



*Always
Remember
racing is a sport
so..... Have
Fun!*



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SpeedSTR

2016



RULE BOOK

MAINTENANCE & SET-UP

www.speedwayentertainment.com

Rules for 2016

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

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

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

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

4. Tires: All dirt tires must be American Racer SpeedSTR Brand, purchased from authorized dealer.

Only allowable tire on the front. 22.5 X 8

1. Front Pavement tires—22.5 x 9 part # EC-31

B. Pavement Left Rear— 26 x 10.0 EC-31

1. Pavement Right Rear— 27.0 x 10.0 EC-31

C. Pavement Tires can be used on dirt.

D. No grooving or siping tires.

E. RR pavement tire can be grooved to 2 inch blocks. No tire softeners. Grinding allowed.

Siped or grooved tires will be confiscated, new or used.

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 7-9 with power

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.

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.

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

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

B. STR approved beadlocks allowed on all 4 corners.

C. No Bleeders.

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

E. No welding or reinforcing of wheels.

6. Lugnuts: 1" steel lug nuts only.

7. 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.

8. 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.

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

10. 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. 2 1/2" wicker bill allowed between nose and hood.

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

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

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

12. Brakes: Wilwood calipers only.

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

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.

14. 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 (no bells), 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 .220. 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

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.

5. ***Ignition*** :

A. Timing 23*/point gap.017/Autolite Plugs 3932/3933

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 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.

H. No grinding, polishing, lightening, changing size or location of any part.Approved crank damper may be used.

15. Fuel System:Dealer supplied STR 1 15/16 Hilborn Fuel Injection components only . No additives including fuel lubes, fuel must pass any fuel test including VP M5 test.

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

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

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

18. Shocks: Only allowable shocks will be STR stamped Bilstein 1030, 3535, 4020. Must meet Dyno Graph for valving

19. Springs: STR Springs only (no modifications)

A. Length 11 1/4"

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

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

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

A. Radius rods must be stock length. 1" X .220 alum.only

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 wheel.

21B. Steering: Approved electric steering assist with Schroeder manual box only.

22. Gears: Solid steel, no holes.

A. Min. thickness 1"

B. 433 ring and pinion only.

C. No modifications.

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

24. Approved Internal Clutch Trans Allowed

25. 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.

26. Weight: Minimum car weight after race with driver must be 1390 lbs. 1410 lbs. with trans. All weight added must be bolted anywhere behind battery within framrails. Weight cannot be less than 8" above the bottom of the chassis.

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

SpeedSTR^(TM) 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.

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.