



## 2004 RACE SERIES TECHNICAL AND CLASS REGULATIONS

### 1 Tires

#### 1.1 Dry Tires

Dry tires for all classes will be as per BCKCA Technical Regulations section 9.4.1 and 9.4.2

#### 1.2 Wet Tires

Wet tires for all classes will be as per ASN Canada FIA Technical Regulations. Once the track is declared "Wet" by the Race Director, competitors are free to choose between wet tires and dry tires, although track officials reserve the right to remove from the track any competitor on dry tires in wet conditions who is deemed to be a hazard.

### 2 Competition Number Panels

#### 2.1 Rookies

All new / novice drivers must display an ORANGE number panel, with black numerals, at the rear of the kart, accompanied by an X, in contrasting colors, on both the rear panel and the rear of the driver's helmet.

#### 2.2 Three Digit Numbers

Three digit numbers are permitted on karts entering CCKC events. Three digit numbers are NOT permitted at BCKCA events.

### 3 Rear Bumpers

Full width rear bumpers are strongly recommended for Junior classes, as long as the bumper conforms to ASN Canada FIA rear bumper regulations.

### 4 Pre-Race Tech Inspection

a) All karts entering CCKC events are required to meet ASN Canada FIA standards for component fastening and securing. All-steel or stover lock nuts are recommended for component fastening purposes.

b) Karts proceeding to pre-race technical inspection are required to bring all safety equipment required for the driver and a copy of these Club rules, the BCKCA rulebook, and the ASN Canada FIA rulebook.



## 5 Class Regulations

Class Name	License / Age	Permitted Engines	Weight
Junior 1 - 2 Cycle	D, 8-11	Comer K-80, Yamaha KT100S	225 lbs.
Junior 1 - 4 Cycle	D, 8-11	Honda GX160K1	225 lbs.
Junior 2 - 2 Cycle	C, 11-15	Yamaha KT100S	286 lbs.
Junior 2 - 4 Cycle	C, 11-15	Honda GX160K1	291 lbs.
Junior 3	C+, 12-15	As per BCKCA	As per BCKCA
Formula 80cc Junior	C+, 12-15	As per ASN Canada FIA	320 lbs.
Senior Honda 160 Senior Honda 200	B, 15-up	Honda GX160K1 Honda GX200K1	320 lbs. 350 lbs.
Senior Piston Port	B, 15-up	Yamaha KT100S Komet K71 DAP T50 PRD RK-100	<b>Varies with engine and drive: see specific engine regulations</b>
Rotax Max	B, 15-up	Rotax FR125 MAX	363 lbs.
TaG	B, 15-up	Rotax FR125 MAX Comer Parilla Leopard BM Jaguar Biland SA 250 Vortex Rok Sonik VX125 Sonik SL125 Italsistem ML47H	365 lbs. 370 lbs. 370 lbs. 370 lbs. 375 lbs. 375 lbs. 385 lbs. 385 lbs. 390 lbs.
ICA	B+, 15-up	As per ASN Canada FIA	330 lbs.
Formula 80 Senior	B+, 15-up	As per ASN Canada FIA	360 lbs.
ICC	A, 15-up	As per ASN Canada FIA	375 lbs.

## 6 Engine Preparation

### 6.1 Junior 1 - 2 Cycle

Comer K-80 as per BCKCA regulations. Yamaha KT100S must run RLV YBX “can” exhaust and 0.500" intake restrictor.

### 6.2 Junior 1 - 4 Cycle

Honda GX160K1 with no intake restrictor and OEM Honda exhaust.

### 6.3 Junior 2 - 2 Cycle

Yamaha KT100S as per Section 8 specs, with RLV “silenced superbox” exhaust.

#### **6.4 Junior 2 - 4 Cycle**

Honda GX160K1 as per ASN Canada FIA regulations for Canada Junior.

#### **6.5 Senior Honda**

Honda GX160K1 and GX200K1 as per ASN Canada FIA regulations.

#### **6.6 Senior Piston Port**

Yamaha KT100S as per Section 8 specs. Weights: SBX exhaust, direct drive 320 lbs. SBX exhaust, clutch 330 lbs. Tuned pipe, direct drive 340 lbs. Tuned pipe, clutch 350 lbs.

PRD RK-100 as per Section 8 specs. Weights: SBX exhaust, direct drive 320 lbs. SBX exhaust, clutch 330 lbs. Tuned pipe, direct drive 340 lbs. Tuned pipe, clutch 350 lbs.

Komet K-71 as per Section 8 specs. Weights: SBX exhaust, direct drive 340 lbs. SBX exhaust, clutch 350 lbs. Tuned pipe, direct drive 360 lbs. Tuned pipe, clutch 370 lbs.

DAP T-50 as per Section 8 specs. Weights: SBX exhaust, direct drive 340 lbs. SBX exhaust, clutch 350 lbs. Tuned pipe, direct drive 360 lbs. Tuned pipe, clutch 370 lbs.

#### **6.7 Rotax Max**

Rotax FR 125 MAX as per Rotax Max Challenge regulations.

#### **6.8 TaG**

- a) Air Intake: OEM, as supplied with the engine from the manufacturer.
- b) Carburetors: As supplied from the manufacturer. Jetting is open.
- c) Fuel pumps: Must be of diaphragm pulse type, manufacturer and location open.
- d) Ignition system: OEM, as supplied and per factory specifications. Spark plugs open.
- e) Piston / Rings / Bearings / Gaskets: Aftermarket parts meeting OEM dimensions and material specifications are permitted.
- f) Exhaust system: Exhaust and silencers as supplied by manufacturer. No plating or ceramic coatings permitted.
- g) Clutch: OEM, as supplied with engine from the manufacturer and as per factory specifications.
- h) Cooling system: Coolant may not contain any glycol based material. Water wetter or other surfactants may be added. Radiator must be as supplied by manufacturer.
- i) Internal modifications: No internal modifications are permitted.

## 7 Sound Emissions

### 7.1 Maximum Sound Levels

The maximum sound level permitted from a single kart will be 82dB(A), measured as per the procedures listed in the BCKCA regulations. Karts that are producing sound levels in excess of this measurement will be pulled off the track.

### 7.2 Silencers

All karts running in CCKC events must be equipped with an additional exhaust silencer of a manufactured design. Karts running at sound levels above 82 dB(A) will be required to install other silencing devices (examples are installing an air filter in the intake silencer, fin rubbers on air cooled engines)

## 8 Engine Specifications

### 8.1 Yamaha KT100S

As per ASN Canada FIA technical regulations for Formula 100.

### 8.2 Komet K71

<b>Displacement</b>	Maximum Bore 2.085" (52.96mm) Maximum Stroke 1.816" (42.13mm)
<b>Cylinder</b>	No grinding allowed at any location including junction of liner and barrel. <i>Note: cylinder may be notched for rod clearance</i>
<b>Exhaust Port Opening</b>	1.155" (29.34mm) ATDC
<b>Inlet Port Opening</b>	0.775" (19.69mm) BTDC
<b>Cylinder Head Volume</b>	11cc minimum
<b>Combustion Chamber</b>	Chamber shape is non-tech
<b>Piston</b>	Single or double ring only, stock appearing. Maximum break 0.030" (0.76mm), skirt area only
<b>Connecting Rod</b>	Maximum rod length 3.786 - 3.774" (96.164 - 95.86mm), center to center
<b>Wrist Pin</b>	No tapered wrist pins
<b>Carburetor</b>	Walbro WB3, as per ASN Canada FIA specifications
<b>Inlet Tract Length</b>	2.600 - 2.800" (66.04 - 71.12mm), measured from the carburetor mounting surface to the cylinder ID with the carburetor gasket removed
<b>Crankcase Pulse Hole</b>	ID - 0.128" (3.251mm) no-go
<b>Phenolic Spacer</b>	Hole size 1.000 - 1.040" (25.40 - 26.42mm) straight bore
<b>Ignition</b>	See Ignition section

### 8.3 DAP T50

<b>Displacement</b>	Maximum Bore 2.025" (51.44mm) Maximum Stroke 1.915" (48.64mm)
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<b>Cylinder</b>	No grinding allowed including junction of liner and barrel. New style T50 cylinder with single port inlet opening - maximum chord width 1.335" (33.91mm). Four transfer port T50 cylinder legal - maximum chord width of small transfer ports 0.480" (12.19mm)
<b>Exhaust Port Opening</b>	1.235" (31.37mm) ATDC
<b>Inlet Port Opening</b>	0.810" (20.57mm) BTDC
<b>Cylinder Head Volume</b>	11cc minimum
<b>Combustion Chamber</b>	Chamber shape is non-tech
<b>Piston</b>	Single or double ring only, stock appearing. Maximum break 0.030" (0.76mm), skirt area only
<b>Connecting Rod</b>	Maximum rod length 3.932 - 3.942" (100.00 - 100.12mm), center to center
<b>Wrist Pin</b>	No tapered wrist pins
<b>Crankshaft</b>	Aluminum crankshaft stuffers may be notched (removed) above crankpin. Crankshaft has no counterweight plugs
<b>Inlet Tract Length</b>	2.600 - 2.800" (66.04 - 71.12mm), measured from the carburetor mounting surface to the cylinder ID with the carburetor gasket removed
<b>Carburetor</b>	Walbro WB3, as per ASN Canada FIA specifications
<b>Crankcase Pulse Hole</b>	0.128" (3.251mm) no-go
<b>Phenolic Spacer</b>	Hole size 1.000 - 1.040" (25.40 - 26.42mm) straight bore
<b>Ignition</b>	See Ignition section

#### 8.4 PRD RK-100

Unless otherwise specified, all parts are to be of original PRD manufacture and shall be OEM, as cast, original dimension, and stock appearing.

<b>Displacement</b>	Maximum Bore 1.990" (50.55mm) Maximum Stroke 1.975" (50.17mm)
<b>Cylinder</b>	a) Cylinder may be notched for rod clearance b) No addition or removal of materials in transfer passages c) The cast iron in the lower transfer opening may, from the factory, have a minor chamfer blend at the aluminum / iron junction d) The aluminum surfaces in the exhaust tract are non-tech. No grinding permitted on iron liner e) The aluminum and iron liner within the inlet tract area is non-tech
<b>Exhaust Port Opening</b>	1.255" (31.88mm) ATDC
<b>Inlet Port Opening</b>	0.835" (21.21mm) BTDC
<b>Cylinder Head Volume</b>	9cc minimum

<b>Head Gasket</b>	Copper or aluminum. May run without gasket.
<b>Piston</b>	a) Legal piston is PRD, single ring dykes design. PRD must be cast inside b) Circlip notch maximum width 0.250" (6.35mm), maximum height 0.375" (4.76mm) c) No piston coatings allowed d) Maximum break 0.030" (0.76mm), skirt area only e) Rings must be of magnetic material
<b>Connecting Rod</b>	a) Shot peening is allowed b) Rod is located at bottom by 2 washers, one on each side of rod. Top of rod has no washers and a single caged bearing c) Maximum length 3.932 - 3.942" (99.87 - 100.13mm) center to center
<b>Wrist Pin</b>	No tapered wrist pins
<b>Crankshaft</b>	a) Shot peening and polishing is allowed b) Crankshaft does not have counterweight plugs
<b>Inlet Tract Length</b>	2.600 - 2.800" (66.04 - 71.12mm), measured from the carburetor mounting surface to the cylinder ID with the carburetor gasket removed
<b>Crankcase Pulse Hole</b>	ID - 0.128" (0.76mm) no-go
<b>Phenolic Spacer</b>	Hole size 1.020 - 1.085" (25.91 - 27.56mm) straight bore
<b>Ignition Coil</b>	Must be PRD. PRD name embossed on coil
<b>Flywheel</b>	Must be PRD or Iidadenki
<b>TCI</b>	Must be PRD
<b>Carburetor</b>	Walbro WB3, as per ASN Canada FIA specifications

## 8.5 Non-Tech Items

Unless otherwise specified, non-tech items include gaskets, oil seals, bearings and cages, fasteners, and crank pins. Main bearings are a non-tech item but must use the same dimensions as stock OEM components.

## 8.6 Piston Port Engine Ignition Systems

a) All piston port engines that previously required the use of Motoplat ignitions may substitute any of the following ignitions:

1. Point type (DANSI or CEV) legally interchangeable between all engines
2. Motoplat (Rotor and stator serial numbers must match)
3. PVL (clockwise and counter-clockwise) (Both potted and unpotted stators are legal). Coil must be marked 105.458 and be black in color. Rotor must be marked B7-917
4. Selettra Ignition (clockwise and counter-clockwise)

b) External coils with tachometer connections are legal

c) High tension coils - Any modification to any wire or connectors except for the express purpose of repair or noise suppression is illegal.

d) Ignition hardware is non-tech except for Yamaha ignition hardware, which cannot be altered from stock