



2011 TSRS LATE MODELS TECHNICAL RULES & REGULATIONS

Welcome to the Texas Super Racing Series (TSRS) – “The Late Models.” We present the 2011 Rules and Regulations. If you are unclear on the writing and/or understanding of a Technical Rule, it is your responsibility as a Driver/Car Owner/Crew Member to clarify these rules with the Director of Tech/Pit Operations - Jack Sandefur - at (512) 281-5489 or (512) 247-1029.

All competitors must conform to all Technical inspection tools and gauges used by TSRS.

❖ **WEIGHT:**

- All weight breaks and/or penalties will be added to or deducted from the minimum and maximum weights outlined here
- Each car must comply with the minimum weight and the maximum weight and percentages plus any applicable penalties or breaks at all times
- The minimum base weight is 3000 pounds or their designated weight at anytime with the driver in the seat. (The minimum weight of 2950 includes any/all possible weight breaks!)
- That said designated weight must be after qualifying and after all race events
- 107" wheelbase over top rear chassis / 2975 pounds base weight
- 107" wheelbase under slung rear chassis / 3000 pounds base weight
- The maximum left side weight percentage is 56% with the driver in the driver's seat
- The total left side % weight will be determined by weight breaks/penalties
 - 105" wheelbase - 55%
 - 107" wheelbase - 56%
 - True perimeter 105" wheelbase. Chassis- 56%.
- The maximum rear weight percentage is 51% with the driver in the driver's seat
- All weight ballast must be securely bolted
 - Using 2- 1/2" bolts per weight block or welded to the car
 - Must be painted white and with the car # - no exceptions
 - Tubular front clip chassis must have a 25 pound weight bolted to the chassis
 - At a point of no more than 25 inches rearward of the center line of the front spindle
(Note) The 25 pound weight is to equalize the difference in weight of the tubular front clip and the stock front clip
- **List of WEIGHT BREAKS/PENALTIES:**
 - Rear frame OVER rear axle - 25 pounds
 - Coil over shocks/springs suspensions +15 pounds per wheel (must run all 4)
 - Stock clutch and flywheel -25 pounds
 - Vortec with 2.02/1.60 valves +25 pounds
 - Less than 107" wheelbase -1% left side weight

(Note: unless the chassis is a true perimeter chassis car)

✚ **NOTE:** Minimum weight of 2950 lbs., including any and all weight breaks! The designated weight must be before and after qualifying and all race events.

❖ **ENGINES:**

➤ **Option 1**

- The engine used does not have to match the body
- Engine location:
 - The allowable engine set back is the Number One (1) spark plug must not be more than 1-inch behind the right and left upper ball joint centerline
 - Chrysler will be measured from the front of the head.

➤ **Option 2 - Crate Engine**

- GM 400 HP - Crate Engine Part # 88958604 & GM 350 HP - Crate Engine Part #88958602
 - Intake, Block, Main Caps, Cylinder Heads, Valves, Valve Springs, Camshaft, Crankshaft, Connecting Rods, and Pistons must remain original GM parts as specified for specific crate engine. No aftermarket substitutions and no modifications that reduce weight are permitted.
 - All bolts, oil pump, gaskets, bearings, piston rings, timing chain, timing gears, and rocker arms may be aftermarket.
 - All components must remain within tolerances, specifications and guidelines as published by GM for specific crate engine as determined by TSRS Technical Director. No alterations, no grinding, no porting, no polishing, no coating, etc. is permitted.
- GM 400 HP Crate Engine part # 88958604 or GM 350 HP Crate Engine part # 88958602. The following upgrades will be allowed: After market crank shaft dampener, 1 inch four-hole carburetor spacer straight bore no tapers aluminum material only & maximum hole size 1.750, General Motors approved 1.6 roller rockers and Champs oil pan #CP106LTRP. Due to the limited availability of GM approved 1.6 roller rockers, any 1.6 ratio, self-aligning, stud mounted, non-adjustable, roller rocker arm may be substituted. Must be readily available at retail to all competitors. Should have rocker arm ratio stamped on rocker arm. B
- Blue Oval Ford Part # 36007-D347. Must run 1.5 rocker arms. No Carburetor spacer allowed.
- McGunegill Ford NOT permitted.
- Blue Oval Ford Engine must be sealed by the manufacturer or certified engine re-builder and must remain in "as shipped" condition.
- The technical inspector will supply a 6300 rpm rev limiter chip by random draw prior to each race. Failure to pass post-race RPM check will result in disqualification.
- Use of or installation of an open or closed loop vacuum system, to evacuate air from the engine, is a speed enhancing alteration and is prohibited.
- **Carburetor – Crate Engine**
 - Box stock Holley 650cfm 4150 HP Carburetor, part # 80541-1.
 - Carburetor must pass test gauges.
 - Only Holley carburetor replacement parts are permitted for use and any replacements must be original part replacements available from Holley. This includes but is not limited to jets, bleeds, needle and seat, emulsion bleeds, power valves, accelerator pump nozzles, accelerator pump cams, metering block, etc.
 - Alteration, physical changes, machining, re-shaping or tampering with any part of the original parts, internal or external is prohibited.
 - Carburetor must be securely fastened to the intake manifold with (1) .0625-inch (1/16") or smaller flange gasket.
 - The Tech Director reserves the right to impound, confiscate and/or trade out any carburetor at any time. Failure to comply will result in immediate disqualification.

❖ **CRANK AND RIDE HEIGHT:**

- All cars must maintain a crankshaft center line of no less than 11 inches above the ground at ride height and without the driver
 - Must maintain a chassis-frame-skirting and body height of 4 inches above the ground at any point with no obstructions. Any obstruction, at any point under the car, below the 4" minimum height is considered to low. Regardless of what part of the car is obstructing the 4" wheel. The only exemption is if deemed by the technical inspector that race damage from the same night is the cause of the infraction.
- The absolute minimum crankshaft centerline height is 11-inches

❖ **ENGINE AND TRANSMISSION MOUNTS:**

- Stock or after market mounts are allowed
- Rubber or steel mounts are allowed

❖ **BLOCK (Option 1 only):**

- Either 2 or 4-bolt V-8 cast iron engine OEM (stock) blocks are approved
- Six cylinder and big block engines are not allowed
- Aluminum engine blocks are not allowed
- The block may be bored to a maximum over bore of 0.060 inches
- The stock stroke for the engine being used is required
- There is no minimum cubic inch rule on the engines
- The maximum cubic inch displacement allowed is:
 - Chevrolet - 360 CID Ford - 364 CID Chrysler - 364 CID

❖ **HEADS - NOTE: Only the heads listed below are allowed:**

- All engines and head combinations:
 - Stock cast iron
 - Straight plug heads only with exception of Ford & Chrysler
 - Porting, polishing, port matching to the intake manifold and angle milling are not allowed
 - The factory valve angle is required only 3 angle valve jobs are permitted
 - No substances which would alter ports or runners "acid dipping" will be permitted
 - The factory valve angle is required
 - Titanium valves are not allowed
 - Screw-in studs and guide plates are permitted
 - All heads may run a 2.02 intake and 1.60 exhausts;
 - The Vortec head will carry a 25-pound WEIGHT PENALTY for this combination
 - The valves stems must be no smaller than 11/32-inch diameter
 - The 5/16-inch valve stems are not allowed
- **Chevrolet engines:**
 - Chevrolet 461 or 492:
 - 1.94 intake and 1.50 exhaust valves are allowed
 - 2.02 intake and 1.50 exhaust valves are allowed
 - The minimum combustion chamber size is 55 cc
 - Chevrolet Vortec:
 - 1.94 intake and 1.50 exhaust valves are allowed
 - 2.02 intake and 1.60 exhaust valves carry a weight penalty

- The minimum combustion chamber size is 55
 - Chevrolet Bowtie casting # 14011034:
 - 1.94 intake and 1.50 exhaust valves are allowed
 - 2.02 intake and 1.60 exhaust valves (Max) carry a weight penalty of 50 pounds or 62cc with no weight penalty
 - Bowtie Vortec heads not allowed
 - Iron Eagle head with 200 cc runners, casting # 10320010:
 - 1.94 intake and 1.50 exhaust valves allowed
 - 2.02 intake and 1.60 exhaust valves allowed
 - 180 cc Iron Eagle heads are allowed. Casting # 10120010
 - 180 cc heads MUST use the Edelbrock 7101 RPM Performer manifold or 2101 Performer manifold
 - The minimum combustion chamber size is 58 cc
 - The valves stems must be no smaller than 11/32-inch diameter The 5/16-inch valve stems are not allowed
 - The Iron Eagle Platinum head with 200cc runners casting # 10320010P will be allowed with no penalty but must maintain a 62cc combustion chamber minimum
 - World Products S/R straight plug stock replacement heads:
 - 1.94 intake and 1.50 exhaust valves are allowed
 - 2.02 intake and 1.60 exhaust valves are allowed
 - The minimum combustion chamber size is 55 cc
- **Ford Engines:**
- Windsor heads with 2.02-inch intake and 1.60 exhaust valves with 55cc combustion chamber
 - Casting # M6049-N351 & M6049-N352
 - Windsor Jr. heads with 2.02 inch intake and 1.60 exhaust valves with 55cc combustion chamber will carry a 50 LB weight penalty
- **Mopar Engines:**
- Stock Chrysler heads must be used
 - 2.02 Intakes and 1.60 exhaust valves allowed
 - If the stock head is not used then the head with stock number P5249769 must be used with 65 CC minimum combustion chambers
 - The W-2 Chrysler products head is not allowed
 - Chrysler heads must use the pedestal type rocker arm shaft system
- ❖ **INTAKES:**
- Porting, polishing, and/or port matching of the head and intake is not allowed for any make or model of engine
 - Either cast iron or aluminum is allowed
- **Chevrolet:**
- The Edelbrock Victor Jr. part number 2975 intake manifold may be used in combination with 461 type heads or the Dart S/R Head or the performer 2101 may be used
 - The Vortec heads may run the Edelbrock manifold part number 7116
 - The Performer RPM intake manifold part number 7101 or 2101 Performer may be run with Iron eagle 200CC & 180CC heads, may also be used on 461 type heads or the World Products S/R heads
 - Chevrolet Bowtie heads may run the Edelbrock RPM Performer 7101 or 2101 Performer intake

- **Ford:**
 - Use Edelbrock RPM Performer intake manifold part number 2981 on the 9.5" deck engine
 - Use the Edelbrock Victor Jr. Number 2980 on the 9.2 deck
- **Chrysler:**
 - The Chrysler engines may run an Edelbrock Part # 7176 or a P5249572, or the TEXAS SUPER RACING SERIES Technical Director/Inspector must approve any other manifold head combination in writing

❖ **CARBURETOR (Option 1 Only):**

- Carburetor must be **TSRS** approved and conform to all TSRS Inspection tools used by TSRS
 - TSRS officials may use a carburetor provided by the respective manufacturer as a guide to determine if a competitors carburetor conforms to the specifications of the TSRS Technical rules
 - Either a box stock Holly Model 4412 - 500 CFM or the box stock 350 CFM model 7448 carburetor is allowed with the following exceptions:
 - Only the following changes to the carburetors are permitted (applies to both the 4412 and 7448):
 - The choke butterfly and shaft may be removed
 - The power valve and the jets may be changed; the power valve must be functional.
 - The butterflies may be drilled with one hole no larger than 3/16-inch diameter
 - The throttle shaft must remain stock with no thinning or cutting in any manner
 - The main body and metering block may not be reworked in any way
 - They must remain box stock.
 - The amount of holes and their location must remain as manufactured
 - Additional holes and passages will not be permitted
 - Additional screw-in pressed in bleed holes in the main body or metering block will not be permitted.
 - Booster type may not be changed.
 - Booster size and shape must not be altered.
 - Height and location of the booster must remain as manufactured.
 - A carburetor spacer of not more than 1.250-inch, including gaskets, is allowed for as spacing between the carburetor base and the manifold surface
 - The holes in the spacer must be the same dimensions from top to bottom of opening (no tapered hole spacers)
 - A cool air box may be installed to pickup outside air at the cowl
 - Funnel and ram air devices are not allowed

❖ **CRANK SHAFT:**

- A steel or cast iron crankshaft is allowed
- The minimum crankshaft weight is 48-pounds, including the timing gear but excluding the pilot bushing.
- Knife edging, contouring, or stream lining is not allowed
- All crankshafts must be within .0060 of OEM on the rod and main journals
- No small journal crankshafts allowed

❖ **CAM SHAFT AND LIFTERS:**

- Flat tappet camshafts only
- Roller cams and roller lifters are not allowed

- Stock diameter **magnetic steel** lifters are required
 - Mushroom & radius lifters are NOT allowed
 - The push rods must be steel
 - Additional springs, other than the valve springs, to control the valve or lifter action are not allowed
 - Lifter valleys may be de-burred and oil screens installed
 - Roller rocker arms and stud girdles are allowed
 - Shaft type rocker arm assemblies are not allowed
- ❖ **TIMING CHAIN/GEARS:**
- Belt and gear cam drives are not allowed
 - Stock and roller timing chain sets are allowed
- ❖ **BALANCER:**
- Fluid Damper type harmonic balancer is allowed
- ❖ **PISTONS:**
- Flat top or dished pistons are required. Valve relief is allowed in the piston top
 - No part of the piston may rise above the top of the block at any time
 - Steel wrist pins are required
- ❖ **RODS:**
- All rods must be steel
 - Maximum rod length is no more than 6.25 inches
 - All crankshaft rod journals cannot exceed more than .060 under size
 - **Note:** This ruling would include the "Honda rods or any equivalent"
- ❖ **ROCKER ARMS:**
- Stock rocker arms are allowed
 - Roller rocker arms are allowed
 - Roller tipped rocker arms allowed
- ❖ **VALVES:**
- Titanium valves are not allowed
 - See the head rules for specific head-valve combinations
- ❖ **OIL PAN AND OILING SYSTEM:**
- Any wet sump steel oil pan is permitted
 - Dry sump and external oil pump systems are not allowed
 - The oil pan must have a 1-inch inside diameter (ID) round inspection hole to allow for inspection of the crankshaft and rods
 - The inspection hole must be located to allow easy inspection of the interior
 - If there is no inspection hole or the location makes inspection difficult the oil pan must be removed for inspection
 - At the discretion of Director of Tech - a car may be required to remove the oil pan for internal engine inspection
- ❖ **CHASSIS:**
- Wheelbase 105 inches (with NO tolerance)
 - Chassis must be the same on both sides
 - If a 108 "chassis (1" tolerance)

- Anything less than 107 will be considered 105" wheelbase with the 0 tolerance rule
- The wheelbase is measured from the center of the front spindle to the center of the rear axle
 - The shortest side is considered to be the wheelbase length
- ❖ **FRONT CLIPS:** (if in question, contact Jack at 512.281.5489!)
 - Tubular Front Clips
 - Will be allowed with an additional 25 pounds of weight
 - Bolted to the chassis at a point of no more than 25" rearward of the center line of the front spindles
 - Stock front-end Clips
 - There is no penalty for a stock front-end clip, as long as it is a factory stock or an OEM replacement
 - All frames must be acceptable to TSRS tech officials
 - Any frame rejected will not be approved until necessary corrections have been made
 - All frames must meet requirements described in the following guidelines
 - The stock (OEM) frame may be tubular from the main roll cage front mounting points to the rear bumper area
 - The rear frame may be wider or narrower than the front frame
 - Any frame that does NOT run under the rear axle will receive a weight break of 25 pound (i.e., under slung).
 - A GM-type front steer tubular front sub-frame
 - Must be constructed:
 - Using two (2) inch wide by four (4) inch height magnetic steel tubing with a minimum 0.083 inch wall thickness meeting the ASTM A-500 specifications
 - All front steer assemblies must maintain a dimension of 32 inches from the center of the left side frame rail to the center of the right side frame rail at any point from the frame side rail kick-outs extending forward in front of the steering assembly.
 - The front frame extensions using two (2) inch wide by three (3) inches high by minimum 0.083 inch wall thickness magnetic steel tubing meeting the ASTM A-500 specifications may be welded to the end of the sub-frame but should angle down a maximum of 18 degrees.
 - The front sub-frame must be attached in the center of the frame at the frame side rail kick-outs and extend forward a length of 16 inches on one side with the opposite side no more than one inch difference and angle upward at between 22 and 25 degrees
 - At this point, a piece of tubing 27 inches long must be welded and extended straight forward in front of the steering assembly
 - A distance of 25 inches must be maintained from the leading edge of the kick-out to the centerline of the front cross member.
 - The sub-frame cross member must be mounted at the centerline of the front cross member
 - The sub-frame cross member must be mounted at the centerline of the front sub-frame at a 90 degree angle and must be constructed using two (2) inch high by three (3) inch wide magnetic steel tubing with a minimum 0.083 inch wall thickness meeting the ASTM A-500 specifications
 - It is permissible to install a cross member center section using three (3) pieces of one (1") inch by 0.120" thickness magnetic steel tubing welded together with a 1/8" magnetic steel plate to each end
 - A minimum of four (4) 3/8" diameter bolt holes, (2 on each end) must be drilled for attaching the cross member together (this will permit easy removal of the engine oil pan)

- A cross member center section made of 1/2" thick by 3" wide magnetic steel plate welded to the left and right of the front cross member, and supported by a 1/4" thick by two (2") inches on the front, measured from the centerline of the sub-frame to the mounting hole
- When measuring either the right or the left side, the distance from the centerline of the bottom ball joint to the centerline of the sub-frame must be equal
- The maximum tread width is 66.5-inches from the center of the left tire to the center of the right tire measured at ground level at the front and rear of the car
- Front thread width at 66.5 measured at ground level will have a 3/4" tolerance
- The minimum material thickness in the center section of the frame must be at least 2X3X0.120-inches

❖ ROLL CAGE:

➤ CAGE MATERIAL:

- The minimum roll cage thickness is 1-5/8 X 0.095-Inches mild steel tubing
- At the discretion of the Technical Inspector, cars with unsafe appearing cages will not be allowed to compete

➤ CAGE DESIGN:

- The roll cage will be a four-post design
 - A 1/8-inch steel plate must be welded to the top of the roll cage above the driver and covering at least 25% of the 4-point cage, the plate must be between the roof and the top of the roll cage
 - This plate may either be bolted or welded
- Front and rear protection bars are required
- All of the bars must be inside of the body
- If a jacking stub is used, it must not extend beyond the body.
- External "nerf" bars are not allowed
- Front hoops inside of the engine compartment are allowed
 - The front hoop may not extend past the front or side of the body
- Rear hoops inside of the trunk area are allowed
 - The rear hoop must not extend past the rear bumper or the body

➤ DOOR BARS:

- There must be at least 4 horizontal door bars on the driver's side, and at least 3 horizontal door bars in the passenger's door
- The bottom 3 door bars on the driver's side must be covered with a 0.125-inch thickness steel plate
 - The plate must be welded or bolted to the outside of the door bars, between the door skin and the door bars

❖ BODY:

➤ YEAR AND STYLE:

- American made passenger car production models from 1990 to current
- No Five-Star Monte Carlo DOWN FORCE bodies; NO DOWN FORCE body of any kind are not allowed
- No trucks
- After market steel, fiberglass, or aluminum bodies are allowed
- The bodies must be Five Star or equivalent (Equivalent being a 1990 year model or newer)
- ABC bodies are allowed
- Carbon fiber body parts are not allowed

- Bodies must remain as produced by manufacturer. Bodies must not be deformed or altered in any manner for any reason. Must be acceptable to TSRS officials.
- **EXTERIOR:**
 - All cars are expected to be neat appearing
 - A maximum of 2-1/2 inch scooped hoods will be allowed
 - Minimum roof height is 47-inches measured 10-inches from the front of the windshield
 - The rear spoiler may not exceed 60-inches in width and may not exceed 5- inches in height
 - The rear spoiler may be metal or Lexan
 - Rear spoiler bracing is allowed on the rear of the spoiler only
 - The maximum distance from the top of the rear spoiler to the ground is 40 inches at ride height
 - Excessive exterior damage that is sustained during the race will be required to be repaired before the car can continue
 - The Technical Inspector, with the help of on-track officials, will make the decision as to what is excessive
 - The Technical Inspector's decision is final and binding
- **INTERIOR:**
 - The front and rear fire walls must be at least 22-gauge steel sheet metal, or may be a stock firewall
 - The floor pan and the firewall must be completely sealed
 - A metal dashboard is optional
 - Electrical switches must be mounted within easy reach of the driver
 - The interior may be sheet metal or aluminum (See the firewall and door rules for specifics to each)
- **WINDOWS:**
 - Each race car is required to have a front windshield
 - The windshield must be made of Lexan with minimum thickness of 1/8 inch
 - The windshield must have at least two inside center braces
 - The rear window is optional and if installed must not flex or distort at speed
 - Door windows are not allowed
 - Window air ducts are allowed
 - But must not cover more than 25% of the window opening
- **BUMPERS:**
 - All bumpers must be inside of the body
 - The front and rear bumpers must be made of 1 3/4-inch round tube
 - A fuel cell protection bar(s) is required
- ❖ **STEERING & SUSPENSION:**
 - **TRACTION CONTROL:**
 - NO traction control devices are allowed
 - **NOTE:** Refer to ELECTRICAL & IGNITION section
 - **STEERING:**
 - OEM type steering box is required
 - Rack and pinion steering systems are not allowed
 - Aluminum rods and rod ends are allowed
 - Steering Box shall be mounted in original mounting holes on the stock or fabricated clip being used
 - **SHOCKS:**
 - Any racing shock is allowed with the exception:
 - No reservoir type shocks

➤ **FRONT:**

- Aluminum spindles are not allowed
- After market spindles and hubs are allowed w/5
- Upper control arms may be tubular
- The lower control arms must be stock or stock type mount
- Weight jacks are allowed but they cannot be adjusted from inside the car
- The minimum coil spring diameter is 5-inches outside diameter (OD)
- Any sway bar is allowed but it cannot be adjusted from inside the car

➤ **REAR:**

- Leaf or coil springs may be used
- Weight jacks are allowed
 - But they cannot be adjusted from inside the car
- Coil over springs are allowed. *** (SEE PENALTY SECTION)
 - The minimum coil spring diameter is 5-inch outside diameter (OD) unless coil over eliminator is used
- A three-point or four-point rear suspension is allowed
 - With no shocks, springs, or rubbers
- Truck type trailing arms are allowed
 - But they must be stock length
- Trailing arms cannot be longer than 27.5 inches from eye to eye
- Pan hard bars are allowed on all cars

➤ **BRAKES:**

- After market brake systems are allowed
- Rear disc brakes are allowed
- Only air duct brake cooling is allowed
- Brake fluid circulators or other brake component cooling devices are not allowed
- No more than 1 piston per caliper
- Rotor thickness min. of 3/4"

➤ **RIDE HEIGHT:**

- See the rules applicable to the:
 - rear spoiler height
 - roof height
 - crank height
 - chassis and body height

➤ **WHEELS & TIRES:**

- All wheels must be steel racing type
 - With a maximum of 8-inch width, measured bead-to-bead
- Any wheel offset is allowed anywhere on the car
- Wide-five hubs and wheels are allowed
- Air pressure relief valves are not allowed
- Softeners and chemical treating are not allowed (No Exceptions)
 - Durometer testing may done on cold tires
- The Official tires for the TEXAS SUPER RACING SERIES are:
 - Goodyear Grooved Slicks – D2863 27.0 x 8.0 - 15 Factory plated (right)
 - Goodyear Grooved Slicks – D2862 26.5 x 8.0 - 15 Factory plated (left)
- Each team must start the event on their qualifying tires unless otherwise stated in the drivers meeting.

- Once Qualifying is held, tires will be marked and a team will only be allowed the four (4) qualifying tires, plus flat replacements. Extra tires may be allowed for long distance events.

❖ **ELECTRICAL & IGNITION:**

- A maximum of one battery is allowed
- One standard 12 volt not to exceed 13.5 volts
- An alternator or generator is optional
- A master electrical power cut-off switch is required and should be mounted within easy reach of the driver and be accessible from outside of the car
 - When this switch is in the off position all electrical power in the car must be off
- A heavy-duty starter and ignition switch is required
 - The ignition switch must be mounted within easy reach of the driver and be accessible from outside the car
- The battery should be mounted in the rear of the car behind the driver.
- Any starter is allowed
- **IGNITION SYSTEMS:**
 - Stock ignition systems are allowed
 - HEI ignition systems are allowed
 - Multiple Spark Discharges (MSD) ignition systems are allowed
 - MSD (6A, 6AL & 6ALN) ignition systems are allowed
 - ALL MSD (6AL) (will have a weather type sealed connector installed) in wiring
 - ALL MSD will be mounted inside the driver's compartment as follows:
 - Away from drivers reach
 - On passengers side of car
 - Must be in plain view with no covers
 - On or near the dash area
 - Only one MSD per car (No Exceptions)
 - Only one ignition coil per car (No Exceptions)
 - **On the crate engines, all cars must utilize the 6AL, 6T, 6ALN or 6HDC Multiple Spark Discharge system. The MSD should be able to accept the 6300 rev limiter chip. No exceptions.**
- 🚧 **NOTE:** It will be the TEXAS SUPER RACING SERIES Officials' discretion to change out car's MSD with a TSRS owned MSD
- At any time, if a car is suspected to have a TRACTION CONTROL installed, the driver/car owner will be asked by a TSRS Official to replace the MSD in question, with a TSRS owned MSD, for the event which will then be held until properly inspected by TSRS Officials or those employed by TSRS
 - If it is found that a car has TRACTION CONTROL
 - A \$5,000.00 fine will be assessed
 - The driver, car & car owner will not be allowed to complete in the next TSRS event
 - The MSD will then become the sole property of TSRS (NO EXCEPTIONS)
 - Crank trigger and magneto type ignition systems are not allowed
 - Adjustable timing control boxes and/or other after market external ignition systems are not allowed

❖ **COOLING:**

- The radiator must mount in the stock location
- The fan blade must not be exposed above the radiator
- Electric radiator cooling fans are allowed

- Mechanical water pumps only
 - Water pump may be steel or aluminum
- The pressure relief tube from the radiator catch-can must exit from under the hood at the lower right side of the windshield (on the passenger's side of the vehicle)
- Ethylene Glycol or antifreeze type coolants are not allowed
- Water is the only fluid permitted in the radiator but "Water Wetter" can be used to improve engine cooling

❖ **EXHAUST:**

- Maximum diameter for the header tube is 1-3/4-inch
- Header wrap on the header tubes is not allowed
- The exhaust pipe must extend past the driver and exit in front of the rear wheels
 - The exhaust must not stick out past the body line of the car
- Mufflers are required
- Exhaust must be muffled to a maximum of 96-decible sound at 100 feet with the car at full acceleration
- Two into one, cross over, X and H pipes are allowed
- Over the top headers are allowed
- 180 degree headers are NOT allowed
- 360 degree headers are NOT allowed
- **NOTE:** Header Clarification:
 - Howl enterprises Iron Lung Headers and those in that same price range are NOT Legal
 - Tri-y header or Twice Merged headers will NOT be allowed

❖ **FUEL SYSTEM:**

- Electric fuel pumps are not allowed
- Fuel cooling devices are not allowed
- The maximum size for the fuel cell is 22 gallon
- The fuel cell must be enclosed in a steel container
- The fuel cell must have minimum of 2 (two) 1 inch steel protection bars that run under the cell
- Fuel cell cage must have a minimum 1/8" steel plate or minimum of 1/4" aluminum plate bolted or welded to the fuel cell cage between cage & rear-end center section
 - Plate on rear of fuel cell cage is highly recommended
- The fuel cell must have a roll over valve with the vent hose extending outside of the left rear of the car
- The fuel cell must have at least 9-inches of ground clearance without the driver
- The fuel cell must be mounted within 4 inches of center, left to right
- A fuel cell protection bar(s) on the rear of the chassis is required

❖ **FUEL:**

- The official fuel of TSRS is Track Tek 111.
- Must not exceed 760 specific gravity
- NO additives of any kind will be allowed
- Dielectric testing may also be used to check fuel

❖ **CLUTCH & FLYWHEEL:**

- A steel scatter shield is required
 - The scatter shield must have an inspection hole of at least 2-inch diameter in the bottom of the scatter shield to view the clutch assembly
- Must be covered 360 degrees

- Applies to Stock type Clutch and Mini Clutch systems
- The flywheel must be nodular steel and must weigh at least 15 pounds
- The minimum pressure plate weight is 13 pounds
- Stock type clutch systems are allowed. This option will receive a 25 pound weight break.
- Aluminum parts are not allowed
- Mini Clutch and/or Multi Disk Clutches are optional. Must be a minimum of 5 ½ inches.
 - Must be a minimum 5½"
- The minimum starter ring gear out diameter will be 12 7/8" for GM and Dodge models and 13¼" for Ford Models
 - Must be made of Aluminum or Steel

❖ **TRANSMISSION:**

- Only Standard Production OEM type 4 speed transmission including Richmond T-10 (formally Borg-Warner) manual 4 speed transmissions will be allowed
- Standard production OEM 3 speed transmissions will be permitted
- Only OEM type steel angel cut (helical cut) forward gears manufactured for the transmission will be permitted
- Square cut forward gears will NOT be permitted
 - **Drilling or grinding of any transmission part for the purpose of weight reduction will not be permitted
- All gears for the transmissions being used must be functional, including reverse
- Special production and other after market transmissions will NOT be permitted
- Top Loader transmission will NOT be permitted

❖ **DRIVE SHAFT:**

- A steel drive shaft is required, with a minimum of 2½"
- Carbon fiber, aluminum, and other non-steel drive shafts are NOT allowed
- The drive shaft must be painted white
- Two drive shaft hoops are required, one front and one rear

❖ **REAR END (DIFFERENTIAL):**

- Quick-change rear ends are allowed
 - Must be a rear end loading type
 - Axle tube can be aluminum or steel Front snout shall be steel
- Floater type rear ends are allowed
 - The center section of a Ford 9-inch rear end may be aluminum
- Rear end coolers are allowed
- Traction control devices are not allowed
- No cambered rear ends

❖ **SERIES REGISTRATION:**

- All cars must have a 2011 registered number
- The Car Registration fee is \$50.00. The registration fee includes one assigned number per race car.

❖ **TEAM UNIFORMS:**

- Each team is **required** to have uniformed matching team shirts, with minimum of matching team or sponsor t-shirts
 - Teams not in uniformed matching team shirts or matching team shirts will not be allowed to join their driver on the track for introductions and or ceremonies

❖ **EXPERIENCE OF DRIVERS:**

- TSRS Late Model Drivers must be at least 16 years of age or have special permission from TSRS Director of Technical /Pit Operations. (Does not apply to all tracks which TSRS may compete at; if the track does not allow under a certain age of drivers, we must adhere to all track regulations!)
- If under 16, after showing proof of experience, and pass a drivers test and with final approval of TSRS Race Director or Founders. (Does not apply to all tracks which TSRS competes at; if the track does not allow under a certain age driver, again, we must adhere to all track regulations!)