

# 2010 UNIVERSAL RACING SERVICES CLASSIC FORMULA FORD 2000 CHAMPIONSHIP

## 1. SPORTING REGULATIONS - GENERAL

### 1.1 Title & Jurisdiction:

The **2010 UNIVERSAL RACING SERVICES CLASSIC FORMULA FORD 2000 CHAMPIONSHIP** is organised and administered by the British Automobile Racing Club Ltd (BARC) in accordance with the General Regulations of the Royal Automobile Club Motor Sports Association (incorporating the provisions of the International Sporting Code of the FiA) and these Championship Regulations. The organisers reserve the right to issue additional statements clarifying items in the rules and regulations and all such statements will be issued to all registered drivers by posting to the address details on the registration form.

MSA Championship Permit No: **CHR2010 / 043**

Race Status: **National B**

MSA Championship Grade: **C**

### 1.2 Officials:

1.2.1	Co-ordinator:	Nicola Bush	BARC
1.2.2	Drivers Rep:	Ken Thorogood	URS
1.2.3	Licensed Eligibility Scrutineer:	Paul Crighton	BARC
1.2.4	Championship Stewards:	Dale Wells	BARC
		Rick Smith	BARC
		Bill Coombs	BARC
		Robin Knight	750 MC

Any three of the above may reach a decision.

### 1.3 Competitor Eligibility:

- 1.3.1 Entrants where applicable must be in possession of a valid 2010 MSA Entrants Licence.
- 1.3.2 Drivers must be fully paid up valid racing membership card holding members of the BARC, be Registered for the Championship and be in possession of valid MSA Competition (Racing) National B Licence minimum.
- 1.3.3 Competitors using Yokohama tyres from the 750 Motor Club Formula Four Championship are eligible to compete in this championship for a maximum of 2 races only. Such competitors will run in Class C, will not be eligible for points or trophies and further, it is necessary for such competitors to submit an exemption form (attached to the registration form herewith, 6.3) at the time of submitting their race entry. In all other respects Formula Four vehicles must comply with these sporting and technical regulations. Following the use of these exemption forms it will be necessary for such competitors to use the mandatory Avon tyres called for in the technical regulations. **Each exemption form submitted shall be accompanied by an additional cheque for £10.00 payable to BARC which is equivalent to the discount on the entry fee for each race entry into the Championship. Competitors entering races using the exemption form need not comply with the membership criteria of regulation 1.3.2 and regulation 5.17**
- 1.3.4 All necessary documentation must be presented for checking at all rounds when signing-on.

### 1.4 Registration:

- 1.4.1 All drivers must register as competitors for the championship by returning the **Registration Form and the Registration Fee** to the Co-ordinator prior to the Final Closing date for the first round being entered.
- 1.4.2 Alternatively, competitors may register 'on line' by visiting the BARC website at [www.barc.net](http://www.barc.net). When registering on line competitors should NOT complete and submit the paper version of the registration form (section 7).
- 1.4.3 **The Championship Registration Fee for Classes A & B is £20:00. The Registration fee for competitors who register after 1<sup>st</sup> September is £10:00 - Both payable to: 'BARC Ltd'**

- 1.4.4 **Registrations for Classes A & B will be accepted from 1<sup>st</sup> January 2010** (or when on-line registrations go 'live') **until 1<sup>st</sup> September 2010. After that date, competitors may register to compete in Class C only, for a reduced fee of £10:00 but will not be eligible to score points in the championship.**
- 1.4.5 **750MC Formula 4 competitors registering for a maximum of two races as per section 6.3 will be allocated to Class C. The registration fee for such competitors is £10:00 but an additional fee of £10:00 per race is payable with entry.**
- 1.4.6 Registration numbers will be the permanent Competition numbers for the Championship. Each registered driver will be allocated a permanent number for the season by the Championship Co-ordinator and these will be issued strictly on receipt of a fully completed registration form and registration fee.

## 1.5 Championship Rounds:

The **URS CLASSIC FORMULA FORD 2000 CHAMPIONSHIP** will be contested over **12** Rounds as follows:

Round:	Date:	Circuit	Organising Club/Centre
1	27 March 2010	Oulton Park	BARC (NW)
2 / 3	17-18 April 2010	Croft	BARC
4	16 May 2010	Cadwell Park	BARC
5	05-06 June 2010	Brands Hatch	BARC
6	27 June 2010	Thruxton	BARC
7 / 8	31 July – 01 August 2010	Snetterton	BARC
9 / 10	14-15 August 2010	Pembrey	BARC
11	11-12 September 2010	Rockingham	BARC
12	03 October 2010	Mallory Park	BARC

- 1.5.1 In accordance with MSA Regulation D11.1. 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 Points will be awarded to Competitors listed as classified finishers in the Final Results as follows:-  
In each class: **15, 12, 10, 8, 6, 5, 4, 3, 2, 1**, plus **1** for fastest lap.
- 1.6.2 The totals from all qualifying rounds **less 2** will determine final championship points and positions.
- 1.6.3 Ties shall be resolved using the formula in Regulation Q3.4. of the 2010 MSA Yearbook.
- 1.6.4 Competitors competing in Class B of the Championship will not be eligible to win the overall Championship title.

## 1.7 Awards:

- 1.7.1 All awards are to be provided by UNIVERSAL RACING SERVICES
- 1.7.2 Per Round: Commemorative Award to each Class Winner (Class A & B only)  
Trophy to: Winner, 2nd & 3rd in each class - A & B only (Universal Racing Services)
- 1.7.3 Championship: Trophy to Overall Champion (Class A) and Trophy to Winner of Class B (BARC)  
Trophies to second and third in each class - A & B only (Universal Racing Services)

Any driver failing to attend the BARC Championship prize-giving at the end of season (date and venue to be announced in the BARC Startline Magazine) may not be eligible to receive any prizes which may have otherwise have been presented at this function. Such prizes may be withheld and not be represented to any other driver.

- 1.7.4 Bonuses: None
- 1.7.5 Presentations: Commemorative Awards and / or Trophies are to be provided for presentation at the end of each race or at an end of the meeting presentation ceremony.

1.7.6 Entertainment Tax Liability. Not Applicable.

1.7.7 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 BARC in good condition within 7 days.

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

**2.1 Rounds:** In accordance with Section C of the 2010 MSA Yearbook and these Regulations.

**2.2 Championship:** In accordance with Section C of the 2010 MSA Yearbook and these Regulations.

## **3. SPORTING REGULATIONS - CHAMPIONSHIP RACE MEETINGS & RACE PROCEDURES**

### **3.1 Entries:**

3.1.1 Competitors are responsible for sending in correct and complete entries with the correct entry fees prior to the entry closing dates which shall be 20 days before each round.

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 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.

3.1.3 Any withdrawal of Entry or Driver / Car changes made after acceptance of any entry must be notified to the Secretary of the Meeting in writing. If Driver / Vehicle changes are made after publication of Entry Lists with Final Instructions the Competitor concerned must apply for approval of acceptance by the Stewards of the Meeting **BEFORE** signing-on.

3.1.4 The Maximum Entry Fee for each round shall be: as detailed in the SR's for each event

3.1.5 Reserves are to be nominated on the Final List of Entries published with Final Instructions or Amendment Sheet Bulletins, All Reserves will practice and replace withdrawn or retired entries Reserve Number order 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 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 Pitlane 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 startline or pitlane exit, whichever is the later. Such approval to start **MUST** be obtained from the Clerk of the Course.

### **3.2 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.

### **3.3 Qualifying:**

3.3.1 Where practical and possible qualifying sessions shall be a minimum of 20 minutes duration at all Championship rounds. Should any qualifying session be disrupted the Clerk of the Course shall not be obliged to resume or re-run the session to achieve the championship criteria and the decision of the Clerk of the Course shall be final.

- 3.3.2 For races marked (D/Header) in section 1.5., where it is planned to hold two championship races, there shall normally be two qualifying session as per 3.3.1. above. However, the constraints of individual event timetables may not allow for two qualifying sessions in which case one session will be scheduled. Where this is the case, the fastest lap set in qualifying will set the grid position for race one. The second fastest time set in the same qualifying session will set the grid position for race two. Competitors will be informed which of these options is to be used by way of Supplementary Regulations / Final Instructions

### 3.4 Qualification Criteria:

Each driver should complete a minimum of 3 laps qualifying 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 the MSA Regulation Q4.5. The Clerk of the Course and / or Stewards of the Meeting shall have the right to exclude any driver whose qualifying times or driving are considered to be unsatisfactory - as per MSA Regulation Q4.5.

### 3.5 Races:

The standard minimum scheduled distance shall be 20 miles whenever practicable but should any race distance be reduced at the discretion of the Clerk of the Course or Stewards of the Meeting it shall still count as full points scoring round.

### 3.6 Race Starts:

- 3.6.1 All race start countdowns are to have a minimum elapsed period of 5 minutes from the time all cars are released to form up on the grid to the start of the Green flag Lap(s) in the formation as specified on the Track Licence for each circuit.

- 3.6.2 The Countdown procedures/audible warnings sequence shall be:

Standing Starts:-

2 minutes to start of Green Flag/Pace Lap - Clear Grid Warning/Grid Closed.

1 minute to start of Green Flag/Pace lap - Start engines/Clear Grid.

30 seconds - Visible and audible warning for start of Green Flag/Pace Lap.

- 3.6.3 The use of tyre heating/heat retention devices, tyre treatments and compounds is prohibited.

- 3.6.4 Any cars removed from the grid after the 3 minute stage or driven into pits on Green Flag lap shall be held in the pitlane and may start the race after the last car to take the start from the grid has passed the startline or pitlane exit. whichever is the later.

- 3.6.5 Any drivers unable to start the Green Flag/Pace lap or start are required to indicate their situation as per MSA Regulation Q12.13.2. and any drivers unable to maintain grid positions on the 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.

- 3.6.6 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.

- 3.6.7 A five second board will be used to indicate that the grid is complete. The red lights will be switched on five seconds after the board is withdrawn.

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

### 3.7 Practice / Race Stops:

- 3.7.1 Should the need arise to stop any **practice or qualifying session**, RED LIGHTS will be switched on at the Startline and RED FLAGS will be displayed at the Startline 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 **pitlane**.

- 3.7.2 Should the need arise to stop any race, RED LIGHTS will be switched on at the Startline and RED FLAGS will be displayed at the Startline 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** which will automatically become a Parc Ferme area.

Cars **should** not enter the Pits unless directed to do so **or unless repairs are necessary**. Work on cars already in the Pits must cease when a race is stopped **and may only continue under the control of Scrutineers**. Cars which are in the pitlane or who enter the pitlane may **ONLY** re-start from the pitlane (not the grid) after all other cars have re-started. Non runners at the time of the stoppage (which have been recovered) can re-start from the pitlane behind those referred to above.

### 3.7.3 Case A - Less than two laps completed by Race Leader

The race will be null and void. The race will re-start from the original grid positions. Competitors unable to take the re-start may be replaced by nominated reserves who will start from the pitlane in reserve number order and in front of any other pitlane starter. Gaps on the grid should not be closed up. The length of the re-started race will be determined by the Clerk of the Course.

### 3.7.4 Case B - More than two laps completed by Race Leader but less than **75%** of Race Distance:

The race will restart from a grid set out by the finishing order of part one (as per Q5.4.3). The **final** result of the race will be the finishing order of part two. The length of the re-started race will be determined by the Clerk of the Course.

### 3.7.5 If the leader has completed more than **75%** of the race distance or duration it shall not **usually** be re-started (as per Q5.4.3). **If not re-started the results will be based on 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.**

## 3.8 Re-Scrutiny:

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

## 3.9 Pits & Pitlane 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 Pitlane: 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 all due care and drive at minimum speeds in pitlanes.

### 3.9.3 Refuelling: May only be carried out in accordance with MSA Regulations Q13, Circuit Management Regulations and the SR's or Final Instructions issued for each Circuit/Meeting.

## 3.10 Race Finishes:

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/Paddock 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 in the pitlane.

## 3.11 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.

## 3.12 Timing Modules:

### 3.12.1 All competitors will be required to fit an Electronic Self Identification Module (Transponder) to their cars (Q12.2.1) 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 Championship qualifying practice sessions and races. The setting and servicing of these items must only be carried out by properly authorised MSA licensed Timekeepers. Competitors will be charged by the timing company for replacement of the Modules due to misuse or loss at any time during the season.

### 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 Safety Car:**

There is no provision for the use of a Safety Car in any event forming part of this Championship

## **4. CHAMPIONSHIP 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 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) and (b).

For infringements deemed to be of a more serious nature the Clerk of the Course and/or Stewards of the Meeting are to invoke the provisions of Regulation C3.5.1. (c)

4.1.3 Additional specific championship penalties: At the discretion of the Championship Stewards.

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

As per 2010 MSA Judicial Procedure Regulations.

# 2010 UNIVERSAL RACING SERVICES CLASSIC FORMULA FORD 2000 CHAMPIONSHIP

## 5. TECHNICAL REGULATIONS

### 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.

It is appreciated that some original parts are either difficult to source or no longer manufactured. Certain texts within these regulations concerning gaskets and the flywheel and clutch have already been altered to take account of non-availability. If due to further genuine non-availability, it is wished to fit any other non standard parts, it will be necessary to seek PRIOR written permission of the Eligibility Scrutineer.

### 5.2 General Description:

5.2.1 The UNIVERSAL RACING SERVICES CLASSIC FORMULA FORD 2000 CHAMPIONSHIP is for competitors participating in FF2000 single seater racing cars generally **BUILT** and **RACED** before 31.12.83 (except cars built in 1983 for sale as 1984 models) and excluding all 1983 Reynard models.  
NB 1992 FIA Regulations allowing F3 style flat bottom cars does not apply.

5.2.2. The Championship will be split into two Classes PLUS an invitation Class (C):

**Class A** – Cars built between 01.01.1981 and 31.12.1983

**Class B** – Cars built before 31.12.1980.

**Class C** – Any car as above which registers after 1<sup>st</sup> September 2010 **AND** 750MC F4 Competitors

### 5.3 Safety Requirements:

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

K1.6.3, K1.6.4, K2.1.3, K3.1.2, K3.2.7, K3.2.9.-10, K3.3.1. - 3, K4, K5, K6, K7, K8, K13, & K14.

### 5.4 General Technical Requirements & Exceptions:

All cars must comply with the relevant sections of MSA General Technical Regulations (Sections J & Q) as Appropriate

### 5.5 Chassis:

The chassis must be of tubular steel construction with no stress bearing panels except bulkhead and undertray, curvature of the undertray must not exceed 2.54cm.

Monocoque chassis construction is prohibited. Stress bearing panels are defined as, sheet metal affixed to the frame by welding, bonding or rivets or bolts or screws which have centres closed then 15.25cm. Bodywork must not be used as stress bearing panels.

The use of stabilised materials, composite materials using carbon and/or Kevlar reinforcement is prohibited.

The chassis specification must remain fundamentally unaltered from original manufacture. Wheelbase, track and pick-up points must remain to manufacturer's specification.

Ground Clearance as per J5.20.11 at all times, in practice & race including in any post practice or post race scrutineering. No engine oil or water tubes are permitted within the cockpit.

### 5.6 Bodywork:

#### 5.6.1 Modifications Permitted

It is permitted to make any modification of which the primary purpose is safety or driver comfort.

Cars may be updated to the specification of the latest model built by the manufacturer which appears in the list of eligible vehicles.

#### 5.6.2 Modifications Prohibited.

The use of composite materials using carbon and/or kevlar reinforcement is prohibited.

It is not permitted to construct any suspension member in the form of an aerofoil or to incorporate a spoiler in the construction of any suspension member.

- 5.6.3 Bodywork must be of a type with a proven competition history for that type of car.  
Wings must be of a proven period design and must respect period dimensions for the chassis type in question.  
There is a maximum rear wing height of 90cm measured from the ground.

## 5.7 Engine:

The only permitted engine is the Ford NE series 2 Litre SOHC with 2 venturi carburetors with nominal bore 90.84mm + 0.5mm rebore allowance and stroke 76.95mm

Production tolerances are permitted providing the total swept volume does not exceed 2025cc.

Engines will be mounted upright and aligned fore and aft in the chassis

The addition of any material be it metal, plastic or composite etc. by any means be it welding, bonding encapsulation or encasement to any component is prohibited. However, specific repair of castings may be allowed with the written approval of the eligibility scrutineer responsible for the Formula.

Balancing of reciprocating and rotating parts is permitted only by removal of metal from locations so provided by the manufacturer.

Pump, fan and generator drive pulleys and their retention bolts, washers and belts are free.

Mechanical tachometer drives may be fitted

Generators are optional

The use of non-standard replacement fasteners, nuts bolts, screws, studs and washers which are not connected with or which do not support any moving parts of the engine or its compulsorily retained accessories is permitted.

The use of thread locking compounds is permitted

Gaskets are free except for cylinder head and carburettor to inlet manifold gaskets which must be dimensionally identical to original Ford gaskets - see note under compression ratio.

Any process of cleaning may be used on any component providing the surface finish, which must remain standard, is not affected.

Forced induction prohibited.

### INDUCTION

The air cleaner may be removed or replaced and a trumpet fitted.

Carburettor Type: Weber 32/36 DGV and DGAV

Number on engine	1	Maximum dia. of carb outlet to	
Number of Main Venturi	2	inlet manifold	32.0/36.0mm
Maximum dia. of Main Venturi		26.0/27.0mm	

It is permitted to change jets, open both throttles together, remove cold start devices and diffuser bar, fit internal and / or external anti-surgepipes, remove seals on emission control carburetors.

No other modifications are permitted, chokes must remain standard and no polishing or reprofiling is permitted

Any means of reducing intake air temperature is prohibited

Any form of water injection is prohibited

Flexible mounts for the carburettor may be incorporated providing they do not exceed a maximum of 25.4mm from flange to flange

The bore of the casting must remain untouched and in its original condition. The carburettor seat face may be machined to horizontal in the fore and aft plane. The water passage in the inlet manifold may be blanked off or plugged.

The manifold may be machined externally sufficiently to clear the throttle mechanism in the case of both throttles being opened together.

**EXHAUSTS** The exhaust system and manifold are free, within Vehicle Regulations.

### CYLINDER BLOCKS

It is permitted, as means of repair, to replace damaged cylinder bores with cast iron cylinder liners, all to standard dimensions.

Localised machining of the cylinder block is permitted to allow fitting of the dry sump system

The crankcase breather may be altered or removed, but all breathers must discharge into a catch tank.

Cylinder blocks may be machined to maintain deck height

### CYLINDER HEADS

Non-standard camshaft covers are permitted providing they in no way improve the performance of the engine.

Water passages are not permitted in cam covers.

Standard valve spring retainers must be used, only single valve springs are permitted. Shims are permitted otherwise valve springs are free

The only permitted camshafts are the standard Ford production camshafts for 2000SOHC NE engines

The camshaft and rockers must remain entirely unmodified They must be fully manufactured and ground by the Ford Motor Co

It is prohibited to grind camshafts from blanks or regrind or reprofile

Tuftriding or Parkerising is permitted.

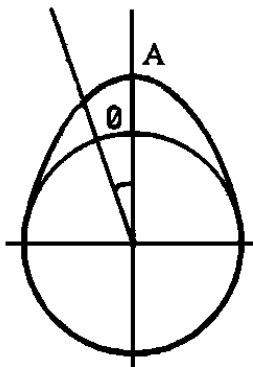
The key/keyway in the camshaft pulley may be offset.

Cylinder head face may be skimmed

Maximum valve lift at determined points by camshaft rotation will be established by using a low rate substitute valve spring (load characteristics 12lb at 1.417in, 30lb at 1.000in), with zero tappet clearance.

The following table / drawing is reproduced from 1992 RAC Blue Book.

**Valve Lift**



<u>Angle</u>	<u>Inlet</u>		<u>Exhaust</u>	
	<u>Opening</u>	<u>Closing</u>	<u>Opening</u>	<u>Closing</u>
0	10.442	10.442	10.442	10.442
5	10.36	10.36	10.36	10.36
10	10.11	10.11	10.11	10.11
15	9.69	9.69	9.69	9.69
20	9.11	9.11	9.11	9.11
30	7.45	7.45	7.45	7.45
40	5.17	5.17	5.17	5.17
50	2.58	2.59	2.58	2.59
60	0.81	0.86	0.81	0.86
70	0.43	0.54	0.43	0.54
80	0.19	0.37	0.19	0.37
90	0.01	0.20	0.01	0.20

**Lift measured in mm, angles measured from point A.**

Valves must remain standard, no reprofiling or polishing is permitted. The original 45deg. seat angle must be retained.

Maximum face diameter inlet 42.2mm Maximum face diameter exhaust 36.2mm

Overall length inlet 111.15 - = 0.5mm. Overall length exhaust 110.55 - = 0.5mm

Maximum valve stem diameter 8.4mm

It is permissible to reshape inlet and exhaust ports by removal of metal within limits. Addition of material in any form is prohibited. Maximum port dimension at manifold head face inlet diameter 39.5mm exhaust 35.5mm X27mm

Sizes may only be exceeded if the castings are oversize, in such cases the castings must be seen to be original and untouched.

An external oil drain pipe from the cylinder head is permitted. The fitting of a union by drilling and tapping is permitted.

It is permitted, as means of repair, to replace damaged valve guides and valve seats by replacement cast iron valve guides and cast iron valve seat inserts all to standard dimensions.

Inlet and exhaust port diameter may be exceeded if the original casting is visible and untouched at the gasket face.

**LUBRICATION SYSTEMS**

The lubrication system, external to the engine, is free. Existing standard production oilways, linings or oil grooves may be enlarged or reduced, but no additional ones are permitted. Standard friction surfaces must remain unchanged. Dry sump is permitted, oil coolers are free

**COOLING SYSTEM**

A liquid cooling system is mandatory but radiator and water pump are free provided that the water pump is mechanically operated. (i.e. non electrical)

The radiator if housed in or incorporating a cool air scoop or deflector, must comply with bodywork regulations.

**FUEL PUMPS**

Only the standard mechanical fuel pump for the engine is permitted.

Fuel pipes are free. Fuel cooling radiators are permitted, within safety regulations, but must be mounted within the main chassis frame.

## **DISTRIBUTORS**

Distributors are free providing they retain the original drive and location.

The distributor is defined as the component which triggers the LT current and distributes the HT ignition current.

The ignition timing may only be varied by vacuum and/or mechanical means.

It is prohibited to use any other method or component to trigger, distribute or time the ignition.

It is permitted to mount a simple indicating pointer to the engine to facilitate the timing of the distributor with respect to the crankshaft/flywheel

## **COMPRESSION RATIO**

The maximum compression ratio will be controlled as follows:

Minimum combustion volume in cylinder head 50cc

Standard Ford cylinder head gaskets part nos 70HM6051 BiA, 70HM6051 B3B, 70HM6051 GIA: minimum compressed thickness 0.9mm minimum diameter of cylinder aperture 92,0mm or dimensionally identical aftermarket gasket.

Pistons must not protrude above cylinder block surface at TDC

Cylinder block face may only be machined flat.

## **PISTONS**

Pistons must be standard Ford or absolutely identical aftermarket production pistons, unmodified in any way except for balancing and as detailed

All three piston rings must be fitted, piston rings must be standard production or similar approved pattern replacements, i.e. the compression rings must be one piece, single homogeneous material type with conventional plain gaps, chromium plating of the top ring is optional, the oil control rings must be either single piece twin land type or apex three piece (two rails and an expander) Molybdenum faced top compression rings are permitted.

To achieve balance, material may be removed from the internal surfaces at any location below the lowest point of the gudgeon pin. All external surface, dimensions and profiles must remain standard with the exception of the top surface of the piston crown which may be subjected to simple machining to achieve balance and the objectives of the section entitled "Compression ratio"

Minimum weight of pistons, plus rings, connection rod, connection rod bolts and nuts, less big end bearings 1255 grms

## **CONNECTING RODS**

Connecting rods must be standard Ford part. Machining is permitted to remove metal from the balancing bosses to achieve balance only.

Tuftriding, Parkersing, shot-peening, shot-blasting and polishing are permitted.

It is permitted to radius the area around the big-end retaining bolt heads and nuts. Big end bolts part no. 905500 are permitted as are similar aftermarket big end bolts.

## **CRANKSHAFT**

A standard crankshaft must be used. Spot machining to achieve balance is permitted. Tuftriding Parkersing, shot-peening, shot blasting and polishing are permitted. Crankshaft minimum weight 28lbs

It is not permitted to alter the number of bearings or fit bearings of less than standard production width

Standard oversize and undersize bearings are permitted

## **FLYWHEEL AND CLUTCH**

The flywheel must be a standard component. To achieve minimum weight and balance materials may be removed from the originally machined surfaces, rim/flange etc. For rectification the clutch mating face may be resurfaced. Cast surfaces must remain in original condition. Friction material is free

The clutch must be a standard Ford road car unit or aftermarket replacement of identical diameter and type.

Flywheel bolts are free and locating dowels are permitted.

It is permitted to secure the starter ring to the flywheel

Flywheel and clutch assembly minimum permitted weight 12.5kg (including all flywheel and crankshaft securing bolts).

## **ENGINE SEALING**

All engines must have provision for scrutineer's wire seals. 1/16in holes pre-drilled in readily accessible locations on installed engines must be available.

- a) Sump - two holes through the cylinder block/sump joint flange, one either side of the engine.
- b) Cam Cover - at least two retaining screw heads must be cross drilled
- c) Cam Timing Pulley - retaining bolt must be cross drilled
- d) Inlet Manifold - at least two retaining bolt heads to the cylinder head must be cross drilled.
- e) Carburettor - at least two retaining nuts to the cylinder head must be cross drilled

- f) Bell housing - at least two retaining bolts to the engine must be cross drilled to enable clutch and flywheel to be adequately sealed OR competitors must be prepared to remove either engine or transmission to enable sealing of clutch and flywheel in which case at least two clutch cover retaining bolts must be cross drilled.

Failure to comply renders the engine ineligible.

### **5.8 Suspensions:**

All parts must be of steel or ferrous material, with the exception of springs, hubs, hub adapters, hub carriers, bearings and bushes, spring caps, abutment nuts, anti-roll bar links, shock absorber caps and nuts.  
Remote reservoir and / or light alloy dampers are prohibited.

### **5.9 Transmissions:**

The gearbox must contain not more than four forward gears and include an operable reverse gear, capable of being engaged by the driver whilst normally seated. The ratios are free  
Rear wheel drive only is permitted.  
Final drive ratio is free  
Torque biasing, limited slip and locked differentials are prohibited. Non-ferrous differential components prohibited.

### **5.10 Electrics:**

All cars must be equipped with an externally operated circuit breaker having positive ON-OFF positions clearly marked. An internal ignition switch must be operable by the driver when normally seated irrespective of whether a safety harness is worn or not.

### **5.11 Brakes:**

Light alloy brake callipers prohibited, otherwise free.

### **5.12 Wheels/Steering:**

Rear wheel steering prohibited, otherwise free.  
13in diameter wheels with maximum front rim width 6in and rear 8in are the only wheels permitted Material is free providing it is metal.

### **5.13 Tyres: (See also Commercial Undertakings, Regulation 6.2)**

The only permitted tyres are:

Front:	AVON	6.5 /21.0 X 13	Spec no. 8814 - DRY
	AVON	6.5 /21.0 X 13	Spec no. 8829 - WET
Rear:	AVON	8.2 /22.0 X 13	Spec no. 8815 - DRY
	AVON	8.2 /22.0 X 13	Spec no. 8831 - WET

### **5.14 Weights:** 440kg minimum

### **5.15 Fuel Tank/Fuel:**

Tanks outside the chassis frame must comply with FIA Spec/FT3  
Inboard tanks, covered externally with fireproof coating, are acceptable for events of less than 70km  
A metal tank coated with GRP does not comply  
Maximum capacity 41 litres unless carried in FIA Spec/FT3 tank.

### **5.16 Silencing:**

A mandatory silencer, Ford part no: 9095317 must be fitted and must comply with MSA Regulation J5.17.

### **5.17 Numbers And Championship Decals:**

To be eligible to compete in a Championship race and obtain points it is mandatory to display a) BARC Shield and b) Championship decals on each side in an unobscured position when viewed from a direct side elevation (assuming decals are available at the meeting signing-on). Failure to have these in place at scrutineering will render the car ineligible.

NOTE: SEE REGULATION 1.3.3

## **6. APPENDICES:**

The following Commercial Regulations are “contractual” between the Entrant and / or Driver and the Organisers and / or Promoters and are not considered by MSA. Accordingly, the application of these Commercial Regulations by the Organisers and / or Promoters will not be subject to the Judicial processes of either the Championship Stewards and / or the MSA / MSC.

### **6.1 Race Organising Clubs & Contacts:**

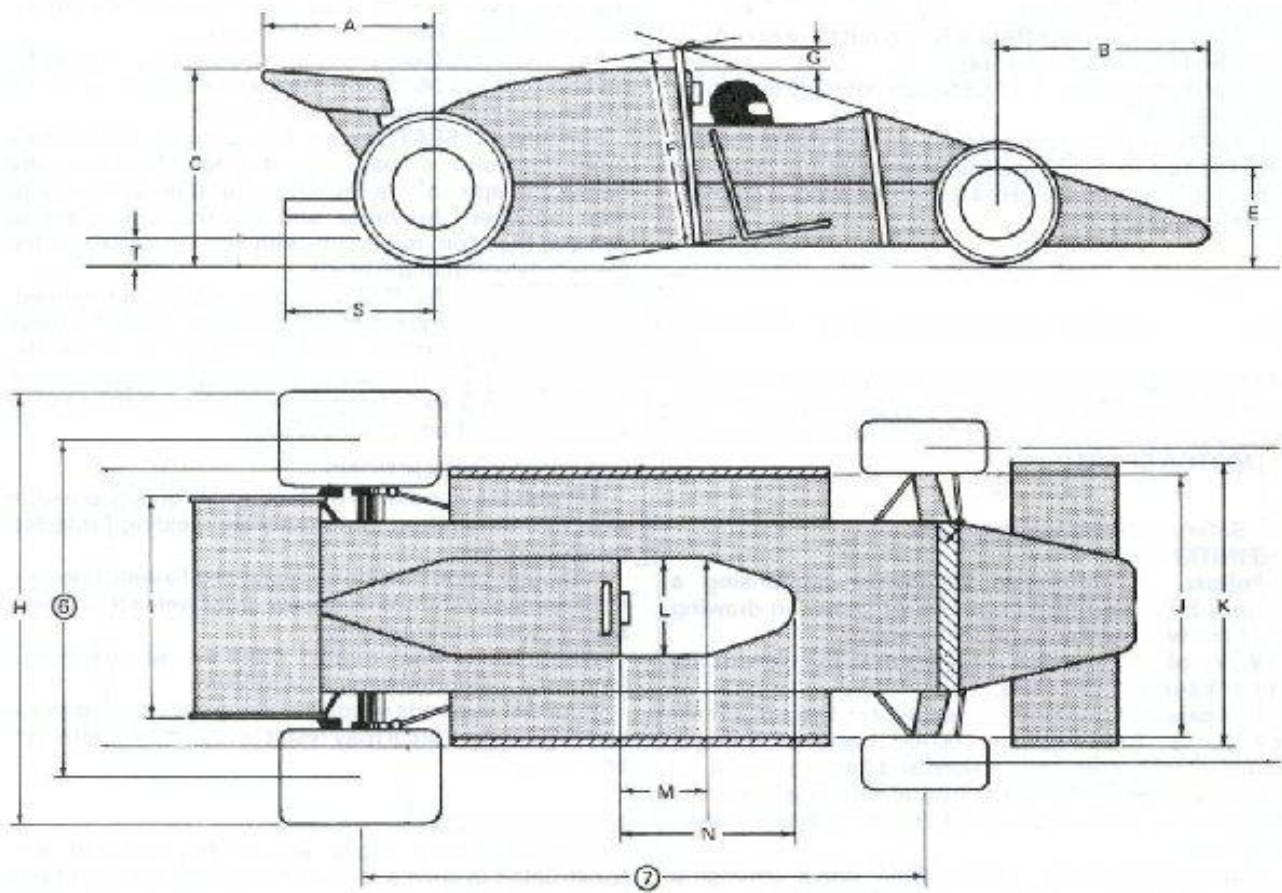
British Automobile Racing Club, Thruxton Circuit, Andover, Hampshire. SP11 8PN  
Tel: 01264 882200 Fax: 01264 882233 E-mail: nbush@barc.net

Ken Thorogood, Universal Racing Services, Maytree Farm, Wattlefield, Wymondham, Norfolk NR18 9LD  
Tel: 01953 789223

Eligibility Scrutineer: Paul Crighton, 4 Friars Gate Close, Woodford Green, Essex IG8 0SG  
Tel: 0208 506 0270

Birmingham Motor Tyres Ltd, 11 Washington Street, Birmingham B1 1JS  
Tel: 0121 643 7656

**6.2 PRINCIPLE DIMENSIONS:** (Reproduced from RAC Blue Book 1988)



NOTES: Maximum height is measured with the driver aboard  
 Maximum height excludes safety roll-over bar on which there is no maximum height

(A)	Maximum rear overhang from rear wheel axis unless specified otherwise	80 cm
(B)	Maximum front overhang from front wheel axis	100 cm
(C)	Maximum height measured from the ground	90 cm
(E)	Maximum body height in front of front wheels	At front rim height
(F)	Minimum safety roll-over bar length in line with drivers spine	92 cm
(G)	Minimum allowed helmet clearance	5 cm
(H)	Maximum width	185 cm
(I)	Maximum rear aerofoil width	95 cm
(J)	Maximum body width behind front wheels	95 cm
(K)	Maximum nose width	135 cm
(L)	Minimum cockpit opening	45 cm
(M)	Minimum cockpit parallel opening length	30 cm
(N)	Minimum cockpit overall opening length	60 cm
(S)	Maximum exhaust length from rear wheel axis	80 cm
(T)	Minimum ground clearance	4 cm
(6)	Minimum track	120 cm
(7)	Minimum wheelbase	200 cm
	Minimum wheel diameter	13 ins

### 6.3 Exemption Forms:

## **REGISTRATION EXEMPTION FORM - Slip 1** (FOR 750 MOTOR CLUB FORMULA FOUR CHAMPIONSHIP COMPETITORS)

Name: \_\_\_\_\_

Date & Event Entered: \_\_\_\_\_

**In addition to the normal race entry fee, I enclose a cheque for £10.00 made payable to the BARC**

I understand I will not be eligible for points. In all other respects, I agree to comply with the Sporting and Technical Regulations for the Universal Racing Services Classic Formula Ford 2000 Championship except for Regulation 1.3.2 and 5.17.

SIGNED: \_\_\_\_\_

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## **REGISTRATION EXEMPTION FORM - Slip 2** (FOR 750 MOTOR CLUB FORMULA FOUR CHAMPIONSHIP COMPETITORS)

Name: \_\_\_\_\_

Date & Event Entered: \_\_\_\_\_

**In addition to the normal race entry fee, I enclose a cheque for £10.00 made payable to the BARC**

I understand I will not be eligible for points. In all other respects, I agree to comply with the Sporting and Technical Regulations for the Universal Racing Services Classic Formula Ford 2000 Championship except for Regulation 1.3.2 and 5.17.

SIGNED: \_\_\_\_\_

# THE 2010 UNIVERSAL RACING SERVICES CLASSIC FORMULA FORD 2000 CHAMPIONSHIP

## 7. REGISTRATION FORM

Please complete in capital letters

NAME OF DRIVER: \_\_\_\_\_

ADDRESS: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

POSTCODE: \_\_\_\_\_

TEL(DAY): \_\_\_\_\_ (EVE): \_\_\_\_\_

E MAIL ADDRESS: \_\_\_\_\_

AGE: \_\_\_\_\_ DATE OF BIRTH: \_\_\_\_\_

NATIONALITY: \_\_\_\_\_

COMPETITION LICENCE No: \_\_\_\_\_ GRADE: \_\_\_\_\_

BARC MEMBERSHIP No: \_\_\_\_\_ (Compulsory)

OTHER CLUB MEMBERSHIP: \_\_\_\_\_

NAME OF ENTRANT: \_\_\_\_\_

ADDRESS: \_\_\_\_\_  
(if different from above)

POSTCODE: \_\_\_\_\_

TEL(DAY): \_\_\_\_\_ (EVE): \_\_\_\_\_

ALL CORRESPONDENCE SHOULD BE SENT TO: DRIVER  ENTRANT

CAR: \_\_\_\_\_ MODEL: \_\_\_\_\_ CC: **2000**

CLASS ENTERED: A  B  CLASS C - 750MC FORMULA 4& INVITATION ONLY

REGISTRATION FEE FOR ABOVE £20:00

REGISTRATION FEE FOR INV CLASS £10:00

FOR 750MC COMPETITORS USING THE EXEMPTION FORMS (6.3), REGISTRATION IS £10:00 BUT THE ADDITIONAL £10:00 PER RACE ENTRY FEE IS PAYABLE

PREFERRED COMPETITION NUMBER: \_\_\_\_\_

**PLEASE COMPLETE REVERSE OF FORM**

SIGNATURE OF ENTRANT: \_\_\_\_\_  
(if different from Driver)

SIGNATURE OF DRIVER: \_\_\_\_\_

PREVIOUS RACING EXPERIENCE OF DRIVER: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

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TO BE COMPLETED BY ALL APPLICANTS:

I wish to register for the **2010 UNIVERSAL RACING SERVICES CLASSIC FORMULA FORD 2000 CHAMPIONSHIP** and I declare that the information given above is correct. I understand that should the above information change in any way I will confirm details in writing to the BARC as detailed below.

SIGNED: \_\_\_\_\_ DATE: \_\_\_\_\_

ONCE FULLY COMPLETED THIS FORM SHOULD BE RETURNED TO:

**The British Automobile Racing Club, Thruxton Circuit, Andover, Hampshire. SP11 8PN.**

PRIOR TO THE FIRST RACE ENTERED

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FOR OFFICIAL USE ONLY

REGISTRATION FEE - **£20.00 / £10.00**

DATE RECEIVED:.....

DATE REGISTRATION CARD SENT:.....

COMPETITION NUMBER ALLOCATED:.....