

2026 THE THUNDER VALLEY LIMITED MOD RULES

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ARTICLE 1: BODY

- 1.1 1970 or newer American compact passenger car only (no panel vans or station wagons). Plastic and/or composite body panels are not allowed with the exception of the rear quarter panels and doors. Rear quarter and doors may be constructed from a fire retardant plastic or composite material.
- 1.2 An aluminum half-windshield may be used on driver's side of the front window opening only, but may not extend more than six (6) inches past the steering wheel.
- 1.3 Stock appearing front window support units must be used (painted roll bars are not acceptable substitutes).
- 1.4 A minimum window opening of twelve (12) inches must be maintained on all four window openings (front, back, left and right).
- 1.5 Streamlining at top of windshield is not allowed. Bodies must have standard appearing windshield opening and corner post must follow standard configuration.
- 1.6 Original roof line (parallel to deck and side to side) of vehicle must be maintained with a maximum of five (5) inches of slope from rear to front. Maximum one-half (0.5) inch stiffener permitted at rear of roof and must turn down perpendicular to the ground. OEM Gremlin roofs are not allowed. Aluminum roofs are permitted. Dished roofs are not allowed. Maximum four (4) inch roof sides are permitted. Maximum one (1) inch ridge down sides of roof.
- 1.7 Sail panels must be solid and of matching design with matching styles on both sides of racecar. Sail panel may be no farther forward than the driver's seat and no farther back than rear of decking within three inches of the spoiler support. Sail panel must be mounted within one (1) inch of the outer edge of deck and flush with the outer edge of roof. Sail panels, side to side, may have no more than four (4) inches of variance in material length when measured from roof line to deck.
- 1.8 Sail panels may have no more than four (4) inches of bow from roof to quarter panel up and down, no more than two (2) inches of arc from a straight line from roof to rear of sail panel and maximum eight (8) inches tall at rear of the sail panel. Sail panel may be a maximum forty-three (43) inches long and must maintain a minimum gap of three (3) inches between sail panel and spoiler support (See Body Diagram).
- 1.9 Hood may be no more than two (2) inches above decking and must be sealed off from driver. Reverse hood rake is not allowed. Hood must be level or slope forward toward nose of racecar. Lips on the hood are not allowed. Hood must be flat from side to side—bowed and/or concaved designs are not allowed.
- 1.10 Belly pans are not allowed. A belly pan will be defined as any object or material that alters the airflow under the racecar.
- 1.11 Panel(s) in front of the right door next to the engine compartment is/are not allowed.
- 1.12 Bodies with excessive damage (as determined by an official) will not be allowed to compete.
- 1.13 Spoilers:**
- 1.13.1 Rear spoiler is permitted, but not mandatory. May be minimum one (1) inch or maximum five (5) inches tall and maximum sixty-seven (67) inches wide.
- 1.13.2 May have stiffener but must be one (1) inch or more down from top.
- 1.13.3 Maximum of three (3) spoiler braces are permitted but must be mounted in line.
- 1.13.4 Must be mounted within confines of spoiler braces.
- 1.13.5 Fins, lips and/or wings are not allowed.

1.14 The rear deck lid and/or trunk area must be covered. Deck height may be a maximum of forty-one (41) inches—NO TOLERANCE. Drop decks are not allowed. Deck may be a maximum length of one hundred twenty-one (121) inches from rear of engine. Deck must remain parallel to the frame and level from side to side. Deck may have a maximum total slope of six (6) inches with a maximum of three (3) inches of slope from racing seat to rear of deck. Doors and quarter panels must be flush with deck. Deck width may be a maximum of sixty-seven (67) inches and must be the same from front to rear.

1.15 Excluding hood and nose piece, the bottom of body may extend a maximum of 6 inches further forward than the back of the engine block.

1.16 Engine covers are not allowed.

1.17 Plastic skirting with a maximum height of five (5) inches allowed on bottom of doors, quarter panels and nose piece is permitted. Body must remain minimum of three (3) inches from ground.

1.18 Maximum overall width of nose is forty-two (42) inches top and bottom. Two and one half (2.5) inch nose fins are permitted along both sides of the nose. Nose fins may not pass the leading edge of radiator or continue past leading edge of hood. All aluminum of the nose (including the fins) must be completely inside the outer edges of the bumper. Nose fins must match side to side. If it is between nose fins, it is the nose; if it separates from the hood, it is the nose. Plastic valances and/or nose pieces are permitted (P.N. MD3M21100). When using a plastic nose, the upper nose filler must have a horizontal brace every twelve (12) inches to prevent the panel from becoming concaved. Concaved noses are not allowed with any material used.

1.19 Bumpers:

1.19.1 Center of bumpers (front and rear) must be at least sixteen (16) inches from the ground and no more than twenty-three (23) inches from ground.

1.19.2 Both front and rear bumpers must be used and must not have any sharp edges. Any inappropriate bumper will be disallowed by an official. Front bumper must be mounted from frame-end to frame-end with the bottom loop parallel to ground. Bumpers must be made of a minimum of one and one-quarter (1.25) inch tubing and must be able to support the racecar if lifted by a tow vehicle. Top bar must be directly above bottom bar (not off-centered).

1.19.3 Rear bumpers and side rail bars must not extend beyond the width of the rear tires. Tires must be the widest part of body.

1.19.4 Rear bumpers may be constructed of tubing or flat stock and must protect the fuel cell.

1.20 Appearance:

1.20.1 All racecars must be numbered with large legible numbers on both sides, on top and on the nose and rear panels.

Numbers on the sides of the racecar should be in contrasting color from the body and be at least four (4) inches thick and at least eighteen (18) inches high. Top numbers should be at least four (4) inches thick and twenty-four (24) inches high.

1.20.2 THE THUNDER VALLEY SPEEDWAY reserve the right, in the public image of the sport, to assign, approve or disapprove any advertising, sponsorship or similar agreement in connection with any event. All cars must be neat appearing and are subject to approval of THE THUNDER VALLEY SPEEDWAY to compete. By competing in an event, all drivers agree to comply with the decisions of THE THUNDER VALLEY SPEEDWAY in this regard.

ARTICLE 2: ROLL CAGES

2.1 The main roll cage must consist of continuous hoops of round steel tubing and must be acceptable to officials. Acceptable tubing is as follows: minimum one and one-half (1.5) inches diameter by ninety-five one-thousandths (0.095) inch wall thickness for main four-point roll cage. Any tubing measuring one and three-quarter (1.75) inches diameter will be allowed a tolerance on the wall thickness for tubing manufacturing imperfections minimum wall thickness of .083 inches. Any tubing under one and three-quarter (1.75) inches diameter will not be allowed any tolerance on wall thickness will be required to be a minimum ninety-five one-thousandths (0.095) inch wall thickness tubing. A minimum of three (3) driver side door bars must be parallel to ground and located perpendicular to the driver to provide maximum protection for the driver, but without causing undue difficulty in getting in or out of the racecar. Side bars must be welded to the front and the rear of the roll cage members. Driver side door bars and uprights must be at least one and one-half (1.5) inches in diameter at a minimum of eighty-three one-thousandths (0.083) of an inch wall thickness. Steel door plate, 18 gauge or forty-nine one-thousandths (0.049) inch minimum thickness, must be securely welded to outside of driver side door bars and cover area from top door bar to bottom door bar and from rear hoop down-post to five inches in front of seat. Passenger side must have at least one cross door bar, horizontal or angled, minimum one and one-quarter (1.25) inch O.D. with eighty-three one thousandths (0.083) inch wall thickness, and one top horizontal door bar, minimum one and one-half (1.5) inch O.D. with eighty-three one thousandths (0.083) inch wall thickness.

2.2 Roll bars within the driver's reach must be padded with an accepted material as determined by an official. Fire retardant material is highly recommended.

2.3 Installation and workmanship must be acceptable to officials.

2.4 Must be frame-mounted in at least six (6) places.

2.5 Must consist of a configuration of front and rear hoops connected by tubing on the sides or side hoops meeting the minimum tubing dimension listed in rule 2.1.

2.6 With helmet on and driver securely strapped into the racing seat, top of driver's head must not protrude above the roll cage.

Must have a cross bar in halo.

2.7 Must have a protective screen or bars in front window opening in front of driver's face.

2.8 Protection of driver's feet utilizing a bar across the back of the engine with vertical bars and rub rails or similar protection is mandatory.

2.9 Brace bars forward of roll cage may not be higher than the stock hood height.

2.10 Adjustable bars on the frame and/or roll cage are not allowed, Removable bars are permitted.

2.11 Roll cages not meeting these rules and regulations will be subject to cash fines and associated penalties.

ARTICLE 3: FRAME

3.1 1978-1987 OEM mid-size GM metric full frame only. The unaltered Speedway OEM replacement frame Part Number 91678881 is allowed.

3.2 Wheelbase must be a minimum one hundred seven (107) inches and maximum one hundred nine (109) inches on both sides.

3.3 Frame must be full and complete. May not be widened, narrowed, shortened and/or lengthened. May not be cut, bent or altered to change suspension brackets, except upper control arm brackets on front end.

3.4 All frame bolt holes must remain in OEM location.

3.5 Front frame horns may be removed in front of steering box.

3.6 Front frame may be cut for radiator clearance only.

3.7 Frame may be notched for seat clearance.

3.8 Transmission cross member mounts may be removed, but no further forward than frame welds.

3.9 Rear of frame behind upper shock mounts may be replaced with round, square or rectangular tubing.

3.10 Except front cross member, no part of frame can be lower than five (5) inches from ground.

3.11 Any other frame alterations are not allowed.

3.12 Tubular front clips are not allowed.

3.13 Hydraulic, ratchet or electric weight jacks are not allowed anywhere on the racecar. Aluminum jack bolts are not allowed.

3.14 Jeep, Bronco or similar four-wheel drive frames are not allowed. Sports car frames are not allowed. Front-wheel-drives are not allowed.

3.15 Rear of engine (bell housing flange) must be mounted at least seventy (70) inches forward from the center line of the rear axle – NO TOLERANCE.

ARTICLE 4: COCKPIT, STEERING & SEAT

4.1 Loose objects and/or weights are not allowed.

4.2 Air bags are not allowed.

4.3 Rear view mirrors are not allowed.

4.4 Floor and firewall must be complete in the driver's compartment. Interior sheet metal cannot be higher than or enclose a standard window opening. Sheet metal in the driver's compartment must be horizontal from the top of the driver shaft tunnel to the right-side door bars or angle from the top of the drive shaft tunnel upwards to the top of the right-side door bars. Driver must be able to exit the racecar from both sides.

4.5 Steering:

4.5.1 Must be OEM and remain within original bolt pattern for type of frame used. Steel tube tie rod adjusting sleeves allowed.

4.5.2 Rack and pinion is not allowed.

4.5.3 May be modified to suit driver but must remain on left side of cockpit (no center steering).

4.5.4 Quick-release metal coupling on steering wheel is mandatory. Plastic couplings are not allowed.

4.6 Seat:

4.6.1 Factory-manufactured racing seats are mandatory and must be acceptable to officials.

4.6.2 Homemade aluminum, plastic or fiberglass seats are not allowed.

4.6.3 Seat back may not be moved back further than rear edge of quarter post.

4.6.4 Only high-back aluminum seats are permitted. Full containment racing seats are strongly recommended.

ARTICLE 5: SUSPENSION

5.1 Front suspension must remain stock-type for the type of frame being used. Lower A frame must be unaltered stock stamped steel and in OEM location and remain OEM dimensions with OEM-type bushings only. Mono ball or heim-style bushings are not allowed. Only one-piece steel, rubber, polyurethane or nylon bushings are permitted. Offset or bearing-type bushings are not allowed. Inner steel sleeve in bushing must be present. Screw-in ball joints are not allowed. Front and/or rear suspension travel limiting devices are not allowed. Front and/or rear suspension must travel freely in both directions from ride height measured at

the shock. Front and rear upper shock mount may be a maximum of four (4) inches above the frame. OEM upper A-frame mount may be moved or replaced with aftermarket steel non-adjustable mount matching upper A-frame bolt-on design.

5.2 Aluminum and/or titanium components are not allowed. Magnet must stick to all components. Exception: aluminum cross shafts are permitted.

5.3 Factory spec steel tube-type upper A-frames with lengths of eight (8) inches or eight and one-half (8.5) inches are permitted.

5.4 Stock passenger car spindles only, must match frame. Fabricated spindles are not allowed

5.5 Front sway bars are permitted. Must be made of steel and may be attached to the bottom A-frame using steel Heim joints. Must be solid full-length OEM. No suspension stops of any kind allowed.

5.6 Spring and/or suspension covers are not allowed.

5.7 Rear Suspension:

5.7.1 Control arms and mounts must be made of steel, unaltered OEM, in OEM location and match frame.

5.7.2 Jack bolts are not allowed.

5.7.3 Adjustable spring buckets are permitted. Must remain in OEM location if dropped.

5.7.4 If upper spring cup uses all thread, it must be securely welded to chassis.

5.7.5 Lower spring cups must be centered on housing.

5.7.6 Control arms may be reinforced but cannot be shortened or lengthened. Must remain OEM length.

5.6.7 Control arm bushings may be aftermarket but offset or bearing type are not allowed. Bushings may not be drilled.

5.7.8 Suspension parts may not be altered or lightened. Aluminum parts are not allowed, other than bushings.

5.7.9 Safety/tether chains must be mounted solid to rear-end (not to suspension parts) and cannot limit travel.

5.8 Shocks & Springs:

5.8.1 One non-adjustable shock per wheel and mounted in OEM location.

5.8.2 Air shocks are not allowed. Aluminum shocks are not allowed.

5.8.3 Shock covers are allowed but must be mounted directly to shock.

5.8.4 All coil springs must be at least five and one half (5.5) in front and four and one-half (4.5) inches rear outside diameter.

Front springs must be a minimum of nine inches of free height. Rear springs must be a maximum 16 inches of free height. Steel springs only. Progressive, stacked and/or welded springs are not allowed. Torsion bars are not allowed in rear.

5.8.5 Coil over shocks are not allowed on front or rear. Steel shock mounting bolts only. Aluminum and/or titanium is not allowed.

5.8.6 Shocks shall be subject to protest, as outlined in Protest Procedures

5.8.7 Coil-over, remote and/or air reservoir shocks are not allowed. Canister and/or adjustable shocks are not allowed.

5.8.8 Bladder-type valves and/or Schrader valves are not allowed.

5.8.9 Shock spacers are permitted.

5.8.10 Bump stops (internal or external) are not allowed.

ARTICLE 6: ELECTRICAL SYSTEM

6.1 Battery:

6.1.1 Must be securely mounted inside frame rails and covered.

6.1.2 One (1) 12-volt battery only (no 16-volt batteries).

6.1.3 Voltage converters are not allowed.

6.1.4 All battery posts must be securely covered.

6.1.5 Alternators are allowed with a maximum 14-volt output, and must be wired directly to the battery (not to an ON/OFF switch).

6.2 Ignition:

6.2.1 Must utilize OEM distributor and ignition. Stock appearing coils, coil covers and modules only. Multiple spark ignitions are not allowed. All ignition parts must remain out of the reach of driver. Open circuit board modules are not allowed.

6.2.2 Kill switch required within easy reach of the driver. The switch must be clearly marked "OFF" and "ON." Crank trigger ignitions are not allowed.

6.2.3 GM must utilize OEM GM distributor. Chrysler and Ford may use aftermarket HEI (bushing type only). Roller bearings are not allowed. Must utilize stock-type components.

6.3 Digital gauges are not allowed. Wiring elements must be accessible for technical inspection.

ARTICLE 7: FUEL SYSTEM

7.1 Fuel:

7.1.1 Automotive gasoline and racing gasoline is allowed. E85 is not allowed. Additives of any kind are not allowed.

7.1.2 May not be blended with ethers or other oxygenates and may not be blended with aniline or its derivatives, nitro compounds or other nitro containing compounds. Oxygenated fuel is not allowed. Fuel is tested and must pass using a Digitron dielectric meter. It is the responsibility of the driver and/or owner to have fuel tested.

7.1.3 Upper cylinder lubricants are not allowed.

7.2 Electric fuel pumps are not allowed. Belt driven fuel pumps are not allowed. Pumps must bolt to block in stock location.

7.4 Carburetor:

7.4.1 Must be naturally aspirated.

7.4.2 Fuel injection is not allowed. Aerosol carburetors are not allowed.

7.4.3 **Standard Engine** must utilize a gauge-legal, unaltered Holley 500 CFM two-barrel (part #4412). HP and/or XP carburetors are not allowed. Grinding and/or polishing of any kind is not allowed. All carburetor components must be for a Holley 500. Milling and/or grinding of throttle shaft is not allowed, and shaft must stay round. The choke and air horn may be removed (this is the only reworking permitted). Casting line at venturi must be present. Boosters must remain centered in venturi and may not be raised or lowered. Annular discharge boosters are not allowed.

7.4.4 **Crate Engine** is permitted to use a Holley 4150 Series four-barrel carburetor. HP carburetors are permitted. This carburetor has no size requirements but must remain to function as the 4150 series carburetor was designed and must utilize Holley type boosters. Vacuum secondary carburetors are not allowed. Annular discharge boosters are not allowed.

7.4.5 A one (1) inch adapter plate or spacer is permitted. Distance between bottom of carburetor and top of intake manifold cannot exceed one and one-quarter (1.25) inch. Spacer thickness must remain the same front to back and side to side.

7.4.6 Carburetors shall be subject to protest, as outlined in Protest Procedures .

7.5 Fuel Cell:

7.5.1 Must be commercially manufactured and must be mounted utilizing at least two (2) steel straps. Straps must be two (2) inches wide at all measuring points.

7.5.2 Must be enclosed in a steel container and must be protected in rear of axle by roll cage tubing mounted securely.

7.5.3 No part may be lower than protective tubing. Protective tubing must be no wider than six (6) inches on both sides. Fuel cell may be no lower than ten (10) inches from the ground.

7.5.4 Must have check valves. A ball-type, flapper or spring or filler rollover valve is mandatory for fuel cells without a positive seal filler neck/cap system.

7.5.5 Limited to a maximum capacity of twenty-two (22) gallons.

ARTICLE 8: TIRES & WHEELS

8.1 Wheels:

8.1.1 Must be fifteen (15) inches in diameter and eight (8) inches in width. Any offset is permitted.

8.1.2 Stickers are not required.

8.1.3 Must be reinforced steel only. Bleeder valves are not allowed.

8.1.4 A steel bead lock may be used on the right-side wheels only and may be mounted on the outside of the wheel so long as it does not add over three-quarters (0.75) of an inch to the overall width of the wheel.

8.1.5 Homemade mud caps are not allowed.

8.1.6 Wheel covers are permitted on right side wheels only. Inner mud plugs are permitted.

8.1.7 Wide-five wheel adaptors are not allowed.

8.1.8 Aluminum spacer between hub and wheel is permitted, but overall width of racecar cannot exceed 78 inches.

8.1.9 Added ballast to any wheel is not allowed.

8.2 Tires:

8.2.1 American Racer KK-704 or Hoosier H500 racing tires are permitted. The American Racer tire permitted is the G60-15 KK704 (Short, Tall or X Tall). The Hoosier H500 may be stamped or non-stamped in sizes 27 x 8 x 15 or 26.5 x 8 x 15. If utilizing the Hoosier H500 non-stamped tire, it must be hard (soft tires are not allowed).

8.2.3 Using a durometer, tire(s) must be a hardness of fifty (50) or more at the conclusion of any race. Any tire not meeting this reading is subject to having a sample taken for chemical testing.

8.2.4 Grooving is permitted on American Racer KK-704.

8.2.5 Grooving of Hoosier H500 is not allowed.

8.2.6 Softening is not allowed. Solvents of any kind are not allowed. Altering tires with any components or chemicals which alter the manufacturer's baseline-settings of the tire is not allowed.

8.2.7 Sidewall markings must remain visible. Buffing or removing compound designations is not allowed.

8.2.8 sipping is permitted.

8.2.9 Added ballast to the inside of any tire is not allowed.

8.2.10 Plastic wrap on tires is permitted in your pit area but must be removed before leaving your pit stall.

8.3 Tire Testing Procedures:

The Thunder Valley Speedway reserves the right to randomly test tires at any time for, But

Not limited to, Chemical Treating Altering and Soaking.

An Independent lab test will be used to check tires for chemical treating, altering or any other abnormality detected against benchmark.

Any driver found to have a tire that does not conform to benchmark will receive the following penalties.

1st offense \$300.00 fine, loss of all points, pay and awards for the night

2nd offense \$500.00 fine, loss of all season points, pay and awards for the night. Racers will also be suspended from competing in any event at The Thunder Valley Speedway for the rest of the calendar year.

Racers must pay fines before they are allowed to race at the next event. Fine does not carry over year to year.

Blue Ridge Race Lab will be responsible for all lab tests. Tires samples will not be submitted to any other lab Blue Ridge Race Lab will be responsible for all lab tests. Tires samples will not be submitted to any other lab. LAB TESTING WILL BE THE OFFICAL AND FINAL RESULTS

ARTICLE 9: BRAKING SYSTEM

9.1 Must operate satisfactorily as deemed such by a USRA official.

9.2 Caliper and rotor must be standard size and weight. Vented rotors are required on front and rear wheels.

9.3 Driver-adjustable right front brake shut-offs are permitted but all brake components must be present.

9.4 Calipers may not be lightened, must be OEM and must be made of steel.

9.5 Rotors must be steel and may not be lightened, scalloped, drilled and/or slotted. Rotors may be re-drilled for different bolt patterns or larger studs. No oil bath hubs allowed.

9.6 Driver-adjustable front-to-rear brake bias is permitted. Additional inline proportioning valve is allowed but must be out of the reach of driver.

9.7 Brake floaters are not allowed

9.8 Brake lines must be visible.

9.9 Must maintain minimum OEM dimension for hubs, rotors and calipers.

ARTICLE 10: DRIVE SHAFT

10.1 A loop is required and must be constructed of at least one-eighth (0.125) inch by two (2) inches solid steel. Loop must be mounted no more than six (6) inches from the front of the drive shaft tube. Alternatively, two (2) loops of one-eighth (0.125) inch by one (1) inch solid steel fastened to cross member are permitted.

10.2 Must be a minimum of two (2) inches in diameter.

10.3 Must be painted white. Aluminum driveshafts are not allowed.

10.4 Carbon fiber drive shafts are permitted. Must be a minimum diameter of two and one-quarter (2.25) inches and must be painted white.

ARTICLE 11: TRANSMISSION

11.1 O.E.M. cast iron three-speed only. Four-speed or five-speed transmissions are not allowed. Automatic production-types are permitted. Internal components must remain OEM type and ratios. With engine running and racecar in stationary position, driver must be able to engage racecar in gear and then move forward and then backward at time of inspection.

11.2 "In and out" boxes are not allowed.

11.3 Must all be clutch-operated or an O.E.M. automatic with a ten (10) inch diameter steel functioning torque converter.

11.4 Aftermarket transmissions are not allowed.

11.5 Hydraulic slave cylinders or throw out bearings are permitted.

11.6 Clutch must be inside of bell housing for O.E.M. production-type transmissions.

11.7 Starter must bolt to engine block or factory location.

- 11.8 All forward gears and one (1) reverse gear must be in working order, plus a neutral position, and must be able to be shifted by driver.
- 11.9 Aluminum flywheel is not allowed. Must have full-sized explosion-proof, SFI-approved steel bell housing. Flywheel must bolt to crankshaft. Clutch must bolt to flywheel, a minimum ten and one-half (10.5) inch single disc clutch allowed on GM and Chrysler and a minimum nine (9) inch clutch on Ford.
- 11.10 Automatic transmissions must have a guard two hundred seventy (270) degrees around flex plate or flywheel and must be constructed of at least one-eighth (0.125) inch steel. All flex plates must be SFI certified. OEM aluminum bell housing may be replaced with an explosive-proof steel or aluminum bellhousing.
- 11.11 Internal clutches are not allowed.
- 11.12 "Option" aftermarket transmissions are permitted but the racecar must weigh a minimum two-thousand five-hundred fifty (2,500) pounds. Approved aftermarket transmissions are Bert (Part #LMZ/GEN II), Brinn (Part# 70001), Falcon (Part# 60100), RaceGator (Part# 140002/140002-C), Jerico (Part# JER0021) and Mitchell Machine Bullet Tranny with internal clutch. Must utilize a racing-approved bell housing and scatter shield. Starter must remain in factory position.

ARTICLE 12: REAR-END

- 12.1 May use OEM seven and one-half (7.5) inches GM 10-bolt rear-end (bracing optional).
- 12.2 Wide-centered fifty-eight (58) or sixty (60) inch Ford and/or floater rear-ends are permitted with a maximum 4.10 ring and pinion gear ratio.
- 12.3 From control arm mount out, housing end may be modified with three (3) inches tubing to accept a nine (9) inch Ford axle.
- 12.4 Must remain minimum GM width or maximum three (3) inches wider if Ford housing or Ford axles are used.
- 12.5 Components must be made of steel. Light weight gears are not allowed. Aluminum is not allowed except lowering blocks, axle cap, U-joint caps and drive plate.
- 12.6 OEM mounts on lower control arms must remain in OEM location with a maximum of two and one-half (2.5) inches from bottom of axle tube to the center of bolt hole.
- 12.7 Aftermarket axles, mini-spools and C-clip eliminators are permitted.
- 12.8 Locked rear-ends only. Torque dividing differentials are not allowed.
- 12.9 Full spools are permitted. Lightweight and/or aluminum spools are not allowed.
- 12.10 Pinion angle may not be changed.
- 12.11 Maximum gear ration of 4.10 is permitted, but housing must remain unaltered. "Option" may utilize any gear ratio but the race car must weigh a minimum two-thousand five hundred (2,500) pounds.
- 12.12 Gun drilled axles are not allowed.
- 12.13 Quick change devices are not allowed.
- 12.14 Cambered rear-ends are not allowed (one-piece drive flange only).
- 12.15 Traction devices are not allowed (includes Gold Track, True Track or similar type components).
- 12.16 "Option" quick change rear-end is permitted but the racecar must weigh a minimum two-thousand five hundred (2,500) pounds. Rear-end must utilize steel axles and steel axle tubes only (gun-drilled axles are permitted). Must use a ten (10) inch ring gear and minimum one (1) inch wide solid spur gears. Rear-end must mount like stock rear-end with stock control arms in stock location and centered in racecar. Any gear ratio is permitted. Any pinion angle is permitted. All other suspension, rear-end and chassis rules apply.

ARTICLE 13: ENGINE

- 13.1 Overflow tubes must be directed toward the ground and inside the frame rails.
- 13.2 Radiator must be mounted in front of engine.
- 13.3 Any American make may be used.

13.4 Exhaust & Mufflers:

- 13.4.1 Tri-Y headers are not allowed. Round tube headers with one and one-eighth (1.625) inch tubes and three (3) inch collector only. All primary tubes must enter one collector at the same point. Only non-stepped headers are permitted.
- 13.4.2 Collector and turn down length may be a maximum total of nineteen (19) inches. Header modifications are not allowed. Pan evac systems, exhaust sensors, merge collectors, cross-overs, inserts, cones and/or balance tubes are not allowed.
- 13.4.3 Coated headers are permitted. Header wrap is not allowed.
- 13.4.4 Mufflers may be required at track's discretion. Recommended mufflers are Schoenfeld 91700609, 091700930 or 91700935.
- 13.4.5 Exhaust system and/or mufflers must be mounted in such a way as to direct spent gases away from the cockpit and away from areas of possible fuel spillage.

13.5 OPTION #1 – Crate Engine:

- 13.5.1 GM Performance Parts (GPP) CT350 "602" Chevy small block crate engine only. This engine may be rebuilt and is not required to be sealed however this engine must remain unaltered and must utilize the unaltered listed part numbers and follow

the listed guide lines. CT350 four-bolt-main block only, hypereutectic pistons P/N 12514101/88894280, GM Connecting rod P/N 10108688, cast iron crankshaft P/N 10243070, 14088526, GM Balancer P/N 19260269/19301706. GM iron Vortec cylinder heads P/N 12529093/12691728, high-rise dual-plane intake manifold P/N 12366573, 602 valve cover P/N 25534359. Unaltered GM camshaft P/N 24502476 only. GM lifter P/N 523270. GM push rod P/N 14095256. GM rocker arm P/N 10089648. Rocker arm nut P/N 19210731. GM valves P/N 10241743 intake/12550909 exhaust. GM valve spring P/N 10212811. GM valve spring retainer P/N 10241744. GM timing gears P/N 340235/10128346 and chain P/N 14088783. GM oil pump P/N 93442037. GM head gasket P/N 10105117 must be utilized. Any other brand of gaskets may be used for the rest of the engine. The block may be decked to a minimum 9.020 inch deck height. The crankshaft line bore may be corrected. Maximum cylinder bore size is 4.008 inches. Minimum crankshaft journal size 0.010 inch under standard size. The maximum cylinder head resurfacing allowed is 0.005 inch. All valve and seat size and angles must remain stock. Standard three-angle valve job is permitted. Modifications below valve seat land are not allowed. Grinding, polishing, painting and/or coating of internal engine parts is not allowed. Lifter bore valley vent tubes are not allowed. Lifter bores may not be altered. Any steel 8-quart single kick-out circle track oil pan is allowed. If motor is not sealed than a minimum one-inch sight plug above the oil level in the side of the oil pan is required. If not utilizing a one-inch plug, oil pan may have to be removed for inspection. All other 602 Crate Engine specifications must be followed.

13.5.2 May utilize one (1) Holley 4150 Series four-barrel carburetor (see Article 7.3.4). Use of a spacer between carburetor and intake is optional, but spacer may be no more than one (1) inch thick and may not be throttle bore adjustable. Aerosol carburetors are not permitted. Carburetors shall be subject to protest as outlined in Protest Procedures (see Article 16). 13.5.3 Must utilize soft-touch rev control box with a 6,200 RPM limit. This must be out of reach of the driver but easily accessible for inspection at all times. Any driver caught altering the chip or ignition system in any way so as to defeat the chip rule shall receive a 30-day suspension, loss of all track and national points for the night and a \$1,000 fine for the first offense.

Second offense shall be a one-year suspension, loss of all track and national points for the season and a \$2,000 fine.

13.5.4 A sealed Crate Engine is not subject to engine protests but must have a prominently displayed "Crate" decal affixed near the A pillar. Any unsealed crate engine is subject to protests. Any driver running with a sealed Crate Engine will not be eligible to protest engines in that season. Any driver that protests a Standard Engine and switches to sealed Crate Engine will be eligible for protest.

13.6 OPTION #2 – Standard Engine:

13.6.1 Must be stock appearing. Absolutely no changes allowed. Must use stock firing order for that make and model (GM to GM, Ford to Ford, etc.).

13.6.2 Parts for 400 cubic inches or larger are not allowed. Stroke must match block (3.48 for small block Chevy). Fluid dampeners are permitted. Lightweight and/or aluminum dampeners are not allowed.

13.6.3 Only stock appearing crank and rods are permitted. Lightweight cranks are not allowed.

13.6.4 Only flat top or dished pistons are permitted. Gas port pistons and/or rings are not allowed.

13.6.5 A minimum one (1) inch plug above the oil level in the side of the oil pan is recommended. If not utilizing a plug, oil pan will have to be removed at time of inspection.

13.6.6 Accumulators are not allowed. External oil lines are not allowed.

13.6.7 Only stock, unaltered two- or four-barrel cast iron intake manifolds are permitted. Approved aluminum intakes are permitted. Approved intakes are unaltered Weiand 7547-1 (stamped or unstamped), Ford (7515, 8023 or 7516) or Chrysler (8022) or (7545); Edelbrock GM (2101) (2701) Ford (7121, 7181 or 7183) Chrysler (2915) or Performer 318/360 intake manifold (Part No. 2176). Porting, polishing, powder coating and/or port machining is not allowed. Bowtie, aftermarket, SVO and W2, marine, VORTEC or other special production intake manifolds are not allowed. Ford may use OEM aluminum intakes. Under air or high-rise intakes are not allowed. Intake manifolds must be made of cast iron or cast aluminum.

13.6.8 Cast iron stock production or unaltered aftermarket steel stock replacement heads are permitted. Porting and/or polishing is not allowed. GM cars must utilize 76cc heads (approved head numbers are 336, 339, 388, 441, 454, 487, 624, 813, 882, 991 and 993). Approved aftermarket heads are GM – Dart Part No. 10024360 and World Products Part No. 043600 and EQ Part No. CH350I; Ford – World Products Part No. 53030; Chrysler – EQ Part No. CH318B; RHS/Indy Part No. 20300 or 20301.

Chevy heads valve size no larger than one and ninety-four hundredths (1.94) intake and one and one-half (1.5) exhaust. Any cast iron OEM Ford and Chrysler heads permitted with valves no larger than two and four one-hundredths (2.04) inch intake and one and seven-tenths (1.7) inch exhaust. VORTEC, bowtie, SVO and/or W-2 heads are not allowed.

13.6.9 Cast iron stock production blocks only. GM may utilize approved aftermarket blocks. Approved aftermarket block numbers are DART 31161111 or Brodix BRS400035842 or GM 12480047 or World Products 084010.

13.6.10 Valve spring seat pressure may not exceed 130 pounds and open pressure may not exceed three-hundred fifty (350) pounds—NO TOLERANCE. Roller cams and lifters are not allowed. Steel or aluminum stock ratio full roller rocker arms are permitted if the valve spring rule is utilized. Stock-type stamped steel rocker arms or cast stamped steel rocker arms are required if the valve spring rule is not utilized. Roller tip rocker arms are permitted with any valve spring. Any diameter valve spring is allowed. Beehive valve springs are not allowed. Chryslers may utilize OEM steel shaft rockers but may not exceed one hundred twenty (120) pounds of valve spring seat pressure and must maintain OEM valve spring dimensions. Under valve cover pressurized valve train oiling systems are not allowed.

13.6.11 Must be a maximum of one hundred seventy-five (175) pounds of compression per cylinder. Compression will be checked with one spark plug removed and five engine strokes.

13.6.12 May be a maximum of 364 cubic inches for GM, 363 cubic inches for Ford and 370 cubic inches for Chrysler.

13.6.13 GM five and seven-tenths (5.7) inches or six (6) inches rods only are permitted. Must be stock appearing "I" beam nonpolished rod.

13.6.14 Mushroom lifters are not allowed (stock diameter only). Must match make and model. Altering lifter bores is not allowed.

13.6.15 Cap screw rods are permitted

13.6.16 Stud girdles are not allowed.

ARTICLE 14: WEIGHT

14.1 The overall weight of the racecar shall be measured at the conclusion of an event with the driver in the cockpit, wearing complete racing apparel.

14.2 Overall weight of racecar must be a minimum of two-thousand three hundred fifty (2,350) pounds. If any "options" noted in the USRA Limited Mod rules are utilized then the total weight of the racecar must be a minimum two-thousand five hundred (2,500) pounds if using the quick-change rear-end and/or aftermarket transmission.

14.3 Ballast:

14.3.1 May not be mounted in cockpit, or outside of body or hood area.

14.3.2 Must be securely mounted, painted white and clearly marked with the car number.

14.3.3 Must be attached with at least two (2) one-half (0.5) inch bolts.

14.3.4 May not be attached to rear bumper. May not be mounted on any rotating or suspension parts. Weight must be mounted to the frame, roll cage only.

ARTICLE 15: SAFETY

15.1 It is recommended that each racecar have built-in fire extinguishing equipment but cannot be of the dry powder type (must be Halon 1211 or equivalent).

15.2 Drivers should have in their pit area as part of their equipment, at all times, a fully charged dry chemical, Halon (or its equivalent) fire extinguisher. Ten- or thirteen-pound fire extinguishers are recommended.

15.3 Driver must wear required helmet, fire suit and five-point safety harness whenever the racecar is on the racetrack. This includes during track packing, warmups, hot laps and races.

15.4 Helmets are mandatory and must be certified, SA2015, SA2020, or SA2025.

15.5 Helmet must accompany driver and racecar at time of inspection.

15.6 Complete one- or two-piece fire suits of a flame-retardant nature are mandatory.

15.7 Fire-resistant gloves and shoes are mandatory. Fire-resistant socks are recommended.

15.8 The use of a five- six- or seven-point driver restraint system (safety belts, sub-belt and shoulder harness) is required.

Factory-type shoulder belts or straps are not allowed. The use of a seven-point driver restraint system is recommended.

15.9 Metal to metal buckles are required on shoulder and seat belts.

15.10 Shoulder harness must be mounted securely to the main roll cage.

15.11 Where the belt passes through the seat edges, a grommet must be installed, rolled and/or padded to prevent cutting of the belt.

15.12 Driver restraint system must be less than three (3) years of age past the date of manufacture. It is recommended that the driver restraint system be no more than two (2) years past the date of manufacture.

15.13 Full-size window net mounted in the left side driver's window opening is required. Window net mounts must be welded to the roll cage. All bars around the driver must have approved roll bar padding. Approved racing arm restraints are recommended.

15.14 Fire-resistant safety neck collars are mandatory.

15.15 Absolutely no plastic except from edge of firewall to body skin and inner wheel tub to body skin.