



*Always  
remember*

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



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# 2015



## Slingshot

## Rulebook

## Maintenance & Set-Up

[WWW.SPEEDWAYENTERTAINMENT.COM](http://WWW.SPEEDWAYENTERTAINMENT.COM)  
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For All Weekly and Tour Races

## RULES FOR 2015

Slingshots™ 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 Slingshot™ dealer for assistance. Illegal performance enhancement will be dealt with accordingly. All cars raced must be exclusively supplied by the manufacturer, Speedway Entertainment. Engraved Slingshot plates must not be removed. 2015 Registration and inspection are mandatory.

You can adjust your car anyway you want but no structural modifications may be made-- don't cut, grind, drill or weld any components. Examples of adjustments include:

1. Coil Spring adjustment
2. Panhard height.
3. Rear axle offset. Cars must be 2 wheel drive at all times.
4. Coil Spring 60, 80, 100, or 120lb. only. You can mix and match. One coil over spring maximum per corner.

### Tires: Maintained durometer readings

1. 16-650 and 18-950 min. durometer reading of 60
2. Front asphalt minimum durometer reading of 65
3. Juniors may run the 16/650 tire on the RF
4. All cars must be within 4% of each other. Ex: If all cars checked durometer at 62 your tire cannot be more than 2.48 lower than that.

**Air Pressure:** For 2015, 18 lbs. in RR will be required for all cars. Juniors will have no air rule. Air must touch rubber of tire (NO LINERS). If inner tube is used it also must touch tire rubber. Only 1 valve stem allowed in RR wheel.

**Tires:** Carlisle/DURO branded SYS, dealer purchased only. No softeners.

1. 16/6.50 only allowed tire on left side of car. Any slingshot tire can be used on the right side. Turf Glide tires not allowed.
2. All Slingshot tires may be used on all racing surfaces.

## 2015 Champions

**National:** **Dylan Hoch**

**Mid-Atlantic Gold:** *Dylan Hoch*

**Mid-Atlantic Silver:** *Louden Reimert*

**Empire:** *Brian Tobey*

**Great Lakes:** *Jim Chisholm*

**Speedweeks :** *Larry Raifsnider*

### 2014 Track Champions

**Linda's:** *Justin Thompson*

**Hamlin:** *Jared LaBagh*

**Borger's:** *Taylor Eccles*

**Shellhammer's:** *Brett Bieber*

**Button Buck:** *Jim Chisholm*

**Snydersville:** *Greg Zellman*

**Accord:** *Wyatt Clark*

**Hamlin Supers:** *Wes Hearn*

**Action Track:** *Danny Buccafusca*

### Juniors:

**Junior National Champion:** **Damon Paul**

**Hamlin:** *Tyler Peet*

**Accord:** *Bobby Flood*

**Button Buck:** *Braden Brauer*

*Pee Wee: Joe Chisholm*

**Shellhammer's:** *Andrew Kreis*

**Fuel Pressure:** Fuel pressure should be set at 3 to 4 lbs. Idle mixture screw should be set at 2 1/2 to 3 1/2 turns out.

**Chain:** Chain alignment should be done with great precision. Make sure crankshaft is square with the rear axle. Hold a straight edge on the outside of the gear to line up the axle gear with the clutch gear. The chain must be kept with 1/4-1/2 of free play.

FYI: Chain life can be extended by soaking chain in engine oil. Oil chain after each time on the track. Do not get oil on the clutch.

To remove the chain from the car or replace, remove LS bearing cam bolts and slide through gap. The spare chain can be slid through in a pinch. Chain life is approximately 10-15 races.

*Any part not covered in 2014 rulebook will be clarified at time of car inspection or in supplied photos. Race team is responsible for all lab costs if fuel test fails. Parts must be used and sold by us.*

### **Tour Info:**

Junior National Points will be the best total points earned in 5 Junior National tour races. Bonus points from weekly track season ending point finish will be added at double point system totals.

All Star National Points will use 8 National point races plus bonus points from weekly track, regional tour or Speedweek final standings. Bonus points used will be 50% of regular point system with no car count averages added. However, national events with less than 12 cars will not receive car count bonus if less than 12 cars. If there are more than 12 cars present, the point totals will begin at the first car and continue to the total amount of cars.

Both National tours will get 1 bonus point per car entered at race time. There will not be any minimums or maximums used. Fall Jamboree will be a double points event for both Junior and All Star Featured event.

Juniors cannot race as a Junior and All Star in the same day or as part of a 2 day special event. Juniors must be All Star weight legal if running in an All Star event.

### **Brake Rotor:**

1. Must not be any thinner than 5/16" or have more than 4 -1 1/4" lightening holes

**Wheels:** Aluminum right rear is mandatory and is the only wheel used for right rear.

1. Only 6" & 8" wide steel wheels on other 3 corners. Wheel covers allowed on all 4.
2. No welded reinforcement on any wheel will be permitted at all. RR wheel reversal is not allowed.
3. 1/4" bolt on Bead Protectors allowed.

### **Front Axle:**

1. Maximum caster is 5 degrees.
2. No cutting or welding of front axles and No inside additions
3. Must be purchased from an authorized dealer and made by Speedway Ent. Halving of damaged axles is done at SE.

### **Body:**

1. Must remain as supplied by the manufacturer and must fit template, also, bodies older than 2008 are illegal
2. Side cage visors must not exceed more than 5" below top of the cage and may not break outside cage lines.
3. All bends, rolls and holes must be within 3/8" of an inch of the certified Slingshot body.

### **Brakes:**

1. Hydraulic (Wilwood) and mechanical systems are allowed.
2. All components must be used as supplied by an official Slingshot dealer. All must remain stock with no modifications and purchased from a certified dealer.
3. Any pad legal. Brake air ducts allowed.

### **Engine:**

1. Briggs & Stratton Vanguard only. WIRE SEALS only
2. 3 metal stamp seals are not legal.
3. No modifications to engine. No oil additives.
4. Allowable adjustments are idle, speed jets, valve lash, carb jets, valve spring shimming, spark plug and flywheel timing.
5. All replacement parts for Model 35 must be original Briggs & Stratton manufactured engine parts. (No grinding, polishing, lightening, changing size or location of any part).
6. Only KNRD-0720 air filter allowed. No open tops or angles. All engine work other than allowable adjustments must be done by Speedway Entertainment and seals must be intact. A \$125.00 fine will be imposed for each seal infraction.
7. Speedway Ent. has the right to impound any engine or car for complete evaluation. Any part found not to be within the rules will not be returned to competition and team will lose all points.

### **Fuel:**

1. No additives including fuel lubes, fuel must pass water test. 99% pure alcohol only. Loss of points and wins if failed.
2. Top finishers may be asked to use track supplied fuel.

### **Clutch:**

1. Clutch must remain as supplied with no modifications to drum, driver or shoes.
2. .10 tooth #40 chain is mandatory. Chain oilers will be allowed.
3. There are only two legal clutches: SE Manufactured 4 Shoe 40 Chain & Noram 1800 Series clutch allowed. 10 tooth only.

### **Carburetor:**

1. Must remain stock appearing without any external modifications. No material can be removed or added.
2. Air bleed holes and jet size may be modified.

### **Carburetor:**

Carb is modified for alcohol. Do not use stock carb or parts. Keep carb clean and free of dirt when removing. Take fuel line off on the inlet side of filter. Alcohol will gel if you let it sit more than 2-3 days, so run car every 2-3 days to circulate fuel, or, it can be drained and gas can be filled into the carb, through the fill line. If carb doesn't work properly at first, it must be completely disassembled and blown out thoroughly with compressed air.

Float must be checked for correct height. When carb is held upside down float must be level with the base up 1-2°. If float is angled down fuel will bypass needle and come out top vent tube, so do not plug the vent. The rubber bowl gasket will expand when removed, so wait about 7 minutes to return to size. Have a spare ready.

Main jets are behind 12MM screws. Jet number must be checked with number drill. Stock is between .063 & .065. A spare carb is advised.

### **Engine:**

5-30 syn. oil is advised after a 1 race break-in. Do not use heavier oil or additives. Oil level should be 1/2 full to full on the stick and must not be milky. Do not clean the inside of the blower housing with a high pressure hose. Lineup exhaust gaskets with the header. Set coil gap with a business card.

If car is running on 1 cylinder remove diode wire between coil. If it runs on both cylinders, replace wire. Coil work on ground only. Do not hook positive wire to coil terminal on side cover.

When starting engine, be sure the rear wheels are off the ground. On cold days under 50 degrees turn both idle screws to 1 turn out and cover blower inlet to warm engine more quickly. Once CHT is up to 180, idle screws are to be returned to 3 turns out. This will keep the engine oil from getting milky. DO NOT race with milky oil. Do not race with engine under 200 degrees.

Engine rebuild should be every 25-40 races. Suggested valve settings are 0.010 for intake & 0.012 for exhaust.

11. **Front Radius Rods:** Must be bind free.

Leave 1/16" —1/8" gap at front radius rod bolt.

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

13. **Coil Springs:** 1/8—1/5 mi. LF 60 / RF 80

1/4—1/3 mi. LF 80 / RF 80

Soften corner for more bite.

14. **Gearing:** Maximum of 6100 RPM's\*.

1/10—1/7 mi. track 5.90—6.40

1/5 mi track 5.55—5.75

1/4 mi. track 4.90—5.20

1/3 mi. track 4.50—4.80

\*DO NOT turn engine over 6100 RPM's, thus a rev limiter is suggested. 68 tooth gear sprocket maximum. All sprockets must be complete, no teeth missing or added holes drilled

### **Maintenance...**

1. A clean car will assist in your maintenance program.

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

3. Make sure all nuts and bolts are tight after every race, especially headers, lug nuts, radius rod bolts, motor plate and clutch bolts.

**Brakes:** Re-adjust and check brakes after every event. Move the arm on the caliper and back it off the 1/4" jam bolt 3-5 turns. Turn large spanner nuts clockwise until brakes have a slight drag on rotor. Tighten jam bolt with bottom as far towards the rear of car as possible, then adjust stop at pedal. Place grease between plunger and back of shoe every 5 races to prevent sticking.

5. Multiple carb spacers may be used but must match inside stock dimensions.

6. Absolutely no plastic fuel lines or filters.

7. Carb airflow cannot be improved or altered using only stock butterflies & screws.

8. Carb stack flange base may be altered, but no material may be added.

9. Intake manifold area can be ground & polished 5/8" above and below the carb manifold spacer, however, casting mark must remain.

**Exhaust:** Slingshot approved mufflers are mandatory.

1. Muffler must be attached to end of exhaust pipe with no modifications. Exhaust fins must be no farther apart than 1/4".

2. All exhaust must go through muffler for entire event or car will be black flagged. This does not include header loose on head or broken in any way.

**Charging System:** Alternator must be in working order at all times and all 12 magnets on flywheel must be in place for cars under 810lbs.

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

### **Official Parts:**

1. All bumpers, front axles, etc. must be Slingshot™ certified. Components must remain the exact dimensions and thickness of the original. Steel or aluminum heim ends will be allowed.

2. All chassis repair must be performed by Speedway Entertainment

**Weight:** Minimum car weight after race with driver must be 750 lbs.

1. All added weight must be bolted to weight tabs and cannot extend past the cockpit.

2. Aluminum Flywheel allowed for cars over 810 lbs.

3. No liquid or loose weight allowed. Add-on weight cannot be outside of cockpit and must be secure. No added weight in fuel cell.

**Shocks :** SE stamped Bilstein only

1. Helper springs or coil rubbers allowed. OEM shock use only.

**Fuel Cells:** Mandatory for all events. No bolted on plastic tanks will be allowed. Cap flange must have retaining ring inside tank.

Slingshot™ manufacturer reserves the right to reject any car from competition with penalties possibly forthcoming.

**Communications:** One way track radio are the only allowable communication

1. No cell phones or 2 way with any crew member or family allowed. Forfeit of money and points for that event will be administered.
2. Track transponders must be installed where designated by speedway.

**Steering Wheel:** Any size steel or aluminum wheel can be used.

**Gauges:** Tach, CHT, fuel pressure and oil pressure are only gauges allowed. No exhaust temp gauge or oxygen sensors are allowed.

**Flywheels:** Lightened, altered or after-market flywheels are illegal.

1. Speedway Entertainment supplied stock flywheel only and must remain that way.
2. Approved aluminum flywheels are legal for all cars with a weight over 810 lbs.

**Juniors:** The age for the Junior class is 8-14.

1. Minimum weight for Junior class is 685 lbs.
2. Juniors must run a 1 bbl. Carb with .526 bore and no airflow modifications allowed.

**Purse Structure:** Weekly purse structure will be set by speedway. Regional and National touring events payouts are suggested. Track point fund is solely their responsibility.

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1. All protests must be in writing to Speedway Entertainment
  2. Speedway Ent. is not responsible for any race track procedural rules.
  3. Rule infraction penalties : Any fuel, engine seal or internal engine violation will result in loss of all points and parts for the year. Other rule violations will result in loss of illegal part (s), DQ and points for that night

ALL RULES EFFECTIVE : JANUARY 1,2015.

## Basic Set-up

**Great set-ups are found through trial & error. Keep good records.**

**Chassis Height:** Rear 2 1/2"-3" Front 2 1/2"-2"

More height=more side bite and less forward bite

Less height=less side bite and more forward bite

**Tire Stagger:** 1/4 mi. track 4-1 1/2" stagger

1/8—1/5 mile track 5 1/2—3" stagger

**Tire Pressure:** LF—4 -6 lbs. RF— 6—9lbs.

LR—6—12lbs. RR—16—35lbs.

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

**Panhard Height:** Higher loosens entry and tightens exit.

Lower tightens entry and loosens exit.

**Wheel Weights:**

Loose set-up: LR 165 / RR 180 lbs.

Tight set-up: LR 180 / RR 165 lbs.

**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. The greater the measurement the looser the car and the smaller the measurement the tighter the car.

Example: 2"—5" this can be adjusted by moving your wheel on the axle or shortening or lengthening the rear panhard bar.

**Toeout:** should be set at 3/16" out. Scribe a circle around the tire on each side in the front. Measure between the 2 lines 3/16" out.

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

**Wheelbase:** RS will always be longer than LS by 1/2" to 1 1/2".