

Kart Technical Exception (2023)

Ref: KTE-2023-441

Motorsport UK can confirm that 210 Challenge has been granted permission to run the 210 National Class under Motorsport UK Yearbook regulation (U)1.1.3.

Details:

Class Regulations as attached.

Date Approved: 23 January 2023

Motorsport UK Signature:

A handwritten signature in blue ink, appearing to read "Joe Hickerton", written over a light grey background that features a stylized, curved graphic element resembling a track or a swoosh.

Joe Hickerton
Technical Manager

210.0	Group	Senior (Gearbox)
210.1	Class	210 National
	Affiliation	210 Challenge

210.2 Introduction. This class will be part of the 210 Challenge and since 1.1.97 has been administered by the 210 Challenge co-ordinator. The class regulations are not expected to change except for silencing requirements Karting Yearbook Appendix 3 and as below. References to Section U refer to the current Motorsport UK Yearbook.

210.3 Chassis. In accordance with Motorsport UK Yearbook regulations.

210.3.1 Bodywork: Bodywork and/or front fairing are not mandatory in this class.

210.3.2 Front, rear and side protection is mandatory and must comply with the Motorsport UK Yearbook with the following exceptions:

210.3.3 Unless a front fairing is fitted conforming to Section U, the front bumper must conform to U17.12. In Long Circuit racing trim, it must conform to U17.12.2.

210.3.4 Unless bodywork is fitted conforming to Section U, side bumpers are mandatory and must conform to U17.15-17.17.

210.3.5 In the case of a "Wet Race" side bumpers or bodywork may not be located outside the plane passing through the outer edge of the rear wheels.

210.3.6 Bubble shields conforming to U17.22 are permitted.

210.3.7 Floortrays are permitted to extend rearwards beyond the central strut of the chassis frame as for karts in Long Circuit trim as defined in U16.6.

210.3.8 Rear bumper must be fitted in accordance with U17.13.

210.4 Engine. Maximum 210cc. This class is for the Villiers 9E engine and associated models, together with modern replicas of that engine. The engine will consist of a single cylinder air-cooled two-stroke with gearbox mounted in unit. The engine shall be piston timed with a single carburettor. The ignition system shall be free in accordance with Appendix 4 D.3. The stroke shall be 72mm and the maximum bore 60.9mm. The engine shall be equipped with a single sparking plug. The maximum diameter of the cylinder barrel fins shall not exceed 160mm and the barrel shall have at least eight fins. The overall height of the cylinder barrel between flange faces shall be between 128mm and 133mm, including any spacers and gaskets fitted. All port openings on the crankcase to cylinder interface shall not exceed the size of the official metal template number 210C issue 2. If the crankcase port size exceeds the limit then it is permitted to permanently install a 210C Issue 2 metal template in situ. The maximum diameter of the cylinder head shall not exceed 160mm and the height of the cylinder head shall not exceed 76mm. The head shall have at least eight vertical fins. The gearbox casing shall be of identical appearance to the original Villiers 9E, 10E or 11E pattern. The exhaust outlet from the cylinder must pass through a restrictor/manifold no greater than 1.68ins I.D. The engine mounting points to be as the original pattern and the contours of the crankcase to conform with the original Villiers outline. Reed valve induction is permitted, providing that the original position of the induction pipe is retained, and that the valve is only fitted in the induction tract. Reverse barrel permitted. The barrel retaining stud centres must remain in the original 9E, 10E and 11E positions and be on the original 70mm centres. All systems of injection and/or spraying of products other than fuel are forbidden.

210.5 Transmission. Maximum of four operative gears.

210.6 Brakes. In accordance with U16.10.

210.7 Tyres.

Slick: Dunlop SL3 front, 10 x 4.5 x 5 and rear 11 x 7.1 x 5.

Wet: Dunlop KT10, KT11, KT13, KT14,
front 10 x 4.0/4.5 x 5 and rear 11 x 6.5 x 5.

Only complete sets of the same designation may be used.

210.8 General.

210.8.1 Weight. Minimum weight with driver on the completion of any part of the event 190kg long circuit trim and 185kg short circuit trim

210.8.2 Plates. Red number plates with white numbers. U17.27 applies.

210.8.3 Age. The class is open to any driver aged 16 or over on short or long circuits. On short circuit a junior may transfer to the class at any time during the year of their 16th birthday, provided that they hold a minimum of an Inter-Club licence, but not as a novice (i.e. off novice plates).

210.8.5.1 Intake Silencing. All air entering the carburettor must flow through either a K & N cylindrical filter, Part No. RU 0840, or a K & N conical filter, Part No. RU 9220, RC 5136, RU-5111 or RC 9640 or K&N Filter Part Number 33-2826 which must be enclosed in a current or previously CIK homologated air box and sealed to the carburettor. These intake filters must only be used with an exhaust muffler conforming to 20.8.5.2. An air box conforming to the CIK specification or an air box approved by the ABkC may also be used. (See Appendix 3 of the Karting UK Yearbook)

210.8.5.2 Exhaust Silencing. All gasses leaving the engine must pass through a muffler with minimum active length 47.5cm, external minimum cross-section 100mm, with an inner tube of maximum diameter 50mm which must have perforations over the majority of its complete length. The muffler must be connected to the exhaust tailpipe by a nominal 180 degree bend or if exhaust port is front facing then by a flexible or rigid pipe. The exhaust exit diameter of the canister must be no greater than 40mm (See Appendix 3 of the Karting UK Yearbook)

210.8.6 Ignition No form of digital re-programmable ignition is permitted, either by re-programming the ignition system from an external programmer, or by means of add on circuitry. Only a simple add on resistor/capacitor passive circuit is permitted in order to introduce a fixed delay curve to the ignition system. No variation of this curve is permissible whilst the kart is in motion. No active devices such as transistors or integrated circuits are permitted. Devices may be required to be laboratory tested to determine compliance.

210.9 Notes.

210.9.1 ABkC/ General rules Kart Yearbook Appendix 4 & 4A (which must be read in conjunction with the above).

210.9.1.1 Chassis. All chassis main parts must be firmly secured together or to the chassis frame. Flexible connections are only authorised for the conventional steering knuckle support, and for the steering system. All other devices with the function of one, two or three dimensional joints are forbidden. The chassis frame is the central and main supporting element of the entire vehicle. It must have the necessary strength in order to be able to absorb the loads which are produced when the vehicle is in motion. Any hydraulic, pneumatic or elastomeric elements for damping chassis oscillation are forbidden.

210.9.1.2 Chassis. No part of the kart other than the bolts or clamps fixing the floor tray, the engine, the seat and seat stays, or the brake discs, the front kingpin bolts, the sprocket, the wheels and the tyres, may protrude below the bottom of the main longitudinal chassis rails. The floor tray may be clamped direct to the lower edge of the main longitudinal chassis rails.

210.9.1.3 Kevlar and carbon fibre are not permitted except for seats, silencers, Nassau panels and instrument panels

Approved by Motorsport UK on KTE-20230-441