

Australian Karting Association Inc

Technical Committee's

Recommendations to the NKC Meeting 21/22 August 2010



Venue: Crowne Plaza, Cnr Arden & Carr Streets, Coogee, NSW

Date: 5/6 June 2010

Time: 9am

Item 1 – AKA Qld Tech Item 1 25.13 Number Plates

Re write (i) & (ii) & new rule (ix) as follows

- (i) Front and rear numbers must be a minimum of 130mm high and a minimum of 20mm thick, and be of plain or italic font similar to the sample below. They must be of the appropriate colour, and be placed on a full rectangular background of the appropriate colour, and have a minimum of 15mm to all edges of the background. For double digit numbers, there must be a minimum of 15mm spacing between numbers. The background colour must be a continuous unbroken rectangle, without highlight lines or contoured borders.
- (ii) Side numbers are required to be mounted on both sides of the kart on the outside surface of the side pods. They must be a minimum of 100mm high and a minimum of 15mm thick, and be of plain or italic font similar to the sample below. They must be of the appropriate colour, and be placed on a full rectangular background of the appropriate colour, and have a minimum of 15mm to all edges of the background. For double digit numbers, there must be a minimum of 15mm spacing between numbers. The background colour must be a continuous unbroken rectangle, without highlight lines or contoured borders. Where a hole is required in the outer surface of the side pod for external starters, the hole must not break into the rectangular background.

(ix) The Chief Lap Scorer, Chief Scrutineer & Clerk of Course decision as to legibility of numbers is final.

Reason:

Numbers of all styles and thickness, and with elaborate background designs are proving difficult to read. Contoured backgrounds, and backgrounds with highlight borders and lines detract from the clear legibility of the numbers. This rewording allows for fonts similar to the style illustrated in the current manual that are also quite legible.

Committee's recommendation to the NKC General Meeting:

All in Favour.

Reason: Further clarification to background.

Item 2 – AKA Qld Tech Item 2

25.22.2 (e) Muffler damage

Discussion required to clarify whether accidental damage to AKA14 and AKA39 mufflers applies only to the event where the damage occurred, or whether accidental damage is acceptable beyond that event (i.e. for the life of the muffler). If accidental damage is acceptable beyond the event where it occurs, define a maximum size and/or occurrence of damage. For example, it may be that one large dent of 50 Sq.cm is acceptable provided it is no more than 5mm deep, or several smaller dents of no more than 50 Sq.cm total area and no more than 3mm deep is acceptable.

Reason:

A significant number of mufflers have sustained minor accidental damage, and are still in use. Do we really require competitors to dump them?

Committee's recommendation to the NKC General Meeting:

1. Include pictures in web site to show limit all allowable damage
2. Reword R25.22.(e) to read "Any accidental damagebreach of the rules for that previous heat should the damage be outside that allowed in the pictures"

Item 3 – AKA Qld Tech Item 3

Cameras on karts

Finalise requirements for acceptable type and mounting.

Discussion: Note that a GoPro weighs 167 gm with housing, so I put in 200 gms which should be ok

Committee's recommendation to the NKC General Meeting:

Suggested rule:

R25.31 Cameras are permitted on karts providing they conform to the following:

1. The camera cannot weigh more than 200gm and a recorder, if used, no more than 1kg.
2. The camera must be mounted to the kart with a "fit for purpose" mounting system that, in itself, does not pose a hazard to other karts or karters under any circumstances.
3. The camera itself must be secured to the kart using a multi strand tether wire or cable ties securely attached to the camera and an adjacent tie point on the kart. The security of attachment must not be dependent on any tension in the tether cable.
4. The camera or recorder cannot be mounted on the helmet or any safety apparel.
5. The camera must be mounted either forward of the steering wheel or behind the seat and can be mounted no higher than the top of the seat.
6. The direction the camera faces is free.
7. No optical flashing function is allowed.
8. If a separate recorder is used, this must be securely mounted in a "fit for purpose" cradle. Any connecting cable between the recorder & camera must be routed in such a way that it will not interfere with a driver entering or exiting the kart.
9. Maximum of TWO cameras to be used at one time

Motion carried. Unanimous

Item 4 – AKA Qld Tech Item 4

26.01 Cylinder Head Volume Measurement

Allow the use of digital A grade burettes, and their use is to be compulsory for State and National Championship technical inspections.

Reason:

Accuracy, repeatability, speed of dispensing fluid, with no argument for time taken, leakage past piston ring, hang up in burette etc.

Discussion: Motion Lost

Committee's recommendation to the NKC General Meeting :

Recommended: That we allow the use of a glass A grade or B Grade Burette. Rewrite 26.01 to read : **"To be measured by use of a glass A or B grade burette...(as before).....under gravity feed"**

Item 5 – AKA Qld Tech Item 5

25.11 (iii) Skid plates or guards

The fitting of skid plates or guards to prevent the brake disc or axle sprocket and chain from contacting the track is prohibited.

A clear resolution on whether the devices currently fitted to some European karts as purchased contravenes this rule, and if not, under what circumstances they may contravene this rule.

Reason:

These devices are clearly designed to protect the disc brake rotor in particular. A typical style has a plastic wear block attached to a metal plate. Once the wear block is worn down, the metal plate may contact the track, and develop sharp edges capable of inflicting serious injury to a competitor in the event of an accident.

Committee's recommendation to the NKC General Meeting : Refer to Item 21

Item 6 – AKA Qld Tech Item 6

25.17 (k) and Addendum 3 – Clutch and Engine Table

Addendum 3 redressed the absence of the Zedtec ZD1 clutch. It specified the following classes where the clutch can be used:

- Formula Australia 31.20
- Clubman 34.11
- Senior National 36.09
- Yamaha 100 TAG 43.13

Clarification is required as to whether this clutch can be used in the following classes, as the amended table contained in Addendum 3 would suggest so, although the accompanying text has not included them:

- **Junior Clubman 38.09**
- **Junior National 39.10**
- **Rookies 40.10**
- **Midgets 41.31**

Committee's recommendation to the NKC General Meeting:

Alter appropriate chapters to include these 4 classes. Tidyup

Item 7 – AKA Qld Tech Item 7

Tyre Treatment

A program is required to identify substances that are available in the market place today, and a means to identify their presence. Some substances claim to soften tyres, in some cases, quite dramatically. Some substances claim to be non-detectable, even though they also claim to reduce tyre hardness by significant amounts.

Reason:

There is a strong suspicion that tyre treatment substances are in use.

Committee's recommendation to the NKC General Meeting: WA and Tas to do testing and report back.

Item 8 – AKA Qld Tech Item 8

Chapter 43 – Yamaha 100 TAG Class

Specify a set of technical inspection dimension to limit modifications to this engine. Typically, to include transfer port width in crankcase, crankshaft width, distance from crankcase deck to crankshaft, barrel height.

While no modifications at all are permitted, there is no way of determining conclusively whether modifications have been made. No dimensional checks are available. While a set of specifications may not eliminate modifications, it would severely limit the potential to make modifications.

Reason:

There are reports that owners are being told that their engine builders can make these engines more competitive than they are out of the box. Where there is smoke, there may well be fire.

Committee's recommendation to the NKC General Meeting : Queensland technical Officer to check homologation sample engine against Yamaha TAG 100 documentation and AKA Rule Book. If the measurements comply then we will scan the documentation and put on website under chapter 43 technical specifications

Item 9 – AKA Qld Tech Item 9

14.01.2 (a) Helmets

Review current standards for currency, and consider whether helmets approved to the DOT (US Department of Transport) helmet standard comply with acceptable minimum standards for karting.

Reason:

Helmets complying with DOT only are available in Australia.

Committee's recommendation to the NKC General Meeting : Withdrawn

Item 10 – AKA Qld Tech Item 10

45.21 Leopard RL 125 Exhaust and 45.38 Leopard X 30 Exhaust

Replace the drawing attached to 45.21 and add a drawing to 45.38 to define simple expedient inspection dimensions to identify the respective mufflers.

Reason: It is a breach of the technical rules to use the X 30 muffler with the RL 125 and vice versa. Dynamometer testing has demonstrated that the X 30 pipe allows an RL 125 to developed approximately 0.8 additional horsepower. The X 30 pipe dimensions are not immediately available in the manual, and the homologation drawings do not provide adequate simple dimensional checks on critical features of these pipes. The only distinguishing feature mentioned is the 'IAME' logo on the X 30 pipe. There is some concern that this could be disguised.

Committee's recommendation to the NKC General Meeting : Drawings to be put into technical specifications in chapter.

Item 11 - NSW Admin Agenda Item 2

Rule Changes: "EFFECTIVE IMMEDIATELY". There are too many technical changes - freeze rules for a period of time (2 years) – give stability to classes.

Committee's recommendation to the NKC General Meeting: Technical do not recommend, if changes are needed then they must be made. You cannot freeze it for 2 years

Item 12 – AKANSW Tech Item 1

The following items have been omitted from the 2010 manual

Rule 25.24 Noise Induction Silencer Diagram of the noise induction silencer needs to be added back into the manual.

Rule 25.26 Carburetor Diagram of the carburetor needs to be added back into the manual.

Rule 28.02 Addendum required for Rotax Engine Seals.

Committee's recommendation to the NKC General Meeting:

Re write Rule 28.02.6 to read "The engine is sealed at 3 locations, the cylinder head water jacket, the upper gear box case and the reed block using one single seal".

Same wording needs to be added to to Rule 35.04

Effective 1st July, 2010

Also note

Note Rule 19.33.9.3 to be written to read: "Two (2) head studs to be replaced by sealing nuts with the exception of Rotax Max and JMax"

Item 13 – AKANSW Tech Item 2

Rule 25.11 Guards

Should Read

1/ Chain Guards: a chain guard is compulsory and must be designed to protect the driver in the event of a chain breakage and shall be of sufficient strength to withstand the impact of a flailing chain. All chain guards must be securely fixed at both ends. Sprockets not forming a part of the train must be removed.

2/ Engine Sprocket Guards: An engine sprocket guard is compulsory for all classes and must give sufficient front, top and side protection to prevent the driver from trapping his/her fingers in the chain.

The engine sprocket guard must be fixed to the engine with a minimum of two retaining bolts.

2a/ The OEM engine sprocket guard for the Parilla Leopard and the SQ Cheetah 125 may be modified as per the following diagram. The corners may be radiused to a maximum of 10mm.

3/ the fitting of skid plates or guards to prevent the brake disc or axle sprocket and chain from contacting the track is prohibited.

Reason:

We needed to rewrite the rule because the current rule has too many grey areas. The request is based on safety.

Committee's recommendation to the NKC General Meeting:

Leave items 1, 2 & 2a "as is" in the 2010 rulebook

Item 3 refer item 21

Item 14 – AKANSW Tech Item 3

Rule 25.30 Transponder Fitting Instructions

Add to rule 25.30 after the wording vertical / **horizontal** position.

Could you please forward these to the officials panel for ratification so we can send it to the Conference.

1. The wording in rule 25.30 transponders is very open and ambiguous.

I think the wording needs to be discussed at the Tech level and not be rushed like this was.

Rule 25.30 Transponder fitting Instructions reads as follows in the 2010 rulebook with comments in brackets:

AMB TranX transponders must be mounted in an appropriate bracket on the side pod of the kart in a vertical position (**some side pods are too thin of material to allow this and if they are mounted this way, if the side pod gets hit and the transponder becomes a missile**), no more than 30cm above the track surface and approximately 30cm behind the king pin line of the

front of the kart (**where is the measurement taken to the front edge, centre or the outside edge of the transponder?**) There must be no metal or carbon fibre between the bottom of the transponder and the track surface. It is permissible to use additional cable ties to secure the transponder.

As we had some new ideas in the mounting, I (kps) have taken the liberty to draft these as I remember how the discussion went. On this basis, R25.30 could now read:

“AMB transponders must be mounted in the AMB supplied bracket in a vertical position, no more than 30cm above the track surface. There must be no metal or carbon fibre between the bottom of the transponder and the track surface. It is permissible to use additional cable ties to secure the transponder. The actual position could be on a side pod, however there can be difficulties in some cases due to the shape of the side pod. An optional and preferred location is central to the kart on a spacer bracket the is located between the front bumper front bar and the chassis front pedal support sub frame, these spacer brackets are commercially available”

(PS I have yet to come up with a proper name for these spacer brackets)

2. Rule 28.33.2

This rule should be the same as for the rookie and midget classes.

That all restricted classes have a separate header pipe and restrictor.

"Each engine must have its own restrictor and header pipe for sealing. No changing of header pipes or restrictor is allowed".

Committee's recommendation to the NKC General Meeting :

Item 1. See above draft

Item 2 Lost

Item 15 – AKANSW Tech Item 4

Rule 25.13(i) Number Plates

Number plates and numbers add to the wording in rule 25.13(i) the front to be Arial.

Committee's recommendation to the NKC General Meeting : Refer to Item 1

Item 16 – AKANSW Tech Item 5

Race numbers and backgrounds – at recent meetings competitors have been spoken to or charged with infringement of the rules in relations to numbers and backgrounds. With the advent of transponders, this is not as important as previously when required for lap scoring.

Committee's recommendation to the NKC General Meeting : refer Item 1

Item 17 – AKANSW Tech Item 6

Rear Crash Bars – make a larger target – non contact sport – plastic bar bars to be introduced over a 2-3 year period as mandatory.

Committee’s recommendation to the NKC General Meeting: Lost

Item 18 – AKANSW Tech Item 7

National Standards for Scrutineer levels to be added to the Committee Conference agenda items.

Committee’s recommendation to the NKC General Meeting: Passed, NSW to submit something on grading for engine measurers and scrutineers to go to the Conference Unanimous. WA to circulate Engine Inspection Guide to all techs.

Item 19 – VKA Tech Item 1

Chapter 32

Rule 32 .06 AKA Restrictor plates. Add: “Restrictor plates to have a maximum allowable thickness of 2.1 mm.” After sentence endingstuds or bolts.

Reason:

These restrictors have no thickness measurement listed.

Committee’s recommendation to the NKC General Meeting: Yes agreed unanimous

Item 20 – VKA Tech Item 2

Ban the use of Elf fuel.

Committee’s recommendation to the NKC General Meeting : Lost

Item 21 – AKATAS Item 12

Rule 25.11(iii) Australian Kart Formula

Reword to read “Skid Plates or pads are permissible, but must be of non ferrous material. Skid Plates and/or guards that pass under the brake disc or engine sprocket and chain are prohibited. Any brackets that support such skid plates or pads cannot be lower than the skid plate or pads. Side plates or discs that are attached to the sprocket or carrier and are larger than the outside of the chain are also prohibited.

Reason:

Skid plates are now common on European karts and subjectively it would be better to have a skid pad touching the track surface than a brake disc or sprocket and chain.

Committee’s recommendation to the NKC General Meeting: Reword Rule 25.11(iii) to read “Skid Plates or pads are permissible, but must be of non metallic material. Skid Plates and/or guards that pass under the brake disc or engine sprocket and chain are prohibited. Any brackets that support such skid plates or pads cannot be lower than the skid plate or pads. Side plates or discs that are attached to the sprocket or carrier and are larger than the outside of the chain are also prohibited.”

Motion carried. Unanimous

Item 22 – AKATAS Item 13

Include reference to R25.21 (A). 6 to allow comer base gaskets to be of any material.

Add: **“The cylinder base gasket is subject to Rule 25.21(a).6”**

Reason: to fall into line with S and J engines and not is a performance item.

Committee’s recommendation to the NKC General Meeting : Gaskets are non tech

Item 23 – AKATAS Item 14

41.11 Midgets

After “.....return springs and fasteners”, add: **“Fasteners securing clutch drum are free to facilitate the use of an external starter as long as components are no bigger than 19mm hexagon.”**

Reason:

Comer starting ropes have a propensity to fail, leaving the kart inoperative. By allowing a simple fastener system, that overcomes the issue of the left hand thread, an external starter can be used to get the kart started.

Committee’s recommendation to the NKC General Meeting: Yes

Item 24 – AKATAS Item 15

19.33.10 General Standing Regulations

Add new rule 19.33.10.e **“Tails on plastic seals to be left at full length”**

Reason:

This was dropped from last years rule book with the advent of the bar-coded heavy metal cabled seals, however the plastic seals are still being used, particularly with chassis, so the above wording is still applicable.

Committee’s recommendation to the NKC General Meeting: New Rule 19.33.10.e as above.

Item 25 – AKATAS Item 16

Rule 25.22 (e) Australian Kart Formula

Clarify if this pertains to accidental damage, say for example in a previous heat or accidental damage from some time earlier than that actual heat or event, Eg 6 months ago.

Reason:

Ambiguous or not clear.

Discussion:

Lots of discussion, but not resolved. The thinking is that we might have pictures of an acceptable level of damage on the web site. However, the actual point is still moot

Committee’s recommendation to the NKC General Meeting : refer addendum on new drawing

Addendum to be released immediately showing the new drawing to replace the incorrect drawing in 25.22.2 (*Addendum 17*)

Item 26 – AKATAS Item 17

Rule 34.19(& 31.26 & 36.15 & possibly 41.18)

Specify that the chamfer on the inside of the bottom of the piston skirt can be no greater than the specified outer chamfer and that the bottom face of the skirt to be flat.

Reason:

To tidy up the loose area. Note that there should be some timed window for this. Suggest an addendum ASAP stating this will be a rule for the start of 2011.

Committee's recommendation to the NKC General Meeting: Withdrawn

Item 27 – AKATAS Item 18

Chapter 28 & Chapter 35

Sealing nuts as supplied by IKD be compulsory for Rotax engines.

Reason:

To simplify sealing the engines.

Committee's recommendation to the NKC General Meeting: Any sealing fastener is acceptable as long as it can be used with the AKA seal

Item 28 – AKATAS Item 19

Chapter 28, 35 & 45

At the moment, we seal Rotax reed valves and not Leopard. Why?

Reason:

I suggest we seal neither as they are no different to other unsealed engine components. Ie; Carby

Committee's recommendation to the NKC General Meeting: The sealing nut have to have a minimum 3mm hole for the AKA seal and must be fit for purpose
Unanimous

Item 29 – AKATAS Item 20

Rule 25.03 Australian Kart Formula.

Add "In a straight ahead position."

Reason:

With common steering wheels, they have a flat top. When the competitor is questioned with the Nassau panel height they simply turn the steering wheel to the side and the height conforms.

Committee's recommendation to the NKC General Meeting: Motion Lost, leave as is.

Item 30 – AKASA Tech Item 1

Rule 41.01 Engine Eligibility for Midgets

The tech committee investigates the parity issues between good and bad comer engines with a review to either phasing out the comer and replacing it with a new engine or resorting to the J. The Comer engine is fantastic in its lightweight, practical ease of use but the parity between engines is shocking. DPE reviewed the cost of having CNC ports, which the NKC rejected. One option may be to allow a grind to a line on specific critical port edges eg top of the ex port and

transfer ports. From experience in the class 4 to five tenths between good engines is common. Competitors are buying 10 at a time to try and find a good one.

Committee's recommendation to the NKC General Meeting: *DPE presented a survey to show parity is very reasonable with a series of charts showing some statistics of feedback from shops and customers and all these showed a very high level of satisfaction.*

No decision was really made, so it was left as just a discussion only with no further action required.

Item 31 – AKASA Tech Item 2

Rule 41.11 Engine Additions:

Rule reads, "Engine must be run with supplied clutch (Part No. S80 390 01)"

Change to read;

"Engine must be run with supplied clutch (Part No. S080 390 01). "Clutch retaining nut/adapter nut is non tech"

This then allows for the fitting of a double nut to allow for external starting of these engines in the advent of a recoil failure. Maybe a maximum weight/size needs to be implemented.

Committee's recommendation to the NKC General Meeting:

Change clutch part number to S080-089

Item 32 – AKASA Tech Item 3

The Tech Committee review the appropriate weights for the 125 classes as there are many karts running in the lightweight class with kart weights in excess of 100kg. For some reason we have a max kart weight in Heavies of 100kg but it is OK for the lightweight class to have kart weights in excess of this.

Committee's recommendation to the NKC General Meeting : Lost

Item 33 – AKASA Tech Item 4

Rule 45.40

Remove the wording

"The only permissible radiator is the one as supplied by IAME SPA and must carry an IAME identification."

This then allows for the use of the smaller RL radiator, which was always the intent of the wording in Rule 45.23.

Committee's recommendation to the NKC General Meeting :

Remo racing to be consulted and they make a formal request

Unanimous

Item 34 – WA Tech Item 1

ARC Engines

That the ARC engine be retained as an eligible AKA engine.

Reason:

There are many engines accepted as eligible, why not this one?

Committee's recommendation to the NKC General Meeting:

Techs feelings are that the ARC be retained "as is" plus be included into Senior TAG Restricted

Unanimous

Item 35 – WA Tech Item 2

Chapter 37

Junior Performance

That there is a greater parity testing done on the Junior Performance Class before it is run in 2011.

Reason:

There are many discrepancies on the structure of this class. It needs to be tested correctly in 2010 before there is any consideration of implementing it in whatever form in 2011.

Committee's recommendation to the NKC General Meeting: Testing is on going for this class with indications that Leopard and Rotax go to 155Kgs refer to NKC

Item 36 – WA Tech Item 3

Chapter 41

Rule 41.18

Add:

5. The second piston ring must be freely removable from its groove and must be able to support its own weight when fitted to the cylinder that is held in a vertical position. The piston and ring must not be modified in any way that could possibly prevent the ring from moving freely in its groove.

Reason:

To clarify the uncertainty about this rule.

Committee's recommendation to the NKC General Meeting: implement 1st January, 2011

Item 37 – WA Tech Item 4

Chapter 41

Rule 41.20

Change the word "broken" to "missing or not completely intact".

Reason:

It could be a performance advantage to cut off fins instead of breaking them off.

Committee's recommendation to the NKC General Meeting: Tech agree to this item Re write to read "The dimensions....same.....and this finned rotor fan cannot have any fins missing or not completely intact".

This is not completely the same as discussed, but it would be dumb if we didn't make it illegal to run without the full number of fins....your choice on this one.

Item 38 – WA Tech Item 5

Chapter 41

Rule 41.12.1

Add:

"Gasket & Diaphragm kits are free".

Reason:

To allow longer lasting and cheaper alternatives, that are currently being used.

Committee's recommendation to the NKC General Meeting : Gaskets & Diaphragms are non tech items. Implemented 1st January 2011

Item 39 – WA Tech Item 6

Chapter 27

Allow the inclusion of two current 125 engines (Rotax Max, Leopard, Fireball & Cheetah as per appropriate chapters with the exception of exhaust installation requirements). The engines would need to meet their individual class rules. The weights to be determined by the individual states to provide parity with the other engine/weight configurations in place. This will require the Open Performance class to allow a total of 250ccs two strokes (as above).

Given this and to make it clear, suggest that two rule changes be implemented:

R27.01.9. Twin 125 cc engines of the type Rotax Max, Leopard, Fireball & Cheetah as per their appropriate class chapters (with the exception of exhaust modifications for installation requirements. The engines would need to meet their individual class rules. The weights to be determined by the individual states to provide parity with the other engine/weight configurations in place.

R27.02.3. Twin 125 engines (as per Rule 27.01.9) to have a maximum combined cylinder capacity to be no greater than 256 cc

Reason:

To allow more engines into this class. A watercooled 100cc reed engine is of approximately the same power level as the 125cc's, so that argument that they will be too powerful does not really hold.

Committee's recommendation to the NKC General Meeting : Motion Passed

Item 40 – WA Tech Item 7

Chapter 25

Rule 25.17(j)

Change from 'All clutches must fully engage at or before 4500rpm of the engine' to '**All clutches must engage sufficiently to allow front wheels to climb test bar at less than 4500rpm**'.

Suggest to read '**All clutches must engage sufficiently to allow front wheels to climb test bar at less than 4800rpm**'.

Reason:

Tidy up wording. *Note this includes the increase on rpm based on the industry item from Strike Products.*

Committee's recommendation to the NKC General Meeting: Motioned passed Unanimous

Item 41 – WA Tech Item 8

Chapter 25

Rule 25.17(j)

Add:

R 25.17.(j).6. "**It is not permissible to increase tyre pressures on the out grid after the above test, if the above test was conducted on the out grid prior to that tested class proceeding to their next race heat.**"

Reason:

A near flat tyre would easily roll over the test bar, giving a false result.

Committee's recommendation to the NKC General Meeting: Motion Passed Unanimous

Item 42 – WA Tech Item 9

Chapter 23

Rule 23.11.6 Tyres and Starting at Rear of Grid

Change the word "Competition" to "Race".

Reason:

If the scenario is that if a dry tyre is replaced with a 5th tyre and the next race is declared wet and everyone uses wets, does this mean the driver goes to the rear of the field with the wets or waits for the next dry race? Tidy up of the wording to avoid confusion.

Committee's recommendation to the NKC General Meeting: *Rewrite sentence of 23.11.6. to read " Drivers receivingsame.....their next competition when that replacement tyre is next used.....the only exception....same.....Chief Scrutineer" and rewrite sentence in 19.34.5 to read : "For National and State championships.....same..... in their next competition when that replacement tyre is next used"*

Item 43 – WA Tech Item 10

Chapter 23

Rule 23.11.6

Add:

“If it is deemed that a competitor has intentionally damaged a tyre, that competitor will be eliminated from that race meeting”.

Reason:

Obvious

Committee’s recommendation to the NKC General Meeting: Withdrawn covered in rule 23.11.6.

Item 44 – WA Tech Item 11

Chapter 22

Rule 22.04

Change to read “All flexible fuel line connections (but not pulse lines) are to be wired....same....
Scrutineer”

Reason:

The STO considers the need to secure pulse lines is not necessary. If they come off the engine stops, they are not a source of fuel leaks.

Committee’s recommendation to the NKC General Meeting : Motion Carried
Unanimous

Item 45 – WA Tech Item 12

Chapter 25

Rule 25.24 KIAA Airboxes

Add:

“(q) It is permissible to provide a hole in the side flange to facilitate securing the airbox to the seat”.

Reason:

Has no effect on performance and allows competitor to make the best installation of the airbox to suit the particular kart.

Committee’s recommendation to the NKC General Meeting: Passed see discussion items below

Item 46 – WA Tech Item 13

Chapter 25

Rule 25.01 (g)

Change “these bars and plastic bumpers must be by the original manufacturer in all respects” to something simple like “Bumpers, either plastic or steel, must be constructed in a manner appropriate for the application in the opinion of the scrutineer”.

Reason:

The STO feels that the current wording is restrictive. Does this mean that if a number plate tab breaks off and a new one is welded the bumper is now illegal? If a kart chassis is made and another manufacturers bumper is used, is it illegal?

Committee’s recommendation to the NKC General Meeting: Delete the reference to original manufacturer

Item 47– WA Tech Item 14

Chapter 25

New Rule 25.18 g

“All overflow bottles to be empty prior to kart entering the out grid”.

Committee’s recommendation to the NKC General Meeting: motion passed.

Refer rewrite of R22.04 further below

Item 48 – WA Tech Item 15

Chapter 25

Rule 25.22

Include new drawing that was omitted for the 2010 rulebook.

Committee’s recommendation to the NKC General Meeting: Addendum done

(Addendum 17)

Item 49 – WA Tech Item 16

Chapter 40

Rule 40.09

Remove “Each engine must have its own restrictor & header for sealing. No changing or restrictor or header pipes is allowed”.

Reason:

Unnecessary expense. This rule is not applied to the Restricted 125 classes or the Junior Performance Class.

Committee’s recommendation to the NKC General Meeting: Motion lost. No change

Item 50 – WA Tech Item 17

Chapter 31, 34 and 36

Rule 34.23, Rule 36.19 and Rule 31.31

Replace the crankcase width measurement with a suitable GO gauge (sample to be provided by WA).

Reason:

It is basically impossible to measure/inspect to an edge that is not at 90 degrees to the measuring plane.

Committee’s recommendation to the NKC General Meeting: further validation required.

Sample submitted and testing is currently underway.

Item 51 – WA Tech Item 18

Chapter 25

Rule 25.04

Undertray. Suggest that floor plan screws must face upwards only.

Reason:

Safety

Committee's recommendation to the NKC General Meeting: withdrawn

Item 52 – WA Tech Item 19

Chapter 26

Rule 26.04 PTG Procedure

Reword to read:

Step 3 Add: "When checking the exhaust on the Comer SW80, Rotax Max 125, Rotax JMax, Fireball, Leopard, X30 & Cheetah, the exhaust checking groove (3rd groove down from top of rod) is narrow to define maximum and minimum exhaust duration. Hence, when checking the exhaust with the Ø5mm pin in place, the top of the gauge body must lie within the width of this (3rd groove."

Step 4 Change "..... Until it lines up with the second mark..." to read "until it lines up with the bottom edge of the groove used for checking the exhaust..." Note that similar changes will be required for the STO section as well.

Actually, there is no need to alter the STO (Rule 26.05) section as per the above so only R26.04 needs to be altered

Reason:

Current wording is incorrect.

Committee's recommendation to the NKC General Meeting: Motion passed

Note that we must reword the STO section

Item 53 – WA Tech Item 20

Chapter 28

Rule 28.21

Change from Exhaust Power Vale to read **Exhaust Power Valve Assembly**.

Reason:

To include all parts.

Committee's recommendation to the NKC General Meeting: Motion Passed

Items from March 2010 NKC meeting

Discussion item 1.

Rule 41.18.5 – New Rule

5. Both piston rings must be fitted and must contact the cylinder bore in all places. Any attempt to reduce friction by artificially restricting either ring is not permitted.

Reason:

Some people have been using methods such as "pop marking" the piston to make the second piston ring ineffective in order to reduce friction, even though the ring is still present.

Comer carby kit – to be a non-tech item – as they believe that the use of other carby kits should be able to be used.

Committee's recommendation to the NKC General Meeting: Done item *Refer Item 36*

Discussion items 2

Bumper Bars (is this the same as item above marked)

Rule 25.01 g Bumper bars

This rule to be reworded – concerns on wording “original manufacturer” this should be taken out and the NKC would like to see removed.

The current new wording in the manual - delete first sentence and re write second sentence

Committee’s recommendation to the NKC General Meeting: covered else where.

Refer Item 46

Discussion item 3

KIAA Airbox

Clarification on whether the drain hole in the bottom is allowed to be covered? If this is allowed then a re-word of the rule will be required.

Discussion: withdrawn

Committee’s recommendation to the NKC General Meeting:

Discussion item 4

KIAA Airbox Flange

This to be reword in regards to the hole in the flange - allow extra holes so that it maybe securely attached. This needs to be re worded to allow for extra holes.

Committee’s recommendation to the NKC General Meeting: Create a new rule 25.24.1 (q) *“It is permissible to drill extra holes in the side flange for mounting purposes.”* See Item 45

Discussion item 5

Clarification on Damage ports – there is some concerns with this rule and NTC interpretation.

Rule needs to be re worded with the inclusion of - “these are not allowed to be presented at a State and National championships. “ as we did not include this part.

Discussion:

This was discussed with the thought that we could have a gallery of pictures of acceptable & non acceptable port damage. Techs currently collating pictures. All states to send photos to WA for collation and redistribution.

That a memo be sent to the National Technical Committee in regards to Rule 25.26 “No internal inspection required, ie covers will not be removed and only external measurements and visual inspection taken.

Discussion: ??? No action required?

Committee’s recommendation to the NKC General Meeting:

Discussion item 6

Clarification on Rotax overflow bottle/s.

Committee’s recommendation to the NKC General Meeting: Rewrite rule 22.04

- a. **Fuel tank:** Shall be securely mounted in front of driver, made of leak proof material and mounted so that it does not project in a manner likely to cause a hazard or a spillage. All fuel containers to be fitted with a male connector or accept the flexible fuel line. The fitting of overflow bottle/s is compulsory. (minimum of 100ml holding capacity). internal
- b. **Fuel lines:** All flexible fuel line connections are to be wired or clipped to the satisfaction of the Scrutineer. Fuel taps are optional.
- c. **Float Carburettors:** Karts fitted with float carburetors must have capped catch tank (minimum of 100 ml holding capacity) included in the carburetor vent system to catch surplus fuel in the event of the carburetor flooding.
- d. **Pulse lines:** It is not compulsory to wire or clip pulse lines.
- e. **Fuel Cooling systems:** No onboard fuel cooling system is permitted that attempts to cool the fuel *below ambient temperature*.
- f. **Overflow bottles.** All overflow bottles to be empty prior to kart entering the out grid

Items from National Technical Coordinator

Discussion Item1 - Helmets

DOT approved (mandatory for general sale in the US).

DOT only implies a self certification, but a helmet cannot be sold in the US of A without DOT approval. It would seem that many DOT approved helmets are actually certified through independent testing agencies.

Snell 2005 approved (optional for general sale in the US), as well as AS1698 approved (mandatory for general sale in AUS).

Committee's recommendation to the NKC General Meeting: decide to leave as is.

Discussion Item 2 – IKD Exhaust & other items

BRP-Rotax have advised IKD of a minor change to the way that the silencer is mounted on the Rotax exhaust system.

To reduce the instances of the exhaust system cracking, in the future, the silencer will be attached by way of 2 springs rather than the current method where it is welded on.

There is no change to any “internals” within the exhaust system it is only a change to the way in which the silencer is attached to the system.

Therefore no official application is required to the AKA and the new exhaust system is fully legal within the rules as they are.

This email is for your notification purposes only so that you are fully informed.

IKD does not expect that we will have engines with this exhaust system or spare parts sales of this exhaust system for at least another 3 or 4 months but obviously they will start to flow through when our current stocks are exhausted.

The official Rotax release is attached

Committee's recommendation to the NKC General Meeting:

Muffler: Techs agree it is not an evolution change and there is no difference between the mufflers

Clutch Hub: Agree with evolution application

Balance gear: Agree with evolution application (*Addendum 13*)

Carburettor main jet access nut: Treat as non tech.

Barrels: Include #223993 & remove any reference to deletion of original cylinder (#223997)
Barrel #223996 added and Addendum 14 released

Crank difference: Include two part numbers (or photos pictures describing the difference of short & long) in rule book. *I think that IKD were going to check this out*

Power valve: Allow one only sensor to be used to detect valve movement

All of the above have been agreed to by the techs

Discussion Item 3 – Chapter 25

Ch 25. Exhaust spacers &/or flexs must have "substantially square, flat and functional sealing end faces" ????

Committee's recommendation to the NKC General Meeting: rewrite rule 25.22
(h) *to read:*

*"For Classes subject to AKA 14 & AKA 39 Control exhaust pipes.
The exhaust header pipe and muffler can be joined by a pipe or flexible tube with a parallel bore in the section through which the exhaust gases pass and be of constant wall thickness and must have substantially square, flat and functional sealing end faces with a minimum 36mm ID maximum 46.5mm OD. Exhaust spacers are allowed and must be of material equal to the permitted size of the joining exhaust flex or pipe, be of parallel bore, and must have substantially square, flat and functional sealing end faces".*

Discussion Item 4 – Home made chassis?

Committee's recommendation to the NKC General Meeting: Discussed.

Discussion Item 5 - Yamaha (S&J) Crankcase width

Basically it is impossible to measure the actual edge of an angled face as we are expected to check the 97.5 & 81.5 respectively.

Reason:

As an alternative, that a simple, laser cut, GO gauges that would register on the curvature of the crankcase cut out passages, approx 5mm down from the crankcase/cylinder interface. Should the flat sections not touch the crankcase face then the engine deemed illegal. If a crankcase was machined too low, this would go against the engine, but this would only be a small factor.

Ken Seeber to bring along some samples.

Committee's recommendation to the NKC General Meeting: Further testing will be untaken. *Refer Item 50*

Ken Seeber left the room because of pecuniary interests.

Discussion Item 6 – Strike Products correspondence

Document attached

Committee's recommendation to the NKC General Meeting: Motion Lost.

Techs recommend *All clutches must fully engage at or before 4,800rpm of the engine.*

Refer Item 40

Discussion Item 7 – Comer 11T Sprocket

From day 1 to the 2006 manual it lists that you must run a 12 tooth sprocket.

Did DPE request that this is not listed in the manual from 2007? – just cannot find an agenda item on it.

There is some different opinions as to whether using an 11T drive sprocket/drum on a Comer is legal or not. As rule 25.21 states engine sprocket is a non tech item – is this correct when applied to Comers or not?

Discussion:

Techs agreed to allow the 11T sprocket, effective 1st July. See [Addendum 15](#)

Extra Items:

1. That all technical specifications within each class chapter are not in the rulebook, but are only accessible via the AKA website. Any addendums are immediately integrated into the chapter and not stand alone as they currently are. Also allowing the concept of including photos, diagrams etc showing certain details that are not easily described in words.

Committee's recommendation to the NKC General Meeting:

All in favour

Reason: To simplify the rulebook and to provide quality up to date rules in the one place.

2. The following drawings be fixed:

- AKA muffler *Done Addendum 17*
- Walbro carb *Put back drawing that was left out of 2010 rulebook, but was in the 2009 rulebook*
- Comer crankcase *Current drawing is illegible & distorted*
- SQ cylinder *Add drawing that shows dimensions of port machining*
- AKA 43 noise induction silencer *Put back drawing that was left out of 2010 rulebook, but was in the 2009 rulebook*

3. Homologation chapter: The issue of doubling the evolution fee within a calendar year be reviewed, particularly with an important safety or failure issue. Ultimately the karter will wear the extra cost being carried by the "importer". *An NKC decision required.*

4. St George Evolution applications.

a) Change for clutch shoe assembly (paperwork previously sent out) to prevent over-opening. *Seen and approved by Techs*

(b) PRD Carburettor. (Paperwork in office) Application to use a PRD made carburetor as an alternative to the original Tillotson

(c) Reed manifold. (Paperwork previously sent out).

Discussion: *Techs agree with Items (b) & (c) but with dyno and on track testing of the carburettor old and new combinations with reed block combinations.*

Addendums approved by the NKC.

Addendum for Rotax

Item 1

Rule 28.31 and 35.19

Clutch

Change from "*Both genuine Rotax clutches are permitted (Rotax Part #634909 and #659902)*" to "*Only genuine Rotax clutches are permitted (Rotax Part #659902 and #659907)*"

Techs recommend to the NKC this item be effective immediately
(Addendum 12)

Item 2

Rule 28.23.7 and rule 35.12.6

Balance Gears

Change to "*Both the plastic balance gears (Rotax part #234431) or the steel balance gears (Rotax part #234436 and 234435) are permitted*".

Techs recommend to the NKC this term be effective immediately
(Addendum 13)

Item 3

Rule 28.18.4

Cylinder

Change to "*Cylinder has to be marked with identification code: 223997 or 223996 or 223993 (illustration 2, (2))*".

Techs recommend to the NKC this item be effective immediately.
(Addendum 14)

Item 4

41.11 To read: "*Engine must run with OEM supplied clutch (part number S080-089). Either 11 or 12 tooth Comer clutch drum can be used*".

Eligible to start 1st July 2010

(Addendum 15)

Item 5

Rule 25.17k

Remove "Ital Red s (Short Shaft)(Spec 1, Spec 2, Taperlock)"

Change to: "Ital Red s (Short Shaft)(Spec 1, Spec 2, Spec 3 Taperlock, Spec 4 Taperlock)".

Effective immediately

(Addendum 16)

Item 6

Rule 25.22.2

Delete current drawing

Replace with new correct drawing

Techs request this be effective immediately

(Addendum 17)

Item 7
Rule 36.12
5 is forbidden
(Addendum 18)

Acceptance of the Subaru engine

Homologation of the Subaru engine – paperwork correct to be introduced into recreational only. Should it be for competition then further technical paperwork and inspection will be required.