

2023 Volusia 604 Late Model Rules

Safety Rules:

1. **Safety is the primary responsibility of the RACER!!**
2. Series recommends Drivers have an SFI-Approved full fire suit (top and bottom), gloves, and shoes. Full Fire Suit (top and bottom or one-piece) is required (SFI rating optional, but highly recommended).
3. All drivers must wear a full-face helmet with a minimum safety rating of FIA 8860-2018, Snell EA 2016, Snell SA 2015, Snell SA 2020 and/or a valid SFI 31.1/2015 or 31.1/2020 label.
4. Series recommends the use of a head and neck restraint system but is not required.
5. All cars must have a fully charged fire 2 lb. extinguisher mounted within reach of the driver. Series recommends a 10 lb. halon system.
6. All cars must have a kill switch within easy reach of the driver, and clearly marked "Off" and "On".
7. All cars must have a quality fuel cell with roll over valve (check valve) in fuel cell vent.
8. Minimum three (3) inch wide, two(2) inch if using head and neck restraint, SFI-Approved five point safety belts, mounted securely to the roll cage. (Belts may be no more than two years old and/or expired.)
9. Any pre-race technical/safety inspection and car or equipment is deemed unsafe by officials will result in not being allowed to compete. Official's decisions are final!
10. All track specific general safety rules or requirements will apply at all times to all participants (i.e. window nets, gloves, door plates, head and neck restraints, etc.) at that track.
11. RaceCeiver one way radios are REQUIRED at every event. Failure to have a RaceCeiver(or equivalent one-way device) could result in disqualification. Malfunction of such device (i.e. dead battery, earphone failure, etc.) will not constitute any penalty.
12. **NO two-way radios, cell phones, or other communication devices will be allowed. RaceCeiver is the ONLY communication device permitted. Drivers caught with any other communication device will be disqualified for that event (heat or feature). No signal devices allowed (light sticks, pvc sticks, pool noodles, flashlights, cell phones, etc.)**
13. No mirrors are allowed at any location on the car.
14. ALL weight/lead must be painted white and include the car number. Weight must be securely fastened to the car with a minimum two (2) ½" diameter bolts. No weight may be attached to the back bumper. Losing weight in any race (i.e. heat, b-main, feature) will result in disqualification for that event.
15. Must run a full containment seat at all times.

Technical Rules and Regulations:

It is the obligation of each participant to ensure their conduct and equipment are in compliance with all applicable rules and procedures, as they may be amended. Any amendment(s) will supersede any previous rules regarding that aspect of competition. An amendment is effective from the date it is added to the official rules regardless of when a competitor receives notice.

Any new components (i.e. engine, suspension, body, frame, etc.) utilized in competition must be approved by Volusia Speedway Park officials before being allowed in competition.

Failure to receive prior approval for any component may result in disqualification, loss of points and money, and a suspension or fine of the series choosing.

Engine Rules:

1. Chevrolet Performance Part #88958602/19258602/88858602 (CT 350) commonly referred to as "602" engine and/or Chevrolet Performance Part #88958604/19318604 (CT400) commonly referred to as "604" engine.

2. **Weights:**

- a. CT 350 or "602" – 2,200 lbs.
- b. CT 400 or "604" – 2,300 lbs.

3. These engines are sealed at the intake manifold, cylinder head, front cover, and oil pan with Chevrolet Performance cap seals, which are installed at the Chevrolet Performance factory.

4. The ONLY seals allowed for competition are:

- a. GM twist off bolt engines will NOT be legal in 2021
- b. Chevrolet Performance cap seals
- c. Crate USA Gen IV(Green) or Gen V(Black) cable seals, RUSH cable seals, IMCA cable seals.
- d. To compete with ANY other seal/sealing system contact Volusia Speedway Park for approval.

5. These sealed engines must not be altered, modified, or changed from factory specs. The sealed engines must remain intact and not tampered with.

6. Any seals that have been removed or tampered with will make the engine illegal and not eligible for competition. The penalty for anyone tampering with seals, modifying any internal engine parts, or changing the parts from stock as delivered sealed from the factory will be subject to Disqualification from event and further fines and suspension.

7. No changes are allowed to the engine including the intake manifold, heads, valve covers, front cover, oil pan, harmonic balancer, or any other part(s) on or in the engine.

- a. *After much research, Crate Racin' USA along with Chevrolet Performance officials determined that in some cases the original factory cylinder heads and valve springs do not meet the required correct install height. To correct this, shimming will be allowed to meet the correct install heights listed in the chart below. These updates are published in the Chevrolet Performance Technical/Specification Manual.*

Valve Spring Specifications – New (Unused)			
Description		CT350 (602)	CT400 (604)
Valve Spring P/N		10212811	12551483
Diameter	(A)	1.250"	1.32"
Free Height	(B)	2.021"	2.145"
Installed Height	(C)	1.70"	1.78"
Lbs. @ installed height (+/- 4 lbs.)	(D)	80 lbs.	101 lbs.
Open Height	(E)	1.270"	1.300"
Open Pressure (+/- 8 lbs.)	(F)	195 lbs.	260 lbs.
Coil Bind	(G)	1.20"	1.21"
Wire Diameter		.177"	.178"

CT 400 (604)	Beehive Springs for Fastburn Heads
Valvespring P/N	12625033 (Blue)

Free Height	2.122"
Installed Height	1.780"
Lbs. @ installed height (+/- 4 lbs.)	98 +/- 4.5 lbs.
Open Height	1.300"
Open Pressure (+/- 8 lbs.)	267 +/- 13 lbs.
Coil Bind	1.210"
Wire Diameter	Ovate [4.29 x 5.37]
Retainer 19303149 (8 Pk)	Mass 11.9 g
Keeper 19302868 (16 Pk)	Mass 3.9 g
Spring Seat 19303150 (8 Pk)	
Valve Spring Service 12499224 (16 Pk)	

8. No vacuum pumps. No evac systems of any type, including but not limited to the breather system style.
9. Engine's Chevrolet Performance serial number, and when applicable, Crate USA build certification number, must be clearly visible to series technical inspectors.
10. Driver's finishing in the top 5 may claim/purchase the engine of any car finishing ahead of them. Claim fee is \$6800. Engine claimed will be just as it comes from Chevrolet Performance and WILL NOT include any accessories, carburetor, water or fuel pump, wires, distributor, etc. Refusal of claim will result in immediate disqualification and penalized the same as an engine that was found illegal inside the seal system (infraction penalty #1 below).

Engine Protests and Claims:

1. Driver's finishing in the top 5 may claim/purchase the engine of any Crate car finishing ahead of them. Claim fee is \$8000. Engine claimed will be just as it comes from Chevrolet Performance and WILL NOT include any accessories, carburetor, water or fuel pump, wires, distributor, etc. Refusal of claim will result in immediate disqualification and penalized the same as an engine that was found illegal inside the seal system (infraction penalty #1 above).

Engine Claim Procedure:

1. Competitor, either driver or car owner, finishing in the top five of the feature race, must hand a VSP Tech official \$8000 cash within five (10) minutes after the checkered flag falls on the feature race.

Engine Setback Rule:

1. Engine setback will be 6" from center of top ball joint to the #1 spark plug with a 1-inch tolerance.
2. There will be a 50-pound penalty, mounted forward of the engine plate, for each 1/2" of setback beyond seven (7) inches.
3. No cars with more than an eight (8) inch engine setback will be allowed to compete.

Carburetor Rules:

1. One four (4) barrel carburetor only. Any manufacturer.
2. Must have conventional, "Holley" style boosters. No tunable boosters. No individual cylinder tuning. Willy's Equalizer Carburetor is legal and the Official Carburetor of Crate Racin' USA Dirt Late Model Series.

3. Engine must be naturally aspirated.
4. CT 400 (604) Engines – may use one (1) carburetor spacer (one (1) inch, one-piece with .040 tolerance maximum) and two (2) standard paper gaskets (maximum 0.070 thick), one gasket between intake and spacer, and one gasket between spacer and carburetor.
5. CT 350 (602) Engines – may use one (1) carburetor spacer (two (2) inch, one-piece with .040 tolerance maximum) and two (2) standard paper gaskets (maximum 0.070 thick), one gasket between intake and spacer, and one gasket between spacer and carburetor.
6. Spacer MUST NOT extend into intake manifold at any point.

Distributor Rules:

1. Any standard distributor type electronic ignition allowed. MSD ok.
2. No magnetos and No crank triggers.
3. No electronic traction control devices allowed

Starter Rule:

1. All cars must have a starter in working order.

Water Pump Rules:

1. Cast or aluminum water pump permitted.
2. No electric water pumps.

Exhaust Rules:

1. Collector type headers required. Must have four (4) tube into one (1) collector.
2. Mufflers not required UNLESS track mandates them. *If mandated, mufflers must have some type of internal noise dampening characteristics i.e. baffles, extruded holes, screen, chambered, etc. Mufflers must meet local speedway's noise decibel requirements.*
3. No tri-y headers or merged headers allowed.
4. No square tube headers.

Fuel, Fuel Cell, and Fuel Pump Rules:

1. An approved fuel cell, 32 gallon maximum, must be securely mounted in the trunk area of the car, inside a .20 gauge metal box supported by a minimum of 2" x 1/8" steel straps.
2. Fuel cell must be completely visible from rear of car.
3. Gasoline, Racing Gas, or E-85 fuel allowed. No methanol or alcohol. None of the following chemicals are allowed in any fuel used for competition: No nitrous oxide, propylene oxide, nitroethane, MTBE, hydrazine, or ethylhexanol.
 - a. Gasoline or Race Gas – specific gravity NOT to exceed .744 at 60 degrees. Any gasoline or race gas with a specific gravity of .745 or greater will be disqualified. Fuel is subject to testing on site, or fuel samples may be taken and sent to an independent lab for testing.
 - b. E-85 – specific gravity not to exceed .7855 at 60 degrees. Any E-85 with a specific gravity of .7856 or greater will be disqualified. Fuel is subject to testing on site, or fuel samples may be taken and sent to an independent lab for testing.
 - c. It is the competitor's responsibility to know what is being put into their fuel cell.
4. **VP Racing Fuels and Lubricants is the Official Fuel and Lubricant of Volusia Speedway Park. We encourage competitors to find your local VP Racing Fuel dealer as their products are proven to be most consistent and always "Makin Power".**
5. Mechanical fuel pump only. Cam driven or belt driven.
6. No electric fuel pumps.

Body Rules:

1. Crate Racin' USA body rules will apply. See 2022 Body Diagram/Specifications.
2. No raised or gurney lips of any type allowed on body.
3. Doors and quarters must be flat or may have an outward roll. No doors or body panels allowed to be rolled inward.
4. Maximum distance between the bottom of the doors (measured at the back of the door) is 90" wide.
5. No tunneling of any type allowed underneath body, along frame, or around fuel cell area.
6. Stone shield for remote oil filter or transmission is allowed. 24" x 24" maximum, located near rear engine plate.
7. Stone shield along right side frame rail must remain behind right front assembly and may only be 36" maximum total from farthest point to farthest point.
8. Spoilers
 - a. 8" maximum spoiler. Must be made of solid material such as Lexan, sheet aluminum, or material of equal strength.
 - b. Spoiler and spoiler support should be made of equal material and size on all areas.
 - c. No open spoiler supports.
 - d. Spoiler height, width, and angle must always be the same for the entire area of the spoiler. No varying spoiler heights or spoiler angles.
9. Roof supports or "C" pillars on both sides must be made of equal material.
10. Window openings are allowed but must be the same size opening on left and right side. If clear Lexan is used, it must be used on both sides. BOTH sides have to be either open or both sides must be closed.
11. Curved or arced roof supports allowed. 3" maximum arc allowed at widest point. Will be checked with straight edge extended from roof edge to door edge.
12. No mirrors at any location on the car.
13. No Radios, or any type of two-way communication. RaceCeiver one-way communication is the ONLY communication device. Please see Safety Rules for more info.

Frame Rules:

1. All frames must be of steel construction.
2. Square or rectangular frame must have a minimum of 2" x 2" material, .083 wall thickness.
3. Round frame tubing must have a minimum of 1 3/4" outside diameter, .083 wall thickness.

Suspension Rules:

1. Standard Late Model suspension only. No spring loaded or shock type 4 bar rods. Only standard solid 4 bar rods.
2. Standards Late Model suspension equals one (1) shock per wheel, except on left rear. Left rear is allowed two (2) shocks:
one in front of rear end and one behind. Shocks must be mounted vertical to axle tube, not horizontal.
3. No torsion bar on front or rear suspension. Sway bar ok.
4. Standard one-piece bird cages. No split bird cages.
5. Chassis brackets must be fixed. No movement.

Shock Rule:

1. Shocks at any position on the car, including lift bar and torque arm shocks, must be constructed of magnetic steel or aluminum.
2. Shocks of the "thru-rod" style are NOT permitted.
3. Remote reservoirs are permitted.

4. Each shock may have a maximum of two (2) external adjustment mechanisms. External reservoir may only have one (1) external adjustment. Adjuster mechanisms may not be hidden by the rod end. All adjusters must be located on the shock body, on the shock rod, or on the remote reservoir. Cockpit adjustable shocks NOT permitted.
5. NO remote adjustment or shocks permitted. This includes electronic adjustment whether hard wired or wireless.
6. Shock/Damper devices that are or can be referred to or defined as an "inertor" or referred to or defined as a "j-damper" are not permitted anywhere on the car.
7. All official's decisions are final. Rules can and may be adjusted in order to maintain fairness. New or updated devices or suspension parts should be approved before use in competition.

Wheelbase Rule:

1. 103" minimum wheelbase.

Roll Cage Rules:

1. All cars must have a suitable and deemed safe steel roll cage protecting the driver's compartment, including headrest.
2. Side roll bars are mandatory and must extend into the door panels. A minimum of three (3) bars must be on the left side.
3. Each bar must be at least 1 1/2" in diameter, with a minimum material thickness of .083".
4. Roll cages must be welded to frame.

Transmission Rules:

1. Must have at least one forward and one reverse gear in working order.
2. No straight drives or in and out boxes.
3. Drive shafts must be painted white for safety.
4. Carbon fiber drive shafts are legal.
5. Ball spline transmissions strongly recommended to run carbon fiber drive shaft only for safety.

Brake Rules:

1. Steel brake rotors only.
2. No carbon fiber, titanium, or other exotic material brake systems allowed.

Wheel Rules:

1. Any brand or type of wheel allowed.
2. Must be mounted with lug nuts.
3. No knock-off or center-lock wheels.
4. 14" maximum wheel width.
5. Wheel covers must be securely fastened. Recommend that wheel covers have a minimum of 5 mounting points. Wheel covers having only 3 attachment points must be bolted on at all 3 points using a minimum 1/4" or 5/16" magnetic steel hex head bolt and fastening (nut assembly) system. Cars that lose a wheel cover may be subject to disqualification.

Tire Rules:

1. Hoosier Racing Tire D-21 stamped Crate Racin' USA and shoulder plated. **Or Spec 1350/Spec 21**
 - a. D-21/1350 must punch 46 or harder when checked cold. Tech official durometer is official durometer, and all official's decisions are final.
 - b. Any tire that fails to punch properly will be disqualified for remainder of the event. Any tire in question may be confiscated.

- c. Grooving and Siping are allowed of the D-21/1350 tire. Official's discretion will be used, and all official's decisions are final.
- 2. Hoosier Racing Tire D-55 stamped Crate Racin' USA and shoulder plated. **Or spec 1600/Spec 55**
 - a. D-55/1600 must punch 60 or harder when checked cold. Tech official durometer is official durometer, and all official's decisions are final.
 - b. Any tire that fails to punch properly will be disqualified for remainder of the event. Any tire in question may be confiscated.
 - c. Grooving and siping are allowed on the D-55 tire. No needling allowed.
- 3. Grinding/Buffering of tire is permitted. No visual cuts should be present on tires. Use of carbide/nail style discs is prohibited.
- 4. All tire sidewall markings (i.e. compound, date code, shoulder plate, Crate Racin' USA, etc.) must be visible and not removed or covered.
- 5. Tires must remain in factory manufactured condition. Any alterations from factory manufactured tire is prohibited. ALL decisions are FINAL. VSP may or may not use laboratory testing to test for any alteration of tires, and tires must meet the factory supplied benchmark. If the inspected tire does not comply with this benchmark, the competitor will be disqualified. Series may use any means necessary to determine if tire(s) meet Hoosier supplied benchmark, and that decision is the sole discretion of the series. All decisions are final.
- 6. **Warning:** VSP and Hoosier Racing Tire strictly forbids any chemical alteration of the tire carcass and/or tread compound, such as but not limited to tire soaking or use of tread "softener". VSP and Hoosier Racing Tire also forbid the physical defacement (altering, removal, or covering) of tire sidewall markings in any manner. Failure to comply with this warning could result in premature or catastrophic tire failure and may result in serious injury or death.
- 7. Drivers finishing in the top 5 may protest the tire of car or cars finishing ahead of them. Protest fee is \$150. Driver filing protest must have money with them and notify track or series official within 5 minutes of the checkered flag in that event. Tire samples will be taken and sent to an independent lab chosen by the series for testing. All official's decisions and lab results are final and official.

Weigh-In Rules:

- 1. Track officials reserve the right to weigh any car at any time during any event.
- 2. The track scales used on site will be the official scales used to determine legality of weight.
- 3. Heat race and B-Main/Consolation race winners, transfer cars, and any cars instructed to do so, must proceed directly to the scales to be weighed immediately after the completion of the event. Do not go to your pit area before crossing the scales, as this will result in a disqualification.
- 4. The top 5 finishers in the feature event will be required to proceed directly to the scales at the completion of the main event.
- 5. A car failing to make weight on the first attempt will be allowed to be backed off the scales and rolled back on for a reweigh.
- 6. Any car weighing light after qualifying or heat race, that car will be penalized to the rear of the next scheduled preliminary event.
- 7. Any car weighing light after the Main/Feature event will be penalized to the last finishing position.

Numbers/Graphics

- 1. Car number must be a minimum of 18" in height and 14" in width and must be displayed on both sides of car and on roof.
 - a. The bottom of the number on the roof WILL be on the passenger side
- 2. Car must display all sponsors; drivers have retained, and class series sponsors as well.
- 3. All graphics must be tastefully done as not to offend others