



Scottish Autocycle Union 2022 Technical Regulations For Junior Twins

Restricted 300cc machines :- for riders aged 12 to 15 years on 1st January of the race season. ***Riders must complete a full season on these machines.*** The SACU reserve the right to police this class to ensure adherence to the regulations.

300cc Junior (standard engines):- for riders aged 13 to 18 years on 1st January of the race season holding a national licence. 15 year old Clubman may enter this class. ***Please note this differs from the BMCRC rules on engine spec***

Note - Junior 400cc Twins (as per MSVR Junior Supersport) run within Lightweights.

***Organising clubs may on occasion seek dispensation to vary this rule for a rider who demonstrates potential talent and allow a younger rider to compete. This would be sanctioned by the SACU Road Race Committee. The right to protest a riders inclusion in the results would still remain at each race meeting.*

The purpose of this class is to provide a level playing field to illuminate the quality of riders, not the investment in or calibre of the machine they ride To achieve this the class will be restricted to un-tuned production motorcycles and tightly policed to ensure fair competition.

References to "homologation" refer to and shall be deemed to mean "as produced by the original manufacturer of this model".

Technical officials interpretation of the regulations shall be final. All motorcycles must comply in every other respect with all the requirements for Road Racing as specified in the ACU handbook.

EVERYTHING THAT IS NOT AUTHORISED OR PRESCRIBED IN THESE REGULATIONS IS STRICTLY FORBIDDEN

1.1 ELIGIBLE MOTORCYCLES

The classes are restricted to the following motorcycles:-

Restricted 300:- Kawasaki Ninja 300R and Yamaha R3 motorcycles as originally produced by the manufacturers and race prepared and **restricted in accordance with fitment of a restrictor kit to 28hp.**

The appearance from the front/rear and the profile of the motorcycle must (except when otherwise stated) conform to the homologated shapes.

300cc Junior (standard engines):- Kawasaki Ninja 300R and Yamaha R3 motorcycles as originally produced by the manufacturers and race prepared.

The appearance from the front/rear and the profile of the motorcycle must (except when otherwise stated) conform to the homologated shapes.

AN APPLICABLE DYNO PRINT OUT FOR THE CLASS ENTERED MUST BE AVAILABLE FOR INSPECTION

1.2 MINIMUM WEIGHT AND MAXIMUM POWER

Weight :- Motorcycles may be weighed at the end of a race in the condition they were at the end of the race. No coolant, fuel or oil may be topped up between the end of the race and the weight checking. The minimum post race weight of the motorcycle including all residual fluids must not be less than **145kgs** as measured on the organising clubs scales.

Power :- Motorcycles may be run on a dynamometer at the end of a race to measure their power output. The maximum permitted power measured at the back wheel **should not exceed manufacturer's specifications for the 300cc Junior. Restricted 300cc** the maximum permitted power measured at the back wheel is **28bhp.**

Refusal to accept a dyno test shall count as a failure to comply with the regulations.

1.3 RACE NUMBERS AND BACKGROUND COLOURS

Race numbers for 300cc machines must be **WHITE** on a **GREEN** background

1.4 FUEL

Only unleaded pump fuel sold for use on the UK roads is permitted upon which all tax and duty has been paid. Additives that were not in the original manufacturer's formula are not allowed. At least 2 litres of fuel must remain in the tank at the end of a race for the possibility of a fuel control test.

1.5 COOLANT

The only coolants permitted are tap water or distilled water. **NOTHING ELSE**

1.6 ROLLING CHASSIS

1.6.1 FRAME BODY AND REAR SUBFRAME

The frame must remain as originally produced by the manufacturer for the homologated machine.

Nothing can be added or removed from the body, engine mountings, brackets or plates, all of which must remain as homologated.

The rear subframe must remain as homologated without modification or alteration except that accessories bolted to the rear subframe may be removed.

Holes may be drilled into the frame only to fix approved components (eg. Fairing brackets and steering damper mount).

Polishing or non original coating of the frame is not allowed

1.6.2 FRONT FORKS

Fork externals must remain as the manufacturers originals for the homologated machine model.

	<p>Fork internals may be replaced or modified The original finish of the fork tubes (stanchions/fork pipes) must remain as homologated. The upper and lower fork clamps must remain as homologated. A steering damper may be added or removed, but not replaced with another product. The steering damper cannot act as a steering lock limiting device.</p>
1.6.3	<p>REAR FORK (SWING ARM) Rear fork must remain as originally produced by the manufacturer for the homologated machine. A chain guard must be fitted in such a way to reduce the possibility that any part of the riders body could become trapped between the lower chain run and the rear wheel sprocket. Rear fork pivot bolt must remain as homologated. Rear axle chain adjusters must remain as homologated. Rear wheel stand brackets may be added to the rear fork by welding or by bolts. Brackets must not have sharp or pointed edges. Holes may be drilled only to fix approved components (eg. chain guard).</p>
1.6.4	<p>REAR SUSPENSION UNIT The rear suspension unit may be replaced but must always retain and use the homologated mounting attachments and linkage to the frame. Rear suspension unit spring may be changed.</p>
1.6.5	<p>WHEELS Wheels must remain as homologated for the machine and later versions. The speedometer drive may be removed and replaced with a spacer. The original cushion drive for the rear wheel must remain as homologated. Front and rear axles must remain as homologated.</p>
1.6.6	<p>BRAKES Front and rear brake discs/brake pads/brake hydraulic pipes may be changed. Front and rear master cylinders/brake fluid reservoirs/callipers must all remain as homologated. Additional air ducts are not allowed. Front brake system of the ninja 300 model can be upgraded to use the front system utilized by the ninja 400 with approved fitting kit.</p>
1.6.7	<p>TYRES Treaded tyres only including wets. No modification to tread pattern is permitted The minimum depth of tyre treads must be at least 1.6mm over the entire pattern width.</p>
1.6.8	<p>FOOTREST/FOOT CONTROLS Foot rest/controls may be relocated but replacement brackets must be mounted to the frame at the original mounting points. The end of the footrest must have an 8mm solid spherical radius.</p>
1.6.9	<p>HANDLE BARS AND HAND CONTROLS Handle bars and hand control levers may be relocated or replaced. Throttle assembly may be changed. cables/electrical switches may be removed but the master cylinder must remain as homologated. An electric starter switch and engine stop switch must be fitted and working. They must start and stop the engine at any time on demand and not be disabled.</p>
1.6.10	<p>FAIRING AND BODYWORK Fairing/front mudguards and seat unit must appear to be as homologated units. Size and dimensions must be the same as the original parts without any addition or subtractions of the homologated design elements. Windscreens may be replaced using transparent material only. "Double bubble" screens are allowed. The lower fairing must be constructed to hold, in case of an engine breakdown, at least half of the total oil and engine coolant</p>

<p>1.6.11</p> <p>1.6.12</p> <p>1.6.13</p> <p>1.6.14</p>	<p>capacity used in the engine. The lower edge of the openings in the fairing must be positioned at least 50mm above the bottom of the fairing. Plastic or rubber crash protectors may be fitted. The existing rear mudguard under the seat may be modified or removed.</p> <p>FUEL TANK Fuel lines may be replaced and fuel filters may be added. Fuel tank body and cover must remain as originally produced and fixed as homologated. Fuel tank may be filled with fire retardant material or fitted with a fuel cell bladder.</p> <p>WIRING HARNESS The wiring harness may not be altered or replaced. Cutting of or additions to the wiring harness are therefore not allowed.</p> <p>BATTERY The size and type of battery may be changed but must remain in the original location.</p> <p>RADIATORS AND OIL COOLERS The radiator and oil cooler must remain as homologated.</p>
<p>1.7</p> <p>1.7.1</p> <p>1.7.2</p> <p>1.7.3</p> <p>1.7.4</p> <p>1.7.5</p> <p>1.7.6</p>	<p><u>ENGINE AND COMPONENTS</u></p> <p>AIR BOX The air box must remain as homologated without alterations or modifications of any kind. The air filter element may be removed or replaced.</p> <p>FUEL INDUCTION SYSTEM Throttle bodies must be standard units as homologated and may not be modified or altered. The injectors must be standard units as homologated. The butterfly cannot be removed/changed or modified. No modification of the fuel pump or pressure regulator are allowed. The tilt sensor which cuts off the fuel pump in the event of a crash must remain connected and working as homologated. The “Power Commander” fuel injection management may be re-mapped but not otherwise modified nor replaced. Devices for operating alternative or variable mapping are prohibited.</p> <p>ENGINE AND GEARBOX (INCLUDING CLUTCH) All engine and gearbox components and gaskets must remain as homologated. Engine drive sprocket, rear wheel sprocket, chain size are free and may be changed. The part of the engine case that covers the drive sprocket may be removed or modified to provide easier access for changing sprockets, always provided that no part of the rider can then be drawn into or trapped by the chain run. The addition of “Quick Shifters” or other ignition interrupters are permitted.</p> <p>OIL CONTAINMENT Engine cases containing oil and which come into contact with the ground during a crash MUST be protected by a second cover made of either injection moulded nylon with 60% 6.6 long glass fibre or aluminium or steel as approved by the FIM or MCRCB. All such protecting covers must be designed to be resistant against sudden shocks and be fixed by bolts on to engine covers/cases.</p> <p>IGNITION/ENGINE CONTROL SYSTEM Ignition/engine control system (CDI) must remain as homologated. Spark plugs and plug leads may be replaced.</p> <p>GENERATOR AND ELECTRIC START Generator and starter motor must remain as homologated.</p>

<p>1.7.7</p> <p>1.7.8</p> <p>1.7.9</p>	<p>The electric starter must operate normally and always be able to start the engine on demand. The engine must start and turn on its own power when the electric starter has stopped its procedure.</p> <p>EXHAUST SYSTEM The exhaust pipes and silencer may be changed Wrapping of exhaust systems is not allowed. The noise limit is 105 dB(A) in accordance with the ACU handbook.</p> <p>FASTENERS Standard fasteners may be replaced with fasteners of any design and material. Aluminium and Titanium fasteners may only be used in non-structural locations. Fasteners may be drilled for safety wire but intentional weight saving modifications is not allowed. Fairing/bodywork fasteners may be changed to the quick disconnect type.</p> <p>DASHBOARD AND CLOCKS Standard dashboard and clocks may be replaced but any replacements must not be capable of any functions additional to those provided by the homologated originals with the exception of lap timing/ gear position and shift lights.</p>
<p>1.8</p>	<p>THE FOLLOWING ITEMS MAY BE ALTERED OR REPLACED FROM THOSE FITTED TO THE HOMOLOGATED MOTORCYCLE Any type of lubrication oil/brake or suspension fluid/ oil filter or air filter may be used. Any type of spark plug may be used. Wheel balance weights may be discarded/changed or added to.</p>
<p>1.9</p>	<p>ADDITIONAL EQUIPMENT Additional electronic hardware equipment not on the original homologated motorcycle is not permitted. The only exceptions are lap timing/ gearshift indicators and shift lights. Telemetry is prohibited.</p>
<p>THESE RULES ARE SUBJECT TO REVIEW BY THE SCOTTISH AUTOCYCLE UNION AND MAY BE ALTERED AT ANY TIME.</p>	
<p>THOSE COMPETITORS WISHING TO COMPETE IN THE SERIES RUN BY THE BMCRC ON THE NINJA 300 MACHINE SHOULD REFER TO THE SPECIFIC RULES FOR THAT SERIES.</p>	