

# TRACK RACING TECHNICAL REGULATIONS

2025



# FIM Track Racing Technical Regulations 2025



YEAR 2025			
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# DIAGRAMS



#### 01.01 INTRODUCTION

The term motorcycle covers all vehicles having, in principle, less than four wheels, propelled by an engine and designed essentially for the carriage of one or more persons of which one is the rider of the vehicle. The wheels must normally be in contact with the ground except momentarily or in certain exceptional circumstances. Furthermore, in order to traverse certain surfaces, one or all of the wheels can be replaced with skis, rollers or chains.

#### 01.02 FREEDOM OF CONSTRUCTION

A motorcycle must conform to the requirements of the FIM regulations, to the Supplementary Regulations, as well as to a number of specific conditions that the FIM may require for certain competitions. No restriction is placed on the make, construction, or type of motorcycle used.

All solo motorcycles (Group A) must be constructed in such a way that they are entirely controlled by a rider. Motorcycles with Sidecars (Group B) must be constructed to carry a passenger.

#### 01.05 CATEGORY AND GROUPS

Motorcycles are divided into categories which must be observed for all meetings and world record attempts.

In principle, it is forbidden for different categories, groups and classes to compete in the same race, unless the Supplementary Regulations state otherwise.

# Category I

Motorcycles propelled by the action of one wheel in contact with the ground. The other categories are not applicable to Track Racing.

# **Group A1 - Solo Motorcycles**

2-wheel vehicles making only one track on the ground.

#### **Group B1**

Vehicles with three wheels, making two tracks on the ground, consisting of a motorcycle making one track and a Sidecar for a passenger making the other.

#### Group B2

Vehicles with three wheels, making two or three tracks on the ground in the direction of forward travel, with a permanently attached Sidecar forming a complete integral unit. If three tracks are made, the centre-lines of the two tracks made by the motorcycle wheels must not be more than 75 mm apart. A track is determined by the longitudinal centre-line of each of the vehicle's wheels in the direction of forward travel.



#### 01.07 CLASSES

Groups are again separated into classes according to cylinder capacities as detailed below. These classes must be observed for all meetings.

# Category I

**Group A1 - Solo Motorcycles** 

Class	Over (cc)	Up to (cc)
85	50	85
125	100	125
250	175	250
500	350	500
1000	750	1000

For Classic Speedway, Long Track and Ice Racing:

- 250cc Class: Up to 250cc 4 stroke single cylinder engines
- 500cc Class: Up to 500cc 4 stroke single cylinder engines

# **Groups B1, B2 - Sidecars**

Same as groups A1 and A2 over 175cc.

#### 01.11 MEASUREMENT OF CAPACITY

# 11.11 Reciprocating movement engine, "Otto" cycle

The capacity of each engine cylinder is calculated by the geometric formula which gives the volume of a cylinder; the diameter is represented by the bore, and the height by the space swept by the piston from its highest to lowest point:

Capacity = 
$$\frac{D^2 \times 3.1416 \times C}{4}$$

where 
$$D = bore$$
  
and  $C = stroke$ 

When a cylinder bore is not circular the cross-sectional area must be determined by a suitable geometrical method or calculation, then multiplied by the stroke to determine capacity.

When measuring, a tolerance of 1/10 mm is permitted in the bore. If with this tolerance the capacity limit is exceeded for the class in question, a further measurement should be taken with the engine cold, to 1/100 mm limits.



# 11.13 Rotary engines

The capacity of an engine which determines the class in which the motorcycle shall compete in a meeting shall be calculated by:

Capacity = 
$$\frac{2 \times V}{N}$$

where V = total capacity of all the chambers comprising the engine
 and N = number of turns of the motor necessary to complete one cycle in a chamber

Classified as a 4-stroke.

# 11.15 Wankel system

For Wankel system engines with a triangular piston, the capacity is given by the formula:

Capacity = 
$$2 \times V \times D$$

where V = capacity of a single chamber and D = number of rotors

This engine is classified as a 4-stroke.

#### 01.17 SUPERCHARGING

Supercharging by means of a device of any kind is forbidden in all meetings. An engine, whether 2-stroke or 4-stroke, coming within any one of the recognised classes (determined by the capacity of the working cylinder) shall not be considered as supercharged when in respect of one engine cycle, the total capacity measured geometrically of the fuel charging device or devices, including the capacity of the working cylinder (if used for injecting the fuel), does not exceed the maximum capacity of the class in question.

#### 01.18 TELEMETRY

Information must not be transmitted in any way to or from a moving motorcycle.

An official signalling device may be required on the machine.

Automatic lap timing devices are not considered as "telemetry".

Automatic lap timing devices must not disrupt any official time keeping methods and equipment.

# 01.19 MOTORCYCLE WEIGHTS



The motorcycles need to be presented with an empty fuel tank.

The minimum weights (without rider and/or passenger, with all operational fluids) for motorcycles are:

For 85cc Speedway	55 [kg]
For 250cc Speedway	75 [kg]
For 500cc Speedway	77 [kg]
For 125cc Track Racing	60 [kg]
For 250cc Long Track	80 [kg]
For 500cc Long Track	82 [kg]
For Ice Racing	110 [kg]
For 1000cc Speedway Sidecars	180 [kg]

These are absolute limits and no tolerance is applied when the machine is checked before the practice/qualifying race/race.

The minimum weight of the verified motorcycle must not at any time be less than the minimum weight required.

A scale with a minimum resolution of 500 [g] must be used (although 100 [g] is recommended).

During the competition, motorcycles are weighed in the condition they leave the track after every heat (including the fuel).

#### 19.01

A 1 % tolerance in the weight of the machine when checked <u>during or after</u> the race, in order to take into account, the variability of the test conditions.

#### 19.03

Seals must be fixed to the front of the main frame.

#### 19.05

For Groups B1 and B2: a passenger must be carried at all competitions.

#### 01.21 DESIGNATION OF MAKE

When two manufacturers are involved in the construction of a motorcycle the name of both must appear on the machine as follows:

- The name of the chassis manufacturer
- The name of the engine manufacturer

# 01.23 DEFINITION OF A PROTOTYPE



A prototype motorcycle is a vehicle which must conform to the safety requirements as required by the FIM Sporting Code and Appendices applicable to the type of competition for which it is to be used.

#### 01.25 GENERAL SPECIFICATIONS

The following specifications apply to all vehicles of the groups indicated and to all types of competitions except where otherwise stated in the corresponding section of the FIM Sporting Code.

They should also be applied to all national competitions unless the FMNR (National Motorcycling Federation) has otherwise directed.

Further specifications for some competitions may also be required and these will be detailed in either the appropriate FIM track racing Appendices or in the Supplementary Regulations for the competition in question.

Concerning material verification, in case of doubt, a sample or the part in question shall be taken and analysed at a Material Testing laboratory.

# 25.01 Use of titanium and light alloys

The use of titanium in the construction of the frame, the front forks, the handlebars, the swing-arm and swing-arm spindle, and front and rear wheel spindles is forbidden.

The use of titanium bolts in the "structural" connections between the front forks, the middle frame, the engine plates, the engine and the rear frame is forbidden.

The use of light alloys for wheel spindles is also forbidden.

The use of titanium alloy nuts and bolts in the "non-structural" parts is allowed.

#### 25.03 Carbon fibre

The use of carbon fibre reinforced materials is authorised (with the exception of handlebars and wheel rims).

#### 25.04 Ceramic materials

The use of ceramic parts is allowed for the following parts:

- Clutch plates
- Bearings (clutch, wheels, etc.)
- Spark plug

-

NB: The quality and the mechanical properties/resistance of the ceramic parts mounted by the rider/team on their machine remains under their full responsibility.



# 25.05 Other equipment

The use of data recording devices and automatic electronic ignition is authorised. The use of any components or switches to enable a rider modify the ignition settings physically or manually during the race is forbidden.

No signal of any kind may pass between a moving motorcycle and any person, including radio and Bluetooth communication. The exception is for the signal from the time keeping transponder, automatic lap timing devices or from the approved on-board cameras (with prior written approval from the Championship Promoter/FIM Officials, which cannot be granted for helmet mounted cameras).

# A lambda sensor may be added/mounted to the exhaust line.

# 25.06 Number of cylinders

For all races (with the exception of 1000cc Speedway Sidecars), only single cylinder engines are allowed.

#### 25.07

If separate combustion spaces are used they must be connected by an unrestricted passage of minimum cross-sectional area at least 50% of the total inlet port area.

#### 25.08

Carburettors only can be used. Any electronic tuning devices are forbidden.

#### 01.26 DEFINITION OF A FRAME OF A SOLO MOTORCYCLE

The structure or structures used to join any steering mechanism at the front of the machine to the engine/gear box unit and to all components of the rear suspension.

# 01.27 STARTING DEVICES

Starting devices for the engine are not compulsory.

#### 01.28 FUEL TANK

The fuel tank and fuel cap must be leak-proof at all times.

Fuel tanks are allowed provided that:

- · they must be firmly fixed
- · hose connections must be leak-proof
- they must be protected against projections
- they are not placed in front or above the handlebar



they must be installed within the frame

Additional fuel tank is not allowed.

#### 01.29 OPEN TRANSMISSION GUARDS

#### 29.01

The primary transmission must have a proper guard as a safety measure; small holes (max 10 [mm]) in the transmission/clutch guard are allowed for extra cooling.

Excessive cutting of the guard is not allowed. Cutting of the guard is only permitted to expose the clutch pressure plate and to allow adjustments to the clutch springs.

The guard must be conceived in such a way that under no circumstances can the rider or the passenger come accidentally in contact with the transmission/clutch parts. It must be designed to protect the rider from injuring their fingers.

An additional protective device must be provided to prevent a broken primary chain from flying upwards. This can be provided by a fully enclosed steel chain guard. Alternatively, if a chain guard is made from plastic or from other material, then a steel bolt of 10 [mm] minimum diameter must be placed outside the bottom rear quadrant of the clutch sprocket (see Diagrams G, H, K). This bolt, if damaged, must always be completely replaced.

A guard/cover must be fitted to the countershaft sprocket (if it is exposed).

#### 29.03

A protective guard must be fitted where the rear chain enters onto the rear wheel sprocket.

#### 29.04 SECONDARY TRANSMISSION CHAIN TENSION ADJUSTER

Secondary chain adjusters (screw) must be in principle ball ended (diameter of this ball to be at least 20 [mm]).

Material can be steel or aluminium. The adjuster may have a hole of maximum 9 mm, which must be closed with a cap (plastic, etc.).

If the adjuster is incorporated in frame and there are no sharp edges, no additional protection needed.

#### 01.31 EXHAUST PIPES AND SILENCERS

Exhaust pipes and silencers must fulfil all the requirements concerning sound-level control.



Exhaust fumes must be discharged towards the rear but not in a manner as to raise dust, foul the tyres or brakes, or inconvenience the passenger (in case of Sidecars), or any other rider.

As of 01.01.2015, FIM announced the following new construction requirements for silencers in Track Racing (for all 500cc and 250cc single cylinder engines running on methanol, including Ice Racing, except for 85cc and 125cc).

- All silencers used must be homologated by the FIM.
- The FIM silencer homologation consists of several sound tests. Every sound test will be made by using a conventional exhaust pipe and a modified exhaust pipe (see description in Nr 1). Sound tests will be made with the FIM nominated official.

# 1. Exhaust pipe:

A single main exhaust pipe is prescribed with an external diameter of maximum 50 [mm] for 500cc motorcycles and 40 [mm] for 250cc motorcycles. An exhaust pipe may include external or internal sound suppression body (max. diameter 50 [mm] or 40 [mm] for 500cc and 250cc motorcycles, respectively/max. length 250 [mm]) to reduce the sound level, welded securely on top and parallel to the exhaust pipe. Material is free. (Requirements to fix the exhaust pipe remain the unchanged.)

# A lambda sensor may be added/mounted to the exhaust line.

# 2. Silencer construction:

The silencer must be made as one complete, sealed unit without any removable parts. The silencer must be a mechanical type, using the position of permanently fixed pipes, baffles or plates to reduce the sound to the maximum permitted sound level.

Insulating material, for the sole purpose of reducing the external temperature of the silencer body, is permitted provided it is contained within a sealed chamber that has no contact with exhaust gas or the outside atmosphere.

The end of the silencer exhaust pipe, when fitted on the motorcycle, must be parallel to the central axis of the machine (tolerance 10°). The maximum length is 20 [mm] (including a rounded collar); the maximum internal diameter of the pipe exit is 45 [mm] (+ 2.0 [mm] tolerance). The end of the silencer must finish at a right angle and contain a rounded collar (min. 5 [mm]/max. 10 [mm]).

Fixing points to attach a heat shield may be included.

# 3. Silencer length and location:

The position of the silencer is provided by the following limitations: the silencer/exhaust system shall not exceed the leading edge of the rear wheel when viewed from the side and leave space for the rider's foot. The silencer exit is behind the rider and within the rear tyre silhouette of the motorcycle when viewed from the side.



# 4. Maximum permitted sound level:

Exhaust pipes and silencers must fulfil all the requirements concerning sound control (please refer to the latest FIM Sound Regulations) available hereunder:

https://www.fim-moto.com/en/documents?tx solr%5Bg%5D=sound

# 5. Engine RPM:

All silencers presented for homologation will be tested with an engine RPM level of 11000 rpm to measure the sound limit produced by the combination of the exhaust and silencer.

# 6. Period of validity:

The use of FIM homologated silencer is mandatory.

MANUFACTURER	PRODUCT IDENTIFICATION	VALID FROM
DEP FREEFLOW	FIM 26AY15	01.01.2015
KING 2015	FIM 071Y15	01.01.2015
POLDEM2	FIM 06BP78	01.01.2015
REMUS V4	FIM 10CT15	01.01.2016
REMUS V7	FIM 11V15	01.01.2016

Any new FIM homologated silencer shall be constructed according to these requirements and be within the maximum permitted sound level. A homologation fee will be applied.

# 31.01 FIM homologated silencers

Since 2020, it is compulsory to mark the year of production on the silencer.

Only homologated silencers with their year of production stamped will be accepted for Solo Motorcycles belonging to 250cc and 500cc Speedway, Ice Racing, and Long Track.

Modifying the homologated silencer is not permitted on 250cc and 500cc Track Racing motorcycles. The only modification allowed to fit homologated silencers for use on 250cc Track Racing motorcycles, is by the use of an adapter between the end of the exhaust pipe and the inlet pipe of the silencer.

Since 2020, it is compulsory to change the homologated silencer every 4 years, except for Ice Racing where the validity is 5 years.

# 31.03 Construction requirements

The silencer must be made as one complete, sealed unit, without any removable parts.



#### 31.03.1

The exhaust pipe must be fixed to the cylinder head and frame with a minimum of 3 clips (the point of fixture at the cylinder head is considered as one clip). The silencer must be fixed to the frame with at least one clip.

Additionally, a second flexible coupling must be fitted from the first third of the silencer to the frame. This second coupling should be a steel cable of at least 3 [mm]  $\varnothing$  or strong steel spring.

#### 31.03.2

The outside diameter of the single exhaust pipe must not exceed 50 [mm] and 40 [mm] for 500cc and 250cc motorcycles respectively and must be constant, in principle, over its entire length. However, the end of the exhaust pipe can be swaged out to fit into the silencer (max. diameter 50 [mm]).

The exhaust pipe may include a sound suppression system (with a max. diameter 50 [mm] or 40 [mm] for 500cc and 250cc motorcycles respectively/max. length 250 [mm]), may be added, welded securely on top and parallel to the exhaust pipe.

#### 31.03.3

The outlet area of the silencer must remain constant over a length of 50 [mm] and must not exceed 45 [mm] internal diameter or an equivalent area and must not be perforated (no slots, holes, etc.).

# 31.03.4

The end of the exhaust pipe, over a minimum distance of 30 [mm], must be horizontal and parallel to the central axis of the solo machine (with a tolerance of  $\pm$  10°).

# 31.03.5

The end of the pipe must be cut at a right angle. The end of the silencer must be cut at a right angle. The silencer end must be a rounded edge with a diameter of 5 [mm] minimum. See Diagrams G, H, K and P.

# 31.03.6

Between the silencer and the tyre a maximum gap of 60 [mm] (90 [mm] for Ice Racing), with a tolerance of +/- 10 [mm]), must not be exceeded (see Diagram P).

# 31.03.7

It is compulsory that all homologated silencers be fitted with a heat shield (guard) declared eligible for competition by the FIM, securely mounted on the exterior of the silencer, to give extra protection to riders in the event of close contact (In Ice Racing, the heat shield is recommended).



All FIM homologated silencers (starting with the 2015 models) shall be equipped with a heat shield (guard), provided by the manufacturer of the silencer or their supplier.

MANUFACTURER	PRODUCT IDENTIFICATION	VALID FROM
Astromal AS-Speedway	SC-03	01.01.2015
Astromal AS-Speedway	SC-04	01.01.2015
Astromal AS-Speedway (S)	SC-05	01.01.2016
Astromal AS-Speedway	SC-06	01.01.2016
DEP (by Pro Carbon)	SPA02	01.01.2015
DEP (by Pro Carbon)	SPA 09	01.01.2015
DEP (by GPM)	SPA 10	01.01.2015
FRP (By Foxy Racing Products)		01.01.2013
GPM (by gpmouldings.co.uk)		01.01.2015
GPM (by gpmouldings.co.uk)		01.01.2015
Jack Attack	2015 POL	01.01.2015
Jack Attack	2015	01.01.2015
JOBA Tri Oval Apache	2014	01.01.2014
JOBA Tri Oval Apache	2015	01.01.2015
KL Support Aps	KJL	23.05.2022
REMUS Sportexhaust		01.01.2016
SRP (by Speiser)	2013	01.01.2013

# 31.04

The exhaust system must not extend beyond the vertical line drawn at the end of the rear tyre.

#### 31.05

On a Sidecar motorcycle, the exhaust must discharge horizontally and towards the rear, at a maximum angle of 30° to the axis of the machine, and at the end must be of constant diameter over a distance of 30 [mm].

# 31.06

If any part of the motorcycle's exhaust system during racing or practice becomes displaced, detached, or damaged, or it fails in any other way so that all the exhaust gases do not pass through the silencer in a proper manner, the rider concerned will be immediately disqualified from the heat or from the practice run.

#### 01.33 HANDLEBARS



#### 33.01

The width of handlebars is:

85/125 cc: Not less than 650 [mm] and not more than 850 [mm]. 250cc/500cc Track Racing: Not less than 700 [mm] and not more than 900 [mm].

Ice Racing: Minimum: 700 [mm], maximum width: 800 [mm].

All other: Not less than 700 [mm] and not more than 900 [mm].

# 33.02

If the handlebar comprises a cross bar, it must be equipped with a protection pad.

# 33.03

Handlebar clamps must be very carefully radiused and engineered so as to avoid any fracture points in the handlebar.

#### 33.04

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

#### 33.06

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

#### 33.07

Handlebars made of composite materials are not authorised.

# 33.08

Repair by welding of light alloy handlebars is prohibited.

#### 33.09

Solid stops (when on full-lock, other than steering dampers) must be fitted. A steering damper cannot be used as a steering lock.

# 33.10

For Ice Racing, the extremity of the left handlebar must be fitted with an integral steel ball of at least 28 [mm] in diameter. Clip-on handlebars consisting of two separate parts are forbidden.

#### 33.11

For Sidecars, the minimum angle of rotation of the handlebar on each side of the centre line or mid position must be at least 40°. The steering must be effected only through the motorcycle front wheel and its steering fork. A steerable Sidecar wheel is forbidden.



#### 01.35 CONTROL LEVERS

#### 35.01

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

# 35.03

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

#### 35.03.1

For Ice Racing, a stop must provide a minimum clearance of 15 [mm] between the left-hand control lever and the handlebar grip.

#### 35.03.2

Gear and clutch levers must be positioned in such a manner that the rider does not need to change their position to operate them.

#### 35.03.3

The lever must be mounted to swivel, so that at no time can the rider's fingers be trapped between the lever and the handlebars.

#### 35.03.4

The end of levers when closed must not be situated wider than the furthest extremity of the handlebar. For Ice Racing, the end of the levers shall not exceed the end of the handlebars.

#### 35.04

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

# 01.37 THROTTLE CONTROLS

# 37.01

Throttle controls must be self-closing when not held by the hand. The throttle operation (opening and closing) shall only be activated by mechanical cable from the twist grip directly attached to the throttle valve. Electronically controlled throttle valves are



forbidden. All air intakes into the cylinder must pass through the throttle body. No other means allowing ambient air into the inlet track of the cylinder head are allowed.

# 37.02 Ignition cut-out switches

Solo and Sidecar motorcycles must be equipped with a functional ignition kill switch or button mounted on either right or left side of handlebar (within reach of the hand while on the hand grips) that stops a running engine. The ignition cut-out switch may also be fitted on the handlebar, as close as practicable to the throttle.

The lanyard must remain attached to the wrist of the rider, mechanic or support team member at all times when the engine is running.

The ignition cut-out must stop the engine immediately, by the simple action of pulling a lanyard or a non-elastic string (which must be as short as possible) attached to the rider's right wrist.

All other engine management switches and electrical connectors must remain covered or closed during riding.

#### 01.38 REV LIMITER

All 250cc engines shall incorporate an ignition system with rev limiter. Such rev limiters must remain unmodified as delivered by the manufacturer.

The rev limiter is also compulsory for all 500cc - 4 valve speedway engines used in solo machines (announced in 2019). The hard rev-limit must be set to 13500 rpm. A soft limiter is recommended before the hard limiter. The FIM allows a 300 rpm tolerance based on the hard rev-limit of 13500 rpm.

The FIM Technical Director (or their appointed technical team) can, at any time during the event, install a rev counter (FIM RPM logger) on the machine (mounted/attached to the frame and connected to the ignition coil/engine) or check the maximum engine revolutions with a computer/software connected to the digital ignition system.

# 01.39 FOOTRESTS

#### 39.01

Footrests of motorcycles for Ice Racing and all types of Solo Track racing shall be on the right-hand side of the machine and must not exceed 320 [mm] in length measured from the centre line of the motorcycle (see Diagrams G, H, and K).

#### 39.02

For Sidecars, the footrest on the opposite side to the Sidecar must be protected at the front by a crash bar connected to the frame, so that injury or damage to other



participants is prevented. The footrest must be fitted at a height of at least 150 [mm] from the ground.

#### **01.41 BRAKES**

#### 41.01

Brakes are not permitted on Track Racing motorcycles except for flat track.

# 01.43 MUDGUARDS AND WHEEL PROTECTION

Motorcycles must be fitted with mudguards.

#### 43.01

Mudguards must project laterally beyond the tyre on each side. Both front and rear mudguards must be made of flexible materials (e.g. solid and rigid plastics, composite materials) and the mudguards shall not cause any injuries when damaged.

If the motorcycle has an additional seat mounting unit (high mudguards) above the rear wheel mudguard, it must also be made of a type of flexible plastic material and these seat units should have suitable radius (not a point) on the rear end of the unit (rounded end of the unit recommended). The team/rider must present and receive the approval from the FIM Technical Director before the use of this part. The decision of the FIM Technical Director on the conformity and approval of the part is final.

#### 43.03

For Speedway and Long Track, a front mudguard which follows the contour of the wheel, must extend at least 5° in front of a vertical line running through the bottom of the front fork steering stem axis and at least 200 [mm] from the same point towards the rear. A rear mudguard must extend at least 5° behind a vertical line running through the centre of the rear wheel axle.

If the distance from the rear wheel tyre surface and the rear end of the rear mudguard is greater than 35 [mm], an additional wheel protection must be fitted. The gap between the wheel and the wheel protection must not be larger than 35 [mm].

If a push bar is used, it should be made in one piece, of strong material which should deform under impact and must not protrude any higher than 35 [mm] above the rear mudguard.

# 43.04

For Speedway: rear wheels, either laced with spokes, or cast, or welded, must be covered with a solid disc on the right-hand side. A gap between the rim section and the disc shall not be larger than 10 [mm]. Sidecars must use a protective cover on front wheels which are cast or welded.



For Long Track, this protective disc is compulsory.

#### 43.06

For Sidecars, the mudguard of the rear wheel and the mudguard of the Sidecar must extend down at the rear to a maximum of 200 [mm] from the ground (see Diagram L).

# 43.07 Mudguards for Ice Racing

Mudguards must project laterally beyond the tyre on each side and the top half of the wheel (in circumference) must be completely covered (see Diagram H for dimensions).

The front mudguard should be made from composite materials. The material shall be of appropriate strength and design and not to break or collapse under impact. Where necessary, this may be achieved by the incorporation of reinforcement (for example, a tubular protection of continuous construction) fixed to the front suspension.

The guard must be properly fixed to the front suspension.

The mudguard and/or the associated protection required must be designed to extend down at the rear of the wheel to a maximum of 250 [mm] from the surface of the ice and at the front must extend down to a maximum of 200 [mm] from the ice surface (see Diagram H).

On both sides of the front wheel the front mudguard must also extend down to the wheel spindle so that the top half of the wheel and the tyre are completely covered.

The rear mudguard should be made of composite materials and extend down at the rear of the wheel to a maximum of 250 [mm] from the ice surface.

On both sides of the rear wheel the rear mudguard must extend down to a maximum of 100 [mm] from the wheel spindle so that the top half of the wheel and the tyre are completely covered.

Additionally, a guard must be fitted to provide protection in front of the rear wheel in order to avoid the left leg getting injured by spikes.

#### 43.10

Protection from the Sidecar wheel and the rear wheel for the passenger must be provided down to the level of the Sidecar platform.

#### 43.11

The outside of the Sidecar wheel must either be completely covered by a disc extending to the wheel rim, or the Sidecar mudguard must extend downwards on the outside to the centre of the wheel spindle.



#### 01.45 STREAMLINING

Streamlining is permitted.

Streamlining should be made of flexible materials (e.g. solid and rigid plastics, composite materials) and must not break under impact. Streamlining must not have any sharp corners and must be properly fixed to the motorcycle.

If the motorcycle has an additional seat mounting unit (high mudguards) above the rear wheel mudguard, it must also be made of a type of flexible plastic material and these seat units should have suitable radius (not a point) on the rear end of the unit (rounded end of the unit recommended). The team/rider must present and receive the approval from the FIM Technical Director before the use of this part. The decision of the FIM Technical Director on the conformity and approval of the part is final.

#### 01.46 INCLINATION AND SUSPENSION OF MOTORCYCLES

The minimum angle of inclination for Ice Racing machines is 68°.

# 01.47 WHEELS, RIMS, AND TYRES (See Table 01.86)

All tyres will be measured mounted on the rim at a pressure of 1 [kg/sq.cm] (14 [lb./sq.in]); measurements are taken at a tyre section plane with a 90° angle with the ground plane.

#### 47.02

The speedway rear rim size is 19 [in] and the maximum width is 2.50 [in].

Any modification to the rim or spokes of an integral wheel (cast, moulded, riveted) as supplied by the manufacturer or of a traditional detachable rim (other than for spokes, valve, or security bolts) is prohibited.

The only exception made is for tyre retention screws sometimes used to prevent tyre movement relative to the rim. If the rim is modified for these purposes, bolts, screws, etc., must be fitted.

#### 47.03

Tyres must be inflated/filled by air only. No other substance shall be used to increase overall weight. Balancing weights only may be added and attached only to the rim or spokes.

# 47.04



The use of tractor pattern tread tyres is prohibited. The use of chains and any other non-skid device is prohibited (except for disciplines on Ice).

# 01.49 TYRES FOR 250cc/500cc SPEEDWAY (See Diagrams G bis)

#### 49.01

The overall width of the rear tyre must not exceed 100 [mm] (O).

#### 49.02

The tread depth (A) must not exceed 8 [mm] measured at right angles to the face of the tread. All blocks in the same circumference must be of the same depth.

#### 49.03

The space between the blocks must not exceed 9.5 [mm] across the tyre (B) or 13 [mm] in a circumferential direction (C).

# 49.04

The space between shoulder blocks (D) must not exceed 22 [mm].

#### 49.05

The space across the tread (E) must not extend completely across the tyre measured at right angles to the wall of the tyre, unless broken by a block.

#### 49.06

All tread block (with the exception of the shoulder) must be nominally rectangular with sides parallel with or at right angles to the tyre axis (tyre must have same appearance when reversed and conform in principle with Diagram G bis).

#### 49.07

The tyre surface must not be fitted with any subsequently mounted elements such as anti-skid spikes, special chains, etc.

#### 49.08

All tread blocks (shoulder and main) may be laminated by the manufacturer with a maximum of 3 x 0.5 [mm] wide slots (sipes) per block, in the original mould.

Subsequent tyre modification(s) of any type are not permitted under any circumstances. (Tyres may not be treated by chemicals, tyre warmers, or any other means, which may alter the shape, minimum Shore hardness, construction or other characteristics).



#### 49.09

For the front tyre, the only restriction is the overall width which is limited to 80 [mm] maximum.

#### 49.10

Rear tyres must have a minimum Shore hardness of 70 (±2) at 20°C.

#### 49.11

The overall width (Art. 49.01) and the Shore hardness (Art. 40.10) of the rear tyres must be measured through a TUV laboratory or a similar Institute. The manufacturer shall send a sample of the rear tyre to the FIM and the FIM will take care of sending the sample to the laboratory. Depending on the results of the tests, the FIM shall issue a homologation number. The manufacturer will then engrave this number of the tyre mould: FIM/XX + Year of homologation.

The FIM reserves the right to take rear tyres from the race and perform post-homologation controls.

#### 49.12

The rear tyre must be measured mounted on a rim, type WM 3 - 2.15 x 19 [in] rim.

# 01.50 TYRES FOR 250cc/500cc LONG TRACK

#### 50.01

The dimension of the rear tyre for Long Track must have a rim diameter of 22 [in] and a maximum width of 100 [mm].

The tread depth (A) must not exceed 11 [mm] measured at right angles to the face of the tread. All blocks in the same circumference must be of the same depth (see Diagram G bis).

#### 50.02

There is no restriction on the size or type of the front tyre.

#### 50.03

The tyre delivered by the manufacturer must not be subsequently altered or cut.

#### 01.51 TYRES FOR ICE RACING



#### 51.01

The tyre must be of special design.

#### 51.02

The tyre's surface must have anti-skid spikes. These spikes must ensure safe and fully controllable driving on ice.

#### 51.03

Spikes shall be made from tempered steel only.

The maximum length of the spike, measured from the flat top surface of the fastening plate (washer): 28 [mm].

Maximum thickness of the fastening plate (washer): 6 [mm].

Minimum diameter of the top of the fastening plate: 15 [mm] and must be flat.

Maximum diameter on the base of the fastening plate: no limit.

The tubular gauge must have a maximum internal diameter (ID) of: 15 [mm] (unchanged).

# 51.04

No spikes shall exceed through a line, the vertical tangent on the extreme right-hand side of the tyre.

#### 51.05

The front tyre must have a maximum width of 100 [mm] and be fitted to a wheel rim of maximum diameter 23 [in].

#### 51.06

The rear tyre must have a maximum width of 100 [mm] and be fitted to a wheel rim of maximum diameter 21 [in].

# 01.52 WHEELS, RIMS, AND TYRES FOR 1000cc SIDECARS

#### 52.01

#### Front wheel:

- Minimum rim diameter: 18 [in]
- Minimum diameter wheel spindle: 15 [mm] tempered steel shaft permitted only
- Minimum diameter of spokes: 3.5 [mm] M4, steel construction
- Spoke lacing must cross twice

#### Rear wheel:

Minimum rim diameter: 18 [in]



- Maximum rim diameter: 22 [in]
- Minimum diameter wheel spindle: 17 [mm], tempered steel shaft permitted only
- Minimum diameter of spokes: 4 [mm], M4, steel construction
- Spoke lacing must cross twice

#### Sidecar wheel:

- Minimum rim diameter: 16 [in]
- Minimum diameter wheel spindle: 25 [mm], tempered steel shaft permitted only
- Minimum diameter of spokes: 4 [mm], M4, steel construction
- Spoke lacing must cross twice

#### 52.03

Spindle sleeves must be secured by supplementary self-locking nuts, e.g. nyloc or castle nuts with split pins.

#### 52.04

The minimum width between the wire spoke flanges at the hub must be 75 [mm] (see Diagram 1). The spoke holes must be countersunk on both sides. Plastic hubs are forbidden.

# 01.54 ADDITIONAL RULES FOR 1000cc SPEEDWAY SIDECARS

#### 54.01 Definition

#### 54.01.1

To be deemed as eligible for competition in Sidecar events on track racing circuits, the machine shall be in conformity with the following requirements:

# 54.01.2

The motorcycle must have three rolling wheels. The Sidecar wheel must be on the left of the machine. The drive shall be transmitted to the track surface through the rear wheel of the motorcycle.

#### 54.01.3

The motorcycle must at all times carry a driver and a passenger.

#### 54.01.4

Brakes are not permitted.

#### 54.01.5

Rear wheel suspension is optional.



#### 54.01.6

The passenger must sit astride the motorcycle.

#### 54.01.7

The motorcycle shall always race in a clockwise direction.

#### 54.02 Dimensions

#### 54.02.1

The overall length from leading edge of the front tyre to outside of the rear mudguard must not exceed 2600 [mm].

#### 54.02.2

The overall width must not exceed 1500 [mm].

# 54.02.3

The wheelbase, measured from the centre of the front spindle to the centre of the rear spindle, must measure between 1280 [mm] and 1800 [mm].

#### 54.02.4

The wheel track, measured between the centre lines of the track left by the rear and Sidecar wheels, shall be a minimum of 800 [mm] and a maximum of 1100 [mm].

#### 54.02.5

The front and rear wheel must be aligned as such that the centre line of the tracks made by the motorcycle is proceeding directly forward andmust be no further apart than 75 [mm].

#### 54.02.6

The width of the running board on the right of the motorcycle must not exceed 400 [mm].

#### 54.02.7

The angle of inclination of the main body of the motorcycle must not exceed 10° from the vertical.

#### 54.02.8

The minimum ground clearance at any point of the Sidecar shall be 75 [mm] unloaded.



# **54.03** Engine

The engine capacity shall not exceed 1000cc. Engines may be bored up to 1045cc (no further tolerance).

**54.04 Minimum weight**: 180 [kg].

# 54.05 Fuel, oil, and coolants

Methanol or unleaded fuel is the only permitted fuel. The use of octane boosters is forbidden.

On liquid engines, an overflow pipe must direct any overflow coolant away from the rider and passenger and into a catch tank.

For environmental reasons, the rider/team/mechanic must at all times place a receptive container or an environmental mat under the motorcycle to catch waste oil and coolants, etc., when working in the pit-area during an event.

# 54.05.1

The use of fuel additives is prohibited, with the exception of oil for two stroke engines.

#### 54.05.2

Fuel injection is permitted.

#### 54.05.3

Fuel tanks must be constructed of a material that neither shatters or splinters upon impact, and must be mounted to the rear of steering headstock.

# 54.06 Exhaust systems

#### 54.06.1

Exhaust pipes and silencers may be of a "baffle" or "absorption" type and must fulfil the requirements concerning noise control.

An exhaust extraction (megaphone types) effect must not be caused by the positioning of any tapered, conical, or other shaped parts.

#### 54.06.2

The exhaust pipe must be fixed to the cylinder head and frame with a minimum of three (3) clips (the point of fixture at the cylinder head is considered as one clip). The silencer must be fixed to the frame with at least one clip.



Additionally, a second flexible coupling must be fitted from the first third of the silencer to the frame (steel cable of at least 3 [mm]  $\varnothing$  for reasons of safety) or a solid steel spring.

#### 54.06.3

Exhaust fumes must be discharged towards the rear but not in a manner as to raise dust, foul the tyres, or inconvenience a passenger, if there is one, or any other riders.

#### 54.06.3

The entire exhaust system must be contained within the fairing, to ensure that the exhaust system cannot come in contact with any rider, passenger, or motorcycle.

# 54.07 Wheels, rims, and tyres

#### 54.07.1

The only permitted rear tyre are the FIM Homologated Speedway tyres.

The rear tyre must be marked (by the Technical Steward).

Front tyre and Sidecar tyre must be of a Trial or Enduro type pattern.

Maximum sizes for rear wheel rim: 5 [in] x 19 [in]

#### 54.07.2

The Sidecar wheel diameter must be between 16 and 19 [in], and must camber inwards.

#### 54.07.3

The inside of spoked, cast, or welded wheels must be covered with a disc or a shield.

#### 54.07.4

The Sidecar wheel can be mounted with plates on both sides, in which case the spindle diameter is min. 12 [mm]. If the Sidecar wheel is mounted with a bracket on one side, the spindle diameter is min. 20 [mm].

#### 54.07.5

The rear and front wheel must be fitted with knockout spindles. The use of light alloys and titanium in the manufacturing of wheel spindles is forbidden.

# 54.08 Sidecar Platform

# 54.08.1



If the Sidecar platform is not an integral part of the frame, the platform must be rigidly fixed to the motorcycle in at least four places.

#### 54.08.2

Any space between the Sidecar platform and the rear wheel of the motorcycle must be covered to ensure that the passenger's hands and feet cannot be trapped in the driving chain or the rear wheel.

#### 54.08.3

The Sidecar wheel must be contained within a continuous 25 [mm] horizontal crash bar, fixed rigidly to the Sidecar platform at Sidecar floor height.

Any open area in the Sidecar platform inside the continuous crash bar, and on the running board on the near-side, must be filled with a suitable material to prevent either the rider or passenger from trapping their feet.

#### 54.09 Dirt deflectors, mudguards, fairings

# 54.09.1

A dirt deflector is compulsory and must be declared eligible for competition by the FIM. See Art. 58.03.1 for dirt deflector details.

#### 54.09.2

The dirt deflector arm must be positioned to ensure that the blade and flap are correctly positioned behind the rear tyre.

#### 54.09.3

The rear mudguard must be fitted and extend from the rear seat to a maximum of 150 [mm] from the ground with the Sidecar occupied or with ballast.

#### 54.09.4

The outside of the Sidecar wheel and tyre must be covered by a non-rotating shield or fairing. This fairing must be securely fixed to the Sidecar and outside of the crash bar.

#### 54.09.5

All fairings and nose cones must be constructed of fibreglass, plastic, or similar material. They must be smooth, free of any sharp or protruding edges, and must not provide a danger to any other competitor. The minimum clearance between streamlining and the ends of the handlebars or their attachments is 30 [mm] with the front wheel in any position. No aero foils or similar devices are permitted.

# 54.09.6



No part of any nose cone or fairing may extend beyond a vertical line drawn through the leading edge of the front tyre. No part of the Sidecar fairing may extend beyond a vertical line drawn at a tangent to the rear edge of the back tyre.

#### 54.10 Frame

The use of titanium and composite materials in the construction of a frame and swingarm is completely forbidden

**54.11** An efficient steering damper must be installed.

#### 01.55 NUMBER PLATES

# 55.01 Speedway World Championships / Cups / Trophies

For the Speedway machines, the number must be displayed on the right side of the motorcycle.

Each number must be marked in such a manner as to be clearly visible and must not be masked by any part of the motorcycle or by the rider when seated in the driving position.

The numbers must fit in the space between the upper part of the rear sub-frame, the bottom edge of the rear mudguard and the lifting handle.

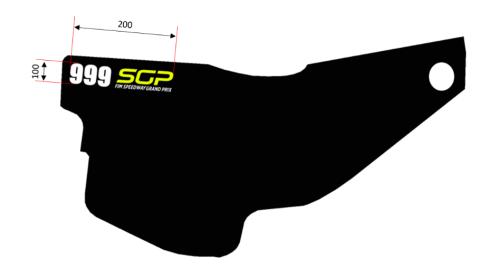
The digits must be clearly legible and, like the background, must be painted in matt colours to avoid reflection from light. The minimum dimensions of the figures being:

Height of figure: 100 [mm]

No other number markings on a motorcycle liable to cause confusion will be allowed and must be removed before the start of a competition.

For the SGP machines bike covers, the rider's number and the SGP logo must be displayed on the right side of the motorcycle travelling forward and must be minimum 200 [mm] long together. The rider's number and the SGP logo must be marked in such a manner as to be clearly visible and must not be masked by any part of the motorcycle. The rider's number must be minimum 100 [mm] high. (Diagram below)





# 55.02 For Ice Racing

For Ice Racing World Championship Events:

The number must be displayed on the front plate of the motorcycle.

For Ice Racing Final Series:

The number must be displayed on the front plate of the motorcycle.

Background colour: RAL 5019.

Numbers minimum height: 120 [mm].

Numbers colour: white.

FIM and ISG logos are COMPULSORY

National flag in the race suit front - minimum size: 50 x 100 [mm].

Number background: white.

Numbers minimum height: 150 [mm].

Numbers colour: black.

Free number font as long as it is clearly readable.





# 55.03 Long Track World Championship

The number must be displayed on the front plate and on right side of the motorcycle.

Each number must be marked in such a manner as to be clearly visible and must not be masked by any part of the motorcycle or by the rider when seated in the driving position.

The digits must be clearly legible and, like the background, must be painted in matt colours to avoid reflection from light.



Background colour: RAL 1023

Numbers minimum height: 120 [mm]

Numbers colour: black

FIM and Long Track logo are COMPULSORY: 20 [mm] high

Free number font as long as it is clearly readable.

Free number plate design.

National flag in the race suit front - minimum size: 50 x 100 [mm]

Numbers background colour: white Numbers minimum height: 150 [mm]

Numbers colour: black

Free number font as long as it is clearly readable.





# 55.04 250cc Long Track and 125cc Track Racing

The number must be displayed on the front plate and on the right side of the motorcycle.

Each number must be marked in such a manner as to be clearly visible and must not be masked by any part of the motorcycle or by the rider when seated in the driving position.

The figures must be clearly legible and, like the background, must be painted in matt colours to avoid reflection from light.

The minimum height of the number figures must be 120 [mm].

#### 55.05 Sidecars

The number must be displayed on the front and at least one side of the vehicle (left side).

Each number must be marked in such a manner as to be clearly visible and must not be masked by any part of the motorcycle or by the rider when seated in the driving position.

The figures must be clearly legible and, like the background, must be painted in matt colours to avoid reflection from light.

The minimum height of the number figures must be 150 [mm].

The English form for numbers must be used. That is single vertical line for the "one" and a simple sloping line without a horizontal line for the "seven".



All other number markings on a motorcycle liable to cause confusion with the number must be removed before the start of a competition.

# 55.12 Number plate colours

The colours must be matt, following the RAL colour table, i.e.:

Black	9005
Blue	5010
Yellow	1003
Green	6002
White	9010

#### 55.12.1

For Long Track: yellow background, black numbers.

# 55.12.2

For Sidecars: black background, white numbers.

#### 55.12.3

For 125cc Track Racing motorcycles: green background, white numbers.

#### 55.12.4

For 250cc Long Track: blue background, white numbers.

#### 55.13

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

# 01.56 OIL CATCH TANKS

All motorcycles with a closed oil system must be equipped with an oil catch tank with a minimum volume of 300cc to be fitted over the breather pipe on the engine.

All motorcycles with a total loss oil system must be equipped with an oil catch tank with a minimum volume of 300cc to be emptied after each heat or race.

When the engine is running the bottom of oil catch tank must be closed.

#### 01.57 ENVIRONMENTAL MAT



When bikes are placed in the pits, parc fermé, or other parking area the use of an environmental mat is compulsory for all riders and all their bikes. It must be used whenever working or parking the bikes, during practice, and racing.

#### 01.58 SPECIFICATION FOR TRACK RACING MOTORCYCLES

#### 58.01 General

Machines must be fitted with a single cylinder 4-stroke engine with a maximum capacity of 250cc or 500cc, 4 valves maximum, fitted with one (1) carburettor with a diameter of 34 [mm] and one spark plug.

From 01.01.2026: a minimum length of conrod of 163 mm is strongly recommended.

From 01.01.2027: a minimum length of conrod of 163 mm is compulsory.

#### 58.02 Carburation instruments

A section of the carburation instrument induction tract must have a constant, circular section with a diameter of 34 [mm] (+ 0.1 [mm]). Only one (1) single fuel nozzle is permitted. No other additions are permitted in the air induction tract.

On the air intake side, this circular section will be measured from the slide/throttle valve edge over a minimum length of 5 [mm].

On the engine side, this circular section will be measured from the slide/throttle valve edge, over a minimum length of 25 [mm].

On the engine side, an additional hole (maximum diameter 6 [mm]) is permitted to be used for engine starting purposes (choke). (See Diagrams G, H, K, L)

# For two-valve engines:

An additional jet and/or an additional hole (maximum diameter 2 [mm]) on the engine side is authorised to improve the engine's response at lower rpm.

# 58.03 Dirt deflector

Dirt deflectors are compulsory in 250cc/500cc Speedway, Long Track. If any part of the dirt deflector system during racing or practice becomes displaced, detached, or damaged, or it fails in any other way so that all the dirt deflector is not fitted in a proper manner, the rider concerned will be immediately disqualified from the heat or from the practice run. If it happens when the rider is hit by another rider or during any racing incident, no disqualification will be applied.

All dirt deflectors must be declared eligible for competition by the FIM.



MANUFACTURER	PRODUCT IDENTIFICATION	VALID FROM
BRIGGO	BBDD/96/A/AII	01.01.1998
BRIGGO	FIDDBBR/9712/SCB01	01.01.1998
DAVE STANDING	DASDD/97/A/AII	01.01.1998
JAWA	DD-JAWA/2000/03	01.01.2000
JAWA	FIM	01.01.2002
EZ	FIM	01.01.2002

# 58.03.1 Dirt deflector specifications

The dirt deflectors used must be within these specifications and must be fitted to the machine and presented at the technical control.

#### 58.03.2

The dirt deflector arm(s) and pivot mechanism must be constructed of the highest-grade materials, permitting minimal distortion and maximum durability under all riding conditions.

#### 58.03.3

The dirt deflector flap holder must be constructed of a non-metallic material (except for Longtrack and Sidecars).

The dirt deflector 'flap' must be easily replaceable and constructed of a resilient, non-metallic material. The dirt deflector flap must remain effective under all track surface and wind conditions.

The dirt deflector flap must be shaped and positioned in such a way that the distance of the upper flap edge to the complete tyre tread width is 18 [mm] (+/-5 [mm]). The opposite lower edge shall be 35 [mm] maximum from the track surface over an equal distance.

Outside of this centre section, the deflector flap lower edge may slope up to a maximum of 50 [mm] above the track surface.

#### 58.03.4

The deflector flap must be set at an angle, between 30° and 50° maximum to the track surface, measured on the longitudinal centre line of the machine.

A manufacturer must show the designed angle on any published instruction. The permitted fitting tolerance on the designed angle is +/- 5° (see also Art. 58.03.9 and Diagram S).

#### 58.03.5



The deflector flap must not be less than 250 [mm] and not more than 300 [mm] in overall width. The flap centre must be positioned within a 10 [mm] off-set to the left of the tyre centre line, in the normal riding position.

The flap holder must not be less than 100 [mm] and not more than 160 [mm] in overall width.

### 58.03.6

No part of the dirt deflector shall be more than 75 [mm] behind the vertical tangent to the rearmost point of the tyre when fitted in the normal operating position.

### 58.03.7

The dirt deflector arm(s) must be able to pivot a minimum of 25° in an upward direction to allow safe operation when the front wheel lifts.

### 58.03.8

Any pivot arrangement must have its centre of rotation a maximum of 70 [mm] from the rear wheel axis.

### 58.03.9

A mechanism must maintain constant function of the pivot arrangement and be able to return the dirt deflector 'flap' to its normal operating position with minimal delay.

To measure the tension provided by the mechanism of the dirt deflector, a vertical balance shall be used to measure an equivalent minimum pre-load of 2.5 [kg] for dirt deflectors used in Speedway and an equivalent minimum pre-load of 8 [kg] for dirt deflectors used for Long Track, Sidecars.

The vertical balance must be attached to the outer edge of the dirt deflector flap in line with the centre of the rear tyre.

### 58.03.10

All measurements are taken with the machine in a vertical position, with the tyres normally inflated without a rider.

### 58.03.11

The complete dirt deflector must be declared eligible for competition by the FIM. The manufacturer must supply drawings and photographs of the dirt deflector at the time of homologation. The manufacturer must engrave on each dirt deflector: FIM DD/Year/Homologation number (issued by the FIM).



The FIM reserves the right to sample dirt deflectors at any time to compare with the original homologated dirt deflector.

The interface of the dirt deflector may be altered to allow a correct assembly to a particular frame construction; however, the dirt deflector must retain its normal function.

Subsequent to FIM homologation, the dirt deflector's design (i.e. flap, flap-holder, arm(s) or pivot point) must not be altered in any way. The only changes allowed are engineering and/or production enhancements, by written document to the FIM.

### 58.04 Carburettor

The carburettor must be fitted with an efficient cartridge type air filter.

### 01.59 SPECIFICATION FOR ICE RACING MOTORCYCLES

Only 2-valve engines are allowed.

# 01.65 EQUIPMENT AND PROTECTIVE CLOTHING DURING PRACTICE AND RACE

The FIM cannot be held liable for any injuries that a rider or passenger may sustain from the use of a specific item of equipment or protective clothing.

### 65.01 Clothing and protectors

As a minimum, it is compulsory that riders/passengers wear a suit.

### The suit:

- shall consist of a one-piece overall, or an upper and lower segment joined by a zip or similar (for Flat Track, trousers and long-sleeve shirt are also permitted);
- may have elastic-stretching material inserts under arms, behind the knees, and in the groin to allow for freedom of movement when worn;
- shall have a thickness of 1 [mm] minimum (for Flat Track, it is not required);
- shall be non-toxic and non-allergenic;
- shall not be made of nylon or spandex (e.g. Lycra, Elastane) material (for Flat Track, it is only recommended not to use nylon or spandex);
- the use of leather complying with EN 13595 is accepted.
- it is recommended that the suit comply with EN 17092-3 (AA) tests; this means having significant impact abrasion resistance, seam burst strength, impact cut resistance, a high melting point, and low heat conductivity.

Especially where the suit is not fully made of leather, it is highly recommended that riders/passengers also wear a <u>liner</u>.

The liner:



- shall comprise ribbed panels of moulded plastic, with a minimum thickness of 2 [mm], covering shoulders, elbows, chest, back, hip joints, and knees;
- it is recommended that the liner comply with EN 17092-3 (AA) tests; this means having significant impact abrasion resistance, seam burst strength, impact cut resistance, a high melting point, and low heat conductivity.

Moreover, it is compulsory that riders/passengers wear a <u>back protector</u>, incorporated within the suit or the liner, or worn separately. The back protector shall comply with EN 1621-2.

It is recommended that, in addition, a <u>chest protector</u> and <u>other padding which protects</u> <u>shoulders, elbows, hip joints, and knees</u> (all compulsory for Ice Speedway and for Flat Track in case the clothing is thinner than 1 [mm]), be worn.

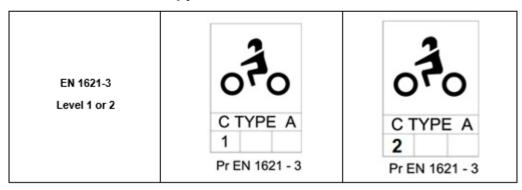
For chest and hip joints, the padding should comply with EN 1621-3 (or EN 14021) and EN 1621-1, respectively.



Newer Labels (1621-2:2014) Full Back Level 1 or 2 FB FΒ 1 2 EN 1621 - 2: 2014 EN 1621 - 2: 2014 Central Back Level 1 or 2 CB 1 2 EN 1621 - 2: 2014 EN 1621 - 2: 2014 Older Labels (1621-2:2003) В Full Back Level 1 or 2

BACK PROTECTOR: must comply with EN1621-2, CB ("central back") or FB ("full back") Level 1 or 2.

### CHEST PROTECTOR: must comply with EN1621-3.



EN 1621 - 2

1

EN 1621 - 2

2

Repaired overalls are acceptable provided that the repair guarantees protection to the same standard as the original garment. The Chief Technical Steward has to right to refuse any temporary repairs which are not deemed to provide the same protection as the original garment.

Use of a functional airbag system is allowed. Its use must be declared during the Technical Verifications to the FIM and/or FMNR technical team. The proper use of this device remains under the responsibility of the rider at all times.

The neck-brace is not compatible with the airbag and therefore is prohibited if the rider is using an airbag.



### 65.01.01 Race suit

### **SGP**

For the SGP race suit front, the rider's national flag must be displayed on the middle of the chest (minimum 50 [mm] high), the FIM logo must be displayed on the right side (minimum 30 [mm] high), and the SGP logo on the left side (heart side minimum 20 [mm] high).

The main sponsors of the SGP series must be displayed on the chest, as per WBDS contract.

The logos and flag must be marked in such a manner as to be clearly visible. The covering of any part of the 4 elements in any way is not permitted.

Shoulder lapels are permitted but cannot cover any logos or adverts.

Where a rider wears a neck brace, the neck brace must be free of any personal advertisements and must not cover any of the above-mentioned elements.

The FIM and the promoter reserve the right to supply a sticker for the neck-brace or race jacket to a rider wearing a neck-brace that conceals one of the 4 elements (ref. to art. 5.8 of the FIM SGP World Championship Regulations).

For the SGP race suit back, the rider's racing number and their name must be marked in such a manner as to be clearly visible. The number must be 105 [mm] high minimum and homothetic to the format.

The covering of any part of the number in any way is not permitted. Where a rider wears a neck brace, the neck brace must be free of any personal advertisements and must not cover any of the above-mentioned elements.

The FIM and the promoter reserve the right to supply a sticker for the neck-brace or a race jacket to a rider wearing a neck-brace that conceals the above-mentioned elements (ref. to art. 5.8 of the FIM SGP World Championship Regulations).





### Ice Speedway and Long Track World Championships

National flag in the race suit front - minimum size: 50 x 100 [mm].

Numbers background colour: white

Numbers colour: black

Numbers minimum height: 150 [mm]

Free number font as long as it is clearly readable.

### 65.02 Footwear

Footwear, in good condition, made of leather or other materials having equivalent properties, shall be worn and have a minimum height of 300 [mm].

For Ice Speedway, left boot up to ankle must have protection from plastic or similar.

### 65.03 Gloves

Riders/passengers shall wear gloves made of leather or other materials having equivalent properties.

### 65.04 Googles

Riders/passengers must wear face shield/goggles.

### 01.67 WEARING OF HELMETS

- It is compulsory for all participants taking part in practice and races to wear a protective helmet. The helmet must be properly fastened, be of a good fit, and be in good condition. The helmet must have a chin strap type 'retention system'.
- A protective lower face cover must be present and must be not detachable, not moveable.
- Helmets constructed with an outer shell made of more than one piece are not permitted (e.g. they must not contain any seam, modular helmet with movable parts...).
- A retention system with a strap and the double D ring closing system is recommended.
- All helmets must be marked with one of the official international standard marks mentioned in Art. 01.70. Any FMN approval marks do not substitute the official international standard marks.
- A helmet is made to provide protection. It is not a platform to attach foreign objects. Cameras and/or other accessories are NOT permitted nor shall be attached to the rider's helmet.

In case of failure to observe the above rules, the FIM and/or FMNR technical team would retain the helmet from the rider until the end of the official event.

### 01.68 HELMET COLOUR



Every rider (for Speedway Sidecar, both the rider and the passenger) shall have at least one (1) coloured helmet or one (1) helmet cover in each of the prescribed colours ready for use in accordance with the rules in force for the meeting.

Any alterations, additions, or changes to the helmet (to the shape of the helmet, colouring, etc...) that may affect the structure or durability of the helmet may be made only in accordance with the manufacturer's precise recommendations and specifications.

In every heat, and according to the allocated gate position, the riders (for Sidecar, both the rider and the passenger) must use the coloured helmet or the helmet cover, in the corresponding colour, for proper identification by the Referee, TV, spectators, etc.

The prescribed helmet colours used are (RAL traffic colours):

RED	3020
BLUE	5017
WHITE	9016
YELLOW	1023
GREEN	6024
BLACK/WHITE	9005/9016

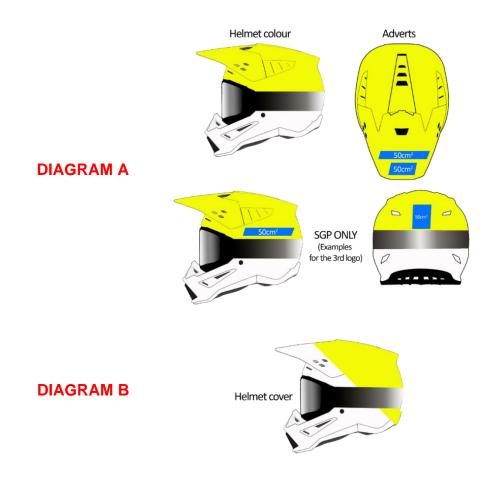
The rider's and passenger's helmets or covers used must be coloured or produced in these prescribed colours.

The coloured area on helmets shall correspond to the area indicated with parallel lines in Diagram A (if paint is used only) or Diagram B (if a textile helmet cover is used only).

On the **peak**, it is permitted to have two adverts with maximum size of 50 [cm2] each.

For SGP only: It is permitted to have one extra advert on the coloured area with maximum size of 50 [cm2].





Every rider's and passenger's helmet or helmet cover is considered as a part of their personal equipment and must be presented to the technical scrutineering.

### 01.69 HELMET OPERATIVE INSTRUCTIONS

### 69.01

Scrutineers, under the supervision of the Chief Technical Steward, may check prior to practice and the races that all helmets meet the technical requirements.

### 69.02

If a helmet does not meet the technical requirements or is found to be defective, the Technical Steward must clearly mark in red (e.g. with a red dot) all international marks without destroying them and retain the helmet until the end of the event. The rider must submit another helmet for approval by the Technical Steward. After an accident involving impact, the helmet must be presented to the Technical Steward for examination (see also Art. 77.02).

### 69.03



All helmets must be intact and no alteration must have been made to their construction. After an accident involving impact the helmet must be presented to the Technical Steward for examination.

### 69.04

The Chief Technical Steward/Technical Steward may perform the following checks before the rider is permitted to take part in practice of the race:

### 69.04.1

That the helmet fits well on the rider's head.

### 69.04.2

That it is not possible to slip the retention system over the chin, when fully fastened.

### 69.04.3

That it is not possible to pull the helmet over the rider's head by pulling it from the back of the helmet.

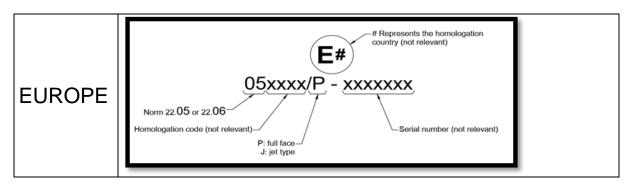
### 01.70 RECOGNISED INTERNATIONAL HELMET APPROVAL MARKS

Helmets must conform to one of the recognised international standards:

FIM	FRHPhe-01 (till 31.12.2025) or FRHPhe-02
EUROPE	ECE 22-05 or ECE 22-06 (only "P" type Full face)
JAPAN	JIS T 8133:2015 (only "Type 2 Full face")
USA	SNELL M2015 or SNELL M2020D or SNELL M2020R or SNELL 2025R or SNELL 2025D

Modular helmet and helmet with movable parts are forbidden.

Examples of labels are reported below (for Europe, the country numbers which have granted the approval are also indicated):







As from 01/01/2024, FIM homologated helmets according to the FRHPhe-02 (with a valid FIM homologated label) are strongly recommended, and will be mandatory as from 01/01/2026. All the other standards will be forbidden.

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





FRHPhe-02 (FIM)

### 01.75 BADGE OF THE FIM

Under certain circumstances the FIM may permit the use of the FIM badge on certain equipment in order to show that the latter conforms to the standards laid down by the FIM. When this authorisation is granted, and provided the equipment on which it appears is in good condition, the badge is then the guarantee of the conformity with the standard set by the FIM.

### 01.76 SCRUTINEERING

Before practice, a safety check of all engines and machines is required.

Before racing, all engines and machines must be checked for compliance with current regulations.

Engines, rider's equipment, and machines which do not comply, are prohibited.

Furthermore, if a machine is not in compliance with the current regulations after any heat, the rider may be disqualified from that heat.

In all FIM Championship meetings, the cylinder capacity and carburettor- choke size of all engines of all machines, employed by any rider, may be verified immediately after the last heat.

The weight of some machines, chosen at random, may also be checked during and/or immediately after racing.

The international Jury may order any engine or machine to be rechecked or re-tested at any time during practice or racing.

At all FIM Championships, Official FIM specification declaration forms are provided by the FIM for machine verification and signed by the Technical Steward.

The rider or their representative or the mechanics must be present, with the machines, at the time stipulated in the Supplementary Regulations.

As soon as a rider is known to have completed the sprint race, the motorcycle used for the sprint race must be taken immediately to the parc fermé where it



# must remain until released on instruction from the Jury to the Technical Steward. The motorcycles will be released 15 minutes after the end of the sprint race.

As soon as a rider is known to have completed all heats (including substitutions, semi-final/final where applicable) all motorcycles used in the meeting must be taken immediately to the parc fermé where they must remain until released on instruction from the Jury to the Technical Steward.

### 01.77 TECHNICAL VERIFICATIONS

### 77.01 Preparation

- Prior to the Technical Verifications, it should be decided who is doing what and note decisions. "Efficiency" must be the watchword. Always keep cheerful and remember the reasons for scrutineering: SAFETY AND FAIRNESS.
- Before the START of the competition, a closed and guarded area (parc-fermé) shall be prepared.
- Inspection must take place under cover with a large enough area.
- Inspection area must be supplied with the necessary equipment, including tables, chairs, electric light and power outlet.
- Weighing apparatus must be accurate, practical and have a minimum resolution of 500 [g] (although 100 [g] is recommended). Weighing scales must have been certified by a National Institute within the period of 24 months before the event. Certified master weights and their certificate must be available for verifying.
- The necessary tools are listed below:
  - ✓ Revolution meter
  - ✓ Sound meter, calibrator, and spare batteries
  - ✓ Durometer for tyre control ('Shore' hardness gauge)
  - ✓ Slide calliper (for verifying engine capacity, carburettor diameter, etc.)
  - ✓ Depth gauge
  - ✓ Steel measuring tape
  - ✓ Arrangement for measuring ground clearance (for Sidecars)
  - √ Seals
  - ✓ Weighing apparatus (to be furnished by the Organiser) (and set of reference weights)
  - ✓ Tools for measuring the engine capacity
  - ✓ Lamp oil tester is recommended and when used, it indicates the cylinder capacity. When a more precise measurement is required, the Chief Technical Steward may ask to take the cylinder head off the cylinder.
  - ✓ Colour for marking parts
  - ✓ Heat resistant stickers or paint for marking the silencer (and solvent)



- ✓ Magnet
- ✓ Adequate fuel sample bottles
- ✓ PC with CD Drive + updated operating system
- ✓ Printer, etc. are recommended
- ✓ Calculator
- The necessary documents are listed below:
  - ✓ Supplementary Regulations
  - ✓ FIM Technical Rules current year
  - ✓ FIM Rules of the discipline concerned
  - ✓ FIM Sporting Code
  - √ Homologation papers (if applicable)
  - ✓ Writing material
  - ✓ Technical Verifications forms
- All necessary measures and administrative equipment should be in place at least 1/2 hour before the start of the Technical Verifications is due to open (time in Supplementary Regulations).

### 77.02 Verifications

- The Technical Verifications before the official practice should last at least 30 min, before the race at least one hour, after the race last at least 30 min.
- The technical control must be carried out in conformity with the procedure and times fixed in the CCP Rules and the Supplementary Regulations of the event.
- The Sound control must be carried out first. The Sound level will be recorded in the technical card. The exhaust silencer will be marked with paint or sticker.
- An example of minimum verifications that shall be performed is given below:

INITIAL TECHNICAL VERIFICATIONS	TRACK RACING
Make + model	✓
Sound	✓
Cut-off switch	✓
Self-closing throttle	✓
Lights (front, rear, brake)	
Race fuel certificate	✓
Vehicle identification plate/chassis number	
Crankcase	
Wheels (hubs)	
Registration plate + insurance (green card)	



Weight + ballast	✓
Fuel tank	
Silencer	✓
Carburettor	✓
Guard for the countershaft sprocket and rear sprocket	✓
Handlebar ends + protection + levers	✓
Front/rear brake disc protection	
Side stand	
Tyres	✓
Helmet(s) + national colours	✓
Protective clothing	✓

- An overall inspection of the motorcycle must be carried out in conformity with the FIM rules. Accepted motorcycles will be marked with paint or a sticker.
- The Technical Verifications will be recorded on the Technical Verification form (see enclosed).
- The motorcycle must be weighed and the weight recorded in the technical card.
- During the event, the technical steward must control all machines and equipment. This control must be made before the machines enter onto the track.
- As soon as a rider is known to have completed the sprint race, the motorcycle used for the sprint race must be taken immediately to the parc fermé where it must remain for 15 minutes, in case of a protest or should further examination be required.
- As soon as a rider has finished all their heats, all used machines must be immediately placed in a parc fermé where they must remain for 30 minutes, in case of a protest or should further examination be required.
- Competitors must retrieve their machines within 30 minutes after the opening of the parc fermé area, except for the machines which are chosen for disassembly.
   After this time limit, the parc fermé officials will no longer be responsible for the machines left behind.
- If required, a sound level control may be carried out before the machines are placed in the parc fermé.
- For the Technical Verifications taking place after the race, it shall be ensured that the selected machines used during the race go directly to the Parc Fermé.



### 77.03 FMNR Chief Technical Steward and technical stewards

- The Chief Technical Steward must be in attendance at an event one hour before the Technical Verifications are due to begin. They must inform the Clerk of the Course/FIM Race Director and FIM Technical Director, if present, of their arrival.
- The Chief Technical Steward must ensure that all technical stewards appointed for the event carry out their duties in a proper manner. The Chief Technical Steward shall appoint the technical stewards to individual posts for the race, practices and final control.
- Scrutineers can have different tasks, but the team of scrutineers must have a
  minimum of three persons. The FMNR Chief Technical Steward must be a
  holder of an FIM SENIOR Technical Steward's licence and it is recommended
  that at least one Technical Steward hold a FIM Technical Stewards licence.
  A minimum number of scrutineers is required according to the following:
  - Checking of documentation: one person
  - Sound test, silencer marking: two persons
  - Machine weight: one person
  - Machine inspection, helmet and clothing: two persons
- The Sound Control Officer (SCO) must be holder of a valid FIM Technical Steward's licence, come with good knowledge and experience of the sound control and application of the test method. The FMNR may propose the services from a special technician (acoustic engineer) if there is no FIM licensed Technical Steward available to act as SCO.
- The technical steward must fill in the technical card which must be signed by the rider.
- After the technical control has been completed the Chief Technical Steward will submit to the Clerk of the Course/FIM Race Director a list stating the names of the accepted riders and machines, the sound levels and weights of machines.
- If a motorcycle is involved in an accident, the technical steward must check the machine to ensure that no defect of a serious nature has occurred.
- If the helmet is clearly defective, the technical steward must retain it. The
  organiser must send this helmet, together with the accident and medical report
  (and pictures and video, if available) to the Federation of the rider. If there are
  head injuries stated in the medical report, the helmet then must be sent to a
  neutral institute for examination.
- The Chief Technical Steward has the right to lookover/inspect any part of the motorcycle at any time of the event.



 All technical stewards shall be well informed and shall make sure their FMN has supplied them with all technical "updates" that may have been issued subsequent to the printing of the Technical Rules books.

### 77.04 FIM Technical Director

- The FIM Technical Director is appointed by the Director of the FIM International Technical Commission in consultation with the Director of the FIM Track Racing Commission.
- The FIM Technical Director is not responsible for the technical verifications but will ensure that they are carried out in accordance with the FIM Technical Code.
- The FIM Technical Director works in cooperation with the FIM Race Director/Jury President and the FIM Delegate/Clerk of the Course.
- The authority and duties of the FIM Technical Director include but are not limited to (Please, also refer to the FIM Technical Code):
  - a) The FIM Technical Director will report any concerns or deficiencies relating to the technical verifications to the FIM Race Director/Jury President and FIM Delegate and present proposals to resolve such concerns.
  - b) The FIM Technical Director is the final arbiter in relation to technical issues at the event.
  - c) The FIM Technical Director will examine with the Chief Technical Steward the motorcycle(s) and the protective equipment of any rider(s) involved in serious or fatal accidents and present a written report to the FIM Delegate/Jury President.
  - d) The FIM Technical Director will attend all meetings of the Race Direction/Jury meetings, but without voting rights.

### 77.05 Rider and/or mechanic

- The rider and/or the mechanic and/or Team Manager must attend at least once the Technical Verifications with the (rider's) machine within the time limits stated in the Supplementary Regulations.
- On request of the technical steward, the rider must present themselves to the Technical Verifications.
- The maximum number of persons present at the technical verification will be the rider and/or the mechanic and/or Team Manager.
- A rider remains at all times responsible that their machine and their personal protective gear are in conformity with the FIM Technical Rules for Track Racing motorcycles.



- The rider and/or the mechanic and/or the Team Manager must present a clean motorcycle in conformity to the FIM rules.
- The rider is permitted to use whichever motorcycle they choose from the accepted motorcycles. The rider may also use the motorcycle of another rider.
- The rider and/or the mechanic and/or the Team Manager must present the rider's protective wear (equipment), e.g. helmet and bib with prescribed starting number.
- Any rider failing to report as required by the provisions below may be excluded from the meeting.
- The Clerk of the Course/FIM Race Director may prohibit any person who does not comply with the rules, or any rider who could be a danger to other participants or to spectators, from taking part in the competitions.

### 01.78 DANGEROUS MACHINES

If, during practice or the race, a technical steward finds that a machine is defective and might constitute a danger to other riders, they must immediately notify the Clerk of the Course/FIM Race Director or their deputy. It is their duty to exclude such a machine either from the practice or from the race itself.

### 01.79 SOUND CONTROL

Exhaust pipes and silencers must fulfil all the requirements concerning sound control (please refer to the latest FIM Sound Regulations) available hereunder:

https://www.fim-moto.com/en/documents?tx\_solr%5Bq%5D=sound

### 01.83 ADDITIONAL RULES FOR 85cc SPEEDWAY MOTORCYCLES

In general, machines must comply with the technical requirements for Track Racing. In case of conflict, the present 'ADDITIONAL RULES FOR 85cc SPEEDWAY MACHINES' have priority.

Providing a motorcycle conforms to the requirements of the FIM Track Racing Regulations, as well as to a number of specific conditions that the FIM may require, no restriction is placed on the make, construction, or type of motorcycle used.

### 83.01 Classes



Motorcycles may be equipped only with a standard, mass produced, 2-stroke, single cylinder engine, available to the public through the normal commercial sales channels of the original engine manufacturer.

The cylinder capacity may be over 50cc and up to 85 cc, as originally produced by the manufacturer.

### **83.01.1 Minimum weights**: 55 [kg]

### 83.01 Fuel, oils and coolants

All motorcycles for 85cc Speedway must function on unleaded petrol with a maximum lead content of 5.0 [mg/l] and a maximum MON of 90. See also FIM Fuels Regulations Track Racing for full specifications available on:

### https://www.fim-moto.com/en/documents?tx\_solr%5Bq%5D=fuel+track

Water-cooled engines must use a closed-circuit cooling system. Coolant may be carried in the frame.

The use of octane boosters is forbidden.

For environmental reasons, the rider/team/mechanic must at all times place a receptive container under the motorcycle to catch waste oil and coolants, etc., when working in the pit-area during an event.

### 83.02 Machine specifications

### 83.03.1 Engine

Any 'defect' or 'broken' parts may only be replaced by an 'original spare part', available and sold through the network of dealerships of the manufacturer in question.

### 83.03.2 Carburation instruments

The originally fitted carburettor must be used. The only modifications permitted are jetting changes.

### 83.03.3 Exhaust pipe, silencer

The exhaust pipe and silencer must be fixed in a proper way and fastened on the motorcycle in a minimum of 3 different places.

Exhaust pipes and silencers must fulfil all the requirements concerning sound control (please refer to the latest FIM Sound Regulations) available hereunder:

https://www.fim-moto.com/en/documents?tx\_solr%5Bq%5D=sound



### 83.04 Frame

### 83.04.1 Specifications

The maximum wheelbase is 1325 [mm].

The use of titanium and composite materials is completely forbidden in the construction of the frame and swing-arm.

### 83.04.2 Brakes

Brakes are not permitted.

### 83.04.3 Wheel, rim, and tyre sizes

Front wheel rim size: max. 3 [in] (the diameter is free)

Front wheel tyre, max. width: no restriction

Front tyre tread: free

Rear wheel rim size: max. 1.85' [in] x 17 [in] Rear wheel tyre size: max. 3 [in] x 17' [in]

Rear tyre tread: must be of the type with 'trial' or 'track' tread.

### 83.04.4 Handlebars

Handlebars width: minimum 650 [mm], maximum 850 [mm].

### 83.04.5 Footrests

Refer to Art. 01.39.

# 01.84 TECHNICAL SPECIFICATIONS FOR 125cc TRACK RACING MOTORCYCLES

In general, machines must comply with the technical requirements for Track Racing. In case of conflict, the present 'ADDITIONAL RULES FOR 125cc GRASS TRACK MACHINES' have priority.

Providing a motorcycle conforms to the requirements of the FIM Track Racing Regulations, as well as to a number of specific conditions that the FIM may require, no restriction is placed on the make, construction, or type of motorcycle used.

### 84.01 Classes

Motorcycles must be equipped with a single cylinder, 4-stroke engine, with a capacity between 100cc and 125cc (with the maximum limit of 129cc, to allow repairs)

### **84.01.1 Minimum weights:** 60 [kg]



### 84.02 Fuel, oil and coolants

All engines must function on pure methanol or unleaded petrol with a maximum lead content of 5.0 [mg/l] and a maximum MON of 90. See also FIM Fuels Regulations Track Racing for full specifications available on:

### https://www.fim-moto.com/en/documents?tx\_solr%5Bq%5D=fuel+track

Water-cooled engines must use a closed-circuit cooling system. Coolant may be carried in the frame.

The use of octane boosters is forbidden.

For environmental reasons, the rider/team/mechanic must at all times place a receptive container under the motorcycle to catch waste oil and coolants, etc. when working in the pit-area during an event.

### 84.03 Machine specifications

### 84.03.1 Engine

Any 'defect' or 'broken' parts may only be replaced by an 'original spare part', available and sold through the manufacturers' dealership network.

### 84.03.2 Carburation Instruments

Maximum diameter: 29.0 [mm]. This measurement must be taken on the engine side from the slide/throttle valve edge.

Fuel injection systems are forbidden.

### 84.03.3 Exhaust pipe, silencer

The exhaust pipe and silencer must be fixed in a proper way and fastened on the motorcycle in a minimum of 3 different places.

Exhaust pipes and silencers must fulfil all the requirements concerning sound control (please refer to the latest FIM Sound Regulations) available hereunder:

https://www.fim-moto.com/en/documents?tx\_solr%5Bq%5D=sound

### 84.04 Frame

### 84.04.1 Specifications

The use of titanium and composite materials is completely forbidden in the construction of a frame. Purpose built Speedway and Long Track frames may be used (Long Track frames must have a working rear suspension).



### 84.04.02 Brakes

Brakes are not permitted.

### 84.05 Wheels, rims, and tyres

Front min 1 [in] more than the size of the rear mounted wheel.

Rear 19' [in]

Maximum tyre width of the rear wheel: 100 [mm]

Only tyres which conform to the Track Racing profile (trials universal type pattern/ track tread) can be used.

### 84.06 Handlebars

Handlebars width: minimum 650 [mm], maximum 850 [mm].

### 84.07 Footrest

Refer to Art. 01.39.

### 01.86 FIM HOMOLOGATED REAR TYRES

Tyres suitable for 125, 250 and 500cc Speedway, Sidecar.

BRAND	PRODUCT NAME	DIMENSION	FIM CODE	VALID FROM	IMAGE
DUNLOP	366 ( <u>out of production</u> )	3.75-19	CT.SW.97.17	04.04.1997	
Mitas	SW-16A ( <u>out of production</u> )	3.75-19	CT.SW.97.18	04.04.1997	
Mitas	SW-07 TT	3.75-19 61P	CT.SW.00.19	05.04.2000	
Mitas	SW-09 (out of production)	3.75-19	CTI.SW.06.320	01.01.2007	
Mitas	SW-07	3.75-19 61P	FIM/SW-07-2023	27.11.2023	



		1		1	
Mitas	SW-07 TL	3.75-19	FIM/SW-TL-01-2024	25.01.2024	
<b>G</b>	GT101	3.75-19/61P TT	FIM/GT 20912	01.01.2010	
Atlas		3.75-19 61P LRA	FIM/AT-374212	01.01.2013	
Deli Tire	SPEEDWAY REAR SB- 136 TUBE TYPE	3.75-19 61P	FIM/Deli 210J16	02.02.2016	
	"Speedway Rear SW- 01"	3.75-19 61P	FIM/JTR SW 30217	06.02.2017	
<b>NANLAS</b>	"Speedway SW 002"	3.75-19 61P	FIM/ANSW 02020	09.10.2020	
<b>NANLAS</b>	"Speedway SW 003"	3.75-19 61P	FIM/ANSW 03020	09.10.2020	
Deli Tire	SPEEDWAY REAR SB- 165 TUBELESS	3.75-19 61P	FIM/Deli SB-165- 2023	10.01.2023	

# 01.87 TECHNICAL SPECIFICATIONS FOR SGP4 WORLD CUP MOTORCYCLES

### 87.01 Freedom of construction

If a rider does want to use their own motorcycle during the SGP4 events, the motorcycles must conform in all respects to the requirements of the SGP4 regulations. Only Speedway frames can be used.



### 87.02 Fuel

All engines must function on unleaded petrol with a maximum lead content of 5.0 [mg/l] and a maximum MON of 90. See also FIM Fuels Regulations Track Racing for full specifications available on:

https://www.fim-moto.com/en/documents?tx\_solr%5Bq%5D=fuel+track

The use of octane boosters is forbidden.

### 87.02.1 Fuel tanks

The fuel tank and fuel cap must be leak-proof at all times.

Fuel tanks are allowed provided that:

- · they must be firmly fixed
- · hose connections must be leak-proof
- they must be protected against projections
- they are not placed in front or above the handlebar
- they must be installed within the frame

Additional fuel tank is not allowed.

### 87.03 Use of titanium and light alloys

The use of titanium in the construction of the frame, the front forks, the handlebars, the swing-arm and swing-arm spindle, and front and rear wheel spindles is forbidden.

The use of titanium bolts in the "structural" connections between the front forks, the middle frame, the engine plates, the engine, and the rear frame is forbidden.

The use of light alloys for wheel spindles is also forbidden.

The use of titanium alloy nuts and bolts in the "non-structural" parts is allowed.

### 87.03 Carbon fibre

The use of carbon fibre reinforced materials is authorised (with the exception of handlebars and wheel rims).

### 87.04 Ceramic materials

The use of ceramic parts is allowed for clutch plates, bearings (clutch, wheels, etc.) and spark plug.

NB: The quality and the mechanical properties/resistance of the ceramic parts mounted by the rider/team on their machine remains under their full responsibility.

### 87.05 **Brakes**

Brakes are not permitted.



### 87.06 Wheels, rims, and tyres

The front rim size shall be 19 [in] and rear rim size shall be 17 [in] x 1.85 [in].

Any modification to the rim or spokes of an integral wheel (cast, moulded, riveted) as supplied by the manufacturer, or of a traditional detachable rim other than for spokes, valve, or security bolts, is prohibited. The only exception made is for the tyre retention screws, sometimes used to prevent tyre movement relative to the rim. If the rim is modified for these purposes, bolts, screws, etc., must be fitted. Only Speedway homologated tyres are allowed.

### 87.07 Handlebars

Handlebars width: minimum 650 [mm], maximum 850 [mm].

If the handlebar has a cross bar, it must be equipped with a protection pad. Handlebar clamps must be very carefully radiused and engineered so as to avoid any fracture points in the handlebar. Exposed handlebar ends must be plugged with a solid material or rubber covered.

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

Handlebars made of composite materials are not authorised.

Repair by welding of light alloy handlebars is prohibited.

Solid stops (when on full-lock, other than steering dampers) must be fitted. A steering damper cannot be used as a steering lock.

### 87.08 Control lever

Handlebar lever must be in principle ball ended (diameter of this ball to be at least 16 [mm]). This ball can also be flattened, but in any case, the edges must be rounded (minimum thickness of this flattened part 14 [mm]). These ends must be permanently fixed and form an integral part of the lever. The lever must be mounted to swivel, so that at no time can the rider's fingers be trapped between the lever and the handlebars. The end of levers when closed must not be situated wider than the furthest extremity of the handlebar. The brake lever if pivoted on the footrest axis must work under all circumstances, such as the footrest being bent or deformed.

### 87.09 Throttle control

Throttle controls must be self-closing when not held by the hand. The throttle operation (opening and closing) shall only be activated by mechanical cable from the twist grip directly attached to the throttle valve. Electronically controlled throttle valves are forbidden. All air intakes into the cylinder must pass through the throttle body. No other means allowing ambient air into the inlet track of the cylinder head are allowed.

### 87. 10 Ignition cut-out switches

Motorcycles must be equipped with a functional ignition kill switch or button mounted on either right or left side of handlebar (within reach of the hand while on the hand grips)



that stops a running engine. The ignition cut-out switch may also be fitted on the handlebar, as close as practicable to the throttle.

The lanyard must remain attached to the wrist of the rider, mechanic or support team member at all times when the engine is running.

The ignition cut-out must stop the engine immediately, by the simple action of pulling a lanyard or a non-elastic string (which must be as short as possible) attached to the rider's right wrist.

All other engine management switches and electrical connectors must remain covered or closed during riding.

### 87.11 Footrest

Footrests of motorcycles for Ice Racing and all types of Solo Track Racing shall be on the right-hand side of the machine and must not exceed 320 [mm] in length measured from the centre line of the motorcycle (see diagrams of the FIM Track Racing Technical Regulations).

### **87.12** Engine

The only engine allowed is the DAYTONA ANIMA 190cc – 4 stroke – 4 gears (DAYTONA ANIMA 190FSM) – 24HP.

Any 'defect' or 'broken' parts may only be replaced by an 'original spare part', available and sold through the manufacturer dealership network.

The FIM Technical Director (or their appointed technical team) can, at any time during the event, install a rev counter (FIM RPM logger) on the machine (mounted/attached to the frame and connected to the ignition coil/engine) or check the maximum engine revolutions with a computer/software connected to the digital ignition system.

During the final inspection at the end of the race, the selected engines will be disassembled and all components will be examined in detail.

The displacement capacity bore and stroke must remain as homologated.

### 87.11.01 Number of cylinders

The number of cylinders in an engine is determined by the number of combustion chambers.

If separate combustion spaces are used, they must be connected by an unrestricted passage of minimum cross-sectional area at least 50% of the total inlet port area.

### 87.12 Gearbox

The gear box itself must be fully integrated with the engine. A separate gear is not permitted. Only foot operated gearbox changes are permitted. Electric or electronically assisted gearbox or gearbox lever changing mechanisms are not permitted.

### 87.13 Starting devices

Starting devices for the engine are not allowed.



### 87.14 Open transmission guards

The primary transmission must have a proper guard as a safety measure; small holes (max 10 [mm]) in the transmission/clutch guard are allowed for extra cooling. Excessive cutting of the guard is not allowed. Cutting of the guard is only permitted to

expose the clutch pressure plate and to allow adjustments to the clutch springs.

The guard must be conceived in such a way that under no circumstances can the rider or the passenger come accidentally in contact with the transmission/clutch parts. It must be designed to protect the rider from injuring their fingers.

An additional protective device must be provided to prevent a broken primary chain from flying upwards. This can be provided by a fully enclosed steel chain guard. Alternatively, if a chain guard is made from plastic or from other material, then a steel bolt of 10 [mm] minimum diameter must be placed outside the bottom rear quadrant of the clutch sprocket (see Diagrams G, H, K). This bolt, if damaged, must always be completely replaced.

A guard/cover must be fitted to the countershaft sprocket (if it is exposed).

### 87.15 Carburation instruments

It is allowed to use any brand but the maximum diameter of the carburettor induction tract must be of 29 [mm].

This measurement must be taken on the engine side from the slide/throttle valve edge. Fuel injection systems are forbidden.

### 87.16 Exhaust pipes and silencers

The FIM homologated silencer is the only one accepted: DOMINATOR SGP4.

MANUFACTURER	PRODUCT IDENTIFICATION	VALID FROM
DOMINATOR	FIM 18FY23 – SGP4	18.02.2023

A single exhaust pipe is prescribed with an external diameter of: 32 [mm] or 34.5 [mm].

### 87.16.01 Maximum sound limit

Exhaust pipes and silencers must fulfil all the requirements concerning sound control (please refer to the latest FIM Sound Regulations) available hereunder:

https://www.fim-moto.com/en/documents?tx solr%5Bg%5D=sound

### 87.17 Mudguards and wheels protections

Motorcycles must be fitted with rounded mudguards. The radius must be at least 3 [mm]. Mudguards must project laterally beyond the tyre on each side. Mudguards must be made of flexible materials only (e.g. plastics).

### 87.18 Streamlining

No type of streamlining is allowed.



### 87.19 Measurement of capacity

Reciprocating movement engine, "Otto" cycle.

The capacity of each engine cylinder is calculated by the geometric formula which gives the volume of a cylinder; the diameter is represented by the bore, and the height by the space swept by the piston from its highest to lowest point:

Capacity = 
$$\frac{D^2 \times 3.1416 \times C}{4}$$
 where D = bore and C = stroke.

When a cylinder bore is not circular, the cross-sectional area must be determined by a suitable geometrical method of calculation, then multiplied by the stroke to determine capacity. When measuring, a tolerance of 1/10 [mm] is permitted in the bore. If with this tolerance the capacity limit is exceeded for the class in question, a further measurement should be taken with the engine cold, to 1/100 [mm] limit.

Capacity = 
$$\frac{2 \times V}{N}$$
 where V = total capacity of all the chambers comprising the engine and N = number of turns of the motor necessary to complete one cycle in a chamber classified as a 4-stroke.

### 87.20 Other equipment

The use of data recording devices and automatic electronic ignition is authorised. No signal of any kind may pass between a moving motorcycle and any person, including radio and Bluetooth communication. The exception is for the signal from the time keeping transponder, automatic lap timing devices, or from the approved on-board cameras (with prior written approval from the FIM).

### 87.21 Telemetry

Information must not be transmitted in any way to or from a moving motorcycle. An official signalling device may be required on the machine.

Automatic lap timing devices are not considered as "telemetry".

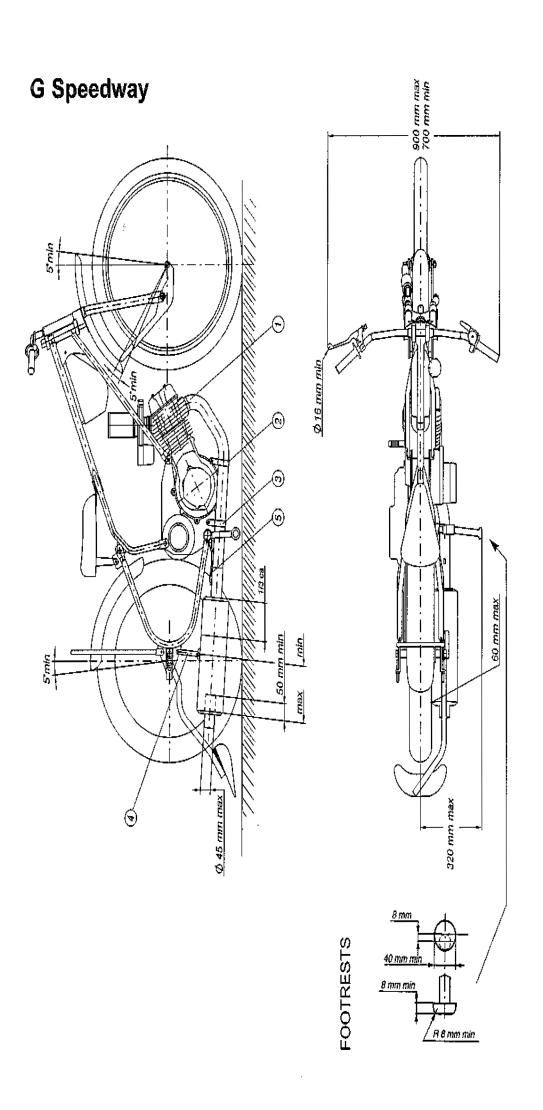
Automatic lap timing devices must not disrupt any official time keeping methods and equipment.

### 87.22 Environmental mat

When motorcycles are placed in the pits, parc fermé, or other parking area the use of an environmental mat is compulsory for all riders and all their bikes. It must be used whenever working or parking the bikes, during practice and racing.

### 87.23 Equipment and protective clothing during practice and race

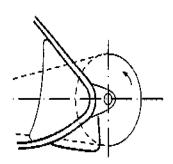
Refer to art. 01.65 of the FIM Track Racing Technical Regulations.

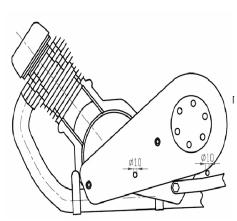


# **G** Speedway

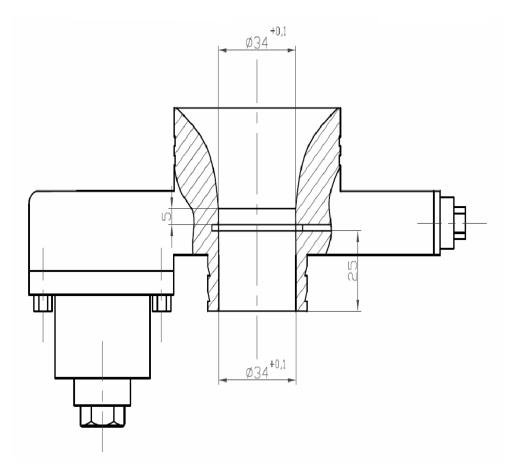
CHAIN GUARD

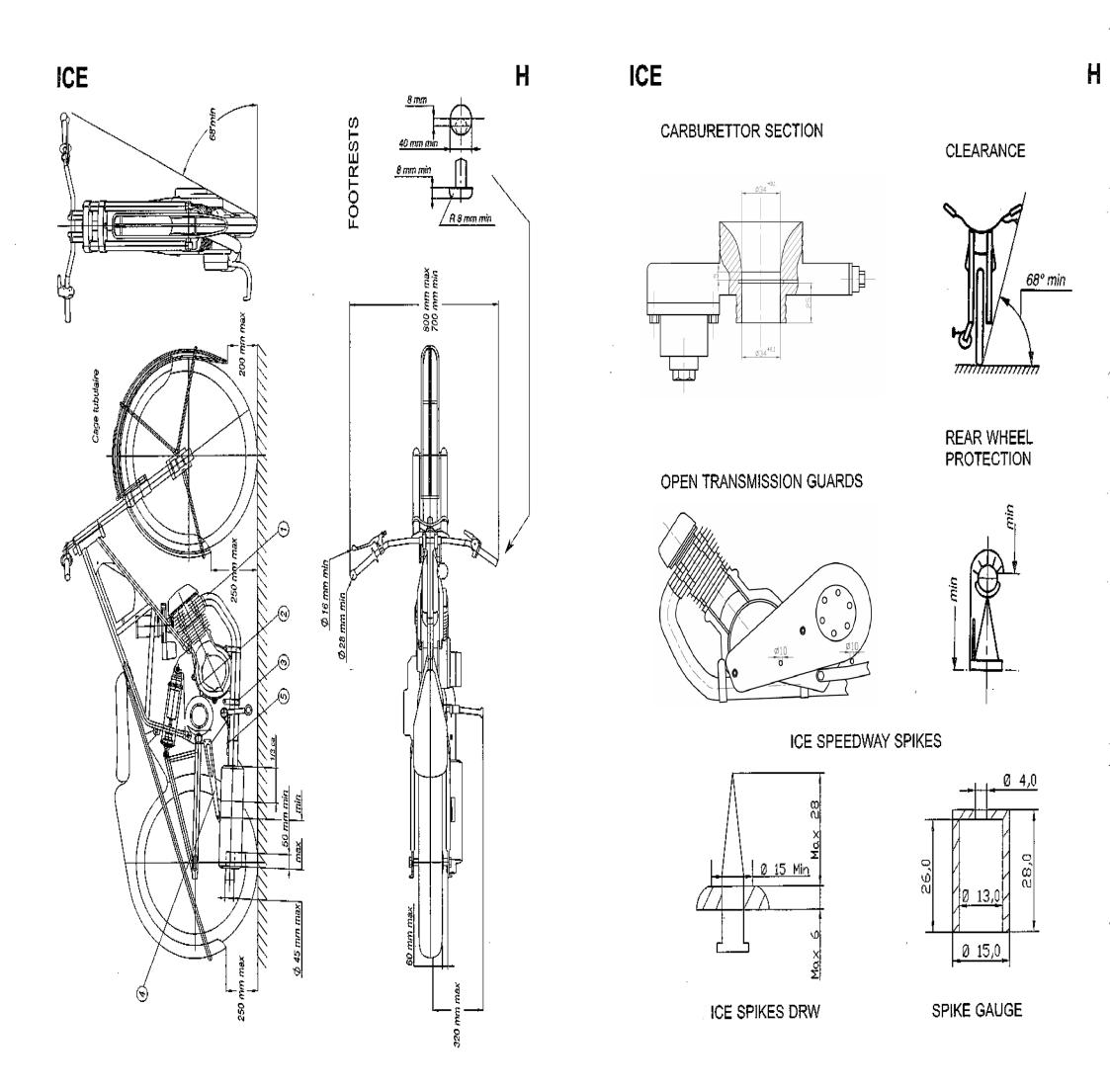
OPEN TRANSMISSION GUARDS





CARBURETTOR SECTION

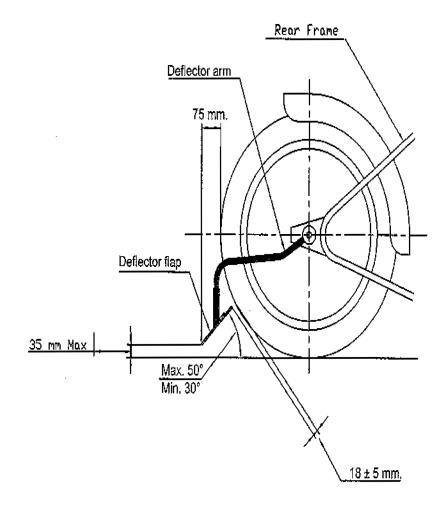


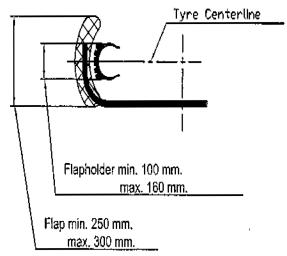


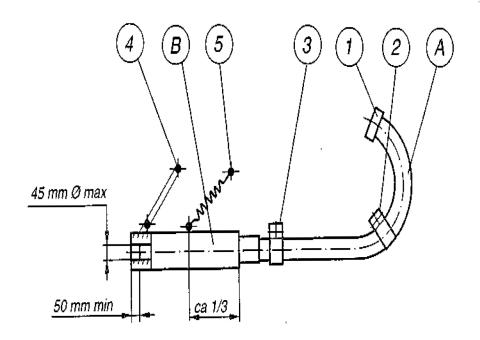
# ART. 58.03

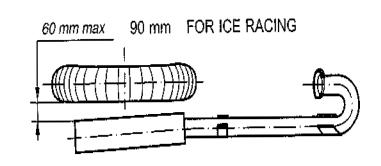
## TERE TO DEFLECTOR CLEARANCE

Dirt deflector FIM article 58.03





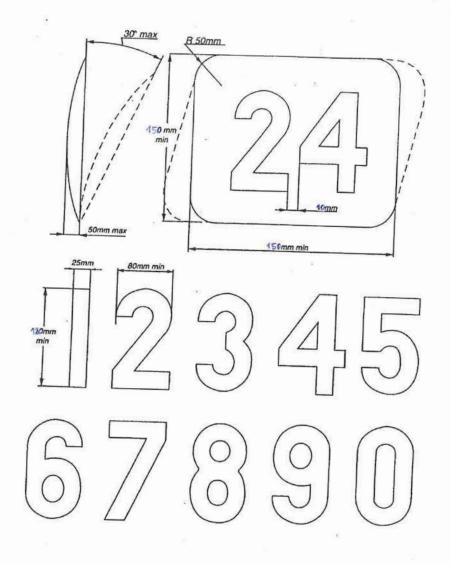




A = Exhaust Pipe

B = Silencer

# NUMBERS / NUMEROS



# TEN FITTING TESTS FOR HELMETS DIX TESTS D'ADAPTATION POUR LES CASQUES

- Obtain correct size by measuring the crown of the head
   Avoir la bonne grandeur en mesurant le sommet de la tête
- Check there is no side to side movement
   Vérifier qu'il n'y ait pas de déplacement d'un côté à l'autre
- Tighten strap securely Serrer solidement la jugulaire
- With head forward, attempt to pull up back of helmet to ensure helmet cannot be removed this way

Tête en avant, essayer de soulever le casque pour s'assurer qu'il ne peut pas être enlevé de cette façon



- Check ability to see clearly over shoulder
   Vérifier si vous pouvez voir clairement par-dessus l'épaule
- Make sure nothing impedes your breathing in the helmet and never cover your nose or mouth
   S'assurer que rien ne gêne votre respiration dans le casque et ne jamais
  - S'assurer que rien ne gêne votre respiration dans le casque et ne jamais couvrir le nez ou la bouche
- Never wind scarf around neck so that air is stopped from entering the helmet. Never wear scarf under the retention strap Ne jamais enrouler une écharpe autour du cou, car cela empêche l'air d'entrer dans le casque. Ne jamais porter d'écharpe sous la jugulaire
- Ensure that visor can be opened with one gloved hand S'assurer que la visière peut être ouverte avec une main gantée
- Satisfy yourself that the back of your helmet is designed to protect your neck
  - S'assurer que l'arrière de votre casque a une forme telle qu'il vous protège la nuque
- Always buy the best you can afford Toujours acheter le meilleur que vous pouvez vous offrir

# FIM Track Racing Commission Technical Control and verification during and after the Event

Chief Fechnical Steward:	Licence No	Disciplin:	Title of the Meeting:
Venue:	FMNR:	Date:	IMN:

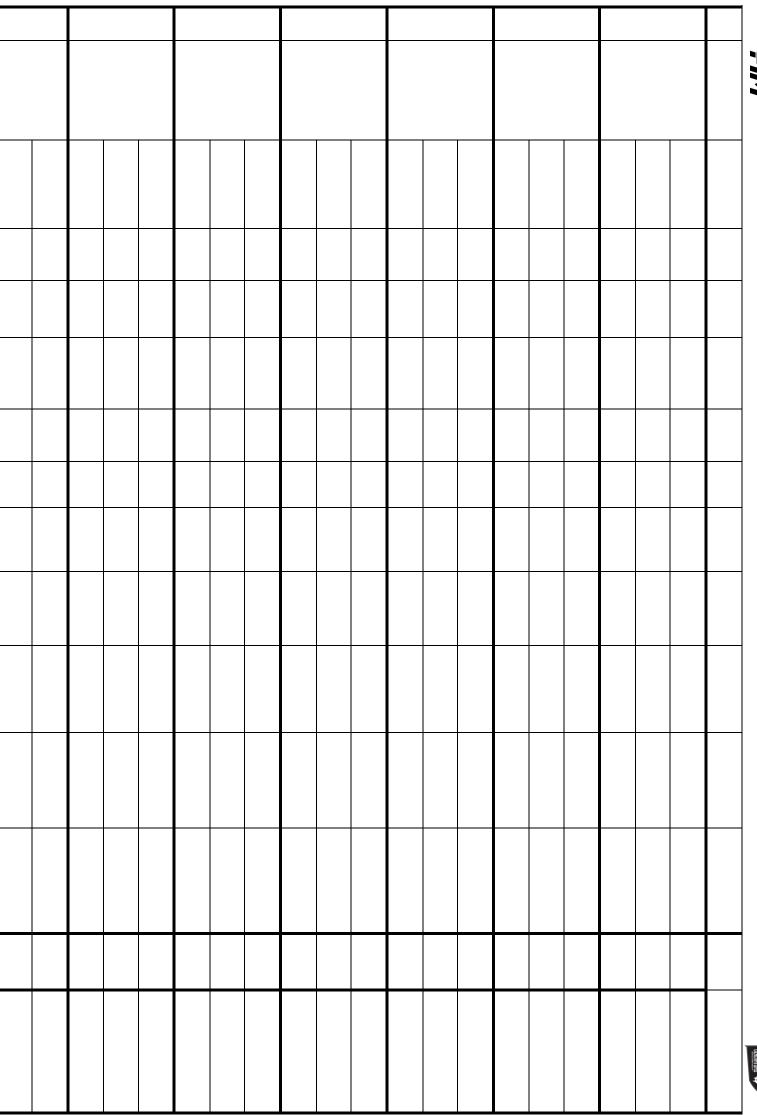
		Rider's name & first name
		Weight at random Kg:
		Heat No :
		Engine Capacity:
		Bore Dia.:
		Stroke:
		Volume: cc
		Rider's signature



ELEGEBRUS (F)

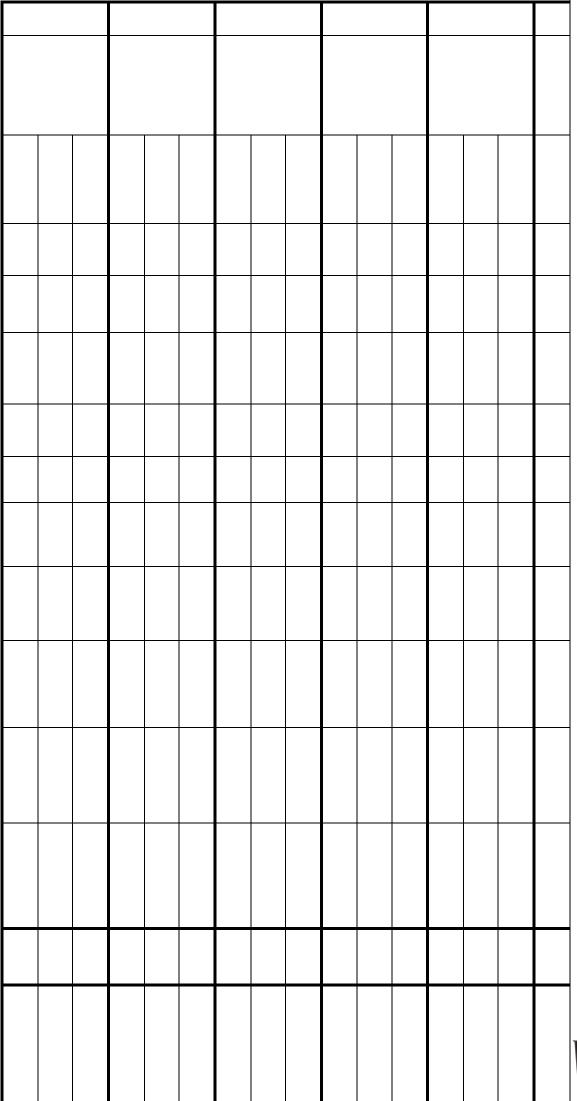
FIM ICE SPEEDWAY WORLD CHAMPIONSHIP	Venue:		IMN: 504/	Date://2024
Chief technical steward:	Licence N°:	FMNR:	Signature:	

								Z.
								Rider
								Carburettor
								Engine
								Weight
								Silencer n°
								Cut-out
								Mats
								Helmet
								Race suit -front-
								Front plate FIM/ISG logos
								Spikes size
								Signature
								Engine check
								Signature











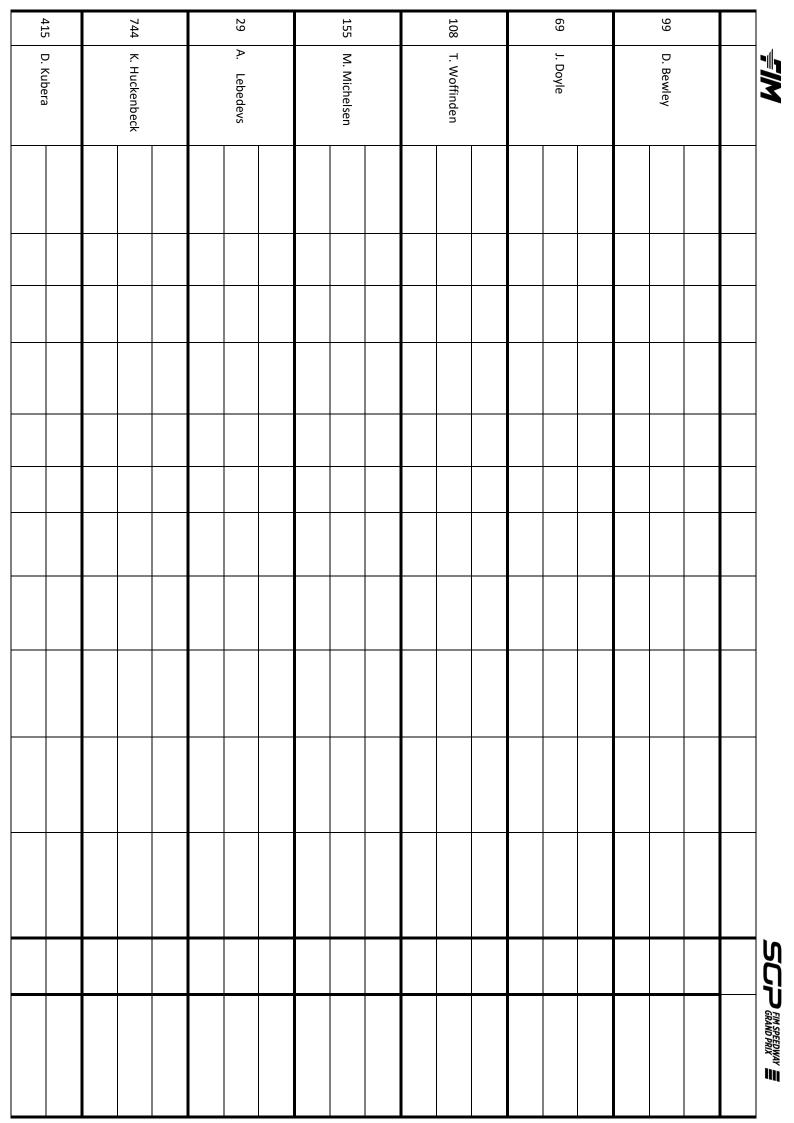






Chief technical steward:	FIM SPEEDWAY GRAND PRIX
Licence N°:	Venue:
FMNR:	
Signature:	IMN: 502/
	Date://2024

505	30			25			54			66		95	Z <sub>°</sub>
R. Lambert		L. Madsen			J. Holder			M. Vaculik		F. Lindgren		B. Zmarzlik	Rider
													Carburettor
													Engine
													Weight
													Silencer n°
													Cut-out
													Mats
													Helmet
													Race suit -front-
													Bike cover Number + logo
													Neckbrace advertise
													Signature
													Engine check
													Signature



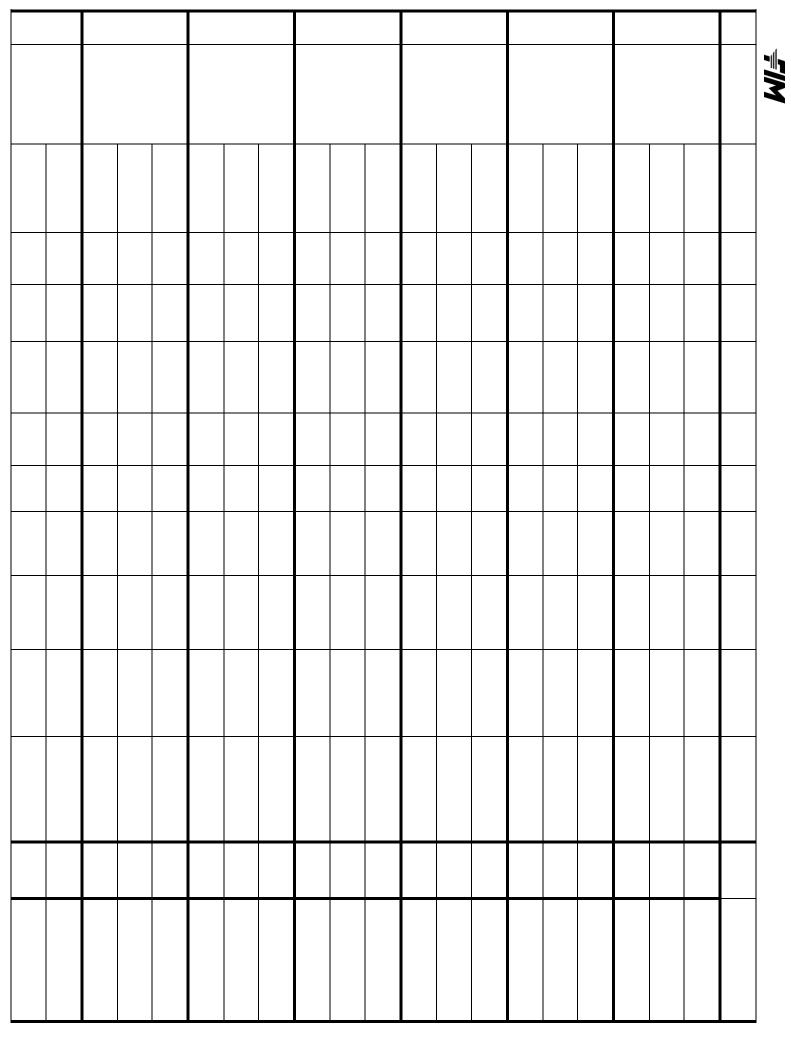
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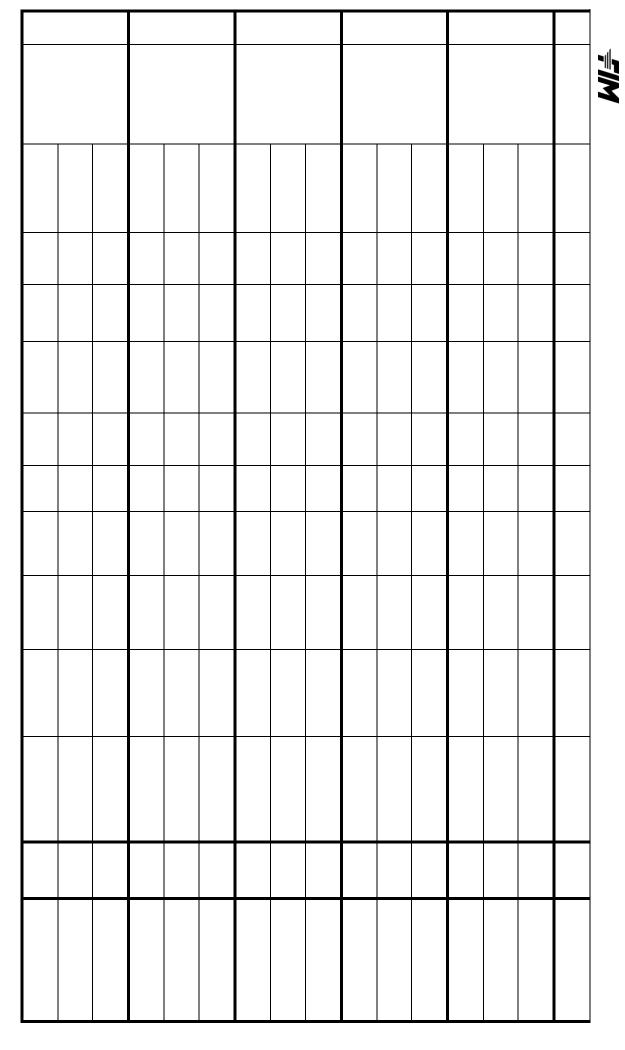


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													Engine		PIONSHII
													Weight		
													Silencer n°		
													Cut-out		
													Mats	  -  -	
													Helmet	Licence N°: _	Venue:
													Race suit -front-		
													Front plate FIM/LT logos	FMNR:	
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															/2024













														N°	Chief technical steward:	TITLE OF THE EVENT _
														Rider	teward:	ENT
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														Signature		_ Date://2024

