CHAPTER 36 - NATIONAL 100CC

Preamble
From 1st January 1999 a (3) year moratorium on changes to the engine specifications exists.

36.01 **Engine:** YAMAHA KT100J ONLY
This section covers the KT100J series engines which conforms to the Yamaha Specifications as approved by the AKA. Any alterations / modifications are strictly prohibited except as specifically authorised within these rules.

36.02 **Tyres**
1 No modifications permitted, tyre treatment is illegal (refer rule 23.03)
2 **Dry Weather Tyres:** Dunlop SL1 (1 set + 1 replacement tyre / meeting
Adjusted AKA Contracted Price: $185.00 per set maximum Retail Fixed Price.
3 **Wet Weather Tyres:** Maxis WT3TKM (1 set + 1 replacement tyres / meeting)
Adjusted AKA Contracted Price: $192.00 per set maximum Retail Fixed Price.

36.03 **Braking**
Front wheel brakes are not permitted. Refer Rule 25.07 (iv).

36.04 **Fuel:**
Refer Rule 25.14. Fuel, as run, to comply to test under Rule 22.01.

36.05 **Weight:**
(a) National 100cc Light - 130 Kg
(b) National 100cc Heavy - 150 Kg
MAXIMUM KART WEIGHT FOR NATIONAL 100cc HEAVY CLASS - 83 kgs.
(Kart as raced and prior to Class weight measuring.) (Refer Rule 25.23 (b)).

36.06 **External Modifications:**
External modifications which do not in any way affect a performance gain are legal.

36.07 **Internal Additions:**
No additional material may be added except in the case of engine repairs and shall only restore engine or components to original specifications. The cylinder may NOT be repaired in any of the port or passage as cast areas.
(1) The use of thermal barrier coatings / ceramic coatings on or in the engine / engine components and on or in exhaust components is prohibited.
(2) The use of anti friction coatings on or in the engine / engine components is prohibited.

36.08 **Legal Additions:**
Shall be limited to the following: Chain guard, motor mount, direct drive gear, carburettor return springs, extension of carburettor jet needles, third bearing and adaptor, temperature gauge and tachometer.

36.09 **Clutch:**
A clutch is not permitted in this Class.

36.10 **Non-Tech Items:**
Refer Rule 25.25.

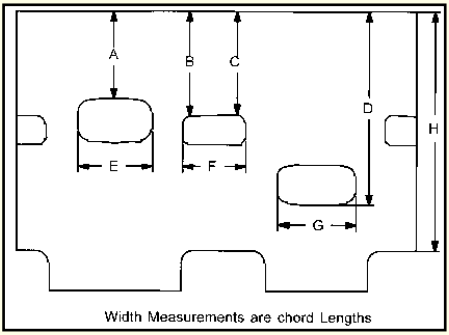
36.11 **Displacement:**

The maximum bore and stroke are:-

Engine	Bore	Stroke
YAMAHA KT100J	51.00 mm	50.05 mm

36.12 **Exhaust, Intake and Transfer Ports:**

Check the port height and width per the diagram.



CODE	DIMENSION
A	34.30mm min
B	41.30mm min
C	40.30mm min
D	not applicable
E	29.60mm max
F	24.45mm max
G	30.60mm max
H	not applicable

DIAGRAM IS FOR DIMENSIONAL REFERENCE ONLY

36.13 **Cylinder Measuring Procedure:**

(i). All cylinder ports must remain in as cast condition.

(ii). Distance from the top of the cylinder liner to the top of exhaust port shall be a minimum of 34.3mm.
Spacers/gaskets may be used to achieve correct cylinder length / dimension in accordance with this rule and must remain in place for all subsequent measurements.

The AKA Gauges have been designed to make engine measuring quick and easy.
If an engine fails when measuring with these gauges, the competitor may request that the engine be re-measured using AKA MASTER GAUGES. (CERTIFIED).

(iii). **Engine measuring procedure for Yamaha KT100J engine using official AKA gauges:**
With cylinder torqued down for measuring purposes :

Step 1. Fit 1.00mm gauge and rotate engine to top dead centre. If piston fails to contact gauge, engine is deemed illegal.

Step 2. Insert 5mm diameter piston stop gauge in bottom of inlet port. Rotate engine until piston skirt contacts gauge firmly.

Step 3. Insert 12.2mm gauge into bore above gudgeon pin centre line against cylinder wall. Gauge must not contact top of barrel.

Step 4 Check exhaust port height.

(iv) Maximum diameter of inlet port to be measured with a 19.2mm plug gauge.

(v) Inlet tract length including gaskets from cylinder wall to carburettor gasket face to be 53.00mm minimum to 56.00mm maximum including gaskets in front and behind phenolic spacer.

Please Note: The AKA Gauges can be purchased from your State Secretary.

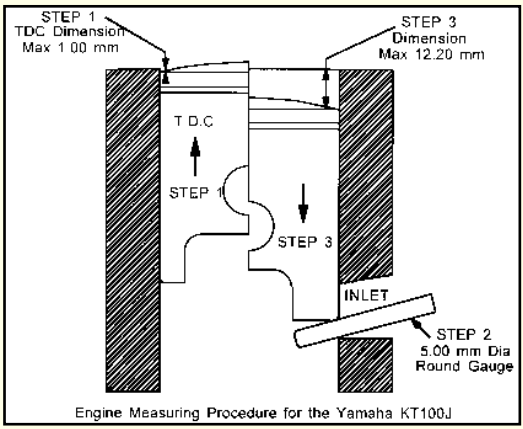


DIAGRAM IS FOR DIMENSIONAL REFERENCE ONLY

36.14 **Cylinder Head:**

1 Must be original Yamaha casting.
2 The welding and remachining of the Combustion area, gasket face and spark plug surface is allowable.
3 The combustion chamber style is required to have a squish band and chamber which are visually concentric to the spark plug.
4 The combustion chamber volume shall be a minimum of 11cc. Ref R22.03
5 The combustion chamber/squish area shall not protrude beyond the gasket sealing face of the cylinder head.
6 The spark plug thread may be repaired and shall retain its original position.

36.15 **Piston:**

Piston must be approved and stock appearing.
Legal pistons are YAMAHA or KSI. Piston crown to be as cast. Chamfer on skirt of piston to be not more than 0.9mm maximum. It is permissible to notch the piston to accept earless circlips. The piston skirt length may be machined, providing it conforms with the current specifications as laid down in these Rules.

36.16 **Gudgeon Pin:**

No special alloys. Must be standard as diagram below.

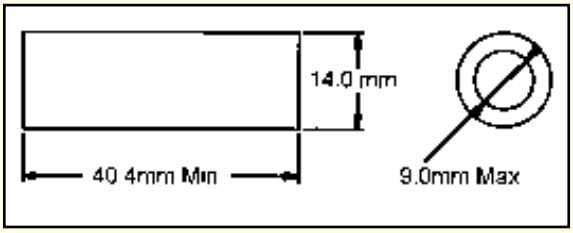


DIAGRAM IS FOR DIMENSIONAL REFERENCE ONLY

36.17 **Connecting Rod:**

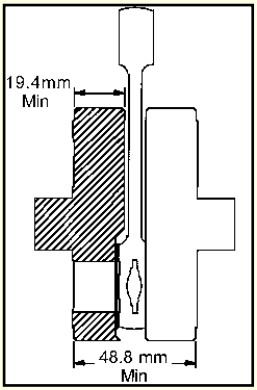
Can be either of the following:

(i) Yamaha (P/N 50W-11651-00, P/N 397-11651-00, P/N 787-11651-01 or P/N 7F6-11651-02), or

(ii) KSI - No polishing or shot peening allowed.
Minimum/Maximum rod length, centre to centre - 99.87mm - 100.13mm.

36.18 **Crankshaft:**

Must be stock and have a minimum width across top of the crankwheel of 48.8mm. Plugging of the counter- balance recesses, shot peening, polishing or removal of the Yamaha etching is forbidden. Crank pin to be standard solid pin



36.19 **Crankcase**:

The crankcase ports will remain as cast. The minimum chordal distance measured with a vernier calliper across the widest section of the transfer ports shall be 81.5mm minimum. (Refer diagram below).

NOTE : Existing crankcases that are narrow may be spaced with a thicker gasket.

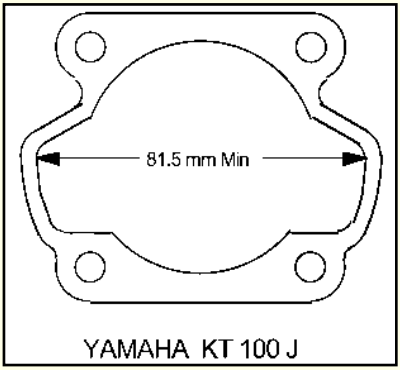


DIAGRAM IS FOR DIMENSIONAL REFERENCE ONLY

36.20 **Ignition:**

(i) Must be external rotor type and OEM supply.
(ii) Both CDI and TCI ignition units as supplied by Yamaha are eligible.
(iii) No modifications or internal repairs to the TCI unit are permissible.
(iv) No CDI unit shall vary more than one (1) degree from the maximum advance to the advance found at 10,000 rpm.

IGNITION ROTOR

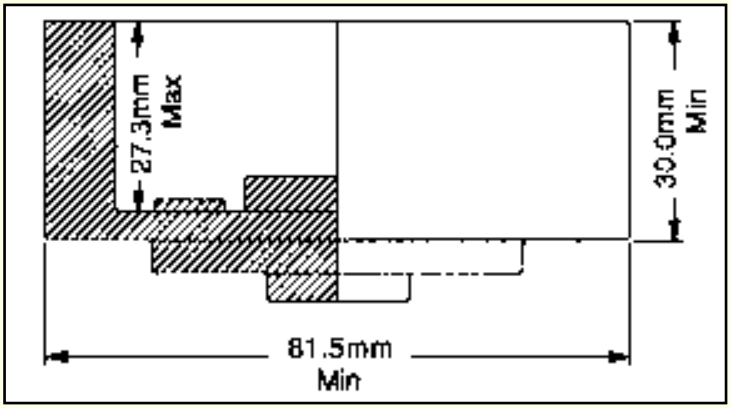


DIAGRAM IS FOR DIMENSIONAL REFERENCE ONLY

36.21 **Carburettor:**

Must be **Walbro WB series conforming to dimensions as per diagram.** (Note: WB 24 Model is not eligible).

(i) It is permissible to machine the Walbro carburettor body to:
  (a) conform to dimension E
  (b) conform to dimension C
  (c) accept an O ring for the low speed jet.
(ii) A threaded butterfly screw must be retained.
(iii) Pump diaphragms : Either Teflon or rubber types are legal.
(iv) It is permissible to repair the inlet seat and throttle shaft in the Walbro carburettor.
(v) **It is permissible to enlarge only existing fuel / air holes, but they may not be deleted or relocated.**
(vi) All air must pass through the carburettor venturi.
(vii) Measurement code;
  A As cast MAX Venturi diameter 24.13mm
  B As cast (area will extend from the front of the carburettor to the progression discharge jet which must have all or portion of this jet in the cast area.)
  C MAX downstream diameter 25.7mm
  D Butterfly shaft must be located at the bore centre.
  E MIN carburettor body length of 37.5mm.

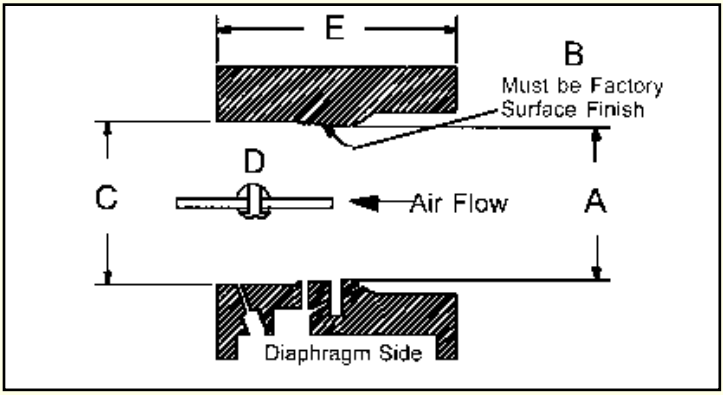


DIAGRAM IS FOR DIMENSIONAL REFERENCE ONLY

36.22 **Pressurised Fuel Systems:**
Fuel pump or pressurised fuel systems are forbidden. Squeeze type pump between fuel tank and carburettor is permitted.

36.23 **Phenolic Spacer:**
To remain as moulded by Yamaha Factory and conform to diagram below. Drilling of the phenolic spacer mounting holes permitted. Sealing face may be re-faced.

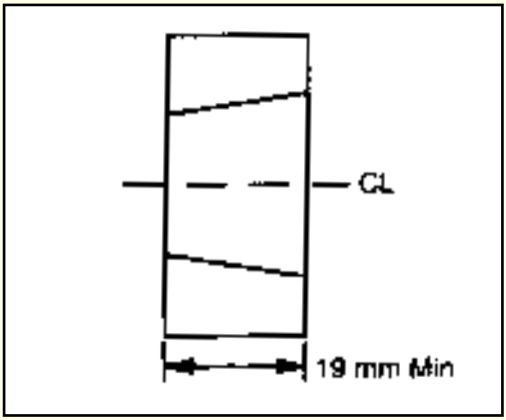


DIAGRAM IS FOR DIMENSIONAL REFERENCE ONLY

36.24 **Exhaust Muffler:**
Must be Control Exhaust Muffler AKA 14. Refer Rule 25.26 for technical specification.

36.25 **Exhaust Header Pipe:**

This item is not restricted to the original Manufacturer but must completely conform to the type (style) and dimensional sizes of the original header pipe. Inside diameter must be parallel. Length must be a minimum of 120mm (per new measuring method). Maximum inside diameter 36mm. Minimum diameter 34mm.Refer diagram. Modifications to fit exhaust gas temperature gauge sensor is permissible.

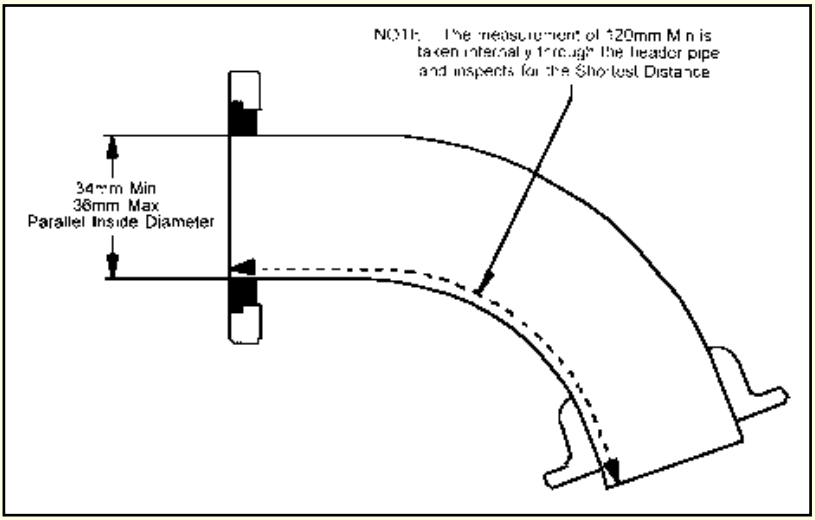


DIAGRAM IS FOR DIMENSIONAL REFERENCE ONLY

36.26 **Exhaust Header Studs:**

Must remain in their original position.

36.27 **Internal Parts:**

Must be finished as per Yamaha Factory specifications.

CHAPTER 37 - JUNIOR PISTON PORT

37.01 **Engines:**
Junior Piston Port Class engines are restricted to FMK homologated engines and AKA homologated engines conforming to FMK specifications.

37.02 **Tyres:**
1. No modifications permitted, tyre treatment is illegal (refer rule 23.03)
2. **Dry Weather Tyres:** Maxxis HG3 (1 set + 1 replacement tyre / meeting)
   Adjusted AKA contract price $208.00 per set (maximum retail fixed price).
3. **Wet Weather Tyres:** Any tyre from group 2 FMK (1 set + 1 replacement tyre / meeting)
   (See chart chapter 23)

37.03 **Fuel:**
Refer Rule 25.14. Fuel, as run, to comply to test under Rule 22.01.

37.04 **Weight:**
100cc Piston Port - 130 Kg

37.05 **Driver Limitations:**
To be eligible for Intercontinental A Junior and Junior Piston Port at club and open meetings, a driver must have a minimum B Grade Junior Licence with endorsements from three (3) open meetings in either Junior National or Junior Clubman Class as having reached a satisfactory standard for advancement. *Refer Chapter 13*

37.06 **Engine Specifications:**
1 100cc Piston Port to conform to FMK specifications.
2 **Clutch** is optional
3 **Carburettor** - Only one carburettor is permitted. It must be butterfly type, FMK homologated, with centre axle, and maximum venturi of 24mm (including the FMK article 42 tolerance)

37.07 **Junior Facing Stewards:**
Any Junior called before a Steward/s or Official must be accompanied by a Parent/Guardian. (Refer Rule 7.27).

37.08 **Restarting Before Race:**
In the event of a spin or collision during the rolling laps, prior to the Start, Juniors are permitted to be restarted with assistance by delegated persons and at the discretion of the Starter and/or Clerk of Course.
Delegated persons must retire to a safe position once the race has commenced. (Refer Rule 16.08).

CHAPTER 38 - JUNIOR CLUBMAN

38.01 **Engines:**
YAMAHA KT100S SERIES AND ARC SPEC 100

38.02 **Tyres:**
1 No modifications permitted, tyre treatment is illegal (refer rule 23.03)
2 **Dry Weather Tyres:** Vega XSL (1 set + 1 replacement tyre / meeting)
Adjusted AKA Contracted Price: $199.00 per set. Maximum Retail Fixed Price
3 **Wet Weather Tyres:** Maxxis WT3TKM (1 set + 1 replacement tyre / meeting
Adjusted AKA Contracted Price: $192.00 per set. Maximum Retail Fixed Price.

38.03 **Braking:**
Front wheel brakes are not permitted. (Refer Rule 25.07)

38.04 **Fuel:**
Refer Rule 25.14. Fuel, as run, to comply to test under Rule 22.01.

38.05 **Engine Specifications:**
100cc Clubman engines as per Chapter 34.

38.06 **Exhaust Muffler :** Refer Rule 25.26 for technical specification

38.07 **Engine Fin Dampening:**
It is COMPULSORY that the Engine used be fitted with a fin dampening system that effectively reduces noise. (Refer appropriate engine in chapter 34).

38.09 **Clutch**: A clutch is not permitted in this class.

38.10 **Weight: 130 Kg**

38.11 **Driver Limitations:**
To be eligible for Junior Clubman, a driver must hold a B grade Junior licence if under 16 years of age. (Refer to Rule 13.21.3)

38.12 **Junior Facing Stewards:**
Any Junior called before a Steward/s or Official must be accompanied by a Parent/Guardian. (Refer Rule 7.29).

38.13 **Restarting Before Race:**
In the event of a spin or collision during the rolling laps, or to the Start, Juniors are permitted to be restarted with assistance by delegated persons and at the discretion of the Starter and/or Clerk of Course. Delegated persons must retire to a safe position once the race has commenced. (Refer Rule 16.08).

CHAPTER 39 - JUNIOR NATIONAL

Preamble
From 1st January 1999 a (3) year moratorium on changes to the engine specifications exists.

39.01 **Engine:** YAMAHA KT100J ONLY

39.02 **Tyres**
1 No modifications permitted, tyre treatment is illegal (refer rule 23.03)
2 **Dry Weather Tyres:** Dunlop SL1 (1 set + 1 replacement tyre / meeting
Adjusted AKA Contracted Price: $185.00 per set. Maximum Retail Fixed Price.
3 **Wet Weather Tyres:** Maxxis WT3TKM (1 set + 1 replacement tyre / meeting)
Adjusted AKA Contracted Price: $192.00 per set. Maximum Retail Fixed Price.

39.03 **Braking:**
Front wheel brakes are not permitted. (Refer Rule 25.07)

39.04 **Fuel:**
Refer Rule 25.14. Fuel, as run, to comply to test under Rule 22.01.

39.05 **Weight:**
(a) Junior National Light - 115kg.
(b) Junior National Heavy - 135kg.
MAXIMUM KART WEIGHT FOR JUNIOR NATIONAL HEAVY CLASS - 83kgs.
(Kart as raced and prior to Class weight measuring.) (Refer Rule 25.23 (b)).

39.06 **Driver Limitations:**
1 Age 12 until 16th Birthday (for new drivers entering the sport). The driver must produce a birth certificate to the State Secretary before a licence will be issued.
2 Options exist for competitors to advance from Rookies and to Seniors Divisions (Refer Chapter 13.)

39.07 **Engine Specifications:**
(i) 100cc National engines as per Chapter 36.
(ii) Exhaust Muffler : Refer Rule 25.26 (d) for detail.

39.08 **Junior Facing Stewards:**
Any Junior called before a Steward/s or Official must be accompanied by a Parent/Guardian. (Refer Rule 7.29).

39.09 **Restarting Before Race:**
In the event of a spin or collision during the rolling laps, prior to the Start, Juniors are permitted to be restarted with assistance by delegated persons and at the discretion of the Starter and/or Clerk of Course.
Delegated persons must retire to a safe position once the race has commenced. (Refer Rule 16.08).

39.10 **Clutch:**
A clutch is not permitted in this class.

CHAPTER 40 - ROOKIES

Spirit and Intent
The purpose of this Class is to teach young people to drive karts of restricted performance at limited cost.

40.01 **Engine:** YAMAHA KT100J Only

40.02 **Tyres:**
1 No modifications permitted, tyre treatment is illegal (refer rule 23.03)
2 **Dry Weather Tyres:** Dunlop SL1 (1 set + 1 replacement tyre / meeting)
Optional to use either 10 x 4.5 – 5 OR 11 x 7.1 – 5 tyres on the rear
Adjusted AKA Contracted Price: $185.00 per set. Maximum Retail Fixed Price
3 **Wet Weather Tyres:** Maxxis WT3TKM (1 set + 1 replacement tyre / meeting)
Adjusted AKA Contracted Price: $192.00 per set. Maximum Retail Fixed Price.
Optional to use either 10 x 4.5 – 5 OR 11 x 6.00 – 5 tyres on the rear

40.03 **Braking:**
Front wheel brakes are not permitted. (Refer Rule 25.07)

40.04 **Fuel:**
Refer Rule 25.14. Fuel, as run, to comply to test under Rule 22.01.

40.05 **The YAMAHA KT100J ENGINE** must conform to Chapter 36.
The specifications and tolerances are to be strictly adhered to in accordance with the National 100cc Class regulations, but with the INCLUSION of an exhaust restrictor plate with a 14.02 mm maximum diameter hole and of 2.1 mm maximum thickness. Restrictor plate must be fitted between the cylinder and exhaust header pipe with a gasket either side of the restrictor plate and be located on both exhaust header studs. All exhaust gases must pass through the 14.02mm max restrictor plate. The exhaust restrictor plates will be supplied by the AKA and identifiable as such - marked "AKA2".
NO MODIFICATIONS ARE PERMITTED.

40.06 **Restrictor Plate Sealing:**
It is COMPULSORY that a sealable nut be fitted to the engine exhaust stud on a Rookie Class Engine for restrictor plate sealing.

40.07 **Exhaust Muffler:**
Refer Rule 25.26 (d) for technical specification.

40.08 **Exhaust Gaskets / Length:**
A maximum of two gaskets is permissible and shall be as per the original Manufacturer's specification.
Maximum exhaust length from the exhaust mounting flange (aluminium face) to the end of the divergence cone of the AKA 14 muffler is 445mm. (measurement as per diagram).

40.09 **Exhaust Header Pipe and Muffler:**
Can be joined by a pipe(s) or flexible tube.
Measurements are: Inside diameter: 34 mm minimum.
Outside diameter: 44.5 mm maximum.

40.10 **Clutch:** A clutch is not permitted in this class.

40.11 **Weight:** 100 kgs

40.12 **Driver Limitations:**

1 Age from the calender year of their tenth (10) birthday until their twelfth (12) birthday. (For drivers entering the sport)
2 The driver must produce a birth certificate to the State Secretary before a licence will be issued
3 Options exist for competitors to change divisions at different ages. (Refer Chapter 13. Overlaps Rule 13.17)

40.13 **Combining Classes**

1 Rookies are not permitted to run with Senior or Junior Classes
2 At events other than State Championships, Rookies and Midgets can run together, if the numbers are not sufficient to form a field in their own right.

40.14 **Rookie facing Stewards**

Any Rookie called before a Steward/s or Official must be accompanied by a Parent/Guardian. (Refer Rule 7.29).

40.15 **Restarting before race**

In the event of a spin or collision during the rolling laps, prior to the Start, Rookies are permitted to be restarted with assistance by delegated persons and at the discretion of the Starter and/or Clerk of Course.

Delegated persons must retire to a safe position once the race has commenced.(Refer Rule 16.08).

CHAPTER 41 - MIDGETS

Spirit and Intent
The purpose of this Class is to teach young people to drive karts of restricted performance at limited cost.

41.01 **Engines:** COMER S80 OR Yamaha KT100J

41.02 **Tyres:**
1 No modifications permitted, tyre treatment is illegal (refer rule 23.03)
2 **Dry Weather Tyres:** Dunlop SL1 (1 set + 1 replacement tyre / meeting.
Optional to use either 10 x 4.5 – 5 OR 11 x 7.1 – 5 tyres on the rear
Adjusted AKA Contracted Price: $185.00 per set. Maximum Retail Fixed Price
3 **Wet Weather Tyres:** Maxxis WT3TKM (1 set + 1 replacement tyre / meeting)
Adjusted AKA Contracted Price: $192.00 per set. Maximum Retail Fixed Price.
Optional to use either 10 x 4.5 – 5 or 6.00 – 5 tyres on the rear.

41.03 **Braking:** Front wheel brakes are not permitted. (Refer Rule 25.07)

41.04 **Fuel:** Refer Rule 25.14. Fuel, as run, to comply to test under Rule 22.01.

41.05 **Weight:** 90 kgs

41.06 **Driver Limitations:**
1 Age from their seventh (7) birthday until their eleventh (11) birthday (for drivers entering the sport)
2 The driver must produce a birth certificate to the State Secretary before a licence is issued
3 Options exist for competitors to advance to Rookie Division. Refer Chapter 13.

41.07 **Combining Classes**
Midgets are not permitted to run with Senior or Junior Classes.
At events other than State Championships, Midgets and Rookies can run together if the numbers are not sufficient to form a field in their own right.

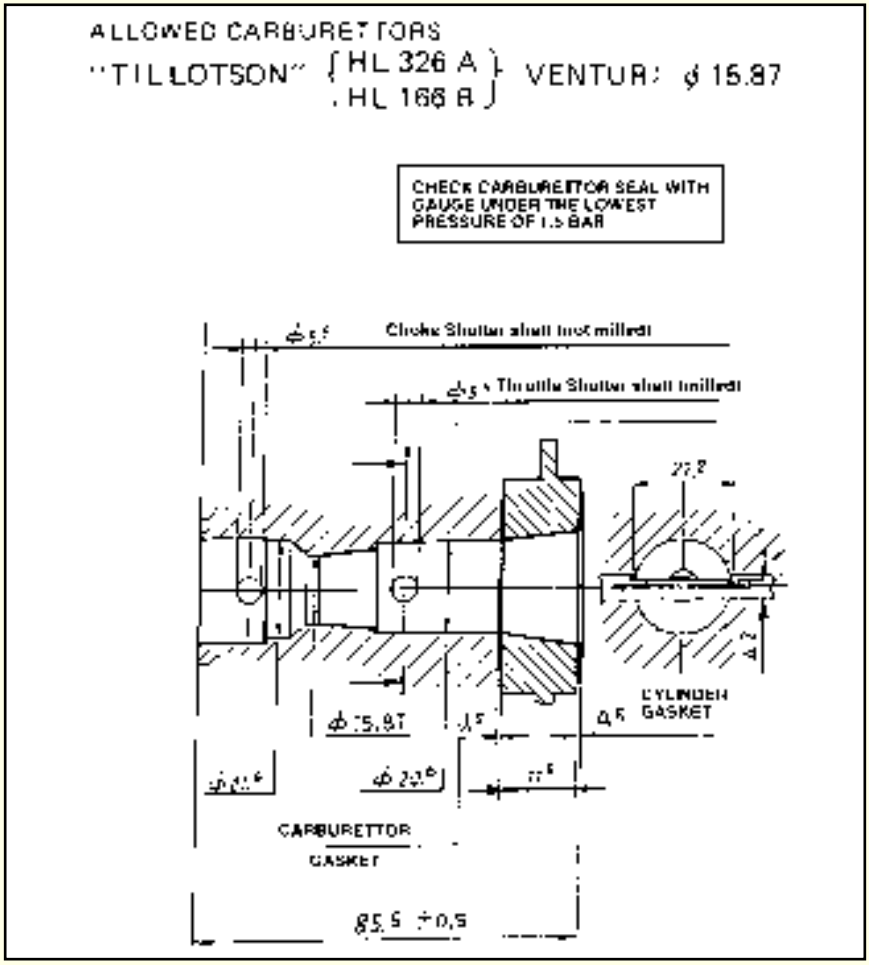
41.08 **Midget facing Stewards**
Any Midget called before a Steward/s or Official must be accompanied by a Parent/Guardian. (Refer Rule 7.29).

41.09 **Restarting before race**
In the event of a spin or collision during the rolling laps, prior to the Start, Midgets are permitted to be restarted with assistance by delegated persons and at the discretion of the Starter and/or Clerk of Course.
Delegated persons must retire to a safe position once the race has commenced. (Refer Rule 16.08).

41.10 This section covers the Comer S80 engine which conforms to the Comer specifications as approved by the AKA. Any alterations / modifications are strictly prohibited except as specifically authorised within these rules.

41.11 **Engine Additions:** Carburettor return springs and fasteners. Engine must be run with supplied clutch (Part No. S60 3950 05 or S80 3950 01) and muffler (Part No. S60 5500 07). All components must be as supplied with engine and are all subject to technical specifications. Clutch : 10 tooth ASA 35 or 12 tooth 219 pitch.

VOLUME FROM THE CYLINDER SURFACE TO THE OUTSIDE EDGE OF THE EXHAUST PIPE



41.12 **Carburettor:**
Tillotson HL 326A or HL 166B with a Venturi of 15.87 mm. maximum. Carburettor to be stock as supplied by COMER and the choke is to remain attached. No additional machining or polishing of any cast surface. This includes throat, venturi, etc. of carburettor. All screws, etc. to remain as supplied by Manufacturer.

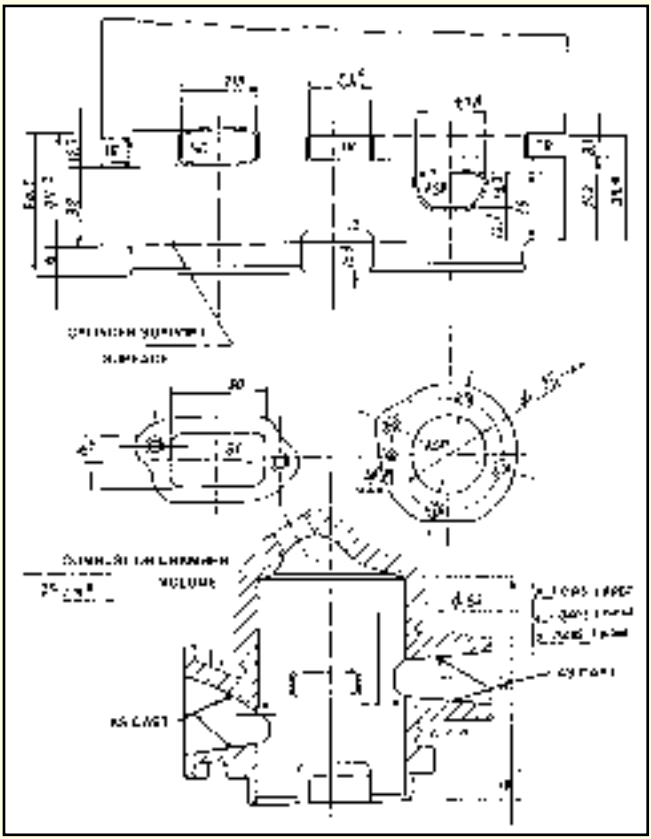
41.13 **Pressurised Fuel Systems:**
Fuel pump or pressurised fuel systems are forbidden. Squeeze type pump between fuel tank and carburettor is permitted.

41.14 **Engine:**

CHROME BORE	Bore	Stroke
	52.1mm.	38.1mm. Maximum.

41.15 **Exhaust, Intake and Transfer Ports:**
Check port heights and widths per following diagrams. The dimensions of the intake, exhaust and transfer ports must be within the tolerance field plus or minus 0.3mm.

41.16 **Exhaust Gasket and Inlet Manifold Gasket:**
Specifications and Tolerances.
As per diagram otherwise where no tolerance specified then +/- 0.15mm applies.

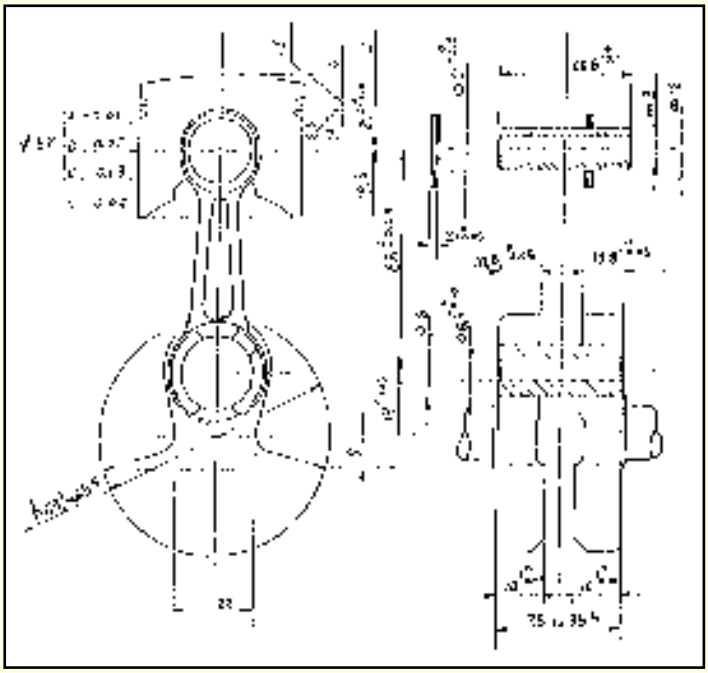


41.17 **Head Volume:**
Capacity of the combustion chamber will be a minimum of 7.5cc as per the specification sheet but will be measured without anything in the plug hole and the fluid must not overflow from the plug hole when the piston is at TDC and the engine cylinder is in a vertical position.

41.18 **Crankshaft, Conrod, Piston, Piston Rings, Piston Pin, Piston Pin Bearing and Thrust Washer:**

Specifications and Tolerances:

1 Piston skirt length is 41mm+/-0.15mm
2 The length of the piston skirt from the bottom of the piston pin to bottom of piston skirt is 13.5mm +/- 0.05mm. The skirt will carry a maximum chamfer of 0.1mm
Note: skirt length must be equal distance on both sides.
3 Cylinder is 71.0mm +/- 0.15mm
(measured from combustion chamber face to cylinder gasket face with a depth micrometer)
4 Piston pin bore is 8.0mm +/- 0.1mm
5 Cast surfaces to have a tolerance of +/- 0.3mm



WEIGHTS IN GRAMS

Vertex piston.....88 to 92	Crankshaft + connection rod.....714 to 729
Piston ring T.C.....2.75 to 2.85	Complete crankshaft + piston.....840 to 855a
Piston ring.....0.2 to 0.3	
Piston pin.....19 to 23	CAGE .....INA KZK 12x17x13
Piston pin needle bearing.....7	HEAD CAGE .....INA KZK 16x22x12
Thrust washer .....3.10 to 3.20	BEARING .....RIV 6202 C3

As the engine must be original in all its components according to the comer drawing, any removal, addition or polishing of material is strictly forbidden.
This includes sandblasting, bead or fibreglass blasting, acid etching, grinding etc.

41.19 **Ignition:**

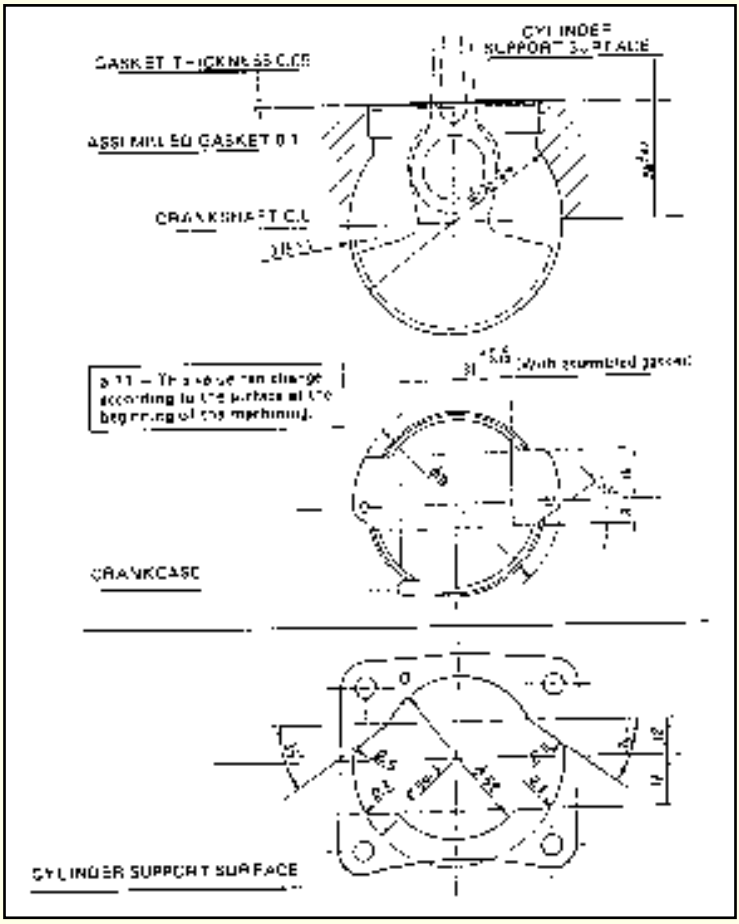
Bosch KDT - 1. Is slotted for adjustment. Adjustment slots are cast in and can not be machined for more adjustment. Spark plug must be 3/8 standard reach plug. As detailed on following diagram.

41.20 **Engine Fan:**

The dimensions of the detachable plastic finned rotar fan - Part No. S60 9690 02 - are to be 125mm.dia. by 38.75mm. wide and this finned rotar fan to be replaced if any fins are broken off.

41.21 **Crankcase and Cylinder Surfaces Including Gaskets:**

As per specifications and tolerances detailed on following diagrams.



41.22 **Gaskets:**
All gaskets to be used at all times and conform to the measurements on the diagrams.

41.23 **Cooling Holes:**
Due to overheating COMER advise cooling holes to be allowed in the cowl for better efficiency during summer. These holes are to be two rows of five holes, maximum 13 mm. dia. in front panel alongside the ON/OFF switch and one row of five holes, 13 mm. dia. in the opposite rear panel.

41.24 **Clean Holes:**
The air holes in the cord start panel are to be kept clean and clear at all times except for normal dirt such as can be accumulated during a normal dirt track type race.

41.25 **Pulse Hole:**
The maximum pulse hole diameter in the barrel and plastic carburettor adaptor is to be 3mm. diameter.

41.26 **This section covers the YAMAHA KT100J ENGINE.**
The YAMAHA KT100J ENGINE must conform to Chapter 36. The specifications and tolerances are to be strictly adhered to in accordance with the National 100cc Class regulations, but with the INCLUSION of an exhaust restrictor plate with a 13.02 mm maximum hole and of 2.1 mm maximum thickness. Restrictor plate must be fitted between the cylinder and exhaust header pipe with a gasket on either side of the restrictor plate and be located on both exhaust header studs. All exhaust gases must pass through the 13.02mm max restrictor plate. The exhaust restrictor plates will be supplied by the AKA and identifiable as such - stamped "AKA1".
NO MODIFICATIONS ARE PERMITTED.

41.27 **Restrictor Plate Sealing:**
It is COMPULSORY that sealable nuts be fitted to the engine exhaust stud on the Yamaha KT100J engine for restrictor plate sealing.

41.28 **Exhaust Muffler:**
Refer Rule 25.26 (d) for detail.

41.29 **Exhaust Gaskets/Length:**
A maximum of two gaskets is permissible and shall be as per the original Manufacturer's specification.
Maximum exhaust length from the exhaust mounting flange (aluminium face) to the end of the divergence cone of the AKA 14 muffler is 445mm. (measurement as per diagram).

41.30 **Exhaust Header Pipe and Muffler**
Can only be joined by a parallel pipe or flexible tube.
Can be joined by a pipe(s) or flexible tube.
Measurements are: Inside diameter: 34 mm maximum.
Outside diameter: 44.5 mm maximum

41.31 **Clutch:**
Clutch is permissible in this class.

NON CHAMPIONSHIP CLASS

Non-Championship Classes are conducted in accordance with Rule 19.39.
The following specifications have been provided by the AKA for the conduct of this class.

CHAPTER 42 - SPORTSMANS CLASS

42.01 **Engine**
As per State Council recommendations.

42.02 **Tyres**
As per State Council recommendations.

42.03 **Braking**
Front wheel brakes not permitted.

42.04 **Fuel**
As per Rule 25.14

42.05 **Driver Limitations**
To be eligible to compete in this class, a competitor must hold minimum provisional C Grade licence.

EXPERIMENTAL CLASS

Experimental Classes have been sanctioned by the National Karting Council.
The following specifications have been provided by the AKA for the conduct of this class as non championship events.

CHAPTER 43 - 125CC GEARBOX

43.01 **Preamble**

This category of racing is restricted to the 125cc engines. The engines eligible for this class must be of production motorcross origin and available as separate units to the bike or engines homologated by the AKA for this category. Replacement parts are to be identifiable as original where considered a tech item. The kart may only be raced with variations described with in these regulations, any changes that fall outside these regulations and/or approved amendments are deemed illegal.

43.02 **Chassis**

1 The kart is to conform to the general kart formula as detailed in chapter 25 of the AKA Karting Manual except where specifically mentioned in this chapter. Rules 25.21 and 25.22 are pertinent to gearbox classes.

43.03 **Engines**

1 Engines eligible for this class are:
Husqvarna 125WRK, Husqvarna 125CR,
Yamaha YZ 125, Honda CR 125,
Suzuki RM 125, Kawasaki KX 125, KTM KCross 125, TM KCross 125MC,
Gilera Whisper 125.

2 **No hybrid engines.**

43.04 **Engine and Crankcase**

The crankcase, crankshaft, rod, barrel, head, ignition and power valve assembly must be original components as supplied and identifiable from the manufacturer to the respective engine in Rule 43.03.

43.05 **Non Tech Items**

Unless otherwise specified, non-tech items include bearings and cages, crankpin, fasteners, gaskets, piston and rings, seals, piston pin, spacers, washers, spark plug, spark plug lead and cap, gear shift lever. (Refer Rules 25.25).

43.06 **Gearbox**

1 No variation to gearbox internal ratios from those as supplied by the factory as original equipment is permitted.
2 Maximum, 6 speed.
3 Final drive ratios are free.
4 All gearbox drain plugs must be wired.
5 Gearbox breather pipes must discharge into an overflow bottle min capacity 250mm. Any discharge must be contained.

43.07 **Levers and Rods**

1 The gearshift operation can only be by cable or rod assembly.
2 The clutch and gear levers must be operated by hand.

43.08 **Cylinder Head and Ports**

1 Cylinder head must be OEM.
2 Combustion chamber shape if free.
3 No additional ports permitted.

43.09 **Ignition**

Must be OEM
No modifications to components or repairs are permitted.

43.10 **Exhaust System – Refer Rule 25.09**

1 Must conform to AKA noise limits. Refer Rules 24.2
2 The secondary silencer must be a separate unit to the expansion chamber or primary silencer.
3 The outlet of the muffler must be within the perimeter of the kart when viewed from above.
4 The exhaust system must be securely fastened to the kart as to ensure it should not come free from the kart should a mount fail.

43.11 **Carburettor**

1 Recommended the carburettor be OEM, however, selection is free whilst class is experimental.

43.12 **Air Intake**

An approved AKA carburettor intake silencer must be fitted to the carburettor at all times.

43.13 **Nose Cone, Side Pods, and Nassau Panel**

1 Bodywork must be AKA approved. Refer Rules 25.02, 03 and 06.
2 No other form of bodywork or aerodynamic device is permitted in this Class. Refer Rule 25.01(h).

43.14 **Fuel**

Refer Rule 25.14.
Fuel as run to comply to test under Rule 22.01.

43.15 **Tyres**

1. No modifications permitted, tyre treatment is illegal (refer chapter 23)
2. Dry Weather Tyres Any tyre from AKA dry list (1 set + 1 replacement tyre / meeting
3. Wet Weather Tyres Any tyre from group 2 FMK (1 set + 1 replacement tyre / meeting) See charts chapter 23

43.16 **Weight**

(a) 185kg
or otherwise at the promoters discretion

43.17 **Limitations on Drivers**

1) The minimum grade of licence for entering this class will be senior AKA B grade;
2) Drivers of 125 Gearbox must have 3 endorsements in their licence to compete on temporary circuits.

EXPERIMENTAL CLASS

Experimental Classes have been sanctioned by the National Karting Council.
The following specifications have been provided by the AKA for the conduct of this class as non championship events.

CHAPTER 44 - 125K WHISPER

44.01 **Preamble**

This category of racing is restricted to the 125k Whisper kart equipped with the Gilera 125k water-cooled 6 speed gearbox manufactured for and by Italia Motri Spa. The kart and engine cannot be modified in any way and must be in standard form as supplied by the manufacturer save any dispensations as allowed under these regulations or amendments by the AKA to maintain uniformity and consistency of performance of all karts in this category.
The kart may only be raced with variations described within these regulations, any changes that fall outside these regulations and/or approved amendments are deemed illegal.

44.02 **Chassis**

1 The kart is to conform to the general kart formula except where specifically mentioned in this chapter. Rules 25.21 and 25.22 are pertinent to gearbox classes.
2 For the purpose of these rules the chassis is defined as, and to include the following: Frame, bumpers front and rear, pedals, stub axles, floor pan, steering shaft, gear shift and clutch mechanisms, pod mounting bars, rear axle, rear axle bearing housings, wheel hubs front and rear, wheels front and rear, complete front and rear brake assemblies, discs and carriers, brake pads, master cylinders and mechanisms, levers and rods, fuel tank, radiator and brackets.
3 Each chassis is issued with a manufacturer's Certification Card certifying its legality at time of delivery.
4 It is the responsibility of the owner / driver to ensure that the chassis remains to legal class requirements.

44.03 **Frame**

The frame applicable for this class is Italia Motori 32mm chrome moly tube, 3 rear bearing design.

44.03 **Levers and Rods**

1 Gear change must be hand operated as supplied as original equipment. Right hand operation only.
2 Clutch must be hand operated as supplied as original equipment. Left hand operation only.

44.05 **Carriers, Wheels & Hubs**

1 Must be original or Australian manufacture of a style the same as those originally supplied
2 Front wheels – no variation in front wheel offset is permitted.

44.06 **Nose Cone, Side Pods and Nassau Panel**

1 Must be of an approved FMK type as supplied with the kart as original equipment.
2 No other form of body work or aerodynamic device is permitted in this class.

44.07 **Fuel Tank**

Fuel tank capacity is restricted to 8 litre maximum OEM tank.

44.08 **Non Tech Items**

1 Steering Wheel – replacement is free in style provided it is FMK/AKA approved.
2 Seat – replacement is free in style, design and weight.
3 Seat stays – the fitting and / or removal is free in style.
4 Water hose, hose clamps and fasteners, nuts / bolts and fasteners – are free in style.
5 Instruments / gauges (inc water thermostat) – are free in style.
6 Number plate – must be approved AKA size, style and location – Rule 25.17.

44.09 **Engine**

For the purpose of these rules the engine is defined as, and to include the following components:

Engine complete with carburettor and electrics, fuel pump, tuned silencer and secondary silencer.

1 **Engine Specifications**

A full identity form stamped by the Italian CSAI specifying full dimensions of the Gilera 125k water-cooled 6 speed gearbox engine is supplied with each engine.

2 **Engine Certification**

(a) Each engine is issued with a manufacturer's certification card certifying its legality at the time of delivery.
(b) The engine, primary silencer and secondary silencer will be sealed prior to delivery to the distributor.
(c) It is the responsibility of the owner / driver to ensure that the engine conforms to legal requirements.

3 **Engine Seals**

(a) Engine sealing will be undertaken prior to delivery and after any disassembly for repairs, maintenance or for any other reason. The engine will be sealed between the cylinder head / cylinder and crankcase.
(b) Only authorised Whisper Service Centres, or authorised officials as appointed from time to time, will be eligible to seal engines. Authorised engine re-sealers will be issued with seals displaying the re–sealers identification number.
(c) **An engine without seals intact will be deemed illegal and not allowed to compete in this class until such times as the legality of the engine is checked and the engine resealed.**

4 **Illegal Engines**

(a) Should an owner and / or driver be found guilty using an illegal engine, that person will be the subject of a complaint and excluded from the meeting to wait any further disciplinary action. In addition the Certification Card of the offending engine will be removed making it ineligible for competition until the illegality is rectified.
(b) Should any engine be found to altered in any way from the standard production condition, then the authorised person / dealer who last sealed the engine will be removed from the authorise list (all remaining seals attributed to that person / dealer will be void).
(c) A fine of $1000 will be imposed on the offending re-sealer, by the AKA.

44.10 **Gearbox**

1. No variation to gearbox internal ratios from those as supplied by the factory as original equipment is permitted.
2. Final drive ratios are a tech – spec item. Final drive ratios for a given circuit will be determined. A list of those ratios will be made known to all competitors in this class for 1999. It is mandatory that all competitors use the designated ratio for a designated circuit.

44.11 **Starting System**

The 125k Gilera engine may be fitted with the factory supplied starter system as an optional accessory.

44.12 **Exhaust**

1 The primary and secondary silencers will be sealed.

2 Silencer connector tube (part No TSRM.237491.B) is a tech – spec item. Any aftermarket replacement must conform to the OEM specifications by way of overall length and inner and outer tube diameter.

44.13 **Carburettor**

1 The only permitted carburettor is a Dellorto series VHSA32 and is a tech – spec item.

2 It may only be used in the form it was originally supplied in from the factory save the fitting of suitable alternate jetting and needle jet position.

44.14 **Air Intake**

1 An approved FMK carburettor intake silencer must be fitted to the carburettor at all times.

2 No modifications to the operation and/or performance of this silencer is permitted

3 Reed petals are a tech – spec item and are to be a minimum of 0.39mm or 15.7 thous.

44.15 **Tyres:**

1. No modifications permitted, tyre treatment is illegal (refer rule 23.03)
2. Dry Weather Tyres Any tyre from AKA dry list (1 set + 1 replacement tyre / meeting)
3. Wet Weather Tyres Any tyre from group 2 FMK (1 set + 1 replacement tyre / meeting) See chart chapter 23

44.16 **Fuel**

Refer Rule 25.14.
Fuel, as run, to comply to test under Rule 22.01.

44.17 **Weight**

(a) 185kg
(otherwise at the promoters discretion)

44.18 **Limitations on Drivers**

1) To be eligible to compete in this class a competitor must hold a minimum provisional C Grade licence.
2) Drivers of 125 Whisper must have 3 endorsements in their licence to compete on temporary circuits.

CHAPTER 45 - FORMULA ROTAX 125

45.01 **Preamble:**

It is expected that this class with AKA approval will continue to evolve during its early life and the promoters of the class reserve the right to alter the technical regulations at short notice to ensure the safety of drivers, fairness of competition, economy and the wishes of the competitors.

Spirit & Intent:

Bombardier Rotax's goals for the Formula Rotax class worldwide are:

a) To provide a class with low running cost and low noise emissions compared to conventional 100cc racing karts.

b) To eliminate some of the variables within the class. The intention of this is to reduce the amount of testing and technical expertise required to be competitive, placing the emphasis on driver skill.

c) To have the rules for Formula Rotax alike in all countries using the Rotax Max engine.

Warranty:

It is strongly recommended that no modifications whatsoever be performed to Rotax Max engines, as this may render the warranty null or void.

45.02 **Engine:**

1. Bombardier Rotax FR125 Max. Only.
2. To assist in the long-term stability of Formula Rotax, the AKA has granted a five (5) year moratorium to the class, beginning 1st January 2000, guaranteeing the only eligible engine is the Rotax Max FR125 manufactured by Bombardier Rotax Gmbh
3. Only genuine Rotax components that are specifically designed and supplied for the FR125 engine are legal, unless otherwise specified.
4. *For use in Australian racing every engine must have the official Formula Rotax Australia stamp on the crankcase (2 places) and also on the reed block face of the cylinder*

5. Neither the engine nor any of its ancillaries may be modified in any way likely to improve performance, unless specifically authorised within these rules.

45.03 **Chassis:**

Existing AKA formula with the following and additional restrictions

1 Round tubing only. Maximum diameter for chassis tubing is 35.5mm, (inclusive of paint).

2 Composite Materials are banned, except for the seat, Nassau panel and floortray.

3 Nosecone is compulsory

45.04 **Brakes:**

Front wheel brakes are not permitted

Important Notice – see Formula Rotax 125 brake recommendations.

45.05 **Fuel:**

Refer to rule 25.14. Fuel as run to comply under rule 22.01

45.06 **Tyres:**

1 **Dry Weather Tyres:** Bridgestone YGK
Front: 4.50 x 10.0 x 5, Rear: 7.10 x 11.0 x 5 (1 set + 1 replacement tyre / meeting)
Adjusted AKA Contracted Price: $225.00 per set. Maximum Retail Fixed Price

2 **Wet Weather Tyres:** (2001) Maxxis WT3TKM
Front: 4.50 x 10.0 x 5, Rear: 6.00 x 11.0 x 5 (1 set + 1 replacement tyre / meeting)
Adjusted AKA Contracted Price: $192.00 per set. Maximum Retail Fixed Price

45.07 **Drivers:**
Seniors only: Holding a provisional AKA C grade licence or better

45.08 **Weights:**
160kg and 180kg
Other weight divisions at the discretion of the event organizers.
No maximum kart weight.

TECHNICAL SPECIFICATIONS

45.09 **Internal and External Additions**
No additional material may be added except in the case of engine repairs and shall only restore the engine or components to original specifications.
- The use of thermal barrier coatings / ceramic coatings on or in the engine and on or in the exhaust system is prohibited.
- The use of anti-friction coatings in or on the engine / engine components is prohibited.
- The only exceptions to this are the gilnisil coating of the cylinder bore and the coating to the piston skirt.

45.10 **Legal Additions**
Chainguard, motor mount, radiator mount, temperature gauge and tachometer / hour meter, exhaust gas temperature fitting.

45.11 **Non Tech items**
1 Fasteners, circlips, washers, cages, bearings, spark plugs, gaskets unless otherwise specified.
2 No alteration from the original manufacturers specification is permitted to fit a non-tech item.

45.12 **Cylinder Head Volume**
Minimum of 11.0cc using AKA method 22.03.

45.13 **Displacement**
125.0cm^3 (maximum)

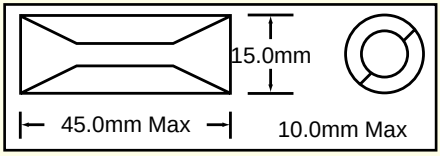
45.14 **Combustion Chamber Insert**
1 Identification code has to be 223 389, (illustration 1, (4)).
2 Name ROTAX has to be cast (illustration 1, (5)).
3 No material may be added, and must retain both squish band and spherical combustion chamber. O-ring must be fitted.

45.15 **Spark plug thread length**
Maximum spark plug thread length shall be 20mm.

45.16 **Piston –**
1 Coated, aluminium, cast piston with one 1.0mm rectangular piston ring
2 Machined areas are: top end of piston, outside diameter, one groove for the piston ring, bore for the piston pin, inside diameter at bottom end of piston. All other surfaces are not machined and have cast surface.

45.17 **Gudgeon Pin**

No special alloys, must be OEM and as per diagram 4.1



length 45.0mm minimum
I.D. 10.0mm maximum diameter

45.18 **Cylinder**

1 Light alloy cylinder with GILNISIL plating, configuration with one main exhaust port and pneumatic adjusted valve. Any replating is not allowed.
2 Maximum bore: 54,035mm (measured 10 mm above the exhaust port).
3 Cylinder has to be marked with ROTAX logo, (illustration 2, (1)).
4 Cylinder has to be marked with identification code: 223 997, (illustration 2, (2)).
5 Length of cylinder has to be 87mm with a tolerance of +/-0.1mm, (illustration 3)
6 All ports and passages are cast finish except some removal of flashing from the junction of the inlet and transfer passages. All ports have chamfered edges to prevent ring snagging. Any additional machining is not permitted
7 Cylinder must have the official Formula Rotax Australia stamp on the inlet face.

45.19 **Cylinder Base Gaskets**

1 Must be dimensionally the same size and shape as original and cannot be designed to decrease the size of the transfer ports.
2 Thickness of gaskets: Minimum - 0.20mm. Maximum - 0.90mm

45.20 **Inlet System**

1 Intake manifold is marked with the name ROTAX and the identification code 267 915. No grinding or machining is permitted.
2 Reed valve assembly is marked with the name ROTAX and the identification code 224387. No grinding or machining is permitted
3 The reed valve assembly is equipped with 2 petal stops and 2 reeds, each having 3 petals. The maximum allowable width between the inside faces of the 2 metal reed valve stops is 22.0mm.
4 The thickness of the reeds is 0.6mm +/- 0.03mm
5 Maximum reed block gasket thickness is 4.0mm

45.21 **Exhaust Powervalve**

As supplied by the manufacturer with no modifications allowed. Original spring must be fitted. Any external adjustment or blocking to this once the engine is running is illegal

45.22 **Crankshaft**

1 As supplied by the manufacturer with no modifications permissible.
2 Stroke 54.5mm +/-0.02mm

45.23 **Balance Shaft**

No modification Allowed. Must be installed and operational.
Either part number / type 237945 or 237949 is acceptable.

45.24 **Conrod**

1 As supplied by the manufacturer. Any grinding / polishing or modifications is not permitted
2 Conrod has to be marked with number "213" on shaft, (see illustration 4, (7)).

45.25 **Crankcase**

1 As supplied by the manufacturer. No grinding / polishing in the two main transfer passages.
2 Must have the official Formula Rotax Australia stamp on crankcase deck in 2 places.

45.26 **Ignition**

1 DENSO digital ignition only, no adjustment permitted or possible.
2 Ignition coil has following marks close to the outlet of the high-tension cable, Cast in case: DENSO 129000, Printed on case: 0691.
3 The only allowable Spark Plug Cap is NGK type TBO5EMA.
4 Any modification to any part of the ignition system and/or crankshaft to alter the ignition timing or rev limiter is illegal.

45.27 **Carburettor:** DELL'ORTO carburettor

1 The carburettor body, slide, needle, atomiser tube and atomiser insert (either spec 1 or spec 2 is permissible) to remain as originally supplied and cannot be subject to any modification. No additions or additional machining filing, drilling, or polishing etc is permitted to these items , this includes the bore /throat
2 "VHSB 34" cast in the housing of the carburettor
3 "QD" stamped in the housing of the carburettor.
4 Atomiser tube stamped with "266 FN"
5 Needle stamped with "K 54" or "K27" or others as nominated in the future.
6 Slide marked #40 only.
7 Other settings in the carburettor are free.

45.27 **Fuel Pump**

MIKUNI diaphragm pump only. Place of fixing is free.

45.28 **Radiator**

1 Genuine single aluminium radiator as shown in illustration 5.
2 Cooling area: Height = 290mm, width = 133mm
3 Thickness of radiator = 32mm
4 12 only water cores are permissible.
5 Placement of the radiator is free, however for the warranty to exist, the radiator must be mounted in its original position, on the right side of the engine.
6 Additional cooling devices, flow controlling devices and / or thermostats are not permitted.

45.29 **Radiator Coolant**

As glycol coolants are not permitted, a mixture of distilled water and aluminium compatible anti-freeze has to be used. An example of a product that does not contain glycol is Valvoline Pyroil Radiator Corrosion

45.30 **Clutch**

Dry centrifugal clutch – using genuine components only. Whilst on level ground the kart (without driver) must start to move under its own power, when the engine speed reaches 3000 R.P.M. or less.

45.31 **Intake Silencer**

1 Intake silencer with integrated, washable air cleaner as shown in illustration 6, must be fitted.
2 No modifications allowed. Air filter must be in place. Either fine type or coarse 030 filter is permitted.

45.32 **Exhaust System**

1 Must be as supplied by Rotax and cannot be modified except for, a) the replacement of the silencer absorption material and /or b) the addition of an exhaust gas temperature fitting.
2 Standard engine / pipe coupling must be used.

3 Exhaust pipe with after muffler as shown in illustration 7.
4 Length of inlet cone: Type A and B: 592mm +/- 5mm (measured along the body of the exhaust pipe, not the seam, from the beginning of the exhaust to the start of the cylindrical part).
5 Length of cylindrical part of exhaust pipe: Type A and B: 125mm +/- 5mm.
6 Length of end cone: Type A: 250mm +/- 5mm, Type B: 225mm +/- 5mm (measurement see illustration 7).
7 Outside diameter of 180º bent tube: Type A: 30mm, +/- 3mm, Type B: 41mm + 1,5mm / - 1,0mm (measured at beginning and end of bend).
8 Hole diameter of end cap of silencer (illustration 7,) 21mm + 0,2mm – 0,5mm.
9 Painting / plating of the exhaust muffler is permitted with the exception of thermal barriers / coatings / paint. (See internal and external additions
10 Note : Any accidental damage to the unit will not incur a technical breach of these rules, however any attempt to modify/alter the exhaust system by cutting, or fabrication will automatically remove eligibility of the exhaust system. Welding of the exhaust system to repair a crack, hole or to fit a patch etc. is permitted.

45.33 **Exhaust Muffler**

1 Noise isolating mat (illustration 7, pos. 2 & 5) can only be replaced by an original ROTAX spare part.
2 End cap rivets may be replaced with bolts / capscrews etc.

ILLUSTRATION 1

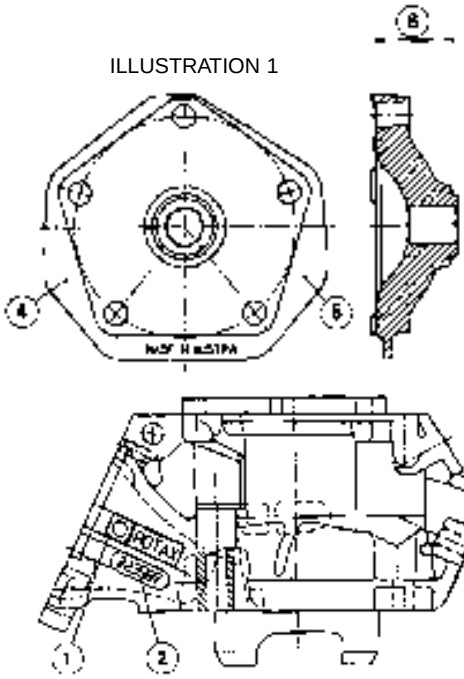
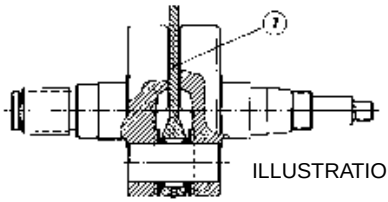


ILLUSTRATION 2

ILLUSTRATION 3



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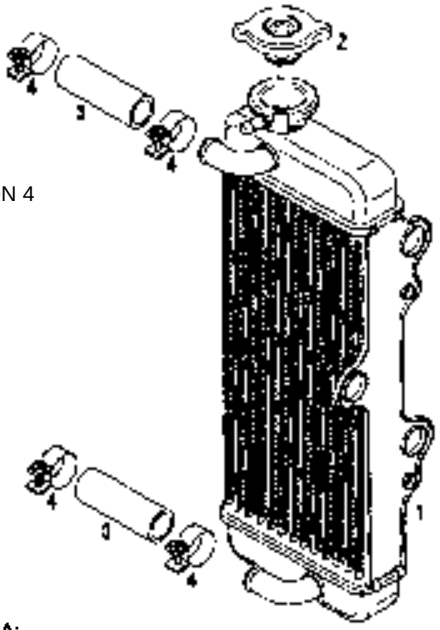

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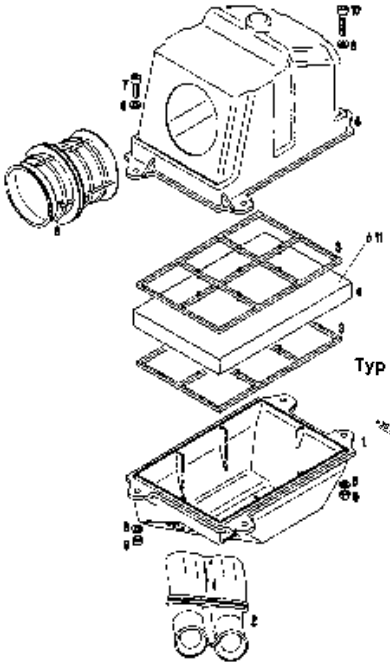
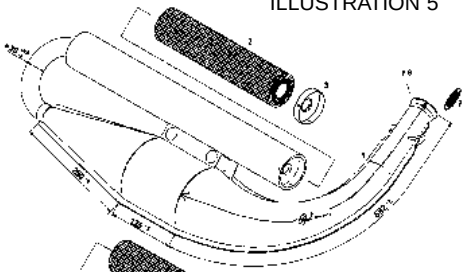
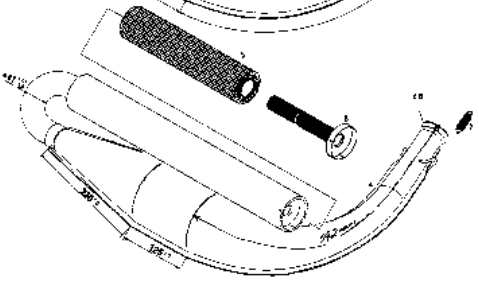


Typ A:

ILLUSTRATION 6





Typ B:

ILLUSTRATION 7

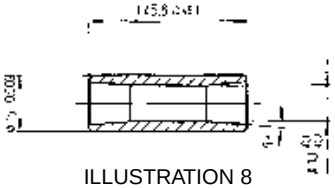


ILLUSTRATION 8

EXPERIMENTAL CLASS

Experimental Classes have been sanctioned by the National Karting Council.
The following specifications have been provided by the AKA for the conduct of this class as non championship events.

CHAPTER 46 - INTERCONTINENTAL C -GEARBOX

46.01 **Preamble**

This category of racing is restricted to FMK homologated 125cc engines. The power unit, that is the engine and the gearbox must be indissociable.
The kart may only be raced with variations described with in these regulations, any changes that fall outside these regulations and/or approved amendments are deemed illegal.

46.02 **Chassis**

1 The kart is to conform to the general kart formula as detailed in chapter 25 of the AKA Karting Manual except where specifically mentioned in this chapter

46.03 **Engines**

1 Stroke, maximum 125cc single cylinder engine, Direct feed without a compressor, reed valve admission, cooling exclusively water cooling one single circuit, the covering of the cylinder is free.
2 Engine case divided into only two parts (vertical and horizontal).
3 Reed valve box, support (dimensions and drawing) mentioned on the homologation form.

46.04 **Clutch**

Dry or oil bath, the process must be mentioned on the homologation form.

46.05 **Gearbox**

1 Homologated by the FMK (including the primary torque)
2 Minimum of 3 and maximum of 6 ratios.
3 *Check the ratios with a graduated disk with a minimum diameter of 200mm, the degree decimals given on the homologation form must be mentioned in tenths of degrees and not in minutes.*

46.06 **Gearbox Control**

All types of servo systems are forbidden (hydraulic, pneumatic, electric or other)

46.07 **Cylinder Head**

1 Volume of the combustion chamber : minimum 13 cc
2 *The volume of the chamber is measured with a laboratory burette, class A, graduated in tenths of ccs. The mixture used for this check will be composed of unleaded petrol and 2-stroke oil, mixed in a ratio of one to one. The chamber will be filled to the level of the upper part of the spark plug channel.*
3 All turbo or supercharger systems are forbidden.

46.08 **Spark plug**

1 The make of spark plug is free.

2 The thread of the spark plug, tightened on the cylinder head, must not extend beyond the upper part of the dome of the combustion chamber. Dimensions: length 20mm, pitch 14 x 125.
The thread must be continuous and not present any chambers or niches of any kind.

46.09 **Ignition**

Use PVL ref: 105.458 homologated by FMK, Homologation Number 281/A/95/PVL

46.10 **Exhaust System**

Make and dimensions are free provided that:

1 Must conform to AKA noise limits. Refer Rules 24.2

2 The outlet of the muffler must be within the perimeter of the kart when viewed from above.

3 The exhaust system must be securely fastened to the kart as to ensure it should not come free from the kart should a mount fail.

46.11 **Carburettor**

1 1 carburettor of the Dellorto make, type "PHBE", made of aluminium, normal series, with a "venturi" type diffuser with a maximum diameter of 30mm, checked with a flat gauge 30.25mm wide. Only the adjustment of the needle nozzle is authorised.

2 All systems of fuel injection and / or spraying of products other than fuel are forbidden.

46.12 **Air Intake**

An approved FMK or AKA carburettor intake silencer must be fitted to the carburettor at all times.

46.13 **Fuel**

Refer Rule 25.14. Fuel as run to comply to test under Rule 22.01.

46.14 **Tyres**

1. No modifications permitted, tyre treatment is illegal (refer rule 23.03)
2. **Dry Weather Tyres** Any tyre from AKA dry list (1 set + 1 replacement tyre / meeting)
3. **Wet Weather Tyres** Any tyre from group 2 FMK (1 set + 1 replacement tyre / meeting) See chart chapter 23

46.15 **Weight**

(a) 185kg

or otherwise at the promoters discretion

46.16 **Nose Cone, Side Pods, and Nassau Panel**

1 Bodywork must be AKA approved. Refer Rules 25.02, 03 and 06.

2 No other form of bodywork or aerodynamic device is permitted in this Class. Refer Rule 25.01(h).

46.17 **Limitations on Drivers**

1) The minimum grade of licence for entering this class will be senior AKA B grade

2) Drivers of 125 Intercontinental C – Gearbox must have 3 endorsements in their licence to compete on temporary circuits.

EXPERIMENTAL CLASS

Experimental Classes have been sanctioned by the National Karting Council.
The following specifications have been provided by the AKA for the conduct of this class as non championship events.

CHAPTER 47 - JUNIOR ReSa

47.01 **Engine Eligibility:**
PCR PV50 and ReSa PV 50 engines only
All engine parts must be as homologated unless specified.
Pistons – PCR black or silver

47.02 **Non Technical Items**
- ❖ All Bearings
- ❖ Piston Circlips
- ❖ Seals
- ❖ Fasteners
- ❖ Fin Dampeners
- ❖ Gaskets
- ❖ Piston Pin, Crank Pin
- ❖ Spacers and washers
- ❖ Drive Sprocket
- ❖ Exhaust Flex
- ❖ Spark Plug, Spark Cap and Lead
- ❖ All Port Surfaces

47.03 **Ignition** - Group 2 CIK ignitions are approved.

47.04 **Port Duration:**
(a) Maximum exhaust port duration of 177 (+ or – 2) degrees as per CIK measurement.
Note: If the engine is to compete in Piston Port Class maximum exhaust port duration of 177 degrees is required (all tolerances included).

47.05 **Bore Size:**
Maximum Bore oversize 50 .5mm

47.06 **Carburettor:**
1 Walbro WB series as per KT 100S:
Venturi - 24.13mm, Throttle Bore - 25.7mm,
2 Walbro WB as per FMK Inter A Junior:
Venturi - 24.00mm, Throttle Bore - 27.8mm
3 PCR BF24A
Venturi – 24mm, Throttle Bore – 27.7mm
The carburettor is to be fitted with an 18mm restrictor.

47.07 **Exhaust Muffler:**
Exhaust muffler must be either CIK192-E-06 (PCR) or CIK 195-E-06 (PCR). Or 278 E/95 PCR or 144 E/92 PCR.

47.08 **Chassis & Body Work:**

1 Any chassis approved for general competition
2 Bodywork as per AKA Manual plus front fairing (nose cone) compulsory
3 Race Numbers – Black on White background

47.09 **Tyres:**

1. No modifications permitted, tyre treatment is illegal (refer rule 23.03)
2. **Dry Weather Tyres:** MG AZ - Red (1 set + 1 replacement tyre / meeting
   Adjusted AKA Contracted Price: $195.00 per set. Maximum retail fixed price.
3. **Wet Weather Tyres:** Maxxis WT3TKM (1 set + 1 replacement tyre / meeting
   Adjusted AKA Contracted Price: $192.00 per set. Maximum retail fixed price.

47.10 **Braking:**

Front wheel brakes are not permitted. (Refer Rule 25.07)

47.11 **Fuel:**

Refer Rule 25.14. Fuel, as run, to comply to test under Rule 22.01.

47.12 **Weights:**

Kart and driver as raced 130 kg.

47.13 **Limitations on Drivers**

To be eligible to compete in this class a competitor must hold a minimum AKA B Grade Junior Licence and have had it endorsed at three (3) open race meetings in a Junior National Class as having reached a satisfactory standard for advancement.

47.14 **Restarting Before Race:**

In the event of a spin or a collision during the rolling laps, prior to the Start, Juniors are permitted to be restarted with assistance from delegated persons and at the discretion of the Starter and/or Clerk of Course.

Delegated persons must retire to a safe position once the race has commenced. (Refer R16.08)

CHAPTER 48 - SPEEDWAY

48.01 **Track Layout:**

The track layout and conditions for Speedway circuits will be as agreed and approved by the State Track Inspector.

Any new tracks or major alterations to an existing track must be submitted to the National Track Safety Committee for approval prior to construction of the circuit or alteration to the circuit. Non-compliance with this rule will be subject to an investigation and a possible penalty imposed and / or track licence not being issued by the NKC.

48.02 **Tyres:**

1 Restricted Classes may use any approved AKA slick tyre from the current or previous year's rulebook and may be hand grooved.
NO 6-inch tyres, wet weather tyres OR Burris tyres allowed.

2 Formula 100 / Sportsman Classes may run any kart tyre.

48.03 **Weights:**

1 There will be no class weights for Midgets Rookies or Ladies

2 Class Weights

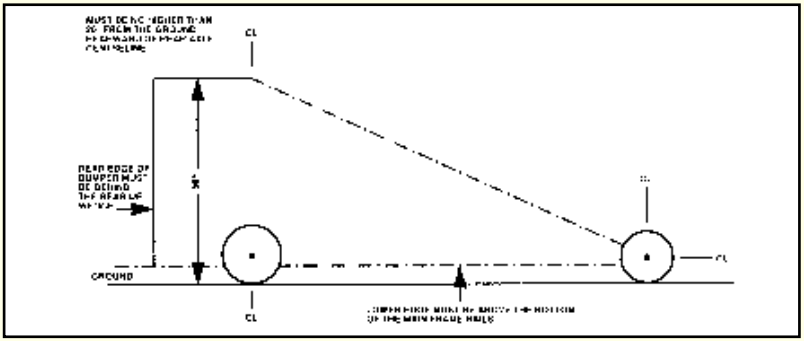
Junior National	110kg
Senior National	130kg
Senior Formula Yamaha	135kg
Senior Yamaha KT100S Open	135kg
Senior Formula 100/Sportsman	135Kg

3 Senior classes may have other weight division(s) at the discretion of the Promoter

4 Maximum kart weight for junior and all senior classes - 83kgs

48.04 **Bodywork:** (Optional):

- Body must remain inside the line of the outside edge of the wheels.
- Side panels to be made of plastic type material eg. PVC MULTIFLUTE, or any other PVC sheeting. All top edges to have plastic trim, such as fuel line or wind lacing (as used on car doors) to be held in place with PVC glue or silastic or with cable ties. The body is NOT to be above drivers shoulders whilst sitting in normal position in kart
- Bracing to be of lightweight material such as aluminium angle or tubing, or PVC tubing. NO SHARP CORNERS OR OPEN ENDS.



- The bodywork must have no other protrusions on the outer surface. (ie fasteners must be button or countersunk type only with suitable washers to prevent pulling through the body. NO EXTERNAL BARS OR PLATES
- Air ducting, NO external ducting allowed, ducting must remain inside bodyline.
- Nassau panel, may be used as long as they are no wider than 500mm. They may extend a maximum 50mm above the top of the steering wheel, and be minimum 50mm from the outer edge of the steering wheel. Nassau panel must be securely fixed and be of shatterproof / non-metallic material. The nassau panel MUST NOT restrict the driver physically or restrict their line of vision.

48.05 **Air Filters**

The use of air filters is permissible for speedway (fitted internal or external)

48.06 **Method of Racing for Speedway: Five (5) Heats:**

1st Heat: Fastest qualifier to Grid 1 and so on OR luck of draw.
2nd Heat: Reverse of first heat.
3rd Heat: Highest point-scorer to Grid 1 and so on.
4th Heat: Lowest point-score to Grid 1 and so on.
5th Heat OR Feature: To be approximately double the number of laps of previous 4 heats (subject to the discretion of the Clerk of the course relative to any time constraints) with lowest point scorer to Grid 1 and so on.
Winner determined by highest point-scorer on the day OR the winner of the final / feature race. The format to be decided by luck of the draw after all four heats have been completed.
Point Allocation: 1st to 12th respectively.
25,20,16,12,10 ,9,8,7,6,5,4,3,2 and all other finishers 1 point each.
Restarts: NO restarts except in first lap of the 5th Heat or the Feature Race. In order to justify a race restart, two or more karts must be involved in the SAME incident being deemed the cause for the stoppage. Karts which need to restart in this event will form at rear of the field. In this situation the chevron flag and yellow flag are to be shown until track is clear for restart.

48.07 **Flag Signals**

Green	Start the race
Red	All racing shall cease – driver will indicate by raising his arm and pull to the side of the track and stop in a safe manner. This order shall be given only though the Clerk of the Course and/or the Stewards of the Meeting. Red light/s may be used in addition to the red flag.
Red and White (chequered)	Signifies that it has been a false star or no start, return to Pits, (this flag is to be used by a Steward/Clerk of Course or Starter prior to the first lap being completed by the race leader to enable the Stewards to take immediate action for a breach of rule prior to the start
Yellow	Danger – Reduce Speed. Maintain position until the situation, accident etc that caused the yellow flag to be given is passed. To assist following competitors and of it can be done with safety a competitor should raise one arm to indicate that he is slowing for the yellow flag. Failure to slow to a safe speed for a yellow flag will be considered a serious breach of these rules.

Double Yellow (waved)	Caution, slow down, the track is blocked, form one lane ready to restart as soon as the track is clear.as soon as the track is clear.
Blue (waved)	One or more competitors are about to lap you. You must hold your course and allow him to pass unimpeded.
White and Black (diagonal join)	If this flag, together with a panel upon which the competitor's kart number is displayed to the drive concerned, it indicates that the competitor is being observed for unsportsmanlike behavior. The competitor must report to the Clerk of Course or Steward immediately after the race.
Black	Should it become necessary for any reason to stop a driver, this order shall be given only through the Clerk of the Course and/or Steward of the Meeting. The black flag shall be displayed to the driver concerned, together with a panel upon which is shown the kart number. Such signal indicates **"That the driver is to Immediately leave the racing circuit with safety to a position determined by the clerk of the course at the drivers briefing".** If the black flag is considered for an incident other than danger due to equipment failure the driver must first be warned by use of the white with black diagonal join flag
Black and White (chequered)	At the end of each race, the black and white chequered flag shall be shown, stationary or waved, to the driver of the first kart to finish as he crosses the finishing line, and then in succession at all other drivers as they next cross the finishing line after the first kart. This flag is also be used to signal the end of practice.

48.08 **Baulk Lines:** The method of determining the baulk line and it position on the circuit is to be advised by the clerk of the course at the driver's briefing.

48.09 **Numbers :** The rear numberplate will be displayed in combination that identifies the class for that kart driver

Midgets	white number on red back
Rookies	red number on white back
Junior National	black number on white back
Senior National	red number on yellow back
Senior	black number on yellow back
Senior Yamaha KT100S Open	white number on red back
Senior Formula 100 / Sportsman	white number on black back

48.10 **Special Class Specifications (Senior)**

a) Senior Yamaha KT100S Open

This class originally determined by the technical specifications for Class Australia (1996 AKA manual) and limited to the Yamaha KT100S motor.

External Modifications

External modifications which do not in any way affect a performance gain are legal

Internal additions

(i) No additional material may be added except in the case of engine repairs and shall only restore engine or components to original specifications.

(ii) The use of thermal barrier coatings / ceramic coatings on or in exhaust components is prohibited

Interchange of parts

Permitted between engines of like dimensions (bore, stroke) as long as no removal or addition of material is required to interchange said parts.

Legal additions

Legal additions shall be limited to the following : Carburettor return springs, chain guard, direct drive sprocket, extension of carburettor jet needles, exhaust header, motor mount, muffler, starter nut and pulley, tachometer, temperature gauge, third bearing and adaptor shaft.

Non tech items

Unless otherwise specified, non-tech. items include bearings and cages, crankpin, fasteners, gaskets, piston and rings, seals, piston pin, spacers, washers and spark plug

Displacement

Max bore and stroke including 5% tolerances are:

bore 53.85mm, stroke 46.10mm.

Exhaust muffler

Piston Port Engines are permitted to use the exhaust muffler homologated for use with that engine by the FMK or be the homologated muffler for a later model Piston Port engine from that engine manufacturer. If the homologated exhaust muffler is not used then the exhaust muffler used must comply with Rule 25.26.(a) (b) (c) and (e).

Exhaust intake and transfer ports

Modifications are permitted, except:

(i) Number of transfer passages and inlet ports in the cylinder and crankcase.

(ii) Number of exhaust ports and passages.

(iii) Port surface finish is a non-tech item

Connecting Rod

Must be the same length as original and made of magnetic material

Crank shaft

Must be by original engine Manufacturer with no change of stroke permitted

Ignition

The only permissible ignition system is either of the following:

Group 2 FMK homologated or Yamaha.

The fitting of the module Yamaha, Victa, Atom or Delta/Wei Shieh is permissible

Carburettor

Will be stock appearing WALBRO WB Series

b) Senior Formula 100 / Sportsman

This class originally combined 100cc International and 100cc Reed Classes (1997 AKA manual). However Senior Formula / Sportsman now combines any 100cc approved engine (+/- 5% tolerance) which is not in any other restricted class.

CHAPTER 49 - DIRT TRACK KARTING

The following rules apply to Dirt Track Racing ONLY.

49.01 **Track Layout:**
The track layout and conditions for Dirt Track circuits will be as agreed and approved by the State Track Inspectors.
Any new tracks or major alterations to an existing track must be submitted to the National Track Safety Committee for approval prior to construction of the circuit or alteration to the circuit. Non-compliance with this rule will be subject to an investigation and a possible penalty imposed and / or track licence not being issued by the NKC.

49.02 **Chain Oilers:**
Refer Rule 25.18 - Chain Oilers: Only permitted on Dirt Tracks. (Optional to Promoters).

49.03 **Tyres:**
1 Tyres for classes in Dirt Track karting to be the dry weather tyre for corresponding classes in Bitumen Sprint racing.
2 Treaded tyres are not to be used.

49.04 **Side Pods and Bumpers:**
1 Side Pods are COMPULSORY. (Refer Rule 25.02)
2 Rear Bumper - Maximum width to centreline of rear tyres. (see diagram)

49.05 **Weights:**
Class weights to be the same as corresponding classes in Bitumen Sprint racing.
Promoters may change class weights if necessary, when applying for permit.

The following rules apply for Championship Administration.

49.06 **NATIONAL DIRT TRACK CHAMPIONSHIP** promoted in September annually.

49.07 **Method of Racing for STATE and NATIONAL CHAMPIONSHIPS:**
Will be at the discretion of the State Karting Council in conjunction with the Promoters.

49.08 **Entry Fee for STATE AND NATIONAL CHAMPIONSHIPS:**
The Entry Fee shall be decided by the State Karting Council in conjunction with the Promoters. Entries will close a minimum of fourteen (14) days before the Event.

Maximum width to centreline of rear tyres

REAR BUMPER DIAGRAM
(Dirt Only)

CHAPTER 50 - AUSTRALIAN CIK BASED CLASSES AND NATIONAL CHAMPIONSHIP REGULATIONS

50.1 **Preamble:**

The three CIK/FIA classes of Formula A, Intercontinental A and Intercontinental A Junior are raced in Australia. National and State Championships are conducted for these classes.
These classes are raced in Australia to provide the necessary experience for Australian drivers, engine builders and manufacturers for them to compete competitively in CIK International events. To this end, the CIK classes will be raced as close to CIK/FIA International Technical and Race Regulations that local conditions will permit.
The NKC may from time to time publish any alterations to the Championship Regulations or Chapter 50, as may be required.
The Championship Regulations in this chapter do not apply to any competition other than CIK classes at Rounds of their Australian Championships or events for CIK classes specifically approved by the NKC.

50.2 **CIK Classes in Australia:**

The following CIK classes are raced in Australia:

- Group 1: Formula-A
- Group 2: Intercontinental-A
  Intercontinental-A Junior

These classes will be conducted in accordance with the CIK/FIA Technical Regulations, unless otherwise stated in this Chapter.

50.3 **Tyres:**

Only tyres, which fit 5" diameter rims, are permitted.
The tyres used by Group 1 and Group 2 classes in Australia will be any current CIK homologated Group 2 tyre with a recognised AKA commercial distributor in Australia.
The AKA will publish a list of AKA approved CIK Group 2 slick and wet weather tyres.
The mixing of wet and dry category tyres, or tyres of different makes, on the kart at any one moment, is not permitted.

50.4 **Homologated Engines and Modifications:**

Modifications are permitted save for the following:

- The homologated stroke must be retained;
- Maximum capacity 100cc;
- The homologated connecting rod length must be retained;
- The connecting rod must be of magnetic material;
- The number of transfer, inlet and exhaust ports and passages in cylinder and crankcases must remain as homologated;
- Only one carburettor may be fitted;
- External appearance of the engine must be retained.

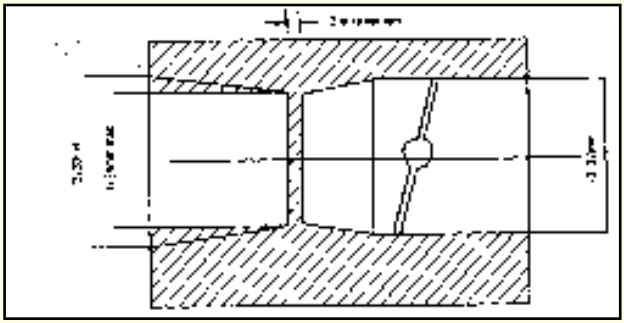
(NOTE: "external appearance" does not include carburettor, ignition, exhaust or engine mountings, but these must remain in their homologated positions.)
Engines must be homologated single cylinder series production air-cooled engines, complying with the CIK/FIA Technical Regulations. All "Power - Valve" systems are forbidden.
For all engines the ignition system used must be of the analogue type and, in Group 2, homologated by the CIK/FIA.

50.5 **Group 1**

50.5.1 **Formula-A** (refer CIK - Article 7):

- Air-cooled Reed or Rotary valve engines only;
- The situation will be reviewed mid year to consider the introduction of water-cooled engines into Formula A only.
- Minimum racing weight: 145kg;
- Minimum weight of the kart alone (without fuel): 65kg;
- The carburettor is free, save that it must be of butterfly type with central spindle with a venturi diameter of 24mm round and it must comply with the dimensions shown in diagram 50.5.2 (Refer CIK/FIA Technical Drawing No. 3 and Article 2 – Rule 25.4 for tolerances);
- Lateral bodywork (i.e. side pods) is obligatory;
- Front fairings are obligatory.

50.5.2 diagram



50.6 **Group 2**

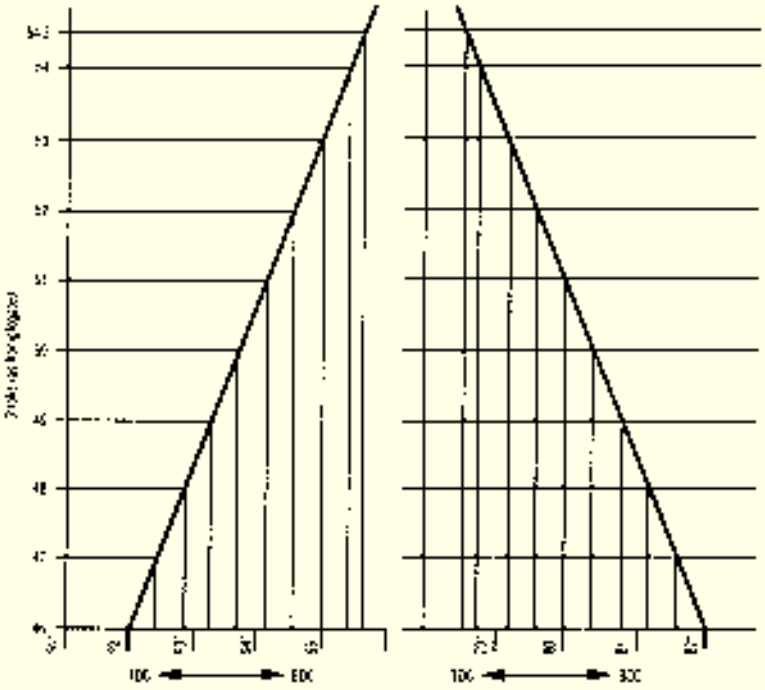
50.6.1 **Intercontinental-A** (refer CIK Article 10):
Air-cooled Reed-valve engine, with the following restrictions:

- Stroke, minimum 48.5mm, maximum 54.5mm;
- Total opening angle of exhaust limited to a maximum of 177° (all tolerances included), reading by means of a graduated gauge of at least 200mm diameter;
- Number of transfer ports is three.
- The carburettor must be CIK/FIA homologated and must be of butterfly type with central spindle with a venturi diameter of 24mm round and it must comply with the dimensions shown in diagram 50.5.2 (Refer CIK/FIA Technical Drawing No. 3 and Article 2 – Rule 25.4 for tolerances);
- The exhaust system must be CIK homologated for the relevant engine;
- The intake silencer must be CIK registered;
- Minimum racing weight: 145kg
- Minimum weight of the kart alone (without fuel): 65kg;
- Lateral bodywork (i.e. side pods) and front fairings are obligatory.

50.6.2 **Intercontinental-A Junior** (refer CIK Article 11):

Piston port engine, with the following restrictions:

- The cylinder must have an iron liner (chrome and nikasil are forbidden);
- The complete dimensions of the piston must be as on the CIK homologation form;
- Stroke: minimum 46.0mm, maximum 54.5mm;
- The opening angle of exhaust (reading by means of graduated gauge of a minimum diameter of 200mm) must comply with the figure established by graph "A" according to the homologated stroke for the engine (all tolerances included).
- The total chord width of the exhaust ports plus any divisions between them, must not exceed 22.3 percent of the total internal circumference of the cylinder established by the theoretical maximum bore stated on the CIK homologation form. The shape of the exhaust port must be rectangular, with corner radii less than or equal to 4mm.
- The total maximum inlet angle (reading by means of a graduated gauge of minimum diameter 200mm) must comply with the figure established by graph "B" according to the homologated stroke for the engine (all tolerances included);
- The total chord width of the inlet ports plus any divisions between them must not exceed 22.3 percent of the total internal circumference of the cylinder established by the theoretical maximum bore stated on the CIK homologation form.
- The number of transfer ports is free;
- Only one carburettor is permitted. It must be butterfly type, CIK homologated, with centre spindle, and maximum venturi diameter of 24mm (including the CIK Article 2 – Rule 25.4);
- The distance between the carburettor flange and the centre line of the cylinder must be greater than 9lmm (tolerance as per CIK Article 2 – Rule 25.4 included) and includes any thermic spacer which may be used;
- The pressure hole in the crank-case must be of at least 3.25mm diameter (all tolerances included);
- Ignition timing must be fixed and invariable. The make and type/model must be as listed on the CIK homologation form for the engine;
- The exhaust must be CIK homologated for the relevant engine;
- The intake silencer must be CIK registered, and is obligatory;
- Clutch: CIK homologated centrifugal clutch is obligatory. It may be homologated by the manufacturer together with the engine, or as a separate unit, for the same homologation period. Such separate homologation is restricted to the manufacturer with a homologated engine for this class.
- The centrifugal engagement of the clutch must occur before an engine speed of **5000rpm** has been attained. An efficient protection (made of cast aluminium) covering the centrifugal clutch but leaving free access to the chain must be mounted and will be an integral part of the homologation of the centrifugal clutch by the CIK;
- The starter system may be either electric or recoil or both;
- Total minimum racing weight: 130kg junior
- The minimum weight of the kart alone (without fuel) is 60kg;
- Lateral bodywork (ie, side pods) and front fairing is obligatory;
- Tyres: Narrow tyres will be obligatory as per the CIK Regulations. Maximum width rear wheel, rim complete and fitted is 185mm.



GRAPH A
EXHAUST PORT TIMING
(no tolerence allowed)

GRAPH B
INLET PORT TIMING
(no tolerence allowed)

50.6.3 For clarification of any technical references in Chapter 50, refer to the CIK/FIA Technical Regulations in the current CIK/FIA Karting Yearbook.

Championship Regulations
Australian Championships for FMK Classes

General Conditions

Article 1
The Australian Karting Association will organise an Australian Championship and State Championships for drivers in Formula A, Intercontinental A, and Intercontinental A Juniors. These rules are formulated for the CIK classes to compete within a national championship under rules similar to international competition. Rules specific to the championships for the CIK classes are contained in these Championship Regulations. Where the Championship rules are in conflict, or otherwise, with the National Competition Rules the Championship rule shall take precedence over any similar rule found in the National Competition Rules. These rules may be modified, from time to time, by the National Karting Council and on recommendation of the International Karting Committee.

The Championship is being conducted with the following objectives

[a] To conduct a national championship series that provides competitors with experience for international competition in the CIK classes.
[b] To be a vehicle to promote the CIK classes, and international karting competition, on a national basis.
[c] The Championship should be viewed as the pre-eminent karting competition within Australia second only to the CIK/FIA Oceania Championships.
[d] The conduct of the race meetings should be the benchmark for quality in karting administration, promotion and operation of race meetings. In achieving this it is hoped to improve the experience, attitude and standard of karting officials on a national basis.
[e] The Championships should be commercially attractive to sponsors.
[f] To maximise participation, by competitors, in all rounds of the Championships.

Article 2 - Events
The Formula A, Intercontinental A and Intercontinental A Junior Championships will be contested over rounds in each of the states of South Australian, Queensland, Victoria and New South Wales. The classification of the Australian Championship will be established through the results obtained by the Drivers in all rounds of the Australian Championships.

Article 3 - Registration
Entry in the Championships point score will be by registration only. All entrants at all rounds are required to register. The Championship encourages drivers to compete in all rounds, however registration after the first round will be accepted. Championship points are allocated to individual drivers within each class and are not transferable between drivers or classes. Registration for the Championships will open on the 1st January.

When registering, competitors will nominate a preferred race number (one or two digits only), which they shall retain for all rounds of the Championship. Numbers 1, 2 and 3 will be reserved, within each class, for the first three finalists from the previous years competition. Within each class, race numbers used in the previous year will be reserved for that competitor for use within that class. These numbers are only reserved up until close of entry for the first round, at which stage the numbers may be re-allocated. Other numbers will be allocated with preference given to order of receipt of registrations.

Article 4
All rounds will have National restricted status and will be open to drivers holding the appropriate International or National Licence (refer Article 18).

Article 5
All the concerned parties; officials, promoters, entrants and drivers may only participate in the Australian Championships for CIK Classes on the condition that they respect all texts and documents which govern it.

Article 6
The right to associate the name of a commercial company, organiser or brand with the Australian Championship for CIK Classes is exclusively reserved for the Australian Karting Association.

Article 7 – Support Classes
The promoters of each round may run support classes as non-championship races at their round of the championship, but only with the approval of the International Karting Committee. Support classes will be run in accordance with the "Support Class Regulations" as published by the NKC of the Australian Karting Association.

Article 8 - Definition of the Event
The events will be conducted under the International Sporting Code of the FIA, the National Competition Rules of The Australian Karting Association, these Championship Regulations for the Australian Championships for the CIK Classes and such supplementary regulations, further addendum's and bulletins as may be issued by, or in conjunction with, the organising body of each race meeting.

Article 9 - Organisation
These regulations also apply to the South Australian, Queensland, Victorian and New South Wales State Championship for Formula A, Intercontinental A and Intercontinental A Junior. The organisers reserve the right to issue Supplementary Regulations and/or instructions to entrants and/or drivers and these shall be of the same effect as these regulations.

Article 10 - Entries
Late entries will only be accepted at the discretion of the organisers. A penalty of $150, payable to the AKA, will apply to late entries.

Article 11 - Fees
Championship Registration and Entry per round.

Article 12 – Circuits and Practice
Number of karts admitted: Refer NCR 18.09 for track density. Track will be closed to entrants/drivers for practice on the Monday to Thursday prior to each event. Controlled private practice will be available Friday. Official practice will be Saturday morning. The track will be closed to karts after last race on Saturday.

Article 13 - Scrutineering
Administrative checking and scrutineering will take place as nominated in the supplementary regulations. All karts and equipment must be scrutineered before participating in official practice. All engines must be entered on the technical passport and be sealed prior to timed practice.

At scrutineering, each driver must present the equipment listed on the technical passport issued and it will be checked, marked and sealed in such a way as to be identifiable at any moment during the race.

The entrant must have the homologation papers, available for inspection if requested, for their engine, carburettor, clutch and exhaust.

The entrant will have completed the Technical Passport for presentation at scrutineering.

Race numbers and sponsors stickers will be in place at scrutineering. The placement of official sponsor's stickers on the bodywork of competing karts is compulsory. They must be located at the discretion of the chief scrutineer.

Article 14 – Driver's Briefing
Driver's briefing will take place on Saturday and Sunday, at a location and time to be nominated in the additional supplementary regulations or as announced on the events public address prior to the meeting. Driver's attendance at all briefings is compulsory, and they must sign the attendance sheet. Drivers who fail to attend a briefing or sign the attendance sheet will be referred to the stewards who may impose a fine.

Article 15 - Telemetry and Data Logging
The use and/or fitting of telemetric equipment is prohibited during official practice and racing. In Formula A, Intercontinental A and Intercontinental A Junior the use of data logging equipment is permitted during official practice and racing.

Article 16 - Medical
A state operated ambulance or paramedic and a doctor will be present on Saturday and Sunday.

Article 17 - Championship Officials

Series Officials Series Co-ordinator
Clerk of Course
Chief Scrutineer
Starter / Assistant Clerk of Course

Judges of Fact
The judges of fact at each round are the starter, chief scrutineer, weigh marshal, chief lap scorer and chief timing officer. The Starter shall be the judge of fact while under the starters control and will determine competitors who break the start order, impede, delay or unduly affect the start procedure. The Chief Lapscorer shall be the judge of fact as to the number of laps completed and the finishing order of any event. The Weigh Marshal shall be the judge of fact as to the measured weight of any kart and driver at the completion of any event. The Scrutineer shall be the judge of fact as to the technical compliance of any kart.

Article 18 - Eligible Competitors
The championship events are restricted. All drivers must hold, at the time of competition, the appropriate licence for that class.

Formula A	International A licence or AKA FA grade licence
Intercontinental A	International B or C grade licence or AKA A grade licence or New Zealand A grade
Intercontinental A Junior	International B or C Junior grade licence or AKA Junior A grade licence or New Zealand Junior A grade

An entrant to be eligible to compete in ICA Junior must be less than sixteen (16) years of age at the start of the first round.

Article 19 – Fuel and Lubricants

The CIK classes will use a single control fuel for the Championships. The control fuel will be of the type and specification as stated in the supplementary regulations. Registered competitors will be notified of suppliers of the fuel. Competitors must use the control fuel at each round of the Championships. Failure to do so will result in the driver being referred to the Stewards of the meeting for action. The fuel is not to be modified except by the addition of approved lubricants. Only lubricants (oils) from the CIK/FIA list of approved lubricants may be used for mixing with fuel.

FUEL DISTRIBUTION

1. Competitors will be responsible for the supply and delivery of their fuel in the manufacturers sealed containers to the parc ferme impound. Only sealed manufacturers containers will be allowed into parc ferme.
2. This fuel remains impounded until the completion of the event.
3. Upon impounding, an official shall write the competitors name, number and class on each drum and hold them in parc ferme adjacent to the Paddock area. The fuel tank and/or drum only shall remain in the fuel impound area and may not be stored with any form of container or product for heating or cooling the fuel.
4. Each competitor will mix the selected amounts of oil and petrol as required from the respective containers in the presence of an official. Only sealed unopened manufactures oil containers may be brought into parc ferme. No other additive is permitted to the fuel.
5. Samples of mixed fuel, not less than 100mls each may be taken at any time and preserved in a sealable glass container for testing. The competitors name, class, date and signature will then be entered on a label affixed to the container and the sample will be retained for testing by the officials.
6. All fuel used by the competitor for racing will remain in parc ferme. No fuel or opened oil containers may be brought into parc ferme.
7. Prior to the carburetion session for Time Trials the kart will enter the parc ferme with an empty fuel tank. The kart will be filled with fuel from their marked drums. Upon completion of time trials the fuel tank will be refilled, removed from the kart in parc ferme and then handed into the fuel impound where it will be marked with the competitors identification. The fuel tank must stay in parc ferme at all times except when the kart is racing. The competitor will collect the tank prior to each event for fitting to the kart within parc ferme. A similar procedure is followed for carburetion, heats and finals with the tank being filled after each race prior to being returned to the impound. (It is recommended that karts be fitted with quick release fuel tanks.)
8. At the completion of the meeting, any fuel owned by the competitor may be claimed by the respective competitor.

Article 20 - Equipment

Karts must comply with either the current Australian Karting Association Technical Regulations or the current CIK/FIA International Karting Regulations excluding the following rules from Article 2 of the International Regulations;

Rule 19 - Noise
Rule 26 - Timing Equipment
Rule 21 - Fuel
Rule 24 - Racing Numbers

(Note: Compliance with the CIK/FIA IKR will require the use of homologated equipment and components where referenced.)

The name of the driver should appear in a visible position on the outside of the bodywork. In the interest of promotion of CIK competition it is the entrants responsibility to present themselves and their equipment in a clean, maintained and professional manner at all times.

Number plates will be black numbers on yellow background for seniors and black on white background for juniors.

Number of engines:	3 (max) (or equivalent)[1]	Sealed for the duration of the meeting. Need not be the same make.
	FA	homologated engine
	ICA	homologated engine, carburettor & exhaust
	ICA Jnr	homologated engine, clutch, carburettor & exhaust
Number of chassis:	FA	2 (max) – need not be homologated
	ICA and ICA Jnr	2 (max) – to be any current or past CIK/FIA homologated
Sets of slicks:	ICA and ICA Jnr	one (1) set CIK/FIA group 2 homologated
	FA	four (4) front tyres and four (4) rear tyres CIK/FIA group 2 homologated
Sets of rain tyres:		two (2) sets at the rate of 1 set for heats and 1 set for finals if the race is declared wet. Wet tyres will be marked and impounded after use and until post race scrutineering.

(1) If the competitor has less than three engines the chief scrutineer may allow the rebuilding of the equivalent number of engines, but only under his direction and control.

The competitor has the option to use any of the AKA approved CIK group 2 wets. Wet weather tyres for racing, need not be the same make as the competitor nominated for their slick tyres on their entry.

A set of tyres comprises two front and two rear tyres of the same approved CIK/FIA group 2 homologated make and type. One tyre front or rear, per set, may be replaced with the consent of the scrutineer.

Junior Clutch Test

Checking the motion of the kart with the engine at **5000 RPM** will take place on a level area prior to any race. Once the kart has been placed in position, the driver will sit in his kart, the mechanic will proceed to the kart with their starting equipment. On the command of the Technical Inspector, the mechanic will start the engine of his driver and then move back to the edge of the track.

No mechanic of a driver will have the right to intervene during the verification. Any infringement by the mechanic will be penalised. The Technical Inspector will attach the cable of the rev. counter to the cable of the spark plug, in order to read the revolutions. The driver sitting in the kart must obey the orders given by the Technical Inspector to allow a correct reading. The procedure outlined in the CIK/FIA Standard Regulations - Continental Championships for Juniors - Article 8 must be then be followed.

Article 21 - Tyres

A system of tyre pooling and impounding will be employed at all rounds. The tyre manufactures will nominate only one tyre compound, in each class, for use at each round. The selected compound will be stated in the supplementary regulations.

Entrants will be required to nominate on their entry the brand of slick tyres to be used. The entrant may only change slick tyres from those nominated on the entry with approval from the organisers.

All slick tyres to be used for racing at this event will be delivered direct to parc ferme by the nominated tyre dealer. These tyres will remain in parc ferme until the end of the meeting. It is the competitor's responsibility to organise with the dealer the purchase and supply of tyres.

ICA and ICA Junior competitors will have impounded 3 front tyres and 3 rear tyres. Formula A will have impounded 4 front tyres and 4 rear tyres.

In Formula A, in the time trials or heats, competitors may change, from within their eight available tyres, one damaged tyre with the approval of the chief scrutineer.

In Formula A, the new tyres to be used for the pre-final and final are to be fitted after the last heat and before the pre-final.

In Formula A, in the pre-final or final, competitors may change, from within their eight available tyres, one damaged tyre with the approval of the chief scrutineer.

Any changes or additions to this procedure will be stated in the supplementary regulations for the event.

Article 22 - Changing of Equipment

Notice of any change of equipment should be notified to the scrutineer before the start of any race or timed practice. Equipment, as entered on the technical passport, may be used at the entrant's discretion with the approval of the scrutineer.

The same engine may be entered for more than one competitor but must be recorded on each competitor's technical passport.

The change of chassis, engine or tyres is forbidden during the starting procedure and between the start and finish of any race.

Article 23 - Timed Practice

Refer NCR 19.17. All karts will compete in timed practice using the AMB, or other approved timing system. Transponder units must be fitted in purpose made AMB holders unless otherwise approved.

The fastest lap time for each driver will determine their position on the grid for the heats.

Article 24 - Starts

A rolling start shall be given by means of light signals for Formula A, Intercontinental A and Intercontinental A - Juniors. Should the lights fail, the national flag shall be used.

The grid shall be made up of two lines of karts arranged in the order of the best times set during official timed practice, or the order of points obtained in the heats, or in the order of arrival position of the pre-final.

Article 24.1 - Rolling Start Procedure for Formula A and Intercontinental A

From the moment the starter signals for the karts to be released, the drivers are under "starters orders" and may not received any outside assistance for repairs or other adjustments to their equipment while on the track.

From the moment the start procedure commences, race conditions apply. Wherever a kart is on the track it is forbidden to receive any assistance, other than to remove the kart to a place of safety.

A line will be painted 25 m before the start line and it is forbidden to accelerate before the front row of the grid has crossed this line.

The field will complete at least one formation lap before the start signal is given. It is the responsibility of the driver to retain their grid position and the starter is not obligated to allow additional formation laps to allow a driver who has lost their place to regain it. It is forbidden to overtake another competitor under pain of penalty at the stewards' discretion.

Should a driver stop, for any reason, during the formation lap, they may not attempt to restart until they have been passed by the entire field. They may then rejoin at the back of the formation, but must not try to regain their grid position. Should a driver attempt to move up through the field, or start in front of the field in the hope the leader will overtake them, they will receive the black flag and be

excluded from the race. Similarly, should a driver, without stopping, fall behind the entire field they must remain at the rear for the start and not attempt to regain their position. Any infringement will result in the same penalty.

However, should the starter consider that a driver has been forced to stop due to the action of another; he may signal a re-grid by displaying the green and yellow chevron flag.

In the case of repeated false starts, the Starter, acting as Judge of fact, may inflict upon the driver(s) concerned a 3 point penalty in the heats and a 3 place penalty in the finals. The driver(s) concerned will be notified by means of a board displaying their starting number(s).

Article 24.2 - Rolling Start Procedure for Intercontinental A Junior

When the starter is ready the competitors will be released from the dummy grid in grid order. From the time that the karts are released from the grid until the start is given, drivers are under starter's orders and may receive no outside assistance other than the restarting of their engine as authorised by an Official.

It is the responsibility of the driver to retain their grid position. It is forbidden to overtake another competitor under pain of penalty at the stewards' discretion. Should a driver stop, for any reason, during the formation lap, they may not attempt to restart until they have been passed by the entire field. Should a competitor stop during the formation, they may be restarted under direction of an official as soon as they have been passed by the rest of the field and may take a place at the back of the field. They may then rejoin at the back of the formation but must not try to regain their grid position. Should they attempt to move up through the field or start in front of the field in the hope the leader will overtake them, they will receive the black flag and be excluded from the race. Similarly, should a driver, without stopping, fall behind the entire field they must remain at the rear for the start and not attempt to regain their position. Any infringement will result in the same penalty.

However, should the starter consider that a driver has been forced to stop due to the action of another he may signal a re-grid by displaying the green and yellow chevron flag.

The start will be a rolling start. The notion of "rolling start" is defined as follows;

Two marshals, holding yellow flags, will walk with the field from the last corner prior to the starting line. As soon as the last driver is aligned, the marshals move aside and the green light is switched on.

Drivers may not accelerate until the light has turned to green.

In the case of repeated false starts, the Starter, acting as Judge of fact, may inflict upon the driver(s) concerned a 3 point penalty in the heats and a 3 place penalty in the finals. The driver(s) concerned will be notified by means of a board displaying their starting number(s).

Article 25 - Racing

Any obstructive manoeuvre carried out by one or several drivers, with or without common interests, is prohibited.

The driver of any kart leaving the race shall signal his intention in good time and is responsible for ensuring that the manoeuvre is carried out safely and as near as possible to the point of exit. It is forbidden to use any route other than the track used for the race to gain/regain a place.

Whilst practising or competing, karts shall not be driven other than on the defined track, in the pits, and in such other areas as Supplementary Regulations may specify. The track is the portion of the sealed surface between and including the white edge lines.

Should a driver be compelled to stop his kart, either involuntarily or for any other reason, the kart shall be moved off the track as soon as practical so that its presence does not constitute a danger or prevent the normal running of the race. If the driver is not able to move the kart out of the potentially

dangerous position, it is the duty of the officials to assist, but only if this may be done without prejudice to their normal duties.

During practice sessions and the race, access from the track to the pits is allowed only through the deceleration zone. Penalty for breach of this rule shall be exclusion from the race, or the relevant practice session, and such other penalty as the stewards may apply.

In no circumstances may a vehicle travel in a direction opposite to that of the event.

Article 26 - Mechanical Breakdown Lane

Refer Rule 17.06. From the time the race ends (chequered flag is given to the lead kart) any kart in the pit lane under going repairs has three minutes to restart and cross the finish line, to be classified as a finisher.

Article 27 - Restarting

Restarting of a kart is permitted during practice and racing. A driver should only attempt to restart a kart if it can be done with safety and without unduly hindering other competitors. Any driver not respecting this rule may be directed to remove his kart from the track to a place of safety.

Article 28 - Stopping the Race

It may be deemed necessary to stop the race due to an accident.

The result of stopping the race is as follows:-

Should 60% of the race have been completed, it shall be deemed a race and the result shall be the finishing order at the end of the lap preceding the stoppage. Should less than 60% have been completed the race shall be re-run in full.

For heats all original drivers will be entitled to take part in the re-start.

In the pre-final and finals only those drivers who crossed the finishing line on the lap prior to the stopping, or were in the mechanical breakdown lane, may take part in the re-start. Should the race be stopped during or prior to completion of the first lap all drivers shall be entitled to restart. The time for the re-start of the race will be at the discretion of the Clerk of Course.

Article 29 - Finish

As soon as the chequered flag has been shown to a driver at the end of the race, he/she must proceed directly, using only the authorised route, to the parc ferme. From the moment the driver receives the chequered flag until he/she is released from parc ferme he/she is under parc ferme conditions and must make no alteration or adjustments to he/her kart or other material or equipment.

In the pre-final and final of the Australian Championships, any driver about to be lapped or who has been lapped for any reason whatsoever as from the first lap onwards may be shown the blue and red flag (double diagonal) with his/her number. He/she must go back to the scale in parc ferme and will be classified according to the number of laps completed. Any driver who does not obey the order given by the blue/red flag may be excluded from the event.

Article 30 - Qualifying Heats

Starting positions in the qualifying heats are awarded according to classification obtained in timed practice. The maximum number of drivers to take part in the heats will be equal to twice the track density. Only the fastest drivers will be eligible to compete in qualifying heats. If the number of entries is equal to or less than the track density then three heats will be run with all the drivers to compete.

Oversubscribed classes will be divided into four (4) near equal groups A, B, C and D. The fastest driver in timed practice will start in group A, the second fastest in group B, the third fastest in group C, the forth fastest in group D, the fifth fastest in group A, the sixth fastest in group B and so on.

Each of the four groups mentioned above will race with the other groups, in other words, A with B, C with D, B with C, B with D, A with D and A with C giving a total of six heats. Points for heats will be awarded as in Article 31.

At the end of the Qualifying Heats, the drivers with the lowest points will progress to the finals. The number of drivers to immediately progress to the pre-final, is equal to the track density less six. The last six grid positions in the pre-final will be filled from the remaining drivers through a repechage. The grid positions for the repechage will be in the order of lowest points obtained in the qualifying heats. The first six place getters from the repechage will fill the last six grid positions in the pre-final. Their order will be the finishing order in the repechage.

Article 31 - Point Score for Heats

Each heat will have a length of approximately 15 km for seniors and 10 km for juniors and points for the heats will be awarded as follows:

1st place 0 points
2nd place 2 points
3rd place 3 points
and so on with 1 point being added for each place.

Any driver, who has not completed the full number of provided laps, even if he/she does not finish the heat, will be classified according to the number of laps completed.

If a driver fails to make the start they will be awarded points equal to the number of entries in the heat of that class.

If any driver is disqualified from a race they will be awarded points equal to the number of entries in the heat of that class plus one.

At the end of the qualifying heats, the drivers with the lowest accumulated points will qualify for the finals. In case of a tie in total points between two or more drivers, they will be ranked according to the times set in timed practice. The maximum number of competitors to progress to the pre-final and final will be equal to the track density.

It is the spirit and intent of the competition that all heats should be contested to the fullest. Where a competitor is considered to have retired from a race in an attempt to reduce tyre wear, then they may be required to appear before the stewards for the appropriate action.

Article 32 - Pre-Final

The Pre-final and the Final will be conducted over a total distance of approximately 50km for Formula A and Intercontinental A and 40 km for Intercontinental A Junior, according to the following system.

Starting grid positions for the Pre-final are according to the total number of points obtained by the qualifiers in the elimination heats, with lowest total accumulated points to the front. In the case of equal accumulated points, timed practice results will determine the outcome.

Any driver, who does not complete the full number of provided laps, even if he/she does not finish the pre-final, will be classified according to the number of laps completed.

Article 33 - Finals

Starting grid positions will be determined according to the finishing position in the pre-final.

Article 34 - Results

The placings for each round, including the State Titles, will be determined by the placings obtained in the final. Any driver who has not completed the full number of provided laps, even if he/she does not finish the final, will be classified according to the number of laps completed.

Trophies will be presented for 1st, 2nd and 3rd place getters at the completion of each round.

Championship points system for the Australian Championships for Formula A, Intercontinental A and Intercontinental A Juniors

Points for Placing in the Final		Points for Placing in the Pre-Final	
First	25 pts	First	15 pts
Second	20 pts	Second	13 pts
Third	18 pts	Third	11 pts
Fourth	16 pts	Fourth	9 pts
Fifth	14 pts	Fifth	7 pts
Sixth	12 pts	Sixth	5 pts
Seventh	11 pts		
Eighth	10 pts		
Ninth	9 pts		
Tenth	8 pts		
Eleventh	7 pts		
Twelfth	6 pts		
Thirteenth	5 pts		
Fourteenth	4 pts		
Fifteenth	3 pts		
Sixteenth	2 pts		
Seventeenth	1 pts		

Participation points	5 pts	awarded by taking part in any timed practice session unless disqualified
	5 pts	awarded by completing 70% of the laps in heat 1 unless disqualified
	5 pts	awarded by completing 70% of the laps in heat 2 unless disqualified
	5 pts	awarded by completing 70% of the laps in heat 3 unless disqualified

Championship points for the pre-final are only available to entrants who start the pre-final. Championship points for the final are only available to entrants who start the final.

For the final classification of the championships, the championship will be awarded to the driver totaling the greatest number of points.

In the event of a tie, the championship will be decided in favour of the competitor with the highest points in any one round should this not resolved the tie then the second highest points etc. will be taken into consideration. If this does not resolve the tie, the highest placing in the last round will be taken into consideration.