

**Always remember
racing is a sport have fun !!**



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SPEEDSTR

2022



RULE BOOK

MAINTENANCE & SET-UP



www.speedwayentertainment.com

Rules for 2022

All rules set forth are inclusive for both weekly track and national tours.

All cars raced must be supplied by the manufacturer, Speedway Entertainment. Serial Plates must be in place.

Absolutely no structural modifications (welding, cutting, additions or brackets). The bodies must remain as supplied by the manufacturer and must fit the templates.

You can adjust your car anyway you want but don't cut, grind or weld any components.

Allowed adjustments below:


- A. One Coil Spring adjustment weight jacker allowed
- B. Pan Hard height
- C. Rear axle offset
- D. Tire Stagger
- E Coil Spring 100, 150, 200, 250 lbs.

Car Components: No titanium or carbon fiber. All bumpers, side rails and axles must remain exactly as supplied. All chassis work must be performed by SE.

Car Dimensions: Chassis must have serial number plate in place at all times.

- A. Radius rods must be stock length. 1" X .220 aluminum or Speedway Entertainment made steel
- B. Wheel base min 72" max 76".
- C. RR hub offset max. 12 1/2" from outside chassis to inside RR wheel,
- D. 1 1/2 " minimum ride height.
- E. RF offset 14" measured from outside chassis to inside RF

TOURING POINT SYSTEM CHART



1. 120
2. 110
3. 105
4. 100
5. 95
6. 90
7. 85
8. 80
9. 75
10. 70
11. 68
12. 66
13. 64
14. 62
15. 60
16. 58
17. 56
18. 54
19. 52
20. 50
21. 48
22. 46
23. 44
24. 42
25. 40
26. 38
27. 36
28. 34
29. 32
30. 30

All other entered drivers will get 20 event show points. No qualifying points will be given.

Basic Set-up

1. Great set-ups: are done by trial & error. Keep good records.

2. Chassis Height: Dirt LF 3.5, LR 4, RF 4.5, RR 4.75 Pavement LS 2.5 RS 3.25

More height=more side bite and less forward bite

Less height=less side bite and more forward bite.

3. Tire Stagger : Dirt 4"-7" Pavement 3"-5"

4. Tire Pressure:

Dirt: LF - 10 - 12 lbs. RF - 12 - 14lbs.

LR - 4 - 6 lbs. RR - 7 - 10lbs.

Pavement: LF - 10 - 12 lbs. RF - 16 - 18lbs.

LR - 8 - 10lbs. RR - 18 - 22lbs.

More air in rear tire loosens car up: use air to work with stagger.

5. Rear Panhard Height: Higher loosens entry and tightens exit. Lower tightens entry and loosens exit.

6. Wheel Weights:

Dirt: 10 lbs. LR weight Pavement : 60-80 LR weight

7. Right Front Inset : Measure by running string across the outside of the RR tire and stretch it to front tire. Measure distance from string to outside of front tire.

Greater the measurement the looser the car

Smaller the measurement the tighter the car.

Example: 2" - 5" this can be adjusted by moving your wheel on the axle or by trailing or leading the RR.

8. Toeout: should be set at 3/16" out.

9. Front Axle : Make sure front axle is square. Measure from crossbar back to axle.

10. Caster: 3 - 5 degrees 10-12 with power steering

11. Front Radius Rods: Must be bind free.

12. Be sure all suspension parts are lubed and bind free

14. Coil Springs & Shocks: Dirt:

LF -150 -35/35 ~ RF -150-35/35 ~ LR-100-35/35 ~ RR-150-35/35

Pavement:

LF -150-40/20 ~ RF -200-40/20 ~ LR - 200-35/35 ~ RR - 250-35/35

Soften corner for more bite.

Body: Bodies must be used as supplied by manufacturer.

A. Must be within 3/8" of template.

B. Min. thickness .040 Max thickness .050 aluminum.

C. Side cage visor may be added. No bigger than 5" below the top of the cage. Can not extend past roll cage.

D. All panels must be in place at start of event.

E. Grill must remain open at all times to stock size.

Lettering: Driver's name must be on visor, contingency decals must be in specified locations.

Clutch: STR approved steel pressure plate and disc (8.5" diameter) with approved aluminum flywheel. All cars must self start and pull out for all events or will start in the rear of that event. One Push per Night.

Approved Internal Clutch Trans Allowed

Brakes: Wilwood calipers only.

A. Fronts must be Dynalite singles, rear must be regular 4 piston Dynalite only.

B. RF caliper may be removed .

C. 2 brakes must be on cars at all times.

F. Any brake pad may be used.

G. 1' bore master cylinder only.

H. All steel braided brake lines.

I. RF shutoff allowed. 4 brakes may be used.



Shocks: Only allowable shocks will be STR stamped Bilstein SS55-EU, SS55-TD, SS55-50, 1030, 3535, 4020. Must meet Dyno Graph for valving

Springs: STR Springs only (no modifications)

A. Length 11 1/4"

B. Spring rates: 100, 150, 200, 250 only. Spring rubbers allowed

Gauges: Only allowable gauges are Oil pressure, Water temp, Oil temp, and Tach. No other monitoring devices allowed.

Engine: Must be STR, Mopar manufactured and sealed by Speedway Ent. All components must be purchased from authorized STR dealer.

- A. Only allowable adjustments: Spark Plugs, Timing, Main pill, Barrel valve, Valve springs, Shims, STR straight nozzles only. Any stack length, Straight stacks only, Cam timing, Intake port may be matched 1 1/4" from flange, No other items can be done to improve airflow. Cam lift maximum is .230. STR stack bell adapters allowed.
- B. All engines must be returned to Speedway Ent. with seals in place. A \$250 fine for each removed seal.
- C. Speedway Ent. has the right to claim any engine at any time to completely evaluate.
- D. Any components found illegal will not be returned and loss of all points to date.
- F. No oil additives .Oil filter must have retainer device on it.
- G. All replacement parts must be original 2.4 Mopar.
- H. No Altering engine location. Rubber mounts allowed. No grinding, polishing, lightening, changing size or location of any part. Approved crank damper may be used.

Engine Break-in Guidelines:

- 7.5 Quarts of 10w/40 oil
- 3910 Spark Plugs
- Start engine with Accusump valve closed for first two break-in runs
- Run two times for five minutes
 - Bring up to 200 degrees each time
- Do not operate under 180 degrees
- Torque flywheel bolt with 65 foot-pound using red Loctite
- Cam spud only goes in one way

5. Ignition :

A. Timing 23*/point gap.017/Autolite Plugs 3910/3911

plug gap .020 .Firing order 1-3-4-2

B. Check mag cap and pulley tightness. Unhook mag ground wire when welding on car. Turn mag switch on when charging battery.

C. Keep mag belt loose enough to turn belt sideways.

6. Lubrication :

A. 7 qts racing 10-40 syn. Use 51515r Wix Oil Filter. Tilt engine for full draining. Remove old O ring before installing new filter.

B. Oil pressure should be 65-75 PSI at 7000 RPMs.

C. Accusump 6-10 PSI. Turn valve on before starting engine, turn off before shutting down. Never open valve with engine running.

D. Drain engine breather overflow can before feature.

7. Front Axle :

A. Grease front kingpin bearings, set preload. Use red Loctite on steering arm bolts. Check preload on front hubs.

8. Rear-End :

A. Blue Loctite on torque link nuts, put 3/16 spacer on axle before birdcage bearing. Spacers must seat tight against hub and axle bearing. Check axle nut tightness

9. Tire & Misc :

A. Torque lug nuts at 80 ft.lbs. Balance asphalt tire set-up

B. Check all coil spring clearances. Shock space max at 1 1/2"

C. Slow charge battery before each event, turn mag on when charging.

D. Operating temp of 180-200 before racing. Breather blow-by and engine bearing damage could occur if cold.

E. Valve cover gasket should be replaced if removed.

F. Transponder location is behind RR shock brace. One per car.

STR Maintenance Tips & Suggestions

SpeedSTR's are real race cars and should be treated and maintained as such. Wins and top finishes could result from a regularly scheduled maintenance program.

1. Chassis:

- A. Inspect all mounting points for cracks.
- B. Do not drill any holes in tubes of chassis.
- C. Torque : 75 ft.lbs for 1/2" bolts, 33 ft.lbs. For 3/8"

2. Suspension :

- A. Be sure all moving parts are bind free and lubed.
- B. Inspect shocks for bent shafts after accidents
- C. Use Loctite on all bolts with out locknuts.

3. Driveline:

- A. Grease driveshaft. Use steel locknuts on U-Bolts
- B. Check yoke clearance to driveshaft tunnel.
- C. Inspect clutch for cracks or broken straps.
- D. Adjust clutch fork for full engagement and disengagement
- E. Torque flywheel to 65 ft. lbs.
- F. Time U-Joints when installing driveshaft

4. Fuel System :

- A. Oil fuel pump, barrel valve & injector lines use Marvel Mystery Oil. Remove and clean nozzles
- B. Set barrel valve 8-12% .Check at fuel inlet line to barrel valve
- C. Clean main filter every 3 races
- D. Use silicone between fuel pump and flange mount
- E. Lube throttle shaft with WD-40 with engine running.

Front Axle: No cutting or welding of front axles. Must be purchased from an authorized STR Dealer and made by Speedway Entertainment.

Tires:

DIRT

Must be American Racer SpeedSTR Brand, purchased from authorized dealer.

Only allowable tire on the front. (22.5 X 8)

All tires must meet minimum durometer reading.

No grooving or siping tires. Siped or grooved tires will be confiscated.

PAVEMENT

Front tires—22.5 x 9 part # EC-31

Left Rear— 26 x 10.0 EC-31

Right Rear— 27.0 x 10.0 EC-31

- Pavement Tires can be used on dirt.

Right Rear pavement tire can be grooved to 2 inch blocks. No tire softeners. Grinding allowed.

Wheels: All wheels must be purchased from authorized STR dealer.

Wheels must maintain size and width, front wheels 13x7, LR 15x10, RR 15x13.

STR approved beadlocks allowed on all 4 corners.

No Bleeders.

Wheel covers allowed on all 4 corners, individual track rules may override certain wheel covers.

No welding or reinforcing of wheels.

Steering: Approved electric steering assist with Schroeder manual box or KSE Hydraulic.

Gears: Solid steel, no holes.

- A. Min. thickness 1"
- B. 433 ring and pinion only.
- C. No modifications.

Torque Link: Must be tethered. Front max. height 9.5" from bottom of car.5" back from rear engine plate.

Fuel System: Dealer supplied STR 1 15/16 Hilborn / Kinsler Fuel Injection components only . No additives including fuel lubes, fuel must pass any fuel test including VP test.

- A. Only main pill and barrel valve can meter fuel.

Air Filter: K&N part number RD 0620 or approved Air Box with belled stack adapters. Outerwears allowed.

Battery: Must be 12 or 16 volt dry cell type only.

Weight: Minimum car weight after race with driver must be 1430 lbs. All weight added must be bolted anywhere behind battery within frame rails.

Fuel Cells: Stock STR fuel cell as supplied by manufacturer. Stock location, no adding of divider baffles.

Transponders: One per car. Only allowable transponder location will be 18" above track surface on the right rear shock mount support.

Safety: Speedway Ent. Does not enforce any safety issues. Track safety rules will be the default in all instances.

Steel or aluminum heim ends will be allowed.

SpeedSTR™ manufacturer reserves the right to reject any car from competition with penalties .

All protests must be in writing to Speedway Entertainment

Speedway Ent. Is not responsible for any race track procedural rules. It is the racers responsibility to participate in all driver meetings and ask questions if needed.

Maintenance

SpeedSTR's are real race cars and must be treated as such to be competitive. If you are unsure about anything posted in this manual, contact a certified dealer for assistance.

Cars must maintain a clean appearance at all times. This will assist your maintenance program.

All moving parts such as heims, throttle linkages, etc. must be lubed with WD-40 or equivalent. All grease fittings should be greased every race.

Make sure all nuts and bolts are torqued after every race.

Accompanying this book is a suggested routine maintenance checklist. Feel free to make copies and use after each and every race.