRACK OFFICIALS AT ANY TIME.

7.1 COMPETING MODELS AS APPROVED BY FRRC

FRRC Super Stock races are open to approved 1950 to 2008 models of American made passenger cars. Cars must have full frame. Unibody style cars are prohibited. Convertibles are prohibited. Station Wagons and Steel Body Trucks are allowed.

All cars must maintain a minimum wheelbase of 107.0 inches at all times.

Possible wheel offset rule if tire sticks out too far from body.

7.1.1 Mandatory Information Report to Tech Inspector

ALL Competitors MUST report PRIOR to competition, their cars Engine Cubic Inch; Carburetor; Headers.

The tech inspector will be keeping a confidential tally card of each competitors equipment complete with their legal min weight.

If a competitor FAILS to report any changes to the tech inspector prior to competition that evening and the inspector finds a difference from the tally card, that competitor is DQ'ed from the ENTIRE nights events forfeiting all points and pay for the event. The competitor is also suspended with no points and money for the following week.

7.1.2 Other Approved Models

Other models may be approved, provided they are of the same body configuration and meet the spirit and intent of competitive racing.

Figure 8 cars may compete in the Super Stock Division as long as the car is in compliance with all Super Stock Division rules, meets the Super Stock Division appearance rules and competes only in the Super Stock Division that night.

7.1.3 Identification and Marking

FRRC reserves the right to assign car numbers, and to assign or restrict the display of graphics and advertising on race cars. Offensive graphics or slogans are not permitted. All Competitors agree to accept FRRC's decision in this matter.

Officially issued numbers must be at least 16 inches high by 3 inches wide and neatly applied (paint or decals) to both doors. Numbers, as large as possible and in contrasting colors to the body, must be applied to the front headlight cover, rear taillight cover, and upper right corner of windshield.

Where required, participating sponsor's emblems, or decals will be placed in the position designated by FRRC Officials.

7.2 GENERAL CAR WEIGHT REQUIREMENTS

7.2.1 Overall Car Weight

The specific minimum weights for all cars are listed below. All weights are with the driver, **after competition**.

Weights may be adjusted by the FRRC technical inspectors throughout the season as needed to improve competition

50 lb weight break given to any driver using a head & neck restraint device.

This does not include neck collars, must be a Hans or Hutchins type device.

<u>Car Type</u>	<u>Total Weight</u>
Any engine being 383ci or more w/4bbl	3200 lbs.
Any engine being 383 or more with a 4412 2bbl	3200 lbs.
Any engine being 382ci or less must have a 4412 2bbl carb.	3200 lbs.
All Vortec Headed motors must have a 4412 2bbl	3200 lbs.
FRRC Sealed Crate Engine Car	3000 lbs.

The following weight adjustments will be made to individual cars:

Add 50 lbs. to all non-crate engine cars the compete with headers.

Penalty as follows: 1 to 25 lbs light = loss of points and money for that event.

26 lbs or more underweight = loss of points and money for that event and 1 week suspension.

7.2.2 Added Weight

Any weight (ballast) added to the car must be secured by no less than two ½-inch bolts. The maximum spacing between bolts is 10 inches. Loose weights are prohibited. No weights may be added outside the body. Weights added behind the rear end shall be no less than 11 inches above ground. The front weight must be angled at 45 degrees. Added weights must be painted a bright color (safety orange preferred) and have car number on weight.

7.2.3 Car Weights After Race

All race winners must weigh in immediately after the race.

Any weight that falls off a car during competition cannot be returned to the car for determining weight after a race. A fine of \$1.00 per pound of weight lost will be charged to car.

7.3 GENERAL CAR REQUIREMENTS

Body and frame swaps are permitted as long as the wheel base of the body is \pm 2 inches of the wheel base of the frame.

7.3.1 Car Bodies

The car body must meet the following requirements.

Standard approved bodies may compete with an approved V-8 engine equipped with an approved carburetor.

Cars must be neat appearing. All cars must have complete bodies, hoods, fenders, and an approved front and rear bumper. Bodies, including hood and trunk lid, must be OEM steel. After market bodies are prohibited. Fabricated steel doors are permitted as long as they have the same thickness, contours, and shape of the original doors. Fabricated steel fenders and quarter panels, to within 2-inches of the top of the body, are permitted as long as they have the same thickness, contours, and wheel openings of the original panels. A 2-inch high, enclosed, hood scoop is permitted. Wheel wells must have a rolled edge. Cut-up bodies, chopped tops, removed door posts are prohibited. The front of the cowl must seal to the back of the hood. Rear of car between bumper and deck lid must be enclosed. All body panels must be fastened in an approved manner. Body panels damaged during an event must be repaired or replaced in a reasonable period of time. Cars with unrepaired or unpainted body panels may not be allowed to compete. Cars competing with "home made" or aftermarket panels may be subject to an additional weight penalty. The decision of FRRC Officials about appearance is final.

All glass (windows, headlights, taillights, etc.), exterior body moldings (chrome, trim, mirrors, door handles, etc.), combustible material (headliner, seats, insulation, etc.) must be removed. Stock hood and trunk latches must be removed and replaced with clip type hood pins. Spin-off hood pins are prohibited. Stock grills must be replaced with expanded metal or screen.

The inner support structure of the hood, roof, doors, front fenders, and quarter panels may be removed. The front and rear inner wheel wells may be removed.

Front bumpers must be OEM and mount in the original location. Bumpers may not be reinforced or have jagged edges. Rear bumpers can be made with square tubing no larger than 2" x 4" and cannot extend beyond the outside of the body. Cars with molded rubber or plastic front and/or rear bumper covers may use a round steel tubing bumper, no larger than 1¾-inches in diameter, extending 6, or more, inches beyond the frame. For safety, a crush zone must be present on the front of the cars during a crash. Bumper bracing in front of the upper control arms is prohibited. Bracing above the bumper is prohibited. Large bumper bracing measuring larger than 1.5 inch angle or 1 inch round w/.125 wall is prohibited. Radiator and rear protector hoop, the same color as car, permitted. Radiator protector hoop no larger than 1½-inches by 0.095 wall thickness may be added to the front bumper, but must be no higher than the hood and stay between the frame horns. Radiator hoop must conform to, the stock grill opening. Rear hoop no larger than 1½-inches by 0.095 wall thickness may be added to the rear bumper, and must be no higher than the trunk.

Fabricated foot boxes are permitted. If firewall is used, firewall must be stock, drivers side to center of tunnel, (plus or minus 4" from stock location). All openings in the firewall, and factory seams, must be closed with steel and sealed with caulk. The area between the rear seat and trunk must be closed with steel and sealed with caulk.

Rusted floor panels may be replaced with stock production floor panels or steel panels of the same gauge installed in the same location.

Aluminum dash permitted. A 22 gauge, or heavier, steel, fabricated, interior is permitted. The fabricated interior can start at floor area to the right of the seat, raise to the top of the drive shaft tunnel, extend up at an angle to the top right side door bar, and seal off below the right window opening.

A full windshield of lexan, or plastic, is recommended. A minimum of three stiffeners must be installed inside the windshield. The stiffeners must be attached to the roof panel or roll bar and dash panel in an approved manner. Stiffeners must be installed so as not to obstruct the driver's vision.

A reinforced, ½-inch wire mesh windshield is permitted. A minimum of three reinforcements must be installed behind the wire mesh. The reinforcements must be attached to the roof panel or roll bar and dash panel in an approved manner. Reinforcements must be installed so as not to obstruct the driver's vision.

Side door windows are not allowed. A 10-inch side vent window is permitted. Back side of vent window must be at right angle to top of door. Side window shelves are prohibited.

Rub rails may be no larger than 1" x 2" and have a maximum wall thickness of 0.125 inches. Rub rails must have the ends cut at a 45-degree angle and be capped. Rub rails must be flush with body and must be bolted (carriage bolts recommended) or welded to the roll cage. Rub rails must match the color of the body.

Rear spoiler on all other cars must not exceed 5 inches in height or 60 inches in width. No rudders or forward mounting brackets are allowed.

7.3.2 Body Ground Clearance Requirements

Front air dam and rocker panel clearance shall be no less than 5 inches. Frame clearance shall be no less than 6 inches. Minimum height of quarter panels, behind rear tire, shall be 10 inches. All measurements are with driver in car.

7.4 FRAME AND ROLL CAGE

All frames and roll cages must be acceptable to FRRRC Officials. The frame and roll cage must meet the requirements described in the following paragraphs.

All chassis' must be equipped with a fuel cell protector bar that extends below the bottom of the fuel cell and is adequately braced.

7.4.1 Frame

All frames must be stock passenger car frames. Drilling or hole sawing of frame is prohibited. Chopping, channeling, or sectioning of the frame in either length or width is prohibited. Plating of stock frame for strength or rust repair is permitted. All frames must have "x" brace (1" x 2" square, or 1½" round), and the frame rails plated with 1/8 inch steel (welded).

7.4.2 Roll Cage

Roll cage installation and workmanship must be acceptable to FRRC Officials.

Offset roll cages are prohibited. Laid-back roll cages are prohibited.

The roll cage must be a four-post design consisting, in general, of: a vertical main hoop; roof or top hoop; and left and right front post. All right angles must be gusseted.

The main hoop must connect to the left and right frame rails, behind the driver, and be diagonally braced. The main hoop may be located no further back than the rear body mount by the frame kick-up. The main hoop must have a horizontal bar at the midpoint. All bars in the main hoop must be round steel tubing no less than 1¾ inches in diameter and have a minimum wall thickness of 0.095 inches.

The top hoop must attach to the main hoop, and left and right front posts. The left and right front posts must be connected by a horizontal “dash” bar. All bars in the top hoop, left and right front posts, and dash bar must be round steel tubing no less than 1¾ inches in diameter and have a minimum wall thickness of 0.095 inches. “A” pillar supports mandatory.

The top “halo” must have a center bar connecting the front and rear portions of the “halo”. Must be steel tubing no less than 1¾ inches in diameter and have a minimum wall thickness of 0.095 inches.

The driver’s side front post must be connected to the main hoop by four, or more, equally spaced, horizontal bars, mounted flush with the outer door skin. The door bars must be connected by two, or more, equally spaced vertical braces and must attach to the main frame by two, or more, equally spaced vertical braces. A foot protector bar is mandatory. All driver side door bars and braces must be round steel tubing no less than 1¾-inches in diameter and have a minimum wall thickness of 0.095 inches. **A 1/8 inch steel plate must be mounted between the driver’s side door bars and the door skin. The plate must cover the entire door bar area.**

The passenger side front post must be connected to the main hoop by three, equally spaced, horizontal bars. The bars must be connected by two, or more, equally spaced vertical braces. All passenger side door bars and braces must be round steel tubing no less than 1¾-inches in diameter and have a minimum wall thickness of 0.095 inches.

The jack posts must be guarded, or inside the body.

All roll bars exposed to the driver, and left side door bars, must be padded.

7.5 SUSPENSION

Lower control arms must be OEM, and of the same make and model as the frame. Metal pivot bearings and bushings prohibited.

Upper control arms may be OEM. OEM control arms must be the same make and model as the frame.

Upper control arms may also be a purchased aftermarket component as long as it stays within the following guidelines.

- Steel Construction Only (Aluminum pivot shafts allowed)
- One piece style allowed (adjustable heim style is prohibited)
- Conventional style bolt on ball joints allowed (screw in style prohibited)
- Bushing style pivot shafts allowed (Ball bearing pivots prohibited)
- Upper control arms to measure 8 inches plus or minus one half inch.

This rule is being added in 2008 at the request of the participants in this class. It is being added on a research and development condition. This rule may be changed or altered at any time during the season to enhance competition in the class. Any failure to comply with this rule will result in a revert to the previous rules allowing stock upper control arms ONLY. Any variations from these rules must be approved prior to competition by the FRRC technical inspectors.

Relocation of the “Top Hats” on the front suspension is permitted. Modification of “Top Hats” is prohibited. They must remain in original OEM condition.

Any 5” coil spring allowed. No screw jacks in front suspension. Front frame height adjusters allowed.

The front sway bar may be mounted up-side-down, to the frame in the original location, and must use the factory brackets and rubber or urethane bushings, with no spacers between the bracket and frame.

Independent rear suspensions are prohibited. The rear suspension must be OEM. Relocation of the rear suspension control arm brackets on the frame is prohibited. Upper and lower rear control arms must be, unmodified, OEM, and of the same make and model as the frame. Metal pivot bearings and bushings are prohibited. Upper control arm mounts on the rear end housing may be relocated to change pinion angle. Any 5" coil spring allowed. Screw jacks are allowed in the rear only.

Front shocks must mount in original position. Rear shock mount can be modified 2" from stock location. Non adjustable, non rebuildable, stock type mount, steel shocks only. No external adjustments (pressure, compression, rebound) permitted on shock absorbers. **Aluminum body and remote reservoir shock absorbers are prohibited.**

Computerized, electric, hydraulic, pneumatic, or remote controlled devices, which can change the handling characteristics of the car, during the race, are prohibited.

7.5.1 Spindles, Wheel Bearings, and Hubs

Spindles and wheel bearings must be OEM and of the same make and model as the frame. Hubs must be OEM or OEM appearing (Coleman style hub). Dropped spindles are prohibited.

No aftermarket or fabricated spindles.

7.5.2 Brake Components - Front and Rear

Each wheel must be equipped with a brake in proper working condition. Anti-lock brake systems prohibited. Installation must be approved by FRRRC. Front brakes may be disc or drum. Rear brakes must be drum. Disc brake calipers must be OEM, of the same make and model as frame, grinding is prohibited. Disc brake rotors must be steel. Aluminum or composite rotors are prohibited. Drilled rotors are prohibited.

Brake pedal may be aftermarket. Front/Rear bias adjusters are prohibited.

One brake master cylinder only, ~~mounted in the stock location.~~ After market brake components are not allowed. Floor mounted pedals are prohibited. Proportioning valve on rear brake line recommended. Proportioning valve may be accessible to driver inside the car. Only 1 adjuster allowed.

7.6 ENGINE REQUIREMENTS

7.6.1 General Eligibility

Only V-8 engines are permitted. Engine must be of Parent Corporation of frame. The displacement and compression ratio on all engines, except the Sealed Crate Engine and General Motors Vortec head engine, is unlimited. The maximum displacement on a Sealed Crate engine is 355.0 cubic inches and the maximum compression ratio is 9.1 to 1. The maximum displacement on a General Motors Vortec head engine is 360.0 cubic inches and the maximum compression ratio is 10.80 to 1.

7.6.2 Engine Location

Engine mounts may be after market. The engine must be centered in the frame. The engine set back is as follows:

<u>Car Type</u>	<u>Location</u>
1973 – 1977 Chevrolet Monte Carlo	Stock location. Modification of the cross member is not allowed.
General Motors Metric Chassis	33.50 inches from the center of the top steering box bolt, on the frame, to the back of the engine block. The cross member may be notched out and plated in the area of the fuel pump only.
All other cars	The engine may be set back so the lower ball joint lines up with the center of the number 1 spark hole.

7.6.3 Sealed Crate Engine

Only the following, factory sealed, engines are approved:

<u>Manufacturer</u>	<u>Part Number</u>
GENERAL MOTORS	88958602

Other factory sealed crate engines may be approved, provided they meet the spirit and intent of competitive racing.

All engines must be sealed by the factory, or FRRRC approved factory repair facility. Any engine seals that have been tampered with, or removed, will result in an immediate two year suspension from FRRRC Events.

Engines must remain as they came from the manufacturer. No modifications are permitted. FRRRC reserves the right to impound a Sealed Crate Engine, at any time, for additional inspection.

7.6.3.1 Engine Block

Block must be a factory production **cast iron** block with external measurements identical to standard production engine. **All** engine block markings must remain. Grinding of any kind on the engine block, including the valley under the intake manifold, is prohibited. Angle milling of block is prohibited.

7.6.3.2 Harmonic Balancer

Only the original OEM harmonic balancer that came with the engine may be used. Aftermarket harmonic balancers are prohibited.

7.6.3.3 Oil Pump, Pan and Cooler

Wet sump oil pumps only. Dry sump oil pumps are prohibited. Only the OEM oil pan that came with the engine may be used.

All inspection and drain plugs must be safety wired.

External engine oil coolers are permitted. Oil cooler may not be located in the driver's compartment.

7.6.3.4 Cylinder Heads

Cylinder heads must remain stock. All cylinder head markings must remain. Angle milling, chemical treating, acid dipping, acid flowing, abrasive blasting, bowl cutting, addition of material to the ports or combustion chamber, or other alterations to the original, as cast, head is prohibited. Valves, rocker studs, head bolts, and spark plugs may not be relocated. No polishing or grinding of ports or runners is permitted. No material may be added to the combustion chamber.

7.6.3.5 Camshaft, Valve Lifters, & Rocker Arms

Only the original OEM camshaft that came with the engine may be used. Only the original OEM chain and sprocket camshaft drive system may be used. Camshaft journals must be stock for engine. Rev kits are prohibited.

Only the original OEM valve lifters that came with the engine may be used. Only the original OEM rocker arms are permitted.

7.6.3.6 Intake Manifold

Only the OEM intake manifold that came with the engine may be used. Grinding or polishing of the ports is prohibited. Chemical treating, acid dipping, acid flowing, abrasive blasting, addition of material, or other alterations to the original, as cast, intake manifold is prohibited.

Adapter plates or carburetor spacers are prohibited. Only one flat gasket, with a maximum thickness of 0.065 inches, may be used between the intake manifold and carburetor.

7.6.4 Unsealed Engine

7.6.4.1 Engine Blocks

Block must be a factory production **cast iron** block with external measurements identical to the standard production engine. Angle milling of block is prohibited.

7.6.4.2 Crankshaft and Harmonic Balancer

Only cast iron or forged steel crankshafts are permitted. **Titanium crankshafts are prohibited.**

Only standard type harmonic balancers are permitted. Aluminum or fluid type balancers are prohibited.

All crankshafts have a minimum weight of 48lbs. No Knife Edging, Undercutting & Honda Journals are Prohibited.

7.6.4.3 Pistons and Rods

Only magnetic steel connecting rods are permitted. **Titanium rods are prohibited.**

7.6.4.4 Oil Pump, Pan, and Cooler

Wet sump oil pumps only. Dry sump oil pumps are prohibited. After market oil pan may be used. Oil pan must be equipped with a 3/4 inch plug for inspection. The plug must be directly inline with a rod journal. Engines equipped with a windage tray must provide a hole in the tray, in line with the plug.

External engine oil coolers are permitted. Coolers may not be located in the driver's compartment.

7.6.4.5 Cylinder Heads

Only cast iron OEM, or cast iron OEM replacement (SR), cylinder heads are permitted. GM "bowtie" cylinder heads are prohibited. W-2, GT-40, SVO, and all other non-Factory part number cylinder heads are prohibited. Aluminum cylinder heads are prohibited. **Titanium valves are prohibited.**

Only General Motors Vortec (Casting P/N 10239906 or 12558062) cylinder heads are permitted. General Motors Vortec cylinder head P/N 25534351 & 25534371 are prohibited. Vortec heads may be drilled and tapped to install intake manifold.

Cylinder heads must remain unaltered. All cylinder head markings must remain. Angle milling, chemical treating, acid dipping, acid flowing, abrasive blasting, bowl cutting, addition of material to the ports or combustion chamber, or other alterations to the original, as cast, head is prohibited. Valves, rocker studs, head bolts, and spark plugs may not be relocated. No polishing or grinding of ports or runners is permitted. No material may be added to the combustion chamber. The cylinder head to block surface may only be machined a maximum of 0.050 inches from OEM. Minimum combustion chamber size shall be 58.0 cc's for all models. A three angle valve job may be done as long as no machining marks are more than 1/8" above the head of the valve.

The maximum valve sizes, as measured across the face, are as follows:

<u>Manufacturer</u>	<u>Intake</u>	<u>Exhaust</u>
GENERAL MOTORS		
VORTEC	1.940 inches	1.500 inches
ALL OTHER GM	2.020 inches	1.600 inches
FORD "CLEVELAND"	2.046 inches	1.656 inches
FORD "WINDSOR"	1.8437 inches	1.5469 inches
MOPAR	2.020 inches	1.625 inches

The maximum allowable spring diameter is 1.50 inches.

7.6.4.6 Camshafts, Valve Lifters, & Rocker Arms

Only flat tappet, steel, camshafts may be used. The maximum camshaft lift on a Vortec head engine is 0.500 inches, measured at the valve. Gear driven camshafts are prohibited. No roller tappets, or mushroom lifters are allowed. Only the following steel, straight barrel lifters are allowed:

<u>Manufacturer</u>	<u>Maximum Diameter</u>
GENERAL MOTORS	0.843 inches
FORD	0.875 inches
CHRYSLER CORP.	0.904 inches

Rev kits are prohibited. Only steel push rods are allowed.

Only stock rocker arms are permitted. Roller rocker arms are prohibited. Maximum rocker ratio is 1.6 to 1. Stud girdles are prohibited.

7.6.4.7 Intake Manifold

Only cast iron intake manifolds are permitted. Edelbrock 7116 Aluminum Performer Manifold permitted on Vortec head engine. Grinding or polishing of the ports is prohibited. Chemical treating, acid dipping, acid flowing, abrasive blasting, addition of material, or other alterations to the original, as cast, intake manifold is prohibited. General Motors intake manifolds 14096242 and 14096011 are prohibited.

An adapter plate, with a straight bore and a maximum thickness of 1¼-inches (including gaskets), may be used between the intake manifold and carburetor.

7.6.5 Carburetor

All Super Stock engines, except Sealed Crate Engine and General Motors Vortec head engines, must run either a Holley Model 4412S or 0-4412C two-barrel, General Motors 2bbl or 4bbl Quadra jet carburetor. Sealed Crate Engines must run a 650 cfm. 4bbl Holley 4150HP carburetor (model # 80541-1). General Motors Vortec head engines must run a Holley Model 4412S or 0-4412C two-barrel carburetor.

The Holley Model 4412S or 0-4412C carburetor must meet the following:

- A. Carburetor Body - No polishing, grinding, or drilling permitted. Factory type air bleeds only. Screw in air bleeds are prohibited.
- B. Choke - The choke may be removed.
- C. Choke Horn - The choke horn may not be removed.
- D. Boosters - The boosters and booster location may not be changed. The size or shape must not be altered. Boosters may not be tapered. Height must remain standard.
- E. Venturi - Venturi area must not be altered. Casting ring must remain.
- F. Base Plate - Base plate must not be altered.
- G. Butterflies - Butterflies must not be thinned or tapered. Retaining screws may not be altered.
- H. Throttle Shafts - Throttle shafts must not be thinned.
- I. Metering Block - Only metering block 134-137 is permitted. Adjustable metering blocks are prohibited. Metering block must not be altered.

Any carburetor can be claimed for \$150.00 for General Motors 2bbl or 4bbl and \$200.00 for Holley 4412S or 0-4412C two-barrel (plus 20% fee which goes to FRRC street stock point fund) Claimee must have competed in feature race, and finished within 3 positions of claimant. Claims must be made to a FRRC Officer within 5 minutes of completion of feature race and be accompanied by cash or cashier check.

Any attempt to pull outside air other than down thru the venturies is prohibited.

Throttle linkage must be solid rod, cable type linkage is prohibited.

Gas pedal must be push/pull type.

7.6.6 Air Cleaner and Air Intake

7.6.6.1 Air Cleaner

All cars must be equipped with an air cleaner during competition. The air cleaner must be no more than 14 inches in diameter and may not protrude thru the hood.

7.6.6.2 Air Intake

Forward intakes are not allowed. Cowl air induction is not allowed. Air boxes are not permitted. Carburetor "hats" are prohibited. No devices for directing the flow of air into the air cleaner are permitted.

7.6.7 Ignition System and Battery

Stock distributor ignitions only. No internally adjustable or chipped distributors allowed. No external ignition boxes. Magnetos and crankshaft-triggered ignitions are prohibited. 12-volt battery and electrical systems only.

A, labeled, centrally located, master on-off switch, to cut off all electrical power to the car mandatory.

The battery must be located between the frame rails, must be securely installed, and be enclosed in either a plastic, marine battery box or an FRRC approved battery box. The battery may not be located forward of the radiator, or behind the rear end of the car.

7.6.8 Exhaust System

All cars must have a complete exhaust system. Exhaust manifolds must be unaltered, cast iron, OEM. Corvette style exhaust manifolds are prohibited. Exhaust manifolds must be OEM for the engine used in the car. The use of OEM manifolds designed, described, listed, marketed or sold as "truck" or "marine" replacement or "truck" or "marine" OEM style manifolds is prohibited. **Ceramic Coating, Chemical treating, acid dipping, acid flowing, abrasive blasting, addition of material, or other alterations to the original, as cast, exhaust manifold or headers is prohibited.** All exhaust systems must extend past the driver and exit under the car. The maximum size of the exhaust system is 2½-inches, i.d. The maximum decibel limit is 85 db. A 2 into 1 muffler with a maximum length of 18 inches is permitted. A 5 inch diameter turn down with a maximum length of 9 inches, measured from the end of the muffler, is permitted.

Non-Crate motor cars are permitted to have the following tubular exhaust headers. All headers must match the engine manufacturer. ONLY the following headers are allowed... All others are prohibited! You must add 50lbs if you compete with headers.

- GM – Shoenfeld 185 or 185M
- Ford – Dynatech 04-645000
- Mopar – Schoenfeld 455

Vortec Headed Motors are allowed to have either the Shoenfeld 185CM or 185MCM ONLY!

All Headers must remain stock, unmodified and in original production condition. All primary tubes must enter directly to one collector and at an equal point with every other primary tube. Exhaust must remain dual and separate, no crossovers, 'X' pipes or 'Y' pipes are allowed. Mufflers are required and must exit behind driver under the car. (see above)

A taper measuring 6 inches in length is allowed to make the transition from the 3 inch collector pipe to the 2.5 inch exhaust pipe.

7.6.9 Cooling System

Electric fans are permitted. Use of antifreeze is prohibited. Water recommended.

All cars must be equipped with a steel or aluminum approved overflow or catch tank. Factory catch tanks are permitted.

Radiator must mount in front of engine. Radiator may be any size, but must mount in original stock location. Radiator may not protrude thru hood. Radiator shrouds must retain the same shape as OEM shrouds. Shrouds must be metal or OEM and extend to fan blades.

7.6.10 Engine Claim/Swap

Engine may be claimed for \$750.00 and engine (plus 20% claim fee which goes to FRRC super stock point fund). Claim must be for same parent corporation only. Claimee must have competed in feature race, and finished within 3 positions of claimant. Claims must be made to a FRRC Officer within 5 minutes of completion of feature race and be accompanied by cash or cashier check.

The person claiming the engine will be assisted by 1 person from his/her crew, claimee and 1 person from his/her crew.

Claim does not include: flywheel; clutch; pressure plate; bell housing; throw out bearing; clutch ball and arm; exhaust manifolds; carburetor and adapter; starter; water pump; fuel pump; pulleys and fan; distributor; spark plug wires; motor mounts; sending units and switches for gauges; and dip stick.

Failure to sell claimed engine will result in loss of pay for that event, a one night suspension and loss of accumulated points.

7.7 DRIVE TRAIN

7.7.1 Clutch, Bell Housing, Transmission, and Drive Shaft

Any three, four, or five speed, American made, steel case, manual transmission is permitted. Quick-change transmissions, couplers, in/out boxes, and buttons are prohibited. Aftermarket clutch pedal assemblies are permitted. Hydraulic throw out bearings are allowed.

Unaltered automatic transmissions are permitted. The minimum weight of the torque converter & fluid, and flex plate is 40 lb. No allowance is made for fluid loss.

All manual transmission cars must be equipped with a scatter-proof bell housing or ¼" steel scatter shield covering the top 180 degrees of the bell housing. A 3-inch diameter hole is required in the bottom of the bell housing for inspection purposes. The flywheel must be steel and the clutch must be a single disc, OEM, no less than 10.50 inches in diameter. The minimum weight of the clutch, pressure plate, and flywheel is 40 lb.

External transmission oil coolers are permitted. Coolers may not be located in the driver's compartment.

Drive shaft must be steel OEM and painted white or bright color. Aluminum drive shafts are prohibited.

All cars must be equipped with a 360 degree, steel, hoop that surrounds the drive shaft. The hoop must be located approximately 6 to 10 inches behind the front U-joint and be bolted to the floor using washers no less than 1½ inches in diameter.

7.7.2 Rear End

Only OEM passenger car rear ends are permitted. Rear end brackets must be of Parent Corporation of car and of the same make and model as the frame. Full floating or quick-change rear ends are prohibited. Locked rear ends are permitted. Relocation of the holes in the lower control arm brackets is prohibited.

Axles must be steel. Titanium axles are prohibited.

7.7.3 Wheels and Tires

7.7.3.1 Wheels

The wheels must be steel and meet the following requirements:

- A. Only after market steel racing wheels or 8 spoke wheels are permitted.
- B. All wheels must be 15 inches in diameter and no more than 8.0 inches wide.
- C. Wheels, less tire, weights, and valve, must weigh a minimum of 19.0 pounds.
- D. Wheel studs must be a minimum of 7/16 inch diameter and at least flush with outside of lug nut.
- E. Wheels must be attached with 1-inch, steel, lug nuts. Lug nuts may not be altered.
- F. Wheel covers are prohibited.

7.7.3.2 Tires

Only approved tires allowed. Tires must be used in approved positions. Approved tires and positions are: **Hoosier 800 Series 8.0/27.0-15 Hoosier F75**. No buffing or treatment of tires allowed. The tires used for qualifying, must be used all night. **One tire rule will be enforced, three tires must have an FRRC brand, except for the first FRRC Event.** After the first FRRC Event, any car with more than one new tire must start all races in the last row.

Tire warming blankets are not allowed.

7.8 FUEL SYSTEM

Electric fuel pumps are prohibited.

Fuel line may not be exposed in driver's compartment and must run along the inside of the frame rail.

7.8.1 Fuel Cell

All cars must be equipped with a fuel cell. The maximum capacity of the fuel cell is 22 gallons. The installation must be FRRC approved.

Fuel cell must be located in the trunk area behind the rear end, between the frame rails.

Minimum height to the bottom of the fuel cell container is 11 inches.

7.8.2 Fuel Cell Container

The fuel cell container must be a minimum of 18-gauge steel and must have a 1-inch lip. The container must have, two, 1 inch by 1/8-inch steel straps, around the top, sides, and bottom, in both directions. The top may be either 18 or 20 gauge, steel.

7.8.3 Fuel

The fuel must be automotive gasoline only. The gasoline must not be blended with, ethers, aniline or its derivatives, or oxygenated additives (such as nitro methane or nitro propane). The use of nitrous oxide is prohibited.

The fuel must be automotive gasoline only.

FRRC has the right to sample a competitor's fuel at any time, during an event. Samples will be tested by FRRC and/or any outside laboratory at FRRC discretion.

7.9 MISCELLANEOUS EQUIPMENT

7.9.1 Steering components

All steering boxes and components must be stock, unaltered OEM, for the car. No quick steering devices allowed. All cars must have either a collapsible, two-piece steering column, or a minimum of two swivel joints. A metal (no plastic) quick release coupling, acceptable to FRRC, on the steering wheel is mandatory. The steering column must have an impact collar, no less than 1½-inches in diameter, welded to the column forward of the column support inside the drivers' compartment.

The center of the steering wheel must be padded with resilient material.

7.9.2 Seat

Seat must be made of aluminum and installed in a manner acceptable to FRRC Officials. It is recommended that the center of the seat be no less than 16 inches from the inside edge of the driver's side door bar. No less than 4, ½-inch diameter, bolts must be used to attach seat to frame and cage. All mounting hardware must be Grade 5 or better. A flat steel washer no less than 1½ inches in diameter must be installed between the head of the bolt and seat. Seat must be equipped with a fully padded cover. Headrest on seat is mandatory.

7.9.3 Seat Belts and Shoulder Harness

A quick release lap belt and double shoulder belt no less than 3 inches wide is mandatory. A 2-inch submarine belt is also mandatory. Seat belt and shoulder harness must be date stamped and not more than two years old for SFI rated belts and not more than 5 years old for FIA rated belts. Seat belt and shoulder harness must be installed according to manufacturer's recommendations. The belts and harness must be attached to the roll bar cage at approximately shoulder height with Grade 5 or better hardware, no less than 3/8 inch in diameter.

7.9.4 Helmet

A helmet that meets SA2005 Snell Foundation specifications is mandatory. Neck collar or head and neck restraint system mandatory. It is recommended by the FRRC that you purchase and use a complete head and neck restraint system such as the Haans or Hutchins systems.

7.9.5 Drivers Suit

It is mandatory that a driver wear a SFI approved fire retardant suit (free of rips and tears) while on the race track. It is recommended that a driver wear fire retardant socks and shoes.

Drivers will not be allowed on the track unless wearing a fire retardant suit and gloves. If a driver removes his/her gloves during an event, the driver will be black-flagged.

7.9.6 Fire Control System

It is mandatory that each car be equipped with a fully charged fire extinguisher or on-board fire control system.

The fire extinguisher must be a dry type of no less than 2 pounds and be equipped with a gauge to indicate state of charge. The extinguisher must be mounted in a metal bracket, have a quick release latch (tape is prohibited), and be within reach of driver.

7.9.7 Window Net

It is mandatory that each car be equipped with either a 1-inch web or knitted mesh window net on the driver's side. The minimum allowable length is 12 inches. The window net must attach to the roll cage at the bottom and release with a seat belt snap or FRRC approved release on the top front corner of the window. Window net must be in place any time the car is on the race track.

Each car must be equipped with a head restraint net, mounted between the window net and seat. Net may be rectangular or triangular. Net must be mounted according to manufacturer's recommendations

7.9.8 Mirrors

Mirrors are permitted.

7.9.9 Two Way Radios

Two Way radios are prohibited.

7.9.10 One Way Receivers

One Way receivers are mandatory. Receivers will ONLY be allowed to receive track personal direction. Team spotters are prohibited. Receivers are required to be programmed to track mandated frequency only. Receiver Elite 1600 receivers only.

SECTION - 8

FIGURE 8 DIVISION – 2009 2010

Open to two-wheel drive American automobiles provided they comply with, and adhere to, specifications as outlined for this division.

NOTICE

ALL EQUIPMENT IS SUBJECT TO THE APPROVAL OF FRRRC OFFICIALS. NO EQUIPMENT WILL BE CONSIDERED AS HAVING BEEN APPROVED BY REASON OF HAVING PASSED THRU INSPECTION UNNOTICED. EFFORTS TO TAKE ADVANTAGE OF "LOOP HOLES" IN THESE RULES WILL NOT BE TOLERATED.

8.1 COMPETING MODELS AS APPROVED BY FRRRC

FRRRC Figure 8 races are open to approved 1950 to 2009 models of American made passenger cars. Cars must have full frame. Unibody style cars are prohibited. Convertibles and station wagons are prohibited.

All cars must maintain a minimum wheelbase of 108.0 inches at all times.

8.1.2 Other Approved Models

Other models may be approved, provided they are of the same body configuration and meet the spirit and intent of competitive racing.

8.1.3 Identification and Marking

FRRRC reserves the right to assign car numbers, and to assign or restrict the display of graphics and advertising on racecars. Offensive graphics or slogans are not permitted. All Competitors agree to accept FRRRC's decision in this matter.

Officially issued, single or two digit, numbers in contrasting colors to the body, must be at least 16 inches high by 3 inches wide and neatly applied (paint or decals) to both doors.

Drivers name must be on both sides of roof, in clearly written letters no less than 6 inches high.

Where required, participating sponsor's emblems, or decals will be placed in the position designated by FRRRC Officials.

8.2 GENERAL CAR REQUIREMENTS

8.2.1 Bodies

Car and truck bodies are permitted. After market bodies are prohibited. The body must meet the following requirements:

Standard approved bodies may compete with an approved V-8 engine equipped with an approved carburetor.

Bodies must be steel. Wheel wells must have a rolled edge. Firewall must remain in the original stock location, unaltered, and complete, except where the roll cage passes thru. The floor area to the right of the seat may be raised to the top of the drive shaft tunnel and extend to the right side door bar. Interior area of car must be completely enclosed from front to rear and be of steel.

Cars and trucks must be neat appearing and standard in appearance. Cut-up bodies, chopped tops, removed door posts (with the exception of the 'A' pillar) are prohibited. Spoilers and hood scoops are not permitted, unless they are OEM for body. Body panels damaged during an event must be repaired or replaced in a reasonable period of time. Cars and trucks with unrepaired or unpainted body panels may not be allowed to compete. The decision of FRRRC Officials about appearance is final.

All cars and trucks must have complete bodies, hoods, fenders, and an approved front and rear bumper. Bumpers may be fabricated of pipe, or tubing, with capped ends. Rear of car between bumper and deck lid must be enclosed with metal. Truck bed must be covered with metal. All body panels must be fastened in an approved manner. No forward bracing.

All glass, except windshield, (windows, headlights, taillights, etc.), exterior body moldings (chrome, trim, mirrors, door handles, etc.), combustible material (headliner, seats, insulation, etc.) must be removed. Screen of ½-inch mesh may be used on driver's side of windshield opening. Stock hood and trunk hinges must be removed and replaced with clip type hood pins. Spin-off hood pins are prohibited. Stock grills must be replaced with expanded metal or screen.

The roof of all cars and trucks must be removable or equipped with a trap door. The trap door must be hinged at the front and pinned at the rear. **Bolted trap doors are prohibited.** The trap door must be the same size as the inside dimensions of the roll cage. The recommended size of the trap door is 4 foot by 3 foot. If necessary to remove an injured driver, the roof and/or roll cage may have to be cut off cars without a removable roof or trap door.

Rub rails may be no larger than 2 inches in diameter and have a maximum wall thickness of 0.125 inches. Rub rails must have the ends cut at a 45-degree angle and be capped. Rub rails must be flush with body and must be bolted or welded to the roll cage. Rub rails must match the color of the body.

The driver's side door of the car and truck, from the front roll cage post to the main hoop post, must be a bright, contrasting color.

8.2.2 Added Weight

Any weight (ballast) added to the car must be secured by no less than two ½-inch bolts. The maximum spacing between bolts is 10 inches. No weights may be added outside the body. The front weight must be angled at 45 degrees. Added weights must be painted a bright color (safety orange preferred) and have car number on weight.

8.3 FRAME AND ROLL CAGE

All frames and roll cages must be acceptable to FRRC Officials. The frame and roll cage must meet the requirements described in the following paragraphs.

All chassis' must be equipped with a fuel cell protector bar that extends below the bottom of the fuel cell and is adequately braced.

8.3.1 Frame

All frames must be stock passenger car frames. Hearse and truck frames are prohibited.

Frame can be plated forward of front spring pocket to repair bent frame horn(s) with a 3"x3" 11 gauge (1/8") steel plate welded on the outside of the frame. No plating on the inside of the frame forward of the front spring pockets.

Cement or lead filled frames are prohibited.

8.3.2 Roll Cage

Roll cage installation and workmanship must be acceptable to FRRC Officials. Offset roll cages are prohibited. Laid-back roll cages are prohibited.

The roll cage must be a four-post design consisting, in general, of: a vertical main hoop; roof or top hoop; and left and right front post. All right angles must be gusseted, four main posts must have 2, 3" vertical gussets. Galvanized pipe is prohibited.

The main hoop must connect to the left and right frame rails, behind the driver, and be diagonally braced. The main hoop must have a horizontal bar at the midpoint. All bars in the main hoop must be either 1½-inch, i.d., schedule 80 pipe or round steel tubing no less than 1¾-inches, o.d., having a minimum wall thickness of 0.095 inches.

The top hoop must attach to the main hoop, and left and right front posts. The left and right front posts must be connected by a horizontal "dash" bar. All bars in the top hoop, left and right front posts, and dash bar must be either 1½-inch, i.d., schedule 80 pipe or round steel tubing no less than 1¾-inches, o.d., having a minimum wall thickness of 0.095 inches.

The driver's side front post must be connected to the main hoop by four, or more, equally spaced, horizontal bars, mounted flush with the outer door skin. The door bars must be connected by two, or more, equally spaced vertical braces and must attach to the main frame by two, or more, equally spaced vertical braces. A foot protector bar is mandatory. All driver side door bars and braces must be either 1½-inch, i.d., schedule 80 pipe or round steel tubing no less than 1¾-inches, o.d., having a minimum wall thickness of 0.095 inches. **The driver's side must be plated between the door panel and roll cage. Plate must be a minimum of 1/8 inch thick and attached with a minimum of four bolts per plate.**

The passenger side front post must be connected to the main hoop by a minimum of three, equally spaced, horizontal bars, mounted flush with the outer door skin. The bars must be connected by two, or more, equally spaced vertical braces. All passenger side door bars and braces must be either 1½-inch, i.d., schedule 80 pipe or round steel tubing no less than 1¾-inches, o.d., having a minimum wall thickness of 0.095 inches.

Bay bars may extend forward from the dash bar to the frame horn, no more than 2" forward from the front of the upper control arm (plus or minus ½") The maximum wall thickness of bracing may be 0.095 inches.

NO FORWARD BRACING

The jack posts must be guarded, or inside the body.

All roll bars exposed to the driver must be padded.

8.4 SUSPENSION

The front suspension must be OEM. Upper and lower control arms must be OEM. Springs must be a minimum of 5 inches in diameter.

The rear suspension may be modified to convert from coil springs to leaf springs. Coil springs must be a minimum of 5 inches in diameter.

Front and rear shocks may mount in any position. One shock per wheel. Steel body racing shocks are permitted. **Aluminum body and remote reservoir shock absorbers are prohibited.**

Computerized, electric, hydraulic, pneumatic, or remote controlled devices, which can change the handling characteristics of the car, during the race, are prohibited.

8.4.1 Spindles, Wheel Bearings, and Hubs

Spindles, wheel bearings, and hubs must be OEM. Dropped spindles are prohibited.

8.4.2 Brake Components - Front and Rear

Each wheel must be equipped with a brake in proper working condition. Installation must be approved by FRRC.

Brakes may be disc or drum. Disc brake calipers must be OEM, grinding is prohibited. Disc brake rotors must be steel. Aluminum or composite rotors are prohibited.

Brake balance bar or brake proportioning valve is prohibited.

Fabricated foot boxes are permitted.

8.5 ENGINE REQUIREMENTS

8.5.1 General Eligibility

Only V-8 engines with a 2 bbl. carburetor are permitted. Engine must be of Parent Corporation of frame. Cast iron intake and exhaust manifolds mandatory, no Corvette exhaust or intake manifolds permitted.

8.5.2 Engine Blocks

Block must be a factory production **cast iron** block with external measurements identical to the standard production engine. Angle milling of block is prohibited.

8.5.3 Crankshaft and Harmonic Balancer - All Motors

Only cast iron or forged steel crankshafts are permitted. **Titanium crankshafts are prohibited.**

Only standard type harmonic balancers are permitted. Aluminum or fluid type balancers are prohibited.

Minimum crankshaft weight is 52 pounds. Lightweight, knife-edge, and undercut counterweight, crankshafts are prohibited.

8.5.4 Pistons and Rods

Only OEM steel connecting rods are permitted. **Titanium rods are prohibited.**

8.5.5 Oil Pump and Pan

Wet sump oil pumps only. Dry sump oil pumps are prohibited. After market oil pan may be used.

8.5.6 Cylinder Heads

Aluminum cylinder heads are prohibited. **Titanium valves are prohibited.**

8.5.7 Intake Manifold

Any production type, cast iron intake manifold is permitted.

An adapter plate, with a straight bore and a maximum thickness of 1¼-inches, may be used between the intake manifold and carburetor.

Only 2 gaskets (1 per side), with a maximum thickness of 0.065inches, may be used on the adapter plate.

8.5.8 Carburetor

Figure 8 motors must run a 2 bbl carburetor with a FRRC issued restrictor plate.

Any attempt to pull outside air other than down thru the venturies is prohibited.

8.5.9 Air Cleaner

All cars must be equipped with an air cleaner during competition. The air cleaner must be no more than 14 inches in diameter and may not protrude thru the hood.

8.5.10 Ignition System and Battery

Magnetos and crankshaft-triggered ignitions are prohibited. 12-volt battery and electrical systems only.

A, labeled, centrally located, master on-off switch, to cut off all electrical power to the car, is mandatory.

The battery must be located between the frame rails, must be securely installed, and have a suitable cover. Batteries located in the driver compartment must be enclosed in either a plastic, marine battery box or an FRRC approved battery box. The battery may not be located forward of the radiator, or behind the rear end of the car.

8.5.11 Exhaust System

All cars must have a complete exhaust system. Exhaust manifolds must be unaltered, cast iron, OEM. Corvette type exhaust manifolds are prohibited. Exhaust manifold may not exceed 2" i.d. when measured at the exhaust flange. All exhaust systems must extend past the driver and exit under the car. The maximum decibel limit is 85 db.

8.5.12 Cooling System

Electric fans are permitted. Use of antifreeze is prohibited.

All cars must be equipped with a steel or aluminum approved overflow or catch tank. Factory catch tanks are permitted.

Radiator must mount in front of engine. Radiator may be any size, but must mount in original stock location. Radiator may not protrude thru hood. Radiator shrouds must retain the same shape as OEM shrouds. Shrouds must be metal or OEM and extend to fan blades.

8.6 DRIVE TRAIN

8.6.1 Clutch, Bell Housing, Transmission, and Drive Shaft

Any three, four, or five speed, American made, manual transmission is permitted. Unaltered automatic transmissions are permitted. Torque converter diameter cannot be less than 10". Quick-change transmissions, couplers, in/out boxes, and buttons are prohibited.

All manual transmission cars must be equipped with a scatter-proof bell housing. A 3-inch diameter hole is required in the bottom of the bell housing for inspection purposes.

The flywheel and clutch assembly must be a single disc, OEM, no less than 10.5 inches in diameter and cannot weigh less than 40lbs.

All cars must be equipped with a loop that surrounds the drive shaft. The loop must be fastened to the frame or cross member.

8.6.2 Rear End

Only OEM passenger car rear ends are permitted. Full floating or quick-change rear ends are prohibited. Locked rear ends are permitted.

Axles must be steel. Titanium axles are prohibited.

8.6.3 Wheels and Tires

8.6.3.1 Wheels

The wheels must be steel and meet the following requirements:

- A. After market steel wheels are required. No magnesium or aluminum wheels.
- B. All wheels must be 15 inches in diameter and no more than 8.0 inches wide.
- C. Wheel studs must be a minimum of 7/16 inch diameter and at least flush with outside of lug nut.
- D. Wheels must be attached with 1-inch, steel, lug nuts. Lug nuts may not be altered.

8.6.3.2 Tires

Only approved tires allowed. Tires must be used in approved positions. Approved tires and positions are: **Hoosier 800 Series 8.0/27.0-15 Hoosier F53 or Hoosier F75 (both sides)**. No buffing or treatment of tires allowed.

8.7 FUEL SYSTEM

Electric fuel pumps are prohibited.

Fuel line must be metal. Rubber fuel lines are prohibited. Fuel line may not be located in driver's compartment. Fuel line must run along the inside of the frame rail.

8.7.1 Fuel Cell

All cars must be equipped with a fuel cell. The maximum capacity of the fuel cell is 22 gallons. The installation must be FRRC approved.

Fuel cell must be located behind the rear end, between the frame rails and centered in the trunk area. The fuel cell must be attached to the frame with a minimum of four bolts.

Minimum height to the bottom of the fuel cell container is 11 inches.

8.7.2 Fuel Cell Container

The fuel cell container must be a minimum of 18-gauge steel and must have a 1-inch lip. The container must have, two, 1 inch by 1/8 -inch steel straps, around the top, sides, and bottom, in both directions. The top must be a minimum of 18 gauge, steel.

8.7.3 Fuel

The fuel must be automotive gasoline only. The gasoline must not be blended with alcohols (such as methanol or ethanol), ethers, aniline or its derivatives, or oxygenated additives (such as nitro methane or nitro propane). The use of nitrous oxide is prohibited.

FRRC has the right to sample a competitor's fuel at any time, during an event. Samples will be tested by FRRC and/or any outside laboratory at FRRC discretion.

8.8 MISCELLANEOUS EQUIPMENT

8.8.1 Steering components

All steering boxes and components must be stock, unaltered OEM, for the car. All cars must have either a collapsible, two piece steering column, or a minimum of two swivel joints. The steering column must have an impact collar, no less than 1½-inches in diameter, welded, or bolted to the column forward of the column support inside the drivers' compartment.

The center of the steering wheel must be padded with resilient material.

8.9.2 Seat

Seat must be made of aluminum and installed in a manner acceptable to FRRC Officials. No less than 4, ½-inch diameter, bolts must be used to attach seat to frame and cage. A flat steel washer no less than 1½-inches in diameter must be installed between the head of the bolt and seat. Headrest on seat is mandatory.

8.8.3 Seat Belts and Shoulder Harness

A quick release lap belt and double shoulder belt no less than 3 inches wide is mandatory. A submarine belt is also mandatory. Seat belt and shoulder harness must be date stamped 2005, 2006, or 2007. Seat belt and shoulder harness must be installed according to manufacturer's recommendations. The belts and harness must be attached to the roll bar cage at approximately shoulder height with Grade 5 or better hardware, no less than 3/8 inch in diameter.

8.8.4 Helmet

A helmet that meets SA2005 Snell Foundation specifications is mandatory. Neck collar or head and neck restraint system mandatory.

8.8.5 Drivers Suit

It is mandatory that a driver wears a fire retardant suit (free of rips and tears) and gloves while on the race track. It is recommended that a driver wear fire retardant socks and shoes.

Drivers will not be allowed on the track unless wearing a fire retardant suit and gloves. If a driver removes his/her gloves during an event, the driver will be black-flagged.

8.8.6 Fire Control System

It is mandatory that each car be equipped with a fully charged fire extinguisher or on-board fire control system.

The fire extinguisher must be a dry type of no less than 2 pounds and be equipped with a gauge to indicate state of charge. The extinguisher must be mounted in a metal bracket, have a quick release latch (tape is prohibited), and be within reach of driver.

The on-board system should be at least 5-pound capacity and Halon 1301 or equivalent.

8.8.7 Window Net

It is recommended that each car be equipped with either a 1-inch web or knitted mesh window net on the driver's side. The minimum allowable length is 12 inches. The window net must attach to the roll cage at the bottom and release with a seat belt snap or FRRC approved release on the top front corner of the window net. Window net must be in place while car is on race track.

Each car must be equipped with a head restraint net, mounted between the window net and seat. Net may be rectangular or triangular. Net must be mounted according to manufacturer's recommendations.

8.8 Engine Claim Rule

\$750.00 claim/swap. The driver claiming the engine must be an FRRC member, finish on the lead lap and within 5 positions of the car he/she claims, and must have competed in the 2 races prior to the claim. Engine must be claimed within 5 minutes of the completion of that race. Cash or money order must be given to a FRRC Officer. Only 1 claim per year per driver. Engine claim to include intake manifold to oil pan and does not include the following: carburetor, clutch assembly, flywheel, exhaust manifolds, engine mounts, sending units, fuel pump, distributor and spark plug wires or the valve covers. If the driver refuses to sell the claimed engine, he/she will lose all points and money up to and including that race, and be suspended for two (2) additional weeks of competition.

8.9 TRANSPONDERS

Transponders are required on every car and are to be working and turned on whenever the car is on the racing surface. Only 1 transponder allowed per car. Transponder to be located 75 inches from the center of the transponder to the front bumper.

FIGURE 8 TRACK RULES – 2009-2010

1. Any car in competition with a flat tire or an open hood must leave the race track immediately or you will not be scored.
2. At the “ X “ , all racers must yield (give right of way) to cars coming from the right, to prevent a hit in the drivers’ door.
3. Drivers must be signed in by 6:30. Starting line-ups will be posted shortly after the drivers’ meeting. The previous weeks winner will start last. Any driver not signed in by 6:30 will start at the rear of the field.
4. All competitors must be 18 years of age or older.
5. All points go with the driver.
6. These rules apply to all Figure 8 races held at W.I.R., this includes all special events
7. Use your best judgment when entering and leaving the race track or pit area. Severe penalties will be imposed if extreme caution is not used.
8. Track officials can have a competitor’s car inspected at any time. If a driver refuses to present the car for inspection, they forfeit their right to compete for 1 full year from the date of the infraction and loose all points and money accumulated up to that point.
9. Any illegal parts will be confiscated by the track or club officials and will remain the property of FRRC or W.I.R.

SECTION - 9

SIZZLIN 4's DIVISION – 2009-2010

Open to 2000 and older 4-cylinder, two-wheel drive, automobiles provided they comply with, and adhere to, specifications as outlined for this class.

NOTICE:

ALL EQUIPMENT IS SUBJECT TO THE APPROVAL OF FRRC OFFICIALS. NO EQUIPMENT WILL BE CONSIDERED AS HAVING BEEN APPROVED BY REASON OF HAVING PASSED THRU INSPECTION UNNOTICED. EFFORTS TO TAKE ADVANTAGE OF "LOOP HOLES" IN THESE RULES WILL NOT BE TOLERATED. ALL RACE CARS WILL BE SUBJECT TO INSPECTION BY TRACK OFFICIALS AT ANYTIME.

9.1 COMPETING MODELS AS APPROVED BY FRRC

FRRC Sizzlin 4 races are open to 2004 and older 4-cylinder, front wheel drive, passenger cars. Cars may be 2 or 4 door sedans, hardtops, coupes, station wagons, or mini vans. Full frame cars are prohibited.

DOHC cars are able to compete with a ~~2-week maximum~~ **250lb penalty weight added to the right passenger seat mount. All added weight is subject to safety inspection.**

All wheel steering cars are prohibited.

9.1.2 Other Approved Models

Other models may be approved, provided they are of the same body configuration, meet the spirit and intent of competitive racing, and are approved by FRRC Officials.

9.1.3 Identification and Marking

FRRC reserves the right to assign car numbers, and to assign or restrict the display of graphics and advertising on race cars. Offensive graphics or slogans are not permitted. All Competitors agree to accept FRRC's decision in this matter.

Officially issued numbers must be at least 16 inches high by 3 inches wide and neatly applied (paint or decals) to both doors. Numbers, as large as possible and in contrasting colors to the body, must be applied to the front headlight cover, rear taillight cover, and upper right corner of windshield.

Where required, participating sponsor's emblems, or decals will be placed in the position designated by FRRC Officials.

9.2 GENERAL CAR WEIGHT REQUIREMENTS

9.2.1 Added Weight

Added weights (ballast) are prohibited.

9.3 GENERAL CAR REQUIREMENTS

9.3.1 Car Bodies

The car body must meet the following requirements.

Cars must be in factory condition, NO modifications permitted. Cars must be neat appearing. All cars must have complete bodies, hoods, fenders, and stock front and rear bumper. Bodies must be OEM steel or OEM replacement steel. After market or fabricated body parts are prohibited. Hood scoops are prohibited, unless they are OEM for body. OEM Spoilers, air dams, and wings are permitted. Wheel wells must be unmodified and may not have any sharp edges. The front of the cowl must seal to the back of the hood. Body panels damaged during an event must be repaired or replaced in a reasonable period of time. Cars with un-repaired or unpainted body panels may not be allowed to compete. The decision of FRRC Officials about appearance is final.

All body panels must be fastened in an approved manner. Hatchbacks must be welded shut. Doors must be welded or bolted shut with no less than six steel straps per door. Straps must be no less than 2" x 3" x 0.120". If welded, the weld must be continuous around the entire strap. If bolted, the bolts must be no less than 3/8-inch diameter steel and pass through the inner door reinforcement. A flat steel washer no less than 1 inch in diameter must be installed between the

door skin, or inner reinforcement, and nut.

The hood, and trunk lid or hatchback, may not be gutted. Gutting of the interior sheet metal is prohibited. All roof, door and window reinforcement must remain intact. Only the driver's door may be gutted for roll bar clearance. All sharp edges, especially around the driver's window opening, must be rolled or capped. The dashboard may be removed. The floor pan, firewall, rear inner fenders, and trunk floor panels must all remain intact. Rusted panels must be repaired with stock production panels or minimum thickness 20 gauge steel, installed in the same location. All holes caused by rust or equipment removal (i.e., heater) must be covered with minimum thickness 20 gauge steel and sealed with caulk.

All glass (windshield, side and rear windows, headlights, taillights, etc.), exterior body moldings (chrome, trim, mirrors, door handles, etc.), combustible material (headliner, seats, insulation, etc.) must be removed. Air bags must be removed. Stock hood and trunk latches must be removed and replaced with clip type hood pins. A minimum of 2 hood and trunk pins are required. Spin-off hood pins are prohibited. Stock grilles must be replaced with expanded metal or screen.

Front and rear bumpers must be OEM and mount in the original location. Bumpers may not be reinforced or have jagged edges. Bumpers must be chained or welded to frame horns. Energy absorbing bumper mounts must be welded. A front and rear lifting chain, on the outside of the bumper, is required. Front and rear protector hoops are prohibited.

The original windshield must be replaced with a full width, 1/8-inch thick lexan windshield, or reinforced, 1-inch or smaller, steel wire mesh screen. The screen wire diameter must be no less than 0.063 inches for mesh larger than 1/2-inch, or no less than 0.035 inches for mesh smaller than 1/2-inch. A minimum of three reinforcements must be installed behind the lexan windshield or wire mesh screen. The reinforcements must be bolted or welded to the roof panel or roll bar and dash panel in an approved manner. Reinforcements must be installed so as not to obstruct the driver's vision.

Side and rear windows are not allowed. Rub rails are prohibited.

9.4 ROLL CAGE

All cages must be acceptable to FRRC Officials. The roll cage must meet the requirements described in the following paragraphs.

9.4.1 Roll Cage

Roll cage installation and workmanship must be acceptable to FRRC Officials. All bends in the roll bar tubing must have a smooth radius and no kinks. It is recommended that all joints be gusseted.

The roll cage must be a four-post design consisting, in general, of: a vertical main hoop; top hoop or halo bar; left and right front post, and seat frame.

Offset roll cages are prohibited. Laid-back roll cages are prohibited. The center of the main hoop may be located no further back than 2 inches from the top of the parting line of the back of the front door. The top of the top hoop must be within 1 inch of the bottom of the roof.

A halo support bar to the cage being diagonal or vertical is mandatory.

The vertical main hoop must be welded either to the left and right rocker panels and floor pan, or a minimum 4"x4"x 1/4" steel plate at the bottom of each leg of the vertical main hoop. A second 4"x4"x 1/4" steel plate must be located under the floor pan and be connected to the main hoop plate by a minimum of four 3/8" diameter, steel, bolts. The main hoop must be located behind the driver and have a horizontal bar at the midpoint and bottom, parallel to floor pan. The main hoop must also be diagonally braced. All bars in the main hoop bar must be round steel tubing no less than 1 3/4-inches in diameter and have a minimum wall thickness of 0.095 inches. DOM tubing recommended. Black pipe, exhaust tubing, formed pipe, etc. is prohibited.

The top hoop must attach to the main hoop, and left and right front posts and be diagonally braced. The left and right front posts must be welded either to the rocker panels and floor pan, or a minimum 4"x4"x 1/4" steel plate at the bottom of each post leg. A second 4"x4"x 1/4" steel plate must be located under the floor pan and be connected to each post leg plate by a minimum of four 3/8" diameter, steel, bolts. The rocker panel where the main hoop, and left and right front posts attach must be reinforced with a minimum of 1/4 inch steel plate. The left and right front posts must be connected by a horizontal "dash" bar. The top hoop, and left and right front posts and dash bar must be round steel tubing no less than 1 3/4-inches in diameter and have a minimum wall thickness of 0.095 inches. "A" pillar supports are allowed.

The driver's side front post must be connected to the vertical main hoop by three, or more, equally spaced, horizontal bars, mounted flush with the outer door skin. The door bars must be connected by two, or more, equally spaced vertical braces and must attach to the main frame by two, or more, equally spaced vertical braces. A foot protector bar is allowed and recommended. All driver side door bars and braces must be round steel tubing no less than 1¾-inches in diameter and have a minimum wall thickness of 0.095 inches. **The complete driver's side door bar area must be plated with steel plates no less than 0.095 inches thick.**

The seat frame must attach to the lower main hoop horizontal and bottom driver's side door bar. The seat frame must have a minimum wall thickness of 0.095 inches.

The passenger side must be equipped with a minimum of three door bars. Two of the bars may be "X" design. Horizontal bars must be equally spaced and connected by two, or more, equally spaced vertical braces. All passenger side door bars and braces may be round steel tubing no less than 1¾-inches in diameter and have a minimum wall thickness of 0.083 inches.

The main hoop must be connected to the back floor pan by a minimum of two rear support bars. The rear support bars must be welded either to the floor pan, or a minimum 4"x4"x ¼" steel plate at the bottom of each support bar. A second 4"x4"x ¼" steel plate must be located under the floor pan and be connected to support bar plate by a minimum of four 3/8" diameter, steel, bolts. The bars must be round steel tubing no less than 1¾-inches in diameter and have a minimum wall thickness of 0.095 inches.

All roll bars exposed to the driver, and left side door bars, must be padded.

9.5 SUSPENSION

The front suspension must be unmodified OEM. Suspension geometry must remain within manufacturer's specifications. Excessive caster and camber changes are not permitted. Metal pivot bearings and after market bushings are prohibited. Strut tower reinforcements are prohibited.

The rear suspension must be unmodified OEM. Suspension geometry must remain within manufacturer's specifications. Excessive caster and camber changes are not permitted. Metal pivot bearings and after market bushings are prohibited.

Front and rear shocks must be OEM or OEM replacement and mount in original position.

Computerized, electric, hydraulic, pneumatic, or remote controlled devices, which can change the handling characteristics of the car, during the race, are prohibited.

Caster/Camber :

Front End – Both sides +/- .75" measured at wheel, centered on hub

Rear End – Both sides +/- .50" measured at wheel, centered on hub

9.5.1 Spindles, Wheel Bearings, and Hubs

Spindles, hubs, and wheel bearings must be unmodified OEM and of the same make and model as the car. Dropped spindles are prohibited.

9.5.2 Brake Components - Front and Rear

Each wheel must be equipped with a brake in proper working condition. All brake components must be unmodified OEM, of the same make and model as car. Modified brake components, such as drilled or vented rotors are prohibited.

All brake lines must be steel and the same diameter.

9.6 ENGINE REQUIREMENTS

9.6.1 General Eligibility

Only 4-cylinder engines are permitted. Engine must have been available in that body style without special order. Turbocharged or supercharged engines are prohibited. Double overhead cam engines are prohibited. The displacement and compression ratio on all engines may not be altered from OEM for the make and model of car.

9.6.2 Engine Location

Engine mounts must be unmodified OEM and the engine must remain in the stock location. Engine may be chained for reinforcement.

9.6.3 Engine Blocks

Block must be the factory production block for the make, model and year of car, and have been available in that body style without special order. All engine block markings must remain. The maximum cylinder overbore is 0.030 inches.

9.6.4 Crankshaft and Harmonic Balancer

Only unmodified OEM cast iron or forged steel crankshafts are permitted. After market crankshafts are prohibited. The crankshaft must be for the make, model and year of block, and have been available in that body style without special order. Crankshafts with journals undercut more than 0.030 inches prohibited.

Only OEM, standard type harmonic balancers are permitted.

9.6.5 Pistons and Rods

Only unmodified OEM pistons are permitted. After market pistons are prohibited. The pistons must be for the make, model and year of block, and have been available in that body style without special order.

Only unmodified OEM connecting rods, for the make, model and year block, are permitted.

9.6.6 Oil Pump, Pan, and Cooler

Only unmodified OEM oil systems are permitted.

9.6.7 Cylinder Heads

Cylinder heads must remain unmodified OEM. All cylinder head markings must remain. The cylinder head to block surface may only be machined a maximum of 0.020 inches from OEM. A three angle valve job, maximum, may be done as long as no stones are used more than 1/8" above the head of the valve.

9.6.8 Camshafts, Valve Lifters, & Rocker Arms

Only unmodified OEM camshafts, lifters, valves, valve guides, valve springs, retainers, push rods, rocker arms, studs, etc. may be used. Double overhead camshafts are prohibited

Rev kits and stud girdles are prohibited.

9.6.9 Intake Manifold

Only an unmodified OEM intake manifold is permitted. After market manifolds are prohibited. The manifold must be for the make, model and year of block, and have been available in that body style without special order.

Grinding or polishing of the ports is prohibited. Chemical treating, acid dipping, acid flowing, abrasive blasting, addition of material, or other alterations to the original, as cast, intake manifold is prohibited.

9.6.10 Carburetor or Fuel Injection

Only an unmodified OEM carburetor or fuel injection system for the make and model car is permitted. Two throttle return springs, mounted in two directions, required.

9.6.11 Air Cleaner and Air Intake

9.6.11.1 Air Cleaner

All cars must be equipped with an OEM air cleaner during competition. Top flow air cleaners are prohibited.

9.6.11.2 Air Intake

Forward intakes are not allowed. Cowl air induction is not allowed. Air boxes are not permitted. No devices for directing the flow of air into the air cleaner are permitted.

9.6.12 Ignition System and Battery

Stock unmodified OEM ignitions only. The ignition system must be for the make, model and year of car, and have

been available in that body style without special order.

A, labeled on/off, ignition switch, within reach of the driver and safety crew, is required. This needs to be in the middle of the car, so it can be reached from either side.

A main battery shut off switch labeled on/off and highlighted with a RED circle is mandatory to shut off the engine and all electrical power to the car. This can be accomplished by connecting the fuel pump ground wire to the switch, or using a four (4) pole shut off switch and connecting the alternator to the switch. This switch must be mounted behind the driver's head inside the roll cage.

The battery must be moved to the driver's compartment (behind the seat) or in the trunk area, must be securely installed with a minimum of two steel straps, be enclosed in either a marine type battery box or an FRRC approved battery box, and be sealed off from the driver's compartment by a steel bulkhead.

9.6.13 Exhaust System

All cars must have a complete, unmodified, exhaust system and street legal muffler at all times. The exhaust system must be for the make, model and year of car, and have been available in that body style without special order. Flexible exhaust pipe prohibited. Chemical treating, acid dipping, acid flowing, abrasive blasting, addition of material, or other alterations to the original, as cast, exhaust manifold is prohibited. All exhaust systems must extend past the driver and exit behind the car.

9.6.14 Cooling System

Stock unmodified OEM cooling system only. The cooling system must be for the make, model and year of car, and have been available in that body style without special order. Use of antifreeze is prohibited. Water wetter is permitted.

All cars must be equipped with an approved overflow or catch tank. Factory catch tanks are permitted.

Radiator shroud is mandatory. Radiator shrouds must retain the same shape as OEM shrouds. Shrouds must be metal or OEM and extend to fan blades.

9.7 DRIVE TRAIN

9.7.1 Clutch, Bell Housing, and Transmission

Only unaltered OEM manual or automatic transmissions are permitted. The transmission, bell housing, clutch, shifter, and linkage must be for the make, model and year of car, and have been available in that body style without special order.

OEM transmission oil coolers are permitted. Coolers must be located in the stock location.

9.7.3 Wheels and Tires

9.7.3.1 Wheels

The wheels must be steel and meet the following requirements:

- A. Only OEM steel wheels for the make and model car are permitted. Wheels must be painted white or a bright color.
- B. Wheel studs must be at least flush with outside of lug nut. Broken studs and missing lug nuts prohibited.
- C. 1-inch, steel, lug nuts required. Lug nuts may not be altered.
- D. All Wheels must be the same diameter (13", 14" or 15")**

Wheel spacers are prohibited. Pressure bleeders are illegal.

9.7.3.2 Tires

Only FRRC approved tires allowed. Approved tires are: Any four, DOT, street legal, 60 series, or taller tire. No buffing or treatment of tires allowed. Minimum right side air pressure 30 pounds, at all times.

9.8 FUEL SYSTEM

Steel fuel lines only. Fuel line through driver's compartment must be enclosed in a steel pipe or conduit. Fuel vent mounting, fuel line installation, and fuel cell mounts must be FRRC approved.

9.8.1 Fuel Tank

If the stock gas tank is ahead of the rear axle, and in good condition, it may remain in place. If stock gas tank is behind the rear axle, it must be replaced with a fuel cell or boat tank (maximum of 6.6 gallons) mounted securely in the trunk area. Fuel cell or boat tank must be enclosed in a container and centered in the trunk area. The firewall between the driver and trunk must be sealed off.

9.8.2 Fuel Cell or Boat Tank Container

The fuel cell or boat tank container must be a minimum of 22-gauge steel. The container must be securely anchored to the trunk floor by, two, 1 inch by 1/8-inch steel straps, in both directions. The trunk floor must be rust free and in sound condition.

9.8.3 Fuel

The fuel must be automotive pump gasoline only. 93 octane maximum. Racing gas is prohibited. The gasoline must not be blended with ethers, aniline or its derivatives, or oxygenated additives (such as nitro methane or nitro propane). The use of nitrous oxide is prohibited.

FRRC has the right to sample a competitor's fuel at any time, during an event. Samples will be tested by FRRC and/or any outside laboratory at FRRC discretion.

9.9 MISCELLANEOUS EQUIPMENT

9.9.1 Steering components

All steering components must be stock, unaltered OEM, for the car. No quick steering devices allowed.

The center of the steering wheel must be padded with resilient material.

9.9.2 Seat

The seat must be a purpose built racing seat made of aluminum, and installed in a manner acceptable to FRRC Officials. It is recommended that the center of the seat be no less than 16 inches from the inside edge of the driver's side door bar. No less than 4, ½-inch diameter, bolts must be used to attach seat to the seat frame. A flat steel washer no less than 1½ inches in diameter must be installed between the head of the bolt and seat. Seat must be equipped with a padded cover. Headrest on seat is mandatory.

9.9.3 Seat Belts and Shoulder Harness

A quick release lap belt and double shoulder belt no less than 3 inches wide is mandatory. A 2-inch submarine belt is also mandatory. Seat belt and shoulder harness must be date stamped, 2005 **or newer**, ~~2006, or 2007~~ and in good condition. Seat belt and shoulder harness must be installed according to manufacturer's recommendations. The belts and harness must be attached to the roll bar cage at approximately shoulder height with Grade 5 or better hardware, no less than 3/8-inch in diameter. If a driver's belts and harness become unlatched during an event, the driver will be black-flagged.

9.9.4 Helmet

A helmet that meets SA2005 Snell Foundation specifications is mandatory. Neck collar must be worn while on the race track. If a driver removes his/her neck collar during an event, the driver will be black-flagged.

9.9.5 Drivers Suit

SFI approved fire retardant suit (free of rips and tears) mandatory. It is recommended that a driver wear fire retardant socks and shoes. If a driver removes his/her gloves while on the race track, the driver will be black-flagged.

9.9.6 Fire Control System

At the drivers discretion, the car be equipped with a fully charged fire extinguisher or on-board fire control system.

The fire extinguisher, if provided, must be a dry ABC class unit of no more than 2½ pounds and be equipped with a gauge to indicate state of charge. The extinguisher must be mounted in a metal bracket, have a quick release metal restraint/latch system (tape is prohibited), and be within reach of driver.

9.9.7 Window Net

It is mandatory that each car be equipped with either a 1-inch web or knitted mesh window net on the driver's side. The

minimum allowable length is 12 inches. The window net must attach to the roll cage at the bottom and release with a seat belt snap or FRRC approved release on the top front corner of the window. Window net must be in the up position any time the car is on the race track.

9.9.8 Mirrors

~~Only one OEM rearview, or 5-inch round, mirror is permitted.~~ No limited to the number of mirrors. Blocking is prohibited!

9.9.9 Two Way Radios

Two Way radios are prohibited.

9.9.10 One Way Receivers

One way receivers are mandatory. Receivers will ONLY be allowed to receive track personal direction. Team spotters are prohibited. Receivers are required to be programmed to the track mandated frequency only.

Only Raceiver Elite 1600 one way receiver permitted.

9.10 CLAIMS

There will be a \$700.00 claim swap for entire car. Driver retains safety equipment; (safety equipment is at the discretion of the officials). The driver claiming must finish within 5 positions of the car he/ she claims. Each driver must complete the last 2 races prior to the claim and finish on the lead lap. Only 1 claim per year per driver. If driver refuses claim, he/ she loses points and money from the night of the claim and the car/driver will not be allowed to compete for the next week of competition after refusing the claim. No claims can be made in the last three weeks of the race season.

A claim can only be made up to 5 minutes after their race has been completed and claim money must be presented to the tech inspector at the tech shack within that time.

Claimers and Claimees and their equipment are not allowed to leave the tech area after the completion of the race.

ONLY current club members are allowed to claim cars that are also current club members.

9.11 TRANSPONDERS

Transponders are required on every car and are to be working and turned on whenever the car is on the racing surface. Only 1 transponder allowed per car. Transponder to be located 75 inches from the center of the transponder to the front bumper.

SECTION - 10
WISCONSIN SPORT TRUCKS RACING RULES

For all Wisconsin Sport Truck Rules and Contacts, Please see their website www.wisporttruck.com

SECTION - 11

CONSTITUTION and BY - LAWS of the FRRC ~~2008~~ 2010-2011

ARTICLE I Election of Officers

Section 1: Protocol of Elections Nominations for all offices will be taken from the current members of the club. All nominees must be a current member (**See definition of member in ARTICLE IV, Section 5**) in good standings and have been a member in good standing the year previous of being nominated. Upon acceptance of the nomination, all nominees will be placed on a ballot or bulletin board in alphabetical order for each office up for election. There also must be a place on the ballot for a write in vote for any person whom wishes to run as a write in candidate. The persons nominated will have the opportunity to address the club body of their intentions for the office, if they so chose. Any person whom wishes to run as a write in candidate will also be given the opportunity to present themselves and their intentions of office to the club body. The candidates for President, Vice-President, Secretary, and Treasurer receiving the majority of the votes being cast shall be declared elected to their respective offices.

Section 1A: Offices of President and Secretary During odd number years at the regular Driver's meetings held track side during the last two events of the race season and at the regular club meeting held on the fourth Monday of September of each year during the existence of this club, the presiding officer shall make a call for nominations to the offices of President and Secretary. These respective offices are for the duration of a two (2) year term. The election for the offices of President and Secretary shall be held at the regular club meeting held on the fourth Monday of the month of October.

Section 1B: Offices of Vice-President and Treasurer During even number years at the regular Driver's meetings held track side during the last two events of the race season and at the regular club meeting held on the fourth Monday of September of each year during the existence of this club, the presiding officer shall make a call for nominations to the offices of Vice President and Treasurer. These respective offices are for the duration of a two (2) year term. The election for the offices of Vice President and Treasurer shall be held at the regular club meeting held on the fourth Monday of the month of October.

Section 2: The officers so elected to the positions of President and Secretary shall be installed to their respective office at the end of the October meeting. If prior to the end of their term the newly elected President resigns, the acting Vice-President takes office. Nominations for a new Vice-President shall be taken at the next two (2) club functions thereafter. At the next club function following the completion of nominations, a vote will be taken and the candidate receiving the majority of the votes being cast shall be elected for the remainder of the term.

Section 2A: The officers so elected to the positions of Vice-President and Treasurer shall be installed to their respective office at the end of the October meeting. If prior to the end of their term the newly elected Treasurer resigns, the Audit Committee shall take over the office. Nominations for a new Treasurer shall be taken at the next two (2) club functions thereafter. At the next club function following the completion of nominations, a vote will be taken and the candidate receiving the majority of the votes being cast shall be elected for the remainder of the term.

Section 3. Any resignation by an officer will be submitted to all presiding officers in a formal letter. The remaining officers must then write a letter of acceptance and mail this letter to the resigning officer.

Section 4. A vacancy in any office, except President, will be filled by nominations at the next two (2) club functions, and then a vote at the following club function. The Audit Committee will temporarily perform the duties of that office until the position is filled.

Section 5. All former, all present and all future officers of F.R.R.C. will be lifetime members of the F.R.R.C. and receive one free pass for F.R.R.C. Events, provided they have completed at least one full two(2) year term. Officers before the 2002 by-laws will continue as lifetime members under a grandfather clause. However, the acting Board of Directors and present officers may revoke a lifetime membership, if they deem it necessary.

Section 6. The officers reserve the right to interpret all set rules and regulations regarding all club functions previously voted upon.

Section 7. The officers reserve the right to remove anyone who is unruly at any club function and subject them to necessary disciplinary action, as decided by the officers.

Section 8. All competitors will pay the nightly entry fee. This includes current officers or lifetime members. Any

officer that is also competing must park next to the pit office during their term.

ARTICLE II

Section 1. PRESIDENT. It shall be the duty of the President to preside at meetings of the club and to perform such other duties as ordinarily pertain to their office.

Section 2. VICE PRESIDENT. It shall be the duty of the Vice President to preside at meetings of the club in the absence of the President and to perform such other duties as ordinarily pertain to their office.

Section 3. SECRETARY. The principal duties of the Secretary shall be to countersign all deeds, leases, and conveyances executed by the corporation, and to such other papers as shall be required to be sealed and to keep record of the proceedings. They are to safely and systematically keep all books, papers, records and documents belonging to the corporation, or in any way pertaining to the business thereof.

Section 4. TREASURER. The principal duties of the Treasurer shall be to keep an account of all monies, credits, and property of any and every nature of the corporation, which shall come into their hands, and to keep an accurate account of all monies disbursed, and to render such accounts, statements, and inventories of monies received and disbursed to the club officers or Audit Committee, and of money or property on hand, and generally of all matters pertaining to their office. At the end of November, each year, the Treasurer is to render all books to the Auditing Committee. The club's books will be reviewed by the Audit Committee and a report will be given by January's membership meeting.

~~**Section 4.1.** BOOKKEEPER. The principal duties of the Bookkeeper shall be to keep the books, perform data entry, and assist the Treasurer with the duties that pertain to the Treasurer's office. The Bookkeeper is appointed by the officers and shall report to the Treasurer.~~

Section 4.1 BOOKKEEPER FRRC will retain and compensate a bookkeeping individual or firm. This individual or entity shall assist the Treasurer and be governed by the officers.

Section 5. All officers shall hold office for two (2) years from the date of inauguration, unless the office is filled temporarily. Upon their retirement from office they shall have 15 days to turn over to their successors, or to the President or Audit Committee, all funds, books of account, computer material or club property in their possession.

Section 6. All officers and officials shall be paid for any expense accumulated by or for all club duties, after such expenses have been approved by the remaining officers.

Section 7. F.R.R.C. officers reserve the right to review performance of any F.R.R.C. official. F.R.R.C. official's job status may be subject to disciplinary action up to and including terminations.

ARTICLE III

Section 1. Meetings shall be held monthly, on the fourth Monday of each month, September through April, with the exceptions of the November meeting will be held on the Monday after Thanksgiving, and there will be no December meeting. For a good cause, a different day can be set, or the meeting dispensed with for a given month, as determined by the officers.

Section 2. Any change in the dates of a regular meeting will be announced at the previous meeting and posted on ~~FRRC.net~~ FRRCRACING.COM

ARTICLE IV Fees, Dues and Memberships

Section 1: The membership fee shall be as follows and must be paid to the Treasurer as a pre-requisite for membership:

\$50.00 - Driver or owner LM, LLM, SS, **Sizzlin' 4**, and Figure Eight membership

~~\$40.00 - Driver or owner SIZZLIN 4 memberships~~

\$30.00 - through the April club meeting date

~~\$55.00 - remainder of the current season~~ **\$25 up charge for each of the above after the April meeting. NO EXCEPTIONS!!!!**

Section 2. Any full member not having his/her ~~ear~~ **divisional competitor registration** fee paid at the March meeting shall forfeit his/her number, and said number becomes open to other members of the club in good standing. Membership shall run from April through March. **Membership deadline---NO late memberships will be sold after July 1st of each calendar year.**

Section 3. All membership dues shall be used for the advancement of the club.

Section 4. Membership entitles the person to be eligible to purchase up to two tickets for the banquet at a price determined by the club, voting at club functions, eligible for nominations for the following year, reduction off pit entrance.

Section 5. In order to be eligible for nominations for the following year, the member must be named on the membership form. A person using a team membership for all other member benefits will not be eligible for nominations or voting privileges.

Section 6. All competitors must pay entry fee. This includes current officers and life-time members.

ARTICLE V

Section 1. Most Improved. Must have been a full member and raced at least a comparable number of the races the previous season and achieved the largest improvement in point standings from the previous year (or your highest) to the current year. Tie breaker will be on the largest improvement in average (Feature, Semi Feature) finish from the previous year to current year.

Section 2. Rookie of the Year. Must be club member and raced in at least 65% of the races. The rookie with the highest finish in the final point standings will be rookie of the year. Tie breaker will be the highest average (Feature, Semi Feature) finish. To be considered a Rookie you must not have raced in more than 5 FRRC events in a prior year for the specific or higher division, than you are now competing in for the rookie of the year award.

Section 3. Can Do Award. Must be a club member and competed in at least 65% of the races. Award will be determined by the tech inspectors and the club officers

Section 4. Best Appearing Car. Car owner must be a club member and the car must have competed in at least 65% of the races. ~~Award selection to be determined by a vote from drivers of peer divisions LLM-LM and SS-Figure 8-Sizzlin~~
4s Award selection will be determined by vote of the fans

Section 5. Any major infraction of club/track rules will result in ineligibility for awards and point fund that year.

Section 6. In order to be eligible for final point fund money, the car owners car must have participated in 65% of the events in the same division and be a member of F.R.R.C. and have a current car registration number. The final point fund monies will be paid to the car owners. All F.R.R.C. racing event prize monies will be paid to the car owner. Point fund monies will be distributed to the divisions as follows: Late Model – 50%, Limited Late Model – 35%, Street Stock – 10%, Figure 8 – ~~5%~~ 3%, Sizzlin 2%. The Wisconsin Sport Trucks will also receive an amount equal to one half of the amount awarded to the Super Stock division.

Section 7. F.R.R.C. championship points accumulated during F.R.R.C. racing events will be awarded to the driver, who must be a member of F.R.R.C..

ARTICLE VI

Section 1. The officers shall form committees whenever they feel there is a need for the benefit of the club.

Section 1 (A). The officers shall determine the number of people needed for the committees and ask for volunteers from the floor.

Section 1 (B). The duties of the committees shall be determined by the officers and the committee.

ARTICLE VII

Section 1. Any persons with club monies must turn over the monies within 14 days to the Treasurer. The Treasurer or Bookkeeper shall deposit all funds of the club in the club's name, at a financial institution to be named by the officers. All deposits of club funds shall be made by the Treasurer or Bookkeeper. All officers will have knowledge of this account.

Section 2. All bills shall be paid by check, with signature of two officers required on all checks. No monies in excess of \$100.00 shall be spent by an officer without the approval from two (2) other officers. All equipment purchases over \$500.00 must be approved by the Audit Committee. All advertising/promotional monies must be approved by the elected club officers.

ARTICLE VIII

Section 1. No action to commit this club on any matter shall be considered by the club until it has been considered by

all the officers.

Section 2. The club shall have the right to donate funds for club sponsored local projects that have been fully explained to the club members and recommended by the officers.

ARTICLE IX

Amendments. These by-laws may be amended at any regular meeting by a two-thirds vote of all full members present, provided that notice of such proposed amendment change shall have been notified at the previous club meeting and posted on ~~FRRC.net~~ FRRCRACING.COM

ARTICLE X

Bylaws Upon the adoption by the F.R.R.C. of the above by-laws, dated ~~2008~~, 2010-2011, all previous bylaws of the club shall be considered void. These bylaws will be reviewed upon the election/re-election of a new President.

ARTICLE XI

Meetings. The meetings and all other club operations will be governed by the Roberts' Rules of Order.

ARTICLE XII

A board of directors shall be formed. It will consist of one representative of each division, one previous club officer, one WIR representative, and an acting audit committee member. The board of directors will help with the day to day operations of the club when requested to do so by the club officers. ~~Additionally, the board of directors may choose to remove any officer from office if the need arises and act as a grievance board and act as a deciding vote if the officers are deadlocked. The board of directors will establish specific guidelines and procedures for the legitimate removal of an officer if they are not performing their job duties of their elected position.~~ Additionally, the board of advisors may make a petition by way of a club vote to remove an officer from office. The Board of Advisors divisional reps will each be an ambassador for their respective division. This includes but is not limited to: making sure divisional drivers paperwork is filled out properly and turned in, making sure all proper required equipment is properly installed and operational for both weekly and new competitors. Officers will filter/relay divisional information through this divisional representative throughout the season.

ARTICLE XIII

The Audit Committee is a standing committee that was established in December of 2001. It consists of 5 volunteer club members, excluding club officers. The objectives are to review and monitor the club's financial condition and spending practices, to safeguard the club's data and ensure that policies and procedures remain constant and to provide consistency, continuity and an informational source for all offices during transitions of officers. In the event of a problematic findings within the club, the Committee will attempt to solve the issue by working with the officers first. If the situation cannot be resolved satisfactorily, they will solicit the opinions of the club body to resolve the issue. The committee will make a yearly report to the club body during the January meeting each year. At that time, they will offer their recommendations for the upcoming year. Other reports to the club body will be offered as deemed necessary.