

2012 BEDFORD/ THUNDER VALLEY LATE MODEL SPORTSMAN RULES 3/6/12

1. Eligible Models

- A. This division is limited to 1998 to present American manufactured stock car bodies.
- B. Cars must have type of body style displayed on car with three inch (3") minimum letters. Example: Monte Carlo, Intrepid, Taurus, Grand Prix

2. Bodies

1. The nosepiece style (GM, Ford, Mopar) must match the body style of the car and be the same as the motor used.
2. All cars must have a minimum of 1/2" and a maximum of 1" radius at the top of fenders, doors and quarter panels. A sharp edge will not be permitted.
3. Floor boards and firewall must fully cover the driver's area and be constructed to provide maximum safety.
4. No fins or lips of any kind are permitted anywhere along the entire length of the car.
5. The body line must be a smooth even line from front to rear.
6. No wedge shape cars are permitted.
7. "Belly pans" or any type of enclosure on the bottom of the car are not permitted. A robust skid plate to protect the oil pan is permitted.
8. Wings or tunnels of any kind are NOT permitted underneath the body or chassis of the car.
9. A maximum of one stone deflector, for rear mounted oil pumps, oil filters, and for the main oil tank is permitted. The deflector may be made of steel, aluminum, or heavy gauge wire. The cover may only be mounted near the unit it is designed to protect with a maximum size of 18" x 18" and mounted only from the upper right frame rail to the lower right frame rail.
10. Panels of any kind under the rear deck running from the front to the rear of the car are NOT permitted.
11. Non-approved bodies may at the discretion of the tech inspector, be assessed a 50lb.
12. Any style air cleaner scoop used must be positioned in front of or around the air cleaner and cannot exceed 1" in height above any part of the air cleaner. The scoop may not have fins or raised edges designed to direct airflow.
13. Cockpit adjustable components are NOT permitted, except brake bias adjusters. Adjusters for adjustable shocks, hydraulic or pneumatic weight jacks, trackers, ignition boxes or similar adjustable components of any kind are NOT permitted inside the cockpit of the car or within reach of the seated driver.

3. Stock Nosepieces

1. Only approved stock nosepieces may be used. A list of approved manufactures and part numbers is available from UMP, DIRT car or UFo Late Models.
2. Nosepieces must be made of molded type material.
3. Two piece noses must be fastened together in the center. Spacers added to gain width are not permitted.
4. The nosepiece must be mounted so as not to alter its original shape.
5. Noses shall remain flat above the nose lip/wicker bill. No alterations or additions may be made to this area other than cooing holes.
6. The nosepiece can extend a maximum of 52" from the center of the front hub to the farthest point extending forward. No tolerance.
7. The nosepiece must have a headlight decal package affixed. A one-race grace period, running contrasting color tape in the shape of a headlight will be permitted

4. Roof, Roof Supports and Window Side Panels

1. The roof length size must be a minimum of 44" to a maximum of 54".
2. The roof width size must be a minimum of 48" to a maximum of 52".

3. The roof must be stock appearing and be mounted level.
4. The roof height must be between 45" and 48" from the ground.
5. The roof must be mounted parallel to the body and near the center of the car as viewed from the front.
6. A maximum 1 1/2" roll, turned downward, is permitted along the front edge of the roof. A maximum 1" roll, turned downward, is permitted along the rear edge of the roof. (These rolls are permitted to help strengthen the roof.) No turn-up at the rear of the roof will be permitted.
7. No flat or odd shaped roofs are permitted. No bellied or hollow roofs.
8. Any sun/antiglare shields may not exceed a 4" drop from the top roof line, and must hinge for easy exiting.
9. A maximum of two roof edge bead rolls of a maximum height of 1/2" inch are allowed.
10. Roof Post and Spoiler Support may not overlap.
11. Roofs are only allowed to be single plated.
12. Maximum thickness dimension of roof shall be 1/2".
13. The roll cage and associated frame members above the interior decking shall remain open and not enclosed.
14. All roof side panels must extend to the edge of the body.
15. Roof side panel window size must match the dimensions in the drawing and be a minimum of 10" X 15".
16. The window area may be covered with clear Lexan or equivalent, be cut out, or be represented by a decal. Both roof support openings must be covered or both must be left open.
17. Left and right side window panels must match.
18. A maximum bow of 2" outward on the window side panels as viewed from behind will be permitted.
19. Front roof supports up to two inches wide must extend forward to the rear of the hood.

5. Front Fenders, Fender Flares and Hood

1. The hood and front fenders must be level and flat from the left to the right side of the car.
2. The line from front to rear fender heights must slope up.
3. No part of the fender or the hood can be outside of the bodyline.
4. The front fender can be a maximum of 37" in height. Height is measured vertically from the ground to the top of the fender behind the front tires.
5. Front fender flares must be made of plastic and cannot alter the original shape of the nosepiece.
6. The front fender flares cannot extend beyond the front tires more than 1" per side to a maximum width, edge to edge, of 90" in width with wheels pointed straight.
7. The front fenders flares must be flat across the entire width of the car.
8. Front fender flares must have collapsible supports.

6. Doors

1. The door to door measurement cannot exceed 76" in width at the top of the doors.
2. The door to door measurement cannot exceed 82" in width at the bottom in the center of the car.
3. Doors cannot exceed 37" in height measured from the ground.
4. At no point can the door sides break inwards from the top 76" and bottom 82" measurements. No hollow or bellied doors permitted.
5. The minimum ground clearance permitted is 3".

7. Quarter Panels

1. The maximum distance permitted from the center of the rear hub to the top corner of the quarter panel is 52".
2. The quarter panels cannot exceed 76" in width at any point as measured at the top.
3. Rear decks that taper from 76" back to 72" at the spoiler must do so from the center of the rear hub, equally on both sides.

4. The quarter panels cannot exceed 80" in width in the center (19" height off ground) or at the bottom.
5. At no points can quarter panel sides break inwards towards the center of the car. No hollow or bellied quarter panes permitted.
6. The maximum distance from the center of the rear hub to the end of the quarter panel is 48".
7. The maximum height permitted from the ground to the top of the deck is 38".
8. Tire clearance from the body should be a minimum of 2".
9. No skirting is permitted to extend behind the quarter panel.

8. Spoiler and Spoiler Supports

1. The rear spoiler must be manufactured of adequate strength material such as Lexan or Aluminum.
2. The maximum overall length of the material used on the rear spoiler is 8". The maximum width of the rear spoiler and supports is 72".
3. The rear spoiler is not permitted to be suspended above the deck to create a "wing effect".
4. The rear spoiler must begin where the quarter panels end.
5. No more than three spoiler supports are permitted. The front edge of the spoiler supports must be in line.
6. The outer spoiler supports cannot be mounted wider than the top of the quarter panel, and must be centered on the deck.
7. Spoilers will be measured according to the total length of and width of the material, in any shape or form. If an aluminum angle is used to brace the upper edge of the spoiler, it may not add to the spoiler height or length in any way.

604 Crate and 602 Crate—12" maximum vertical spoiler height measured from top of rear deck and 12" maximum spoiler length measured along the angle of the spoiler. 12" maximum side spoiler height from rear of side spoiler to 10" forward of rear of side spoiler. 4.5" maximum height at front of side spoiler. 24" maximum side spoiler length. 4" high x 32" long spillboard with 1" ridge on top permitted on the nosepiece. Spillboard measured at mounted angle. No other ridges allowed on the nosepiece.

9. Appearance

1. Legible race numbers, at least 18" high are required on each side of the car and on the roof.

10. Interior

1. The interior of the cockpit can be not less than 11" below the roof and the roll cage measured straight up and down.
2. If the front of the roof has a rolled under lip for strength, then you will not be required to have 11" in the front, but the top of the roof still must be 11".
3. Side windows must have 15" minimum opening, measured at an angle to the door.
4. No support bars are permitted to block the right window exit from the cockpit.
5. A rock guard (lexan screen) can taper back from the steering wheel to a height of 1" in line with the driver's chest providing the 11" minimum clearance is met at any point from the roll cage to the body or rock guard. Easy exit on right side of the car is imperative.
6. Dropped interiors may begin no further forward than the rear engine plate with a maximum of 4", and cannot drop below 4" of the rear of the hood. The start of the dropped interior may not be open, as this forms part of the fire wall. The entire width must be closed off in sheet metal.
7. The interior must gradually taper up to the quarter panel height and be level for 20" from the rear of the quarter panel and deck.

11. Driver Compartment

1. A full metal firewall must encompass the driver's compartment from front to rear, on both sides and the floorboards. Aluminum or sheet metal is required.
2. The driver's seat must be of a proper high back aluminum racing seat design, located on the left side of the car and securely attached to the frame.
3. Seat design should be one from a current manufacture and recommended to include full containment design. Installation should follow manufacture recommendations.
4. All cars must have a quick-release type steering wheel.
5. All cars must have a working starter, operated from inside the car.
6. Mirrors are NOT permitted.
7. Radios are NOT permitted in the car or on anyone connected with the car.
8. The edges around the driver's cockpit must be suitably protected with trim or beading. Care must be taken not to have any sharp, jagged or rough fasteners, brackets or anything else that could snag the driver's suit when the driver exits the car.
9. A substantial rock guard steel screen with a minimum of 3 bars must be mounted in front of the driver

12. Frame

1. The wheel base width must be between a minimum of 103" and a maximum of 105".
2. All frames must be of steel construction and must be a minimum of two inches by 2" X 2", or rectangular with a minimum material thickness of .083".
3. If a round tube frame is used, the tubing must have a minimum of 1.75" outside diameter, with a minimum material thickness of .083 inches. These frames must use 4130 Chrome Moly Steel or DOM for construction.
4. If the rear bumper is stubbed, it may only extend a maximum of 8" beyond the frame. Any stubbed rear bumper that extends in excess of 8" beyond the frame must be rounded and directed 8" towards the front of car.
5. No external rub rails are permitted.
6. It is recommended that all cars be equipped with a tow hook or strap.
7. All battery supports must be braced in at least two axis, two horizontal and one vertical.
8. All frames built from 2006 on, are required to have the builder's unique serial number plate prominently attached by welding on the left side of the roll cage upright.

13. Roll Cage

1. Cars must have a suitable steel roll cage in the driver's compartment.
2. Side roll bars are mandatory and must extend into the door panels.
3. A minimum of three bars must be used on the left side of the car.
4. Each bar must be a minimum of one and 1 1/2" in diameter with a minimum thickness of .065".
5. All bars of the roll cage must be above the driver's helmet.
6. For all new frames built in 2006 and on, an extra vertical side brace bar of 1 1/2" dia. X .065" is required on left side in line with the steering wheel.

14. Safety

- A. Five part nylon quick release safety belts required in good condition and working order. Belts must be attached to frame of car.
- B. Approved fire resistant driver's uniform, gloves and shoes are required. Fire resistant hoods, socks and underwear are recommended.
- C. Full faced racing helmet with lexan shield. Snell 90 or newer.
- D. Nylon mesh window net is recommended but not required.
- E. On board fire extinguisher is highly recommended.
- F. Quick release steering wheel.
- G. No electric fuel pumps or pressurized fuel systems.
- H. A driveline "sling" is required.
- I. Drive shaft and weight ballast must be painted white or yellow and have car number painted on them.

- J. Added weight or ballast must have a minimum of two 1/2" diameter bolts fastening each piece securely to a frame member.
- K. 18 gauge steel or 1/8" aluminum "cockpit tub" to protect front, sides and rear of driver is highly recommended.
- L. No batteries permitted in driver's compartment.

15. Fuel Systems

- A. 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 two 1/8" by 2" steel straps.
- B. All fuel cells must be completely visible from rear of car. Fuel cell is not permitted to be mounted lower than bottom of quick change rear-end.
- C. No pressurized fuel systems permitted.
- D. Alcohol or racing gasoline only is permitted. Nitrous gases or other nitrate additives are not permitted.

16. Wheels

- A. Aluminum or steel wheels only.
- B. 14" width maximum.
- C. No plastic or fiberglass wheels permitted.
- D. Bead locks allowed.
- E. Wheels must be mounted with lug nuts. No "knock-off" mounting devices permitted.

17. Tires

- A. American Racer 44, Hoosier 15/1300 or harder compound allowed. Nothing softer. All tires must meet a minimum durometer reading of 32 at any time. The track durometer is the official measuring device.
- B. Maximum circumference permitted is 93". No Tolerance.
- C. Maximum cross section width is 16 3/4". No Tolerance.
- D. Maximum cross section width is 16 3/4". No Tolerance.
- E. Maximum circumference grooving permitted is 11". No Tolerance.
- F. Hoops for inspection must pass over tire freely.
- G. No buffing or taping over tire's size or lettering.

18. Brakes

- A. Must be in good working condition with all four working properly.
- B. Only steel brake rotors permitted.
- C. No plastic brake lines. Steel braided brake lines permitted.

19. Transmission, Clutch & Rear End

- A. Aluminum or steel transmission permitted. (Bert or Brinn allowed).
- B. Must have forward and reverse gears with working clutch and starter. Multi-disc clutch permitted and can be run with an aluminum bell housing. Stock configuration clutch must have a full scatter shield of at least 1/4" thick steel or approved bell housing.
- C. No direct drive or in-out boxes permitted.
- D. Automatic transmission permitted.
- E. No "live-axle" rear ends permitted.
- F. Floater "wide-five" hub assembly only is permitted.
- G. Aluminum axle tubes allowed.
- H. Quick-change rear ends are permitted.

20. Suspension

- A. Front suspension must be stock configuration.
- B. No center steering.
- C. Late model suspension components may be used.
- D. No torsion bar suspensions.

21. Remote Controlled Suspension Devices

A. No remote shock controls or suspension adjusters permitted. No weight jacks of any kind permitted. This includes fifth (5th) coils, etc. Any driver using or found to be using any of the above mentioned devices, WILL lose the complete device permanently, WILL BE DISQUALIFIED FROM COMPETITION and will lose all CHAMPIONSHIP POINTS earned to that point in the season.

22. Engines

- A. **Engines limited to 360ci.** Balanced assemblies optional.
- B. Block must be a standard factory production block and naturally aspirated that was less than 360ci originally. No aluminum blocks. Chevy Bow-tie, Mopar R and Ford Svo blocks are permitted. World Products Mowtown part # 084011 or part # 084111 blocks for Chevy or World Products ManOwar part # 087150, 087152, 087170, 087172 or 31385195 for Ford will be acceptable. Dart Sportsman, Little M part # 3115111 or Dart High Performance block part # 31161111 for Chevy will be allowed. All factory ID letters and numbers must be present on blocks. Other than those listed above, no other blocks will be permitted.
- C. Engine setback: Forward most spark plug behind the upper ball joint not to exceed 6" measured from center line of spark plug to center line of the upper ball joint.
- D. Crankshaft stroke must remain stock for engine make and model being used. 3.5" stroke crankshafts are acceptable as long as the displacement does not exceed 360ci. Crankshafts may be turned undersize a maximum of .040". Aftermarket steel crankshafts will be allowed for durability purposes but can weigh no less than 46 pounds
- E. Wet or dry sump oil systems allowed.
- F. Any stock length steel (no titanium or aluminum) connecting rod may be used. Aftermarket steel connecting rods are acceptable. Ford, Chevy and Mopar may use a 6" connecting rod.
- G. Flat Top Pistons Only. Zero deck. Pistons may not be above the block.
- H. Any factory production steel head. World Products Sportsman II, Chevy Bowtie, World Products Roush 200 and Mopar W2 steel head allowed. World Products GM casting number is I-037. World Products Ford casting number is I-051. GM Vortec heads part # 25534371 and 25534351 will not be permitted. Ford "N" heads will be permitted. No other aftermarket heads will be allowed. No aluminum heads. No angle milling of the head allowed. Combustion chambers can be ground or polished, but must be 60 cc minimum volume. No relocating of rocker arm studs. Shaft style rocker systems are legal. Port matching on the head intake runner is acceptable up to a maximum depth of 3/4" in from the intake manifold interface. Port matching on the head exhaust runner is acceptable up to a maximum depth of 3/4" in from the head interface. The valve seat area can be cleaned-up and blended no deeper than 3/4" in from the seat. No additional hand or machine work of ports is permitted. CC measurements of head runners to remain stock with the exception of port matching.
- I. Steel or stainless steel valves only (no titanium or hollow stem valves). Any spring, any retainer and any valve lock permitted.
- J. Flat tappet cams only with a **maximum** lobe lift of .400 inches. No mushroom or roller lifters. No ceramic or high dollar billet lifters. Lifter bores must remain stock. No needle bearing cam, crankshaft or rod bearings permitted. No cam belt drives or externally adjustable cam timing devices.
- K. No electric fuel pump, pressurized fuel system or inboard (in driver's compartment) fuel pumps. External gear drive fuel pumps permitted.
- L. No 180-degree headers. Mufflers are mandatory and must be attached at completion of event. If using an internal or cone style muffler, it must be positioned so the tech official can see it clearly.
- M. Must have working starter.

604 Crate 2,300 weight—GM crate motor part #88958604. 10:1 maximum compression ratio.
602 Crate 2,200 weight—GM crate motor part #88958602. 9.1:1 maximum compression ratio.

Wet sump only. No external oil pumps. Motor must be purchased from an authorized dealer and MUST remain sealed at all times. GM factory encrypted bolts cannot be altered, removed or changed except by an authorized repair center. Absolutely no modification of any internal engine part. All motor parts included with the motor as shipped from GM must remain OEM and may NOT be modified including but not limited to: valve springs, push rods, harmonic balancers, rocker arms, valve covers etc. No upgrades are allowed that may produce power via performance enhancing methods including breather system modifications. No machine work permitted. Any GM bolts that have been copied is considered trademark infringement and will be reported to the manufacturer for legal proceedings. Motor service or reassembly after tear down may only be performed at an authorized repair center and motor must be resealed with GM factory encrypted bolts. All motor repairs must be done with the same GM motor parts, listed in GM book part #88958668. By using a crate motor in competition, the race team acknowledges all responsibility for the legality of the motor upon inspection at any event regardless of any previous motor verification.

23. Ignition

- A. Any battery powered ignition. MSD, ACCEL, MALLORY or equal permitted.
- B. No magneto's

24. Carburetor

- A. A maximum of four barrels of carburetion. Single carburetor only. No super chargers, fuel injection or turbo chargers.
- B. Any approved intake manifold other than a smoke ram or tunnel ram. Intake height to be a maximum of 8" measured from the top of the carburetor bowl using a straight edge from the bowl to the #3 or #4 runner of the intake manifold.

25. Weight

- A. **Minimum weight of car and driver of 2400 lbs.** after any event.
- B. All added weight must be painted white with the car number displayed and securely attached to the frame with a minimum of two 1/2" bolts. Any bolt on weight must be in front of the rear bumper.
- C. Track scales will be considered official.

604 Crate motors— minimum weight --2,300 pounds.

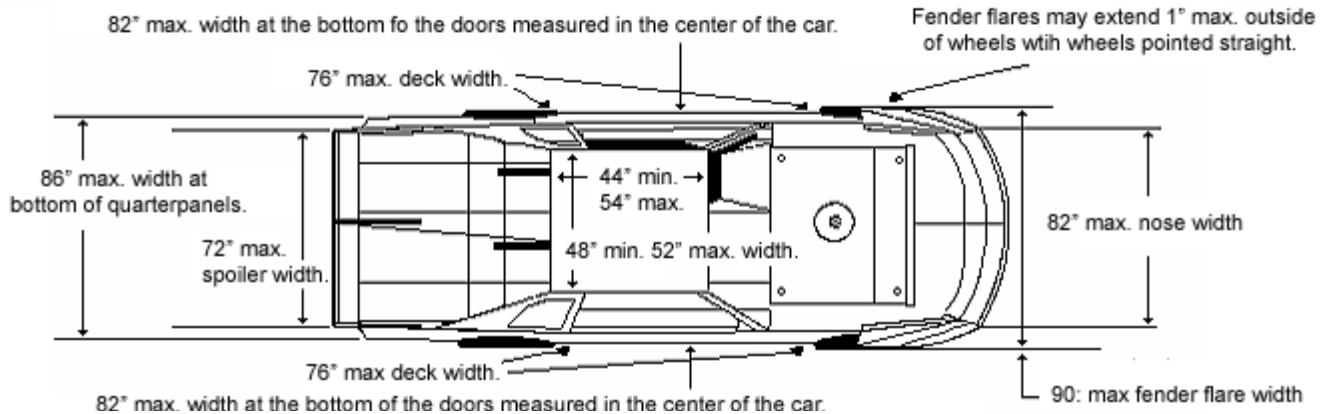
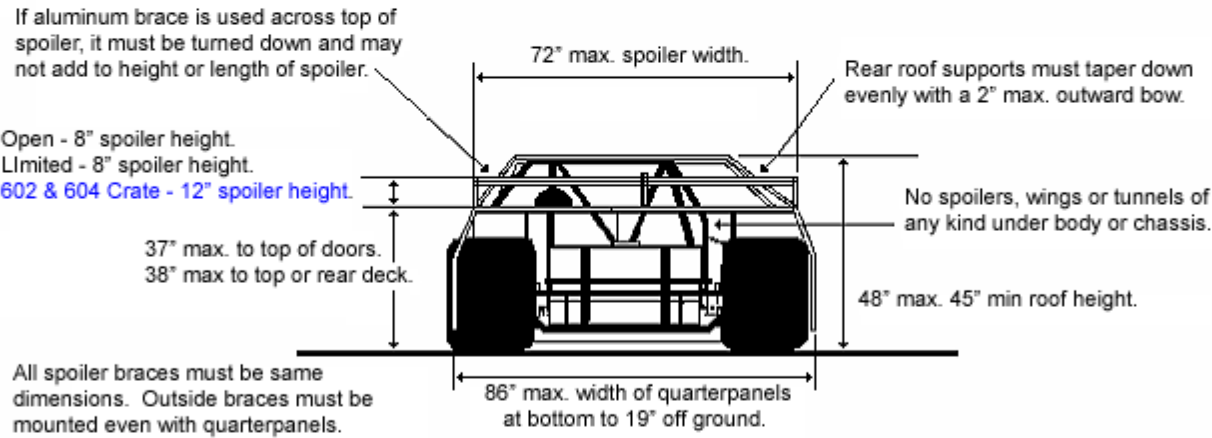
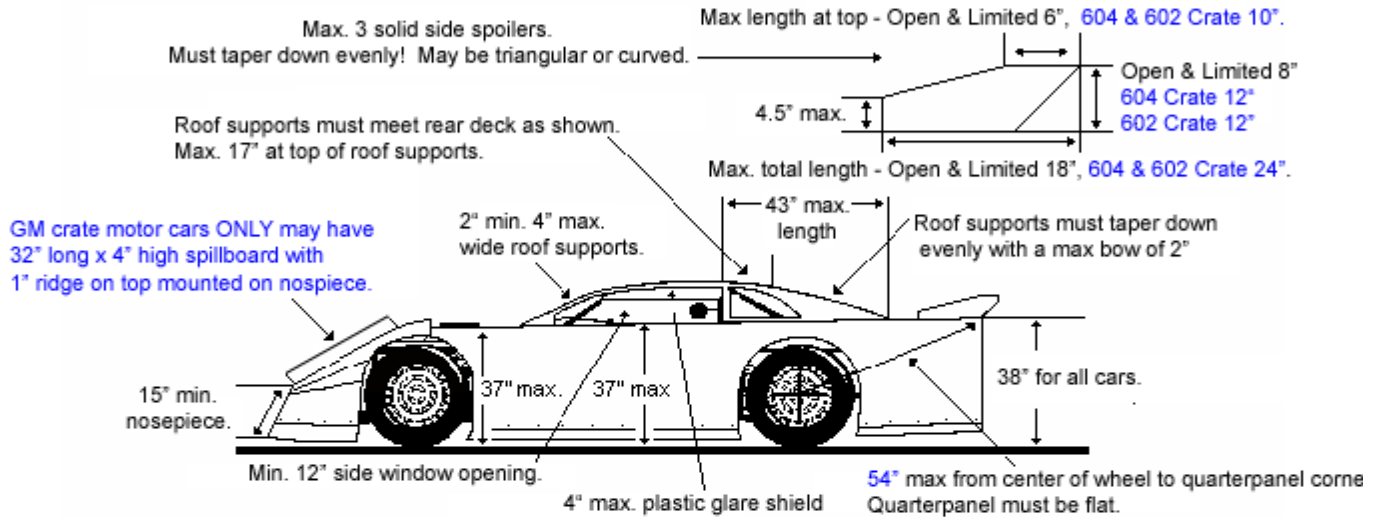
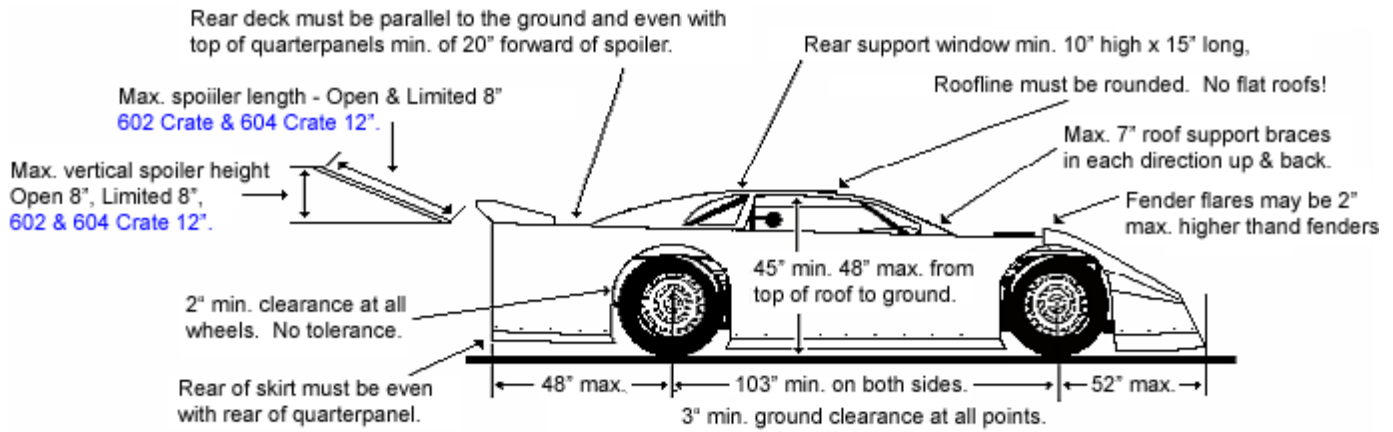
602 Crate motors— minimum weight --2,200 pounds.

26. PENALTIES

The technical rules contained here have been assembled with great concern toward maximizing competition and minimizing costs. Rule violations will not be tolerated. Major violations will result in disqualification, loss of points, and prize money earned. Depending on the severity and the intent of the violation, there could be a suspension from future racing activity at the speedway. Minor violations will be considered major if they are not corrected in the grace period allowed by the tech team. Any car must be presented for the scrutiny of the tech man at our request, and results will not be considered official until we are satisfied. Any claiming must be done in an orderly manner, in cash, and under the conditions previously specified. If at any time the conduct of any team member, driver or associate becomes a discredit to the speedway, the sport, or himself, they will be removed from all racing activity at the track. Owners/ drivers are responsible for the behavior of all individuals associated with the car and may suffer similarly. These rules have been designed to facilitate the orderly conduct of and establish minimum or maximum requirements for the events. No express or implied warranty of safety shall result from publication or compliance with these regulations. Management is empowered to, at their discretion, deviate from specifications described herein. Management reserves the right to update these

regulations at their discretion, in the interest of cost, safety, or fairness. Management's interpretation of these regulations will always be considered final.

Management has the right to confiscate any part deemed to be in violation of the technical rules. Any driver/ car found to be in violation of any technical/ procedural rules can have their racing privileges revoked for any length of time deemed appropriate by management.



2012 Late Model Sportsman - Crate Motor Specifications

GM 602 350/350

Block part number: **#10105123**
Block type: cast iron with 4-bolt main caps
Bore x stroke (in): **4.00 x 3.48**
Camshaft duration (@.050 in): **212** degree intake / **222** degree exhaust
Camshaft lift (in): **.435** intake / **.460** exhaust
Camshaft part number: **#24502476**
Camshaft type: hydraulic flat tappet
Compression ratio: **9.1:1**
Connecting rod part number: **#10108633**
Connecting rods type: powdered metal steel
Crankshaft part number **#14088526**
Crankshaft type: nodular iron
Cylinder head part number: **#12558060**
Cylinder head type: vortec iron; **64cc** chambers
Displacement (cu in): **350**
Engine name: **Circle Track 350/350**
Engine type: **Chevy small-block V-8**
Ignition timing: **32** degree total @ **4000** rpm with vacuum advance disconnected
Maximum rpm: **5500**

NOTE Distributor included with **350/350** engine has melonized steel gear part number: **#10456413**. This MUST be used with engines with steel camshafts, or engine damage will occur.

Piston part number: **#12514101**
Pistons type: hypereutectic aluminum
Recommended fuel: **92** octane
Rocker arm ratio: **1.5:1**
Rocker arms part number: **#10089648**
Rocker arms type: stamped steel
Valve size (in): **1.94** intake / **1.50** exhaust

GM 604 350/355

Block part number: **#10105123**
Block type: Cast iron with 4-bolt main caps
Bore x stroke (in): **4.00 x 3.48**
Camshaft duration (@.050 in): **208** degree intake / **221** degree exhaust
Camshaft lift (in): **.474** intake / **.510** exhaust
Camshaft part number: **#10185071**
Camshaft type: Steel hydraulic roller
Compression ratio: **10:1**
Connecting rod part number: **#10108688**
Connecting rods type: powdered metal steel
Crankshaft part number: **#12556307**
Crankshaft type: forged steel
Cylinder head part number: **#12556463**
Cylinder head type: Aluminum; **58cc** chambers
Displacement (cu in): **350**
Engine name: **Circle Track 350/355**
Engine type: **Chevy small-block V-8**
Ignition timing: **10** degree BTDC @ **800** rpm **32** degree total @ **4000** rpm with vacuum advance disconnected
Maximum rpm: **5800**

NOTE Distributor included with the 350/355 engine has a melonized steel gear part number: **#10456413**. This MUST be used with engines with steel camshafts, or engine damage will occur.

Piston part number: **#10159436**
Pistons type: hypereutectic aluminum
Recommended fuel: **92** octane
Rocker arm ratio: **1.5:1**
Rocker arms part number: **#10089648**
Rocker arms type: stamped steel
Valve size (in): **1.94** intake / **1.50** exhaust

604 Crate 2,300 and 602 Crate 2,200 weight cars will receive the following tolerances: 2" on quarterpanel length, nosepiece length, top deck width and fender flare height. 5" on front roof post brace. 1" on wheelbase.