



KID KART CLASS
AGE 5+



J1/01/2023 V1.1

WCKC Honda Performance Development GXH50 KID KART Class Supplemental

“The primary purpose of the Kid Kart class is to teach and improve the driving skills, understanding of event procedures, and sportsmanship of beginner racers, aged 5+, and their parents or guardians. All while using a low cost, simple and reliable Honda GXH50 spec sealed engine package. The engine must be run as produced. No deviation from the “as produced” engine is allowed. All components must remain OEM (Original Equipment Manufactured) unless otherwise specified. No addition or substitution of components. “

Adjustments or new rule amendments 2023 year in RED

Parental Minor Waiver consent forms: Any Kid kart entrant/participant must have both parents complete and sign the Parental minor waiver consent forms which must be processed and received by the club prior to being allowed to enter any official wckc club race weekend. In the event sole guardianship exists then official paperwork stating such must be presented and approved for a sole guardian to process a single parent minor waiver form. No exceptions! This will be checked and confirmed on Raceday during pre-tech before first session on track.

Class Attendance/Procedural Rules/Safety :

(Additionally please make sure to read thoroughly and understand the ‘2023 General WCKC Club Rules.’ - > <https://westcoastkartclub.ca/Rules-WCKC.html>)

- This document is supplemental and is specifically for the WCKC Kid kart Class.
- Note: Failure to comply with all club rules will result in **disqualification/ non-eligibility** to run.

1.0 Additional Eligibility Requirement for kids to join Kid Kart club race weekend days is as follows:

- must run 2x club practice days minimum & be under a 1:45 lap times reference mark
- parents and kids must have a verbal sign off test from Kid Kart Director (Awareness, track procedures, passing responsibility/safety, basic flag colors, basic hand signals).

1.1 Chest protection: All drivers in this class are required to wear a chest protector with SFI Section 20.1 Certification during any on-track session.

1.2 Neck & Rib Protectors: All drivers in this class are required to wear a neck and rib protectors as per ASN Canada FIA sporting regulations. <https://www.asncanada.ca/karting>

1.3 Driver log Book: Kid Karts to have an online driver log-book monitoring their driving record. (Feedback from on track sessions are noted: parents & Kid Kart Director).

1.4 Parent Participation: Parents are required to participate on track during their kid kart on track sessions and must always remain in assigned flag stations unless entering track for an incident or retrieval purposes.

- Training debrief to parents prior to on track sessions are required.
- absolutely no communication verbally or hand signals allowed unless specifically for safety as this distracts drivers on track.
- While kid karts in session and on track – No use of mobile devices etc which can cause distraction from job at hand.
- Kid kart class radios to be distributed to all parent flagged stations to be used to communicate during course sessions & with kid kart director.
- One parent or legal guardian **minimum** per kid kart racer, must be present on track **at all times** during any kid kart session on an official race weekend. – No exceptions.

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- 1.5 **Kid Kart class instruction/introduction session:** A review of key relevant information parents need to know for their first & ongoing on-track etiquette, to include basic rules awareness before the first practice, qualify, race sessions. See kid kart director @ morning meeting prior to first On-track activity.
- 1.6 **Pre-race weekend tech Sticker:** Kid Kart & driver safety gear must receive a per-race weekend tech sticker before competing on track in any session including practice sessions: The parent, kid, all driver safety gear, and kart go to the Kid Kart Director for sign off. All the safety gear and basic mechanical-tech checking of essential items on the Kid Kart (brakes, nothing loose, throttle, brake cable, etc) are inspected. Upon completion and satisfaction of inspection, the driver entrant kid will be provided a sticker reading "Ready to Race - Race X".which must be placed on their kart Front Bumper.
- 1.7 **Race Format – Starts:** Standing starts only, to require 20 feet minimum spacing between all karts and staggered.
- 1.8 **Race Format – Awards:** Fun "Exhibition Race Only Class" with no club championship points or year-end championship Award. 1st / 2nd / 3rd podium award placement will now be substituted with a less official championship format and be classified as: gold, silver and bronze. All kids participating will receive a participation award regardless of finish (IE. medallion, certificate, etc)
- 1.9 **Dataloggers / Dashes:** are Permitted for **all practice** sessions. Dashes viewable by the driver are **strictly prohibited** during any and all officially timed Qualify or Race sessions during club race weekends. During these official sessions dashes can either be removed, or if left mounted for post session data collection and review purposes, must be fully covered in order to prevent viewability of the screen, buttons, and lights.
- 1.10 **Race Format - Duration:** All official weekend warmup, Practice, Qualify or Race Session to not exceed 8 laps.
- 1.11 **Optional morning practice Warmup session:** Kid Kart class is now into the morning race weekend warm-up rotation. It is highly recommended but not required for kid kart entrants to participate. This session is typically early morning. Non-attendance during this session will still allow entrant to participate in qualify / racing.

General Technical Rules:

1. Engine: Honda GXH50 as supplied by Honda Performance development.
 - a. Engine seal: As installed by HPD. If seal damaged, missing or disturbed in any way the entrant will be disqualified.
 - b. Gas tank: Must remain on engine in factory location and mounting. Fuel line must run directly from tank to carburetor without interruption.
 - c. WCKC spec club Fuel: **Chevron 94 octane pump gas**. No additives allowed. Failure to meet fuel inspection results in a disqualification.
 - d. Carburetor: KEIHIN BF32E
 - No change or modification to the carburetor is permitted.
 - Throttle plate: # 140 as manufactured with sharp edges. Must retain stock screw.
 - Main nozzle: Minimum length 1.140"
 1. Through hole: .055" No go
 2. Two holes at bottom, 180° apart .028" No go
 3. Eight holes above bottom band 90° apart .020" No go
 4. Four holes at top 90° apart .020" No go
 - Float: F3



- Main Jet: #52S. Go .50mm; No-go .52mm
- Pilot Jet: #35
- Maximum venturi size (no-go): 11.1mm
- All jets must be TIGHT. Loose jets will be disqualified.
- e. Throttle linkage must be as supplied by HPD.
- f. Air Filter: Must remain stock, with stock foam insert. No internal or external modifications of any type.
- g. Spark plug: NGK CR5HSB or Denso U16FSR-UB. Washer must remain on both spark plugs. If Cylinder Head Temp sensor installed, spark plug washer must be removed.
- h. Kill switch: Stock switch must remain connected. An additional switch may be installed in reach of the driver.
- i. Oil Alert switch: Yellow wire must be disconnected or cut.
- j. Oil: SAE 10W-30 or SAE 30 only. Hondaline oil recommended. No exotic oils such as those containing "combustion enhancers". Tech on oil using a refractometer is encouraged.
- k. HPD chain cover (pending availability) or other chain cover mandatory.
- l. Clutch: HPD supplied (*Noram New style spec gold housing clutch only*). No oiling or greasing of clutch shoes or drum allowed. Stall speed 2400 rpm. No modification of clutch drum allowed.
- m. Gearing: **15:89**. Max 8000 rpm.
- n. Exhaust: As supplied, repair not allowed, and the application of RTV to prevent an exhaust leak is permitted. Cracked or broken exhausts will be disqualified. Any evidence of exhaust leaking is grounds for disqualification.
- o. No additional decals or other signage allowed on engine except for Honda or Honda Racing HPD.

2. HPD Engine Mount pattern: 112mm X 54mm (for reference only)

- *- Alternate design engine mounts may be utilized so as the engine remains flat to chassis.*

Additional technical inspection:

GXH50 Ignition Timing Procedure:

- Remove the starter assembly and large cover.
- Install a dial indicator in the spark plug hole, using a 10mm X 1.00 adapter.
- Make sure the indicator has a ball end to ride across the crown of the piston without damage.
- Place light grease or oil on the ball.
- "0" the indicator at top dead center, it does not have to be on the compression stroke as long as piston is at TDC (Top Dead Centre). Remember, this is a 4-stroke.
- Rotate the flywheel clockwise until the two magnets on the flywheel are to the right of the coil.
- Rotate the flywheel counter clockwise until the left hand edge of the left hand coil mount leg is in line with the left hand edge of the left hand magnet.
- Dial indicator reading should be between 245" and 265".



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1. External visual check of engine for required components: Pipe and muffler, shrouds and sheet metal, oil level sensor (this can be observed from outside).
 - A. Blocking Air Flow to the engine: Only factory heat shield is legal. No device may be used that will/or appear that it may impede airflow into the engine cooling system. This may require that the engine be run at a speed above idle by the tech personnel at the scale after the car has qualified or raced.
 - B. Engine should be at ambient temperature when presented to Pre-Grid.

Intake:

2. Remove Carburetor:
 - A. Only stock Honda insulator gasket between black plastic insulator and head. Air passageway in insulator will not be altered in anyway.
 1. Insulator thickness: .277" +/- .001". Hole is rough edged and is "as molded"
 2. Insulator (head side) gasket thickness: 0.019" maximum.
 3. Insulator (carb side) gasket thickness: 0.022" maximum.
 - B. Check for any alterations or worn parts that would allow additional air into engine: holes, slots, perforations, spacers, loose bolts, warped flanges etc. Any evidence of air leaking is grounds for disqualification.

Valve Springs:

Valve springs will be stock Honda springs and will not be altered in any way.

- A. Wire diameter: 0.064" maximum
- B. Outside diameter of spring: 0.588" maximum
- C. Number of coils: 6
- D. Spring pressure: 11 LBS maximum at 0.514"
- E. Stacked length will be: 0.652" maximum

Rocker Arms – Push Rods – Studs:

Rocker arms will be stock Honda and will not be altered in any way. Rocker arm studs will be stock Honda. They or their mounting position may not be altered in any manner. No heli-coiling of mounting holes. No bending of studs. Push rods will be stock Honda and will not be altered in any way.

Push rod length is 2.774" +/- .002"

Chassis:

All Chassis' must be strictly Bambino / Kid kart chassis built by mainstream production kart manufacturers. No homemade chassis are permitted. No Cadet size chassis are permitted. If in doubt before acquiring your Bambino / kid kart chassis please contact WCKC for advice & assistance to compliance.

- *WCKC reserves the right to disallow a chassis from competition if deemed unsafe & not fitting within the Kid Kart class category intent of "chassis" rule.*

Tires: *Following club's current year approved tire rules, any club legal dry compound front tire is permitted.*

Bodywork: CIK, FIK or IKF/WKA style allowed. Must include: front fairing, nose, side pods and full rear protection.



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Minimum Weight : *legal race minimum weight = 160 lbs.*

All entrants are subject to technical inspection.

Claiming: any competitor may claim an engine entered in the event subject to the following conditions:

- Claimant must be entered in the race and have participated in at least two events in the class during the calendar year.
- Claimed engine must have cleared Technical Inspection for the event.
- Claimant must provide certified funds or cash in the amount of \$1000.00 US\$.
- Claimed engine will be delivered to the Claimant under the Supervision of the event clubs Kid kart Director at the end of the event.
- Claimed engine will be complete as supplied by HPD.
- Failure to deliver the claimed engine will result in forfeiture of all Awards & prizes for the remainder of the year & possible suspension from future kid kart races.
- HPD or their designate, reserves the right to claim and replace any engine under this program. HPD is not required to pay \$1000.00 US\$ if engine is replaced with new engine.

Recommendations:

1. Drain fuel from carburetor after every event. *This prevents pump gas and other fuel from clogging internal carburetor jets.*
2. Do not 'power rev' engine on the stand. *This only creates excessive wear on the crankshaft key. If you lose a chain on track make sure your kid does not free rev engine at limiter.*
3. Inspect clutch key frequently, replace if wear is developing.
4. Only used approved oil and change every 3 race weekends.
5. Inspect and replace valve springs if soft.

Note : Further guides, quickstart, service Manuals & specifications specifically related to the kid kart class are linked on our WCKC web page: <https://westcoastkartclub.ca/> under 'Rules & Regulations page.'