

TECHNICAL REGULATIONS For AUTOMOBILES · SXS

Technical regulations for the AUTO · SXS CLASS are not listed here since they are identical to FIA Technical Regulations. However, the SSER has some relaxed some vehicle inspection criteria. Major points each participant must be aware of are that vehicles registered in this class require at least a six-point roll cage of seamless steel, with a bend curvature of no less than a 100 degrees, and sufficiently reinforced for safety; as well as 4-point seat belts securely attached to each seat with eyebolts. Any projections pointing towards those in the vehicle must be completely removed or adequate protection provided. The mounting of automatic fire extinguishers and circuit breakers may be omitted. Please refer to FIA technical regulations for mounting fenders on vehicle types where the tires are exposed from the body. Each vehicle must also have two spare tires mounted on rims. **(sxs is one spare tires mounted)** Auxiliary containers for carrying fuel are only allowed to consist of safety tanks or traditional metal gas containers. Their mounting methods and clamping methods shall be secure and reliable. Vehicles equipped with a fuel tank not specified by the vehicle manufacturer must also have a manual type AFFF 2.4 liter or FX G-TEC, Viro3, powder 2.0 kilogram fire extinguisher. Vehicles equipped with a safety tank must basically also be equipped with (Earls) Aero-Quip Type fuel hose type clamps. If using hose clamps is unavoidable, then 2 hose bands (or hose clamps) must always be mounted on each coupling section having metal sheathing . The fuel pipes must also be clamped so as not to come in contact with other objects during driving. Any batteries kept within the vehicle must be clearly separated from the fuel pipe and suspension reservoir tank. These must be separated by a metal divider or partition.

TECHNICAL REGULATIONS For MOTORCYCLES

ART.1 DEFINITION OF ELIGIBLE MOTORCYCLES

1.1

Motorcycles in this rally must come under Group1.2.3 provided especially by this rally based on Technical Rules of FIM. The technical regulation of this rally must be obeyed.

Group1: Production

Rear wheel drive 2 wheeler motorcycles on the mass product, unmodified

Group2: Super Production

Rear wheel drive 2 wheeler motorcycles on the mass product, modified.

Group3: Experimental

Motorcycles produced experimentally, the Quad, ATV or sidecars following ART1.2.

1.2

The acceptable motorcycles in this rally must be registered in each of their countries, or prepared with the deletion of the registration or the registration, and be able to prepare the documents of a transfer or import. Motorcycles in Group3 must also fill the same condition.

ART.2 HOMOLOGATION

2.1

Motorcycles in Group1 are usually required the homologation except those filling the following conditions.

Motorcycles must be produced more than 200 a year, sold by the manufacturers for everyday road use, the commercial catalogue production models. It means that motorcycles on these kinds of extant and submissive manufacturers' catalogues are not required homologation.

2.2

The participation of motorcycles in Group2 or 3 do not depend on the number of the production and their catalogues are not required. Notes: it is not necessary for Motorcycles in Group2 to submit catalogues only in this rally.

ART.3 DEFINITION OF A FRAME

Frame - The structure or structures used to join any steering and/or suspension mechanism at the front of the machine to all the components of the rear suspension and to support the engine/gear box unit. (see diagram 1)

ART.4 GENERAL SPECIFICATION

Participated motorcycles in every class must comply with the specifications below (see diagram 2).

4.1 STARTING DEVICES

Motorcycles must be equipped with starting devices functioning normally.

4.2 OPEN TRANSMISSION GUARDS

Motorcycles must be equipped with counter shaft sprocket covers.

4.3 EXHOUST PIPES

Exhaust pipes and silencers must fulfill all the equipments concerning sound control. The exhaust must discharge from the end of the exhaust systems.

4.3.1

The end of the exhaust pipe must be horizontal and parallel (over a minimum distance of 30 mm) to the central axis of the solo motorcycle (with a tolerance of $\pm 10^\circ$).

4.3.2

A part of frames must not be as a part of exhaust pipes.

4.3.3

The extremity of the exhaust pipes for solo motorcycles must not pass the vertical tangent of the rear tire.

4.4 HANDLEBARS

4.4.1

The length of handlebars is: not less than 600mm and not more than 850mm.

4.4.2

Exposed handlebar ends must be plugged with a solid material except metals or rubber covered.

4.4.3

Stoppers, (other than steering dampers) must be fitted to ensure a minimum clearance of 30 mm between the handlebar with levers and the tank when on full lock to prevent trapping the rider's fingers.

4.4.4

Handlebar clamps must be very carefully rounded and engineered so as to avoid fracture points in the bar.

4.4.5

If hand protectors are used, they must be of a shatter-resistant material and have a permanent opening for the hand.

4.4.6

The repair by welding of light alloy handlebars is prohibited.

4.4.7

The length of handle grips must be less than 150mm and installed at the edge of handles.

4.5 CONTROL LEVERS

4.5.1

All handlebar levers (clutch, brake, etc.) must be in principle ball ended (diameter of this ball to be at least 16mm). This ball can also be flattened, but in any case the edges must be rounded (minimum thickness of this flattened part 14mm). These ends must be permanently fixed and form an integral part of the lever.

4.5.2

Each control lever (hand and foot levers) must be mounted on an independent pivot.

4.5.3

The brake lever if pivoted on the footrest axis must work under all circumstances, such as the footrest being or deformed.

4.5.4

The distance between points of a pivot and the edge of a lever (or a ball) must be less than 200mm.

4.6 THROTTLE CONTROLS

Throttle controls must be self-closing when released by hand.

4.7 FOOTREST

4.7.1

Footrests may be of a folding type but in this case must be fitted with a device that automatically returns them to the normal position, and an integral protection is to be provided at the end of the footrest that must have at least 8mm radius.

4.7.2

If the footrests are not of the folding type or rubber covered, they must be rounded with a spherical radius of not less than 8mm.

4.8 BRAKES

Motorcycles must have brakes operated independently and concentrically with the wheel.

4.9 MUDGUARDS

Motorcycles must be fitted with mudguards.

4.9.1

Mudguards must project laterally beyond the tire on each side.

4.9.2

The front mudguard must cover at least 100 degrees Centigrade of the circumference of the wheel. The angles, which formed by one line drawn from the front edge of the front or rear mudguard to the center of the closer wheel to each mudguard and another drawn horizontally through the center of the wheel, must be between 45° and 60° for the front mudguard, within 20° for the rear mudguard.

4.9.3

The rear mudguard must cover at least 120 degrees Centigrade of the circumference of the wheel.

4.10 ENGINE

The engine must function on normal fuel and be of a type equivalent to fuel from public fuel stations.

4.11 LIGHTING AND WARNING EQUIPMENT

4.11.1

Motorcycles must be equipped with a front light and rear lamp that can be turned on anytime while riding.

Vehicles must be equipped with a good reflector in the rear.

4.11.2

The rear lamp must illuminate 5 times as bright as normal when the brake is working.

4.11.3

Motorcycle must be equipped at least one horn

4.11.4

The kill switch to stop the engine must be installed on the handle bar.

4.11.5

Attach a rearview mirror.

(It is desirable to be attached to both right and left. Be attached to the left side at least.)

4.12 TIERS

The acceptable types of tiers are shown the below:

The front tiers dimensions are free.

The rear tiers including ENDURO TIRES must comply with the standard of FIM.

4.13 NAVIGATION DEVICE EQUIPMENT

Motorcycles are prohibited to equip with any navigation devices. Especially, a map holder must not be put on the bridge of the handle bar but at higher position as possible, because it can limit the movement of riders' view. A handle bar bridge is strongly recommended to be equipped with handle bar pads.

And also, a navigation device is prohibited to be installed on the top of a gas tank. Any navigation device, which could be dangerous in case of a tumble, is prohibited to be installed.

ART.5 Group1 PRODUCTION CLASS

Motorcycles in Group1 Production Class must be the same models as the original when they are delivered from the manufacturers. And they must be the same as the contents of their catalogue. These catalogues must be submitted to a technical inspector at a technical inspection. Only one engine marked or sealed must be used for the entire competition. The requirement for normal maintenance, exchange or repair of parts damaged by wear or as a result of an accident, any other maintenances, modifications except its acceptable in Art.5.2 or changes are not allowed.

5.1 Group1 PROHIBITED MODIFICATIONS in Production Class

(Any exchanges are prohibited during the competition)

- A) Engines (including carburetors, alternators, starters, and ignitions) which are not homologated will be marked or sealed.
- B) Reinforcement or changes of frames, Change of materials
- C) Change of the electrical systems or the position of batteries.
- D) Cowlings which are different from the design in a homologation.
- E) Change of braking systems except it is allowed in Art.5.2
- F) Change of types of wheels (spokes, casts, etc.) and hubs
- G) Change of the pitch of teeth of a driver sprocket or the pitch of chain links
- H) Carburetors
- I) The position and material of front forks, rear swing arms and linkage systems, pivots
- J) The position of the air cleaner box must stay originally.
- K) Parts of engines, front forks and frames must be strictly the authentic originals of manufacturer products. Exchanges of above are strictly prohibited during the competition.

5.2 Group1 ACCEPTABLE MODIFICATIONS in Production Class

- A) Change of fuel tanks, Installation of spare tanks on the behind of the seats, Reinforcement of the end of frames in addition.
Reinforcement of frames: to tighten bolts in the end of frames (see diagram 1).
- B) Change of fuel pumps and fuel pipes. Fuel pipes must be fully prepared for preventing the damage by friction.

- C) Secondary Transmission
Change of pinions, ring gears, the number of teeth of a sprocket and the width of chains
- D) Change of the exhausts and silencers
- E) Change of handlebars, grips, control levers and cables
- F) Change of springs of a front suspension and damping oil
- G) Change of rear suspensions
- H) Wheel rims, spokes, hubs only in case of the purpose to change to thick spokes
- I) Change of meters. Speed meters and map holders must be equipped. Wiring to supply the electricity for navigation items is acceptable.
- J) Tubes and tires
- K) Mudguards
- L) Seats, careers, engine guards, break guards, fork protectors
- M) Brake pads, brake linings, brake horses, brake fluids
- N) Air cleaner elements are changeable.
- O) Change of jets of carburetor, slot valves, needles
- P) All of screws, bolts, nuts
- Q) Any material of cowlings

5.3 WEIGHT OF PRODUCTION CLASS

The minimum weight must be equal to the weight of a catalogue data.

ART.6 Group2 SUPER PRODUCTION CLASS

Only one engine marked or sealed must be used for the entire competition. The requirement for normal maintenance, exchange or repair of parts damaged by wear or as a result of an accident, any other maintenances, modifications except its acceptable in Art.6.2 or changes are not allowed.

6.1 Group2 PROHIBITED MODIFICATIONS in Super Production Class (Any exchanges are prohibited in the competition)

Engine (crankcase, cylinder and cylinder head) must be homologated, marked or sealed.

6.2 Group2 ACCEPTABLE MODIFICATIONS in Super Production Class

The following items in Super Production Class are acceptable in addition to the modification and change in ART5.2.

- A) Reinforcement of frames
- B) Change of hubs
- C) Braking system, Quantity of disks and calipers
- D) Change of Carburetors
- E) Change of Ignition system
- F) Change of Clutch, Gearbox
- G) Change of Crankshaft, Piston Assembly
- H) Change of Electric system
- I) Change of Cowling

6.3 WEIGHT OF SUPER PRODUCTION CLASS

The weight is unrestricted

ART.7 Group3 EXPERIMENTAL CLASS

Experimental Class is over the limit of ART.6 SUPER PRODUCTION CLASS. It must satisfy all items of ART.4. Vehicles in this class must be modified for road use whether registered or not. The weight is unrestricted.

ART.8 NOISE CONTROL

The exhausting noise of all motorcycles must be measured in the technical inspection. Changing of Silencers after the measurement is prohibited.

8.1

The position of the microphone for measuring is placed at 50 cm from the exhaust pipe at an angle of 45 degrees measured from the centerline of the exhaust end and at the same height with the exhaust pipe, but at least 20 cm above the ground. If this is not possible, the measurement can be taken at 45 degrees upwards.

8.2 NOISE LIMITS

The noise must be up to 99dB/A under the engine speed 5000r.p.m. or 75% of the engine speed with maximum power.

