



HISTORIC SPORTS CAR CLUB

Established 1966

Silverstone Circuit, Silverstone, TOWCESTER, Northamptonshire NN12 8TN

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Historic Sports Car Club Ltd - A company limited by guarantee - Registered in England - 04448259

HSCC Historic Formula 3 Championship Regulations 2017

Eligible Cars:

The HSCC Historic Formula 3 championship is open to cars currently running to a configuration in which that individual chassis competed with between January 1st 1964 and December 31st 1970 compliant with International FIA F3 regulations for that period.

This will include cars that competed in the Temporada Series which took place at Interlagos 10/1/1971, 17/1/1971, 25/1/1971 and Taruma 1/02/1971 under FIA (1964 – 1970) Formula 3 regulations. No cars may use wings or aerodynamic aids.

All cars must have current FIA or HSCC Vehicle Identification Forms.

Class Structure – Historic Formula 3 Championship

- Class A Cars which competed between 1/01/64 – 31/12/65 with one litre sidedraught engines
- Class B Cars which competed between 01/01/66 and 31/12/70 with one litre downdraught engines, or earlier cars fitted with wider wheels and tyres specified in Class A and /or downdraught engines will run in Class B
- Class I Invitation Class for Historic F3 cars built between 1964 and 1970 complying **cars** only with Historic F3 1000cc European Trophy Regulations.

1. SPORTING REGULATIONS - GENERAL

1.1 Title and Jurisdiction:

The HSCC Historic Formula 3 Championship is organised and administered by the Historic Sports Car Club [HSCC] in accordance with the General Regulations of the Royal Automobile Club Motor Sports Association [MSA] (incorporating the provisions of the International Sporting Code of the FIA).

MSA Championship Permit No:

Race Status: National B

MSA Championship Grade: D

1.2 Officials:

1.2.1 Co-ordinator: Mr G.D. White, HSCC, Silverstone Circuit, Silverstone, Nr. Towcester, Northants NN12 8TN. Tel. 01327 858400.

1.2.2 Eligibility Scrutineers: **Matthew Lambkin-Smith and Nigel Edwards,**

1.2.3 Championship Stewards: Mr. Chris Alford, Mr Duncan Rabagliati, Mr Lincoln Small
All C/O HSCC, Silverstone Circuit, Nr. Towcester, Northants, NN12 8TN

1.3 Competitor Eligibility:

1.3.1 Entrants must:

- (a) be fully paid-up valid membership card-holding members of the HSCC and
- (b) in possession of a valid 2017 MSA Entrant's Licence.

1.3.2 Drivers and Entrant/Drivers must:

- (a) be fully paid-up valid membership card-holding members of the HSCC and,
- (b) be registered for the Championship and
- (c) be in possession of a valid 2017 MSA Competition (Racing) National B status Licence as a *minimum*. **N.B. National A status Licence may be required subject to Q 9.1.1.**
To compete at Zandvoort all drivers will require National A Status Licence *minimum*
- (d) A professional driver, in possession of a valid Licence (featuring an E.U.flag) and medical, issued by the ASN of a member country of the European Union, or comparable country (H26.2.1 applies).
- (e) *Deleted*

1.3.3 All necessary documentation, including FIA or HSCC Vehicle Identity document, must be presented for checking at all rounds when signing-on.

DRAFT REGULATIONS

- 1.4.1 All drivers must register as competitors for the Championship by returning the registration form with the registration fee to the HSCC prior to the final Closing date for the first race being entered.
- 1.4.2 The registration fee is £150 to include membership of the HSCC. Cheques made payable to the HSCC. All drivers and Entrant Drivers must also be members of the 1000cc F3 Historic Racing Association to be registered for the Championship. The race entry fee will not exceed £900 GBP for each event.
- 1.4.3 Registrations will be accepted from 1st January 2017.
- 1.4.4 Registration numbers will be the permanent Competition numbers for the Series.

1.5 Championship Events:

The HSCC Formula 3 Championship will be contested at 7 race meetings. .

Date	Circuit	Status	Org. Club
TBA	TBA	National B	HSCC
TBA	TBA	National B	HSCC
TBA	TBA	Clubmans	HSCC
TBA	TBA	National B	HSCC
TBA	TBA	Clubmans	HSCC
TBA	TBA	TBA	HARC
TBA	TBA	National B	750MC

1.6 Scoring:

- 1.6.1 **Points** will be awarded to competitors listed as classified finishers in the Final Results as follows:-

In the event of the result classification not listing non finishers, a competitor who has completed 90% or more of the race distance completed by the race winner will be classified as finisher.

Championship points will be awarded as follows:-

Position	Points	Position	Points
1 st	45	19 th	17
2 nd	40	20 th	16
3 rd	37	21 st	15
4 th	35	22 nd	14
5 th	33	23 rd	13
6 th	31	24 th	12
7 th	29	25 th	11
8 th	28	26 th	10
9 th	27	27 th	9
10 th	26	28 th	8
11 th	25	29 th	7
12 th	24	30 th	6
13 th	23	31 st	5
14 th	22	32 nd	4
15 th	21	33 rd	3
16 th	20	34 th	2
17 th	19	35 th	1
18 th	18		

- 1.6.2 The totals from all qualifying rounds (excluding any races which are abandoned and which are not replaced) will determine the final championship points and positions.
- 1.6.3 Ties shall be resolved using the formula in Section **W1.3.4** in the 2017 MSA Yearbook
- 1.6.4 Where the race distance has been reduced (2.6) it shall still count as a full points-scoring round.
- 1.6.5 Competitors not registered for the Championship may be permitted on an individual round basis and will:
- be deemed "Guest Competitors"
 - not score points and for the purpose of points scoring will be ignored
 - qualify for Event awards
 - comply with the eligibility criteria as prescribed in Article 1.3 above, with the exception of 1.3.1(b) and 1.3.2 (b), as appropriate.

1.7 Awards:

- 1.7.1 All awards are to be provided by the race organisers.
- 1.7.2 Per round: : A trophy to the overall winner, second overall and third overall also trophies to first

and second in class A subject to five starters in class. Trophies to first in class A will be awarded subject to three starters in class. Class I does not qualify for overall positions or trophies.

1.7.3 **Championship:** Championship winner and 2nd – 6th overall will each receive a Trophy. The highest placed finisher in Each Class (including Class B) will each receive a trophy, the 2nd subject to 6 in class and 3rd subject to more than 6 in class will receive a trophy. To qualify for an award a competitor must have competed in at least 4 rounds. Other awards may be given at the Championship Organisers' discretion.

1.7.4 **Presentations:** Winners' trophies are to be provided for presentation at the end of each race or at the end of the meeting presentation ceremony. Class trophies will be available from the paddock office one hour after the official results have been published.

1.7.5 **Entertainment Tax Liability:**

Prize Money and Bonuses not applicable.

In accordance with current government legislation, the HSCC is legally obliged to withhold tax at the basic rate on all payments to non-UK resident sportsmen/women and account to HMRC using form FEU1, the quarterly return of payments made to non-resident entertainers and sportsmen/women.

That is those persons who do not have a normal permanent residence in the UK. The UK does not include the Isle of Man, Channel Isles or Eire. This means that, as the organiser, the HSCC is required to deduct tax at the current rate applicable from any such payments they may make to non-UK residents.

Under certain circumstances, it may be possible for competitors to enter into an agreement with the Inland Revenue to limit tax withheld. Any application for such an arrangement must be made in writing and not later than 30 days before the payment is due.

For further information contact:- HMRC Personal Tax International, Foreign Entertainers Unit, St John's House, Merton Road, Liverpool. L75 1BB. Tel: 0151 472 6488 Fax: 0151 472 6483

1.7.6 **Title to all trophies:** In the event of any Provisional Results or Championship Tables being revised after any provisional presentations and such revisions affect the distribution of any awards, the Competitors concerned must return such awards to the HSCC in good condition within 7 days.

2. CHAMPIONSHIP EVENT MEETINGS & RACE PROCEDURES

All competitors are reminded that they are racing Historic Cars, which by their nature are expensive and difficult to repair, they are part of our sporting heritage. Parts often have to be manufactured as they are not available 'off the shelf'. These cars require respect as do your fellow competitors. You will be expected to race within those parameters. If you are involved in an incident you will be required to report your actions to the Clerk of the Course if called.

2.1 Entries:

2.1.1 Competitors are responsible for sending in correct and complete entries with the correct entry fee prior to the closing date for entries before each event.

2.1.2 Incorrect or incomplete entries (including Driver to be Nominated Entries) are to be held in abeyance until they are complete and correct and the date of receipt for acceptance of entry purposes shall be the date on which the Secretary of the Meeting receives the missing or corrected information or fee.

2.1.3 Any withdrawal of Entry or Driver/Car changes made after acceptance of any entry must be notified to the Meeting Organisers in writing D25.1.12 applies.

2.1.4 The Entry Fee for each event shall be specified in the SRs and on the entry form.

2.1.5 Reserves will be listed in the Final List of Entries published with Final Instructions or in a Bulletin.

2.2 Briefings:

Organisers should notify Competitors of the times and locations for all briefings in the Final Instructions for the meetings. Competitors must attend all briefings.

2.3 Qualification Practice:

2.3.1 Should any Practice Session be disrupted, the Clerk of the Course shall not be obliged to resume the session or re-run sessions to achieve the championship criteria and the decision of the Clerk of the Course shall be final.

2.3.2 Each driver shall complete a minimum of 3 laps in the car to be raced, and in the correct session, in order to qualify (MSA Regulations Q4.5).

2.3.3 If there is more than one race at a race meeting, then the times from practice session one will establish the grid for race one. The grid for race two will be formed from the drivers' fastest lap times in race one.

2.4 Races:

Should any race be disrupted the Clerk of the Course shall not be obliged to resume or rerun the race Q5.4 (1.6.4. above applies)

2.5 Starts:

2.5.1 All cars will be released to form up on the grid prior to the start in formation as specified on the grid sheet.

2.5.2 The start will be via a Standing start

The minimum Countdown procedures/audible warning sequence shall be:-

- I. 1 minute to start of Green Flag/Pace Lap – Start Engines/Clear Grid
- II. 30 Seconds – Visible and audible warning for start of Green Flag/Pace Lap.
- III. A five second board will be used to indicate that the grid is complete.
- IV. The red lights will be switched on five seconds after the board is withdrawn.

2.5.3 Any cars removed from the grid after the one minute stage or driven into pits on Green Flag Lap shall be held in the pit lane and may start the race after the last car has passed the startline or pit lane exit, whichever is the later.

2.5.4 Any drivers unable to start the Green Flag/Pace Lap or start are required to indicate their situation as per MSA Regulation Q 12.13.2. In addition, any driver unable to maintain grid positions on Green Flag Lap, to the extent that ALL other cars are ahead of them, may complete the green flag lap but MUST remain at the rear of the last row of the grid but ahead of any cars to be started with a time delay.

2.5.5 In the event of any starting lights failure the Starter will revert to use of the National Flag.

2.6 SESSION RED FLAG

Should the need arise to stop any race or practice, RED LIGHTS will be switched on at the Startline

and RED FLAGS will be displayed at the Startline and at all Marshals Signaling Points around the Circuit.

This is the signal for all drivers to cease circulating at racing speeds, to slow to a safe and reasonable pace and to return to the pit lane, during practice, and to the starting grid area, during a race, unless otherwise directed by officials

Cars may not enter the Pits unless directed to do so. Work on cars already in the pits must cease when a race is stopped.

2.7 Pits, Paddock & Pit Lane Safety:

2.7.1 **Pits & Paddock:** Competitors must ensure that the MSA, Circuit Management and Organising Club Safety regulations are complied with at all times.

2.7.2 **Pit Lane:** The outer lane or lanes are to be kept unobstructed to allow safe passage of cars, the onus shall be on all drivers to take all due care and respect the pit lane speed limits.

2.7.3 **Refueling:** May only be carried out in accordance with the MSA Q13 Regulations, Circuit Management Regulations and the Supplementary Regulations or Final Instructions issued for each Circuit/Meeting.

2.7.4 **Speed Limit:** Pit Lane Speed Limit will be 60 Km/h (37.2Mph)

2.8 Race Finishes:

After taking the Chequered Flag drivers are required to:

- I. progressively and safely slow down,
- II. remain behind any competitors ahead of them,
- III. return to the Pit Lane Entrance/Paddock Entrance as instructed,
- IV. comply with any directions given by Marshals or Officials
- V. keep helmets on and harnesses done up while on the circuits or in the pitlane.

2.9 Results

All Practice Timesheets, Grids, Race Results are to be deemed PROVISIONAL until all vehicles are released by Scrutineers after Post Practice/Race Scrutineering and/or after completion of any Judicial or Technical Procedures (MSA regulation D26.3).

2.10 Timing Modules:

All cars must be fitted with a working HSCC approved transponder. Failure may result in

competitors not being accredited with a qualifying time or excluded from the result as per MSA Q12.2.1

- 2.11 Qualification Races:** -If any event is oversubscribed the Organising Club may at their discretion run Qualification Races.
- 2.12 Operation of Safety Car:** *The safety car will be brought into operation and run in accordance with Section Q, Appendix 2 of the MSA General Regulations.*

2.13 Onboard Cameras

The use of onboard cameras is permitted, but they must be fitted and declared at scrutineering for examination. Upon request any onboard footage must be made available to Clerk of the Course and or Stewards in the event of an incident, during the event. Cameras may not be used as a data logging device.

3. SPECIFIC CHAMPIONSHIP REGULATIONS

Nil

4. SPECIFIC CHAMPIONSHIP PENALTIES:

In accordance with Section C of the current MSA Yearbook.

4.1 Infringements of Technical Regulations:

4.1.1 Arising from post practice Scrutineering or Judicial Action: Minimum penalty: The provisions of MSA regulations: (C3.3.).

4.1.2 Arising from post race Scrutineering or judicial action: Minimum penalty: The provisions of MSA regulations: C3.5.1(a) & (b).

For infringements deemed to be of a more serious nature the Clerk of the Course will invoke the provisions of Regulation C3.5.1(c).

4.2 Additional specific championship penalties as set out in the Supplementary Regulations:

4.2.1 The Clerk of the Course (s) have the right to impose a Stop Go or Drive Through penalty, in accordance with MSA Regulation Q12.6

4.2.2 The Clerk of the Course or the Stewards of the Meeting, where a unfair advantage (whether inadvertently or not), may impose a Time Penalty in accordance with MSA Regulation C2.3 (Judicial).

4.3 Any competitor who is penalised under the MSA Sporting Regulations at any stage of an event may, at the Clerk of the Course's Instruction, incur the following Championship penalty: -

The event will be counted as one of the events contributing to their Championship score and they will be excluded from the event. Additionally, the competitor will forfeit a total of points equal to those obtained for a class win even if this results in a minus total of points.

5. TECHNICAL REGULATIONS:

Organising Club:

The Historic Sports Car Club Ltd, Silverstone Circuit, Silverstone, Nr. Towcester, Northants, NN12 8TN.

5.1 INTRODUCTION:

The following Technical Regulations are set out in accordance with the MSA specified format and it should be clearly understood that if the following texts do not clearly specify that you can do it you should work on the principle that you cannot.

5.2 GENERAL DESCRIPTION:

5.2.1 The Historic F3 Championship is open to original single seater racing cars currently running to a configuration in which that individual chassis competed with between January 1st 1964 and December 31st 1970 compliant with International FIA F3 regulations for that period. This will include cars that competed in the Temporada Series which took place at Interlagos 10/1/1971, 17/1/1971, 25/1/1971 and Taruma 1/02/1971 under FiA (1964 – 1970) Formula 3 regulations.

5.2.2 All cars shall hold a valid FIA HTP or HSCC VIF; or shall in the opinion of the Championship Organisers otherwise comply with the eligibility requirement of the 1KF3HRA Regulations in force at 1st January 2017 ("1KF3HRA Regulations" **available to download from the 1KF3HRA Website www.1kf3hra.org.uk**) (K.M. Note Attached to this doc)

5.3 SAFETY REQUIREMENTS:

Roll Over Protection System (ROPS) Article 5.13 of FiA Appendix K is mandatory.

The following Articles of MSA Section (K) Safety Criteria Regulations will apply:

Seat Belts K2.1, K2.1.4 & Q19.14.2; Extinguishers K3.1 & K 3.1.2 a); K5, & K8 – K14.

It is recommended that; The only liquid engine coolants shall be water with the addition of Glycol based antifreeze solution if required. This is to avoid the use of oil based substances which can be dangerous if spilt on to the circuit.

5.4 GENERAL TECHNICAL REQUIREMENTS & EXCEPTIONS:

- 5.4.1 All vehicles must comply with their FIA or HSCC Identity Documents and hold, or be eligible to obtain an FIA Historic Technical Passport (HTP) (which is strongly encouraged and mandatory for any championship round held outside of Great Britain and Northern Ireland); and must comply with the 1KF3HRA Regulations
- 5.4.2 All vehicles must have been raced in period and subject to any variation specifically permitted by the 1KF3HRA Regulations race in that specification.
- 5.4.3 Subject to their HSCC Identity Document indicating otherwise, vehicles must comply with vehicle regulations Section J and Q Except section (J5.13.4) Fuel Systems *Use pump fuel (see definition nomenclature and definition) except, subject to prior written authority having been given by the MSA, where permitted otherwise under SRs, Formula Rules and/or Championship Regulations and Section (J5.14.7.) Electrical Systems Be fitted with suppressors as required by the wireless Telegraphy Regulations.*

5.5 CHASSIS: As the car's FIA or HSCC Identity document.

5.6 BODYWORK:

- 5.6.1.1 Modifications permitted - as the car's FIA or HSCC Identity document.
- 5.6.1.5 Minimum ground clearance with driver in place to be 40mm.
- 5.6.2 Modifications Prohibited.
Aerodynamic devices are not permitted

5.7 ENGINE:

5.7.1 Permitted Modifications

As the car's FIA or HSCC Identity document.

Maximum capacity: 1000cc.

The engine shall be equipped with only one carburettor, whatever its number of chokes, and a throttling flange of a maximum diameter of 36 mm and a minimum thickness of 3 mm shall compulsorily be mounted between carburettor and inlet pipe, through this throttling flange all the carburetted mixture feeding the cylinders must pass. This shall include the period Novamotor slide throttle type where the lead in taper extends into the carburettor.

The following clarification apply to Ford based engines only

Roller rockers not permitted

Only single scavenge rotor oil pumps are permitted

Only 105E, 109E, 681F and 711M-6015 AA (with only three main bearings) cylinder blocks permitted

The use of connecting rods in excess of 4.830" between the centres of the Big end journal and the little end journal will not be permitted from 1st January 2016.

The use of Titanium valve retainers is permitted.

From 1st of January 2018. The minimum stroke must not be less than 48.35mm.

5.8 SUSPENSION As the car's FIA or HSCC Identity document.

5.9 TRANSMISSION:

- 5.9.1 As the car's FIA or HSCC Identity document. A gearbox of the same manufacturer and type as period fitment must be retained.
- 5.9.2 Only gearboxes with a maximum 4 forward gears and a single reverse gear are permitted. Safety centralizing shafts fitted between the drive shafts and the gearbox output shafts to maintain the drive shaft location in the event of a failure of the Rotoflex couplings are mandatory.
- 5.9.3 Co-Axial clutch release systems are not permitted.
- 5.9.4 It should be noted that in period only Ø184mm (7¼") clutches were used, therefore the minimum clutch diameter from 1st January 2017 will be Ø184mm (7¼").
- 5.9.5. Standard road going clutches can be of smaller diameter i.e. the BMC 6½ inch clutch. Road going clutches must use a standard cover and pressure plate and single drive plate.
- 5.9.6 It is not permissible to replace any rubber drive shaft "doughnut" drive shaft couplings (Rotoflex) with a replacement universal joint coupling of the Hardy Spicer type and a sliding splined drive shaft/yoke, unless Hardy Spicer universal coupling and sliding splines were a factory fitted standard or option e.g. Brabham BT15 and 18.
- 5.9.7 Constant Velocity joints are not permitted
- 5.9.8 It is not permitted to use a carbon ceramic clutch or other modern materials.
- 5.9.9 It is not permitted to use a titanium flywheel.
- 5.9.10 Limited slip differentials are not permitted.
- 5.10 ELECTRICS:** As the car's FIA or HSCC Identity document.
- 5.10.1 A red warning light must be fitted (K5).
- 5.10.2 The use of lithium-based batteries is prohibited.

- 5.11 BRAKES:** As the car's FIA or HSCC Identity document.
Hydraulic pipes may be replaced by Aeroquip or similar. Cross drilled discs not permitted. Driver adjustable brake balance bars are permitted.
- 5.12 WHEELS/STEERING:** As the car's FIA or HSCC Identity document.
Class A: Maximum dimensions 6.5" x 13" Minimum Rim Width Front 5" Rear 6".
Class B: Wheel Rim Maximum Dimensions Front 13" x 9" Rear 13" x 11" Minimum Rim width Front 7" Rear 9".
- 5.13 TYRES.**
- 5.13.1 Eligible tyres are as follows:
- Class A**
Avon ACB9 moulded tread pattern A 37 Compound reference 7660 and 7661, or
Dunlop 'L' Section 204 Compound CR65 Tread Pattern
- Class B and I**
Avon A37 7342 and 7343 hand cut to CR65
All weather pattern Dunlop L or M Section 204 Compound cut to CR65 tread pattern.
For Wet Conditions: Avon Slick cut to Classic Wet Formula Pattern Reference 7714 and 7715 in A37 Compound, or Dunlop 'L' and 'M' Section CR65 204 compound or 'Post Historic' 204 compound.
Dry condition tyres can also be used under wet conditions.
- 5.13.3 The use of tyre heating/heat retention devices, tyre treatments and compounds is prohibited
- 5.14 WEIGHTS:** Weight must conform to the minimum of 400 kg without fuel.
Note: - The minimum weight is that of the car in running order i.e. with all lubrication and cooling liquids but without fuel.
- 5.15 FUEL TANK/FUEL:** As the car's FIA or HSCC identity document.
"Pump fuel", as defined in MSA Technical Regulations –
See Section B Nomenclature & Definitions Commercially available pump fuel as per definition Nomenclature and Definitions MSA Yearbook 2017 or fuel complying with FIA Appendix K Article 3.9.1, 3.9.5 – 3.9.8.
- 5.16 SILENCING:**
All vehicles must comply with MSA Regulation J5.17 i.e. 108db and are also subject to individual circuit requirements in Supplementary Regulations.
- 5.17 Number & Championship Decals**
Numbers must be displayed as per MSA Yearbook Section J4 and Drawing 4. It is a competitor's responsibility for his competing vehicle to be easily identified by all course officials.
Individual sponsors decals are limited to two per vehicle dimensions and limitations as per MSA Regulation H28.1.1 - H28.1.6
All competing cars must display at least two HSCC badges one on each side of the car.

6. APPENDICES

6.1 Race Organising Clubs and Contacts

HISTORIC SPORTS CAR CLUB Ltd – Silverstone Circuit, Silverstone, Towcester, Northants, NN12 8TN
(T) 01327 858400 (F) 01327 858500 email: office@hsc.org.uk
Website: www.hsc.org.uk

CHAMPIONSHIP COMMITTEE – Please direct all correspondence through the HSCC Office.

Chairman & Eligibility Registrar: Keith Messer

Eligibility Registrar: David Pullen

Eligibility Registrar: TBC

FiA Appendix K

Appendix VI

All drawings referred to in these articles are in Appendix K, Appendix V

1. ROLLAGE

1.1 Classification

Période / Period	A - E	F	G1	GR	G2	H/HR/I/IR	J/JR
Toutes les voitures <i>All cars</i>	1.1.2 (a)	1.1.2 (b)	1.1.2 (b)	1.1.2 (b)	1.1.2 (b)	1.1.2 (b)	1.1.2 (b)
Toutes les voitures <i>All cars</i>	1.1.3	1.1.3	1.1.3	1.1.3	1.1.3	1.1.3	1.1.3
Toutes les voitures <i>All cars</i>	1.1.4	1.1.4	1.1.4	1.1.4	1.1.4	1.1.4	1.1.4
T/CT <i>T/CT</i>		1.1.5 (c)	1.1.5 (c)		1.1.5 (c)	1.1.5 (c)	1.1.5 (c)
GT/GTP/GTS <i>GT/GTP/GTS</i>		1.1.5 (c)	1.1.5 (c)		1.1.5 (c)	1.1.5 (c)	
F1		1.1.5 (a)		1.1.5 (b)		1.1.5 (b)	1.1.5 (b)
Biplaces & Monoplaces excepté F1 <i>Two-Seaters & Single Seaters except F1</i>		1.1.5 (b)		1.1.5 (b)		1.1.5 (b)	1.1.5 (b)
Group B							1.1.5 (d)

1.1.4 Titanium ROPS are not permitted for Historic F3 cars

Aluminium alloy ROPS are not for Historic F3 cars

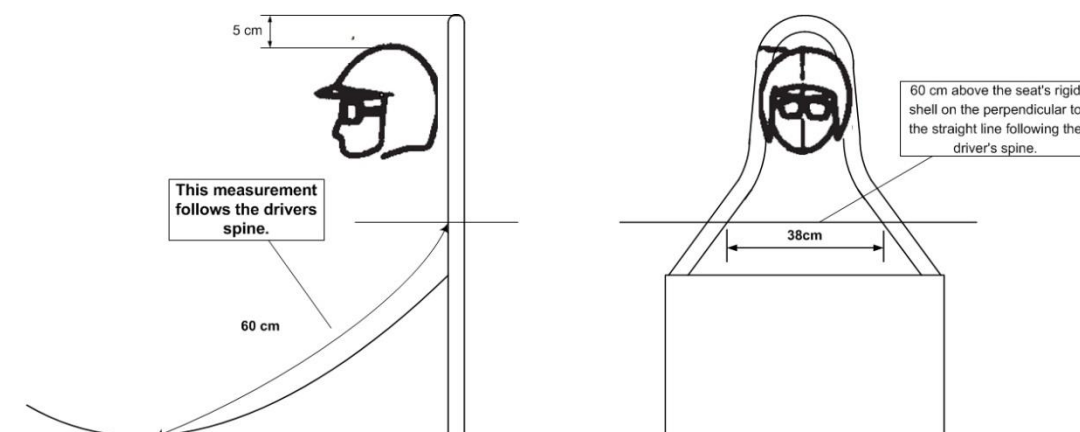
1.1.5 Specifications

The specification of the structure installed must be detailed on the Roll Over Protection Structure Description document which must be attached, as an appendix, to all HTPs issued after 1/1/2014.

(b) Single-seat racing cars and two-seat racing cars from Period F onwards must be fitted with a ROPS conforming to period specification (if a ROPS was required by the regulations), or to Article 1.2.5.2 of this Appendix. In either case, except for ROPS of free structural conception and certified to withstand the stress minima as per article 1.2.5.2, the tubes of the main rollbar and braces must have dimensions not less than those as per the above mentioned article, and the structure must be a minimum of 5cm above the top of the Driver's and Co-driver's helmets at all times.

Extensions added above the main structure to increase the height are forbidden unless covered by an ASN or FIA rollcage certificate.

Cars conforming entirely to a specification after 1968: the width must be at least 38cm measured inside the rollbar between the two vertical pillars of the sides. It must be measured, horizontally and parallel to the Driver's shoulders, at a distance of 60cm (following the Driver's spine) above the base of the seat's rigid shell. This dimension is recommended for cars conforming entirely to a pre 1969 specification. The year asserted on the car's HTP will be used to establish the ROPS specification required (see Drawing K-62, Appendix V).



K-62

1.2.3.3.4 Removable connections

Should removable connections be used in the construction of the ROPS they must comply with or be similar to a type approved by the FIA (see Drawings from K-39 to K-49). The screws and bolts must be of a sufficient minimum diameter, and of the best possible quality (minimum quality 8.8).

1.2.3.3.5 Welding instructions

This must be carried out along the whole perimeter of the tube. All welding must be of the highest quality possible with full penetration (preferably arc welding and in particular heliarc). Although good outside appearance of a weld does not necessarily guarantee its quality, poor looking welds are never a sign of good workmanship.

When using heat treated steel the special instructions of the manufacturers must be followed (special electrodes, welding under protecting gas).

It must be pointed out above all else that the manufacture of heat treated steel, and high carbon steels may cause certain problems and that bad construction may result in a decrease in strength (crinkling) and an absence of flexibility

1.2.4 Material Prescriptions

Only tubes with a circular section are authorised.

Specifications of the tubes used:

Material <i>Matériau</i>	Minimum tensile strength <i>Résistance minimale à la traction</i>	Minimum dimensions (mm) <i>Dimensions minimales (mm)</i>		Use <i>Utilisation</i>
		Periods F-G2 <i>Périodes F-G2</i>	From Period H1 onwards <i>A partir de Période H1</i>	
Cold drawn seamless unalloyed carbon steel (see below) containing a maximum of 0.3% of carbon <i>Acier au carbone non allié (voir ci-dessous) étiré à froid sans soudure contenant au maximum 0.3 % de carbone</i>	350 N/mm ²	38 x 2.5 (1.5"x0.095") ou 40 x 2.0 (1.6"x0.083")	45 x 2.5 (1.75"x0.095") ou 50 x 2.0 (2.0"x0.083")	Main rollbar or lateral rollbars according to construction <i>Arceau principal ou Arceaux latéraux selon la construction</i>
			38 x 2.5 (1.5"x0.095") ou 40 x 2.0 (1.6"x0.083")	Lateral half-rollbars and other parts of the safety cage (unless otherwise indicated in the articles above) <i>Demi-arceaux latéraux et autres parties de l'armature de sécurité (sauf indications contraires dans les articles ci-dessus)</i>
Cars of Period H1 onwards issued with an HTP before 1/1/2010 may use minimum dimensions for Periods F-G2. <i>Les voitures à partir de la Période H1 dont le PTH a été délivré avant le 1/1/2010 peuvent avoir les dimensions minimales des Périodes F-G2.</i>				

These dimensions represent the minimum allowed. Only steel is authorised. In choosing the quality of the steel, attention must be paid to the elongation properties and the weldability.

Note: For an unalloyed steel, the maximum content of additives is 1.7% for manganese and 0.6% for other elements.

The tubing must be bent by a cold working process and the centreline bend radius must be at least three times the tube diameter.

If the tubing is ovalised during bending, the ratio of minor to major diameter must be 0.9 or greater.

The surface at the level of the bends must be smooth and even, without ripples or cracks. Any coating (i.e. chrome) of the tubes is forbidden, except painting.

1.2.5.2 Single seater and two seater racing cars – Strength In order to obtain a sufficient strength for the rollbar, two possibilities are left to the manufacturers:

a) The ROPS, of entirely free structural conception, must be capable to withstand the stress minima indicated as follows:

- 1.5 w lateral,
- 5.5 w fore and aft,
- 7.5 w vertical,

With w being 740kg.

b) The tubes and brace(s) must have a diameter of at least 1 3/8 inch (3.5cm) and at least 0.090 inch (2mm) wall thickness. Where option a) is used, a certificate to substantiate the strength of the ROPS must be presented. The material should be molybdenum chromium SAE 4130 or SAE 4125 (or equivalent in DIN, NF, etc.) or cold drawn low carbon seamless steel tube.

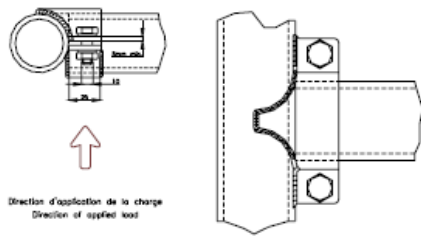
There must be at least one brace from the top of the bar rearwards at an angle not exceeding 60° to the horizontal fixed to the structure of the car.

The diameter and material of the brace must be the same as those of the rollbar itself.

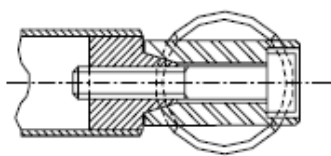
In the case of two braces, the diameter of each of them may be reduced to 26/20 (ext. / int.) mm.

Removable connection between the main hoop and the brace must comply with Drawings K-39 to K-49.

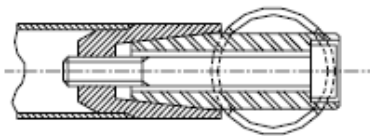
Forward fitted stays are allowed only if used in period or a rearward stay is not possible.



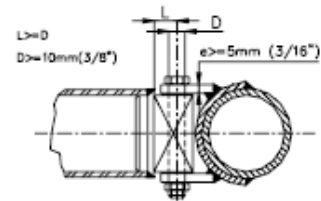
K-39



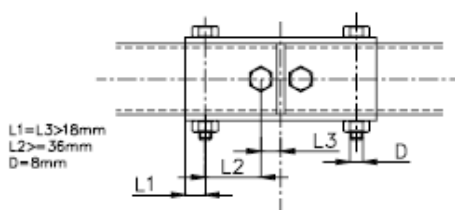
K-40



K-41



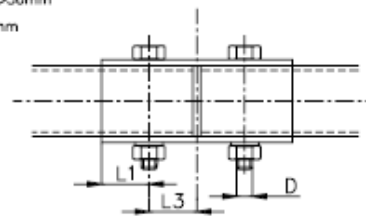
K-42



K-43

L1=L3>18mm
L2>=36mm
D=8mm

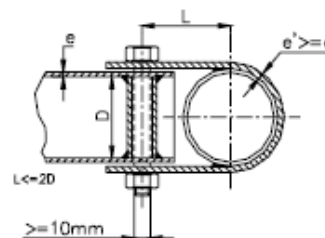
L1=L3>36mm
D=10mm



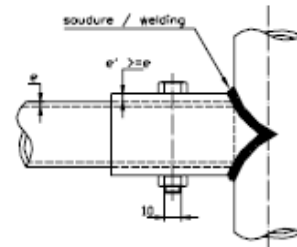
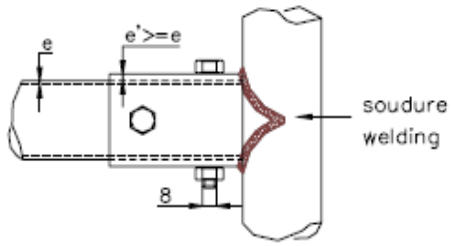
K-44

L doit être minimum
La largeur de la patte doit
être d'au moins 25mm

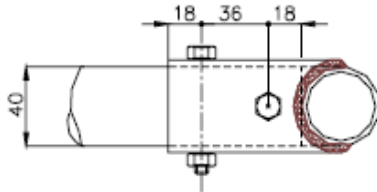
L must be minimum
The clamp width must
be at least 25mm



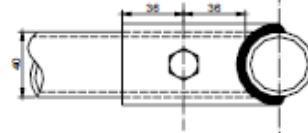
K-45



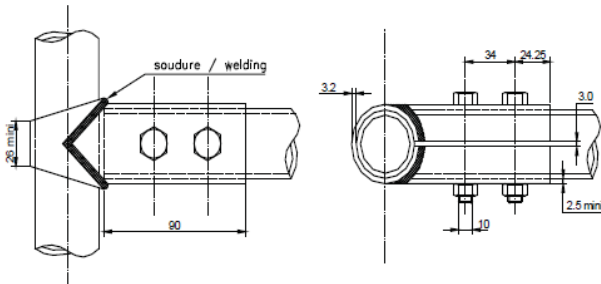
Dessin / Drawing N° 253-35



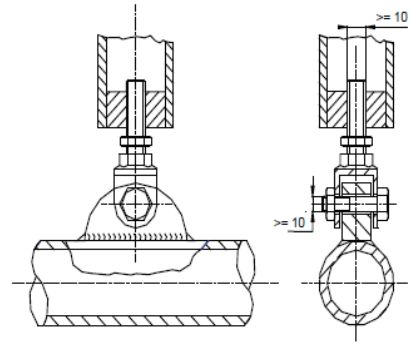
K-46



K-47



K-48



K-49