



TECHNICAL REGULATIONS DUTCH GP SUPERKARTS 2022

by the ACNN in cooperation with the British Superkart Racing Club
Issued by the ACNN : Version 1/2022

General Technical Regulations

Modification, addition, variation or tuning other than specifically permitted in these regulations is prohibited

IF IN DOUBT DON'T

Anyone requiring clarification or definitions concerning the Technical content of these regulations should apply in writing to the Championship Coordinator in the first instance. The approval of a vehicle or component herein is an indication of acceptance solely for the purpose of these regulations, and is not to be taken as a guarantee or warranty as to the standard of its design or manufacture, or its fitness or suitability for any use to which it may be put.

Should any Competitor be found to be using fuel and/or additives, tyres or equipment not conforming to these regulations, For the specific class criteria, they will be solely responsible for any costs incurred by the Organisers, to carry out any tests or eligibility procedures:

Failure to refund the Organisers, upon written request, within 14 days of the request will be reported to the Championship Stewards who may impose further penalty, which may include, but not limited to, disqualification from the Championship and reporting the dishonoured payment to Motorsport UK Executive in accordance with (C)1.1.13.

Fuel

All systems of injection and/or spraying of products other than fuel is forbidden.

The use of power boosting or octane boosting additives by competitors in any fuel is prohibited.

Some power/octane boosters are carcinogenic.

It is mandatory to place the fuel tank between the main tubes of the chassis frame, ahead of the seat and behind the rotation axis of the front steering. Side tanks are not permitted.

Only unleaded fuel complying with the specifications laid down in Appendix 4 of the CIK Technical Regulations or Motorsport UK Regulations will be used. i.e maximum 102 octane.

All competitors are reminded of the law and Health & Safety Executive regulations relating to fuel storage and the transportation of petrol fuel, all appropriate precautions must be observed at circuits.

At least 1 litre of fuel must be left in the tank at the end of a race for fuel testing. Costs incurred for testing fuel as a result of a failed fuel sample will be payable by the driver concerned.

Petrol Tank Venting : It is recommended that a non-return valve be fitted to the petrol tank breather pipe.

Fuel tank. The total fuel tank capacity must be 19 litres maximum.



FIRE EXTINGUISHERS

All drivers must have present at race meetings a fire extinguisher to BSEN3 or EN3 standard with a minimum 55B rating. Environmental scrutineers will carry out spot checks in the paddock. (Note: Type B means for use with flammable liquids, and the 55 refers to the capacity. The actual extinguisher is not specified, but Halon is no longer legal in the UK. Fire extinguishers must be kept at the entrance to the competitors' pit space at all times.

It is recommended that competitors with enclosed awnings have a minimum of a 2kg foam or powder extinguisher, and if more than one private competitor is sharing the awning then a minimum of two 2kg extinguishers be available. Commercial enterprises should be aware of the health and safety at work legislation and provide a minimum of two 6kg foam or powder extinguishers to be placed at the entrance of the awning.

BODYWORK & BUMPERS (U17.11 to U17.24.5 will apply)

All gearbox karts must be fitted with bumpers and/or bodywork providing front, rear and side protection unless specifically varied in class regulations. On long circuit all forms of bodywork styles are permitted unless stated otherwise in specific class or championship regulations. It should however be understood that the use of one or all of wing(s) (L/C style), front fairing and side pods that are above the horizontal plane passing through the top of the front and rear tyres (L/C style) will attract a higher minimum weight limit. (see class regulations for detail)

Bubble Shield

Should the bubble – shield be a separate structure, it's maximum width will be 500mm and the width of its fixing frame will be 250 – 300mm

Should a complete bodywork and bubble-shield be used, the bubble-shield shall be connected to the bodywork by no more than four quick release clips and shall have no other fixing device.

The quick release clips must be removable without the use of tools. (U17.22.1)

Bodywork components - Carbon Fibre or Kevlar bodywork is specifically permitted in :Superkart Div. 1, 250 National, 450 National.

Front, Rear and Side protection

Front and Rear bumpers and side protection bars complying with CIK Regulations for Superkarts are also permitted.

Dimensions

Minimum		Maximum	
250 National	106cm	250 National	127cm
450 National	106cm	450 National	127cm
Superkart Div. 1	106cm	Superkart Div. 1	127cm

Maximum Overall length - 210cm

No part of the kart can protrude outside the quadrilateral formed by the front fairing, rear bumper and outer face of the wheels and tyres, nor be higher than 65cm from the ground (except for a structure solely designed as a head rest). (U16.5)

No part of the bodywork, including wings and end plates shall be higher than 60cm from the ground (except for structures solely designed as head rests with no possible aerodynamic effect) (U17.21 and U 17.21.1)



Engines

New engines for 250 National and 450 National will only be allowed to Register on a three-year basis.

The next period for inclusion of new engines commences 1.1.2022 in 250 National and 450 National

Engines being put forward for registration should be presented for inspection to the Motorsport UK

Number Plates

The Number plate colours shall be: -

250 National - White

450 National - Red

Superkart Division 1 - Yellow

It is permitted to have a short circuit size number plate on the rear only. (220mm x 220mm)

Maximum External Dia. (mm)	Minimum Thickness (mm)	Maximum External Dia. (mm)	Minimum Thickness (mm)
30	4.9	36	3.6
31	4.7	37	3.4
32	4.4	38	3.2
33	4.2	39	3.1
34	4.0	40	2.9
35	3.8		

Seat

All seats must incorporate a head rest

NOISE CONTROL AND NOISE TESTING

Noise Testing – In order to reduce the noise, efficient exhaust silencers are compulsory. The noise limit in force is 102 dB/a maximum, including all tolerances and the influence of the environment.

Noise Control

All gearbox karts (CIK Division 1 not required) must have a current or previously homologated CIK intake box correctly fitted, or one that is approved for that class. A CIK homologated box must not be modified except for drilling holes in the mounting flange and drilling a maximum of two holes in the box wall, for the sole purposes of mounting on Gearbox karts.

The carburettor adapter is free providing a petrol tight joint is made between the box and the carburettor.

All air entering the intake silencer must do so without the addition or proximity of any device that may direct an increased flow of air from the forward movement of the kart towards the inlet. (Not Div. 1)

The following boxes have been approved for use on gearbox karts apart from KZ : -
Single Cylinder FIS/2RV Motivation Design and Development Filtered Induction System Assembly, side fitting for rotary valve gearbox class engines, fitted with Pipercross foam filter element.



Twin Cylinder FIS/2T Motivation Design and Development Filtered Induction System Assembly, side fitting for rotary valve twin cylinder gearbox class engines, fitted with Pipercross foam filter element.

Single Cylinder FIS/2PR Motivation Design and Development Filtered Induction System Assembly, for 450ccc single cylinder four stroke engines and reed valve or piston port induction single cylinder two stroke gearbox class engines, fitted with Pipercross foam filter element. It must be fitted with the intake trumpets facing towards the ground.

Single Cylinder FIS System 4 Clark Filtered Induction System Assembly, for 450cc single cylinder four stroke engines on Long Circuit ONLY.

Single Cylinder Motiv A.F.I.S System 1 Filtered Induction System Assembly for 250 National engines on Long Circuit ONLY. The KGR 13768 intake box is approved for F450 National.

Unless specifically authorised, exhaust lengths may not be varied whilst the kart is in motion.

250 National,

Karts shall be provided with an exhaust silencer lying approximately parallel to the rear axle of the kart and fed by a gas-tight tubular link pipe of a minimum 300mm length from the exit of the expansion chamber to the entrance of the silencer/muffler. The link pipe must have a bend of approximately 180 degrees for the engines exhaust ported to the rear. For engines exhaust ported to the front, the bend must be between approximately 45 degrees and approximately 180 degrees.

The muffler must have an external minimum cross section of 100mm and a minimum canister length of 380mm. The canister must be used with muffling material and/or baffling plates to be an efficient silencer. The exhaust exit diameter of the canister must be no greater than 38mm.

450 National

Karts shall be provided with an exhaust silencer lying across and over the rear axle of the kart in a downward facing direction and fed by a gas-tight header pipe from the exit of the engine to the entrance of the silencer/muffler.

The muffler must have an external minimum cross section of 100mm and a minimum canister length of 380mm. The canister must be used with muffling material and/or baffling plates to be an efficient silencer. The exhaust exit diameter of the canister must be no greater than 38mm.

Attention must be given to silencing systems maintenance. With the published reductions to permitted levels it is important that flex connections and joints are checked regularly and made good. Exhaust silencers which are capable of being repacked can suffer from declining performance and it is essential that repacking is carried out in accordance with manufacturer's instructions.

In all classes (including Superkart Division 1) the exhaust system must discharge behind the driver and must not exceed a height of 45cm.

Specific Class Regulations - These class regulations are shown here for clarity and should be cross referenced with Motorsport UK class regulations.



SUPERKART

SK2.1 Class. 250 National

SK2.2. Introduction. This class is restricted to Motorsport UK registered single-cylinder engines. Engines must be of a minimum of 175cc and a maximum of 250cc. The engines must be designed to have no more than five gears or modified to have no more than five operational gears, and with piston and/or reed valve induction into the original induction tract.

Provided they are registered with Motorsport UK in the appropriate time period "kit engines" are permitted, e.g. engines using donor parts from an existing engine or upgrade parts for an existing engine. Any alternative parts registered to fit an existing engine must be direct replacements without any requirement for machining of the original engine. Regulations as per Motorsport UK Yearbook 2022.

The next period for inclusion of new engines commences 01.01.2022.

The Rotax 257 in five or six speed form is permitted.

So long as the silhouette of the crankcase, the sprocket output orientation position and bore and stroke of the engine remains unchanged, evolution model numbers are accepted if complying with 2.4. References to Section U refer to the Motorsport UK 2022 Yearbook.

SK2.3. Chassis. Any chassis complying with Motorsport UK Yearbook 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.

SK2.3.1. Bodywork and bumpers. CIK-homologated bodywork is only permitted if fitted with bumpers (front & side) specified in U17.2 to U17.12.11 and U17.14 through to U17.17.4 of the Motorsport UK Yearbook.

SK2.4. Engine. Eligible engines are as follows:

250 National:

- Rotax 257 (either five or six gears)
- Cagiva WMX 250/88 Cross
- Honda CR250
- Kawazaki KX250 - KTM 544/545/546/548
- Moto TM Cross 250 - Suzuki RM250 Z to V (1982 -1997 inc.)
- Yamaha YZ250. - THR Engineering THR02-14 (kit engine), THR SS250 (kit engine)
- Viper Racing UK SK250S (kit engine), EVO250S (kit engine), SK250S1 (engine)
- DEA SK250 Single pneumatic exhaust valve (alternative parts), SK250 Single (engine)
- PFP Victory - CR250R (alternative parts - crankshaft), CR250 (alternative parts – cylinder head)
- WIWA Gas Gas K250



Please Note - The IAME X30 Super Shifter 175cc is not permitted in the BSRC Super Series

Plus the engine(s) approved by MSUK for inclusion from 01/01/2022.

So long as the silhouette of the crankcases, the sprocket output orientation position and the bore and stroke of the engine remains unchanged evolution model numbers are acceptable.

SK2.4.3. Ignition. The ignition system type is open, but the electronic unit box and the coil must receive only one feeding energy source of the rotor/stator or of a battery and one crankshaft pick-up signal in order to set the ignition signal. The advance and cartography may under no circumstances be modifiable whilst the kart is in motion.

SK2.4.4. Noise control. As per 2022 Motorsport UK Yearbook U16.16 and Karting Yearbook Appendix 3.

See 5.19, 5.19.1, 5.19.2, 5.19.3 in these Super Series regulations

SK2.4.5. Cooling. Only water (H₂O) is authorised for use in the cooling system.

SK2.5. Transmission. Engines over 179 cc: Maximum of five gears except for the Rotax 257 which can be used in 5 or 6 speed form. Gear ratios can be varied

SK2.6. Brakes. As specified in The Motorsport UK Yearbook section U16.10.1 to U16.10.10

SK2.7. Wheels and tyres. Either 5" or 6" diameter wheels and tyres can be used with a max. tyre width of 8". It is not permitted to mix 5" and 6" tyres on the same axle line. Only CIK homologated tyres are permitted from the periods 2014 to 2022

SK2.8. General.

SK2.8.1. Weight. The minimum weight with driver on the completion of any part of the event will be 195kg with just bumpers and side bars. If a wing is fitted to the above the minimum weight will be 200kg. The minimum weight with any other form of bodywork will be 208kg.

SK2.8.2. Number plates. White background, with black numbers. U17.26-27 applies, unless varied in Championship Regulations.

SK2.8.3. Age. The class is open to any driver aged 17 or over.

Specific Cup Competition Regulations

250 Mono (Honda) Cup is open to all drivers who are competing with Pre 2013 Engines.

Eligible Engines

Honda CR250

Rotax 257 (either 5 or 6 speed)

Cagiva WMX 250/88 Cross+

KTM 544/545/546

Moto TM Cross 250

Suzuki RM250 Z to V (1982 -1997 inclusive).

Yamaha YZ250.



SUPERKART

SK3.1. Class. 450 National

SK3.2. Introduction. This class is a performance equivalent to the existing 250 National class and is limited to series production 4 stroke single cylinder engines of a maximum of 450cc designed to have no more than five gears, or modified to have no more than five gears. Engines must be readily available production units.

Where engine manufacturers have different specifications of the same base engine, (e.g. Moto X, Super Moto etc) crossover of parts will be permitted between these engine model types but each variant must be registered. Regulations as per Motorsport UK Yearbook 2021.

Engines may be registered on a three-yearly basis. The next period for inclusion of new engines commences 01.01.2022.

SK3.3. Chassis. Any chassis complying with Motorsport UK Yearbook 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.

SK3.3.1. Bodywork and bumpers. CIK-homologated bodywork is only permitted if fitted with bumpers (front & side) specified in U17.2 to U17.12.11 and U17.14 through to U 17.17.4 of the Motorsport UK Yearbook

SK3.4. Engine. 4-stroke series production single-cylinder engines up to a maximum of 450cc. All components except ignition, piston, connecting rod and cam clamping blocks must be OEM parts as at the time of manufacture. The connecting rod must be magnetic material. All OEM parts must be on the manufacturers parts list for the model type registered.

Apart from those listed in the tuning regulations below all other OEM parts cannot be modified.

Eligible Engines are as follows :-

- Honda CRF 450R (2004, 2005 & 2006)
- KTM SMR, EXC, SX & SX-F (2003-2007 - 2010-2012)
- KTM SXF (2013 - 2015)
- Yamaha YZ450F Z,A,B & D (2010 – 2013)
- Husqvarna FC (2016 - 2018)
- Rotax Can Am DS450 XXC XMC (2015)
- TM SMX (2015 - 2017)

SK3.4.1. Tuning regulations. Modifications to the engine are allowed according to the following list:

- a) The OEM cylinder head may be gas flowed and polished



- b) Slipper Clutches are permitted
- (c) The addition of a fuel pulse pump adapter is permitted
- (d) In the interests of reliability the fitting of an alternative oil feed system to the engine is permitted
- (e) In the interest of reliability, the fitting of an alternative oil feed system to the engine is permitted.
- (f) Carburettors and injection bodies must be from the OEM parts list for the engine, which can be modified

The following must not be varied:

- g) Stroke
- h) Bore (outside maximum limits)
- i) Connecting rod centre line and connecting rod centres
- j) Crankshaft
- k) Camshafts
- l) External appearance of the engine must be as original except for the ignition system and oil feed system
- m) Number of carburettors if fitted (1 only).
- n) All systems of injection and/or spraying of products other than permitted fuel are forbidden.
- o) Fuel injection is permitted only if Original Equipment Manufacture on the model being registered.
- p) It is not permitted to have an electronic connection to a carburettor unless this was standard OEM at manufacture.

Because it is common practice for engine manufacturers not to put unique numbers on replacement crankcases should a competitor need to change crankcases it is required that the crankcases being replaced be presented to the relevant Championship Eligibility scrutineer who will transfer over the number from the engine crankcases being replaced onto the new crankcases.

SK3.4.2. Ignition. The ignition system type is open but the electronic unit box and the coil must receive only one feeding energy source of the rotor/stator or of a battery and one crankshaft pick-up signal in order to set the ignition signal. The advance and cartography may under no circumstances be modifiable whilst the kart is in motion.

SK3.4.3. Noise control. As per 2021 Motorsport UK Yearbook U.16.16 and Karting Yearbook Appendix 3.
See **5.19, 5.19.1, 5.19.2, 5.19.3** in these Super Series regulations

SK3.4.4. Cooling. Only water (H₂O) is authorised for use in the cooling system.

SK3.5. Transmission. Maximum of five gears. The engine manufacturer's ratios within the registration must be maintained.



SK3.6. Brakes. As specified in The Motorsport UK Yearbook section U16.10.1 to U16.10.10

SK3.7. Wheels and tyres. 6" diameter wheels and tyres only must be used with a max. tyre width of 8". Only CIK-homologated tyres are permitted from the periods 2014 to 2022, unless stated otherwise in the Championship Regulations

SK3.8. General.

SK3.8.1. Weight. The minimum weight with driver on the completion of any part of the event will be 199kg with just bumpers and side bars. If a wing is fitted to the above the weight will be 204kg. The weight with any other form of bodywork will be 218kg.

SK3.8.2. Number plates. Red background, with white numbers. U17.26-27 applies, unless varied in Championship Regulations.

SK3.8.3. Age. The class is open to any driver aged 17 years or above.

Wheels and tyres.

6" diameter wheels and tyres only must be used with a max. tyre width of 8". Only CIK-homologated tyres are permitted from the periods 2014 to 2022, unless stated otherwise in the Championship Regulations.

General.

Weight.

The minimum weight with driver on the completion of any part of the event will be 199kg with just bumpers and side bars. If a wing is fitted to the above the weight will be 204kg. The weight with any other form of bodywork will be 218kg.

Number plates.

Red background, with white numbers. U17.26-27 applies, unless varied in Championship Regulations.

Age. The class is open to any driver aged 17 years or above.



SUPERKART

SK4.1. Class. Superkart Division 1

SK4.2. Introduction. CIK-FIA regulations for Superkart Division 1 apply unless otherwise stated below.

Regulations as per Motorsport UK Yearbook & Karting Yearbook 2021 where applicable.

SK4.3. Chassis.

Wheelbase: Minimum: 106cm -- Maximum: 127cm

Track : at least 2/3 of the wheelbase used

Overall length : 210 cm maximum

Overall Width : 140cm maximum

Height: 65cm maximum from the ground, seat excluded.

SK4.4. Engine. All engines currently or previously homologated by the CIK for Superkarts Division 1. Maximum cylinder cubic capacity 250cc, obtained either by one engine (maximum 2 cylinders) cooled by natural air flow or water-cooled, or by 2 single-cylinder engines homologated in ICC.

SK4.4.1. Eligible engines. Any currently or previously CIK-homologated engines or alternative parts for Division 1 types of engines allowed:

- 1) Engines from 250cc motorbike Grand Prix competitions designed prior to 2001, approved by the CIK and complying with the basic model sold by the manufacturers, including carburettors, power valves and ignition (according to manufacturer's official catalogue). The advance and cartography may under no circumstances be modifiable from the driving seat under normal racing conditions.
- 2) Specific engines approved by the CIK for Superkart Division 1. Mechanical carburettors and power valves, both without electronics. Ignition: the electronic unit box and the coil must receive only: one feeding (energy source of the rotor/stator or of a battery) and one crankshaft pickup signal in order to set the ignition signal. For engines with two de-phased cylinders, it is allowed to mount two independent ignitions with two sensors. The advance and cartography may under no circumstances be modifiable from the driving seat under normal racing conditions.
- 3) In addition to the above prescriptions, the following criteria must be respected for the single cylinder engine:
 - Piston or reed valve induction
 - Connecting rod must be magnetic material only
 - Crankshaft must be on the manufacturer's parts list
 - The number of carburettors is 1 only
 - The material magnesium is not permitted
 - The gearbox has a maximum of five gears.

Modifications to the approved single cylinder engine are allowed providing the following are not changed:



- a) stroke
 - b) bore (outside maximum limits)
 - c) connecting rod centre line
 - d) crankshaft
 - e) external appearance of the engine other than the carburettor, ignition system, reed block carburettor rubber mounting, clutch cover, engine mounting points.
- 4) Two single cylinder engines of the same make homologated in ICC or KZ.

Homologated gearbox (check of the ratios using a graduated disc, according to the method described under Article 12 of the Technical Regulations).

Ignition: the electronic unit box and the coil must receive only: one feeding (energy source of the rotor/stator or of a battery) and one crankshaft pick-up signal in order to set the ignition signal.

The advance and cartography may under no circumstances be modifiable from the driving seat under normal racing conditions.

Combustion chamber volume: free. Carburettor: free but mechanical without electronics.

Exhaust and make of exhaust free.

Total exhaust opening angle - free.

- 5) Any Division 2 engine, according to the Specific Regulations of Division 2.

SK4.4.2. Ignition. The advance and cartography may under no circumstances be modifiable whilst the kart is in motion.

SK4.4.6. Cooling. Only water (H₂O) is authorised for use in the cooling system.

SK4.5. Transmission. Gear ratios are open.

SK4.6. Brakes. As specified in CIK regulations.

SK4.7. Wheels and tyres. 6" CIK-homologated tyres only from the periods 2014–2022.

SK4.8. General.

SK4.8.1. Weight. Minimum Weights:

One single cylinder engine: 208kg including the bodywork; minimum weight of the kart alone - 98kg without the bodywork and without fuel.

Other engines: 218kg including the bodywork; minimum weight of the kart alone - 113kg without the bodywork and without fuel.

SK4.8.2. Number plates. Yellow background, with black numbers. U17.26-27 applies, unless varied in Championship Regulations.

SK4.8.3. Age. The class is open to any driver aged 17 or over.



Specific Cup Competition Regulations

The Division 1 Cup

Is open to all drivers who are using the following engines that are no longer on the CIK homologated list

Eligible Engines are :

FPE TR250

BRC Engineering - BRC250FE

PVP Karting 251

VM 250 MO1

Yamaha TZ250/1998 4TW

Yamaha TZ250/2001 5KE

A Rotax 256 based engine that can include the following:

F.P. Engineering - FPE/Rotax 256 Substitute Cylinder & Head

F.P. Engineering - FPE/Rotax 256 Substitute Crankcases

F.P. Engineering - FPE/Rotax 256 Substitute Disc Valve Covers

PVP Karting - PVP/Rotax 256 Substitute Cylinder and Head

Folan Engineering - Folan/Rotax 256 Substitute Primary Transmission

Racing Cylinder Services Ltd. - Rotax 256 Substitute Cylinder & Head

Plus in the case of twin engine karts any engine no longer on the CIK list of homologated engines for KZ2