

APPENDIX E – 650cc Pro Twin Regulations (Road)

The rules for this class will apply to all National Championship and endurance Championship races. At other meetings these rules will apply unless varied in the Supplementary Regulations, but not contradicting the class rules.

This class of motorcycle requires an MNZ Homologation with a minimum of 10 units sold of that model per year.

All items not mentioned in the following articles must remain as originally produced by the manufacturers, remain fitted and operational for that homologated model.

- 1 **Machine Specifications:**
 - a) Two cylinder four strokes up to 660cc standard engines.
(Only OEM engine parts for that model may be fitted)
 - b) Be fitted with V.I.N compliance plates for the particular machine
 - c) Be of a make and model lawfully sold in New Zealand,
 - d) Be as constructed by the original manufacturer
 - e) Machines with rebored cylinders must remain within that models OEM capacity limits (i.e. second oversize, .5mm)

- 2 **Numbers Plate Colours, size and placement:**

Refer to rule 10.2a

- 3 **Fuel:**

Refer to rule 10.21a

- 4 **Tyres:**
 - a) Be commercially available from within New Zealand
 - b) Be manufactured for road use in all weather conditions
 - c) Be not less than the machine manufacturer's recommended speed rating
 - d) Be worn no more than to the minimum tread depth indicators
 - e) Not be manufactured for only competition use
 - f) Not have an augmented or modified tread pattern
 - g) For all events other than endurance races only one set of tyres per meeting will be allowed for races counting towards the MNZ championships
 - h) Front and rear tyres fitted must conform to the relevant manufacturers' specifications regarding OE rim width on that model
 - i) Tyre warmers are permitted
 - j) When, a race or practice has been declared 'wet', the use of a wet tyre is allowed.
 - k) Any number of wet tyres may be used

- 5 **The following must be removed:**
- a) Headlamp
 - b) Tail lamp
 - c) Reflectors
 - d) Horns
 - e) Traffic indicators
 - f) Mirrors
 - g) Centre and side stands
 - h) Registration plate / bracket and label holder
- 5a Any sharp edges left by the removal of these components must be protected by a rolled edge or beading of minimum 3mm diameter.
- 6 Engine and gearbox breathing hoses and tubes must exhaust into the air box to the rear of the intakes. The lower air box breather tube must be blocked.
- 7 A chain guard or shark fin made of suitable material must be fitted in such a way to prevent trapping between the lower chain run and the final drive sprocket at the rear wheel. The leading edge of this guard must be a minimum thickness of 3mm and have a rounded edge to avoid this causing any injury in the event of a fall. Machines where the swing arm shape or positioning prevents fitment are exempted (for example Yamaha R1).
- 8 All exposed lateral engine cases containing water or oil must be guarded from contact with the road surface in the event of a crash.
The guard may be a second cover made from suitable materials such as carbon / Kevlar or suitable plastic or with heavy duty end cases or crash bars made from aluminium, steel or nylon.
- For those machines that do not have commercially available cover.
(for example Kawasaki Ninja 250cc)
A frame mounted crash knob or a similar effective protector can be fitted as an alternative.
- All of these devices must be designed to be resistant against sudden shocks abrasions and crash damage.
- 9 For machines homologated with lower fairing, must be fitted with an integral lower fairing dam (Belly Pan) or separate catch tray which must be constructed and fitted to trap and hold engine oil and coolant with a capacity of not less than, four strokes =3.5 litres or two strokes =2.5 litres with no less than 2x25mm holes (1 front 1 rear) which will be fitted with rubber grommets that may be removed in wet conditions.
- 10 **The following may be removed:**
- a) Passenger handholds and footrest assemblies
 - b) Instruments and associated cables
 - c) Air injection pollution control system
 - d) Carburettor anti-icing device
 - e) Rear fender

- f) Upper Chain Guard
- g) L/H Switch Block

- 11 **The following may be added:**
- a) Steering damper
 - b) Ride height adjuster, providing no alterations are required to either frame or swing arm
 - c) Lap timing devices
 - d) Accessory fairing, front guard and bodywork may be fitted
 - e) Engine case covers and protective crash knobs
 - f) Engine cut lanyard attached to the rider that will cut either the ignition or fuel supply to the engine
 - g) Swing arm mounted sprocket guard where the device does not act as a tensioning device
- 12 **The following may be replaced with parts not manufactured by the manufacturer of the machine:**
- a) Brake pads, linings and brake hoses
 - b) Fairing, screen, rear seat so as to provide for the mounting of a rear number plate, rear bodywork, rider's seat, mudguards and tank covers
 - c) Mounting brackets for fairings and screens but the replacements must be mounted on the frame at the original mounting points
 - d) Handlebars, handlebar mounted levers, and controls. This excludes the brake master cylinder
 - e) Footrests and foot controls, but the replacements must be mounted on the frame at the original mounting points
 - f) External gearing and chain but not chain pitch
 - g) Exhaust system
 - h) A fuel tuning device (i.e. Power commander) may be used. But the Ignition, Engine control module/unit (ICM, ECU, ECM) and wiring loom must remain standard
 - i) Spark plugs and high tension leads
 - j) Rear suspension damping units and springs, The link arm may be changed or modified but the suspension linkage must remain standard, original attachments to the frame must be used
 - k) Radiator expansion tank
 - l) Battery, but the replacement must be capable of starting the machine prior to, and post race
 - m) Fasteners for fitting external components where the manufacturer has no specific torque setting, or, it is less than 10nm, No Titanium allowed
 - n) The base and head gaskets may be replaced with aftermarket parts, but must retain OEM thickness
 - o) Front suspension, springs and internal components, (Propriety internal modifications are allowed to base and mid valve shim stacks) OEM cartridges, cartridge rods, pistons and adjuster needles must be used without modification. Emulator type valves maybe fitted. External appearance must remain unchanged, Full cartridge kits may not be used

- p) The fitment of an aftermarket sub frame supporting the seat and tail piece is allowed providing that the construction is as the original OEM parts both in like material construction and design. Items, (battery, wiring, ecu, etc) must be fitted to the aftermarket Sub frame in the same position as the original OEM fitment
- q) Steering damper
- r) Wheel Spacers

13 **The following OEM parts may be modified:**

- a) Engine cam wheels may be slotted to alter valve timing
- b) Gearbox drive dogs may be undercut
- c) Cylinder head valve seats may be recut
- d) Carburettor slides Modifications Allowed
- e) Engine throttle stop may be modified

14 **Prohibited items:**

- a) Data acquisition, computers, recording equipment
- b) The fitment of aftermarket traction control units is not permitted
- c) Lifting of the fuel tank
- d) Quick shifters, (automated or manual operation)
- e) Titanium on ANY components (excluding exhaust system)