

# **Lotus Cup Europe**

## **Series Regulations 2010**

### **Version 2**

#### **Introduction**

The Lotus Cup Europe aims to provide a friendly, safe and financially viable series for those wishing to race a Lotus Exige, Elise, 340R or 211 in Europe.

There are four classes within the Lotus Cup Europe series;

**Production** – With factory specification engines and limited modifications permitted, some cars being driven to and from the circuit.

**2-Eleven** – Specifically aimed at the Toyota supercharged Lotus 2-Eleven circuit car, limited modifications permitted keeping cars very close to the original showroom specification.

**Exige Cup** – Aimed at all Exige S2 variants – including the 2009 Lotus Exige Cup 260, Exige Cup 255, Exige Cup 240, Exige Cup 190 and Exige S.

**Invite** – For Lotus cars that do not fall into the above categories – including Elise S2 supercharged Toyota, Modified K series Elise S1, S2, 340R, Europa. Other Lotus cars may be accepted by invitation only.

A typical race meeting will involve 20 minutes Free Practice, 20 minutes qualifying and two races, one of 20 minute and one of 30 minutes. Race 1 will be a rolling start with race 2 a standing start. At some rounds there will be an option of a test or track day.

## **1. SPORTING REGULATIONS – GENERAL**

### **1.1 Title & Jurisdiction:**

- 1.1.1** The Lotus Cup Europe is a series of trophy races organised and administered by LoTRDC Ltd [LoTRDC] in conjunction with Motorsport Vision Racing [MSVR] and in accordance with the General Prescriptions of the Motor Sports Association [MSA] and these Regulations.

### **1.2 Officials:**

#### **1.2.1 Series Coordinator:**

Paul Golding, PO Box 1217, Maidstone, ME14 9JR  
Email: [paul@lotrdc.com](mailto:paul@lotrdc.com)  
Phone: 0033 950 277 787  
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#### **1.2.1 Series Scrutineer:**

Chris Mount

#### **1.2.2 Technical Commissionaire**

Claude Gonzales

#### **1.2.3 Series Eligibility Scrutineers & Club Stewards:**

Jez Braker  
David Skeggs  
Jaime Golding  
Anna Gonzales  
Emma Newman

#### **1.2.4 Driving Standards Officer**

Mark Anderson

### **1.3 Competitor Eligibility:**

- 1.3.1** To be eligible for 2010 Lotus Cup Europe all drivers must be current members of the LoTRDC Ltd.
- 1.3.2** The Drivers must be in possession of valid 2010 National valid race license (featuring an E.U. flag) and medical, issued by the ASN of a member country of the European Union. MSA Competition (Racing) National A License or above.
- 1.3.3** All Drivers must fill in the official MSA/LoTRDC Entry Forms in full, to the satisfaction of the Secretary of the Meeting, in advance of the race event; this must be an original and not a photocopy. Failure to do so will result in exclusion from the race.
- 1.3.4** The Events are inscribed on the FIA National Event Authorised Foreign Participation (NEAFP) Calendar, a valid License and Medical. (A6).
- 1.3.5** All necessary documentation must be presented for checking at all rounds when signing-on.

**1.4 Registration:**

- 1.4.1 Competitors will be required to join LoTRDC and pay a season subscription of £250. All members must send payment with their registration form to the series coordinator before any entries will be accepted.
- 1.4.2 Registrations will be accepted from 1st January 2010 until the closing date for entries to the final round.
- 1.4.3 Registration numbers will be the permanent competition numbers for the Series and will be allocated by the series coordinator.

**1.5 Rounds:**

- 1.5.1 The 2010 Lotus Cup Europe will consist of 14 rounds over 7 race meetings as follows:

Round:	Date:	Circuit:
1 & 2	30 <sup>th</sup> April – 1 <sup>st</sup> May	Nurburgring GP
3 & 4	19 <sup>th</sup> -20 <sup>th</sup> June	Snetterton Lotus Festival
5 & 6	10 <sup>th</sup> -11 <sup>th</sup> July	Magny Cours
7 & 8	31 <sup>st</sup> July -1 <sup>st</sup> August	Brands Hatch GP
9 & 10	11 <sup>th</sup> – 12 <sup>th</sup> September	Zolder
11 & 12	1 <sup>st</sup> -3 <sup>rd</sup> October	Spa Francorchamps
13 & 14	23 <sup>rd</sup> – 24 <sup>th</sup> October	Assen

- 1.5.2 In accordance with MSA regulations the organisers reserve the right to amend the published list of dates and rounds, in which case, all registered competitors will be informed of the amendments by Official Bulletins posted to the address specified on the Official Registration Form.

**1.6 Scoring:**

- 1.6.1 The Lotus Cup Europe is a non-championship race series.

**1.7 Awards:**

- 1.7.1 All awards are to be provided by LoTRDC.
- 1.7.2 Per Round: Trophies will be presented to 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> in each class.
- 1.7.3 End of Season: An end of season awards night will be held where a Driver of the Season for each class and over all driver of the season will be chosen.

**1.8 Bonuses:** None

- 1.9 **Presentations:** Trophies are to be provided for presentation at the end of each race or at an end of the meeting presentation ceremony.

**1.10 Entertainment Tax Liability:** Not Applicable.

**1.11 Title to all Trophies:**

- 1.11.1 In the event of any Provisional Results or Series 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 LoTRDC in good condition within 7 days.

## **2 SPORTING REGULATIONS -JUDICIAL PROCEDURES**

### **2.1 Rounds:**

2.1.1 In accordance with Section D of the 2010 MSA Yearbook and these regulations.

## **3 SPORTING REGULATIONS -SERIES RACE MEETINGS & RACE PROCEDURES**

### **3.1 Entries:**

3.1.1 Competitors are responsible for submitting the correct and fully completed entry forms, along with the correct entry fees prior to the event closing date. An entry will only be confirmed once full payment and a fully completed entry form has been received.

3.1.2 Incorrect or incomplete entries (including driver to be nominated entries) are to be held in abeyance until they are complete and correct. 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.

3.1.3 THERE WILL BE NO REFUNDS OR CREDITS GIVEN TO A COMPETITOR WITHDRAWING AFTER THE CLOSING DATE – UNDER ANY CIRCUMSTANCES.

3.1.4 Changes made to an entry after the closing date or late entries must apply for approval of acceptance by the stewards of the meeting before signing on.

3.1.5 The Maximum entry fee for every round shall be as stipulated in the Supplementary Regulations plus any late entry surcharge imposed by the club.

3.1.6 In the event of any rounds being oversubscribed the Organising Clubs in liaison with the coordinator / organiser may at their discretion run Qualification Races.

3.1.7 Reserves are to be nominated on the final list of entries published with Final Instructions or Amendment Sheet Bulletins. A number of reserves equivalent to the number of starters plus 20% will practice and replace withdrawn or retired entries. Reserve Number order is irrespective of class. If Reserves are given Grid Places prior to issue of the first Grid Sheets for any round the times set in Practice shall determine their grid positions. If Reserves are given places after publication of the grid sheet and prior to cars being collected in the Official "Assembly Areas" they will be placed at the rear of the Grid and be started without any time delay. Otherwise, they will be held in the pit lane and be released to start the race after the last car to start the GREEN FLAG LAP or last car to take the start has passed the start line or pit lane exit, whichever is the later. Such approval to start MUST be obtained from the Clerk of the Course.

### **3.2 Briefings:**

3.2.1 Organisers will notify competitors of the times and locations for all Driver Briefings in the Final Instructions.

3.2.2 It is mandatory that all Competitors must attend all briefings.

3.2.3 Should they not be able to attend they must notify the Series Coordinator beforehand. Failure to do so could result in a €145.00 fine at the discretion of the Clerk of the Course.

- 3.2.4 First Time Drivers Briefings will be advised in the Final Instructions for each event.

**3.3 Practice:**

- 3.3.1 The minimum period of practice to be as specified in the MSA Regulations in respect of circuit lengths.
- 3.3.2 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 series criteria and the decision of the Clerk of the Course shall be final.
- 3.3.3 Should the need arise to stop any practice, RED LIGHTS will be switched on at the Start Line and RED FLAGS will be displayed at the start line and at all other Marshal Signalling Points around the circuit.
- 3.3.4 This is the signal for all drivers to cease circulating at racing speeds, to slow to a safe and reasonable pace and return to the pit lane unless directed by officials not to do so.
- 3.3.5 Practice times set will count towards the starting grid position for a Class Race.
- 3.3.6 Practice time will dictate grid start position for Race 1 and Race 2. Race 1 will be a rolling start and race 2 a standing start.
- 3.3.7 Competitors will be notified of their grid standing by means of a bulletin posted on the official notice board.

**3.4 Qualification:**

- 3.4.1 The Clerk of the Course and or Stewards of the meeting shall have the right to exclude any driver whose practice times or racing are considered unsatisfactory as per MSA Regulation Q4.5.3
- 3.4.2 Each driver should complete a minimum of 3 laps practice in the car to be raced and in the correct session, in order to qualify for selection and order of precedence as set out in MSA 2010 Competitors Year Book Section Q4.5.

**3.5 Races:**

- 3.5.1 The organisers reserve the right to change the programme outlined in the final instructions according to operational requirements.

**3.6 Starts:**

- 3.6.1 All race start countdowns are to have a minimum elapsed period of 3 minutes from the time all cars are released to form up the grid to the start of the Green Flag lap(s) in the formation as specified on the Track License for the Circuit.
- 3.6.2 The minimum countdown procedures/audible warning sequence shall be:  
Standing Starts:
- 3.6.3 1 minute to start of Green Flag lap -Start Engines/Clear Grid. 30 Seconds - Visible and audible warnings for the start of Green Flag lap.
- 3.6.4 The use of tyre heating/heat retention devices, tyre treatments and compounds is prohibited.

- 3.6.5 Any cars removed from the grid after the 1-minute stage or driven into the pits on Green Flag shall be held in the Pit Lane. They may start the race after the last car to take the start from the grid has passed the start line or pit lane exit, whichever is the later.
- 3.6.6 Any drivers unable to start the Green Flag lap or Start are required to indicate their situation as per MSA Regulation Q12.13.2. Any drivers unable to maintain grid positions on the Green Flag to the extent that all other cars are ahead of them may complete the Green Flag Lap. They MUST remain at the rear of the last row of the grid but ahead of any cars to be started with a time delay.
- 3.6.7 Excessive weaving to warm-up tyres using more than 50% of the track width and falling back in order to accelerate and practice starts, is prohibited.
- 3.6.8 A 5 Second Board will be shown to indicate that the Grid is complete. The red lights will be switched on five seconds after the board is withdrawn.
- 3.6.9 In the event that the starting lights fail the Starter will revert to using the National Flag.

### **3.7 Race Stops:**

- 3.7.1 Should the need arise to stop any race, RED LIGHTS will be switched on at the Start Line and RED FLAGS will be displayed at the start line and at all Marshals Signalling 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 starting grid area, which will automatically become a Parc Fermé area.
- 3.7.2 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.
- 3.7.3 Case A – Less than two laps completed by the race leader.
- 3.7.4 The Race will be declared a “no contest”. Available cars will reform the grid in their original grid positions for the race to restart. (Q5.4.1)
- 3.7.5 Case B – More than two laps completed by the race leader but less than 75% of the race completed by the leader.
- 3.7.6 The race will be considered as the first part of a two part race. Cars will be restarted from a grid set out in the finishing order, which shall be based upon the order of crossing the finish line at one lap less than at the time of first showing the Red Flag. Only cars which are under their own power at the showing of the Red Flag will be classified. The result will be the order of finishing at the end of the restarted race.
- 3.7.7 If the race had to be stopped after the leader had completed more than 75% of the race distance, it may be considered to have finished, unless the Clerk of the Course, in consultation with the stewards of the meeting, deems it appropriate to restart the race in accordance with MSA regulation Q5.4.

### **3.8 Re-Scrutiny:**

- 3.8.1 All vehicles reported involved in contact incidents during races or practice must be represented to the Scrutineers before continuing in the races or practice.

### **3.9 Pits and pit lane safety:**

- 3.9.1 Pits: Entrants must ensure that the MSA, Circuit Management and Organising Club Safety Regulations are complied with at all times.
- 3.9.2 Pit Lane: The outer lane or lanes are to be kept unobstructed to allow safe passage of cars at all times. The onus shall be on all Drivers to take due care and observe a 60kph speed limit in the pit lane.
- 3.9.3 Refuelling: No refuelling at any time during the running of practice or races.
- 3.9.4 Not more than 5 gallons of fuel per race car should be stored in the pit or paddock area. If fuel is stored the Entrant using the pit or paddock area shall ensure that an effective fire extinguisher is kept adjacent to such fuel in accordance with MSA regulations.

### **3.10 Race Finishes:**

- 3.10.1 After taking the Chequered Flag drivers are required to progressively and safely slow down. Remain behind any competitors ahead of them, return to the Pit Lane entrance as instructed, comply with any directions given by marshals or officials and to keep the helmets on and harnesses done up while on the circuit or Pit Lane.

### **3.11 Results:**

- 3.11.1 All Practice Timesheets, Grids, Race Results are deemed provisional until all vehicles are released by Scrutineers after Post Practice/Race Scrutineering and/or after completion of any Judicial or Technical Procedures.

### **3.12 Timing Modules:**

- 3.12.1 All competitors will be required to fit Electronic Self Identification Modules to their cars for the purposes of accurate timing. Holders for these and detailed fitting instructions will be issued with the transponders and it will be the responsibility of the competitor to fit these in the car in the position and manner specified. The Modules must be in place and functioning correctly for all series qualifying practice sessions and races. The setting and servicing of these items must only be carried out by properly authorised MSA licensed Timekeepers.
- 3.12.2 Competitors may not place electronic timing equipment within five metres of the official Start, Finish or any other official timing lines at any event or test session/day. Any such equipment placed within these zones will be removed.

### **3.13 Qualification Races:**

- 3.13.1 In the event of the need for any qualification races, the procedures will be as published in the Final Instructions for the events concerned.

#### **4 SERIES RACE PENALTIES:**

##### **4.1 Infringements of Technical Regulations:**

4.1.1 Arising from post practice Scrutineering or Judicial Action:

Minimum Penalty: The provisions of MSA REGULATION 3.3

4.1.2 Arising from post race Scrutineering or Judicial Action:

Minimum Penalty: The provisions of MSA Regulations: 3.5.1

##### **4.2 Infringements of non-technical MSA Regulations and the Sporting Regulations issued for the Challenge:**

4.2.1 As per 2010 MSA Judicial Procedure Regulations.

## **5 TECHNICAL REGULATIONS**

### **5.1 Introduction:**

- 5.1.1 All 2010 MSA GENERAL REGULATIONS & Technical Regulations J and K APPLY as per the 2010 MSA Year Book and the additional technical regulations as set out below in accordance with the MSA specified format.
- 5.1.2 Advisory Note: 2010 MSA Year Book regulation change – J5.16.6: Exhaust catalytic converters must be fitted to all petrol engine production based saloon, touring and sports car, including specialist production and kit cars, manufactured after 31/12/1999. They may be specified for certain other formulae. Competitors are reminded of their obligation to maintain such equipment on a vehicle used on the highway where government legislation requires it.
- 5.1.3 **It should be clearly understood that unless a modification or removal/change of an item is specifically permitted by these regulations, that any modification or removal/change or repositioning of an item is prohibited.**
- 5.1.4 The provision of evidence to determine eligibility is the responsibility of the entrant/driver at all times.

### **5.2 General Description:**

- 5.2.1 All competing vehicles shall be road legal, although insurance for road use is not required, (allowances will be made for non-road going cars complying with the spirit of this rule, however, these will need to be agreed in writing at point of application).

### **5.3 Classes:**

- 5.3.1 There will be four classes for Lotus Elise, Exige and 211 vehicles. Classes are defined based on the type of car. The basic principal of this is as follows:

#### **Class Production – Standard and slightly modified cars**

For Series 1 and 2 Elises with a maximum hub power of **151bhp** (170 BHP at fly wheel) and minimum combined weight of driver and car of 825kg. Also open to standard series 2 Exige and 111r Toyota NA engined cars with a maximum hub power of **169bhp**.

#### **Class 2-Eleven - Standard and slightly modified 2-Eleven cars**

For 2-Eleven cars up to a maximum of 248bhp at the hubs (measure by TDI) with a minimum weight of 815KG including driver.

#### **Class Exige Cup – For Exige S2 Cup cars and S2 Exige variants**

For S2 Exige cars up to a maximum of 260bhp at the hubs (measure by TDI) with a minimum weight of 910KG including driver.

#### **Invite Class – For Elise S, Modified Elise S1, Elise S2, Exige S1, 340R**

For all original engined Elise, Exige, 211 and 340R variants not fitting into other classes. Other cars may be accepted on an invite basis in the best

interests of the series if they meet the 2009 Elise Trophy modified regs. With a maximum power at the hubs of **230bhp** (measured by TDI) and with a minimum weight of 825KG including driver.

- 5.3.2 Vehicles do not have to reach the maximum power, the minimum weight, or the maximum power to weight figures defined within these regulations. They are MAXIMUM and MINIMUM values only.
- 5.3.3 Drivers must submit a technical document providing details of their car. They will then be required to submit their car to one or more power tests during the season. The power test will provide the cars power "at the hubs" which will be adjusted by LoTRDC applying DIN correction and a percentage for driveline losses. Competitors are entirely responsible for any damage caused by the power testing. LoTRDC will use the figures obtained to police the maximum power and power to weight if relevant in each class.
- 5.3.4 Power limits on the classes must be strictly adhered to – LoTRDC advise all drivers that their cars MUST be under this maximum as there will be no excuses should they be found to exceed them.
- 5.3.5 Vehicles may have individual weights set dependent on their specification. Weight penalties may also be applied for exempted items which fall outside of individual class regulations.
- 5.3.6 LoTRDC strongly advise drivers to check with the committee before making any modifications as the committee decision will be final.
- 5.3.7 Toyota engined cars should remain unmodified in standard factory specification for acceptance into class Production. As a general rule the car should be as it left the showroom with only the addition of safety equipment.
- 5.3.8 Any new components released by Lotus Cars must be accepted for use in the series before competitors use them.

#### **5.4 Safety Requirements:**

- 5.4.1 All MSA Safety Criteria Regulations J&K apply as relevant.
- 5.4.2 A suitable harness of, at minimum, four-point design and carrying an in-date FIA approved label must be fitted according to regulations K2.1.
- 5.4.3 A plumbed-in fire extinguisher is required as detailed in regulation K3.1.2.a of minimum capacity 2.25 litres if foam. (It is recommended that a system with 3.5/4L is used). Alternatively FX G-TEC gas may be used with a minimum capacity of 1.8kg under FIA homologation EX021.05 other gas systems would be a minimum of 2kg.

#### **5.5 General Technical Requirements and Exceptions:**

- 5.5.1 As a general principle, unless it specifically says you can change from Original Equipment Manufacturers (OEM) spec in these regulations, then you should assume that you cannot. If you have any doubts about any item, it is the responsibility of the competitor to seek guidance from the series technical scrutineers, and if necessary, have a written waiver for anything that falls outside these regulations.

- 5.5.2 LoTRDC retain the right to adjust the minimum weight of a specific car if it's considered that it's too far adrift from the class it's entered in.

## 5.6 Class Production

### 5.6.1 Series 1 and 2 Elise with Rover engine

#### 5.6.1.1 Chassis: Production

5.6.1.1.1 The construction type, design and material must remain as standard. This includes the sub frame.

5.6.1.1.2 No additional bracing/supports may be added.

#### 5.6.1.2 Bodywork: Production

5.6.1.2.1 All cars must retain the standard road car's profile, and be maintained to a high standard of finish, whilst it's understandable that damage may occur during a weekend, it's important that this is rectified before the next meeting. This is important to keep the image and profile of the series.

5.6.1.2.2 LoTRDC reserves the right to overrule any part that is felt to be outside the spirit of the series. If in any doubt about what is/is not acceptable, the onus is on the entrant to ask first.

5.6.1.2.3 All body panels must remain as standard production in size, shape, profile and material (i.e. Pre-preg GRP, Kevlar and Carbon fibre are not permitted).

5.6.1.2.4 Side scoops may be fitted, but must not protrude further than the side profile of the car. Only series 1 style side scoops are permitted on series 1 cars, and series 2 style on series 2 cars. Material is free.

5.6.1.2.5 Side scoop inner vents may be removed but the external holes in the clam must be standard size and profile. No clam material may be removed.

5.6.1.2.6 S1 Elise 'Sport 160' style rear wing may be fitted and material is free.

5.6.1.2.7 A small Front Spoiler/splitter that's within the profile of the car as shown in section 6.4 may be fitted and material is free.

5.6.1.2.8 Under trays must not exceed overall dimensions of the standard part. Ducts and holes within the tray may be relocated. Material is free.

5.6.1.2.9 Rear diffuser may be extended rewards protruding no more that 50mm from the rear bodywork (measured from the rear clam where the diffuser is attached at the rear) and complying with the ground clearance rules in 5.6.5. Material is free.

5.6.1.2.10 The clam under rear grills (fog and reverse lights) may be removed however the grill must remain.

5.6.1.2.11 The body behind the number plate can be removed to an area no larger than a standard number plate (520mm x 130mm). If a hole is created it should be covered in mesh.

5.6.1.2.12 Wheel arch liners may be removed and the inner lip of the wheel arch reduced to allow tyre clearance.

5.6.1.2.13 Heater matrix, blower fan and ducting to distribution flap may be removed.

5.6.1.2.14 Interior must remain as standard with the exception of seats and seat mounts which may be replaced with alternatives if they meet MSA requirements.

- 5.6.1.2.15 Steering wheels may be replaced with suitable alternative.
- 5.6.1.2.16 Glass must remain as E marked glass with the exception of the rear screen which may be replaced with a polycarbonate version.
- 5.6.1.2.17 An appropriate red warning light must be fitted to comply with MSA regulation K 5.1.
- 5.6.1.2.18 Supplementary gauges may be added such as oil temperature and pressure.
- 5.6.1.2.19 There should be substantial towing eyes securely fixed to the main structure of the vehicle, front and rear, within the confines of the body to enable the vehicle to be moved. Towing eyes should have a minimum internal diameter of 60mm. Towing eyes/towing points should be painted a contrasting bright colour (dayglo red, orange or yellow). Q 19.1.3
- 5.6.1.2.20 Please check with the series technical team that the exact part you intend to fit is permitted if you are in any doubt over any of the above.
- 5.6.1.3 **Engine:** **Production**
- 5.6.1.3.1 Must not exceed a maximum power output of 151bhp at the hubs.
- 5.6.1.3.2 The power limit must be strictly adhered too – LoTRDC advise all drivers that their cars MUST be under this maximum as there will be no excuses should they be found to exceed them.
- 5.6.1.3.3 As per MSA regulations including J 5.4.1-3 (engines), J 5.10.1-2 (cooling), J 5.12.1 (oil systems), J 5.13.1-7 (fuel systems).
- 5.6.1.3.4 Engine must retain the standard inlet plenum (either plastic or VVC style alloy versions).
- 5.6.1.3.5 Engine must retain the standard single throttle body in un-modified form (MGF TF 52mm is permitted) – Multiple throttle bodies are not permitted.
- 5.6.1.3.6 Engines must retain a standard pattern exhaust manifold – (i.e. the standard Elise or Sport 160 "Janspeed big bore" version – not aftermarket 421 i.e. EBD etc).
- 5.6.1.3.7 Exhaust system after the manifold are free, although msa regulations should of course be observed as 5.1.2.
- 5.6.1.3.8 Compression ratio must remain standard.
- 5.6.1.3.9 Engine rods, pistons and crankshaft may be balanced - however no materials may be added (e.g. no heavy metal crank inserts) or removed (beyond balancing) and the components themselves must be standard parts as fitted to either the VVC, sport 160 or standard Elise K engines. If, in renewing the bottom end, any parts are replaced by new items - they must be the exact specification/profile and material of the original parts in the appropriate derivative.
- 5.6.1.3.10 Cams are free but standard hydraulic tappets/followers must be retained and valve and valve spring dimensions limited to standard rover items as fitted to standard, VVC or VHPD heads.
- 5.6.1.3.11 Vernier cam pulleys are permitted.
- 5.6.1.3.12 Air filters/induction is free up to the single throttle body.
- 5.6.1.3.13 Swept volume must remain standard (i.e. below 1800cc).

- 5.6.1.3.14 A Baffle may be fitted to the sump.
- 5.6.1.3.15 Addition of a remote thermostat/PRT, water/oil or air/oil cooler is permitted on K series engined cars.
- 5.6.1.3.16 Lightweight flywheels are permitted, but must retain the standard clutch mounts and starter ring.
- 5.6.1.3.17 Clutch must remain standard pattern (AP or other upgraded clutch are permitted if same type as OEM).
- 5.6.1.4 **Suspensions:** **Production**
- 5.6.1.4.1 It is strongly recommended that all cars have upgraded rear toe link kits (A111D0127S or equivalent).
- 5.6.1.4.2 All wishbones/bushes/ball-joints/uprights/bearings must be as standard.
- 5.6.1.4.3 Uprights and steering arms may be modified to achieve more camber.
- 5.6.1.4.4 Dampers may be changed for single way adjustable (no remote canister types) and may have either bushed or spherical joints. All parts must be fitted directly to the original mounting points with no adaptor parts other than changes in mounting bush sizes.
- 5.6.1.4.5 Spring rates are free including use of helper springs.
- 5.6.1.4.6 Front anti roll bar may be replaced by an uprated one using the same design and mounts to original. No additional anti roll bars can be added (i.e. rears etc)
- 5.6.1.4.7 Must retain original steering rack. Quicker ratio pinion is allowed.
- 5.6.1.4.8 Steering arms may be changed from OEM but must retain standard ackerman and upright/wishbone mountings both physically and geometrically.
- 5.6.1.5 **Ride Height and Ground Clearance:** **Production**
- 5.6.1.5.1 See diagram 6.4 in appendices showing illustration of where ride height should be observed on the vehicle.
- 5.6.1.5.2 Ride height - no part of the car between all 4 wheel centers (excluding mud flaps) may be below 100mm.
- 5.6.1.5.3 Ground clearance - no part of the car (excluding mud flaps) should be below 80mm.
- 5.6.1.6 **Transmission:** **Production**
- 5.6.1.6.1 Ratios are free, but must be standard production item (after-market gear kits are not permitted).
- 5.6.1.6.2 LSD's are permitted.
- 5.6.1.7 **Electrics:** **Production**
- 5.6.1.7.1 As per MSA regulation J 5.14.1-7 (electrical systems).
- 5.6.1.7.2 Aftermarket and reprogrammed Engine Control Units (ECU) are permitted.
- 5.6.1.7.3 All ECU's must contain only one map.

5.6.1.7.4 If an aftermarket ECU is fitted drivers must make available to Series Eligibility Scrutineer or Club Stewards the hardware and software required to interrogate the vehicles ECU. If this is not made available the ECU may be sealed and the driver may not be permitted to race.

5.6.1.7.5 Battery size & type is free but must remain in the standard location and be capable of starting the car multiple times without external assistance.

5.6.1.8 **Brakes:** **Production**

5.6.1.8.1 Discs are free (steel or iron only – bells are free)

5.6.1.8.2 Pads are free.

5.6.1.8.3 Calipers must remain standard (AP two pot fronts and Brembo sliding caliper rear).

5.6.1.8.4 Master cylinder must remain standard (single dual circuit item).

5.6.1.8.5 Brake flexible hoses are free (stainless steel braided recommended).

5.6.1.8.6 Fluid must be DOT 4 or 5.1.

5.6.1.9 **Wheels:** **Production**

5.6.1.9.1 Elise S1 max rim size front 7J15 min ET10 and rear 8J16 min ET10.

5.6.1.9.2 Elise S2 (K series) max rim size front 7J16 min ET18 and rear 8J17 min ET18.

5.6.1.9.3 All Wheels must be of metal construction with the exception of Magnesium which is not permitted. Multi-piece wheels are not permitted.

5.6.1.10 **Tyres:** **Production**

5.6.1.10.1 As supplied control tyre:

Yokohama A048 LTS or Yokohama AO48R (M compound)

Series 1  
195/50R15  
225/45R16

Series 2  
195/50R16  
225/45R17

5.6.1.10.2 No modifications to the tyres in any way, (any tyres suspected of being treated/modified will be excluded from the meeting).

5.6.1.10.3 Tyres must be sourced from the series approved supplier and be marked with the correct batch numbers.

5.6.1.10.4 It is not permitted to fill tyres with nitrogen

5.6.1.11 **Weights:** **Production**

5.6.1.11.1 Minimum weight of the vehicle including the driver is **825kg**.

As an example;

- If a driver weighs 75kg the vehicle alone should weigh at least 750kg.
- If a driver weighs 95kg the vehicle alone should weigh at least 730kg.

- 5.6.1.11.2 This weight is the minimum the car and driver combined must be in race trim after either a race or qualifying session as defined in J 5.15.1-5 (weight/ballast).
- 5.6.1.11.3 It is forbidden to use ballast to make up the weight (as in no lightening of the car then ballasting them back up).
- 5.6.1.11.4 Ballast may only be applied under direction from LoTRDC and where required shall be securely fixed in accordance with J 5.15.1-5.
- 5.6.1.11.5 Cars may have additional weight added to their minimum weights depending on vehicle specification. Current penalties are detailed in section 6.1.1.
- 5.6.1.12 **Success Ballast:** **Production**
- 5.6.1.12.1 Under certain circumstances the Organisers MAY require 'success' ballast to be applied to certain vehicles.
- 5.6.1.12.2 Following a vehicle's win a 30kg ballast may be applied to the vehicle. If a further win is gained, an additional 30kg of ballast may be applied until a maximum total of 60kg of ballast is applied. Ballast may also be added to 2<sup>nd</sup> (20kg) & 3<sup>rd</sup> (10kg) place cars. The subsequent removal of increments of ballast will be at the Organisers' discretion.
- 5.6.1.12.3 Ballast will be supplied by LoTRDC in the form of a supplied case that will fix to the passenger seat mounting points. Ballast is in addition to class minimum weight requirements.
- 5.6.1.13 **Fuel Tank/Fuel:** **Production**
- 5.6.1.13.1 As per MSA regulation J 5.13.1-13 where appropriate. Only pump fuel as defined by the 2010 MSA Year Book is permitted.
- 5.6.1.13.2 The standard fuel tank (in both dimensions and material) should be used unless replaced with a bag tank as described in MSA regulation K 4.1-3 (safety fuel cells).
- 5.6.1.13.3 Additional fuel collector pot is allowed with an additional fuel pump, it must, however, be of no more than 0.5L capacity and be securely attached in the engine bay (no fuel lines must be in the cockpit).
- 5.6.1.13.4 All cars must have a minimum of 3L of fuel remaining in the tank at race finish.
- 5.6.1.13.5 Charcoal canister may be removed but a one way or rollover valve, venting to a safe area, must be fitted.
- 5.6.1.14 **Numbers/Decals:** **Production**
- 5.6.1.14.1 MSA Regulations Q 11.1-3 apply regarding competition numbers and backgrounds which must be displayed to the satisfaction of the Timekeepers.
- 5.6.1.14.2 Series livery will be provided by the LoTRDC for display on all cars for;
- Sill panel series sponsor logos (both sides)
  - Door cards (both sides) with one set of numbers
  - LoTRDC decals (both sides)
  - MSVR decals (both sides)
  - Windscreen sun visor
  - Front number panel
  - Rear number plate (currently free but may be required)
- 5.6.1.14.3 Other series decals as from time to time may be required.
- 5.6.1.14.4 Series livery will be positioned as numbered and defined in 6.3.

5.6.1.14.5 Drivers will be required to display two series sponsor logos on race suits.

5.6.1.14.6 LoTRDC will supply one set of series livery. Replacement vinyl can be purchased from the LoTRDC shop.

**5.6.2 Series 2 Elise and Exige with Toyota Engines**

**Production**

**5.6.2.1 Chassis:**

5.6.2.1.1 The construction type, design and material must remain as standard. This includes the sub frame.

5.6.2.1.2 No additional bracing/supports can be added with to additionally fit the rear chassis brace kit (LOTAC05377).

**5.6.2.2 Bodywork:**

**Production**

5.6.2.2.1 All cars must retain the standard road car's profile, and be maintained to a high standard of finish, whilst it's understandable that damage may occur during a weekend, it's important that this is rectified before the next meeting. This is important to keep the image and profile of the series.

5.6.2.2.2 LoTRDC reserves the right to overrule any part that is felt to be outside the spirit of the series. If in any doubt about what is/is not acceptable, the onus is on the entrant to ask first.

5.6.2.2.3 All body panels must remain as standard production in size, shape, profile and material (i.e. Pre-preg GRP, Kevlar and Carbon fibre are not permitted).

5.6.2.2.4 Exige and 111R S2 must remain as standard including, but not limited to, all body panels.

5.6.2.2.5 Interior must remain as standard with the exception of seats and seat mounts which may be replaced with alternatives if they meet MSA requirements.

5.6.2.2.6 Steering wheels may be replaced with suitable alternative.

5.6.2.2.7 Glass must remain as E marked glass with the exception of the rear screen which may be replaced with a polycarbonate version.

5.6.2.2.8 An appropriate red warning light must be fitted to comply with MSA regulation K 5.1.

5.6.2.2.9 Supplementary gauges may be added such as oil temperature and pressure.

5.6.2.2.10 There should be substantial towing eyes securely fixed to the main structure of the vehicle, front and rear, within the confines of the body to enable the vehicle to be moved. Towing eyes should have a minimum internal diameter of 60mm. Towing eyes/towing points should be painted a contrasting bright colour (dayglo red, orange or yellow). Q 19.1.3

5.6.2.2.11 Please check with the series technical team that the exact part you intend to fit is permitted if you are in any doubt over any of the above.

**5.6.2.3 Engine:**

**Production**

5.6.2.3.1 Must not exceed a maximum power output of 169bhp at the hubs.

5.6.2.3.2 The power limit must be strictly adhered too – LoTRDC advise all drivers that their cars MUST be under this maximum as there will be no excuses should they be found to exceed them.

5.6.2.3.3 As per MSA regulations including J 5.4.1-3 (engines), J 5.10.1-2 (cooling), J 5.12.1 (oil systems), J 5.13.1-7 (fuel systems).

5.6.2.3.4 No engine modifications permitted including but not limited to airbox and exhaust system with the exception of the exhaust silencer which may be changed. The vehicle should remain as standard.

5.6.2.3.5 MSA regulations should be observed as 5.1.2.

5.6.2.4 **Suspensions:** **Production**

5.6.2.4.1 It is strongly recommended that all cars have upgraded rear toe link kits (A111D0127S or equivalent). It is recommended that cars are additionally fitted with rear chassis brace kit (LOTAC05377).

5.6.2.4.2 All wishbones/bushes/ball-joints/uprights/bearings must be as standard.

5.6.2.4.3 Uprights and steering arms may be modified to achieve more camber.

5.6.2.4.4 Dampers may be changed for single way adjustable (no remote canister types) and may have either bushed or spherical joints. All parts must be fitted directly to the original mounting points with no adaptor parts other than changes in mounting bush sizes.

5.6.2.4.5 Spring rates are free including use of helper springs.

5.6.2.4.6 Front anti roll bar may be replaced by an uprated one using the same design and mounts to original. No additional anti roll bars can be added (i.e. rears etc)

5.6.2.4.7 Must retain original steering rack. Quicker ratio pinion is allowed.

5.6.2.4.8 Steering arms may be changed from OEM but must retain standard ackerman and upright/wishbone mountings both physically and geometrically.

5.6.2.5 **Ride Height and Ground Clearance:** **Production**

5.6.2.5.1 See diagram 6.4 in appendices showing illustration of where ride height should be observed on the vehicle.

5.6.2.5.2 Ride height - no part of the car between all 4 wheel centers (excluding mud flaps) may be below 100mm.

5.6.2.5.3 Ground clearance - no part of the car (excluding mud flaps) should be below 80mm.

5.6.2.6 **Transmission:** **Production**

5.6.2.6.1 No transmission modifications permitted including but not limited to gearbox (including gear ratios).

5.6.2.6.2 LSDs are permitted.

5.6.2.7 **Electrics:** **Production**

5.6.2.7.1 As per MSA regulation J 5.14.1-7 (electrical systems).

5.6.2.7.2 Aftermarket and reprogrammed Engine Control Units (ECU) are not permitted.

5.6.2.7.3 Lotus ECU reflash is permitted of T4 and T4E Lotus track upgrade.

This relates to;

T4 and T4e ECU - Track Upgraded  
Part No. - ALS3M0215F, ALS3M0244F  
Applications - S2 (Toyota) naturally aspirated cars

ECU with cam switch optimised for track use, moving switch point to high lift cam from 6200 rpm to 5750 rpm. All other functionality of the original ECU programme remain, preserving the full European emissions compliance of the vehicle.

5.6.2.7.4 Battery size & type is free but must remain in the standard location and be capable of starting the car multiple times without external assistance.

5.6.2.8 **Brakes:** **Production**

5.6.2.8.1 Discs are free (steel or iron only – bells are free)

5.6.2.8.2 Pads are free.

5.6.2.8.3 Calipers must remain standard (AP two pot fronts and Brembo sliding caliper rear).

5.6.2.8.4 Master cylinder must remain standard (single dual circuit item).

5.6.2.8.5 Brake flexible hoses are free (stainless steel braided recommended).

5.6.2.8.6 Fluid must be DOT 4 or 5.1.

5.6.2.9 **Wheels:** **Production**

5.6.2.9.1 Max rim size front 7J16 min ET30 and rear 8J17 min ET35.

5.6.2.9.2 All Wheels must be of metal construction with the exception of Magnesium which is not permitted. Multi-piece wheels are not permitted.

5.6.2.10 **Tyres:** **Production**

5.6.2.10.1 As supplied control tyre:

Yokohama A048 LTS or Yokohama AO48R (M compound)  
195/50R16  
225/45R17

5.6.2.10.2 No modifications to the tyres in any way, (any tyres suspected of being treated/modified will be excluded from the meeting).

5.6.2.10.3 Tyres must be sourced from the series approved supplier and be marked with the correct batch numbers.

5.6.2.10.4 It is not permitted to fill tyres with nitrogen

5.6.2.11 **Weights:** **Production**

5.6.2.11.1 Minimum weight of the elise 111r cars including the driver is **945kg**.

As an example;

- If a driver weighs 75kg the vehicle alone should weigh at least 870kg.
- If a driver weighs 95kg the vehicle alone should weigh at least 850kg.

5.6.2.11.2 Minimum weight of the Exige cars including the driver is **960kg**.

As an example;

- If a driver weighs 75kg the vehicle alone should weigh at least 885kg.
- If a driver weighs 95kg the vehicle alone should weigh at least 865kg.

- 5.6.2.11.3 This weight is the minimum the car and driver combined must be in race trim after either a race or qualifying session as defined in J 5.15.1-5 (weight/ballast).
- 5.6.2.11.4 It is forbidden to use ballast to make up the weight (as in no lightening of the car then ballasting them back up).
- 5.6.2.11.5 Ballast may only be applied under direction from LoTRDC and where required shall be securely fixed in accordance with J 5.15.1-5.
- 5.6.2.11.6 Cars will have additional weight added to their minimum weights depending on vehicle specification. Current penalties are detailed in section 6.1.1.
- 5.6.2.12 **Success Ballast:** **Production**
- 5.6.2.12.1 Under certain circumstances the organisers MAY require 'success' ballast to be applied to certain vehicles.
- 5.6.2.12.2 Following a vehicle's win a 30kg ballast may be applied to the vehicle. If a further win is gained, an additional 30kg of ballast may be applied until a maximum total of 60kg of ballast is applied. Ballast may also be added to 2<sup>nd</sup> (20kg) & 3<sup>rd</sup> (10kg) place cars. The subsequent removal of increments of ballast will be at the Organisers' discretion.
- 5.6.2.12.3 Ballast will be supplied by LoTRDC in the form of a supplied case that will fix to the passenger seat mounting points. Ballast is in addition to class minimum weight requirements.
- 5.6.2.13 **Fuel Tank/Fuel:** **Production**
- 5.6.2.13.1 As per MSA regulation J 5.13.1-13 where appropriate. Only pump fuel as defined by the 2010 MSA Year Book is permitted.
- 5.6.2.13.2 The standard fuel tank (in both dimensions and material) should be used unless replaced with a bag tank as described in MSA regulation K 4.1-3 (safety fuel cells).
- 5.6.2.13.3 Additional fuel collector pot is allowed with an additional fuel pump, it must, however, be of no more than 0.5L capacity and be securely attached in the engine bay (no fuel lines must be in the cockpit).
- 5.6.2.13.4 All cars must have a minimum of 3L of fuel remaining in the tank at race finish.
- 5.6.2.13.5 Charcoal canister may be removed but a one way or rollover valve, venting to a safe area, must be fitted.
- 5.6.2.14 **Numbers/Decals:** **Production**
- 5.6.2.14.1 MSA Regulations Q 11.1-3 apply regarding competition numbers and backgrounds which must be displayed to the satisfaction of the Timekeepers.
- 5.6.2.14.2 Series livery will be provided by the LoTRDC for display on all cars for;
- Sill panel series sponsor logos (both sides)
  - Door cards (both sides) with one set of numbers
  - LoTRDC decals (both sides)
  - MSVR decals (both sides)
  - Windscreen sun visor
  - Front number panel
  - Rear number plate (currently free but may be required)
- 5.6.2.14.3 Other series decals as from time to time may be required.
- 5.6.2.14.4 Series livery will be positioned as numbered and defined in 6.3.

- 5.6.2.14.5 Drivers will be required to display two series sponsor logos on race suits.
- 5.6.2.14.6 LoTRDC will supply one set of series livery. Replacement vinyl can be purchased from the LoTRDC shop.

## 5.7 Class 2-Eleven

### 5.7.1 Chassis: 2-Eleven

- 5.7.1.1 The construction type, design and material must remain as standard. This includes the sub frame.
- 5.7.1.2 No additional bracing/supports can be added, including any stiffening of the rear sub frame. No method of adding stiffness to the chassis and/or subframe is permitted. Only the use of Lotus manufactured and supplied rear track control arm and structural under tray kit (both types) is permitted.
- 5.7.1.3 It is recommended that cars are fitted with full GT4 specification roll cage. Part Number – A127A0058F

### 5.7.2 Bodywork: 2-Eleven

- 5.7.2.1 All cars must retain the standard road car's profile, and be maintained to a high standard of finish, whilst it's understandable that damage may occur during a weekend, it's important that this is rectified before the next meeting. This is important to keep the image and profile of the series.
- 5.7.2.2 LoTRDC reserves the right to overrule any part that is felt to be outside the spirit of the series. If in any doubt about what is/is not acceptable, the onus is on the entrant to ask first.
- 5.7.2.3 Vehicles must be fitted with standard Lotus supplied bodywork or OEM bodywork of the same internal and external dimensions and material of the lotus supplied part.
- 5.7.2.4 Interior is free.
- 5.7.2.5 Battery size & type is free and can be moved as long as it is securely mounted and covered.
- 5.7.2.6 A removable steering wheel may be fitted to replace standard component, a spacer may be used.
- 5.7.2.7 The passenger seat, mounts and seatbelts may be removed.
- 5.7.2.8 The windscreen may be removed and replaced with the Lotus rigid tonneau and screen.
- 5.7.2.9 There should be substantial towing eyes securely fixed to the main structure of the vehicle, front and rear, within the confines of the body to enable the vehicle to be moved. Towing eyes should have a minimum internal diameter of 60mm. Towing eyes/towing points should be painted a contrasting bright colour (dayglo red, orange or yellow). Q19.1.3

- 5.7.2.10 Carbon fibre front clamshell, body sides, rear bumper are not permitted all other panels are free.
- 5.7.2.11 All body grills may be removed. If removing side intake grills the body work may be fettled to no less than the material thickness of the panel.
- 5.7.2.12 Plastic arch liners may be added for protection to inner wheel arch.
- 5.7.2.13 Lotus Aero Pack comprising adjustable carbon fibre single element rear wing, wing end plates for which material is free but must remain to the original dimensions and extended front splitter is permitted. **No modification, including but not limited to the mounting points, the wing or splitter, be it standard or Aero Pack, is permitted.**
- 5.7.2.14 All vehicles must be fitted with rear view side mirrors.
- 5.7.2.15 All vehicles must be fitted with Lotus 2-Eleven brake lights and rear fog lights (the latter complying with MSA regulation K5.1).
- 5.7.2.16 **Headlamps, front direction indicators and side repeaters including associated mountings are optional. However, if all front lights are removed two driving lamps must be fitted and be in effective working condition.**
- 5.7.3 **Engine:** **2-Eleven**
- 5.7.3.1 No engine modification **is** permitted including, but not limited to, engine control unit mapping and engine internal components.
- 5.7.3.2 Exhaust silencer is free.
- 5.7.3.3 **Exhaust manifolds are restricted to the standard 211 part reference A120E6331S or the GT4 upgrade manifold part number ALS3E0281F.**
- 5.7.3.4 Lotus 2-ELEVEN 260PS ECM upgrade is permitted, part number "ALS3M0352F ECM, 260PS UPGRADE, 2-ELEVEN". The Lotus 270 GT4 upgrade (**comprising GT4 ECU, GT4 pulley and GT4 exhaust manifold**) is permitted but cars must not exceed the stated maximum power in 5.7.3.2
- 5.7.3.5 Vehicle power is limited to **248bhp at the hubs** (allows use of 260 upgrade). Please note this is our measured power and not officially advertised power figures.
- 5.7.3.6 The power limit must be strictly adhered too – LoTRDC advise all drivers that their cars **MUST** be under this maximum as there will be no excuses should they be found to exceed them.
- 5.7.3.7 **The compressor pulley must not be smaller than 77mm measured from the outer teeth to outer teeth – see Appendix 6.6 and must not be modified in any way.**
- 5.7.3.8 **The crank shaft pulley must be the standard Lotus part reference A120E6198S and must not be modified in any way.**
- 5.7.3.9 Vehicles may be fitted with an additional oil temperature and pressure gauge.
- 5.7.3.10 Air filter and housing is free.

5.7.3.11 Vehicles may be fitted with the Lotus supplied Twin Air/Oil Coolers. Laminova oil coolers for gear box and engine are permitted.

5.7.3.12 Lotus supplied lightweight fly wheel is permitted.

5.7.3.13 Mesh may be added to front and rear of Air/Oil cooler.

5.7.3.14 Lotus engine mount upgrade is permitted, part numbers:

ALS3E0264F Engine Mount, Front, Bush, Upgrade  
ALS3E0265F Engine Mount, Rear, Bush, Upgrade

5.7.4 **Suspensions:** **2-Eleven**

5.7.4.1 Damper make is free but may only be a maximum of two way adjustable.

5.7.4.2 Front damper brackets to the chassis may be replaced by the Lotus motorsport adjustable mount to raise or lower the upper damper mounting point.

5.7.4.3 Springs are free including the use of helper springs.

5.7.4.4 Vehicles may be fitted with polyurethane or nylatron suspension bushes.

5.7.4.5 Up rated inner rear toe links may be fitted however mounting points must be the same as standard.

5.7.5 **Ride Height and Ground Clearance:** **2-Eleven**

5.7.5.1 See diagram 6.4 in appendices showing illustration of where ride height should be observed on the vehicle.

5.7.5.2 No part of the car between all 4 wheel centres (excluding mud flaps) may be below 85mm.

5.7.5.3 No part of the car (excluding mud flaps) should be below 65mm.

5.7.6 **Transmission:** **2-Eleven**

5.7.6.1 **Any modification is prohibited, with the exception of fitment of the Lotus motorsport clutch and third party optional gear sets. Different gear sets or differential ratios to standard will carry a 10kg weight penalty.**

5.7.6.2 **An alternative sequential gearbox with 6 gears may be fitted in replacement to the original gearbox. This will be considered on individual request and will carry a 30kg weight penalty.**

5.7.6.3 LSDs are permitted.

5.7.7 **Electrics:** **2-Eleven**

5.7.7.1 Any modification is prohibited with the exception of modifications required for fitment of a battery isolation switch and lotus supplied Anderson Plug External Connector and Cables. Modifications can also be made to aid moving the battery.

5.7.8 **Brakes:** **2-Eleven**

5.7.8.1 Disks are free (steel or iron only – bells are free).

5.7.8.2 Pads are free.

5.7.8.3 Fluid must be DOT 4 or 5.1.

**5.7.8.4 Callipers are free, but no modifications are permitted to the hubs, up rights, steering arms or camber blocks.**

*Advisory Note: The disabling of the ABS system is strongly advised against when running any of the standard Lotus braking system as this will adversely affect the performance of the braking system and balance of the vehicle under braking.*

5.7.8.4 The use of Lotus Twin Master Cylinder Braking system ALS3J0174F is permitted and recommended for those wishing to disable the ABS system. This carries a 10Kg weight penalty.

5.7.9 **Wheels:** **2-Eleven**

5.7.9.1 Max rim size front 7J16 min ET30 and rear 8J17 min ET35.

5.7.9.2 All Wheels must be of metal construction with the exception of Magnesium which is not permitted. Multi-piece wheels are not permitted.

5.7.10 **Tyres:** **2-Eleven**

5.7.10.1 As supplied control tyre:

Yokohama A048 LTS or Yokohama AO48R (M compound)  
195/50R16  
225/45R17

5.7.10.2 No modifications to the tyres in any way, (any tyres suspected of being treated/modified will be excluded from the meeting).

5.7.10.3 It is not permitted to fill tyres with nitrogen

5.7.11 **Weights:** **2-Eleven**

5.7.11.1 Minimum weight of the vehicle including the driver is **815kg**.

As an example;

- If a driver weighs 75kg the vehicle alone should weigh at least 740kg.
- If a driver weighs 95kg the vehicle alone should weigh at least 720kg.

5.7.11.2 This weight is the minimum the car and driver combined must be in race trim after either a race or qualifying session as defined in C(b)21.

5.7.11.3 It is forbidden to use ballast to make up the weight (as in no lightening of the car then ballasting them back up).

5.7.11.4 Ballast may only be applied under direction from LoTRDC and where required shall be securely fixed in accordance with C(b)21.

5.7.11.5 Individual cars will have additional weight added to their minimum weights depending on vehicle specification. Current penalties are detailed in section 6.1.2.

5.7.11.6 **Success Ballast:** **2-Eleven**

5.7.11.6.1 Under certain circumstances the Organisers MAY require 'success' ballast to be applied to certain vehicles.

5.7.11.6.2 Following a vehicle's win a 30kg ballast may be applied to the vehicle. If a further win is gained, an additional 30kg of ballast may be applied until a maximum total of 60kg of ballast is applied. Ballast may also be added to 2<sup>nd</sup> (20kg) & 3<sup>rd</sup> (10kg) place cars. The subsequent removal of increments of ballast will be at the Organisers' discretion.

5.7.11.6.3 Ballast will be supplied by LoTRDC in the form of a Lotus supplied case that will fix to the passenger seat mounting points. Ballast is in addition to class minimum weight requirements.

5.7.12 **Fuel Tank/Fuel:** **2-Eleven**

5.7.12.1 As per MSA regulation C(b) 19 where appropriate. Only pump fuel as defined by the 2010 MSA Year Book is permitted.

5.7.12.2 **The standard fuel tank (in both dimensions and material) should be used unless replaced with the Lotus 70 litre FIA FT3 bag fuel tank as described in MSA regulation C(c) 67/68. However, alternative fuel tanks will be considered on request.**

5.7.12.3 All cars must have a minimum of 3L of fuel remaining in the tank at race finish.

5.7.13 **Numbers/Decals:** **2-Eleven**

5.7.13.1 MSA Regulation G 40-43 applies regarding competition numbers and backgrounds, which must be displayed to the satisfaction of the Timekeepers.

5.7.13.2 MSA Regulation size competition number backgrounds and numerals must be displayed to the satisfaction of the timekeepers and as per C(b) 6.

5.7.13.3 Series livery will be provided by the LoTRDC for display on all cars for;

- Sill panel series sponsor logos (both sides)
- Door cards (both sides) with one set of numbers
- LoTRDC decals (both sides)
- MSVR decals (both sides)
- Windscreen sun visor
- Front number panel
- Rear number plate area

5.7.13.4 Series livery will be positioned as numbered and defined in 6.3.

5.7.13.5 Drivers will be required to display two series sponsor logos on race suits.

5.7.13.6 LoTRDC will supply one set of series livery. Replacement vinyl can be purchased from the LoT RDC shop.

## 5.8 Class Exige Cup

### 5.8.1 Chassis: Exige Cup

5.8.1.1 The construction type, design and material must remain as standard. This includes the sub frame.

5.8.1.2 No additional bracing/supports can be added, including any stiffening of the rear sub frame. No method of adding stiffness to the chassis and/or subframe is permitted. Only the use of Lotus manufactured and supplied rear track control arm and structural under tray kit (both types) is permitted.

### 5.8.2 Bodywork: Exige Cup

5.8.2.1 All cars must retain the standard road car's profile, and be maintained to a high standard of finish, whilst it's understandable that damage may occur during a weekend, it's important that this is rectified before the next meeting. This is important to keep the image and profile of the series.

5.8.2.2 LoTRDC reserves the right to overrule any part that is felt to be outside the spirit of the series. If in any doubt about what is/is not acceptable, the onus is on the entrant to ask first.

5.8.2.3 Vehicles must be fitted with standard Lotus supplied bodywork or OEM bodywork of the same internal and external dimensions and material of the lotus supplied part.

5.8.2.4 Permitted body modifications are:

5.8.2.4.1 Front splitters may be fitted within the width of the bodywork, (excluding wing mirrors) and may project a maximum of 30mm beyond the body work measured by a plum line from the front of clam. An additional front spoiler as shown in section 6.5 may also be fitted but must comply with ground clearance rules in 5.8.5. Material is free.

5.8.2.4.2 Under trays must not exceed overall dimensions of the standard part. Ducts and holes within the tray may be relocated and material is free. Rear diffuser section may be extended rearwards.

5.8.2.4.3 Extended rear diffuser protruding no more that 50mm from the rear bodywork and complying with the ground clearance rules in 5.8.5 are permitted. Material is free.

5.8.2.4.4 A single element rear wing may be fitted to the maximum width of 1300mm (Lotus Motorsport) and have a maximum rear dimension not exceeding the original length of the car excluding any diffuser. All parts of the wing, excluding end plates, must be below 1100mm from the floor and have a maximum cord length of 300mm. End plates are allowed (one each end) but must be no larger than 320x200mm with rounded corners. Material is free. The wing can be fitted to the rear clam or the rear tailgate.

5.8.2.4.5 Side scoops may be fitted, but must not protrude further than the side profile of the car. Material is free.

5.8.2.4.6 Side scoop inner vents may be removed but the external holes in the clam must be standard size and profile

- 5.8.2.4.7 Roof scoops may be fitted as per Lotus Cup 260 specification. Material is free.
- 5.8.2.4.8 The clam under rear grills (reverse lights) may be removed however the grill must remain.
- 5.8.2.4.9 The body behind the number plate can be removed to an area no larger than a standard number plate (520mm x 130mm). If a hole is created it should be covered in mesh.
- 5.8.2.4.10 Wheel arch liners may be removed and the inner lip of the wheel arch reduced to allow tyre clearance.
- 5.8.2.4.11 The boot/engine bay divider may be removed or modified
- 5.8.2.4.12 Rear Bulkhead may be removed and replaced with a solid metallic sheet (ala.Lotus Motorsport). It is essential that this is carried out in such a way that the passenger cabin is sealed from the engine compartment.
- 5.8.2.4.13 The front 'ducts' on an Exige/Motor Sport clam can be opened up for cooling ducts but only to the extent of the std moulding (i.e. they cannot be made larger)
- 5.8.2.5 Interior may be removed and replaced as required within MSA requirements. Material is free. **Sequential gear lever mechanism, not to be confused with a full sequential gearbox, can be fitted.**
- 5.8.2.6 A removable steering wheel may be fitted. Material is free.
- 5.8.2.7 The passenger seat, mounts and seatbelts may be removed.
- 5.8.2.8 Side windows may be replaced with Perspex alternatives, this can include a slider. Electric window motors may be removed.
- 5.8.2.9 Rear tailgate can be replaced with lightweight version. This part can be removable so gas strut and hinges can be removed. Material is free.
- 5.8.2.10 **Headlamps, front direction indicators and side repeaters including associated mountings are optional. However, if all front lights are removed two driving lamps must be fitted and be in effective working condition.**
- 5.8.2.11 There should be substantial towing eyes securely fixed to the main structure of the vehicle, front and rear, within the confines of the body to enable the vehicle to be moved. Towing eyes should have a minimum internal diameter of 60mm. Towing eyes/towing points should be painted a contrasting bright color (Day-Glo red, orange or yellow). (G99)
- 5.8.2.12 Carbon fibre body panels are permitted where Lotus currently provide a factory option.
- 5.8.3 **Engine:** **Exige Cup**
- 5.8.3.1 Engine must remain original i.e. Toyota 2ZZ-GE (189bhp flywheel) or 2ZZ-GZE (equipped with an Eaton MP62 supercharger and intercooler). Alternative super charger and intercooler systems will be considered on an individual basis.

5.8.3.2 No engine modifications are permitted including, but not limited to engine internal components. With the exception of the exhaust system and engine ECU, air filter, cams, mapping which are all free.

5.8.3.3 Power must not exceed a maximum power output of 260BHP at the hubs as measured by TDI.

5.8.3.4 The power limit must be strictly adhered too – LoTRDC advise all drivers that their cars MUST be under this maximum as there will be no excuses should they be found to exceed them.

5.8.3.5 Vehicles may be fitted with an additional oil temperature and pressure gauge.

5.8.3.6 Air filter and housing is free.

5.8.3.7 Vehicles may be fitted with the Lotus supplied Twin Air/Oil Coolers. Laminova oil coolers for gear box and engine are permitted.

5.8.4 **Suspensions:** **Exige Cup**

5.8.4.1 Damper make is free but may only be a maximum of two way adjustable.

5.8.4.2 Front damper brackets to the chassis may be replaced by the Lotus motorsport adjustable mount to raise or lower the upper damper mounting point.

5.8.4.3 Springs are free including the use of helper springs.

5.8.4.4 Vehicles may be fitted with polyurethane or nylatron suspension bushes.

5.8.4.5 Up rated inner rear toe links may be fitted however mounting points must be the same as standard. Front upper wishbones and steering arms can be as factory supplied to Lotus Exige or Lotus 211.

5.8.5 **Ride Height and Ground Clearance:** **Exige Cup**

5.8.5.1 See diagram 6.4 in appendices showing illustration of where ride height should be observed on the vehicle.

5.8.5.2 No part of the car between all 4 wheel centres (excluding mud flaps) may be below 95mm.

5.8.5.3 No part of the car (excluding mud flaps) should be below 65mm.

5.8.6 **Transmission:** **Exige Cup**

5.8.6.1 Any modification is prohibited, with the exception of fitment of the Lotus motorsport clutch and third party optional gear sets (free). Different gear sets or differential ratios than standard will carry a 10kg weight penalty.

5.8.6.2 An alternative sequential gearbox with 6 gears may be fitted in replacement to the original gearbox. This will be considered on individual request but will carry a 30kg weight penalty.

5.8.6.3 LSDs are permitted.

5.8.6.4 Lotus engine mount upgrade is permitted, part numbers:

ALS3E0264F Engine Mount, Front, Bush, Upgrade  
ALS3E0265F Engine Mount, Rear, Bush, Upgrade

5.8.7 **Electrics:** **Exige Cup**

5.8.7.1 Any modification is prohibited with the exception of modifications required for fitment of a battery isolation switch (mechanical or electrical type), Lotus supplied Anderson Plug External Connector and Cables, Accusump oil accumulator and associated wiring, fire extinguisher, FIA fuel drain, sensor for oil pressure/temperature and fuel pressure. **The battery size & type is free and it may be relocated provided at a safe location.**

5.8.8 **Brakes:** **Exige Cup**

5.8.8.1 Disks are free (steel or iron only – bells are free).

5.8.8.2 Pads are free.

5.8.8.3 Fluid must be DOT 4 or 5.1.

5.8.8.4 **Callipers are free, but no modifications are permitted to the hubs, up rights, steering arms or camber blocks.** *Advisory Note: The disabling of the ABS system is strongly advised against when running any of the standard Lotus braking system as this will adversely affect the performance of the braking system and balance of the vehicle under braking.*

5.8.8.5 The use of Lotus Twin Master Cylinder Braking system ALS3J0174F is permitted and recommended for those wishing to disable the ABS system. This carries a 10Kg weight penalty.

5.8.9 **Wheels:** **Exige Cup**

5.8.9.1 Max rim size front 7J16 min ET30 and rear 8J17 min ET35.

5.8.9.2 All Wheels must be of metal construction with the exception of Magnesium which is not permitted. Multi-piece wheels are not permitted.

5.8.10 **Tyres:** **Exige Cup**

5.8.10.1 As supplied control tyre:

Yokohama A048 LTS or Yokohama AO48R (M compound)  
195/50R16  
225/45R17

5.8.10.2 No modifications to the tyres in any way, (any tyres suspected of being treated/modified will be excluded from the meeting).

5.8.10.3 It is not permitted to fill tyres with nitrogen

5.8.11 **Weights:** **Exige Cup**

5.8.11.1 Minimum weight of the vehicle including the driver is **910kg**.

As an example;

- If a driver weighs 75kg the vehicle alone should weigh at least 835kg.
  - If a driver weighs 95kg the vehicle alone should weigh at least 815kg.
- 5.8.11.2 This weight is the minimum the car and driver combined must be in race trim after either a race or qualifying session as defined in C(b)21.
- 5.8.11.3 It is forbidden to use ballast to make up the weight (as in no lightening of the car then ballasting them back up).
- 5.8.11.4 Ballast may only be applied under direction from LoTRDC and where required shall be securely fixed in accordance with C(b)21.
- 5.8.11.5 Individual cars will have additional weight added to their minimum weights depending on vehicle specification. Current penalties are detailed in section 6.1.2.
- 5.8.12 **Success Ballast:** **Exige Cup**
- 5.8.12.1 Under certain circumstances the Organisers MAY require 'success' ballast to be applied to certain vehicles.
- 5.8.12.2 Following a vehicle's win a 30kg ballast may be applied to the vehicle. If a further win is gained, an additional 30kg of ballast may be applied until a maximum total of 60kg of ballast is applied. Ballast may also be added to 2<sup>nd</sup> (20kg) & 3<sup>rd</sup> (10kg) place cars. The subsequent removal of increments of ballast will be at the Organisers' discretion.
- 5.8.12.3 Ballast will be supplied by LoTRDC in the form of a Lotus supplied case that will fix to the passenger seat mounting points. Ballast is in addition to class minimum weight requirements.
- 5.8.13 **Fuel Tank/Fuel:** **Exige Cup**
- 5.8.13.1 As per MSA regulation C(b) 19 where appropriate. Only pump fuel as defined by section P of the 2010 MSA Year Book is permitted.
- 5.8.13.2 The standard fuel tank (in both dimensions and material) should be used unless replaced with the Lotus 70 litre FIA FT3 bag fuel tank as described in MSA regulation C(c) 67/68.
- 5.8.13.3 All cars must have a minimum of 3L of fuel remaining in the tank at race finish.
- 5.8.14 **Numbers/Decals:** **Exige Cup**
- 5.8.14.1 MSA Regulation G 40-43 applies regarding competition numbers and backgrounds, which must be displayed to the satisfaction of the Timekeepers.
- 5.8.14.2 MSA Regulation size competition number backgrounds and numerals must be displayed to the satisfaction of the timekeepers and as per C(b) 6.
- 5.8.14.3 Series livery will be provided by the LoTRDC for display on all cars for;
- Sill panel series sponsor logos (both sides)
  - Door cards (both sides) with one set of numbers
  - LoTRDC decals (both sides)

- MSVR decals (both sides)
- Windscreen sun visor
- Front number panel
- Rear number plate area

5.8.14.4 Series livery will be positioned as numbered and defined in 6.3.

5.8.14.5 Drivers will be required to display two series sponsor logos on race suits.

5.8.14.6 LoTRDC will supply one set of series livery. Replacement vinyl can be purchased from the LoT RDC shop.

**NOTE: If your car differs in a small way to these regulations please inform us as we may be able to accept it if the car is within the spirit of the regs and no advantage is gained.**

## **6 APPENDICIES**

### **6.1 Weight Penalties**

#### **6.1.1 Class Production**

6.1.1.1 S2 Toyota Engined Elise 111r Minimum Weight = 945kg\*

6.1.1.2 S2 Toyota Engined Elise Exige Minimum Weight = 960kg\*

\* This weight includes the standard 85kg driver allowance

#### **6.1.2 Class 2-Eleven**

6.1.2.1 Sequential Gearbox Minimum Weight + 30kg

6.1.2.2 Close Ratio Gearbox Minimum Weight + 10kg

6.1.2.3 Twin Master Cylinder Brake System Minimum Weight + 10kg

#### **6.1.3 Class Exige Cup**

6.1.3.1 Sequential Gearbox Minimum Weight + 30kg

6.1.3.2 Close Ratio Gearbox Minimum Weight + 10kg

6.1.3.3 Twin Master Cylinder Brake System Minimum Weight + 10kg

### **6.2 Driving Standards**

In order to maintain standards of conduct, the Series Coordinator will monitor all Officials/Observers reports of adverse behaviour at race meetings. If any individual is included on two such reports during one racing season They will receive written warning from the Series Coordinator that his driving/behaviour is to be specifically observed at future race meetings. Any adverse reports during this period of observation could result in official MSA action & will result in a Series Stewards' enquiry, with possible refusal of further race entries.

Additional Specific Series Penalties:

A) Single Qualifying Session, Single Race:

At any official qualifying, where any competitor shall be found guilty of an offence. They will move back 10 places on the grid and will be reported to the Series Stewards.

B) Multiple Qualifying/Multiple Races:

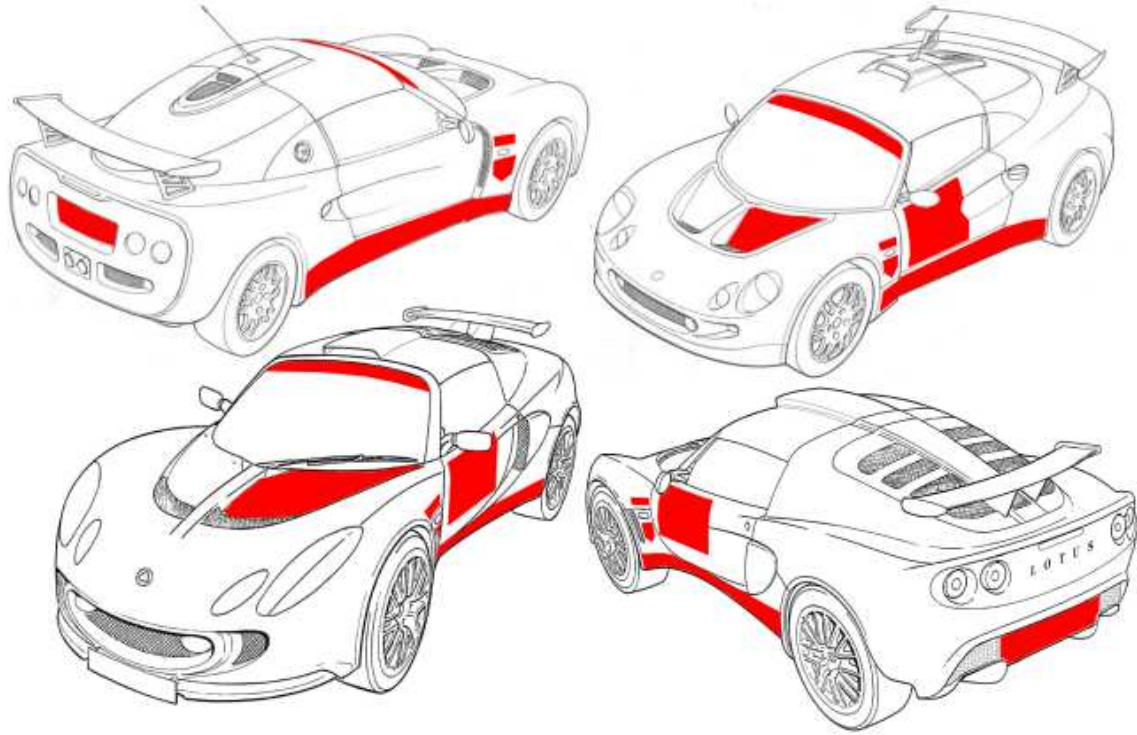
In the case of double header races or multi-races, where an offence below is committed during any qualifying session(s) then the competitor concerned will move back 10 places on the grid for the first race.

Where an offence occurs during the first race then the competitor will start from the back of the grid for the second race and behind any cars that are the subject of any handicap.

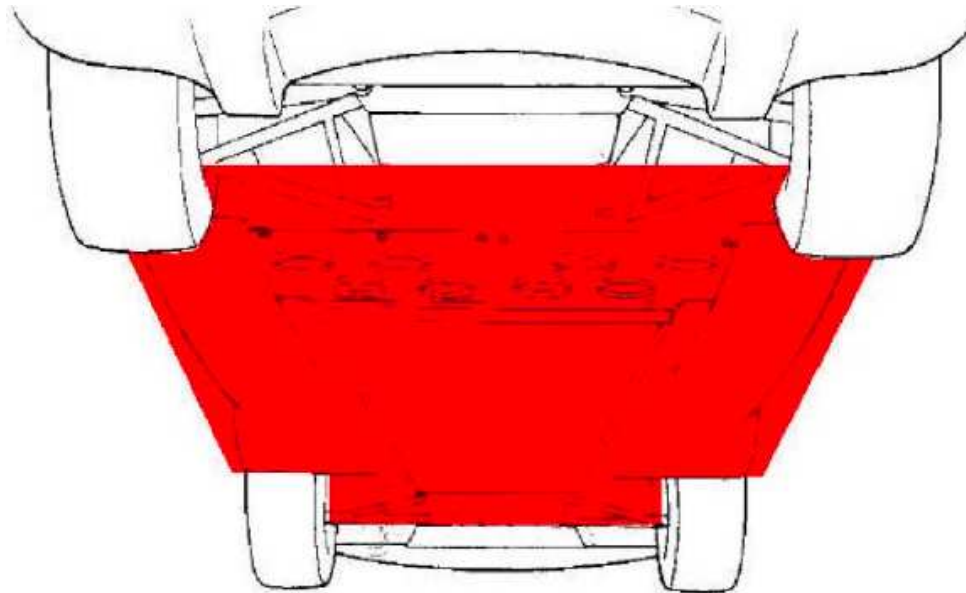
Where an offence occurs during the second race, the competitor will move back 10 places on the grid at the first race of the next event.

If a competitor does not compete in a race during which a penalty (above) is to be imposed, the penalty will be imposed at the next event in which the competitor competes.

### 6.3 Series Livery Placement



### 6.4 Ride height measurement area



### 6.5 Permitted Front Spoilers Examples



**6.6 Two Eleven Compressor pulley measurement**

