

## **2023 STAR K. COB SLINGSHOT RULES**

The Slingshot Division is intended to be a progressive entry-level class of racecars. The intent is for an inexpensive, but safe racecar. All cars shall maintain a stock appearance while utilizing original manufactured parts. No aftermarket or high-performance equipment is allowed except for the sake of safety. The STAR tech staff has the final say on what may be inappropriate for the class, If you have any questions regarding the legality of any part, please call the speedway tech before you buy @ 978-284-0606

**Raceivers and Transponders are MANDATORY!!**

### **ELIGIBLE MODELS**

A. Cars 2002 model year or older. No convertibles, station wagons, trucks, 4-wheel drive, or leaf spring cars allowed. Four passenger American made hardtops only.

### **BODIES**

A. All cars must have a minimum of 101" wheelbase as manufactured. No shortening or lengthening of bodies or chassis will be permitted.

B. No interchanging of bodies and frames. Body and frames must remain the same as manufactured for the year and model of the car.

C. All bodies must remain stock. Fenders may be cut for tire clearance only. Inner front fender panels may be removed. Inner door panels may be removed for roll cage clearance only. Inner hood panels may be removed. All other inner panel structure must remain intact.

D. Floor, front and rear firewalls must all be original with holes filled with steel patches, no aluminum. Rear firewall must completely close off trunk compartment.

E. All glass must be removed. The windshield shall be replaced with a minimum of 1/8" Lexan. Full windshield required. No side windows permitted. A full dash, stock or aftermarket is required. Aftermarket steel door panels are allowed.

F. Batteries may be relocated to behind driver's seat and must be securely fastened and covered.

G. Cars must have full front and rear bumpers. Bumpers may be reinforced but reinforcement must be behind the bumper. Nowhere is there to be anything beyond front and rear bumpers. Front and rear center hooks are mandatory for towing. Stock appearing aftermarket bumper covers may be used but must be trimmed to give a stock appearance.

H. Rub rails are allowed between the tires only. Rails must be mounted flush to the body and doors. Rub rails must be made of clear plastic. One rail per side maximum.

I. The rear trunk area must remain intact to provide structural support other than to allow for fuel cell installation. A 12-gallon fuel cell is allowed, and trunk floor may be cut away to accommodate the cell leaving a 2-inch space around it.

J. No front or rear spoilers of any kind permitted. No side skirts. No wings.

### **SAFETY**

A. An approved racing seat is required. A full containment seat and head restraint system is recommended. Seat must be bolted to a rigid bracket which is welded solidly to roll cage.

B. An approved five-point safety harness and window net not to exceed 3-years old is required.

C. Quick release steering wheel couplings and aftermarket steering shafts allowed.

D. Center of steering wheel must be padded.

E. A fire extinguisher mounted within reach of the driver is required

F. One exterior drivers side mirror not exceed 3-inches in diameter. Track Can pull mirrors at any time on a case by case scenario.

G. A regulation full racing suit, fireproof gloves, racing shoes, and current Snell 2010 approved full face helmet is Mandatory.

### **ENGINE**

A. Cars may use 8-cylinder engines, All engines must remain stock. Ford and General Motors Cars are limited to a maximum 305-cubic inch engine, stock for year make and model car that is being used in. Chrysler cars are limited to a maximum 318-cubic inch engine. Stock engines have a .415-valve lift and 209-degree duration at the valve, 4-valve relief flat-top pistons with a compression ratio of 9-5 to 1 and maximum valve size of 1.84 int. and 1.5 ext. Vacuum must be consistently 18-20 lbs. at idle.

B. Boring of up to .030 over is allowed.

C. A stock Rochester 2661 500cfm carburetor part #37001 only. A Rochester two-barrel carburetor bolted to a stock two barrel cast iron intake manifold is required, using one .070 gasket only. Spaces or adapters are not allowed.

D. A maximum of 3-inch x 14-inch inch aftermarket air filter is permitted. No Cold Air Box's of any kind.

E. An electric cooling fan for the motor is permitted.

F. Anti-freeze/engine coolants or other glycol-based liquids are strictly prohibited. If caught there will be a \$250 fine.

G. NO electric fuel pumps

H. Stock 12" stock torque converters only

I. 150 psi max cylinder compression

### **FRAMES**

A. Frames must remain as manufactured. No cutting or altering of stock frames permitted. No altering of any mounting brackets or any kind.

B. All front and rear suspension components must remain stock manufactured. No cutting or altering of A frames, spoilers, or trailing arms permitted. Stock sway bar only. All components must be mounted in stock as manufactured position. Any Altering of location's will result in penalties. (Could be loss of Left side % or additional Total % or Both Tech Inspector Discretion)

C. One shock per wheel mounted in original brackets. Only replacement shocks or struts for year and make of car are permitted. No racing, coil-over, adjustable, or load-leveler shocks allowed. OEM replacement struts shall have a cost of no more than \$150 Per Strut. OEM replacement shocks shall have a cost of no more than \$50 Per Shock. Part Numbers must be able to be readable and must be able to be found for online purchase. Shocks Cannot be Adjustable. No Suspension Limiting Devices Allowed.

D. Springs must be located in stock position. Front springs must be the same height, rate, wire size and O.D. Rear springs must be the same height, rate, wire size and O.D. No jacking bolts permitted. ONE circular spring rubber that fits in one coil of a spring is allowed. Up to ½" spring spacers allowed for cross adjustment along with your 1" spacer to get ride height. If using a 1" spacer to get ride height it has to be in all 4 corners. The ½" Spacer for Cross adjustment can be used as you want it but cannot be stacked and can only be used one per corner and can be used in conjunction with your ride height spacers. I.e To add cross and Ride height add 4 1" Spacers on all 4 Corners then Add 1, ½" Spacer to LR and 1, ½" to RF and that is ok or just 1, ½" to Lr and that is also OK. To Take Cross out do the opposite. What you can not do is use your 1" Spacers for Cross Adjustment. If you are running them, they NEED to be in all 4 corners, not 2, all 4.

E. Minimum chassis to ground clearance 6", with driver in car.

F. Engine must be in stock location as manufactured. No engine set back allowed.

G. Radiator Support Can be fabricated but needs to be in **STOCK** Location and pass Ride Height Rule.

## **ROLL CAGE**

A. All cars must have a four (4) point roll cage constructed of 1 ¾" outside diameter X .095 wall steel tubing. The roll cage shall consist of 4 vertical upright bars connected at the top on all sides and shall be adequately cross braced. The base of the upright members shall be solidly welded to the frame of the car. Four curved door bars on the left side and three curved or straight door bars on the right side are mandatory. The roll cage members must closely conform to windows/door/roof contour and not be readily apparent when car is viewed from side. Offset cages are not allowed. Roll bars within the driver's reach must be padded. Engine bay hoop is permitted but must not extend beyond the front of the upper control arm or the strut tower. The rear roll cage upright may not extend past the rear door seam more than two (2) inches.

B. Bars, L & R from rear of cage to rear most part of chassis, one per side, may be used.

C. A foot protection bar may be installed on front cage uprights before the dash bar through the fire wall and end behind the upper control arms or the strut towers.

## **DRIVE TRAIN**

A. A stock OEM automatic transmission equipped with the stock torque converter for make and model of car is required. 12" Minimum Diameter Stock Torque Converter.

B. Drive shaft must be painted white. No aluminum drive shafts permitted. 2 drive shaft loops 1;8" X 2" at front and rear of drive shaft

C. Rear ends must be original OEM for make and model of car.

D. Transmission and Gearing 700r4 up to 3.08-3.73, Turbo 350 up to 3.08-3.90 All Gears in the Transmissions **MUST** be Working.

E. Metric along with Gen 3 can Lock the Rear Differentials while the Gen 4 Must Remain Open Differential.

F. All cars must have four-wheel brakes in working order. All brake components must remain stock. No racing brakes permitted. A proportioning valve is allowed for rear brakes only. Brake Bias Must Be Out of Drivers Rear at all Times While Sitting in the Car.

## **WHEELS/TIRES/SUSPENSION**

Tires will be Hoosier 790 compound and will be available for purchase at Star Speedway. Tire softeners are not allowed. Shaving, cutting, or buffing tires is not allowed. A tire inventory allotment will be determined at a date closer to race season depending on tire availability.

A. Wheels are limited to 7-inches wide

B. Width will be 71 ½ Measured from Outside Rim bead to Outside Rim Bead.

C. Camber 1 ½ inches of negative camber will be allowed on the right front wheel and ¼ inch of positive camber will be allowed on the left front wheel. Metric cars allowed 2-inches negative right front.

## **WEIGHT**

A. Cars shall weigh a total of 3000 pounds with a total of 53% Left Side Max

B. Weight penalty for gutted is 100 pounds extra and a loss of 1% Left Side %. So 3100 and 52% left Side Tech inspector discretion on gutted cars. If you feel your car is gutted it is best to put as much back in with 22 gauge steel.