



Open Twins Regulations

Any twin cylinder four-stroke motorcycle originally sold for road use with a stock BHP of over 72BHP. Non-Road based motorcycles may be admitted at the discretion of the organiser

Older models may be updated with genuine parts found on a newer version of the same model and newer models may use parts from older machines as required.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. Frame and Swing Arm

- 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.
- 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.

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 *Fork stanchions must retain the original finish. No additional surface treatments are allowed.*
- 2.6 *Refinishing of the outer fork tubes to a suitable standard is acceptable.*
- 2.7 *Steering damper may be added although it cannot act as a steering lock device.*
- 2.8 *Rear suspension unit can be changed or modified. The original attachment to the frame and swing arm must be as homologated.*
- 2.9 The rear suspension linkage must remain as originally produced by the manufacturer for the homologated machine.

3.0 Wheels

- 3.1 *Wheels must remain as originally produced by the manufacturer at the time of sale into the dealer/distributor network for the homologated machine except for the following:*
- 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.*



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3.5 Front and rear wheel axles must remain as originally produced by the manufacturer for the homologated machine. Modifications can be made in order to accept safety retention devices.

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.*

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.



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8. Wiring Harness and Battery

- 8.1 *The wiring harness may be altered or replaced. Additional wiring may be added where required.*
- 8.2 *No wiring or electronic equipment may be added or modified to alter the ignition or engine timing characteristics from those of the homologated machine with the exception of the following:*
The use of flash memory (flash RAM) for fuel injection mapping is allowed where the capability exists within the homologated motorcycle. An additional control unit to change the fuel mixture may be installed and must be fitted to the original connectors. The unit must not be able to perform any other function.
- 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 *All original electrical equipment not directly related to road use must be fully incorporated in to any modified wiring loom, including generator, CDI, regulator and starter motor.*
- 8.6 *All original connections to the CDI must be retained and maintain their normal use.*
- 8.7 *The size and type of battery may be changed and / or relocated.*

9 Radiator and Oil Cooler

- 9.1 *The original radiator and oil cooler, if fitted, must remain as homologated.*
- 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 Air Box / Carburation / Fuel Injection

- 10.1 *The air box may not be altered or replaced from that fitted to the homologated motorcycle.*
- 10.2 *The air filter element must be fitted but may be replaced with an aftermarket item.*
- 10.3 *The air box inlet rubbers may not be removed or altered.*
- 10.4 *Carburettors must be the standard units as on the homologated model.*
- 10.5 *Throttle bodies for fuel-injected machines must be as on the homologated model.*
- 10.6 *Carburettor jets and needles may be replaced. Resizing of the air metering holes in CV carburettors slide control is permitted.*
- 10.7 *No other alterations are permitted to the air intake or carburation system.*
- 10.8 *Bell mouths may not be added, altered or replaced from those fitted to the homologated motorcycle.*



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- 10.9 The fuel injection management system may not be altered or replaced other than the remapping of internally stored fuelling maps.

9 Engine

- 9.1 Engine Cylinder head, camshafts, cam sprockets, crankshaft, rods, pistons, valves, cylinders and all other engine components may be modified.
- 9.2 The engine must utilise the original crankcases, barrels and cylinder heads
- 9.3 Polishing and lightening of engine parts is permitted. Balancing or gas flow modifications normally associated with individual tuning are permitted.
- 9.4 Compression ratio of the engine is free.
- 9.5 Camshaft timing must remain is free
- 9.6 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.
- 9.7 The thermostat may be removed from the housing to aid cooling, if required.

10 Transmission

- 10.1 Quick Shift and blipper systems are permitted
- 10.2 *Clutch springs, friction and drive plates may be replaced.*
- 10.3 The use of slipper clutches is permitted
- 10.4 *Gear shift detent spring may be replaced with a heavy duty item.*
- 10.5 *Front and rear external drive sprockets, chain pitch and chain length can be changed.*
- 10.6 Gearbox ratios are free. Replacement gearbox internals are permitted within the standard manufacturers cases

11 Ignition and Engine Control System

- 11.1 Ignition and engine control system (CDI) may be modified or changed.
- 11.2 The generation system is free. Total loss is permitted

12 Exhaust System

- 10.10 *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.*

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

- 12.2 Wrapping of exhaust systems is allowed

13 Fasteners

- 15.1 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.
- 15.2 The use of titanium in the swing arm spindles and the wheels spindles is forbidden.



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

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

16.0 *Miscellaneous*

16.1 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, 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.

16.2 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.

2 Side stand must be removed.

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

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