

## **2022 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 Grand National Cars are allowed to compete a maximum of four 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. **Cars complying with the Area Sportsman rules package are allowed to compete.**

LOCAL TRACK VISITING EXCEPTION: Cars from local neighboring tracks that have similar but differing rules and/or similar performance, may be allowed to participate during the season in the interest of welcoming competition. These cars will be granted a temporary eligibility status for two weeks at the discretion of officials on a case-by-case basis for eligibility and rule book conformity. This will also apply for the Red/White/Blue and Stan the Man 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.

##### **7.1.4 Retired numbers**

#78 – Bryce Spoehr

#### **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/4bbi 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.~~

**Minimum weight for ALL other engines is 3100.** 602 Sealed Crate Engine Car 3000 lbs. 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.

All weights are minimums and will be made with the driver sitting in the driver's seat with steering wheel in place, hands on steering wheel and helmet on driver's head with no fuel allowances. 52% front axel min and 58% left side max.

## **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 1¾ inches in diameter, extending 6, or more, inches beyond

the frame. For safety, a crush zone must be present on the front of the cars during a crash. Bumper bracing in front of the upper control arms is prohibited. Bracing above the bumper is prohibited. Large bumper bracing measuring larger than 1.5 inch angle or 1 inch round w/.125 wall is prohibited. Radiator and rear protector hoop, the same color as car, permitted. Radiator protector hoop no larger than 1½-inches by 0.095 wall thickness may be added to the front bumper, but must be no higher than the hood and stay between the frame horns. Radiator hoop must conform to, the stock grill opening. Rear hoop no larger than 1½-inches by 0.095 wall thickness may be added to the rear bumper, and must be no higher than the trunk. Fabricated foot boxes are permitted. If firewall is used, firewall must be stock, drivers' side to center of tunnel, (plus or minus 4" from stock location). All openings in the firewall, and factory seams, must be closed with steel and sealed with caulk. The area between the rear seat and trunk must be closed with steel and sealed with caulk. Rusted floor panels may be replaced with stock production floor panels or steel panels of the same gauge installed in the same location. Aluminum dash permitted. A 22 gauge, or heavier, steel, fabricated, interior is permitted. The fabricated interior can start at floor area to the right of the seat, raise to the top of the drive shaft tunnel, extend up at an angle to the top right-side door bar, and seal off below the right window opening. 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 1¼ inches in diameter and have a minimum wall thickness of 0.095 inches. The top hoop must attach to

the main hoop, and left and right front posts. The left and right front posts must be connected by a horizontal "dash" bar. All bars in the top hoop, left and right front posts, and dash bar must be round steel tubing no less than 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**

**FRONT SUSPENSION:** All components must remain stock and in stock location, except where otherwise stated. One Screw type (screw jack) adjusters allowed per wheel front and rear. Rear spring perch and rear upper shock mounts may be fabricated but must remain in stock location; 1" shock extenders in front and 2" in rear allowed. Lower control arms may have bushings replaced with steel insert type but must match car frame. Tubular upper A-frames allowed, may relocate upper frame mount. No monoball, heim joints or clevis' permitted on suspension components. Aftermarket one-piece hollow sway bar allowed. No spline type sway bars. Frame mounted sway bar adjusters allowed.

**REAR SUSPENSION:** bushings at control arms and rear-end must be stock style and design, full width poly or rubber (no heims or spherical bushings. After market rear control arms allowed, stock fixed length only. No lift bars, rear sway bar or traction devices. Non-adjustable rear control arms with stock dimensions, 73-77 GM A body- upper 11.25" lower 22.375", 78-88 GM G body-upper 11.25" lower 19.25", and approved unaltered stock style bushings allowed. Rear upper control arm mounting locations on frame, may be raised, except DCA metric frame exception below. Rear upper control arm mounting locations on rear-end must be as close as possible to stock location (Ford 9" pumpkin is taller than a stock metric rear-end, therefore we acknowledge the need to have them raised). Rear lower control arm mounting locations on frame, must be within 1" of stock location. All other components must remain stock and in stock location. No independent rear suspensions. No bump stops or suspension limiting devices allowed front or rear. Chains on rear end must allow travel of 2" past ride height rule & all front suspension must allow travel of 2" past ride heights rule. Only one (1) shock and spring per corner of the car is permitted.

**SHOCKS: shocks must not exceed \$90 each 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**

BRAKES-Four-wheel brakes required at all times. Only one master cylinder allowed. Floor mounted pedals allowed. The Howe stock replacement caliper is the only Non-OEM brake caliper allowed to replace full size calipers. "Metric" calipers may be replaced with similar design aftermarket steel calipers with a maximum MSRP of \$119.95. No "made for racing" components (other than brake pads) allowed. Directional vane rotors allowed. No Drilled, vented, J-hooked, scalloped rotors. Maximum rotor diameter 11 3/4" maximum rotor width 1 1/4". Maximum MSRP \$105. One brake bias adjuster (proportioning valve) allowed. Wheel fans and electric fans allowed. Rear disk brakes (no aluminum components) allowed. Brakes may be ducted with tubing from front valance pointed at calipers.

### **7.6 ENGINE REQUIREMENTS**

#### **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.**

CRATE ENGINES-GM 602 CRATE ENGINE-(P/N #19258602) must be used as produced from factory; motor will be allowed one Holley 4 bbl 650 cfm carburetor #80541-1(with no modifications except boosters may be epoxied in place to retain gauge legal position.) Weight may be adjusted for fair competition. The 602 Crate Motor will use the Holley 4 bbl. 650 cfm carburetor with GM Stock 15.5lbs Flywheel and 1.625" headers. No stepped, 180 degree or Tri-Y headers. Crate engines must run stock style HEI distributor with coil in cap and maximum timing is 34 degrees. MSD Soft Touch Rev Control Part #018-8728 or 018-8727CT with a maximum 6200 rpm chip required. Box must be mounted out of reach of driver. Maximum compression can never be greater than 9.2:1. All crate engines may not be altered from factory specs. Any evidence of tampering with engine components will result in disqualification, confiscation, fine, and suspension for balance of season. UMA Tech staff reserves the right to impound motors for inspection or dyno testing. Factory Seals may be removed for tech purposes, those engines will not be required to be recertified, allowing for more in-depth technical inspection throughout the season. No refreshing, buy new instead. Repairs allowed with prior management approval. No Ford or Chrysler crate engines allowed.

#### **7.6.4 Unsealed Engine**

##### **7.6.4.1 Engine Blocks**

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

##### **7.6.4.2 Crankshaft**

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. **1.6 to 1 ratio maximum cast steel roller tip rockers** are permitted. Maximum rocker ratio is 1.6 to 1. Stud girdles are prohibited.

#### **7.6.4.7 Intake Manifold**

Only cast-iron intake manifolds are permitted. Edelbrock 7116 Aluminum Performer Manifold permitted on Vortec head engine. Grinding or polishing of the ports is prohibited. Chemical treating, acid dipping, acid flowing, abrasive blasting, addition of material, or other alterations to the original, as cast, intake manifold is prohibited. General Motors intake manifolds 14096242 and 14096011 are prohibited. An adapter plate, with a straight bore and a maximum thickness of 1¼-inches (including gaskets), may be used between the intake manifold and carburetor.

#### **7.6.5 Carburetor**

All Super Stock engines, except Sealed Crate Engine and General Motors Vortec head engines, must run either a Holley Model 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 distributors allowed. OEM 4 prong module with MSD Soft Touch Rev Control Part #018-8728 or 018-8727CT with a maximum 6200 rpm chip required.. 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 may exit out the side of 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 on cars using headers. 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**

TRANSMISSION-Stock automatic transmission with operating 11" minimum diameter torque converter allowed. Torque converter post-race inspection may be required. Option 1; install drain plug in torque converter. Option 2; remove torque converter for detailed inspection. All forward and reverse gears must operate. Transmission overflow bottle required. Rubber lines allowed at transmission cooler connection only. Transmission coolers are not allowed in driver's compartment. A manual stock OEM transmission will be permitted. All gears must be operable, no 5-speed transmissions, no straight cut gears or gun-drilled main shafts, no lightening of gears on main shaft. Manual transmissions must utilize stock all steel type pressure plate and steel or cast iron flywheel (min. 15.5 pounds). Clutch disc must be a minimum of 10" diameter with full fiber disc. Assembly (flywheel, pressure plate, clutch disc, bolts) weight must be 40 pounds minimum. Manual transmission must run scatter shield or steel bellhousing. All plugs (drain, inspection, etc.), must be safety wired.

DRIVESHAFT-Minimum diameter 2 -1/2" steel driveshaft required. Driveshaft must be painted white. Safety hoop required on front half of driveshaft. Driver must be protected from driveshaft entering into driver's compartment.

### **7.7.2 Rear End**

REAR END-Rear end must be stock type, (GM, Ford 9" etc), "open" or locked by welding or spool only. Rear disk brakes allowed, with stock type steel brake calipers. No quick changes. Floater rear-ends allowed with NO cambered tubes and one piece straight spline drive plates only. No aluminum rear end components allowed. A 3/4" plug should be installed in rear cover above oil level, or in housing of 9" Ford, to allow for inspection. (No plug will require cover or pumpkin removal.) All plugs (drain, inspection, etc.), must be safety wired.

#### **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 1/2"-inches for GM Full Size Chassis, (64 1/2"-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 FRRRC 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 RECOMMENDED. 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. Race Elite 1600 receivers only

#### ~~Rule Changes proposed for 2022~~

#### ~~**Replace 7.6.3.1 through 7.6.5 with this:**~~

~~CONCEPT ENGINES Maximum of two valves per cylinder. No aluminum blocks or heads. Maximum displacement 362cid (Chrysler products 373cid). All engines must meet following specifications regardless of manufacturer: Stock or stock replacement cast iron unaltered heads (no porting, polishing, acid dipping, or gasket matching allowed) required. The only stock replacement heads allowed are World Products SR 1052 #4266B and #4267B, PBM Thunder head 167270 with 170cc intake runner, or Dart Iron Eagle SS #10024266 & 10024267, straight plug with 165cc intake runner. Maximum 2.02-inch intake and 1.6-inch exhaust valves required. Valve spring retainers are the only titanium parts allowed. Flat top pistons required. A minimum of zero deck height required. Maximum 10.8 to one compression ratio. Magnetic steel connecting rods only. Honda journal rods not permitted. No Bowtie, Vortec or 18-degree heads allowed on GM products. Production type steel crankshaft with normal configuration counter weights required. Minimum crankshaft weight 44lbs. A 3/4" NPT inspection hole in oil pan required. Inspection hole must be located in line with second or third rod journal of crankshaft, on either side of pan and above oil level. Hole in windage tray in line with inspection hole required. OEM mechanical fuel pump, in stock location, required. No electric water pumps allowed.~~

~~CAMSHAFT, VALVE LIFTERS, ROCKER ARMS & IGNITION Hydraulic cam/lifters only. Lifters must pass minimum 100/1000 leak-down test. Absolute maximum lift at valve: GM-.490 inch, Ford/Mopar-.520 inch. Roller tip rocker arms allowed, but must retain original pivot type (ball & socket). No solid lifter or roller cams allowed. Stock type (HEI) ignition components only. Firing order may not be altered. No MSD boxes, dual point distributors, computer controlled or crank fired ignition systems allowed.~~

~~FORD EXCEPTION May run aftermarket cylinder head—World Windsor Jr. cast iron with 180cc intake runner. No 351C heads allowed on 351W or 302 blocks. Intake manifolds allowed are Edelbrock Performer RPM, #7121 for 302 and 7181 for 351W.~~

~~MOPAR EXCEPTION Maximum displacement 373 CID. W2 cylinder heads not allowed. Stock, shaft style rocker arms only. Intake manifold allowed is Edelbrock Performer RPM #7176.~~

~~CARBURETOR Stock unaltered 500 CFM Stock Holley 4412 2 bbl. or Dorton 003-0, or 1 3/8" Rochester allowed on all cars. Holley 4412 HP metering block is allowed but cannot have any additional fuel passages drilled and or plugged. Standard 4412 metering block may be drilled/plugged, but can only have a total of 3 fuel passages per side of block, must remain stock appearing for carb style, no aftermarket blocks permitted. No alterations except removal of choke "Butterfly" allowed. Double return springs and air cleaner required acting as flame arrestor. No air induction boxes or ram air units allowed. Steel or steel braided fuel lines required, metal fuel filter required. Boosters may be epoxied in place to retain gauge legal position.~~

~~CARBURETOR GM 602 CRATE Holley 4 bbl 650 cfm carburetor #80541-1 with no modifications except boosters may be epoxied in place to retain gauge legal position.~~

~~CARB SPACERS, GASKETS, MOUNTING Carb Adaptor: 1 5/8" max thick w/gaskets. Bore diameter must be straight full thickness of spacer (not tapered, angled beveled, grooved or bowled). Original orientation required. No part of adaptor may protrude into plenum of Intake Manifold. Adaptors are one piece only.~~

~~No adapter plate allowed on Crate Engines.~~

~~INTAKE MANIFOLDS Completely stock passenger car 2 bbl. cast iron or Edelbrock Performer #2101 or Performer RPM #7101 intake manifold required. No grinding, polishing or altering allowed. No Bow Tie manifolds. No cast iron 4 bbl manifolds.~~

~~EXHAUST MANIFOLDS Completely stock cast iron exhaust manifolds required. No grinding, polishing or altering allowed. Center dump and log style manifolds allowed. Max inside diameter 2 1/8". No Corvette 2 1/2" center dumps. No cast iron header style exhaust manifolds allowed. Economy header allowed on noncrate engine with a 100# weight penalty.~~

### **~~Rule Changes proposed for 2023~~**

~~Final migration to full UAM Area Sportsman Rules or consider merging with 1/4 model Late Models~~