



# OpenTwins Regulations

## **Eligibility :**

Any four-stroke motorcycle with up to 2 cylinders originally sold for road use with an engine capacity of up to 700cc and spread across up to 2 cylinders.

Older models may be updated with genuine parts found on a newer version of the same model and newer models may use parts from older machines as required. All parts must be used as intended for the homologated machine and in accordance with the manufacturer's recommendations.

All machines must comply with the machine preparation regulations as set out in the ACU handbook for road race meetings.

All machines must function on normal unleaded fuel available from public service stations with a maximum 102 octane in adherence with ACU standards. E85

BioFuel from public outlets is permitted.

## **1.0 Frame and Swing Arm**

- 1.1.1 *Frame must remain as originally produced by the manufacturer for the homologated machine. Nothing may be added or removed from the frame body with the following exceptions:*
- 1.1.2 *Addition of items SOLEY for the retention of wiring and hoses*
- 1.1.3 *Material may be removed or added to facilitate the use of different front forks where this does not impact the integrity or rigidity of the original frame and does not alter the steering angle or rake.*
- 1.2 *Rear sub frame may be replaced or modified. The sub frame may only be altered if it was originally designed to be unbolted from the frame body.*
- 1.3 *Refinishing of frame or swing arm to a suitable standard is acceptable.*
- 1.4 *Swingarm may be replaced with an item from the same manufacturer and from a motorcycle of the same original capacity*

## **2.0 Suspension**

- 2.1 Forks can be changed but will be subject to Technical Control approval for safety.
- 2.2 Original internal parts of the fork may be modified or replaced.
- 2.3 *After market damper kits or valves may be installed. Fork springs may be replaced.*
- 2.4 Fork caps may be changed from standard to allow external adjustments.
- 2.5 Refinishing of the outer fork tubes to a suitable standard is acceptable.
- 2.6 Steering damper may be added although it cannot act as a steering lock device.
- 2.7 Rear suspension unit can be changed or modified. The original attachment to the *frame and swing arm must be as homologated.*
- 2.8 *The rear suspension linkage must remain as originally produced by the manufacturer for the homologated machine.*



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## **3.0 Wheels**

- 3.1 *Wheels are free with the exception of Carbon fibre wheels which are not permitted*
- 3.2 Wheel bearings and spacers may be modified or changed where required.
- 3.3 The speedometer drive may be removed and replaced with a spacer.
- 3.4 Refinishing of wheel rims to a suitable standard is acceptable.

## **4.0 Brakes**

- 4.1 Front and rear brake discs may be changed. Only ferrous materials are allowed for brake discs.
- 4.2 Front and rear brake calipers, including mount, carrier and hanger may be modified or changed.
- 4.3 Front and rear master cylinders may be changed. Front and rear brake fluid reservoirs may be changed with aftermarket products.
- 4.4 Front and rear hydraulic brake lines may be changed. The split of the front brake lines for both front brake callipers must be made above the lower fork bridge (bottom yoke).
- 4.5 Front and rear brake pads may be changed.
- 4.6 All bikes must run a front brake lever guard.

## **5.0 Tyres**

- 5.1 All tyres must be road legal unless the race is declared wet where full wet tyres may be used. *Slicks and intermediates are not permitted.*

## **6.0 Controls**

- 6.1 Footrest and foot controls may be replaced or relocated but brackets must be *mounted to the frame at the original mounting points.*
- 6.2 Handlebars, hand controls and cables may be altered or replaced (does not include *brake master cylinder*) *from those fitted to the homologated motorcycle.*
- 6.3 *Engine starter switch and electric stop switch must be located on the handlebars and must be operational at post race technical inspection.*

## **7.0 Fairing and Seat Unit**

- 7.1 *Fairing, mudguards and seat unit may be altered or replaced and need not conform to the homologated shape as originally produced by the manufacturer.*
- 7.2 Windscreen, if fitted, may be replaced with transparent material only.
- 7.3 The original instruments and fairing brackets may be removed or replaced.



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- 7.4 The petrol tank must remain as originally produced by the manufacturer for the homologated machine although it may be refinished if required. The position of the tank mounting points on the frame must remain as standard.
- 7.5 Race numbers must be white on green background and displayed on the front of the bike and on both sides of the seat unit. Background and number sizes as per the ACU handbook.

## 8. Wiring Harness and Battery

- 8.1 The wiring harness may be altered or replaced. Additional wiring may be added where required.
- 8.2 Engine management control is free. Alternate ECUs and remapping is permitted.
- 8.3 The side stand switch, and related wiring, may be disabled or removed.
- 8.4 Any electrical switchgear located on the handlebars or front sub frame may be unplugged or removed as required. Engine starter switch and electric stop switch must be fitted.
- 8.5 The size and type of battery may be changed and / or relocated.

## 9.0 Radiator and Oil Cooler

- 9.1 The original radiator and oil cooler may be changed for alternate units or removed
- 9.2 Radiator hoses may be replaced with those of a similar internal diameter.
- 9.3 Oil lines may be modified or replaced. Oil lines containing positive pressure, if replaced, must be of metal reinforced construction with swaged or threaded connectors.

## 10.0 Air Box / Carburation / Fuel Injection

- 10.1 The air box may be altered or replaced from that fitted to the homologated motorcycle.
- 10.2 The fuel injection management system may be altered or replaced
- 10.3 Modifications to intake bells, carbs and injectors is permitted.
- 10.4

## 11.0 Engine

- 11.1 Engine Cylinder head, camshafts, cam sprockets, crankshaft, rods, pistons, valves, cylinders and all other engine components may be modified.
- 11.2 The engine must utilise the original crankcases, barrels and cylinder heads
- 11.3 Polishing and lightening of engine parts is permitted. Balancing or gas flow modifications normally associated with individual tuning are permitted.
- 11.4 Compression ratio of the engine is free.
- 11.5 Camshaft timing is free



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11.6 *The crankcase/gearbox casing, clutch and generator covers must be protected by additional means, e.g. protective covers made of stainless steel or carbon/Kevlar composites.*

11.7 *The thermostat may be removed from the housing to aid cooling, if required.*

## **12.0 Transmission**

12.1 *Quick Shift and blipper systems are permitted*

12.2 *Clutch springs, friction and drive plates may be replaced.*

12.3 *The use of slipper clutches is permitted*

12.4 *Gear shift detent spring may be replaced with a heavy duty item.*

12.5 *Front and rear external drive sprockets, chain pitch and chain length can be changed.*

12.6 *Gearbox ratios are free. Replacement gearbox internals are permitted within the standard manufacturers cases*

## **13.0 Ignition and Engine Control System**

### **1.0**

13.1 *Ignition and engine control system (CDI) may be modified or changed.*

13.2 *The generation system is free. Total loss is permitted*

### **14.0 Exhaust System**

14.1 *Exhaust pipe and silencers may be altered or replaced from those fitted to the homologated motorcycle. This must adhere to the maximum noise regulations as set out in the ACU handbook.*

14.2 *The number of final exit(s) to the exhaust may be altered from that of the homologated machine.*

14.3 *Wrapping of exhaust systems is allowed*

## **13.0 Fasteners**

13.1 *Standard fasteners may be replaced with fasteners of any material and design. The strength and design must be equal to or exceed the strength of the standard fastener it is replacing for structural applications.*

13.2 *The use of titanium in the swing arm spindles and the wheels spindles is forbidden.*

13.3 *For wheel spindles the use of light alloys is also forbidden. The use of titanium alloy nuts and bolts is allowed.*

13.4 *Aluminium fasteners may only be used in non-structural locations.*

## **14.0 Miscellaneous**

14.1 *The following items MAY BE removed:*

*Instruments, instrument bracket and associated cables, horn, license plate brackets, tool kit, tachometer, speedometer and wheel spacers, radiator fan and wiring,*



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*passenger foot rests, passenger grab rails and upper chain guard.*

*Emission control items (anti-pollution) in or around the air box and engine (O2 sensors, air injection devices). Please note that any valves or other devices bolted directly to the engine may be blocked off but must remain in place.*

*14.2 The following items MUST BE adhered to:*

*Motorcycle must be equipped with a functional ignition kill switch or button mounted on the handlebar that is capable of stopping a running engine.*

*14.3 Side stand must be removed.*

*14.4 All drain plugs must be safety wired. External oil filter screws and bolts that enter the oil or water cavities must be safety wired.*

*14.5 Head lamp, rear lamp and turn indicators must be removed. A suitable material must cover the openings. Mirrors must also be removed.*