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& related wiring and brackets relating to such equipment must be removed from the kart for racing and official practice. The exception to this is where officially sanctioned cameras & transponders are required by the organisers of that race meeting.

C7.6 Tyres. Dry: LeCont LH TAB
Wet: Maxxis WT4 & LeCont W TAB

C7.7 Weight.

148kg	Green	TAB 2
158kg (driver minimum weight 65kg)	Red	TAB 2
168kg (driver minimum weight 75kg)	Blue	TAB 2
178kg (driver minimum weight 85kg)	Gold	TAB 2
188kg (driver minimum weight 95kg)	Black	TAB 2

Note: Driver minimum weights are race weight with full racewear and helmet.

C7.8 Plates. Blue number plates with white numbers.

C7.9 Age. The Class is open to any driver aged 16 or over. A Junior may transfer to this senior class at any time during the year that he/she achieves their sixteenth birthday. Having moved into the senior class he/she may not revert to a junior class.

C7.10 Retail price: The maximum retail price for the complete engine including carburettor and exhaust but less mount is £ 850 plus VAT.

C7.11 Engine. The NKRA reserves the right to amend restrictor sizes should performance require adjustment on safety grounds and to preserve comparable kart performance.

D1.0 Group. Senior (Gearbox)

D1.1 Class. Formula 125 ICC (U.K.)

Affiliation. ABkC/BSA/NKF

D1.2 Introduction. ~ This class was new for 2004 and mimics the CIK ICC class but with some relaxations to permit existing National engines to be used by replacing the cylinder head and carburettor on older engines, and permits British style karts in the ICC category. Engine regulations have been brought into tighter conformity to CIK ICC from 2005 e.g. port heights. Karts conforming to the 125 ICC (UK) technical regulations may race in 125 Open at their class weight of 180kg. It is intended that class regulations will remain stable until 31.12.2006, thereafter there may be tighter conformity with CIK regulations in either or both ICC and Super ICC, e.g. homologated exhaust pipes, and chassis type. A Super ICC sub-category has been introduced from 1.1.2005 as the premier national championship class. ICC and Super ICC will have ABkC Super 4 national championships.

D1.3 Chassis. Any chassis complying with MSA regulations for gearbox karts. All chassis main parts must be firmly secured together on 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.

D1.3.1 Bodywork. Sidepods, front fairing and front Nassau panel to MSA Competitors Yearbook regulations and where appropriate Appendix 4 are required to be fitted at all times for karts in short circuit trim, the only configuration permitted in short circuit racing. ~. A bubble conforming to Blue Book Section N.14 and Figure N7 is permitted as an alternative to a Nassau panel. 'Wedge' shaped front fairings are not permitted.

D1.4 Engine. Any water cooled single circuit* single cylinder reed valve engine homologated by the CIK for the ICC class with the exception that pre-2004 engines may be a variant with a cassette gearbox, or may have been homologated for Formula C (reed valve only) or registered with MSA as listed in Appendix 2. Maximum cylinder cubic capacity 125cc. *An additional inner circuit for the normal functioning of a thermostat is allowed.

D1.4.1 Tuning Regulations.

Modifications to the engine are allowed, providing the following are not varied.

a) Stroke

b) Bore (outside maximum limits)

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- c) Connecting rod centre line (magnetic material only)
- d) Number of transfer passages and inlet ports in the cylinder and crankcases
- e) Number of exhaust ports and passages. The total exhaust opening angle is 199 degrees maximum as per CIK ICC and Super ICC regulations.
- f) External appearance of the engine.
- g) All parts must be original manufacturer parts for the homologated engine except pattern parts may be used for bearings, seals, gaskets, plug caps and reed petals. The reed block must be as on the CIK homologation paper for the engine type, reed petals may be varied so long as they fit the manufacturer's reed block.
- h) Ignition system must be as homologated for the engine and be of analogue type with no advance or retard curves allowed. Only the PVL Black coil or Selectra analog types are permitted.
- i) Cylinder head volume must be a minimum of 13cc using the CIK specification plug insert and measured as per the CIK method described in CIK Annuaire Appendix 1. Ambient temperature is defined as any temperature between -5°C and +50°C. Spark plugs must be un-modified and the thread must not protrude into the combustion chamber when fully tightened. Modification to the spark plug thread is not permitted except for helicoil repair so long as the repair is to the full depth of the thread.
- j) Carburettor (1 only) and must be unmodified as homologated.
- k) All systems of injection and/or spraying of products other than permitted fuel are forbidden.

D1.4.2 Silencing. Intake. See APPENDIX 3. Note that Motivation D&D intake-boxes are not permitted from 1.4.05
Exhaust. See APPENDIX 3.

D1.4.3 Carburettor. The only carburettor permitted is the 30mm Dell'orto VSHS (CS) or (BS) Code 9303, made of aluminium with a venturi type diffuser with a maximum diameter of 30mm round, and remain exactly as original, no polishing or machining is permitted, and all interchangeable parts must be of Dellorto origin with the numbers stamped thereon. The incorporated petrol filter may be removed, if kept it must be original.

D1.5 Transmission. Changes to gear ratios are permitted, except that number of gears must remain six. Control must remain mechanical, without any servo system or ignition cut system.

D1.6 Brakes. Brakes as N.14.7.

D1.7 Tyres. This class is limited to 5" diameter wheels with a maximum tyre width of 7.1".

Dry Tyres: Dunlop. Front 10 X 4.5 X 5 SL4 marked ABkC. Rear 11 X 7.1 X 5 SL4 marked ABkC.

Wet Tyres: Dunlop KT10 Front 10 x 4.50 x 5, Rear 11 x 6.50 x 5. It is permitted to use the 2005 KT8 at club meetings only throughout 2006.

Open or control tyres may be specified in ABkC or BSA championship regulations.

D1.8 General.

D1.8.1 Retail Price. All engines must be available complete with ignition (excluding carburettor, engine mount, silencer and exhaust) for not more than £1950 plus VAT in the same form as homologated.

D1.8.2 Weight. (D.6) Minimum 180kg short circuit trim.

D1.8.3 Plates. Green number plates with white numbers.

D1.8.4 Age. The class is open to any driver aged 16 or over on short or long circuits. A short circuit novice driver is not permitted on long circuits. A junior may transfer to the class at any time during the year that he or she attains their sixteenth birthday, provided that they have previously competed in Junior Gearbox and hold a minimum of a National A licence. Championship regulations may permit an over-35 year class, possibly with a higher weight limit.

D1.9 Formula 125 Super ICC (U.K.) Affiliation ABkC/NKF

All regulations as Formula 125 ICC (U.K.) except the following:

D. 1.9.2 Weight: Minimum 172kg short circuit trim, including driver at all times.

D1.9.3 Plates: Yellow plates with black numbers

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D2.0 Group. Senior (Gearbox)
D2.1 Class. Formula 125 Open
Affiliation. ABkC/BSA

D2.2 Introduction. This club class ~ has been re-named for 2005 (previously known as 125 Super) and no longer has a national ABkC championship. The class is loosely based on the old CIK Formula C with some restrictions and modifications. The ABkC will continue to offer a class where rotary valve engines can be used until at least the end of 2007. Karts conforming to the Formula 125 ICC (UK) regulations may compete in this class at their class weight of 180kg.

D2.3 Chassis. Must conform to current MSA Technical Regulations and MSA Safety Regulations. All chassis main parts must be firmly secured together on 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.

D2.3.1 Bodywork. Sidepods, front fairing and front Nassau panel to MSA Competitors Yearbook regulations and where appropriate Appendix 4 are required to be fitted at all times for karts in short circuit trim. ~ A bubble conforming to Blue Book Section N.14 and Figure N7 is permitted as an alternative to a Nassau panel. 'Wedge' shaped front fairings are not permitted.

D2.4 Engine. Any 125cc engine previously or currently eligible for CIK Formula C (single cylinder engine with reed-valve or rotary-valve intake, air cooled by natural air flow or water cooled, with one single circuit*, registered by the CIK-FIA before March 2000 and valid, or water cooled single cylinder engine with reed valve intake, with one single circuit*, homologated by the CIK-FIA in ICC) plus any engine registered with the MSA for the pre 2004 National 125 class as listed in Appendix 2 or any ICC homologated engine with a cassette gearbox option from the original manufacturer. *An additional inner circuit for the normal functioning of a thermostat is allowed. Active power valves are not permitted but may be used if locked in position.

D2.4.1 Tuning Regulations.

Modifications to the engine are allowed, providing the following are not varied.

- a) Stroke
- b) Bore (outside maximum limits)
- c) Connecting rod centre line (magnetic material only)
- d) Crankshaft must be on the manufacturer's parts list
- e) External appearance of the engine other than carburettor, ignition system, carburettor rubber mounting, clutch cover, engine mounting points and reed block where applicable. (The addition of a fuel pulse pump adapter is permitted.)
- f) Number of carburettors (1 only). The material magnesium is not permitted.
- g) All systems of injection and/or spraying of products other than permitted fuel are forbidden.
- h) No form of electronic carburation system.
- i) No form of variable ignition that may be adjusted whilst the kart is in motion

D2.4.2 Silencing. Intake – See Appendix 3.
Exhaust – See Appendix 3.

D2.5 Transmission. Maximum of six gears.

D2.6 Brakes. Brakes as N.14.7.

D2.7 Tyres. This class is limited to 5" diameter wheels with a maximum tyre width of 7.1. Dry Tyres: Dunlop. Front 10 X 4.5 X 5 SL4 marked ABkC. Rear 11 X 7.1 X 5 SL4 marked ABkC.

Wet Tyres: Dunlop KT10 Front 10 x 4.50 x 5, Rear 11 x 6.50 x 5. **It is permitted to use the 2005 KT8 at club meetings only throughout 2006.**

Open or control tyres may be specified in ABkC/BSA championship regulations. BSA permits the use of 6" diameter wheels in long circuit and slick tyres fronts up to 5.5 maximum width, rears maximum width 7.1 on long circuit events only.

D2.8 General.

D2.8.1 Retail Price. Not applicable

D2.8.2 Weight. (D.6) Minimum 185kg short circuit trim. Long circuit bodywork not permitted.

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D2.8.3 Plates. Blue number plates with white numbers.

D2.8.4 Age. The class is open to any driver aged 16 or over on short or long circuits. A short circuit novice driver is not permitted on long circuits. A junior may transfer to the class at any time during the year that he or she attains their sixteenth birthday, provided that they have previously competed in Junior Gearbox and hold a minimum of a National A licence.

D3.0 Group Senior (Gearbox)
D3.1 Class Formula 250 National
Affiliation ABkC/BSA

D3.2 Introduction. This class was previously the 250S class and is restricted to registered series production single cylinder engines of a maximum of 250cc designed to have no more than five gears, or modified to have no more than five gears, and with piston and/or reed induction into the original induction tract. New engines, or extensions to existing registrations, have been registered for the class commencing 1.1.2004. From 1.1.2002 the Rotax 257 in five speed form will be permitted and from 1.1.2004 the Rotax 257 in six speed form will be permitted in short circuit unless championship regulations state otherwise. From 2003 this class will be the only 250 mono cylinder class recognised by the ABkC for short circuit. CIK homologated 5-speed engines for Intercontinental E or SuperKart Division 2 are eligible within this class. See Appendix 2 for eligible engine list.

D3.3 Chassis. Any chassis complying with MSA regulations for gearbox karts. All chassis main parts must be firmly secured together on 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. Minimum wheelbase is 106cm.

D3.4 Engine. See Appendix 4 D.8.1 and Appendix 2 for the list of eligible engines.

Tuning Rules

Modifications to the engine are allowed, providing the following are not varied.

- a) Stroke
- b) Bore (outside maximum limits)
- c) Connecting rod centre line (magnetic material only)
- d) Crankshaft must be on the manufacturer's parts list
- e) External appearance of the engine other than carburettor, ignition system, reed block, carburettor rubber mounting, clutch cover, engine mounting points. (The addition of a fuel pulse pump adapter is permitted.)
- f) Number of carburettors (1 only). The material magnesium is not permitted.
- g) All systems of injection and/or spraying of products other than permitted fuel are forbidden.
- h) No form of electronic carburation system.
- i) No form of re-programmable ignition is permitted. (See App 4 D.9). Only one fixed delay curve is permissible with no variation to the ignition timing or curve whilst the kart is in motion. Devices may be required to be laboratory tested to determine compliance.

D3.4.1 Silencing. Intake – See Appendix 3.

Exhaust – See Appendix 3.

D3.5 Transmission. Gearbox – maximum of five gears except for the Rotax 257 as specified in D.3.2. Gear ratios can be varied.

D3.6 Brakes. Brakes as MSA regulations

D3.7 Wheels and Tyres. Limited to 5" diameter wheels with a maximum tyre width of 8". On Long Circuits 5" or 6" wheels and tyres are permitted. Open or control tyre(s) will be specified in ABkC/BSA championship regulations.

SLICK – Maxxis XP5 Front 10x4.50-5 & Rear 11x7.10-5

WETS – Maxxis WT8 Front 10x4.5-5 & Rear 11x6.00-5. The 2005 WT4S 4.5 Front & 7.1 Rear may be used at club meetings only throughout 2006.

D3.8 General.

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D3.8.1 Retail Price. Not applicable

D3.8.2 Weight. Minimum weight with driver on the completion of any part of the event 195kg short (Appendix 4 D.6.2) or 200kg long circuit (Appendix 4 D.6.1) trim

D3.8.3 Plates. White number plates with black numbers.

D3.8.4 Age. The class is open to any driver aged 16 or over on short circuits, or aged 17 and over on long circuits. A novice driver is not permitted on long circuits.

D3.9 TECHNICAL REGULATIONS FOR DIVISION 2 SUPERKARTS

D3.9.1 All karts must comply with the 2004 CIK regulations for Superkart Division 2 karts and the following exceptions:-

F250 National karts are eligible to compete in Div. 2 under their own class regulations.

D3.9.2 Engine. Modifications to the engine are allowed, providing the following are not varied:

- a) Stroke
- b) Bore (outside maximum limits)
- c) Connecting rod centre line (magnetic material only)
- d) Crankshaft must be on the manufactures parts list
- e) External appearance of the engine other than carburettor, ignition system, reed block, carburettor rubber mounting, clutch cover, engine mounting points. (The addition of a fuel pulse pump adaptor is permitted)
- f) Number of carburettors (1 only)
- g) All systems of injection and/or spraying of products other than fuel are forbidden
- h) No form of electronic carburation system
- i) No form of reprogrammable ignition is permitted. Only one fixed curve delay curve is permissible with no variation to the ignition timing or curve whilst the kart is in motion. Devices may be required to be laboratory tested to determine compliance.

D3.9.3 Gearbox. Ratios are free

D3.9.4 Bumpers. Must comply with the MSA Yearbook Regulations

D3.9.5 Tyres. Any tyre from Bridgestone, Dunlop and Maxxis are permitted

D3.9.6 Weights. The minimum weight will be 200kgs

D3.9.7 Noise. MSA NOISE REGULATIONS WILL APPLY. Drive by limits will be set for each circuit. The limit and position from which the readings will be taken will be specified in meeting SR's.

D4.0 Group Senior (Gearbox)

D4.1 Class Formula 250E

Affiliation Formula E Development Group

D4.2 Introduction. From 1.1.98 the Formula E class was re-named Formula 250E. From 1.1.2003 additional engines and the re-introduction of the two 125cc engine configuration were permitted. The regulations are expected to be stable for three years. They are not expected to change except for silencing requirements. The Formula 250E class in British kart racing offers the highest level of power. The class is administered by the Formula E Development Group.

D4.3 Chassis. Chassis free but must conform to current CIK Technical Regulations and MSA Safety Regulations, except that water pumps need not be externally driven if the engine is originally fitted with an integral pump. 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. Minimum wheelbase is 106cm. Fuel tank minimum capacity is 8 litres. Karts may comply with MSA radiator positioning.

D4.4 Engine. For International events the engine must conform to current CIK technical regulations for Superkart Division 1. For all other events the only permitted engines are:

- a) Rotax 256 with parts on the manufacturers parts list of engines up to 1991. Carburettors to be Dellorto 36mm PHBE, 38mm PHSB, 38 VHSB or 39 VHSB.

The following substitute parts are permitted: Conrods of a magnetic material with 110, 113 or 115mm

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pin centres, pistons, crankcases manufactured by FPE, ignitions as permitted on the FPE engine.

b) Yamaha 250cc water cooled twin cylinder engine manufactured up to and including 1998, all parts must be on the manufacturer's parts list. No factory kit parts are allowed except for gear ratios.

Carburettors permitted are those on the manufacturer's parts list or the ones permitted for the Rotax 256.

c) SGM Twin cylinder 250cc water cooled engines with ignition as list on manufacturer's parts list, carburettor as permitted for Rotax 256.

d) FPE Twin cylinder 250cc water cooled engine and ignitions as listed on manufacturer's parts list, carburettor as permitted for Rotax 256.

e) Any two 125cc water cooled engines of identical make and type that is currently permitted for a 125cc gearbox class, ignition as permitted in the appropriate 125 class, carburettor only as permitted for Rotax 256.

f) The Rotax 257 is permitted to the tuning rules as set out below:-

Modifications to the engine are allowed, providing the following are not varied:

i) Stroke

ii) Bore (outside maximum limits)

iii) Connecting rod centre line (magnetic material only)

iv) Crankshaft must be on the manufacturer's parts list

v) Number of transfer passages and inlet ports in the cylinder and crankcase

vi) Number of exhaust ports and passages

vii) External appearance of the engine other than carburettor, reed block, carburettor rubber mounting, clutch cover, engine mounting points. (The addition of a fuel pulse pump adapter is permitted.)

viii) Carburettor, Dellorto VHSB 39 nd. (1 only)

ix) All systems of injection and/or spraying of products other than permitted fuel are forbidden.

x) No form of electronic carburation system.

xi) Ignition system must be on the manufacturer's parts list with no modification.

xii) Active power valves are not permitted but may be used if locked in position.

D4.5 Transmission. Must conform to 1999 CIK Technical Regulations. Gearbox with at least three ratios. Only manual gear shifts are permitted, electronic aids are not permitted.

D4.6 Brakes. In accordance with N 14.7.

D4.7 Tyres. Tyres are open. Control tyres or other tyre restrictions may be specified in ABkC/BSA championship regulations.

D4.8 General.

D4.8.1 Retail Price. Not applicable

D4.8.2 Weight. Minimum weight 210kg with driver on the completion of any part of the event.

Minimum weight of the kart alone, excluding any form of bodywork, 110kg* without fuel.

D4.8.3 Plates. Green number plates with white numbers.

D4.8.4 Age. The class is open to any driver aged 16 or over on short circuits, and 17 and over on long circuits. A novice driver is not permitted on long circuits.

D5.0 Group Senior (Gearbox)

D5.1 Class 210 National

Affiliation 210 Challenge

D5.2 Introduction. This class will be part of the 210 Challenge and since 1.1.97 have been administered by the 210 Challenge co-ordinator. The class regulations are not expected to change except for silencing requirements.

D5.3 Chassis. In accordance with MSA Year Book General Regulations N 14.

D5.4 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 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. The

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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 to be in the same position to that of an original Villiers barrel and to take an exhaust pipe not larger than 1% in OD. 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.

D5.5 Transmission. Maximum of four operative gears.

D5.6 Brakes. In accordance with N14.7.

D5.7 Tyres.

Slick – Dunlop SL3 front, 10 X 4.5 X 5 and rear 11 X 7.1 X 5.

Wet – Dunlop KT5 or KT6 or KT8, front 10 X 4.0 X 5 and rear 11 X 6.5 X 5. Only complete sets of KT5 or KT6 or KT8 may be used.

D5.8 General.

D5.8.1 Retail Price. Not applicable

D5.8.2 Weight. Minimum weight with driver on the completion of any part of the event 190kg long circuit trim and 185kg short circuit trim

D5.8.3 Plates. Red number plates with white numbers.

D5.8.4 Age. The class is open to any driver aged 16 or over on short or long circuits. A novice driver is not permitted on long circuits. A junior may transfer to the class at any time during the year that he or she attains their sixteenth birthday, provided that they have previously competed in Junior Gearbox and hold a minimum of a National A licence.

D5.8.5.1 Intake Silencing. See Appendix 3.

D5.8.5.2 Exhaust Silencing. See Appendix 3.

D5.9 Notes.

D5.9.1 ABkC/BSA rules (which must be read in conjunction with the above).

D5.9.1.1 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.