

9HP JR. LATE MODEL TECHNICAL RULES

2019 Ages JR.5-11 Sr. 12-15

1. **DIMENSIONS:**
 - Wheel Base 60" (150 cm)
 - Track width (overall) 46"
 - Length Body 110"(275cm)
 - Height 34" Max. **NO min.**
 - Fuel Capacity 1 gal (4.55L)
 - Ride height 1" left door rail.
2. **BODY:**
 - Laminated Fiberglass
 - Lexan Windows **NO WINDOW TINTING**
 - Primered or Colour Impregnated gel-coat
 - Available in Monte Carlo, Charger, Toyota and T-Bird / Impala / Toyota / Fusion .
 - Roof Hatch
3. **ENGINE:**
 - Dyno. Equalized and 2 Seals
 - Honda GX270
 - OHV single cylinder
 - Air Cooled
 - Displacement 270cc
 - Bore and Stroke 77 x 58mm
 - Clutch / centrifugal or pad 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
 - **Jcar racing Products chassie or certified mini cup chassis****SUSPENSION:**
 - Front – rigid spindle supports with camber / castor / toe adjustment / **No ceramic or tapered bearing allowed in front hubs**
 - Perch style with 3/8 king pin or bolt on arms with a **solid load bolt** for adjustment of wedge must lock in place.
 - **Rear –1 1/4 hollow tube no longer than 44" live rear axle With track pre-load adjusters / No ceramic axle bearings allowed**
5. **WHEELS AND TIRES:**
 - **Wheels – Alum 8"x6"**
 - Tires – Spec. Tires (racing slicks)
 - American Racer Tires – **M32 ONLY**
6. **SAFTEY:**
 - 1 gal .or 1.5 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 (NO tapered spindles)
 - All rod ends must steel no alum .all bolt and nuts must be nylon lock nuts.

9. **AIR CLEANERS:**MANDATORY. **Stock, including filters, as supplied with motor.** No ram tubes or ducting allowed. **Stock air cover not required.**
10. **APPEARANCE:**
- Racecars participating in racing events must be presentable in appearance at all times. Tech Officials may reject cars that are considered improperly prepared 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. Meets minimum weight requirements for the division being competed in.
 - Rear spoilers allowed no larger than 4" x 34" aluminum.
 - Rear bumper fiberglass **height 10" to ground at 34" roof height max. no min.**
 - Front Nose height and **frame 1 inch ground clearance**
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, 6" to 10" rotor allowed. **Floater hubs allowed only on brake rotor.**
15. **BUMPERS:**
- External bumpers are prohibited. **Max size 1"x095 wall, 1 -Rear, 2 -Front.**
16. **CHASSIS:**
- All chassis. Alignment may be adjusted i.e. caster, camber and toe-in. **Minimum ride height of 1"** drivers door rail frame and body to ground.
17. **CLUTCH:**
18. **Dry sintrifical cluches only**
- Engagement springs may be changed. No other modifications.
 - North American 3pad or Brutus 4pad Jamer or Horstman 4 disc. **(15 tooth only MANDATORY)**
19. **DRIVE-AXLE:**
- Drive axle sprocket may be changed to acquire desired gearing. Chain length may be altered accordingly. Axle C-Clip on each end Axle 11/4" dia. Steel no longer than 44". **No floating drive hubs** allowed both key way must be in at all times.
20. **EXHAUST SYSTEM:**
- Exhaust header
 - **Pipe size 1" up to 11/8" OD no shorter than 24" to 26" Max. long to end of muffler measured on outside of bend with no stepping in exhaustpipe tube**
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 **RVL Model # B91- XL Part # 4104 / Bicknell Part # BRK-6012** Round hole end with all 3 baffel plates .unaltered.
21. **FIREWALL:**
- Rear firewall must be steel and in original location behind seat with all holes filled.
22. **FUEL PUMP:**
- No electric fuel pumps.
 - Vacuum fuel pump only
23. **FUEL:**
- Commercially available pump gas .or approved racing fuel allowed. **NO straight Alcohol or Methanol allowed some pump fuel contains 8%alcohol or additives is ok .**
24. **FLOOR:**
- Floor must be 22 ga. steel,or bolted in 3/16 alum.plate complete and in original position. Rear firewall must be 22 ga. Steel only. A steel 1/8" or bolted in 3/16 alum. **floor plate under drivers seat (MANDATORY)**. A 3/16 alum. Plate can be used from front of seat to nose of car for petals to bolt to.

25. **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 rear side window.**
26. **FUEL CELL:**
- Plastic 1-gallon or 1.5 gal. 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.
27. **GRILLE:**
- Grille area must remain sealed.
28. **HOOD:**
- Hood pins must be used. Fiberglass hoods ONLY. Must remain stock as supplied.
29. **NOSE:**
- **Older design chassis to newer chassis are allowed to run ground effects on nose and rocker panels. 1" ground clearance minimum.**
30. **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.
31. **INTERIOR:**
- All interior panels must be 22 gag. Steel or alum. Rear firewall behind seat must be steel separateing drivers area from engine compartment . Must have front wheel wells, Fiberglass or alum,.
32. **INSTRUMENTS:**
- Optional tachometer/heat gauge allowed only. (No weather stations)
33. **MIRRORS:**
- Not Allowed.
34. **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. No gold crome or silver but day glow is fine.
- 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.
35. **PEDAL ASSEMBLY:**
- Location may be altered to suit driver. Steel kart pedal or alum.A.R.C. Assembly allowed.
36. **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.
37. **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.
38. **SAFETY HELMET & APPAREL:**
- **HELMET** - Minimum Snell rated full-face helmet with eye shield required. **(SA2010 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
 - **ARM RESTRAINTS** – Recommended
 - **SOCKS** – Nomex socks strongly recommended
 - **Gloves** – Single layer Nomex glove or full leather **gloves mandatory**
 - **Head and Neck Restraints- (Are maddatory for 2018) HAANS or Nex-Jjen or ZAMP**
- **NO TWO WAY RADIOS ALLOWED**

NOTE: If running head and neck restraints (HAANS) is worn. You do not need neck collar. If using a HAANS both left and right side head support are still needed MANDATORY.

39. **SEATS:**

- A bucket seat is mandatory and must be securely bolted to the roll cage and/or frame with 4 bolts to the top of drivers head.

40. **WEIGHT:**

- Minimum weight requirements **Cars will be weighed with the driver. Jr Ages-5-11 580 LBS MIN. . Sr.Ages 12-15- 630 LBS . Min. There is no max. weight .**

41. **WEIGHT LOCATION:**

- **55% left side percentage.** No front to rear rule.
Weight must be securely bolted between outer frame rails and behind front axle and a head of rear axle centers. With a welded in bracket with 2 bolts and painted white with your number on it .
- Do not bolt to tin floor only.

WHEELS:

- 1 piece 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. Aluminum wheels must be made by Douglas. Spacers on spindle don't have to match side to side.

42. **WHEELBASE / TREAD WIDTH:**

- All cars must retain a stock wheelbase THE variance that will be allowed **. 60" + or - 1/2" between both sides max.**
T **Tread width 46" outside to outside** of tire at spindle height .Lexan rub rails must be inside tread width.

43. **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.)

44. MOTORS

OLD STYLE 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 and stock gasket.
- Stock valves and keepers, satellite EX allowed
- Any valve spring permitted
- 9HP carb. Stock Jet and emulsion tube allowed only **NO jets larger than 92 allowed NO MODIFIED CARBS.**
- 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 **old motors use old parts / new motors use new parts no interchanging.**

** 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.

> crankcase oil – use 4-cycle engine lubricating oil that conforms to SAE or API standards with additives. A sample maybe asked for at any time by TECH. For testing .

- Engines may be built by anyone, to accordance with Honda shop manual BUT can only be dyno or sealed by either Keith Marshman, Dave McAdams or Ryan Custer. (with a serial trace). **ALL RULES ARE LOCKED IN FOR 5 YEARS.As of 2015**

• **New replacement Rod with bearing is - GX 270 PART# ARC -#6261**

• **MAX Horsepower with stock parts is - 11 HP MAX.**

➤ **CARBS – no intchangeing of carbs between motors New with New / Old with old**

➤

Rules For New GX270VT2

1. Governor may be removed
2. Decompressor must not be removed
3. Block may be bored to the three Honda oversize
4. Piston dish may be a minimum of .037
5. Piston may be a minimum of .038 below deck
6. Stock Honda rings must be used & installed properly
7. Any ring gap allowed
8. Stroke shall be a maximum of 58mm or 2.287
9. Stock or .010 undersized rods allowed
10. Stock or billet cleaner allowed
11. Any heat range spark plug as stock reach
12. Stock 25K valves & keepers, stellite exhaust allowed
13. Valves may be refaced but not excessively
14. Any valve spring allowed
15. Stock carb jet & emulsion tube allowed **NO jets larger than 92 allowed . NO MODIFIED CARBS**
16. Carb must be BE21JA model
17. Minimum head CC is 25
18. Minimum cylinder head thickness is 3.728
19. Head gasket is **steel .009 thickness**
20. Any flywheel air gap allowed
21. Any vacuum operated fuel pump allowed
22. Only stock ignition timing with stock key allowed
23. Only early style flywheel & coil allowed (fixed timing)
24. Carb throttle bore is **.832 max**
25. Carb venturi bore is **.676 max**
26. Camshaft intake lobe height is 1.265 max 1.250 min
27. Camshaft exhaust lobe height is 1.255 max 1.245 min
28. Max lift at intake valve at 0 lash is .282
29. Max lift at exhaust valve at 0 lash is .270
30. Camshaft must have stock lobe separation angle
31. Three angle seat grind allowed
32. No porting, no deburring, no matching