## **2018 Fox River Racing Club Rules**

#### SECTION - 1

# FRRC 2014 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

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 nonapproved

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

2014 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 must 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 If a car does not meet minimum/maximum weight requirements on their first attempt to scale they will receive only one additional attempt to re-scale the car before they are determined to be in violation of the rules.

# **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. DQ and fine will result.

All heat race and dash winners must weigh their car after the race. The top five finishers in the Late Model, Super Late Model, and Super Stock semi feature and feature race must weigh their

#### 2.1.4 Order of Events

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

cars immediately after the race, plus any other designated cars.

# 2.1.5 Qualifying

Wisconsin Sport Trucks, 4 cylinders 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. Late Model and Super Late Model cars must scale before qualifying.

Late Model, and Super Late Model 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.

Late Models and Super 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 a duplicate official lap, the car having the.

fastest average time of the night will be used to break the tie. If BOTH LAPS are identical, 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 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. Super Stocks will pick for starting position first night and then lined up by nightly average points. Hot laps are after the trucks and the 4's hot laps.

# 2.1.6 Race Line Up

#### 2.1.6.1 Heat Races & Dashes

Wisconsin Sports Truck, Super Stocks, Late Model and Super 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.

Late Model, Super Late Model and Super Stock semi features will be lined up according to qualifying times. The cars in the Late Model, Super Late Model and Super Stock semi feature races will be lined up straight up. The top four finishers in the Super 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, Late Model and Super 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 in front of the transfer cars in the Limited Late Model and Super Late Model feature in 14th position . If a car(s) in the Limited Late Model and Super Late Model

feature is(are) not within 0.750 seconds of the fast qualifier, the car(s) will be placed behind the, fast qualifier 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 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 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.

#### 2.1.7.1 RACE RE-STARTS

All feature and semi-feature races on the 1/2 mile will be restarted double file until 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 1/2 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 Failure to restart at the

rear of the race in the longest line after being deemed involved in the reason for the caution, will result in being scored at a lower finishing position at the end of the race and/or black flagged if several positions are involved. A gentlemen's rule will be in effect, allowing a driver to take complete fault. This may be revoked at any time without notice.

# 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:

Super 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
- Feature will then consist of 14 plus 4 transfers from the semi.

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 o (Example: 28 cars qualified... Top 6 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
- Feature will then consist of 16 plus 4 transfers from the semi.

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
- Feature will then consist of 18 plus 4 transfers from the semi.

**Division Laps Time Limit Transfers** 

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

Super 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 35

Super Stock

Heat races 8

Semi feature 12

Feature 20

Figure 8 Must have a minimum of 8 cars to race. Or car count is the total number of laps run. 8 to 10 cars 10 laps 10 min.

Over 10 cars 11 to 16 cars 15 laps 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 FRRC officers. 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

8 min. or 2 cautions

12 min. top four finishers option to transfer to feature

15 min.

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 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, then given a chance to pick a lane. 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.

# 2.1.12 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. 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

3 wide racing is not allowed. In the occurrence that it happens, the track corner workers are to report this to the flagman. A call will be made as to if a driver was avoiding a slowing vehicle and did not force the issue. If a driver FORCES a 3 wide pass, that driver will be sent to the rear.

#### 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.

#### 2.5 TEAM DRIVING

2.5.1 Team driving will be allowed in all divisions. Team will be limited to two drivers with a primary driver designated. The team and designation of primary driver must be delivered to the FRRC secretary the night of the first FRRC event.

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: Super Late Model and LateModel, \$200.00.

Remove intake manifold and inspect camshaft: Limited Late Model, \$150.00 Inspect crankshaft and connecting rod thru inspection plug: Super Late Model and Late Model, \$200.00. 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: Super Late Model, and Late Model (excluding Sealed Crate Engines) \$500.00

Remove engine from car, remove oil pan, remove and weigh crankshaft, and check connecting rods: Super Late Model, and Limited Late Model \$2,000.

#### 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 Super Late Model and 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 looses 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 FRRC Technical Official: a fine determined by FRRC 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 FRRC any part and/or equipment found during an inspection that does not

meet FRRC 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 FRRC 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 95 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 FRRC specifications: loss of points and money for Event and/ or accumulated points for current year. Failure to cooperate with FRRC Officials in obtaining a fuel sample during an event will subject the car to disqualification. Any use of one or more tires during qualifying, or race, that are not FRRC approved, are buffed, or treated, or are not in FRRC approved positions: loss of points and money for Event and/or accumulated points for current year.

# SECTION – 5 SUPER LATE MODEL DIVISION – 2018

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.

Major Infraction

Major infractions include: violation of cubic inch displacement, compression limit, using nonapproved

cylinder block, crankshaft, connecting rods, valves, valve lifters, rocker arms, cylinder heads, intake manifold, carburetor spacer; carburetor (including altering of stock boosters), violation of minimum clutch diameter rule, carbon fiber driveshafts and/or springs, non-approved and/or treated tires; 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. Major infractions result in a loss of points and money for the event. Minor Infraction

An infraction that is not a Major Infraction. First offense on minor infractions will result in a written

documented warning. The next event competitor must bring vehicle immediately to tech area prior to competition to ensure infraction has been resolved prior to competing. The final week of the racing season no warnings will be issued and any infractions will be subject to loss of points and/or money.

ALL Infractions Major or Minor will be documented and displayed in tech area the following week for entire club body to see.

5.1 COMPETING MODELS AS APPROVED BY FRRC

FRRC Super Late Model races are open to approved 2005 to 2018 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 66 inches, measured at spindle height.

Any car over 66.0 inches is deemed illegal and DQ'ed.

Max Front and Rear 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) tread width must comply before and after each event.

# 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.

# 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 burn off 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. Fuel burn off allowance is 1lb PER LAP.

Any car after a race that is more than 10 pounds under minimum weight: last place points and money for that race. If a car is 10 pounds or less under minimum weight, the first offense the competitor will be provided a written documented warning. After this initial warning, subsequent violations will result in 1 point and \$10 fine per pound between 1 and 10 pounds. (For example: If competitor has already been issued their warning and is found 7 pounds light, this will result in loss of 7 points along with \$70 fine.)

Also, any cars that are 1 or more pounds under minimum weight prior to qualifying will not be allowed to enter qualifying line until minimum weight is reached. If this results in a break in the qualifying line, competitor will only receive one lap of qualifying.

Any car after a race that has less than the minimum required right side weight percent by greater than .3%: last place points and money for race. If car is less than .2% below minimum requirement, the first offense competitor will be provided a written documented warning. After this initial warning, subsequent violations will result in 5 points and \$50 fine per .1%. (For example, If competitor has already been issued their warning is is found .2% below minimum right side percent, this will result in a right side weight prior to qualifying will not be allowed to enter qualifying line until minimum weight is reached. If this results in a break in the qualifying line, competitor will only receive one lap of qualifying.

The A.C.E and the 9:1 are the Preferred Choices of the FRRC. Other motor weights are listed. Minimum Weights

Engine Weight Right Side Percentage

9:1 Alum. Heads 2800 lbs 42.0% - For any features scheduled longer than normal number of laps – 2825lbs for other FRRC events

A.C.E Alum. Heads 2750 lbs 42.0%

FRRC Chevy Crate Motor 2600 lbs. 40.0% (GM P/N 88958604 ONLY)

Wegner LS Spec Motor 2825 lbs 42.0% (364ci max and must have 2bbl carburetor) (Must have 8000 Rev Chip)

MEP Sealed Motor 2825 lbs 42.0% (Must have 7600 Rev Chip)

Hamner Sealed Motor 2825 lbs 42.0% (Must have 7600 Rev Chip)

Add Weight

Lightweight Bolts 25 lbs.

Cars without: Leg & Shoulder protectors 50 lbs.

5.2.2 Added Weight

Any weight (ballast) added to the car must be secured by ½-inch diameter bolts. Loose weights are prohibited. No weights may be added outside the body and under the frame rails, except for over tail cars. Added weights must be painted a bright color (safety orange or white) and have car number on weight. TUNGSTEN IS PROHIBITED

5.2.3 Car Weights After Race

All heat race winners and the top 5 finishers in the dash, semi and feature races must weigh in immediately after the race. Failure to report to scale will result in last place points and money. If

competitor goes to their pit stall prior to coming to scale, this will result in last place points and money for the event they were required to scale. 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, tech inspection and in the qualifying line.

**5.3 GENERAL CAR REQUIREMENTS** 

5.3.1 Car Bodies

The car body must meet all ABC rules as established in the current ABC rule book.

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. All body measurements will be taken with 3.5" blocks placed under the frame where the front stub meets the main frame and 4.0" blocks under the rear frame at the center line of rear axels.

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. For ABC Body the minimum allowable roof height is 47 inches, maximum 48 inches.

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 5  $^{\prime\prime}$  max or 6.5 max. No modifications to spoiler to make height between 5  $^{\prime\prime}$  -6.5  $^{\prime\prime}$ 

Must run

either 5'' or 6.5''

No rudders or forward mounting brackets are allowed. THE SPOILER MUST REMAIN CLEAR

5.4 FRAME AND ROLL CAGE

No carbon fiber parts of any kind allowed. Driver safety related items may be carbon fiber. (examples: helmet, seats, haans) (Decorative type carbon fiber at the descression of the FRRC Officials & Tech Crew.... Example Gauge cluster mounting backplate)

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' 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 1% 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.

5.4.2 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. 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. Similar plating is recommended behind the driver's seat.

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% inches in diameter and have a minimum wall thickness of 0.083 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.

Absolutely NO aluminum allowed on structure of chassis. EX: Frame rails, roll cage 5.5 SUSPENSION

The front suspension must be independent. McPherson Strut type suspensions are prohibited. Independent rear suspensions 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 birdcage/swingarm suspension set ups allowed

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.

Floating rotors permitted

Brake balance bar, or brake proportioning valve is permitted.

5.5.3 Shocks - Front and Rear:

One Shock allowed per wheel

Remote reservoir shock absorbers are permitted.

Maximum cost on racing shocks is MSRP \$850 for a complete unit

Each shock can only have 2 adjustments, 1 REBOUND adjustment and 1 COMPRESSION adjustment

Single adjustable shafts only, no double or triple adjustable shafts.

Shocks allowed are the following: JRI ST-08, SC-07 (SC-07 must be on approved list by JRI) Ohlins TTX 36

Series, Penske 7300, 7500, 8300 Series

Conventional shocks now in use: Afco, Bilstein, Integra, Koni, Pro, QA1

No covers or blankets allowed

Use of eliminators allowed

5.5.4 Springs- Front and Rear

No stacking springs allowed

Bumpsprings and Bumpstops are allowed

Take-up springs allowed

Maximum cost on racing springs is MSRP \$250

Carbon Fiber Springs are prohibited

**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.

The LS, Ford, Mopar and the 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.

5.6.3 9 to 1 Aluminum Cylinder Head Engine

Only V-8 engines with a minimum displacement of 350.0 cubic inches and a maximum displacement of

362.0 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.

5.6.3.2 Crankshaft and Harmonic Balancer

Only cast iron or forged steel crankshafts are permitted. Titanium crankshafts are prohibited Minimum crankshaft weight is 38 lbs.

Steel and Aluminum Balancers allowed. Aluminum balancer must have STEEL HUB.

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, Aluminum, and Composite rods are prohibited.

5.6.3.4 Oil Pans

Steel and Aluminum Oil Pans AllowedOil 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.

Titanium exhaust valves are 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 Chevy 604 FRRC Sealed Crate Engine

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

See Late Model Rules (6.6.4 FRRC Sealed Crate Engine)

Super Late Model crates are permitted to have the ASA style oil pan. Inspection plug required! 5.6.5 A.C.E Aluminum Head

Chevy and Ford engines with a minimum displacement of 350.0 cubic inches and a maximum displacement of 362.0 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 4.060 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.

Steel and Aluminum Balancers are allowed. Aluminum Balancer must have STEEL HUB.

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 and Aluminum oil pans allowed.

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:

Engine Manufacturer Intake Exhaust

GENERAL MOTORS / FORD BRODIX BR81019 BR81621

Engine Tech BR810198 BR81621

FERREA F1121P F1476P

MANLEY 11818 11595

REV CL-1643 CL-1604 CL-8003 CL-1171

CHRYSLER CORP. BRODIX BR60029 BR60037

The maximum allowable spring diameter is 1.570 inches.

Steel or titanium valve spring retainers are permitted.

Cylinder heads may have one extra water line per head.

5.6.5.6 Camshaft, Valve Lifters, & Rocker Arms

Valve job may be blended into combustion chamber 3/8 inch from seat.

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 7.25 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 Super Late Model engines must run a Holley, 500 cfm., Model# 0-4412 2bbl Carburetor.

NO ULTRA STYLE HOLLEY HP CARB ALLOWED

The carburetor must meet the following:

- 1 Carburetor Body No polishing, grinding, or drilling permitted.
- 2 Choke The choke may be removed.
- 3 Choke Horn The choke horn may not be removed.
- 4 Boosters The boosters may not be changed. The size or shape must not be altered.

Boosters may

not be tapered.

Height must remain standard.

- 1 Venturi Venturi area must not be altered. Casting ring must remain.
- 2 Butterflies Butterflies must not be thinned or tapered.
- 3 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.

No additives allowed in the air filter

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 Windshield Cowl Panel for air intake, is 2½" x 20".

5.6.8 Ignition System and Battery – All Engines

12 Volt 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 must be securely installed

The battery may not be located forward of the radiator, or behind the rear end of the car.

TWO 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.

Traction control devices and computer equipment on board the car are prohibited.

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 under car 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 passenger 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.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.

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 are permitted.

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 inspection and drain plugs must be safety wired.

If found not wired, car will be removed from line for the next event and must show inspectors that safety wiring is in place before allowed to compete in next race.

All transmissions must work in reverse.

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 2 loops that surrounds the drive shaft.

The loops 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 allowed. Tolerance ± 1.0 degree.

Axles must be steel. Titanium axles are prohibited.

All inspection and drain plugs must be safety wired. Along with quick change rear cover plate (bottom 3 nuts minimum).

If found not wired, car will be removed from line for the next event and must show inspectors that

safety wiring is in place before allowed to compete in next race.

5.7.3 Wheels and Tires

5.7.3.1 Wheels

The wheels must meet the following requirements:

- 1 Only Steel racing wheels are permitted
- 2 All wheels must be 15 inches in diameter and no more than 10.0 inches wide.
- 3 Wheels, less tire, weights, and valve, must weigh a minimum of 17.0 pounds.
- 4 Wheel studs must be a minimum of 5/8 inch diameter.
- 5 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

A. FRRC Approved tires for 2018:

- A. Hoosier F3035 10.0-27.0-15 Economy (left side)
- B. Hoosier F3045 10.0-27.0-15 Economy (right side)
- B. A FRRC approved tire is unaltered in anyway from the manufacturer. The tire must be used on the correct location, have the correct FRRC markings, and if not new, be from your used or impound inventory. Tires not meeting these specifications must be pre-certified by FRRC Tech.
- C. The four (4) tires used during a car's qualifying must be used on that same car for all events within that program.
- D. Four (4) new tires are permitted the first FRRC racing program of the current year, each of the Red, White, Blue programs and select FRRC programs as authorized by FRRC Officers.
- E. All other FRRC racing programs will follow a strictly enforced two (2) new tire rule, which is... Maximum of two (2) new tires and two (2) previously impounded tires. A car that begins a FRRC two (2) new tire program using more than two (2) allowed new tires will forfeit any qualifying points and money earned, will start the first heat, semi-feature (if scheduled) and feature (by way of transfer) in the rear.
- F. Prior to post qualifying weigh in, every car must submit it's dated program tire sheet to FRRC tech. This sheet will identify, via bar code numbers, the six (6) tires available to that car. The six (6) bar code numbers will include the new, impound and spare tires.
- G. A spare tire is one that has within the current racing season, been previously used by that car for one entire FRRC racing program or been impounded after a FRRC racing program by that car. Exceptions subject to FRRC tech.

H. Failure to submit dated program tire sheet within the specified timeline will result in that car forfeiting any qualifying points, and money earned. That car will start the first heat, semi feature

(if scheduled) and feature (by way of transfer) in the rear.

- I. Every competing car must present two (2) tires to the impound area within 15 minutes of the car's final event of the program. Those tires must be warm. No warming devices allowed. Tires for impound must have correct FRRC markings. Non compliance will be subject to discipline by FRRC Officers.
- J. If a FRRC program is canceled after qualifying and before heat races begin, all four (4) qualifying tires will be impounded. These four (4) tires will be released at the next FRRC program, changing that program into a no new tire program. for those cars present at the cancelled program.
- K. On four (4) new tire programs, excluding the season opener, the tire impound area will be closed to super late models. No tires in. Not tires out.
- L. The impounded tires will be released at the beginning of the next FRRC racing program. The impounded tires are to be used only on that car that impounded them. The four (4) tires used during a a car's qualifying must be used on that same car for all events within that program. Spare tire usage being the only exceptions.
- M. A car requiring a replacement tire any time after qualifying will be dealt with as such: New tire by another new tire, start in rear of all remaining events in that program. New tire by designated spare, keep earned starting position in remaining events in that program. Replacing an impounded tire with a new tire is NOT AN OPTION. Replacing an impound tire with a designated spare, keep earned starting position in remaining events in that program.
- N. FRRC Officers/Tech have the right to confiscate at any time, tires/wheels that are to be evaluated to confirm their legality.
- O. Tire rule violations will be classified as major infractions and punished as such unless specified else wise. Major infractions result in a loss of all points and all money earned during the program.

#### 5.8 FUEL SYSTEM

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

The Oberg Fuel Shut Off valve is highly recommended for 2018.

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. No Fuel Cells Allowed in Front of Rear Axle

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 10 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.

Fuel violations are considered a Major Infraction

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.

Electric Power Steering is prohibited

5.9.2 Seat

Seat must be made of aluminum and installed in a manner acceptable to FRRC Officials.

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 or the Schroth racing 2 inch wide strap wide is mandatory.

A submarinebelt is also mandatory.

Seat belt and shoulder harness must be date stamped and not more than three years old for SFI ratedbelts 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 3/8inch 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 SA2015 Snell Foundation specifications is mandatory. Head and neck restraint system mandatory. (SA2010 approved for 2018 SEASON ONLY if you have 2018 proof of purchase)

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 least5-pound capacity and Halon 1301 or equivalent. Fire extinguisher located over fuel cell is recommended, but not mandatory. Cold Fire fire systems recommended for cockpit usage, but not mandatory.

## 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.

If car does not have full containment seat, car must be equipped with a head restraint net, mounted

between the window net and seat. Net may be rectangular or triangular.

5.9.8 Two Way Radios

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

ONE 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.

5.11 Raceivers

A receiver or scanner capable of receiving track personal instruction is required by all team spotters.

Information relayed from track personal must be relayed to the driver via spotter. Failure to comply with instructions may result in disqualification or black flag from the event.

# 2018 Late Model SECTION – 6 LATE MODEL DIVISION

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 2013 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 1988-2013 Monte Carlo DODGE 1998-2004 Avenger 2001-2008 Intrepid 2005-2008 Charger 2010-2013 Challenger FORD 1998-2008 Taurus 2006-2013 Focus 2010-2013 Mustang PONTIAC 1988-2008 Grand Prix All cars must maintain a wheelbase of 103.0 inches + or – 2 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 tread width will be measured with the fivestar referee, 66 inches ACTUAL centers with FRRC referee reading of 64.00 max before and after each event. FRRC referee is setup for 10 inch rims, therefore 2 inch difference in reading. 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.

2725 lbs - Sealed Crate Engine Car (With upgraded valve springs, carb space and balancer) (must have FRRC or IMCA approved inspection seals to run) (GM P/N 88958604 ONLY)

2750 lbs -NON Sealed Crate Engine Car (With upgraded valve springs, carb space and balancer) (GM P/N 88958604 ONLY)

BOTH 604 crate packages MUST have a 6700 chip

2750 - FRRC Spec

2825 – Big 8 Chev Concept

2850 - Big 8 Ford Concept

2875 – Big 8 LS w/ 7400 Rev Chip + Must have Wegner approved weights added to each side of engine block. Total add on weight 40 pounds.

(All Big 8 motors do NOT need to add big 8 penalty weight for brakes etc or follow Hub max price rule)

ALLOWANCE (NO RHS HEADS ALLOWED) 1 lb. per scheduled lap fuel burnoff.

Mid American Series cars See Mid-American Stock Car Rules.

The following weight adjustments will be made to individual cars: Deduct Weight Full perimeter car (Refer to 6.4.1.1 Perimeter Frame) (Right side door bars cannot be "X" design). Add Weight Cars without: leg & shoulder protectors; 50 lbs. 1/8" floor & tunnel; seat 16-1/2" to 18-1/2" from door bars Minimum Specification Car 75 lbs. Lightweight Bolts 25 lbs. Cars exceeding 64.0 inch tread width 100 lb. / inch over 64.0. Any kevlar body parts 25 lb. Template Body Car A Short Track Bodied Car that conforms to a FRRC template (± ½-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 10 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 ½-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 or 90 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

No carbon fiber parts of any kind allowed. Driver safety related items may be carbon fiber. (examples: helmet, seats, haans) (Decorative type carbon fiber at the descression of the FRRC Officials & Tech Crew... Example Guage cluster mounting backplate)

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 1¾-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 aftermarket 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  $1\frac{3}{4}$ " 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 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. 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 1¾-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. No sliding ball joints allowed. 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. Bump stop systems are prohibited. Shocks must have a solid shaft. Hollow shaft shocks are prohibited. No Bac-Kar type canister or similar suspension limiting device.

Spring coil binding is prohibited on all cars. Inspection of coil binding will be done at FRRC discretion.

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 \$190.00 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. 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.

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 skid plate recommended. The skid plate shall be fabricated from steel no less than 1/8 inch thick or aluminum no less than ¼ 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 Factory sealed, engines are approved: Manufacturer Part Number GENERAL MOTORS 88958604 All engines must be sealed by the factory, or FRRC approved factory repair facility. All Big 8 series approved vendors are acceptable. B & B Race Engines is also approved to rebuild FRRC Crate Engines.

Any engine seals that have been tampered with, or removed, will result in an immediate two year suspension from FRRC Events. 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 ASA style harmonic balancers than the original OEM will be allowed. 6.6.4.3 Oil Pump, Pan and Cooler Wet sump oil pumps only. Dry sump oil pumps are prohibited. Any aftermarket oil pan, with kick out with out access holes going through the pan. All inspection and drain plugs must be safety wired. Along with quick change rear cover plate (bottom 3 nuts minimum). If found not wired, car will be removed from line for the next event and must show inspectors that safety wiring is in place before allowed to compete in next race. 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. (for the year and production of the engine based on the serial number). 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. 1.5 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 2 gaskets (1 per side), with

a maximum thickness of 0.065 inches each, may be used between the intake manifold and carburetor.

6.6.5.1 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 and compstar, howerds track smart 3 #353485712t 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, 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: Manufacturer Rod Length Part # 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 and comp products#rpm600p, 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 ¾ 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: Intake Exhaust 1.940 inches 1.500 inches The maximum allowable spring diameter is 1.26 inches.

6.6.5.6 Camshaft, Valve Lifters, & Rocker Arms 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 or lobe liftf. 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.

6.6.7 Carburetor Late Model Spec and BIG 8 Legal Cars engines must run a Holley Model 4412 two-barrel carburetor. 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 betapered. 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  $2\frac{1}{2}$ " 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 onoff

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 In a consistent location throughout the year.

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 engines must be no less than 5.5 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 allowed. (Tolerance  $\pm$  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. 5×5 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

For the 2018/2019/2020 FRRC Race Seasons, Racetek Chassis is the preferred Hoosier Racing Tire Vendor of WIR and will be at WIR weekly selling and mounting new Hooiser Racing Tires. The FRRC recommends you utilize their services.

A. FRRC approved tire for 2018 - Hoosier D800 8.0-27.0-15

B. A FRRC approved tire is unaltered in anyway from the manufacturer. The tire must be used on the correct location, have the correct FRRC markings, and if not new, be from your used or impound inventory. Tires not meeting these specifications must be pre-certified by FRRC Tech.

- C. The four (4) tires used during a car's qualifying must be used on that same car for all events within that program.
- D. Four (4) new tires are permitted the first FRRC racing program of the current year. All other FRRC racing programs will allow a maximum of one (1) new tire and three (3) previously impounded tires. All cars must impound 3 warm tires weekly. If racing events are canceled after racing begins a vote of the drivers present at the canceled program will vote on how many new tires will be allowed at the next program. A car that begins a FRRC program using more than the allowed number of new tires will forfeit any qualifying points and money earned, will start the first heat, semi-feature (if scheduled) and feature (by way of transfer) in the rear.
- E. Prior to post qualifying weigh in, every car must submit it's dated program tire sheet to FRRC tech. This sheet will identify, via bar code numbers, the six (6) tires available to that car. The six (6) bar code numbers will include the new, impound and spare tires.
- F. A spare tire is one that has within the current racing season, been previously used by that car for one entire FRRC racing program or been impounded after a FRRC racing program by that car. Exceptions subject to FRRC tech.
- G. Failure to submit dated program tire sheet within the specified timeline will result in that car forfeiting any qualifying points, and money earned. That car will start the first heat, semi-feature (if scheduled) and feature (by way of transfer) in the rear.
- H. Every competing car must present three (3) tires to the impound area within 15 minutes of the car's final event of the program. Those tires must be warm. No warming devices allowed. Tires for import must have correct FRRC markings. Non compliance will be subject to discipline by FRRC Officers.
- I. If a FRRC program is canceled after qualifying and before heat races begin, all four (4) qualifying tires will be impounded. These four (4) tires will be released at the next FRRC program, changing that program into a no new tire program. for those cars present at the cancelled program.
- J. The impounded tires will be released at the beginning of the next FRRC racing program. The impounded tires are to be used only on that car that impounded them. The four (4) tires used during a a car's qualifying must be used on that same car for all events within that program. Spare tire usage being the only exceptions.
- K. A car requiring a replacement tire any time after qualifying will be dealt with as such: New tire by another new tire, start in rear of all remaining events in that program. New tire by designated spare, keep earned starting position in remaining events in that program. Replacing an impounded tire with a new tire is NOT AN OPTION. Replacing an impound tire with a designated spare, keep earned starting position in remaining events in that program.
- L. FRRC Officers/Tech have the right to confiscate at any time, tires/wheels that are to be evaluated to confirm their legality.
- M. Tire rule violations will be classified as major infractions and punished as such unless specified else wise. Major infractions result in a loss of all points and all money earned during the program.
- 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 10 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 three 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 SA2015 Snell Foundation specifications is mandatory. Head and neck restraint system mandatory. (SA2010 approved for 2018 SEASON ONLY if you have 2018 proof of purchase)

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 FRRC approved release on the top front corner of the window net. Window net must be in place while competing. 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 FRRC 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 \$190.00 per wheel pads (plus 20% fee which goes to FRRC limited late model point fund). Claim does not include brake hose, caliper hose fitting, or brake. Claim on all shock absorbers is \$200.00 per shock (plus 20% fee which goes to FRRC 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. 6.12 Raceivers A receiver or scanner capable of receiving track personal instruction is required by all team spotters. Information relayed from track personal must be relayed to the driver via spotter. Failure to comply with instructions may result in disqualification or black flag from the event.

# 2018 Super Stocks SECTION – 7 SUPER STOCK DIVISION

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 2013 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 competitor's 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. Grand National Cars are allowed to compete a maximum of three times per season They must use a 2 barrel carb. Weekly competitors who own a super stock car are not allowed to switch to a grand national for 3 races.
- 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. Car Type Total Weight Any engine being 363ci or more w/4bbl 3275 lbs. Any engine being 363 or more with a 4412 2bbl 3200 lbs. Any engine being 362ci or less with 3150 lbs. can run a 2bbl or 4bbl Quadrajet. All Vortec Headed motors must have a 4412 2bbl 3150 lbs. FRRC Sealed Crate Engine Car 3000 lbs. Area Sportsman cars are allowed to run weekly and have to follow 100% the rules in place for Area Sportsman cars. The following weight adjustments will be made to individual cars: 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, trunk lid, must be OEM steel. The hood may be replaced with fiberglass. NO CARBON FIBER! After market bodies are prohibited. (with the exception on the hood). 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. Plastic front fenders are allowed as a replacement for steel factory fenders.

A 2-inch high, enclosed, hood scoop is permitted. Wheel wells must have a rolled edge. Cutup 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 "homemade" 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 1% 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. Aluminum interior panels are permitted. 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 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.

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 A frames must be OEM, and of the same make and model as the frame. Upper A frame can be OEM for make and model. After market upper A frame allowed 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) • All A frames must be OEM geometry. Length may be + or - 1 inch from OEM per make and model.

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. Front screw jacks are allowed, shock placement must within 2 inches of original location. 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. Any 5" coil spring allowed. Screw jacks are allowed on all four corners of the car. All shocks must not exceed \$85 retail price. Front shocks can be mounted outboard if screw jacks are installed. Rear shock mount can be modified 2" from stock location. Stock type mount nonadjustable, non-rebuildable, steel shocks only. No external adjustments (pressure, compression, rebound) permitted on shock absorbers. Aluminum body and remote reservoir shock absorbers are prohibited. Devices, which can change the handling characteristics of the car, during the race, are prohibited.

7.5.1 Spindles, allowed IMCA # 91034501 ONLY. Wheel Bearings, and Hubs 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 FRRC. 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. 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.

- 7.6.1 General Eligibility Only V-8 engines are permitted. Engine must be of Parent Corporation of frame. 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: Car Type Location 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.
- 7.6.3 602 Sealed Crate Engines allowed. Crate engine must use HEI distributor with MSD #8728 or 8727CT rev control and Maximum 6400 RPM Chip.
- 7.6.3.1 Engine 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 External engine oil coolers are permitted. Oil cooler may not be located in the driver's compartment.
- 7.6.3.3 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

- 7.6.4.1Engine 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 Only cast iron or forged steel crankshafts are permitted. Titanium crankshafts are prohibited. Only Steel OEM 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 ¾ 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. 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: Manufacturer Intake Exhaust 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 all engine's is 0.500 inches, measured at the retainer. Gear driven camshafts are prohibited. No roller tappets, or mushroom lifters are allowed. Only the following steel, straight barrel lifters are allowed: Manufacturer Maximum Diameter 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 1½-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 4412 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 4412 two-barrel carburetor. The Holley Model 4412 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 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 distributers allowed. OEM 4 prong module only no rev chips 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. It is 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! • GM - Schoenfeld 185 or 185M • Ford -Dynatec 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.

# 7.7 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. All gears must work NO Removing of any Gears. 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. Ford 9" is allowed. All components must be Steel. No Gun drilled Axles. 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 but must remain stock length for make and model. Lower control arm must be stock length and be in stock location for make and model of chassis your running 73-77 GM A body – upper 11.25" lower 22.375" 78-88 GM G -Body upper 11.25" lower 19.25". Any 5" coil spring allowed. Screw jacks are allowed on all four corners of the car. Full floating or quick-change rear ends are prohibited. Locked rear ends are permitted. Limited Slip permitted. Relocation of the holes in the lower control arm brackets is prohibited. Axles must be steel. Titanium axles are prohibited.

7.7.2.1 WHEELBASE AND TREAD WIDTH--Wheelbase must be within 1-inch of stock. Maximum tread width 62 1/2"-inches for GM Metric chassis. 66 ½"-inches for GM Full Size Chassis, (64 ½"-inches for Ford or Chrysler front stub), measured center to center of tires at spindle height (front and rear).

Any 5" coil spring allowed. Screw jacks are allowed on all four corners of the car. 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 D800 NO EXCEPTIONS. Area Sportsman cars must run the tire specified in their current rules or can run the Frrc super stock specified tire D-800. No buffing or treatment of tires allowed. The tires used for qualifying, must be used all night. One NEW tire will be Allowed every other week. If new Tire is detected in consecutive weeks you lose qualifying points for that night or if detected after heat or feature points will be lost then. 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 and will lose qualifying points. 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 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 4 years old for SFI rated belts and not more than 6 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 SA2010 or SA2015 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 Hans 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.

A head restraint net, mounted between the window net and seat IS HIGHLY RECCOMENDED. Net may be rectangular or triangular. Net must be mounted according to manufacturer's recommendations

- 7.9.8 Mirrors are permitted.
- 7.9.9 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. Raceiver Elite 1600 receivers only

# SECTION - 9 SIZZLIN 4's DIVISION - 2018

THE FRRC OFFICERS HAVE THE RIGHT TO MAKE AMENDMENTS TO THESE RULES AT ANY TIME IF CERTAIN TYPES OF CARS ARE DOMINATING.

- \*\*\* Driver must be at least 14 years old.
- \*\*\*3 race deal for travelers may run their home track rules (only for R, W and B)
- 1. SAFETY EQUIPMENT: Rules apply at all times car is on track. Snell-rated SA2010 or SA2015 helmet required. Roll bar padding required in driver compartment. Recommended: Fire retardant padding. SFlapproved full fire suit required. Fire retardant gloves, shoes and neck brace (or head and neck restraint) required. Right and left seat head supports reccomended if using head and neck restraint system. Recommended: Fire retardant head sock and underwear. Driver-side window net required, minimum 16 inch by 20 inch ribbon or mesh style, and must be mounted to roll cage so latch is at top front of window. Maximum four inch tall visor attached to window net. Minimum three inch (two inch with head restraint system) wide SFI-approved five point safety belt assembly required, must be mounted securely to main roll cage. Recommended: Safety belts no more than 2 years old, but REQUIRED to be no more than 4 years old. Master kill/fuel pump switch required on behind driver's seat within easy reach of safety crew and must be clearly marked 'OFF' and 'ON'.
- 2. BODY/CHASSIS: Any front wheel drive, compact car with three or four cylinder engine. All cars must remain strictly OEM. Must be unaltered OEM-appearing body. No convertibles or two seat sport cars allowed. Maximum wheelbase 107 inches, maximum one inch difference from side to side. OEM steel unaltered floor pan only. Inner fenders may be removed. Hood and trunk lid/hatch must be securely fastened. (stock hood and trunk latches must be removed and replaced with clip type pins, Minimum 2 per hood and trunk required). All doors must be securely welded or bolted. All glass, exterior lights, chrome/plastic trim and hood insulation must be removed. Dash may be removed, but can remain. Skirting allowed, must maintain OEM appearance. Car number must be minimum four inches thick and 20 inches tall and clearly visible, on both sides and roof of car; six inches tall on front and rear. Cars that meet the style of cars racing as Outlaws or Internationals at other race tracks will not be allowed to compete.
- 4. BUMPERS/RUB RAILS: Bumpers must be approved OEM in OEM location, welded, chained or cabled to frame. Front and rear tow hooks mandatory. OEM bumper covers should remain. May have one horizontal bar maximum 1.75 inch OD tying front frame horns together ahead of radiator. One

additional maximum 1.50 inch OD x .095 wall bar may be added for radiator protection; must be behind bumper, within confines of body, no wider than OEM frame horns. Rub rails are not allowed — lexan vinyl savers are allowed. No sharp edges allowed on bumpers. No bars past outside edge of body.

- 5. ROLL CAGE: Six-point recommended, but 4 point required full perimeter roll cage. (The 2 kickers are optional making it 6 point) Must use minimum 1.5 inch O.D. with 0.095 inch wall thickness tubing. Rear hoop must have "X" bracing configuration. Recommended: front brace bar from main halo to front cowl. Forward brace bar allowed from main cage to front strut tower. Must have 1.25 inch minimum O.D. cross bar in top halo. Cage must be electric welded and attached using adequate plating (Recommended: minimum 0.250 inch). No iron, galvanized pipe or fittings, square tubing, brazing or soldering allowed.
- 6. DOOR BARS: Minimum three horizontal door bars on driver side and two horizontal door bars on passenger side. Both sides must have vertical bracing from top to bottom door bars. All tubing must be minimum 1.5 inch O.D. with 0.095 inch wall thickness. Steel door plates, 0.095 inch minimum thickness, must be securely welded to outside of door bars on driver side. Plate must cover area from top door bar to frame and from rear down post to five inches in front of seat. Must be visible for inspection.
- 7. DRIVER COMPARTMENT: Protective screen or lexan windshield mounted in front of driver. Aluminum high-back racing seat required. Must be securely mounted to roll cage using 0.375 inch bolts. Driver must be sealed off from track, engine, transmission and fuel cell/tank. Mirrors are allowed. No gutting allowed except for roll/door bar clearance. All flammable material, radio and air bags must be removed. Front and rear firewalls must remain and have no holes. Interior must remain open.
- 8. SUSPENSION AND STEERING: All components and mounts must be unaltered (except for camber purposes), OEM and match year, make/model of car used. Exception is: Recommended right rear safety hub (for example 1987-1995 Caravan hub assembly). Brace bar allowed between strut towers in front and rear. No other bracing allowed on front end. No weight jacks, modifications, racing components, aftermarket or homemade traction devices allowed. Rear wheels must track straight ahead and be in alignment with front wheels. No more than ¾" camber allowed on front wheels. No more than ½" camber allowed on rear wheels. .(measured at wheel, centered on hub) No center steering. No all wheel steering. Quick release steering wheel is allowed, must maintain OEM column. No aftermarket remote reservoir power steering.
- 9. SPRINGS/SHOCKS/STRUTS: All shocks and struts must remain OEM, in OEM location. OEM springs only, may not be modified. No spring spacers of any kind.
- 10. TIRES AND WHEELS: OEM DOT 13, 14, 15 or 16 inch diameter unaltered passenger tires only. Minimum 60 series, M, N, P, Q, R, S, T, and H speed rated tires only. No racing, mud or snow tires. No recaps, softening, siping or grooving allowed. Grinding/ buffing tire up to 50% from new is allowed, NO camber cutting (minimum tread wear of 350). Minimum right side tire pressure of 30p.s.i. Must be unaltered OEM steel wheels, with standard bead bump and maximum seven inch width. Reinforcing of wheels recommended. OEM Aluminum wheels allowed. Oversized lugnuts allowed on aluminum wheels. All 4 wheels must be the same rim size. Tires must be inside of body. No wheel spacers or bleeder valves. Must use one inch O.D. steel lug nuts. No tire softener allowed. Wheel studs must be at least flush with outside of lug nut. Broken studs and missing lug nuts prohibited.

- 11. BRAKES: Must be steel, unaltered, OEM operative, four wheel disc or drum brakes, OEM master cylinder only, in OEM location. No brake shut off or bias adjuster. Steel brake lines only. Drilled or vented rotors are prohibited.
- 12. EXHAUST: Exhaust manifold must be unaltered, OEM for year, make and model of car used. Smog pump, catalytic converter and air conditioning compressor may be removed. No exhaust in driver compartment. Mufflers required and must meet 95 decibel max. Exhaust must exit the car behind the driver and may not point toward the gas tank.

13. WEIGHT:

**General Weight Requirements:** 

Single Overhead Cam Cars: 2,200 pounds MINIMUM weight. Dual Overhead Cam Cars: 2,350 pounds MINIMUM weight.

**Added Ballast Weight:** 

Added weight ballast is prohibited other than to make the required weight rule & must be mounted in an enclosed container and mounted to the floor in the passenger side seat area.

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. Added weights must be painted bright color (safety orange preferred) and have car number clearly identified on each weight.

- 14. BATTERY/STARTER: One 12 volt battery only. Must be securely mounted with positive terminal covered. Battery must be in Marine type case if mounted in driver compartment. Cannot be mounted in engine compartment. OEM starter only, must be in OEM location. Car must leave initial staging area on demand, unaided, or go to rear of that race.
- 15. GAUGES/ELECTRONICS: No unapproved transmitting or listening devices (exception is one-way Race Receiver radio by officials). 12 volt ignition system only. No ignition boxes. No performance chips. All ignition components must be unaltered, OEM and match year, make and model of car used. Aftermarket analog tach, oil pressure and water temp gauges only. Vehicle computer (ECU) should be mounted in accessible location for inspection. Computers must not be tampered with (DQ if proven to be tampered with)
- 16. FUEL SYSTEM: Must have complete, unaltered, OEM fuel system for year, make and model of car used. Pump gasoline only, maximum 93 octane. No performance additives. Gas tank ahead of rear axle allowed. Gas tank behind rear axle must be replaced with maximum eight gallon racing fuel cell and relocated to trunk area. Must mount with minimum one inch square tubing or two solid steel straps around entire cell, two inches wide and 0.125 inch thick. Metal firewall or cell cover must be between driver and cell. Fuel cell vent, including cap vent, must have check valve. If racing fuel cell does not have aircraft style positive seal filler neck/cap system a flapper, spring or ball type filler rollover valve is required. External electric fuel pump wired to the ignition switch allowed with aftermarket fuel cell. No

cool cans. Fuel lines through driver compartment must be steel. Aftermarket fresh air pipe and air filter allowed, but no ram air.

- 17. TRANSMISSION: Must use OEM, unaltered transmission that came in year, make and model of car used. All forward and reverse gears must be operational. Flywheel, flexplate, clutch assembly and torque converter must be unaltered, OEM for year, make and model of car used. No transmission coolers in driver compartment. No mini clutches, couplers, torque dividing final drives, locked differentials or CVT transmissions.
- 18. ENGINE COMPARTMENT: Engine and radiator (aluminum radiators allowed) must be OEM, in OEM location for year, make and model of car used. May use solid engine mounts or safety chains. No accumulators/accusumps.
- 19. ENGINE: 3 or 4 cylinder in-line engines only. Recommended: double overhead cam. All engine components must be unaltered OEM for year, make and model of car used. Must use OEM crank, rods, valve sizes, stroke, etc. No aftermarket racing heads. No high performance or sport car engines of any kind. No turbo charged, super charged engines allowed. No unapproved alterations allowed to any engine. .030 inch bore / rebuild allowed.
- 20. CAR CLAIM: \$750 CASH plus Car Swap. The driver claiming the car must be an FRRC member, finish on the lead lap and within 5 positions of the car being claimed. The claimer must have competed in the 2 weekly events prior to the claim. Claim cash must be brought to the tech officials within 5 minutes of the completion of the feature event. Only 1 claim per year per driver. If the driver refuses to sell the claimed car, they will lose all points and money for the event and suspended for the next 2 weeks of competition. Claim does NOT include Driver Seat, Seat Belts or Transponder. Cannot claim the last 3 weeks of the season.
- 21. One Way Raceivers are mandatory. Raceivers will ONLY be allowed to receive track personal direction. Team spotters are prohibited. Raceivers are required to be programmed to the track mandated frequency only. Only Raceiver Elite 1600 one way receiver permitted.
- 22. 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.