



2019 USAC NATIONAL .25 MIDGET RULE BOOK

This rulebook will be used for all National, Regional and Championship Events

Effective Date of These Rules - These rules of competition become effective January 1, 2019, and supersede all previous rules, bulletins or supplementary regulations.

1.2 Revision of Rules - The United States Auto Club reserves the right to revise these rules or any supplements thereto at any time.

1.3 Member in Good Standing - defined as a USAC member who has fulfilled their financial obligations to their respective USAC.25 club, any USAC.25 club they participate at and to USAC, along with any additional obligations to their respective club.

Note: Some locations around the country may have different state and local rules and regulations with regards to safety, construction and procedures for motorsports events. The stricter local rules will apply for events held at those locations. It will be necessary for those clubs or events to clearly post these changes so that competitors are fully aware of these changes in advance.

APPENDIX I

2019 .25 Midget Division Technical Specifications

This Appendix Pertains to .25 Midgets

(May be referred to in this section as QM where needed)

701 Design and Construction

All phases of design and construction are subject to the approval of the Race Director and 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.

702 Inspections (Yearly)

All cars will be inspected for mechanical and safety deficiencies and compliance with these rules at least once a year. USAC inspection decal is MANDATORY for a car to compete.

703 Dimensions and Weight

- A. Wheelbase** (Measured center to center of axle on EACH side)
The QM wheelbase must be at least 42 inches and no more than 56 inches
- B. Length** (Measured bumper to bumper)
The overall QM length will be limited to 84"
- C. Tread (Width)** (Measured from tire center to tire center)
The QM tread must be at least 28" and no more than 36"
- D. Height** (Including Roll Cage)
The height will be a maximum of 50"
- E. Car Weight** (Cars weighed after qualifying, heats, lowers & mains)
The QM weight must be at least 160 lbs.
- F. Tires** Approved right side tire compounds and sizes are listed in Table Appendix I-1 Left side tires for both dirt and pavement must be currently manufactured by Hoosier. Any compound and size may be used on left side. The front tire diameter must be no more than 11" diameter. The rear tire diameter must be no more than 12.5" diameter.

**Table Appendix 1-1
USAC Approved Tires**



USAC Approved Asphalt Right Side .25 Midget Tires

Item Number	Tire Size	Wheel Position	Tread Width	Approx. Dia	Approx. Circ	Re-com. Rim	Measured Rim	Section Width	Compounds
15325	33.0/5 0-6 NY1	RF	4.5"	10.50"	33.125 "	6-6.5 "	6.0"	6.25"	A35-NY1
15650	34.5/6 5-6 NY1	RR	6.25 "	11.00"	34.50 "	8-8.5 "	8.5"	8.25"	A35-NY1

USAC Approved Dirt Right Side .25 Midget Tires

Item Number	Tire Size	Wheel Position	Tread Width	Approx. Dia	Approx. Circ	Re-com. Rim	Measured Rim	Section Width	Compounds
11175	33.0/5.0-6	RF	4.5"	10.50"	33.125"	6-6.5"	6.0"	6.25"	D10, D30
11225	34.5/6.5-6	RR	6.25"	11.0"	34.5"	8-8.5"	8.5"	8.25"	D10, D30
15325	33.0/5.0-6 NY1	RF	4.5"	10.50"	33.125"	6-6.5"	6.0"	6.25"	A35-NY1

703 Dimensions and Weight (continued)

G. Ballast/Weights

Any ballast, excluding belly pan itself, must be securely bolted within the confines of the cockpit.

1. Weights must not be fastened to the inside or outside of any nerf bars, front or rear bumpers or shoulder bars or to the roll cage.
2. ALL lead weights must be covered in a manner to keep from coming in contact with the driver (examples - plastic covering, tape, etc.).
3. It is required that the weight be painted or wrapped with a white or fluorescent color. Last name must be written on each piece of weight.
4. Ballast cannot be any higher than 5" above the bottom of lower frame rail.
5. No ballast can be mounted to the body panels. Ballast can be mounted in the left side kick out but must be bolted to a metal kick out floor pan, a tab or a frame upright. Ballast in the kick out can't be mounted to the side of the body panel or to a fiberglass floor. The kick out floor pan must be attached to the chassis with tabs, bolts or rivets, in order to attach any ballast.
6. ALL weights attached through metal belly pans shall be secured with a min 1.5" fender washer and bolts so that the bolt heads will not pull or tear through the belly pans. Two (2) bolts are required if ballast is 6" or larger in length or width.

H. Driver Weight

Driver weight in heavy class will be at least 100 lbs. Minimum weight of heavy driver weight is to be without any racing gear (normal street attire, one (1) shirt, one (1) shorts or pants, street shoes). Racing gear includes driving suits, shoes, helmet, gloves and safety equipment, no weighted belt buckles. There will be no weights in pockets or concealed in or under clothing (racing gear and shoes will be included in total combined weight). Heavy drivers weighed after qualifying or if no qualifying after first heat race.

Drivers will be weighed after the handlers meeting and can be weighed anytime during a race weekend at the discretion of USAC officials. The intent to purposely falsify weight (i.e. additional concealed weight in clothing or under clothing) will result in an event DQ. Racing gear and shoes will be included in total combined weight.

I. Class Weights

**Table Appendix I-2
USAC Required Ages and Weights by Class/Division**

CLASS	DIVISION	DRIVER AGE	DRIVER WEIGHT (min)	COMBINED WEIGHT (min)	CAR WEIGHT (min)
Rookie	Red	5-16	N/A	250 lbs.	160 lbs.
Rookie	Blue	5-16	N/A	250 lbs.	160 lbs.
Honda	Junior	5-8	N/A	250 lbs.	160 lbs.
Honda	Senior	9-16	N/A	270 lbs.	160 lbs.
Honda	Heavy	8-16	100 lbs.	325 lbs.	160 lbs.
Animal	Junior	5-8	N/A	250 lbs.	160 lbs.
Animal	Senior	9-16	N/A	270 lbs.	160 lbs.
Animal	Unrestricted	9-16	100 lbs.	325 lbs.	160 lbs.
Mod	Light	7-16	N/A	270 lbs.	160 lbs.
Honda 160	Light	8-16	N/A	270 lbs.	160 lbs.
Honda 160	Heavy	8-16	100 lbs.	325 lbs.	160 lbs.
Formula Mod	Light	10-16	N/A	270 lbs.	160 lbs.
Formula Mod	Heavy	10-16	100 lbs.	340 lbs.	160 lbs.
World Formula	Light	9-16	N/A	270 lbs.	160 lbs.
World Formula	Heavy	9-16	100 lbs.	340 lbs.	160 lbs.

**Restrictions for World Formula, see Appendix II, 1712-8*

1. Combined Weights

Equipment and shoes will be included in total weight (car and driver combined). At the completion of a race, driver and car will still have to meet total weight. For combined weight drivers should be sitting or standing in cockpit. No weights will be carried loose in cars/or on the driver. Refer to Table Appendix 1-1 for official weights.

2. Club Options for Weights

USAC clubs may choose to run at weights that are outside of those specified above, in order to combine divisions within a class and make full fields of cars. Weights may be changed at club level with the following stipulations: Regional Board and National Office must be notified in writing of these deviations from standard weights at the beginning of each race season. Weights must fall within minimum and maximum weights listed by class.

704 Car Construction

- A.** All cars shall be rear direct drive only. No clutches allowed. If only one rear wheel drive it must be in the right rear.
- B.** All body panels must be readily removable. Body panels rigidly attached to the frame to prevent chassis flex, will not be permitted.
- C.** All cars must have a body that completely covers the driver's legs, a tail section and a housing that covers the engine. The tail section can be the engine housing.
- D.** All body panels, tail and nose sections must not have any sharp edges. There must not be sharp corners - such as square corners. Make all corners and edges rounded in shape to avoid cutting in the event of an accident.
- E.** The bottom of the tail cone must not be higher than the top of the bumper when normally installed. Holes are allowed in the tail cone for access.
- F.** Belly pan or body must enclose the front end or it must be enclosed by using metal sheeting at least .040" thick or steel at least .025" thick. The belly pan must extend from the front axle to the firewall. Belly pan shall not extend beyond the cross bar member beneath the firewall. The belly pan must be flat from side to side without any aerodynamic aids. The front edge of the belly pan shall be rolled or rounded up or protected by a metal nose pan that keeps the front edge from catching on objects on the track or damaging objects that the car may run over. Belly pans should not have open holes larger than 1/2" in diameter. Excessive hole in the belly pan will be considered lighting and not legal. Belly pans are subject to the approval of the Tech and/or Safety Director.
- G.** Due to today's smaller tail section, the carburetor may have to be covered with a bubble or scoop, securely attached to the tail section.
- H.** Any radical changes in the body, tail section or side panels must be submitted for approval to USAC.

- I. All cars must have side panels on both sides of the cockpit and engine compartment. Side cockpit panels must be at least 6' and no more than 22" high, as measured from the bottom frame tube.
- J. Maximum height of body is twenty-two (22) inches as measured from the bottom of the bottom frame rail.
- K. USAC designated decals are required on all cars. See Appendix 1-736.
- L. Rear sail panels on either side of cockpit may extend to top of roll cage and may not extend forward past a cross plane established by the seat back. They must be supported on all edges by steel frame members.
- M. Airfoils, wings, spoilers or other aerodynamic appendages will not be permitted. The Race Director or Technical Director may have any panel or part removed which in their opinion is not within the spirit or intent of this rule.
- N. Rear view mirrors are not permitted.
- O. Windshields are not permitted.
- P. Lights are prohibited on any race car. A car will receive a warning if any lights are on and allowed to finish that race. A 2nd occurrence in the event will result in a DQ.
- Q. All cars are required to have a 2' hole (Min) in the right side body panel to easily access the crankshaft flywheel nut for sealing purposes (Race Day DQ)
- R. Visors are permitted, 4" max height from the front of the halo bar with a total overall length from front to back of 7.5"., must remain between uprights and attached securely (dzus buttons or zip ties). All visors are subject to review for safety by race director or safety officer.
- S. Any and/or all changes in a chassis that deviate from specifications in the rule book must request and receive a letter of approval from USAC National to compete in any USAC sanctioned racing event.

705 Roll Cage and Frame

ALL cars constructed after 1/1/2009 will be made from 4130 Steel Tubing (Chrome Moly)

- A. All cars must have a roll cage that is integral with the frame. The roll cage must be adequately braced forward, backwards, and side to side, to secure it in an upright position in case of rollover. Front and rear uprights must completely enclose drivers head and shoulders when sitting upright in the cockpit. The roll cage should extend one (1") inch above the driver's helmet when sitting upright in the cockpit, measured from the bottom portion of the tubing.
- B. **Roll Cage Construction** – Must be 4130 steel tubing if manufactured after 1995
 - 1) Main uprights forming the roll cage that is **LESS** than 34" from the top of the bottom frame rail to the top of the roll cage must be minimum O.D. 3/4; Minimum wall thickness .058

- 2) Main uprights forming a roll cage that is **MORE** than 34" from the top of 7/8, minimum wall thickness .058 and must have two rear support bars that attach to the roll cage no more than four inches from the top of the roll cage, and extend downward towards the rear of the car and attached to the rear part of the frame. Support bars must be minimum O.D. 5/8", minimum wall thickness .049". Support bars must be welded to the roll cage and frame. Holes cannot be drilled in the roll cage to bolt the support bars to the roll cage.
 - 3) Radius design required. No square corners.
- C. **Left side shoulder bar mandatory on all cars** - Constructed of either:
- 1.) 4130 steel tubing minimum O.D. 5/8", minimum wall thickness .049"
 - 2.) Stainless steel tubing minimum O.D. 5/8", minimum wall thickness, .065"
- D. Shoulder bar must be securely fastened to left nerf bar and rear roll cage upright using a grade 5 bolt or better. Shoulder bar can be attached by welding, mounted with split clamps or nerf style spuds.
Shoulder bar must be securely fastened at nerf end between the leftmost point of the nerf bar and a point (4) four inches inboard of that. At the cage the shoulder bar must be at least as high as the top of tail cone.
- E. Helmet hooks attached to the chassis are not allowed.

706 Fuel System

- A. Fuel tanks must be vented no more than 1" above the belly pan with no holes in the cap or utilize a USAC approved, specifically designed ventilated, self-sealing tip-over tank cap. As of 7/1/2019, it will be required to run a rollover fuel cap, which are available through car manufacturers. The only approved ventilated fuel cap part number are 1750, 1380 and 1250. No 1/4 turn fuel caps are not permitted.
- B. No pressurized tanks.
- C. Fuel tanks must be mechanically mounted to the frame preventing all movement inside the tail section. Minimum of 2 hose clamps must be used if hose clamps are used. Zip ties and duct tape not permitted.
- D. Fuel tanks cannot be replaced once a car takes the track, including warm up.
- E. Aluminum fuel tanks required and must have a minimum wall thickness of .050"
- F. Fuel fittings must be automotive type. Lines must be attached in a secure manner. Metal automotive type hose clamps are required at all attachment points. Safety wire is also acceptable with a minimum of two complete wraps around the hose. AN fittings; Pushloc fittings are acceptable and do not require hose clamps if used with the correct hose. Zip ties on fuel lines are NOT ACCEPTABLE.
- G. Fuel lines must be rated for the appropriate fuel (Gasoline or Methanol) and must be made of flexible hose. Steel braided line is allowed. IT IS MANDATORY THAT ALL FUEL LINES USE A FIREPROOF SLEEVE REGARDLESS OF THE MATERIAL THEY ARE MADE OF. Fuel line must slide through the sleeve. This is not a wrap. The sleeve must also fit the outer diameter of the fuel line.
- H. Cool cans and other device for cooling fuel are not allowed. Devices used to reduce the temperature or remove energy from the fuel system, are not allowed.
- I. Fuel line at fuel tank must be equipped with a fuel shutoff device.
- J. Fuel pumps of any type are NOT allowed in Honda 120 and Honda 160.
- K. Vacuum type fuel pumps which stop "pumping" immediately upon engine stopping are allowed in World Formula and Animal.
- L. Maximum fuel tank size 140 ounces.
- M. FUEL FILTERS - Aluminum or steel only.
- N. Carburetor fitting part number 0714 for Briggs & Stratton carburetors and part number 0715 for Honda carburetors are allowed.

707 Firewall

An effective firewall of aluminum (Minimum .048 inch) or steel (minimum .025 inch) thick must be installed between the engine compartment/fuel tank and the cockpit. It must be as leak proof as practical with no open holes. Any holes for seat belt or shoulder mounts must contain no sharp edges.

708 Revolving Parts – Chains & Sprockets

All chains, flywheel, sprockets and or belt drive systems must be placed so as not to be exposed to driver or handler while vehicle is in motion. Chain guards will be legal to run in all .25 quarter midget classes. Chain guards can be made of Plastic, aluminum or steel. No composite material allowed. Chain guards can attach to the engine sun gear cover but the stock bolts must be used. No welding, drilling or tapping to the sun gear side cover or engine is permitted. Example of the chain guard:



- A. The car must be equipped with a front and rear bumper securely fastened, using at least two grade 5 bolts or better, to the structural components of the chassis and designed without any stubs pointing downward.
- B. The bumper must be strong enough to be used to lift the car. Double bumpers with at least two connecting tubes are required. Horizontal tubes must be at least two inches apart.
- C. Front and rear bumper tubes must be mounted over each other with a maximum rake of 15 degrees from vertical. They must have at least two inches of radius bend on the ends.
- D. Front and rear bumper must not extend more than three inches out past the main frame rail.

- E. The bumpers must be constructed of metal tubing having a minimum wall thickness of .049 inch. No ballast is allowed in the bumper tubing. Titanium and composite materials are not allowed. No solid bumpers permitted.
- F. Bumpers must be mounted with minimum 6-32 to max 10-32 grade 5 or better bolts, minimum of two bolts per bumper.

710 Nerf Bars

- A. All cars must be equipped with nerf bars (Side bumpers) starting at the rear, just forward of the rear tire. The nerf bars must extend outward to at least the center of the rear tires. The nerf bars cannot extend beyond the outside of the rear tires, measured by a straight edge parallel to the rear tire.
- B. Nerf bars must be constructed from steel and with a minimum wall thickness limited to a minimum of .049 inch. A maximum of four horizontal and/or four vertical tubes are allowed in the construction of nerf bars. No ballast is allowed in the nerf bar tubing. Titanium and composite materials are not allowed. Panels on the nerf bar will not be allowed. **Solid nerf bar is only permitted on left side.**
- C. Nerf bars must be mounted with a minimum 6-32 to maximum 10-32 grade 5 or better bolts, minimum of three bolts per nerf bar. If the shoulder bar is welded to the left side nerf bar the top bolt of the shoulder bar can be considered the third (3rd) nerf bar bolt. The shoulder bar must be bolted at the top mounting point. If the shoulder bar is bolted to the nerf bar the nerf bar requires three (3) mounting bolts and the shoulder bar requires bolts at all attachment points.

711 Steering and Suspension

- A. Tie rod or rack and pinion steering only. No cable systems allowed.
- B. Steering system must not allow the drivers legs to impair right or left steering.
- C. Steering may not go past center in either direction to keep steering from locking.
- D. Steering wheel hub must be padded, and must be at least 1 inch thick, and must be at least two inches outside diameter.
- E. The use of carbon fiber, titanium or other composite material as a steering shaft, radius rod, tie rod or suspension component is not allowed.
- F. Radius Rods, Steering Rods, & Track locating rods must be constructed of aluminum tubing with a max of OD of .850" and max wall thickness of .1875. Rod ends may be constructed of ferrous materials however the maximum length of adapter is 1 1/2".
- G. Bird Cages, torsion bars and sway bars may not be constructed of titanium and/or composite materials.
- H. Shock absorber must be a non-adjustable design. External dampening adjustments will not be permitted. Adjusting gas pressure from the air valve is allowed. Shock absorber must have all mechanisms housed in a cylindrical component on the same centerline. (No remote reservoir) Shocks cannot operate or be adjusted electronically.

The approved shocks may be revised from time-to-time with additional approvals and/or other changes to the approved list

- 1. Coil springs to be solid magnetic steel. No designer alloys, Titanium, Aluminum, Carbon or fiber glass, or materials other than magnetic steel. Magnetic coatings do not comply. One spring on O.D. of shock body is allowed.
- 2. Only linear wound design springs permitted. No progressive or tapered springs. All springs ends will be of closed design.
- 3. Torsion Bars and Anti-Roll Bars to be magnetic steel. No designer alloys, Titanium, Aluminum, Carbon or fiber glass, or materials other than magnetic steel. Magnetic coatings do not comply.
- I. Titanium or Composite Steering Wheels not allowed.
- J. No data acquisition devices allowed on steering wheel.
- K. INDEPENDENT FRONT SUSPENSION
Lower Control Arm

If the lower control arm has a single attachment point to the frame it can be of steel construction but can only be constructed from steel tubing with a **.755" maximum outside diameter and a wall thickness of .065" maximum**. Threaded tube ends can be no longer than 1.000" total overall length.

Lower Control Arms

If the lower control has a single attachment point to the frame and is constructed out of solid aluminum flat bar or plate the maximum size is 1.000"x1.000". If constructed from aluminum tubing 1.000" x 0.120 wall maximum. If the lower control arm has two or more attachment points to the frame it must be constructed out of aluminum tubing with an outside diameter of .688" maximum and a wall thickness of .188" maximum.

Upper Control Arm

All upper control arms must be constructed out of aluminum tubing. .688" maximum outside diameter with a .188 wall thickness maximum

- L. **No rocker arm, bell crank or cantilever type suspension is allowed. If rear torsion bar suspension or a rear sway bar is used, the bottom of the rear shocks may be mounted to the arm that connects the birdcage to the torsion/sway bar. All shocks and springs must be mounted from the chassis down to the axle, birdcage, and/or rear torsion/sway bar in a manner that keeps the shock and spring in an upright position; no greater than a 30 degree angle from 90 degrees. The shock and spring will be on a vertical plane from the chassis to the axle, birdcage and/or rear torsion/sway bar arm; to which the bottom of the shock is connected.**

712.Axles

- A. Independent rear suspension is not permitted.
- B. No portion of the axle, hubs or nuts can extend beyond the outer edge of the wheel rim.
- C. All front axles must be constructed of steel. All rear axles must be constructed of steel, aluminum, carbon composite or titanium.

713.Wheels

- A. The number of allowable wheels is restricted to two (2) front wheels and two (2) rear wheels on each car.
- B. The rim diameter must be at least 5 inches and no more than 6 inches.

714 Tires

- A. Any device(s) used for warming the tires prior to competition is prohibited.
- B. All tire sizes and compounds must be selected from the approved Hoosier tire list for the event and surface raced on (Pavement or Dirt), see 737.
- C. The use of any device(s) to alter the air pressure of the tires while the car is in motion is prohibited.
- D. "Dry Tire" Rule - It is prohibited to use traction compounds or any substance that might alter the physical properties of a tire as supplied by the manufacturer. Tire cleaners/shiners, tire softeners, track adhesives, brake fluid, diesel fuel, etc. will not be permitted on the tires. Any tires with signs of these products on or inside them will be impounded for further testing.
- E. USAC has the right to confiscate any tire at any time. A 2 x 2 patch/sample of the tire is to be removed and placed in a glass jar. The jar then is to be sealed with secure tamper proof tape (must be obtained through USAC) and signed by both the USAC Representative/USAC club official and representative of the tire in question (parent or guardian of the tire in question are ultimately held responsible). Tire sample will then be mailed to USAC office with any associated fees and completed confiscation form within 48 hours.

- F. The penalty for a chemically altered tire is up to a one year suspension for the driver, parent/guardian and **car owner(s)** of the tire found to be illegal in all classes at all USAC sanctioned events (local, regional, and national), second offense is up to a lifetime suspension for the driver, parent/guardian and **car owner(s)** of the tire found to be illegal in all classes at all USAC sanctioned events (local, regional, and national) (second offense) and forfeiture of all accumulated points. **See Appendix II, Section 1715.**

Tire Protests

- Protest must be in writing and filed with the tech inspector within 15 minutes, after feature race is completed. Handlers may not protest more than one car per event and may not protest same driver more than once per calendar year.
- All protests will be handled by the Club President and/or Tech Director and must be accompanied with a \$250 cash deposit and will not be refunded, regardless of the outcome of the protest. **If the tire being protested is found legal, a new tire will be provided to the driver being protested by the protestor.**
- Any situation not covered by these rules shall be referred to USAC for decision.
- This protest must also be in writing and accompanied by deposit.
- Tire protest form must be completed and sent in to USAC along with a sample of the tires in question.
- A 2 x 2 patch/sample of the tire is to be removed and placed in a glass jar. The approved container then is to be sealed with secure tamper proof tape (must be obtained through USAC) and signed by both the USAC Representative/USAC club official and representative of the tire in question (parent or guardian of the tire in question are ultimately held responsible).
- It is the goal of USAC to have the tire results returned in a timely matter.
- The party against whom a protest is made has a right to know the charge and have a written copy thereof so that they may adequately defend themselves against any action.
- USAC has the right to confiscate any tire at any time.
- **Once a tire is sent to the USAC National office for testing, if the tire is found illegal, USAC National reserves the right to assess the penalty and/or penalties.**

715 Throttle

- A. Two (2) return springs recommended be connected to the throttle.

716 Brakes

- B. Cars must be equipped with an effective braking system. A minimum of one wheel brake is required, located on the rear axle. The brake must be able to lock the drive wheel(s)
- C. Master cylinders not fixed to the frame must have flexible lines. Copper tubing is not acceptable anywhere in the system.
- D. Brake discs are limited to being manufactured of steel, ferrous, aluminum alloy or Titanium. Carbon or carbon composite brake discs or components are not allowed. Brake pad material is open.
- E. Cars must be equipped with a full brake pedal or positive full stop
- F. No plastic brake lines.

717 Clutches

- A. The use of onboard starters and a de-clutching device on a quarter midget is not allowed.
- B. All Quarter Midgets will be direct drive.

718 Engines

All engines subject to technical specifications contained in the quarter midget technical manual(s)

- A. **Quarter Midget:**

1. **Rookie Classes:**
Honda 120 and Animal motors as specified in technical manual
2. **Honda 120:**
Honda 120 motor as specified in technical manual Timing max is 20 deg. (with key or flywheel)
3. **Honda 160:**
Honda 160 motors as specified in technical manual
4. **Lt and Hvy Modified, AA:**
Continental and Deco motors as specified in technical manual
5. **Briggs and Stratton World Formula**
Briggs and Stratton World Formula as specified in technical manual
6. **Briggs and Stratton Animal**
Briggs and Stratton Animal as specified in technical manual

B. All Classes

1. Air cooled only and no external liquid cooling devices
2. No fuel injection or supercharging
3. Flywheels must not freewheel.
4. NO liquid cooled engines allowed in Quarter Midgets
5. No external cooling devices

C. Restrictor Devices (Unaltered) must be used in the following:

1.

Red Rookie (Honda)	Red Rookie (Animal)
Blue Rookie (Honda)	Blue Rookie (Animal)
Junior Honda	
Junior Animal	Senior Animal
2. Restrictor plates will be supplied by USAC to Clubs at a nominal cost.
3. USAC or QMA approved plates allowed. Plates must be dated 6/09 or newer. USAC strongly encourages the use of the USAC plate.
4. Identification tab must be visible. Technical inspections of plate at any time by removing plate and inspecting surface and hole size.
5. Alterations of any kind will be disqualified.
6. Failure to use proper size restrictor plate in any designated classes or any alteration of restrictor plate is cause for immediate DQ and applicable suspension with DECO, Animal or Honda Suspension Program.
7. **HONDA Restrictors –**
Red Rookie = .3125" (5/16"), Blue Rookie = .4375" (7/16) Junior Honda = .4375" (7/16")
Restrictor must be installed between carburetor and plastic insulator, with a stock gasket on each side of restrictor. All airflow must pass through restrictor.
8. If a restrictor plate is removed for racing in a non-restricted division by another driver, then it is allowable to run 2 gaskets temporarily.

9. Restrictor Dimensions

Division	Color	Restrictor
Red Rookie (Honda)	Red	.3125"
Red Rookie (Animal)		<i>Briggs Animal long slide (#555728) must be used. Overall length = 1.825, .285 maximum throttle travel check with carb gauge. Black USAC restrictor plate - 3 Hole - 2510 (same plate at Jr. Animal). The gear ratio required for the Jr. Rookie Animal engine - 5.15 (33/28) with the Briggs gear box (6.07).</i>
Blue Rookie (Honda)	Blue	.4375"
Blue Rookie (Animal)		<i>Briggs Animal long slide (#555732) must be used. Overall length = 1.800, .310 maximum throttle travel check with carb gauge. Black USAC restrictor plate - 3 Hole - 2510 (same plate as Jr. Animal).</i>
Jr. Honda	Blue	.4375"
Jr. Animal	Black	.2510"
Sr. Animal	Gold	.5730"

719 Fuel - Air

- A. Fuel is restricted to gasoline, and/or methanol only, as specified by the class. The addition of any unauthorized material(s) to the fuel is strictly prohibited. 1. Honda 120, Honda 160, Lt and Heavy Mod, Animal & World Formula:
Gasoline, automotive, "Pump" 89 Octane only per spec format. No White, Aviation or "Racing" fuel.
2.AA: Straight methanol OR gasoline. No additives.
- B. The addition of any material(s) to the intake air or the addition of any mechanical device(s) essential to the application of this material(s) is strictly prohibited.
- C. 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 will result in disqualification and or suspension from that particular class. First offense up to 30 day suspension in particular class for driver with fuel found to be illegal. Second offense up to a 1 year suspension for driver with fuel found to be illegal in a particular class. Third offense will be a lifetime suspension from all USAC .25 Midget sanctioned events. (Infractions accumulate as a whole. Two infractions is two infractions. One infraction in two different classes is treated as two infractions.)

720 Shut Off, Ignition, Battery and Electronic Equipment

- A. All cars must be equipped with a fully operational on/off ignition switch or emergency shut-off located within easy reach of the driver. It must be located in the upper left portion of the drivers compartment or on the steering wheel. Switch and bracket should be located to prevent contact with drivers knee. Switch must be installed so when the handle is down, or rearward, the ignition is off. Penalty for not having a fully operational on/off ignition will be a race DQ. Reattaching once the checkered flag has been shown will not be allowed.

1. Only one ignition switch may be installed, EXCEPT when car is running in rookie class, a second switch mounted on the upper rear of the roll cage is allowed so that handlers, trainers and corner workers may shut off car.
- B. Battery – Battery must be securely mounted.
 1. All wet-cell batteries mounted in cockpit area must be enclosed and vented out of cockpit.
- C. All engine electronics must be securely mounted.
- D. Electronics that provide traction control are prohibited. All electronic components may be inspected, sealed or confiscated by USAC at any time. The penalty for utilizing traction control is a minimum one year suspension from competition.
- E. Data collection devices that can control any part of the car, measure active suspension travel, tire pressure, wheel speed, spring loads, steering position, throttle position and brake pressure are prohibited. Data may be gathered from the engine, however, this data may not be in communication with ignition electronics except for the tachometer. A throttle position sensor (TPS) may not be part of the engine data collection.
- G. All data acquisition and measuring devices shall be mounted securely within the roll cage or down tubes. No data acquisitions allowed on steering wheel or in sight of the driver.
- H. **Due to safety concerns, no in-car video cameras (including mounted GoPros) are to be used in the car during on track activity. Failure to comply will result in a Race Day DQ.**

721 Radios

- A. The use of in-car radio transmitting devices is prohibited
- B. No Radio communication with the driver is allowed during a race or event.
- C. Only one-way communication from USAC Race Control may be allowed.
 1. When used, participant may only use a RACING ELECTRONICS “Legend” or an approved non scanning RACECEIVER device.
- D. **No open-air transmission of USAC official radio is permitted on premises. Failure to comply with this will result in the team being disqualified from the event.**

722 Oil Catch

- D. All cars are required to have a catch can if the engine is vented. All breathers, engine vents and catch cans are to be placed in the engine compartment tail section or air box.
- E. The frame cannot be used as a catch can.
- F. Oil breathers must be located so as not to endanger the driver.
- G. Oil may not be added to the engine supply during a race.

Hose must be connected to the catch can at all times. No replacing or attaching after the checkered flag. Must be connected upon crossing scales. Race DQ only.

723 Exhaust

- A. Exhaust systems must be designed to create a minimum fire hazard and a minimum hazard to other competitors.
- B. Exhaust system must extend outside of engine housing.
- C. Exposed portions of exhaust system must not be higher than the rear tire.
- D. Exhaust system must not extend outside of a straight edge extended from rear edge of rear tire and rear of the rear bumper.
- E. Exhaust systems facing forward must not extend outside of nerf bar.
- F. Drilling holes in the baffles is prohibited. Inside seam of baffle must be straight, although seams may not be parallel in baffle) A nut or washer welded onto muffler flange is allowed for safety wiring.
- G. All classes must use a tailpipe and muffler combination conforming to technical manual specifications. Muffler must retain the threaded flange on Honda exhausts.

- H. Clamps should be positioned with screw adjustments, bolts and excess strap material facing inboard when possible.
- I. Exhaust system must be intact at scales. If any part comes off during race and not replaced before the checkered flag the car will be disqualified at the scale. No repairs after checkered flag is waved.
- J. All exhaust must pass through the mufflers.

724 Seating

- A. Cars must have a web type safety belt with quick release buckle. Safety belt must be securely fastened to the frame. Pull up lap belts are recommended.
- B. Use of safety belt is required at all times, and belt should be worn as tight as possible.
- C. Seat belt must be worn in such a manner that it passes around the pelvic area at a point below the anterior superior iliac spine. Under no condition may it be worn over the area of the intestines and abdomen. (Lap portion of safety belt must be located so that pressure is across driver's hips).
- D. Metal quick release is preferred.
- E. Minimum of a five point safety belt is mandatory.
- F. Double Shoulder straps are mandatory. They must be worn securely across the right and left shoulders, and should be worn as tight as possible.
- G. No restraining device may be used to keep the drivers head or body outside of the shoulder bar.
- H. Anti-Submarine belt mandatory.
- I. Both the fastening design and condition of the straps are subject to the inspection of USAC.
- J. Shoulder straps must be attached directly to a strong structural member of the chassis close behind the driver's head and neck.
- K. **Life of the belts in use shall not exceed two (2) years and/or the manufacturer's expiration date stamp. This is in accordance with the SFI mandated change to their labeling process for driver safety standards.**
- L. **Aluminum seats may be used.** The seating system should provide a lateral support on both the left and right sides. It is recommended that the seat provide left and right lateral support for both the shoulders and head.

725 Fire Prevention

- A. No smoking including electronic cigarettes, will be permitted in hot chute, staging area, flag stand, work areas, racing surface, scale and fuel areas, especially whenever fuels may be exposed to the atmosphere. Anyone found violating this rule will be subject to removal from the area.
- B. Extreme care should be taken in the handling of fuels. Where local regulations are posted, they become a part of the USAC rules. Any individual found violating these regulations will be subject to fine and may be removed from the pit area.
- C. All clubs must have at least five charged canisters of FUEL BUSTER or equivalent placed in designated areas around racing surface.
- D. While refueling the driver must be out of the car. The penalty will be a DQ for the event from that class.

726 Safety Equipment

Any participant not complying in full with all safety requirements will not be permitted to compete. Safety officials have the right to safety any or all cars in any class at any time.

- A. **Helmets-** All participating drivers must wear a well fitted safety helmet designed specifically for auto racing (SA designation) that meet or exceeds the 2010 or better Snell Foundation or SFI 24.1, 2010 youth spec helmet specifications and are labeled

as such. Helmets will be in good condition (no exterior cracks, evidence of impact or deteriorating interior lining). Helmets will be subject to inspection at each event by the Technical, Safety and/or medical representative. **Hair must not be visible under the helmet or outside the driver suit/jacket. First offense, driver will receive a warning. Second offense will result in a race DQ.**

1. Visors/Face shields must be in the down position when on the racing surface.
 2. Clear, or amber, face shields must be worn after dark, or whenever track lights are turned on.
 3. **No mohawks, spikes or decorative elements extending from the helmet are permitted.**
- B. **Uniforms**
1. **Suit** - All drivers must wear a one or two piece fire resistant suit which fits snugly around the neck, wrists and ankles, exposed skin not allowed. These items must meet SFI Foundation specifications 3.2A1 or higher. Jeans are not permitted. SFI 3.2A/5 mandatory in Formula Mod
 2. **Head Sock** – Use of Nomex Hood/head sock is highly recommended. Mandatory in Formula Mod
 3. **Nomex Underwear** – Recommended
 4. **Gloves** – All drivers must wear Nomex or equivalent gloves that must completely cover the hands and fingers. SFI Foundation specifications 3.3 or higher.
 5. **Shoes** – Must completely cover the feet, flat bottom shoes only.
 6. **Neck Collar** - Neck collar is mandatory, must be made of Nomex or equivalent is mandatory except as noted here, recommended rating of SFI Foundation 3.3.
 7. **Head & Neck Restraints** - SFI approved 38.1 may be used without Neck Collar. Must be renewed within every five (5) years and always be current.
- C. **Arm Restraints** - Arm restraints are mandatory and must be worn at all times during competition. Center fastening point will be fastened in conjunction with quick release safety belts.
1. Arm restraints are fastened securely to the driver's forearms, (between the wrist and elbow) never at or above the elbow.
 2. Arm restraints should be adjusted short enough to keep driver from reaching more than two or three inches above the steering wheel.
- D. **Roll Cage / Frame Padding** - Recommend that all chassis protrusions, frame tubes, roll cage tubes, steering shafts and roll bars in close proximity to the driver, to be padded with a securely attached high impact material.
- E. **Casts** - Any driver with a hard cast on, will not be allowed in USAC competition. Any driver with a soft cast or brace, must receive clearance from the USAC National office and may require a doctor's release.

728 Dental Appliances

All drivers are required to remove all dental appliances before starting an event. (Example, Retainers, Removable Braces, or any other choking hazard). This also includes chewing gum, candy.

729 Car Numbers (Club Option)

All car numbers are assigned by the club if so desired.

730 Appearance

Cars, crews and all pit personnel, whose appearance detracts from the character of the program, may be excluded by the Race Director.

731 Engine Protest Rules (applies to Honda and Briggs classes only)

1. Protest shall be from within the same division of class only, i.e. Jr., Sr., Lt.& Hvy. 120-160, Animal or World Formula – Only. Competitors in the same division, and in the same race may make a protest on an engine. No protesting in Rookie Class. Handlers may not protest more than one car per event and may not protest same driver more than once per calendar year.
2. Honda Engines and World Formula/Animal Engines may be protested for \$400.00 cash only plus any applicable shipping charges if necessary. No protested related inspection will be started prior to the funds being posted with the proper official.
3. This protest form and cash must be submitted to the Race Director, or his/her designee before the end of the race that the protested engine is participating in (I.e. checkered flag lap is complete).
4. The protest can only be made during an A-Main event.
5. The person protesting the motor must have their engine inspected for compliance first. If the “protester’s” engine is found illegal the protest is null and void and the protest fee will go to the club. If the “protester’s” engine is found legal the protest will continue.
6. The Race Director, his/her designee, will hold the protest money until the protested engine has been inspected for legality. The protested engine shall be tagged/marked and sealed as soon as it car comes across the scale if it has not been sealed prior.
7. The protested engine as well as the engine of the protested party along with the transferring funds including shipping shall be immediately taken to impound and/ or presented to the Tech Director for inspection. Engine must remain in impound and in the possession of tech officials throughout the entire process or may be shipped to USAC Headquarters for National tech directors inspection or designated tech inspection station.
8. Both protester and protestee have the option to be present at the time of inspection.
9. Any protest that is withdrawn will be assessed a \$50.00 fee that will be paid to the host club.
10. If the protested engine is found to be illegal, the motor must be completely torn down to check for additional illegalities. The Tech Director must confiscate all illegal parts and related parts from the protested engine and shall immediately forward them to the USAC National Office. If engine is found illegal protest money minus \$50 plus any shipping cost will be returned to the person filing the protest.
Refusal of protest, destroying or withholding of parts or any other lack of cooperation in this protest or inspection process shall be interpreted as an admission that the engine is illegal and shall subject the driver and handler to the conditions set forth in the Suspensions Program.
11. Any tech’d or protested engine, block or part which are deemed to be over maximum wear limits in one or more spots but is under maximum wear limits in other spots is subject to confiscation but not DQ’able.
13. Note: Reference to Confiscation due to Wear Limits in “Engine Block Internal Rules” of both Manuals.
14. If the engine is found legal \$400 will be given to the person whose engine was protested.

732 Engine Suspension Rules

Handlers and drivers guilty of having an engine declared illegal at technical inspections may be disciplined as outlined in Appendix II, Section 1715, Engine Infractions and Flagrant/Intentional Modifications

1. Any suspension penalty assessed shall begin immediately if not specified otherwise. A lifetime suspension penalty assessed is open to review by USAC National.
2. Illegal **Honda, Animal and World Formula** part/s shall be sent within five (5) Business days to the USAC office or designee for review along with a confiscation form signed by both the USAC Club Official/USAC Representative and the Handler of the car in question. The Tech director has 48 hours to determine if the part/s are legal or illegal. If the part(s) is determined to be legal it shall be re-turned to handler. Handler shall be notified if part(s) is legal or illegal. All illegal or confiscated parts shall be sent to National Tech Director. All legal parts shall be returned to handler.

3. If a **Honda** motor is found to have a valve oil seal during tech it shall be a race disqualification only.
4. Spark plugs and exhaust infractions are a race disqualification only.
5. Failure to go to tech and/or impound will result in a race day DQ.
6. Refusal of tech shall be interpreted as an admission that the engine is illegal and a suspension from the class shall be immediate with all awards and qualifications being revoked with up to a six-month driver and handler suspension at any USAC sanctioned event.
7. For the purpose of this rule only, if a handler has multiple cars competing at one race event and more than one engine is found to be illegal at that event; it will be considered to be one offense.
8. All membership suspensions must be sent to the USAC National Office within 5 business days.
9. Illegal Rookie engine parts shall be confiscated (Honda or Animal) but the suspension shall not be levied against handlers or drivers for the first offense. The second offense shall result in up to a 30 day Suspension from Rookie.
10. The cost to appeal a suspension to USAC National is **\$500** plus any associated fees. See **Appendix II, Section 1715**. Appeals will be heard and decided upon by three (3) party appellate board comprised of USAC President and two (2) non-quarter midget motorsports professionals.

733 Fuel Testing

1. Cars will return from track through inspection area to be checked for fuel additives immediately following qualifying and racing.
2. Use a clean plastic gas can of fuel. Put a sample of track fuel into this clean can. This will be used as a control sample for comparison. Testing must be done in a clean and safe area.
3. Fill a beaker with track fuel. Place a hydrometer and thermometer in the beaker and record the reading.
4. Fill a beaker with a sample of the competitors fuel taken directly from the car in question. Allow for the fuel to cool to the same temperature that the sample fuel was tested at. Once the competitors fuel sample has reached the correct temperature place the hydrometer in the beaker and check the reading. If a competitor's sample is outside of + or - .005 from the control sample, then the fuel sample should be sent into USAC for further testing. The competitors fuel and the control sample fuel must then be placed in separate appropriate containers and sealed up with secure tamper proof tape. USAC confiscation form must then be filled out by the USAC Track Official/USAC representative on hand as well as by a handler of the car in question. Competitor's jar must be initialed by handler of fuel sample in question.
5. 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 will result in disqualification & and suspension from that particular class. First offense up to 30 day suspension in particular class for driver with fuel found to be illegal. Second offense up to a 1 year suspension for driver with fuel found to be illegal in a particular class. Third offense will be a lifetime suspension from all USAC .25 Midget sanctioned events. (Infractions accumulate as a whole. Two infractions is two infractions. One infraction in two different classes is treated as two infractions.)

DIGITRON FUEL TEST MAY BE USED AS WELL. IF DIGITRON TEST REVEALS A FUEL SAMPLE MAY BE QUESTIONABLE, SAMPLE MAY THEN BE CONFISCATED AND SENT IN TO USAC NATIONAL HEADQUARTERS FOR FURTHER TESTING.

1. The approved testers are: DIGITRON DT-15, DT-47FT or FT-64 tester or the Precision Fuel Testing System.
2. Cars will return from track through inspection area to be checked for fuel additives immediately following qualifying and racing.
3. Use a clean plastic one gallon gas can of fuel. Put a fresh sample of track fuel into this clean can. This will be used as a control sample for comparison. Testing must be done in a clean and safe area.

4. Set the meter to zero in the sample of track fuel. Each time the meter is turned off this procedure must be repeated.
5. Suspend the probe in the fuel to be tested for a minimum of ten seconds to allow for stabilization. Fuel reading from -10 to +40 is track fuel. If testing is done after fuel is allowed to cool and settle, the fuel will read to within +/-7 of the track fuel sample.
If readings are between 50 and 100 or higher set car aside and retest in approximately ten minutes. If readings are still this high, DISQUALIFY THE CAR. Readings that are +/- 100 at any time are not track fuel.
6. Replace the 9-volt battery each day.
7. Other methods may be used at the discretion of National Tech.
8. MANUFACTURED BY: DIGITRON

N 8102 FREY A ST.
SPOKANE, WA 99207
509-467-3128

734 Oil Testing

1. The approved testers are "Snap-On" model EELD 101 tester or CPS Model LS790B (Must be used on Sensitivity 2)
2. Engine oil will be tested through the fill port in the block. Engines will have their oil inspected in the staging lane prior to entering the track for qualifying and racing or after a race is complete. Deco engines must have the firewalls removed and will be tested through the oil filler hole. Ensure that engines with splash baffle covering the hole is not sealed. Cars with Briggs or Honda engines will be checked through either front or rear fill holes.
3. The probe must pull air from the crankcase only.
4. Turn on tester and extend probe through the fill hole. Be careful not to touch the probe, or touch it on the block, or in the oil. Listen for a BEEP tone. BEEP tone is slow, then oil is OK.
BEEP tone is fast and then stops, it found fuel fumes, and is OK.
If BEEP tone is fast and does not stop, there is a fuel additive that is not legal in the crankcase.
5. If an additive is in the case, the oil must be changed in the hot chute, before it may enter the race. A recheck must be done after oil is changed.
If there is nothing present, car will be allowed to continue.
If there still are fumes detected, the oil will be changed once again.
No car will be allowed to race with the detection of unknown additives in the crankcase.
6. Check all vent lines and containers to insure that no illegal additives that can enhance the performance of the car can be added after inspection.
7. Other methods may be used at the discretion of National Tech.
8. Suspension Procedure for Illegal Oil; anyone found using illegal Oil or Oil additives following a race will be disciplined as follows:
First Offense up to a 30 day suspension from all USAC .25 Midget Sanctioned events.
Second Offense up to a 1 year suspension from all USAC .25 Midget Sanctioned events.
Third Offense will be a lifetime suspension from all events in USAC .25 Midgets.

735 Technical Inspection Procedure

Tech officials have the right to tech or safety any or all cars in any class at any time.

1. All technical and safety rules are the responsibility of the Parent or Guardian of the car in question ("The Handler").
2. It is the Handlers responsibility to make sure that the car and engine are weighed and properly sealed after qualifying and/or races. If in doubt check with the Technical Director before the car leaves the scale/sealing area.
3. If repairs or maintenance are needed that require breaking of seals or an engine needs to be changed approval must be obtained prior to starting any work. This

work must be done under supervision of Tech Director or his designate. Engine must be resealed immediately after work is completed.

4. After racing, cars must be weighed and have the engine seals checked. Cars finishing mains in announced impound positions must be placed immediately in the designated impound area.
5. Engine and car may not be removed from impound area without permission from Technical Director
6. If car is to be raced in another class or division, handler must make sure weights and seals are checked before leaving the scale/impound area. If a restrictor plate needs to be removed and/or added it must be supervised by tech director or his designate and resealed. Removed restrictor plate must remain in the possession of Tech until engine is inspected.
7. Entry to the impound area is prohibited without approval from Tech Director or his designate.
8. A car may be disqualified at post race tech for missing safety items.
9. Technical Inspector will tell Handler to remove engine and bring it to the Tech bench. Handler is responsible for having tools necessary to remove and disassemble engine. Handler is responsible for any storage containers for disassembled engine components.
10. Engine will be inspected by Technical Inspector according to the USAC manual for engine being inspected. Appropriate Tech sheet should be used to go through inspection in the proper order. If during inspection a part is found to be illegal the inspector will get a second opinion. If the second opinion concurs the engine will be declared illegal and car and driver will be disqualified. If the second opinion does not agree, the senior inspector in attendance should be consulted.

736 Mandatory Decals

The following decals are mandatory for USAC Competition

1. USAC .25/and any official
Series Sponsors determined
by USAC
2. Hoosier

