

Technical Regulations Northern Sidecar Cup

Preface:

The goal of the Northern Sidecar Cup is to create a cup which is accessible for as many contestants as possible. However safety is primary priority and no concessions will be made on that matter.

In order to achieve the goal of an accessible cup only F1 and F2 combinations are allowed and various engines will be allowed to participate.

However in order to become a Dutch or Belgium champion, or even score points for either championships, additional rules dictated by the national league will apply which are not covered in this document.

This document only covers technical information about the rules that will apply to all teams regardless of their goal in the cup.

Regulations are in line with FIM rules, in case of doubt or discussion FIM rules will be the guideline to follow except for engines. The organization will decide what to apply.

During the pre event technical control the sidecar must be clean and in good condition and well maintained.

Cracks, play, serious corrosion and other wear that is detected during inspection is a reason to exclude the bike.

General:

F1 and F2 sidecar combinations are allowed to enter the cup.

They must be safe and well maintained.

Maximum dimensions:

Length	3300 mm
Width	1700 mm
Height	800 mm (950 mm incl air intake)
Wheelbase	2300 mm
Trail width	1150 mm (min 800 mm)
Wheel offset	75 mm
Engine offset	160 mm

Length = overall length between the point furthest back and furthest front, including fairing.

Width = overall width between the most right point and most left point of the bike, including fairing.

Wheelbase = distance center rear wheel to center front wheel.

Trail width = mid rear wheel to mid side wheel.

Wheel offset = offset between mid of rear wheel and mid of sidewheel.

Engine offset = offset between mid of rear wheel and mid of the crankshaft.

Weight

	F2	F1
Minimum weight	350 kg	370 kg

Minimum weight is of the total combination (bike, driver and passenger), at any time before or after the race the weight can be checked.

Brakes

All three wheels must have working brakes.

Only steel or cast-iron brake discs are allowed.

Carbon fiber brake pads are not allowed

Brakes must be controlled hydraulic.

2 separated systems must be present to operate the brakes.

Front wheel is separated from the back combined with the sidewheel.

If one system fails, the other should still work.

All brakes must be operated by foot, additionally hand brake is allowed.

Calipers, brake pad holding bolts and pins and all other critical brake components must be secured by lockwire-

Brake lines must be steel braided.

Break oil leaks are not allowed.

No damage or corrosion is allowed to the brake lines.

Wheels and Tyres:

The same rules apply as the FIM World Championship rules for tyres diameter not specified.

Max width (both F2 and F1).

	wheel	Tyre
Rear	11"	254 mm
Front	9"	215 mm
Side	11"	254 mm

Engines:

600cc or 1000cc 4-cylinder engines are allowed. Engines shall be standard engines and built of standard, road legal parts. Only Camshaft timing change is allowed as well as special electronics.

The engine can only drive the rear wheel.

Other engines can be allowed after approval of the organization.

Approval of not standard engines will be valid for all events of the championship.

An airbox shall be used.

The original airbox may be replaced by an individual design.

The airbox shall completely close around the induction.

Bell mouths, carburetors or throttle bodies must be entirely within the airbox.

The airbox shall be constructed in such a way as to prevent any oil discharged in the airbox from spilling on the track.

This oil containment shall hold a minimum of 1000cc of oil.

The airbox shall be sealed to prevent any spillage of oil or fuel.

The airbox intake size is not restricted.

All Sidecars shall have a closed breather system.

All oil breather lines shall be connected, may pass through an oil catch tank, and exclusively discharge in the airbox, for oil containment

Oil fill and drain plugs as well as oil filters have to be secured with lockwire.

Only clean water is allowed for coolant fluid.

The engine bay has to have a leak bin underneath the engine capable of holding 5 liters.

Where possible the edge of the bin has to be at least 170mm above the bottom except where the chain runs and the pushrod to the rear hub.

Between the exhaust and the engine there must be a protecting plate as high as possible.

An oil absorbing cloth must be present all over the bottom of the bin.

Fuel and Fuel tank:

Only gasoline is allowed, max octane number 102.

The tank must be protected in case of a crash, the tank must be covered either by the fairing or the chassis.

The tank must be completely filled with explosafe.

Non-return valves must be fitted to the fuel tank breather pipes.

Exhaust:

The exhaust must not be wider than the fairing.

The exhaust must be protected so neither the driver or passenger can touch it and get burned,

For sidecar combinations: measurements are taken with the microphone at a distance of 50 cm upwards from the exhaust pipe at an angle of 45 degrees, measured from the centerline of the end of the exhaust.

The maximum noise level is 102 dB(A).

The advice is to use a good silencer and produce as less noise as possible!

Chassis:

No exotic metals are allowed (titanium, magnesium etc.).

Cracks, play, serious corrosion and other wear that is detected during inspection is a reason to exclude the bike.

All parts must be fixed firmly to the bike.

Ground clearance:

65 mm everywhere for the chassis, with driver and passenger on the bike in straight line sitting position. The fairing can be lower. After the race, a tolerance of -5 mm is authorized. After a "wet race", this check is not performed.

Steering:

Only front wheel steering is allowed.

The steer must be minimum 450mm wide. Linkage to the wheel must be without play.

The steering wheel ends must be closed.

The minimum steering angle each side must be 20 degrees minimum (steer and wheel).

All handles attached to the steer (clutch, brake etc.) must be ball ended.

At all steering angle, a minimum distance of 30 mm must be present between the handlebars (including levers) and frame parts or fairings.

Suspension:

Front wheel and rear wheel must have at least 20 mm suspension travel.

Side wheel can be static or with suspension.

Depending on the construction measures must be taken to avoid loosening of bolts and nuts.

During inspection, the inspector can demand extra locking measures in case of doubt.

Electronics:

A kill switch must be present and kill all power to the bike (Special attention for benzine pump and ignition). The kill switch is linked to the driver with a cord no longer than 1 meter that is properly attached to the glove or suit. Additionally, a stop switch on the steer accessible without lifting the hand from the steer must be available to shut off the engine. All electrics must be fused. The fuse value must never exceed the maximum current allowed through any of the cables after the fuse.

Sidecars shall be equipped with a functional rear facing red fog lamp. Located in the area between the rear wheel and the platform, securely fixed to the sidecar.

The fog lamp must be used when the organization declares a wet race. The lamp may be on in a dry race.

The transponder must be securely fixed to the sidecar and not covered by the chassis to prevent signal failure.

Fairing:

Front mudguard shall be a solid and effective protection between the rider and the front wheel.

Height of the protection in front of the passenger must be minimum 300 mm

The fairing shall not cover the passenger from above.

The sidecar wheel must be enclosed down to the level of the platform on the rear and the inside for protection of the passenger.

On the outside it must cover at least down to the height of its axle centerline.

Aerodynamics:

Spoilers and other aerodynamic devices are only allowed when they are an integral part of the fairing and do not extend outside the outline of the fairing.

Number plates and backgrounds:

a) 3 Number plates: 1x on the center of the front fairing, 1x affixed on each side of the Sidecar fairing.

b) The background colors and figures (numbers) are free, but must be in a sharp contrast to each other.

Numbers must be easily legible, of one single color and in a clear simple font.

Numbers cannot overlap.

c) The sizes for all the numbers are:

Minimum height: 160 mm

Minimum width: 80 mm

Minimum stroke: 25 mm

d) In case of dispute concerning the legibility of the numbers, the decision of the Chief Technical Steward will be final.

Inspection:

Before all the events a technical inspection will be carried out by the Technical Stewards.

Without approval NO entry to the racetrack will be allowed. In case of disapproval the team is allowed to fix the problem and bring the bike in for a new inspection.

The Chief Technical Steward has the final ruling on the inspection. No appeal to the organization is possible.

A technical control sticker will mark the vehicle as approved but only for that specific event.

All recovered bikes, either crashed or technical, must be returned to the technical bay during or after every session (including races) for inspection.

If the bike has been recorded as either minor or major damage, a technical steward must check the bike before their next session.

The team is always responsible for the safety of the bike. A technical steward can never be held responsible for any accident or problem, even if a technical fault could or should have been detected during the inspection.

Protective clothing and helmets:

Riders and passengers must wear a complete leather suit with additional leather padding or other protection on the principal contact points, knees, elbows, shoulders, hips, etc.

Linings or undergarments must not be made of a synthetic material which might melt and cause damage to the riders' skin.

Riders and passengers must also wear leather gloves and boots, which with the suit provide complete coverage from the neck down.

Leather substitute materials may be used, providing they have been checked by the Chief Technical Steward.

The use of a back protector is compulsory; the use of a chest protector is highly recommended.

Protectors must be clearly marked with the following norms:

- a) The back protector must comply with EN1621-2, CB ("central back") or FB ("full back") Level 1 or 2.
- b) The chest protector must comply with EN1621-3

Riders must wear a helmet which is in good condition, provides a good fit and is properly fastened

VS: DOT FMVSS 218 met SNELL M 2015 of M 2020R of M 2020D

JAPAN: JIS T 8133 2015 Type 2 Full face EUROPA

Europa: ECE 22-05 type P (Up to 31-12-2025)

ECE 22-06 type P (After 31-12-2025)

FIM: FRHPhe-01 (Up to 31-12-2025)

FRHPhe-02 (After 31-12-2025)

A list of FIM homologated helmets is available on www.frhp.org

Disposable "tear-offs" are permitted.