

Kart Technical Exception Class Approval

Ref: **KTE-2018-359**

The MSA can confirm that ABkC has been granted permission to run the 450 4-stroke Gearbox (short circuit) Class in the UK. Class Regulations will be reviewed by the MSA on a yearly basis.

Details:

Class Regulations as attached.

Date Approved: 02 March 2018

MSA Stamp & Signature:



Joe Hickerton
MSA Technical Manager

E3.9 Class Formula 450 4-stroke Gearbox (Short Circuit) 2018

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. Engines will be registered for a three year period commencing Jan 2018 after which new engines may be registered following a registration process every three years. Engines once registered will remain on the list for three periods (nine years). The next period for inclusion of new engines commences 1.1. 2021. The class is designed to be compatible with and part of the 250 National class but for separate points and trophies. Regulations as 250 National including tyres and as shown below.

E3.9.1 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. Current registered engines are: Honda CRF450R (2004, 05, 06), KTM450 (SMR & SXF (2010-12), Yamaha YZ450F Z, A, B, D (2010-2013), Husqvarna FC (2016 – 2018), KTM SXF (2013 – 2015), Rotax Canam DS450 XXC, XMC (2015), TM SMX (2015 – 2017). Technical specifications are held on file by the MSA, ABkC and BSA.

E3.9.2 Tuning Rules

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

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

Permitted Modifications

- (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.

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 eligibility scrutineer at the race who will transfer over the number from the engine crankcases being replaced onto the new crankcases.

E3.9.3 Ignition System. The ignition system is open but the electronic unit box and the coil must receive only one feeding energy source from the rotor/stator or from 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.

E3.9.4 Gearbox. Maximum of five gears. The engine manufacturers ratios within the registration document must be maintained.

E3.9.5 Silencing. Intake – See appendix 3 but only Motiv FIS/2PR and KGR 13768 intake boxes are permitted, unmodified. **Exhaust** – See KRYB Appendix 3 – but the silencer must be of the baffled type with a minimum length of 380mm and the Yamaha R6 OEM and KTM for SXF450 OEM are the only silencers approved. Kart Race Yearbook Appendix 3 2.3, 2.4 and 2.5 do not apply to this class.

E3.9.6 Weight. Minimum weight with driver on the completion of any part of the event 199kg short circuit (Appendix 4 D.6.2) or 204kg if a wing is fitted with any other sidepod or sidebar combination. The weight with any other form of bodywork will be 212kg.

E3.9.7 Plates. White number plates with red numbers. U17.27 applies.

Approved by MSA as KTE 2018-359