

# **RETRO RACER LTD**

## **HISTORIC KART SERIES**



Website : [www.retroracer-hks.co.uk](http://www.retroracer-hks.co.uk) Email : [retroracerhks@yahoo.co.uk](mailto:retroracerhks@yahoo.co.uk)

### **2.0 TKM RR / TKM RR Heavy / TKM RR Junior:**

#### **Class Specific Regulations 2021**

***PLEASE NOTE. You will receive a scrutineering card for the 2021 season. It will be issued to you at signing on for each meeting. Please ensure you hand it in at the safety scrutineering check. It is the drivers or drivers' guardian's responsibility to ensure the card is correctly completed, not the scrutineers.***

#### **2.1, Class Eligibility:**

Introduction: - The TKM RR, TKM RR Heavy and TKM RR Junior is a race series built around the TKM BT82 100cc and TKM BT82 115cc extreme engine, the class shall run within the Retro Racer national series.

#### **2.2, Class Background:**

The Tal-Ko regulations have been embraced and certain changes have been implemented with the aim of reducing costs. The TKM series was originally created over 25 years ago within the UK Karting scene. The object was to create close exciting racing whilst keeping costs at bay. It was spectacularly successful and still is to this day. This is also the Retro Racer objective coupled with an "all welcome" ethos.

#### **2.3, TKM RR:**

From 16 years old. Using 100cc engines as per the current Retro Racer regulations.

#### **2.4, TKM RR Heavy:**

From 16 years old. Using 115cc engines as per the current Retro Racer regulations.

#### **2.5, TKM RR Junior:**

The age limit is 11 to 16 years old. However, a driver may remain in the junior class up to 31<sup>st</sup> December of the year of their 16<sup>th</sup> birthday. This will enable a driver to complete the Retro Racer championship, providing they have competed as a junior in that year's championship. If a driver chooses to compete in a senior race following their 16<sup>th</sup> birthday, including any races outside Retro Racer, they will not be permitted to return to the junior category. There will be two weight limits for this class, each governed by the official TKM restrictor plates described later in this document.

#### **3.0, TKM Engine Criteria:**

This section of the document advises which TKM engines can be utilized for the individual classes

#### **3.1, Eligible Engines:**

TKM RR - TKM BT82 100cc

TKM RR Heavy - TKM BT82 115cc

TKM RR Junior - TKM BT82 100cc



### **Class Specific Regulations 2021**

**(3.2)**, All engines must meet the Tal-Ko fiche and all internal components must be genuine Tal-Ko items except for the following

Engine sprocket can be 9,10 or 11t but do not have to be TKM stamped.

Bearing seals are open but must the same dimensions as the fiche.

Fin rubbers are optional.

Cylinder studs are open.

**(3.3)**, TKM RR / TKM RR Heavy – Direct Drive only

**(3.4)**, JUNIORS – Direct Drive only

**(3.5)**, Only cast liners are permitted

**(3.6)**, Minimum head volume is 11cc for 100cc (measure by Burette) or 10.6cc (measured by Digital Burette).

**(3.7)**, Minimum head volume is 12cc 115cc (measure by Burette) or 11.6cc (measured by Digital Burette).

**(3.8)**, Period head only – no EaziStart heads allowed

**(3.9)**, Maximum 100CC TKM RR & JUNIOR TKM RR

**(3.10)**, Maximum 115 cc TKM RR HEAVY

**(3.11)**, Maximum serial number of 6,799 on the crankcases to keep the period bottom end.

**(3.12)**, Maximum of 2 engines per entrant to be signed on per race day using the class scrutineering card.

#### **4.0, Ignition Systems:**

Ignition Systems permitted to be used within these classes:

Motoplat (9600903-1)

MOTOPLAT IGNITION TIMING: Can be set between 2.0mm to 3.0mm BTDC.

or PVL ignition (TKM Stamped version) are both permissible.

PVL IGNITION TIMING: Can be set between 1.5mm BTDC to 2.1mm BTDC

#### **5.0, Carburettors:**

**(5.1)**, The only permitted carburettor is the Walbro WB19 (TKM Stamped) – No Modification except for the following:

**(5.2)**, Extensions are permitted to the low jet if required for ease of adjustment by the driver.

**(5.3)**, The carb Spacer block may only be modified, by the means of a slot, to aid the fitment/removal of the throttle cable.

**(5.4)**, Helicoil/Timesert repairs are permissible.

**(5.5)**, Walbro repair kits D10-WB and K10-WB are permitted.

**(5.6)**, TKM RR Junior shall run with two restrictor / weight combinations.

A 3mm thick GOLD restrictor plate with a 20.5 mm diameter bore for the 128kg weight limit.

or

A 3mm thick BLUE restrictor plate with a 22mm diameter bore for the 135kg weight limit.



### **Class Specific Regulations 2021**

**(5.7),** The nominated restrictor plates are to be the official TKM marked anodized plates only. Absolutely no modifications or polishing is permitted and the original anodizing must be present. The plate is to be fitted between the carburettor and the spacer block, NOT between the spacer block and cylinder barrel.

#### **6.0, Airboxes:**

**(6.1),** Airboxes can be either of the TKM versions to maintain the period look or the RR ASR EVO 100 airbox which is the same as the 'Mark 2' TKM system without the TKM badge. Socorem or other airboxes etc are not allowed. If in doubt seek clarification before attempting to race.

**(6.2),** Where using 2 trumpets the maximum permitted internal diameter of 23mm applies.

**(6.3),** No drilling of the airbox is permitted except for the following:

1) On the original "Dome" TKM Airbox, a maximum of 3 holes expressly used for the sole purpose of securing the dome to the back plate. Where a hole is drilled it must be used.

**(6.4),** Internal Air Filter must be present – type free.

#### **7.0, Exhausts:**

Only small-bore straight exhausts are permitted either with or without the TKM stamp. End cans are optional unless a requirement of the circuit being used.

#### **8.0, Chassis Regulations:**

**(8.1),** Any chassis homologated for the TKM class up to and including the 1998 homologation

**(8.2),** Any British non-gearbox 2 bearing chassis manufactured between 1983 and 1994 (onus is on entrant to prove age if it is not easily recognized) that meets the ethos and spirit of the TKM chassis regulations as defined below:

1) British Chassis

2) 2 Bearing

3) No adjustable rear ride height

4) No adjustable torsion bars

5) No adjustable camber system, such as rose joint systems allowed

It is advisable to seek chassis acceptance prior to attempting to race with it.

**(8.3),** If fitted, camber/caster adjustment must be removed and neutral pins fitted

**(8.4),** A maximum of 2 extra seat stays is permitted – No more than 1 per side

**(8.5),** Axles up to a maximum diameter of 30mm are permitted. 30mm hollow axles are permitted

**(8.6),** No torsion devices maybe fitted to the kart or rear axle

**(8.7),** Extended rear hubs are permitted, hubs may over hang the rear axle providing that they are of a 2 bolt design.

**(8.8),** Any adjustable torsion bars must be removed.

**(8.9),** Single point steering must be used – NO ACKERMAN, Ackerman columns can be used providing only central mounting is used

**(8.10),** Maximum front track, measured from outer most points of front tyres/wheels – 1150mm

**(8.11),** Maximum rear track, measured from outer most points of rear tyres/wheels – 1350mm





### **Class Specific Regulations 2021**

#### **9.0, Minimum Class Weights:**

##### **(9.1), TKM RR**

Pre 94 / Non bodywork kart (except Nassau) – 148kg

94 onward With Bodywork kart – 152kg

##### **(9.2), TKM RR Heavy**

Pre 94 – 171kg

94 onward **BODYWORK** is optional. Weight limit with or without **BODYWORK** 175kg.

TKM RR HEAVY driver shall have a minimum weight in race suit, gloves, boots and crash helmet of 93kg. Each driver will be weighed after drivers briefing and their weight recorded for the duration of that meeting. A driver will not be permitted to carry ballast on their person.

##### **(9.3), TKM RR Junior**

Pre 94 and 94 onward kart

128kg with GOLD TKM 20.5mm diameter carburettor restrictor plate. Driver shall have a minimum weight in race suit, gloves, boots and crash helmet of 39kg. Each driver will be weighed after drivers briefing and their weight recorded for the duration of that meeting. A driver will not be permitted to carry ballast on their person.

or

135kg with BLUE TKM 22mm meter carburettor restrictor plate. Driver shall have a minimum weight in race suit, gloves, boots and crash helmet of 47kg. A driver will not be permitted to carry ballast on their person. Each driver will be weighed after drivers briefing and their weight recorded for the duration of that meeting.

**NOTE ALL JUNIORS WILL RUN WITH THE REGULATION SIDE PODS on the grounds of safety. Pre 94 karts will be allowed minimum modification to accommodate the fitting of pods where necessary.**

#### **10.0, Brakes:**

**(10.1),** Brakes can be hydraulic or cable operated

**(10.2),** Caliper and Master Cylinder (where applicable) are free, except for:

- 1)** Brake disc must be steel. They can be solid or vented and cross drilled is permitted.
- 2)** No ABS
- 3)** Maximum of 1 pad per side and 2 pistons per pad.
- 4)** Self-adjusting systems are NOT allowed

**(10.3),** Brakes must operate on the rear wheels only.

**(10.4),** Secondary (back-up) brake cable is required between pedal and master cylinder.

#### **11.0, Steering Wheel:**

Flat top steering wheels are permitted, but not Mychron or Alfano versions.

A column safety bush must be fitted where possible.

Steering column lock ring to be fitted below the steering column bush.

#### **12.0, Chainguards / Fingerguards:**

Either a modern chain guard must be fitted to enclose front engine sprocket or chain strip with finger guard flap can be used in conjunction with TKM engine mounted front sprocket guard.

#### **13.0, Bodywork**

**(13.1),** 1994 onwards chassis must run side pods CIK02 style.

**(13.2),** Pre-94 chassis – bodywork is optional except juniors where it is mandatory.

**(13.3),** 94 onwards chassis - front nose/bumper is optional if the front hoop has vertical mountings. Modern loops must run nose/bumper and relevant clamps/clips.



### **Class Specific Regulations 2021**

#### **14.0, Number Plates & Numbers:**

(14.1), TKM RR - Race numbers are to be white on red background. As a minimum, one number plate at the front and one at the rear.

(14.2), TKM RR Heavy - Race numbers are to be white on green background. As a minimum, one number plate at the front and one at the rear.

(14.3), TKM RR Junior - Race numbers are to be white on blue background. As a minimum, one number plate at the front and one at the rear.

#### **15.0, Wheels & Tyres**

(15.1), Aluminium or Magnesium wheels are permitted but must be of one piece moulding

(15.2), Front wheels are to be bearing type. Front hubs are not permitted.

(15.3), Maximum permitted stub axle size is 17mm

(15.4), Maximum wheel width is 122mm front and 210mm rear, measured internally between the beads. Maximum outer width is 131mm and 217mm respectively.

(15.5), Treatment of tyres is not permitted, no chemicals can be added to the tyres and durometer tests may be carried out against the base mark of the tyre

(15.6), In the event of a puncture/damage, the damaged tyre must be presented to the scrutineer who can authorise its replacement. Nominated race slicks will be marked at scrutineering. In the event a competitor decides to change the nominated slicks the onus is on the competitor to ensure the scrutineer is informed at least 15 minutes before the first heat. This will allow the second set to be marked and the original set to be impounded until the end of the meeting.

(15.7), A maximum of two sets of wets can be nominated for a meeting. The second set must have no more than 4mm of tread remaining when they are nominated at scrutineering. Tyres are to be measured at scrutineering and must be inflated to 20psi in order that they can be fairly measured.

(15.8), Wet Tyres are **Bridgestone YFD** and will be marked

(15.9), Slick Tyres are **Bridgestone YDS, Marked NFA. A maximum of 2 sets per championship season will be allowed.** Senior tyres will be marked for the 2021 season and noted on the RR TKM driver sheet.

#### **Junior Tyres- Slick: Maxxis Sport**

Tyres will be barcoded and drivers will record the barcode numbers of their tyres on their TKM RR scrutineering card. These numbers must concur with the official RR tyre register. This ruling will not apply to non-championship races where a maximum of 1 set of slicks will be allowed that are not on the tyre register.

#### **16.0, Fuel:**

(16.1), The only fuel to be used for racing is roadside available pump fuel maximum 99 octane

(16.2), Performance boosting additives are not allowed.

#### **17.0, Exotic Materials:**

(17.1), Magnesium is not allowed except for where specified within the regulations

(17.2), Carbon Fibre, Plastic and Carbon composites are not allowed.

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#### **18.0, Rev Counters & Data Loggers:**

Rev Counters are allowed. Non-GPS system such as the Mychron and Alfano are allowed providing that they are only logging lap time and engine revolutions.

#### **19.0, Transponders:**

Transponders are to be fitted to, or the rear of the brake side chassis seat bracket. It is permitted to fit the transponder to the inside of the brake side pod, providing it is in line with or to the rear of the chassis seat bracket

#### **20.0, Seats:**

In the interest of safety seat fittings will include the fitting of large anti penetration washers (minimum 40mm diameter minimum). They should be fitted between the chassis seat brackets/packers and seat, plus seat stays where fitted (mandatory) and it is recommended also between the countersunk seat bolt washers and seat. The washers should be 1.5mm thick minimum.

**NOTE** The Series Organisers reserve the right to amend the regulations based on safety or technical anomalies at short notice, i.e. forthwith. They will, as soon as is practically possible be added to the official **Retro Racer web site** [www.retroracer-hks.co.uk](http://www.retroracer-hks.co.uk)

Minor clarifications to the regulations can be made with 4 weeks' notice from affect and will be published on the **official Retro Racer web site** [www.retroracer-hks.co.uk](http://www.retroracer-hks.co.uk)

**All official announcements for the class will only be made via the Retro Racer web site. Anything you may see or hear on social media in connection with the series should be ignored unless corroborated on the web site. The onus will then be on the competitor to visit the web site for the updates.**

Any major rule changes such as, tyres, significant weight limit and chassis changes will only be done in between a championship finishing and the next commencing unless subject to force majeure.