



Belgian Touring Cars Series (BTCS) 2011

Technical Regulations

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ART. 1: DEFINITION - DESCRIPTION

A competition car for the BTCS 2011 is defined by RACB Sport, in agreement with SpeedWorld Promotion, promoter – organiser. This car is adapted for sportive means and has at least a door on both sides. The original model must be homologated for public roads.

ART. 2: REGULATIONS

2.1 Role of RACB Sport

These technical regulations for the BTCS 2011, are issued by RACB Sport, in agreement with SpeedWorld Promotion.

2.2 Permitted modifications

All constructions or modifications not allowed by these Technical Regulations of the BTCS 2011 are explicitly forbidden. A permitted modification may not lead to a non permitted modification.

2.3 Vehicle type eligibility

▪ DIVISION TOURING CARS

The BTCS 2011 is open for all Touring cars, berlines and coupe 4 places.

The organiser-promoter and RACB Sport may demand that a competitor presents a road model in order to compare.

Touring Cars of big series production are modified by a kit (FIA homologation) valid art. 263 of Appendix J FIA (Super 2000 in Circuit).

Super Touring Cars art. 262 of Appendix J FIA code 2002 (Group ST).

These cars will be enlisted in class T4.

The classification of the models in Classes shall be determined by SpeedWorld Promotion and RACB Sport, conform art. 4.1.

▪ DIVISION SILHOUETTE CARS

The BTCS 2011 is open for :

- Tubular frames type Silhouette, berlines, coupe 4 places and 2+2, like used in the FFSA Championship of France Super Touring Cars 2001-2005.
- Silhouette BTCS & Silhouette Light 2003-2009.
- Renault Mégane Trophy Endurance.
- Silhouette Solution F 2006-2009 conform to its homologation dossier
- Silhouette using a Solution F 2006-2009 mechanics and a bodywork approved by RACB Sport.
- Diester Cup 2004-2009 conform to its homologation dossier
- Roadster Cup conform to its homologation dossier
- Roadster Cup S conform to its homologation dossier
- Silhouette "BRL Light" conform to its homologation dossier RACMSA 1660 and conform to the BRL Light 2008 regulations
- Silhouette S3, VW011 conform to its homologation dossier
- Tubular frames type Silhouette respecting the BTCS 2011 regulations, on approval by RACB Sport

The frame must be conform to the specific Silhouette FFSA regulations or approved by the FIA or RACB Sport. The frame must be foreseen by a bodywork belonging to a make and type figuring on the list of Touring cars homologated by the FIA or approved by RACB Sport. Each competitor is obliged to communicate the source on the entry form.

Demands for homologations of bodyworks not having participated at previous editions of the BTCS or extensions of homologations for the 2010 season must be introduced at the same time towards Speedworld Promotion and RACB Sport. Demands for homologations of bodyworks not having participated at previous editions of the BTCS or extensions of homologations for the 2011 season must be introduced at the same time towards Speedworld Promotion and RACB Sport. The person introducing the demand must communicate the written agreement of the holder of the rights on the drawing of the original bodyworks, or its legal representative, of which the Silhouette was copied or inspired on.

The Class S1 is open for :

- Silhouettes of less than 3000 cc "multi-flaps"
- Silhouettes of less than 3500 cc
- Silhouettes of 2000 cc with supercharged engines

The Class S2 is open for :

- Silhouettes of the Coupe Solution F TC 06 Astra
- Silhouettes using a "mechanic frame" Solution F and a bodywork of the homologation dossier Silhouette of the Cup Solution F TC 06 Astra
- Silhouettes using a "mechanic frame" Solution F and a bodywork approved by RACB Sport
- Silhouettes using a "mechanic fram" Gomez Compétition GC10.2 and a bodywork approved by RACB Sport
- Roadster Cup S
- Diester Cup

The Class "Focus ST Cup" is open for :

- Silhouettes of the type "BRL Light" conform to the BRL regulations

The Class S3 is open for :

- Roadster Cup
- Silhouettes VW011

2.4 Non-eligible cars

Cars of the FIA Group Sportscars, as cars of the Deutsche Tourenwagen Meisterschaft (DTM) 2000-2009 or equivalent classes in other disciplines worldwide and that were not differently homologated afterwards, are not eligible.

2.5 Candidate-cars

For cars that do not comply to above mentioned definitions, a candidate competitor can file in an individual application by means of a detailed record, as presented in Appendix 1 for Touring Cars and Appendix 2 for Silhouettes of the present Technical Regulations to SpeedWorld Promotion and RACB Sport. The promoter and RACB Sport will eventually determine the appropriate Class.

2.6 Date of the regulations

These Technical Regulations will immediately come into force (see date of approval at the end of this document). As of this moment, they will replace and annul all previous BTCS Technical Regulations.

Any safety-related amendment of the regulations by the FIA will take effect as of the next meeting.

This regulation will be valid for a period of **3** years as of 01/01/2010, except for safety-related amendments and the well functioning of the Series, and this after approval of the National Sport Authority (ASN), in deliberation with the promoter.

2.7 Identity card of the car and technical race passport

When a BTCS 2011 competition number has been granted to the car, the team principal of a car not homologated Touring Car, must transmit before the deadline of the first meeting, the duly completed identity card of the car, as described in Appendix 1 of the present Technical Regulations to the promoter and RACB Sport by email.

When a BTCS 2011 competition number has been granted to the car, the team principal of a car not homologated Silhouette Car, must transmit before the deadline of the first meeting, the duly completed identity card of the car, as described in Appendix 2 of the present Technical Regulations to the promoter and RACB Sport by email.

The non or incomplete filling in of the identity card for not homologated cars will lead automatically to a sanction.

If, during the season, the team principal or the owner of the car, wishes to add some modifications to the technical data of the identity card of its vehicle, he must apply for this in written or by electronic mail, to the promoter and RACB Sport, at the latest before the deadline of the next meeting.

The promoter or RACB Sport can refuse or accept these modifications if they do not comply with the spirit of these regulations, even if they are not explicitly forbidden, but may increase disproportionately the costs of preparing the vehicle.

If a participant didn't receive a technical race passport during the previous seasons, a technical race passport shall be handed over at his first participation and needs to accompany the car at each of the following meetings. This document must be presented during scrutineering. Technical remarks will be noted in this document. Until one hour after the end of the meeting, a member of the team must pick up the passport at the Technical Commission

The absence of this document during scrutineering or the intentional falsification of this document, will be considered being a fraud sanctioned with a financial fine of € 150.

If the technical passport hasn't been picked up one hour after the end of the meeting :

- it can be picked up for free at RACB Sport in Brussels
- it can be handed over at the next meeting subject to a financial fine of € 50.

2.8 Compliance with the regulations

It is the duty of the team principal to satisfy that his car complies :

- with these Technical Regulations 2011
- the Sporting Regulations of the BTCS 2011
- with the technical data on the Identity Card of the vehicle or its dossier throughout the meeting. He is also responsible for keeping the technical race passport.

For the Silhouettes of the type Cup : the eventual homologation dossier and their technical regulations, as approved by RACB Sport, are decisive.

B-2007-01 : Renault Mégane Trophy Endurance (2006-2007)

B-2007-02 : Dubois Racing – Roadster

B-2007-03 : Solution F – Silhouette TC06 Astra

B-2008-01 : Dubois Racing – Roadster S

B-2009-01 : Renault Mégane Trophy Endurance 'D95TE'

B-2010-01 : Gomez Compétition (EVO S2)

B-2010-02 : Solution F – Silhouette TC10 Volvo

RACMAS1660 : BRL LIGHT

In order to determine its conformity, the competitor as RACB Sport may refer to the technical constructors information or any other official information from the sportive authorities.

Any application for a new homologation or extension of a homologation for the 2011 season, must be introduced at SpeedWorld Promotion and RACB Sport, at the same time.

In agreement with the organiser – promoter, a car judged being to dangerous by its construction and/or its modification will not be allowed to enlist and to participate, and this without notification.

Even if not explicitly prohibited, any modification that is not in keeping with the spirit of the regulations and/or that may increase the price of the car shall be banned without notice by the Technical Commission of RACB Sport, in agreement with the promoter.

The Panel of Stewards of the meeting of RACB Sport, in compliance with the Technical Commission, will exclude any car that is deemed to be dangerous.

2.9 General

Touring cars must be real series cars and be able to be identified by data as defined in the art. of the homologation dossier or the technical file of the RACB.

Articles 251, 252 and 253 of the FIA Appendix J remain applicable, but the articles of present regulations have predominance.

Throughout the car, any bolt, nut or screw may be replaced by any other bolt, nut or screw, provided that they are made from the same family of material and have the same diameter as the original part and have a locking device of any kind (washer, lock nut, etc.).

Material

For mechanical parts, chemical and heat treatment are allowed on condition that the weights and dimensions mentioned on the homologation form of the technical form of RACB Sport are respected.

Following materials are prohibited : magnesium (except for the rims), ceramics and titanium (unless they correspond to the original material). Exceptions are set out in art. 5.2.1.

The use of resistant composite material is authorized within the limits of the regulations.

Material used for the bodywork (bonnet, boot lids, bumpers, doors and wings) is free, but where an element is replaced, it must be attached in a way which is at least as strong as the original.

2.10 Telemetry

All forms of data transmission from the moving car are **forbidden**, apart from two-way radio communication.

Impulse generators giving information on timing are authorized, provided that they are separate parts which have no connection with the control of the engine.

2.11 Electronic

The use of a traction control system is **forbidden**.

ART. 3: BODYWORK AND EXTERIOR DIMENSIONS

3.1 Dimensions

All bodywork dimensions and shape must remain original with the exception of alterations asked in art. 3.4 and those permitted under 3.5 and 3.6.

The maximum length must be equal to the length of the series model, with an accepted deviation of 25 mm, and with the exception under art. 3.6.7.

The maximum width (excluding rear view mirrors) is 2000 mm, except for cars, for which a model registered for road circulation exceeds this width, in which case the original width must be maintained.

3.2 Doors (Touring Cars)

The dimensions and the purpose of the doors of the car must remain original. If a door is replaced by a door in glass fibre, the safety harness must be equipped with a lateral "X" protection (drawing 253-9) in conformity with the prescriptions of the valid FIA 253-8 art.

The doors garnishing may not be removed. These can be origin or in metal with a minimum thickness of 0,5 mm or in fibre carbon with a minimum thickness of 1 mm or another solid material with a minimum thickness of 2 mm.

It must be possible to open the front doors both from the inside and the outside without using tools.

Throughout the meeting, the doors must remain in their original position.

3.3 Windscreen and windows

A windscreen made of one piece of laminated glass, homologated for road use, is compulsory. The original windscreen may be replaced by a windscreen of laminated glass with the same shape and dimensions, and must be equipped with an integrated demisting system.

The thickness must not be less than 4.5 mm for laminated glass.

A fixing system in order to improve the security may be installed under the condition that it does not improve the aerodynamic qualities of the car.

In order to protect the windscreen, the addition of a maximum of 4 translucent films on its external face is permitted.

The side and rear windows may be replaced with polycarbonate with a thickness not less than 3 mm.

The openings – except for the engine compartment of Silhouettes - must enable the driver to have a clear view from all sides and must allow a person outside the car to see the driver as well as the contents of the car. Nothing can be affixed onto the side windows, apart from the drivers' names – in white characters (Arial Bold font) of minimum 5 cm high -, national flag and the possible compulsory publicity. On the rear window only a maximum strip of 8 cm may be affixed.

Onto the side and rear window in glass, a translucent safety film such as SL Lumar Safety Film/D1570) of 0.1 mm maximum must be affixed on the inside in order to guarantee an appropriate protection in case of splintering. This film is recommended for the outside mirrors as well.

During the practices, the warming-up and the race, all side windows must be closed for $\frac{3}{4}$. The installation of a safety net on the driver's side is recommended.

Obscuration of the rear window is not allowed.

All windows of the car should remain free from any personal publicity, with the exception of a sun strip with a maximum height of 10 cm on the upper side of the windscreen. On the condition that the visibility remains intact, a strip with a maximum height of 8 cm can be fixed on the rear window.

Onto the windscreen, only the compulsory publicity and the miniaturized competition number (right top corner and 100 mm height) must and may be affixed.

Cockpit ventilation

In order to extract air from the cockpit, the lateral and rear windows may have holes with a maximum diameter of 60mm each.

A scoop may be fitted to each door window provided it complies with the following points:

- it must not exceed the perimeter of the window, must have a maximum height of 150 mm and must not protrude more than 50 mm over the window's surface.
- It must be made from the same material as the window or with translucent polycarbonate
- It must not obstruct the driver's rearward view.

Air ducts fed by the scoops are authorized inside the cockpit on condition that they alter neither the driver's visibility nor the driver's safety.

Net

Door windows may be replaced with nets with characteristics in accordance with FIA article 253.11.

This net must be made up of woven strips at least 19 mm (3/4") wide. The meshes must be a minimum of 25 x 25 mm and a maximum of 60 x 60 mm. The woven strips must be non-flammable and the intersections must be sewn together. The net must not be of a temporary nature.

The net must be attached either to the safety cage or to a fixed part of the bodywork, above the driver's window, by means of a rapid release system that will function even if the car turns over. It

must be possible to detach the net with one hand. A push-button release system is authorized provided that it respects the prescriptions of this article.

The push-buttons must be visible from the outside, be of a contrasting colour and be marked "PRESS". For the fixation of the net to the safety cage, only screw-in connections are allowed. Any kind of modification of the safety cage is not authorised.

3.4 **Bodywork**

Bodywork: all entirely sprung parts of the car in contact with the external air stream, except the parts definitely associated with the mechanical functioning of the engine, transmission and running gear. All air catch shall be considered as being part of the bodywork.

For Touring Cars, not in any case the chassis may be changed and must keep its origin position compared to its wheelbase. Only for the mounting of a safety cage modifications at the fund are allowed, in condition that they comply with the safety regulations regarding the safety cages, art. 15.1.

All parts of the bodywork must be securely fixed and remain immobile in relation to this part while the car is in motion.

Not any part of the car, or elements pending on the car, may be at least **55** mm from the ground, with a tolerance of 2 mm. If the car was involved in an accident during a race, the conformity of this value will be measured by the Technical Commission.

This control will happen by means of a gauge that will be slid under the car, on a flat surface, and will be done with the driver on board before or after the car is/was on the circuit. This measurement can happen at any time during the meeting.

Before the start of the measurement the technical commission will decide where the control will take place. The competitor must ask for himself where the control will take place.

The competitor has the opportunity to make sure of the conformity of his car by using the official means for controlling, on the place where the official control takes place, and this within a lap of time determined by the organisers.

Not any system is allowed that changes the car's height while the car is moving.

RACB Sport, in agreement with the promoter, reserves the right to adapt the car's ride height in every Diversion, in order to guarantee the balance of performance of the cars.

3.4.1 **"Flat" bottom**

The use of a flat bottom is authorized. It may only be composed of multiplex wood or concrete plex with a maximum thickness of 5 mm. When installed, it must integrally comply with the description below. If not installed, the bottom of the car may not be modified and must remain identical to the bottom of a model registered for road circulation, except for the openings, whose sole intention is the cooling of the mechanical parts.

Between at least the front and rear wheel centre lines and over the whole width of the car, with the exception of wheel arches and exhaust tunnels, must the bottom for the car be equipped with a uniform, solid, hard, rigid surface, which is an integral part of the body/chassis unit. The underside of the flat bottom will count as the car's reference plane.

'Skirts' are forbidden. Any element or construction built to limit completely or partly the space between the pending parts of the car and the floor is forbidden in all circumstances.

3.4.2 **Rear Diffuser**

The use of a rear diffuser is free. When installed, it must integrally comply with the description below or be homologated.

It is permitted to add an inclined, flat panel to the rear of the flat bottom :

- Between the vertical planes formed by the inside faces of the rear wheels.

- Between the rear end of the flat bottom and the vertical plane formed by the rearmost vertical panel of the bodywork.

No point of this inclined panel is permitted more than 150 mm above the flat bottom. Vertical fins are allowed, provided that they remain parallel to the longitudinal centre line of the car.

The maximum height of the gurney installed on the diffuser is 10 mm.

3.4.3 Front bottom plate

It is authorized to add a bottom plate between the front spoiler and the front side of the "flat bottom". This bottom plate may not have a wing profile and therefore no aerodynamic effect.

3.4.4 Openings in the flat bottom and the rear diffuser

The only openings authorized in the flat bottom or the rear diffuser are:

- Cut-outs relating to wheel movements.
- Inspection hatches for maintenance operations.
- The passage of pneumatic jacks.
- The exit of the overflow pipe filler of the fuel tank + oil reservoir
- Openings or cut-outs for extracting the heat from the exhaust pipes.
- Maximum 4 "NACA" air inlets for cooling, the total area of which must not exceed 360 cm² measured horizontally

3.4.5 Bodywork structure

With the exception of the lower half of the complete wheels, the bodywork must cover all mechanical components in vertical projection seen from above.

Any air intake higher than the highest point of the windscreen must not be forward of that point.

At no point, the car may present protruding parts, sharp edges or borders. All parts of the bodywork, including any part having an aerodynamic influence, must be rigidly secured to the entirely sprung part of the car (chassis/body unit), must not have any degree of freedom, must be securely fixed and remain immobile in relation to this part while the car is in motion.

Bonnets' and the boots' original closings must be removed.

Material used for the bonnet and boot lids, bumpers, doors and wings is free, but where an element is replaced, it must be attached in a way which is at least as strong as the original method and any non moveable element shall be attached with the use of tools.

If the original hinges and locking systems of the bonnet and/or the boot lid are removed, safety fasteners must be installed on the four corners. If the original hinges of the bonnet are maintained, they must have at least two safety fasteners, both of which are clearly indicated by red (or contrasting colour) arrows.

All bodywork joints in the vicinity of the refuelling connections must be designed in such a way as to prevent any fuel leakage into the engine compartment or the cockpit.

3.5 Modifications to bodywork and chassis

3.5.1 Maximum width

The width of the bodywork, of Touring Cars, across the front and rear wheel arches may be increased on each side by a maximum of 100 mm. The overall width of the car may not exceed 2000 mm, except for cars, for which a model registered for road circulation exceeds this width, in which case the original width must be maintained.

3.5.2 Rear wing

Generalities

The wing can not have more than one section (aerofoil section), no biplane or "flap".

A rigid trim tab (gurney) is authorized, but no airflow may pass between the wing surface and the trim tab. The trim tab must have a maximum height of 25 mm at right angles to the plane defined by the top of the wind and be solidly fixed all along the wing if it is not an integral part of the wind.

For vehicles that must comply with Cup regulations or that have a specific homologation of the FIA or RACB Sport, the complete rear wing must stay conform to those regulations, taking in consideration the maximum dimensions of the below description. The new mounting of the wing must receive a complementary homologation of RACB Sport.

Dimensions

The wing (including end plates) must fit into a volume of which the maximum dimensions are 520 mm (longitudinally and horizontally) x 150 mm (height) x width (transversally).

The length of the wing section chord may be 400 mm maximum.

Vertical wing supports

They must have flat surfaces, parallel to the vertical plane passing through the longitudinal centre line of the car. They must be separated from the end plates by at least 100 mm and be made from metallic material (including fixings).

The leading edges may be rounded (constant radius) and the trailing edges (rear part) may be levelled over 20 mm.

End plates

End plates must have flat surfaces, parallel to the vertical plane passing through the longitudinal centre line of the car. They must have a minimum thickness of 10 mm.

They must have rounded edges with a constant radius of 5 mm minimum, except specific homologation approved by RACB Sport.

Touring Cars “T”

The mounting of a rear wing is permitted, it may replace the original wing but may not be added. The complete rear wing may not be the highest point of the bodywork (Gurney included) except if this is the case of the original model or with a homologation for this vehicle. The rear wing may not be behind the rearmost point of the vehicle. All modification or extension of the bodywork with as main to move the wing more back is forbidden.

Silhouette “S1”

The maximum height of the complete wing may not exceed 150 mm (Gurney included) of the highest point of the bodywork. If the vehicle has an air intake on the roof, it shall not be taken into consideration to determine the highest point of the roof.

The rear wing may not be behind the rearmost point of the vehicle. All modification or extension of the bodywork with as main to move the wing more back is forbidden.

Silhouette “S2”, “S3” and “Focus ST Cup”

The maximum height of the complete wing may (Gurney included) may not exceed the highest point of the bodywork, or must be homologated. If the vehicle has an air intake on the roof, it shall not be taken into consideration to determine the highest point of the roof.

The rear wing may not be behind the rearmost point of the vehicle. All modification or extension of the bodywork with as main to move the wing more back is forbidden.

3.5.3 Bumpers

The front and rear bumpers may not be removed or reinforced and must be present throughout the meeting. On vertical projection view of the above, the shape of the bumpers front and rear must have the same profile as the original. Not any part of the bumpers may be outside of this form, except if it is homologated this way by the FIA or RACB Sport and except if the vehicle has competed in the BTCS 2009 in this configuration.

The lateral parts may be connected to the new wing in order to respect the aspect of the basic vehicle.

It is allowed to close the filler openings left open by the not mounting of additional lights.

3.5.4 **Miscellaneous**

Modifications required to fit additional lighting supports and refuelling connectors are permitted. The additional lights may not exceed the most front point of the vehicle.

3.6 **Supplementary modifications at the bodywork and chassis, ONLY for vehicles of the type "S", Silhouette**

3.6.1 **Materials**

The material used for the bodywork is limited to fibreglass, but when one element is replaced, it must be fixed in a way that it is more or less as solid as the original method.

- The use of the use of composite carbon or carbon / Kevlar is authorized in order to reinforce the drivers place and the tank.
- Teams using one or several elements in the bodywork (trunk lids, engine compartment, central cell, bottem of the vehicle, bumpers, doors, wings and roof, ...) fabricated before 2007 in carbon or carbon / Kevlar may use them but in condition that they were presented that way during the first meeting of the season 2007. And this even if the vehicle is not participating. They will be sealed in a visible way. Not any later derogation or sealing will be granted. It will as thus be possible to repair these elements of the bodywork in condition that the sealing remains intact, but all new fabrication must obligatory be in fibreglass.
- Teams having front bumpers in carbon of which the dimensions not totally correspond to art. 3.6.7 but where the surface is less then the one mentionned, may use them on 3 conditions :
 - o the must be fabricated in 2006 and presented at the first meeting of the season 2007
 - o Not more then 2 copies per vehicle
 - o Approval and sealing by the Technical Commission of RACB Sport is obligatory

3.6.2 **Wings**

The form of the wings is free with respect to the general line of the original vehicle, except for Silhouttes of the type Cup that must respect their homologation dossier.

Cuts or openings in the rear and back wings are permitted in condition that :

- The bodywork covers all mechanic elements in vertical projection view from above
- Their heights are not superior then the maximum height of the opening of the wheel passage
- At the openings or cuts behind the complete wheel, a protection must be foreseen in order to avoid all risks of backwards projections

3.6.3 **Doors**

Relief of internal bracing and the liner is allowed provided to retain the stiffness generated by the frames of windows and thick plates and a sunken edge. A trim composite glass / polyester or aluminum is recommended. It is allowed to modify the door hinges and latches in the original only to allow faster evacuation of the pilot in case of accident.

The doors can be shortened without this discomfort evacuation of the pilot, in their lower parts in order to adapt to the bottem of the vehicle if they are higher.

3.6.4 **Bumpers**

The shape of the front bumper and rear view of the above must have the same profile as the original. They may not exceed the body than the original value. The sides may be connected with the new wing to meet the appearance of the basic vehicle.

3.6.5 **Bottem of the vehicle**

It is permitted to add a new bottem on each side whose width can not exceed that of the bottom front and rear wings that join. The upper surface must pass under the door sill and follow the

flatness of the flat bottom except for the first 35 and last 35 centimeters. In these areas, it is allowed to round surfaces in a single aesthetic purposes and therefore no research to improve aerodynamics. The addition of any "flap" or drift is prohibited.

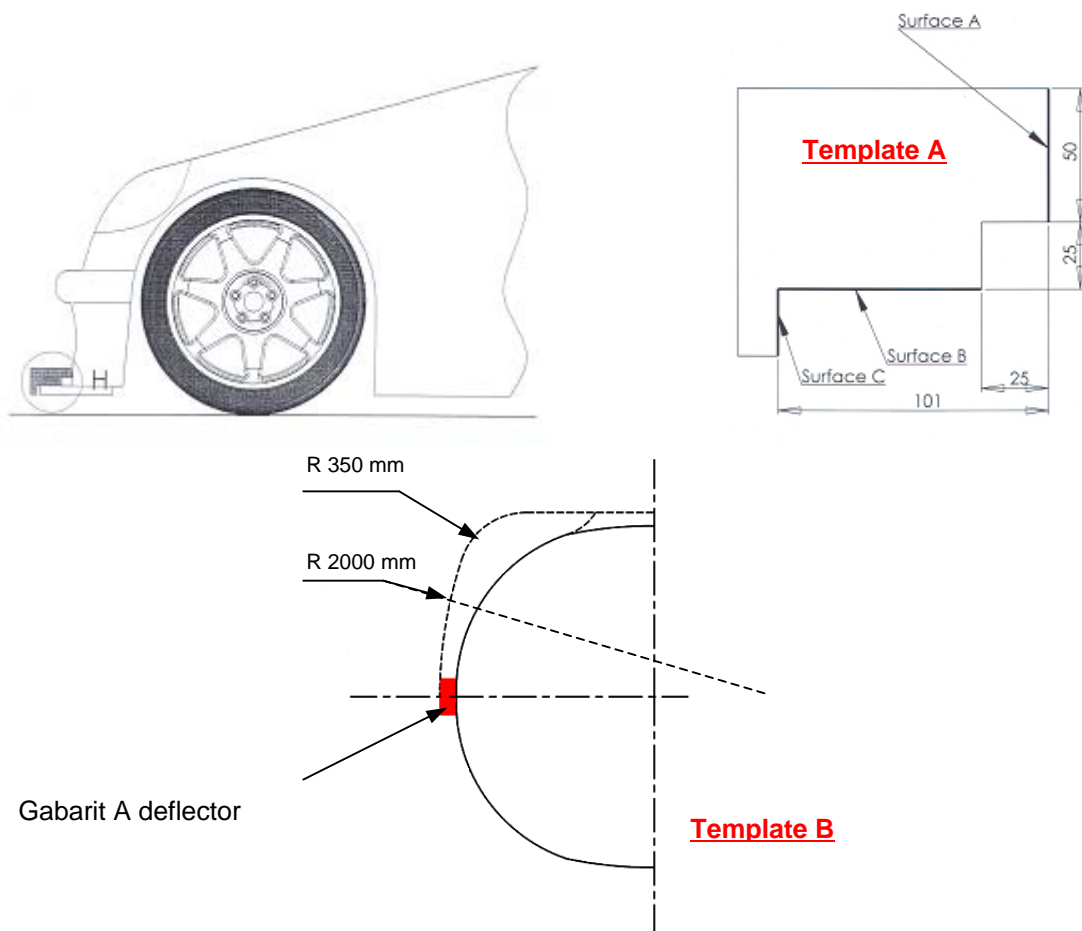
3.6.6 Windshield and windows

A windshield consisting of a single piece of polycarbonate is also permitted. The thickness of the windshield polycarbonate is 6 millimeters.

3.6.7 Spoiler / splitter

The door-to-front overhang of origin may be increased by the addition of a spoiler (thickness: max. 30 mm).

The spoiler must register all points within the template defined in the drawing B below, and follow the template A.



When the **template A** is in contact with at least one point of maximum body located 25 cm from the longitudinal axis of the vehicle on its surface and with the spoiler on its entire surface B, this part of the spoiler can not touch any surface point C (dimensions in mm).

Any changes to the original form of the front bumper can be designed to increase the length of the spoiler.

The tie rods are allowed but must be removed for all scrutineering.

Seen from the front, the spoiler must not exceed the width of the racecar at the front wheel axis.

A maximum of two aerodynamic elements can be added above the spoiler on each side of the vehicle.

These must be:

- In front of the vertical plane tangent to the front wheels complete
- In the contour of the spoiler, top view.
- With a constant thickness

- On the outside of the lane before the vehicle's original
- A 350 mm maximum above the "flat bottom".

They must not:

- Hide projectors
- Being larger than 250 mm.

If the vehicle already has a splitter and that does not meet specifications described in art. 3.6.7, it must be approved by RACB Sport.

ART.4: WEIGHT

4.1 Minimum weight

The weight of the car – i.e. the weight of the car throughout the meeting, without the driver and his equipment, fuel tank empty, several liquid tanks at their normal level – in function of the corrected cylinder, is at least:

<u>Class</u>	<u>Minimum weight</u>	<u>Cylinder</u>	
Division Touring Cars			
T1	620 kg	<	1000 cc
	700 kg	1001 cc -	1300 cc
	760 kg	1301 cc -	1400 cc
	820 kg	1401 cc -	1600 cc
T2	880 kg	1601 cc -	1800 cc
	970 kg	1801 cc -	2000 cc
T3	980 kg	2001 cc -	2500 cc
	1050 kg	2501 cc -	3000 cc
	1100 kg	3001 cc -	3500 cc
T4	1150 kg	>	3500 cc
Division D (Diesel)			
D	Idem Class T		
Division Silhouette			
S1	1025 kg	Max	3200 cc
	1025 kg	Max	3500 cc
	1025 kg	Max	2000 Tur
S2 – Solution F	950 kg	Max.	3500 cc
S2 – Gomez Compétition	1000 kg	Max.	3500 cc
S2 – Roadster Cup S	780 kg	Max.	2000 cc
S2 – Diester Cup	845 kg	Max.	2200 cc
Focus ST Cup	875 kg	Max.	2300 cc
S3 – Roadster Cup	730 kg	Max.	1870 cc
S3 – VW011	TBA	TBA	TBA

The reference weight for classes S1, S2, S3, Focus ST Cup, T1, T2, T3, D and T4 is it defined by the minimum weight of each class.

Corrected Cylinder capacity :

- Gasoline Engine Supercharged: x 1.7
- Engine supercharged diesel x 1.5
- Supercharged engine <1600cc x 1.2
- Rotary engine: x 1.5

For the Super 2000 and Super Touring cars, registered in Class T4, the minimum weights are those provided by the FIA.

Super 2000 (Propulsion: 1170 Kg minimum, driver on board; Traction: 1140 Kg minimum, driver on board).

Super Touring cars : the 4 wheel drive is allowed in ST and the minimum weight of these vehicles is 1120 Kg, driver on board.

4.2 Equality of performance

RACB Sport, in agreement with the promoter, reserves the right to change a vehicle from class and/or adapt the minimum weight in order to maximize equality of performance between the different vehicles. The RACB will inform the competitor in writing or through its internet site (www.racb.com) at least 5 days before the start of the meeting. This will not have any influence on the ballast regulations.

4.3 Ballast

Reaching the minimum weight using one or more ballasts are authorized.

However, before adding ballast, the competitor must replace elements of the bodywork and glass in synthetic materials (except if they are in the catalog of the manufacturer or in the homologation).

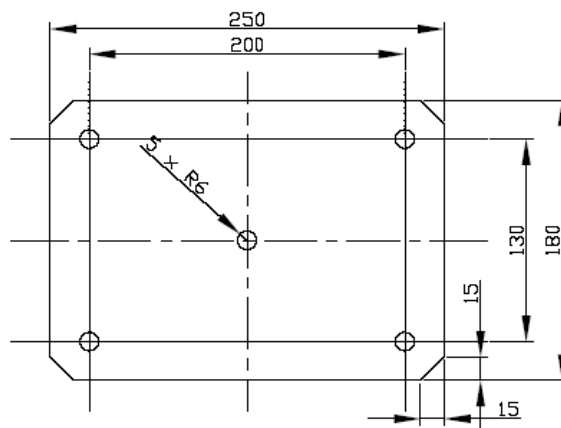
Ballast must be composed of solid blocks and unitary fixed in a visible way by means of tools. The ballast shall be visible and sealed by the Technical Commission at the demand of the team. The ballast shall be attached by means of quality 10.9 mm bolts with a minimum diameter of 10 mm. In order to avoid the ballast from being ripped out, a fortification plate will be mounted underneath the floor, with a minimum of 40 cm² and 3 mm thick.

Any movable ballast system when the car is in motion is forbidden.

4.4 Handicap ballast

If a handicap ballast is imposed on a car (only the weight of stacking metallic plates), it must in addition comply with the following points:

- It must be secured in the cockpit, in the passenger's location. If this solution is technically impossible, the Technical Commission of RACB Sport can allow a derogation that will be precise, case by case, the fixation location.
- It must be made from stacking metallic plates according to drawing 258-2 (FIA).
- The plates must be firmly attached inside a housing by means of 5 M12 screws and be able withstanding a deceleration of 25 G.
- The housing must be solid and may have its proper fixation.
- The securing system of the housing/plates must allow a correct fixing of seals by the Technical Commission.
- The container for ballast can contain 100 kg of ballast



4.5 Weighing

The weight can be checked at any time throughout the meeting, except during the race.

The adding to the car during the race of any solid material whatsoever or the replacement during the race of any part of the car with another, which is materially heavier, is forbidden.

ART.5: ENGINE

For vehicles of the type Cup, the engine must comply with their homologation dossier or their technical card approved by RACB Sport.

Provided that the regulations in Art. 5.1 to 5.6 are complied with, the engine and ancillaries, for all other cars are free.

5.1 Type and position of engine

The make, the number of cylinders and the position of the engine must stay as the original one. A substitution engine may be placed but it has to be of the same make, same number of cylinders and in the same position as the original one.

The chassis of the Division Silhouette must be equipped with an engine being part of the group of makes of the used bodywork and be issued of the series. Bore and stroke must be maintained with a tolerance of ± 0.1 mm. Eventual derogations must be asked at the Technical Commission of RACB Sport. The agreement of the organiser – promoter must also be obtained.

Engines from the FIA group C, the FIA Group GT1, the FIA group Sportscars and the Deutsche Tourenwagen Meisterschaft, or equivalent Classes in other disciplines from all over the world are not considered.

The engine must be installed in the original engine compartment or obligatory in central back position for the Division Silhouette, with respect for the firewall as described in art. 15.3, and must be group-related.

The engine brand is indicated in the data on the identity card issued by the team principal or the owner of the vehicle.

5.2 Engine modifications

5.2.1 Materials

- The use of magnesium and titanium is forbidden, unless it is used in the original part.
- The use of any ceramic or ceramic-coated component is forbidden, unless used in the original part. Exception : external treatment of exhaust system
- The use of carbon or composite materials is restricted to clutches and non-stressed covers or ducts.
- However, it is authorised to realise on the pieces Thermal treatments on condition that it is always possible to establish, without discussion, the original piece of the series.

5.2.2 Throttle pedal

Only a direct mechanical linkage between the throttle pedal and the engine is permitted. If it is the original one, the used engine is equipped with a system with no mechanical link, this system may stay but not modified.

5.2.3 Miscellaneous

- In the intake system, only throttles are permitted. Guillotines and plugs are prohibited.
- The length systems or variable volume admission are prohibited.
- It must be possible, except for Silhouette, to identify the engine wheel as original wheel. However, it may be lightened and balanced.
- The accessories composing the ignition are free.

5.2.4 Engine management

The gearbox is free. The limitation of the regime is free. If the gearbox contains a traction control system, it may not be activated. It is the competitor's task to prove that this function is not activated and has been turned inoperative.

5.3 Aspirated engines

The cylinder capacity of aspirated engines is limited, except for vehicles of the type Silhouette :

S1:

- A maximum cylinder of 3200 cc with a maximum throttle per cylinder and a maximum of 6 cylinders and 5 valves per cylinder.

RACB Sport reserves the right to impose a restrictor, to adjust the diameter, to impose a maximum speed limit, to limit the maximum opening of the throttles or prescribe any other means of establishing equivalence of performance.

- A maximum cylinder of 3500 cc with a maximum of 6 cylinders and 5 valves per cylinder (standard inlet manifold assembling and maintaining the original position on the engine, will be extended immediately by a single throttle of 70 mm). For all Silhouettes using the VQ35 engine (Nissan) or the 70 V4Y (Renault) or a derivative thereof, a spacer of up to 20 mm, can be installed between the bottom (or ref :14010-14010-AM61A AC80A) and upper (ref :14010-14010-CD000 or CD00A). No Change (polishing, porting conduits, alterations in the length of pipes, ...) can be made to the standard inlet manifold with the exception of changes made on the outer surface of the standard inlet manifold and deburring casting defects. It shall at all times comply with the dimensions listed in Appendix 3 of the technical regulation.

S2 and S3:

Maximum engine cylinder of 3500 cc in the series S2 (strictly Cup Solution F or strictly series), 2000 cc in S2 (strictly Roadster Cup S), 2200 cc in S2 (strictly Diester Cup), 1870 cc in S3 (strictly Roadster Cup) with a maximum of 6 cylinders and 5 valves per cylinder.

Focus ST Cup: a maximum cylinder of 2300 cc (Ford Duratec).

The use of an engine of more than 6 cylinders requires a derogation from the Technical Commission of RACB Sport. The agreement of the organisor - promotor must also be obtained.

5.3.1 Restrictors

RACB Sport, in agreement with the promoter, reserves the right to add one or more restrictor(s) of minimum 3mm long in all Classes in order to optimise the diameter of the restrictor(s), and to insure the equality of performance between the different cars. The RACB will inform the competitor in writing or through it's internet site (www.racb.com) at least 14 days before the start of the meeting.

The restrictors must be made of metal or metal alloy and must be entirely visible once the bonnet is open and without dismounting any element or cover.

5.3.2 Air intake system

If restrictors are used, all the air feeding the engine must pass through these restrictors. No pipe containing air is permitted to enter or to exit from the air box(es).

Sealing the restrictors must lead to the immediate stopping of the engine (3 sec). This check must be made at an engine speed of 2500 rpm. For this check, the pressure sensors and safety valves can be disassembled and the mounting interfaces of these sensors or valves shall be closed.

5.4 Supercharged engines

The maximum capacity of supercharged engines of all types, before the calculation of the coefficient, is :

- 2600 cc in class "T"
- 2000 cc in class "S1" equipped with a restrictor of 40 mm conform to art. 5.4.1.

In Division Touring Cars, an engine with a cylinder superior of 2600 cc may be used on base of a complete technical file or a homologation dossier after approval of RACB Sport.

The make and type of the supercharging systems must be specified in the identity card of the vehicle and approved by RACB Sport.

Ceramic components, admissions with variable geometry and internal blades are forbidden for turbocompressors.

5.4.1 Restrictors

RACB Sport, in agreement with the promoter, reserves the right to add one or more restrictor(s) of minimum 3mm long in all Divisions in order to optimise the diameter of the restrictor(s), and to insure the equality of performance between the different cars. The RACB will inform the competitor in writing or through it's internet site (www.racb.com) at least 14 days before the start of the meeting.

The restrictors must be made of metal or metal alloy and must be entirely visible once the bonnet is open and without dismounting any element or cover.

All restrictors must be placed no further than 50 mm from the forward face of the compressor wheel blades.

5.4.2 Air intake system

If restrictors are used , all the air feeding the engine must pass through these restrictors. No pipe containing air is permitted to enter or to exit from the air box(es).

Sealing the restrictors must lead to the immediate stopping of the engine. This check must be made at an engine speed of 2500 rpm.

5.4.3 Management system

Supercharged cars must not be equipped with any device, which allows the boost pressure, or the electronic management system controlling the boost pressure, to be adjusted while the car is in motion.

5.4.4 Water spray

Internal and/or external spraying or injection of water or any substance whatsoever is forbidden (other than fuel for the normal purpose of combustion in the engine).

5.5 Cooling

The cooling system is free but for Touring cars, the water radiator must remain in the original location.

5.6 Exhaust

The exhaust system is free under the conditions that it is in soft or stainless steel with a wall thickness of min. 1 mm. and must be composed at least of a silencer through all the gaze exhaust passes.

Variable exhaust systems are prohibited, with the exception of a waste-gate for supercharged engines.

For cars that appeared in 2007, the exit of the exhaust must be situated at the end of the vehicle and not at least at 10 mm, not even at more than 150 mm, of the back of the outline of the bodywork. This rule came into force in 2008 for all other vehicles.

It is recommended that the total exhaust system exist of one or more homologated Catalytic converters that must function at all times and through which all the gaze exhaust passes. A point of control must be foreseen close to the Catalytic converter.

The noise generated by the car must not exceed 107 dB(A) at 3800 rpm with a tolerance of 3 dB(A).

The noise level will be evaluated in compliance with FIA sound measurement procedures using a decibel meter adjusted to "A" and "Low Speed", positioned at 50 cm and in an angle of 45° of the exhaust pipe exit. A minimum sized 150 x 150 floor carped must be placed in the control area.

ART.6: FUEL PIPING, PUMPS AND TANK

Provided that the regulations in Art. 6.1 to 6.7 are complied with, the fuel system is free.

6.1 Fuel tank and pump

The fuel tank must be retained in the original location or installed in the luggage compartment. In the case of a Silhouette, the can be placed in front, in the cockpit behind and/or nearest to the front seat. It must be isolated from the driver and the engine compartment by means of a leak-proof and flameproof protection. The tank must be surrounded by an energy-absorbing structure.

The original fuel tank may exclusively be replaced by a FT3-1999, FT3.5 or FT5 tank following FIA specifications.

- This tank will have a printed code, mentioning the name of the manufacturer as well as the manufacturing date and the specifications according to which the tank has been built.
- The printed code must be visible through a fireproof transparent window.
- No other bladder shall be used for more than 5 years after the manufacturing date, unless it is inspected and decertified by the manufacturer for a period of maximum 2 years. Other homologated FIA tanks may not exceed the validation date.
- It is recommended to provide the FIA homologated tank with safety foam of the type MIL-B-83054 or D-stop.

If the fuel pump is located in the luggage compartment, it must be isolated from the cockpit by means of a leak-proof firewall.

6.2 Fuel tank fitting

The substituting tank must be permanently fixed using a metal clamping system.

In the case of a fuel tank being fitted below the floor of the car, it must be contained in a close-fitting flameproof housing that adds no aerodynamic advantage and has no other mechanical function.

This housing must include a crushable structure on all external surfaces, and be secured by using a minimum of two metal clamps 30 mm x 3 mm fixed to the floor pan by bolts and nuts.

For attaching these clamps, bolts with a diameter of at least 10 mm must be used, and under each bolt a counter plate at least 3 mm thick and with a surface of at least 20 cm² above the metal of the floor pan.

The crushable structure must be a honeycomb sandwich construction based on a fire-resistant core of a minimum crushing strength of 18N/cm².

The use of aramid fibre is allowed.

The sandwich construction must include two skins of 1.5 mm thickness having a tensile strength of minimum 225N/mm².

The minimum thickness of the sandwich construction must be 1 cm.

The opening remaining after the removal of the original tank may be closed by the installation of a panel of identical dimensions.

Replacing the fuel tank may not lead to other modifications, lightening or reinforcement of those provided in art 255-5.7.1 of the FIA prescriptions.

6.3 Fittings and piping

All lines containing liquid and passing through the cockpit must be covered or coated over their full length, in order to avoid the driver being affected by these liquids in case of breakage. Fuel and oil lines may pass through the cockpit provided that they have no connections other than to the bulkheads.

Fuel lines must be original or comply with the aviation specifications.

The installation of the fuel lines is free, provided that the FIA regulations in Appendix J Art 253.3 are complied with.

They must be installed with a minimum distance of 10 cm to electrical cables and the exhaust system. If these lines are passing through the cockpit, they may have no connections in the cockpit other than to the bulkheads.

6.4 Fuel tank fillers (car)

The filler opening is preferably provided at the outside of the bodywork. For vehicles of the division Silhouette, a filler opening can be provided at the outside of the bodywork, for as long as it complies with the FIA safety standards, Appendix J Art. 258.6.3.

If the filler opening is installed in the luggage compartment, a catch tank must be provided around this filler opening with an external overflow. At the lowest point of the luggage compartment, boreholes must be applied to evacuate the spilled fuel.

The cap of a "trunk-filled" tank may not have a venting borehole or notch.

6.5 Refuelling during the race

Refuelling the car by any other means than gravity, with a maximum height of 2 meters above the track where the refuelling takes place, is forbidden throughout the event.

Refuelling during the race is exclusively authorized in front of the box.

6.5.1 Fuel tower

Refuelling is allowed with a tower complying with the FIA standards, as described in Appendix J of the FIA yearbook, Art. 258.6.4, paragraphs 6.4.1 to 6.4.10 and drawing 252-7. For safety reasons, this tank must be fitted through a tower onto a trolley with the following characteristics:

- All tower components must be mechanically assembled without any degree of freedom in relation to the trolley.
- The base of the trolley must have a surface area of at least 2 m², and must be made with a case fitted on 4 self-braking castors, ballasted with a weight greater than that of the tank filled with fuel. A system for weighing the fuel may be applied through placing a weighing plate underneath the tank, provided that the characteristics set out above are respected.
- A member for supporting the refuelling lines and air hoses may be attached to the trolley:
 - It must be independent of the tank and the tower.
 - It is recommended that this member be allowed a degree of freedom in relation to the trolley (rotation following a vertical axis).
 - It must not exceed 4 m in length and must allow a free passage of a height of 2 m over its entire length, including the accessories.
 - An identification plate bearing the race number(s) of the car(s) must be fixed on top to its end.

This tank must have a simple cylindrical internal shape and must not have any additional internal parts.

- A flow restrictor of minimum 2 mm thick and with an internal diameter of maximum 33 mm must be placed at the exit of this system (see drawing 258-3).
- Above the tank, there must be an air vent system approved by the FIA.
- The refuelling pipe, minimum length 250 cm, must be provided with a leak-proof coupling to fit the filler mounted on the car, and during refuelling the outlet of the air vent must be connected with an appropriate coupling of the same diameter to the supply tank (see drawing 252-7).
- A self-closing valve with an internal diameter of 38 mm must be fixed under the supply tank.
- A fuel level indicator, equipped with stopcocks, mounted as close as possible to the tank, may be used on the refuelling tower.

Refuelling of the tower is exclusively authorized using a mechanical manual pump; jerry cans or any other recipient are forbidden.

6.5.2 Earth connection

During the refuelling procedure, the car must remain on its wheels and no level change of is allowed.

Before refuelling commences, the car and all metal parts of the refuelling system, from the coupling to the supply tank and its rack, must be connected electrically to earth by a manual contactor having no other function.

6.6 **Other fuel recipient**

During practices, the standard supply tank or an un pressurized container not exceeding 35 litres capacity which is vented to air and has a leak-proof coupling connecting it to the tank filler on the car, conform to FIA norms as described in valid appendix J of the FIA yearbook art. 258-6.4.8 and drawing 252-2, with a flow restrictor of a maximum internal diameter of 30 mm, hold on a length of 2 mm minimum, may be used.

A metal and weather proof jerry can with a maximum capacity of 20L., provided with an opener (type 1/4 and a maximum diameter of 1 inch), marked by RACB Sport (and this only for those who still use an old fuel tank with a propeller capsule), may also be used.

6.7 **Fuel on board**

6.7.1 **Temperature**

The storing of fuel on board the car at a temperature less than 10°C below the ambient temperature is forbidden.

The use of a specific device, whether on board the car or not, to reduce the temperature of the fuel below the ambient temperature is forbidden.

6.7.2 **Fuel capacity**

The maximum capacity of the fuel tank, catch tank included, is 100 litres at the most with a tolerance of maximum 2 litres. Any device, system, procedure, construction or design, the purpose and/or effect of which is to increase in any way whatsoever, even temporarily, the total fuel storage capacity beyond the maximum of 100 litres, is forbidden. For homologated cars, the maximum quantity of fuel must stay conform to the information on the technical dossier of the car. Fuel types other than petrol and diesel are forbidden.

ART.7: LUBRICATION SYSTEM

Provided that the regulations in Art. 7.1 to 7.2 are complied with, the lubrication system is free.

7.1 **Oil tanks**

If the oil tanks are not retained in the original position, they must be surrounded by a 10 mm thick crushable structure.

The oil tank must not be located in the cockpit.

7.2 **Oil catch tank**

If the carter de-aeration is not retained in the original position, it must vent into a catch tank of at least 2 litres capacity. This catch tank must be securely fitted with flameproof material and have a vent. Installation in the cockpit is forbidden. Catch and vent point of the catch tank must be the highest point of the tank.

The carter de-aeration may not be directed freely to the ground.

ART.8: ELECTRICAL EQUIPMENT

Provided that the regulations in Art. 8.1 to 8.4 are complied with, the electrical equipment is free.

8.1 **Battery**

- If the battery is maintained in its original position, it must be securely and permanently be fixed and the electrical conductor '+' must be covered with an appropriate insulating cover.
- If the original position of the battery is not maintained, it may be situated in the cockpit, but without obstructing the exit of the driver. Batteries must be securely fixed to the body

shell and completely surrounded by a box made of insulating material that includes an air vent, which exits outside the cockpit. If the battery situated in the cockpit is a dry battery, the electrical conductor '+' must be covered with an appropriate insulating cover.

- The attachment to the body shell must consist of a metal seat and two metal clamps, with an insulating covering, fixed to the floor by bolts and nuts. For attaching these clamps, bolts with a diameter of at least 10 mm must be used, and under each bolt, a counter plate at least 3 mm thick and with a surface of at least 20 cm² beneath the metal of the bodywork (see drawings 255-10 and 255-11).

8.2 **Windscreen wiper**

Motor, position, blades and mechanism are free but there should be at least one windscreen wiper provided for the windscreen, which must be in working order throughout the event. The headlamp washer device may be dismantled.

8.3 **Starting**

A starter must be fitted and be in working order at all times during an event. The driver must also be able to operate the starter when seated normally.

For any type of tuning or adjustment of the engine, the engine may be restarted, even with an external source of energy. The connection of the external battery must be located inside the roll cage and must be realized by means of a special starting plug. In no case, this connection may be located under the hood or in the immediate proximity of the fuel reservoir or conducts.

If the car wants to resume the race after a pit stop, all four wheels must touch the ground before the driver sitting behind the wheel may start or restart the engine without auxiliary means.

8.4 **Lighting equipment**

8.4.1 **Procedure**

Throughout practices, warm-up and the race(s), all cars must be equipped with adequate lighting equipment.

Each car must be equipped with at least:

- At the rear: two red stoplights, two ordinary red lights and two orange direction indicators; they must be installed clearly visible and symmetrically to the longitudinal axis at each side of the car.
- In front: at least two white or yellow lights and two orange direction indicators.
- The bulbs of the reversing lights must be removed.
- When using rain tyres or tyres causing water projection, the driver must illuminate the lights as well as the rain light.
- Headlight covers may be fitted. Upon deployment of the "LIGHT" signal, the car must immediately enter the pits to have these covers removed.

If, after an incident during the race, a vehicle has problems with its lighting equipment, he/she cannot stay on track for at least if one illuminated point front and rear function. Also, minimum one red light stop must work. If the race conditions ask for it, the rain light must be ready to function.

8.4.2 **Light for rain**

All cars must have a red rear light of at least 21 watts, in working order throughout the event, which:

- Is a model approved by the FIA (technical list n° 19) or ASN.
- faces rearwards at the car centreline.
- Is clearly visible from the rear
- Is mounted not more than 10cm from the car centreline.
- Is at least 35 cm above the reference plane.
- Can be switched on by the driver when seated normally in the car

The two measurements being taken to the centre of area of the lens.

8.4.3 **Race number illumination during night races**

- If a race is competed at night, the race numbers on each car must be illuminated. These lights must light simultaneously with the headlights. The use of reflecting backgrounds is recommended, but not compulsory.
- At no time, a white light may shine backwards, not even the race number illumination or the lights destined to the car's identification.
- At no time, a red light may shine forwards, not even the race number illumination or the lights destined to the car's identification.
- The use of orange or blue blink or revolving lights is forbidden

ART.9: TRANSMISSION

Provided that the regulations in Art. 9.1 to 9.4 are complied with and the original position is respected, the transmission is free.

A vehicle with 4 wheel drive may be changed to a 2 wheel drive.

For safety reasons, the transmission must be designed in such a way that should the car be stopped and the engine stalled, it is possible to push or tow it.

9.1 Gear shifting

The gearshift (linkage between the gear shift lever operated by the driver and the gearbox) is free.

The system that is known as "Gear Shifter", facilitating gear shifting by acting on the engine management (ignition or injection) by means of an interruption, which is activated by shifting the gearshift lever, is authorized.

If the original vehicle or of the Cup type is fitted with a semi-automatic or automatic gearbox, it may be retained but the gearbox and its synchronizers, as well as its whole control system, must remain original, or conform to its Cup or its homologation dossier.

9.2 Differential

Differentials with electronic, pneumatic or hydraulic slip control are forbidden.

The use of a limited differential of mechanical type – only all systems functioning exclusively mechanical – which is without any help of a hydraulic or electric system, is authorised.

9.3 Gearbox

The gearbox must at least have maximum 6 gears front and minimum 1 gear back.

The reduction gears are free must be on the identity card of the vehicle.

All cars must have a reverse gear, which, at any time during the event, can be selected by the driver while seated normally.

9.4 Coupling

Only conventional mechanical designs are admitted. The material is free.

The coupling may be activated exclusively by the drivers' foot, unless in the case of an automatic or semi-automatic gearbox. A derogation may concern drivers with a handicap.

ART.10: SUSPENSION AND STEERING

Provided that the regulations in Art. 10.1 to 10.8 are complied with, the suspension and steering system is free.

10.1 Suspension type and mounting

Any active suspension is forbidden.

Any automatic or electronic control system or function is forbidden, even if it is fitted on the original car. This includes, amongst others, damper, suspension or ride height adjustment.

The spring medium must not consist solely of bolts located through flexible bushes or mountings. There must be movement of the wheels to give suspension travel in excess of any flexibility in the attachments.

Rubber joints may be replaced by ball joints (e.g. uniball joints).

The fixation points at the bodywork or chassis must be respected, except for exceptions authorised by the FIA.

10.2 **Springs**

Material, dimensions and number of springs are free.

10.3 **Shock absorbers**

Shock absorbers are free provided their number per axle is no greater than the original.

The shock absorber reservoir and its possible line must be completely isolated from the cockpit and may not be located in a compartment giving access to the ventilation system of the car.

10.4 **Cockpit**

The modification of spring, shock absorber and anti-roll bar settings from the cockpit is prohibited, when the car is in motion.

10.5 **Material**

All suspension members must be made from a homogeneous metallic material. Chromium plating of steel suspension members is forbidden.

10.6 **Steering**

All steering components must be original equipment supplied by the manufacturer or homologated. The original place must be kept.

With the exception of the homologated steering column, these parts may be strengthened provided the original part can still be identified. The steering column must contain a quick release system.

The steering lock must be dismantled.

The steering wheel may be replaced and may be fitted using a quick release system.

The quick release mechanism must consist of a flange concentric to the steering wheel axis, coloured yellow through anodising or any other durable yellow coating, and installed on the steering column behind the steering wheel.

The release must be operated by pulling the flange along the steering wheel axis.

10.7 **Power steering**

Power steering may be hydraulic, electro-hydraulic or electric, as long as it is a simple system, without programmable control.

10.8 **Four-wheel steering**

The use of four wheel steering is forbidden.

ART.11: BRAKES

Provided that the regulations in Art. 11.1 to 11.6 are complied with, the brake equipment is free.

11.1 **Double brake circuit**

For safety reasons, two separate circuits must be incorporated operated by the same pedal. The pedal shall normally control all the wheels. Under normal circumstances, the pressure of the pedal must be over all pedals.

This system must be designed so that if leakage or failure occurs in one circuit, the pedal shall still operate the brakes on at least two wheels.

The brake fluid tanks may be fixed inside the cockpit, on condition that they are securely fastened and protected.

11.2 **Brake discs**

The brake discs are free but must be made of ferrous material.

The material of the plates is free.

A braking system made of carbon is forbidden.

For Silhouette cars, the discs have a maximum diameter of 380 mm.

11.3 **Anti-lock braking**

The equipment of a pedal or an anti-lock braking system is authorized.

Servo brakes, anti-lock braking, ... and other original accessories may be dismantled.

A hydraulic limitation with manual command working on the rear brakes is authorized and may be situated in the cockpit close to the driver normally seating behind the wheels.

A mechanic front and rear distributor is authorized (spreader on break pedal, manually adjustable).

For all cars of the type Silhouette, the anti-lock braking systems and assisted brakes are forbidden in all their forms.

11.4 **Brake callipers**

The internal parts of the brake callipers may be made from titanium.

A single calliper, with a maximum of 6 pistons, is permitted on each wheel.

The section of each calliper piston must be circular.

11.5 **Brake lines**

Brake lines must be protected externally against any risk of deterioration (stones, corrosion, mechanical breakage, etc.) and internally against all risks of fire and deterioration.

If the brake lines are running through the cockpit, their entries and exits must be isolated from the cockpit using rubbers.

11.6 **Cooling**

The disc protection plates may be removed or modified, but without adding any material. One single flexible line or an air duct to bring the cooling air to the brakes of each wheel is permitted.

The air lines may not pass the car's perimeter seen from above.

External cooling of brakes with liquid is not authorized.

ART.12: WHEELS AND TYRES

12.1 **Definitions**

Wheel = veil + rim

Complete wheel = veil + rim + mounted tyre

12.2 **Dimensions and specifications**

Maximum diameter of the complete wheel : 650 mm

Maximum diameter of the wheel : 18"

Maximum length of the rim between the tails : front : 10" back : 12"

In S1, the used tyres must have following dimensions : front : 24/64 R18 – back : 27/65 R18

In S2, the used tyres must have following dimensions : front : 21/65 R18 – back : 24/65 R18

12.2 **Visibility of the wheels**

The complete wheel above the hub centre line must not be visible in plan view, with the wheels aligned for the car to proceed straight ahead.

12.3 **Wheel material**

Wheel material is free but they must be made from homogeneous metallic materials.

Hubcaps must be removed. Wheels may not be damaged and must be clean when the car is presented to the technical scrutineering.

12.4 **Number of wheels**

The maximum number of wheels is four. On each axle, the wheels must be of the same type, material and dimensions.

Taking a spare wheel in the car is forbidden.

12.5 **Wheel attachment**

Wheel attachment is free but if a single wheel nut is used, a safety pin fitted with a spring must be in place on the nut or the stub axle whenever the car is running and must be replaced after each wheel change.

These pins must be painted red or orange. Alternatively, another method of retaining the wheels attachment system may be used, provided it has been approved by the FIA.

The wheel attachment by means of bolts may be changed in attachments by means of pins and nuts, but only if the number of attachments is respected and the diameter of the threaded parts. The length of the thread must at least be the same of the diameter of the threading of the screw or of the pin.

If wedges or spacers wheel are mounted, they must be mechanically fastened through the wheel or disk bowl.

12.6 **Pneumatic jacks**

Pneumatic jacks may be fitted to the car, but compressed air bottles are not to be carried on board.

12.7 **Measuring the tyre pressure**

The use of any means or system preserving the performances of the tyres with an inner pressure equal or inferior to the atmospheric pressure is forbidden. The inner part of the tyre (i.e. the space between the rim and the inside of the tyre) may only be filled with air.

Any other additive whatsoever (gas, liquids, ...) are authorised.

Any pressure control valves on the wheels are forbidden.

The use of valve caps is obligatory.

ART.13: COCKPIT

13.1 **Equipment in the cockpit**

13.1.1 **Dashboard:**

In cars of the Division Touring cars, the dashboard must be retained. Lightening or modification of it are permitted. In cars of the Division Silhouette, the dashboard may be adapted.

The instruments are free. However, the installation should not present any risk.

Standard switches may be replaced by switches of different design and may be fitted at different locations on the dashboard or on the centre console.

13.1.2 **The following must be removed from the cockpit:**

- Roof padding and lining.
- Carpets and insulating material
- Steering lock device
- Airbag

13.1.3 The following may be removed from the cockpit:

- Passenger seat and the entire rear seat
- All trim except the dashboard. After removal, the sharp edges must be adequately protected.
- Air-conditioning, original safety belts, window winding mechanisms, central locking systems, radio, horns, glove compartment, and any other system fitted to the original car solely for the comfort of the driver or passengers.
- Original heating, ventilation and demisting systems may be dismantled, but adequate ventilation and demisting system must be retained.

During practice, warm-up and the race(s), the cockpit and/or the luggage compartment may not contain any loose material.

13.2 Equipment permitted in the cockpit:

- Safety structures and equipment.
- Tool kit, when securely fastened.
- Seat, instruments and any other controls necessary for driving, including the brake power distributor switch
- Electronic and electric equipment.
- Driver cooling system.
- Ballast.
- Pneumatic jacks and their pipes.
- Battery
- Driver ventilation equipment.
- Door trims may be replaced with different material.

None of the above items may hinder cockpit exit or driver's visibility.

ART.14: SAFETY EQUIPMENT

14.1 Safety equipment 'car'

14.1.1 Fire extinguishers

All cars must be equipped with an automatic (electric or mechanic command) extinguishing system in accordance with Art. 253.7 of appendix J of the FIA regulations. The list of manufacturers can be found on the technical list n° 16 and includes, amongst others:

Manufacturer	Name	Hom.n°	Hom.date
Fogmaker International	Fogmaker	Ex.001.97	12.97
Lifeline Fire and Safety Systems	Zero 2000	Ex.002.98	12.98
SPA Design	Fire Fighter System	Ex.003.98	12.98
Fire extinguisher Valve company	Enviro 3	Ex.004.99	04.99
Fire extinguisher Valve company	AFFF 4000R	Ex.005.99	04.99
Fire extinguisher Valve company	AFFF 3500R	Ex.006.99	04.99
Fire extinguisher Valve company	VI-RO ³ 2000R	Ex.007.99	04.99
OMP	Ecolife	Ex.008.00	01.00
OMP	Ecolife	Ex.009.00	01.00
Total Walther	Microdrop	Ex.010.00	06.00
Sparco	Fire Warrior	Ex.011.01	10.01
Toora	Savelife	Ex.012.03	02.03
Toora	Savelife	Ex.013.03	02.03
Kiddle Deugra	KD-596	Ex.014.03	04.03
Sabelt	Sabfire	Ex.015.03	04.03
Sabelt	Sabfire	Ex.016.03	04.03
Lifeline Fire and Safety Systems	Zero 360	Ex.017.03	05.03
Sparco	Fire Warrior Gas	Ex.018.04	05.04
Lifeline Fire and Safety Systems	Zero 360	Ex.019.05	04.05
Lifeline Fire and Safety Systems	Zero 2000CD	Ex.020.05	05.05
Fire Extinguisher Valve Company	FX G-TEC ..00R	Ex.021.05	11.05
Fire Extinguisher Valve Company	FX G-TEC ..00M	Ex.022.05	11.05
Fire Extinguisher Valve Company	FX G-TEC ..00E	Ex.023.05	11.05

Lico	SF SafeRace	Ex.024.06	05.06
MOMO	Momo Firewall	Ex.025.07	03.07
Turini	Turini AFFF	Ex. 026.08	04.08
Lifeline Fire and Safety Systems	Zero Zero	Ex. 027.08	12.08
Lifeline Fire and Safety Systems	Zero 360	Ex. 028.08	12.08

The driver, normally seated with his safety belts fastened and the steering wheel in position, must be able triggering manually the extinguishing system. A means of triggering from the outside must be combined with the circuit breaker and be operated by a single lever. It must be marked with a letter "E".

The following information must be visible on each extinguisher:

- capacity
- type of product
- weight or volume of the product
- date the extinguisher must be inspected, which must be no more than two years after the date of filling or the date of the last check.

All extinguishers must be adequately protected. It must be fixed with minimum 2 metallic straps locked by screwing and the mounting systems must be able withstanding a deceleration of 25 G.

Furthermore, only quick-release metal fastenings (two minimum) with metal straps will be accepted.

14.1.2 Safety belts

Fitting shoulder straps, approved by the FIA and provided with a limit date of use, is compulsory. These straps must comply with the description of Appendix J of the FIA yearbook, Art. 253.6. Attention: only the 8853/98 standard is admitted, with at least 5 anchorage points.

14.1.3 Rear view mirrors

The car must be fitted with two rear view mirrors, one fitted on each side of the car, in order to give an efficient view to the rear. Position: free, but each rear view mirror must have a minimum reflecting surface of 90 cm². It is authorised to insert a conduct with the only mean to give air to the driver. An inside rear view mirror is optional.

14.1.4 Seat

The driver's seat must be replaced with a seat homologated by the FIA (8855/1999 or 8862/2009 standard), provided with a limit date of use and having five (5) openings for the safety harness. In all cases, a headrest must be present for the driver. The homologated seat may not be modified.

The utilization limit is 5 years starting from the date of fabrication mentioned on the obligatory etiquette. A 2 years extension can be granted by the manufacturer and must be mentioned on a supplementary etiquette.

If the original seat attachments or supports are changed, the new parts must either be approved for that application by the seat manufacturer or must comply with the following specifications (Art 253.16 and drawing 253-65, appendix J of the FIA yearbook):

- Supports must be attached to the shell/chassis via at least 4 mounting points per seat using bolts with a minimum diameter of 8 mm and counter plates, according to the drawing. The minimum area of contact between support, shell/chassis and counter plate is 40 cm² for each mounting point. If quick release systems are used, they must be capable of withstanding vertical and horizontal forces of 18000 N, applied non-simultaneously. If rails for adjusting the seat are used, they must be those originally supplied with the homologated car or with the seat.
- The seat must be attached to the supports via 4 mounting points, 2 at the front and 2 at the rear of the seat, using bolts with a minimum diameter of 8 mm and reinforcements integrated into the seat. Each mounting point must be capable of withstanding a force of at least 15000 N applied in any direction.
- The minimum thickness of the supports and counter plates is 3 mm for steel and 5 mm for light alloy metals. The minimum longitudinal dimension of each support is 6 cm.

14.1.5 Master switch

- A circuit breaker switch is compulsory and must cut all electrical circuits: battery, alternator, lights, ignition, electrical controls, etc.
- The driver, when seated normally with the safety belt fastened and the steering wheel in place, must be able to cut off all the electrical circuits by means of a spark-proof circuit breaker switch. This switch must be clearly marked by a symbol showing a red spark in a white edged blue triangle and be accessible by the driver with his safety belt fastened.
- There must also be an exterior switch, with a handle, which is capable of being operated from a distance by a hook. This switch must be located at the lower part of the windscreen pillar. It will be marked by a red spark in a white-edged blue triangle with a base of at least 12 cm.

14.1.6 Towing eyes

Front and rear towing eyes must:

- Be rigid, made from steel, with no chance of breaking, having an inner diameter between 60 and 100 mm and be 5 mm thick.
- Have a round section so as not to cut or damage the straps used by the marshals.
- Be securely fitted to the structures of the chassis by means of a rigid part made from metal (cable hoops are not permitted)
- Be within the perimeter of the bodywork as viewed from above.
- Be easily identifiable and painted in yellow, orange or red.
- Allow the towing of a car stuck in a gravel bed.

The exact location of the towing eyes moreover must be marked with an arrow in a contrasting colour.

14.2 Drivers' equipment

The entire personal protection equipment must be shown during the technical scrutineering.

14.2.1 Helmet

All drivers must wear a helmet (HANS®) whenever the car is in motion.

This helmet must at least comply with the following standards:

- FIA 8860-2004
- Snell SA 2000 (USA) – Will not more be homologated as from **31/12/2014**
- Snell SA 2005.
- British Standards Institution BS 6658-85, type A/FR, including all amendments (red sticker) – Will not more be homologated as from **31/12/2013**.

Any modification to the above-mentioned list will be published in the monthly FIA Official Bulletin. The description of the identification labels of the approved helmets is available on request from the FIA or RACB Sport.

The helmet must be provided with HANS© fasteners ("tether anchors"), with the FIA code 8858-2002 and the FIA hologram sticker (silver plated).

14.2.1.1 Modifications (App. L chapt. III 1.2)

No helmet may be modified from its specification as manufactured.

14.2.1.2 Communication system (App. L chapt. III 1.3)

Helmet-mounted radio communication systems or radio speakers are prohibited. Earplug type transducers are allowed.

Derogations, for medical reasons only, can be granted by the Medical Commission of RACB Sport. The fitting of microphones may be done only in respect of the dispositions provided by the FIA (Appendix L, Chapt III, art. 1.2).

14.2.1.3 Decoration

Must comply with the standard in accordance with Appendix L Chapter III 1.4 of the FIA yearbook.

14.2.2 Head restraint (App. L chapt. III 3)

The use of a HANS© (head and neck restraint system) system is compulsory.

The list of FIA approved HANS© systems (8858-2002) and helmets can be found on the technical list n° 29. The HANS© attachments ("Tether") must be provided with the homologation FIA sticker 8858-2002.

Until so far, no system offers a complete protection in case of accidents, but multiple studies have proven that a HANS© protection considerably reduces the risk of head, neck and spinal injuries. Each driver should carefully choose the system that would be the most appropriate.

14.2.3 Flame-resistant clothing (App. L chapt. III 2)

During practice, warm-up and the race, the driver must wear flame-resistant overalls. These overalls must comply with the FIA standard 8856-2000 and indicates the name and the blood type of the driver.

He/she furthermore wears long underwear, a balaclava, socks, shoes and gloves complying with the design and the parameters for the manufacturing, imposed by the FIA standards 8856-2000.

The list of FIA homologated flame-resistant clothing (8856-2000) can be found on the technical list n° 27.

ART.15: SAFETY STRUCTURES

15.1 Rollover structure

- The car must be fitted with a roll cage complying with Art. 253.8, Appendix J of the applicable FIA regulations.
- Any modification to a homologated roll cage is forbidden and will make the roll cage non-compliant.
- Longitudinal struts or an alternative acceptable to the FIA, providing lateral protection, must be included. It is possible to add three lateral protection bars onto a roll bar homologated by the FIA in accordance with drawing 258-4, Appendix J of the applicable FIA regulations.
- Where the drivers' body could come into contact with the safety cage, non-flammable padding must be provided for protection. Where the drivers' crash helmet could come into contact with the safety cage, the padding must comply at least to the FIA Standard 8857-2001 type A.
- The fitting of electrical, fuel or other conducts between the roll cage and the bodywork is forbidden.

15.2 Rollover structure security

Vehicles of the type Silhouette must obligatory have sandwich panels that absorb energy, with a thickness of 80 mm, situated between the interior place of the door driver side and the security structure.

The definition of the materials of these panels and their installation must be conform to design 19a, b, c and d (cf. FFSA).

For the vehicles of the type Silhouette 2000 and 2001, the protection may be situated between the interior place of the door driver side and the seat of the driver. It may provide a system in 2 parts stacked and nested, where the one situated on top should be solitude in order to facilitate the driver to leave the car.

15.3 Firewall and floor

Cars must be equipped with a firewall, between the engine compartment, luggage compartment, fuel tank on the one hand and cockpit on the other hand, to prevent the passage of liquids, flames or gasses to the cockpit.

Any holes in the firewall must be of minimum size for the passage of controls and wires and must be completely sealed by rubbers.

ART.16: FUEL

16.1 Fuel specifications

The fuel used must be commercial fuel. No additives may be added.

16.2 Air

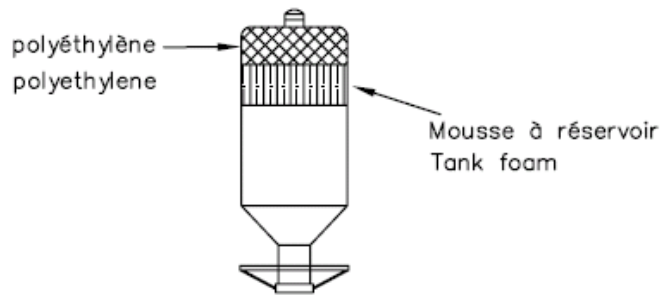
Only air may be mixed with the fuel as an oxidant.

ART.17: FINAL TEXT

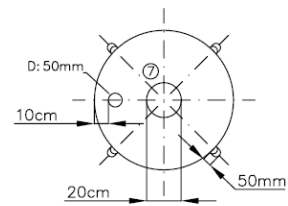
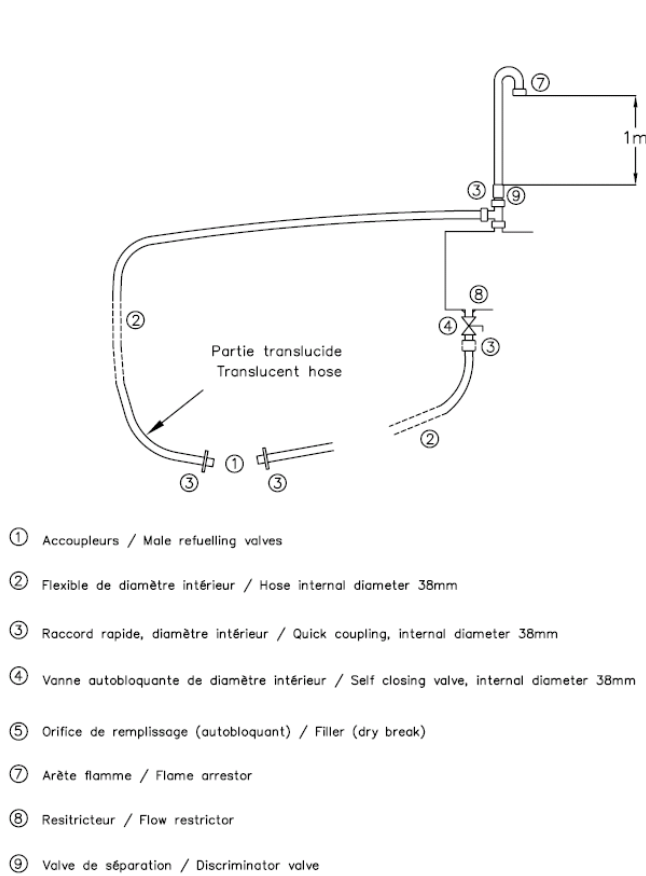
The final text of these Technical Regulations shall be the French version, which will be used should any dispute arise as to their interpretation. Headings in this document are for ease of reference only and do not form part of these Technical Regulations.

ART. 18 : APPROBATION

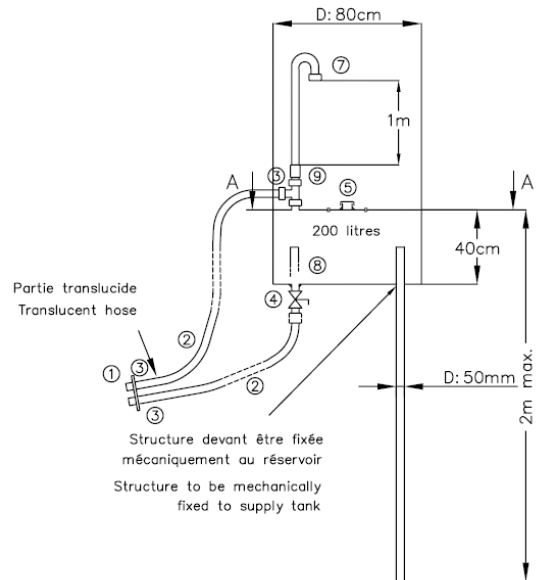
Regulation approved by RACB Sport on February 2^{8th} 2011.
Visa Number : T01-BTCS/B11



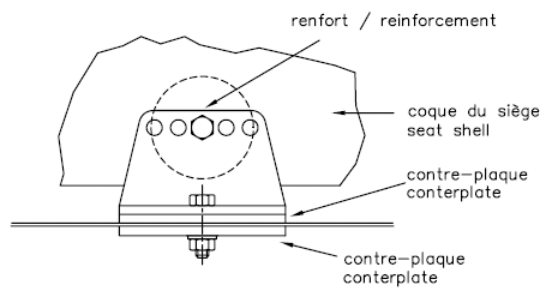
DRAWING 252-2



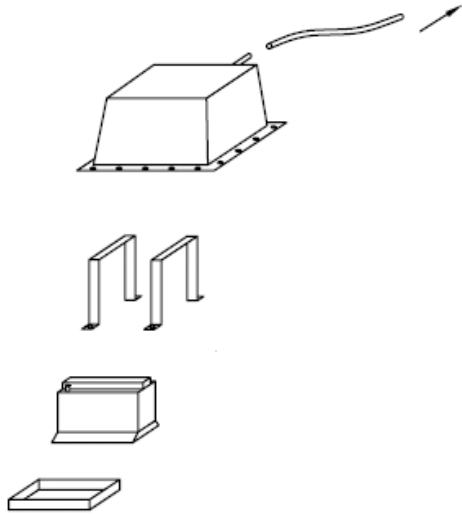
Coupe AA



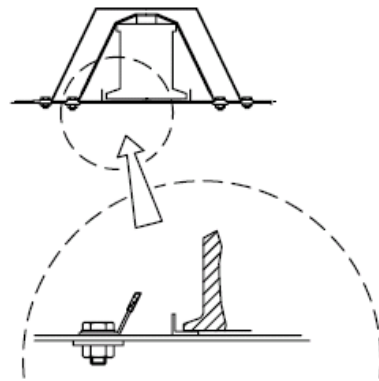
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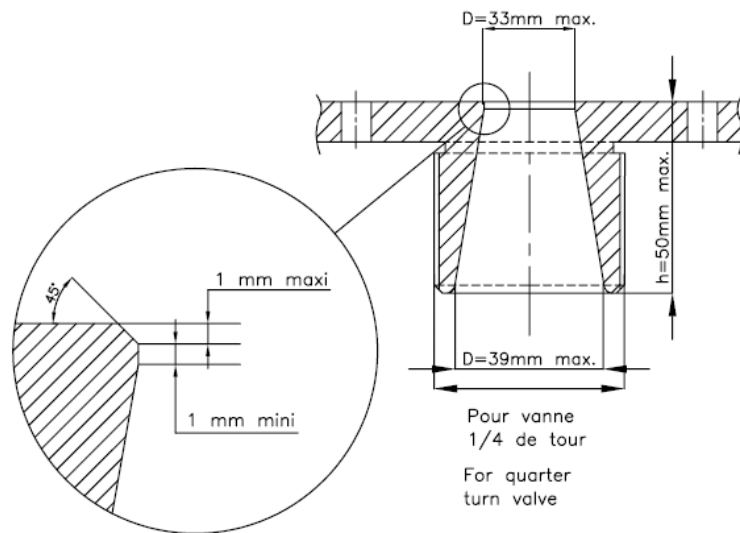
DRAWING 253-65



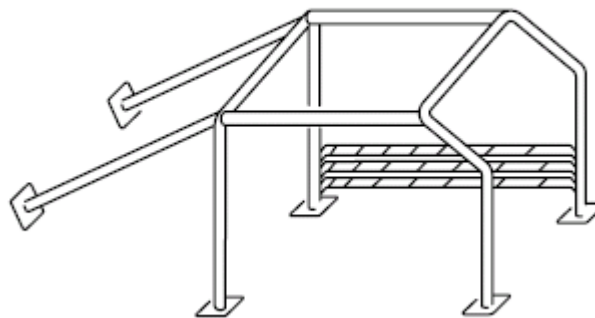
DRAWING 255-10



DRAWING 255-11



DRAWING 258-3



DRAWING 258-4

