

# 2017 THOMPSON STREET STOCK OPEN

## GENERAL RULES

### 1) Preface

The intent of the Thompson Street Stock Open (TSSO) rulebook is to foster a safe and orderly environment for competitive motorsports and entertainment. The knowledge of, and adherence to, these rules is ultimately the participant's responsibility. No expressed or implied warranty of safety shall result from the publication of, or compliance with, these rules. There is no way a guarantee against injury or death to participants, spectators, officials, or any other individual involved.

### 2) Interpretation and Amendment

- a) Interpretations of the rules contained herein will be the sole responsibility of authorized officials of TSSO. Their interpretations and judgments shall be final.
- b) The Managing Event Director, Technical Director, or another authorized agent of TSSO are the only individuals permitted to amend these rules.

### 3) Private Property

Thompson Speedway is private property. Any person on this property without the permission of the venue owners or management is guilty of trespassing and subject to the penalties prescribed by law. Through a license and/or registration, an individual has been given the authority and the right to be on the hosting track's property, in conjunction with racing activities. The administration of the host track or TSSO reserves the right to revoke and cancel this authority at any time it is felt that one's presence or conduct is not in the best interests of the sport of auto racing, fellow competitors, the fans, management or employees of TSSO, the host track, or the sport of auto racing.

### 4) Injuries on Host Track Property

Any participant involved in an accident while on the premises must report all known injuries to an Thompson official before leaving the facility (if the individual is able to make such a report). If the participant is unable to report, the crew chief or parent/guardian shall make such report. The appropriate injury report form must be filled out and returned to Thompson Speedway.

### 5) Safety

- a) Competitors are solely and directly responsible for the safety of their race cars and racing equipment and are obligated to perform their duties (whether as a car owner driver or crew members) in a manner designed to minimize to the degree possible the risk of injury to themselves and others.
- a) A full fire suit made of double-layered, Nomex material, clean and in good condition is mandatory. Fire retardant gloves and shoes are mandatory and must be worn during all on-track activities.
- b) All safety equipment (gloves, helmets, seats, etc.) must be approved by Thompson Speedway Officials.
- c) SA2005 or newer rated helmets are mandatory for all motor vehicle events. Full-face helmets are mandatory.

- d) All cars must have a battery cutoff switch on the driver's right side crossbar or in the dash board area. It must be within reach of the driver and be accessible to safety crews from both the left and right sides.
- e) An aluminum racing seat is mandatory. The driver's seat must appear as close to stock position as possible and must be securely fastened (bolted, not tack welded) to the roll cage and frame members and not to floorboards.
- f) Seat belts must be a minimum five-point, two (2.0) inch wide system with a metal-to-metal central quick release latch. All five (5) points must be securely mounted by manufacturer's specifications and must be approved by Thompson Officials. Belts must be newer than 2014 and be SFI certified. Belts with visible wear and/or tears will not be permitted.
- g) A head and neck restraint system (i.e. HANS, Hutchens, or similar) is mandatory.
- h) Smoking is not allowed in the racecar, inspection area, in any buildings, or near the fuel station.

## 6) Driver Eligibility

- a) All drivers must have a TSSO Season or Single Event License. Drivers must be minimum 15 years of age and receive TSSO approval.
- b) In order to participate in any on-track activity, a driver must be signed in with the Registrar.

## 7) Car Numbers & Decals

- a) All car numbers must be registered and approved by Thompson officials. No three digit numbers will be permitted. Only two of the same numbers will be allowed. For example, if the 1 and 1CT are both registered, another driver may not request the No. 1, regardless of what letter follows it. That number will be exhausted.
- b) All cars numbers must be at least 18" tall on both doors and on the roof. Roof numbers should be grandstand-facing from the backstretch.
- c) All lettering/decals/signs must meet the approval of the TSSO Officials.
- d) TSSO Officials may use their discretion in requesting color changes due to poor visibility and scoring issues.

## 8) Official Vendors

Northeast Race Cars & Parts  
 244 Davis Drive  
 Pascoag, RI 02859  
 (800) 766-4748

MyLaps America  
 32 Highlands Parkway, Suite 104  
 Smyrna, GA  
 (678) 816-4000

Dave Lind Racing  
 267 Dedham Street  
 Norfolk, MA 02056  
 (508) 384-3140

Racing Electronics (Shawn Waddell)  
 12 Nod Road  
 Plainville, CT 06062  
 (860) 573-8821

Dur-A-Flex  
 875 West Shore Road  
 Warwick, RI 02889

## **9) Paddock & Pit Road Rules**

- a) Jack Stands
  - i) Racing jack stands with flat bottoms are recommended (Exhibit 1).
  - ii) Jack stands must be used under any vehicle that is jacked up and being worked on, except for routine tire changes on pit road.
- b) Motorized Vehicles
  - i) The use of motorized or non-motorized personal transportation (scooters, bikes, golf carts, etc) is not permitted in the TSSO Pit Area, without prior approval from TSSO. Special permission may be granted for handicapped persons, subject to prior approval and limitations of the venue.
- c) It is the sole responsibility of the participants to dispose of hazardous waste in a way that is environmentally conscious and respectful.
- d) Narcotics and firearms of any kind are not permitted to be brought into the TSSO Pit Area or onto any hosting track's property. Additionally, alcohol is not permitted in the pit area.
- e) Smoking is not allowed in the inspection area, in any buildings, or near the fuel station.
- f) No one is permitted to ride as a passenger inside of, or on, a racecar. Additionally, no one is permitted to ride on the side of a truck or trailer.
- g) No TSSO Official is permitted to work on a racecar.

## **TECHNICAL RULES**

*Disclaimer: It is a competitor's responsibility to prove that a rare part was made for use in a passenger car.*

### **1) Approved Models**

- b) All TSSO racecars must meet the following criteria: American-made, four-passenger, rear-wheel driven, and have a minimum wheelbase of 101". No convertibles, station wagons, or checkered cabs will be permitted.
- b) The body must be stock for the frame being used. All body parts must retain all factory-listed dimensions, lines, and angles. Only steel or aluminum side panels are permitted.

### **2) Roof**

Only a stock roof or fiberglass replacement roof is permitted.

### **3) Hoods**

Hoods may be fiberglass, but must lay flat at the stock angle with no rear opening. The hood must be secured with a minimum of five (5) hood pins, three (3) of which must be across the front..

### **4) Bumpers & Bumper Covers**

- a) All bumpers must be standard for the make and model car being used – model years 1970 – 2000.
- b) Bumper height will be measured from the center of the bumper or tubing . It must measure 16" to the ground.
- c) Front and rear covers are mandatory.

## **5) Maximum Vent Window**

The vent window must measure maximum seven (7) inches from the base of the A-pillar. Vent window may not be tapered back; it must go straight up the pillar.

## **6) Window Net**

A commercially manufactured, SF-rated, nylon window net must be installed in the driver side door window opening. It must be positioned to cover the entire window opening. Window nets may not be used beyond three (3) years from the date of manufacture. The window net must be rib type, made from minimum three-quarter ( $\frac{3}{4}$ ) inch and maximum one (1) inch wide nylon material with a minimum one (1) inch and a maximum two and one-quarter ( $2\frac{1}{4}$ ) inch square opening between the ribs. The minimum window net size must be must be 22 inches wide by 16 inches high. All window net mounts must be a minimum one-half ( $\frac{1}{2}$ ) inch diameter solid steel rod on the bottom and a minimum one (1) inch wide by three-sixteenths ( $\frac{3}{16}$ ) inch thick flat steel or a minimum one-half ( $\frac{1}{2}$ ) inch diameter solid steel rod on the top, with mounts welded to the roll cage. The window net must fit tight and be secured with a lever-type quick release latch. The lever must be secured by a detent ball in the lever and may be supplemented by Velcro® fastener only – pins or clips are not permitted. The latch must mount at the top in the front to roof bar (#3) and release from the inside.

## **7) Glass**

A full windshield made of polycarbonate material is required. Quarter windows are allowed, but must be made of clear polycarbonate material only. Rear windows are permitted.

## **8) Body Spoilers**

Side skirts are allowed between wheel openings. They must follow the contour of the body and may not be stepped or angled. Side skirts must make ride height.

## **9) Rear Spoiler**

A securely-mounted, rear spoiler may be used. Lexan is preferred. The spoiler may not exceed five (5) inches high – measured from the deck lid – or extend beyond the body panels of the car.

## **10) Nerf Bars**

Nerf Bars may be used between wheel openings at hub height. The bars must be round or square tubing, maximum one inch by 0.125", and skin tight to the body with no sharp edges, angles or points. Nerf bar ends must be tapered or capped. Carriage type bolts must mount inward. Polycarbonate rub rails are allowed.

## **11) Interior Sheet Metal**

- a) All interior sheet metal must be a minimum 0.022" steel. Drivers must be separated from the engine and the trunk area. Firewalls must be welded.
- b) The front firewall must be in the stock location, and be full length from left to right. No foot boxes.
- c) The rear firewall must fully separate the driver from the trunk. It may go to the rear crossbar of the roll cage behind the driver.
- d) A full, stock appearing floor pan must be used. Passenger side floor may be raised up to five (5) inches to permit exhaust clearance.

- e) A filler panel must be used between the firewall (roll cage upright) and the right and left doors. This panel must be straight to the frame rail – no bends or curves.

## **12) Frame & Chassis**

- a) All frames/chassis must be Stock OEM. No repositioning, elongating, or oversizing of any mounting holes in the frame. No front jacking-bolts and no three-link rears are permitted.
- b) Two (2) inch by three (3) inch by 0.083" magnetic steel tubing may be used to replace the frame rails from the rear spring pocket to the rear bumper. The tubing must follow stock dimensions of the frame being used. Tubing must maintain a minimum ground clearance of 11".
- c) Unibody cars must connect sub-frames with two (2) inch by three (3) inch by 0.120" magnetic steel tubing.
- d) The center section of the frame may insert tubing to form an "X."
- e) The Johnson and Hamm's X-Y-G Metric chassis and front clip are allowed. The chassis and front clip must remain as manufactured and must retain all factory OEM specifications including, but not limited to, mounting locations for the following components: OEM upper and lower A-frames, shocks, rear trailing arms, steering components and engine mounts.

## **13) Wheelbase**

Wheelbase must measure at least 101" and no greater than 116". Wheelbase will be measured from the center of the axle to the center of the spindle.

## **14) Roll Cage**

No offset roll cages will be permitted.

## **15) Fuel Cell Crash Bar**

A reinforcement bar, made of minimum one and one half (1 ½) by 0.083", must extend below the rear frame section behind the fuel cell. This bar must be as wide as the rear frame rails and extend as low as the bottom of the fuel cell with two (2) vertical uprights evenly spaced between the frame rails and attached to the rear cross member. Two (2) support bars, one (1) located on each corner, must angle upwards and be welded to the rear frame rails.

## **16) Fuel Cell Height**

The fuel cell must be a minimum of 10" off the ground, and must be centered in the rear of the car.

## **17) Ballast Weight**

- a) Added weight may be mounted under the car, providing that it is securely bolted to the floor pan and up as high as possible. The weight may not block the area behind the left front tire and the area in front of the left rear tire in order to allow for chassis height to be checked.
- b) Added weight must be magnetic steel or lead only, in block form, and weighing no less than five (5) lbs. per block (no pellets). Added weight must be securely bolted to the frame rail and painted white with the car number stenciled in black. No added weight will be permitted inside the driver's compartment. Weight must be welded in a box or attached with two (2) or more 7/16" minimum diameter, grade 8 bolts and locking nuts.
- c) Any car losing ballast weight or found with unmarked weight is subject to a fine.
- d) The mounting of ballast weight is subject to the approval of TSSO Officials.

## 18) Ground Clearance

Minimum ground clearance is five (5) inches for the body, chassis, and all bars and brackets.

## 19) Car Weight

- a) All specified weight requirements will be with the driver in the driver's seat with their helmet in their lap.
- b) The minimum total weight at all times will be 3000 lbs.
- c) Maximum left side weight is 55.0% of total weight.
- d) Cars found under the minimum total weight rule after qualifying will be placed to last in that event. Cars found under the minimum total weight rule after the feature event will be penalized one (1) position per pound under.

## 20) GM 602 Crate Engine: Car Weight

- a) All specified weight requirements will be with the driver in the driver's seat with their helmet in their lap.
- b) The minimum total weight at all times will be 2975 lbs., except for events at Thompson Speedway Motorsports Park where the 650hp carburetor is used. Minimum weight for these events will be 3050 lbs.
- c) Maximum left side weight of crate engine cars is 55.0% of total weight.

## 21) Upper A-Frames

- a) Upper and lower A-frames must remain stock (as manufactured) and unaltered.
- b) A-frames may not be changed from side-to-side.
- c) Tubular upper A-frames are allowed, but they must be exact replacements for the chassis being used. **-Capital Camaro parts.** Metric cars may use UB Machine Part No. 14-0829-6L and UBM14-0209-5R.
- d) Upper A-frame bolts may be replaced for added camber. Upper and lower A-frame bushings may be replaced with aftermarket bushings, but hole location may not be altered. No adjustable A-arms.

## 22) Lower Control Arms

- a) Exact-fit replacement control arms for chassis being used are allowed. No adjustable control arms. Screw-in ball joints (no mono ball) allowed in lower control arms only.
- b) The only chassis allowed to use a tubular lower control arm is the Hammy X-Y-G. Only part no. JCI- 09-02-01RC-SP may be used.
- c) No mono ball or adjustable ball joints.

## 23) Sway Bar

- a) The front end sway bar must be a one-piece stock OEM or a stock OEM replacement. No rear sway bar will be allowed.
- b) Link pins may be replaced with threaded rod. No lollipops allowed.
- c) If equipped with a stock panhard bar, it must be in the stock location, and non-adjustable. No modifications are permitted.

## **24) Spindle/Hub**

- a) Spindle may be changed to heavy duty OEM units. They must be bolt on units and not be altered in any way except for the lower ball joint hole may be reamed or tapered to fit the lower ball joint pin. No aluminum spindles.
- b) Tread width must remain stock.
- c) Hub/Rotor must be stock OEM. Coleman steel safety hub will be allowed on both sides.

## **25) Bearings**

- a) All bearings– wheel (front and rear), differential, and transmission –must be of stock OEM design. Bearings may be either angle-type cone, straight barrel-type or ball bearing. All bearings, including the rollers, must be magnetic steel only.

## **26) Brakes**

- a) Brake systems must be stock OEM hydraulic systems. All four (4) brakes must be in working order.
- b) Rear disc brakes are permitted.
- c) No aluminum calipers permitted, unless factory-equipped.
- d) No drilling or lightening of any brake parts including backing plates, shoes and pads. No cross-drilled rotors.
- e) Aftermarket master cylinders/pedals are allowed.
- f) Adjustable proportioning valves are allowed – front to rear adjustment only.
- g) GM may use an aftermarket caliper produced by Howe (part #HOW337 or HOW33658). That part must have the Howe logo.

## **27) Brake Lines**

Steel-braided brake hoses are mandatory. Rubber lines are not permitted

## **28) Steering**

- a) The steering linkage and steering box (including turning ratio) must be stock OEM for the chassis being used. The steering shaft may be removed from the column and securely reinstalled with Heim joints.
- b) Stock tie rod ends must be used. Adjusters may be aftermarket. Center link must be stock-appearing and non-adjustable.
- c) No rack and pinion unless the model used is stock on the chassis from the manufacturer.
- d) No steering quickeners are allowed.

## **29) Coil Springs**

- a) Front and rear steel racing springs are allowed. They must measure minimum five (5) inches in diameter. Springs may use spring spacers and adjusting cups. Rear jacking bolts are allowed. Front jacking bolts are not permitted.
- b) The only modification permitted to the spring pocket is the installation of a jacking bolt. In all other ways, the spring pocket must remain stock OEM.

## **30) Leaf Springs**

Only steel leaf springs are permitted. Leafs may be added on both sides. All leafs must be the same width. Stock-appearing, adjustable shackles and lowering blocks are allowed. If adjustable

shackles are being used, then no rear-jacking bolts are permitted. If adjustable lowering blocks are being used, wheelbase tolerance +/- 0.05" from left to right. Mono leaf springs are permitted. No other modifications allowed.

### 31) Shocks

- a) Shocks must remain in stock location.
- b) No tampering, welding, blending, or travel-limiting is permitted to be performed on a shock.
- c) Listed below are the only approved shocks for Metric cars:

Brand	Front	Rear
BILSTEIN	AK-1043	AK-1044
DOETSCH	0101	0102
PRO SHOCK	SS-100	SS-201
	SS-100A	SS-201A
AFCO	1020	1030
	1021	1031
	1022	1035

- d) Listed below are the only approved shocks for Camaros:

Brand	Front	Rear
BILSTEIN	AK-1043	AK-1054
DOETSCH	0101	0103
PRO SHOCK	SS-100	SS-200
	SS-100A	SS-200A
AFCO	1020	1032
	1021	1033
	1022	1034

- e) Listed below are the only approved shocks for Gen 3 Camaros:

Brand	Front	Rear
KYB	236001	343211
MONROE	81728	5867
GABRIEL	656700	69676

### 32) Trailing Arms

- a) Must be stock for the year, make and model being used. Lower trailing arms must be stock OEM and unaltered. Upper trailing arms may be slotted or cut and welded and must be within one (1) inch of stock length, and must be centered. Mounting holes and locations must remain Stock OEM. GM metric cars may use Johnson Chassis upper and lower trailing arms (part #JCI-09-03-04 & JCI09-03-03B). After-market bushing are allowed.



### **33) Suspension Tie Downs**

No tie downs or travel limiting devices permitted on the front suspension. Rear suspension devices must allow the frame rail to be raised a minimum four (4) inches before the rear tires come off the ground.

### **34) Wheels**

All four (4) wheels must be heavy-duty, aftermarket steel wheels. Any 15" by 7" steel racing wheel is permitted. One (1) inch lug nuts are mandatory. Minimum one-half (1/2) inch studs are mandatory.

### **35) Wheel Spacers**

A one half (1/2) inch spacer may be used, providing it is one solid piece. If a spacer is used, 5/8-studs are mandatory. A maximum 73 1/2" tread width will be allowed, measuring outer bulge to outer bulge at hub height.

### **36) Valve Stems**

No "bleed off" type valve stems.

### **37) Tires**

- a) Dave Lind Racing will be the sole supplier of tires for the Limited Sportsman Division. Their contact information is listed in the "General Rules" section above.
- b) The sizes are 225/70 x 15.0 or 235/70 x 15.0. The compound numbers are 705 or 706 on the left side and 706 only on the right side. If a tire cannot be identified, it will be considered illegal. Tires must durometer at no less than 60.
- c) Thompson Speedway Officials may confiscate and/or impound tires at any time for inspection.
- d) The JTR Eagle PPM Tester will be set at a fixed level and will be strictly enforced throughout the season.
- e) A participant competing in any race at Thompson Speedway specifically agrees that he/she acknowledges it is illegal to soak or treat racing tires and that said soaking or treatment of racing tires is against EPA regulations and further contains carcinogens and hazardous material which are unfit for his/her health and the health of all competitors and spectators. Any participant found violating the rule is subject to suspension.

### **38) Crate Engine: General Engine Requirements**

- a) The only approved engines for Crate use is the GM Performance Factory Sealed Circle Track 602 (Part #88958602) Engines must be purchased directly through General Motors or an authorized service center. All crate engines must be serviced through an authorized TSSO service center.
- b) Seals may only be removed by a TSSO Official or TSSO authorized service center. Any seals that appear to have been tampered with, or have been removed, without one of these two parties being present will result in the engine being deemed illegal. At this point, the engine must be re-sealed at the participant's expense.

*NOTE:* All engines must be sealed and documented to compete with TSSO. A completed crate engine registration form must be completed and submitted to TSSO Officials. Engine seals are only

good for two (2) years. Any crate engine without documentation will be deemed an “open motor” and must comply with the General Engine Requirements below.

c) TSSO authorized service centers are:

T/A Engines  
124 Hill Top Road  
Plainville, CT 06062  
(860) 747-6713  
Contact: Tony Alteri

Nat’s Racing Engines  
702 Warren Avenue  
Swansea, MA 02777  
(508) 336-4142  
Contact: Nat Chiavettone

RPM Racing Engines  
331 Carpenter Hill Road  
St. Albans City VT 05478  
(802) 524-740

RaD Auto Machine  
80 Ravenwood Drive  
Ludlow, MA 01056  
(413) 583-4414

### **39) General Engine Requirements**

a) Stock OEM engines for year, make and model of the car must be used. Engine must be OEM cast iron V8 production block with cast iron heads. The only approved engine blocks are the following:

Chevrolet: 350  
Ford: 302 (5.0) 351W  
Chrysler: 340 and 360

- b) The engine block must retain all OEM specifications with the exception of the cylinder overbore and the surfacing of the block deck. Cylinders may be bored a maximum of 0.040” from the standard size.
- c) Stock appearing, aftermarket OEM-type magnetic steel main bearing caps are allowed.
- d) No splade caps are allowed.
- e) Only stock OEM-type engine bearings will be permitted; no roller cam type bearings.
- f) The following head modifications are not permitted, including, but not limited to: angle cutting of the blocks, port matching, flow work, grinding, polishing, beading or chemical (acid) milling. No welding or sectioning. No internal modifications of any kind, including painting or Teflon coating.
- g) Only normal OEM-type engine balancing is permitted.

### **40) Compression**

- a) Maximum compression is 10.0 to 1 for non-Ford engines.
- b) Maximum compression for the Ford engine is 10.0 to 1.
- c) Compression will be checked with the “Whistler.”
- d) The two-most forward bolts on both sides of the intake must be drilled to accept a seal.

### **41) Engine Location**

- a) The engine must be in the stock location, centered in the chassis.

- b) Steel replacement motor mounts are permitted.
- c) The minimum crankshaft height is 13 ½", measured from the centerline of the crankshaft to the ground.

#### **42) Crankshaft**

- a) Only stock OEM production crankshafts are allowed. The maximum stroke on a Chevrolet will be 3.495". The maximum allowable stroke tolerance will be +/- .015". Regrinding of the rod and main journals to a maximum of 0.030" under standard size is permitted.
- b) The following are exceptions for the Chevrolet:
  - i) Chevrolet must use the large journal crank.
  - ii) Chevrolet may use the following SCAT Crankshafts:
    - (1) One-Piece: Part #9-10526 or Part #435010L
    - (2) Two-piece: Part #9-10442 or #435010
- c) The rod journals may be drilled to obtain the minimum crankshaft weight.
- d) No machining or polishing of the crankshaft allowed. Standard engine balancing is the only acceptable modification that can be performed on this component. No painting or Teflon coating.
- e) Minimum crankshaft weights are: GM engines 50 lbs., Ford and Chrysler 54 lbs.

#### **43) Harmonic Balancer**

Only a stock OEM or exact replacement will be allowed. No fluid dampers.

#### **44) Pistons & Rods**

- a) Any flat-top three (3) ring aluminum piston is permitted. All three rings must be magnetic steel. No portion of the piston may protrude above the top of the block. The minimum ring thickness is as follows:

Compression Rings: 0.43 inches

Oil Ring Assembly: 3.0 mm

- b) Only stock type steel rods will be permitted. All aftermarket connecting rods must be steel sportsman rods with a steel pin. Rod length must be stock. All rods must be the same length.
- c) Minimum weight for piston, pin, rings, bearing and rod assembly is 1075 grams.
- d) Chevrolet must use 5.7 inch rod.

#### **45) Oil Pan**

- a) Stock-appearing, steel, aftermarket oil pans are permitted.
- b) No external oil coolers are allowed.

#### **46) Cylinder Heads**

- a) Only OEM-type cast iron cylinder heads will be permitted.
- b) Approved Cylinder Heads
  - i) All factory Chevrolet heads must be factory listed for 70CC's or greater. No angle plug , Bowtie, or Turbo heads. Chevrolet may use the following OEM-replacement aftermarket heads:

Vortec Stock Replacement with 1.94 intake and 1.50 exhaust valves

WORLD PRODUCT Stock Replacement Series

Bare Casting (Part #043600B and 043610B)

DART (Part #10024361-165CC Runner 67CC Chamber, Part #10021070-165CC Runner 72CC Chamber, Part # 10024360-165CC Runner 76CC Chamber)

c) Maximum Valve Size permitted is as follows:

	<u>Maximum Intake</u>	<u>Maximum Exhaust</u>
Chevrolet	2.02"	1.60"
Ford Winsor	1.94"	1.60"
Chrysler (340 ci.)		
Chrysler (360 ci.)	2.02"	1.60"
	1.94"	1.60"

d) Head studs are not allowed on any cylinder heads.

e) All cast lines and insignias must be clearly visible and complete.

f) Angle milling, changing the angle of the head gasket surface in relationship to the rest of the head, is not permitted. Additionally altering the position or angle of the valve guide is not permitted. The addition of screw-in studs, guide plates, valve spring seats, option valve seals, Poly-Locks, or jamnut devises are permitted. The machining of valve guide bosses allowed is for seals only. Coolant return lines are allowed to be placed on the ends of the heads. The following head modifications are not permitted, including, but not limited to: port matching, flow work, grinding, polishing, beading or chemical (acid) milling. No welding or sectioning. No internal modifications of any kind, including painting or Teflon coating. No more than two-intake mounting holes may have HeliCoils. Intake or exhaust manifold mounting holes may not be added or relocated. Holes must take standard intake manifold bolts. No stud girdles or oil deflectors.

**47) Valves**

All valves must be identical in appearance and construction as an OEM type valve. No ProFlo, Tulip, Ultra Lite, or Titanium, etc. type valves will be permitted. No air directional devices will be permitted on any of the valve surfaces. Any valve stem with an undercut of 0.015" or more will not be permitted.

**48) Valve Springs & Retainers**

a) The valve springs' maximum outside diameter must measure no larger than 1.55"

b) Double springs are permitted.

c) Only steel valve spring retainers are allowed.

d) Only 1.5 ratio rocker arms will be allowed on Chevrolet. Only 1.6 ration rocker arms will be allowed on Ford and Chrysler. Stock, aluminum roller, or roller tip are permitted.

**49) Valve Job**

Multi-angle valve jobs are permitted.

**50) Camshaft**

- a) Only hydraulic or solid camshafts will be permitted. No roller camshafts or lifters are allowed.
- b) Stock firing order must be maintained.
- c) Maximum cam lift is 0.460".

**51) Timing Chain**

- a) Any timing chain and gears will be allowed. Gear drive or belt drive-type timing chains are not permitted.
- b) Degree buttons and offset crank keys will be allowed.

**52) Lifters**

Only stock diameter hydraulic lifters will be permitted. No roller lifters are allowed.

**53) Intake Manifold**

Only the latest Edelbrock Performer intake, with the Edelbrock-applied American Flag, allowed. A stock, track-supplied intake, including gaskets, must fit the engine. The intake must remain as manufactured. No alterations, adding bolt holes, painting, or coating of the intake will be permitted. The approved part numbers are as follows:

Chevrolet	2101 , 2116
Ford	2181
Chrysler	7176

*Note: Thompson Speedway, at any time, reserves the right to confiscate a competitor's intake manifold and require them to compete with a stock manifold provided by the Speedway. A failure to comply will result in penalties.*

**54) Crate Engine and General Engine Carburetor**

Holley two-barrel model #4412 carburetor must be used for GM crate 602 and general engine. The body, base plate, metering block, and bowl must be a standard Holley 4412 part. No HP parts or carburetors. All carburetors must pass No Go gauges.

**55) Carburetor Spacer**

- a) One space/adaptor, made of solid material, is allowed. Maximum height of one (1) inch will be permitted. The only spacers allowed are:
  - 1) Open Engines: Canton 85-060 and Canton 85-065.
  - 2) Crate Engine: HVH-SS4412-1
- b) All spacers must remain stock out of the box. No tapering, drilling, wedging, or opening of any part of the block.

**56) Air Cleaner/Filter**

- a) Only a round, dry paper, maximum four (4) inch high air filter element is allowed. The air cleaner top and bottom must be solid metal, measuring 12-14".

- b) Air filter may not be sprayed or soaked with chemicals.
- c) No ducts, baffles or anything that may control airflow is allowed on, or in, the air cleaner assembly. All air entering the carburetor must pass through the air filter.
- d) No air boxes are permitted.
- e) A shield may be used on the front outer half of the element if it is on the element. Air cleaners must remain under the hood.
- f) All air cleaners are subject to approval.

**57) Exhaust**

- a) Any stock-fitting manifold permitted.
- b) Headers will be permitted. Tubes must be 1 5/8" maximum. No 180\* or over-the-top headers. No pyramid, stainless steel, or ceramic coated headers are allowed. Only three (3) inch outside diameter headers are permitted.
- c) Exhaust must have two 96dB mufflers. Mufflers must be at least 12" long

**58) Ignition**

- a) Only Stock OEM-type HEI distributors, using factory production firing order, are permitted, unless noted in letter b below. The firing order is as follows:

GM & Chrysler	1-8-4-3-6-5-7-2
Ford	1-3-7-2-6-5-4-8

- b) The exact stock replacement distributors are allowed. No MSD boxes or rev-limiters are permitted.
- c) Only stock-type coils are permitted. No MSD or super coil-type coils.
  - 1) GM must have the coil in the cap.
  - 2) Chrysler and Ford may use the exact replacement coil-in-cap distributor, available from Moroso. Competitor must supply documentation
- d) The only aftermarket part allowed in, or on, the complete distributor will be advance springs.

*Note: At any time, reserves the right to confiscate a competitor's ignition module and require them to compete with a stock component provided. A failure to comply will result in penalties.*

**59) Battery**

- a) Only a single 12-volt OEM automotive type or an automotive type gel-battery is permitted.
- b) The battery must be located inside of the frame rails, forward of the rear end. The battery may not be inside the driver's compartment or near the fuel cell. The battery and/or box may not extend below the frame rails where it is mounted.
- c) The positive cable of the battery must be inside of the frame rails.

**60) Engine Cooling System**

Radiators must remain in the stock OEM location. All cars must be equipped with a minimum one (1) gallon overflow container. Only water or Water Wetter-type additives may be used in the cooling systems. No antifreeze allowed.

**61) Water Pump**

- a) Only stock OEM water pumps are allowed.
- b) The Chevrolet must use the stock steel water pump; no aluminum or aftermarket.

**62) Radiator Fan**

An electric radiator fan is permitted.

**63) Fuel Pump**

One mechanical, stock-type diaphragm pump is permitted in the stock location.

**64) Fuel Shut Off Switch**

- a) A ¼-turn fuel shut off valve is required in the fuel line.
- b) The fuel shut off valve's ON and OFF positions must be clearly labeled.
- c) The valve must be open when the handle is aiming front to back, and the valve must be closed when the handle is aiming left to right.
- d) No fuel shut offs permitted on the driver's side. The switch must be easily accessible to emergency workers.

**65) Fuel Specifications**

- a) Only automotive fuel, pump gas or race fuel (under 110 octane) may be used.
- b) No nitro, alcohol, or additives are permitted.
- c) TSSO Officials will take fuel samples as part of their normal inspection process.
- d) Icing or cooling of the fuel system is not permitted in the garage, pit or paddock areas.
- e) Nothing may be placed in the fuel line except a standard fuel filter. The use of any type of fuel catalyst or other fuel-altering device is prohibited.

**66) Clutch & Flywheel**

- a) The clutch and pressure plate must be stock OEM steel. No modifications of any kind are permitted. The minimum diameter for the clutch and the pressure plate is 10.4".
- b) Any steel flywheel for the make and model of the car may be used. It must have come with a 10.4" or larger clutch and pressure plate.
- c) Minimum weights are as follows:
  - i) Flywheel: 18 lbs.
  - ii) Pressure Plate: 13 lbs.
  - iii) Clutch Disc: 3.0 lbs.
- d) See "Crate Engine: Clutch & Flywheel" section for additional, more specific rules for cars with a crate engine.

**67) Crate Engine: Clutch & Flywheel**

The crate engine must use the GM flywheel (Part Nos. 14088646 or CAPARC205), and weigh at least 14.50 lbs.

**68) Transmission**

- a) Only OEM production stock 3 & 4 speed transmissions will be permitted. All internal parts must be stock. Gear ratio must be of stock OEM production. No direct drive transmissions.

- b) Ford & Chrysler may use GM 3 & 4 speed transmissions. All general transmission rules apply.
- c) Machining or lightening of any internal rotating or non-rotating parts including gears, shafts and case is not permitted. Gun drilled transmission shafts are not permitted. Welding on any internal part is not permitted.
- d) Auxiliary, over or under drive transmissions are not permitted. High gear must have a ratio of 1 to 1 and no other gear may have a ratio closer than 1.35 to 1.
- e) Aluminum transmissions are permitted.
- f) Thermal coatings are not allowed.
- g) Aftermarket stock-type shifters are allowed.
- h) Automatic Transmission Option: A stock th350 automatic transmission may be used. No mini converters are permitted. If an automatic transmission is used, TSSO will allow the car to receive a 25lb. weight break.

#### **69) Rear Ends**

- a) Rear ends must be stock for the chassis being used. Rear ends must be locked or open. No posi, limited slip, or ratchet differentials permitted. Nine (9) inch rear end is an option.
- b) No wide-five, three-link, or cambered rears are permitted. Quick change rear ends are not permitted.
- c) Rear tread with must measure 73 1/2" wide. Width will be measured from outside bulge to outside bulge at hub height.

#### **70) Axle Shafts**

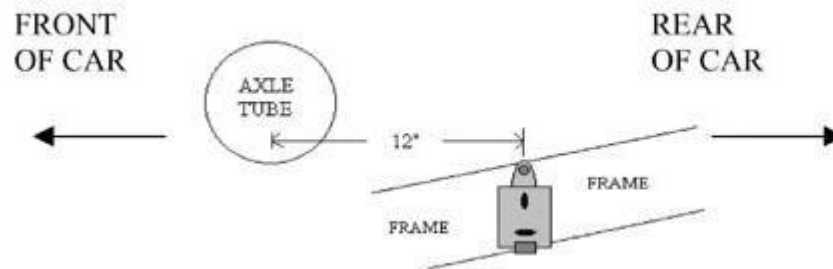
- a) Solid steel, aftermarket axles are allowed. Axles must retain all stock dimensions.
- b) C-clip eliminators are allowed.
- c) A heavy duty axle must be used in the right rear.
- d) Straight-splined axles only.



## Exhibit 1: Preferred Jack Stands

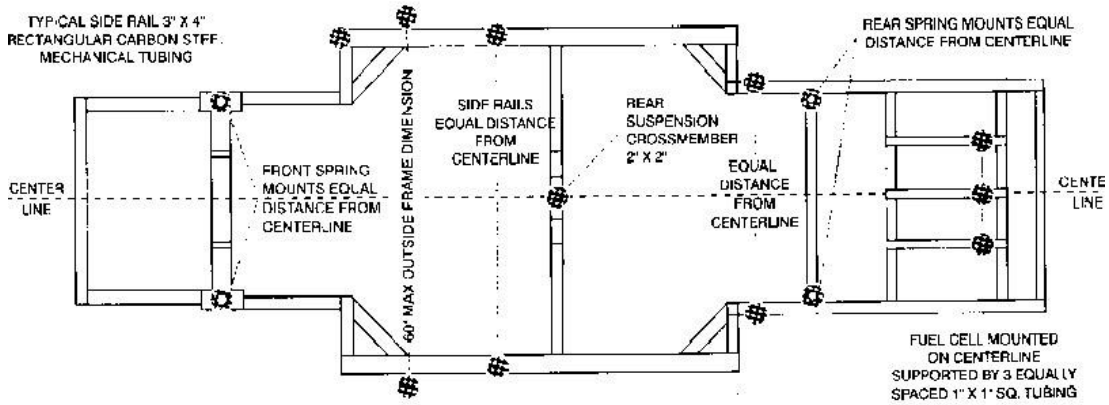


## Exhibit 2: Transponder Mounting Location



### Exhibit 3: NASCAR Diagram

#### DIAGRAM # 1 - TYPICAL NASCAR FRAME (PLAN VIEW)



#### DIAGRAM # 2 - TYPICAL ROLL CAGE AND FRAME CONSTRUCTION (PLAN VIEW)

