209 Speedway Karters

Pro Stock Champ or Cage Kart Rules

Age Requirement: Minimum age of 12. Age is subject to the Race Director's Approval.

1.1 Rules & Intent:

A. This class is a higher HP advanced class.

1.2 Approved engines:

A. Ducar 224 cc or Predator 224 cc engines with spec parts as listed below in 1.3 "Engine Components".

1.3 Engine Components:

A. ALL components must be original, unmodified OEM components EXCEPT AS FOLLOWS;
   1. ONLY Cam is a Mod 2 grind DynoCams part MOD2-224. (Checked with a lobe template). See section 1.15.
   2. ONLY Rod is a 3.23" Billet DynoCams part ARC-6271. See section 1.9.
   3. ONLY Piston is a 70mm Predator Flat Top Piston DynoCams part CL-1284PH
      OR
      70.25mm Oversize Predator Hemi Flat Top Piston DynoCams part CL-1284PH10 (.25mm or .010" oversize piston for rebuild). See section 1.10.
   4. ONLY Carburetor is a Nibbi PE22mm FL (flange type) with a Nibbi 212 Manifold. See section 1.5.
   5. 26 lb. maximum Valve Springs see section 1.14.
   6. ONLY Flywheel is an ARC 6619 or ARC 6689. See section 1.12.
   7. ONLY Exhaust Pipe is a RLV EXF-5000.

   - OEM defined as (original equipment manufacturer) unaltered in any way.
   - **THIS MEANS NO ALTERATIONS TO ANY INTERNAL PARTS ALLOWED** (Any exceptions are listed in this document only).

B. Removal of unnecessary OEM items (see specific sections for details & replacements).
   - Exhaust
   - Fuel Tank
   - Air Filter Assembly

- Camshaft
- Rod
- Piston
- Carburetor and Isolator
- Valve Springs

1.4 Exhaust System:

A. OEM exhaust may be removed.

B. Only allowed exhaust pipe is a RLV EXF-5000.

C. For safety reasons… if header extends past the rear bumper, it may be cut at the flange and turned within rear bumper.

1.5 Carburetor:

A. ONLY allowed Carburetor is a Nibbi PE22mm FL(flange type). No machining or removal of any material in any manner. The carburetor is required to be run as manufactured. No other carburetor is allowed. www.nibbiracing.com

B. ONLY Carburetor Manifold is a Nibbi flange intake Manifold kit for Predator 212. www.nibbiracing.com

C. ONLY air filter adapter is a 209 modified 46mm to 61mm adapter cup "PS Filter Adapter" at 209 Store. This cup is machined to fit by 209 SWK.

D. Venturi may **NOT** be machined, sanded or material removed in any manner. The entire carburetor must be OEM except the Emulsion Tube and Jets.

E. Jet sizes are open. No use of Loctite or other materials on high-speed jets or damaging threads are permitted in any attempt to lock the jet in a non-stock location.

F. Stock as manufactured jet needle only. May be checked with template.

G. Fuel Pump Pulse tube, ¼" id vacuum pulse fitting from the valve cover only. No oversize drilling allowed.

H. All air/fuel entering engine must pass through the unmodified carburetor circuit. Subject to spray test (WD 40 or similar) and/or hose check to check for leakage or introduction of air into the intake track. When performing the spray test the engine may stall or speed up, both indicate that the engine has failed the test.

I. No other spacers, manifolds, or pulse adapters may be used.

J. Any aftermarket Air Cleaner.

1.6 Fuel Tank:

A. Non-Tech. It is recommended that for safety reasons a remote/floor mounted tank may be used.

B. Tank must be securely fastened.

1.7 Fuel:

A. CHEVRON 87 Octane ONLY.

B. No methanol, No E-85, No fuel enhancers, or additives of any type.

C. Fuel must pass any or all the following test: -Visual; -Continuity meter; -Gravity test, -Gas, Alcohol and Water Mix.
   - Maximum allowance is 10+ or - on the meter.

D. Fuel meter will be calibrated to CHEVRON 87 Octane.

1.8 Clutch:

A. Any engine mounted shoe/drum clutch.

B. Gear Ratio is open.

C. No axle clutches.

D. No disc Clutches.

1.9 Connecting Rods:

A. DynoCams or ARC 6271 - 3.323" billet connecting rod only. (replacement bearings are ARC-6394 same as stock 224)

1.10 Pistons:

A. ONLY Pistons are a 70mm Predator .550” Flat Top Piston DynoCams part CL-1284PH
OR
70.25mm Oversize Predator .550” Hemi Flat Top Piston DynoCams part CL-1284PH10 (.25mm or .010” oversize piston for rebuild).

1.11 Crankshaft:

A. Standard OEM item with stock stroke length of 2.283” (58mm) plus or minus .005". No alterations permitted.

1.12 Flywheel and Ignition Coil:

A. Must use stock ignition coil, plug wire, and resistor spark plug boot.

B. Spark plug is open.

C. No off-set keys. Flywheel key must be stock OEM in stock OEM position.

D. 3.3-pound minimum weight.

E. No flywheel modifications allowed.

F. Approved flywheel list:
- ARC 6619 or ARC 6689 ONLY

1.13 Cylinder Head:

A. Predator OEM YD106 casting, YD74 casting, JT21 casting, or other GX200 Series clone head with as manufactured 27mm intake valve and 25mm exhaust valve with 5.5mm valve stems.

B. No modifications to head allowed.

C. The outside face of the valve may not be below the floor of the combustion chamber. (i.e., don’t sink the valves.)

D. Head gasket required, type and thickness are open.

1.14 Valve Train:

A. OEM push rods, push rod guide plate, retainers, springs, keepers, exhaust valve lash cap, stock stamped steel pedestal mounted 1:1 rocker arms and adjusters only.

B. Rocker arm minimum overall length 2.145". No grinding , polishing or removal of material in any form from the rocker arms in any area i.e.: cannot remove material from tips of rocker arms to adjust lift. The rocker arms are required to be run as manufactured.

C. OEM valves with 45 seat angles only. No lightning or polishing.

D. 26 lb. maximum valve springs.

E. NO shimming of valve springs is permitted.

F. Valve stem seal is required on the intake valve only. A valve seal on the exhaust valve stem is NOT allowed.

G. Exhaust valve lash cap min height is .150". The lash cap height may be machined for height only to adjust exhaust valve lift, NO chamfering of edges. The lash cap minimum diameter is .330" NO machining is permitted to reach the minimum diameter.

H. Push Rod must be OEM unaltered. The pushrod weight is 9 grams minimum.

1.15 Camshaft:

A. ONLY Cam is a Mod 2 grind DynoCams part MOD2-224. Original lobe profile must be retained and may be checked with an OEM lobe template.

B. Readings are taken with a dial indicator on the pushrod.

C. Maximum Exhaust and Intake Lift .224"

D. Rocker arms are required to be used as manufactured. NO removal of material is allowed to adjust lift except exhaust lash cap height (1.14 G. above).

1.16 Fasteners & Gaskets:

A. Non-tech but must retain their original factory size.

B. Heli-coils, studs, etc. are allowed for repair purposes.

1.17 Crankcase:

A. Breathers are to be routed internally through the valve cover as originally intended in OEM configuration.

B. No additional breathers allowed.

C. Solid dowel pins may be used for the side cover dowel holes.

1.18 Starter

A. Stock pull starter must be in place and functional.

1.19 Other

A. **All karts must have a 6" nylon tie attached to spark plug wire.**

B. Kill switches are highly recommended.

C. No traction control devices are allowed. The kart must have a solid axle and fixed hubs.

D. No mirrors.

1.19.1 Protesting:

A. Any competitor that started the main event may protest any other competitor in the same class for legality within 15 minutes of completion of the main event.

B. Protest must be made in writing to the assigned tech steward for that race, accompanied by a $150 protest fee.

C. If kart in question is deemed legal, $100 will be awarded to the driver receiving the protest, if the kart in question is deemed illegal, $100 will be returned to the protesting driver.

D. See General Rules section 2.1 for more details.

2.0 Champ Kart Specifications:

NKA Supplement

20.4.1: Overall Kart Length 95.5”

20.4.2: Overall Maximum Width 52” outside to outside

20.4.3: Minimum Width 40” outside to outside.

20.4.4: Minimum Overall Kart Height 38” ground to top of cage.

20.4.5: Wheelbase 42” minimum, 50” maximum.

20.4.6: Cage Standards

20.4.6.1: All Karts will be equipped with functional roll cages constructed of suitable material, craftsmanship (no soldering or brazing), and design, to protect the driver in the event the kart departs its normal racing attitude. All structural tubes (everything except side intrusion bar that is approximately elbow height), must be at least 1.125” with .083” wall mild-steel or stronger tubing.

20.4.6.2: The “drop” of the cage’s main cage bar between the rear vertical bar and lowest point in the front is 3” maximum.

20.4.6.3: Top crossbar must be welded rearward of downward bend of main cage tubes.

20.4.6.4: Horizontal bar on rear of cage, must be 1.125” with .083” tubing. Shoulder belts must be mounted here. 44

20.4.6.5: Height from Bottom Rail of Main Frame: Minimum 10” , Maximum 14”.

20.4.6.6: The side intrusion bar shall have a minimum of .750” tubing with .065” wall. This bar can be removable/ replaceable via a slip fit joint welded to the main cage rails.

20.4.6.7: Top of cage opening shall be 16” -24” width, 18” -24” length (rear top-rail of cage to crossbar). 20.4.6.8: Corners must be rounded. Square, triangulated, or sharp corners are not allowed.

20.4.6.9: All welds must be 360 around tubing TIG or MIG welded.

20.4.6.10: Cage must attach at 4 points to the main-frame minimum and must be TIG/MIG butt-welded.

20.4.7: Seat Belts

20.4.7.1: Mandatory 5-point minimum harness must be commercially manufactured for motorsports with SFI rating. 2” wide belts are allowed for drivers less than 150 pounds; 3” wide belts are required for drivers over 150 pounds.

20.4.7.2: Lap & Sub Belts Cannot wrap around fame and must be mounted via a welded on steel seatbelt tab: at least .063” thick and 2” square.

20.4.7.3: Shoulder Belts Cannot be mounted to vertical cage rails and must be lower than the driver’s shoulder blades.

20.4.7.4: Arm Restraints Mandatory SFI-rated, must attach to seat belt system, and not allow any part of the driver’s hand or arms outside the cage when fully extended.

2.1 Cage Kart Specifications: NO Wings

A. Cages are mandatory and must be for the purpose of protecting the driver, not just for appearance or wing mounting.

B. Minimum metal pipe standards for all roll cages are; ¾” x .083” wall chromoly, 1” x .065” wall chromoly, or 1” x .083” wall steel.

C. Cage must be securely fastened to the frame in 4 spots with grade 5 or better fastening hardware.

D. No side bars, other than the regular nerf bar, may extended past the outer edge of the tire.

E. The drivers body must be completely inside of the roll cage.

F. Roll cage must have a 2” minimum clearance above the drivers head.

G. Standard lay down seat or aluminum high back seats may be used . Aluminum high back seats must reach the center of the drivers head and not have excessive holes. The seat must be securely fastened to the frame. Any suspended seat must have a safety cable attached to the frame.

H. Fuel lines must have a minimum 2” clearance from exhaust systems and shall not be above the exhaust. If a fuel line must be installed closer than 2” from the exhaust it shall be adequately insulated.

I. Fire Retardant 1 piece or 2-piece race suites is MANDATORY on cage karts.

2.2 Cage Kart Restraints:

A. All karts must be equipped with a minimum of a SFI 16.1 (or FIA equivalent) approved seat belt and shoulder harness restraint system.

B. Shoulder harness must be mounted to limit forward body motion independent of the seat.

C. Lap belt may be mounted to the frame or directly to the seat and routed securely through the seat. Cut or frayed restraints will not be allowed.

D. Arm restraints are mandatory.

All Karts

2.3 Wheels &Tires:

A. Maximum 6” diameter kart type wheel.

B. Tread tires only. Right rear tire minimum durometer reading 48.

C. No Chemical "preps" are allowed on the tire at any time, tire may be washed at the track with water only.

D. Tires must be dry before coming to the grid.

2.4 Weight:

A. Kart and driver 400 lbs. with a minimum durometer of 48 on RR tire; 425 lbs. with open durometer reading on the RR tire.

B. Specified karts and drivers must go to scales after A main event or will be DISQUALIFIED and will forfeit any money or points for that night.

C. All weights added to the kart must be securely fastened to the kart with a minimum 5/16-inch diameter bolt that is double nutted, or safety wired.
- If weight is attached to the seat area a large “fender” washers must be used.

D. Kart Weight must be displayed on the engine shroud or top plate to aid track officials at the scales.

E. Any kart that loses a weight will be disqualified from that session and lose points/position from that session

2.5 Bodywork:

A. All bodywork components must be constructed of high strength plastic, fiberglass, or advanced composites. NO Wood.

B. No metallic materials to be used for tail pieces or nosecones.

C. Bodywork must not obstruct the driver's forward or peripheral view.

D. Side panels may be constructed of aluminum, high strength plastic, fiberglass, or advanced composites.

E. If a side panel is used on the motor side of the kart that side panel shall require NO tools to remove panel.

F. No sharp edges or protruding parts.

2.6 Bumpers and Nerf bars:

A. All karts must have front bumpers that adequately protect the driver's feet.

B. Karts must have nerf bars that adequately protect the kart from side impact and will prevent karts from "hooking" wheels.

C. No side bars may extend past the outer most edge of the tires.

2.7 Brakes:

A. Hydraulic brakes are mandatory.

B. Brake rotor must have a guard "wolf plate" to protect the seat from contacting the brake rotor in the event of a seat mounting failure.

3.0 Tech:

3.1 Tech Procedures:

A. After the main event the top 5 karts will proceed to the designated tech area, at this point the kart will be considered "impounded"

B. Karts will be inspected in their finishing order.

C. Drivers/Crew will be required to assist with removal of parts, drain their oil, and to help facilitate the technical inspection on their kart.

D. Track official has the option to exchange any motor they feel is performing beyond its ability. They will have a new replacement motor on hand. This rule will not apply to old motors that are built to perform just to exchange for a new one.

E. See General Rules section 5 for more details.

3.2 Tech Items:

A. Post Tech items will include but are not limited to ALL sections of the rules.

B. Tire Durometer:
    a) Right Rear tire must read a minimum of "48" on a shore certified "A" durometer after given adequate time to cool or prior to track entry on hot grid.

C. Carburetor air leak and Fuel.

D. Cylinder deck inspection and minimum piston in the hole check to ensure the engine cylinder is an OEM unaltered cylinder.

E. Any motor showing enhanced performance will have full tech after main event.
- If anything is found to be in fault of the rules that motor will be banned from racing and must be replaced.

4.1 Race Procedures & Safe Driving:

A. Competition is expected to proceed without you endangering yourself or others.

B. If in the judgment of the race official, a driver bumps, crowds, or pushes another driver, the offending driver may be penalized or disqualified.

C. A one-way radio receiving device (i.e., Raceceiver) is mandatory for all classes (1 race grace period only).
   - Drivers must have their unit on and always working while on hot grid and the track.
   - Failure to observe this rule shall result in your kart not being scored and/or additional penalties.
   - No 2-way radio communication between the driver and crew.

4.2 Penalties:

A. Any kart found in blatant tech or protest violation may lose all points, prizes and recognized finishing position for the event, as well as earned points towards the championship up to that point in time.

B. Certain nonperformance rule infractions may be handled with a written warning and correct by next race waiver per the governing bodies/tech steward's discretion.

C. Although the rules are comprehensive, they may not address every situation.

D. If the rules do not specify you can do something, assume that you cannot until clarified.

E. The Race Director's decision is final.