

FORMULA TKM 4-STROKE REGULATIONS 2011

30 Group Senior

30.1 Class Formula TKM 4-stroke

Affiliation Commercial, Tal-Ko/ABkC

30.2 Introduction. 4-stroke class providing close & cost effective racing with sealed high performance engines.

30.3 Chassis. Any make of chassis conforming to ASN Canada Competitors' and Officials' rules and those herein.

30.4 Bodywork. As per ASN CANADA regulations section K. Sidepods may incorporate suitable holes for starter shaft and radiator catch tank fitment in line with ASN CANADA technical rules. Sidepods must be in matched homologation pairs as must Nassau panel and front fairing but the two pair sets may be from different homologations.

30.5 Bumpers. As per ASN CANADA specification.

30.6 Rear Axle. The rear axle must be of parallel magnetic steel, 50mm maximum nominal diameter. The axle can be either solid or hollow. It must be supported in two or three bearings. Quick release and/or cassette type axle bearing assemblies may be used.

30.7 Engine. TKM K4S 4-stroke. 200cc. Engine must be fitted with the official TKM numbered seal as fitted by Tal-Ko or any other nominated fitter. The engine must be raced in as supplied & manufactured form with no modifications or changes to the original sealed specification other than those detailed in these regulations. It is stressed that this is a class with no engine modifications permitted. Any attempt to modify the engine in any way not specifically authorised here renders it outside these regulations.

Only Tal-Ko or nominated dealers are authorised to strip, inspect and seal engines. Every engine must carry an official anodised TKM numbered seal attached to the cylinder head and cam cover nuts. If this seal is broken the engine cannot be raced and must be returned to Tal-Ko for checking and re-sealing. The only persons allowed to strip and validate an engine for the purposes of checking its compliance with regulations is Tal-Ko in conjunction with an eligibility Technical Inspector (scrutineer). In such cases Tal-Ko's signed ruling will be final.

30.7 Carburettor. Dellorto PHBH28 (BS) TKM logo marked. No modifications permitted to any component including any filing, grinding, polishing, etc. This includes the bolt on carb flange for the induction box. Note all carbs must now be fitted with TKM looped overflow system. Carb system mandatory settings. Main jet any available between and including 116-135. Pilot jet 35-60. Atomiser 268T. Float assembly 9010.2. Needle valve 150. Slide 40. Choke jet 60. Needle X6 with circlip position free. All jets must be Dellorto unmodified.

30.7.1 Fuel system. Mikuni pulse pump DF 44-211-D. As supplied, no modifications. Recommended mounting on TKM provided fitting plate fixed to rear of seat. Return fuel pipe must include the return jet 70.

30.7.2 Air Box. R&R K4S type TKM logo marked as supplied by Tal-Ko with no modifications. Both induction filters must be used. Cable ties can be used to secondary secure the filters. Must be mounted on a support bracket. Both induction tubes to have standard 29mm nominal inside diameter.

30.7.3 Breather. The engine oil breather system must be used as supplied with no modifications and mounted on the TKM provided fitting plate to the rear of the seat. The use of a cable tie or other secure means is permitted to attach the plastic oil retention bottle. Note an Enduro larger breather system is available as an option to the standard fitment.

30.7 Ignition. PVL Digital System complete with red coil 500159 with standard programmed K4S ignition curve and rev limiter. Must be as supplied and stamped & marked with the official TKM logo markings. Stator marked with Ident-Nr 1035 . Rotor must include TKM logo. It is mandatory to use the PVL black spark plug cap 401 222 with 5k resistor and HT lead as supplied with new engines. Maximum permitted ignition timing 7.45mm BTDC. No modifications permitted to complete ignition system throughout including any re-mapping. It is permitted to repair broken wires providing the original type terminals are used. An effective and working ignition on/off switch must be fitted to the kart and clearly marked in the off position; position free.

30.8 Cooling. Water cooled system. Radiator, water pump, hoses, brackets etc must remain as supplied and unmodified. Use of either straight or offset radiator position permitted using optional TKM brackets & pipes. It is permitted to wrap the cooling hoses with heat protective tape or similar and to use tank tape or similar or an adjustable blind to mask part of the radiator in order to control operating temperature. Anti-freeze or inhibitor mixed with water should be used in cooling system. Water pump with aluminium impeller must be used unmodified as supplied. Radiator must be as supplied by Tal-Ko mounted in standard position with TKM logo stamped supplied mounting brackets. Additional mountings may be attached to radiator and associated components to secure catch tank pipes, blinds, etc. Standard radiators as supplied from Tal-Ko may have the top mounting brackets either welded or riveted in place. This is due to a change in manufacturing method. Both are acceptable. It is permitted to carry out external repairs including welding/brazing to the radiator and its brackets to repair damage. It is not permitted to replace the radiator core. The use of the larger Enduro type Tal-Ko supplied radiator with its associated TKM brackets and pipes is also permitted. This radiator and its brackets must have TKM logo.

The radiator caps are interchangeable. Note that the temperature sensor must be fitted in the location hole provided within the engine and must not be fitted within any hose or other section of the cooling system. It is also permissible to use a thermostat in the coolant pipes.

30.9 Exhaust. Only the complete TKM manufactured and supplied exhaust system permitted with no modifications. It is permitted to paint the TKM manufactured exhaust silencer provided that only black paint is used and that the original TKM logo is still visible. It is expressly prohibited to use any other coating or plating or to use any colour other than black. Note two types of exhaust manifold and exhaust available to suit individual fitments. TKM logo on exhaust body and chrome end must be present. The only exhaust end can permitted is that provided by Tal-Ko and marked with the TKM logo. When using the Enduro style radiator it is recommended to use heat-proof webbing or a heat shield around the manifold anywhere from the point where it exits the engine through to the joint with the silencer unit.

30.10 Fuel. Unleaded to WCKC specification. Chevron 94 unleaded may be used.

30.11 Spark plug. Only permitted plugs :- **DENSO:** U27ES-NZU, U31ES-NZU, U34ESNZU, IU27, IU31, IU01-34 and **NGK:** CR8EIX, CR9EIX & CR10EIX. Spark plugs must be in unmodified form and must be used with original sealing washer unless a CHT sensor is used therefore washer may be removed from spark plug.

30.12 Lubrication. Oil circulation pump, no modifications permitted.

30.13 Starter. By remote electric starter any make (Coleman heavy duty or Burris Remote is recommended), or by TKM TAG on-board system as supplied and specified.

30.14 Transmission. The drive must be clutch direct, i.e. the clutch sprocket and rear axle sprocket are connected only by a single length of chain. No belt drive, reduction gears, etc, permitted. The only clutch engine sprockets permitted are 12 or 13 tooth, TKM manufactured and marked with TKM logo. Engine must be fitted with the mandatory Formula TKM 4-stroke dry clutch. This must carry the Formula TKM markings and be used in unmodified form as manufactured and supplied. The TKM supplied and logo marked clutch protection guard must also be used.

30.15 Wheels & Tires

Seniors –Uses the approved class spec tires/regulations. Maximum wheel width should be a nominal 122mm front and 210mm rear as measured across the inside edge of the beads. Maximum permitted width across the outer edges of the rims to be 135mm at the front and 215mm at the rear.

30.16 Maximum Rear Width. The maximum rear wheel width is 55.1”

30.17 Weight. On completion of any part of the event.

Senior – min **380 lb** with driver.

30.18 General. Only the TKM K4S name may be used under the heading “engine” in event programmes. No other names permitted.

30.19 Warm Up. Organizers should allow a minimum of 5 minutes for the engines to warm up before being used for racing or practice. When the engine is running a driver must be in the seat at all times.

30.20 Sealing. Only Tal-Ko or nominated dealers are authorised to strip, inspect and seal engines. Every engine must carry an official anodised TKM numbered seal attached to the cylinder head and cam cover nuts. If this seal is broken the engine cannot be raced and must be returned to Tal-Ko for checking and re-sealing.