



***RACING DRIVERS CLUB***

***[www.bmwrdc.com](http://www.bmwrdc.com)***

**2011 Regulations**

# 2011 KUMHO REGULATIONS

## 1. SPORTING REGULATIONS - GENERAL

### 1.1 Title & Jurisdiction:

The 2011 KUMHO BMW 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 (incorporation the provision 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: CHR2009 / 039  
MSA Championship Grade: C

Race Status: National B

### 1.2 Officials:

1.2.1	Co-ordinator:	Nicola Bush	BARC
1.2.2	Licensed Eligibility Scrutineer:	Jeff Nixon	BARC
1.2.3	Championship Stewards:	Dale Wells Rick Smith Robin Knight Mark McLennan	BARC BARC 750 MC BMWDC

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 2011 MSA Entrants Licence.
- 1.3.2 Drivers must be fully paid up valid 'racing membership' card holding members of the BARC and the BMW Racing Drivers Club (BMWDC), be Registered for the Championship and be in possession of valid MSA Competition (Racing) National B Licence or higher.
- 1.3.3 All necessary documentation must be presented for checking at all rounds when signing-on, and when asked to by the Eligibility Scrutineer.

### 1.4 Registration:

- 1.4.1 All drivers must register as competitors for the championship by returning the Registration Form with the Registration Fee to the BMWDC, a minimum of 3 weeks prior to the Final Closing date for the first round being entered.
- 1.4.2 The Registration Fee is **£225**, invitation class **£75**, cheques made payable to: '**BMW Racing Drivers Club**'
- 1.4.3 Registrations will be accepted immediately after the last round of the previous season until further notice.
- 1.4.4 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 BMWDC and these will be issued strictly on receipt of a fully completed registration form and registration fee. The BMWDC has the right to refuse any drivers registration and class entry.
- 1.4.5 At the discretion of the BARC and the BMWDC, guest/celebrity & invitation drivers may be permitted or engaged to drive in certain championship races. Such drivers will not score championship points and need not comply with the membership requirements of regulation 1.3.2. In the case of a guest/celebrity driver, the vehicle must still



## Second Race

The success ballast awarded after the second Race will be effective for the second race meeting at the next championship round the driver attends. There will be no accumulation of success ballast weight. A system of "Championship success ballast" weight handicap will be applied to the top 3 drivers in Class A & Class B.

A success ballast weight handicap will be applied to drivers finishing in the second Race Meeting the driver attends and according to the following scale: -

1st position: +45 Kg  
2nd: +35 Kg  
3rd: +25 Kg

## 1.8 Awards:

1.8.1 All awards are to be provided by the BARC, unless otherwise stated.

1.8.2 Per Round: Commemorative Award for winner and each other class winner.

1.8.3 Championship: Trophy to overall winner.  
\* Trophy for each class winner and for 2nd and 3rd in each class.

\* = These awards will be provided by The BMW Racing Drivers Club at the end of the season.

Any drivers 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.

1.8.4 Presentations: Awards are to be provided for presentation after the end of the meeting at a presentation ceremony in the BMWRDC Marquee

1.8.5 Entertainment Tax Liability.

In accordance with current government legislation, the BARC is legally obliged to withhold tax at the basic rate on all payments to non-UK resident sportsmen/women. That is, those persons who do not have a normal Permanent residence in the UK. The UK does not include the Isle of Man, Channel Islands or Eire. This means that, as the organiser, the BARC is required to deduct tax at the relevant rate -currently 23% - from any such payments they may make to non-UK residents. Under certain circumstances, it may be possible for competitors to enter into an agreement with the Inland Revenue to limit the tax withheld. Any application for such an arrangement must be made in writing and not later than 30 days before the payment is due.

For further information contact: - The Inland Revenue, Foreign Entertainers Unit, Centre for Non-Residents, St John's House, Merton Road, Bootle, Merseyside L69 9BB. Tel: 0151 472 6488 Fax: 0151 472 6483

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

## 2. SPORTING REGULATIONS - JUDICIAL PROCEDURES

2.1 **Rounds:** In accordance with Section C (d) of the 2011 MSA Yearbook and these Regulations.

2.2 **Championship:** In accordance with Section C (d) of the 2011 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. In correct 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 Entry Fee for each round shall be: as detailed in the SR's for each event
- 3.1.5 There is no provision for Qualification races.
- 3.1.6 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 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:**

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 Practice:**

- 3.3.1 The minimum period of practice to be provided is to be as specified in the MSA Regulations in respect of the 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 championship criteria and the decision of the Clerk of the Course shall be final.
- 3.3.3 For races marked (D/Header) in section 1.5, where it is planned to hold two championship races, each race shall have a separate 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 result of the first race will set the grid for the second race. 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 must 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 the MSA Regulation G15. The Clerk of the Course and/or Stewards of the Meeting shall have the right to exclude any driver whose practice times or driving are considered to be unsatisfactory - as per MSA Regulation G15.

### 3.5 Races:

The standard minimum scheduled distance shall be 16 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 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: -  
3 minutes to start of Green Flag/Pace Lap - Close Pit lane Exit.  
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 pit lane and 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.
- 3.6.5 Any drivers unable to start the Green Flag/Pace lap or start are required to indicate their situation as per MSA Regulation G53 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 **RED / GREEN** starting lights failure the Starter will revert to the use of the Union Jack.

### 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 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 pit lane.
- 3.7.2 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 which will automatically become a Parc Ferme area.

Cars should not enter the Pits unless direct 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 pit lane or who enter the pit lane may ONLY re-start from the pit lane (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 pit lane 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 pit lane in reserve number order and

in front of any other pit lane starter. Gaps on the grids should not be closed up. The length of the re-started race will be determined but 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 G23). The final results 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 G23). If not restarted 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:

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

### 3.9 Pits & 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 all due care and drive at minimum speeds in pit lanes.

3.9.3 Refuelling: May only be carried out in accordance with the MSA J.14 Regulations, 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 pit lane. Only the driver in Parc Ferme & weight bridge post qualifying and post race.

### 3.1 Results:

All Practice Timesheets, Grids, Race Results are to be deemed PROVISIONAL until all vehicles are released by SCRUTINEERS are 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 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 a provision for the use of a Safety Car in any race forming a round 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: C (d) 36

4.1.2 Arising from post race Scrutineering or Judicial Action:  
Minimum Penalty: The provisions of MSA Regulations: C (d) 39 (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 C (d) 39 (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 2011 MSA Judicial Procedure Regulations.

# 2011 KUMHO BMW CHAMPIONSHIP

## 5. TECHNICAL REGULATIONS

### 5.1 Introduction:

- 5.1.1 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. The Championship is intended to provide close racing between drivers and not a technical challenge for preparation experts. If you are contemplating any modifications about which you are unsure, you can call upon the Eligibility Scrutineer for a decision. Any model BMW not listed in the regulations must refer to the Eligibility Scrutineer.
- 5.1.2 The Technical Advisors or the BMWRDC will be Mark McLennan, Phil Marshall and Pete Betts. They will advise and assist the MSA Scrutineer.

### 5.2 General Description:

- 5.2.1 The 2011 KUMHO BMW CHAMPIONSHIP is for competitors participating in any series production based BMW. Series production is defined as those models produced in Europe (or in the USA for Z3's only) for sale in Europe market to the general public as shown in sales brochures and obtained through the UK or European BMW dealer network. Left-hand drive versions of models as defined above may also be used. Vehicles falling outside the definition will be excluded from competition. This is to be reviewed for 2012. Turbo Diesel Max 2.0L allowed but must initially run Invitation Class for performance evaluation.

The Series will run in 5 classes. All forced induction engine vehicles will run in Class A, after power to weight has been established.

Class A, B & C: Where the brake disc diameter is greater than 332mm or the number of pistons per calliper is greater than 4, a 75KG weight penalty will be added to the car's minimum weight.

#### Class A:

**For Class A, the definition of a standard engine for the following table is: Standard crank and cams for that engine type**

Model	Engine	BHP per Tonne	Min Weight*	Max Calliper Pistons	Max Brake Disc Diameter	Engine Modification
M5, 6 & 8 series	Original	235 bhp per tonne	1280kg	4	332 mm	Yes
E90 & E92 M3	Original	250 bhp per tonne	1500kg	6	356 mm	Standard
E90, E92, E46 4 door, E46 Compact and any 1 series	M 3.2L E36 / E46	235 bhp per tonne	1250kg	4	332 mm	Standard
E46 & E90 M3 (non M)	3.0 Petrol Non M engine	230 bhp per tonne	1160kg	4	332 mm	Yes
E46 M3	Original	235 bhp per tonne	1250kg	4	332 mm	Yes
Z4	Original	235 bhp per tonne	1250kg	4	332 mm	Yes
Z3	Original	230 bhp per tonne	1280kg	4	332 mm	Yes

Model	Engine	BHP per Tonne	Min Weight*	Max Calliper Pistons	Max Brake Disc Diameter	Engine Modification
E36 M3	3.0 L	230 bhp per tonne	1180kg	4	332	Standard
E36 M3	3.0 L	230 bhp per tonne	1200kg	4	332	Yes
E36 M3	3.2 L	230 bhp per tonne	1230kg	4	332	Standard
E36 M3	3.2 L	230 bhp per tonne	1280kg	4	332	Yes
E36 M3	Fitted with E46 M3 engine	230 bhp per tonne	1280kg	4	332	Standard
E30 M3	Original	235 bhp per tonne	1053kg	4	332	Yes

### Class B:

**For Class B, E36 M3 3.2L is to encourage new/novice competitors to join this class. At the discretion of the BMWRDC**

Model	Engine	BHP per Tonne	Min Weight*	Max Calliper Pistons	Max Brake Disc Diameter	Engine Modification
E30 M3	2.3 L / 2.5 l	215 bhp per tonne	1053kg	4	332	Yes
E36 M3	3.0L	210 bhp per tonne	1250kg	4	332 x 32	Yes
E36 M3	3.2L	200 bhp per tonne	1340kg	4	332	Standard Standard ECU (no chipping permitted) ECU maybe reloaded by BMWRDC Technical adviser Standard air box & air mass meters
E36 COMPACT	2.5 L	205bhp per tonne	1100kg	4		Standard

### Class C:

Model	Engine	BHP per Tonne	Min Weight*	Max Calliper Pistons	Max Brake Disc Diameter	Engine Modification
E36 325i (Non M)	325i	190bhp per tonne	1035kg	4	332	Standard
E36 328i (Non M)	328i	190bhp per tonne	1035kg	4	332	Standard
E30 325i (Non M)	325i	190bhp per tonne	1035kg	4	332	Standard

E30 M3 (Non M)	2.3L	190bhp per tonne	1035kg	4	332	Standard
Z3 (Non M)	2.8L	190bhp per tonne	1035kg	4	332	Standard

### Class D 318is:

Model	Engine	BHP per Tonne	Min Weight*	Max Calliper Pistons	Max Brake Disc Diameter	Engine Modification
E36 318is	M42 & M44	110bhp	1100kg	1	286 mm Standard brakes of BMW Manufactured	Standard
E36 318ti COMPACT	M42 & M44	110bhp	1100kg	1	286mm	Standard
Z3	1.9 M44	110bhp	1100kg	1	286mm	Standard

### Class Inv:

Invitation class – Any BMW model at the discretion of the BMW RDC to include BMW Mini's (all cars must use Kumho Tyres max. 265/40/18")  
Minimum weights:

E30 1200kg  
E36 1350kg  
E46 1400kg  
E90 1500kg

**\*Weights are INCLUSIVE OF DRIVER in full racing kit (see 5.14.)**

## 5.2.2 Rolling Road –

All power figures above refer to horsepower measured at the road wheels. Power will be measured using the 2011 Kumho BMW Championship nominated rolling road for Class A, B, C and D 318is race cars, at **Thor Racing**, 894 Charter Avenue, Canley, Coventry, CV4 8AT, 0330 555 4545 which will be operated in accordance with the equipment manufactures specification & operating instructions.

Upon registrations, the BMW RDC will advise drivers of 3 dates which will be allocated for drivers to take their race car to the rolling road. If the driver is unable to attend the rolling on these allocated dates, the driver will be expected to book an appointment direct with the designated rolling road and this will be at the expense of the driver concerned. A committee member must attend the rolling road with your race car and this will be at a cost to the driver concerned. This is to ensure the integrity of the championship. Each vehicle must be fully prepared prior to attendance at the designated rolling road to enable a power measurement to be taken. Any vehicle found to have an engine, electrical or mechanical fault which affects power measurement during the test, will have the test result disallowed. The vehicle will have to attend the designated rolling road once repairs have been completed at the competitor's cost & a committee member must attend, which will be at the driver concerned cost.

An MSA Scrutineer will be present at the allocated rolling road dates and will wire seal all of the components stated (see 5.7.10). Cars will have seals fitted and map downloaded at the designated rolling road regardless of when the rolling road is attended. If any limit is subsequently exceeded in competition the driver will be disqualified. If a competitor requires to break a seal, they must notify the eligibility Scrutineer PRIOR to doing so in order to be advised if a subsequent power run is necessary. Any vehicle found to have a broken seal **without** notifying the Scrutineer will immediately be deemed to be ineligible and will be subject to penalties commensurate with the offence. The penalty will be disqualification from the qualifying / race and put at the back of the grid.

A rolling road power figure must be obtained before attendance at the championship event. Any vehicle attempting to complete in the championship event without the necessary power figures will be considered ineligible.

Competitors should be aware that it is their entire responsibility to ensure that the vehicle complies with the relevant power to weight ratio at all times.

If your race car attends the rolling road at any point throughout the season and a new power figure is obtained, again a committee member must be in attendance. Ideally the committee member should be the BMWRDC Technical advisor Phil Marshall and all steps should be taken to ensure this and this will be at the driver concerned cost.

For the purpose of eligibility, checks will be made by the Eligibility Scrutineer & BMWRDC Technical Advisors. The club will allocate Power loggers / Accelerator monitors to allotted cars. These monitors will be solely used for monitoring & reference on power figures. If your race car is to be found with an increase of over 5 bhp power figure, your race car will be sealed by the Eligibility Scrutineer and taken back to the Rolling Road with a committee member present at the cost to the driver. If the race car is be found non compliant this will lead to exclusion of the race attended and any points awarded removed.

Any variance from the power to weight ratio figures used in the regulations will cause the car to be technically ineligible and penalties will be applied accordingly.

All race cars must provide the Eligibility

### **5.2.3 Enforcement of regulations:**

The Championship Eligibility Scrutineer, liaising with the BMWRDC Technical Advisor, will apply the regulation in every material respect and non-compliance for any reason will lead to either exclusion on points or disqualification from the qualifying / race and put at the back of the grid. The non-compliant penalty will be agreed by the Championship Eligibility Scrutineer, Clerk of the course and BMWRDC Technical Advisors. Please note anything else outside our regulations, without prior notice to BMWRDC committee or BARC Eligibility Scrutineer will be treated accordingly.

A car found to be ineligible for the championship must race only in the invitation class and no points scored until the vehicle conforms to the regulations.

## **5.3 Safety Requirements:**

The following Articles of MSA Appendix C (c) Safety Criteria Regulations will apply: C (c ) Vehicle Categories Covered, C (c ) 45, C ( c ) Ap1. T56 (a), C (c ) 72-73, C (c) 75 – 76, C (c ) 77 – 86 & C (c ) 103 – 104.

### **5.3.1 Club Safety Cameras:**

The club will allocate a safety camera to allotted cars. These cameras will be solely used for monitoring driving & safety standards to include any decisional purposes as required.

### **5.3.2 Safety Harnesses:**

In order to maintain the integrity of the harness system in the event of an accident, it is recommended that these should be a minimum of five-point attachment. In accordance with G125

### **5.3.3 Seats**

It is strongly recommended that seats have side wings or side head restraints to take account of lateral forces.

## **5.4 General Technical Requirements & Exceptions:**

All vehicles must comply with the relevant sections of the MSA Yearbook C (b), G (tech Regs), up and including G1356

## 5.5 Chassis:

Strengthening of the chassis in the interest of safety is recommended. Lightening or reducing the chassis strength is prohibited. The chassis as produced by the manufacturer with the original material must be retained in all aspects in respect of material, thickness & contour.

Chassis is defined as manufacturer's body shell, wings, doors, roof & panels, except as defined in 5.6.1.

With exception to the raising the front inner wings on E30 M3 models to accommodate the use of 17" wheels.

## 5.6 Bodywork

5.6.1 GENERAL All panels must remain as per the manufacturer's original material, construction, dimensions, shape and thickness on all exterior surfaces above and below the hub line.

5.6.2 **CLASS D 318is** – Standard bodywork. Metal bonnet and metal boot only. Boot spoiler allowed. Metal bonnets and metal boot maybe lighten by removing the re-enforcing sections.

### 5.6.3 Aero kits and bodykits

Front under trays are permitted provided they do not extend further back than the front cross member.

**Rear diffusers are NOT permitted in any shape or form.**

Underside body shell contours must remain as production shell, and no aero devices are permitted on the underside of the body shell other than the fitting of standard BMW manufactured under trays.

E46 4 door models may be fitted with BTCC/WTCC body kits.

E46 Track width. Standard overall track width of 186cm with minimum top half of wheel covered when view from above.

E90 4 door cars may be fitted with BTCC/WTCC car body kits.

E46 & E90 body kits – Cars must use standard suspension pickup points. Any increase track can only be achieved by wheel offset.

Any vehicle with body kits fitted must be able to drive through a gap of 186cm measured at the wheels/tyres.

Any E46 / E90 / E92 / ZM Coupe models may use either BTCC type rear spoiler / E36 Super touring or E36 GT Type rear spoiler.

Please note No large GT type rear spoilers and refer to the blue book for positioning.

Bonnet Ventilation Only - The use of vents/grills in the sides of the bonnets for heat dissipation whilst retaining shape and form of original panels.

**INTERIOR** The original fascia must be retained in all classes. The replacement of the original instruments or the fitting of additional instruments is permitted, providing the new instruments or their surrounds entirely fill any voids left in the dashboard by the removal of the originals. All other interior trim may be removed providing the safety of the interior satisfies the requirements of MSA regulations. The driver's seat and steering wheel are competitors' option.

**EXTERIOR** All classes: Manufacturers original or aftermarket  
Copy of original or any recognised (i.e. Hartge, Zender, Schnitzer etc.) bodykit on any particular model is allowed for that model. Competitors should receive the organiser's written approval before fitting any bodykit other than the manufacturers. Alternative material acceptable under 'MSA' Regulations may be used on the bonnet and boot. Splitters, where fitted, must be no wider than the vehicle front profile and extend no more than 75mm from the vertical plane of the front valance. Clear Perspex windows are allowed in the side windows and rear windows only. Must be installed to BMW RDC satisfaction. Fibreglass front wings are allowed on E30 M3 cars.

**SILHOUETTE** The standard silhouette in all elevations must not be altered except as defined in "Exterior"

**GROUND CLEARANCE.** No cars are permitted to have skirts or intermediary devices bridging the gap between the underside of the chassis or bodywork and the ground, and must retain a minimum ground clearance of 6cm.

<b>5.6.4 GENERAL</b>	No alterations other than those specified in 5 to 5.18 are permitted.
INTERIOR	No alterations other than those specified in 5 to 5.18 are permitted.
EXTERIOR	No alterations other than those specified in 5 to 5.18 are permitted.
SILHOUETTE	No alterations other than those specified in 5 to 5.18 are permitted.
GROUND CLEARANCE	No alterations other than those specified in 5 to 5.18 are permitted.

## 5.7 Engine:

5.7.1 PERMITTED MODIFICATIONS. A, B and C CLASSES ONLY  
 The original type of engine for the model entered must remain as per the manufacturer's production specification. The word "TYPE" is defined as being from the sump up to and including the casting for the head. Camshafts and Pistons are Free. 3.2 M3 E36 (also S50 B32) can be fitted with single vanos Cylinder head from S50 B30.

Flywheels must be of the same material as the original engine type. Dry sump lubrications are prohibited.

With the provision that the above is adhered to, engine modifications are unrestricted except as shown in 5.7.2

Vanos may be removed / locked off in class A, B & C.

5.7.2 PROHIBITED MODIFICATIONS. A, B and C CLASSES ONLY  
 The fitting of an alternative engine or internal engine parts to those for a particular model. The replacement of Crankshaft, Conrods, Block, Head and Cam Carriers. These must all be of BMW Manufacture as fitted to the original engine type. The flywheel must be of the same material as supplied by BMW for that model. Dry sump lubrication is prohibited.  
 (With exception to the rule 5.7.1, Steel conrods can be used in replacement for OE Parts E30 M3 2.3 to 2.5 Crankshaft and Conrods and E30 325i to 2.7 Crankshaft and Conrods)

5.7.3 E36 M3 3.2L and E46 M3 3.2L engine codes S50, B32, S52,S54 these engines may be fitted to

- 1 series models 2, 3, and 5 door
- 3 series E46 2 and 4 door
- 3 series E90, E92 2 and 4 door
- 3 series E36 2 and 4 door (to permit E46 engines into E36 cars)

With the provision that standard engine location points are used provided that standard camshafts are retained.

5.7.4 **CLASS D 318is** Engine must be standard as from BMW at manufacture. The induction system must retain the standard air flow meter & throttle body. No mechanically force induction is allowed. The standard exhaust manifold must be retained & not modified in any way but the remaining of the system is unrestricted but refer to 5.7.7. The standard sump may have baffles fitted to prevent oil starvation. No other sump modifications are permitted.

5.7.5 LOCATION ALL CLASSES  
 The engine location, its mounting position and locating points, must remain as specified and supplied by the manufacturer for the particular model entered in the championship.

5.7.5 OIL/WATER COOLING ALL CLASSES  
 The fitting of an oil cooler and modification of the cooling system is permitted. Water cooling systems are to remain in the position originally supplied or as a manufacturer's option for that particular model.

5.7.6 INDUCTION SYSTEMS A, B and C CLASSES ONLY  
 Induction system is competitor choice. The use of super chargers or turbo chargers where specified as original equipment may be used.

Turbo Petrol engines and Turbo Diesel Max 2.0L allowed but must initially run Invitation Class for performance evaluation.

- 5.7.7 EXHAUST SYSTEMS ALL CLASSES  
Exhaust systems must comply with the silencing regulation as laid down in the "MSA" yearbook
- 5.7.8 IGNITION SYSTEMS A, B and C CLASSES ONLY  
The types of ignition systems used are down to the choice of the competitor.
- 5.7.9 FUEL DELIVERY SYSTEM A, B and C CLASSES ONLY  
The fuel delivery system is of competitor choice
- 5.7.10 SCRUTINEERING ALL CLASSES  
All engines should have provision for Scrutineer wire seals. 1/16in holes, pre-drilled in readily accessible locations on installed engines must be available as follows.
- (a) Rocker Cover - at least two adjacent retaining bolts must be cross drilled.
  - (c) Diagnostic plug – 318is excluded
  - (d) Electronic Engine Management System (ECU) - as directed by the Eligibility Scrutineer.
  - (e) Air Flow Meter / Intake system- as directed by the Eligibility Scrutineer.
  - (f) Rev limiting device - as directed by the Eligibility Scrutineer.
  - (g) E-Box Cover

Failure to comply renders the engine ineligible.

Competitors are not to remove any seals without prior knowledge of the Eligibility Scrutineer. The penalty will be disqualification from the qualifying / race and put at the back of the grid for their next race.

ECU must be unlocked so that they can be downloaded, analysed & sealed at Rolling Road. BMWRDC reserve the right to download all ECU's in Parc Ferme to check vehicle's ECU maps.

#### **After-Market ECU's**

Any vehicle fitted with an aftermarket ECU must comply with the following:

The driver must be able to supply suitable ECU interface software (including firmware version) to allow the BMWRDC (or a nominated independent third party) to download the map in the ECU and to be able to perform a software comparison to previously downloaded maps. The ECU may only hold one map at any one time. If the driver uses the same vehicle for non-Kumho BMW Championship events and requires a different map, they will be required to re-load it as necessary. If the ECU allows multiple maps, only the map used at the designated rolling road must be loaded during any Kumho BMW Championship event.

Each time the vehicle is tested at the nominated Rolling Road (Thor) and new power figures are produced, a copy of the map must be downloaded and supplied to the BMWRDC and this will be used as the base-line map for all comparisons. The BMWRDC may download maps at any time for comparison with the base-line map, ideally this should be performed in Parc Ferme after qualification and race.

The driver is responsible for the supply and fitting of a suitable interface cable (serial / USB) to allow direct connection from the ECU to the BMWRDC laptop.

All standard ECU must be unlocked so that they can be downloaded. If it is found that your race car's ECU is unable to communicate using the BMW dealer diagnosis equipment or Thor equipment, a penalty will apply to the driver concern. The penalty will be disqualification from the qualifying / race and put at the back of the grid for their next race.

This penalty will also apply to all drivers whose after market ECU is unable to provide a suitable comparison download of a map. The penalty will be disqualification from the qualifying / race and put at the back of the grid for their next race.

- 5.7.11 All race cars must be weighed after you have qualified regardless of laps completed. Any race car found to be under weight beyond the tolerance of the scales of day, a non compliant will be issued by the Scrutineer and a penalty applied. The penalty will be disqualification from the qualifying / race and put at the back of the grid for their next race. Only the driver in Parc Ferme & weight bridge post qualifying and post race.

## 5.8 Suspension:

### 5.8.1 PERMITTED MODIFICATIONS A, B and C CLASSES ONLY

Modification to the suspension is subject to the following conditions:

The spring and damper configuration and all of the original mounting points must be retained and used in the operation of the suspension for that particular model except that coil over dampers may be used on the rear. The replacement of bushes by adjustable spherical bearings is only permitted on the following:

The top mounts of the front dampers, the top and bottom of the rear dampers and the anti roll bars.

5.8.2 All other bushes and bearings must either be as originally supplied; replaced by spherical bearings inside the original mounting; BMW supplied Group N alternatives or with the rubber replaced by nylon or nylatron type material.

5.8.3 **CLASS D 318is Adjustable** shock absorbers may be fitted provided there is only one manual mechanical damping adjustment & there are no remote reservoirs. Coil over suspension kits are allowed. Competition suspension advised to be used. Upgraded anti-roll bar allowed. Front & rear suspension bushes can be replaced by nylon bushes.

5.8.4 CLASS D 318is Adjustable rear trailing arms maybe used

### 5.8.5 PROHIBITED MODIFICATIONS A, B and C CLASSES ONLY

The fitting of suspension or suspension components from one model to another.

The use of non-standard, fabricated or modified rear beams, trailing arms or wishbones is prohibited. Strengthening of suspension parts is allowed. Any component which alters the position of the suspension mounting points from their original and standard location is prohibited.

With exception to E36 cars may use aluminium wishbones from the E30 M3 model and E36 & E46 cars may use adjustable track control arms on the rear. Also E30 M3 cars may use motorsport rear beams.

### 5.8.6 WHEELBASE ALL CLASSES

Wheelbase must remain as per manufacturer's original specification for that particular model. Measurements will be taken by the hub

## 5.9. Transmissions:

### 5.9.1 PERMITTED MODIFICATIONS A, B and C CLASSES ONLY

Gearboxes may be swapped from model to model provided that only BMW manufactured parts with BMW part numbers as originally supplied in the in the UK for that specific gearbox are used. Gear ratios must be as supplied with the gearbox in production form. Only casings and gears of BMW supply may be used. Mounting and Location points must be used as intended by the manufacturer.

5.9.2 **CLASS D 318is Only** five speed gearbox supplied with car can be used. Auto gearbox can only be used at the discretion of the BMW Racing Drivers Club. Clutches and flywheels are free

### 5.9.3 PROHIBITED MODIFICATIONS ALL CLASSES

The fitting of sequential gearboxes to vehicles in which they were not originally available.

The use of non-BMW parts and/or ratios, which did not appear in the production version of the gearbox in question. Re-location of the gearbox or final drive from its original position as specified by the manufacturer for that particular model.

The fitting, or use of traction control and/or launch control systems are prohibited unless fitted as standard on the original vehicle

### 5.9.4 TRANSMISSION FINAL DRIVE RATIOS. A, B and C CLASSES ONLY

Only casings and ratios found in original production BMW models can be used.

5.9.5 **CLASS D 318is** No Limited Slip Diff's allowed of any type allowed

## 5.10 Electrics: ALL CLASSES

### 5.10.1 EXTERIOR LIGHTING

All classes will have fully operational headlights, tail lights, rear indicator lights, rear hazard lights and brake lights which conform to the original construction and use regulations as obtained by the manufacturer.

5.10.2 REAR FOG LIGHTS All classes will have fully operational fog lights as laid down in the manufacturers construction and use regulations.

5.10.3 BATTERIES In all classes the battery location and type is free provided that its type and location conforms to section E13.14 of the "MSA" Yearbook

5.10.4 GENERATORS The alternator must remain within the engine compartment and must remain fully operational at all times

## 5.11 Brakes:

### 5.11.1 PERMITTED MODIFICATIONS A, B and C CLASSES ONLY

All braking components are competitor's choice, providing that they conform to the construction and use regulations as laid down and obtained by the manufacturer and to the limits detailed below.

All Classes: Brake disc diameter is a maximum of whatever was fitted to the original vehicle specification in production form, as long as the original brake callipers are used. Disc and callipers must retain the BMW part number as proof of origin.

Class A, B & C: Where the brake disc diameter is greater than 332mm or the number of pistons per calliper is greater than 4, a 75KG weight penalty will be added to the car's minimum weight.

Other than these, alternative discs and callipers may be used, that comply with section 5.2.1 and have a maximum thickness of 32mm

The fitting of Aeroquip brake pipes and removal of the back plates is permitted.

5.11.2 **CLASS D 318is** Front & Rear brakes to be retained as standard up grade of disc & disc brakes pads is allowed. Braided brake hoses may be used. You must retain the original standard size. 286mm. also see 7.14

### 5.11.3 PROHIBITED MODIFICATIONS

All items must still conform to the construction and use regulations as laid down and obtained by the manufacturer. Composite brake disc materials are prohibited.

5.11.4 All race cars must have operational handbrake which can either be mechanical or hydraulic system.

## 5.12 Wheels/Steering:

### 5.12.1 PERMITTED OPTIONS

Wheel diameter is 18", for Class A E90, E92 E46 M5 6 & 8, 17" & 15" for the remainder of Class A, 17" & 15" for Class B  
Class C 17" & 15"  
& Class D 15"  
invitation class maximum 18".

High ratio steering racks may be fitted with in a BMW manufactured casing.  
Power steering pumps and equipment may be removed  
Electric power steering is allowed

Class	Maximum Wheel Width	Maximum Wheel Dia.	Maximum Tyre Width	Aspect Ratio
A	9"	18"	225mm front	40
A	9.5"	18"	265mm rear	35
A	9"	17"	225mm	45
A	9"	15"	225mm	50

B	9"	17"	225	45
B	8"	15"	205mm	50
	8"	15"	225mm 5, 6 series	50
C	7"	15"	205mm 2, 3 series	50
	8"	15"	225mm 5, 6 series	50
C	9"	17"	225mm	45
D	8"	15"	205mm	50

E46 & E90 body kits – Cars must use standard pickup points. Any increase track can only be increased by wheel offset.

#### 5.12.2 PROHIBITED OPTIONS ALL CLASSES

All steering components and internals will be of BMW manufacture except as shown in 5.12.1 and 5.6.1

### 5.13 Tyres:

#### 5.13.1 SPECIFICATIONS - Treaded tyres only

#### 5.13.2 NOMINATED MANUFACTURER

The control tyres for the Championship are KUMHO Ecsta V700 with the compound mark **K90, K91** in an ellipse, which is moulded into the sidewall. All other compounds are prohibited. Tyres may be tested with a durometer.

#### 5.13.3 It is not permitted to alter the pattern of the control tyres by cutting.

### 5.13 Weights:

Weight is defined as the whole vehicle, with the driver in full racing kit, at the end of each qualification/ race entered. All race cars must be weighed after you have qualified regardless of laps completed. If any race car is underweight, a non compliant will be issued by the Scrutineer. Any race car found to be under weight beyond the tolerance of the scales of day, a non compliant will be issued by the Scrutineer and a penalty applied. The weighbridge of the day will either be the circuit weighbridge which will be considered to be 100% accurate or the BMWRDC scales which will have a tolerance of 0.1 percent. The penalty will be disqualification from the qualifying / race and put at the back of the grid.

#### 5.14.1 The BMWRDC will issue confirmation of the race car minimum weight for the forthcoming season. This will be place on the dashboard of every race car.

#### 5.14.2 Only the driver in Parc Ferme & weight bridge post qualifying and post race.

### 5.15 Fuel Tank/Fuel:

#### 5.15.1 CLASS A, B & C Fuel tank size and type is of competitor choice but must conform to regulations contained in the "MSA" Yearbook

#### 5.15.2 CLASS A, B & C Where a replacement tank is fitted it must be mounted in the boot and the original must be removed, at all times it must conform to the regulations in the "MSA" Yearbook

#### 5.15.3 ALL CLASSES Regular pump fuel as defined in "MSA" Yearbook C (b) 19.

#### 5.15.4 **CLASS D 318is** – Fuel tank standard. Location Standard

### 5.16 Silencing:

All classes must comply with "MSA" Yearbook C (b) 23 and with the restrictions laid down in the Road Traffic Act.

### 5.17 Numbers/Decals:

#### 5.17.1 To be eligible to compete in a Championship race and obtain points, it is mandatory to display (subject to availability):

- a) BARC Shield on each side of the vehicle
- b) All Sponsor's decals (as instructed by the Championship Co-ordinator)
- c) Class identifier alongside the competition number. (These will be supplied by the BMWRDC)

5.17.2 Competition numbers will be obtained at the competitor's expense. Championship decals will be supplied by the Title sponsor, tyre supplier and/or any other sponsor and/or BMWRDC. See 5.17.3 for placement.

## **5.18 Miscellaneous:**

- 5.18.1 The eligibility Scrutineer/organisers reserve the right to inspect any vehicle at any time, this will be carried out in the Scrutineering bay. They also reserve the right within the general regulations of the "MSA" Yearbook to strip or seal any part or parts of a vehicle. The competitor will bear all cost of such an inspection. If the vehicle is found to be outside the regulations for the class entered it will lead to exclusion from the results of that event and the loss of Championship points scored to that date, the eligibility Scrutineer/organisers reserve the right to report any such competitor to the "MSA".
- 5.18.2 The eligibility Scrutineer/organisers reserve the right at any time to subject a car to an official test to check engine power. The same right will exist to measure the weight of the car. Failure to comply at the time of request will render the competitor to loss of their 2 highest points scoring rounds to the date of the refusal.
- 5.18.3 A copy of the Vehicle Specification sheet must also be in the possession of the eligibility Scrutineer before the first race entered. Failure to do so will render the vehicle ineligible. Vehicle photographs with bodykits as intended to be used in competition must be included.
- 5.18.4 In the case of original BMW Manufactured parts not being sold on the open market within the UK, competitors should check with the eligibility Scrutineer/organisers before purchase and fitting to a vehicle.
- 5.18.5 It is the competitor's responsibility to ensure that the vehicle entered complies with the regulations for the championship, even if they are not the builder or assembler of the vehicle. Any vehicle found to be in contravention of the regulations will render the competitor and vehicle to be excluded from the championship.
- 5.18.6 Competitors who wish to change their class will only be permitted to do this once in each championship year. Having changed, no change back or to any other class is allowed. The competitors point can not be transferred to the new class

## 6. APPENDICES:

### 6.1 Race Organising Club and Contacts:

Co-ordinator (BARC)	Nicola Bush BARC, Thruxton Circuit, Andover, Hampshire SP11 8PN Tel: 01264 882200 Fax: 01264 882233 E-mail: nbush@barc.net
Eligibility Scrutineer:	Jeff Nixon, 51 Polperro Way, Hucknall Notts NG15 6JX Tel (w) 07785 352605 (h) 01159 631749 (Do not call after 22.00)
BMW RDC	Trevor Ford, 27 Cranbrook Drive, Esher, Surrey KT10 8DW Tel: 07710 493953 E-mail: <a href="mailto:trevor@bmwrdc.com">trevor@bmwrdc.com</a> (Do not call after 22.00)

### 6.2 Commercial Undertakings:

#### 6.2.1 Trade Support Vehicle Decals:

Any competitor who is proposing to carry vehicle sponsor advertising which may be deemed to be in conflict with the main Championship Sponsor/s must first seek the approval of the BARC Championship Co-ordinator prior to the appearance of the vehicle at its first meeting of the season.

Any decision that is made by the BARC Championship co-ordinator in this respect shall be at his/her discretion and shall be final.

6.2.2 Any competitor who is subsequently found to be in breach of 6.2.1 shall immediately forfeit any Championship points or prize money that may otherwise have been won until the situation is rectified to the satisfaction of the BARC Co-ordinator

6.2.3 Overall Patches: As instructed by Championship Co-ordinator

6.2.4 Should a competitor bring the Championship into disrepute, their membership of the BMW Racing Drivers Club and their entry into the Championship will be suspended.

### 6.3 Driving Standards

BMW RDC are determined to see that these regulations are enforced. Carl Ford & Kevin Plant is retained to act as a Driving Standards Advisors on behalf of BMW RDC. He may also be supplemented by others from time to time. They will be working with meeting organisers and will investigate all on track incidents, whether triggered by judicial action initiated by the Clerk of the Course, by competitor complaint, or by their own observation notwithstanding that the Clerk of the Course may already have imposed a penalty under MSA Regulations. BMW RDC DSA's are empowered to call a competitor to investigate any incident and may supplement their own investigations by the use of track Observers reports, where available and deemed appropriate by the Clerk of the Course, at the event in question. They are empowered to apply penalties in three categories.

- i) Driving in a manner which is considered **careless** by the BMW RDC DSA - to be penalised by written warning. Two written warnings in six meetings will cause a yellow card to be issued.
- ii) Driving in a manner which is considered **reckless** by the BMW RDC DSA - to be penalised by the issuing of a yellow card. Two yellow cards in six meetings will cause a red card to be issued.
- iii) Driving in a manner, which is considered **dangerous** by the BMW RDC DSA - to be penalised by the issuing of a red card.
- iv) Refusal to co-operate with the BMW RDC DSA will result in the issuing of a red card
- v) A red card will cause the suspension of membership from BMW RDC for a period of two race meetings, which will both count as points scoring rounds with zero points score.
- vi) The issuing of two red cards in one season will result in the suspension of BMW RDC membership for the remainder of the season.
- vii) Each penalty will have a shelf life of six races from the date that the penalty is applied. After this period, the penalty will not be used for the purposes of totting up.
- viii) Suspension of BMW RDC membership will mean that the competitor is ineligible to compete in the championship during the period of suspension.

Any driver who receives points on their licence from the Clerk of the Course will have the same number of points deducted from their championship tally even if this results in a minus score. The Clerk of the Course decision is final and no exceptions to this rule will be made. The BMWRDC will also issue a yellow card to the driver.

#### **6.4 Technical Scrutineering**

BMW RDC are determined to see that technical regulations are enforced. If you are asked to make changes to your vehicle, it will be to ensure that it complies with the technical regulations as written. Failure to comply with an order to make changes will cause the suspension of membership from BMW RDC for a period of one race meeting that will count as a points scoring round with a zero points score. Do not expect to race if your vehicle is in breach of the technical regulations of this championship.

We will nominate people to work with the MSA Eligibility Scrutineer at the meetings. They are available for assistance with interpretation of the regulations and have the absolute right to inspect any competing vehicle. Please assist them with their duties. Any refusal will be deemed to be a breach of BMW RDC regulations and will cause the suspension of membership from BMW RDC for a period of one race meeting which will count as a points scoring round with a zero points score.

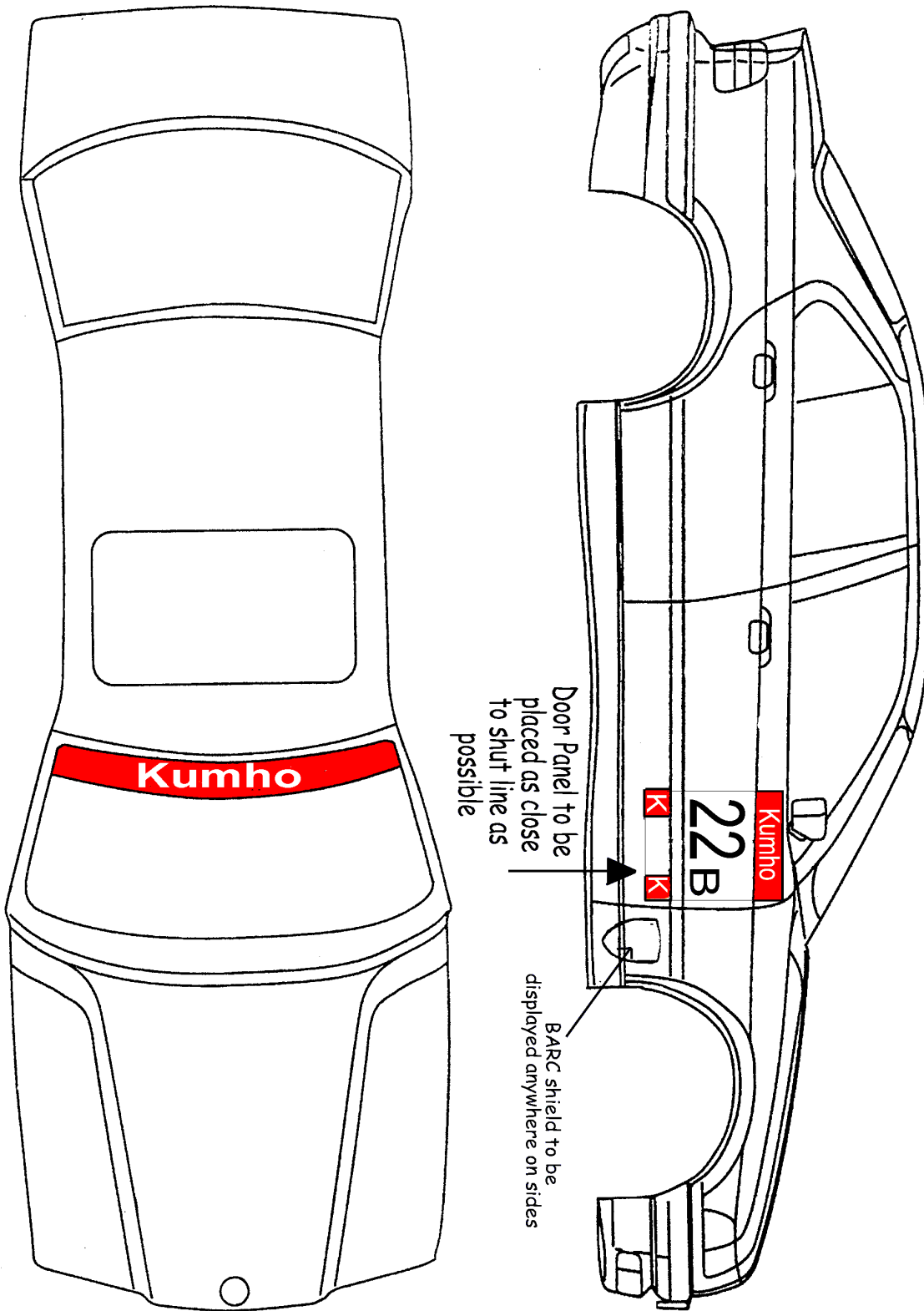
The penalty will be disqualification from the qualifying / race and put at the back of the grid for their next race.

#### **6.5 Paddock Discipline:**

You are required to park competition vehicles together in the paddock. Please follow the instructions on the final instructions with regard to paddock layout. If you fail to do so, you will be asked to move, either by another championship coordinator or our club representative. You are obliged to follow instructions on this procedure. Failure to readily comply, could lead to the suspension of your membership of the BMW RDC, which would in turn render you ineligible to race. Please assist us by ensuring that this does not occur.

# 2011 Kumho BMW Championship

## 6.6 Sponsors Decal Placement (see 5.17.3)



# 2011 Kumho BMW Championship Technical Regulations for 318is Class (following on from sporting regulations)

## Class D 318is:

Model	Engine	BHP per Tonne	Min Weight*	Max Calliper Pistons	Max Brake Disc Diameter	Engine Modification
E36 318is	M42 & M44	110bhp	1100kg	1	286 mm Standard brakes of BMW Manufactured	Standard
E36 318ti COMPACT	M42 & M44	110bhp	1100kg	1	286mm	Standard
Z3	1.9 M44	110bhp	1100kg	1	286mm	Standard

### \*Weights are INCLUSIVE OF DRIVER in full racing kit (see 5.14.)

Class D 318is will also be require to attend the rolling road in order to take a power figure, seals fitted and technical checks completed.

Upon registrations, the BMWRDC will advise drivers of 3 dates which will be allocated for drivers to take their race car to the rolling road. If the driver is unable to attend the rolling on these allocated dates, the driver will be expected to book an appointment direct with the designated rolling road and this will be at the expense of the driver concerned. A committee member must attend the rolling road with your race car and this will be at a cost to the driver concerned. This is to ensure the integrity of the championship. Each vehicle must be fully prepared prior to attendance at the designated rolling road to enable a power measurement to be taken. Any vehicle found to have an engine, electrical or mechanical fault which affects power measurement during the test, will have the test result disallowed. The vehicle will have to attend the designated rolling road once repairs have been completed at the competitor's cost & a committee member must attend, which will be at the driver concerned cost.

An MSA Scrutineer will be present at the allocated rolling road dates and will wire seal all of the components stated (see 5.7.9). Cars will have seals fitted and map downloaded at the designated rolling road regardless of when the rolling road is attended. If any limit is subsequently exceeded in competition the driver will be disqualified. If a competitor requires to break a seal, they must notify the eligibility Scrutineer PRIOR to doing so in order to be advised if a subsequent power run is necessary. Any vehicle found to have a broken seal **without** notifying the Scrutineer will immediately be deemed to be ineligible and will be subject to penalties commensurate with the offence. The penalty will be disqualification from the qualifying / race and put at the back of the grid.

A rolling road power figure must be obtained before attendance at the championship event. Any vehicle attempting to complete in the championship event without the necessary power figures will be considered ineligible.

Competitors should be aware that it is their entire responsibility to ensure that the vehicle complies with the relevant power to weight ratio at all times.

## 7.0 Enforcement of regulations:

The Championship Eligibility Scrutineer, liaising with the BMWRDC Technical Advisor, will apply the regulation in every material respect and non-compliance for any reason may lead to exclusion.

## 7.1 Safety Requirements:

The following Articles of MSA Appendix C (c) Safety Criteria Regulations will apply: C (c ) Vehicle Categories Covered, C ( c ) 45, C ( c ) Ap1. T56 (a), C (c ) 72-73, C (c) 75 – 76, C (c ) 77 – 86 & C (c ) 103 – 104.

## 7.2 Club Safety Cameras:

The club will allocate a safety camera to allotted cars. These cameras will be solely used for monitoring driving & safety standards to include any decisional purposes as required.

## 7.3 Safety Harnesses:

In order to maintain the integrity of the harness system in the event of an accident, it is recommended that these should be a minimum of five-point attachment. In accordance with G125

## 7.4 Seats

It is strongly recommended that seats have side wings or side head restraints to take account of lateral forces.

## 7.5 General Technical Requirements & Exceptions:

All vehicles must comply with the relevant sections of the MSA Yearbook C (b), G (tech Regs), up and including G1356

## 7.6 Chassis:

Strengthening of the chassis in the interest of safety is recommended. Lightening or reducing the chassis strength is prohibited. The chassis as produced by the manufacturer with the original material must be retained in all aspects in respect of material, thickness & contour.

Chassis is defined as manufacturer's body shell, wings, doors, roof & panels, except as defined in 5.6.1.3.

## 7.7 Bodywork

**7.8 GENERAL** All panels must remain as per the manufacturer's original material, construction, dimensions, shape and thickness on all exterior surfaces above and below the hub line, except as detailed in 5.6.1.3

**7.9 CLASS D 318is** – Standard bodywork. Metal bonnet and metal boot only. Bootspoiler allowed. Metal bonnets and metal boot maybe lighten by removing the re-enforcing sections.

**INTERIOR** The original fascia must be retained in all classes. The replacement of the original instruments or the fitting of additional instruments is permitted, providing the new instruments or their surrounds entirely fill any voids left in the dashboard by the removal of the originals. All other interior trim may be removed providing the safety of the interior satisfies the requirements of MSA regulations. The driver's seat and steering wheel are competitors' option.

**EXTERIOR** All classes: Manufacturers original or any recognised (i.e. Hartge, Zender, Schnitzer etc.) bodykit on any particular model is allowed for that model. Competitors should receive the organiser's written approval before fitting any bodykit other than the manufacturers. . Clear Perspex windows are allowed in the side windows and rear windows only. Must be installed to BMWRDC satisfaction.

**7.10 GENERAL** No alterations other than those specified in 5 to 5.18 are permitted.  
**INTERIOR** No alterations other than those specified in 5 to 5.18 are permitted.  
**EXTERIOR** No alterations other than those specified in 5 to 5.18 are permitted.  
**SILHOUETTE** No alterations other than those specified in 5 to 5.18 are permitted.  
**GROUND CLEARANCE** No alterations other than those specified in 5 to 5.18 are permitted.

## Engine:

- 7.11** E36 318is M42 & M44 engines, \*  
Standard BMW M42 & M44 Engines, Z3, 4 door versions & E36 COMPACT 318ti  
no modifications permitted. As per BMW Manufactured
- 7.12** Engine must be standard as from BMW at manufacture. The induction system must retain the standard air flow meter & throttle body. No mechanically force induction is allowed. The standard exhaust manifold must be retained & not modified in any way but the remaining of the system in unrestricted but refer to 5.7.7. The standard sump may have baffles fitted to prevent oil starvation. No other sump modifications are permitted.
- 7.13** LOCATION  
The engine location, its mounting position and locating points, must remain as specified and supplied by the manufacturer for the particular model entered in the championship.
- 7.14** OIL/WATER COOLING  
The fitting of an oil cooler and modification of the cooling system is permitted. Water cooling systems are to remain in the position originally supplied or as a manufacturer's option for that particular model.
- 7.15** EXHAUST SYSTEMS  
Exhaust systems must comply with the silencing regulation as laid down in the "MSA" yearbook
- 7.16** All race cars must be weighed after you have qualified regardless of laps completed. If any race car is underweight, a non compliant will be issued by the Scrutineer.
- 7.18.1** Adjustable shock absorbers may be fitted provided there is only one manual mechanical damping adjustment & there are no remote reservoirs. Coil over suspension kits are allowed. Competition suspension advised to be used. Upgraded anti-roll bar allowed. Front & rear suspension bushes can be replaced by nylon bushes.
- 7.18.2 Adjustable rear trailing arms maybe used
- WHEELBASE  
Wheelbase must remain as per manufacturer's original specification for that particular model. Measurements will be taken by the hub
- 7.19** **CLASS D 318is** Only five speed gearbox supplied with car can be used. Auto gearbox can only be used at the discretion of the BMW Racing Drivers Club
- 7.19.2 Clutches and flywheels are free
- 7.20** PROHIBITED MODIFICATIONS  
The fitting of sequential gearboxes to vehicles in which they were not originally available.  
The use of non-BMW parts and/or ratios, which did not appear in the production version of the gearbox in question. Re-location of the gearbox or final drive from its original position as specified by the manufacturer for that particular model.  
The fitting, or use of traction control and/or launch control systems are prohibited unless fitted as standard on the original vehicle
- 7.21** **CLASS D 318is** No Limited Slip Diff's allowed of any type

## Electrics:

- 7.22** **EXTERIOR LIGHTING**  
All classes will have fully operational headlights, tail lights, rear indicator lights, rear hazard lights and brake lights which conform to the original construction and use regulations as obtained by the manufacturer.

- 7.22.1 REAR FOG LIGHTS All classes will have fully operational fog lights as laid down in the manufacturers construction and use regulations.
- 7.22.2 BATTERIES In all classes the battery location and type is free provided that its type and location conforms to section E13.14 of the "MSA" Yearbook
- 7.22.3 GENERATORS The alternator must remain within the engine compartment and must remain fully operational at all times
- 7.22.4 ECU's must be standard.

The manufacturer's standard ignition systems and ECU equipment must be retained. ECU re-mapping and chipping is not permitted. It is not permitted to fit a "piggy back" ECU or an alternative ECU for the purposes of altering the mapping.

The Championship Eligibility Scrutineer reserves the right to remove the ECU from the Car for inspection at anytime. Also, ECU's may be impounded at anytime by the Championship Eligibility Scrutineer or his nominated representative for inspection at a later date.

The Championship Organisers retain the right to request the fitment of data acquisition before qualifying or a race at any Championship meeting or at any Official Test day.

## Brakes

**7.23** Front & Rear brakes to be retained as standard up grade of disc & disc brakes pads is allowed. Braided brake hoses may be used. You must retain the original standard size. 286mm

7.23.1 PROHIBITED MODIFICATIONS  
All items must still conform to the construction and use regulations as laid down and obtained by the manufacturer.

7.23.3 PROHIBITED MODIFICATIONS  
All items must still conform to the construction and use regulations as laid down and obtained by the manufacturer.

7.23.4 All race cars must have operational handbrake as supplied standard BMW Manufacture.

## 7.24 Wheels/Steering:

7.24.1 PERMITTED OPTIONS  
for classes D

Construction and material is free

High ratio steering racks may be fitted with in a BMW manufactured casing.

Power steering pumps and equipment may be removed.

Electric power steering is allowed

Maximum Wheel Width	Maximum Wheel Dia.	Maximum Tyre Width	Aspect Ratio
8"	15"	205mm	50

7.24.2 PROHIBITED OPTIONS  
All steering components and internals will be of BMW manufacture

## 7.25 Tyres:

7.25.1 SPECIFICATIONS - Treaded tyres only

#### 7.25.2 NOMINATED MANUFACTURER

The control tyres for the Championship are KUMHO Ecsta V700 with the compound mark **K90, K91** in an ellipse, which is moulded into the sidewall. All other compounds are prohibited. Tyres may be tested with a durometer.

7.25.3 It is not permitted to alter the pattern of the control tyres by cutting.

### 7.26 weights:

All race cars must be weighed after you have qualified regardless of laps completed. Any race car found to be under weight beyond the tolerance of the scales of day, a non compliant will be issued by the Scrutineer and a penalty applied. The penalty will be disqualification from the qualifying / race and put at the back of the grid.

**7.27** Regular pump fuel as defined in "MSA" Yearbook C (b) 19.

7.27.2 Fuel tank standard. Location Standard

### 7.28 Silencing:

All classes must comply with "MSA" Yearbook C (b) 23 and with the restrictions laid down in the Road Traffic Act.

### 7.29 Numbers/Decals:

7.29.2 To be eligible to compete in a Championship race and obtain points, it is mandatory to display (subject to availability):

- a) BARC Shield on each side of the vehicle
- b) All Sponsor's decals (as instructed by the Championship Co-ordinator)
- c) Class identifier alongside the competition number. (These will be supplied by the BMWRDC)

7.29.3 Competition numbers will be obtained at the competitor's expense. Championship decals will be supplied by the Title sponsor, tyre supplier and/or any other sponsor and/or BMWRDC. See 5.17.3 for placement.

### 7.30 Miscellaneous:

7.30.1 The eligibility Scrutineer/organisers reserve the right to inspect any vehicle at any time, this will be carried out in the Scrutineering bay. They also reserve the right within the general regulations of the "MSA" Yearbook to strip or seal any part or parts of a vehicle. The competitor will bear all cost of such an inspection. If the vehicle is found to be outside the regulations for the class entered it will lead to exclusion from the results of that event and the loss of Championship points scored to that date, the eligibility Scrutineer/organisers reserve the right to report any such competitor to the "MSA".

7.30.2 The eligibility Scrutineer/organisers reserve the right at any time to subject a car to an official test to check engine power. The same right will exist to measure the weight of the car. Failure to comply at the time of request will render the competitor to loss of their 2 highest points scoring rounds to the date of the refusal.

7.30.3 A copy of the Vehicle Specification sheet must also be in the possession of the eligibility Scrutineer before the first race entered. Failure to do so will render the vehicle ineligible. Vehicle photographs with bodykits as intended to be used in competition must be included.

7.30.4 In the case of original BMW Manufactured parts not being sold on the open market within the UK, competitors should check with the eligibility Scrutineer/organisers before purchase and fitting to a vehicle.

7.30.5 It is the competitor's responsibility to ensure that the vehicle entered complies with the regulations for the championship, even if they are not the builder or assembler of the vehicle. Any vehicle found to be in contravention of the regulations will render the competitor and vehicle to be excluded from the championship.

7.30.6 Competitors who wish to change their class will only be permitted to do this once in each championship year. Having changed, no change back or to any other class is allowed. The competitors point can not be transferred to the new class

## 8. APPENDICES:

### 8.1 Race Organising Club and Contacts:

Co-ordinator (BARC) Nicola Bush BARC, Thruyton Circuit, Andover, Hampshire SP11 8PN  
Tel: 01264 882200 Fax: 01264 882233 E-mail: nbush@barc.net

Eligibility Scrutineer: Jeff Nixon, 51 Polperro Way, Hucknall Notts NG15 6JX  
Tel (w) 07785 352605 (h) 01159 631749 (Do not call after 22.00)

BMW RDC Trevor Ford, 27 Cranbrook Drive, Esher, Surrey KT10 8DW  
Tel: 07710 493953 E-mail: trevor@bmwrdc.com

### 8.2 Commercial Undertakings:

#### 8.2.1 Trade Support Vehicle Decals:

Any competitor who is proposing to carry vehicle sponsor advertising which may be deemed to be in conflict with the main Championship Sponsor/s must first seek the approval of the BARC Championship Co-ordinator prior to the appearance of the vehicle at its first meeting of the season.

Any decision that is made by the BARC Championship co-ordinator in this respect shall be at his/her discretion and shall be final.

**8.2.2** Any competitor who is subsequently found to be in breach of 6.2.1 shall immediately forfeit any Championship points or prize money that may otherwise have been won until the situation is rectified to the satisfaction of the BARC Co-ordinator

**8.2.3** Overall Patches: As instructed by Championship Co-ordinator

**8.2.4** Should a competitor bring the Championship into disrepute, their membership of the BMW Racing Drivers Club and their entry into the Championship will be suspended.

#### 8.2.5 Driving Standards

BMW RDC are determined to see that these regulations are enforced. Carl Ford & Kevin Plant is retained to act as a Driving Standards Advisors on behalf of BMW RDC. He may also be supplemented by others from time to time. They will be working with meeting organisers and will investigate all on track incidents, whether triggered by judicial action initiated by the Clerk of the Course, by competitor complaint, or by their own observation notwithstanding that the Clerk of the Course may already have imposed a penalty under MSA Regulations. BMW RDC DSA's are empowered to call a competitor to investigate any incident and may supplement their own investigations by the use of track Observers reports, where available and deemed appropriate by the Clerk of the Course, at the event in question. They are empowered to apply penalties in three categories.

- i) Driving in a manner which is considered **careless** by the BMW RDC DSA - to be penalised by written warning. Two written warnings in six meetings will cause a yellow card to be issued.
- ii) Driving in a manner which is considered **reckless** by the BMW RDC DSA - to be penalised by the issuing of a yellow card. Two yellow cards in six meetings will cause a red card to be issued.
- iii) Driving in a manner, which is considered **dangerous** by the BMW RDC DSA - to be penalised by the issuing of a red card.
- iv) Refusal to co-operate with the BMW RDC DSA will result in the issuing of a red card
- v) A red card will cause the suspension of membership from BMW RDC for a period of two race meetings, which will both count as points scoring rounds with zero points score.
- vi) The issuing of two red cards in one season will result in the suspension of BMW RDC membership for the remainder of the season.
- vii) Each penalty will have a shelf life of six races from the date that the penalty is applied. After this period, the penalty will not be used for the purposes of totting up.
- viii) Suspension of BMW RDC membership will mean that the competitor is ineligible to compete in the championship during the period of suspension.

Any driver who receives points on their licence from the Clerk of the Course will have the same number of points deducted from their championship tally. The Clerk of the Course decision is final and no exceptions to this rule will be made. The BMWRDC will also issue the driver a yellow card

**DRAFT**

# 2011 KUMHO BMW CHAMPIONSHIP

## 9. REGISTRATION FORM

Please complete in capital letters

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

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

\_\_\_\_\_

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

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

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

E-MAIL: \_\_\_\_\_

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

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

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

BMW RDC MEMBERSHIP: \_\_\_\_\_ (Compulsory)

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

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

(if different from above)

\_\_\_\_\_

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

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

ALL CORRESPONDENCE SHOULD BE SENT TO: DRIVER  ENTRANT

CAR: **BMW** MODEL: \_\_\_\_\_ CC: \_\_\_\_\_

CLASS ENTERED

CLASS A

CLASS B

CLASS C

CLASS D

CLASS INV

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

(Subject to availability)

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 **2011 KUMHO BMW 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 & BMWRDC as detailed below.

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

ONCE FULLY COMPLETED THIS FORM SHOULD BE RETURNED, WITH THE FEE AND ONE COPY OF THE VEHICLE SPEC SHEET, TO:

**Trevor Ford, 27 Cranbrook Drive, Esher, Surrey KT10 8DW**

**Discount fee - Registration fee of £200 available until 16<sup>th</sup> January 2011**

PRIOR TO THE FIRST RACE ENTERED

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FOR OFFICIAL USE ONLY

REGISTRATION FEE - **£225 OR £75** PAYABLE TO: **BMW Racing Drivers Club**

DATE RECEIVED:.....

DATE REGISTRATION CARD SENT:.....

COMPETITION NUMBER ALLOCATED:.....

# 2011 KUMHO BMW CHAMPIONSHIP

## 9.1 SPECIFICATION SHEET FOR VEHICLE

**Please send this copy with the Registration Form and Fee to:**

**Trevor Ford, 27 Cranbrook Drive, Esher, Surrey KT10 8DW**

This form must be completed in full and have a photo attached. Any unanswered or TBA answered items will result in the return of registration.

Entrant / Driver: \_\_\_\_\_ Championship No: \_\_\_\_\_

Class Entered: \_\_\_\_\_ Vehicle Model No: \_\_\_\_\_ No of Doors: \_\_\_\_\_

Vehicle identification mark: \_\_\_\_\_

Year of vehicle registration: \_\_\_\_\_

Chassis No: \_\_\_\_\_ Engine No: \_\_\_\_\_

Engine capacity: \_\_\_\_\_ Number of cylinders: \_\_\_\_\_ Carb or inject: \_\_\_\_\_

Number of valves per cylinder: \_\_\_\_\_

Type of engine management: \_\_\_\_\_ Firmware no (if aftermarket): \_\_\_\_\_

Vehicle colour: \_\_\_\_\_ (Attach photograph.) Make of body kit if fitted: \_\_\_\_\_

We urge all entrants/drivers to ensure that the specification as detailed above is correct in respect of the vehicle entered in the Championship.

# 2011 KUMHO BMW CHAMPIONSHIP

## 9.2 SPECIFICATION SHEET FOR VEHICLE

**Please send this copy to the Eligibility Scrutineer.**

Jeff Nixon, 51 Polperro Way, Hucknall Notts NG15 6JX

This form must be completed in full and have a photo attached. Any unanswered or TBA answered items will result in the return of registration.

Entrant / Driver: \_\_\_\_\_ Championship No: \_\_\_\_\_  
\_\_\_\_\_

Class Entered: \_\_\_\_\_ Vehicle Model No: \_\_\_\_\_ No of Doors: \_\_\_\_\_

Vehicle identification mark: \_\_\_\_\_

Year of vehicle registration: \_\_\_\_\_

Chassis No: \_\_\_\_\_ Engine No: \_\_\_\_\_

Engine capacity: \_\_\_\_\_ Number of cylinders: \_\_\_\_\_ Carb or inject: \_\_\_\_\_

Number of valves per cylinder: \_\_\_\_\_ Turbo or Non-turbo: \_\_\_\_\_

Vehicle colour: \_\_\_\_\_  
(Attach photograph if available.)

Make of body kit if fitted: \_\_\_\_\_

We urge all entrants/drivers to ensure that the specification as detailed above is correct in respect of the vehicle entered in the Championship.