

# 2023 SK Light Modified Rulebook

For any technical questions, please thoroughly read these rules, the SMS SK Modified® rules and any applicable NWMT rules, then email [tech@staffordspeedway.com](mailto:tech@staffordspeedway.com).

## 2023 SK Light Modified Rule Changes

### 20E-3.5 DOORS and QUARTER PANELS

#### ROOF POSTS

#### REAR SPOILER

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## 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 2023 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 Nascar Whelen Modified Tour (NWMT) Rulebook, the Nascar Weekly Racing Series (NWRS) Rulebook, the SMS General Rulebook, the SMS SK Modified® Rulebook, and the SMS SK Light Modified Rulebook. All 2023 NASCAR Whelen Modified Tour (NWMT) rules, the 2023 Nascar Weekly Racing Series (NWRS) rules, and the 2023 SMS SK Modified® rules, where applicable, will be enforced for SMS SK Light Modifieds, with the following changes and/or additions (EIRI).

SMS Officials decisions regarding rules are final and non-appealable.

**SK Light Modified Mission Statement:** An open-wheeled Modified based upon the SK Modified® format integrating rigid cost controls. This division will provide a budgeted open-wheel racing opportunity for participants seeking to pursue an open-wheeled racing career.

**DRIVER ELIGIBILITY** – All drivers must have a Stafford SK Light Modified driver’s license. Drivers must be minimum 15 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.

	Cross Competition				
Full-Time Division	SS	LLM	SKL	LM	SK

Street Stock		YES	YES	YES	YES
Limited Late Model	NO		YES	YES	YES
SK Light Modified	NO	YES		YES	YES
Late Model	NO	NO	NO		YES
SK Modified®	NO	NO	NO	YES	

**20E- 1.3 APPROVED COMPETITION MODELS-** – Approved model bodies are listed in the NASCAR Rulebook. Other models both domestic and foreign steel passenger cars may be approved for the SK Modified® division providing they are the same in body configuration and meet the spirit and intent of competitive racing in the SK Modified® division.

**Detailed chassis, body and interior tin rules can be found in the NWMT rule book. Body alterations / deviations from the NWMT rulebook, other than listed here, are not permitted. The decision of SMS Officials is final and non-appealable.**

**You may not compete without the roof, windshield, hood, air filter or mufflers in place. Additionally, the bumpers and all nerf bars must be adequately secured to the chassis at all times. SMS Officials will pass judgment on any body / bumper / nerf bar damage prior to continuing an event. Their decisions are final and non-appealable.**

**20E- 2.2 OVERALL CAR WEIGHT-** All specified weight requirements will be with the driver. The minimum weight at all times will be 2,645 pounds. No car will be allowed to have more than 56% of the total weight as the left side weight. Any car found to be under the minimum overall car weight allowance will be penalized one position for every pound under the minimum total weight.

**20E- 2.3 ADDED CAR WEIGHT-** Added weight must be in block form magnetic steel or lead only of no less than five (5) pound blocks (no pellets). Added weight must be securely bolted to the frame rail and painted white with the car number stenciled in black. No added weight will be permitted inside the driver’s compartment. Weight must be welded in a box or attached with two or more “grade 8” bolts minimum 7/16” diameter. *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.*

**20E- 2.4 CAR WEIGHTS AFTER RACE-** Nothing may be added to or taken from the car to make total or left-side weight. Gas, oil, or water may not be added. Wheels and tires cannot be changed, but an amount equal to one half of one percent (.5%) of the gross weight will be added for loss in weight due to race wear (minimum post-race weight of 2632 lbs.). Any car found to be under the minimum overall car weight allowance will be penalized one position for every pound under the minimum total weight.

### **20E- 3.1 NOSE PANEL**

A conventional aluminum nose panel must be used. The nose panel assembly must maintain 2” of ride height clearance. The nose panel must consist of a bottom tray, two side panels, and a top panel. Additional panels to aid in air directional flow may be installed in the nose panel.

Any additional air directional flow panels may not extend outward from the air intake opening or any part of the nose panel.

The nose panel may be no wider than the frame rails it attaches to.

The bottom tray may not extend rearward past the harmonic balancer.

The nose panel may not extend forward beyond the rear edge of the front bumper tubing.

The top and bottom panels must attach flush to the side panels.

**20E- 3.2.3 SIDE WINDOW GLASS/WINDOW NET** – A nylon window net must be installed in the left side door window opening, and it must be positioned to cover the entire window opening. Window net should not be used beyond three (3) years from the date of manufacture. The window net must be rib type, made from minimum ¾ inch, maximum one (1) inch wide nylon material with a minimum one (1) inch and a maximum 2¼

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 ½ 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 ½ inch diameter solid steel rod on the top, with mounts welded to the roll cage. The window net, when in the closed position, must fit tight and be secured with a lever-type quick release latch acceptable to SMS Officials. The lever must be secured by a detent ball in the lever and may be supplemented by Velcro® fastener only – pins or clips will not be permitted. The latch must be mounted at the top in the front to roof bar (#3) release from the inside.

**WINDSHIELD** – A flat windshield is mandatory, per the NWMT rulebook, made of a minimum of 1/8” polycarbonate that extends from the left A-pillar to the #4A center windshield bar and from the roof to the cowl. A minimum of three Dzus type fasteners must be used on each of the four sides.

**20E- 3.2.5 REAR VIEW MIRROR-** One (1) rear view mirror must be mounted at the top of the windshield. If running a head and neck restraint system, you may run a 14” X 2” mirror. If not, the mirror must be no larger than 8” X 2”. Multi-image or panorama mirrors are not permitted. Oversized mirrors maybe blacked out by the use of paint only, to obtain the 8” X 2” / 14” x 2” maximum reflective area. A side view or spot mirror is permitted.

**20E- 3.5 DOORS and QUARTER PANELS**– may be made of magnetic steel or aluminum.

**Right Side panels: The top and bottom Door flange must match the top and bottom Quarter panel flange, creating one line/plane when viewed from the side and above.**

**Left Side panels: one angle or break is permitted at the door / quarter panel seam.**

**All Doors and Quarter panels must be flat or convex in shape, they may not be concave.**

**The bottom flange of the Door and Quarter panels must face inward / inboard.**

**The Door panels must maintain a 2” minimum ground clearance.**

**The Quarter panels must maintain a 7-1/2” minimum ground clearance.**

Aluminum crush panels must be installed per the NWMT rulebook.

**ROOF POSTS-** **Roof posts may not be any higher than the line created from the roof attaching point to the forward most door attaching point.**

**The rear roof posts must be aluminum and may not be any higher than the line created from the roof attaching point to the rearward most attaching point on the quarter panel. The rear roof posts must be a minimum of 49” apart when measured across the car from left to right and may not be inboard of the rear spoiler mounting area. The general shape and any cutouts in the rear roof posts must match from left side to right side. A ¼” maximum top lip is permitted on the rear roof posts, and must face inboard.**

**REAR SPOILER-** **The spoiler must be 8” tall x 48” wide x ¼” thick clear polycarbonate. The rear panel must be no wider than 60” when measured across from left to right. The height of the top of the rear panel must be between 32” and 36”. The rear spoiler must be mounted to the top of the rear panel, aft edge, and must be centered across the back panel.**

**INTERIOR SHEET METAL** – The rear center panel (over the fuel cell) should be made of magnetic sheet steel, 22 gauge, .031” thick, with a minimum width of 28”, and must extend from the rear vertical panel forward to the #7 roll bar, per the NWMT rulebook.

### **20E- 3.7 NOSE PANEL AIR INTAKE OPENING**

The top panel must have an air intake opening with a minimum of 165 square inches.

The air intake opening must be rectangular in shape.

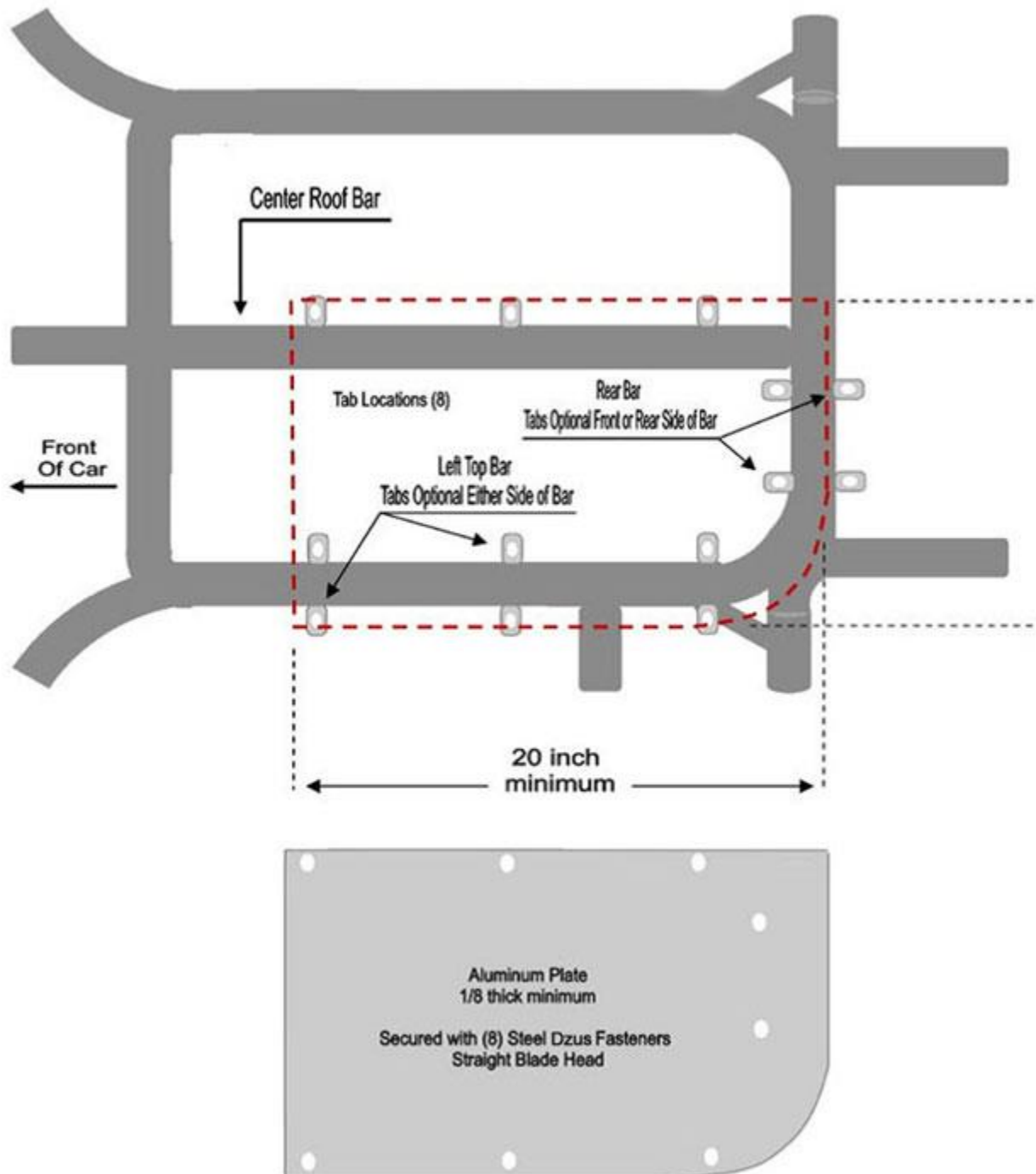
A metal mesh screen may be installed in or behind the air intake opening for debris protection.

A flat horizontal air dam (splitter) may be installed on the bottom forward lip of the nose panel. The air dam may be no wider than the nose panel and may extend forward a maximum of 1” from the bottom tray.

The air dam may not extend forward beyond the rear edge of the front bumper tubing.

### 20E- 3.8 HOODS / ROOF-

C. All roof panels must be made of magnetic sheet steel, or be an SMS approved manufactured fiberglass roof panel. All cars utilizing an approved fiberglass roof must install the (minimum) 1/8" thick aluminum anti-intrusion plate in the roll cage halo as described in the following diagram. For additional specifications on letters A. B. D. E. and F. see the NWMT rulebook. Cars may not compete without a roof or a hood.



**20E- 3.11 IDENTIFICATION-** All car number configuration and design are subject to approval by SMS Officials. Only single or double-digit numbers will be permitted. The size, color, and style of numbers must be adequate to permit prompt identification by SMS Officials at all times. Numbers must be solid color, at least 18 inches high, measured vertically, excluding borders and silhouettes, must be neatly attached to, or painted on both sides of the car on the center of the door. Door numbers must be a minimum of four (4) inches in width, and slant no more than 30 degrees from vertical. The tops and bottoms of all numbers must be even (not staggered). Two (2) digit numbers must not overlap and must have a minimum of 3/4 inch separation. A solid

number 18 inches high, excluding borders and silhouettes, must be neatly attached to, or painted on the roof, reading from the passenger side. A solid number a minimum of 12 inches high, excluding borders and silhouettes reading from the passenger side neatly attached to or painted at a 45 degree angle on the right front corner of the roof is also acceptable. Solid numbers, as large as possible, must be attached to or painted on the right outer nose and taillight covers. The use of number decals is acceptable if SMS Officials determine that the number is legible. Mirror foil numbers and decals will not be permitted. Paint schemes using a mirrored or holographic appearance will not be permitted.

**20E- 5 GENERAL ENGINE REQUIREMENTS**– The only SMS approved service center for the GM Performance Factory Sealed Circle Track Crate Engines is:

**R.A.D. Auto Machine – Ludlow, MA – 1-413-583-4414**

R.A.D. Auto Machine is the exclusive service center for all “602” GM Performance Factory Sealed Circle Track Crate Engines at Stafford Motor Speedway. No other engine builder’s seals will be permitted for competition at Stafford. To compete at Stafford, all engines must be sealed by R.A.D. Auto Machine and approved by SMS Officials.

The GM part number 88958602 superseded by GM part number 19258602 factory sealed circle track “602” crate engine is the only engine permitted. The motor may be purchased and delivered to R.A.D Auto Machine, or you may purchase the engine through R.A.D Auto Machine. This engine requires specific changes made to it to compete, and the work will be performed at R.A.D Auto Machine, then the engine will be resealed by SMS Officials. Any service work requiring the removal of any seal bolts must also be scheduled with and approved by SMS Officials before the seal bolts are removed. Tampering with seals will result in penalties and loss of eligibility of the engine to compete in the SK Light division. All engines must be sealed and documented to compete at SMS. All of the parts specified and/or that come stock OEM on these engines must remain as delivered, with no modifications or alterations of any kind. Engines may not be disassembled without being in need of repair. A maximum overbore of .030” will be permitted. The maximum static compression ratio is 9.5 to 1. Please call R.A.D Auto Machine or email the SMS technical staff at [tech@staffordspeedway.com](mailto:tech@staffordspeedway.com) with any questions on these rules.

**20E- 5.10-CARBURETOR** – A Holley two-barrel model 4412 carburetor must be used. Only Holley replacement or service parts can be used in any carburetor rework. Carburetors and/or carburetor components machined from billet materials are not permitted. 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.

**20E- 5.10.4 CARBURETOR ADAPTER** – The **Big Haus USA 001** spacer must be used. One gasket per side, maximum gasket thickness of .075” permitted. The spacer may not be modified in any way. Additional

openings for the induction of air is not permitted. Carb and spacer mounting hardware must be solid and must not permit air to pass through or by.

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

**A.** Only a round dry type paper air filters elements maintaining a minimum 12 inches and maximum 14 inches diameter is permitted. The air filter element must be a minimum of 1-1/2 inches, maximum five (5) inches in height. All air must be filtered through the element.

**B.** Only a round, magnetic steel or aluminum filter housing is permitted. The top and bottom of the air filter housing must be solid with no holes. A maximum of one (1) inch lip will be 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 top and bottom must be the same diameter. The air filter housing must be centered and sit level on the carburetor. No air induction, ducts, baffles, tubes, funnels or anything else which may control the air entering inside of, or between the air filter and carburetor is permitted.

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

**D.** No portion of the hood may be higher than the bottom of the air cleaner.

You may not compete without the air filter and air filter housing in place.

**20E- 6.1 IGNITION SYSTEM**– The distributor must be a stock type electronic / HEI housing, have stock type HEI 4 pin module, be equipped with a magnetic pickup, be gear driven, and be mounted in the stock location. Billet distributor housings are permitted.

**C.** Only one (1) ignition coil is permitted and must be mounted on engine side of the firewall.

**D.** Electronic firing module amplifier box is not permitted.

**E.** Computerized, multi-coil, dual electronic firing module box or crank trigger systems are not permitted. Magnetos are not permitted. All ignition systems are subject to approval by SMS Officials.

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

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

**H.** The **MSD #8727CT** digital RPM limiter set at 6000-RPM must be used. The MSD rev limiter must be mounted on the right side firewall, and must be visible, but shrouded so the driver cannot access it. RPM limiters must be fully functional and operational at all times.

**I.** Accessories to regulate the power supply are not permitted.

**J.** The tachometer wire must run from the distributor to the tachometer along the #8 dash bar separate from any other wires and in unobstructed view for inspection. The tachometer wire must be isolated from any other wires, connections, or devices. The entire length of the tachometer wire must be visible from distributor to the gauge.

**K.** The vacuum advance unit may be replaced with a manual non-electronic timing adjuster that does not extend more than two inches beyond the distributor housing.

**20E – 6.3 ALTERNATOR**- A functioning 12-volt single alternator system with an internal voltage regulator and one (1) output wire must be used. External voltage regulators are not permitted. The alternator must be mounted on the front of the engine.

**20E- 6.5 BATTERY** – One (1) 12-volt Gel or Glass Mat type battery with a minimum weight of 17lbs. is mandatory. The battery must be located between the frame rails under the hood or the floor of the car. If located under the floor, the battery must be completely encased, if located under the hood the battery must have a suitable cover. The battery must not be forward of the radiator or rear of the rear end housing of the car. The battery location must be acceptable to SMS Officials.

**20E- 6.7.1 RADIOS**- Monitoring of SMS Race Control on Frequency **461.13750** UHF is mandatory via a Raceceiver, Microscanner, or Receiver. The approved one-way receiver must be mounted in plain view for

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 SK Light – 461.13750 UHF

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

**20E- 6.7.3 TRANSPONDERS-** Transponders are required on the cars at all times. See SMS General Rules section for locating transponders properly. Any car not registering a transponder signal during practice will be black-flagged to be made aware of their scoring transponder's 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

**20E- 7 ENGINE COOLING SYSTEM-** Only Water or SMS approved coolants or additives may be used in the cooling systems. Ethylene Glycol or Propylene Glycol coolants are not permitted.

**20E- 7.1 WATER PUMP-**

**A.** A stock OEM type pump must be used. Electric pumps are not permitted.

Any serpentine, cog or V-belt pulley system is permitted.

**20E- 8 ENGINE OIL SPECIFICATIONS-** The use of combustion enhancing oils or additives is not permitted.

**20E- 9 ENGINE EXHAUST SYSTEM**

**A.** The following part numbers are the only headers permitted. All headers must remain unaltered and exactly match the SMS factory sample headers.

**Troyer Chassis** – Beyea AMSST-602N1-TA, Flowrite SMS25 or Kooks SMS1033.

**Raceworks Chassis** – Beyea AMSST-602N1-3, Flowrite SMS45 or Kooks SMS1033

**Chassis Dynamics** – Beyea AMSST-602N1-3, Flowrite SMS35 or Kooks SMS1435.

**SPAFCO Chassis** – Beyea AMSST-602N1-3 or Flowrite SMS55.

**B.** The exhaust header flange must mount directly to the cylinder head with no spacers between the flange and the cylinder head. A maximum header flange thickness of ½ inch is permitted.

**C.** Inserts are not permitted in any part of the header or collector. Merge, crossover and pyramid collectors are not permitted.

**D.** Exhaust pipes must come out of engine at cowl and must extend a minimum of six (6) inches past the cowl. Turn-downs must be used after the mufflers, on each side. The turn-downs must be installed so that hot exhaust, engine debris, or engine flames are aimed at the ground (from pointing straight down to less than 90 degrees to horizon).

**E.** The Beyea MUF3, LOBAK RCM 30-12-30, LOBAK 35-12-35, Kooks R300-10, or Flowrite FR300 mufflers are required at all times. Modifications or repairs of any type are not permitted on the muffler. Both muffler flanges must be intact. Mufflers must be removable for inspection.

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

**G.** Only one muffler and exhaust pipe allowed per side.

**H.** Exhaust system subject to approval by SMS Officials.

**I.** Interior coatings are not permitted.

**J.** Exterior coatings other than paint are not permitted. All other coatings including powder coatings are not permitted.

**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 mufflers.

## **20E- 10 ENGINE DRIVE TRAIN – FLYWHEEL AND CLUTCH-**

**Flywheel**– A Stock OEM type 153 tooth steel flywheel with a minimum weight of 14.5 lbs. must be used. Flat surface machining on the face of the flywheel is permitted. Cutting or machining on the backside of the flywheel is illegal.

**Pressure Plate**– A Stock OEM type 10.5” steel diaphragm type pressure plate must be used. The weight of the Pressure Plate must be a minimum of 12.2 lbs., and the weight of the Pressure Plate and the Clutch Disc combined must be a minimum of 16 lbs.

**Clutch Disc**– A Stock OEM type 10.5” diameter steel disc with a minimum weight of 2.5 lbs. must be used. The disc must be circular; it cannot be a button or paddle type. The weight of the Pressure Plate and the Clutch Disc combined must be a minimum of 16 lbs.

All bolts and hardware must be solid magnetic steel. Drilling or lightening of any part / component is not permitted. The following weights are the minimum allowed for each part (not including the bolts / hardware):  
Flywheel 14.5 lbs.

Pressure Plate & Clutch Disc 16 lbs.

The Clutch Disc must maintain a minimum weight of 2.5 pounds and a maximum weight of 3.8 pounds after the combined weight of the Pressure Plate and the Clutch Disc has been determined.

**20E- 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.

## **20E- 10.4 TRANSMISSION**

**A.** Only OEM production stock 3 & 4 speed transmissions will be permitted. Top loader transmissions are not permitted. Gear ratio must be of stock OEM production.

**B.** Only stock O.E.M. factory housings will be permitted.

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

**D.** Removal of first gear or replacement of first gear with a metal spacer, in 4-speed transmissions is permitted. All other 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 transmissions, with gears removed are not permitted.

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

**G.** Automatic or semi-automatic 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, is not permitted.

**J.** Auxiliary, over or under drive transmissions are not permitted. High gear must have a ratio of 1 to 1 and no other 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.

## **20E- 10.6 REAR AXLE**

**B-1.** All axles must be a minimum of 7.00 pounds while still maintaining a minimum of 1.200-inch manufactured outside shank size.

**E.** Only magnetic steel axles, bearings, and axle housings are permitted.

**F.** Only one-piece, magnetic steel axles will be permitted. The axle splines must be straight cut, not crowned. Crown type axle splines will not be permitted.

**G.** Cambered rear axle housings or other cambered components will not be permitted. A tolerance of 1½



degrees of camber (positive or negative) will be permitted.

**H.** Only aluminum or steel drive plates, the same thickness on the left and right side will be permitted. The drive flange splines must be straight cut, not crowned.

**L.** Only ten (10) inch ring gear and housings are permitted.

**M.** Thermal dispersant coatings are not permitted.

**GEAR RULE** – 4.12 Maximum for straight rears, 4.26 Maximum for Quick Change rears. Rear ends and components may be weighed as part of post-race technical inspection.

**20E- 10.8 TIRES** – **Hoosier Tire East** of Manchester, CT is the sole tire supplier for the SK Light Modified. The approved compounds are Hoosier 27/13-15 M450 and Hoosier 26/13-15 M30. 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 SK Light 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 each week prior to the scheduled drivers meeting. Drivers that do not turn in the Tire Inventory Card on time will 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, his tire inventory must accompany him 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.

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

**E.** Minimum circumference of the right rear tire @ 20 psi. is 84".

**F.** Minimum tire pressures for all inspection purposes are ten (10) psi for both left side tires and fifteen (15) 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:** A participant competing in any race at SMS specifically agrees that he/she acknowledges 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 is subject to suspension.

**20E- 12.1 COIL SPRINGS** – Only coil spring suspension will be permitted. The suspension and coil springs at all four (4) wheels must be active and permit suspension movement in compression and rebound. All downward chassis movement while the race vehicle is in competition must be limited only by the normal increasing stiffness of the springs or the bottoming of the chassis against the race track, whichever occurs first. Any device or procedure that in the judgment of SMS Officials attempts to detract from or compromise the above will not be permitted, including “coil-bind”. Any type of chassis travel limiter, used in compression or rebound, will not be permitted. Front shocks must have a minimum of 2" of piston available for spring travel in compression. All coil springs must not be colder than ambient temperature.

**[A maximum of two full \(360 degree\) non-adjustable spring rubbers are permitted in the coil springs. Spring rubbers must be made of pliable rubber or urethane type material, and may have no other substance in them.](#)**

Shock/Coil over boots or bags are not permitted.

### **Coil Over Springs:**

1. Coil over springs must mount to the lower A-frames.
2. Strut bars will not be permitted for mounting of coil over front springs.
3. Coil over springs must be manufactured from one solid piece of heavy-duty magnetic round steel (flat or oval wire is not permitted) and must be constructed with both coil ends closed and ground. One inactive coil on each end of the coil spring is permitted.
4. Only one (1) spring per wheel will be permitted.
5. Coil springs may be coated but coating thickness and material must be acceptable to SMS Officials.
6. All active coils of the spring must have the same coil spacing, same wire diameter, and same inside and outside diameter. The first and last coils may be different due to having closed and ground ends.
7. Progressive or digressive rate springs will not be permitted.
8. **Front coil must be a minimum of 8" in free height and a minimum of 250 lbs. per inch rating. You may not use any type of device to alter the load on the front springs, other than the normal loading of the coil-over nut.**

Rear coil must be a minimum of 8" in free height.

### **20E- 12.3 COIL OVER SHOCKS – Reminder, the approved shocks must remain as manufactured by Pro. No modifications are permitted. Shocks will be disassembled and inspected as part of the technical inspection process.**

A. The SK Light Modified division must utilize the SMS approved shocks only. Shocks are subject to dyno verification and must be within the manufacture's tolerance limits for each part number. Shocks must remain as manufactured, with all factory supplied components. There are no alterations or part / component changes of any kind permitted.

**Shocks may be swapped at any time with SMS inventory by SMS Officials.**

B. The SK Light Modified SMS approved shocks are:

Front-Pro Shocks # TA55½B

Rear- Pro Shocks # TA74½B

**20E- 12.5 SPINDLES, WHEEL BEARINGS and HUBS** – Front spindles must be linked to frame utilizing two individual tethers per spindle. All tethers and their installation must be acceptable to SMS Officials. Low drag components (excluding seals) are not permitted. The use of oil filled hubs, oiled bearings, low friction bearings, non-steel bearings, coated or polished spindles, bearings or races will not be 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.

E. Oil filling of any spindles, wheel bearings or hubs is not permitted.

**20E- 12.8.2 GROUND CLEARANCE REQUIREMENTS-** The frame rail and sheet metal ground clearance is a minimum of two (2) inches. All ground clearance requirements are measured with the driver in the car. SMS Officials may check ground clearance / ride height before and after feature events.

**The nose panel, frame rail and door panel must maintain a 2" minimum ground clearance / ride height at all times.**

### **20E- 14.1 BRAKE COMPONENTS**

A. Four wheel disc brakes are mandatory. Only magnetic cast iron or cast steel round circular rotors permitted. Only metal brake calipers will be permitted. Drilled, slotted or grooved rotors are not permitted. Only factory dust cleanouts are permitted. Dust cleanouts should not exceed @.038 in depth. The brake rotors must be bolted directly to the hubs. Floating brake rotors will not be permitted.

B. Only single stage master cylinders are permitted.

J. Brake calipers with a maximum of four (4) pistons are permitted. Each brake caliper's pistons must all be of equal size. Each brake caliper may not exceed a racer net price of \$265.00.

K. All rotors and brake components subject to SMS Officials approval.

**20E- 14.2 – BRAKE COOLING-** Electric blowers are not permitted for cooling purposes in brake duct systems. Additionally electric blowers are not permitted anywhere on the car for cooling (i.e. brakes, rear end, etc.).

### **20E- 15 FUEL SPECIFICATIONS**

**A.** The **Sunoco Race Fuels 260 GTX** is the only fuel permitted for use in the SK Light Modified division. Any blending of fuels or use of any additives is not permitted. This fuel is available for purchase at SMS. Several testing procedures will be utilized to ensure that all racers use of the approved fuel. 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 in the garage, pit or racing area.

**C.** Gasoline may be tested and certified at any event through the application of various chemical analyses as considered appropriate by officials. Gasoline 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.

### **20E- 16 FUEL SYSTEM – See NWMT rulebook**

**20E- 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. It is highly recommended that the fuel cell bladder be no more than six (6) years old. Competitor must provide bladder model, serial number and date(s) to SMS Officials before competing. If a gas cap is used it must be painted white with the car number on it for identification. For additional specifications see the NASCAR Rulebook. The minimum requirement for approved fuel cells at SMS are 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.

### **20E- 16.2 FUEL CELL CONTAINER INSTALLATION-** See NWMT rulebook

### **20E- 16.4 FUEL FILLER / VENT REQUIREMENTS-** See NWMT rulebook

### **20E- 16.20E- 16.3 FUEL CELL / CONTAINER INSTALLATION-** See NWMT rulebook

### **5.3 FUEL SHUT-OFF-**

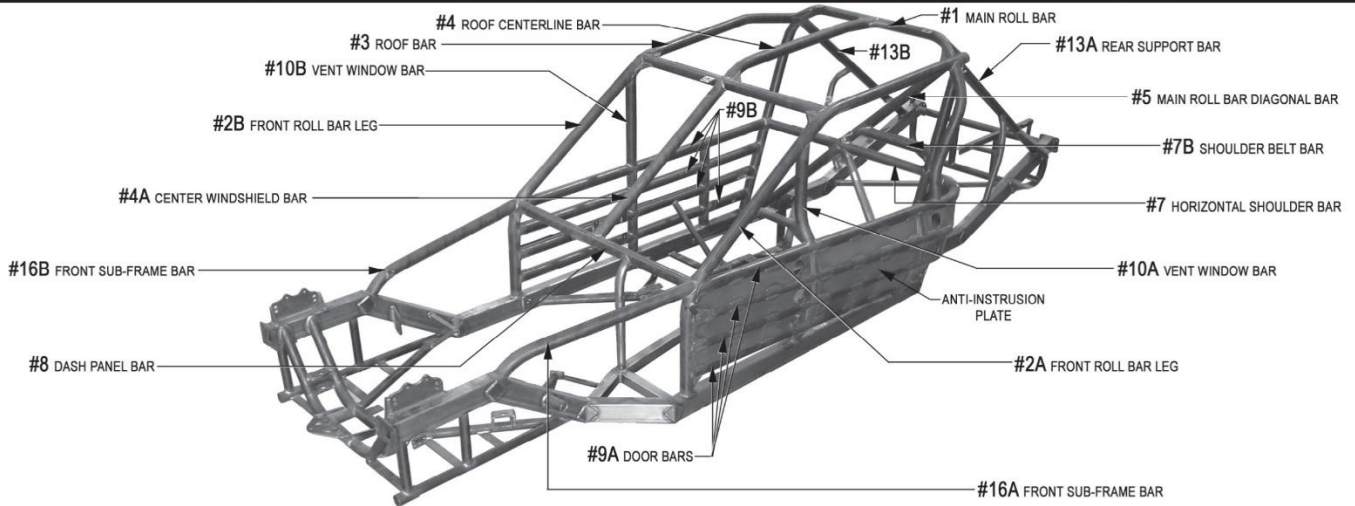
A 1/4-turn fuel shut-off valve of minimum 3/8-inch NPT with minimum 4-inch handle is required in the fuel line. The fuel shut-off valve must be located 8-inches inboard of the passenger side frame rail's outside edge and 24-inches forward of the main roll bar (#1 bar). The fuel shut-off valve must be 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 valve's ON and OFF positions clearly labeled with 1/2-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.

### **20E – 18 ROLL BARS**

**(8) (A)** The door bars (#9 A & 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 (#2 A & B). The top door bar on each side must maintain a minimum vertical height of 15-1/2 inches from the top of the main frame rails to its centerline and match up with the intersection of the dash panel bar (#8) at the roll bar legs (#2A & #2B) at the front and the intersection of the

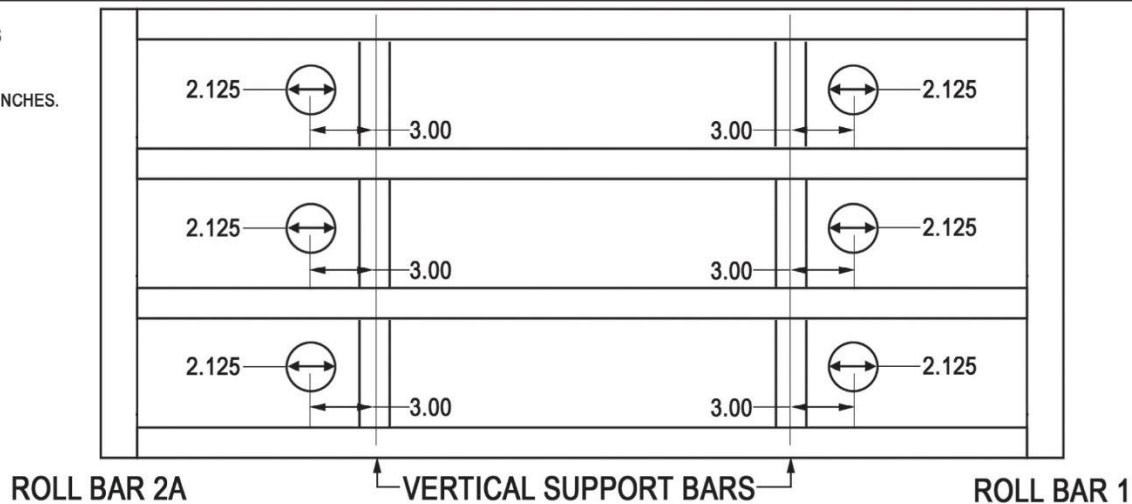
horizontal shoulder bar (#7) at the main roll bar (#1) at the rear. All door bars must be convex in shape. The door bars (#9 A & B) must have a minimum of six (6) vertical supports per side with two (2) equally spaced between each door bar. These supports must be made from a minimum of 1-3/4 inches by 0.090 inch wall thickness magnetic steel seamless round tubing (not numbered but shown in the left side view of diagram #3). Right side door bars must cover a minimum of 25 inches of door length and may be either four (4) horizontal bars with six (6) vertical studs or two (2) horizontal bars and two (2) bars configured in an X design. If the X design is used, a vertical bar must connect through the center of the X from the top horizontal bar to the frame. **(B)** A 13-gage (0.0897 inch thick) magnetic steel anti-intrusion plate(s) must be securely welded to the outside of the left side door bars. The anti-intrusion plate(s) must fill the area between the horizontal centerlines of the top and bottom door bars, and vertical centerlines of main roll bar (#1), and the left front roll bar leg (#2A). The plate(s) must be formed to match the curvature of the door bars. Plate(s) welded between the vertical upright bars should be as large as possible. All plate(s) must have the corners welded with one (1) inch of weld followed by a maximum of three (3) inches of surface not welded and followed again by a minimum one (1) inch weld. To facilitate emergency removal of the left side door bars (#9A), the anti-intrusion plate must have six (6), 2-1/8 inch diameter holes cut in the anti-intrusion plate, with three (3) holes forward of the front vertical supports and three (3) holes rearward of the rear vertical supports in the following locations: The upper two (2) holes must be centered vertically between the left side door bars (#9A-1&2), at an on-center distance of three (3) inches from the center of the front vertical support and the rear vertical support. The middle two (2) holes must be centered vertically between the left side door bars (#9A-2&3), at an on-center distance of three (3) inches from the center of the front vertical support and the rear vertical support. The lower two (2) holes must be centered vertically between the left side door bars (#9A-3&4), at an on-center distance of three (3) inches from the center of the front vertical support and the rear vertical support (see Diagram #2 BELOW).

### DIAGRAM 1 - TYPICAL ROLL CAGE & FRAME CONSTRUCTION (MODIFIED)



## DIAGRAM #2 ANTI-INTRUSION PLATE HOLE LOCATION - (MODIFIED)

NOTES: UNLESS OTHERWISE SPECIFIED, ALL UNITS ARE INCHES.



(9) All cars must have a foot protection bar acceptable to SMS Officials installed on the left side of the roll cage. The foot protection bar must be located at or in front of the pedal assembly, when viewed from the side and above. The foot protection bar must be completely welded to the left front roll bar leg (#2A) and extend forward and be completely welded to the main frame rail or front sub-frame.

**It is recommended that you run two "ear" bars on the driver's side, with two horizontal bars connecting them, to reduce the exposure of the drivers head area. These bars should be made with 1-3/4" DOM steel tubing.**

**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.

### 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 judgment 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 consideration. Each division will be notified as to what stickers are required to be eligible for contingency rewards. In particular, the decals must be mounted on the driver's side of the car in such a manner that they are clearly visible in a photograph. Contingency stickers must be used as supplied by SMS. Alterations to the stickers are not permitted.