

9HP JUNIOR LATE MODEL TECHNICAL RULES

1. **DIMENSIONS:**

- Wheel Base 60" (150 cm)
- Track(overall) 46"
- Length Body 110"(275cm)
- Width 46"
- Height 33"(80cm)
- Weight Car Only 450 lbs.(205kg)
- Fuel Capacity 1 gal (4.55L)

2. **BODY:**

- Laminated Fiberglass
- Lexan Windows
- Primered or Colour Impregnated gel-coat
- Available in Monte Carlo, Avenger and T-Bird, Toyota
- Roof Hatch

3. **ENGINE:**

- Dyno. Equalized and 2 Seals
- Honda GX270
- OHV single cylinder
- Air Cooled
- Displacement 270cc
- Bore and Stroke 77 x 58mm
- 9 hp @ 3600rpm
- Clutch-dry / centrifugal or 4 Disc
- Gearing-split axle sprocket
- Drive-Chain driver
- Seals – Crankcase, Head,

4. **CHASSIS:**

- 1 1/4" x .095" mild steel tubing, Or 1" D.O.M Chrome-moly,.085 Tube.
- Driver safety cage
- Adjustable steering
- Adjustable pedals
- J car Racing Products chassis only or certified mini cup chassis

SUSPENSION:

- Front – rigid with camber / castor / toe
- Rear – live rear axle With track pre-load adjs

5. **WHEELS AND TIRES:**

- Wheels – Steel or Alum 8"x6"
- Tires – Spec. Tires (racing slicks)
- American Racer Tires – M32or M33

6. **SAFETY:**

- 1 gal. Fuel cell
- 5 point harness
- Driver's window net
- Firewall (engine-driver)

7. **OTHER:**

- Hydraulic disc brake (rear)
- Top speed 100kph (estimate)

8. **STEERING:**

- Rack and pinion 3/8 rod ends
- 1" Spindles OR 3/4 " ALLOWED
- All rod ends must be pinned or cotter key in.

9. **AIR CLEANERS:**MANDATORY. Stock, including filters, as supplied with motor. No ram tubes or ducting allowed. Stock air cover not required. Washable snorkel type allowed.
10. **APPEARANCE:**
- Race cars participating in racing events must be presentable in appearance at all times. Cars that are considered improperly prepared may be rejected by Tech Officials at any time.
11. **BATTERY:**
- Must be anchored securely and separated from the driver compartment by the firewall.
12. **BODY:**
- Fiberglass bodies produced by Bee Racing Products or Performance Fiberglass in unaltered form may be used.
13. **BODY AND APPEARANCE:**
- Body must be straight, sound, stock appearing and in stock position on frame. Alterations or customizing to gain any advantage is prohibited. Original wheel arches must be retained. Original body seams must be retained.No hood pins or fastenings devices out-side of body. Lexan rub rails allowed,11/4" (out max) must be within wheel track- 46" MAX.
- Cars will not be permitted on the racing surface for practice or races without the car body in place and secure. In the event of an on track incident where body panels are lost, **JCAR** Officials reserve the right to disallow a car from continuing to compete if they feel there is a safety concern. The front bumper, hood and windshield must be on the car to continue (shielding the driver from outside debris)
 - In the event a car starts a race missing body panels, it is the responsibility of the team to ensure the car is legal before and after the race. ie. Meets minimum weight requirements for the division being competed in.
 - Rear spoilers allowed no larger than 4" x 34" aluminum.
 - Rear bumper fiberglass height 8" to ground at 34" roof height.
14. **BRAKES:**
- Hydraulic brakes on rear "NO" front brakes. Brakes on each car will be tested for pedal "feel". Drill rotors are allowed for cooling, 7" or 10" rotor allowed.
15. **BUMPERS:**
- External bumpers are prohibited.Max size 1"x095 wall, 1 -Rear, 2 -Front.
16. **CHASSIS:**
- All chassis parts are to be stock with NO modifying. Alignment may be adjusted i.e. caster, camber and toe-in.
17. **CLUTCH:**
- Engagement springs may be changed. No other modifications.
 - North American 3pad or Brutus 4pad(15 tooth MANDATORY) Dry sintrifical clutches only. Horstman 4 disc 15 tooth allowed.
18. **DRIVE-LINE:**
- Drive axle sprocket may be changed to acquire desired gearing. Chain length may be altered accordingly. Axle C-Clip on each end with wire closing clip closed. Axle 11/4" dia. Steel no longer than 44".
19. **EXHAUST SYSTEM:**
- Exhaust header, as supplied with car, must be retained unaltered.
 - Pipe size 11/4" x 24" to 26"long to end of muffler.
 - NO modifications. All exhaust connections must be sealed i.e. No exhaust leaks. NO wrapping of exhaust pipes. Temperature sensors not permitted in the exhaust system.
 - R.V.L muffler mandatory. Round hole end plate.
20. **FIREWALL:**
- Rear firewall must be original and in original location with all holes filled.
21. **FUEL PUMP:**
- No electric fuel pumps.
 - Vacuum fuel pump only
22. **FUEL:**
- Commercially available unleaded gas only. NO additives allowed.
23. **FLOOR:**
- Floor must be steel, complete and in original position. Rear firewall to front. New for 2007 a steel 1/8" floor plate under drivers seat (BOLT IN) (MANDATORY)
24. **DUCTING:**
- **No ducting through firewall allowed. No ducting to carb. allowed , Ducting to head or clutch will be allowed only off bottom of car or side window.**

25. **FUEL CELL:**
- Plastic 1 gallon fuel cell only. Must remain securely mounted in fuel cell bracket. Car will be disallowed from competition if there are any fuel leaks. DO NOT re-fuel with driver in car and/or engine running.
26. **GRILLE:**
- Grille area must remain sealed.
27. **HOOD:**
- Hood pins must be used. Fiberglass hoods ONLY. Must remain stock as supplied.
28. **NOSE:**
- **Older design chassis to newer chassis are allowed to run ground effects on nose and rocker panels. 1" ground clearance minimum.**
29. **IGNITION:**
- Ignition "kill" switch must be mounted in such a manner that the engine can be turned off from outside of the car in the event of an emergency. Ignition switch must be labeled.
30. **INTERIOR:**
- All metal interior panels must be retained and be 22 gag. Steel rear firewall and floor. Must have front wheel wells, Fiberglass or alum,.
31. **INSTRUMENTS:**
- Optional tachometer/heat gauge allowed only. (No weather stations)
32. **MIRRORS:**
- Not Allowed.
33. **PAINT AND LETTERING:**
- All cars must be neatly and brightly painted. Numbers, assigned by the track, must be painted (or decaled) on both sides of the car and roof (readable from right side) in a color offering distinct contrast to color of car. Numbers must be minimum of 12" high and 3" wide. Numbers must be legible (subject to approval of Head Scorer). NO "trick" lettering.
- NOTE:** Both front fenders (considered being from nose of car to the number on the door) and windshield banner shall be completely free of lettering of decals. **JCAR** retains the right to specify type, size and location of all decals on front fenders and windshield.
34. **PEDAL ASSEMBLY:**
- Location may be altered to suit driver. Steel kart pedal or alum.A.R.C. Assembly allowed.
35. **ROLL BARS:**
- Any roll cage repairs must be made with 1 1/4" O.D. x .095" tubing. NO modifications to original roll cage.
- NOTE:** Mini cup chassis use 1" o.d. x .085 d.o.m.
36. **SAFETY BELTS & HARNESS:**
- A quick release 5 point belt of no less than 2" in width in good condition is **MANDATORY**. Belts must be securely fastened to the chassis by means of suitable reinforced mounting. Belts older than 3 years past the date of manufacture **MUST** be replaced. Two window nets are mandatory. (Left and right side), or right side window removable from out side of car with no tools.
37. **SAFETY HELMET & APPAREL:**
- **HELMET** - Minimum Snell rated full face helmet with eye shield required. (SA2000 or newer mandatory)
 - **DRIVER SUIT** – 1 or 2 piece, full body, single layer Proban or Nomex required. (SFI rating mandatory) **ABSOLUTELY NO NYLON OR OTHER FLAMABLE MATERIAL**
 - **FOOTWEAR** – Full leather upper shoe or Nomex driving shoe required
 - **BALACLAVA** – Nomex balaclava strongly recommended
 - **NECK COLLAR** – Nomex neck collar mandatory
 - **ARM RESTRAINTS** – Recommended
 - **SOCKS** – Nomex socks strongly recommended
 - **Gloves** – Single layer Nomex glove or full leather glove mandatory
 - **Head and Neck Restraints-** (Highly recommended)
- NOTE:** If running head and neck restraints (HAANS) is worn. You do not need neck collar and left side head support. If no HAANS is worn, both head support and neck collar are **MANDATORY**.
38. **SEATS:**
- A bucket seat is mandatory and must be securely bolted to the roll cage and/or frame with 4 bolts.
39. **WEIGHT:**
- Minimum weight requirements will be determined at the beginning of the season. Cars will be weighed with the driver. Jr-7-12 580 LBS. Sr. 12-16- 630 LBS

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WEIGHT LOCATION:

- 55% left side percentage.
Weight must be secured between outer frame rails behind stirring box no more than one foot behind the torso of driver and to a welded in bracket with 2 bolts.
- Do not bolt to tin floor only.

WHEELS:

- 1 piece steel 8" x 6" or aluminum 8" x 6", - Blue .125, Black.160, Red .190 thick (6061 alum.), NO LIGHTWEIGHT. Same offset wheels must be used from left side to right side and front to back. Spacers will be considered part of the wheel and will be measured as such. Aluminum wheels must be made by Douglas. Spacers on spindle don't have to match side to side.

41.

WHEELBASE / TREAD WIDTH:

- All cars must retain a stock wheel base and tread width. NO variance will be allowed. 60" + - 1/2" wheelbase – tread width 46" outside of tire at spindle height .Lexan rub rails must be inside tread width.

42.

WINDSHIELD / WINDOWS:

- Windshield, rear window, opera windows and firewall window must be retained. Minimum 1/8" lexan must be used. NO unapproved marking on windshield. (This includes drivers name, manufacturer identification, etc.)

ENGINE SPECIFICATIONS

- block may be bored to the three oversize's available from Honda, .25mm, .50mm, .75mm
 - piston dish must be a minimum of .037"
 - piston may be a maximum of .003" above deck
 - stock Honda rings must be used and installed properly
 - any ring gap is allowed
 - stroke shall be 58mm or 2.287" maximum
 - stock or .010" undersize rods allowed
 - any heat range spark plug as long as the reach is stock
 - stock valves and keepers, satellite EX allowed
 - valves may be refaced
 - any heat range spark plug as long as the reach is stock
 - stock valves and keepers, satellite EX allowed
 - valves may be refaced
 - any valve spring permitted
 - any carb. Jet and emulsion tube allowed
 - minimum head cc is 26
 - 3 angle valve jobs allowed
 - cylinder head thickness from deck surface to valve cover surface is 3.730: minimum
 - head gasket is composition .042" minimum
 - any flywheel air gap permitted
 - stock GX 270 flywheel and locating key
 - carb throttle bore .792" maximum
 - carb venturi .635" no go
 - any vacuum operated fuel pump
 - any camshaft timing allowed
 - NO metal removed or added to the camshaft
 - cam lobe height intake 1.240" minimum – 1.265" maximum
 - cam lobe height exhaust 1.240" minimum – 1.263" maximum
 - maximum lift at intake valve .280"
 - camshaft may not have lobe separation angle changed from stock angle
 - NO porting, NO polishing, NO deburring, NO matching
 - Seals (head, crankcase,)Mandatory
- **NOTE:** All engines must be properly assembled in accordance with Honda shop manuals. I.e.: Piston arrow to the bottom of cylinder, valve guides in stock location

** All parts may be compared with known Honda parts to verify their originality. One off parts will be considered unacceptable manufactures deviations.

ALL DECISIONS BY PIT STEWARDS, CHIEF TECHNICAL INSPECTOR OR **JCAR** EXECUTIVE COMMITTEE MEMBERS WILL BE FINAL, ALL RULES SUBJECT TO INTERPRETATION BY **JCAR** OFFICIALS. RULEBOOKS WILL BE ISSUED TO MEMBERS

- ALL EQUIPMENT OR MODIFICATIONS NOT maximum lift at exhaust valve .275"

GOVERNED BY THE AFOREMENTIONED RULES ARE TO BE SUBMITTED TO **JCAR**, NOT LESS THAN 30 DAYS PRIOR TO THE DATE OF INTENDED USAGE. NO EQUIPMENT WILL BE CONSIDERED APPROVED BY REASON OF HAVING PASSED THROUGH INSPECTION UNOBSERVED. RULES APPLY TO ALL RACE EVENTS.

43.

MOTORS:

- Engines may be built by anyone, to accordance to Honda shop manual BUT can only be dynode or sealed by either Keith Marshman or Dave McAdams. (with a serial trace). **ALL RULES ARE LOCKED IN FOR 5 YEARS.**