

This class allows for New Zealand distributors of Supersport machinery an opportunity to showcase their machines in a competitive environment, with some freedom for machine set up but within the confines of rules to suit New Zealand market conditions.

As the name Supersport implies, the machines used are allowed limited modifications.

Senior competitors aged 16 years and over may compete in the Supersport class.

## **Discipline Specifications:**

Supersport motorcycles require an MNZ homologation.

The appearance from both front, rear and the side profile of Supersport motorcycles must (except when otherwise stated) conform to the homologated shape (as originally produced by the manufacturer).

All parts and functions must remain as per OEM specifications unless stated otherwise!

### **1 Supersport engine capacity:**

- 501cc – 640cc 4-stroke 4 cylinders maximum
- 601cc – 800cc 4-stroke 3 cylinders maximum
- 601cc – 960cc twins

Approved models that can be raced in the class and necessary balancing rules for those specific machines will be defined in the “Supersport eligible machines, componentry and balancing rules” which is available on the MNZ website.

Balancing rules for the noted models must be adhered to, and these can be changed at any time by the MNZ Road Race Commissioner to ensure parity between manufacturers and models as the class progresses. Only the specific makes and models noted on that list can be used.

**Machine Specifications (General):** All machines must comply with the relevant general competition rules including Chapter 10.

**Fuel:** Refer to rule 10.13

### **2 Supersport:**

2.1 Subject to the required and permitted alterations set out below, Supersport machines must:

- a) Be fitted with V.I.N compliance plates for the particular machine. The only exception to this is if the machine has been supplied direct from the manufacturer and was not intended for use on public roads. However, the onus is on the competitor to ensure the machine is indeed identical to the machine available for sale to the mass public of New Zealand.
- b) Be of a make and model lawfully sold in New Zealand
- c) Be as constructed by the manufacturer

2.2 At least 10 production machines of that make and model must have been imported into New Zealand, by the manufacturer or the New Zealand distributor representing the manufacturer.

#### **3.1 Tyres:**

- a) Be the same as any commercially available tyres imported or stocked by New Zealand tyre importers (must not be a special brand or type acquired over the internet from overseas or from special sources).
- b) Can be manufactured for road use (IE BE DOT approved) or for competition use.
- c) Be not less than the machine manufacturer’s recommended speed and load rating.
- d) Be worn no more than to the minimum tread depth indicators.
- e) Not have an augmented or modified tread pattern.
- f) The use of tyre warmers is permitted.

3.2 When a race or practice has been declared “wet”, the use of a wet tyre is allowed.

### **4 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.
- 5 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) Handlebar switch blocks are open and may be changed or removed if serving no purpose on the machine as a race bike.
  - g) Upper chain guard
- 10a **The following may be added:**
- a) Steering damper
  - b) Ride height adjuster
  - c) Lap timing devices
  - d) Data logging equipment, provided no interface exists between logging equipment and management of engine systems
  - e) Quick shifters
  - f) Swingarm mounted sprocket guard where the device does not act as a tensioning device
  - g) Engine cut lanyard attached to the rider that will cut either the ignition or fuel supply to the engine.
  - h) If the machine is fitted from the manufacturer with an external heat exchanger then this can be replaced with an external oil cooler.
- 10b **The following may be replaced with parts not manufactured by the manufacturer of the machine (all eligible homologated machines):**
- 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, tank covers, air box intake tubes, air intake in bodywork and side covers, but replacements must be the same in shape and appearance as the original, Carbon fibre is prohibited except for small amounts as reinforcement of the mounting points. Screen Profile to be open

- 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, master cylinders and controls. The rear brake master cylinder reservoir must hold a minimum of 20ml of brake fluid.
- 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) Spark plugs and high tension leads
- h) Rear suspension damping units and springs
- i) The Clutch assembly may be replaced with an aftermarket unit specifically made for that model. OE Clutch plates, springs, and slipper springs may be replaced with aftermarket replacements
- j) Radiator expansion tank
- k) Battery, but the replacement must be capable of starting the machine prior to, and post race
- l) Fasteners for fitting external components where the motorcycle manufacturer has no specified torque setting or it is less than 10Nm
- m) Front suspension, springs and damping parts and fork top caps may be modified or replaced, but the external appearance of the forks must not be changed
- n) Fuel tank filler cap assembly providing there is no modification required to fuel tank
- o) Frame protective sliders, and engine case covers or protectors, but replacements must be the same in shape and appearance as the original
- p) Steering damper
- q) Brake disc's, provided they are made of similar material to the OEM part and are the same diameter, ie; no carbon, titanium or plasma coated items.
- r) Aftermarket radiators, or repairs to the original radiator are permitted provided there is no change to the bodywork. Double pass radiators are not permitted unless specified as original equipment.

**10c The following OEM parts may be modified:**

- a) Gearbox drive dogs may be undercut
- b) Cylinder head valve seats may be recut
- c) Cylinder head and cylinder block mating surfaces may be machined
- d) Crankshaft balancing is permitted by normal trade practices by the addition or removal of minimal amounts of material. Lightening is not permitted
- e) Pistons and con-rods can be balanced as per above

**Supersport eligible machines, componentry and balancing rules**

Mandatory: Anyone using the following machinery and parity rules are to register with the MNZ Road race commissioner via email at MNZRRC@MNZ.co.nz. These parity rules are in development and could be subject to change at short notice. We are also seeking direct engagement with ALL riders / teams or machinery owners to help support the development.

Approved Motorcycles:

- a. Honda CBR600 as per MNZ homologation list
- b. Yamaha R6 as per MNZ homologation list
- c. Suzuki GSXR600 as per MNZ homologation list
- d. Kawasaki ZX6R 600 and 636cc as per MNZ homologation list
- e. MV F3 675cc as per MNZ homologation list
- f. Triumph Daytona 675 as per MNZ Homologation List
- g. Ducati Panigale V2 (955cc) as per MNZ Homologation List
- h. MV Agusta 800.

Balancing Rules

4 cylinder machines from 501cc to 600cc, 3 cylinder machines up to 675cc and twins up to 750cc

The following may be replaced with parts not manufactured by the manufacturer of the machine:

- a. Wiring loom, ECU and fuel injection control units may be replaced with parts not manufactured by the manufacturer of the machine. Only the standard functions of OEM ECU's are permitted to be used ( this excludes quick shifter functions)

- b. Head gasket
- c. Camshaft may be replaced, but the lift must remain standard
- d. Valve springs, collets and retainers
- e. Engine cam wheels, provided they are manufactured in the same material as the original or Engine cam wheels may be slotted to alter valve timing
- f. Air filters and Air funnels (Velocity Stacks)
- g. Exhaust system

The following OEM parts may be modified:

- a. Cylinder head and cylinder block mating surfaces may be machined

#### 4 cylinder machines from 601cc to 640cc

The following may be replaced with parts not manufactured by the manufacturer of the machine:

- a. Head gasket
- b. Valve springs, collets and retainers
- c. Air filters and Air funnels (Velocity Stacks)
- d. Engine cam wheels, provided they are manufactured in the same material as the original or Engine cam wheels may be slotted to alter valve timing
- e. Exhaust system

The following items must remain as per OEM of the model:

- a. Camshaft to remain as standard (OEM)
- b. Standard (OEM) wiring loom to remain in place

The following items may be used:

- a. Piggy back type fuel injection control units

Modifications allowed:

- a. Reflashing of OEM ECU. RRM limits to remain as standard (no increased RPM or RPM extend is to be used)
- b. Cylinder head and cylinder block mating surfaces may be machined

#### 3 cylinder machines 676cc to 800cc

All items not mentioned in either Appendix F or the following articles must remain as originally produced by the manufacturer, remain fitted and operational for that homologated model

The following may be replaced with parts not manufactured by the manufacturer of the machine:

- a. Exhaust system

The following items must be used as specified below

- a. Entire Solo engineering World Supersport Next generation control electronic kit :
  - i) MKE7 Mectronik ECU for Supersport class racing and associated harness
  - ii) ADU5 world Supersport advanced display unit
  - iii) Switch gear left and right
  - iv) Main power switch
- b. "National Software version"
  - i) Triumph 765 all models
 

Map name	Checksum
TR765__7	0x7E867A45
  - ii) MV Agusta F3 800 all models
 

Map name	Checksum
MVAGU__9	0x58C613D6
MVAGU_29	0xA4949C0
- c. Triumph ST 765 & RS models : Daytona 675 (2013) cosmetic replica of complete fairing, belly pan and seat unit.

## 2 cylinder machines 751cc to 960cc

All items not mentioned in either Appendix F or the following articles must remain as originally produced by the manufacturer, remain fitted and operational for that homologated model

The following may be replaced with parts not manufactured by the manufacturer of the machine:

- a. Exhaust system

The following items must be used as specified below

- a. Entire Solo engineering World Supersport Next generation control electronic kit :

- i) MKE7 Mectronik ECU for Supersport class racing and associated harness
- ii) ADU5 world Supersport advanced display unit
- iii) Switch gear left and right
- iv) Main power switch

- b. "National" Software version

Ducati 959 V2 Panigale Manufacturer file as follows:

Map Name	Checksum
DU_AK112	0x3B021585
DU_TR112	0x0799C394
DU_ZA112	0xC4F1E9A3

- c. Ducati 959 V2: Race kit sump gasket