

# **WINGED ECONOMY SPRINT CARS**

coming to

## **SILVER DOLLAR SPEEDWAY**

**in the 2012 Racing Season**

**This is a budget class using a 360 built motor w/2 barrel *or* a GM 350 crate motor w/4 barrel.**

**For more information and rules contact:**

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# WINGED ECONOMY SPRINT CAR RULES

## A. CHASSIS

1. Open to any conventional spring car chassis 1984 to present.
2. Wheelbase: Minimum of 82", Maximum of 92".
3. Main Cage Structure: Shall be no less than 1 3/8" O.D. with .095" minimum wall thickness for Chrome Molly tubing (1 1/2" X .095" wall is recommended). **Cage must extend 2" above driver's helmet.**
4. The car's body, motor, driver seat, and fuel tank assembly must be mounted to the chassis centerline.
5. Sprint car type bumpers and nerf bars are mandatory and must be securely bolted to the chassis, using minimum 1/4" bolts.
6. Bumpers and nerf bars must be constructed of steel tubing, minimum of 1" O.D. X .060" to 1" O.D. X .120" maximum. **No solid bars and no lead in bumpers.**
7. Aluminum front bumpers allowed.
8. Side nerf bars shall not extend out past the outside of the rear tires.
9. All cars shall have a minimum weight of 1,700 lbs. with the driver at all times.
10. No titanium or carbon fiber – **no exceptions.**

## B. DRIVE TRAIN

1. All drive trains must have a driveline or rear-end coupler system (to disengage rear-end from motor). Torque arm drivelines may not be used. All drivelines must be enclosed and contain no more than one (1) U-Joint, and that must be at the front of the driveline.
2. Buckley Yokes are acceptable.
3. A torque tube safety strap or driveline hoop is required.
4. Any conventional quick-change with a maximum 2" axle offset is allowed.

## C. SUSPENSION

1. Any conventional 4-torsion bar or bar on rear/coil on front is acceptable. No 4-coil over allowed.
2. No independent rear suspensions shall be allowed.
3. Straight front axles only.
4. No devices that can adjust the suspension, or shock absorbers, by a driver in the car shall be allowed.
5. Only one (1) shock per wheel shall be allowed.
6. Steel shocks only.
7. No mono-tube or rebuildable shocks allowed.
8. Any shock on car may be claimed for \$125.00.

## D. WHEELS AND TIRES

### WHEELS:

1. Any aluminum or steel, 6-pin or splined, wheel allowed.
2. No plastic or carbon fiber wheels allowed.
3. Bead-lock wheels are allowed and recommended. Mandatory on out-side right rear.

### TIRES:

1. Right rear - Hoosier Racing Tires, stamped SC15, SC25, or (HTW) M14.
2. Left rear - Hoosier Racing Tires, stamped D10, RD12, or D12.
3. No pressure bleeders allowed.

## **E. BRAKE SYSTEM**

1. Minimum left front and left inboard rear brake system required. Brakes must be in proper working order at ALL times. Additional right rear brake OK.
2. Steel, cast iron, or aluminum rotors only; steel recommended – TITANIUM or CARBON FIBER rotors NOT allowed.
3. No copper, aluminum, or plastic brake lines allowed.

## **F. BODY**

1. Sprint car type bodies only. May be of fiberglass or metal.
2. Side panels are mandatory.
3. Top hoods are mandatory. Hoods must be securely fastened. Hoods must be width of cowl at rear and width of radiator at front.
4. No ground effect or wing-type bodywork shall be allowed.
5. Firewall: All cars shall be equipped with a solid metal firewall. Firewall shall be between the engine and the driver. Access holes may be cut for wiring, linkage, etc., but must be kept to a minimum (referee discretion).
6. Windshield screens are mandatory.
7. A floor pan is required and must extend from the firewall to the front of the driver's seat.
8. Wings: Top wing shall be no larger than 25-sq. ft. and no more than 60" wide. Side panels shall be a maximum of 30" H X 72" L. There shall be a 1" maximum wickerbill allowed on the top wing. Top wings shall be mandatory at all times during a 'Winged' competition. Top wings shall be securely mounted. No hydraulic, electric, or cockpit-operated sliders shall be allowed. Front wings shall be a maximum of 6 sq. ft. (2' X 3').

## **G. ENGINE RULES**

### **CRATE MOTORS:**

1. GM factory box stock crate engine #s 88958604, 88958603, or 19258602. These are a factory-sealed engine, tampering with spec engine will be subject to \$3,500 fine, loss of all points, and technical probation for one (1) *full* year. (This means no breaking of seals, removing the harmonic balancer, etc.)
2. All *crate motors* used in competition shall be delivered from GM without alterations. Engine rebuilding is **NOT** allowed. Motor mounts cannot be removed or altered. Castings and fittings shall not be changed. No machine work on outside engine or on front or rear of camshaft. Casting or part numbers shall not be altered or modified and must be clearly legible.
3. No "dry sump" systems allowed. "Wet" systems only, must use oil pan supplied with crate motor. No crankcase vacuum systems allowed.
4. Stock-type water pump must be located in "stock" position.
5. GM HEI distributor and MSD Soft Touch Rev Limiter, #8728 for HEI, required. RPM to be set no higher than 6,600 RPMs. **NO MAGNETOS ALLOWED.**
6. Stock-size fly-wheel or flex plate required must be SFI approved.
7. No traction control allowed. Ignition boxes with traction control capability will not be allowed. An infraction of this rule will result in \$1,500 fine and loss of all accumulated points.

### **BUILD YOUR OWN MOTORS:**

1. 360 cu. in. + 2% (367.6 **MAXIMUM** cu. in. with **NO EXCEPTIONS**).
2. Cast iron (OEM) block and cast iron heads shall be mandatory. No aluminum or other exotic metals shall be allowed. Raised runner heads shall not be allowed. Head combustion chamber must not be smaller than 64cc.
3. Flat-top pistons **ONLY**.
4. Valve angle must be stock (23 degrees for Chevy). Valves must not exceed 2.02 in. intake and 1.60 in. exhaust. Valve lift shall not exceed .530 in., to be measured at valve. **NO TITANIUM, EXOTIC METALS, OR MATERIALS ALLOWED.**
5. Flat tappet cams **ONLY**, lifters must be stock diameter. **NO ROLLER CAMS or SHAFT ROCKERS ALLOWED.** Roller rockers and girdles are OK.
6. Gear drives OK.
7. No “dry sump” systems allowed. “Wet sump” systems only; there must be an inspection plug in the oil pan. Either a #12AN fitting or a 1 in. pipe plug to check crank and rods.
8. Forged crank shafts OK, no lightening allowed (e.g. crank shaft must appear stock, no lightening of throws or counter weights, no knife-edging, etc.).
9. OEM rods or “I” beam rods **ONLY**. **NO “H” BEAM RODS ALLOWED.**
10. No titanium or aluminum rods shall be allowed.
11. Stock-type water pump must be located in “stock” position.
12. Stock-type, SFI approved, harmonic balancer required.
13. GM HEI distributor and MSD Soft Touch Rev Limiter, #8728 for HEI, required. RPM to be set no higher than 6,600 RPMs. **NO MAGNETOS ALLOWED.**
14. Stock-size fly-wheel or flex plate required must be SFI approved.
15. Traction control rule is the same as CRATE MOTOR rule.

**NOTE: COMPRESSION NOT TO EXCEED 225 p.s.i. IN EITHER CRATE OR BUILT MOTORS.**

### **CARBURETION:**

1. Crate motors may use Holly 4bbl. /750 CFM maximum, #0-80528-1 (gasoline) or #0-80535-1 (alcohol).
2. Built motors must run a 4412, Holly 500 CFM 2bbl (gasoline or alcohol).
3. Throttle body must be stock (1 11/16”).
4. Venturi may be opened .010 (ten thousandths) over catalog specifications. **MUST** pass all carburetor tool checks.
5. Choke-tower may be removed (4412 only).
6. External jets allowed (4412 only).
7. Bottom of carburetor shall be no more than 4” from the top of the manifold. This includes any adapters, spacers, etc.
8. No Ram intakes shall be allowed.

### **RADIATORS:**

1. Radiators shall be mounted in engine compartment ahead of motor.

### **H. STARTING REGULATIONS**

1. All racecars must be self-starting. All racecars shall start **UNAIDED**.
2. Clutches are optional. If a clutch is used, an NHRA-type, 180 degree, scatter shield shall be installed. **NO EXCEPTIONS.**

## **I. FUEL SYSTEMS**

1. Alcohol or gas allowed. E-85 pump fuel allowed.
2. A securely mounted fuel tank (Sprint car or Midget type) with a bladder shall be required for all cars in competition.
3. Size:
  - a. Alcohol – 40-gallon maximum (tail tank with alcohol bladder).
  - b. Gas – 28-gallon maximum (tail tank with gasoline bladder).
  - c. Gas – 20-gallon maximum (approved fuel cell [with foam] with outer sprint shell).
4. Fuel tanks shall not be mounted to the chassis using any portion of the access plate or nut plates bonded into the fuel bladder.
5. It is mandatory that the tank vent shall have a check valve.
6. No electric fuel pumps shall be allowed.
7. No oxygenated additives (e.g. Nitro, Nitrous Oxide) shall be allowed.
8. Fuel lines and fuel filters must be securely mounted to the chassis.
9. Alcohol is the recommended fuel. **FYI; you CANNOT use gasoline in an alcohol bladder.**
10. Fuel pump and power steering pump may not be driven off the rear of engine.

## **J. MUFFLERS**

1. All racecars shall be equipped with mufflers that muffle engine noise to 95DBA at 100' or meet track requirements.
2. Mufflers are required to be securely fastened to the racecar (no wire or plumbers tape, etc.) **Any racecar that loses a muffler WILL be black-flagged.**

## **K. SAFETY REGULATIONS**

### **COCK-PIT:**

1. Aluminum or steel seats shall be mandatory. The seating system should provide lateral support on both right and left sides.
2. High-back seats are recommended. High-impact headrests are mandatory. Headrest shall be of shock-absorbing material behind the driver's head, and shall be a minimum of 1" thick. Full containment seats recommended.
3. Seat should be mounted in four (4) places to the chassis with a minimum of 3/8" steel bolts and nuts. Each mounting hole shall have a minimum 2" diameter mounting plate with a .060" minimum thickness.
4. All cars shall be equipped with adequate seat belts, shoulder harnesses, and crotch straps. It is **strongly** recommended that a 5-point hook-up with 3" belts be used. The Hans 2" shoulder harness is acceptable.
5. Window nets, right and left sides, highly recommended. If used, must be quick-release type.

### **ROLL CAGE PADDING:**

1. All chassis roll cage tubes and bars close to the driver's head shall be padded with high-impact, approved roll cage padding.
2. Kneepads and/or knee guards shall be mandatory in the cockpit area.

### **STEERING WHEEL:**

1. Steering wheel shall be the quick-release type.
2. Steering wheel center shall have a minimum of 1" thick padding.

### **UNIFORMS:**

1. Nomex type uniforms, gloves, and shoes shall be mandatory, and shall meet SFI3.2A/1 rating.
2. A minimum of two (2) layers of protective clothing shall be mandatory (suit and underwear).
3. Head socks and/or helmet skirts are recommended.
4. Neck collars shall be mandatory. HANS-type device recommended.

### **HELMETS:**

1. SA 2005 or newer helmet shall be required.

### **MISCELLANEOUS:**

1. Throttle pedal shall have a toe strap and a minimum of three (3) throttle return springs in the system with at least one (1) spring attached to the butterfly shaft.
2. Battery shall be securely mounted and shall have a protective covering to prevent any acid spills during accidents.

### **OFFICIAL POLICY STATEMENT:**

- **Any** modifications not covered in these rules will not be allowed unless approved by an official.
- Equipment will not be considered 'legal' simply because it went through inspection unobserved or because a rule has not been written against it.
- **Before you spend the money for a part that could be considered questionable, ask first.**
- Racecars shall be subject to inspection at *anytime*.
- Officials reserve the right to judge, decide, and establish what constitutes a legal part or car.
- Officials' decisions are final.
- Approval, by an Official, of a vehicle shall mean only that the vehicle is approved for participation in a competitive event and shall not be construed in any way to mean that the inspected vehicle is guaranteed mechanically sound. Be it further declared, that Officials and inspectors shall not be liable, nor shall the Sanctioning Body, for any mechanical failure, nor for any losses, injuries, or death resulting from same.
- Any unsportsmanlike conduct by drivers, owners, and/or pit crews shall be grounds for disqualification and/or punitive action by the Sanctioning Body. Owners and/or Drivers are responsible for the conduct and action of their crewmembers.
- Absolutely **NO** alcoholic beverages shall be consumed by owners, drivers, or their pit crews prior to or while competing in an event.