

# 2023 Street Stock Rules

For any technical questions, please thoroughly read these rules, any applicable NASCAR Weekly Racing Series Late Model Stock rules, then email [tech@staffordspeedway.com](mailto:tech@staffordspeedway.com).

## *2023 Limited Late Model Rule Changes*

### *20F-12.1 COIL SPRINGS*

### *20F-12.5 SPINDLES AND HUBS*

## PREFACE

The rules herein shall refer to Stafford Motor Speedway as “SMS”. These rules are intended to create affordable and fair competition. While they offer a good outline, every item cannot be covered by a written rule. If you have questions regarding something not detailed in these rules, please consult an SMS Official for clarification before proceeding. These rules are for SMS only with no expressed or implied agreement with any other speedway or series as to their interpretation, implementation, and method of inspection by their technical inspectors and officials. No car, component, or equipment will be considered as having been approved by reason of having previously passed through inspection unobserved. No car, component, or equipment will be considered as having passed inspection for the event until the finish is made official. The request for new or modified parts or components not specifically addressed in the current version of this rule book must be submitted in writing, via email, to [tech@staffordspeedway.com](mailto:tech@staffordspeedway.com) for consideration of approval on or prior to August 1, 2023 unless otherwise authorized by SMS to be considered for competition for the 2024 season.

All equipment is subject to the approval of SMS Officials. You may be assessed penalties including but not limited to: added weight, fines, loss of points, loss of handicapping, and suspension, car parts, components, and/or equipment deemed as not in compliance with these rules. Any car part, component, and/or equipment which does not conform to specifications or tolerances contained in the 2022 rule book or is not otherwise approved by SMS may not be used in competition in 2023.

By engaging in competition at SMS, you hereby agree to have read the 2023 NASCAR Weekly Racing Series rulebook, the 2023 SMS General rulebook and the 2023 SMS Street Stock rulebook.

All 2023 NASCAR Weekly Racing Series (NWRS for Late Model Stock) rules will be enforced for the SMS Street Stocks, when applicable, with the following changes and/or additions (EIRI). SMS Officials decisions regarding rules are final and non-appealable.

You may not compete without a roof, hood, trunk lid, bumpers, fenders, quarter panels, air cleaner or mufflers.

## **STREET STOCK MISSION STATEMENT**

The Street Stock division was designed and created to be an inexpensive way to help competitors develop basic mechanical and driving skills. This division provides a platform to identify and learn the basic skills prior to moving on to more complex competition.

**DRIVER ELIGIBILITY-** All Street Stock drivers must have an SMS Street Stock driver's license. Drivers must be a minimum of 14 years of age. Cross division competition will be permitted upon approval and a maximum of 3 times throughout the 2023 season. All cross competition must be approved by Stafford Motor Speedway. See below matrix for allowed cross competition in 2023.

	<b>Cross Competition</b>				
<b>Full-Time Division</b>	<b>SS</b>	<b>LLM</b>	<b>SKL</b>	<b>LM</b>	<b>SK</b>
<b>Street Stock</b>		<b>YES</b>	<b>YES</b>	<b>YES</b>	<b>YES</b>
<b>Limited Late Model</b>	<b>NO</b>		<b>YES</b>	<b>YES</b>	<b>YES</b>
<b>SK Light Modified</b>	<b>NO</b>	<b>YES</b>		<b>YES</b>	<b>YES</b>
<b>Late Model</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>		<b>YES</b>
<b>SK Modified®</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>YES</b>	

**DEFINITION OF STOCK-** In the following rules you will see the term OEM Stock used. This means Original Equipment Manufacturer. The parts must come on a standard production car. Special "Off-Road" or racing parts are not permitted unless pre-approved. No carbon fiber or titanium engine, chassis or body parts are permitted.

**20F- 1 COMPETING MODELS-** American made full frame cars with a minimum of 108" wheelbase as factory listed for that year and model. Firebirds, Camaros, Mustangs, convertibles, station wagons or two passenger sports cars are not permitted. Body and frame parts must be from same year, make and model. If you are in doubt about the eligibility of a make or model, check before you build it.

**20F- 2.2 OVERALL CAR WEIGHT-** All specified weight requirements are with the driver and race gear, seated in the car. The minimum weight at all times is 3,000 lbs. The maximum left side weight percentage allowed is 54%. Any car found to be under the minimum overall car weight allowance will be penalized one position for every pound under the minimum weight. This does not apply to left side weight requirements.

**20F- 2.3 ADDED CAR WEIGHT-** Added weight must be in block form, be magnetic steel or lead, and be of no less than five (5) pound blocks (no pellets). All weight must be bolted to the inside of the frame rail and above the lowest edge of the frame rail where it is mounted. Added weight must be painted white with the car number painted in black. No added weight is permitted inside the driver's compartment. Weight must be welded in a box or attached with two or more 7/16" diam. (minimum) grade 8 bolts, washers and locking nuts. It is the team's responsibility to inspect their lead mounting on a regular basis. Cars that have lead come off their car will be assessed (at a minimum) a \$500 safety violation fine.

**20F- 2.4 CAR WEIGHTS AFTER RACE-** Cars will be weighed as they come off the racetrack, with the driver and helmet positioned in the seat. Nothing may be added, removed, or changed on the car prior to being scaled. An amount equal to one half of one percent (.5%) of the total weight will be added to scale reading for loss in weight due to race wear. Minimum post-race weight will be 2985 lbs.

## **20F- 3 DETAILED BODY REQUIREMENTS-**

You may not compete without the roof, windshield, hood, trunk or front fenders in place. The body must be stock appearing and be mounted in the stock location on the frame. Steel aftermarket replacement bodies may be used in place of stock. All body panels must be steel. Hood may be steel or fiberglass. No other fiberglass panels are permitted. Lowering, chopping, channeling, or streamlining of any body part (including roof) is not permitted. Stock window openings must be maintained. No aluminum replacement parts unless noted elsewhere in the rules. All exterior chrome trim, ornaments, outside mirrors and door handles must be removed. Replacement body parts must meet SMS templates. Riveted or welded Rocker panels are permitted, but must maintain minimum ride height at all times. Rear of car must maintain a stock appearance. Stock will be determined by SMS Officials.

**20F- 3.1.2 REAR SPOILERS-** A non-adjustable freestanding clear polycarbonate solid rear spoiler is permitted. The rear spoiler must be 4" in height and 60" in width. The top 3" in height of the rear spoiler must be clear polycarbonate.

Spoiler must be placed in the center (left-to-right) and at the rear edge of the trunk lid. All spoilers are subject to SMS Officials approval.

**20F- 3.2 GLASS-** A full windshield made from 1/8" (minimum) polycarbonate must be used. Windshield must maintain stock angle and fit template. Windshield must have two safety straps on the inside and out. Cracked windshields are not permitted. Quarter panel window cut-outs are mandatory. Quarter panel windows are permitted but must be made of 1/16" thick (minimum) polycarbonate. Rear window is not permitted. All lights and lenses must be removed from the car. Headlight and taillight openings must be covered. Headlamp and tail lamp decals are recommended for aesthetic reasons.

**20F- 3.2.3 WINDOW NET-** A commercially manufactured SFI rated nylon window net must be installed in the driver's side door window opening. It must be positioned to cover the entire window opening. Window nets may not be used beyond three (3) years from the date of manufacture. The window net must be rib type, made from minimum 3/4 inch, maximum one (1) inch wide nylon material with a minimum one (1) inch and a maximum 2-1/4 inches square opening between the ribs. The minimum window net size must be 22 inches wide by 16 inches high. All window net mounts must be a minimum 1/2 inch diameter solid steel rod on the bottom and a minimum one (1) inch wide by 3/16 inch thick flat steel or a minimum 1/2 inch diameter solid steel rod on the top, with mounts welded to the roll cage. The window net must fit tight and be secured with a lever-type quick release latch. The lever must be secured by a detent ball in the lever and may be supplemented by Velcro® fastener only – pins or clips are not permitted. The latch must mount at the top in the front to roof bar (#3) and release from the inside.

**20F- 3.2.5 REAR VIEW MIRROR-** One (1) single pane rear view mirror, with a maximum size of 8' x 2", may be mounted at the top of the windshield. No multi-image or side mirrors. Drivers wearing approved head and neck restraint devices may use one (1) spot mirror that must be mounted to the #10 A bar. The Spot Mirror must be a maximum diameter of three inches (3").

**20F- 3.3 DASHBOARD-** Stock dashboard may be removed but must be replaced with magnetic sheet steel, a minimum of 24-gage (0.025 inch thick), of similar design and be the full width of the body.

#### **20F- 3.4 FIREWALLS**

**A.** Front firewall must be in stock location and be made of minimum .031” magnetic sheet steel with all holes covered using magnetic sheet steel a minimum of .031” thickness. The front firewall must extend down to the top of the frame.

**B.** Rear firewall must be made of minimum .031” magnetic sheet steel securely installed over the rear seat back brace and top shelf or “hat rack”, completely closing off the trunk compartment.

**C.** The top shelf or “hat rack” must be positioned horizontal and approximately level and be no longer front to rear than stock.

**D.** The stock floor pan may be replaced with minimum .031” magnetic sheet steel bent similar to the original configuration. No part of the passenger side floor pan may be higher than the top of the frame rail. The passenger side floor pan may come straight across from a maximum height of the top of the frame rail to the transmission tunnel. The floor must be sealed to the bottom of the door on both sides of the car. The rear seat area must seal to the rear firewall.

**E.** The transmission tunnel shape may be altered, however it must remain in original center position (equal distance from frame rails to either side of the tunnel) and within 1-inch of original height. Additionally, the transmission tunnel must remain within 2-inches of stock width.

**F.** Door bars may not be covered on the interior of the car and must be visible for inspection from the inside of the car.

**G.** Closing in of passenger compartment next to or behind driver is not permitted.

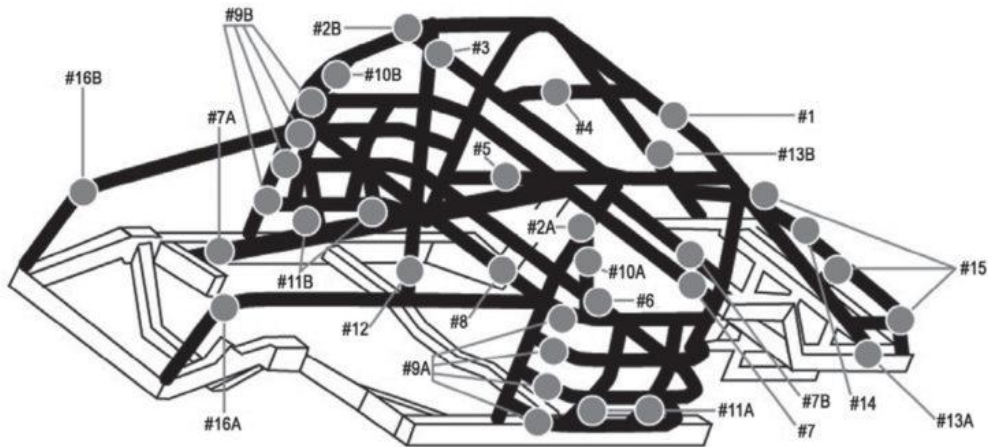
#### **Reminder for main cage construction-**

**You must have 4 door bars on each side, with door bars being curved, not straight, as described below in the NASCAR Weekly Racing Series Rulebook**

The door bars (#9A & B), on both the left and right sides, must have a minimum of four (4) bars equally spaced from top to bottom that must be welded horizontally between the vertical uprights of the main roll bar(#1) and the front roll bar legs (#2A & B). All door bars must each be a continuous length of tubing. The top door bar on each side must maintain a minimum vertical height of 20 inches from the top of the main frame rails and match up with the intersection of the dash panel bar (#8) at the roll bar legs (#2A & B) at the front and the intersection of the horizontal shoulder bar (#7) at the main roll bar (#1) at the rear. All door bars must be convex in shape except the bottom door bar on each side which may be straight. The door bars (#9A & B) must have a minimum of six (6) vertical supports per side with two (2) equally spaced between each door bar. These supports must be made from a minimum of 1-3/4 inches by 0.090 inch wall thickness magnetic steel seamless round tubing (not numbered but shown in the left side view of Diagrams #3, #4 & #5).

(Click Diagram to Enlarge)

## DIAGRAM #5 - BASIC NASCAR ROLL CAGE STRUCTURE (SOME BARS REMOVED FOR CLARITY)



**20F- 3.5 DOORS-** All doors must be welded or bolted shut. External nerf bars may be used. Nerf bars may be made of a maximum of 1” round tubing. Nerf bars must be in contact with the body (fender, door, quarter) and painted the same color as the body panel. Nerf bars must be at centerline (in height) of the front and rear tire and may be placed in between the front and rear wheels only. Ends must be turned into and go through the body or bolted at the end of the bar with a flush bolt that goes through the body to an interior bar of the same length as the outside bar. The nerf bars must have the ends detailed to prevent hooking. Spreading or narrowing of the body is not permitted. Replacement doors must have stock contour.

**20F- 3.6 FENDERS / QUARTER PANELS-** Full front fenders and rear quarter panels are required. Fender and quarter panel location, dimensions and angles must remain stock. Wheel openings may be trimmed a maximum of 3” from the outside edge of the tire for clearance. You may not compete without the fenders or quarter panels.

**20F- 3.7 GRILLES-** Grill openings must remain stock for body make/model used. A screen must be used in the grille opening. An open grille area (without a screen) is not permitted.

### **20F- 3.8 HOODS / ROOF**

**A.** A Stock OEM steel or an aftermarket fiberglass hood must be used and be in place at all times. Hoods must lay flat and fit the same as a stock hood without bows or bubbles in the center. Hood must be sealed at firewall and windshield.

**B.** Hood must be held closed with a minimum of three (3) quick release pins across the front. Hinges are permitted on the back corners of hood.

**C.** The hood must be solid and can have no holes or functioning air scoops.

**D.** A 2” (maximum) tall non-functioning hood scoop is permitted.

**E.** An OEM stock steel or an aftermarket fiberglass Street Stock roof is permitted. Roof panels must be mounted in stock position the same as the stock production roof. Roof must be bolted to cage at all four corners with at least 5/16” diameter grade 8 bolts. All roofs must be acceptable to SMS Officials. You may not compete without a hood or a roof.

**20F- 3.9 TRUNKS-** The rear deck lid must maintain the same height, dimensions, angles, and bodylines as the stock production car. Trunk lid may be held closed with quick release pins. All openings in rear panel must be covered. Complete taillight panel and bumper covers must be run. Flat back cars are not permitted. Taillight decals are recommended. You may not compete without a trunk lid.

**20F- 3.10 BUMPER / BUMPER COVERS-** The bumpers/bumper covers must be acceptable to SMS Officials and meet the following requirements:

**A.** The front and rear bumpers and/or bumper covers must be installed in the same location as far as height, width, and depth as a stock factory production bumper.

**B.** Magnetic steel tubing must be used to reinforce the front and rear bumper covers. The tubing must not be exposed and must remain behind the bumper covers.

**C.** The front and rear bumpers/bumper covers must be solid. Holes are not permitted.

**D.** All front and rear bumper covers must be painted the same color as the car including bolts and rivets.

**20F- 3.11 IDENTIFICATION-** Roof numbers must be readable from passenger side of car. SMS reserves the right to assign number colors.

**20F- 3.12 BODY TEMPLATES-** Templates may be used for inspection and reference purposes. The decision of SMS Officials is final. All vertical body measurements are measured at cars race ready ride height.

#### **20F- 4- GENERAL ENGINE REQUIREMENTS-**

The GM 305 / Ford 302 engine package or the 602 Crate engine package may be used. See separate rulebook for 302 / 305 engine option.

**SMS 602 CRATE ENGINE** As an option, the 602 GM Performance Factory Sealed Circle Track Crate Engine is permitted. The engine is the GM Part Number 88958602 GMR 350/350 Circle Track Engine with no performance modifications. The engine will be inspected, tested and resealed with blue seals by an SMS Official. All engine seals must remain intact and unaltered. Any service work requiring the removal of any seals/ bolts must also be scheduled with and approved by SMS Officials before the seals/ bolts are removed. Tampering with seals/bolts may result in penalties and loss of eligibility of the engine to compete in the Street Stock division. The sealed engine is only available through R.A.D. Auto Machine, the SMS approved service center. The price for this brand new 88958602 engine is \$4,600, which includes dealer delivery to our Authorized Service Center, inspection, break-in, dyno service, documentation, and sealing. The Street Stock engine will be sealed with Blue SMS seals. SK Light or LLM engines are not permitted in Street Stock competition. Please call R.A.D. Auto Machine (413-583-4414) or email the SMS technical staff at [tech@staffordspeedway.com](mailto:tech@staffordspeedway.com) with any questions.

#### **20F- 5.1 ENGINE LOCATION-**

**A.** Engine must be in the stock location for a V8 in the chassis being run. Stock engine location is when the distance between centerlines of the forward most fuel pump to engine block mounting bolt and the upper idler-arm to frame mounting bolt measures 8.75" inches +/- .25" inch, with all bolt holes being in Stock OEM location.

**B.** The front centerline of the crankshaft must be no less than 13- 3/4 inches from the ground with the car's frame set on six inch (6") high blocks under all four outer corners of the frame.

**20F- 5.10 CARBURETOR-** The Holley two-barrel model #4412 carburetor must be used. All parts must be a Holley manufactured part for the 4412 model. Polishing, grinding, resizing, or reshaping of any part or orifice is not permitted. The body, base plate, metering block, and bowl must be a standard Holley 4412 part, HP parts are not permitted. OEM type gaskets, jets and power valve must be used. The diameter of every hole in carburetor must pass the standard NASCAR /SMS pin and tooling gauges as part of our routine tech process.

(1) Body of carburetor and metering block: No polishing, grinding, or reshaping of any part. Drilling of additional holes or plugging holes is not permitted.

(2) The choke may be removed, but all screw holes must be permanently sealed.

(3) Choke Horn: Choke horn may not be removed.

(4) Boosters: Boosters may not be changed. Size or shape must not be altered. Height must remain standard.

(5) Venturi: Venturi area must not be altered in any manner. Casting ring must not be removed.

(6) Alterations to allow additional air to be picked up below the opening of the venturi such as altered gaskets, base plates and drilling holes into the carburetor will not be permitted.

(7) Base Plate: Base plate must not be altered in shape or size.

(8) Butterflies: The stock Holley 4412 or Stainless Steel Holly part #346 butterflies must be used. They may not be thinned or tapered. The Butterflies must remain as manufactured and must maintain the Holley production tolerance thickness of .0438" to .0398". Idle holes may be drilled in butterflies. Screw ends may be cut even with shaft, but screw heads must remain standard.

(9) Throttle Shaft: Shaft must remain standard and must not be thinned or cut in any manner.

**20F- 5.10.2 CARBURETOR ADAPTER, SMS 602 Crate Engine** – The Big Haus U.S.A. #001 aluminum adapter plate must be used.

One standard gasket per side, maximum gasket thickness of .075" permitted.

Alterations of any kind to the adapter plate are not permitted.

### **20F- 5.12.1 CARBURETOR AIR FILTER / AIR FILTER HOUSING**

**A.** Only a round dry type paper air filter element maintaining a minimum 12 inches and maximum 14 inches diameter is permitted. The air filter element must maintain a minimum of 1 ½" inches, maximum three and a half (3.5") inches in height. All air must be filtered through the element.

**B.** Only a round, metal filter housing (top and bottom) is permitted. The top and bottom of the air filter housing must be solid with no holes. A maximum of one (1) inch lip is permitted from the air filter element to the outer edge of the air filter housing top and bottom. The air filter housing carburetor mounting ring must have only one (1) round hole, a minimum of five (5) inches in diameter. It is permissible to attach a shield to the front area of the air filter housing up to a maximum of one half of the air filter circumference. The shield must not be higher than the height of the air filter element. The air filter housing metal top and bottom must be of the same diameter. The air filter housing must be centered and sit level on the carburetor. Air induction, ducts, baffles, tubes, funnels, or anything that may control the air entering inside of, or between the air filter and carburetor is not permitted.



**C.** The bottom of the air filter element must measure within one (1) inch of the carburetor's top flange. A spacer may be used between the carburetor and the air cleaner so long as the one (1) inch specification is not exceeded.

**D.** No part of the air filter or air filter housing may protrude through the hood. You may not compete without the air filter and air filter housing in place.

### **20F- 6.1 IGNITION SYSTEM, SMS 602 Crate Engine**

The distributor must be the same type that comes on a 602 crate engine.

**F.** Adjustable timing controls are not permitted.

**G.** Retard or ignition delay devices are not permitted.

**H.** An MSD #8728 or #8727CT external RPM limiter with a 6,300-RPM chip / setting is mandatory. The violet wire of the MSD #8728 or #8727CT must be cut back flush to the unit's housing. The green and the white wires of the MSD #8728 or #8727CT must run directly to the coil negative. The MSD #8728 or #8727CT must be mounted on the engine side of the firewall in plain view. SMS Officials may require the replacement of the RPM chip with a track issued chip at any time during an event. RPM limiters must be fully functional and operational at all times.

**20F- 6.4 STARTER-** Stock OEM type (full size or mini-starter) only. Must be in stock position and operate at all times.

**20F- 6.5 BATTERY-** The battery must be located in an enclosed battery box, complete with a cover. It may be installed under the hood area behind the front spindles, in the front firewall, or in front of the rear axle housing behind the rear firewall. The battery must be completely closed / sealed off on the driver side of the firewall. The battery box must be mounted between the frame rails and must not extend below the bottom of the frame rail. Any battery change that happens during competition must be installed in the battery box. One (1) 12-volt Gel or Glass Mat type battery with a minimum weight of 17lbs. is mandatory.

**20F- 6.7 ACCESSORIES-** Onboard computers, automated electronics, recording devices, or digital readout gauges of any kind are not permitted.

**20F- 6.7.1 RADIOS-** Monitoring of SMS Race Control on Frequency 461.1375 is mandatory via a RELIANT R416 Receiver, Raceceiver Microscanner, Victory GT-18 Receiver or similar receiver. The approved Receiver must be mounted in plain view for ease of inspection. You may be black flagged and removed from the event for failure to monitor Race Control. Two way communication is not permitted.

Track Frequency Channel– 461.13750 UHF

Waddell Communications [www.waddellcommunications.com](http://www.waddellcommunications.com) 860-573-8821

**20F- 6.7.2 TRANSPONDERS** – A Transponder is required on the car at all times. See the [SMS General Rules](#) for locating transponders properly. Any car not registering a transponder signal during practice will be black-flagged to be made aware of their scoring transponders failure and is required to remedy it before proceeding further in the event. TR2 and X2 Transponders are available from MyLaps America.



## **MYLAPS AMERICA**

[www.mylaps.com](http://www.mylaps.com)

32 Highlands Parkway Suite 104

Smyrna, GA 30082

Tel 678-816-4000

**20F- 7 ENGINE COOLING SYSTEM-** Only Water or SMS approved coolants or additives may be used in the cooling systems. Coolant lines to the engine block, intake or cylinder heads are not permitted. Ethylene Glycol or Propylene Glycol coolants are not permitted.

### **20F- 7.1 WATER PUMP**

**A.** A Stock OEM type pump must be used. Electric pumps or the combination water pump/alternator units are not permitted.

**B.** Any V-Belt or serpentine belt/pulley system is permitted. Cog belts or pulleys are not permitted. Pulleys must be steel or aluminum.

**20F- 7.2 FAN-**Stock OEM type mechanical or electric fans are permitted.

### **20F- 7.4 RADIATOR**

**A.** An OEM type radiator must be used in the stock location.

**D.** All cars must be equipped with an approved overflow catch can under the hood by the right front fender. The overflow hose coming out of the catch can must run and up through a fitting in the cowl, at the base of the windshield on the right side.

**20F- 8 ENGINE OIL SPECIFICATIONS** – Combustion enhancing oils or additives are not permitted.

### **20F- 9 ENGINE EXHAUST SYSTEM**

**A.** Stock OEM exhaust manifolds or Schoenfeld # 185 header must be used.

Headers may not be modified, other than for interior or exterior coatings.

Ford engines must get header approval by SMS Officials prior to competition.

**C.** The exhaust header flange must mount directly to the cylinder head with no spacers between the flange and the cylinder head.

**D.** The header collector must be used as supplied and may not be modified.

**E.** Exhaust pipe must be reduced from 3" to 2 ½" before entering muffler. The pipes after the muffler may have a maximum diameter of 2 ½ inches must run to within twelve (12) inches of the rear axle housing, then turn down a minimum of 45 degrees. Pipes may not exit out the side(s) of the car. Both exhaust pipes must be independent with no connection between them.

**F.** LOBAK # RCM 25-12-25 or Moroso #94050 mufflers must be used and are required at all times. Modifications or repairs of any type are not permitted on the muffler. Both muffler flanges must be intact. Stainless steel mufflers are not permitted. Mufflers must be removable for inspection.

**G.** Thermal wrap is not permitted anywhere on exhaust system.

**H.** Only one muffler and exhaust pipe per side of car is permitted.

**I.** The exhaust system is subject to approval by SMS Officials.

**NOTE:** The life expectancy for all mufflers is two years. Each team is responsible for inspecting their mufflers to insure they are not illegal due to wear. A muffler will be deemed illegal if it is missing one or more of the internal baffles. You may not compete without the mufflers.

**20F- 10 ENGINE DRIVE TRAIN – FLYWHEEL AND CLUTCH** – Flywheel- OEM Stock dimension steel, or aftermarket replacement billet steel flywheel for engine type, weighing a minimum of 16 lbs. must be used. Flat surface machining allowed only on the face of the flywheel, any cutting or machining on the back side of the flywheel is not permitted.

Pressure Plate- OEM stock type 10.5” steel pressure plate must be used. See weight requirement below.

Clutch Disc- OEM stock type 10.5” steel full 360 degree disc or Magnus part # 384152F and 384152C must be used.

Pressure plate & clutch disc combined minimum weight – 16 lbs. (fasteners not included).

Clutch disc minimum weight 2.5 lbs. and a maximum weight of 3.8 lbs. (fasteners not included).

Drilling or lightening of any part is not permitted. Solid magnetic steel fasteners must be used.

An OEM stock or aftermarket clutch pedal may be used. The pedal and components may be steel or aluminum. A hydraulic clutch bearing, hydraulic slave cylinder, or mechanical linkage may be used. All components are subject to SMS Officials approval.

**20F- 10.3 BELL HOUSING-** Only a commercially manufactured magnetic steel bell housing may be used. The bell housing must enclose the flywheel 360 degrees with minimum 3/16” inch magnetic steel. Any modifications you make to the bell housing must be done with 3/16” steel and welded in place (no bolt on pieces). A commercially manufactured bell housing (like the Quarter Master # 008110440) with a bolt on bottom cover may be used. An opening no larger than 3 ½ x 4 inches may be used for throw out bearing access. This hole may be covered with sheet metal.

**20F- 10.4 A – AUTOMATIC TRANSMISSION OPTION-** A completely Stock OEM TH350 automatic transmission must be used. Powerglide or two speed transmissions are not permitted.

### **TORQUE CONVERTER**

**A.** Full size stock torque converter for your year/make/model must be used.

**B.** Torque converter must be operational. Any alteration that may serve to “lock” the torque converter at any time or in any way is not permitted.

**C.** Torque converters of less than 11 inches in diameter are not permitted. Torque converters must have a retail price of less than \$325.00.

### **20F- 10.4 B- MANUAL TRANSMISSION OPTION-**

**A.** Only OEM production stock 3 & 4 speed transmissions may be used. Top loader transmissions are not permitted. Gear ratio must be of stock OEM production, with 2nd gear being a 1.50 to 1 ratio.

**B.** Only cast iron housings are permitted. Aluminum or magnesium transmission housings are not permitted.

**C.** Only OEM type, steel, angle cut forward gears are permitted. Square cut forward gears are not permitted.

**D.** All forward and reverse gears must be in working order, and they must be operational from

inside the driver's compartment. All transmissions must have a constant engagement of the input shaft with gear and countershaft with cluster gears.

**E.** Five-speed transmission, with gears removed are not permitted.

**F.** Quick change transmissions are not permitted.

**H.** Machining or lightening of any internal rotating or non-rotating parts including gears, shafts and case is not permitted. Gun drilled transmission shafts are not permitted. Welding on any internal part is not permitted.

**I.** Additional or different from OEM bearings other than the tail-shaft, which may have roller bearings, are not permitted.

**J.** Auxiliary, over or under drive transmissions are not permitted. High gear must have a ratio of 1 to 1, 2<sup>nd</sup> gear must have a ratio of 1.50 to 1, and no other forward gear may have a ratio higher than 1.20 to 1. The shifter and all of its components must be made of steel or aluminum.

### **20F- 10.5 DRIVESHAFT**

**A.** Drive shaft, universal joints, and yoke must be magnetic steel and be similar in design to the standard production type. The drive shaft must be made of one-piece magnetic steel and must either 2-3/4 inches or 3 inches in diameter.

**B.** Two (2) 360 degree solid magnetic steel brackets with no holes or slots, not less than 2 two (2) inches wide and 1/4 inch thick, must be placed around the drive shaft. The front bracket must be welded to the rear suspension crossmember and the rear bracket must be welded or bolted, with a minimum of two 3/8-inch diameter bolts on each side, to the horizontal tunnel bar (#6).

**C.** All drive shafts must be painted white.

**20F- 10.6 REAR AXLE** – The unaltered Stock OEM unit for your year/make/model or a Ford nine inch (9") non-floater must be used.

**A.** The center of the rear end housing must be within 1" of the centerline of the track width, front and rear.

**B.** Differential must be "open", single drive leg. Posi-Traction, Limited-Slip, Detroit Lockers, or any type of locking or ratcheting differential is not permitted.

**C.** Rear axle housing must be a continuous housing between the backing plates. Only one-piece, magnetic steel rear end axle housings will be permitted.

**D.** Racing axles are mandatory on both sides for all rears. C-clip eliminators are allowed on GM rears. Axles must retain all stock dimensions. Only one-piece, solid magnetic steel axles allowed. Hollow, lightened or drilled axles will not be permitted. **Minimum axle weight is TBD.** Axle splines must be straight cut, not crowned.

**E.** Aluminum parts are not permitted in or on the rear axle assembly. **The spool (carrier) must weigh a minimum of TBD.**

**F.** Cambered rear axle housings will not be permitted. Cambered components of any type are not permitted in or on the rear axle housing assembly. The method used to check camber will be the SMS Officials' option.

Stock upper trailing arms for the chassis used must attach to the frame in the stock location.

Stock upper trailing arms may be replaced with DCA P/N 17811 or J.C.I. P/N J.C.I. -09-03-04B.

Upper trailing arms can be ordered 1 inch shorter than stock directly from DCA or J.C.I.

**G.** Stock OEM, identical/exact replacement, or DCA P/N 17812, J.C.I. P/N JCI-03-01B or Hamm's Welding GHC-1925-RB series lower trailing arms for your chassis year/make/model must be used. The lower trailing arms must maintain the Stock OEM bolt-in length. Lower

trailing arm brackets on the frame must be in the Stock OEM location. Lower trailing arm mounting brackets on the axle tubes may be aftermarket and/or moved but rear must be centered in chassis. The lower trailing arm brackets may not be longer than 6", as measured from the bottom of the axle tube to the lower end of the bracket. Left and right backing plates must be an equal distance from the frame rails.

**H.** Springs must be mounted on axle housing in stock location for frame being used.

**I.** Aluminum parts in or on the rear axle assembly, other than wheel spacers are not permitted.

**GEAR RULE** – The 305 / 302 engine package must use a numerical gear ratio of 3.23 in a GM 7.5" rear end housing or a 3.25 in a Ford 9" rear end housing.

**OP-20F- 10.6 GEAR RULE** – SMS 602 Crate Engine-

You may run a 3.23 / 3.25 (GM 7.5" / Ford 9") numerical rear gear along with a 1.50 2<sup>nd</sup> gear ratio transmission, or you may use a 4.56 (GM or Ford) numerical rear gear with a 1:1 3<sup>rd</sup> gear ratio transmission. No other options or combinations are permitted.

**20F- 10.7 WHEELS-** Magnetic steel racing wheels are mandatory. Maximum width is 7" wide. Wheels must measure 3 ½ inches (+ or – 1/2") from the mounting flange surface to the outer contact surface of the tire bead. All four wheels must measure exactly the same (+ or – 1/8".) The minimum wheel (rim) weight is 20 LBS. (bare rim). Wheel studs must be magnetic steel with magnetic steel racing type lug nuts and the stud threads must extend a minimum of ½ inch beyond the outside surface of the lug nut. The frame area at the rear of the axle that may come in contact with the right rear tire may be relieved, if necessary, by denting, bending or notching the frame at this point.

**20F- 10.8 TIRES** – Hoosier Tire East of Manchester, CT. is the sole tire supplier for the Street Stocks. The approved tire is the Hoosier Compound Rib 700 sizes 27.0/8.0-15 and 27.5/8.0-15. All tires used at SMS must be purchased at the track on race day. SMS Officials may confiscate and/or impound tires at any time for inspection. The JTR Eagle PPM tire chemical tester will be set at a fixed level and will be strictly enforced throughout the 2022 season.

**[CLICK HERE for weekly Street Stock Inventory Limits](#)**

Each tire will carry a special bar coded serial number. The legibility of the bar code is the sole responsibility of the team. Drivers must pick up their Tire Inventory card from the Handicapping / Sign in booth and enter the barcode serial number of the tires they wish to use. Each tire barcode that is entered on the tire sheet will use one of your credits. The Tire Inventory card will be filled out and turned in to the Tech Center tire window each week prior to the scheduled drivers meeting. Drivers that do not turn in the Tire Inventory Card on time may be penalized. Edits to the tire inventory card after it is turned in is not permitted.

Drivers that have non-inventoried tires on their car during qualifying or feature events will be penalized.

In the event a driver changes cars for qualifying or feature racing, their tire inventory must accompany them to the new car (EIRI).

The amount of extra tires allowed for longer distance feature events will be determined by SMS Officials.

If a tire cannot be identified, it will be considered illegal.  
SMS Officials may change or amend these rules at any time.

#### **20F- 10.8.1 TIRES PHYSICAL REQUIREMENTS-**

Minimum Tire Pressures for all inspection purposes are fifteen (15) psi for both left side tires and twenty five (25) psi for both right side tires. Air may be added to the tires to achieve only the minimum tire pressures during inspections, per an SMS provided tire pressure gauge.

**NOTICE:** Participants specifically agrees that he/she acknowledges that it is illegal to soak or treat racing tires and that said soaking or treatment of racing tires is against EPA regulations and further contains carcinogens and hazardous material which are unfit for his/her health and the health of all competitors and spectators. Any participant found violating the rule will be subject to suspension. JTR Eagle PPM Tester will be set at a fixed level and will be strictly enforced throughout the 2022 season.

**20H- 11.1 STOCK OEM FRAMES-** The frame must be Stock OEM for year/make/model. Repositioning, elongating, or over-sizing of any mounting holes in the frame is not permitted. Plating or reinforcing of the frame in any way other than specified here is not permitted.

**A.** The Hamm's Welding front frame section (# TBD) may be installed from the front edge of the front spring pocket forward that incorporates the correct OEM steering box, idler arm and sway bar mounting locations. The front frame horns may be replaced with 2" X 3" .083" square tubing from the forward most 1/2" measuring hole to the front bumper. No other part of front frame rails can be replaced with tubing. On the stock front sub frame a minimum opening may be cut into the front of the spring pocket to access the adjustable spring spacer.

**B.** The front cross member must remain unaltered, Stock OEM.

**C.** Rear frame rails may be replaced with 2" x 3" .083" magnetic steel square tubing from the rear edge of stock upper cross member back, only if following stock configuration height, width, and length. Optionally the replacement rear frame rails may extend parallel rearward maintaining a minimum width of the stock frame rails width at rear most edge of the upper cross member. Both the Stock OEM cross member ahead of the rear axle and Stock OEM upper cross member must be used.

**D.** No offset or shortening of frame rails.

**E.** Frames must measure within a 1/4inch of all factory specifications for year/make/model used. All measuring cups or holes must remain unaltered.

**F.** Tubing of a size and length that will not protrude from the stock frame may be located inside the driver's side frame rail. All roll cage bars normally attaching to the drivers side frame rail must be welded directly to the supplemental tubing.

**G.** Tubing may be utilized as a replacement for the stock transmission cross member. Any non-stock replacement transmission cross member must be located perpendicular at 90 degrees to the stock frame rails and no further towards the rear of the car than to have the rear edge of the tubing even with the rear edge of the transmission hosing.

**H.** Additional X-tubing may be added so long as the tubing connects to the cross member and is not one continuous piece running from corner to corner of the stock frame. The X-tubing must attach within the two corners of each frame turnout. The X-tubing may not extend past any of the frame turnouts and may not be attached to the perimeter frame rails short of the frame turnouts.

**FORD FRAMES-** Ford full-size frames, (LTD, Crown Victoria) 1979 and newer may be shortened to 108" wheelbase. Frame must be shortened in center section only using the same area on both sides. Any Fords that are shortened to 108" wheelbase are allowed to use the Ford Thunderbird body from the same era.

**20H-11.2 OPTIONAL TUBULAR X-Y-G FRAMES-** The only approved aftermarket frames will be the mandrel bent X-Y-G tube frames, as manufactured, with no modifications, by Johnson Chassis (Part # JCI 09-011) or Hamm's Welding (Part # GHC-54108, mandrel or mitered). The only approved front clip assemblies are the Johnson or Hamm manufactured mandrel or mitered sub-frames. Johnson or Hamm mandrel bent rear clips, or conforming mitered rear clips are permitted. All vertical measurements are taken on 5" ride height blocks.

#### **Main Frame**

(1) A tubular magnetic steel "perimeter" frame must be used. Offset frames are not permitted. The main frame side rails must be parallel and be an equal distance from the centerline of the frame. The main frame side rails must be Stock OEM "C" channel rails, Hamm's part # GHC-664235 fabricated "C" channel rails, or fabricated as described herein: the main frame side rails must be the same size (left and right, height and width), constructed using a single tube, and must be magnetic steel box tubing three (3) inches in width by four (4) inches in height with a minimum wall thickness of not less than 1/8 inch, meeting ASTM A-500 specification. The main frame side rails start at a distance of 20 inches forward of the rear axle centerline and extend forward a length of 66 inches. When measured from the outside of the left frame rail to the outside of the right frame rail, a width of 54 inches, plus or minus (+/-) 1/2 inch, must be maintained. The distance from the outside edge of the main frame side rails, left and right, must be the same, measured from the centerline of the tread width, front and rear.

(2) Sub-frame kick outs must be constructed using a single tube and must be magnetic steel box tubing three (3) inches in width by four (4) inches in height with a minimum wall thickness of 1/8 inch meeting the ASTM A-500 specification. The sub-frame kick-outs must turn in 90 degrees to the main frame side rails and be welded to the inside ends of the main frame rails. The open ends of the sub-frame kick-outs must be closed by welding caps on the ends or bolting weight containment caps. The distance from the front of the front kick-out to the rear of the rear kick-out must be 66 inches. The front kick-out must measure 86 inches from the rear axle centerline.

(3) A cross member constructed of magnetic steel box tubing, two (2) inches by two (2) inches with a minimum wall thickness of 0.083 inch meeting the ASTM A-500 specification, must be welded between the main frame side rails at a distance of 48 inches from the rear axle centerline.

(4) All frames must have diagonal cross bracing constructed of a minimum one (1) inch by one (1) inch by 0.065 wall thickness steel tubing.

(5) All cross members and diagonal bracing must be installed flush to the top of the main frame side rails. The centerline of cross members may be notched a maximum width of 12 inches for driveline clearance. No part of the cross members or diagonal bracing may extend lower than the main frame side rails.

(6) If the optional tubular metric frame is used, the center to center dimension of the main roll bar #1 and the rear axle must be a minimum of 23-1/2 inches.

#### **Rear Sub-Frame**

(1) The rear sub-frame rails must be configured and attached in the same location on the left side and right side to the sub-frame kick-outs four (4) inches in from the outside edge of the main

frame rails. The rear sub-frame when measured from the outside edge of the left sub-frame rail to the outside edge of the right sub-frame rail must measure 46 inches, and this width must be maintained for the entire length of the sub-frame. The rear sub-frame must angle rearward and upward at an angle between 45 degrees and 50 degrees to a maximum height of 22 inches from the ground (on five (5) inch blocks), then angle rearward parallel to the main frame rails a maximum distance of 16 inches, then angle down to a minimum height of 11 inches and a maximum height of 14 inches from the ground. The rear sub-frame must be constructed using magnetic steel box tubing, two (2) inches in width by three (3) inches in height, with a minimum wall thickness of 1/8 inch and must be similar in design and configuration to Stock OEM rear kick-ups.

(2) The rear sub-frame tail section must extend rearward at a minimum height of 11 inches and a maximum height of 14 inches, to a maximum length of 38 inches from the centerline of the rear axle. The rear sub-frame tail section side rails must be parallel to the main frame side rails and have a minimum length of 24 inches. The rear sub-frame tail section must be constructed using magnetic steel box tubing two (2) inches in width by three (3) inches in height with a minimum wall thickness of 0.083 inches.

(3) The rear sub-frame must incorporate the mounting locations for the rear springs, shock absorbers, 4 link, and fuel cell, ending with a cross member constructed of magnetic steel box tubing two (2) inches in width by three (3) inches in height with a minimum wall thickness of 0.083 inches a maximum length of 38 inches from the centerline of the rear axle.

(4) A reinforcement bar, made from round magnetic steel tubing, minimum 1-1/2 inches in diameter with a minimum wall thickness of 0.083 inches, must extend below the rear sub-frame section behind the fuel cell. This reinforcement bar must be as wide as the rear sub-frame rails and extend as low as the bottom of the fuel cell with two (2) vertical uprights evenly spaced between the sub-frame rails and attached to the rear cross member. Two (2) support bars, one (1) located on each corner, must angle upward and be welded to the rear sub-frame side rails. (See the Construction Guidelines in the rear pages of the Rule Book).

(5) Weight containers, if used, must only be attached to the inside of the frame rails and must not be lower than the bottom of the frame rails.

(6) The back of the rear sub frame from the center line of the rear end may be mitered to conform to the rules stated above. This is the only mitered section allowed, excluding the front radiator support.

**FRONT SUB-FRAME-** All vertical (height) dimensions listed are measured with the frame at 5" ride height at all 4 corners. The front sub-frame must be constructed by the following guidelines.

(1) A GM-METRIC type front steer tubular front sub-frame must be constructed using two (2) inch wide by four (4) inch high magnetic steel tubing with a wall thickness of meeting ASTM A-500 specifications. The front sub-frame rails must be parallel to each other both vertically and horizontally. The front sub-frame rails must be parallel both vertically and horizontally to the mainframe rails from the Stock OEM shock hole location forward. All front steer assemblies must maintain a dimension of 31 inches from the center of the left side frame rail to the center of the right side frame rail at a point from the Stock OEM shock hole location extending forward in front of the steering assemblies. Spring bucket may be cut into left side and right side frame rails. Top of spring buckets will maintain a vertical height of 15 1/4 (+/-) 1/2 inch. Stock OEM shock hole location will maintain a centerline distance of 33 1/2 (+/-) 1/2 inch measured at top of spring bucket from left side to right side and be located equal distance from centerline left and right.



Note: a measurement and angle for the upper A-frame mounts will soon be inserted. A distance of 21 inches (+/-) ¼ inch must be maintained from the front frame kick-outs forward to the Stock OEM shock hole location centerline. The front sub frame rails may angle outwards and downwards from the Stock OEM shock hole location to the front frame kick-out to a maximum distance of 41 inches. If frame rails are angled outward, a wishbone made from round magnetic steel seamless tubing 1 ½ inch by .083 minimum wall thickness meeting ASTM A-519 specification must extend from dash bar #8 to an area at the rear lower a-frame mount and continue to connect at an intersection of roof support bar #12 and diagonal bar #7A extend rearward a distance of 34 inches then angle down 30 degrees to the front frame kick-out. The front frame extensions using two (2) inch wide by three (3) inch high minimum wall thickness of 0.083 inch magnetic steel tubing meeting ASTM A-500 specifications must angle out and forward and extend a distance of twelve (12) inches forward of the forward most top steering box bolt to a minimum distance of 33 inches from the center of the left side frame rail extension to the center of the right side frame extension. This forward top steering box bolt will be a horizontal distance of 39 inches from the front frame kick-out and a vertical height of 15 inches (+/-) ½ inch (Steering box bolt location will be inspected with a fixture that will read zero (0) degrees with the frame on six (6) inch ride height blocks). At a point four (4) inches in front of the top steering box bolt a two (2) inch wide by four (4) inch high magnetic steel tubing with a minimum wall thickness of 0.125 inch meeting ASTM A-500 specification must be a distance of 24 ½ (+/-) 1/8 inch must be maintained to the center of an O.E.M. three quarter (3/4) inch pin boss located on the mainframe centerline at the front of the front sub-frame cross member. The O.E.M. pin boss will be used for locating inspection fixtures. The front sub-frame cross member must be mounted at the centerline of the front sub-frame at a 90 degree angle against the back of the ¾ inch pin boss and be constructed using two (2) inch high by four (4) inch wide magnetic steel tubing with a minimum wall thickness of 0.125 inches meeting the ASTM A-500 specifications. A minimum thickness of one hundred thousandths (0.100) 12ga. magnetic steel must be used to construct the remainder of the front sub-frame cross member. The front mounting points for the front lower a-frames must be constructed using a minimum 3/16 inch thickness magnetic steel. The front mounting points for the front lower A-frames must be 9 3/8 inches, measured from the centerline of the front sub-frame to the centerline of the mounting bolt at the front side of the mount and a vertical height of seven (7) inches (+/-) ¼ inch. The rear mounting points for the lower A-frames must be constructed using a minimum 3/16 inch thickness magnetic steel. The rear mounting points for the lower A-frame must be 13 inches (+/-) ¼ inch measured from the centerline of the front sub-frame to the centerline of the mounting bolt at the rear side of the mount and the vertical height will be 6 7/8 inches (+/-) ¼ inch. Adjustable insert slugs may be used on the rear mounting bolt to maintain a distance of 22 inches (+/-) ½ inch from the center of the lower ball joint to the leading edge of the mainframe side rail and kick-out. A ½ inch round by 15 inch long solid steel pin must pass freely through these points during inspection. When measuring either the right side or left side the distance from the centerline of the bottom ball joint to the centerline of the sub-frame must be equal. The mounting plates for the upper A-frames must be welded to the top of the sub-frame rails and be parallel with the centerline of the sub frame rails. A distance of 37 inches will be maintained from the top idler arm bolt centerline to the front frame kick-out with a vertical height of 14 inches (+/-) ¼ inches. The GM-METRIC tubular front sub-frame must weigh a minimum of 95 lbs. A bare front sub-frame must be submitted to track officials for weigh in and approval. Front sub-frame must be acceptable to SMS Officials before it can be used in competition

**NOTE:** The tubular front sub-frame may not have jacking bolts, and the shock hole location and the upper a-frame mounting points must remain in the Stock OEM location.

Approved front sub-frames (front clip):

Stock OEM Metric

Hamms Welding P/N GHC-54108, (mandrel or mitered)

Hamm's Welding P/N GHC-54108-Z61 (mitered w/ crossmember change)

Johnson Chassis P/N JCI 09-011

**20F – 12.1 COIL SPRINGS / SPRING MOUNTS / JACKING BOLTS-** One (1) spring rubber insert, not to exceed one (1) full coil, acceptable to SMS Officials will be permitted on each spring. Only one (1) spring per wheel will be permitted. Progressive or digressive rate springs are not permitted. Any wrapping or binding of the coils will not be permitted. All upward and downward chassis movement must be limited by the spring's rate or the bottoming of the chassis against the racetrack. Any compression or rebound limiting device or procedure is not permitted. One of the ways SMS Officials will check for chassis travel limiting devices is as follows: With your car's front wheels rolled up onto the SMS 1" thick pads, the car's valence (air dam) must travel downward beyond the top of the pads (over-travel the ground) when three (3) crewmembers push down on it.

**Front Coil Spring**– Must meet the following:

Manufactured from round magnetic steel wire.

Have consistent wire diameter from top to bottom.

**May not exceed \$110 in retail advertised price.**

All the coils must be active.

Must maintain consistent spacing between coils.

Must be 8-1/4" to 11" in free height.

Must be 5-1/4" to 5-3/4" in outside diameter.

**Rear Coil Springs-** Must meet the following:

Each rear coil spring may not exceed 400lbs. in rate.

The spring will be checked for rate through several inches of travel, and must not be higher than 400 lbs per inch (+/-).

The spring will be checked for rate through several inches of travel, and must remain at the 400lb. rate (+/-) throughout the travel range.

Manufactured from round magnetic steel wire.

Consistent wire diameter from top to bottom.

**May not exceed \$110 in retail advertised price.**

All the coils must be active.

Must maintain consistent spacing between coils.

Both coil ends closed and ground.

The closed ends of the coil spring must not have a gap larger than 1/8".

Must be 10" to 15" in free height.

Must be 4-3/4" to 5-1/4" in outside diameter.

## **20F- 12. 2 SWAY BARS**

**A.** One Stock OEM sway bar may be used in the front and/or rear. The sway bar must be magnetic steel, one-piece, and can be no larger than 33 millimeters (1.299") in diameter. The sway bar must be used as it is manufactured. Modifications to the sway bar are not permitted.

Front sway bar must mount under the frame, in the stock location, and attach to the lower a frames in their stock location.

**B.** Bump pad configurations are not permitted. Splined sway bars and arms are not permitted.

**C.** Rubber sway bar bushings may be replaced with metal bushings or eye/lollipop type mounts.

**D.** Heim joints (spherical rod ends) are not permitted.

**20F- 12. 3 SHOCK ABSORBERS** – One shock per wheel. Front and rear shocks must be a matched pair, matched left to right. Shocks must remain in Stock OEM location. Rear shocks may be placed on top of frame in original position (must use original mounting holes) with a 1.5” maximum length spacer. Listed below are the only approved shocks for GM cars.

<b>Brand</b>	<b>Front</b>	<b>Rear</b>
Carquest	64600	64604
KYB	KG-4513	KG-5548
Monroe SSF Series	N/A	12475-6-7-8
Monroe SensaTrac	5840	5802
Doetsch	0101	0102
AFCO	1020	1030
AFCO	1021	1031
AFCO	1022	1035
Bilstein	AK1043	AK1044
ProShock	SS-100	SS-201
QA1	EC1956P	EC1685P

For non-GM cars, you must use the same series shocks from the above list and obtain prior written (email to [tech@staffordspeedway.com](mailto:tech@staffordspeedway.com)) approval.

#### **20F- 12. 4 A-FRAMES**

**A.** Upper & lower A-frames must remain stock OEM & unaltered for year/make/model. A-frames may not be changed from side to side. The upper and lower a-frames must be installed in the stock OEM location / stock OEM mounting points.

**The following upper a-frames are permitted:**

\*Stock OEM upper A-frames for the chassis year/make/model.

\*Speedway Motors P/N 91031134L and 91031134R with steel cross shaft.

\*ALLSTAR P/N ALL57831 and ALL57830 with steel cross shaft.

\*UB Machine P/N 14-0809-5R and 14-0829-6L with steel cross shaft.

No modifications may be made to the upper A-frames.

**The following lower a-frames are permitted:**

\*Stock OEM lower A-frames for the chassis year/make/model.

\*X-Y-G aftermarket stock geometry replacement for chassis year/make/model.

\*Hamm’s Welding GHC-1425727 (L-R)

\*Hamm’s Welding GHC-1425727-10deg.-R

\*Johnson Chassis JCI-9-02-001 (L-R)

The only modification permitted to the lower A-frame is the following: the flat surface of the right front ball joint helix may be cut and moved 10 degrees for ball joint bind clearance purposes only if a Chrysler screw-in type ball joint is used.

**B.** Lower ball joints may be replaced with “pressed-in” stock type extended lower ball joints in

Stock OEM position or with standard factory Stock OEM production Chrysler screw-in type or standard factory Stock OEM production Chrysler screw-in type direct replacement ball joints in the stock location on the A-frames.

**C.** Rebuildable or serviceable ball joints are permitted. Adjustable and “mono” ball joints are not permitted. Ball joints must be stock appearing, heavy-duty magnetic steel construction and must be acceptable to SMS Officials. The ball joints must not have any adjustment with the exception of a free play adjustment in the housing for the ball and socket. The total length of the ball joint pin from the top of the ball joint housing to the top of the pin must not exceed 3.375 inches for both upper and lower ball joints.

**D.** Upper ball joints must be stock OEM. Shimming of the upper ball joint is permitted.

**E.** Only Stock OEM type steel, zero offset upper control arm cross shafts are permitted.

**F.** Upper & lower A-frames must use the Stock OEM rubber bushing or an aftermarket polyurethane bushing. Bushings must have zero offset (be concentric). Bushing hole location may not be altered.

**G.** All A-Frame mounts must remain in Stock OEM location.

#### **20F- 12.5 SPINDLES AND HUBS –**

**GM Stock OEM Metric or Camaro steel spindles or the QAI part #'s 9056-104 or 9056-105 must be used.**

The Coleman two piece steel stock Metric replacement safety hub #16798 and rotor #140-753, or the Camaro hub #20651 and rotor #130-750-2, and the **Mittler Bros. part # 1400-5X5S hub** are permitted (and recommended). No modifications are permitted to the spindle or hub assemblies. Low Drag components are not permitted. Two standard steel wheel bearings, a wheel bearing seal, a torque nut and a standard nut locking mechanism are the only components permitted on each spindle/hub assembly.

**20F- 12. 6 TRACK WIDTH –** Maximum track width measured outside the tire bulge at wheel center height is 72¼ inches. Metal wheel spacers are permitted to utilize the maximum allowable track width. The wheel spacers must be the same thickness left and right, however, the front and rear do not have to match.

**20F- 12.8 WHEELBASE –** GM Metric chassis or XYG must measure 108” +/- ¼”. All other chassis year/make/model must be +/- ¼” from factory listed wheelbase.

**20F- 12.8.2 GROUND CLEARANCE –** A minimum of six (6) inches of ground clearance must be maintained at all times measured at the lowest point of the frame rail. No part of frame, body, sheet metal or bumper may be lower than 6” from ground. All ground clearance requirements are with the driver in the car.

**20F – 12.9 BODY HEIGHT –** Minimum height for the roof is 51 inches measured 8” rearward from the centerline where the windshield and roof meet.

**20F- 12.11 WEIGHT TRANSFER DEVICES –** The only weight jacking or transferring devices allowed on the car are standard spring pocket jacking bolts, front and rear. Upper rear spring perch may be trimmed only enough to accommodate new pocket. No other types of

weight transferring or jacking devices may be used. Handles must be removed from jacking bolts before the car is moved.

**20F – 13 STEERING COMPONENTS-** All steering components must be acceptable to SMS Officials and meet the following minimum requirements:

**A.** All cars must be equipped with a magnetic steel steering shaft.

**B.** All steering boxes must be mounted in the stock location and the stock position at an angle of not less than 10 degrees on GM type front sub-frames. Any means of raising or changing the steering box position will not be permitted.

**C.** Tie rods, drag links, pitman arms, idler arms, and component parts must be heavy duty magnetic steel. Holes and/or other modifications in steering components that, in the judgment of SMS Officials, have been made with the intent of weight reduction will not be permitted.

**C-1.** An OEM centerlink and idler arm, or a commercially manufactured non-adjustable stock type steel replacement is permitted.

**D.** The center top of the steering post must be padded with at least two (2) inches of resilient material acceptable to SMS Officials.

**E.** A quick-release steering wheel coupling with a metal housing, acceptable to SMS Officials, must be used. The steering wheel coupling should meet the SFI 42.1 specification.

**G.** Rack and pinion steering will not be permitted. All steering components must be made of magnetic steel including but not limited to drag links, pitman arms, idler arms, steering arms, and steering boxes.

**H.** Only magnetic steel spoke steering wheels will be permitted.

**I.** The power steering pump must be mounted and driven off the front of the engine.

**J.** All steering boxes must be constructed of magnetic cast steel.

**K.** The use of two (2) universal joints, a minimum of 12 inches apart, in front of the firewall and a collapsible steering section in the steering shaft is recommended and must be acceptable to SMS Officials.

**L.** Stock type steering box must be used. Rack and pinion steering will not be permitted.

**M.** Inner tie rod: OEM type tapered fit, non-threaded pin, magnetic steel tie rod end must be used on the inner tie rod. Outer tie rod: OEM type tapered fit, non-threaded pin, magnetic steel tie rod end must be used on outer tie rod end. Tie rod sleeve: Stock OEM type or aftermarket radius rod (steel or aluminum) may be used. Tie rod sleeve bolts and/or jam nuts must be magnetic steel.

**20F- 13.1 STEERING WHEEL** – A NASCAR approved quick release steel coupling on steering wheel is mandatory. Center-top of steering wheel must be padded with at least 2” resilient material.

**20F- 14 BRAKES** – Stock OEM type hydraulic brakes must be used- disc front, disc or drum rear. Front and rear calipers must be Stock OEM type steel, single piston calipers. Two-piece steel rotors may be used, no aluminum hats or hubs. Only magnetic cast iron or cast steel round circular rotors permitted. Front rotors must be vein type with a minimum thickness of 1”, rear rotors must have a maximum thickness of 1”. Rotors cannot be drilled, slotted, or grooved. Only factory dust clean out allowed. The brake rotors must be bolted to the hubs. Floating brake rotors are not permitted. All rotors and brake components subject to SMS Officials approval. Other brake components may be utilized from different year/make/models. One aftermarket hydraulic bias adjustable unit may be used. The aftermarket unit must proportion the front/rear bias only,

and it may be accessible by the driver in the cockpit. Racing type brake pedals and master cylinders may be used. Master cylinder(s) must be single stage design.

**20F- 14.2 – BRAKE COOLING** – The Ultra Cool steel fan, part # LMBFS5-625 L or R may be used, one on each front wheel/hub assembly. No other brake coolers, blowers, or fans of any type are permitted. Additionally, coolers, blowers, or fans of any type are not permitted anywhere on the car unless specified elsewhere in this rulebook.

### **20F- 15 FUEL SPECIFICATIONS**

**A.** SMS has instituted an approval process for all racing fuel. The intent of this rule is to help control costs, to eliminate very expensive fuel blends and fuel additives, to prevent engine damage from untried concoctions, and to ensure that the fuels used are available to all. Sunoco Race Fuel 260GTX is the only fuel permitted. The fuel may not be blended with any other fuel or additive. This fuel is available for purchase in the SMS paddock area. Several testing procedures will be utilized to ensure the fuel is pure Sunoco Race Fuel 260GTX, with no additives. All fuel samples taken must exactly match all of the manufacturer's printed specifications or penalties may result.

**B.** Icing or cooling of the fuel system is not permitted anywhere on SMS property.

**C.** Fuel may be tested and certified at any event through the application of various chemical analyses as considered appropriate by SMS Officials. Fuel may be checked before, during and after racing events.

**D.** Nothing may be placed in the fuel line except a standard fuel filter. The use of any type of fuel catalyst or other fuel-altering device is prohibited.

**20F- 16 FUEL SYSTEM** – See SMS Late Model rule book

**20F- 16.1 FUEL CELL** – Must meet NASCAR specifications with a fuel cell bladder made of a material that returns to its original size and shape after deformation. Rotational molded bladders are not permitted. Competitor must provide bladder model, serial number, and date(s) to SMS Officials before competing. Fuel cell bladders that are older than 6 years (from date of manufacture) must be recertified by the manufacturer. The gas cap must be painted white with the car number on it for identification. For additional specifications see the NWRS rulebook. The minimum requirement for approved fuel cells at SMS is as follows: ATL Super Cell "100" FB1 – Series Bladders. (Note: the complete cell will be the SU1- Series), and the Fuel Safe Sportsman Cell (SM Series). Any cell that is rated above these cells (ATL 200 & 500 series), and the Fuel Safe Pro Cell (PC Series), will also be approved for competition at SMS.

**20F- 16.2 FUEL CELL CONTAINER** – See SMS Late Model rulebook

**20F- 16.3 FUEL CELL / CONTAINER INSTALLATION** – Trunk floor may be removed, and fuel cell container installed in the opening centered between the frame rails with a minimum 10-inch ground clearance with the car's frame set on five inch (5") high blocks under all four outer corners of the frame. If a reinforcement bar is installed per NASCAR rule book 20F-16.3 section H, the maximum distance permitted from the center of the rear axle to the center of the reinforcement bar is 37 ½ inches. For additional specifications see SMS Late Model rulebook

**20F- 16.4 FUEL FILLER / VENT REQUIREMENTS** – Must use conventional fuel fill on top of cell. A dry-break quarter panel fuel filler is not permitted. See SMS Late Model rulebook

**20F- 16.5.3 FUEL SHUT-OFF** – A ¼-turn fuel shut-off valve of minimum 3/8-inch NPT with minimum 4-inch handle is required in the fuel line. The fuel shut-off valve must be located 8-inches inboard of the passenger side frame rails outside edge and 24-inches forward of the main roll bar (#1 bar). The fuel shut-off valve must be mounted securely to the underside of the driver's compartment sheet metal. The fuel shut-off valve shank must protrude through a maximum 1-inch diameter hole in the sheet metal to the interior of the driver's compartment. The fuel shut-off valve handle must be parallel with the sheet metal that the valve is mounted to. The fuel shut-off valve handle must be a minimum of 4-inches in length, red in color with a minimum of 1-inch clearance from the sheet metal throughout its full travel. A minimum 6-inch by 6-inch square area must be painted white with the fuel shut-off valves ON and OFF positions clearly labeled with ½-inch tall, black in color lettering. The shut-off valve must rotate clockwise from the ON position with the handle parallel with the frame rail, pointing towards the rear of the car, to the OFF position with the handle perpendicular to the frame rail pointing toward the driver.

**20F- 17. 4.1 OEM FRAME ROLL BARS** – See the NWRS rulebook. The following are additional requirements and clarifications for the installation of roll bars. All NASCAR rulebook specifications must be followed. No plating of the frame. A maximum of 38.875 inches from the center line of the front lower ball joints to the centerline of the roll cage front legs (referred to as bar #2a & #2b) will be permitted. A maximum of 82.625 inches from the centerline of the front lower ball joints to the centerline of the main roll bar (referred to as bar #1) is permitted. The centerline to centerline of these two bars starting at the front roll cage leg must maintain a minimum measurement of 43 inches and a maximum of 45 3/8 inches. The main roll bar must be mounted vertical (90 degrees) on the center section of the frame with no offset or setback. The #1 bar must be centered to the chassis. The roof bar (referred to as #3) must be within 4" of the side window and/or door openings on both sides, as well as the front windshield. All roll bars must follow the contour of the body. The #2A & #2B bars must be no more than two (2) inches behind the length of the A-pillar in the stock location. Offset or set-back cages are not permitted.

**20M -18 ROLL BARS X-Y-G Frame** – Roll cage #1 bar must be located a minimum distance of 22-1/2 inches and a maximum 24-1/2 inches forward of the rear axle centerline. Roll bar #1 must be in the same location on the left side and Right side. SMS Officials may request an access hole be added or any obstructions be removed to acquire a straight line measurement from the back of roll bar # 1 to the centerline of the rear axle. The main roll bar must be mounted vertical (90 degrees) on the center section of the frame with no offset or setback. The #1 bar must be centered to the chassis. The roof bar (referred to as #3) must be within 4" of the side window and/or door openings on both sides, as well as the front windshield. All roll bars must follow the contour of the body. The #2A & #2B bars must be no more than two (2) inches behind the length of the A-pillar in the stock location. A diagram will be available for builders. Offset and/or set-back cages are not permitted.

**NOTICE** – Competitors are solely and directly responsible for the safety of their race cars and racing equipment and are obligated to perform their duties (whether as a car owner driver or



crew members) in a manner designed to minimize to the degree possible the risk of injury to themselves and others.

**NOTE:** All vertical (height) body measurements are at ride height with driver in the car, and all vertical (height) frame dimensions are at ride height.

### **SPECIAL STREET STOCK RULES**

**HANDICAPPING** – Current season Street Stock feature winners will not be posted to start higher than 5<sup>th</sup> position in any feature events (EIRI). When there are “ties” in the Handicapped order, drivers will be placed according to their “wins”, the driver with more wins starting behind the driver with fewer.

**YELLOW FLAG – CAUTION** – Slow down as soon as possible. The pace car will pick up the leader.

#### **Rules For Pit Road:**

If you choose to come down pit road during an event to have your car inspected for damage or leaks: Bring your car to the stand on pit road. Your car will be inspected (but not serviced or repaired) for damage and leaks. If your car is OK, you will be instructed to join the field at the rear of the running order. If, in the judgement of SMS pit road officials, your car has damage or leaks that are not safe, you will be done for the event.

If you are told to come to pit road for an inspection: Bring your car to the stand on pit road. Your car will be inspected for damage and leaks. If your car is OK, you will be instructed to join the field. If, in the judgement of SMS pit road officials, your car has damage or leaks that are not safe, you will be done for the event.

Drive-through penalty: If you are assessed a drive-through penalty for an on-track incident, you must come to pit road immediately, and drive through / down pit road at 25mph, rejoining the field at the exit of pit road.

Black flagged from the event: If you are black-flagged out of the event, you must come to pit road immediately.

**CONTINGENCIES**– Contingency sponsors are a valuable part of the SMS program.

Contingency stickers must be displayed for either product or monetary considerations. Each division will be notified as to what stickers are required to be eligible for contingency rewards.

The sticker must be displayed on both sides of the car in such a manner as to be clearly visible in a photograph. Contingency stickers must be used as supplied by SMS. Alterations to the stickers are not permitted.