



The GAZ Shocks Compact Cup Championship

SPORTING & TECHNICAL REGULATIONS 2015



PUBLISHED VERSION - Page 1 of 8 – Issued 03/03/15

1: SPORTING REGULATIONS - GENERAL

1.1: TITLE & JURISDICTION:

The **GAZ SHOCKS COMPACT CUP CHAMPIONSHIP** is organised and administered by the 750 Motor Club Ltd 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.

1. **MSA Championship Permit No:** CHR2015/
2. **MSA Championship Grade:** D.
3. **Race Status:** Clubmans / National B.

1.2: OFFICIALS:

1. **Championship Co-Ordinator:** Paul McErlean, BMW Racedays, 14 Lindisfarne Road, Ashton Under Lyne, Lancs. OL7 9SF.
Email: info@bmwracedays.co.uk
2. **Eligibility Scrutineer:** B. Blackmore
3. **Championship Stewards:**
R.Knight H. Holder I.Sowman

1.3: COMPETITOR ELIGIBILITY:

1. Entrants must:
 - (a) be fully paid up valid membership card holding members of the 750 Motor Club and
 - (b) be Registered for the Championship and
 - (c) be in possession of a valid MSA Entrants Licences.
2. Drivers and Entrant/Drivers must:
 - (a) Be current Members of the 750 Motor Club and
 - (b) be Registered for the Championship and
 - (c) be in possession of valid Competition (Racing) National B Licence, as a minimum
 - (d) A professional driver, in possession of a valid Licence (featuring an E.U. flag) and medical, issued by the ASN of a member country of the European Union, or comparable country. ((H)26.2.1. applies)
 - (e) If participation in the Championship requires absence from education a driver, in full time school education is required to have the approval of their head teacher and a letter stating such approval from their school in order to fulfil registration for the Championship. A driver shall not take time out of their education to participate in motor sport without the prior written approval of their education establishment.
3. All necessary documentation must be presented for checking at all rounds when signing-on.

1.4: REGISTRATION:

1. All competitors must register for the championship by returning the Registration Form with the Registration Fee to the Championship Co-ordinator prior to the Final Closing date for the first round being entered.
2. There is a registration fee of £195 for 2015 payable to the championship co-ordinator.
3. Registration numbers will be the permanent Competition number for the Championship

1.5: CHAMPIONSHIP ROUNDS:

The **GAZ SHOCKS COMPACT CUP CHAMPIONSHIP** will be contested over the following rounds:

Date	Circuit	Round/s
29 March	Donington Park	2
26 April	Brands Hatch	2
24 May	Croft	2
4 July	Oulton Park	2
23 August	Silverstone International	2
13 September	Snetterton 300	2
4 October	Donington Park GP	2

1.6: SCORING:

1. Points will be awarded to Competitors listed in the Final Results as follows: 50; 47; 45; 44; 43; 42; 41; 40; 39; 38; 37; 36 35; 34; 33 thus decreasing by 1 points down through the results to the final position. All starters who fail to finish 1 point. Fastest lap 1 point

2. The totals from all qualifying rounds run (excluding any races which are abandoned and which are not replaced) less 2 will determine the final championship points positions.
3. Ties shall be resolved using the formula in (W)1.3.4. in the current MSA Yearbook.
4. Where the race distance has been reduced (2.6.) it shall still count as a full points scoring round.
5. Competitors not registered for the Championship may be permitted on an individual round basis and will:
 - (a) be deemed "Guest Competitors"
 - (b) not score points and for the purpose of points scoring will be ignored
 - (c) qualify for Event awards
 - (d) comply with the eligibility criteria as prescribed in Article 1.3. above, with the exception of 1.3.1. (b) and 1.3.2. (b), as appropriate
6. Where two drivers are registered in the Team Challenge and are sharing a car, their points scored (as per 1.6.1) will be combined and they will compete for the Team Challenge Awards as per 1.7.3. Each driver must contribute at least 4 scores to the team total.

1.7: AWARDS:

1. All awards are to be provided by the Organising Club unless agreed otherwise.
2. Per Round: Trophies to 1st, 2nd and 3rd.
3. Championship: Trophies, subject to a minimum of 5 race starts, to:-
1st, 2nd, 3rd, 4th, 5th & 6th overall.
Best Prepared car.
4. Presentations: Awards will be presented at the end of each event, and/or at the end of the Championship at the designated presentation ceremony.
5. Entertainment Tax Liability: {deleted}
6. If Provisional Results or Championship Tables are revised after any presentations and these revisions affect the distribution of awards the Competitors concerned must return them to the organisers in good condition within 7 days.

2: CHAMPIONSHIP EVENT MEETINGS & RACE PROCEDURES

1. ENTRIES:

1. Competitors are responsible for sending in correct and complete entries with the correct entry fee prior to the closing date for entries before each event.
2. 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 Meeting Organiser receives the missing or corrected information or fee.
3. Any withdrawal of Entry or Driver/Car changes made after acceptance of any entry must be notified to the Meeting Organisers in writing. D25.1.12. applies.
4. The Entry Fee for each event shall be specified in the SRs and on the entry form.
5. Reserves will be listed in the Final List of Entries published with Final Instructions or in a Bulletin.

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. QUALIFICATION PRACTICE:

1. Should any Practice session be disrupted the Clerk of the Course shall not be obliged to resume or re-run the session; the decision of the Clerk of the Course shall be final.
2. Each driver shall complete a minimum of 3 laps in the car to be raced, and in the correct session, in order to qualify (MSA Regulations Q4.5).
3. At Double Header Meetings the Grid for Race 2 will be set by second fastest practice times.

4. **RACES:** Should any race be disrupted the Clerk of the Course shall not be obliged to resume or rerun the race ((Q)5.4.) (1.6.4. above applies)



5. STARTS:

1. All cars will be released to form up on the grid prior to the start in formation as specified on the grid sheet.
2. The start will be via Standing start. The minimum Countdown procedures/audible warnings sequence shall be:-
 - I. 1 minute to start of Green Flag/Pace Lap - Start Engines/Clear Grid.
 - II. 30 Seconds - Visible and audible warning for start of Green Flag/Pace Lap.
 - III. A five second board will be used to indicate that the grid is complete.
 - IV. The red lights will be switched on five seconds after the board is withdrawn.
3. Any car removed from the grid after the 1 minute stage or driven into the pits on the Green Flag lap shall be held in the pitlane and may start the race after the last car has passed the startline or pitlane exit, whichever is the later to take the start from the grid.
4. Any driver unable to start the Green Flag/Pace lap or start are required to indicate their situation as per MSA Regulation (Q)12.13.2. In addition any driver unable to maintain grid positions on 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.
5. In the event of any starting lights failure the Starter will revert to use of the National Flag.

6. SESSION RED FLAG: Should the need arise to stop any race or practice, RED LIGHTS will be switched on at the Startline and RED FLAGS will be displayed at the Startline and at all Marshals 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, during practice, and to the starting grid area, during a race, unless otherwise directed by officials. Cars may not enter the Pits unless directed to do so. Work on cars already in the Pits must cease when a race is stopped.

7. PITS, PADDOCK & PITLANE SAFETY:

- 1 Pits & Paddock: Competitors must ensure that the MSA, Circuit Management and Organising Club Safety Regulations are complied with at all times.
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 respect the pit lane speed limits.
3. Refuelling: May only be carried out in accordance with the MSA General Regulations, the Organising Club Regulations, Circuit Management Regulations and the SRs or Final Instructions issued for each Circuit/Meeting.
4. Speed Limit: Pit Lane Speed Limit will be 60 km/h.

8. RACE FINISHES: After taking the Chequered Flag drivers are required to:

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

9. RESULTS: All Practice Timesheets, Grids, Race Results are to be deemed Provisional until all vehicles are released by Scrutineers after Post Practice/Race Scrutineering and/or after completion of any Judicial or Technical Procedures. (MSA regulation (D)26.3.)

10. TIMING MODULES: The 750 Motor Club utilises AMB transponder-based timing and competitors must have a compatible transponder fitted and working and advise the race organisers of its number prior to the event. The transponder is a TRANX 260 Direct Powered and is available from HS Sports Ltd – 01260 275708.

11. QUALIFICATION RACES: If any event is oversubscribed the Organising Club may at their discretion run Qualification Races.

12. OPERATION OF SAFETY CAR: {deleted}

13. ONBOARD CAMERAS: All competitors race cars are required to carry an on board in car camera for the primary purpose of safety. Footage from the cameras may be used where there is an incident which is subsequently brought before the Clerk of the Course for investigation, or which is reported to the Championship Co-ordinator for investigation. The decision to review any such video footage is at the discretion of the Clerk of the Course, the Stewards of the Meeting or the Championship Co-ordinator.

(i) It is the competitor's sole responsibility to ensure safe installation and effective operation of the camera equipment. At all times cameras must be fitted in accordance with MSA Regulations and be approved by the Chief Scrutineer in accordance with J.5.20.5

(ii) Cameras must be mounted in a fixed "off-centre" position, and angled in such a way that footage captured will provide a clear view through the front windscreen as well as including the steering wheel.

(iii) In the event that no data is available on request (other than due to a proven defect with the equipment) sanctions may be applied which can include but are not limited to exclusion from the Championship or a fine of up to £500. The burden of proof to establish the cause of such failure will lie with the competitor.

3. SPECIFIC CHAMPIONSHIP REGULATIONS

In the event of any rounds being oversubscribed the Organising Club may, in liaison with the Championship Co-ordinator, at their discretion run Qualification races as per 2.11 of these regulations. Alternatively at double header race meetings, should there be sufficient space within the timetable, the Organising Club may divide the grid after qualifying into 3 separate Groups. The Groups will then form 3 races whereby each competitor participates in two races. All 3 races will be eligible for full championship points.

4. SPECIFIC CHAMPIONSHIP PENALTIES:

In accordance with Section C of the current MSA Yearbook

4.1: INFRINGEMENT OF TECHNICAL REGULATIONS:

1. Arising from post practice Scrutineering or Judicial Action:

Minimum Penalty: The provisions of MSA Regulations: C3.3.

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 will invoke the provisions of Regulation C3.5.1 (c).

4.2: ADDITIONAL SPECIFIC CHAMPIONSHIP PENALTIES:

None

5: TECHNICAL REGULATIONS

5.1: INTRODUCTION:

a) 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 what modifications or upgrades can be made to the car, then you must work on the principle that it will not be permitted. The fact that some modifications are mentioned as prohibited does not imply that others are allowed. If any doubt exists about the legality or acceptability of any modification, then please request clarification from the Championship Co-ordinator **prior** to any work being undertaken.

b) STANDARD: The word 'standard' used within these technical regulations as a description of components is to be interpreted as per 'Standard Part' defined in Section B – Nomenclature & definitions in the MSA Blue Book. Checking will be by comparison to spare parts supplied by the manufacturer's official agent or by any other means necessary to ensure compliance.

c) STANDARD PATTERN: The phrase 'standard pattern' used within these technical regulations as a description of components is to be



interpreted as per 'Standard Part' defined in Section B – Nomenclature & definitions in the MSA Blue Book. Checking will be by comparison to spare parts supplied by the manufacturer's official agent or by any other means necessary to ensure compliance.

5.2: GENERAL DESCRIPTION:

The Safety Devices | GAZ Shocks Compact Cup Championship is for competitors participating in the BMW E36 Compact 318 Ti M44 UK & European domestic market cars in either left or right hand drive versions. There are no restrictions on the transport of cars to and from the circuit.

Cars will run in one class.

The Safety Devices | GAZ Shocks Compact Cup Championship technical regulations are intended to allow competitors to produce race cars that are safe, affordable and of a near identical level of performance, with the emphasis placed firmly on driver ability. Competitors are therefore asked to keep this in mind when building or modifying race cars and are encouraged to seek guidance from the Championship Co-ordinator where appropriate. A modification that gives a performance advantage at a high financial cost will almost certainly be illegal, or possibly outlawed in future regulations. As described above, the ethos of the championship does not extend to the building of race engines to the limit of the permitted modifications. Those "permitted modifications", are "permitted", in order to prolong the longevity of the M44 engine, head skimming is allowed in order to make a "warped head", re-usable, "boring the cylinders", is permitted in order to allow an engine with a worn or scored bore to be re-used, **block re-facing is permitted to allow blocks to remain useable**, thus keeping costs low and the Championship's hunger for spare engines to a minimum. Competitors seeking to use a combination of these "permitted modifications", solely to gain a power advantage can expect to exceed the maximum power allowed for the Compact Cup. (as tested on a **Championship registered** MAHA Dyno. Also noteworthy is the fact that the Championship ECU was developed with an "average", engine, and though a sensible margin for ignition timing and fuelling was factored in, it does not allow for "optimised engines", and no further "modifications", to the Championship ECU are allowed. **The Safety Devices | GAZ Shocks Compact Cup Championship** is not a development formula.

Examination of vehicles. The Championship Eligibility Scrutineer (in addition to any other powers they may have under these regulations) reserve the right before or after any race in the championship to designate any one or more of the competing cars for special eligibility scrutineering. Competitors must be prepared, with tools and spare parts as necessary, to enable inspection of components, or to have units sealed at the circuit for later inspection by the Eligibility Scrutineer at the Competitor's expense. Upon such selection being made the competitor shall immediately place the car under the control of the Eligibility Scrutineer and be deemed to have permitted all such scrutineering, examination and testing as the organisers may reasonably require. The Eligibility Scrutineer has the right to:

- Examine the car at the circuit for such period as they may reasonably require and take fuel samples.
- Retain the car for detailed examination at premises chosen by the scrutineer, if the scrutineers elect to retain the car they shall make it available for collection by the competitor at least seven days prior to the qualification session for the next race in the championship unless the car is found to be in breach of these regulations.
- Seal the car and any of its components in such a manner as they may choose and require the competitor at their own expense to present the car at any other premises chosen by the organisers for detailed examination within a specified period and / or remove the car by transporter at no expense to the competitor to an appointed location. The competitor will be advised in writing of the time, date and location of the subsequent testing or eligibility examination. The overseen stripping of the engine or any required component will be undertaken by the competitor and / or mechanic / technician nominated by the competitor.
- The scrutineer can at their discretion request the removal of any part for their further inspection and testing. If the scrutineer decides to retain any part for further inspection over a race weekend, a fully

eligible replacement part will be provided by the scrutineer at the time of removal, allowing the competitor to continue racing.

5.3: SAFETY REQUIREMENTS:

The following Articles of MSA Section K Safety Criteria Regulations will apply:- K drawings 1 – 6 with compulsory 'side-entry' bar on both the driver and passenger side of the car; K5, K6, K8 – K11, K13 – K14. Extinguishers must be plumbed-in and comply with MSA regulation K 3.1.2 a). Seat belts must be FIA homologated and as per K2.1.2, K2.1.3 or K2.1.4

5.4: GENERAL TECHNICAL REQUIREMENTS & EXCEPTIONS:

All cars must comply with the requirements of sections J and Q19 of the current MSA Yearbook. All vehicles must comply with MOT requirements (with the exception of emissions), be of sound construction and mechanical condition and be well maintained. There is no requirement for an MOT Certificate, Road Tax or Insurance. The organisers reserve the right to refuse entry from any car of which the preparation is of a poor standard (including the external appearance) and which is likely to bring the Championship into disrepute.

5.5: CHASSIS:

No chassis **modification or** stiffening is permitted except that derived from the fitting of the roll cage; the cage must be a bolt in multi-point Safety Devices B027 or B034. Cars fitted with alternative cages must have been registered for and raced in the Compact Cup Series previously (**the Championship coordinator is able to clarify this position for individual race cars**) Extensions into the engine bay are prohibited. Seam-welding **or the addition of spot welds** to the shell is prohibited. Bolt-on aftermarket front & rear strut **top** braces are permitted. Towing eyes must be fitted front & rear and must have a minimum internal diameter of 60mm; (note the tow eye may be of either a suitable rigid or flexible material bolted to the chassis).

5.6: BODYWORK:

1. Modifications Permitted:

- General:** Mandatory fitment of laminated windscreen. All other windows (not sunroof) to remain standard material. The addition of colourless safety film to the glass is permitted.
- Interior:** Driver's seat must be replaced with a competition seat fitted in accordance with K2.2. **All** passenger seats, floor coverings, roof lining, **sound deadening materials**, radio/stereo units, speakers and associated wiring may be removed. **Redundant interior metal bracketry such as rear seat mountings may be removed, however competitors should bear in mind that if the removal of any material results in weakening the structural integrity of any panel, then the Clerk of the Course (at their own discretion) will be fully authorised to exclude the vehicle from competing.** Spare wheel & associated parts, and all tools must be removed. **Additional instruments are permitted, but the original dash binnacle and instrument cluster, must be retained and fitted in their original positions.** **The main body of the standard dashboard must be retained and securely fitted in its original position, however localised trimming is permitted to allow roll cage fitment and the addition of aftermarket switchgear or pull cables. The removal of the glovebox, lid and hinges is permitted.** Steering wheel may be changed (compulsory if an air bag is fitted as original equipment). Glass sunroofs must be removed or replaced as per MSA regulation Q19.14.6. Electric window winding mechanisms must be retained, and the driver's window must be fully operational. It is permitted to remove air-conditioning if fitted, but the original heater matrix, mechanism and blower must be fitted and operational. **The removal of dashboard air vents and associated pipework is permitted**, however the heating system must be able to demonstrate the ability to blow hot air onto the front windscreen to aid demisting. An interior (**standard or non standard**) rear view mirror must be fitted to the left of the driver (or right if the car is left hand drive). If original interior door panels are removed they must be replaced with strong



sheeting - this must be executed to a high standard with no sharp edges and with smooth surface.

3. Exterior: A door mirror must be fitted on both sides of the vehicle and may be any production or pattern BMW part; the choice of mirror within them is free. The original number of windscreen wiper arms/blades must remain and be fully functioning; rear motor and all wiring can be removed from tailgate. **Front windscreen washer systems must be fully operational.** All weather strips/channels must be retained. The standard engine bay cover locking mechanism must be disabled; only bonnet pins may be used to secure the engine bay cover in the closed position. Door bars may be removed and some localized trimming of the inner door skins, tailgate and bonnet for lightening purposes is permitted. **Removal of impact absorbing materials from the internals of front and rear bumpers is permitted. Competitors should bear in mind that if the removal of any material results in weakening the structural integrity of any panel, then the Clerk of the Course (at their own discretion) will be fully authorised to exclude the vehicle from competing.**

4. Silhouette: All cars have to retain the original E36 BMW Compact profile. The only permitted front bumper is the E36 M-Sport or M3 version, of either standard BMW part or pattern part. It is permitted to fit the BMW E36 EVO front lip of either standard BMW part or pattern part (see diagram 1). It is permitted to enlarge the original nearside front fog lamp hole to accommodate an air intake feed pipe of a maximum diameter of 105mm. The only permitted rear boot spoiler is the M-Tec (P/n 51712490022 or P/n 51712490023) spoiler or pattern part (see diagram 2). The front and rear bumpers can not be **aesthetically** modified in any other way, and must appear as standard (other than for localised trimming to allow fitment of towing straps). **It is not permitted to add any non standard materials to the inside or outside of bumpers as a means to benefit airflow.**

Any standard BMW E36 rear bumper is permitted, if the BMW E36 M-Sport rear bumper is used it must be fitted with the diffuser insert (see diagram 3)

5. Ground Clearance: It is permitted to alter the ride height. Under no circumstances can any part of the bodywork, or suspended part of the car excluding the exhaust system, be below a horizontal plane passing 50mm above the ground. The car should be in normal racing trim with the driver aboard and steering in straight ahead position. A gauge of 50mm may be used by Scrutineers before or after races or practice to check the ground clearance; the vehicle may be stationary or moving during any testing. There is no minus tolerance to this measurement.

2. Modifications Prohibited:

1. General: The exterior of the car must be standard for the model being raced. All of the bodyshell and any replacement body panels must be of original shape, material and thickness. The reduction in thickness of any part of the car by acid-dipping, blasting or by any other means is prohibited. Exterior trim must be generally standard.

2. Interior: Door trims and panels may not be removed unless they are replaced by appropriate material as detailed in 5.6.1.2 above. Any other modification in contravention of 5.6.1.2 is also prohibited.

3. Exterior: It is not permitted to increase the width of the wheel arch by the addition of material. It is permitted to roll the inside of the wheel arch. Holes for brake ducting may not be made in the bodywork. It is not permitted to add any non-standard material or structure to the underbody or outer floor plan.

4. Silhouette: Any in contravention of 5.6.1.4.

5. Ground Clearance: Any in contravention of 5.6.1.5.

5.7: ENGINE:

The only permitted engine is the BMW M44 1.9 16v. All internal engine parts must be original or OEM unmodified pattern parts from the M44.

It is the competitor's responsibility to ensure that no prohibited modifications have been carried out if they are using an engine not assembled by them.

Checking of engine parts will be by comparison to spare parts supplied by the manufacturer's official agent or by any other means necessary to ensure compliance.

All competitors must have available on race days, at least two bolts/nuts for the rocker cover. Two bolts for the sump. Two bolts for the timing cover and two bottom bellhousing bolts. All should be cross-drilled with a hole of minimum 1/16th diameter to accept scrutineer's locking wire.

Cars may be required at any point during the season to have their engine and ECU sealed and attend a rolling road test prior to their next race. Cars will be required (at the driver's expense) to attend one of the championship designated rolling roads (including the 750 Motor Club mobile MAHA dyno) where the car will be power tested. The maximum permitted power is 155bhp measured at the flywheel. Vehicles exceeding this figure by **any more than 1%** may be subject to disqualification or further technical checks. The designated rolling road centres for the championship will all use the MAHA LPS Championship Dyno

A list of approved locations can be found in Appendix 1 to these regulations.

1. Modifications Permitted:

Engine **cylinders** may be bored to accept 0.5 mm oversize standard pattern pistons. The replacement of valves, valve guides and valve seats with parts of standard pattern and material is permitted. It is permitted to reclaim the cylinder head and cylinder block by skimming provided the maximum permitted compression ratio of 11.0:1 is not exceeded.

No other modifications are permitted beyond the repair or adjustment processes specifically specified by the manufacturers' workshop manual. Spot tests will be carried out at events.

2. Modifications Prohibited:

Any other than those permitted in 5.7.1. It is specifically prohibited to modify inlet ports, exhaust ports and combustion chambers in any way, and all must remain as cast. **The removal of material as a means of lightening any internal engine part is prohibited. The removal or addition of materials as a means of balancing any internal engine part is prohibited.** Camshaft profiles and cam timing must remain as standard BMW E36 318ti Compact M44 factory settings.

3. Location:

Position and mounting method must be standard for the model. Original engine mounts may be replaced by the Vibratechnics mount with the part number BMW362MX. No other aftermarket engine mounts are permitted.

4. Oil/Water cooling:

Water radiators must be BMW OE or pattern parts. OE or aftermarket electric fans are permitted.

5. Induction Systems:

The complete induction system must remain **as standard including the fitment and positioning of the throttle body and mass air flow sensor.** **No other modifications are permitted with the exception of the air filter, air filter box and air ducting** which are free. The crankcase breather may vent directly to a catch tank and any holes in the air filter housing associated with the breather system may be blanked off.

6. Exhaust systems:

Exhaust systems must exit at the rear of the vehicle. The standard E36 318ti M44 engine exhaust manifold must be retained and may not be modified by the removal of material. The remainder of the exhaust system including silencer is free. All cars must run with a fully operational catalytic converter **fitted in the original position within the exhaust system;** this may be the standard BMW part or any aftermarket version. Emissions testing may be carried out to ensure compliance. **Limit values applied during testing will be 0.6% CO by Volume and 400ppm HC at 2500-3500RPM.**

7. Ignition systems:

The only ECU permitted is the Compact Cup item which is only available from BMW RACE DAYS. No alternative or additional ECU is



permitted; the standard E36 318ti Compact EWS must be retained and operational. Plug leads and spark plugs are free.

8. Fuel delivery systems:

It is permitted to replace the fuel lines and filter. Dual fuel pumps may be fitted but must be original BMW standard pattern items only, and fitted in the original manufacturers positions inside the fuel tank. The pressure regulator must be standard and unmodified. Fuel Pressure testing may be carried out at any time to ensure that the fuel rail pressure does not exceed 4 bar.

5.8: SUSPENSIONS:

1. Modifications Permitted:

It is a mandatory requirement for all cars to run with the GAZ Gold Compact Cup specification coilover shock absorber kit. For 2015 there is a mandatory championship spring kit, and these springs can only be purchased directly from Eibach UK via www.bmwracedays.co.uk. Only bump stops as supplied with the GAZ Gold Compact Cup specification coilover kit can be used, and these must be utilised as recommended by GAZ Shocks (1 bump stop per shock absorber). Anti roll bars must be production BMW E36 items of the following diameter:

Specification	Front Diameter	Rear Diameter
Standard	25mm	14mm
Sport	26mm	16mm

GAZ adjustable front top mounts are permitted. Suspension bushes are free but should be of a rubber or "Polybush" construction, no rose joints are allowable other than on top mounts offered as an option by Gaz Shocks with the suspension kit. Eccentric bushes are permitted on front suspension. It is prohibited to alter the front camber by the modification or machining of any part. No adjustment, alteration or machining of parts, or the use of eccentric bushes are permitted on the rear suspension, other than adjustment afforded by the mandatory Gaz Shocks Suspension.

2. Modifications Prohibited:

Modifications to the suspension pick-up points are prohibited; this includes the 'slotting' of suspension strut mounting points. BMW E36 M3 & M3 EVO wishbones and hub knuckle bearings are not permitted.

3. Wheelbase/track:

The wheelbase must remain standard (2700mm). The track can be changed but wheels and tyres must not extend past the wheel arch.

5.9: TRANSMISSIONS:

1. Permitted modifications:

Standard gearbox and flywheel must be retained. The only permitted gear ratios are as follows: 1st: 4.23, 2nd: 2.52, 3rd: 1.66, 4th: 1.22, 5th: 1.00. Dual Mass flywheels may only be replaced with the BMW M40 single mass unit Part No' 11 22 1739 315, or with the flywheel as supplied by Valeo in their "solid flywheel conversion kit" (part number 835017). Where a single mass flywheel is used, it must be unmodified and must not weigh less than 9.2 kg. Clutches must remain standard road parts and no competition items are permitted. An OEM or aftermarket "quick shift" manual gear change mechanism is permitted.

2. Prohibited modifications:

Gearbox must be standard for the model being raced. Limited slip, locked, locking, torque biasing or spring preloaded differentials or similar are prohibited.

3. Transmissions & Drive ratios:

The use of any electronic traction control device is prohibited. Standard gearbox ratios must be retained. Final drive ratio must be 3.38:1.

5.10: ELECTRICS

Exterior Lighting: Must be as per standard fitment and to EC requirements and be fully operational. Front lights/lamps must be taped to MSA regulations or covered with a transparent protective plastic / vinyl film.

2. Rear Warning Light: Cars must be fitted with a manually switchable rearward facing red warning light which must be fully compliant with the MSA Year Book ruling : Section K 5.1A.

3. Batteries: No restrictions on type or location subject to MSA regulations. A battery and electric starter motor must be fitted and be capable of repetitive starts. No external (slave) batteries may be used.

4. Generators: A fully working standard alternator and standard pulley must be fitted and electrically connected so that the standard battery charging function is providing a charge to the onboard battery.

5.11: BRAKES

1. Brake pads are free. Deformation or removal of back plates is permitted, as is the fitment of alternative brake piping/hosing. Anti-lock braking system must be disabled and removed. Discs may be standard or standard pattern. Front discs must be of a maximum diameter of 286mm. Rear discs must be of a maximum diameter of 272mm. Discs may be cross-drilled and/or grooved. Standard E36 318 Ti M44 Compact front and rear brake callipers must be used. The braking system must remain fully operational in all aspects at all times, including the handbrake. Brake biasing valve/system may be replaced with a proprietary pressure-limiting valve, which may be adjustable by the driver but must provide a minimum of 25% of braking effort to either axle as per MSA Regulation Q19.5.

2. Prohibited Modifications: A hydraulically-operated handbrake is not permitted in that it does not comply with MOT requirements. BMW E36 M3 disks and callipers are specifically prohibited. Rear brake hydraulic line lock is not permitted.

5.12: WHEELS / STEERING

1. Permitted Options: It is permitted to use any BMW E36, E46 or Z3 steering rack which is a direct replacement, modification of the replacement rack is prohibited. Power assistance may be disabled.

STEERING LOCK: If fitted with a steering lock, this should be rendered inoperative, unless the vehicle is driven to the circuit on the highway. MSA regulation Q19.6.

2. Prohibited Options: No machining or other modification of the road wheels are permitted.

3. Construction & Materials: Steel or alloy only. Magnesium wheels are prohibited.

4. Dimensions: 15" x 7"J

5. Wheel Spacers: Wheel spacers are permitted provided that the vehicle track remains within the limits permitted in rule 5.8.3 and they are of the 'hub-centric' type and of the correct p.c.d. Where spacers are used, they must be fitted in equal pairs across the axle. Universal wheel spacers are not permitted and competitors should ensure that wheel bolts are of sufficient length to adequately secure each wheel. Wheel hubs may be fitted with studs to accept wheel nuts.

5.13: TYRES

1. From the tyres listed in the MSA Year Book, Section L, list 1B, the control tyre for the 2015 championship is Nankang 195/50R15 86W NS-2R 180 (STREET) XL. It is prohibited to buff, cut or mechanically interfere with the tyres in any manner. The original tread pattern must remain visible at all times, and with a minimum tread depth of 1.6mm. The use of tyre heating/heat retention devices, chemical tyre treatments and compounds is strictly prohibited.

Drivers will be limited to an allocation of 16 race tyres per season. The tyre allocation system will be administered and policed by the scrutineers by way of recorded purchases linked to an "in tyre" microchip identification system. The Championship Scrutineers will retain the option to increase the tyre allowance on safety grounds by a further 4 units to all competitors at any point throughout the season.

It is the competitors own responsibility to manage their 16 tyre allocation throughout the race season. Only tyres within those registered to the competitor will be eligible to compete in qualifying or



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racing. There will be no provision for competitors to receive additional tyres in the event of their original allocation being unfit to compete due to wear.

Should the competitor damage a tyre beyond safe use whilst qualifying or competing in the championship, they should immediately, post session request that the scrutineer inspects the tyre and logs the damage. At the discretion of the scrutineer, a replacement tyre may be allocated (at the competitor's own cost), but ONLY if the competitor can prove that they have no further useable tyres within their original full allocation. If the competitor has not purchased his full allocation, it will be their own responsibility to purchase a replacement tyre for any damaged units.

2. Nominated supplier: Nankang Tyres UK, Tyre Order via www.bmw racedays.co.uk.

5.14: VEHICLE WEIGHT:

1. Minimum 1150 kgs including driver post practice or race. Random checks will be carried out during the season and no car/driver combination shall be below this minimum weight. All minimum weights are including driver and race overalls, helmet etc.

5.15: FUEL TANK / FUEL

1. **Types:** Standard unmodified fuel tank must be fitted.
2. **Locations:** Tank must remain in standard location.
3. **Fuel:** Only petrol as defined in Section B Nomenclature & Definitions, Pump Fuel a) section of the MSA Yearbook for the current year and complying with BS4040, BSEN228 or BS7800 may be used; fuel which exceeds the stated RON (max) levels in Appendix 1 of Section B Nomenclature & Definitions is prohibited even if it is sold/promoted as being legal for UK Competition and/or obtainable from 'roadside' pumps. The use of additives by competitors which

boost the octane rating (RON) in any petrol is prohibited. At the end of practice and the race at least 3 litres of petrol from the tank of the competing car must be available to the scrutineers for analysis. Compliance with minimum weight for the car will be taken before the petrol is removed.

5.16: SILENCING:

All vehicles must comply with the relevant maximum noise limits set out in MSA Blue Book regulation J. Chart 5.18.

5.17: NUMBERS & CHAMPIONSHIP DECALS

1. **Positions:** The race numbers for each rear side window shall be;
 - (i) A minimum of 200mm high
 - (ii) With a stroke width of at least 20mm
 - (iii) Coloured Day-Glo yellow.

In addition, the windscreen of all cars must display the competition number positioned on the upper area of the passenger's side of the windscreen, as follows;

- (i) The numerals must be at least 150mm high
- (ii) Be in the same colour and font as those displayed on the rear side windows
- (iii) Be placed no closer than 50mm from the lower edge of the windscreen "sun-strip" and 50mm from the side edge of the windscreen.

750 Motor Club decals must be affixed prominently. Championship Sponsor's decals (where applicable) must be affixed in or near the positions detailed on the diagram supplied with those decals. 750 Motor Club and Championship Sponsor's decals must take preference to any other decals. Drivers may be requested to remove decals that are viewed as conflicting with official Championship Sponsors. Failure to comply will render the vehicle and driver ineligible to race.

2. **Suppliers:** Sponsors and Club decals will be available before the first Championship race in which the vehicle is entered. Competition numbers will be obtained at the competitor's expense.

6. APPENDICES:

1. Nominated MAHA Rolling Roads **(Check that the operator has a calibration certificate no older than 12 months before booking):**

**Aldon Automotive
(Brierley Hill)**
Breener Ind Est
Station Drive
Brierley Hill
DY5 3JZ
Tel 01384 572553

**QST
(Haywards Heath)**
4 Bridge Road
Haywards Heath
RH16 1UA
Tel 01444 451 542

**Pendle Performance
(Barnoldswick)**
Calf Hall Mill, Mill Street
Barnoldswick
Lancashire
United Kingdom
BB185PX
Tel 01282 851025

**Falkland Performance
(Glenrothes)**
Unit 5 Woodgate Way South,
Eastfield Industrial Estate,
Glenrothes,
Fife,
KY7 4PF
Tel 01592 773677

**Star Performance
(Kirkcaldy)**
Wemyss Rd,
Dysart
Kirkcaldy
Fife
KY1 2XZ

**Marlin Motor Engineers
(Milton Keynes)**
Unit 4-5 Wellington Place
Bletchley
Milton Keynes
MK3 5NA
Phone: 01908 366 256

**FR-R Tuning
(Bradford)**
383 Leeds Road
Bradford
BD3 9LY

**Revivals
(Duxford)**
Revivals Garage
Lodge Road
Thriplow, Royston
Herts
SG8 7RN
Telephone: 01763 208043

**C C Motors
(Sheffield)**
Unit 4, Parklands Court

Hi-Tech Motorsport
Unit 14 Lodge Forge Trading
Estate

**Car-Trac Dyno Tuning
(Shropshire)**
Main Road

**Superchips
(Buckingham)**
2-18 Homestall



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Dannemora Drive
Sheffield
South Yorkshire
S9 5DF
Tel 0114 243 3970

Cradley Road
Cradley Heath
West Midlands
B64 7RW
Tel 01384 561777

Pontesbury
Shrewsbury
Shropshire
SY5 0UB
Tel 01743 790554

Buckingham
MK18 1XJ
Tel 01280 816 781

**EDM
(Bicester)**
E.D.Motorsport,
Unit 7 Field Farm Business
Centre,
Nr Launton,
Bicester,
Oxfordshire,
OX26 5EL
Tel 01869 278 942

**DA Auto's
St Marys Industrial Estate
Dumfries
DG1 1NA
01776 700999**

**The Tipton Garage
(Sidmouth)**
Tipton St John
Near Sidmouth
Devon
EX10 0AF
Tel 01404 814597

**Silena Automotive
(Kings Lynn)**
Unit 1, Garage Lane
Setchey
Kings Lynn
Norfolk, PE33 OBE
Tel 01553 811200

**DA Auto's
St Marys Industrial Estate
Dumfries
DG1 1NA
01776 700999**

**TSR Performance
1 Stockmoor Park
Taunton Road
Bridgewater
Somerset
TA6 6LD
Tel 01278 453036**

**Super Seven Auto's
16 Bashfords Lane
Worthing
BN14 8AF
Tel 01903 237218**

BMW Racedays contact:

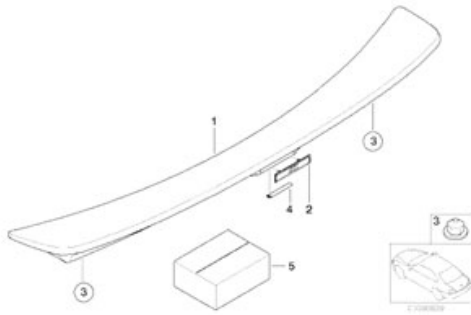
Paul McErlean - Tel: 07540 487 005. Email: info@bmwracedays.co.uk.

Diagram 1



Images illustrate a BMW E36 sport style pattern front bumper, also shown is the detachable/attachable 'EVO front lip'

Diagram 2



Images illustrate a BMW E36 M-TEC boot spoiler / pattern part

Diagram 3



Images illustrate a BMW E36 M Sport rear bumper & diffuser