



# 2025 STREET STOCK RULES

2025 rule updates shown in **BOLD-Red and underlined**

## Notice to Competitors

- **There have been additions and updates to this rule package for 2025 and it is solely the competitor's responsibility to read the information presented here in order to be informed as well as be in compliance with all aspects of the rules as set forth in this document.**
- **For clarification of these rules or for any other technical inquiries please contact the Wayne Smith at [wayne@pettyraceway.com](mailto:wayne@pettyraceway.com)**

## 1. APPROVED MODELS

- 1.1 General Motors: '73-up Nova/Venture/Monte Carlo, '73-up Chevelle/Lemans/Malibu, '73-up Impala/Parisienne or similarly designed cars. Ford: '73-up Torino/T-Bird, '78-up Granada/Crown Victoria or similarly designed cars. Up to '91 Crown Victoria. Chrysler: '73-up Dart/Satellite/Charger, '78-up Volare/Diplomat or similarly designed cars. 1992-1995 Ford Crown Victoria allowed (must use drum brake housing from '91 and prior)
- 1.2 No Mustang, Camaro, Nova, Cuda or similarly designed cars. Any other models are subject to approval by track management. If in doubt, please contact track management before you build.
- 1.3 Minimum wheelbase of 105" (factory specifications) with not more than one inch difference (+/-) side to side.

## 2. BODY

- 2.1 All body panels must be steel with the exception of the nose, tail, hood and roof. In addition the floor must be constructed as close as possible to OEM (flat w/tunnel) Any non-conforming bodies will be allowed to compete but will be subject to a weight penalty to be determined by the tech director on an individual case basis.
- 2.2 Any factory moldings or ornaments must be removed.
- 2.3 Grille must be stock production for body used. If grille has been damaged and replacement is not available then the grille may be fabricated from sheet metal.
- 2.4 Quarter panel windows may have Lexan installed. All window pillars must remain.
- 2.5 Lexan or stock glass windshield allowed. A minimum of two steel vertical braces on the inside of the windshield mandatory.

- 2.6 A fabricated floor pan and firewall will be allowed. The steel must be similar to OEM in design and construction and be a minimum of 20 gauge (0.036). Firewall may be of a flat panel design. Construction must include square/round tubing to form the structure. The floor layout MUST be similar to OEM which will be flat from driver to passenger side except for the driveline tunnel. Floor level must be no higher, or lower than the Frame rails on both sides.**
- 2.6.1 Firewall must be no further back from Steering box adjustment bolt then 40 inches. NOTE: Any deviation from this stock style design will not be permitted to Race. If you're not sure, check.**
- 2.7** Sheet steel may be fabricated to close in the area behind the roll cage. It will begin at side window height and extend straight back to the rear window parcel shelf. Sheet steel must be a minimum of 20 gauge (.036). No floor will be required under this boxed in area.
- 2.8** An 1/8" minimum steel plate must be welded to the outside of the door bars from top to bottom and front to back. Completely filling in between bars is acceptable.
- 2.9** Doors must be welded or bolted securely shut.
- 2.10** Hood and trunk interior webbing may be removed.
- 2.11 Hood and trunk lid MUST be hinged.** Stock latches must be removed. A minimum of two hood pins must be used on hood and trunk lids.
- 2.12** A single exterior rub rail may be used on each side of the car, from behind the front wheel, parallel to the ground, to ahead of the rear wheel. Maximum 1" outside diameter may be used. Exposed bolt heads must be carriage type only. No sharp edges. Rub rails must fit flush with side of car and blend with car color. The ends of the rub rails must be tapered at each end and closed.
- 2.13** Lexan style rub rails allowed.
- 2.14** Aftermarket front and rear bumper covers will be permitted. No dirt type noses or tails. These bumper covers must fit flush to existing fenders and hood/ trunk. No extensions will be allowed below the existing bumper covers.
- 2.15** Rear Spoiler will be allowed. Must be centered on trunk lid or bumper cover. Must measure maximum of 60" Width x 5" height. No side boxing. If bracing is used, must be from the backside only. Base of spoiler must not be mounted beyond the edge of the bumper cover.
- 2.16** Fivestar fiberglass hood allowed.
- 2.17** Minimum body height will be 6". Rear quarters and rear bumper covers must be OEM height.

### **3. INTERIOR**

- 3.1** All interior flammable material must be removed.
- 3.2** A completely enclosed steel firewall front and rear is mandatory.
- 3.3** Floors may not have any holes and repaired with Steel if needed.
- 3.4** All interior pieces and panels must be magnetic steel, minimum 20 gauge (0.036) thickness.
- 3.5** An Aluminum racing seat is mandatory. Full Containment seat recommended. Seat must be securely mounted using minimum 6 Grade 8 fasteners.

### **4. BUMPERS AND FRAMES**

- 4.1** Bumpers and frames must be in stock location and not reinforced. Any fabricated bumpers will be inspected for excessive bracing. Bracing will need to be removed if deemed excessive by tech officials.
- 4.2** Frame repair O.K. with stock thickness material.
- 4.3** No shortening of frames.
- 4.4** No joining sub-frames.
- 4.5** Rear cross member (at bumper) may be replaced with same size channel iron.

- 4.6 Stock bumpers may remain and have a tight, good quality chain solidly bolted between bumper and frame so bumper will remain with car at all times. Stock type bumpers must be cut down on edges to be even and smooth with the side of the body, no sharp or jagged edges allowed.
- 4.7 OEM bumper shocks must be removed.
- 4.8 All cars must have at least one tow hook front and rear attached to the frame. There also must be a loop in the center of each bumper (cable or chain) that can be used for easy pick-up.
- 4.9 When using an aftermarket front or rear bumper cover, a tubular bumper must be used. The tubing must be minimum .095 wall thickness. The tubing must be curved to extend just behind the fenders. Tubing will be attached to brackets securing assembly to the frame horns. No excessive bracing allowed.

## 5. ELECTRICAL

- 5.1 The battery may be moved to a mounting plate securely attached to the frame rail outside of the driver's compartment. **A dry cell battery will be MANDATORY.**
- 5.2 Charging system and starting system must be operating.
- 5.3 **A Master Shut-off Switch must be mounted in the middle of the car,** such that the driver can reach the switch while belted in the car. The location must be accessible to safety workers outside of the car, regardless of how the car is sitting. It must be **fluorescent orange** to ease finding it during an emergency. **Decals to be used with the switch to indicate OFF and On.** May be mounted to cage or dash bars in center.
- 5.4 A neutral safety switch must be installed to prevent the vehicle from being started in gear.
  - See **APPENDIX "F"** for example.

## 2. MINIMUM WEIGHT

- 2.1 **All cars must weigh 3400 pounds with the driver at all times.**
  - **Note Crate and Built will weigh the same base weight.**
- 2.2 ALL cars must maintain a maximum left side of 53%. The maximum rear will be 45%. These weights and percentages must be maintained for any regular length race.
- 2.3 For extended lap races the weight allowed will be 3400 minimum pre-race. There will be a tolerance allowed for weight loss during the race. Any car weighing substantially less than the average of the other cars post-race may be disqualified pending further inspection.
- 2.4 All weights/percentages will be taken with driver in normal seated position.
- 2.5 Any added weight must be painted white, marked with car's name and fastened solidly to the frame with Minimum 2 Grade 8 fasteners. **No weight to be mounted below the frame**
- 2.6 No added weight will be permitted in the driver's compartment.

## 3. BRAKES

- 3.1 Car must have four-wheel brakes in working order, drums on rear.
- 3.2 No bias valves permitted.
- 3.3 Power booster must remain in stock location on firewall. If the power brake booster was not an option for the make and model of the car or if it has been removed, a removable 10 lb. weight must be mounted on the firewall at the master cylinder **This weight will NOT be added to the existing minimum car weight.**
- 3.4 Brake duct and hose allowed for each front brake. No blower fans. Air must be ducted to the brake rotor only not to tire. Air may be pulled from grille or bumper area.
- 3.5 No drilled or slotted rotors allowed.

3.6 Brake pedals must be “hung mounted” as originally manufactured.

## 4. CHASSIS AND SUSPENSION

- 4.1 All suspension parts are to be stock with no modifying **(except where noted)**.
- 4.2 Upper and lower ball joints must be OEM type and match OEM mounting to arm. No truck ball joints. No low friction ball joints (i.e. Allstar). No rebuildable joints (i.e. Howe). **ALL ball joints MUST meet OEM length.**
- 4.3 The car must be a minimum of six (6) inches of the ground measured at any point under the frame. Ground clearance will be the same on both sides. Inspection height gauges must pass under frame with no contact. NO lifts allowed.
- 4.4 **All vertical measurements will be taken with driver in car.**
- 4.5 All coil springs may be OEM or OEM replacement type. Conventional OEM type race springs allowed. No beehive or progressive rate springs allowed. Springs must be a minimum of 5.0” o.d. in diameter. Front springs must sit in the original OEM spring seats. An adjustable spring seat (i.e. AFco #56118) will be allowed in the FRONT only. **Springs must be magnetic steel.**
- 4.6 Front springs must have stock coil spacing and have a minimum uncompressed height of 8.5 inches. Minimum front spring rate will be 650 LBS.
- 4.7 NO suspension travel limiting devices will be allowed unless specifically noted. (Examples include, but are not limited to: bump stops, coil binding, chains, or shock mounting locations). This includes front and rear suspension. The front coil springs MUST have tape applied to the coil wire to check for coil contact. **In addition cars may be inspected for binding and excessive travel in the front end. Tech may use various methods to check for this condition. Absolutely no travel limiting allowed.**
- 4.8 A rear leaf spring suspension will be allowed. The stock arch must be maintained on the springs. Number of leaves is optional. No adjustable shackles will be allowed. Only one mounting hole on front and rear. No lowering blocks. The only allowable leaf spring combination will be the Nova front and rear clip which will be joined to give an OEM wheelbase of 111”. (No Camaro or other leaf spring setups allowed.)
- 4.9 No cutting and/or welding pitman arm.
- 4.10 No air shocks or bags.
- 4.11 Stock type sway bar only. Bar MUST be mounted in original brackets under frame rail.
- 4.12 Sway bar MUST be mounted in OEM position on top of control arm. **OEM sway bar not to exceed 1 5/16”O.D. (1.3125)**
- 4.13 The sway bar links may be adjustable.
- 4.14 No coil-over spring/shock combinations.
- 4.15 Rear spring seats may be modified to accept closed coil-ground spring. Recommended 1” bucket type spring seat on differential housing. Solid shims may be used on the top of the spring.
- 4.16 **ONE rear weight jacking bolt and one adjustable cup will be allowed.**
- 4.17 One stock replacement shock absorber per wheel in stock position using stock mounting hardware is permitted. Absolutely NO RACING shocks allowed. Shocks may be stock replacement GAS shocks. All shock numbers MUST be readable. Shocks will be deemed illegal if numbers are unreadable.
- 4.18 **All shocks (front and rear) MUST be mounted at original OEM locations and angles. Only one upper and lower mounting hole allowed for shock attachment.**
- 4.19 A tubular upper control arm will be allowed for the METRIC (108”) CHASSIS ONLY. The arms must meet the following dimensions:



- **Steel arm construction**
- **Steel cross shaft**
- **Bushing material - Steel**
- **Tube O.D.- 1.000"**
- **LH Arm C-C: 8.5" (+/- 1/2 ")**
- **RH Arm C-C: 8" (+/- 1/2 ")**
- **Cross shaft solid hole, C-C: (i.6.875"metric)**
- **Offset – 1 1/4"**

- 4.20 A metric chassis with OEM upper control arms may use a steel control arm bushing. An aftermarket upper control arm will be allowed for GM mid (112") and full size chassis (116") as well as the Ford chassis (114"). Arms must be the same length as OEM +/- 1/2 inch
- 4.21 **All other suspension bushings must be rubber or urethane including rear control arms.**
- 4.22 A quick release steering wheel will be MANDATORY.
- 4.23 All steering components and Spindles must meet the original specifications of the manufacturer for specific year, make and model.
- 4.24 An aftermarket race style power steering pump will be allowed. Pump must be cast iron magnetic steel. Steering gear must remain OEM.
- 4.25 Aftermarket non-adjustable rear control arms (upper and lower) will be allowed for ALL chassis. They must meet the exact same specs as an OEM arm. Only rubber or urethane bushings will be allowed. No offset, steel, or spherical bushings.
- **Further information is found in APPENDIX "B" in this rule package.**
- 4.26 Camber angle will be inspected. The camber specifications will be as follows:
- **LF wheel maximum camber will be 4.0 degrees positive or negative (+/- 0.5 degree)**
  - **RF wheel maximum camber will be 8.0 degrees positive or negative (+/- 0.5 degree)**
  - **Camber will be checked using a Longacre C/C gauge # 78295.**

## 5. **ROLLCAGE / BRACING**

- 5.1 **Forward Roll Cage/Bracing (front cage uprights forward-front hoop)**
- 5.2 Two parallel bars attached to the front cage uprights will extend forward and join the upright radiator support bars at the front. This will form the "front hoop".
- 5.3 One cross bar will join the radiator upright support bars.
- 5.4 A maximum of one bar is permitted to run side to side in front of rad. Bracing will be toward the rear only (maximum 18" back from rad).
- 5.5 A radiator mounting bracket may be used to allow for quick removal of radiator. It must fit under the hood and not extend in any way beyond the frame rails. All existing support members for front fenders and rad support must remain (front shroud). No hood pins are to be mounted on this bracket. It is strictly for radiator support.
- 5.6 Diagonal and circular bracing bars will be allowed to extend from the parallel bars to join the frame rails.
- 5.7 A single horizontal bar will be allowed to join the two parallel cage bars ahead of the firewall but behind the engine.
- 5.8 Two bars may extend diagonally from the above bar to join the parallel bars.

- 5.9 Two bars are permitted to come forward off the front two uprights through the firewall and down to the frame. These bars must be welded to the frame behind the upper control arm mounts.
- 5.10 A foot protection bar must be installed on the driver's side from the left front upright of the cage to the frame but not ahead of the front firewall

**5.11 Center Roll Cage/Bracing (interior main cage)**

- 5.12 The main cage will consist of four upright bars to form the cage perimeter. These uprights must be welded to the frame. The two front bars will be angled back inside the body "A" pillars. The rear bars will extend up to the roof. These four bars will be welded to the "halo" bars that will form the perimeter of the upper cage
- 5.13 Top of the roll cage halo bars must be touching the roof.
- 5.14 There must be a minimum of 3" clearance between the driver's helmet and top of the halo.
- 5.15 The driver's side door bars will consist of a minimum of three parallel bars attached between the front and rear cage upright bars and angled out to the inside of the outer door panel. The parallel bars must be joined by a minimum of six evenly spaced vertical bars to support and strengthen the door bar construction.
- 5.16 The driver door bars MUST be filled in and covered with a minimum 1/8" thick steel plate. This is MANDATORY on the driver's side. Plating must cover all drivers' door bar area.
- 5.17 The passenger door bars may replicate the driver's side but may also be constructed of vertical and diagonal bars or x-braced for side impact protection.
- 5.18 There must be cross bracing or X-bracing in the rear of cage from side to side behind the driver's seat to allow for shoulder belt installation.
- 5.19 There may be one bar mounted horizontally (parallel to floor pan) connecting the cross brace bar and run straight to the dash bar. This bar MUST be padded.
- 5.20 A bar ("Petty bar") connecting from the rear cage cross bar to run diagonally down to and join the bottom of the right front cage bar or frame. No other bars will be allowed to run off this bar.
- 5.21 Two bars (max) are recommended to run from side to side, attached to the roll cage or bottom door bars, following the contour of the floor, to allow for seat installation. These two bars will have the seat mounted to them directly and must not be fastened to the frame or body of the car.

**5.22 Rearward Roll Cage/Bracing (rear of cage to bumper-rear hoop)**

- 5.23 A maximum of six bars may be attached to the rear of the center cage section. These bars may be connected diagonally from the center cage bars rearward to the frame and extend to the bumper. These bars may be cross or X-braced. Diagonal support bracing may connect parallel rearward bars to frame rails.
- 5.24 Gussets are required at all welds around driver's compartment. All welds must be electric. Cage welding must be professional and will be subject to inspection. Any cages not properly constructed will not be allowed to compete until repaired.
- 5.25 Minimum pipe size .095 wall thickness with minimum diameter 1.75" od.
- 5.26 Gas tank protection required . Two pipes, behind the tank, off the frame at 90 degrees joined by one pipe across top no higher than the gas tank. A second pipe is allowed between the uprights (not welded to the frame). One brace is allowed from each upright pipe. Braces must be welded to the frame and be toward the front of the car only and must extend no further forward than 18" from the uprights. None

of the gas tank protection can be welded, bolted, or in any other way fastened to any other bracing. It may only be fastened to the frame.

**5.27 See Appendix "A"** for updated details of the cage construction. If there are any questions regarding cage construction please contact the speedway tech director.

## **6. FUEL SYSTEM**

6.1 Must run aftermarket Fuel Cell.

6.2 Fuel filler must be inside trunk.

**6.3 All fuel cells must meet a minimum clearance of 12 inches to the ground from any point at the bottom of the fuel cell with the car at ride height (Driver out).**

6.4 Fuel Cell must be secured to frame securely without movement.

6.5 All fuel lines must run under the floor and be metal. Steel braided fuel line may be used provided it is attached at or near OEM locations and is also OEM inside diameter.

6.6 Steel braided or braided fuel line from the fuel pump to the carburetor is required, no rubber lines or filters in this line.

6.7 Steel or braided fuel line from the fuel pump to carburetor may be wrapped to insulate line from heat and possible vapor lock. No cool cans or any other fuel cooling methods allowed.

6.8 A metal box completely enclosing a plastic tank is mandatory.

6.9 Any gas leak of any kind will park a car.

6.10 Filling station gas only with no additives. (Pump fuel only)

6.11 No aviation fuel allowed.

6.12 Stock mechanical fuel pump only.

**6.13 Throttle must have two return springs on separate brackets. One spring must be mounted toward front of carb and the other spring mounted toward rear of carb.**

**6.14 Vent line from fuel cell must be vented through the left rear of the bumper cover clearly exposed, not behind the trunk lid.**

**6.14.1 The vent line must be equipped with a check valve.**

## **7. CARBURATOR**

7.1 Carburetor must be stock 2 barrel originally available on the vehicle.

7.2 Serial Numbers must be readable. (2G-Chev, Autolite-Ford Carter or Holley-Dodge).

7.3 No 500 CFM Holley carbs.

7.4 Choke blade may be removed.

7.5 Air horn must not be removed.

7.6 Casting ridge may not be removed.

7.7 Booster must be stock. May not be shortened, tapered or raised.

7.8 Booster O.D. not to exceed 18/32" (.567).

7.9 Booster I.D. not to exceed 4/32" (.124).

7.10 Booster height 9/32" (Measured from top of fuel bowl).

7.11 Carburetor may be drilled for Holley jets. Maximum jet size 78.

7.12 Throttle plates may be drilled for idle.

7.13 Throttle shaft may not be thinned. Screws must be as OEM.

7.14 Venturi bore not to exceed 1 3/8" (1.375).

7.15 Throttle body bore not to exceed 1 11/16" (1.680)

7.16 Carburetor gaskets must remain stock.

7.17 Only stock thickness throttle body gasket. No carb adapters.

## 8. REAR END / DRIVESHAFT

8.1 Rearend may be locked or un-locked.

8.2 No limited slip, posi-traction or other devices will be allowed.

8.3 Rear end and all other suspension parts must be stock type and remain in original location.

8.4 Gear rule:

- ALL G.M. engine cars maximum 3.73
- Ford and Chrysler maximum 3.55.
- Minimum gears for all cars 2.70.

8.5 All gears are to be in original housing.

8.6 2 Drive shaft loops required. One front and one rear

8.7 Driveshaft must be magnetic steel only and painted white.

## 9. RADIATORS

9.1 Radiator must be in stock location.

9.2 Aluminum radiators will be allowed. They must be OEM replacement type units.

9.3 Must have a cooling system overflow located in engine compartment only.

9.4 Water is the only acceptable coolant. No anti-freeze.

9.5 An electric cooling fan will be allowed. It may be used as a pusher or puller fan. Only one cooling fan allowed.

9.5.1 If using electric fan, no mechanical fan allowed.

## 10. ENGINES

- The GM #12499529 long block crate engine will be allowed. It comes complete except for an intake manifold, water pump, and balancer. A 2 bbl. cast iron OEM intake must be used. The carburetor will be a 2 bbl Rochester which must be used with no adapter. This engine is available through any local GM dealer. The engine will be sealed by Petty Raceway prior to competition. A minimum \$200 sealing charge will be applied. This engine is also used at Speedway 660 and is also sealed. Any inquiries into this engine package may be directed to the Petty Raceway tech director. Engine specs are found in APPENDIX "C".

- CRATE ENGINE REPAIR/REFRESH – Arsenault Engine

Rebuilders will be the authorized service center for all crate engines. These engines may be repaired or refreshed. Engines must have at least one season before a refresh will be allowed. The repair/refresh procedure will begin by the team contacting Petty Raceway to identify the condition then Arsenaults will be contacted and perform the appropriate repairs. Arsenault Engine Rebuilders will have a list of approved procedures that will be followed to perform the repair/refresh work. The Tech director will reseal the engine and a \$200 resealing fee will be charged. Non-compliance to this program will



deem the engines to be illegal and will be removed from inventory. Arsenault Engine Rebuilders will also perform inspections of any engines in the class for validation and compliance of the rules when required.

- 10.2 Must run stock engine; i.e. G.M. in G.M., Ford in Ford, MOPAR in MOPAR.
- 10.3 All engine parts must meet OEM specs for engine and brand.
- 10.4 Engine must have an engine mount restraint on the left side if using original stock motor mounts.
- 10.5 Solid mounts acceptable provided they conform to OEM specs.
- 10.6 The minimum crankshaft height will be 13".
- 10.7 Engine must be located in stock position.
- 10.8 GM: may run 350, FORD may run 351 Windsor, MOPAR : 360 cu. in. only.
- 10.9 The following specs are for the GM 350, 351 Windsor, and the 360 MOPAR BORE/STROKE:
  - 350 Chev - 4.000"/3.485"
  - 351 Ford - 4.000"/3.500"
  - 360 MOPAR - 4.000"/3.578"
- 10.10 Engine overboard may not exceed 0.040"
- 10.11 Hydraulic lifters only(no mushroom type) and a hydraulic lifter camshaft
- 10.12 Maximum Camshaft lift specifications as follows (all measured at the valve):
  - **G.M. lift - intake .460 exhaust .460**
  - Ford lift - intake .419 exhaust .448
  - MOPAR lift - intake .410 exhaust .410
- 10.13 **There will be a duration rule applied to GM "built" engine camshafts in this class. The GM crate is not included.**
  - 10.13.1 **The maximum allowable duration will be:**
    - **Intake: 218°**
    - **Exhaust: 218°**
  - 10.13.2 **The lobe separation angle (valve overlap) must be 110° or 112°**
  - 10.13.3 **This will be closely monitored throughout the season for compliance and fair competition.**
- 10.14 No solid Anti-pump or Rhoads lifters. This includes any type of lifter that falls into this category (i.e. high bleed). Any lifters that are not as OEM will be deemed illegal.
- 10.15 Comp Cam Race Hydraulic lifter #84000-16 will be the only non-OEM lifter allowed in GM engines. (see APPENDIX "D").
- 10.16 **No blueprinted or reground cams permitted. Camshafts must be installed straight up. No degreeing or offset keys or bushings on camshaft or crankshaft.**
- 10.17 Stock cast (dished or flat top) pistons only (or equivalent replacement).
- 10.18 G.M. must have four relief valves from manufacturer. Stock rods (No 6" G.M. rods) and pressed wrist pins only. No floating pins.
- 10.19 Aftermarket rod bolts and nuts are allowed.
- 10.20 Maximum compression ratio of 8.5:1 is set. (8.7:1 on whistler will be deemed illegal). Compression and displacement may be determined by volume gauge, manual measure and/or electronic sonic tester (whistler).
- 10.21 All cylinder heads must be cast iron, OEM smog type, with specifications as follows:
  - 10.21.1 **G.M:** 333882, 3986336, 3998920, 3998993, 462624 and 441 (no 441x) castings only.
    - Maximum intake diameter 1.94".

- Maximum exhaust diameter 1.5".
  - Minimum Combustion Chamber volume 76cc.
  - Min combined deck clearance plus head gasket thickness .040".
  - Maximum intake runner volume 160cc.
  - Maximum exhaust runner volume 60cc.
- 10.21.2 FORD:** D5AE, D5AEA, D5AECA D5TE, D5TEDA, D5TEEB, D70A, D80E castings only.
- Maximum intake diameter 1.84".
  - Maximum exhaust diameter 1.55".
  - Minimum combustion chamber volume 69cc. (flat top piston)
  - Maximum intake runner volume of 125cc. (flat top piston)
  - Minimum combustion chamber volume of 60cc, and maximum intake runner volume of 140cc, a dished piston with .120" cup must be used.
  - Minimum combined deck clearance plus head gasket thickness .070" for all heads.
- 10.21.3 MOPAR:** 3169974, 3671587, 3751357, 3751857, 3769596, 4027596 castings only.
- Maximum intake diameter 1.88". Maximum exhaust diameter 1.5" (318); 1.6"(360).
  - Minimum combustion chamber volume 68cc.
  - Minimum combined deck clearance plus head gasket thickness with a flat top piston .110".
  - Maximum intake runner volume 162cc.
  - Maximum exhaust runner volume 72cc.
- 10.22**All cylinder heads must have stock intake and exhaust valves and stock valve spring dimensions (1.275" Chev, 1.437" Ford, 1.5"MOPAR). Stock replacement stainless valves are permitted. Valve stem length, diameter and keeper group location must be stock. Steel retainers must be used.
- 10.23**No undercut valves.
- 10.24**Valve spring seat pressure is not to exceed:
- 10.24.1** Built engines: 100 lb. maximum @ installed height.
- 10.24.2** Crate engines: 80lb. maximum @ installed height.
- 10.25**No angle milling, porting, port matching, polishing, sandblasting, coating and/or blueprinting will be allowed. Heads may be milled for straightness only.
- 10.26**Stock rocker arms (or equiv. replacement) with stock ratios
- GM and MOPAR 1.5
  - Ford 1.6
- 10.27**Jam nuts are allowed.
- 10.28**Poly lock rocker arm nuts will be allowed as well as screw in studs and guide plates. No other cylinder head modifications will be permitted.
- 10.29**Only standard cast production designed Crankshafts. Stroke may not be increased or decreased. Only standard factory OEM production steel or cast crankshafts with stock strokes permitted. Must have OEM readable numbers. No aftermarket crankshafts. Engine balancer must be OEM stock. It is to measure no less than 6" in diameter by 1" in thickness at outer edge. NO stroker kits.
- 10.30**Must run stock cast iron 2 barrel intake manifold with no adapters. No angle milling, porting, port matching, polishing, sandblasting, coating and/or blueprinting will be allowed. OEM numbers must be readable.

- 10.31 No ram horn exhaust manifolds. No inverted exhaust. No porting and/or polishing. The only approved exhaust manifold will be the "W" style with a 2" outlet.
- 10.32 Exhaust must exit behind the driver in front of rear wheels.
- 10.33 **Exhaust pipe must be 2" O.D. maximum from exhaust manifold to pipe exit.** A single exhaust must use an OEM crossover pipe. If dual exhaust is used, pipes may not be joined (no balance pipe). Pipes must be tight at all joints and securely fastened. Exhaust pipe (or pipes) must not extend past the rocker panel extension.
- 10.34 Air Filter may be paper only. No K&N filters. Min 12" Max 17" diameter. Maximum 4" high. The air filter element may not be sprayed or soaked with any type of chemicals or liquids. Only a round metal air cleaner housing is permitted. The top and bottom of the air cleaner must be solid and must be the same diameter. The air cleaner housing must be centered and sit level on the carburetor. The bottom of the air cleaner housing must be lower than the top of the carburetor choke horn. No tubes, funnels or any device, which may control the flow of air, is permitted inside of the air cleaner or between the air cleaner and the carburetor
- 10.35 OEM type oil pan May run a kickout type oil pan.
- 10.36 Valve covers must have crankcase breathers to control oil vapor.
- 10.37 Stock cast iron water pump only. No aluminum.
- 10.38 Mechanical fuel pump only in stock location.
- 10.39 OEM oil pump only. No dry sumps.
- 10.40 Stock timing chain only (or equivalent replacement). No Belts.
- 10.41 **Crank, Water pump and Alternator pulleys must be Magnetic Steel only. Power steering pump pulley may be aluminum or steel. Alternator pulley cannot exceed 3 inches in diameter. Crank to Water pump pulley ratio must be one to one. Flat or V-type belt allowed.**
- 10.42 Stock OEM or Permanent Magnet Reduction Gear starter for engine used.
- 10.43 Only stock distributor and stock type coil allowed. No dual points. No external amplifiers.
- 10.44 **GM HEI ignition system will be allowed in a non-GM engine. It must be a stock OEM replacement unit only.**
- 10.45 Distributor must be wired to match the factory production firing order.
- GM firing order is 1-8-4-3-6-5-7-2
  - CHRYSLER firing order is 1-8-4-3-6-5-7-2
  - FORD firing order is 1-3-7-2-6-5-4-8.
- 10.46 Ignition wires must not be larger than 10mm and size must be clearly marked on wire insulation.

## 11. **TIRES AND WHEELS**

- 11.1 The track tire rule for will be the Hoosier Comanche Tires exclusively.
- 11.2 **There WILL BE durometer testing for tire softener. The number enforced at this time will be 52. Tires may be tested at any time to ensure fairness and compliance. Any deviation from this number will be communicated to the teams.**
- 11.3 The maximum wheel size will be 15" x 8".
- 11.4 **Maximum track width for a wheelbase up to 108" will be 66" (i.e.GM metric)**
- 11.5 **Maximum track width for a wheelbase longer than 108" will be 67"**
- 11.6 **All track widths will be measured from center to center of the front tires.**

11.7 Fenders may be trimmed to allow for tire clearance.. No flaring of fenders and all cuts made must be smooth and rolled under to avoid cutting a competitor's tire.

## 12. TRANSMISSION

12.1 Three speed OEM automatic transmission only.

- GM THM 350
- Chrysler 904
- Ford C4

12.2 Transmission must have three gears forward and one gear reverse, plus a neutral and a park position. Must have stock shift pattern.

12.3 No reverse valve bodies.

12.4 Must be able to be shifted by the driver in position. No "slap stick" shifters.

12.5 Must have a stock torque converter. Minimum 12" converter.

12.6 Transmission cooler legal. Must be located in engine compartment.

12.7 Cars must start in neutral or park only.

12.8 Must have stock shift points. The transmission must be able to be automatically upshifted to high gear at 1500 RPM with vehicle rear wheels raised.

12.9 The OEM transmission must have an operating vacuum modulator. This unit is used on all of the OEM transmissions for this class.

12.10 OEM Transmission gear ratios will be as follows:

- GM THM 350: 1 - 2.52, 2 - 1.52, 3 - 1.0
- Ford C4: 1 - 2.46, 2 - 1.46, 3 - 1.0
- Chrysler 904: 1 - 2.74, 2 - 1.74, 3 - 1.0

## 13. NUMBERS

13.1 Numbers must be on the roof, readable from the right side of the car, and on both front doors at least 22 inches high and four inches wide.

13.2 Must have a six inch number on the top passenger corner of windshield.

13.3 All numbers must contrast the color of the car (dark on light, light on dark).

13.4 The driver will be informed of any numbers difficult to score.

13.5 Anyone requesting a number should email [wayne@pettyraceway.com](mailto:wayne@pettyraceway.com) to confirm availability

## 14. DRIVER SAFETY

14.1 A four point harness is mandatory. A Five point harness is recommended. All seat belt mounting brackets must be installed in the direction of pull to avoid excessive stress to the anchor points during driving [fatigue stress] or during a crash. **(See APPENDIX "E")**.

14.2 Harness must be worn whenever car is on racetrack. **Harness build date must 2020 or newer.**

14.3 **A SFI 3.3 rated neck collar will allowed. It will be the MINIMUM acceptable neck support device that may be worn.**

14.4 **A SFI 38.1 Head and Neck Restraint is RECOMMENDED.**

14.5 Full face helmets are mandatory.

- 14.6 The **SNELL standard SA2015 will be MANDATORY minimum standard. The helmet must accompany the vehicle at time of inspection.**
- 14.7 The HANS device tether straps will be inspected. While not mandatory at this time, the straps are recommended to be replaced every 5 years or in the case of hard impact then immediately.
- 14.8 A securely mounted, easily removed 2.5lb fire extinguisher is required, within easy reach of the driver. **It must have a recharge slip dated no earlier than January 1st of the current year.**
- 14.9 Fire extinguisher of a minimum 5 lb. must be clearly visible in the teams pit area. Extinguisher must display car number on the side.
- 14.10 A SFI 3.2A/1 MINIMUM rated driver suits must be worn whenever car is on racetrack.
- SFI 3.2A/5 Recommended
- 14.11 SFI rated gloves and shoes must be worn whenever car is on racetrack.
- 14.12 Window net with quick release attachments is mandatory. Driver's window net must be securely attached at the bottom with quick release latch at the top.
- 14.13 Drivers are responsible to ensure all safety equipment is in good condition and securely installed.
- 14.14 Seat must be aluminum and be secured to the roll cage (both bottom and back) with minimum six (6) grade 8 fasteners.
- A Full Containment seat is highly recommended.
- 14.15 head supports on seat are mandatory.

## 15. **LISTENING DEVICES**

- 15.1 Working scanners in every car will be mandatory.
- 15.1.1 They are to be mounted in a secure and driver accessible location. May require an external antenna.
- 15.2 ONLY the track frequency (151.055) is to be programmed.
- 15.3 Scanners will be subject to inspection for other frequencies.
- 15.4 **NO transmitting devices of any kind allowed. Any competitor found with a transmitting device will be subject to a disqualification up to and including a season ban. Decision of track management will be final.**

## 16. **SCORING DEVICES**

- 16.1 Transponders will be supplied by the track and available on raceday.
- 16.2 **Transponder location will be on the inside of the right frame rail 6" ahead of the engine crossmember.**

## 17. **MISCELLANEOUS**

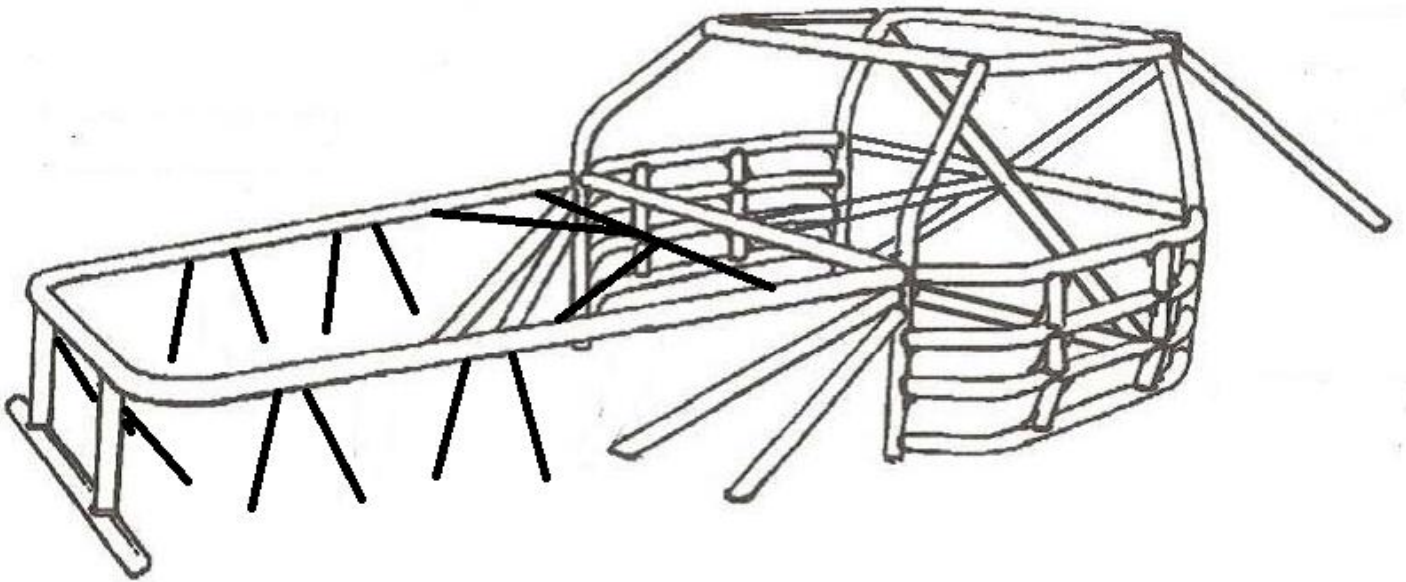
- 17.1 No performance or aftermarket speed equipment of any kind. **(Unless expressly stated).**
- 17.2 Side mirrors may be used as long as it does not stick out past the body.
- 17.3 Anything not specified as being allowed must be stock.
- 17.4 Stock part are those manufactured for the normal family sedan, not taxis, police cars, muscle or any other special editions.

- 17.5 Any misinterpretation of the rules will be subject to a final decision by track officials.
- 17.6 Track officials may check any car at any time.
- 17.7 Track reserves the right to amend any rule with prior notice to competitors.
- 17.8 Petty Raceway reserves the right to confiscate and retain any parts or components that are deemed to be non-conforming to the rules set forth in these pages.
- 17.9 The decision of track management will be final.
- 17.10 **Anything that is not specifically shown in these rules will be considered illegal. Please contact the tech director for clarification. DO NOT ASSUME!**
- 17.11 Cars from other tracks or Series will be allowed to compete at the discretion of Officials. Contact the speedway tech director for clarification.
- 17.12 Any car that fails inspection must be reinspected before it is allowed to compete at the next event.

**NOTE: For clarification of these rules or for any other technical inquiries please contact the [wayne@pettyraceway.com](mailto:wayne@pettyraceway.com)**

APPENDIX "A"

Street Stock Cage



# APPENDIX "B"

## Approved Metric Chassis Rear Control Arms



**Metric Lower Arm**



**Metric Upper Arm**



**Metric Lower Arm**



**Metric Upper Arm**

**NOTE: The forward holes in the Johnson Chassis upper arm must be filled or otherwise made non-functional. This will be strictly enforced. The arms must meet OEM length.**

### Other Approved Arms (example)

#### 1973-77 GM A-Body Rear Control Arms with Bushings





## APPENDIX "C"

### **GM Performance #12499529 currently #19421178 Small Block Chevy 350/290 Long Block Engine**



#### **350/290 HP Technical Information**

Horsepower ..... 290 @ 5100 RPM  
Torque ..... 326 Ft. Lbs. @ 3750  
Max. Recommended RPM.... 5100  
Compression Ratio ..... 8.5:1  
Block .....10066034 iron four bolt with two piece rear main seal  
Connecting Rods... 10108688 Powdered Metal  
Pistons & Pins.....12514101 Aluminum  
Piston Rings .....12507985  
Camshaft .....3896962 Flat Tappet  
Rocker Arm.....10089648 1.5 Ratio  
Intake Valves.....10093027 1.94"  
Exhaust Valves ....14095451 1.50"  
Lifters .....5232720 Flat Tappet  
Oil Pump .....12555284  
Oil Pan .....10066039  
Spark Plugs .....R45TS Ignition Timing ...34deg  
Fuel.....87 Octane

This engine block has provisions for either a left or right hand dipstick.

The user must plug the unused side with a plug. (Not included) LH plug: 3837057 -RH plug: 9421743

Engine does not include intake, water pump, or balancer.

#### **Camshaft:**

The 350/290 HP engine uses an aggressive flat tappet camshaft to achieve the level of performance for its intended usage. Camshaft lift is .450" intake / .460" exhaust. Camshaft duration (@.050") is 222 degrees intake and exhaust. Lobe centerline is 114 degrees. Normal engine manifold vacuum for the 350/290 HP engine is 10-12" Hg at idle (650-750 rpm).

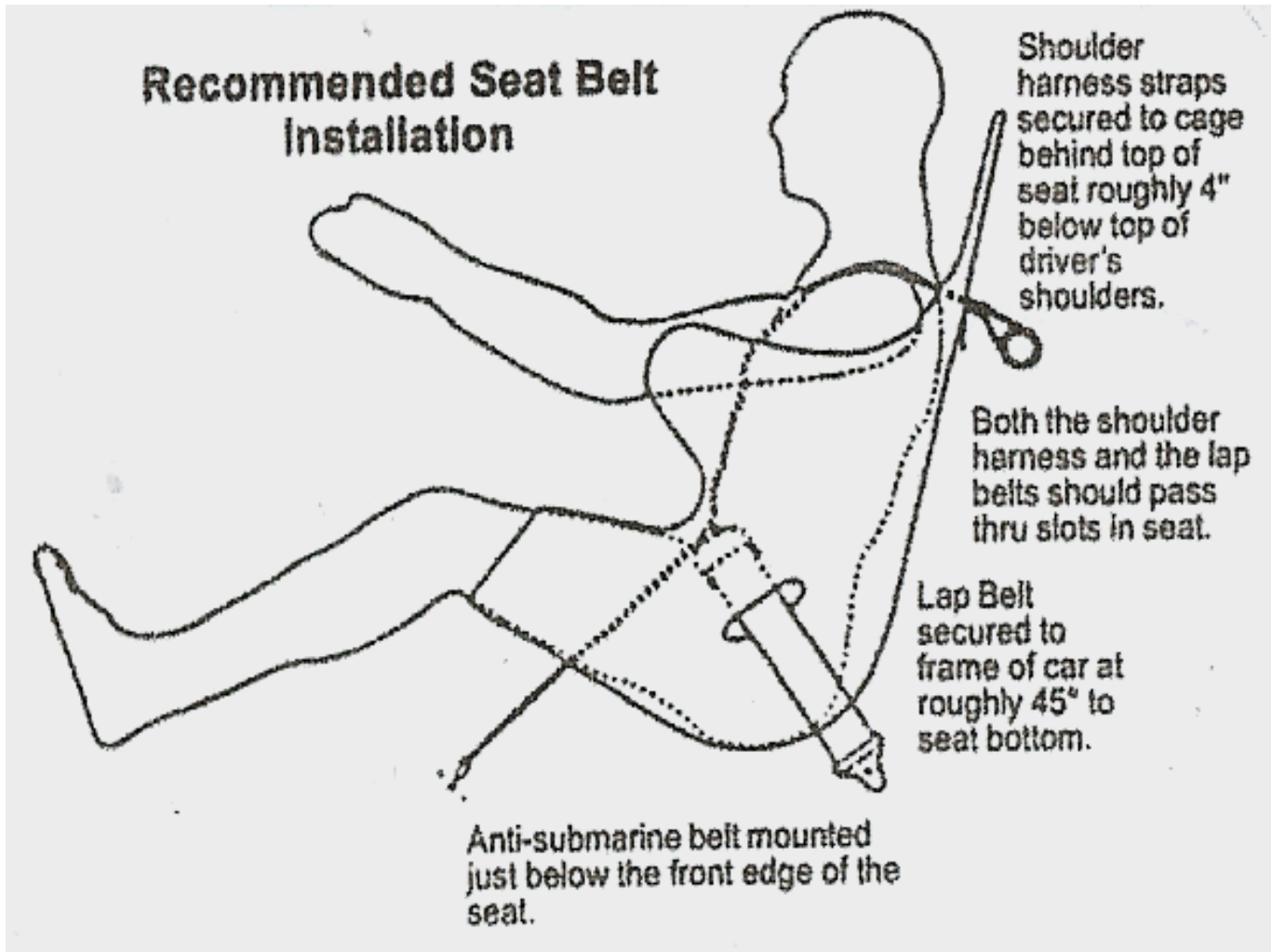
## APPENDIX "D"



**Comp Cam Race Hydraulic lifter #84000-16 will be the only non OEM lifter allowed in GM engines.**

## APPENDIX "E"

### Seat Belt Installation



All brackets must be installed in direction of pull to avoid excessive stress to the anchor points during driving [fatigue stress] or during an accident.

# APPENDIX "F"

This electrical diagram is shown as an example of a neutral safety circuit.

## Neutral Safety Switch

