
SPORT SERIES CLASS ENGINES

- 1) American made engines only. No V-6 engines. No aluminum or other soft metal blocks or heads allowed. Crankshafts must be stock type, dimension and weight. No stroking or destroking permitted. Normal engine balancing will be the only modification to this piece allowed. Cylinder blocks must be stock production with standard external measurements in all respects. Blocks can be dressed. The maximum allowable compression ratio will be 11.0. The maximum cubic inches listed below will be allowed for the following engine makes:

Chrysler (Dodge, & Plymouth)	360 ci + .040
Ford	351 ci + .040
General Motors	350 ci + .040

- 2) Normal engine balancing for pistons and connecting rods will be defined as follows: The piston or rod in a set of eight having the least stock weight will be used, and the remaining pistons or rods will be matched to it.
- 3) All cylinder heads must be cast iron, original equipment manufacture production. The only exceptions to this are noted below with a (++) symbol. Specifications as follows:

General Motors maximum intake diameter 1.94"; maximum exhaust diameter 1.50"
Chrysler 340 ci motors maximum intake diameter 2.02"; maximum exhaust diameter 1.60"
Chrysler 360 ci motors maximum intake diameter 1.88"; maximum exhaust diameter 1.60"
Ford Winsor motors maximum intake diameter 1.84"; maximum exhaust 1.54"

ONLY THE HEADS LISTED BELOW ARE ALLOWED:

General Motors casting #'s 041, 186, 291, 370, 441, 461, 462, & 492. (The 492 casting must be G.M. part #3958603 with 1.94" intake & 1.50" exhaust.)

General Motors replacement casting #062 Mexican model used with manifold #2116.

World Products Inc. S/R 043600-1 and 043610-1.

Ford Winsor motors may use Ford Motorsports casting

#GT40-M6049-L302

All General Motors heads must use 1.250" diameter valve springs.

Any cylinder head not listed must be approved by the management of Beech Ridge Motor Speedway before being used.

- 4) All cylinder heads must have stock dimension valves and valve springs for the casting used. No titanium or neckdown, pro-flow type valves allowed. Valve stem length, diameter and keeper groove locations must be stock. Stock type retainers must be used. No angle milling, port matching, or polishing allowed. No gear drive assembly allowed. 3/8" screw-in studs, pinned studs, polylock nuts, and push-rod guide plates are allowed.

NOTE: The General Motors sealed crate part # 8895-8602 may be used as an alternative motor and will become the motor of choice in the short-term future. This motor may be used and is subject to +/- weight concessions. The only allowable flywheel replacement for this motor is GM part # 14088646. Carburetor is limited to one stock Holly 4776 or one Holly HP80540-1 600 C.F.M. four barrel. No alterations are allowed except for the removal of the choke plate and tower. Epoxies or other devices to alter the air flow in the manifold are not allowed. Two .070 thick gaskets are allowed and a maximum 1" spacer is allowed. The timing chain set may be replaced with a double-roller set. A 6" oil pan is allowed. Any reworking of this carburetor other than as noted above will result in disqualification. Carburetor spacer adapter plate must have 1/4" threaded vacuum port to accommodate tech testing.

- 5) All engines must use hydraulic lifters (no mushroom types) and a hydraulic lifter camshaft with a maximum lift of .450. The lift will be measured at the valve stem. No gear drive assemblies allowed. Roller lifters are not allowed. Roller rockers are permitted but must maintain a max. .450 cam lift. Maximum 1:5 rocker arm ratio is allowed.
- 6) Any "Flat Top" piston with a minimum of two valve reliefs will be allowed. Floating of the wrist pin is optional. Normal engine balancing only. No part of piston shall extend past the top of the block or deck..
- 7) No aluminum or custom steel rods allowed. No grinding, lightening, or polishing of any kind is allowed. Normal engine balancing only. The installation of aftermarket rod bolts and nuts is allowed. 6" rods are not allowed.
- 8) Carburetors are limited to one stock 4412 Holly 500 C.F.M. two barrel. No alterations are allowed except the removal of the choke plate and tower. Epoxies or other devices to alter the flow in the manifold are not allowed. Spacers or high rise manifolds are not allowed. Adapters not exceeding 1 1/8"

in height are allowed. Adaptors may not be grooved, tapered, or reworked in any manner. Gaskets shall not exceed 1/4" thickness.

- 9) Intake manifolds must be a stock Edelbrock 2101 Performer. They may not be modified in any manner.
- 10) A stock ignition system is allowed. No external amplifier- type systems are allowed.
- 11) The original motor mounts may be replaced by steel mounts. They must bolt to the original location, both frame & motor. THERE WILL BE NO MOTOR SET-BACK ALLOWED. Engine plates are not allowed.
- 12) Ignition- and rev-limited devices are not allowed.

**SPORT SERIES CLASS
BODY, CHASSIS, AND RUNNING GEAR**

- 1) The minimum wheelbase allowed is 108", without any tolerance. Absolutely no modifications except as specified in this rule book. No convertibles, foreign cars, station wagons, or pick-up trucks are allowed.
- 2) *** Bodies must have steel or aluminum rear quarters, doors and front fenders and must meet stock and speedway configuration requirements and must meet speedway intent for appropriate presentation. No setback or lowering of bodies is allowed. Front fenders must measure no more than 76" from outside-to-outside of both fenders when measured above the center of the front tires.
- 3) All cars must run a complete nose piece on the front. Nose pieces may be either original equipment, fiberglass, or rubber. Screen or homemade pieces are NOT allowed. Aftermarket nose pieces must match body style. Lower spoilers must have 4" ground clearance; rocker panels must have 4" ground clearance as measured with the driver in the driver's seat.
- 4) The Five Star #1036615102 and the ARP #05410250 fiberglass roof packages are allowed. Aftermarket hoods are allowed.
- 5) Fuel cells are required, and they must be enclosed in a minimum 22-gauge (.031) steel canister. The fuel cell must be located behind the rear window. A complete steel firewall between the fuel cell and the driver's compartment is required. There shall be no unnecessary holes in the firewall. The fuel cell must be capable of being filled from behind the firewall. Fuel cells must be securely fastened and be adequately protected if it hangs below the rear bumper. All fuel cell installations are subject to the Tech Inspector's approval. A minimum of 8" ground clearance between the bottom of the fuel cell and the race track itself is required.
- 6) All glass except the windshield must be removed. A full windshield is required. The windshield may be replaced with a minimum of 1/8" thick polycarbonate material such as Lexan. A minimum of two windshield braces are required. Rear windows and quarter windows are optional, and must be made of the same material as the windshield. Window installations are subject to the Tech Inspector's approval.
- 7) Only B.R.M.S. approved tires are allowed.
- 8) The rules for bracing are as described in the "TECHNICAL RULES" section of this rule book.
- 9) The rear roll cage upright may not extend past the rear door seam more than two inches.
- 10) The top and bottom of the roll cage must remain centered on the driveline, plus or minus 1". The front and rear roll cage hoop must have a minimum height of 38" measured from the top of the frame to the top of the roll cage.
- 11) Bracing is allowed around the radiator providing that it is not visible from the outside of the car.
- 12) All cars in the Sport Series class must be equipped with a seat belt and shoulder harness as described in the "TECHNICAL RULES" section of this rule book.
- 13) Batteries must be securely fastened and safely covered.
- 14) Any radiator may be used, providing it fits under the original hood when the hood is closed.
- 15) Excess wiring must be removed.
- 16) Oil and temperature gauges are allowed.
- 17) Scattershields are recommended, but not mandatory.
- 18) Clutches must be stock production OEM. This includes weight, size, and physical appearance. Aftermarket high-performance types are not allowed. All cars must have a 1" hole in the bottom of the bell housing to allow for clutch inspection.

- 19) Stock manifold with cherry bomb mufflers are allowed. Steel headers are allowed. Headers must be Street Stock approved with 1 5/8" tubes and a maximum 3" collector. Cross-over headers are not allowed. The only approved muffler is the DynoMax #24219. All tail pipes must be angled at least 45° toward the ground.
- 20) Racing hubs are not allowed. Upper and lower control arms may be reinforced in any safe manner. Upper control arm frame mounts may be moved in or out a maximum of 1/2" from the original position and must remain stock-type and configuration. Bolt mounting holes may be repositioned in any safe manner. Upper control arms may be reworked. Tubular upper control arms are allowed. Camaros must retain completely stock front suspension, with the exception of tubular upper control arms which are permitted. Any stock GM lower control arm, other than Corvette's, may be used and must be of the same make and model on both sides of the car. Aftermarket spindles are allowed and must be the original style on both sides of the car. Mono balljoints are allowed in upper control arms only. One steel heim end is allowed for tie rod adjustment. Screw-in ball joints are allowed. Front crossmembers must remain absolutely stock. No cutting, drilling, or re-shaping allowed, notching is not allowed to accommodate fuel pump. Re-working of stock production or an aftermarket steel center link is allowed.
- 21) The inner door panels, front inner fender panels, and hood and trunk cover inner panels may be removed. The rear inner sheet metal may be removed behind the original rear firewall only.
- 22) All cars must have front firewalls in their original position and must measure not more than 3" behind the rear of the distributor and must be the full width of the body, connecting left and right body panels. Rear firewall may be positioned 12" or more behind the rear cage uprights and may slope from the floor to the bottom of the rear window. Firewalls may be reconstructed with a minimum 22 gauge steel. Stock floorboards or aftermarket replacement floorpans must extend from the front firewall to the rear firewall. Passenger side floor pan may be no higher than the drive shaft tunnel.
- 23) Steel wheels eight inches or smaller will be allowed. Round steel rod may be used to reinforce the outer rims of the wheels. Minimum 5/8" wheel studs are required on the right side wheels of the car. Steel racing wheels are mandatory on the right side of the car. All steel racing wheels must weigh a minimum of 18 lbs. No tolerance will be allowed. Any stock production OEM 8" steel wheel may be used on the left side of the car.
- 24) The maximum tread width allowed will be 64 1/2". The overall width from outside to outside of wheel rim bead flanges shall not exceed 72 1/2 inches, as measured with the Beech Ridge tread width gauge.
- 25) Wheel openings may not be enlarged more than 4" above the tires.
- 26) *** Stock type rear springs may be modified in any safe manner. Aftermarket steel springs are allowed. Rear spring pockets in coil spring cars may be modified in any safe manner but must remain in original location. Adjustable coil spring spacers are allowed. Camaros and other type uni-body cars must retain stock leaf spring rear suspension, and stock floor pan. The front spring mounts of rear suspension must be stock and in original position. Adjustable shackles are allowed. Front quick-adjusting/jacking bolts are permitted with a 50 lb. weight addition. Cutting or altering the frame is not allowed. Front brake calipers must remain in stock location.
- 27) Front springs are restricted to a min. 500 lb. rating, must be a min. 9 1/2" tall, min. 5" max. 5 1/2" diameter, and have an open pigtail. Digressive or progressive springs of any make are not allowed.
- 28) Front and rear shocks must have a min. 2" travel in both directions when stationary, with driver, race ready.
- 29) *** Rubber biscuits or spring-loaded trailing arms or third-links are not permitted.

The following modifications and allowances to coil spring Sport Series cars are allowed:

- * Pan hard bars are allowed, but may not have quick-adjustment mechanisms.
- * Max. 56% left side weight
- * Re-working of the rear cross member to allow adjustment of upper trailing arm.
- * Re-working of stock production or an aftermarket steel center link
- * Wheel spacers are allowed (5/8" wheel studs are required if wheel spacers are used).
- * Steel heim joints and tubing may be used in lower trailing arms.
- * Max. 5" tall x 60" wide rear spoiler
- * Sheet metal may be used to enclose the third link, not to exceed 12" in width. Fireproof boots are allowed.
- * Adjustable rear coil spacers are allowed.
- * Mono ball joints are allowed in upper control arms only.

- * Tubular upper control arms are allowed and mounting must be stock-type and configuration
- * Rear springs may not exceed 36" center-to-center.
- * Rear trailing arms may not exceed 24" in length, must be of solid mount, and must be of equal length.
- * The rear trailing arm front mounts may be no wider than 34" center-to-center, plus or minus one inch, centered on the driveline, and may not be adjustable.
- * Overall width of the rear lower trailing arm mounts at the rear-end housing may not be more than 44", measured center-to-center, centered on the driveline, plus or minus one inch. Maximum three inches of vertical adjustment is allowed on the rear trailing arm mounts only.
- * Any stock GM lower control arm, other than Corvette's, may be used and must be of the same make and model on both sides of the car. Aftermarket spindles are allowed and must be the original style on both sides of the car.

30) Only QA1 Series 53 or 51 or Series 23 standard-valve shocks are permitted. Special order or custom shocks are not allowed. 53 or 51 Series shocks must maintain a min. bleed hole of .033" and a max. bleed hole of .059". The 53 or 51 Series shock may only be adjusted by the arrangement of QA1 OEM shim stacks. All shocks must meet QA1 manufacturer specifications. The following part numbers are considered QA1 standard valved shocks:

Front STD	Front Short	Rear Monte	Rear Camaro	Front STD	Rear Monte	Rear Camaro
53943-5	53933-5	53683	53583-5	23943-5M	236812-2M	23583-5M
53943-6	53933-6	53683-5	53584	23943-6M	23683-5M	23584M
53943-8	53933-8	53684	53585	23943-8M	23683M	23585M
53944	53935	53685		23943M	23684M	
53945	53935-3	53685-3		23944M	23685-3M	
53945-3	53937	53686-3		23945-3M	23685M	
53946-4	53937-3	53687-2		23945M	23686-2M	
53947	53938	53688-2		23946-3M	23687-2M	
53947-3				23947-3M	23688-2M	
53948				23947M		
				23948M		

No part of any shock may be changed or altered in any way, including shock pistons, base valves, shafts, etc. Non-rebuildable shocks may not be dismantled or altered in any way.

- 31) Only OEM parts may be used when rebuilding. Non-rebuildable shocks may not be dismantled or altered in any way. No additional mounting brackets or accessories will be allowed. All shocks must be identifiable with numbers and product name. No heim joints.
- 32) Sway bars must be a maximum of 1 1/4" in diameter and must be original or OEM and stock in appearance. Mounting must be stock style except that a heim link is allowed on the right side.
- 33) All cars must have four working brakes on the car. Disc brakes are allowed. Drilling of rotors is not allowed. Clutch cylinders are allowed. Brake bias controls are not allowed.
- 34) Quick-release steering wheel hubs are allowed, but not mandatory.
- 35) Stock frame rails may be replaced with 2" wide by 3" high tubing from the rearward-most point of the stock front clip. Stock dimensions for the year, make, and model of car must be retained. Reinforcing with tubing and 1/4" plate is allowed to the stock frame.
- 36) A minimum 4" frame-to-track surface clearance is required. Frame height is measured with driver in the driver's seat; the car may not be aided or lifted in any way (no pull); frame heights may be checked at any time during the race meet.
- 37) On coil spring cars, stock front clip may be replaced with completely stock Camaro front clip, except that tubular uppers and outer tie rod ends are allowed. Cars using this configuration must have a minimum 108" wheel base.
- 38) Leaf spring cars must weigh 2,900 lbs, race ready with driver, with a maximum left side percentage of 56%. Coil spring cars must weigh 2,900 lbs, race ready with driver, with a maximum left side percentage of 56%.
- 39) Rear-ends must be either locked or open single-track. Any gear ratio may be used. The rear axles may be replaced on both sides of the car with an aftermarket axle using a larger bearing. The replacement must fit in the original rear-end housing. No ratcheting or torque-sensing devices or clutch packs allowed.

- 40) Aluminum flywheels and driveshafts are not allowed.
- 41) Lead weights are allowed, but must not be visible from the exterior or interior of the car.
- 42) Only stock production OEM transmissions are allowed and must have three working forward gears and a working reverse gear. Automatic transmissions are not allowed. Transmissions must contain all of the original gears for the unit used.
- 43) Racing fuel is allowed.
- 44) Bumpers must have original-style rounded ends, no cutting allowed.
- 45) Bracing around the radiator and behind the front and rear bumpers is allowed, providing that the bracing is not visible. Bracing behind plastic or rubber bumper covers must be curved or bent on the ends so that no sharp ends may protrude through the covers if hit. Replacement of the grill with screen is allowed.
- 46) Sport Series cars must measure a minimum of 47-inches overall height, as measured from the ground to a point in the center of the roof located twelve inches back from the windshield. Additionally, cars must measure a minimum of 46-inches in height at the top center of the rear window. The rear window height at the top may not drop more than 1" from center to either side. The maximum allowable height of a spoiler is 38" when measured from the ground to the top of the spoiler.

**** NOTICE ****

All Sport Series competitors should thoroughly read all other sections of this book, as many of those rules apply to this division.