

2020 LANCASTER INSURANCE MGOC CHAMPIONSHIP
SPORTING & TECHNICAL REGULATIONS



FINAL PUBLISHED VERSION – 27/01/2020

Organised by the British Automobile Racing Club

Thruxton Circuit, Andover, Hampshire, SP11 8PN

1. SPORTING REGULATIONS - GENERAL

1.1 TITLE AND JURISDICTION:

The Lancaster Insurance MGO Championship is organised and administered by the British Automobile Racing Club (BARC) and promoted by them, 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.

MSA Championship Permit No.:	CH2020/R045
Race Status:	Interclub
MSA Championship Grade:	Grade C

1.2 OFFICIALS:

1.2.1	Co-ordinator:	Dave Wheadon
1.2.2	Championship Eligibility Scrutineer:	Graham Bahr
1.2.3	Championship Stewards:	Pat Blakeney Dennis Carter Richard Monk Dale Wells

Any three of the Championship Stewards may sit to make a decision. In accordance with (G) 2.7, Championship Stewards may only adjudicate on any disputes, irregularities or appeals arising from the approved Championship regulations. Under (G) 2.7.1, Championship Stewards are also empowered to consider any request from the Championship co-ordinator to penalise any Competitor for any breach of Championship regulations after holding a formal hearing to impose a penalty in accordance with C.2.1.1 (subject to the rights of appeal provided for in Section C). Under (W) 2.2.1, the Championship Stewards can only adjudicate upon any disputes, irregularities or appeals arising from the approved Championship Regulations. They are also empowered to consider any request from the Championship Co-ordinator to penalise any Competitor for breach of Championship Regulations and after holding a formal hearing, to impose a penalty in accordance with C.2.1, subject to the rights of appeal to the MSC provided in Section C.

1.2.4	Championship Clerk of the Course:	N / A
1.2.5	Championship Drivers Representative:	Jim Baynam

1.3 COMPETITOR ELIGIBILITY:

1.3.1 Entrants must be:

- (a) be current members of the BARC and the MGO
- (b) be registered for the Championship
- (c) be in possession of a valid MSA Entrants Licences.

1.3.2 Drivers and Entrant/Drivers must be:

- (a) current Racing member of the BARC
- (b) current member of MG Owners Club
- (c) registered for the Championship
- (d) in possession of valid Competition (Racing) InterClub status Licence, as a minimum.
- (e) 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).
- (f) 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.

- 1.3.3. All necessary documentation must be presented for checking at all rounds when signing-on. This will include both the competition licence and club membership card.

1.4 REGISTRATION:

- 1.4.1 All competitors must register for the Championship by returning the Registration form with the Registration fee to the MG Owners Club a minimum of 48 hours prior to the date of the meeting being entered.
- 1.4.2 The Registration fee is £40 and should be made payable to "MG Owners' Club".
- 1.4.3 Competition numbers will be issued by MG Owners Club, these will be the permanent numbers for the Championship season.

1.5 CHAMPIONSHIP EVENTS:

The Championship is scheduled to be contested over seven meetings as follows:

<u>Rounds:</u>	<u>Date:</u>	<u>Circuit:</u>	<u>Organising Club</u>
Rounds 1/2	March 21/22nd	Silverstone (National)	BARC
Rounds 3/4	April 10/11th	Donington (National)	BARC
Rounds 5/6	May 25th	Castle Combe	CCRC
Rounds 7/8	June 27th	Thruxton	BARC
Rounds 9/10/11	August 1/2nd	Brands Hatch	BARC
Rounds 12/13/14	August 31st	Mallory	BARC
Rounds 15/16	September 19/20th	Snetterton	BARC

1.6 SCORING:

- 1.6.1.1 Points will be awarded to Competitors listed as classified finishers in the Final Results as follows:
1st - 12, 2nd - 10, 3rd - 8, 4th - 7, 5th - 6, 6th - 5, 7th - 4, 8th - 3, 9th - 2, all other finishers - 1
- 1.6.1.2 Should there be three or less starters in a Class, reduced points will be awarded as follows:
1st - 5, 2nd - 3, 3rd - 1
- 1.6.2 If an event is stopped and restarted the original number of starters in each class will determine the points to be scored.
- 1.6.3 In each race an additional point will be awarded to the driver in each Class setting the fastest race lap, provided that there are a minimum of two starters in the Class. A further point will be awarded to the driver starting the race from pole position in each Class, provided that there is a minimum of two starters in the Class. This point will not be awarded where the grid for the race is set by the second fastest time in qualifying.
- 1.6.4 The totals from all qualifying events run less two will determine final Championship points and positions.
- 1.6.5 Ties shall be resolved using the formula in W1.3.4, in the current MSUK Yearbook.
- 1.6.6 Where the race distance has been reduced in accordance with article 2.6 below, it shall still count as a full points scoring round.
- 1.6.7 Competitors not registered for the Championship may be permitted on an individual round basis and:
- (a) will be deemed "Guest Competitors".
 - (b) will not score points and for the purpose of points scoring will be ignored.
 - (c) will not be allowed to take their place on the podium and qualify for any event awards.
 - (d) must comply with the eligibility criteria as prescribed in article 1.3 above, with the exception of 1.3.1 (a & b) and 1.3.2 (a & b) as appropriate.

1.7 AWARDS

1.7.1 All race awards are to be provided by the MGOC unless otherwise stated.

1.7.2 Per Event:

The organising club will present a garland to the overall winner of each race.

MG Owners Club will provide a trophy to the overall winner and each Class winner subject to the being a minimum of two starters in the Class.

1.7.3 Championship: A trophy will be awarded to the overall Championship winner and to those finishing 1st, 2nd and 3rd in each Class.

1.7.4 Presentations: Awards will be presented at the end of each Event and/or at the end of the Championship at the designated presentation ceremony. Attendance at any such ceremony is mandatory and failure to attend may result in the loss of all awards.

1.7.5 Entertainment Tax Liability:

Prize money and Bonuses shall be posted to the Entrants within thirty days of the results being declared final after each event. 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 and account to HMRC using form FEU1, the quarterly return of payments made to non-resident entertainers and sportsmen/women. That is, those persons who do not have a normal permanent residence in the UK and 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 current rate applicable from any such payments they may make to non-UK residents. Under certain circumstances, it may be possible for competitors to enter into an agreement with the Inland Revenue to limit 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:

HMRC Personal Tax International, Foreign Entertainers Unit, St John's House, Merton Road, Liverpool L75 1BB, Tel: 01514 726488, Fax: 01514 726483.

1.7.6 Title to all Trophies:

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

2.1 ENTRIES:

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

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

2.1.3 Any withdrawal of Entry or Driver/Car changes made after acceptance of any entry must be notified to the Meeting Organisers in writing. D25.1.13 applies.

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

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

2.2 BRIEFINGS:

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

2.3 QUALIFICATION/PRACTICE:

- 2.3.1 Should any Practice session be disrupted the Clerk of the Course shall not be obliged to resume or re-run the session, the decision of the Clerk of the Course shall be final.
- 2.3.2. Each driver shall complete a minimum of 3 laps in the car to be raced and in the correct session, in order to qualify. Any car qualifying out of session is subject to Q4.5.2.

2.4 RACES:

Should any race be disrupted the Clerk of the Course shall not be obliged to resume or re-run the race (Q 5.4) in addition article 1.6.4 above applies.

2.5 STARTS:

- 2.5.1 All cars will be released to form up on the grid prior to the start in formation as specified on the grid sheet.
- 2.5.2 The start will be via a Standing start. The countdown procedure and audible warning sequence prior to the start of the race shall be:

- | | <u>Signal</u> | <u>Instruction</u> |
|------|---|---|
| I. | 1 minute | Start engines and clear the grid. |
| II. | 30 Seconds | Be prepared for start of Green Flag lap. |
| III. | Green Flag | Complete one lap of the circuit and reform into grid positions. |
| IV. | 5 Seconds | The grid is complete. |
| V. | The red lights will be switched on five seconds after the 5 second board is withdrawn and will be extinguished between 2 and 7 seconds later to indicate the start of the race. | |
- 2.5.3 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 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 later.
- 2.5.4. Any driver unable to start the Green Flag/Pace lap or start is required to indicate their situation as per MSA Regulation Q12.13.2. In addition any driver unable to maintain their grid position 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.
- 2.5.5. In the event of any starting lights failure the Starter will revert to use of the National Flag once all competitors have been advised of the fact
- 2.5.6 The Organisers reserve the right to amend this start procedure via a bulletin issued to all competitors. This may involve changing the method of starting and/or the countdown procedure leading up to the start signal being given.
- 2.5.7 A car will be deemed to have started the race if it is on the grid at the showing of the one minute board – refer Q12.7

2.6 SESSION RED FLAG

- 2.6.1 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.

- 2.6.2 Cars may not enter the Pits unless directed to do so or 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 a Scrutineer. Cars in the Pits may not re-join the grid.

- 2.6.3 All Competitors who are able to take part in any restarted race may do so in accordance with Q5.4 and Q5.5

2.7 PITS, PADDOCK & PITLANE SAFETY:

- 2.7.1 Pits & Paddock: Competitors must ensure that the MSA, Circuit Management and Organising Club Safety Regulations are complied with at all times. In addition any paddock plan issued by the Organisers must be complied with and the minimum amount of space should be used when setting up.
- 2.7.2 Pit lane: The outer lane or lanes are to be kept unobstructed to allow safe passage of cars at all times of. The onus shall be on all Drivers to take all due care and respect the pit lane speed limits. No-one under the age of 16 is permitted access to the pit lane unless they are the holder of an MSA Junior Race licence
- 2.7.3 Refuelling: May only be carried out in accordance with the MSA General Regulations, the Organising Club Regulations, Circuit Management Regulations and the SRs in Final Instructions issued for each Circuit/Meeting.
- 2.7.4 Speed Limit: Pit Lane Speed Limit will be 60 kph.

2.8 RACE FINISHES:

After taking the Chequered Flag drivers are required to:

- (a) progressively and safely slow down.
- (b) remain behind any competitors ahead of them.
- (c) return to the Pit Lane Entrance/Paddock Entrance as instructed.
- (d) comply with any directions given by Marshals or Officials.
- (e) keep their helmets on and harnesses done up while on the circuit or in the pit lane.
- (f) place their car into the Parc Fermé where it must remain until released by the Championship Eligibility Scrutineer or his deputy.
- (g) Attend any podium presentation that may be required.

2.9 RESULTS:

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

2.10 TIMING MODULES:

It is the Competitors responsibility to ensure that a working transponder is fitted to the vehicle in accordance with (Q) 12.2.1. No electronic equipment may be placed within five metres of any official timing line and any breach of this may result in the confiscation of the equipment concerned.

2.11 QUALIFICATION RACES:

If any event is oversubscribed the Organising Club may at their discretion run Qualification Races details of which will be published in Final Instructions for the event.

2.12 OPERATION OF SAFETY CAR:

The Safety Car will be brought into operation and run in accordance with Section Q, Appendix 2 of the MSA General Regulations.

2.13 ONBOARD CAMERAS:

Cameras may be fitted to vehicles provided that the camera fitment is approved by the Scrutineer and that any footage obtained is not for commercial use. The Clerk of the Course and the Stewards may make use of any such footage in reaching their decisions on any judicial matters.

3. SPECIFIC CHAMPIONSHIP REGULATIONS:

- 3.1 The organisers may, at their total discretion; run a qualification race should the entries received exceed 150% of the number of race starters allowed in the track licence for the circuit in question should there

be sufficient time in the meeting timetable to allow for this procedure. Should this be the case, the final instruction for the meeting will carry details of the procedure in question and shall have the same force as these regulations.

- 3.2 If at the close of entries, at the date specified on the entry form, entries received exceed 120% of the number of cars allowed to race at the circuit in question and there is no opportunity to run a qualification race, then irrespective of the date of receipt of entries (subject to them being received by the organising club prior to the date of closing) preference will be given to competitors in order of current Championship positions. The remaining entries will be made up of those not having scored points in order of date of receipt of entries. The BARC reserves the right at all times to select entries.
- 3.3 Where it is planned to hold two Championship races, only one Qualifying session will be scheduled. The fastest time set in Qualifying will set the grid for the first race and the second fastest time will set the grid for the second race.
- 3.4 The standard minimum scheduled distance shall be 15 minutes 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 a full points scoring round.
- 3.5 A driver may only score points using one car at any meeting.

If a car that has competed in the Race 1 of a double-header meeting is unable to start in Race 2 of that meeting the driver may use another car for Race 2 but will not be eligible to score points in the Class, this is subject at all times to the approval of the Clerk of the Course or his appointed deputy.

- 3.6 The use of tyre heating/heat retention devices, tyre treatments and compounds is prohibited.
- 3.7 The term **OEM** as used in the Regulations is taken to refer to the following definitions as detailed in Section B (Nomenclature and Definitions) in the current edition of the MSUK Yearbook:

STANDARD PART: Is a part, the specification, features, location and method of operation of a part are as provided when new by the motor manufacturer for the model and date of car as shown on the entry form.

STANDARD PATTERN PART: A replacement part that has a similar form shape and features as the standard part and is made using similar materials and manufacturing processes e.g. a standard part, manufactured by a non-original equipment supplier that is fully interchangeable with the standard part.

4. PENALTIES:

All penalties will be in accordance with Section C of the current MSA Yearbook and these Regulations.

4.1 Infringements of Technical Regulations:

4.1.1 Arising from post practice Scrutineering or Judicial Action:
Minimum Penalty: The provisions of MSA Regulations: C3.3.

4.1.2 Arising from post-race Scrutineering or Judicial Action:
Minimum Penalty: The provisions of MSA Regulations: C3.5.1 (a) and (b).

For infringements deemed to be of a more serious nature the Clerk of the Course may invoke the provisions of Regulation C3.5.1 (c). However if the Clerk of the Course believes that there is some mitigation surrounding the infringement then C3.5.1 (c) need not be implemented.

4.2 All infringements of non-technical MSA Regulations and the Sporting Regulations will be dealt with in accordance with these Championship Regulations and the General Regulations of the MSA

4.3 Additional specific Championship penalties:

4.3.1 Any Competitor adjudged to have made a false start or breached any part of the start procedure will be penalised by means of a ten second penalty being added to his total race time.

4.3.2 Breaches of 2.7.5 will usually be dealt with by means of a fine of up to £10 per k.p.h. above the limit in qualifying and by means of a "drive through" penalty during races

4.3.3 Competitors breaching the pit lane speed limit will be subject to penalties as provided for in MSA Regulations, typically being a fine of £10 per kph in excess of the limit during practice or qualifying and a Drive Through Penalty during race.

4.3.4 Any Competitor excluded from the results of an Event will not be allowed to count the score as part of any dropped scores

4.3.5 Any Competitor may be called before the Championship Stewards who at their discretion may take further action against the Competitor. This may include, but is not limited to, the loss of Championship points, a fine to a maximum of £10,000 or exclusion from part or all of the Championship.

4.3.6 The Clerk of the Course may impose a "Stop / Go" or "Drive through" penalty for a breach of regulations, in accordance with Q 12.6.

4.3.7 Any vehicle not carrying the mandatory Championship decals will be subject to a fine of £100 for the first infringement and then £500 for any subsequent infringement. This is subject to the required decals being available to competitors on the day of the meeting.

2020 LANCASTER INSURANCE/MGOC PRODUCTION MG CHAMPIONSHIP

5 CLASSIC CLASS - TECHNICAL REGULATIONS

THE ELIGIBILITY SCRUTINEER RESERVES THE RIGHT TO SEAL AND SUBSEQUENTLY DISMANTLE ANY PART OF A COMPETING CAR. ANY REBUILDING COSTS WILL BE BORNE BY THE COMPETITOR OF THAT CAR.

5(1) INTRODUCTION

- 5.1.1 The term **OEM** (Original Equipment Manufacture) as used throughout these Regulations relates to the MSUK definition of "Standard Parts" and "Standard Pattern Parts" and stated in Section B of the current MSUK Year Book as noted in Clause 3.7.
- 5.1.2 No modifications are permitted from the **OEM** specification other than those specified hereafter or listed in official Technical Bulletins as issued by BARC. It must be clearly understood that if the following texts do not clearly state that you can do the works you should work on the principle that you cannot.
- 5.1.3 Where items are listed in the following texts under the headings "Prohibited Modifications", it must be understood that this is not an exhaustive list and the references made in 5.1.2 must be understood and acknowledged.
- 5.1.4 The term "standard" applies to components shown in the exploded diagrams in the workshop manuals:
- | | |
|------------|-------------|
| AKD 4957 | MGB / MGBGT |
| AKD 4021 | 1275 Midget |
| AKM 4071/B | 1500 Midget |

5(2) GENERAL DESCRIPTION

- 5.2.1 The Classic Class is open to MGB, MGB GT, MG Midget/Sprite 1275 and MG Midget 1500.
- 5.2.2 MoT certificates, Insurance and Road Fund licences are not required.
- 5.2.3 With the exception of those items specifically permitted within these Regulations, no MG Rover or MG dealer offered factory options are permitted without the written approval of the Championship Co-ordinator.

5(3) SAFETY REQUIREMENTS

- 5.3.1 MSA Section K Safety Criteria Regulations will apply.
- 5.3.2 Six point roll cages are mandatory for all cars.
- 5.3.3 No part of the roll cage is permitted to project through the front bulkhead.
- 5.3.4 Towing eyes in accordance with Q19.1.3 must be fitted.

5(4) CHASSIS

- 5.4.1 The bodyshell may be seam welded.

5 (5) BODYWORK AND INTERIOR

Permitted Modifications

- 5.5.1 The driver's seat may be changed but must be of a trimmed variety.
- 5.5.2 All original factory fitted interior trim panels must be retained but interior carpets and passenger seats may be removed.
- 5.5.3 Heaters and ducting may be removed.
- 5.5.4 **OEM** chrome or rubber bumpers must be fitted on the original mountings. MGB/MGBGT originally fitted with rubber bumpers may be converted to chrome bumpers.

- 5.5.5 Rubber bumpers and backing plates may be modified or lightened but must retain the original rubber outer skin.
- 5.5.6 GRP bonnets, front wings and boot lids are permitted on all cars.
- 5.5.7 MGB may fit aluminium bonnets.
- 5.5.8 MGB Roadster and Midget/Sprite may fit GRP boot lid.
- 5.5.9 MGB GT may fit GRP or metal skin tailgates with 4mm polycarbonate rear window.
- 5.5.10 MGB GT may fit 4mm polycarbonate side windows and remove the window winding mechanisms. The door quarter light frames and original glass must be retained.
- 5.5.11 MGB and MGB GT may fit Sebring type headlamp covers.
- 5.5.12 Bonnet, boot and tailgate hinges may be removed.
- 5.5.13 The silhouette of the vehicle must remain standard at all times.
- 5.5.14 Front and rear Leyland ST pattern spoilers may be fitted to MGB and MGB GT only and must be strictly in accordance with original size and specification.
- 5.5.15 Hardtops are free but fastback types are not permitted.
- 5.5.16 MGB/MGBGT may remove the original battery support framework.
- 5.5.17 The original dashboard carcass must be retained.

Prohibited Modifications

- 5.5.20 Structural components and body panels must not be removed.
- 5.5.21 Flared wheel arches.
- 5.5.21 Louvered or modified bonnets.
- 5.5.22 One piece GRP front bonnet/wing assemblies.

5 (6) ENGINE

Permitted Modifications

- 5.6.1 1275 engines may be fitted into 1500 Midget bodysells however the vehicle must otherwise conform to a 1275 Midget in all other respects.
- 5.6.2 Early Midget/Sprite may use the later 1275cc A series engine.
- 5.6.3 1275 Sprite/Midget may use the A or A Plus type cylinder block.
- 5.6.4 Steel billet crankshafts.
- 5.6.5 The sump may be baffled to prevent surge.
- 5.6.6 The OEM steel flywheel must be fitted. This flywheel may be lightened subject to the following minimum weights, including ring gear:

1800cc B series engines	5.9 kg
1500cc Midget engines	6.4 kg
1275cc A series engines	6.4 kg
- 5.6.7 The maximum bore sizes are as follows:

1275 Midget	-	2.850"
1500 Midget	-	2.970"
MGB/MGB GT	-	3.220"

5.6.8 The maximum crankshaft strokes are as follows:

1275 Midget	-	3.209"
1500 Midget	-	3.452"
MGB/MGB GT	-	3.507"

5.6.9 The crankshaft journals may be reground to normal tolerances and undersize shells fitted. Steel main caps may be fitted to the crankshaft journals.

5.6.10 Non **OEM** bolts, studs and fixings may be used.

5.6.11 Camshaft profiles are free subject to 5.6.21.

5.6.12 1275cc MG Midget may use forged steel con rods.

5.6.13 Small amounts of metal may be removed from conrods to achieve dynamic balance. The minimum weights for con-rods are as follows:

MG Midget	-	530 grams
MGB/MGB GT	-	715 grams

Metal may not be removed between the horizontal centre lines of big and little ends. Con-rod weights are excluding bearing shells but including big end nuts and bolts.

5.6.14 Forged or cast pistons may be used.

5.6.15 Engine blocks and cylinder heads may be skimmed.

5.6.16 1275 Midget cylinder head may be gas flowed.

5.6.17 For MGB the valve throat diameters must not exceed:

Inlet:	1.530"
Exhaust:	1.230"

5.6.18 Valve seats may be restored by re-cutting or fitting inserts, three angle valve seats are permitted but no additional reworking or machining is allowed.

5.6.19 The cross sectional dimensions of the valves in all planes must remain as **OEM**.

5.6.20 The valve head diameters must not exceed:

1275 Midget	-	Inlet 1.312"	-	Exhaust 1.156"
MGB/MGBGT	-	Inlet 1.630"	-	Exhaust 1.345"
1500 Midget	-	Inlet 1.380"	-	Exhaust 1.175"

5.6.21 Maximum valve lift is as follows:

A Series engines	0.333"
B Series engines	0.390"
1500 engines	0.380"

All taken with zero tappet clearance there is NO further tolerance allowed above these figures.

5.6.22 Valve springs and valve guide material are free.

5.6.23 Vernier timing sprockets.

5.6.24 Single or double row timing chains

Prohibited Modifications

5.6.25 Conrods and crankshafts must not be polished.

5.6.26 MGB and 1500 Midget cylinder heads must not be modified, reworked or polished. Casting marks must remain as the manufacturer intended.

5.6.27 Offset valve rockers or bushes.

5.6.28 Waisted stem valves.

5 (7) COOLING

5.7.1 Oil coolers may be fitted within the periphery of the bodywork.

5.7.2 The original heater matrix may be retained for additional cooling.

5.7.3 The heater may be removed.

5.7.4 Electric cooling fans may be fitted.

5.7.5 Non **OEM** radiators are permitted, these must fit on the original mounting points.

5 (8) CARBURETTORS AND INDUCTION SYSTEM

5.8.1 The following **OEM** carburettors are permitted:

MGB/MGBGT: 2 x 1½" HS4 or HIF

1500 Midget: 2 x 1½" HIF

1275 Midget: 2 x 1 ¼ HS2

5.8.2 No internal re-shaping or polishing is permitted.

5.8.3 Carburettor jets, needles and damper springs are free.

5.8.4 Inlet manifolds must remain as **OEM** with no additional machining or polishing.

5.8.5 Air filters are free.

5.8.6 Airboxes and carburettor ducting are permitted.

5 (9) EXHAUST SYSTEM

5.9.1 Exhaust manifolds are free on all cars.

5.9.2 Exhaust systems are free beyond the manifold but must exit at the rear of the car.

5 (10) IGNITION SYSTEM

5.10.1 Engine management systems of any type are not permitted, only mechanical advance and retard is allowed.

5.10.2 The original distributor must remain in use in its original location.

5.10.3 External programme sensitive advance and retard is not allowed.

5.10.4 Single pulse electronic ignition systems (eg. Aldon Ignitor, Lucas, or Lumention) are allowed.

5.10.1 Non-standard fuel pumps and pressure regulators are permitted.

5 (11) SUSPENSION

Permitted Modifications

5.11.1 Spring rates are free but they must be of the original type, configurations and materials.

5.11.2 Lowering blocks may be fitted to the rear springs.

5.11.3 Wheel camber angles are free. Non-standard trunnions, bushes or wishbone arms are permitted in order to achieve this.

- 5.11.4 Anti-roll bar mounting blocks and all suspension bushes and leaf spring pads may be of non-standard material.
- 5.11.5 Rear anti-roll bars may only be fitted to cars where they were originally fitted to the car in question.
- 5.11.6 MGB and MGBGT may fit up to 3/4" anti-roll bars.
- 5.11.7 All Midgets/Sprites may fit up to 11/16" anti-roll bar.
- 5.11.8 Adjustable lever arm dampers are permitted to the rear of the car only.
- 5.11.9 Front and rear suspension bump stops may be shortened.

Prohibited Modifications

- 5.11.10 Component dimensions and pick-up points must remain as **OEM** except as stated in 5.11.3.
- 5.11.11 Any physical modifications to the front spring pans.
- 5.11.12 Parabolic or single leaf rear springs.
- 5.11.13 Spherical bearings (eg. rose joints)

5 (12) TRANSMISSION AND FINAL DRIVE

Permitted Modifications

- 5.12.1 The gearbox and ratios must be as **OEM** to a UK supplied production model of the car in question.
- 5.12.2 MGB/GT originally fitted with a 3 synchro gearbox may change for the later 4 synchro gearbox.
- 5.12.3 Overdrive is permitted on MGB/MGBGT only.
- 5.12.4 MG Midgets/Sprites may fit competitions type splined half shafts with separate end flange.
- 5.12.5 Banjo axles may be fitted to any model year of MGB/MGBGT. Banjo axle casings that have been modified to accept the later Salisbury axle hubs, halfshafts and brake drums are permitted.
- 5.12.6 Clutch plate material is free but the clutch must be of single plate design and must mount to the bolt and dowel holes of an original OEM flywheel.
- 5.12.7 1275 Midget may use the gearbox casing and ratios as fitted to 1500 Midget using a suitable steel adaptor plate.
- 5.12.8 The following differential ratios are permitted:
 - MGB/MGBGT: 3.9, 4.1, 4.3
 - Midgets/Sprites: 3.7, 3.9, 4.2

Prohibited Modifications

- 5.12.9 Non **OEM** gearboxes or close ratio gears.
- 5.12.10 Any form of locked, limited slip or torque sensing differentials.
- 5.12.11 Any form of traction control or launch control device.

5 (13) ELECTRICAL SYSTEMS

- 5.13.1 Exterior lighting must remain fully operational.
- 5.13.2 Cars originally fitted with a dynamo may be changed to an alternator.
- 5.13.3 The dynamo/alternator must remain fully operational at all times. Pulley diameters are unrestricted.
- 5.13.4 MGB/MGBGT may fit a single 12 volt battery, the battery location is free.

5.13.5 Gel type racing batteries are permitted.

5.13.6 Non **OEM** starter motors are permitted.

5.13.7 Data logging systems are permitted.

5 (14) BRAKES

Permitted Modifications

5.14.1 Front disc backing plates may be removed.

5.14.2 Rear wheel cylinders may be changed for larger or smaller diameter.

5.14.3 All cars may fit dual circuit brake systems using **OEM** components as fitted to later cars.

5.14.4 Rear brake drums and backing plate may be drilled to assist ventilation. Two holes may be drilled in the back plate, these must not exceed 35mm diameter.

5.14.5 Up-rated brake pads, linings and hoses may be fitted.

5.14.6 Brake ducting is allowed providing no modifications are made to the bodywork.

Prohibited Modifications

5.14.7 Vented, slotted, dimpled, composite, modified discs or drums.

5 (15) FUEL SYSTEM

5.15.1. The fuel tank must remain in its original position.

5.15.2 The **OEM** fuel tank or an equivalent aftermarket alternative must be used. It may be foam filled.

5.15.3 Pump fuel must be used as defined in Section B of the MSA Yearbook.

5.15.4 Non **OEM** fuel pumps and pressure regulators are permitted.

5 (16) WHEELS/STEERING

Permitted Modifications

5.16.1 Wheels may be either the manufacturer's original steel type or a non standard pattern which fit on the original hubs without modification.

5.16.2 Maximum wheel sizes are as follows:

MGB/MGBGT:	5.5" wide x 14" diameter
MG Midget/Sprite:	5" wide x 13" diameter

Prohibited Modifications

5.16.3 Non-standard steering racks and associated components.

5.16.4 Spherical bearings (eg. rose joints).

5 (17) TYRES

5.18.1 Cars are required to use the following tyres:

MGB/GT	: 185/60R14 Toyo 888R (GG Medium compound only)
Midget/Sprite	: 175/60R13 Toyo 888R (GG Medium compound only)

NOTE:

In the event that the specified Toyo 888R for the MG Midget/Sprite is not available, those cars only may use the Yokohama 175/60R13 Yokohama 048 (M compound). MG Owners Club will formally advise all competitors when the specified Toyo 888R is available, all Midget/Sprites must change to that tyre within 14 days of receiving that notification. Any car using the Yokohama 048 after the 14 day notification period will be placed in the Invitation class.

- 5.17.2 The compound marking on the sidewall is to remain clearly visible at all times. Any tyre not clearly showing the manufacturer's original compound marking will be deemed non-compliant.
- 5.17.3 The nominated tyre supplier is:
Adams and Page, Lincoln Road, Cressex Estate, High Wycombe, Bucks, HP12 3RO
Tel: 01494 445389

5 (18) WEIGHTS

- 5.18.1 The minimum weights as the car finishes qualifying or race with the driver on board are as follows:
- | | |
|--------------|-------|
| MGB/MGB GT: | 965kg |
| 1275 Midget: | 780kg |
| 1500 Midget: | 780kg |
- 5.18.2 Ballast is permitted, this must be securely fixed in the front passenger footwell.
- 5.18.3 The Championship Organisers reserve the right to review and alter weight limits up to a maximum of two occasions per year with a minimum of 14 days' notice to the MSA and competitors concerned.

5 (19) NUMBERS AND CHAMPIONSHIP DECALS

- 5.19.1 All cars are to fit combined number backgrounds and Lancaster Insurance name decals to the side doors and bonnet. Additional Lancaster Insurance decals must be affixed to the rear of all cars.
- 5.19.2 On MG Midget fitted with door mirrors, the written section of the Lancaster Insurance decal may be detached and fitted directly below the number background on the door sill.
- 5.19.3 Toyo Tyres stickers are to be affixed to the top of the front windscreen and the top of the rear hardtop/tailgate.
- 5.19.4 All cars are required to fit a decal denoting "A" to the left hand side of the front windscreen.
- 5.19.5 MGOC/BARC decals are to be positioned on each side of the car but the position is free.
- 5.19.6 MG Owners Club reserves the right to request that additional decals are fitted at any time.
- 5.19.7 All decals are provided on request by the MG Owners' Club to registered competitors. Any car not displaying the required decals may be subject to appropriate penalties as defined in 4.3.7.

2020 LANCASTER INSURANCE/MGOC PRODUCTION MG CHAMPIONSHIP

6 CLASS B - TECHNICAL REGULATIONS

THE ELIGIBILITY SCRUTINEER RESERVES THE RIGHT TO SEAL AND SUBSEQUENTLY DISMANTLE ANY PART OF A COMPETING CAR. ANY REBUILDING COSTS WILL BE BORNE BY THE COMPETITOR OF THAT CAR.

6(1) INTRODUCTION:

6.1.1 The following Technical Regulations are set out in accordance with the MSA specified format.

6.1.2 The term **OEM** (Original Equipment Manufacturer) as used hereafter relates to "Standard Parts" and "Standard Pattern Parts" as defined in Clause 3.7.

6.1.3 No modifications are permitted from the original **OEM** specification other than those specified hereafter or listed in official Technical Bulletins as issued by BARC. It must be clearly understood that if the following texts do not clearly state that you can do the works you should work on the principle that you cannot.

6.1.4 Where items are listed in the following texts under the headings "Prohibited Modifications", it must be understood that this is not an exhaustive list and the references made in 6.1.3 must be understood and acknowledged.

6(2) GENERAL DESCRIPTION

6.2.1 Class B of the Championship is open to Maestro 1600, MG Maestro Efi, MG Montego Efi, MG Montego Efi Estate, and ZR160.

Section 6(3) applies to all cars.

Sections 6(4) to 6(20) apply to permitted MG Maestro and Montego models.

Sections 6(21) to 6(38) apply to MG ZR160 models.

6.2.2 With the exception of those items specifically permitted within these Regulations, no MG Rover or MG dealer offered factory options are permitted without the written approval of the Championship Co-ordinator.

6.2.3 MOT Certificates, insurance or Road Fund licenses are not required.

6(3) SAFETY REQUIREMENTS

6.3.1 MSA Section K Safety Criteria Regulations will apply.

6.3.2 Six point roll cages are mandatory for all cars.

6.3.3 Towing eyes in accordance with Q19.1.3 must be fitted.

MG MAESTRO/MONTEGO

6(4) CHASSIS

6.4.1 The body shell may be seam welded.

6.4.2 Strut braces may be fitted across the front suspension mounts

6(5) BODYWORK

Permitted Modifications

6.5.1 Plastic inner wheel arches may be removed.

6.5.2 The driver's seat may be changed but it must be of a trimmed variety.

- 6.5.3 Front passenger seats may be removed.
- 6.5.4 All interior trim with the exception of the original dashboard, door panels and door capping trims may be removed.
- 6.5.5 Rear wiper and central locking motors may be removed.
- 6.5.6 Side rubbing strips and front spoiler trims may be removed.
- 6.5.7 Bonnet hinges may be removed.
- 6.5.8 The silhouette of the vehicle must remain standard at all times.
- 6.5.9 Heater may be removed.
- 6.5.10 MG Montego Estate only may replace the fixed rear quarter windows and tailgate glass with minimum 4mm Perspex.
- 6.5.11 Two door mirrors as fitted by the manufacturer must be fitted.
- 6.5.12 Aftermarket body kits may be fitted subject to MGOC approval. Photographs are to be submitted to MGOC for formal written approval prior to fitting.

Prohibited Modifications

- 6.5.13 Structural components and body panels must not be removed, lightened or deformed.

6(6) ENGINE

Permitted Modifications

- 6.6.1 All parts must remain entirely standard as per the makers original specifications unless stated otherwise.
- 6.6.2 Non ***OEM*** bolts, studs and fixings may be used.
- 6.6.3 Chemical processes such as Tuftriding or Nitriding.
- 6.6.4 It is permitted to remove metal from the conrod ends to achieve balance on 3 of 4 conrods, however one of the four conrods must remain unmachined.
- 6.6.5 The minimum flywheel weight on 1600 Maestro is 3750 grammes.
- 6.6.6 Piston design and material is unrestricted.
- 6.6.7 The maximum bore sizes are as follows:

1600 MG Maestro	-	78.00mm
EFi Maestro	-	86.22mm
EFi Montego	-	86.22mm
- 6.6.8 The maximum crankshaft strokes are as follows:

1600 MG Maestro	-	87.58mm
EFi Maestro	-	89.00mm
EFi Montego	-	89.00mm
- 6.6.9 Crankshaft journals may be reground to normal tolerances and undersized shells fitted.
- 6.6.10 1600 MG Maestro cylinder heads may be gas flowed.
- 6.6.11 1600 MG Maestro valves are free but the original head diameter must be retained.

- 6.6.12 Efi Maestro/Montego valves must conform to a standard Rover or acceptable and recognised replacement manufacturers unit. They must remain unmodified and no additional reworking or machining is allowed.
- 6.6.13 Valve seat inserts to enable unleaded petrol to be used.
- 6.6.14 EFi Maestro/Montego cylinder heads must be completely standard, with all original casting marks intact.
- 6.6.15 Valve guide material is unrestricted.
- 6.6.16 Valve seats may be cut to a three angle profile.
- 6.6.17 Cylinder head and engine block faces may be skimmed.
- 6.6.18 Valve springs are free.
- 6.6.19 Vernier timing sprockets may be fitted.
- 6.6.20 The sump may be baffled to prevent surge.
- 6.6.21 Camshafts must be original Rover Group manufacture showing LYD casting marks and the following part numbers:
- | | |
|-----------------|------------------------|
| 1600 MG Maestro | - UAM 1240 or UAM 1662 |
| Efi Maestro | - CAM 8208 or CAM 9903 |
- 6.6.22 Camshafts as detailed in 6.7.21. may be re-ground but the maximum valve lift must not exceed:
- | | |
|---------------------|----------|
| 1600 MG Maestro | - 0.350" |
| Efi Maestro/Montego | - 0.380" |
- 6.6.23 All Efi engines are to have a 10mm hole drilled in the cam cover directly above an inlet cam lobe to allow for valve lift checks to be made.
- Prohibited Modifications
- 6.6.24 Conrods and crankshafts must not be polished.
- 6.6.25 Modifications to the valve spring collars or valve springs pockets.
- 6.6.26 Flow enhancing valves (eg Rimflow) on EFi Maestro/Montego.
- 6.6.27 EFi Maestro/Montego cylinder heads must not be modified, reworked or polished. Casting marks and sharp edges must remain as the manufacturer intended.

6(7) COOLING

- 6.7.1 Oil coolers may be fitted with the periphery of the bodywork.
- 6.7.2 1600 Maestro may run EFi Maestro radiators, on all other cars the radiators must remain as originally fitted to that model. Additional supplementary cooling systems are not allowed.

6(8) INDUCTION SYSTEM

- 6.8.1 1600 MG Maestro must use standard equipment carburettors, no internal re-shaping or polishing is permitted.
- 6.8.2 1600 MG Maestro carburettor jets, needles and damper springs are free.
- 6.8.3 1600 MG Maestro maximum choke size is 34mm.
- 6.8.4 1600 MG Maestro inlet manifolds must remain standard and no additional machining or polishing is permitted. No material may be added.
- 6.8.5 1600 MG Maestro air filters are free.

- 6.8.6 EFi Maestro/Montego must retain standard air filter boxes.
- 6.8.7 On Efi Maestro/Montego air filter box must be compatible to the type of injection system (MEMS or LUCAS) being used.
- 6.8.8 On EFi Maestro/Montego either MEMS or LUCAS injection systems as fitted by Rover Group may be used but it must be used completely in either form. No cross matching of parts between systems is permitted.
- 6.8.9 Inlet ducting is allowed on all cars.

6(9) EXHAUST SYSTEM

- 6.9.1 Exhaust manifolds must remain standard.
- 6.9.2 All exhaust systems are free beyond the manifold, but must exit at the rear of the vehicle.

6(10) IGNITION SYSTEM

- 6.10.1 On 1600 MG Maestro cars the ignition system is free.
- 6.10.2 On EFi Maestro/Montego either MEMS or LUCAS ignition systems as fitted by Rover Group may be used but it must be used completely in form. No cross matching of parts between systems is permitted.

6(11) SUSPENSION

Permitted Modifications

- 6.11.1 On all cars the spring rates and dimensions are free.
- 6.11.2 All cars may fit adjustable rate/adjustable platform shock absorbers.
- 6.11.3 Wheel camber angles are free.
- 6.11.4 EFi Maestro/Montego may fit anti-roll bars to front and rear. These must be to the original diameter.
- 6.11.5 1600 Maestro may fit anti-roll bar to the front only. This must be of the original diameter.
- 6.11.6 All anti-roll bar and other suspension bushes may be on non-standard material.
- 6.11.7 All cars may fit an anti-drop bush to the Macpherson strut top mounting.
- 6.11.8 Ride height is free subject J5.20.11.

Prohibited Modifications

- 6.11.9 Suspension geometry, component dimensions and pick-up points must remain standard except as stated in 6.12.3.
- 6.11.10 Wheelbase and track dimensions must remain as **OEM**.
- 6.11.11 Wheel spacers.

6(12) TRANSMISSION

Permitted Modifications

- 6.12.1 Clutch plate material is free but the clutch must be of single plate design and must mount to the bolt and dowel holes of an original **OEM** flywheel.
- 6.12.2 The clutch drive plate must be of the same diameter as the original equipment.
- 6.12.3 Gear ratios are free provided they fit within the original casing and allow five forward gears.
- 6.12.4 Differential ratios on 1600 MG Maestro are free.

Prohibited Modifications

6.12.5 Locked, limited slip or torque biased differentials.

6.12.6 Traction control or starting control devices.

6(13) ELECTRICAL SYSTEMS

6.13.1 Exterior lighting must remain standard and fully operational.

6.13.2 The **OEM** alternator must be retained and remain fully operational at all times. Pulley diameters are unrestricted.

6.13.3 Data logging systems are permitted.

6.13.4 Gel type batteries are permitted.

6(14) BRAKES

Permitted Modifications

6.14.1 Front disc backing plates may be removed.

6.14.2 Competition pads, linings and brake hoses are permitted.

6.14.3 Ducting to the front brakes are allowed providing no modifications are made to the bodywork.

6.14.4 1600 MG Maestro may use standard size ventilated discs and callipers as fitted to Efi Maestro/Montego.

Prohibited Modifications

6.14.5 Composite, modified discs or drums.

6(15) WHEELS/STEERING

Permitted Modifications

6.15.1 All cars may use 14" wheels: NAM3300, NAM7222 or NAM9000 or any 15" wheel fitted as standard to MG Maestro or Montego.

Prohibited Modifications

6.15.2 Non-standard steering racks and associated components.

6(16) TYRES

6.16.1 Cars are required to use Toyo 888R (GG Medium compound only)

6.16.2 The compound marking on the sidewall is to remain clearly visible at all times. Any tyre not clearly showing the manufacturer's original compound marking will be deemed non-compliant.

6.16.3 The nominated supplier is:
Adams and Page, Lincoln Road, Cressex Estate, High Wycombe, Bucks, HP12 3RO
Tel: 01494 445389

6(17) WEIGHTS

6.17.1 The minimum weights as the car finishes qualifying or race with the driver on board are:
MG Maestro 1600 - 972kg
MG Maestro/Montego Efi - 1065kg

6.17.2 Ballast is permitted, this must be securely fixed in the front passenger footwell.

6.17.3 The Championship Organisers reserve the right to review and alter weight limits up to a maximum of two occasions per year with a minimum of 14 days' notice to competitors concerned.

6(18) FUEL TANK/FUEL

- 6.18.1. The original fuel tank as fitted by the manufacturer must be retained and used. It must remain in its original position. It may be foam filled if desired.
- 6.18.2 Pump fuel must be used as defined in Section B of the MSA Yearbook.

6(19) SILENCING

- 6.19.1 A silencer must be fitted as part of the exhaust system to comply with MSA noise regulations. It must exit at the rear of the car.

6(20) NUMBERS AND CHAMPIONSHIP DECALS

- 6.20.1 All cars are to fit combined number backgrounds and Lancaster insurance name decals to the side doors and bonnet. Additional Lancaster Insurance decals must be affixed to the rear of all cars.
- 6.20.2 Toyo Tyres stickers are to be affixed to the top of the front windscreen and the top of the rear tailgate glass.
- 6.20.3 All cars are required to fit a decal denoting "Class B" to the left hand side of the front windscreen.
- 6.20.4 MGOC/BARC decals are to be positioned on each side of the car, location is free.
- 6.20.5 MG Owners Club reserves the right to request that additional decals are fitted at any time.
- 6.20.6 All decals are provided on request by the MG Owners' Club to registered competitors. Any car not displaying the required decals may be subject to appropriate penalties as defined in 4.3.7.

ZR160 CARS

6(21) INTRODUCTION

- 6.21.1 The following Technical Regulations for MG ZR160 cars are set out in accordance with the MSA specified format and it should be clearly understood that if the following texts do not clearly state that you can do the works you should work on the principle that you cannot.
- 6.21.2 The term **OEM** (Original Equipment Manufacture) as used hereafter relates to "Standard Parts" and "Standard Pattern Parts" as defined in Clause 3.7.
- 6.21.3 No modifications are permitted from the **OEM** specification other than those specified hereafter or listed in official Technical Bulletins as issued by BARC. It must be clearly understood that if the following texts do not clearly state that you can do the works you should work on the principle that you cannot.
- 6.21.4 Where items are listed in the following texts under the headings "Prohibited Modifications", it must be understood that this is not an exhaustive list and the references made in 6.18.3 must be understood and acknowledged.
- 6.21.5 For technical preference the following MG Rover documents apply:
System Description Manual – RCL 0380
Service Procedure Manual – RCL 0380
PGI Gearbox Manual – RCL 0124
K Series Overhaul Manual – RCL 0057

6(22) GENERAL DESCRIPTION

- Class B is open to MG ZR160 cars that comply with the specific regulations listed below.
- 6.22.1 MoT certificates, Insurance and Road Fund licences are not required.
- 6.22.2 With the exception of those items specifically permitted within these Regulations, no MG Rover or MG dealer offered factory options are permitted without the written approval of the Organisers.
- 6.22.3 Left hand drive cars are not permitted.

6(23) BODYSHELL

- 6.23.1 BodysHELLs from ZR105 and ZR120 may be used but must conform totally to ZR160 specification.
- 6.23.2 Non–OEM or aftermarket accessories or cosmetic modifications which will not influence the cars overall performance will be allowed subject to the written approval of the Championship co-ordinator.
- 6.23.3 The bodysHELL may be seam welded.
- 6.23.4 No modifications are permitted to the top suspension turrets.

6(24) INTERIOR

- 6.24.1 All interior trim, dashboard and standard fittings must remain in place and the dashboard is to remain unmodified.
- 6.24.2 The driver seat may be changed and the standard seat fixings/runners removed or modified.
- 6.24.3 The passenger seat, rear seat and carpets may be removed.
- 6.24.4 The door trim panels must remain as **OEM**, local cutting is permitted only to accommodate the roll cage.
- 6.24.5 The steering wheel may be changed.
- 6.24.6 The rear quarter trim panels and roof lining may be removed.
- 6.24.7 The steering column lock and central locking mechanisms must be disabled.
- 6.24.8 Airbags may be removed or disabled.
- 6.24.9 Air-conditioning systems may be removed.
- 6.24.10 Both front window winder motors must remain fitted and operational.
- 6.24.11 Sound deadening may be removed.
- 6.24.12 The **OEM** heater must be fitted and be fully operational using the **OEM** ducting and vents.

6(25) ENGINE

Permitted Modifications

- 6.25.1 Two 1.5mm holes are to be drilled in adjacent cam cover bolts for the purpose of fitting engine seals.
- 6.25.3 The maximum bore and stroke dimensions are to be 80.00mm and 89.30mm respectively.
- 6.25.4 The use of Chinese manufactured replacement K series cylinder blocks is permitted. These may be machined only where necessary to allow the fitment of the OEM K series crankshaft position sensor.
- 6.25.5 The conrods and crankshaft must be OEM parts as fitted by MG Rover to the production VVC160 K series engine.
- 6.25.6 Aftermarket pistons and liners are permitted but must be to the exact specification, profile and material of the OEM MG Rover components as fitted to VVC or 1.8 K series engines.
- 6.25.7 The overall height of the cylinder block including the ladder rail must be not less than 281.50mm.
- 6.25.8 The distance from the top of the liner to the shoulder of the liner must be not less than 50mm.
- 6.25.9 The OEM steel flywheel must be used. The minimum weight with ring gear is 6.0kg.

- 6.25.10 Cylinder heads may be skimmed but the depth reference datum in the head casting must remain visible.
- 6.25.11 Exhaust valves must conform to OEM specification in their entirety, with a maximum head diameter of 27.5mm, a minimum stem diameter of 6mm and a single 45 degree face. It is permitted to have a carbon break in the valve stem to a minimum diameter of 5.5mm.
- 6.25.12 Inlet valves must conform to OEM specification in their entirety, with a maximum head diameter of 31.5mm and a minimum stem diameter of 6mm along its entire length. They must have a 45 degree face with a maximum of one single 30 degree back cut.
- 6.25.13 Valve seats may be cut to a maximum of three angles and must conform in their entirety to the dimensions and specifications laid out within the MG Rover K Series Overhaul Manual (RCL 0057) . The valve seats must not be blended into the combustion chambers or port walls.
- 8.25.14 Valve springs and hydraulic lifters must be to OEM specification
- 6.25.15 Aftermarket valve spring top caps are permitted.
- 6.25.16 Inlet and exhaust cam profiles must remain exactly as the **OEM** MG Rover items.
- 6.25.17 Cam timing must remain as **OEM**.
- 6.25.18 The OEM Steel Elastomer or later multi-shim head gaskets are permitted. The early or later type oil rail may be used.
- 6.25.19 The fuel tank breather system must remain as **OEM**. The charcoal canister/purge valve must be fitted.

Prohibited Modifications

- 6.25.20 Forged pistons.
- 6.25.21 Aftermarket or non **OEM** MG Rover camshafts.
- 6.25.22 Any machining to the cylinder head combustion chambers or inlet/exhaust ports.
- 8.25.23 The engine block, oil rail, crankshaft, conrods, pistons and liners must be to OEM specifications and dimensions. They may not be machined, have any material added or removed, or be modified in any way except as detailed in 8.25.4.
- 6.25.24 Any machining to the crankshaft or crankshaft sprocket.
- 6.25.25 Any means of modifying the cam timing eg. vernier timing pulleys, offset or modified camshaft dowels.

6(26) COOLING SYSTEM

- 6.26.1 The OEM radiator or an identical aftermarket version must be fitted.
- 6.26.2 No additional or uprated oil coolers are permitted.
- 6.26.3 It is permitted to fit a Pressure Relief Remote Thermostat (PRRT) and associated hoses.

6(27) INDUCTION SYSTEM

- 6.27.1 The induction system as fitted as **OEM** by MG Rover to ZR160 must be retained in its entirety. No additional ducting is permitted.
- 6.27.2 The use of a non-**OEM** proprietary made paper air filter is permitted.
- 6.27.3 The **OEM** MG Rover 52mm throttle body must be used.

6(28) EXHAUST SYSTEM

- 6.28.1 The **OEM** exhaust downpipe and manifold must be fitted. The later six bolt type as fitted to 160 cars may be fitted to earlier cars.
- 6.28.2 An operational catalytic converter must be fitted, this is to be a minimum 100 cell design and must be fitted in the original location.
- 6.28.3 The exhaust system beyond the catalytic converter is free but the system must exit at the rear of the car.
- 6.28.4 The welding nodules on the inner face of the exhaust manifold may be removed but the internal bore must not exceed 36mm at any point.
- 6.28.5 The welding nodules on the inner face of the manifold downpipe may be removed but the internal bore must not exceed 41.5mm at any point.

6(29) IGNITION SYSTEM

- 6.29.1 The original MG Rover MEMS3 ECU must be retained but the mapping within it must be modified by Kmaps.co.uk to MGOC Championship specification MGOC/MEMS3B. ECU's modified by any other suppliers or to any other standard are not permitted.
- 6.29.2 The ECU on any selected MEMS3 equipped car may be sealed and either examined at the circuit or removed from the car and sent to Kmaps.co.uk who will ascertain if the map within the ECU complies with specification MGOC/MEMS3B.
- 6.29.3 MG Owners Club will hold an ECU modified by Kmaps.co.uk to Championship specification MGOC/MEMS3B. At selected race meetings, the appointed MSA scrutineer may request that the ECU fitted to a car is replaced with the MG Owners Club ECU. The MSA scrutineer is at liberty to decide which car is subjected to this procedure or to hold a ballot of all cars competing in Class B. In the event that any driver refuses to fit the MGOC ECU, the MSA scrutineer will deem the car ineligible to take part in any race at the meeting in question until such time as the MGOC ECU is fitted.

6(30) SUSPENSION

Permitted Modifications

- 6.30.1 The **OEM** dampers must be retained.
- 6.30.2 Non **OEM** bushes may only be fitted to the front track control arm (bottom wishbone), front tie bar mounts, front anti-roll bar mounts, front anti-roll bar drop links and rear H frame bushes.
- 6.30.3 Spring rates are free.
- 6.30.4 Ride height is free subject to J5.20.1.
- 6.30.5 Wheel camber must remain as **OEM**.

Prohibited Modifications

- 6.30.6 Spherical bearings eg. rose joints.
- 6.30.7 Strut braces across the front and rear suspension mounts.
- 6.30.8 Adjustable suspension top mounts or any alterations to the suspension turrets.
- 6.30.9 Adjustable rate/adjustable platform dampers.

6(31) TRANSMISSION

Permitted Modifications

- 6.31.1 The clutch plate material is free but the clutch must be of single plate design and must mount to the bolt and dowel holes of an original **OEM** flywheel.

- 6.31.2 The only gearbox permitted is MG Rover type G4. The gearbox ratios are to be:
1st : 3.250, 2nd : 1.894, 3rd : 1.307, 4th : 1.033, 5th : 0.848
- 6.31.3 The final drive ratio is to be 4.2:1.
- 6.31.4 The gear linkage attachment to the gearbox is free and may be wire locked to prevent dislocation of the ball joint.

Prohibited Modifications

- 6.31.5 Any form of locked, limited slip or torque sensing differentials.
- 6.31.6 Any form of traction control or launch control device.
- 6.31.7 Non **OEM** bushes

6(32) ELECTRICAL SYSTEMS

- 6.32.1 It is permitted to fit a link across the fuel pressure inertia switch.
- 6.32.2 Data logging systems are permitted.
- 6.32.3 The OEM headlamps must be retained and be fully operational. Plastic film or covers may be fitted to headlamps.
- 6.32.4 Gel type batteries are permitted but must be fitted in the original location.
- 6.32.5 All sensors and factory fitted wiring must remain intact. No alterations are permitted unless approved in writing by the appointed Eligibility Scrutineer.
- 8.32.6 The alternator charging system must remain fully operational at all times.
- 6.32.7 The rear window wiper and motor may be removed.

6(33) BRAKES

- 6.33.1 The **OEM** front fog lights may be removed and replaced with ducting but the original aperture dimensions must not be increased.
- 6.33.2 Up-rated brake pads, linings and brake hoses may be fitted.
- 6.33.3 The brake discs are to be 283mm at the front and 260mm at the rear.
- 6.33.4 The ABS system may be disabled or removed.
- 6.33.5 A pressure limiting valve may be fitted to the hydraulic line to the rear brakes. This may be fitted inside the car but must be located in a position where it cannot be operated by the driver when seated in the car.

6(34) FUEL TANK/FUEL SYSTEM

- 6.34.1 Pump fuel must be used as defined in Section B of the MSA Yearbook.
- 6.34.2 The **OEM** MG Rover fuel tank must be fitted. It may be baffled or foam filled.
- 6.34.3 The **OEM** MG Rover fuel pressure system and injectors must be retained with no changes or modifications.
- 6.34.4 The fuel pressure is to be minimum 2.8 bar, maximum 3.2 bar.

6(35) WHEELS/STEERING

- 6.35.1 Wheel camber and castor is free.
- 6.35.2 Only the 16" inch wheels supplied by MG Rover and fitted as **OEM** to MGZR160 saloons are permitted

- 6.35.3 Wheel spacers up to a maximum of 5mm thick may be fitted to the front wheels only. The wheel stud length is free.

6(36) TYRES

- 6.36.1 Cars are required to use either of the following tyres:
195/50R16 Toyo88R (GG medium compound only).
- 6.36.2 The compound marking on the sidewall is to remain clearly visible at all times. Any tyre not clearly displaying the manufacturer's original compound marking will be deemed non-compliant.
- 6.36.3 The nominated tyre supplier is:
Adams and Page, Lincoln Road, Cressex Estate, High Wycombe, Bucks, HP12 3RO
Tel: 01494 445389

6(37) WEIGHTS

- 6.37.1 The minimum weight as the car finishes qualifying or race with the driver on board is 1050kg.
- 6.37.2 Ballast is permitted, this must be securely fixed in the front passenger footwell.
- 6.37.3 The Championship Organisers reserve the right to review and alter weight limits up to a maximum of two occasions per year with a minimum of 14 days notice to the MSA and competitors concerned.

6(38) NUMBERS AND CHAMPIONSHIP DECALS

- 6.38.1 All cars are to fit combined number backgrounds and Lancaster insurance name decals to the side doors and bonnet. Additional Lancaster Insurance decals must be affixed to the rear of all cars.
- 6.20.2 Toyo Tyres stickers are to be affixed to the top of the front windscreen and the top of the rear tailgate glass.
- 6.38.3 All cars are required to fit a decal denoting "Class B" to the left hand side of the front windscreen.
- 6.38.4 MGOC/BARC decals are to be positioned on each side of the car but the position is free.
- 6.38.5 MG Owners Club reserves the right to request that additional decals are fitted at any time.
- 6.38.6 All decals are provided on request by the MG Owners' Club to registered competitors. Any car not displaying the required decals may be subject to appropriate penalties as defined in 4.3.7.

2020 LANCASTER INSURANCE/MGOC PRODUCTION MG CHAMPIONSHIP

7 CLASS F - TECHNICAL REGULATIONS

THE ELIGIBILITY SCRUTINEER RESERVES THE RIGHT TO SEAL AND SUBSEQUENTLY DISMANTLE ANY PART OF A COMPETING CAR. ANY REBUILDING COSTS WILL BE BORNE BY THE COMPETITOR OF THAT CAR.

7(1) INTRODUCTION

- 7.1.1 The term **OEM** (Original Equipment Manufacture) as used hereafter relates to “Standard Parts” and “Standard Pattern Parts” as defined in Clause 3.7.
- 7.1.2 No modifications are permitted from the **OEM** specification other than those specified hereafter or listed in official Technical Bulletins as issued by BARC. It must be clearly understood that if the following texts do not clearly state that you can do the works you should work on the principle that you cannot.
- 7.1.3 Where items are listed in the following texts under the headings “Prohibited Modifications”, it must be understood that this is not an exhaustive list and the references made in 7.1.2 must be understood and acknowledged.
- 7.1.4 For technical reference the following MG Rover documents apply:
MGF Workshop Manual – RCL0051
MG TF Workshop Manual RCL0493
PGI Gearbox Manual – RCL 0124
K Series Engine Overhaul Manual – RCL 0057

7(2) GENERAL DESCRIPTION

- 7.2.1 Class F is open to 1.8 VVC MGF and MG TF160 cars.
- 7.2.2 MoT certificates, Insurance and Road Fund licences are not required.
- 7.2.3 With the exception of those items specifically permitted within these Regulations, no MG Rover or MG dealer offered factory options are permitted without the written approval of the Championship Co-ordinator.

7(3) SAFETY REQUIREMENTS

- 7.3.1 MSA Section K Safety Requirements will apply.
- 7.3.2 Six point roll cages are mandatory for all cars.
- 7.3.3 No part of the roll cage is permitted to project through the front bulkhead or into the engine compartment.
- 7.3.4 Towing eyes in accordance with Q19.1.3 must be fitted.

7(4) BODYSHELL

- 7.4.1 It is permitted to upgrade a factory supplied 1.8i car to VVC specification providing that the conversion is total in all respects, including interior trim and dashboard.
- 7.4.2 MGTF bodysHELLs and body panels may be used to reshell an MGF but such cars must use the MGF subframes and Hydragas suspension and must comply completely with all MGF mechanical and electrical specifications.
- 7.4.3 MGTF160 cars must comply completely with all MGTF160 mechanical and electrical specifications and must use all body and structural components as **OEM** fitment to TF160 cars.
- The fitting of any MGF components to an MGTF is prohibited.
- 7.4.4 The factory fitted bodysHELL cross braces must be removed from all TF bodysHELLs.

- 7.4.5 Non-**OEM** accessories or cosmetic modifications which will not influence the cars overall performance will be allowed subject to the written approval of the Championship Co-ordinator.
- 7.4.6 Fibreglass bonnets and boot lids to the **OEM** MG Rover shape are permitted.
- 7.4.7 The fitting of MG Rover accessory rear spoiler is permitted.
- 7.4.8 Cars may run open or closed with an **OEM** factory hardtop or hood.
- 7.4.9 The bodyshell may be seam welded.
- 7.4.10 MGTF front and rear bumper panels, boot lid and headlamps may be fitted to MGF.
- 7.7.11 The original MG Rover exterior rear view mirrors must be fitted to each side of the car.

7(5) INTERIOR

- 7.5.1 The driver seat may be changed and the standard seat fixings/runners removed or modified. The passenger seat may be removed.
- 7.5.2 Interior carpets may be removed.
- 7.5.3 The rear parcel shelf, the trim panels behind the seats and the rear bulkhead finisher can be removed or modified to accommodate the roll cage.
- 7.5.4 The entire hood assembly can be removed.
- 7.5.5 All **OEM** interior trim, dashboard and standard fittings must remain in place and the dashboard carcass is to remain unmodified.
- 7.5.6 Door trim panels must be fitted but may be trimmed to accommodate the roll cage door bars. The use of non-standard door trim panels is permitted.
- 7.5.7 The steering column lock and central locking mechanisms must be disabled.
- 7.5.8 Airbags must be disabled.
- 7.5.9 Both front window winder motors must remain fitted and operational.
- 7.5.10 Sound deadening may be removed.
- 7.5.11 On MGF only, the heater and ducting may be removed if desired.
On MGTF the heater must be fitted and be fully operational using the **OEM** ducting and vents.

7(6) ENGINE

Permitted Modifications

- 7.6.1 Engine mounting material is free.
- 7.6.2 Two 1.5mm holes are to be drilled in adjacent cam cover bolts for the purpose of fitting engine seals.
- 7.6.3 The maximum bore and stroke dimensions are to be 80.00mm and 89.30mm respectively.
- 7.6.4 The use of Chinese manufactured replacement K series cylinder blocks is permitted. These may be machined only where necessary to allow the fitment of the **OEM** K series crankshaft position sensor.
- 7.6.5 The conrods and crankshaft must be **OEM** parts as fitted by MG Rover to the production VVC160 K series engine.
- 7.6.6 Aftermarket pistons and liners are permitted but must be to the exact specification, profile and material of the **OEM** MG Rover components as fitted to VVC or 1.8 K series engines.

- 7.6.7 The overall height of the cylinder block including the ladder rail must be not less than 281.50mm.
- 7.6.8 The distance from the top of the liner to the shoulder of the liner must be not less than 50mm.
- 7.6.9 The flywheel is to be steel, the minimum weight with ring gear is 2.8kg.
- 7.6.10 Cylinder heads may be skimmed but the depth reference datum in the head casting must remain visible.
- 7.6.11 Exhaust valves must conform to **OEM** specification in their entirety, with a maximum head diameter of 27.5mm, a minimum stem diameter of 6mm and a single 45 degree face. It is permitted to have a carbon break in the valve stem to a minimum diameter of 5.5mm.
- 7.6.12 Inlet valves must conform to **OEM** specification in their entirety, with a maximum head diameter of 31.5mm and a minimum stem diameter of 6mm along its entire length. They must have a 45 degree face with a maximum of one single 30 degree back cut.
- 7.6.13 Valve seats may be cut to a maximum of three angles and must conform in their entirety to the dimensions and specifications laid out within the MG Rover K Series Overhaul Manual (RCL 0057) . The valve seats must not be blended into the combustion chambers or port walls.
- 7.6.14 Valve springs and hydraulic lifters must be to **OEM** specification
- 7.6.15 Aftermarket valve spring top caps are permitted.
- 7.6.16 Inlet and exhaust cam profiles must remain exactly as the **OEM** MG Rover items.
- 7.6.17 Cam timing must remain as **OEM**.
- 7.6.18 The OEM Steel Elastomer or later multi-shim head gaskets are permitted. The early or later type oil rail may be used.
- 7.6.19 The **OEM** fuel tank breather system including the charcoal canister/purge valve must be fitted.

Prohibited Modifications

- 7.6.20 Forged pistons.
- 7.6.21 Aftermarket or non-**OEM** MG Rover camshafts.
- 7.6.22 Any machining to the cylinder head combustion chambers or inlet/exhaust ports.
- 7.6.23 Any machining to the valves or valve seats other than as detailed in 7.6.12 and 7.6.13.
- 7.6.24 The engine block, oil rail, crankshaft, conrods, pistons and liners must be to **OEM** specification and dimensions. They may not be machined, have any material added or removed, or be modified in any way except as detailed in 7.6.4.
- 7.6.25 Any machining to the crankshaft or camshaft sprocket.
- 7.6.26 Any means of modifying the cam timing eg. vernier timing pulleys, offset or modified camshaft location dowels.

7(7) COOLING SYSTEM

- 7.7.1 The **OEM** radiator must be fitted.
- 7.7.2 It is permitted to fit an aftermarket air/liquid oil cooler.
- 7.7.3 The main radiator cooling fan must be retained but the supplementary engine bay cooling fan may be removed.
- 7.7.4 It is permitted to fit a Pressure Relief Remote Thermostat (PRRT) and associated hoses.

7(8) INDUCTION SYSTEM

- 7.8.1 The fitting of an alternative proprietary made air filter and induction kit is allowed. This may be ducted to the left side rear quarter panel air intake vent.
- 7.8.2 **OEM** MG Rover 48mm or 52mm throttle bodies are permitted.

7(9) EXHAUST SYSTEM

- 7.9.1 The **OEM** exhaust downpipe and manifold must be fitted. The later six bolt type as fitted to 160 cars may be fitted to earlier cars.
- 7.9.2 An operational catalytic converter must be fitted, this is to be a minimum 100 cell design and must be fitted in the original location.
- 7.9.3 The exhaust system beyond the catalytic convertor is free but the system must exit at the rear of the car.
- 7.9.4 The welding nodules on the inner face of the exhaust manifold may be removed but the internal bore must not exceed 36mm at any point.
- 7.9.5 The welding nodules on the inner face of the manifold downpipe may be removed but the internal bore must not exceed 41.5mm at any point.

7(10) IGNITION SYSTEM

- 7.10.1 Cars fitted with MEMS 2 may be converted to run the later MEMS 3 ECU.
- 7.10.2 The original MG Rover MEMS2 or MEMS3 ECU must be retained but the mapping within it must be modified by Superchips to MGOC Championship specification MGOC/MEMS2 or by Kmaps.co.uk to MGOC Championship specification MGOC/MEMS3. ECU's modified by any other suppliers or to any other standard are not permitted.
- 7.10.3 MEMS2 Cars
At selected race meetings, the ECU's on MEMS2 cars may be sealed and removed by the appointed MSA Scrutineer. The sealed ECU's will be sent to Superchips Ltd, who, in the presence of an MSA Scrutineer, will examine the map within the ECU to ascertain if it conforms with the approved MEMS2/MGOC specification.
- 7.10.4 MEMS3 Cars
 - 7.10.4.1 The ECU on any selected MEMS 3 equipped car may be sealed and either examined at the circuit or removed from the car and sent to Kmaps.co.uk who will ascertain if the map within the ECU complies with specification MGOC/MEMS3FZ.
 - 7.10.4.2 MG Owners Club will hold an ECU modified by Kmaps.co.uk to Championship specification MGOC/MEMS3FZ. At selected race meetings, the appointed MSA scrutineer may request that the ECU fitted to a car is replaced with the MG Owners Club ECU. The MSA scrutineer is at liberty to decide which car is subjected to this procedure or to hold a ballot of all cars competing in Class F. In the event that any driver refuses to fit the MGOC ECU, the MSA scrutineer will deem the car ineligible to take part in any race at the meeting in question until such time as the MGOC ECU is fitted.

7(11) SUSPENSION

Permitted Modifications

- 7.11.1 MGF dampers may be changed for a direct replacement type with a single method of bump/rebound adjustment with an integral reservoir.
- 7.11.2 MGF must retain the **OEM** Hydragas suspension. The displacer type is free, this may be individually inflated with a separate valve operating each unit. The under floor Hydragas connection pipes may be removed.
- 7.11.3 On MGF it is permitted to strengthen the front and rear damper mountings.
- 7.11.4 On MGF the production front and rear bump stops must be retained in their original position.

- 7.11.5 On MGF suspension lowering knuckles are permitted.
- 7.11.6 MGTF dampers may be changed to adjustable platform type a single method of bump/rebound adjustment with an integral reservoir. Spring rates are free.
- 7.11.7 The rear dampers may be droop restricted by modifying the internal bump stops or by fitting a mechanical tether.
- 7.11.8 Suspension and subframe bush material is free.
- 7.11.9 Ride height is free subject to J5.20.11.

Prohibited Modifications

- 7.11.10 Spherical bearings (eg. rose joints).
- 7.11.11 Dampers with more than a single method of bump/rebound adjustment and/or remote reservoirs.

7(12) TRANSMISSION

Permitted Modifications

- 7.12.1 Clutch plate material is free but the clutch must be of single plate design and must mount to the bolt and dowel holes of an original **OEM** flywheel.
- 7.12.2 The only gearbox permitted is MG Rover type C4. The gearbox ratios are to be:
1st : 3.167, 2nd : 1.842, 3rd : 1.308, 4th : 1.033, 5th : 0.765
- 7.12.3 The final drive ratio is to be 4.2:1.
- 7.12.4 The use of an aftermarket modified rear upright with larger wheel bearing is permitted on safety and reliability grounds provided the rear track width (measured across the rear wheels) remains as **OEM**.
- 7.12.5 It is permitted to reduce the length of the gear lever and remove the balance weight.
- 7.12.6 The gear linkage attachment to the gearbox is free and may be wire locked to prevent dislocation of the ball joint.
- 7.12.7 Non **OEM** bushes may be fitted to the gearbox stabiliser bar.

Prohibited Modifications

- 7.12.8 Any form of locked, limited slip or torque sensing differentials.
- 7.12.9 Any form of traction control or launch control device.

7(13) ELECTRICAL SYSTEMS

- 7.13.1 It is permitted to fit a link across the fuel cut-out inertia switch.
- 7.13.2 Data logging systems are permitted.
- 7.13.3 The standard MGF/TF headlamps must be retained and be fully operational. Plastic film or covers may be fitted
- 7.13.4 Gel type batteries are permitted but must be fitted in the original location.
- 7.13.5 All sensors and factory fitted wiring must remain intact. No alterations are permitted unless approved in writing by the appointed Championship Eligibility Scrutineer.
- 7.13.6 The alternator charging system must remain fully operational at all times.

7(14) BRAKES

- 7.14.1 The **OEM** front fog lights may be removed and replaced with ducting but the original aperture dimensions must not be increased.

- 7.14.2 Up-rated brake pads, linings and brake hoses may be fitted.
- 7.14.3 The brake servo unit may be braced to the bulkhead with a strengthening bracket.
- 7.14.4 On MGF, the front brakes may be modified to accept the 283mm diameter discs fitted as **OEM** to MG ZR160 and re-drilled for an MGF stud pattern. A modified brake caliper carrier and alloy brake caliper spacer may be fitted. The rear discs on MGF may be grooved, slotted or dimpled.
- 7.14.5 On TF160, all brake components must be as per the original **OEM** size and design.
- 7.14.6 The ABS system may be disabled or removed.
- 7.14.7 A pressure limiting valve may be fitted to the hydraulic line to the rear brakes, this must comply with Q19.5 (c) and (d). ~~This may be fitted inside the car but must be located in a position where it cannot be operated by the driver when seated in the car.~~

7(15) FUEL TANK/FUEL SYSTEM

- 7.15.1 Pump fuel as defined in Section B of the MSA Yearbook must be used.
- 7.15.2 The OEM MG Rover fuel tank must be fitted. It may be baffled or foam filled.
- 7.15.3 The OEM MG Rover fuel pressure system and injectors must be retained with no changes or modifications.
- 7.15.4 The fuel pressure is to be minimum 2.8 bar, maximum 3.2 bar.

7(16) WHEELS/STEERING

- 7.16.1 Wheel camber and tracking angles are free.
- 7.16.2 MGF must use the **OEM** 15" x 6" wheels. These must not be modified to achieve the enhanced brake option as 7.14.4.
- 7.16.3 MGTF must use the **OEM** 16" x 7" wheels.
- 7.16.4 The entire EPAS (Electric Power Assisted Steering) system and the may be removed.
- 7.16.4 The steering column may be changed to an **OEM** non-EPAS type.

7(17) TYRES

- 7.17.1 Cars are required to use the following tyres:

MGF:	195/55R15 Toyo 888R (GG Medium compound only)
MGTF160	195/50R16 Toyo 888R (GG Medium compound only)
- 7.17.2 The compound marking on the sidewall is to remain clearly visible at all times. Any tyre not clearly displaying the manufacturer's original compound marking will be deemed non-compliant.
- 7.17.3 The nominated tyre supplier is:
 Adams and Page, Lincoln Road, Cressex Estate, High Wycombe, Bucks, HP12 3RO.
 Tel: 01494 445389

7(18) WEIGHTS

- 7.18.1 The minimum weight as the car finishes qualifying or race with the driver on board are as follows:

MGF:	1100kg
MGTF160:	1100kg

 Ballast is permitted, this must be securely fixed in the front passenger footwell.
- 7.18.3 The Championship Organisers reserve the right to review and alter weight limits up to a maximum of two occasions per year with a minimum of 14 days notice to the MSA and competitors concerned.

7(19) NUMBERS AND CHAMPIONSHIP DECALS

- 7.19.1 All cars are to fit combined number backgrounds and Lancaster insurance name decals to the side doors and bonnet. Additional Lancaster Insurance decals must be affixed to the rear of all cars.
- 7.19.2 Toyo Tyres stickers are to be affixed to the top of the front windscreen and the top of the rear hardtop glass.
- 7.19.3 All cars are required to fit a decal denoting "F" to the left hand side of the front windscreen.
- 7.19.4 MGOc/BARC decals are to be positioned on each side of the car but the position is free.
- 7.19.5 MG Owners Club reserves the right to request that additional decals are fitted at any time.
- 7.19.6 All decals are provided on request by the MG Owners' Club to registered competitors. Any car not displaying the required decals may be subject to appropriate penalties as defined in 4.3.7.

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2020 LANCASTER INSURANCE/MGOC PRODUCTION MG CHAMPIONSHIP

8 CLASS Z - TECHNICAL REGULATIONS

THE ELIGIBILITY SCRUTINEER RESERVES THE RIGHT TO SEAL AND SUBSEQUENTLY DISMANTLE ANY PART OF A COMPETING CAR. ANY REBUILDING COSTS WILL BE BORNE BY THE COMPETITOR OF THAT CAR.

8(1) INTRODUCTION

- 8.1.1 The following Technical Regulations are set out in accordance with the MSA specified format.
- 8.1.2 The term **OEM** (Original Equipment Manufacturer) as used hereafter relates to “Standard Parts” and “Standard Pattern Parts” as defined in Clause 3.7.
- 8.1.3 No modifications are permitted from the **OEM** specification other than those specified hereafter or listed in official Technical Bulletins as issued by BARC. It must be clearly understood that if the following texts do not clearly state that you can do the works you should work on the principle that you cannot.
- 8.1.4 Where items are listed in the following texts under the headings “Prohibited Modifications”, it must be understood that this is not an exhaustive list and the references made in 8.1.3 must be understood and acknowledged.
- 8.1.5 For technical reference the following MG Rover documents apply:
System Description Manual – RCL0379
Service Procedure Manual – RCL 0534
PGI Gearbox Manual – RCL 0124
K Series Engine Overhaul Manual – RCL 0057

8(2) GENERAL DESCRIPTION

- 8.2.1 Class Z is open to MG ZR160 and MG ZS160 cars.
- The MG ZS160 is a hybrid car comprised of the bodyshell, suspension and braking system of the MG ZS120 as described within the Regulations for Class B but fitted with the engine, gearbox and ancillaries from the MG ZR160 as described in the Regulations for Class Z.
- 8.2.2 MoT certificates, Insurance and Road Fund licences are not required.
- 8.2.3 With the exception of those items specifically permitted within these Regulations, no MG Rover or MG dealer offered factory options are permitted without the written approval of the Championship Co-ordinator.

8(3) SAFETY REQUIREMENTS

- 8.3.1 MSA Section K Safety Requirements will apply.
- 8.3.2 Six point roll cages are mandatory for all cars.
- 8.3.3 No part of the roll cage is permitted to project through the front bulkhead into the engine compartment.
- 8.3.4 Towing eyes in accordance with Q19.1.3 (a) or (b) must be fitted.

8(4) BODYSHELL

- 8.4.1 Left hand drive cars are not permitted.
- 8.4.2 Bodyshells from ZR105 and ZR120 may be used but must conform totally to ZR160 specification. ZS160 bodyshells conforming to Class B regulations may also be used in Class Z.
- 8.4.3 Non-**OEM** or aftermarket accessories or cosmetic modifications which will not influence the cars overall performance will be allowed subject to the written approval of the Organisers.

- 8.4.4 ZS160 only may use fibreglass bonnet and boot tailgate, these must be the original MG Rover profile. Alternatively, the **OEM** steel bonnet and/or tailgate may be lightened.
- 8.4.5 On ZS160 only, the rear window may be replaced by 4mm polycarbonate.
- 8.4.6 The bodyshell may be seam welded.
- 8.4.7 The original MG Rover exterior rear view mirrors must be fitted to each side of the car.

8(5) INTERIOR

- 8.5.1 All interior trim, dashboard and standard fittings must remain in place and the dashboard carcass is to remain unmodified.
- 8.5.2 The driver seat may be changed and the standard seat fixings/runners removed or modified.
- 8.5.3 The passenger seat, rear seat and carpets may be removed.
- 8.5.4 The use of non-standard door trim panels is permitted.
- 8.5.5 The steering wheel may be changed.
- 8.5.6 The rear quarter trim panels and roof lining may be removed.
- 8.5.7 The steering column lock and central locking mechanisms must be disabled.
- 8.5.8 Airbags may be removed or disabled.
- 8.5.9 Air-conditioning systems may be removed.
- 8.5.10 On ZS160 only, all window winder motors may be removed except the driver's door window which must remain electrically operated.
- 8.5.11 On ZR160 only, both front window winder motors must remain fitted and operational.
- 8.5.12 Sound deadening may be removed.
- 8.5.13 The **OEM** heater must be fitted and be fully operational using the **OEM** ducting and vents.

8(6) ENGINE

Permitted Modifications

- 8.6.1 Engine mounting material is free.
- 8.6.2 Two 1.5mm holes are to be drilled in adjacent cam cover bolts for the purpose of fitting engine seals.
- 8.6.3 The maximum bore and stroke dimensions are to be 80.00mm and 89.30mm respectively.
- 8.6.4 The use of Chinese manufactured replacement K series cylinder blocks is permitted. These may be machined only where necessary to allow the fitment of the **OEM** K series crankshaft position sensor.
- 8.6.5 The conrods and crankshaft must be **OEM** parts
- 8.6.6 Aftermarket pistons and liners are permitted but must be to the exact specification, profile and material of the **OEM** MG Rover components as fitted to VVC or 1.8 K series engines.
- 8.6.7 The overall height of the cylinder block including the ladder rail must be not less than 281.50mm.
- 8.6.8 The distance from the top of the liner to the shoulder of the liner must be not less than 50mm.
- 8.6.9 The flywheel is to be steel, the minimum weight with ring gear is 2.8kg.

- 8.6.10 Cylinder heads may be skimmed but the depth reference datum in the head casting must remain visible.
- 8.6.11 Exhaust valves must conform to **OEM** specification in their entirety, with a maximum head diameter of 27.5mm, a minimum stem diameter of 6mm and a single 45 degree face. It is permitted to have a carbon break in the valve stem to a minimum diameter of 5.5mm.
- 8.6.12 Inlet valves must conform to **OEM** specification in their entirety, with a maximum head diameter of 31.5mm and a minimum stem diameter of 6mm along its entire length. They must have a 45 degree face with a maximum of one single 30 degree back cut.
- 8.6.13 Valve seats may be cut to a maximum of three angles and must conform in their entirety to the dimensions and specifications laid out within the MG Rover K Series Overhaul Manual (RCL 0057) . The valve seats must not be blended into the combustion chambers or port walls.
- 8.6.14 Valve springs and hydraulic lifters must be to **OEM** specification
- 8.6.15 Aftermarket valve spring top caps are permitted.
- 8.6.16 Inlet and exhaust cam profiles must remain exactly as the **OEM** MG Rover items.
- 8.6.17 Cam timing must remain as **OEM**.
- 8.6.18 The **OEM** Steel Elastomer or later multi-shim head gaskets are permitted.
- 8.6.19 The early or later type oil rail may be used.
- 8.6.20 The **OEM** fuel tank breather system including the charcoal canister/purge valve must be fitted.

Prohibited Modifications

- 8.6.21 Forged pistons.
- 8.6.22 Non **OEM** camshafts.
- 8.6.23 Any machining to the cylinder head combustion chambers or inlet/exhaust ports.
- 8.6.24 Any machining to the valves or valve seats other than as detailed in 8.6.12 and 8.6.13.
- 8.6.25 The engine block, oil rail, crankshaft, conrods, pistons and liners must be to **OEM** specifications and dimensions. They may not be machined, have any material added or removed or be modified in any way except as detailed in 8.6.4.
- 8.6.26 Any machining to the crankshaft or crankshaft sprocket.
- 8.6.27 Any means of modifying the cam timing eg. vernier timing pulleys, offset or modified cam dowels.

8(7) COOLING SYSTEM

- 8.7.1 The **OEM** radiator or an identical aftermarket version must be fitted.
- 8.7.2 Additional or uprated oil coolers may be fitted.
- 8.7.3 It is permitted to fit a Pressure Relief Remote Thermostat (PRRT) and associated hoses.

8(8) INDUCTION SYSTEM

- 8.8.1 The fitting of an alternative proprietary made air filter and induction kit is allowed.
- 8.8.2 Ducting may be fitted to the induction kit, the front panel may be cut to accommodate this.
- 8.8.3 The **OEM** MG Rover 52mm throttle body must be used.

8(9) EXHAUST SYSTEM

- 8.9.1 The **OEM** exhaust downpipe and manifold must be fitted. The later six bolt type as fitted to 160 cars may be fitted to earlier cars.
- 8.9.2 An operational catalytic converter must be fitted, this is to be a minimum 100 cell design and must be fitted in the original location.
- 8.9.3 The exhaust system beyond the catalytic convertor is free but the system must exit at the rear of the car.
- 8.9.4 The welding nodules on the inner face of the exhaust manifold may be removed but the internal bore must not exceed 36mm at any point.
- 8.9.5 The welding nodules on the inner face of the manifold downpipe may be removed but the internal bore must not exceed 41.5mm at any point.

8(10) IGNITION SYSTEM

- 8.10.1 The original MG Rover MEMS3 ECU must be retained but the mapping within it must be modified by Kmaps.co.uk to MGOC Championship specification MGOC/MEMS3FZ. ECU's modified by any other suppliers or to any other standard are not permitted.
- 8.10.2 The ECU on any selected MEMS 3 equipped car may be sealed and either examined at the circuit or removed from the car and sent to Kmaps.co.uk who will ascertain if the map within the ECU complies with specification MGOC/MEMS3FZ.
- 8.10.3 MG Owners Club will hold an ECU modified by Kmaps.co.uk to Championship specification MGOC/MEMS3FZ. At selected race meetings, the appointed MSUK scrutineer may request that the ECU fitted to a car is replaced with the MG Owners Club ECU. The scrutineer is at liberty to decide which car is subjected to this procedure or to hold a ballot of cars competing in Class Z. In the event that any driver refuses to fit the MGOC ECU, the scrutineer will deem the car ineligible to take part in any race at the meeting in question until such time as the MGOC ECU is fitted.

8(11) SUSPENSION

Permitted Modifications

- 8.11.1 Dampers may be changed to an adjustable platform type with an integral reservoir. Independent adjustment of bump and rebound is permitted.

NOTE

Advance notice is given that from 1/1/21 dampers must have a single method of bump/rebound adjustment.

- 8.11.2 Strut braces may be fitted across the front and rear suspension mounts.
- 8.11.3 Adjustable top suspension mounts may be fitted. The suspension turrets may be modified to accommodate these.
- 8.11.4 Suspension and rear H frame bushes and engine mount material is free.
- 8.11.5 Spring rates are free.
- 8.11.6 Ride height is free subject to J5.20.11.
- 8.11.7 The rear dampers may be droop restricted only by modifying the internal bump stops or by fitting a mechanical tether.

Prohibited Modifications

- 8.11.8 Spherical bearings (eg. rose joints) except in suspension top mounts (refer 8.11.3).
- 8.11.9 Dampers with more than a single adjustment for bump and a single adjustment for rebound.
- 8.11.10 Dampers with remote reservoirs.

8(12) TRANSMISSION

Permitted Modifications

- 8.12.1 The clutch plate material is free but the clutch must be of single plate design and must mount to the bolt and dowel holes of an original **OEM** flywheel.
- 8.12.2 The only gearbox permitted is MG Rover type G4. The gearbox ratios are to be:
1st : 3.250, 2nd : 1.894, 3rd : 1.307, 4th : 1.033, 5th : 0.848
- 8.12.3 The final drive ratio is to be 4.2:1.
- 8.12.4 The gear linkage attachment to the gearbox is free and may be wire locked to prevent dislocation of the ball joint.
- 8.12.5 Non **OEM** bushes may be fitted to the gearbox stabiliser bar.

Prohibited Modifications

- 8.12.4 Any form of locked, limited slip or torque sensing differentials.
- 8.12.5 Any form of traction control or launch control device.

8(13) ELECTRICAL SYSTEMS

- 8.13.1 It is permitted to fit a link across the fuel pressure inertia switch.
- 8.13.2 Data logging systems are permitted.
- 8.13.3 The **OEM** headlamps must be retained and be fully operational. Plastic film or covers may be fitted to headlamps.
- 8.13.4 Gel type batteries are permitted but must be fitted in the original location.
- 8.13.5 All sensors and factory fitted wiring must remain intact. No alterations are permitted unless approved in writing by the appointed Eligibility Scrutineer.
- 8.13.6 The alternator charging system must remain fully operational at all times.
- 8.13.7 On ZS160 only, all window winder motors except the driver's side may be removed. The window winder motor on the driver's door must be retained and be fully operational.
- 8.13.8 The rear window wiper and motor may be removed.

8(14) BRAKES

- 8.14.1 Aftermarket brake discs of an identical design to the **OEM** discs may be fitted.
- 8.14.2 The **OEM** front fog lights may be removed and replaced with ducting but the original aperture dimensions must not be increased.
- 8.14.3 Up-rated brake pads, linings and brake hoses may be fitted.
- 8.14.4 ZR160 brake discs are to be 283mm at the front and 260mm at the rear.
- 8.14.5 ZS160 brakes may be upgraded to ZR160 specification as per 8.14.4
- 8.14.6 The ABS system may be disabled or removed.
- 8.14.7 A pressure limiting valve may be fitted to the hydraulic line to the rear brakes, this must comply with Q19.5 (c) and (d). ~~This may be fitted inside the car but must be located in a position where it cannot be operated by the driver when seated in the car.~~

8(15) FUEL TANK/FUEL SYSTEM

- 8.15.1 Pump fuel must be used as defined in Section B of the MSA Yearbook.
- 8.15.2 The **OEM** MG Rover fuel tank must be fitted. It may be baffled or foam filled.
- 8.15.3 The **OEM** MG Rover fuel pressure system and injectors must be retained with no changes or modifications.
- 8.15.4 The fuel pressure is to be minimum 2.8 bar, maximum 3.2 bar.

8(16) WHEELS/STEERING

- 8.16.1 Wheel camber and tracking angles are free.
- 8.16.2 Only the 16" inch wheels supplied by MG Rover and fitted as **OEM** to MG ZR160 saloons are permitted
- 8.16.3 Wheel spacers up to a maximum of 5mm thick may be fitted to the front wheels only. The wheel stud length is free.

8(17) TYRES

- 8.17.1 Cars are required to use the following tyres:
195/50R16 Toyo 888R (GG medium compound only)
- 8.17.2 The compound marking on the sidewall is to remain clearly visible at all times. Any tyre not clearly displaying the manufacturer's original compound marking will be deemed non-compliant.
- 8.17.3 The nominated tyre supplier is:
Adams and Page, Lincoln Road, Cressex Estate, High Wycombe, Bucks, HP12 3RO
Tel: 01494 445389

8(18) WEIGHTS

- 8.18.1 The minimum weight as the car finishes qualifying or race with the driver on board is as follows:
MG ZR160: 1050kg
MG ZS160: 1050kg
- 8.18.2 Ballast is permitted, this must be securely fixed in the front passenger footwell.
- 8.18.3 The Championship Organisers reserve the right to review and alter weight limits up to a maximum of two occasions per year with a minimum of 14 days notice to the MSA and competitors concerned.

8(19) NUMBERS AND CHAMPIONSHIP DECALS

- 8.19.1 All cars are to fit combined number backgrounds and Lancaster insurance name decals to the side doors and bonnet.
- 8.19.2 Toyo Tyres stickers are to be affixed to the top of the front windscreen and the top of the rear tailgate glass.
- 8.19.3 All cars are required to fit a decal denoting "Z" to the left hand side of the front windscreen.
- 8.19.4 MGOC/BARC decals are to be positioned on each side of the car but the position is free.
- 8.19.5 MG Owners Club reserves the right to request that additional decals are fitted at any time.
- 8.19.6 All decals are provided on request by the MG Owners' Club to registered competitors. Any car not displaying the required decals may be subject to appropriate penalties as defined in 4.3.7.

2020 LANCASTER INSURANCE/MGOC PRODUCTION MG CHAMPIONSHIP

9 TECHNICAL REGULATIONS - CLASS I: INVITATION CLASS

THE ELIGIBILITY SCRUTINEER RESERVES THE RIGHT TO SEAL AND SUBSEQUENTLY DISMANTLE ANY PART OF A COMPETING CAR. ANY REBUILDING COSTS WILL BE BORNE BY THE COMPETITOR OF THAT CAR.

9(1) INTRODUCTION

- 9.1.1 Acceptance of an entry into Class I will be solely at the discretion of MGOC.
- 9.1.2 Any car entering Class I will be expected to conform to the spirit of the MGOC Championship in being essentially a road going race car. Entries will be encouraged on the basis that cars are expected to meet, but not exceed, the performance standards of other competing cars.
- 9.1.3 Any driver wishing to enter a car into Class I must submit full details of the car to MGOC for approval a minimum of ten days prior to the meeting.
- 9.1.4 Competitors entering this Class will not be eligible for Championship points.
- 9.1.5 Entries will be accepted for Class I on the basis that grid places are available on the official date of entries closing as advised by BARC.

9 (2) TYRES

- 9.2.1 Any treaded tyre from List 1A, 1B or 1C may be used but cars are encouraged to use Toyo 888R (M (GG Medium compound) tyres.

9 (3) NUMBERS and CHAMPIONSHIP DECALS

- 9.3.1 Race numbers will be allocated by MGOC.
- 9.3.2 MGOC/BARC decals are to be positioned on each side of the car but the position is free.
- 9.3.3 All decals are provided on request by the MG Owners' Club to registered competitors. Any car not displaying the required decals may be deemed ineligible and may be subject to appropriate penalties.
- 9.3.4 MG Owners Club reserves the right to request that additional decals are fitted at any time.

10. APPENDICES

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

10.1 MGOC Conduct and Driving Standards

- 10.1.1 In the event that a driver receives licence penalty points for a driving offence under the provisions of C1.1.5, that driver will receive formal notification from MGOC as to their future conduct. The MGOC reserve the right to suspend that drivers' Club Membership for the next two Championship races. Further or subsequent similar infringements may result in the permanent suspension of Club Membership.
- 10.1.2 Any driver who is excluded from an event for a technical infringement (refer C3.1.5) or who by their off track behaviour have, in the opinion of MGOC, brought the Championship into disrepute may have their MGOC membership suspended, hence you are unable to comply with Regulation 1.3.2 and cannot race. The decision to suspend Club membership and the length of any such suspension will be determined by MGOC whose decision will be final and not subject to appeal.
- 10.1.3 Drivers are reminded that they are held responsible for the conduct of all members of their team. Refer MSA Year Book H32.1.10

10.2 Organising Clubs, Officials and Contacts:

Championship Co-ordinator

Dave Wheadon, BARC, Thruxton Circuit, Andover, Hants, SP11 8PN
Tel: 01264 882200 Fax: 01264 882233
e-mail: dwheadon@barc.net

MGOC Drivers Representative

Jim Baynam, 11 Bushmead Road, Eaton Socon, St Neots, Cambs, PE19 8BP
Tel: 01480 219563 or 07871 119785
e-mail: baynam@btinternet.com

MGOC Racing Administration

MG Owners' Club, Octagon House, Swavesey, Cambridge CB24 4QZ
Contact: Linda Empson
Tel: 01954 231125
e-mail: reception@mgownersclub.co.uk

Motorsport UK Appointed Scrutineer

Graham Bahr
Tel: 01353 669345

Championship Technical Advisors

Any of the persons detailed below can provide technical support and advisory assistance to any Motorsports UK appointed official and, if requested, be present in parc-ferme or at any on or off circuit technical examinations.

1. Roger Parker - MG Owners Club
2. Jonathan Kimber - MG Owners Club
3. Mark Stacey - Kmaps
4. Malcolm Gammons - Brown and Gammons
5. Kevin Bull - KB Motorsport
6. Doug Cole - DC Motorsport

2020 LANCASTER INSURANCE MGOC CHAMPIONSHIP

11. REGISTRATION FORM

Please complete this form in BLOCK CAPITALS

Full Name:

Address:

Postcode:

Mobile phone no:

Home phone no:

Email Address:

Are you prepared to have your email address passed onto other Race Drivers: YES / NO

MGOC Membership Number:

MSUK Licence Grade: InterClub / National / International (delete as appropriate)

Have you raced before: Yes / No

If aged under 21, please state date of birth:

What Car do you intend to Race: (Model) (cc)

Please indicate which Class: A ☐ B ☐ F ☐ Z ☐ I ☐

I have read the current 2020 Championship Regulations and accept them in full and can confirm that my car complies with the relevant Technical Regulations.

I am a member of the MG Owners' Club and the BARC and confirm that the MGOC Championship registration fee of £40 has been made to MG Owners Club.

SIGNED:

DATE:

Please return to: MGOC, Octagon House, Swavesey, Cambridge, CB24 4QZ
or email to reception@mgownersclub.co.uk