

All classes MUST run Hoosier tires, (ASCS2 stamped Right Rear tire or you will be disqualified in Winged A-Class and Restricted 'A' Class). In all classes, tire samples can and will be taken and sent to be tested. ANY DOPING of tires is illegal and will result in the disqualification and forfeiture of all purse money.

All teams that pit inside the building must have a fully functioning Fire Extinguisher in their Pit Area at all times.

Ages: Jr. Sprints: 6-12 (If you turned 13 during the 2020 season, you can still compete) Restricted: 8-16 (If you turned 17 during the 2020 season, you can still compete) All other classes: Driver must be at least 12 years of age regardless at the time of sign in. Proof of age may be required.

## Winged Outlaw

•640cc MAX displacement. No Nitrous, turbo or superchargers permitted. 12 Years Minimum Age Wings: Outlaw Micro Sprint 4x4max, left sideboard 26" x 54", right sideboard 24" x 54". Nose Wing: 4 Square Foot Hoosier tires (no doping) Loss of any bolt-on weight during competition will disqualify the individual from that event. Weight Rule: Outlaw Micro Sprint 750lb. including the driver, at the conclusion of the race. Nose Wing Sideboards: Can not exceed 10" tall or 21' long

## Non-Wing Outlaw

640cc MAX No Nitrous, turbo or superchargers permitted. 12 Years Minimum Age Hoosier tires only (no doping) Loss of any bolt-on weight during competition will disqualify the individual from that event. Weight Rule: Outlaw Micro Sprint 750 lb. including the driver, at the conclusion of the race.

## Stock 600cc

750lbs Weight Rule 12 Year Minimum Age Any 600cc OEM CV Carbs – No Flat Sides Wings: 10 square ft. max, left sideboard 24" x 48", right sideboard 18" x 48", nose wing 18"x 24" max ASCS2 Right Rear Tire (no doping) No cockpit adjustments Loss of any bolt-on weight during competition will disqualify the individual from that event. Nose Wing Sideboards: Can not exceed 8 1/2" tall and 21" long Winged A-Class Additional Engine Specs Engine 600cc 4 cylinder 4 stroke as comes on a stock production bike for public sale in the U.S.A. No current year production engines. Except as noted, all internal and external engine parts must remain stock with no modifications, metal removal, blueprinting. Valve seat inserts may be reworked. Valve springs may be shimmed with standard or aftermarket shims.

Cylinder head combustion chambers may be cleaned by bead blasting with valves seated in place. Cylinder head gaskets may be replaced only with original equipment manufacturer's stock parts (All 3 layers of the head gasket must be used). All other gaskets may be replaced with duplicate aftermarket parts. Light cleaning of gasket surfaces with steel wool, Scotch-Brite, etc. is allowed. Transmission gears may be shimmed only for the purpose of proper engagement. Standard or aftermarket shims may be utilized. Aftermarket cam chain tensioner allowed for safety of motor. Fuel injection engines may run carburetors. Injected with power commander allowed gas or alcohol. No timing modules allowed. Fuel injection engines running carburetors may change all fuel metering devices to tune fuel curve, Billet intake boots allowed.

Modification of oil pan & pick up allow allowed or aftermarket ok. Modification to thermostat cover allowed or aftermarket ok. Modification to water pump cover allowed or aftermarket ok. Any air box, stock appearing CDI, aftermarket washable replacement air filter, power commander on fuel injection models only. Any 600cc OEM CV carburetors (no flat slides allowed). Stock ECU, PE3-IG2 and PE3-8400 Engine control units are permitted for use with carburetors and Stock Fuel Injection. Fuel cell securely mounted. Tank used for qualifying heats must remain for all events. No flammable liquids allowed in cooling systems. EFFECTIVE 2020 RACE SEASON: All stock classes will be allowed to run Electronic or Mechanical Injectors with a mechanical fuel pump with stock OEM throttle bodies or carbs ONLY will be allowed. No mixing of manufacturers.

## Restrictors

Stock 600cc – 700lbs Weight Rule King Racing Product Restrictor Plate (No larger than 750 thousandths) Joes Racing Product Tulsa Shootout Carb Adapter (they will be labeled with TSO) Gasoline or Alcohol OEM CV carbs – no flat sides 10 Square Foot Top Wing Age – 8-16 Years ASCS2 Right Rear Tire (no doping) No Cockpit adjustments. Nose Wing Sideboards: Can not exceed 8 1/2" tall and 21" long Restricted 'A' Class Additional Engine Specs Engine 600cc 4 cylinder 4 stroke as comes on a stock production bike for public sale in the U.S.A. No current year production engines. Except as noted, all internal and external engine parts must remain stock with no modifications, metal removal, blueprinting. Valve seat inserts may be reworked. Valves must remain as produced with no modifications.

Valve springs may be shimmed with standard or aftermarket shims. Cylinder head combustion chambers may be cleaned by bead blasting with valves seated in place. Intake and exhaust ports may not be bead blasted. Cylinder head gaskets may be replaced only with original equipment manufacturer's stock parts (All 3 layers of the head gasket must be used). All other gaskets may be replaced with duplicate aftermarket parts. Light cleaning of gasket surfaces with steel wool, Scotch-Brite, etc. is allowed. Transmission gears may be shimmed only for the purpose of proper engagement. Standard or aftermarket shims may be utilized. Aftermarket cam chain tensioner allowed for safety of motor. Fuel injection engines can run carburetors. Fuel injection engines running carburetors may change all fuel metering devices to tune fuel curve. Fuel Injection allowed. Injection must be OEM, stock OEM throttle bodies no mixing manufactures (i.e. Suzuki on Suzuki, Yamaha on Yamaha.) with OEM boots in place.

Modification of oil pan & pick up allowed or aftermarket ok. Modification to thermostat cover allowed or aftermarket ok. Modification to water pump Cover allowed or aftermarket ok. Any air box, stock appearing CDI, aftermarket washable replacement air filter. Any 600cc OEM CV carburetors (no flat slides allowed). Stock ECU, PE3-IG2 and PE3-8400 Engine control units are permitted for use with carburetors and Stock Fuel Injection. Joes Racing Product Tulsa Shootout Carb Adapter (they will be labeled with TSO.) Restrictor Plate must be King Racing Product Restrictor Plate .750" inside diameter. No exception. Any tampering with or altering will result in disqualification.

## Jr Sprints

Kid Sprints USA rules 400 lb Hoosier tires (no doping)

## Midwest Thunder Midgets

2020 Rule Book  
USAC ENGLER IMRA SpeeD2 Midget series

In the interest of the USAC ENGLER IMRA SpeeD2 Midget Series, major chassis or engine features considered to be new, innovative, unusual, not considered standard or not used by the majority of the current midgets, are to be considered not approved or permitted. All cars shall appear and fit the guidelines of a "traditional" midget. The series must specifically approve any such new items. All cars and engines must meet the official USAC ENGLER IMRA SpeeD2 Midget Series specifications and are subject to technical inspection prior to and/or following any event. Any car owner or driver in charge, refusing to allow his car to be checked or leaves the track after being told of intent to check, shall be considered guilty of violation of specifications and will receive a loss of points and monies from that race event. Cars failing post-race technical inspection may receive a loss of finishing position, points and monies from that race event, and be subject to fines and suspension as determined by the USAC ENGLER IMRA SpeeD2 Midget Series technical director and competition board, and must demonstrate proof that infraction has been corrected before participating in subsequent races. The USAC ENGLER IMRA SpeeD2 Midget Series reserves the right to change rules as required to maintain the competitiveness of the series following reasonable notice to competitors.

The following rules apply to all midgets with production-based automotive engines. Refer to appendix for rules pertaining to production-based motorcycle engines.

## 501 Design and Construction

All phases of design and construction are subject to the approval of the USAC ENGLER Speed2 Midget Series Technical Director. The Technical Director may exclude any car, design or construction, which they deem unsafe or not meeting the specifications, the spirit and/or the intentions of the rules contained herein.

## 502 Dimensions and Weight

The wheelbase must be at least 65 inches and no more than 76 inches.

Engine setback will be a minimum of 33 inches. This measurement will be taken from the front of the engine plate to the center of the rear axle.

All cars must weigh a minimum of 1,100 lbs., including water, oil, fuel, and the driver with his personal equipment. Weight may be adjusted by engine package to maintain competitiveness, as determined by Technical Director. Cars may be weighed prior to and/or following any event. Details for scaling procedure will be announced in driver meeting. If car found to be light will be scored last and awarded last place points and money for event car weighed.

Additional bolt on weight must be mounted and fastened to the frame and/or chassis in a secure manner. Weight must be mounted in an area between bottom frame rails, front and rear axles and no higher than mid rails at cockpit. All weight must be mounted within confines of frame. No weight may be added during yellow or red flag. NO BALLAST/ WEIGHT IN NERFS, BUMPERS, FRONT AXLE.

## 503 Car Construction / Body

All cars shall be rear drive only.

Engines must be mounted with in a maximum 1" offset (2" total) of the centerline of the chassis. The crankshaft must be parallel to the bottom plane of the chassis. Engine inclination must not exceed Forty-Five (45) degrees from vertical as measured from the vertical centerline of the cylinder bores.

Only torque tube type drivelines, utilizing only one u-joint, will be allowed the torque tube must be one solid piece. Torque tube hoop or strap mandatory. Highly recommend driveline containment system utilizing steel shield bolted to engine plate or containment blanket to cover torque ball and u-joint.

Radius rods may not be attached within the confines of the cockpit.

The driver shall be seated directly behind the engine: drivers head cannot be no more than one (1) inch off center line of roll cage, measured at center line of seat to top of driver's helmet when seated in an upright position.

Only standard type Midget Car bodies, tail tanks and hoods will be permitted.

The front part of the body, known as the nose assembly, shall not be wider than the parallel lines of the body and may not exceed the width of the frame. The nose assembly may not extend forward beyond the confines of the front bumper.

Any item added to resemble imitate and/or specifically designed to deflect, trap and/or form a pattern for air to travel in a directed manner, except for those used to cool and/or protect engine and brake systems will not be permitted.

The engine must be covered with a cowling or hood secured in place. The hood or cowling need not enclose the sides of the engine.

A forward facing scoop, or ducting, supplying "forced air induction" to the injection inlets is not permitted.

Side panels covering the sides of the engine and/or vertical spill plates may not extend vertically more than the height of the cockpit panels. All parts of the engine between the frame rails must have a hood covering, except for the air filter. Downtubes must be of the standard midget type. Excess panels will be permitted at the discretion of the technical director.

Any wicker or turnout may not extend past the frame rail vertical of downtubes or cage, rearward of back of cage, or below bottom of frame rails.

Right side cockpit body panels must be a maximum of thirty-six (36) inches high as measured from the bottom frame tube. The opening must be 150 square inches and not distract the driver's vision as determined by the technical director.

Left side cockpit body panels may be a maximum of thirty-six (36) inches high as measured from the bottom frame tube. The opening must be 150 square inches and not distract the driver's vision as determined by the technical director.

Side visors on roll cage (body panel) will be allowed, they will be limited to eight (8) inches tall. Visors that restrict driver's vision at the discretion of USAC ENGLER IMRA Speed2 Midget Series officials will not be permitted.

Sail panel may extend rearward to triangular bar at back of roll cage, sail panels may not extend forward past a cross plane established by seat back.

All paneling must not extend past edge of frame rails more than thickness of material.

One (1") inch turnout allowed on all body and sail panel edges. (except sun visor and nerf bar panel)

Side visors on roll cage will be allowed, must maintain 8" vertical and 23" horizontal opening on right side. The left side visor can be no larger than right.

Only steel, aluminum or carbon fiber driver floor (belly) pan is permitted (the driver floor pan must support driver weight when stood on). The belly pan may not extend rearward past the leading edge of the rear axle and must be flat from side to side without any aerodynamic aids. Horizontal panels may not extend below the plane of the under pan or fuel tank.

Sun visors must not extend forward more than seven (7) inches from the front of the forward most edge of the roll cage/ halo tube, and may not be wider than the width of the cage; sun visors must be flat on both sides. For fan recognition, all teams are encouraged to place driver's name on their visor in large letters.

Airfoils, wings, spoilers or other aerodynamic appendages will not be permitted. The Technical Director may have any panel or part removed which in their opinion is not within the spirit or intent of this rule.

With the exception of suspension components, induction and/or exhaust systems and nerf bars, no accessory or component of the car may extend more than 6 inches from the main frame tubes. Cylindrical oil tanks mounted outside the frame, behind the engine must be mounted as close to the frame as practical.

Rear view mirrors are not permitted.

Aluminum pitman and steering arms are allowed. They must be one piece, no welding and a web thickness of 1/2 inch minimum.

## 504 Roll Cage and Chassis

Frame and/or chassis must be constructed of 4130 normalized tubing.

All cars must have a roll cage that is integral with the frame and does not encroach upon an imaginary cylinder, 20 inches in diameter, extending through the top cockpit opening directly above the seat. The roll cage should extend four inches above the driver's helmet when seated in the driving position.

Main uprights forming the roll cage must be a minimum of 1-3/8 inches O.D. x .095 wall thickness 4130 normalized tubing.

No water or oil coolers are to be placed above or beside the cockpit opening.

## 505 Fuel System

A conventional midget style tail tank meeting SFI specification 28.1 or a tail tank/bladder meeting SFI specification 28.2 is required. Metal tanks are not permitted. Rollover valves will be mandatory. All fuel tanks must be securely mounted between frame rails and behind the driver.

All tanks must have a minimum of four mounts to the chassis.

Fuel tanks may not be mounted to the chassis utilizing any portion of the access plates or the nut plates bonded into the fuel bladder.

Ethanol or Methanol (M1) fuel only. No additives allowed except for top lube. All fuel is subject to testing at any time. Any fuel that does not conform to the USAC standards, as administered at the track, will be considered illegal. \*The use of illegal fuel could result in disqualification from the event and/or the entire program.

## 506 Bumpers/Nerf Bars

The car must be equipped with a rear bumper at all times.

Front and rear bumpers, and nerf bars must be constructed of magnetic and/or stainless steel (NO TITANIUM) tubing with a minimum O.D. of 7/8 inch and having a minimum

wall thickness of .065 inch and a maximum wall thickness of .120 inch. A maximum of three horizontal and/or three vertical tubes are allowed in the construction of nerf bars. All cars must have a tubular front bumper extending forward no more than 21 inches from the leading edge of the front axle. Bumpers must be constructed so as not to cause a safety hazard.

All cars must be equipped with nerf bars on both sides and mounted directly to the chassis. The right nerf bar cannot extend beyond the outside of the right rear tire. With the exception of the exhaust system, no components or accessories may be attached to the nerf bar assembly.

#### 507 Steering and Suspension

Removable steering wheels incorporating a quick release mechanism conforming to SFI Specification 42.1 are mandatory. Pip pin type mechanisms are not allowed. Welded aluminum or titanium suspension parts are prohibited with the exception of Jacob's ladder (Watts link).

Drag link straps mandatory

No electronic weight, shock, sway bar or any suspension item adjuster.

No independent suspension. Only torsion bar or coil over suspensions allowed.

Cockpit adjustable shocks permitted, no other cockpit adjustable devices permitted for any suspension item.

#### 508 Axles

The car's axles connecting the wheels must be of one-piece tubular construction without the capability of camber or independent castor adjustment to the wheel assembly.

Offset kingpin bushings are allowed.

Any other construction will be considered as independent suspension.

All front axles must be constructed of SAE 4130 steel or a steel alloy equivalent in structural strength. Titanium front or rear axles are not permitted.

#### 509 Wheels

The number of allowable wheels is restricted to two (2) front wheels and two (2) rear wheels on each car.

The rim diameter must be 13 inches.

The left rear and both fronts may be a maximum of eight (8) inches in rim width.

The right rear wheel may be a maximum of ten (10) inches in rim width.

Tire bead locking device must be used on the outer bead seat of the right rear tire and wheel assembly.

The use of full-face brake scoops and/or wheel covers on the inside of wheels is not allowed.

All bolts are mandatory in bead lock and wheel centers.

Wheel cover fasteners made of steel are highly recommended.

Electronically controlled tire pressure bleeders will not be allowed.

#### 510 Tires

Any device(s) used for warming the tires prior to competition is prohibited.

Any solvents or chemicals applied to the tire that alter the chemical makeup of the compound or have the effect of altering tire durometer is prohibited.

Any tire that is found to deviate from the original factory specifications will be confiscated. \*The maximum penalty for chemically altering a tire is a one year suspension from competition and loss of all points earned for the season.

Siping and/or grooving permitted.

The tires listed below are the only rear tires approved for competition:

Hoosier Race Tire – (LF:D12, D15) (RF:D12, D15, D20) (LR:RD12, D12, D20, FOCUS) (RR:SP2, SP3, SP4, FOCUS)

#### 511 Throttle

Throttle toe straps are mandatory. A minimum of three (3) return springs must be connected to the throttle and at least one of these must be connected to the butterfly shaft.

Throttle by wire pedals require two return springs attached to the pedal.

If the throttle actuating mechanism is the cable type, the cable must be encased.

The throttle pedal must have a wide-open pedal stop.

#### 512 Brakes

Cars must be equipped with an effective braking system.

Master cylinders not fixed to the frame must have flexible lines.

Brake discs are limited to being manufactured of steel, ferrous or aluminum alloy. Titanium, carbon and/or carbon composite, brake discs are not allowed.

If at any time during competition it becomes evident that a car is without brakes, the necessary repairs must be completed before the car can continue in competition.

#### 513 Engine, Starter and Clutch

'In/Out' box must in good operating condition. A clutch is optional.

#### 514 Engine Mounting Plate

An effective firewall of must be installed between the engine compartment and the cockpit. It must be as leak proof as practical.

#### 515 Engine Packages

The intent of the USAC ENGLER IMRA Speed2 Midget Series Engine rules is to utilize production engines with stock internal dimensions, with a target range of 200 to 225 horsepower. All engines must be normally aspirated, internal combustion, four cycle, reciprocating piston type, incorporating a maximum of four (4) cylinders in line. Engines must be production engines from a passenger car manufacturer and reasonably available in the United States. No purpose built race engines, race engine blocks, race engine cylinder heads or race engine crankshafts are allowed. USAC ENGLER IMRASpeD2 Midget Series reserves the right to inspect and seal engines to simplify race day procedures.

The following engines are permitted in the USAC IMRA Speed2 Midget Series:

GM Ecotec LE5 2.4L Maximum displacement 2.4110 Liters/147.15 CID (Bore 3.466 Stroke 3.861)

Honda (K24 –, A2) 2.4 LMaximum displacement 2.4110 Liters (147.15 CID) (Bore 3.425 Stroke 3.897)

Ford Focus Zetec 2.0L Maximum displacement 2.0115 Liters (122.75 CID) (Bore 3.444 Stroke 3.700)

Toyota 2.4L 2AZ-FE 2.4L Maximum displacement 2.4110 Liters (147.15CID) 88.5mm Bore 96.0mm Stroke

Chrysler World Engine 2.4L Maximum displacement 2.4110 Liters (147.15 CID) 88mm Bore 97mm Stroke

(Other production-based engines generally accepted by other D2 organizations such as Ford/Mazda Duratec 2.3L (23 I-4/L3) and GM Quad 4 2.3L and 2.4L may be considered by the Series technical director upon request)

The following rules apply to all engine packages unless otherwise noted:

Constant Flow Mechanical Fuel Injection or Electronic Fuel Injection with plenum or individual runner intake permitted. Restrictor may be required, as determined by Technical Director to maintain competitiveness of series.

All parts must have come from same engine model. No swapping parts from different models. Example: Honda K24A1 may not use parts from K24A2.

All following internal engine components must be OEM and must not be modified in any way unless otherwise noted below:

Block – limited to removing material with the sole express intent of fitting in the vehicle

Cylinder heads – Includes all related parts in the head assembly. May modify the cooling system, for example adding a fitting to block external passages. Heads may be decked for trueing – excess decking resulting in compression ratios outside of those found in similar engines not permitted. Machining, grinding, sanding, or etching of the intake and/or exhaust ports is STRICTLY PROHIBITED. Altering of the shape and/or size of the intake or exhaust ports from OEM specs is prohibited. (see Ford Focus Exception below)

Crankshaft – no modifications. Adding, removing, lightening, chamfering or “knife edging” crankshaft counterweights is strictly prohibited.

Cams – no modifications to the cams with stock duration and lift, may change cam timing. (see Ford Focus Exception below)

Rocker Arms – rockers cannot have any alterations to any locking mechanism, they must remain stock

Valves

Ford Focus Zetec 2.0L Exception – may utilize Aftermarket Cams and port head to compensate for reduced displacement in comparison with other approved motors.

Parts that can be changed

Valve springs

Valve spring retainers and keepers

Pistons – may be replaced with matching OEM specifications and may result in no changes to stock dimensions or design such as gas porting or deviating from the stock profile in any manner. USAC ENGLER IMRA Speed2 Midget series reserves the right to request documentation of aftermarket manufacturer and part numbers. Engines without OEM part numbers clearly visible may be subject to additional inspection.

Connecting Rods – may be replaced with matching OEM specifications and may result in no changes to stock dimensions

Timing chain / Belt

Cam Gears, Sprockets

Balance shafts – can be removed

No titanium parts are allowed in engine.

USAC ENGLER IMRA Speed2 Midget Series will utilize the Katech Whistler machine on engines that it can be utilized on to detect modifications to combustion chambers which fall outside of the range exhibited by similar engines to determine compliance with all rules listed above.

All rules interpretations of the USAC ENGLER IMRA Speed2 MIDGET SERIES rules are

That of the series. All rules enforced by the series will be final as determined by the way the rules were written for the class.

Oil System: Wet Sump or Dry Sump permitted

Ignition System:

Electronics that provide traction control are prohibited. All electronic components may be inspected, sealed, or confiscated by Technical Director at any time. \*The maximum penalty for utilizing traction control is a one year suspension from competition and loss of all points earned for the season.

\*The use of electronic logic processors to control any function of the race car, and/or any system for gathering continuous data from any function of the race car is strictly prohibited.

Tachometer only item approved for use to collect/record data

Electronic ignition system may only be used to control; coil(s), trigger(s), spark curve(s) and RPM limits.

VVT, VTEC, i-VCT, Etc.: may be utilized or locked out

516 Safety Equipment (Track requirement may apply if more restrictive)

Approved aluminum and composite seats may be used, no fiberglass. Seats must be mounted with minimum of 4 bolts 5/16 diameter. Seats must be installed and used in accordance with manufacturer's instructions.

It is mandatory that all cars have a headrest of high impact, shock-absorbing material meeting SFI Specification 45.2 behind the driver's head with a minimum thickness of one (1) inch.

Seat belts must meet SFI 16.5 or SFI 16.1, be within manufacturer's expiration label (must have label). Seat belts must be installed and used in accordance with manufacturer's instructions.

Helmets – All participating drivers must wear safety helmets designed specifically for auto racing that meet or exceeds the SA 2010 or SA 2015 Snell Foundation or SFI Foundation 31.1 Specifications and are labeled as such. Helmets will be subject to inspection at each event by the Technical Director.

Uniforms – All drivers must wear fire resistant underwear, socks, shoes, gloves and a one-piece uniform fitted snugly around the neck, wrists and ankles. It is recommended that you also wear a fire resistant head sock and/or helmet skirt. Recommended all above items meet SFI Foundation Specifications 3.2A and 3.3

Arm Restraints – Arm restraints are mandatory and must be worn at all times during competition.

Roll Cage Nets – It is mandatory that all cars be fitted with roll cage nets on right side of the roll cage for all events, unless utilizing a full containment seat. All roll cage nets must conform to SFI Specification 37.1, which specifies a functional quick release opening mechanism. The life of roll cage nets shall not exceed two (2) years. Caution should be used when positioning head restraining nets to be certain that the driver's head cannot get under the net in case of an accident. The bottom of the roll cage net should be as close to the top of the shoulder as possible.

Roll cage nets will not be required if USAC approved full containment seats are utilized.

Roll Cage Padding conforming to SFI specification 45.1 Mandatory if not utilizing full containment seat in all areas surrounding head, Highly recommended with full containment seat.

All cars must be equipped with an ignition switch or emergency shut-off located within easy reach of the driver, and clearly marked on and off.

A SFI approved head and neck restraint system is highly recommended.

One way radio/raceceiver mandatory when utilized by race facility. Two way communications not permitted.

517 Car Numbers

All car numbers will be assigned by the Director of Competition or his designate.

Every car must carry its assigned number prominently displayed on the nose and on each side of the tail.

The final decision on the adequacy of the number will rest with the Director of Timing and Scoring.

Numbers 2 through 99 will be assigned to entrants on a permanent basis providing a car registration has been received prior to January 15 of each year. To be eligible to retain a number an entrant must have entered and/or made an effort to compete in 51% or more of the scheduled races in the previous season. The number 1 is reserved for the Regional Champion driver and will not be reassigned. The use of the number 1 is not cause to relinquish the competitor's permanent number. Numbers may be voluntarily released by the holder at the end of the season. The Director of Competition may reassign numbers at the conclusion of the season. Any number released by a competitor must be reassigned by the Director of Competition. Numbers may be reassigned if the number was not actually used in competition the previous season. Other numbers will be assigned in the order that car registrations are received.

After a number is assigned to a particular car and entrant, it will remain with the entrant until the end of the racing season.

Should two or more cars with the same number be entered in a competition, the Stewards will require that one or more cars be temporarily renumbered.

#### 518 Appearance

USAC logo must be placed on top section of sail panel right and left side. If applicable, sponsor logo(s) must be placed on right and left lower cockpit side panels to be eligible for point fund.

#### Appendix One – Production-based motorcycle engines

The following rules apply to all midgets with production-based motorcycle engines. All cars shall appear and fit the guidelines of a "traditional" Upright Mini Sprint/Lightning Sprint. No 'side-winder'/micro sprints, or TQs (three quarter midgets) permitted. (Safety, Car Number and Appearance rules referenced above also apply to production-based motorcycle engine powered midgets.)

#### 601 Chassis

Frame roll cage and halos must be constructed of a minimum 1-1/4 X .095 4130 tubing

Must be chain drive.

Bumpers and nerf bars must be bolted to the frame and cannot have any sharp edges or corners. Nerf bars cannot extend past the outside edge of rear tires.

All cars must be rear drive only. Engine offset is a maximum of 6" measured at the rear of the engine, centerline of inside cylinders to the center line of the motor plate uprights in chassis.

Radius rods may not be attached within the confines of the cockpit.

No independent suspension. The car's axles connecting the wheels must be of one-piece tubular construction.

#### 602 Body

The front part of the body, known as the nose assembly, shall not be wider than the parallel lines of the body and may not exceed the width of the frame. The nose assembly may not extend forward beyond the confines of the front bumper.

The engine must be covered with a cowling or hood secured in place. The hood or cowling need not enclose the sides of the engine.

Side visors on roll cage will be limited to eight (8) inches tall.

Only steel or aluminum floor/belly pan are permitted.

Sun visors must not extend forward more than seven (7) inches from the front of the forward most edge of the roll cage/halo tube, and may not be wider than the width of the cage; sun visors must be flat on both sides.

Panels attached to nerf bars will not be permitted.

All paneling must not extend past edge of frame rails more than thickness of material.

One (1") inch turnout allowed on all body and sail panel edges, except sun visor.

The car must be equipped with a rear bumper at all times.

Front and rear bumpers, and nerf bars must be constructed of magnetic and/or stainless steel (NO TITANIUM) tubing with a minimum O.D. of 7/8 inch and having a minimum wall thickness of .065 inch and a maximum wall thickness of .120 inch. A maximum of three horizontal and/or three vertical tubes are allowed in the construction of nerf bars.

All cars must have a tubular front bumper extending forward no more than 21 inches from the leading edge of the front axle. Bumpers must be constructed so as not to cause a safety hazard.

Bumpers and nerf bars must be bolted to the frame and cannot have any sharp edges or corners. Nerf bars cannot extend past the outside edge of rear tires.

With the exception of the exhaust system, no components or accessories may be attached to the nerf bar assembly.

#### 603 Dimensions and Weight

The wheelbase must be at least 65 inches and no more than 74 inches. (Measured centerline to centerline)

All cars must weigh a minimum of 950 lbs post-race including driver

A weight decal will be placed on both sides of the frame rail to signify car weight to scale operator.

Additional bolt on weight must be mounted and fastened to the frame and/or chassis in a secure manner. Weight must be mounted in an area between bottom frame rails, to the main frame, between front and rear axles and no higher than mid rails at cockpit. All weight must be mounted within confines of frame. NO BALLAST/WEIGHT IN NERFS, BUMPERS, FRONT AXLE. (Weight infraction rule is the same as the midget infraction: see midget weight rule infraction above)

#### 604 Fuel and Fuel System

Maximum 112 octane gas, E85, or Methanol. No additives or oxygenated fuels will be permitted. All fuel is subject to testing at any time. Any fuel that does not conform to these standards, as administered at the track, will be considered illegal. \*The use of illegal fuel could result in disqualification from the event and/or the entire program.

All tanks must have a minimum of four mounts to the chassis.

Fuel tanks may not be mounted to the chassis utilizing any portion of the access plates or the nut plates bonded into the fuel bladder.

The engine must be equipped with a fuel shut-off device.

Fuel tank meeting SFI specification 28.1 or a conventional midget style tail tank and bladder meeting SFI specification 28.2 is required. Metal tanks are not permitted. Rollover valves will be mandatory. All tanks/fuel cells must be securely mounted between frame rails and behind the driver.

#### 605 Engine Specifications

Any 1000cc, normally aspirated, production motorcycle engine may be used. Engine model must be in production for two full calendar years prior to use. No limited production engines will be permitted. No current year production engines allowed. Serial number must be identifiable.

(USAC ENGLER IMRA Speed2 Midget Series will utilize a compression gauge and bore/Stroke tool or other measuring tools to detect modifications to combustion chambers which fall outside of the range exhibited by similar engines to determine compliance with all rules listed above.)

Engine case, cylinders, head, crank, rods, pistons, cams, valves, transmission, coatings, and clutch must remain stock OEM and operational.

Degreeing of stock OEM cams is permitted.

All cars must be able to start the first race under their own power without assist.

Mufflers are mandatory.

Oiling system may be modified for reliability. Oil pan, pickup, cooler, lines, tank(s), and pump(s) may be modified or replaced. Electronic or Mechanical Injection may be used. No weight penalty exists for either injection system. Carburetors are also permitted. The motor plate may not be made from carbon fiber, or any type composite materials. All engines must use stock charging systems and must have all gears installed and useable in transmission.

#### 606 Electronics

Aftermarket Engine Control Module(s) or Fuel Management System(s) will be permitted. Electronics that provide traction control are prohibited. No aftermarket plug-in traction control devices, wheel speed, or chain sensors will be permitted. All electronic components may be inspected, sealed or confiscated by USAC or organizer at any time. \*The maximum penalty for utilizing traction control is a one year suspension from competition and loss of all points earned for the season. All cars must be equipped with ignition switch or emergency shut-off located within easy reach of the driver.

#### 607 Exhaust

Mufflers are mandatory. Exhaust system tail pipe(s) must not be any wider than nerf bar. The car may be required to have a muffler if local conditions warrant. If so, this will be stated on each individual entry blank. The technical director may disallow a muffler that in their opinion is not within the spirit or intent of this rule.

#### 608 SuspensionComponents

No cockpit adjustable electronic weight, shock, sway bar or any suspension item adjuster. All front axles must be constructed of 4130 tubing. Titanium front or rear axles are not permitted. Adjustable shocks are permitted.

#### 609 Wheels

The number of allowable wheels is restricted to two (2) front wheels and two (2) rear wheels on each car. The wheel diameter must be 13 inches. The wheel width is limited to eight (8") inches for both front wheels. The rear wheels are a maximum in width of eight (8") inches for the left rear and ten (10") inches for the right rear. An approved tire bead locking device must be used on the outer bead seat of the right rear tire and wheel assembly. All bolts are mandatory in bead lock and wheel centers.

#### 610 Tires

All Tires must be Hoosier. Any device(s) used for warming the tires prior to competition is prohibited. Any solvents or a chemical applied to the tire that alter the chemical makeup of the compound or have the effect of altering tire durometer is prohibited. Sipping and/or grooving is permitted. Tires (LF- D12, D15) (RF-D12, D15, D20) (LR-D12, RD12, D20, FOCUS) (RR-SP2, SP3, SP4, FOCUS) Electronically controlled tire pressure bleeders will not be allowed.

#### 611 Brakes

No electronic controlled brake bias adjuster. (Manual adjustment only) If at any time during competition it becomes evident that a car is without brakes, the necessary repairs must be completed before the car can continue in competition.

#### Appendix Two – Appeals Process

Any participant in a USAC ENGLER IMRA Speed2 Midget Series sanctioned race meeting waives any rights such participant may have to be a party or to take any action in court seeking legal or equitable relief against any decision or action of any kind by USAC or any race officials or USAC sanctioned series. A participant's exclusive right to contest a decision or the rules or regulations of USAC ENGLER IMRA Speed2 Midget Series is within the protest and appeal procedure of USAC ENGLER IMRA Midget Series, and any decision reached within this procedure is final.

Initiation of an Appeal – Any participant failing a technical inspection is entitled to appeal and must submit a written Notice of Appeal, but any such action shall not be stayed because appeal is taken.

Content of the Appeal – The Notice of Appeal must contain reference to the specific action by the USAC ENGLER IMRASpeed2 Midget Series from which an appeal is taken, the date of the occurrence, the reasons why the participant is appealing, and specific reference to any Rules and/or Bylaws allegedly violated and the relief requested. The Notice of Appeal must be accompanied by copies of all written documents pertaining to the appeal, such as protests, responses, rulings, announcements, etc. The original Notice of Appeal must be submitted to a Race Director of the USAC ENGLER IMRA Speed2 Midget Series by 5 p.m. EST of the third business day following the release of the cited decision.

Any appeal shall be submitted by the Race Director to a Court of Appeals for adjudication. The Court of Appeals shall be made up of members of the USAC ENGLER IMRA Speed2 Midget Series Race Director team, Race Directors of other USAC Speed2 organizations across the country, and/or members of the USAC Corporate office. The Court of Appeals shall convene a hearing within thirty (30) days of receipt of the appeal unless mutually extended.

#### Appendix Three – Rookie Eligibility

A driver's status for Rookie of the Year will be exhausted once that driver competes in a competitive event for the fifth (5th) time, regardless of how many seasons that encompasses. Competing four (4) competitive events or less will allow rookie status to be available for the following season.

## **Safety Equipment**

All Safety equipment is to be up to date (belts, helmet, suit, gloves, shoes, neck eestrains, etc) and in good safe working condition.

## **Raceceivers are mandatory in all classes**