

# VKA Event *Guidelines*..

effective January 1, 2024 -- rev.3



These Vintage Karting Association (VKA) *Guidelines* are for vintage karts manufactured in the years 1956 through 1994. The VKA promotes vintage kart exhibitions in two ways; Static Display for judging with emphasis on originality and workmanship with period correct details, and Active Demonstrations where the karts operate on a track in a safety-minded manner. These VKA *Guidelines* are written for the participant, sponsor, and promoter so events can be organized in a similar manner across the country with safety as the priority issue. Although these *Guidelines* are intended to promote safety and consistency between events across the country, implementation is the sole responsibility of the promoter and the track owner. VKA is not liable for implementation of these *Guidelines*.

## What you can expect ...

The specific *Guidelines* will help you prepare for a VKA event. Here is what you can expect when you go to a VKA event:

VKA events are not sanctioned by VKA. The Promoter/Track Owner are the final decision-makers.

VKA's role is to establish *Guidelines* that are consistent between events, all across the country. VKA publishes a Promoters' Package for Promoters/Track Owners to use as a guide on what is expected of them as a Promoter.

It is available on line ([www.VKAkarting.com](http://www.VKAkarting.com)) under the *Guidelines* & Documents Tab.

As a rule-of-thumb, here is what VKA expects of Promoters:

1. VKA expects the *Guidelines* to be followed ... again, to ensure consistency between events, all across the country. Any deviations should be spelled-out in the event flyer.
2. Generally, events are three-days; Thursday, Friday and Saturday.  
Thursday is intended to be a test & tune opportunity and a time for extra track-time. Generally, one Heat, a Kart Show and a track-held "dinner" are scheduled for Friday, and two Heats are run on Saturday. The event flyer, and event conditions, will determine the event schedule.
3. Events are categorized as Tier I and Tier II events.  
Tier I events are scored demonstration Heats with awards.  
Tier II events are not scored, and awards are not made.  
Most VKA events are classified as Tier I.
4. Event flyers, registration forms and other information will be provided by the Promoter and posted on the VKA website, VKAkarting.com well in advance of the event. The flyers and forms will typically include event schedule, pricing, GPS address, hotels, and any special ancillary events (e.g., pre-event gathering/dinner, tours, etc.)

## 96 Driving Standards

### **RULES OF THE ROAD/TRACK**

**96.1** Why we need rules of the road: It is our goal to make vintage karting enjoyable and safe. If we do not all agree to play by the same rules, problems may occur. By establishing rules of conduct, we all know how we are expected to handle on track decisions. By stating our rules of conduct it also makes the determination of fault in the case of an incident, simpler.

**96.2** Driver attitude: It is important to understand that vintage karting is somewhat different from most other forms of auto sport. Our kart classes are often made up of karts that have very different speed potentials. Even when lap times are similar, one kart may be much quicker down the straights, while another is perhaps lighter and can brake later and carry more corner speed. The result is the two karts seem to be in one another's way much of the time. Additionally, the fact that our groups will have very experienced drivers racing in fast karts mixed in with drivers with limited experience driving karts with less speed potential, and happy to be driving at a slower speed. Such is the nature of vintage karting. This means you must understand and accept these differences, and be willing to adjust your driving to accommodate these differences.

**96.3** Overtaking: It is the responsibility of the overtaking kart to make a safe pass. When you are the faster kart, the kart being passed has the right of way. Even when the blue flag (blue w/ yellow diagonal) has been shown to the slower kart, the slower kart is not required to yield the desired line through a turn. If you have actually established a lead, that is, the front of your kart is clearly ahead of the kart you are passing, at or before the turn-in point, you have the right to share the corner with the kart being passed. The kart being passed needs to yield the apex, but you still don't have the right to push the kart being passed off the road. You have not completed the pass until the rear of your kart is in front of the car being passed. Only then, have you fulfilled the responsibility for a safe clean pass.

**96.4** Being overtaken: All drivers have a responsibility to keep an eye to the left and right. You must be aware of the karts that may be about to pass you. If the kart behind you is clearly a faster kart that is going to pass you, or you simply desire the kart to pass you, point to the side you want to be passed on. This is best done as you exit a corner. That point-by is valid until you reach the turn-in point for the next corner. When you give a point-by, stay on your normal line. The only exception is when you give a point-by as you are approaching a corner. In that case, you are indicating that you will share the turn with the overtaking kart. You **MUST** then leave room for the faster kart to make a pass.

**96.5** In-traffic moves: When in heavy traffic typical of the first few laps, it is imperative that you not make any rapid line changes without first being sure that you are not going move into the path of another kart, so as to cause contact between karts.

**96.6** Blocking: When competing for position with another kart, you may adopt a defensive line so as to make a pass more difficult. You must not weave back and forth for the purpose of keeping another kart behind you. You must not make sudden moves off your normal line to shut the door on a kart that is carrying more speed than you.

**96.7.** Damage avoidance: If a kart in front of you loses control, you should treat this as an automatic waving yellow flag. The kart in trouble may be two or more kart lengths in front of you and the kart right in front of you may slow to avoid contact with the out-of-control kart. Do not treat this as an opportunity to pass. When you get past the kart in trouble, you can resume driving at full speed.

## **DRIVER DISCIPLINE**

**96.8** Objective: We do not have a system in place to review on-track incidents to establish the facts and identify fault, if any exists. This policing must be done by individuals exercising the rules of the road/track, and via self-reporting. Should a driver be found at fault, a penalty shall be determined by the event promoter. The purpose of the penalty is to encourage a change in driver behavior.

**96.9** Types of incidents: Most incidents can be categorized into one of three types. First, is the case where the driver was the victim of circumstance, such as a mechanical failure or an unknown track condition such as fluid that was not there on the previous lap. The second case being the result of poor judgment on the part of the driver. The third and most serious is when a driver causes damage or injury to another car or driver as a result of aggressive driving.

**96.10** Suspension: In the case of a driver on notice or probation for aggressive driving being found at fault in a second aggressive incident while still on probation, a suspension will be issued. When a driver on probation for an incident involving poor judgment is involved in a second incident a suspension may be issued depending on the circumstances.

**96.11** Reporting responsibility: Anyone involved in an on-track incident that may have resulted in damage to any kart must report to the Event Steward/Promoter, immediately. In accordance with standing VKA guidelines, if a driver makes contact with another kart during a demonstration event, you should immediately self-police for damage and if needed, drop to the rear of the field. Failure to do so may lead to a probationary period being assessed.

**97 All participants at VKA events must be members. This includes drivers, kart show participants, show judges and returning vendors.**

## **98 SPIRIT AND INTENT**

The spirit and intent of the rules is the standard by which VKA events will be guided. Event officials are authorized to decide if an equipment change, modification or design is an attempt to circumvent the guidelines. They can and will disqualify or disallow an entry in violation of the spirit and intent of these guidelines. Any official or authorized representative shall have the right to initiate action to correct a hazardous condition or a condition not in compliance with the spirit and intent of the guidelines.

## **99 SOCIAL MEDIA -- PUBLIC FORUMS**

In cases where the legality / compliance of equipment could come into question, it is the responsibility of the competitor to be prepared to show proof of compliance. This can be in the form of printed media or advertisements from publications in circulation during the appropriate time frame. Items that could be borderline or questionable should be cleared with a VKA official before presentation at an event.

## **100 SAFETY**

Safety is the most important aspect of any motorsport and is paramount in the exhibition and demonstration of vintage karts. Safety is addressed in the relevant portions of this document. Safety should be highlighted at all events.

**100.1** The track owner / promoter should have a signed liability waiver by the participant for each event.

**100.2** All participants are required to attend the drivers meeting.

- 100.3** Safety issues must be discussed at the drivers meeting.
- 100.4** The track owner/promoter may refuse to allow a driver to participate based on the drivers past driving record, the driver's physical condition, or advise from track medical personnel, or from a hospital or other medical facility.
- 100.5** An ambulance with trained medical personnel should be present at all VKA events, including all practice sessions or a trained medical personnel (EMT) should be on the premises.  
An ambulance is preferred.
- 100.6** Snell and SFI approved helmets are required for VKA events -- Helmets should be presented at pre-race tech for inspection. See 106.1 for listings
- 100.7** **When starting the kart, the driver should be physically in the kart or the kart should be on a stand off the ground.**

## **101 PLANNING AND PREPARATION**

For each VKA event, a VKA representative should be recognized as the focal point for coordination and promotion. The responsibilities of that person include:

- 101.1** Publishes information for the event.
- 101.2** Acts as liaison between the event and VKA.
- 101.3** Supports the establishment of a panel for judging and/or collects voting information for kart show awards.
- 101.4** Promotes the need for a person to report on the event for publication in the VKA newsletter/magazine and Website.

## **102 Demonstrations Events**

The organization and rules of the event and grouping of VKA classes are the prerogative of the track owner/operator. The VKA encourages the adoption of these Guidelines for safety and uniformity to all vintage karting events across the country. The VKA seeks to recreate the look and feel of actual karting events of the 50's, 60's, 70's & 80's and perform for the enjoyment of spectators and participants. Actual operation of vintage karts on the track provides the greatest spectator appeal and photographic opportunities needed to promote vintage karting; providing a fun and exciting opportunity to drive these historic machines. The demonstrations in two different levels will encourage more people to join the sport.

- 102.1** Tier I demonstrations will be "flagged" demonstrations, with scoring and awards (see section 132)
- 102.2** Tier II demonstrations will be "non-flagged" demonstrations with no scoring and no awards (see section 133) Maintaining operational karts will allow "karting veterans" to once again use their special driving and mechanical talents and to pass them on to those new to vintage era karts.

## **103 Drivers**

- 103.1** All drivers must attend the drivers' meeting to be eligible to participate in the event.
- 103.2** Juniors: 8 years minimum and under age 15 should run in the Junior Class with a single engine. Additional safety briefing and compliance is recommended for this class.

**103.2.1** Junior drivers who start the year as a 14 year old and age up during the year may finish the season as a junior or may move up to senior when they turn 15.

**103.3** Drivers 15 years of age or older are permitted to operate any type of single engine vintage kart. There is no maximum age.

**103.4** Drivers of dual engine karts should be 18-years minimum age.

**103.5** All first-time drivers, novice and juniors in a VKA event should demonstrate their driving ability to the satisfaction of the track owner/operator at the event in order to participate. They should also start all Heats in rear of the grid. This should apply to the first three events that the driver enters. They should display an "X" on the back of their helmet.

**103.6** No alcohol, illegal drugs, or legal drugs that would impair driving ability should be allowed.

**103.7** All drivers must demonstrate proficiency and control of a kart on the track.

**103.8** Drivers are expected to conduct themselves in a professional manner at all times. Drivers are also responsible for the conduct and actions of the crew and guests. Conduct deemed unacceptable by race officials may result in disqualification and or ejection from an event.

**103.9** There are no weight limits at VKA events although large classes may be split into light and heavy divisions. At the discretion of the promoter, any class deemed appropriate should be lined up and sorted lightest to heaviest. Driver weight should be taken in normal street attire at registration. Then this list should be split evenly into the light and heavy group.

## **104 Driving Rules**

The Host Track should explain the driving rules at their track during the Drivers' Meeting. It is the right and responsibility of the Host Track to determine the rules and procedures of the vintage karting event to ensure a safe event. Additionally, VKA encourages them to adopt this entire package of guidelines to provide uniformity to all vintage karting events across the country.

**104.1** Contact between karts and overly aggressive or reckless driving will not be tolerated. Rules and acceptable conduct on the track and in the pits should be conveyed at the drivers' meeting prior to group participation. Safety is paramount. Clean passes, no contact, no strafing, no cutting off and no "Texas starts" before the green flag.

**104.2** Drivers must attend drivers' meeting with special emphasis on safety. They should be briefed, and the Starter/Flagmen should advise them regarding pace lap speeds and techniques. They should discuss direct drive starting procedures and the presence of a driver when starting the engine.

**104.3** These words, or something that conveys the expectations of the track owner/operator and the promoter regarding drivers' responsibilities, should be read at the Drivers' Meeting: "When two karts are entering a turn together the kart that is behind, whether it be an inch or several feet, is required to negotiate the turn without endangering or impairing the progress of the kart in front. Conversely, the kart in front should not take a deliberate line of the course for the reasons of crowding a following competitor off the course."

**104.4** Drivers who make contact with another karter at anytime during the practice or demonstration Heats should determine if their kart is safe to continue. If not, they should stop or return to the pits before re-entering the track, depending on the extent of the

damage. After returning to the pits, both drivers should seek each other out and discuss the bumping incident and try to resolve and correct why the incident happened.

**104.5** Drivers with a questionable personal conduct or poor driving record may be denied registration by the track owner / operator or promoter.

## **105 Official Entrant/Entry**

The driver is the official entrant for an event when properly documented by the track owner/operator and having participated in the drivers' meeting. The driver (entrant) may enter more than one kart (entry) at an event. Entered karts should be classified according to Vintage Class Structure (120 or 124)

## **106 Personal Protective Equipment Promoters Will Require:**

### **106.1**

#### **SNELL FOUNDATION SPEC'S**

K, M or SA 2010

CMS or CRM 2016 (YOUTH)

K, M or SA 2015

K,M, or SA2020

#### **Expiration**

12-20-2021 \*\*

12-20-2026

12-20-2026

12-31-2031

#### **SFI SPEC'S**

31.1/2010 or 41.1/2010

24.1/2010 (youth)

31.1/2013 or 41.1/2013

24.1/2013 (youth)

31.1/2020 or 41.1/2020

24.1/2020 (youth)

24.1/2021 (youth)

12-20-2021 \*\*

12-20-2021 \*\*

12-20-2024

12-20-2024

12-31-2031

12-31-2031

12-31-2031

#### **FIA SPECS**

8860-210 -- 8860-2018 or 8860-2018-ABP expires 10 years from date of manufacture

**Vintage Helmets are not allowed.**

**106.1.1** No type of camera may be mounted on, nor inside the helmet or visor

**106.2** Helmet support (neck collar) are optional but may be required by some tracks.

**Check individual track requirements before arrival.**

**106.3** Leather, Vinyl, Cordura®, or abrasion resistant nylon jacket. Driving suits, Nomex® undergarments and earplugs which are strongly recommended due to possible damage to hearing.

**106.4** Full-finger protection gloves, leather or nylon.

**106.5** Long pants of a durable material.

**106.6** Shoes or boots.

**106.7** Hair protruding more than 4" from the helmet must be secured under the helmet.

**106.8** Juniors must wear approved rib protectors.

## **107 Kart Equipment**

Tech teardown should occur at the discretion of the Promoter. "Self-Policing" may occur among class entrants. Violating the equipment guidelines for the purpose of performance gain is inappropriate behavior. Those engaging in such behavior are not welcome at VKA events. Failure to submit to a promoters requested engine inspection or other promoter requests may result in suspension from the VKA.

**107.1** All karts (except reproductions) should be initially available during the class era.

**107.1.1** All karts shall be of single speed design (no shifter or variable speed systems)

**107.2** Karts can be an original production kart from the Historic Era (1964 and before), a continuation kart (identical to the original model, but produced after the Historic Era), a reproduction of a Historic Era production kart, or a homebuilt design actually produced during the vintage era.

**107.3** Every effort should be made to use appropriate equipment from the kart's proper era. Documentation of questionable items is encouraged. If a similar part or accessory did not exist during the Vintage Kart Era, then it doesn't belong on the kart now (approved safety issues being the exception).

**107.4** Authentic variations may be authorized at the race official's discretion.

**107.5** Seat belts should not be allowed in any open frame karts but are required in FKE types.

**107.6** Modifications that increase performance or handling that change characteristics of era designed karts should not be permitted.

**107.7 Sprint bodywork**

1 -- Front--- one 7 x 9 flat front number panel mounted to the front bumper or above steering column permitted. Absolutely no other bodywork on or around the front bumper area allowed.

2 -- Steering fairing mounted above the steering shaft permitted -- must be no wider than 13" -- must not extend above the top of the steering wheel -- must not attach to or extend past the front bumper.

3 -- Sides -- absolutely no bodywork allowed between the front and rear tires -- full length side protection bars may be used but only one 7 x 9 flat number panel may be attached per side.

4 -- Rear -- absolutely no rear bodywork of any type allowed -- one 7 x 9 flat number panel may be used.

***These are the VKA bodywork spec's and must be followed no matter what the kart originally may have been factory supplied with.***

(not applicable to FKE karts).

**107.75**

All entrants are required to display a number on the front of the kart. Number must be a minimum of 5" tall and may be mounted on the front bumper on a number panel or above the steering column on a number panel of drivers fairing.

**107.8** In cases where the legality / compliance of equipment could come into question, it is the responsibility of the competitor to be prepared to show proof of compliance. This can be in the form of printed media or advertisements from publications in circulation during the appropriate time frame. Items that could be borderline or questionable should be cleared with a VKA official before presentation at an event.

**107.9** For safety technical inspection items see Section 130

**107.10**

When required by the track scoring department, all karts must have a transponder on board.  
**If the transponder is not in place, the kart will not be scored.**

## **108 Tires**

- 108.1** Rear Engine Karts – See Tire Schedule (125.2 below)
- 108.2** Sidewinders – See Tire Schedule (125.4 below)
- 108.3** Since tire hardness testing may vary due to temperature, comparative testing may be performed between karts in a class to insure compliance.

## **109 Engines**

Should have been initially produced in the class era.

Engines can be stock or modified. Period correct modifications are permitted. (See Sec.127 for Over-bore Guidelines.) Original stroke should be maintained with exception of engines in the historical era (1956-1961).

If the engine or accessory was used in the era of the kart, then it can be used at a VKA event.

See detail of approved engines in section 126

## **110 Exhaust**

- 110.1** Box-type mufflers or tuned expansion chambers (no slipper / sloppy types) required.
- 110.2** Some events may require a form of muffler to participate due to local noise restrictions.
- 110.3** Open headers and silencers:
  - There will be situations in the Historic class that require the use of open headers.
  - Open headers permitted at the discretion of the Promoter.
  - Exposed Stinger pipes are required to have a 2" washer attached to the tip.
- 110.4** In classes where the pipe is called out (spec pipe) -- pipes may be compared to a known stock/as supplied pipe to verify compliance. Comparative testing between karts within a class may also be performed.

## **111 Clutch and Chain**

- 111.1** All karts participating in VKA demonstration events should use #35, #40 or #219 chain
- 111.2** Unless specifically noted, clutches are not required.
- 111.3** If clutches are used, they should be of the type used prior to 1987, except:
  - 111.3.1** Wet clutch used prior to 1985 are permitted on any kart except Sportsman, Historic Class, Mac49/Saw, Junior/Women and Sportsman S/W Stock Appearing.
  - 111.3.2** No disc type clutches permitted on Rear Engine Karts.
  - 111.3.3** No axle clutches allowed except in the classic division.
  - 111.3.4** Common clutches allowed at VKA events are Max Torque, Rev Grip, Comet, L & T wet disc, Horstman DXL, Horstman Steel Nytro, Burco, Hartman, Noram and other vintage style clutches. No modern style clutches allowed, except L&T oil model and Steel Nytro. No modern lightweight dry clutches allowed.
- 111.4** A third bearing support or guard to contain the clutch in the event of crankshaft breakage should be on all Rear and Sidewinder karts using an oil bath clutch that is outboard mounted (toward the outside of the chassis). Construction of clutch guards must be of a material equal to or greater in strength than .090" aluminum. Direct drive karts do not require third bearing support or clutch guard.
- 111.5** Period correct vintage jackshaft systems allowed --- no modern clutches -- engine mounted clutches only -- no clutches mounted on the jackshaft allowed



**112. Weight / Ballast** Any weight or ballast added to the chassis to assist in handling or weight distribution should be done by a safe and secure method

### **113 Fuel**

**113.1** Gasoline/oil or Methanol/oil only.

**113.2** No power inducing additives such as oxygenated fuels, hydrazine, nitro, nitrous oxide, or propylene oxide, etc. should be used.

### **114 Brakes**

**114.1** Modern brake upgrades are permitted and recommended. When using a modern caliper, it is recommended that a modern-type disc is used for compatibility.

**114.2** Scrub brakes should not be used in Demonstration Heats, except on Historic Class machines if they were original equipment.

**114.3** The use of modern European Braking systems is not in the spirit of Vintage Karting; MCP, Enginetics, Ripley and Airheart Brakes are consistent with historical preservation and are readily available.

### **115 Axles**

When using modern type axles which employ movable wheel hubs, it is recommended that rear axles have a locking collar (or other method) next to the wheel hub to prevent the hub from sliding inward

### **116 Wheels**

**116.1** Original wheels are recommended, otherwise any two-piece or modern single-piece wheel is acceptable.

**116.2** Wheel and tire width should be consistent with original equipment. Example: Rear engine dual karts had a maximum tire width of 6 inches.

### **117 Seats**

Must be maintained in their original design. Creating additional side panels to hold the driver in a rear engine kart is not acceptable. Sidewinders may use equivalent modern seats.

### **118 Cameras**

Cameras may not be mounted on the driver's person or anywhere on or inside the helmet.

Cameras must be hard-mounted by bolt and nut. Mounting by use of any form of adhesive or Velcro is prohibited. Cameras may be mounted on front panel (if number is not obscured) Fabricated mounts are subject to approval by VKA or track officials.

### **119 Steering**

Steering shaft should be a minimum of 5/8" cold rolled steel. Steering wheel should be attached by spline or tapered and keyed hub. The hub should not be welded to the steering shaft. Tubular steering shafts must be 19mm minimum diameter and may use a hub with a minimum 6mm (0.236") shear bolt for attachment. Also see 130.13

## 120 VKA Event Class Structure

**1 HISTORIC** 1956 to 1964 rear engine karts and engines; single, dual, or triple engines, 16.5 c.i. (270cc) max displacement; Must have vintage-style dry clutches or direct drive; box muffler; vintage tires -- Promoter may split class as per VKA Guidelines -- duals/triples in front -- this is a Tier 2 demo class -- Max kart width – 46”

**2 JUNIOR** (ages 8 -14) Rear or sidewinder chassis 1980 or older with 1" axle -- single engine up to 100cc (6.1 cu. in.) max. -- American Fan Cooled engines will run single HL carb with Maximum 1” throttle bore -- Small single intake manifold (WB V- reed, Homelite reed, Go Power reed, *etc.*) -- Manifold to have an HL bolt pattern, single reed cage only -- OEM McCulloch manifold and 4 petal reed cage allowed with adapter plate for HL carb -- box muffler -- vintage dry style clutch (no Hartman slippers) -----  
Yamaha KT100 engine may be used per Yamaha Limited rules -- (See Yamaha Limited Class #14) but must also use a 0.762" air filter cup (0.763" No-Go) with a sealing gasket. Vintage tires required -- gas + oil only.  
Max Rear kart width – 46”

### 3 SPORTSMAN REAR

American fan cooled engines -- 8.2 c.i. (135cc) max displacement industrial type WB-820 or West Bend 610 -- McCulloch's must be 6.1 c.i. (100cc) max displacement or saw blocks over 80cc -- Small single intake manifold required (WB or GEM V-reed, Homelite reed, Go Power reed, *etc.*) -- Manifold to have an HL bolt pattern -- single reed cage manifold only -- OEM McCulloch manifold and 4 petal reed cage allowed with adapter plate for HL carb-- Single HL 1-inch maximum throttle bore carburetor -- Small Mac flat-back carb OK -- West Bend 820 must use 0.813" max venturi / 1" throttle bore carb (or HL232 standard carb) -- vintage style dry clutch -- no slipper arms on Hartman clutches -- box muffler -- vintage tires -- MC-91, 92 and 93 engines are allowed --single carb manifolds only -- after market stuffer plates OK -- no 91-93 carbs --Max kart width – 46"

**4 80cc MAC** Both groups: 80cc Mac 49 or comparable chain saw block – all blocks must have fixed non-removable heads -- 1.375” maximum stroke -- 1” axle – Vintage tires per 125.1 thru 125.3 – maximum width 46” – single intake manifolds only - (WB V-reed, Homelite reed, Go Power reed, *etc.*)

Manifold to have an HL bolt pattern -- Factory McCulloch (91-93) manifold and reed cage with HL adapter approved -- Single HL carb with maximum one inch throttle bore or small Mac flat-back carburetor – gas or alcohol fuel

**Group A** Rear engine karts only -- internal engine modifications allowed -- vintage style dry clutch – any box muffler -- 49M/C block approved

**Group B** Rear, straight axle sidewinder or pre 1980 sidewinder chassis with one inch axle -- engine to have no modifications – must be run stock -- see section 137 -- minimum driver age 45 years old

- 5 SINGLE REAR** Rear engine and straight axle sidewinder karts; American fan cooled engines only, oil or dry clutches -- no disc clutches -- any carburetor and manifold combinations -- box muffler only -- vintage tires -- Max kart width 46"  
**Group A -- 6.1 cu-inch**  
**Group B -- 8.2 cu-inch**  
**Group C -- 6.1 cu-inch Foreign free air style engines--** Exhaust must use canister type -- No tuned pipes or expansion chambers. Engines 1979 and older. (section 126)
- 7 DUAL REAR** American fan cooled engines only -- (B+C) up to 16.5cu (270cc) -- box mufflers -- #35 chain -- vintage tires -- oil or dry clutches -- no disc clutches -- any carb and manifold combinations -- Max kart width -- 46"
- 8 100cc SIDEWINDER**  
 1987 and older sidewinder chassis and engines -- with Foreign (100cc) engines per section 126 -- 100cc American free air or fan cooled engines, 125cc + 135cc American fan cooled engines -- engine clutches only -- Max Torque, Rev Grip, L&T, Horstman DXL, Horstman Steel Nytro, Burco, Hartman, and Noram (no Tomar clutches) -- no modern clutches - - no axle clutches -- pipes allowed -- modern tires allowed -- 1" and 1.25" axles -- max kart width of 50".
- 9 150cc SIDEWINDER** 1994 and older sidewinder chassis with Foreign or American engines -- 9.15 c.i. (150cc) max. displacement produced before 1994 -- engine or axle clutches -- pipes allowed -- any tires with 5" dia wheel allowed -- 1" or 1.25" axles -- Max kart width of 50 inches -- engines and chassis per classic standards (30 years old)
- 11 DUAL SIDEWINDER** 1994 and older SW with Foreign or American engines - 18.3 c.i. (300cc) max displacement -- engine clutches (L&T wet disc, Horstman DXL, Horstman Steel Nytro, EXPW, Burco, Hartman, and Noram) -- axle clutches allowed -- pipes allowed -- any tires with 5" dia wheel allowed -- 1 1/4" axle allowed if original; engines must be manufactured prior to 1994 -- Max kart width 50" -- engines and chassis per classic standards (minimum 30 years old)

**12 SPORTSMAN SIDEWINDER** Sidewinder (pre-1980) with 6.1 c.i. (100cc) max displacement -- American fan cooled engine - - single carburetor (Mikuni, Tillotson, or McCulloch BDC-single or double pumper) -- any size throttle bore -- Factory intake with Mac V4 reed assy -- modern tires -- 1" axle only -- box muffler -- vintage-style dry clutch -- no slipper arms on Hartman clutches -- after market stuffer plates allowed --#35 Chain Only -- max kart width of 50"

**13 YAMAHA PISTON PORT** 1987 and older sidewinder chassis with single 100cc (KT100S, 1977 to present) -- piston port only -- max. bore 2.100" -- max. stroke 1.816" -- "stock appearing" --internal modifications allowed (section 135) --factory ignition system only (exception: "RLV" TCI replacement module OK) -- Walbro WB3A carburetor only -- no carb triggers --any pipe allowed -- Horstman DXL, Steel Nytro, Hartman, L&T, Burco wet clutches allowed -- Max-Torque clutches allowed -- no modern clutches -- no direct drive or Tomar clutches -- no axle clutches) -- 1" or 1¼" axle; modern tires -- -- gas + oil only -- 219-chain allowed -- Max kart width 50"

**14 YAMAHA LIMITED** 1987 and older sidewinder chassis with single KT100s, piston-port engine, max bore 2.100" -- max stroke 1.816" -- all WKA stock specification guidelines to apply (section 136) -- factory ignition systems only (exception-RLV TCI replacement module allowed) -- Walbro WB3A carb with max 0.950" venturi -- No carb triggers -- "Limited" pipe (VKA Sr Y -- / HPV 1-2-3 / Horstman K1-K2-K3) at 12" minimum length (piston to start of first cone)--no tapered headers - the HPV 4 pipe is not approved -- Horstman DXL EXPW and Steel Nytro, Hartman, L&T, Burco wet clutches -- Max-Torque clutches allowed -- no modern clutches -- no Tomar clutches -- no direct drive -- no axle clutches - 1" or 1.25" axles -- 219-chain allowed - - gas + oil only -- Modern tires -- Max kart width of 50"

**16 YAMAHA MASTERS** Drivers over 60 years old -- 1987 and older sidewinder chassis with single KT100S piston-port engine -- max bore 2.100" -- max stroke 1.816" -- WKA stock engine specification guidelines to apply (section 136) -- factory ignition systems only (exception RLV TCI replacement module allowed) -- Walbro WB3A carb with max 0.950" venturi -- "limited" RLV pipe (VKA Sr-Y / HPV 1-2-3 / Horstman K1-K2-K3) at 12" minimum length (piston to start of first cone) -- the HPV 4 pipe is not approved no tapered headers -- Horstman DXL, EXPW and Steel Nytro, Hartman, L&T, Burco oil clutches, Max Torque -- no

modern clutches -- gas + oil only  
 -- no direct drive or Tomar clutches -- no axle clutches -- no carb triggers -- 219 chain allowed -- Max kart width 50" -- 1" or 1.25" axles gas + oil only -- Vintage Speed Tires (11/350/5 -- 11/450/5 -- 11/600/5) --or-- Hoosier R80 (4.5/10.5 -- 11/600/5 -- 7.1/11/5) only

**17 DUAL YAMAHA** 1987 and older sidewinder chassis with two Yamaha KT100S engines, 1977 to present -- max. bore 2.100" -- max. stroke 1.86" -- Factory ignition system only (exception -- "RLV" TCI replacement module OK) -- Walbro WB3A carburetor only -- No carb triggers -- vintage engine clutches only -- Horstman DXL, EXPW, Steel Nytro, Hartman, L&T, Burco wet clutches only -- no Tomar clutches -- no direct drive -- no axle clutches -- gasoline only -- 219-chain allowed -- modern tires -- 1 1/4" axle allowed if original. -- Max kart width 50 inches -- gas + oil only

**Group A** Stock Appearing engines; internal modifications allowed (section 135) -- any pipe

**Group B** Yamaha Limited engines -- WKA stock engine specification guidelines to apply (section 136) -- "Limited" RLV pipe (VKA Sr Y / HPV 1-2-3 / Horstman K1-K2-K3) at 12" minimum length (piston to start of first cone) -- the HPV 4 pipe is not approved -- no tapered headers.

Group A and B run together -- may be separated at the discretion of the promoter

**18 WEST BEND SIDEWINDER** Stock appearing West Bend 820 with stock bore (2.531") and stroke (1.625") (fan cooled) -- box muffler -- single West Bend factory manifold and V4 reed cage with HL carb -- Max venturi 0.813" -- 1" max throttle bore -- **points or CDI ignition systems allowed** -- 0.810" restrictor plate under carb is acceptable if carb is larger -- modern style tires -- pre-1980 sidewinder karts with 1" axle -- OEM Horstman -- Hartman (no slipper arms), Noram and Max-Torque Dry Clutches only with no add-ons -- #35 Chain Only -- Max kart width 50"

## 121 CLASSIC DIVISION

1988 -- **1994** -- max kart width 50" -- older chassis also allowed --

This division has been introduced to allow karts 30 years old to be eligible to participate without affecting the classes for karts produced prior to 1998 (classes 1-19) -- the date changes yearly to follow the 30 year program -- modern tires -- 1", 1.25", 1.375", 30, 35 and 40mm axles allowed as supplied as original equipment -- #35 or 219 chain allowed -- older chassis also allowed.

## 19 CLASSIC 100cc

Stock or Stock Appearing engines

- Group A 100cc Piston Port Engines -- Yamaha KT100S -- Dap T50 -- TKM**  
BT82 -- PCR100 -- Komet K71 -- Parilla PV92 -- HPV / KPV -- Walbro  
WB3A carb with max 0.950" venturi -- 1" throttle bore -- No carb triggers -  
"Limited" pipe (VKA Sr Y / K1 / K2) at 12" minimum length (piston to  
start of first cone) -- no tapered headers -- Horstman DXL and Steel Nytro,  
Hartman, L&T, Burco, Tomar wet clutches -- HPV dry disc clutch --  
KPV dry clutch -- Max-Torque clutches allowed -- no direct drive --  
no axle clutches axles -- **gas + oil only**
- Group B** 100cc Piston Port, Reed and Rotary engines -- any fixed pipe -- Horstman  
DXL and Steel Nytro, Hartman, L&T, Burco, Tomar wet clutches --  
Max-Torque clutches allowed -- axle clutches allowed

- 20 VKA Four Stroke** -- drivers age 16 and up -- Gasoline or Methanol fuel only --  
no additives  
Briggs+Stratton Stock 5hp Raptor style Flathead engine -- WKA rules apply --  
Modern Tires (125.4)

## 122 ENDURO DIVISION

No minimum weight -- open fuel -- any pipe can be used

- 122.1 VINTAGE USA 1 AND VINTAGE USA 2** (May be combined with Vintage Piston Port at  
promoter's discretion)-- Competition Age: 15 and up  
Engines: American fan cooled engines (100cc-125cc McCulloch and 100cc-135cc West  
Bend) -- engine modifications are allowed, any carb(s) and intake can be used.
- 122.2 VINTAGE PISTON PORT 1 AND VINTAGE PISTON PORT 2**  
Competition Age: 15 and up  
Engines: Yamaha KT-100, ARC, DAP T-50, TKM BT-82, PCR PP-100, PRD --  
engine modifications are allowed but engines must be stock appearing --  
Walbro WB3A carb, stock intake, and stock ignition must be used.

### **122.3 VINTAGE UNLIMITED 1 AND VINTAGE UNLIMITED 2**

Competition Age: 15 and up

Eligible Engines: Atlas 1; BM-96/96TT/97TT/100/104/107/130; Dap T-60/T-62/T-72/T-80/T-80A/T-81; Hewland Arrow KE3/KE4; Komet K-29/K-30/K-35/K-55/K-77/K-78/K-78TT/K-88/K-88TT/K-99/K-299; Manx; Margay LMR; Parilla SS-21/SS-22/SS-23/SS27TT/TT-25; PCR 135R; TKM S-89/S-89TT/FF-99/FF-99TT/V/VL --- All Vintage Piston Port engines --- All Vintage USA engines / engine modifications are allowed -- any butterfly-type carb(s) and intake can be used

### **122.4 VINTAGE TWIN 1 AND VINTAGE TWIN 2**

Competition Age: 18 and up

Engines: Any 2 single cylinder air cooled engines 25 years old or older, up to 150cc -- engine modifications are allowed--any butterfly-type carb(s) and intake

**122.5.1** Sanctioning Body Safety Tech applies to all vintage classes (chassis and personal safety gear);

**122.5.2** Vintage karts and engines need to be at least 25 years old;

**122.5.3** No transmissions allowed on Vintage karts (no 125cc or 250cc gearbox engines)

**122.5.4** No bodywork allowed on any vintage karts;

**122.5.5** No full floor pans allowed on any vintage karts – all floor pans must be only between the main frame rails

**122.5.6** Upgrade to brake systems allowed and encouraged for safety

**122.5.7** No restriction on tire compounds – any good quality tire is acceptable

**122.5.8** Tires must be, in the opinion of race officials, in safe, race-able, condition

**122.5.9** No post-race tech inspection

**122.5.10** It is anticipated that Vintage USA and Vintage Piston Port will run together in one race group and Vintage Unlimited and Vintage Twin will run together in a different race group --Race 1 on first race day and Race 2 on second race day.

**122.5.11** Vintage Enduro karts are required to have a functional seat and headrest. It is not allowable for the driver to lay directly on the floor pan.

## **123 VKA sprint class guidelines (overview)**

**123.1** Kart Manufactured between 1956 and 1994 are eligible for participation.

**123.2** Open Headers and Silencers --- At the discretion of the Promoter.

**123.3** Classes 1-8A and 15

Require 1-inch axle -- Karts and Engines must be from 1956 to 1979

**123.4** Modifications -- Allowed with vintage period type components.

**123.5** Direct Drive -- Allowed in all classes unless otherwise specified.

**123.6** Kart Chassis -- To remain in their original design from their model year -- Brake upgrades allowed -- Reproduction and Specials allowed but should be vintage-type.

**123.7** Vintage tires -- 65 durometer minimum -- refer to VKA Vintage tire schedule (Sec 125.2)

**123.8** Modern tires -- refer to VKA Modern tire schedule (Sec 125.4)

**123.9** Dual SW + Classic Unlimited -- any 5" wheel tires

## 124 Historic Classes

The Promoter at his discretion, depending on turn out at the event may separate the historic classes into two groups:

- 124.1** 1956-1961 Era -- MC-1, MC-5, MC-6, MC-10, MC-20 -- West Bend 510, 580, 700 --  
Power Products AH58, AH58 super -- Homelite K-82 to K-100 --  
Clinton A400, A490, A500, E-65

To include any other engines accepted by the National Karting associations in the period

**124.2** 1962-1964

MC-2, MC-7, MC-8, MC-9, MC-30, MC-40, MC-45, MC-70, MC-75 -- West Bend 610 -- Power Products AH61, AH81, AH82 -- Original West Bend 820

To include any other engines accepted by the National Karting associations in the period. Classes may be combined or divided at the discretion of the track owner/operator into a newly designated group if there aren't enough entrants in a specific class.

- 124.3** Due to the different handling characteristics of the karts, it is not recommended to combine Rear engine and Sidewinder classes unless they are all equipped with vintage style tires. Grouped karts should start with faster karts in front in all Heats.

**124.3.1** Period correctness is important in the Historic Class with proper equipment representative of the year in which the kart was manufactured.

**124.3.2** Triple engine karts will be eligible provided the engines are restricted to MC-5, MC-6 and MC-10 as these engines in combination do not exceed 270cc

**124.3.3** For those drivers (New/Novice/Rookie drivers and "non-racers") wishing to learn from the veteran's in a class, they should start at the rear of the demonstration's for their first three events.

**124.3.4** Proper reproduction karts are acceptable for active demonstrations.

**124.3.5** Enduro's can be raced with like-powered sprints or driven as demonstration until they can fill their own classes and events.

## 125 Tire and Wheel Guidelines

- 125.1** Maximum wheel diameter should be no greater than 5 inches, except on karts documented to have been manufactured with larger wheel diameter.

**125.2** Acceptable tires for Rear engine karts at VKA events: (referred to as "vintage tires") --  
The Following current production Tires meet the VKA Vintage Style Tire Guideline

**125.2.1** Cheng Shin (CST) and Carlisle 4.10/3.50-4 -- 3.40/3.00-5 -- 4.10/3.50-5 --  
4.10/3.50-6 -- 11/3.50-5 -- 11/4.50-5 -- 11/6.00-5 -- 12-6.00 -6 -- 11/400/5

**125.2.2** Vintage Speed 4.10/3.50-4 -- 11/3.50-5 -- 11/4.50-5 -- 11/6.00-5

**125.2.3** Kenda / Duro 4.10/3.50/4 -- 4.10/3.50/5 -- 4.10/3.50/6 -- 11/450/5 --  
11/600/5

**125.2.4** Hi Run 11-400-5 -- 11-600-5

- 125.3** The following Vintage tires are also acceptable but are no longer being manufactured --



The VKA does not recommend the use of the following vintage tires for racing events, as many of them may be over 30 years of age. These tires are mostly used for show karts.

Tex Con Tires -- General Tires -- Firestone Tires -- Continental Tires -- Eliminator Tires -- Goodyear Tires -- Major Tires -- A-1 tires

**125.4** Acceptable Tires for Sidewinder Karts at VKA Events - (referred to as "**modern tires**")  
Due to the limited availability of original construction tires, use of certain modern kart tires is permitted.

Approved tires are:

- 125.4.1** Bridgestone YHC, YKC
- 125.4.2** Dunlop SL1, SL-3, SL-4, DDM, DEM, R6
- 125.4.3** Burris B55A, B44A
- 125.4.4** MoJo D1
- 125.4.5** Evinco Blue (H, SKH and SKH2)
- 125.4.6** Hoosier R70 and R80
- 125.4.6** MG-HZ Red (H, SH and SH2)
- 125.4.7** all tires on the Vintage Tire list above -- 125.2

*The committee may add or delete from the above **two** tire lists as needed for the continued enjoyment and stability of vintage karting. The criteria will be hardness, wear characteristics, performance and their compatibility with tires already approved.*

**125.4.8** No tire warmers -- no heating of tires by any means -- tires to be run at ambient temperature

## 126 Engine Guidelines

Engine Guidelines for kart classes from 1956 through 1979:

- |                           |                           |
|---------------------------|---------------------------|
| *All Clinton              | Parilla TT22              |
| *All McCulloch            | Villiers Pre 1962         |
| *All Homelite             | Yamaha KT100A             |
| *All Power Products       | Standun                   |
| *Poulan S200              | Saetta                    |
| *Partner R10              | Maico                     |
| *All West Bend / Chrysler | Excelsior Pre 1962        |
| Zundapp Pre 1962          | Komet K88 + K78           |
| Komet K-55GHR             | Komet K-77                |
| Koenig                    | Yamaha KT100S piston port |
| Komet K-88TT              | LMR 100                   |
| Parilla SS-21             | Parilla TT23              |
| BM-SS96                   | BM-SS100                  |
| BM-104                    | BM-130                    |

Komet K99 + K299 + K29

Atlas II

Manx 100S

Yamaha KT-100

Dap T-50 piston port

Hewland Arrow KE 3 + KE4

Corsair T-80

Corsair T81

(Any other engines documentable as used during the time-period may also be used.)

\*American fan-cooled engines

### **126.1** Engine guidelines for 1980-1988 -- Class: 6.1 cubic inch (100cc)

All engines listed in 126.

Corsair T72 TKM BT-82 piston port

Corsair T80 TKM RL-66

Corsair T80R TKM RS-98

Corsair T81 TKM S-89

Corsair/DAP T91 Parilla SS20

Komet K-80TT Parilla SS22

Komet K11 Parilla TT25

Corsair T80A TKM FF99

Sirio 45 Parilla TT27

PCR 50/3 Rotax 100VM

PCR 100cc Piston Port Komet K71

Any other engines approved by IKF or WKA from 1980-1987

### **126.2.** Engine guidelines for Classic Division

All engines listed in 126 and 126.1 -- any engine up to 1994.

TKM RS-80

Minarelli K100V Parilla TT75

Atomik AKL-90 Komet K71 piston port

Dino 545 PRD piston port

Komet K30 (135cc) Komet K35 (135cc)

TKM R135 (135cc) TKM R150 (150cc)

PCR 135R (135cc) DAP T62 (135cc)

Parilla TT65 Minarelli K100L

HPV piston port KPV piston port

Parilla PV92 Dino 500

TKM 101R PCR PC93

Comer P50 piston port Comer P51 piston port

Comer ARC piston port

### **126.3** Dap T50 -- TKM BT82 -- PCR PP100

Max Bore -- 2.025" Max Stroke -- 1.915"

K71 -- HPV -- KPV

Max Bore -- 2.100" Max Stroke -- 1.816"

Parilla PV92

Max Bore -- 1.990" Max Stroke -- 1.975"

Comer P50 -- P51 -- ARC

Max Bore -- 1.990" Max Stroke -- 1.995"

## **127 Engine Over-bore Guidelines**

Calculate the displacement using the following formula where:

V= volume (displacement in cubic inches)

r = radius (½ bore) (inches)

S = stroke (inches)

$V = (3.1416) (r^2) (S)$

(To convert cubic inches to cubic centimeters, multiply the cubic inches by 16.39)

**127.1** Maximum over-bore for 80cc and 100 cc engines is 5cc.

4.9 cubic inch (c.i.) (80cc) engines may be over-bored to a maximum displacement of 5.18 c.i. (85cc).

example = MC-49 with stock stroke of 1.375", can have a max. bore of 2.190" (using a +.024" MC-91-style piston)

**127.2** 6.1 c.i. (100cc) engines may be over-bored to a maximum displacement of 6.4 c.i. (105cc).

example = McCulloch 6.1 c.i. engines with stock stroke of 1.635" to 1.645", the max bore is 2.230" (using a +.065" MC-91-style piston)

**127.3** Yamaha KT100, piston-port engine with stock stroke of 1.816", the max bore is 2.100"

**127.4** Other 6.1 c.i. engines (foreign, West Bend 610, etc.) -- Calculate the displacement using the above formula

## **128 Exhibition Grouping**

In an effort to make demonstrations as realistic as possible while providing the greater safety of similar performance, karts should be grouped as best as practicable. Considerable attention should be given to the different handling capabilities of the various classes especially sidewinder vs. hard tire rear engine karts. Grouping of classes should be at the discretion of the track owner/operator.

## **129 Pre-Tech Preparation**

(See Checklist in Promoters' Package, Appendix F)

All drivers and participants should check to ensure they have the proper safety equipment needed for the event. The equipment must be sufficient for the level of participation which includes pit crew duties.

Gloves

Helmet – must conform to Standards -- see 106.1

Helmet collar

Pants

Gloves

Eye protection

Readily accessible fire extinguisher

## **130 Safety Technical Inspection**

All karts must pass a safety tech inspection before being permitted onto the track. The determination of the inspector on questionable items will be final. The following are items for compliance to participate in demonstration events:

**130.1** Suitability for competition: The basic design of the kart should be suitable for the level of performance in its class while providing the level of safety that was available during its appropriate era. A kart should be considered legal if it remains as it was manufactured.

**130.2** Appearance: The kart should be neat, clean and provide a professional appearance.

**130.3** Kart Number: Karts should be prominently displaying a 3" (minimum) number on a panel, driver, or helmet for track official or spectator reference.

**130.4** Tires: In good condition and appropriate for the era of the kart.

**130.5** Wheels: Void of defects that would affect safe operation. Wheel bearings should be properly adjusted ball or roller type. (no split race bearings). Wheel balancing weights shall be securely fastened.

**130.6** Axle Nuts: Cotter-pinned or safety wired both front and rear.

**130.7** Brakes: Should be foot operated with proper operation and stopping capability suitable for the anticipated performance of the class. Scrubber brakes will be allowed only on Historic Class machines if they were original equipment. Single rear wheel brake should be allowed on Historic machines that were so equipped. Brake linkage must be cotter pinned or safety wired. Any locking type nuts on the brake mechanism which are subject to heat should not be of the plastic insert type. All hydraulic connections must be tight and free of leaks. Vintage Karts using brake calipers of modern design should have a modern design brake disc.

**130.8** Throttle: Karts should be equipped with a foot operated throttle with a spring of suitable strength to return the pedal. The carburetor should have its own return spring that will close the throttle in the event the throttle linkage becomes disconnected.

**130.9** Fuel Tanks: Securely fastened and may be front or rear mounted. (side mounted OK for enduro type karts) Historic class karts may have engine mounted tanks. No pressurized tanks are permitted. No portion of the fuel tank should protrude above the frame causing it to be unprotected in the event of a rollover. (does not apply to enduro karts)

**130.10** Chain oilers: Should not be allowed except for enduro's.

**130.11** Clutches: Should not be required. Wet clutches should be permitted only if they do not leak.

**130.12** Guards: All chain, belt or gear drives should have a suitable guard to prevent injury in the event of a chain or drive belt failure. It should not be required that the entire drive be enclosed. Any axle mounted sprockets that are not in use must be removed or enclosed.

**130.13** Front Suspension and Steering: Steering shaft should be a minimum of 5/8" cold rolled steel. Steering wheel should be attached by spline or tapered and keyed hub. **The hub should not be welded to the steering shaft.** Steering rod ends must be of universal swivel type joints with jam nuts. Linkage bolts must be a minimum of 1/4" grade 5. (Some very early karts had 3/16" rod end bolts: They should be replaced with Grade 8 and inspected often for signs of failure.) All steering assembly bolts, including tie rod ends, spindles and linkage, must be cotter pinned or safety wired. Steering wheels must be cotter pinned or safety wired/lock nutted. Steering must not pass over center, even when reasonable force is exerted. (Karts that do not meet these guidelines should be allowed in static displays only.)

**130.14** Frame: Structurally sound with no defective welds. Minimum wheel tread 28 inches. Seat back and floor pan shall have no voids large enough to allow any part of the driver's body to pass through. Front and/or rear bumpers are not required, but if installed, they shall be solidly attached. All parts and structures of the kart must be suitably attached so as to prevent them from leaving the kart during operation, thereby constituting a hazard.

**130.15** Driver's Compartment: All parts of the driver should be limited to the confines of the width and length of the kart. The feet should not extend beyond the bumper when the pedals are fully depressed. The seating must provide lateral support of the driver. (Some early vintage karts did not have side support, use single engine only). Seat belts are not permitted (required for FKE). (Karts that do not meet these guidelines should be allowed in static displays only.)

## **131 Event Shows**

**131.1** See Promoters' Package, Paragraphs 7 & 7a

**131.2** See the VKA Kart Show Guide (<https://vkakarting.com/members/vka-documents/>)

## **132 Demonstration (Tier I) Events**

**132.1** Tier I Events are flagged and scored.

**132.2** The event should consist of three Heats of equal value

**132.3** Starting positions for Heat One may be determined by one of the following methods:

**132.3.1** Order of Registration -- earliest entree to the front and so on

**132.3.2** Pea-Pick -- lowest pick to the front

**132.3.3** Qualifying -- fastest time to the front and so on

**132.4** regardless of the starting position for Heat One, the grid for Heat Two will be inverted from Heat One

**132.5** Heat Three starting position will be based on the combined score from Heats One and Two with best performance to the front.

**132.5** All novice and rookie drivers should have an 'X' on the back of the helmet and start at the back of the grid in all Heats.

**132.6** Points System

Points are issued by on track finishing positions

Lowest point total wins.

1 = zero

2 = 2

3 = 3

4 = 4

5 = 5

and so on

DNF points are issued based on the number of laps completed --

example: in an 8 kart race (karts that take the green flag), the first kart out receives 8 points -- next out 7, and so on.

DNS points issued based on number of karts entered in the race --  
example: in an 8 kart race, if two karts do not take the green flag, both receive 8 points.

Ties are broken by the fastest lap in the last on track session for the class -- if no timing system is in place, ties are broken by the best performance in the last completed on track session.

**132.7** In the event of a tie with less than three Heats, the winner should be determined by the fastest time, if times are not available, then the winner of the last heat shall prevail.

**132.8** All DNF will start ahead of DNS. (Novices should start at the back of the grid.)

## **133 Demonstration (Tier II) Events**

**133.1** Tier II Events are non-flagged and not scored.

**133.2** Tier II event is meant to be no formal flagged Heats, scoring, or awards.

**133.3** Tier II is for practice, testing, kart/motor shakedown and karter get together.

**133.4** If some karters wish to form their own group and have a friendly Heat, that would be the promoters option.

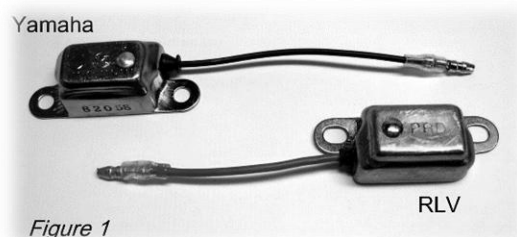
## **134 VKA Disclaimer**

The VKA assumes no responsibility for the enforcement or compliance of these Guidelines. It is entirely the responsibility of the track owner, event organizer and event director to determine what guidelines are acceptable for their individual event. Event organizers may publish these guidelines under their own promotional materials for their event. Utilization of the VKA name, logo, or endorsement without express permission of the VKA will not be permitted. VKA assumes no responsibility for any claims as a result of any event incidences, accidents, crashes, injuries or deaths.

## **135 Procedure for engine inspection -- Yamaha Piston Port -- class 13**

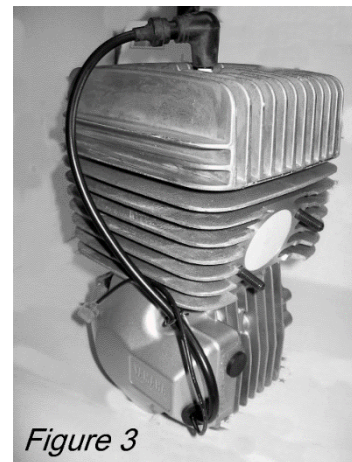
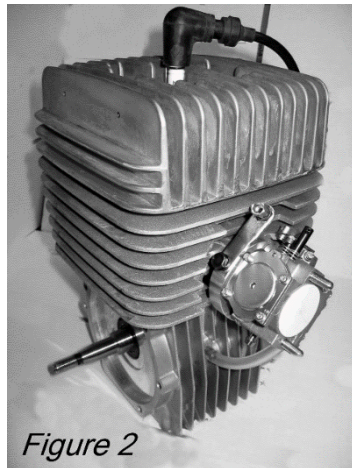
In this procedure, we're checking bore, stroke, ignition components and visually inspecting outside of engine to be stock factory configuration.

**135.1** Shown here is the original Yamaha TCI, RLV (prd) and generic replacement boxes. All are approved for use. .

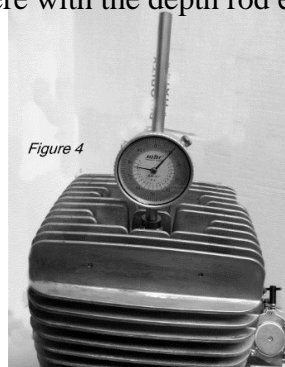




**135.2** These two views show what the engine looks like from the factory on the outside. No external modifications are allowed. (Note the white discs in the exhaust area and on top of the carburetor. The area underneath these disc diameters are considered "inside the engine" and are non-tech areas.

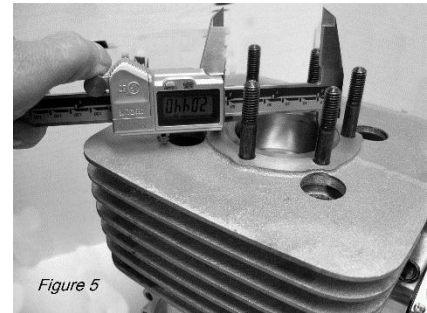


**135.3** Checking the stroke -- Maximum stroke is 1.816" checked here by a dial indicator. Calipers could also be used here with the depth rod end.

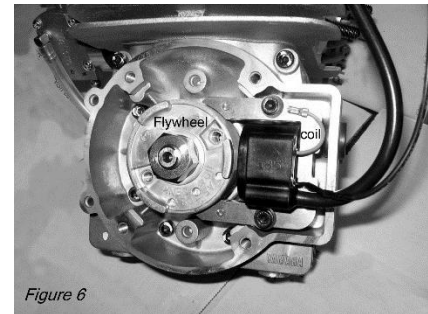




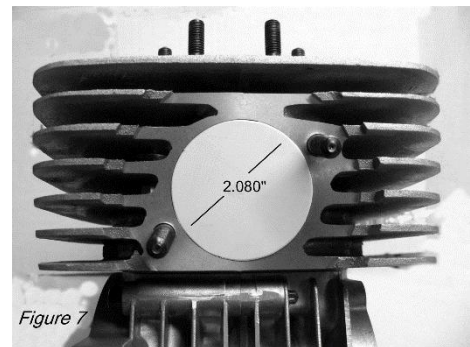
**135.4** With the head removed, measure the cylinder bore diameter using calipers -- Maximum bore is 2.100"



**135.5** Coil and flywheel are to be original Yamaha parts. Modifications to these components are allowed.



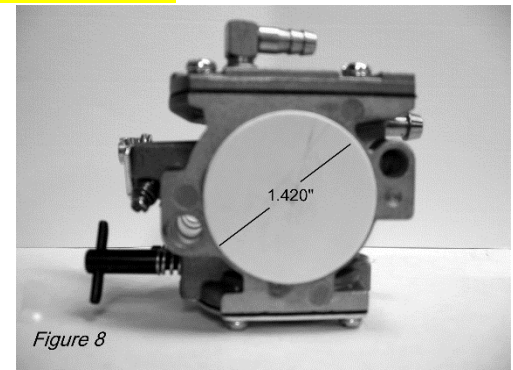
**135.6** Under the 2.080" disc diameter area is non-tech and is considered inside the engine.



**135.7** Under the 1.420" diameter disc is non-tech -- The rest of the Walbro carb on the outside is to be as supplied from Yamaha on the KT100S engine.

This completes the engine inspection.

It's entirely up to the VKA Promoter/track owner if an engine inspection is to take place.





## 136 Procedure for engine inspection -- Yamaha Limited -- class 14 + 16 + 17

Best to remove the engine from the kart and remove engine mount so engine can sit flat but may be performed on the chassis if desired.

**136.1** remove spark plug a insert a LAD CC head tool -- check for 11cc minimum



**136.2** check 0.950" no-go carb venturi



**136.2.1** remove carb and check throttle bore 1.010" no-go



**136.2.2** remove carb gasket and check inlet track for 2.600" minimum length



**136.3** check filter adapter for 0.150" max floor thickness -- minimum 1.200" inside diameter



**136.4** remove head -- install dial indicator and using the LAD inspection tool -- check exhaust height (1.155") and inlet height (0.775")

**136.5** using the Lad inspection tool, check blowdown (0.390 minimum / 0.420 maximum)

**136.5.1** check stroke max (1.816" max)

**136.5.2** remove ignition cover and check timing (0--0.015")



**136.6** remove indicator --- check bore ( 2.100" max)



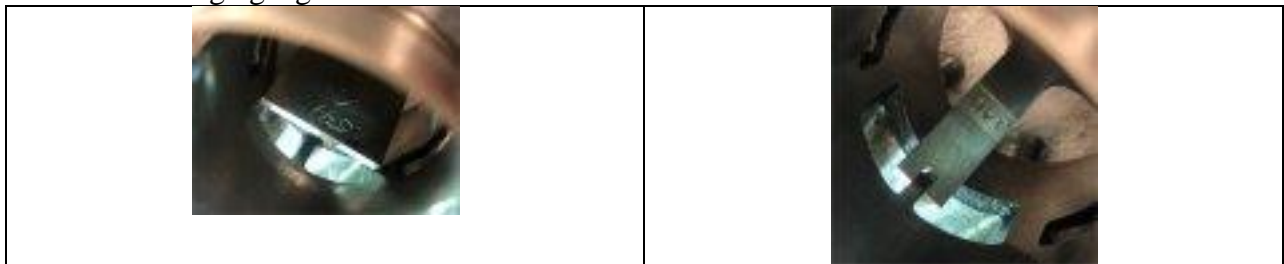
**136.7** remove the cylinder and visually inspect for grinding in the transfer ports



**136.8** check piston pin -- 0.420" maximum inside diameter



**136.9** use no-go gauge to check exhaust --max overall width 1.551" max --- rib 0.140" min



**136.10** visually check rod and crank for lightening and grinding

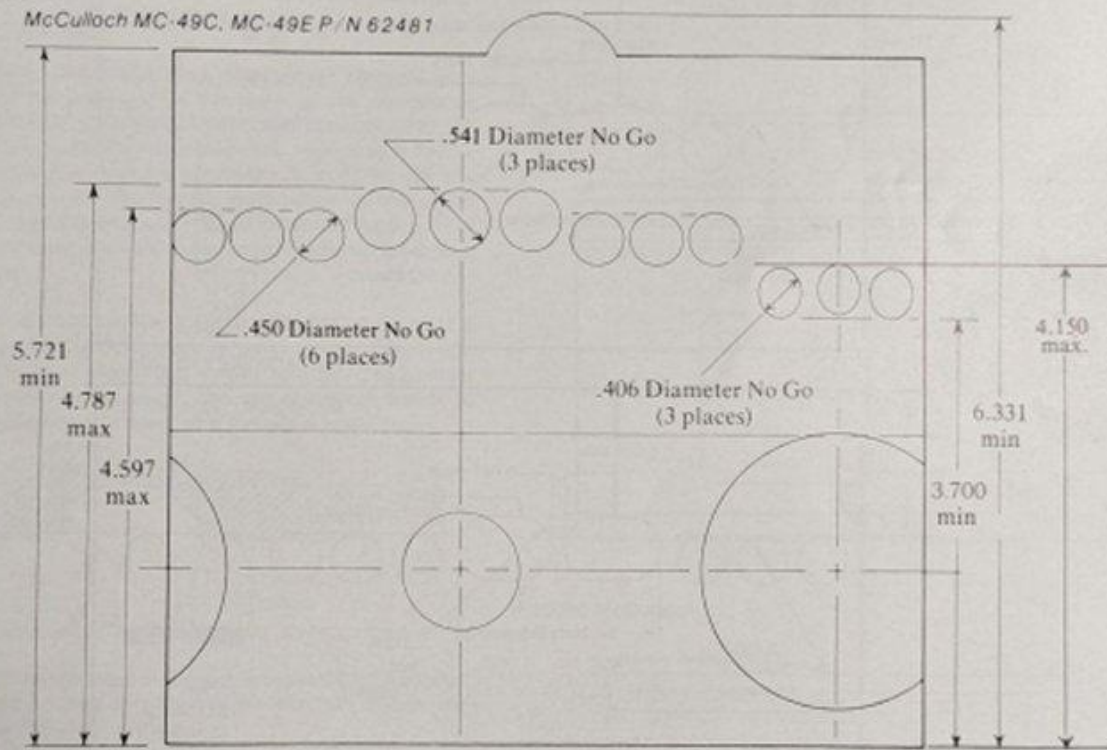
**Any other items defined in the IKF / WKA Stock Yamaha engine rules may be checked at the discretion of the technical inspector**

## **137 Procedure for tech inspection -- 80cc Mac -- group B**

factory stock -- intake and exhaust ports – no additional boost ports – absolutely no internal modifications – heads are not allowed any alteration such as filling to increase compression -  
- No 49M/C blocks allowed -- "0" degree flywheel -- no 5 deg wheels -- standard woodruff key with 0.124" minimum width (no offsets) -- Oregon 33-053 electronic ignition module must be used -- no points or condenser allowed -- coil hold down bolts 0.185" minimum diameter -- coil holes .213" No-Go maximum width -- maximum 1/2" reach spark plug only -- after-market connecting rods approved -- after-market GEM #1326 aluminum stuffer approved -- repairs allowed for broken coil retainer clips -- any flat bottom manifold that uses the HL pattern 4 or 6 petal pyramid style reed cage -- stock McCulloch (91-93) manifold may be used with stock style cage and HL adapter plate -- all manifolds must be flat bottom (no boost port stuffer type) and must fully seal off the boost port -- Piston and rings Mac 49 only -- 2.160" max bore -- 1.375" max stroke -- the side port (piston port controlled) must be completely sealed off by the manifold --- GEM #1273 box muffler only -- Max Torque dry clutch with no modifications and orange springs only -- minimum driver age 45 years old -- entrant must accept intake / exhaust removal for engine inspection upon request -- pressure testing may be employed to identify air leaks that could increase performance.

80cc McCulloch

McCulloch MC-49C, MC-49E P/N 62481





Push the piston to bottom dead center -- insert the caliper and zero -- roll slowly up to and thru top dead center -- the reading should be 1.442" ( $\pm .003$ ") -- (this value is slightly longer than the stated stroke value (1.375" max) since the measurement is being taken on an angle)





