

## Section 15 – Pepsi Crate Cars 2023+

### 15.1 DESIGN AND CONSTRUCTION

15.1.1 All phases of design and construction are subject to the approval of the Race Director and/or Tech Official. The Promoter and/or Race Director may exclude any car, design or construction, which they deem unsafe or not meeting the specifications, the spirit and/or the intentions of the rules contained herein.

15.1.2 Any component used in the construction or assembly of the chassis and/or accessories must be approved by Tech or addressed in the following rules.

15.1.3 May use direct couple u-joint with any SFI rated ring gear or flywheel in lieu of transmission/clutch. Must have rear-end disconnect. Must be able to self start. Flywheel must be completely covered.

15.1.4 **MINIMUM WEIGHT:** 1725 lbs and no more than 60.00% left side weight with driver in driving position. All weights will be measured post feature or post qualifying. Any unsealed 602 crate motor will be 1775 total weight.

15.1.5 **Brakes:** Must be in good working order.

### 15.2 FUEL SYSTEM:

15.2.1 **Approved fuel cell or tail tank bladder is mandatory.** Metal housing for fuel cell is optional. Tail location only.

15.2.2 **No** aluminum fuel tanks. 10 gals or less recommended. Locking type threaded caps only. **No stock caps.** Cell must be strapped with metal straps or securely mounted to chassis One-way check valve must be installed on all fuel cells.

#### CARBURATOR

15.2.3 Any Holley #4412 2 barrel carb approved.

15.2.4 Maximum allowed space between the top of the intake manifold surface to the bottom of the carb surface will be no more than 2" including gaskets and spacers.

15.2.5 Fuel options (Gas – E85 – Methanol)

15.2.6 Fuel pump may be electric or mechanical. Electric fuel pump **must** have oil pressure cut off switch.

15.2.7 Fuel line must have a ¼ turn shut off valve within easy reach of the driver, accessible from outside of the racecar is mandatory. **No** plastic or glass fuel filters. Fuel filters and fuel lines must be securely mounted. **No** ridged fuel lines.

### 15.3 CHASSIS AND BODY

15.3.1 All main roll cage and frame rails must be constructed of chrome moly steel tubing of at least 1 3/8" O.D. with a minimum wall thickness of .095", any other sizes must be equivalent in strength. Cage must extend at least 2" above driver's head. A halo bar may be required to meet dimensions. Diagonal braces in the balance of the cage must be of the same type of material but not the same O.D. The frame must be constructed so that the main, frame rails are inside the wheels. No lead weight filled tubing anywhere on car. The engine block must be inside the frame rails. All areas around driver **must** be padded; conventional steering boxes **must** have knee guards.

15.3.2 All cars must have floorboards and/or belly pans extending from the front firewall to the rear firewall and from frame rail to frame rail. No floor boards under the fuel tank. The firewall must be made of metal at least .032 "thick.

15.3.3 **Minimum wheelbase is 85 inches / Track Width.**

15.3.1 The outside of the right rear wheel at the outside bead seat of the wheel cannot exceed 50 inches from the centerline of the rear axle center section.

15.3.2 Overall width of the rear will be no more than 81.50" from outside of tire to outside of tire.

15.3.3 The outside of the right front wheel cannot be more than 50 inches from the centerline of the chassis.

15.3.4 Nose, hoods, tailpieces and side panels are mandatory. Bodies must not extend more than 2" outside the frame rail. NO side foils, rudders or panels are to extend beyond the roll cage on any side. NO wedges or foils under the racecar. NO pieces may be added to the frame so as to resemble, imitate or be specifically designed to deflect, trap or from a windbreak of any kind, except those to cool/protect the motor and braking system. Nosepieces may be removed for cooling reasons.

15.3.5 **Side nerfs must be within 1" of normal width of tires.** No nerf bars with added weight allowed. Fuel cell, battery or approved weight ballast must bolt to the frame only with 5/16" minimum bolts. Front and rear bumpers

must have a contact point of 18-20" above the ground with rear bumper contact point 6" in height and must not extend more than 4" past the frame width. NO part or attachment of the car can be wider than the outside of the nerf bars or extend past the rear bumper. No large gussets on bumpers.

15.3.6 No independent suspensions. Any coil over, torsion bar, leaf spring or combinations are allowed.

**Adjustable shocks are allowed.** No cockpit adjustment, external reservoir type shocks allowed.

15.3.7 The centerline of the engine block cannot be behind the center of the wheelbase. A maximum of 8 1/2 " of offset measured from the crankshaft centerline to the center of each rear wheel is permitted.

15.3.8 Numbers must be on the nose and tailpieces. They must contrast with the body colors and be large enough for scoring to see.

15.3.9 No rear-view mirrors. No cockpit adjustable suspension allowed. **Must** have a quick release steering wheel.

15.3.10 All ignition switches shall be of a toggle design and mounted in plain sight on the dash on either side of the steering wheel.

15.3.11 Ignition, fuel pump and fuel shut off must be labeled and marked in florescent orange or red. **No** switches under the steering wheel.

15.3.12 **Battery:** Securely mounted, dry cell, spiral cell or other non-liquid type battery only.

15.3.13 All cars must have burp tank of 1-gallon capacity.

## 15.4 SAFETY & MUFFLER RULE

15.4.1 See SECTION 3 MINIMUM SPECIFICATIONS.

15.4.2 All drivers can wear a minimum single layer Nomex uniform with Nomex underwear. May use double/triple layer suit w/no underwear. Nomex gloves, shoes, arm and helmet restraints are required.

15.4.3 **Drivers Seat:** Only aluminum or steel allowed. Must be bolted in to the chassis in 4 places\*minimum., 2 on the bottom and 2 on the back near shoulder level. Each mounting hole in the seat must have a minimum 2" Dia/.060 thick reinforcement plate/washer. ALL subject to tech approval.

15.4.4 All throttle pedals must have toe return straps.

15.4.5 **Spec Muffler-** Schoenfeld #14272535 (-89 is not considered a compliant muffler) Minimum 1, must be un-altered and in otherwise in stock condition. Any car not running this muffler will be disallowed.

## 15.5 ENGINE GM CT 350 - CRATE # 88958602

(all rules subject to Section 5 Protest Procedures)

15.5.1 Unaltered and complete General Motors factory sealed crate engine # 88958602. Or track MS CT350 (602 crate) as prepared and available by Meridian Speedway. [Unusable 602 crate motors may be submitted to the speedway for core credit.](#)

15.5.2 Any 602 refresh by Meridian Speedway must have MS head seals and intake button seal in place to be legal crate motor, **(If it broke, sell the parts or submit for a core credit and get a new one)**

15.5.3 Any unsealed 602 crate motor will be 1775 total weight and is subject to complete tear down at any given time.

15.5.4 **Removal of any MS seal or any GM factory intake or head seal without permission or procedure shall make that engine ineligible for competition and otherwise illegal. (see 15.5.3)**

15.5.5

15.5.6 Maximum engine roll will be 5 degrees from vertical

15.5.7 No engine modifications will be allowed.

15.5.8 Valve springs, retainers and keepers must remain OEM and their size and installation specifications must remain within OEM spec and may be changed by competitor.

15.5.9 Castings and fittings cannot be changed

15.5.10 No machine work on outside of engine.

15.5.11 No aftermarket engine parts allowed. OEM ONLY (unless otherwise specified).

15.5.12 Sprint car headers with mufflers only. Must meet DB rule in Section 3 this includes spec muffler- Minimum Specifications.

15.5.13 Sprintcar timing cover, water pump and power steering pump may be used if desired.

15.5.14 GM Factory distributor as installed and delivered with 602 crate engine will be required and shall be unaltered with the exception of cap, wires and module.

15.5.15 Spec Sheet from the Yellow Book

Engine Specifications on Crate Motor and Supplement for Engines Rebuilt and MS Sealed Spec		All internal components and specifications must remain stock as supplied by GM with the following exceptions:
ITEM	FACTORY SEALED CRATE 88958602 (untouchee and sealed)	Supplemental (Sealed by MS Sealed)
Block Type	Cast Iron	Cast Iron
Casting #	10243880 or 14093638	10243880 or 14093638
Deck Height	9.025" +/- .001	9.015" +/- .001
Crankshaft	Cast Iron 14082586	Cast Iron 14082586
Crankshaft Weight	55.30 lbs	55.30 lbs
Maximum / Minimum Crank Stroke	3.48"	3.48
Crankshaft Balancing	Factory External	Rear External / Front Internal to #602 spec.
Off-Set Grinding of Crank	NONE	NONE
Crank Grind	NONE	.010 .020 .030 with tech PRE approval
Piston Type	Cast Aluminum #123611371	#123611371 or replacement
Diameter	3.996" - 3.997"	.005" GM # clean-up kit
Valve Relief Type	4 reliefs	4 reliefs
Piston Crown	Dished	Dished
Piston Weight	594 grams	594 grams
Piston Rings	GM# 88894219 / 12507985	GM# 88894219 / 12507985 or GM .005
Connecting Rod	GM# 1010868 5.7"	or Scat #2-ICR5700p 5.7" (untouched)
Connection Rod Weight +/- 10.0 grams	604 grams	min. 604 grams
Minimum Crank or Rod Bearing Size	#602 spec.	.010", .020" or .030" under with pre tech approval (any brand w/no coating)
Camshaft Type	Hyd GM# 24502476	Hyd GM# 24502476
Camshaft Lift (int / exh measured @ valve)	.435" / .460"	.435" / .460"
Camshaft lobe lift (int / exh)	.290" / .306"	.290" / .306"
Duration @ .050" (int / exh)	212 / 222	212 / 222
Camshaft Lobe Centerline	112.5 degrees	112.5 degrees
Camshaft Timing	not a tech issue	not a tech issue
Rocker Arm Kit	GM# 12495490	GM# 12495490
Rocker Arm Type / Ratio	stamped steel 1.5	stamped steel 1.5
Timing Set	#602 Spec	not a tech issue
Head Gasket Type	GM #10105117 .028"	or Fel Pro #1003
Cylinder Head Type	Cast Iron / GM# 12558062	Cast Iron / GM# 12558062
Valve Size	1.94" / 1.50"	1.94" / 1.50"
Combustion Chamber CC's (+/- 2cc)	64	64
Intake Port CC's (+/- 2cc)	170	170
Exhaust Port CC's (+/- 2cc)	60	60
Maximum Deck Surfacing of Head	.005 to Square	Flat cut only must maintain 64cc
all other gaskets	GM #	optional
Rocker Studs, retainers, valve covers	#602 spec.	not a tech issue
Modifications to Crank Rod or Piston	NONE	NONE unless previously specified
Distributor	as supplied with #602 no alterations	as Supplied with #602 no alterations
Distributor Module	optional (factory appearing)	optional (factory appearing)

## **15.6 TIRES / WHEELS**

15.6.1 Class tires must be purchased through Meridian Speedway.

15.6.2 Steel or aluminum wheels are approved.

15.6.3 Race day tires shall be stamped and logged prior to the final practice of the day if group qualifying prior to time trials if applicable and at the discretion of the tire tech.

Stamped tires must be run in all events including the Trophy dash (if applicable)

RF & LR & RR tires may be replaced no sooner than (w/ exception of destruction thereof) every four (3) consecutive races. LF tire is a non tech, non stamp item.

A "race" is considered only when you compete in all racing activities on that race date including double features unless otherwise informed by promoter.

15.6.4 All tires purchased must be branded/stamped to be legal to race.

15.6.5 No tire softening or sipping allowed.

15.6.6 Practice tires may be purchased for practice only.

15.6.7 If any competitor in the top 5 in the current points, destroys a tire during an incident on the track and needs to purchase a replacement, he/she may do so at the discretion of the promoter. If the promoter deems that the replacement tire will give an unfair advantage, the promoter may then approve the whole class to take the option to purchase a new tire for that corner(s) of the car. The new tire will then need to be stamped and run at 3 consecutive races prior to being replaced again.

15.6.8 Hoosier Sprintcar Tires: M30 or 2045 RR - M20 LR – 2030 RF – 2010 LF

15.6.9 All tires and tire rotations will stay with the car/owner. If there is a driver change, tires stay with the car.

**15.7 QUALIFYING** - For racing events, scratch will be determined by 1 second off quickest time in qualifying. 1 second of the 2nd quickest time in qualifying may be used if deemed necessary.