

Western Speedway Street Stock/Stock Car Rules

(Last updated June 22, 2019)

<u>General</u>

- 1. Interpretation of these rules is at the discretion of Western Speedway. Their decision is final.
- 2. These rules are designed to be restrictive. This is a Street Stock/Stock Car class. All interpretations of rules are to be made by Western Speedway. If you are unsure of how to interpret a specific rule, please ask for clarification. Each Racer is responsible for knowing and understanding the rules.
- 3. In the event that a ruling needs to be made in regards to something that isn't specifically covered in the rules, Western Speedway will consult with Drivers/Owners, and appropriate 3rd parties to determine the most fair decision.

Running Rules

1. Please see Western Speedway Running Rules

Transponders & Raceceivers

- 1. Transponders and Raceceivers are mandatory
 - a. Transponders must be on your car at all times, including all practice sessions.
 - b. Any driver found to not have an operational raceceiver is subject to loss of points or being parked.
- 2. Transponders should be mounted on the right rear frame rail 12" behind the axle centreline.

Driver Safety & Eligibility

- 1. Safety:
 - a. Head & Neck restraints are mandatory.
 - b. Full containments seats are mandatory
 - c. Aluminum racing seats are required and must be mounted directly to the roll cage with a minimum of 4 ³/₈" steel bolts with large fender style washers. 2 in the driver seat area, and 2 in the driver shoulder area.
 - d. Roll cage padding or matting is mandatory on all bars within reach of the driver.
 - e. A minimum of a five point 3" wide Seat Belt harness is required. Must be manufactured for racing use. Must be properly mounted to the roll cage utilizing manufacturer guidelines.
 - f. Seat Belt Harnesses must have date tags and cannot be more than 5 years old. Belts without date tags will be considered expired.
 - g. Window nets are mandatory. Must be properly mounted to the roll cage and fill the window opening appropriately. Latch must be a metal to metal harness style seat belt mechanism.
 - h. Minimum single layer nomex driving suits are mandatory. Double Layer suits and fireproof underwear highly recommended.
 - i. Fireproof racing shoes are mandatory.
 - j. Fireproof racing gloves are mandatory.
 - k. Steering Wheel pads are mandatory.
 - I. Snell 2010 or newer full face helmets are mandatory. No motorcycle helmets.
 - m. Each Car MUST have a minimum 2 lbs Dry Chemical Fire Extinguisher mounted with a quick release bracket inside the driver compartment within reach of the driver.
- 2. Eligibility:



- a. All competing Driver's must be in good standing with Western Speedway.
- b. Driver changes during an event night are not allowed, unless approved by Western Speedway.

Championship Eligibility

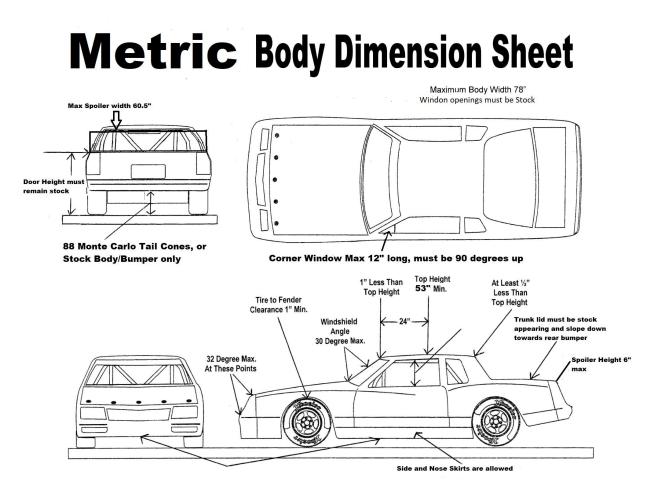
- 1. Single & Multi Driver teams are allowed
 - a. Single Drivers:
 - i. Single Drivers are allowed a maximum of 2 backup driver's per season.
 - ii. A valid reason (health, work, financial, family) must be presented and approved by Western Speedway for the use of a backup Driver to be approved.
 - iii. All backup Drivers must be approved by Western Speedway
 - iv. Extenuating circumstances beyond what is outlined here will be reviewed by Western Speedway & Stock Car Owners/Drivers.
 - b. Multi Driver Teams:
 - i. Driver Teams will be acknowledged as such. A single driver will not be given credit for accomplishments of a Driver Team.
 - ii. Driver Teams must register at the beginning of the season.
 - iii. Driver Teams are not allowed backup drivers
 - iv. Extenuating circumstances beyond what is outlined here will be reviewed by Western Speedway & Stock Car Owners/Drivers.

<u>Body</u>

- 1. North American Stock Production cars only.
- 2. Camaro's, Firebirds, Trucks, Convertibles, & Station Wagons are not allowed.
- 3. An aftermarket firewall and cockpit/floor pan may be used. Must be constructed using same gauge steel as stock.
 - a. Cars using this option must mount a 15lbs blocks of lead on the chassis A & B post just above the stock frame.
 - b. This is not a weight penalty, it is just a mandatory lead location.
 - c. See Roll Cage diagram
- 4. All body parts must utilize factory stock or same as stock replacement steel: roof, quarter panels, front fenders, & hood. Skinning of hood & fenders is allowed.
 - a. Cars that have a skinned roof and upper quarter panels must mount a 15lbs block of lead on the middle of the bar that spans the main hoop.
 - b. This is not a weight penalty, it is just a mandatory lead location.
 - c. See Roll Cage diagram
- 5. Aftermarket doors, trunk lid, nose cone, & tail cones are allowed.
- 6. All aspects of the body must be mounted at stock height and location. No chopping, channeling, or altering body from stock appearance.
- 7. Front & Rear Firewalls, as well as floor boards must be completely sealed for Fire Safety.
- 8. Stock Windshield or replacement Lexan is required.
- 9. Quarter Panel windows are allowed
- 10. Rear windows are allowed. Must be clear. No tinting.



- 11. Side windows are allowed, but must be a maximum of 12"long, measured from the intersection of the A-post and door.
- 12. 1" x 2" Rub Rails are allowed. Each end must be tapered and have a welded cap.
- 13. Rear spoiler is allowed. Max 6 " tall, 60.5" wide.
- 14. See G-Body Dimension Sheet

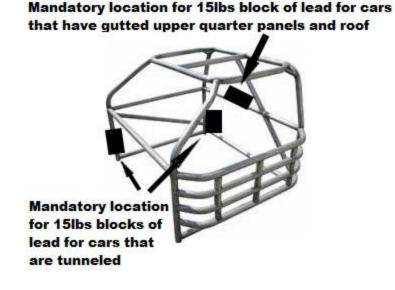


Frame/Chassis

- 1. Cars must utilize a North American Stock Production frame/chassis (1965 or newer) 108" Minimum wheelbase.
- 2. Stock unaltered OEM frames with original OEM suspension mounting locations ONLY. Wheelbase must remain Stock unaltered for frame being used.
- 3. Minimum 6" Frame Height. Measured to the bottom of the frame at the body mount holes. Driver out of car.
- 4. All cars must use a stock or fabricated stock style transmission crossmember in stock location. Notching for exhaust pipe clearance is allowed.



- 5. Stock C-channel frame extending from front to rear clips on full frame Cars may be boxed or connected from side to side with an "X".
- 6. Uni-body cars may install subframe connectors.
- 7. Fabricated rear clips are allowed on coil spring cars, but cannot extend further forward than the axle centreline.
- 8. Fabricated rear clips are allowed on leaf spring cars. Front and rear spring mounts must remain at stock datum points.
- 9. Jacking bolts are NOT permitted.
- 10. Roll Cage Specifications:
 - a. Roll Cage Diagram



- b. Roll cages must be constructed in a similar design to the diagram above.
- c. Minimum material diameter is 1.75" round tubing
- d. Minimum wall thickness tubing is 0.095"
- e. ERW tubing is acceptable, DOM or equivalent is strongly recommended.
- f. Front and rear bay/bracing bars can be designed as you see fit. Using a weaker tubing is strongly suggested, to create a crush area in front of and behind the driver to ensure safety.

Suspension

- 1. All steering components must be stock and maintain stock dimensions to frame being used.
- 2. All control arms must remain stock. (Front & Rear)
- 3. Offset (problem solver) Cross shafts are allowed in upper control arms.



- 4. Spindles must be stock to manufacturer. No drop Spindles
- 5. Same as stock replacement Urethane bushings are allowed. No steel bushings.
- 6. Stock dimension to frame replacement ball joints are allowed.
- 7. Springs:
 - a. Must remain in stock location.
 - b. Racing springs are allowed.
 - c. Coil springs must be a minimum of 5" diameter.
 - d. Adjustable spring spacers are allowed.
 - e. Adjustable leaf spring shackles are allowed.
 - f. Lowering blocks are allowed.
- 8. Shocks:
 - a. Racing shocks are allowed.
 - b. Recognized manufacturers will be AFCO, PRO, & INTEGRA
 - c. Maximum allowable valving stiffness is a 7.
 - d. Maximum 1 shock per wheel.
 - e. Steel body only. No remote reservoirs.
 - f. Must be a Non-adjustable, Non-rebuildable, sealed shock.
 - g. No high pressure gas shocks.
 - h. Relocation of shocks is allowed.
 - i. Mounting of shocks through the upper control arms is not allowed.
- 9. Sway bars:
 - a. Must be stock and mount in stock OEM location with stock style bushings and brackets.
 - b. Adjustable sway bar links are allowed.

<u>Brakes</u>

- 1. Front Calipers must maintain all stock dimensions for spindle being used.
- 2. Rotor/Hub must be Stock or same as Stock replacement. 5%" Wheel studs and 1" lug nuts are mandatory. Thread on Studs must completely pass through Lug nuts.
- 3. Rear brake shoes & drums must remain stock for frame being used on all rearend options.
- 4. Master cylinder must be stock. Multiple master cylinders are NOT allowed.
- 5. Proportioning valves are allowed.
- 6. Steel braided flex brake hoses are allowed.
- 7. No aluminum brake parts are allowed.

Transmissions & Rearends

- 1. General:
 - a. All Driveline components must be Stock, or approved stock replacement.
 - b. Stock steel driveshafts only. Universals may be changed to work with ford 9" rearend.
- 2. Automatic Transmissions:
 - a. Must be a stock production transmission with stock gear ratios.
 - b. Functionality must remain stock.
 - c. Removal of any gears including reverse is not allowed.
 - d. Stock operational torque converters only.



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- e. Torque converters must be a minimum of 11" diameter.
- f. Oil coolers are allowed.

3. Standard Transmissions:

- a. Must be a stock production transmission with stock gear ratios.
- b. Functionality must remain stock.
- c. Removal of any gears including reverse is not allowed.
- d. Clutch:
 - i. Must be stock style & weight.
 - ii. Flywheel must be stock, unaltered, & a minimum of 10.5" diameter.
 - iii. No exotic clutch kits
 - iv. Hydraulic or mechanical release bearings are allowed.
- e. Bellhousing must be a Steel scattershield.
 - i. A fabricated 3/16" steel 180 degree shield around a cast bellhousing will also be allowed.

4. Stock Rearends:

- a. Rearend housings must be unaltered stock.
- b. Rearend housing must be stock for frame being used.
- c. Fabricated spring & shock mounts are allowed.
- d. Must use stock style (rubber or urethane) bushings in housing. NO steel.
- e. Rearends must be Open (operational spider gears), or locked.
- f. Mini Spools are allowed.
- g. "C" clip eliminators are allowed.

5. Ford 9" Rearends:

- a. The only approved 9" housings are the Quick Performance style G-body replacement, or a locally fabricated 9" housing jigged from a Western Speedway Spec'd Quick Performance housing. These housings are a direct replacement for a GM 10 bolt. They have the exact same pickup points.
- b. It is Mandatory to contact Daryl Crocker (250-361-6359 or <u>daryl@westernspeedway.net</u>) to discuss the ordering/building process.
- c. Rearend housing must remain as produced. Alterations are not permitted.
- d. 3rd Member Gear set must use a stock steel case & full weight steel spool.
- e. Lightweight axles are not permitted.
- f. Must use stock style (rubber or urethane) bushings in housing. NO steel.
- g. Please contact Western Speedway management Technical officials if you wish to use a Ford 9" in a chassis other than a GM G-body.

<u>Weights</u>

- 1. 3200lbs. Base weight minimum at all times, including after the race with driver (no refueling after the race)
- 2. Metric Cars with stock firewall, floor pan, metric spindles, automatic transmission, and stock rearend will receive a 50lbs. weight break, OR 1% extra rear weight.
- 3. Races longer than 50 laps will have a 1lbs. per lap over 50 laps allowance.
- 4. 55.0% Maximum left side weight at all times.
- 5. 48.0% Maximum Rear weight at all times.

<u>Electrical</u>



- 1. Batteries must be securely mounted in an angle iron or equivalent base utilizing a bolt on clamp style mount to hold battery in.
- 2. Marine style battery boxes are mandatory if the battery is mounted in the driver compartment.
- 3. All cars must have a Battery master disconnect On/Off switch mounted to the right rear side of the main cage/main hoop. It must be clearly marked On/Off. The disconnect MUST be used to break power in the positive battery cable, not the negative.
- 4. All cars MUST be wired in a manner that if the Battery disconnect switch is turned off the car will not continue running.

Tire & Wheels

- 1. Maximum 8" wide steel racing wheels only. No stock or homemade wheels.
- 2. Wheels must have a Minimum 2" backspace.
- 3. Bleeder Valves are not allowed.
- 4. Maximum of ¹/₂" wheel spacer per wheel is allowed.
- 5. Hoosier 970 Tire is mandatory. Please see Tire usage sheet.
- 6. Altering of Tires in any manner to obtain a performance advantage is NOT allowed. NO exceptions.
- 7. Qualifying Tires must be used for all points paying events throughout the event night.
- 8. Right side tires must be a 27.0" tall tire
- 9. Left sides can be 26.5" or 27.0"

<u>Fuel</u>

- 1. A commercially manufactured fuel cell is mandatory. Max 22 US gallons
- 2. Must be specifically designed and manufactured for racing.
- 3. A minimum 20 gauge steel fuel cell container is mandatory.
- 4. Rollover/check valve balls are mandatory on all tank lines.
- 5. Cell must be mounted between the rear frame rails of the chassis, no lower than 12" from the ground.
- 6. A square tubing cage, or equivalent angle iron & flat bar mounting system is mandatory.
- 7. A fuel cell protection bar is mandatory.
- 8. Pump or Race fuel only. No alcohol or exotic fuels.
- 9. Any mechanical fuel pump allowed. No electric pumps.

Engine Rules

- 1. MSD Rev Limiter:
 - a. All engine packages must utilize a MSD part #8278 rev limiter with a RPM chip.
 - i. GM Crate Engine 5500 RPM
 - ii. Built Engine 6500 RPM
 - iii. All wiring for rev limiter must be clearly visible and traceable for tech.
 - iv. Must function at all times. No exceptions.

2. Package A - Built Engines.

- a. General:
 - i. Unless specifically identified in these rules all parts must be automotive OEM Stock or OEM replacement for engine being run.



- ii. Marine parts are not acceptable replacements for automotive OEM stock.
- iii. GM, FORD, & CHRYSLER performance racing parts are not acceptable replacements for automotive OEM stock.
- iv. Two side by side Intake Manifold bolts must have pre-drilled heads for Tech to install a seal.
- v. Engine must be Corporation to Corporation with chassis being used and mounted in stock location.
- vi. Any steel wet sump oil pan is allowed.

b. Engine Blocks:

- i. Cylinder deck may be machined for clean up and truing only.
- ii. Zero decking is not allowed.
- iii. No lightening or altering of engine blocks.
- iv. Aftermarket steel Main caps are allowed.
- v. Camshaft tunnel must remain of stock dimensions.
- vi. Displacements are as follows: (bore x stroke + overbore = Max Displacement)

1.	Chev 350 c.i.	4.00" x 3.48"	+	.060"	=	360 c.i. MAX
2.	Ford 351 c.i.	4.00" x 3.50"	+	.060"	=	363 c.i. MAX
3.	Chry 340 c.i.	4.04" x 3.313"	+	.060"	=	350 c.i. MAX
4.	Chry 360 c.i.	4.00" x 3.578"	+	.030"	=	364 c.i. MAX

- vii. Lifter bores must remain stock size:
 - 1. Chev 350 = .842"
 - 2. Ford 351 = .874"
 - 3. Chry 340 = .904"
 - 4. Chry 360 = .904"
- viii. Steel timing chain and gears only.

c. Camshafts & Lifters:

- i. Hydraulic Camshafts only
- ii. Hydraulic lifters only
- iii. Anti pump up lifters are allowed
- iv. Lifter diameters must remain stock for engine block being used.

d. Crankshafts:

- i. Stock OEM or aftermarket Stock Style replacement crankshaft, minimum weight 48.5 lbs, are allowed.
- ii. Stock stroke must be maintained.
- iii. No strokers or lightweight cranks allowed.
- iv. Recognized part #'s are as follows:
 - 1. Scat 4-350-3480-5700
 - 2. Scat 9-10442
 - 3. Eagle 4305348057sp*
 - 4. Eagle 435034805700
 - 5. Eagle 103503480(CM)



v. If you choose to use a crankshaft other than one of the recognized Part #'s provided, it is your responsibility to present it to Western Speedway Management/Tech for approval BEFORE use.

e. Connecting Rods:

- i. Stock OEM or aftermarket replacement rods are allowed.
- ii. Eligible aftermarket Part #'s:
 - 1. Eagle SIR5700BBLW
 - 2. Eagle SIR5700BPLW
 - 3. SCAT ICR5700P
 - 4. SCATICR5700
- iii. OEM rod length must be maintained at all times.
- iv. No lightweight aftermarket rods allowed.
- v. Balancing of rotating assemblies is allowed. No removal of serial numbers or manufactures emblems.

f. Pistons:

- i. Flat top or Domed pistons are allowed.
- ii. Flat top pistons must be used with cylinder heads having a chamber size less than 76cc
- iii. Domed pistons may be used with cylinder heads having a chamber size of 76cc or greater.

g. Cylinder Heads:

- i. Unaltered stock cast iron O.E.M. production cylinder heads only. Cylinder heads showing any signs of alteration in anyway other than outlined in the rule book, will be deemed illegal.
- ii. Machining for screw in studs and guide plates is allowed.
- iii. Opening of push rod slots in cylinder heads is allowed.
- iv. Steam relief holes may be drilled to a larger size. Multi angle valve job permitted.
- v. New valve seats are allowed.
- vi. No grinding or blending of bowl into bottom cut of valve job.
- vii. No titanium or hollow stem valves.
- viii. Maximum Valve Sizes are as follows:
 - 1. G.M. 1.94" intake 1.60" exhaust
 - 2. Ford 2.04" intake 1.66" exhaust
 - 3. Chrysler 2.02" intake 1.60" exhaust
- ix. Stock diameter replacement valve springs and retainers or Comp valve springs part #26981 with retainer part #787 hardened keepers are allowed.
- x. Rocker arms must be unaltered Stock or Stock replacement. No Roller Rockers of any kind.

h. Water Pump & Pulleys:

- i. Stock standard length cast iron water pumps only.
- ii. Stock or aftermarket pulleys are allowed.
- iii. Aftermarket reduction pulleys are not allowed. 1:1 ratio only.

i. Intake Manifold:

- i. Stock unaltered Cast iron 2bbl intake manifold only.
- ii. Stock highrise/marine manifolds are not allowed.



j. Distributors:

- i. Stock style & functioning HEI distributors only.
- ii. MSD part # 8362 is the only aftermarket distributor allowed.
- iii. Accel Module part # 35361 is allowed.
- iv. Vacuum advance may be disabled or removed.

k. Carburetor:

- i. Stock unaltered 2bbl carburetors only.
- ii. 1 11/16 inch max throttle bore size.
- iii. Carburetor spacers are not allowed.
- iv. Carburetor adapters are not allowed.
- v. An air cleaner is mandatory.
- vi. Air cleaner base must be round and may not be any bigger than a 16" diameter.
- vii. Ram air induction, fresh air ducting, cowl induction, or modified air cleaner bases are not allowed.

I. Exhaust:

- i. Stock unaltered cast iron exhaust manifolds or Schoenfeld part# 185 headers only. 1 tube on passenger side is allowed to be altered.
- ii. Maximum exhaust pipe size for cars using manifolds is 2.5"
- iii. Mandatory exhaust pipe size for cars using headers is 3"
- iv. Dual exhaust with 2 mufflers is mandatory.
- v. No crossovers, H-pipes, or 2 into 1 systems.
- vi. Cars must be no louder than 90 decibels @ 100ft at all times.
- vii. Recommended Mufflers are as follows:
 - 1. 2.5" Hooker part # 21602
 - 2. 3" Hooker part # 21605

m. Alternators & Power Steering Pumps:

- i. Alternators and power steering pumps are not mandatory.
- ii. Any alternator is allowed. Must be driven off the front of the engine.
- iii. Stock or aftermarket cast steel power steering pumps are allowed. Must be driven off the front of the engine.

3. GM Circle Track 602 Crate Engine

a. General:

- i. The GM 602 part #88958602 or #19258602 are the only crate engines allowed.
- ii. GM part # 14088765 counter balanced flexplate is suggested.
- iii. Western reserves the right to take any crate engine at any time and replace it with a new one.
- iv. Crate engines must remain sealed at all times. Rebuilds are not allowed.

b. Exhaust:

- i. Schoenfeld part# 185 headers only. 1 tube on passenger side is allowed to be altered.
- ii. Mandatory exhaust pipe size is 3"
- iii. Dual exhaust with 2 mufflers is mandatory.
- iv. No crossovers, H-pipes, or 2 into 1 systems.



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- v. Cars must be no louder than 90 decibels @ 100ft at all times.
- vi. Recommended Mufflers are as follows:
 - 1. 3" Hooker part # 21605

c. Carburetor:

- i. Holley Part # 01-80541-1 650 CFM Crate engine Carb only.
- ii. A restrictor plate is mandatory.
 - 1. Size to be determined by Western Speedway
 - 2. Must be purchased from Alien Race Cars (1-250-477-8444)
 - 3. At any time restrictor plates can be swapped amongst competitors or be replaced with a same size plate.
- iii. An air cleaner is mandatory.
- iv. Air cleaner base must be round and may not be any bigger than a 16" diameter.
- v. Ram air induction, fresh air ducting, cowl induction, or modified air cleaner bases are not allowed.

d. Distributors:

- i. Stock style & functioning HEI distributors only.
- ii. MSD part # 8362 is the only aftermarket distributor allowed.
- iii. Accel Module part # 35361 is allowed.
- iv. Vacuum advance may be disabled or removed.

e. Valve Springs:

- i. Replacements springs are allowed. Must be one of the following Part #'s:
 - 1. GM Performance #10212811
 - 2. Elgin #RV943xs (remove inner springs before use)

f. Water Pump & Pulleys:

- i. Stock standard length cast iron water pumps only.
- ii. Stock or aftermarket pulleys are allowed.
- iii. Aftermarket reduction pulleys are not allowed. 1:1 ratio only.

g. Alternators & Power Steering Pumps:

- i. Alternators and power steering pumps are not mandatory.
- ii. Any alternator is allowed. Must be driven off the front of the engine.
- iii. Stock or aftermarket cast steel power steering pumps are allowed. Must be driven off the front of the engine.