

# **Crate Motor/Limited Late Model Rules/2019**

## **MUFFLERS ARE MANDATORY/RACECEIVERS MANDATORY**

**The rules and/or regulations set forth herein are designed to provide for the orderly conduct of racing events and to establish minimum acceptable requirements for such events. These rules shall govern the condition of all events, and by participating in these events, all participants are deemed to have complied with these rules. NO EXPRESSED OR IMPLIED WARRANTY OF SAFETY SHALL RESULT FROM PUBLICATIONS OF OR COMPLIANCE WITH THESE RULES AND OR REGULATIONS. They are intended as a guide for the conduct of the sport and are in no way a guarantee against injury or death to a participant, spectator, or official.**

**The race director shall be empowered to permit reasonable and appropriate deviation from any of the specifications herein or impose any further restrictions that in his/her opinion does not alter the minimum acceptable requirements. NO EXPRESSED OR IMPLIED WARRANTY OF SAFETY SHALL RESULT FROM SUCH ALTERATION OF SPECIFICATIONS. Any interpretation or deviation of these rules is left to the discretion of the officials. Their decision is final.**

### **The Management of Riverside International Speedway**

#### **Section 1: General**

**1.1 GM part number 88958602 & GM part number 88958604 crate engines only are allowed. These engines are sealed at the intake manifold, cylinder head, front cover, and oil pan. Crate engines must not be altered, modified or change from factory specs. The sealed engines must remain intact and not be tampered with. 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: the driver will be disqualified, will lose purse for the night, and points for the entire season. Car and owner/driver will be suspended from participating in this class for the next 4 completed races. Suspended car and owner/driver cannot participate in any event for this class at**

riverside speedway during the suspension period including race specials that include this class.

**1.2 103" minimum wheelbase.**

**1.3 Crate Motor Limited Late Models will run a manufactured jig tube-type full frame.**

## **Section 2: Safety**

**2.1 All lead weight must be properly secured and painted white.**

**2.2 All lead weight must have car number painted on it.**

**2.3 All safety items subject to Tech Inspectors approval.**

**2.4 All cars must have 3" seat belts with shoulder harness and must be attached to roll cage.**

**2.5 We strongly recommend that all cars be equipped with a fire extinguisher system.**

**2.6 All drivers must wear a complete fire suit and racing gloves.**

## **Section 3: Body**

**3.1 Ultra body rule will apply.**

**3.2 All edges must be rolled. No sharp or jagged edges or corners.**

**3.3 Spoiler:**

**3.3.1 Maximum spoiler height 8 inches measured from deck to tip and 72" in length and cannot be wider than car. See Drawing at end of rules for maximum measurements.**

**3.3.2 Rear spoiler cannot be suspended above deck to create a wing effect.**

**3.3.3 Spoiler must begin where quarter panels end.**

**3.3.4 No rudders permitted.**

**3.4 No push bars allowed in front.**

**3.5 Rub rails are allowed between front and rear wheel wells. Must not protrude from body more than 1" and not wider than 2".**

**3.6 Aluminum bodies and fiberglass roofs permitted. No fiberglass hoods.**

**3.7 Body subject to Tech Inspector approval.**

## **Section 4: Frame**

**4.1 All frames must be of steel construction.**

**4.2 If round tube frame, tubing must have a minimum of 1-3/4" outside diameter, .083 wall thickness.**

**4.3 Notching of cross member permitted for large capacity oil pan.**

**4.4 Cross bracing of frame allowed.**

## **Section 5: Roll Cage**

**5.1 All cars must have a suitable steel roll cage protecting the drivers compartment, including headrest, constructed of 4 post design with the front roll**

**bar following the windshield contours and the top of the roll cage forming a box the width of the inside of the car.**

**5.2 Side roll bars are mandatory, and must extend into the door panels, a minimum of three (3) bars must be on the driver's side.**

**5.3 A minimum of 3 side bars on the passenger door.**

**5.4 Two bars may be anchored from front posts of the roll cage to the frame behind the A arms on each side.**

**5.5 A minimum of two cross bars are required along the back of the driver's seat.**

**5.6 The driver's seat must be securely fastened to the roll cage with at least 3" clearance from the roll cage to the driver's helmet.**

**5.7 All tubing must be a minimum of 1 - 1/2" in diameter, with a minimum material thickness of .083".**

**5.8 Roll cage must be welded to frame.**

**5.9 All welds must be continuous welds.**

**5.10 All corner welds must be reinforced with gussets.**

**5.11 All additional bracing is subject to inspection.**

**5.12 No offset cages allowed.**

**5.13 Two additional bars should be anchored from the roll bar to the frame area above the rear housing.**

**5.14 No screw-type fittings or pipe threads allowed.**

**5.15 All bars within reach of the driver must be well padded with substantial padding material.**

**5.16 Radiator hoop is allowed, attached to frame, and may be attached to roll cage.**

**5.17 Radiator hoop may not be wider than frame.**

#### **Section 6: Firewalls**

**6.1 Front -All holes patched with sheet metal to seal the driver's compartment from the engine compartment.**

**6.2 Rear -All holes patched with sheet metal to seal the driver's compartment from the trunk compartment.**

**6.3 Rear firewall may be moved up to back of driver's seat.**

**6.4 .22 gauge sheet metal mandatory.**

#### **Section 7: Wheel/Tires**

**7.1 Any brand of aluminum or steel wheel allowed. Must be mounted with 1"lug nuts.**

**7.2 No knock-off or center lock wheels.**

**7.3 Maximum wheel width- 14".**

**7.4 Both rear tires must durometer 48 minimum at any time. (Only 2 exceptions -**

**Hoosier D21 or Hoosier HTS 1350 must durometer 40 minimum at any time)**

**7.5 Hoosier Racing Tires on all 4 corners.**

### **Section 8: Brakes**

**8.1 Four-wheel hydraulic type brakes. Right front brake optional.**

**8.2 Must be in good working order at all times.**

**8.3 Cut off valves allowed.**

**8.4 After market disk brakes allowed.**

**8.5 Adjustable proportioning valves mounted within reach of the driver allowed.**

**8.6 After market master cylinders allowed.**

### **Section 9: Suspension**

**9.1 Racing shocks permitted.**

**9.2 Coil over permitted.**

**9.3 No suspension adjustment mechanism in cockpit allowed.**

**9.4 Racing springs permitted.**

**9.5 Lowering blocks in rear are allowed. (2" max.)**

**9.6 Jack bolts permitted.**

**9.7 Steering quickeners permitted.**

**9.8 Suspension travel limiting devices such as chains, etc. are allowed.**

**9.9 Any steering box and/or power steering pump permitted. Aftermarket pumps & pulleys permitted.**

**9.10 Mounting brackets for steering box or pump may be aftermarket.**

### **Section 10: Clutch / Transmission**

**10.1 Aftermarket multi-disc clutch allowed. 7 inch minimum.**

**10.2 Must have at least one forward and one reverse gear in working order.**

**10.3 No couplers allowed.**

**10.4 One 360 degree safety straps around front drive shaft required.**

**10.5 A 360 degree blow proof bell housing is mandatory. Not applicable if Bert & Brinns transmission is used.**

**10.6 Drive shaft must be painted white.**

### **Section 11: Rear-end**

**11.1 Ford 9" rear allowed. Quick change rears allowed. Full floating rears permitted. No open pipe (sprint car) rear end.**

**11.2 Top link may be adjustable aftermarket 3 link. Rubber loaded top link allowed. Spring loaded top link allowed.**

**11.3 No electronic traction control. Rear end must be locked.**

**11.4 Panhard bars and J bars are permitted. No jacking devices within reach of the driver are allowed.**

### **Section 12: Battery, Ignition, and Electronics**

**12.1 Battery must be securely mounted in an enclosed metal box. Subject to tech approval.**

**12.2 If in driver's compartment, battery must be in racing type battery box.**

**12.3 Gel battery highly recommended.**

**12.4 All cars must have starter in working order.**

**12.5 No electronic devices allowed on any car thereby enhancing adjustment of that car.**

**12.6 Any ignition with the exception of magnetos.**

### **Section 13: Cooling Systems**

**13.1 One radiator under hood in stock position. Expansion tanks allowed.**

**13.2 No antifreeze allowed.**

**13.3 Electric radiator fans allowed. No electric water pump. Cast or aluminum water pump.**

### **Section 14: Fuel System**

**14.1 Fuel cell must be used and will be checked for condition and date of manufacture. 32 gal max.**

**14.2 MECHANICAL FUEL PUMP, CAM DRIVEN OR BELT DRIVEN, NO ELECTRIC FUEL PUMPS.**

**14.2 The tank must be securely mounted in a 20 gauge steel box with two 1/8" by 1" steel straps.**

**14.3 Gas lines should run under the floor. If gas lines run through driver's compartment, they must be encased in steel tubing.**

**14.4 Steel braid line is recommended.**

**14.6 Fuel cell must be located in trunk area and vented to the outside of the car.**

**14.7 Commercial pump gasoline or racing gas only. No alcohol, nitrous oxide, nitro methane or other nitrate additives or propylene oxide.**

**14.8 Speed filler and vent tube must have a check (anti-rollover) valve.**

**14.9 Fuel caps must be secured to fuel cell.**

**14.9 Fuel line may not exit bottom of fuel cell.**

### **Section 15: Engine**

**15.1 RIS Will use GM crate motors 88958602 & 88958604.**

**15.2 Engine must be naturally aspirated.**

**15.3 Carburetor:**

**15.3.1 One four-barrel carburetor only of any manufacture.**

**15.3.2 May use one carburetor spacer (2 inch maximum) and two standard one-piece open hole paper gasket (maximum 0.070 inch thick), one gasket between intake to spacer and one gasket between spacer to carburetor.**

**15.4 Exhaust:**

**15.4.1 Headers are permitted. Collector type headers required. No tri-y headers**

allowed.

**15.4.2 Exhaust system must be dual exhaust and exit under car.**

**15.4.3 May use 2 into 1 system.**

**15.4.4 Outlet diameter 6 inch I.D. maximum.**

**15.4.5 Exhaust must exit parallel to track.**

**15.4.6 No 180 degree headers allowed.**

**15.4.7 Exhaust must be securely bolted. No band clamps.**

**15.5 Oil pans and pump:**

**15.5.1 Stock location only. Wet sump only. No external oil pumps, even if considered wet.**

**15.5.2 Oil Pans must remain sealed.**

**15.5.3 Frame may be notched for larger oil pans.**

**15.5.4 Remote oil filter and lines permitted (1) remote oil filter.**

**15.5.5 One oil cooler/filter allowed.**

**15.6 Engine Location.**

**15.6.1 Cars using stock front clip, the number one spark plug must be in line with the grease fitting on the left front upper ball joint.**

**15.6.2 Tube cars may set the engine back, but not more than six inches (6") from the grease fitting on the left front upper ball joint.**

#### **Engines: Late Model Stock**

**15.7.1. Stock OEM production cast iron block.**

**15.7.2. Maximum engine displacement of 362 cubic inches.**

**15.7.3. No repositioning, boring or bushing of cam or lifter bores.**

**15.7.4. OEM production crank or any brand of 3.480 stroke w/stock weight. (Balancing only, no knifing)**

**15.7.5. Any OEM or aftermarket stock length rod (5.7" Chevy I beam). No billet rods allowed.**

**15.7.6. Any flat top 2 or 4 valve relief piston allowed.**

**15.7.7. Max "0" deck height. (Piston may not protrude above deck surface).**

**15.7.8. Timing set - Chain only. No belt or gear drives allowed.**

**15.7.9. Any Hydraulic cam allowed. Engine must pull 15" of vacuum at 1,000 rpm by the track gauge. Must utilize stock firing order. No solid lifter's of any style allowed.**

**15.7.10. Any 5/16 diameter pushrod.**

**15.7.11. Stamped steel or Aluminum roller rocker arms allowed. No shaft systems, rev kits, stud girdles or valve stabilizers allowed.**

**15.7.12. Stock steel OEM or the steel GM Vortec head allowed. No porting, polishing, grinding or excessive deburring in any breathing area on heads allowed. No shot peening or acid porting of heads allowed. 3 angle valve job is allowed. Minimum chamber volume - 62cc. Stock valve stem and size limited to**

**OEM production specs. ( Chevy - 11/32 stem, 1.94/1.5 head diameter).**

**15.7.13 World Products Sportsman II heads (I.D. casting numbers I-037) allowed. No porting, polishing, grinding or excessive deburring in any breathing area on heads allowed. NO machine work allowed. No shot peening or acid porting of heads allowed. 3 angle valve job is allowed.**

**15.7.14. Screw in studs and guide plates are permitted.**

**15.7.15. Valve Springs - Any single spring, with or without a dampener, with a max of 120# of seat pressure allowed.**

**15.7.16. Aftermarket oil pans permitted. No dry sump systems.**

**15.7.17. Any intake. May use 1 carburetor spacer (2" maximum)**

**15.7.18. MECHANICAL FUEL PUMP, CAM DRIVEN OR BELT DRIVEN, NO ELECTRIC FUEL PUMPS.**

**15.7.19. No titanium parts allowed.**

**15.7.20. No magnetos.**

**15.7.21. No vacuum pumps**

**15.7.22. These rules may be adjusted in the interest of fairness of competition.**

**15.7.23. Must weigh a minimum of 2300 lbs anytime.**

#### **Section 16: Weight**

**16.1 All tube type cars using the GM Performance Parts #602 engine must weigh 2200 lbs, after feature race, with driver and no fuel added.**

**16.2 All tube type cars using the GM Performance Parts #604 must weigh 2300 lbs, after feature race, with driver and no fuel added.**

**16.3 When Ford and Chrysler crate engines become available, RIS will announce the specifications for Ford engines.**

#### **Section 17: Protest / Post-Race Inspection**

**17.1 Protest must be submitted to the race director or track official before the top 5 cars and drivers are released from the scale area. (Driver must tell official before car moves off of scale.)**

**17.2 Protest fees:**

**A. Late Model Stock Engines - \$600 top half of engine; \$900 for complete engine. \$250 for removal of bell housing to inspect fly wheel/torque converter; \$100 P&G check; \$100 cam and springs check. If found illegal, the driver submitting the protest will get the protest fee returned . If found legal, the protested driver will get the protest fee.**

**B. Late Model Crate Engines - \$1200 protest complete engine. \$250 for removal of bell housing to inspect fly wheel/torque converter; \$100 P&G check; \$100 cam and springs check. If found illegal, the driver submitting the protest will get the protest fee returned . If found legal, the protested driver will get the**

**protest fee.**

**17.3 RIS will not receive any proceeds of a protest inspection. RIS will not incur any costs for labor or materials associated with teardown for inspections.**

**17.4 Protest teardowns will be conducted in an area designated by the Race Director. The only participants allowed access to the protested car are: RIS officials, the driver submitting the protest and the driver that was protested and two of his/her mechanics. Teardown procedures will be directed and closely monitored by RIS officials.**

**17.5 If engine is found illegal or driver/owner refuses the inspection, the driver will be disqualified, will lose purse for the night, and points for the entire season. Car and owner/driver will be suspended from participating in this class for the next 4 completed races. Suspended car and owner/driver cannot participate in any event for this class at riverside speedway during the suspension period including race specials that include this class.**

**17.6 Once a protest is submitted and teardown begins it is intended that the Protested party will follow through with committed teardown until complete. If at any time after teardown has started the Protested party decides to stop inspections whether any infractions have been found or not, the engine will be found illegal, the driver will be disqualified, will lose purse for the night, will lose points for season to date and will be suspended from participating in the running of the next 6 class events (Only completed events for this class will be counted.). Suspended driver cannot participate in any event for this class at Riverside Speedway during the suspension period including race specials that include this class.**

**17.7 Can OR Can't rule: Do not try to read between the lines in the rule book. Just because the book doesn't say you can't, don't assume you can. Any modifications not specifically outlined here are at the Tech Department's discretion. All final decisions will be made by the tech Officials. Ask first before you assume something is legal.**

### **Section 18: P&G/Teardown**

**18.1 All participants are subject to a P&G test at any time. If engine is found illegal or driver/owner refuses the inspection, the driver will be disqualified, will lose purse for the night, and points for the entire season. Car and owner/driver will be suspended from participating in this class for the next 4 completed races. Suspended car and owner/driver cannot participate in any event for this class at**

**riverside speedway during the suspension period including race specials that include this class.**

