



MSCC TECHNIQUES SPEED CHAMPIONSHIP

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1. SPORTING REGULATIONS – GENERAL

1.1 Title and Jurisdiction

The MSCC Techniques Speed Championship is organised and administered by the Morgan Sports Car Club in accordance with the General Regulations of the Royal Automobile Club Motor Sports Association (Motorsport UK) (incorporating the provisions of the International Sporting Code of the FIA) and these regulations.

Motorsport UK Permit Number	CH2020/S038
Motorsport UK Championship Grade	D

1.2 Officials

1.2.1. The Championship Co-ordinator is: Mrs Julie Baines
31, Seven Stiles Drive
Marple
Cheshire
SK6 6LT

1.2.2. Eligibility Scrutineer: Mr John Wasilewski
Myrr Hill
Shield Hall Lane
Sowerby
Halifax

1.2.3. Championship Stewards: Mr Peter Chapman
Mr David Bright
Mr Iain Leviston

1.3 Competitor Eligibility

1.3.1 Entrants must be fully paid-up valid membership card holding members of the Morgan Sports Car Club and be in possession of a valid 2020 Motorsport UK Entrants Licence.

1.3.2 Drivers and Entrant / Drivers must be fully paid-up valid membership card holding members of the Morgan Sports Car Club, be registered for the Championship and be in possession of a valid Competition Licence, RS Inter Club (Minimum).

1.3.3 All necessary documentation must be presented for checking at “signing on” at all rounds.

1.4 Registration

1.4.1 Competitors can register for the Championship by completing the Entry Form included with these Regulations and signing the “Declaration” Form which indemnifies the organisers and fellow competitors.

1.4.2 A Fee of £ 45.00 is payable on registration and must be in the organisers hands before Championship points can be awarded.

1.5 Championship Rounds

The Championship will consist of 18 rounds, the best score of a minimum of 3 and a maximum of 6 rounds to count for the Championship.

The best score must include a minimum of 2 rounds from any hillclimb events

AND

a minimum of 2 rounds from any sprint events.

	Date 1.5.1.	Venue 1.5.2.	Club 1.5.3	H/C or S
1	26 th April	Hethel	Herts County A.A.C	S
2	30 th April-2 nd May	Manx Classic	MMRC	H
3	2 nd May	Ty Croes (National)	MG Car Club	S
4	3 rd May	Ty Croes (International)	MG Car Club	S
5	10 th May	Debden	Herts County A.A.C	S
6	17 th May	Wiscombe Park	Wildlife Motor Club	H
7	7 th June	Harewood	BARC Yorkshire	H
9	14 th June	3 Sisters	Longton & District	S
9	14 th June	Gurston Down	BARC SW	H
10	27 th June	Aintree	Liverpool Motor Club	S
11	5 th July	Snetterton 100	Borough 19 Motor Club	S
12	11 th July	Loton Park	Hagley & District Club	H
13	25 th July	Shelsley Walsh	Midland Automobile Club	H
14	1 st August	Goodwood	Bognor Regis MC	S
15	13 th September	Curborough Fig of 8	Midland Automobile Club	S
16	19 th September	Blyton Park	Nottingham Sports Car Club	S
17	20 th September	Blyton Park	Nottingham Sports Car Club	S
18	4 th October	Prescott	Bugatti Owners Club	H

1.6 Scoring

- 1.6.1. a)** The scoring system is based on target times specific to each car and driver combination. The target time is determined by an algorithm, The algorithm uses vehicle parameters (power, mass, drag coefficient and tyre friction coefficient) and circuit information deduced from satellite image analysis to simulate a run of any particular course for each entrant vehicle.

The power is calculated from the harmonic mean BHP of the engine at the flywheel (BHP). Northampton Motorsport have been appointed as the MSCC reference rolling road and opportunities will be provided for contenders to have power runs on the Northampton Motorsport rolling road.

The harmonic mean BHP is calculated from the Torque data extracted from the rolling road. The BHP is calculated using the torque at 3 points in the power run –

Torque at Maximum engine revolutions

Torque at (Max engine revolutions-1000RPM)

Torque at (Max engine revolutions-2000RPM)

The mass, defined as the Kerbside weight, will be validated for all entered cars once per season. Kerbside weight is defined as the weight of the car, including driver (in race overalls, helmet, shoes and gloves), in the condition in which it is presented to the start-line ready for competitive timed runs. It is assumed the car will be carrying 10 litres of fuel.

Each competitor must nominate a tyre category – List 1a, List 1b or List 1c on their entry form when registering for the championship.

The tyre category determines the type of tyre the competitor is permitted to run during the year.

An example of the data parameters calculated for each competitor is included in Appendix 17.

An example of the calculation of a target time for a specific competitor at a sample circuit is included in Appendix 18.

- 1.6.1 b)** Points will be awarded based upon a performance scoring system. Each driver's best recorded time will be calculated as a percentage of the respective target time – $((\text{Recorded Time}/\text{Target Time}) * 100) - 200) * (-1) = \text{Score}$. The driver with the highest score will be the winner. All scores will be calculated to one decimal point. If the winner scores less than 100 points, then his score will be uplifted to 100 points. In this instance, each competitors score will be uplifted by the same numerical value.

Example 1

A competitor records a fastest time of 78.47 seconds and his target time is 76.23 seconds. His calculated score is $((78.47/76.23)*100)-200)*(-1) = 97.1$ points. If he achieves the highest score on the day, add 2.9 points to each competitors score.

- 1.6.1 c)** In a Morgan only class, where there is a points tie on handicap from a particular run, that run shall be ignored and the Class Award on the day shall be made using times achieved in the respective competitor's second best timed runs, but the championship points will be awarded from the times of the best runs.

1.6.1 d) Irrespective of any separation (by an organising club) of registered competitors in this championship into two or more classes; points will be awarded as if all competitors are in a single class, and position in the class, as defined by the organising club shall have no relevance to points awarded under these regulations.

1.6.1 e) A competitor will only be eligible to score points if he/she has completed at least one competitive timed run.

1.6.1 f) A competitor will be deemed to have competed at an event if he/she has started at least one practice run.

1.6.2. Ties

In the event of a tie occurring, in the overall championship, either in the overall winner's awards or within any Class, the 7th, 8th and so on best scores will be included to determine the outcome.

If the competitors have only competed in 6 events or less, the highest mean score per event, will be used to determine the outcome.

Failing this, if the competitors have achieved equal mean scores per event, the highest individual event score(s) achieved throughout the season will be used to determine the outcome.

1.6.3. Championship Points Appeal

Any appeal against points awarded (or not awarded) must be lodged within 7 Days of the first publication of Championship results for any particular round. Any appeals must be lodged with the Championship Co-Ordinator in accordance with C6.5.

Awards

1.7.1 At the end of the Season, awards will be made on the following basis:

A Competitor is only eligible for an award if he has scored points in a minimum of 3 Championship rounds.

The Competitor amassing the HIGHEST total score from his or her SIX Best Scores will win their respective Class and the next highest score will come second etc. Awards will be made in the following manner i.e.

Up to 3 Competitors in Class	---	Award to first in Class only
Up to 6 Competitors in Class	---	Awards to first and second.
More than 6 Competitors in Class	---	Awards to first, second and third

The OVERALL Championship Winner will be the Competitor who gains the highest Score from his or her minimum of 3 and maximum of 6 Best Scores irrespective of Class. This Competitor will receive the Championship winner's award only and will forfeit the Class award, which will be given to the second competitor in that Class.

A Ladies award will be presented if 3 or more ladies register for the championship. The Ladies award will be given on the same basis as the overall winner, and any Class award will be forfeited, however, if a class award is achieved, the option to receive the class award instead of the Ladies award will be given. If this is accepted, the Ladies award will be forfeited and be presented to the second lady competitor in the Championship.

A Novice award will be given for the best score from a Competitor who is competing in his 1st season and has not been awarded any Class award.

An Improver's award will be given for the Competitor, who is judged by the Championship Organisers, to have achieved the greatest overall improvement in performance from the previous season and has not previously won a Class award.

1.7.2 These awards will be cups or plaques and will be perpetual.

1.7.3 The **New Elms Classic Cup** award will be presented to the Competitor who gains the 3 best scores, of which at least one must be from each discipline (hillclimb and sprint), from 5 nominated championship events. Competitors will be required to compete at a minimum of 3 of the nominated championship events to be eligible for the award.

The nominated championship events will be –

Harewood, Aintree, Goodwood, Prescott and Shelsley.

In the event of a tie, the competitor who achieves the best aggregate difference from his/her class target time at the 3 best score events will be judged to be the winner.

1.8 Championship Regulation Amendments

Any amendments to the regulations for the forthcoming season, will be made on an annual basis at the Drivers Meeting to take place at the end of the current season.

All amendments will be democratically agreed by all individuals present. Only individuals who are currently registered championship competitors will be eligible to vote during this process.

2 SPORTING REGULATIONS – JUDICIAL PROCEDURES IN ACCORDANCE WITH SECTION C (COMPETITORS: BREACH OF REGULATIONS) OF THE MOTORSPORT UK YEAR BOOK AND THESE CHAMPIONSHIP REGULATIONS

It should be noted that the Eligibility Scrutineer is at liberty to examine any vehicle at any time during the Championship as set-out in Section (C 3.1 to 3.5) in the Motorsport UK Year Book. Similarly, any protests would be in accordance with Section (C5.1 to 5.7).

3. TECHNICAL REGULATIONS

- 3.1.** Any four wheeled Morgan car is eligible to compete in the Championship. All vehicles must comply with the Motorsport UK Technical Regulations for Hillclimb and Sprint vehicles as laid down in Section (J) (Common Regulations for Vehicles), Section (S) (Specific Regulations for Sprints, Hill Climbs and Drag Racing) and Section (K) (Safety Criteria) to be found in the Motorsport UK Year Book (Blue Book), 2020.
- 3.2.** The following Technical regulations governing each of the Classes are appropriate to the types of vehicles which have been entered in Morgan Speed Championships in previous years and do not necessarily conform to the maximum permitted modifications allowed by the Motorsport UK, or even the MSCC general systems of classification. However, they have been devised to enable cars to enter Motorsport UK Classes, but at the same time, to limit the extent to which money can buy success in the Standard Classes.
 - 3.2.1.** Competitors are asked to study the following Technical Regulations to ensure that they enter the Class appropriate to their particular vehicle. If a competitor feels that the regulations do not cover their vehicle, they should contact a member of the organising group.

3.2.2. The Championship will be divided into Classes as follows:

Road Cars (S12)

Class 1h	Standard Morgan Series 1
Class 1	Standard Morgan 4/4 (Carburettor) up to 1701cc.
Class 2	Standard Morgan 4/4 (Fuel Injected) CVH, Zetec up to 1800cc, Sigma.
Class 4	Standard TR engined + 4 Morgan.
Class 5b	Standard Moss Box +8
Class 6a	Standard Morgan +4, 4/4 Duratec up to 1800cc, CVH/Zetec 4/4 (1801-2000cc).
Class 6b	Standard Morgan +4 Duratec up to 2000cc
Class 8a	Standard Morgan +4 Duratec up to 2000cc
Class 8b	Standard 3,500cc Carburetted Plus 8
Class 9a	Standard Injected Plus 8 up to 4000cc.
Class 9b	Standard Roadster 3.0 / 3.7
Class 10b	Road-going Standard Plus 8 4.6
Class 11b	Aero 8 over 4,400cc.

Modified Cars (S13)

Class 3	Modified Morgan 4/4 up to 1750cc
Class 5a	Modified TR engined + 4 Morgan,
Class 7	4/4 Sport (Modified), Modified 4/4, & + 4 (1751-2000cc).
Class 8c	Modified 4/4, & + 4 , (1751-2000cc).
Class 9c	Modified 4/4, & + 4 , (1751-2000cc).
Class 10a	Modified Plus 8, Modified Roadster, Aero 8 up to 4,400cc
Class 10c	Modified Roadster 3.0
Class 10d	Modified Roadster 3.7.
Class 10e	Modified 4/4, & + 4, over 2000cc,
Class 11a	Racing Plus 8
Class 12	Modsports Morgans.

3.2.3. Class 1h Standard Series 1 4-4

1. Production engine units to be used – 1122cc Coventry Climax for cars built before 1940, 1267cc Standard for cars built after 1940
2. Engines may be balanced whilst retaining original manufacturer fitted components only.
3. Standard camshafts and valves to be used.
4. Standard exhausts to be used.
5. Air cleaners optional.
6. Production inlet manifolds to be retained, but choice of either Solex or Zenith carburettor fitted by the factory as a production item can be used.
7. Standard Morgan suspension systems to be retained front and rear, front and rear end geometry to be retained. Rear axle lateral location devices such as Panhard Rods are not permitted.
8. Body construction to be Morgan steel chassis, with timber frame and steel body panels. Floorboards to be of wood of equal thickness to factory standard.
9. Road legal tyres to be fitted to 16” Dia. Wheels, 5”width available ex factory.
10. Gearboxes to be 4 speed with production ratios.
11. Braking Systems to be as fitted by factory.
12. Axle to be as fitted by factory with production ratios to be retained.
13. Standard production ignition systems to be retained.

3.2.4. Class 1 Standard 4/4 (up to 1701cc)

1. Non fuel injected production engine units to be used ie (Ford Pre. Xflow, Kent, CVH or Fiat).
2. Engines may be balanced whilst retaining original manufacturer fitted components only.
3. Standard camshafts and valves to be used.
4. Choice of exhausts from Standard 4/4 range including Stainless copies.
5. Air cleaners optional.
6. Production inlet manifolds to be retained, but choice of any carburettor fitted by the factory as a production item can be used. A list of such carburettors is available.
7. Standard Morgan suspension systems to be retained front and rear, front and rear end geometry to be retained but adjustable telescopic dampers may be used front and rear. Brake reaction stays may be fitted to the front crossframe. Rear axle lateral location devices such as Panhard Rods are permitted.
8. Body construction to be Morgan steel chassis, with timber frame and either steel or aluminum body panels. GRP wings of roadgoing weight, ie. (not lighter than aluminum) may be used. Floorboards to be of wood of equal thickness to factory standard.
9. Road legal tyres to be fitted to max. 15inch Dia. Wheels of a width available ex factory.
10. Gearboxes to be 4 or 5 speed with production ratios.
11. Braking Systems to be as fitted by factory.
12. Salisbury or BTR rear axles, with production ratios to be retained.
13. Production ignition systems to be retained, but contact breakers may be replaced by a “pointless” system.

3.2.5. Class 2 Standard 4/4 (up to 1800cc)

1. Fuel injected production engine units to be used ie (Ford CVH, Zetec, Sigma).
2. Engines may be balanced whilst retaining original manufacturer fitted components only.
3. Standard camshafts and valves to be used.
4. Choice of exhausts from Standard 4/4 range including Stainless copies permitted on CVH and Zetec engines only.
5. Air cleaners optional.
6. Fuel injection and engine management systems to be as fitted by factory. Remapping of ECU or alterations to injection systems not allowed.
7. Standard Morgan suspension systems to be retained front and rear, front and rear end geometry to be retained but adjustable telescopic dampers may be used front and rear. Brake reaction stays may be fitted to the front crossframe. Rear axle lateral location devices such as Panhard Rods are permitted.
8. Body construction to be Morgan steel chassis, with timber frame and either steel or aluminum body panels. GRP wings of roadgoing weight, ie. (not lighter than aluminum) may be used. Floorboards to be of wood of equal thickness to factory standard.
9. Road legal tyres to be fitted to max. 15inch Dia. Wheels of a width available ex factory. 4/4 Sport - road legal tyres to be fitted to standard 15inch Dia. wheels and tyres of dimensions available ex factory.
10. Gearboxes to be 5 speed with production ratios.
11. Braking Systems to be as fitted by factory.
12. Salisbury or BTR rear axles, with production ratios to be retained.

3.2.6. Class 3 Modified 4/4 (up to 1750cc)

Class 3a Modified 4/4 exc 4/4 Sport

1. The same engine units as for Standard 4/4s are to be used, plus other engine derivatives i.e. (Lotus twin cams, BDA etc), providing the capacity does not exceed 1750cc.
2. Unlimited performance modifications are permitted, in accordance with Motorsport UK regulations. See Appendix for separate rule in respect of forced induction.
3. Total exhaust system optional.
4. Total carburation system optional, but pump fuel must be used.
5. Standard Morgan suspension systems to be used front and rear, but front end geometry optional and at rear, panhard rods and anti tramp bars allowed.
6. Morgan steel chassis to be used, but body construction optional. Vehicle silhouette to be accurately retained.
7. Tyre sizes and wheels optional.
8. Any production gearbox from the standard 4/4 range to be used, with ratios free.
9. Salisbury or BTR rear axles to be used and ratios free.

Class 3b Modified 4/4 Sport

1. Fuel injected production engine units to be used ie (Ford Sigma).
2. Engines may be balanced whilst retaining original manufacturer fitted components only.
3. Standard camshafts and valves to be used.
4. Exhaust systems free.
5. Air cleaners optional.
6. Inlet Manifolds, fuel injection and engine management systems free.
7. Standard Morgan suspension systems to be retained front and rear, front and rear end geometry to be retained but adjustable telescopic dampers may be used front and rear. Brake reaction stays may be fitted to the front crossframe. Rear axle lateral location devices such as Panhard Rods are permitted.
8. Body construction to be Morgan steel chassis, with timber frame and aluminum body panels. GRP wings of roadgoing weight, ie. (not lighter than aluminum) may be used. Floorboards to be of wood of equal thickness to factory standard.
9. Road legal tyres to be fitted to standard 15inch Dia. wheels and tyres of dimensions available ex factory.
10. Gearboxes to be 5 speed with production ratios.
11. Braking Systems to be as fitted by factory.
12. Salisbury or BTR rear axles to be used and ratios free.

3.2.7. Class 4 Standard TR Engined Plus 4.

1. Engines from Vanguard to TR4 to form basis of power units, but excluding Supersports specification.
2. Engines may be balanced whilst retaining original manufacturer fitted components only.
3. Standard camshafts and valves to be used.
4. Choice of exhaust system from standard Plus 4 range, including stainless copies, but excluding Supersports spec.
5. Air cleaners optional.
6. Choice of any carburettor fitted by the factory as a production item can be used but excluding Supersports spec. A list of such carburettors is available.
7. Standard Morgan suspension systems to be retained front and rear, front and rear end geometry to be retained but adjustable telescopic dampers may be used front and rear. Brake reaction stays to front crossframe and anti tramp bars at rear allowed. Floorboards to be of wood of equal thickness to factory standard.
8. Body construction to be Morgan steel chassis, with timber frame and either steel or aluminum body panels. GRP wings of roadgoing weight, i.e. (not lighter than aluminum), allowed.
9. Road legal tyres to be fitted to 15 or 16 inch Dia. Wheels of a width available ex. Factory.
10. Braking Systems to be as fitted by factory.
11. Rear axles and gearboxes to be standard production units.

3.2.8. Class 5 Modified TR Engined Plus 4 & Standard Moss Box Plus 8

Class 5a Modified TR Engined Plus 4.

1. Engines to be from Vanguard – TR4 range, including Supersports Specification or higher spec.
2. Any performance modification allowed in accordance with Motorsport UK Regulations.
3. Exhaust system optional.
4. Carburation systems optional.
5. Standard Morgan suspension to be retained front and rear, but front end geometry optional and rear end axle may be located using panhard rods, anti-tramp bars etc.
6. Morgan steel chassis to be used, but body construction optional. Vehicle silhouette to be accurately retained.
7. Tyre and wheel sizes optional.
8. Production rear axles and gearboxes to be retained but ratios free.

Class 5b Standard Moss Box 3,500cc Plus 8.

1. The engine must remain in the same state of tune as ex. Factory.
2. Engines may be balanced whilst retaining original manufacturer fitted components only.
3. Standard camshafts and valves to be used.
4. Production inlet manifolds to be retained, but choice of any carburettor fitted by the factory as a production item can be used. A list of such carburettors is available.
5. Standard Morgan suspension systems to be retained front and rear, front and rear end geometry to be retained but adjustable telescopic dampers may be used front and rear. Brake reaction stays may be fitted to the front crossframe and rear axle may be located using panhard rods, anti-tramp bars etc.
6. Bodywork must be conventional Morgan steel chassis, timber frame and either steel or alloy body panels. GRP wings, not lighter than aluminium allowed. Floorboards to be of wood of equal thickness to factory standard.
7. Gearbox to be of “Moss” type and specification as fitted ex factory.
8. Braking Systems to be as fitted by factory.
9. Road legal tyres of profile no lower than 70 section to be fitted to standard ex. Factory rims.
10. Any production rear axle from the standard Plus 8 range to be used, with production ratios.

3.2.9. Class 6 Standard + 4, Standard Zetec 4/4. (1801-2000cc), Standard Duratec 4/4 (1800cc), Standard +4 Duratec.

Class 6a Standard + 4, Standard Zetec 4/4. (1801-2000cc), Standard Duratec 4/4 (1800cc),

1. Production engine units to be used – Fiat TC, Rover M16 & T16 engines, Ford CVH, Ford Zetec TC, or earlier engines of appropriate capacity. Ford Duratec engines of a maximum capacity of 1800cc
2. Engines may be balanced whilst retaining original manufacturer fitted components only.
3. Standard production camshafts and valves to be retained.
4. Choice of exhausts from standard range, including stainless copies on all engine types.
5. Air cleaners optional.
6. Production carburation, ignition and engine management systems to be retained.
7. Standard Morgan suspension systems to be retained front and rear, front and rear end geometry to be retained but adjustable telescopic dampers may be used front and rear. Brake reaction stays to front crossframe and anti tramp bars at rear allowed. Rear axle lateral location devices such as Panhard Rods are permitted.
8. Body construction to be Morgan steel chassis and timber frame, with either steel or aluminum body panels. GRP wings of roadgoing weight i.e (Not lighter than aluminum) may be used.
9. Road legal tyres to be fitted to 15” dia. wheels of a width available ex. factory. Floorboards to be of wood of equal thickness to factory standard.
10. Salisbury or BTR rear axles, with production ratios to be retained.
11. Braking Systems to be as fitted by factory.
12. Gearboxes to be production units with production ratios.

Class 6b Standard + 4 Duratec

1. Production engine units to be used – Ford Duratec engines of a maximum capacity of 2000cc
2. Engines may be balanced whilst retaining original manufacturer fitted components only.
3. Standard production camshafts and valves to be retained.
4. Choice of exhausts from standard range, including stainless copies on all engine types.
5. Standard air cleaners to be retained.
6. Production ignition and engine management systems to be retained.
7. Standard Morgan suspension systems to be retained front and rear, front and rear end geometry to be retained but adjustable telescopic dampers may be used front and rear. Brake reaction stays to front crossframe allowed. Rear axle lateral location devices such as Panhard Rods are permitted. Anti tramp bars at rear are not permitted.
8. Body construction to be Morgan steel chassis and timber frame, with either steel or aluminum body panels. GRP wings of roadgoing weight i.e (Not lighter than aluminum) may be used.
9. Road legal tyres to be fitted to 15” dia. Wheels, maximum 6” width. Maximum tyre width 205mm. Floorboards to be of wood of equal thickness to factory standard.
10. BTR rear axles, with production ratios to be retained.
11. Braking Systems to be as fitted by factory.
12. Gearboxes to be production units with production ratios.

3.2.10. Class 7 Modified 4/4, 4/4 Sport or Plus 4

Class 7a Modified 4/4 or Plus 4

1. Engines to be of 4 cylinder configuration only, capacity limited to 2000cc.
2. Engine power output to be limited to 185 BHP at the flywheel.

Zetec Engines

3. Unlimited performance modifications allowed in accordance with Motorsport UK regulations within the following conditions -
4. Fuelling by carburation or ex-factory injection/air intake systems.
5. Engine management systems free.
6. Exhaust system free.

Duratec Engines

7. Unlimited performance modifications allowed in accordance with Motorsport UK regulations within the following conditions -
8. Standard ex factory engines only.
9. Fuelling and air intake systems free.
10. Engine management systems free.
11. Exhaust system free.
12. Forced induction systems not allowed.
13. Standard Morgan suspension systems to be retained front and rear but front end geometry free and rear axle may be located using panhard rods, anti-tramp bars etc.
14. Morgan steel chassis to be used, but body construction optional. Vehicle silhouette to be accurately retained.
15. Tyre and wheel sizes optional.
16. Salisbury or BTR rear axles to be used and ratios free.
17. Gearboxes to be production ex factory units, but ratios free.

Class 7b 4/4 Sport

1. Fuel injected production engine units to be used ie (Ford Sigma).
2. Unlimited performance modifications allowed in accordance with Motorsport UK regulations.
3. See separate rule re-forced induction in Appendix.
4. Exhaust system optional.
5. Ignition and engine management systems free.
6. Standard Morgan suspension systems to be retained front and rear, front and rear end geometry to be retained but adjustable telescopic dampers may be used front and rear. Brake reaction stays may be fitted to the front crossframe. Rear axle lateral location devices such as Panhard Rods are permitted.
7. Morgan steel chassis to be used, but body construction optional. Vehicle silhouette to be accurately retained.
8. Tyre and wheel sizes optional.
9. BTR rear axles to be used and ratios free.
10. Gearboxes to be production ex factory units, but ratios free.

3.2.11. Class 8 Standard Plus 4 Duratec, Standard 3,500cc Plus 8,

Class 8a Standard + 4 Duratec

1. Production engine units to be used – Ford Duratec up to 2000cc.
2. Engines may be balanced whilst retaining original manufacturer fitted components only.
3. Standard production camshafts and valves to be retained.
4. Choice of exhausts from standard range, including stainless copies.
5. Air cleaners optional.
6. Production ignition and engine management systems to be retained.
7. Standard Morgan suspension systems to be retained front and rear, front and rear end geometry to be retained but adjustable telescopic dampers may be used front and rear. Brake reaction stays to front crossframe and anti tramp bars at rear allowed. Rear axle lateral location devices such as Panhard Rods are permitted. Morgan Motor Company 4 link or Suplex 5 link also permitted for rear suspension assembly.
8. Body construction to be Morgan steel chassis and timber frame, with aluminum body panels. GRP wings of roadgoing weight i.e (Not lighter than aluminum) may be used.
9. Road legal tyres to be fitted to 15” dia. wheels of a width available ex. factory. Floorboards to be of wood of equal thickness to factory standard.
10. BTR rear axles, with production ratios to be retained.
11. Braking Systems to be as fitted by factory.
12. Gearboxes to be production units with production ratios.
13. Passenger seat not required.

Class 8b Plus 8

1. Only the carburettored version of the Rover V8 3,500cc engine to be used.
2. The engine must remain in the same state of tune as ex. Factory.
3. Engines may be balanced whilst retaining original manufacturer fitted components only.
4. Standard production camshafts and valves to be retained.
5. Production inlet manifolds to be retained, but choice of any carburettor fitted by the factory as a production item can be used. A list of such carburettors is available.
6. Standard Morgan suspension systems to be retained front and rear, front and rear end geometry to be retained but adjustable telescopic dampers may be used front and rear. Brake reaction stays to front crossframe and anti tramp bars at rear allowed. Rear axle lateral location devices such as Panhard Rods are permitted. Morgan Motor Company 4 link or Suplex 5 link also permitted for rear suspension assembly.
7. Bodywork must be conventional Morgan steel chassis, timber frame and either steel or alloy body panels. GRP wings, not lighter than aluminium allowed. Floorboards to be of wood of equal thickness to factory standard.
8. Braking Systems to be as fitted by factory.
9. Road legal tyres to be fitted to standard ex. Factory rims.
10. Otherwise, as Class 9 Cars.

Class 8c Modified 4/4 or Plus 4

1. Engines to be of 4 cylinder configuration only, Zetec type, capacity limited to 2000cc.
2. Engine power output to be limited to 198 BHP at the flywheel.
3. Unlimited performance modifications allowed in accordance with Motorsport UK regulations within the following conditions -
4. Fuelling systems limited as follows –
Throttle Bodies limited to 45mm diameter.
2 x twin choke carburettors limited to 45mm diameter.
5. Engine management systems free.
6. Exhaust system free.
7. Forced induction systems not allowed.
8. Standard Morgan suspension systems to be retained front and rear but front end geometry free and rear axle may be located using panhard rods, anti-tramp bars etc. Morgan Motor Company 4 link or Suplex 5 link also permitted for rear suspension assembly.
9. Morgan steel chassis to be used, but body construction optional. Vehicle silhouette to be accurately retained.
10. Wheels, maximum 6” width. Maximum tyre width 205mm.
11. Salisbury or BTR rear axles to be used and ratios free.
12. Gearboxes to be production ex factory units, but ratios free.

3.2.12. Class 9 Standard Plus 8 (Up to 4000) / Standard Roadster / Roadster Lightweight/Modified 4/4 or +4

Class 9a Plus 8

1. Standard Rover V8, 3.5 or 3.9 litre injected engine, in the same state of tune as fitted by the factory in the standard Plus 8.
2. Engines may be balanced whilst retaining original manufacturer fitted components only.
3. Standard production camshafts and valves to be retained.
4. Choice of exhaust systems from Standard Plus 8 range including stainless copies.
5. Air cleaners optional.
6. Fuel injection and engine management systems to be as fitted by factory. Remapping of ECU or alterations to injection systems not allowed.
7. Standard Morgan suspension systems to be retained front and rear, front and rear end geometry to be retained but adjustable telescopic dampers may be used front and rear. Brake reaction stays may be fitted to the front crossframe and rear axle may be located using panhard rods, anti-tramp bars etc. Morgan Motor Company 4 link or Suplex 5 link also permitted for rear suspension assembly.
8. Body construction to be Morgan steel chassis and timber body frame, with either steel or alloy body panels. GRP wings of roadgoing weight i.e.(not lighter than aluminum) are allowed. Floorboards to be of wood of equal thickness to factory standard.
9. Road legal tyres on Max. 16 inch Dia rims. Wheels of a width available ex factory.
10. Braking Systems to be as fitted by factory.
11. Any production rear axle or gearbox from the standard Plus 8 range to be used, ratios free.

Class 9b Standard Roadster 3.0 inc Roadster Lightweight

1. Engines to be Ford V6 up to 3.0 litre capacity.
2. Engines must remain exactly as fitted ex.factory.
3. Fuel injection and engine management systems to be as fitted by factory.
4. Air cleaners optional.
5. Exhaust systems are free, however catalytic converters must be retained.
6. Standard Morgan suspension to be retained front and rear, front end geometry to be retained. Brake reaction stays may be fitted to the front crossframe and rear axle may be located using panhard rods, anti-tramp bars etc. Morgan Motor Company 4 link or Suplex 5 link also permitted for rear suspension assembly.
7. Body construction to be Morgan steel chassis and timber body frame, with either steel or alloy body panels. GRP wings of roadgoing weight i.e.(not lighter than aluminum) are allowed. Floorboards to be of wood of equal thickness to factory standard.
8. Road legal tyres on Max. 16 inch Dia rims. Wheels of a width available ex factory.
9. Braking Systems to be as fitted by factory.
10. Any production rear axle and gearbox from the standard Roadster range to be used, ratios free.
11. Roadster Lightweight must be of equal kerb weight, excluding roof, but including windscreen and spare wheel, of standard ex factory Roadster.

Class 9c Standard Roadster 3.7

1. Engines to be Ford V6 up to 3.7 litre capacity.
2. Engines must remain exactly as fitted ex.factory.
3. Fuel injection and engine management systems to be manufactured by Ford and as fitted by the factory.
4. Air cleaners optional.
5. Exhaust systems are free, however catalytic converters must be retained.
6. Standard Morgan suspension to be retained front and rear, front end geometry to be retained. Brake reaction stays may be fitted to the front crossframe and rear axle may be located using panhard rods, anti-tramp bars etc.
7. Body construction to be Morgan steel chassis and timber body frame, with either steel or alloy body panels. GRP wings of roadgoing weight i.e.(not lighter than aluminium) are allowed. Floorboards to be of wood of equal thickness to factory standard. Morgan Motor Company 4 link or Suplex 5 link also permitted for rear suspension assembly.
8. Road legal tyres on Max. 15 inch Dia rims. Wheels of a width available ex factory.
9. Braking Systems to be as fitted by factory, non ventilated disc brakes at the front and drum brakes on the rear.
10. Any production rear axle and gearbox from the standard Roadster range to be used, ratios free.

Class 9d Modified 4/4 or Plus 4

1. Engines to be of 4 cylinder configuration only, capacity limited to 2000cc.
2. Engine power output to be limited to 230 BHP at the flywheel.
Zetec Engines
3. Unlimited performance modifications allowed in accordance with Motorsport UK regulations within the following conditions -
4. Fuelling systems free.
5. Engine management systems free.
6. Exhaust system free.
Duratec Engines
7. Unlimited performance modifications allowed in accordance with Motorsport UK regulations within the following conditions -
8. Fuelling and air intake systems free.
9. Engine management systems free.
10. Exhaust system free.
11. Forced induction systems not allowed.
Standard Morgan suspension systems to be retained front and rear but front end geometry free and rear axle may be located using panhard rods, anti-tramp bars etc. Morgan Motor Company 4 link or Suplex 5 link also permitted for rear suspension assembly.
12. Morgan steel chassis to be used, but body construction optional. Vehicle silhouette to be accurately retained.
13. Tyre and wheel sizes optional.
14. Salisbury or BTR rear axles to be used and ratios free.
15. Gearboxes to be production ex factory units, but ratios free.

3.2.12 Class 10 Modified 4/4 or Plus4, Modified Plus 8 (up to 4000cc), Standard 4.6 Plus 8 or Modified Roadster

Class 10a Road Modified Plus 8

1. Engines to be Rover V8 up to 4 litre capacity.
2. Camshafts, valves and cylinder heads are free but solid valve lifters are not allowed.
3. Carburation to be either a single compound carburetor or multiple carburetors. On fuel injected cars, the production Morgan system is to be retained, but rechipping is allowed.
4. Air cleaners optional.
5. Exhaust systems are free, however catalytic converters must be retained where legally required.
6. Standard Morgan suspension to be retained front and rear, but front end geometry free and rear axle may be located using panhard rods, anti-tramp bars etc. Morgan Motor Company 4 link or Suplex 5 link also permitted for rear suspension assembly.
7. Morgan steel chassis to be used, but body construction optional. Vehicle silhouette to be accurately retained.
8. Maximum 4 pot calipers at front and 2 pot calipers at rear allowed.
9. Road legal tyres on Max 16 inch dia. rims.
10. Rear axle and gearbox type and ratios optional.

Class 10b Standard 4.6 Plus 8

1. Engines to be Rover V8 up to 4.6 litre capacity.
2. Engines must remain exactly as fitted ex.factory.
3. Fuel injection and engine management systems to be as fitted by factory but rechipping is allowed.
4. Air cleaners optional.
5. Exhaust systems are free, however catalytic converters must be retained.
6. Standard Morgan suspension to be retained front and rear, but front end geometry free and rear axle may be located using panhard rods, anti-tramp bars etc. Morgan Motor Company 4 link or Suplex 5 link also permitted for rear suspension assembly.
7. Body construction to be Morgan steel chassis and timber body frame, with either steel or alloy body panels. GRP wings of roadgoing weight i.e. (not lighter than aluminum) are allowed. Floorboards to be of wood of equal thickness to factory standard.
8. Maximum 4 pot calipers at front and 2 pot calipers at rear allowed.
9. Road legal tyres on Max 16 inch dia. rims.
10. Rear axle and gearbox type and ratios optional.

Class 10c Modified Roadster

1. Engines to be Ford V6 up to 3.0 litre capacity.
2. Engines must remain exactly as fitted ex.factory.
3. Fuel injection and engine management systems to be as fitted by factory but rechipping is allowed.
4. Air cleaners optional.
5. Exhaust systems are free, however catalytic converters must be retained.
6. Standard Morgan suspension to be retained front and rear, but front end geometry free and rear axle may be located using panhard rods, anti-tramp bars etc. Morgan Motor Company 4 link or Suplex 5 link also permitted for rear suspension assembly.
7. Body construction to be Morgan steel chassis and timber body frame, with alloy body panels. GRP wings of roadgoing weight i.e.(not lighter than aluminum) are allowed. Floorboards to be of wood of equal thickness to factory standard.
8. Front and rear brakes free.
9. Road legal tyres on Max 16 inch dia. rims.
10. Rear axle and gearbox type and ratios free.

Class 10d Modified Roadster 3.7

1. Engines to be Ford V6 up to 3.7 litre capacity.
2. Engines must remain exactly as fitted ex.factory.
3. Fuel injection systems to be as fitted by factory.
4. Engine Management Systems to be either Ford or AR Motorsport ECU.
5. Air cleaners optional.
6. Exhaust systems are free, however catalytic converters must be retained.
7. Standard Morgan suspension to be retained front and rear, but front end geometry free and rear axle may be located using panhard rods, anti-tramp bars etc. Morgan Motor Company 4 link or Suplex 5 link also permitted for rear suspension assembly.
8. Body construction to be Morgan steel chassis and timber body frame, with alloy body panels. GRP wings of roadgoing weight i.e. (not lighter than aluminum) are allowed. Floorboards to be of wood of equal thickness to factory standard.
9. Front and rear brakes free.
10. Road legal tyres on Max 16 inch dia. rims.
11. Rear axle and gearbox type and ratios free.

Class 10e Modified 4/4 & Plus 4

1. Engines to be of 4 cylinder configuration only, (max capacity 2350cc).
2. Unlimited performance modifications allowed in accordance with Motorsport UK regulations.
3. See separate rule re-forced induction in Appendix 11.
4. Exhaust system optional.
5. Carburation, ignition and engine management systems optional.
6. Standard Morgan suspension systems to be used front and rear but front end geometry free and rear axle may be located using panhard rods, anti-tramp bars etc. Morgan Motor Company 4 link or Suplex 5 link also permitted for rear suspension assembly.
7. Morgan steel chassis to be used, but body construction optional. Vehicle silhouette to be accurately retained.
8. Tyre and wheel sizes limits – 9” x 16” front, 10” x 17” rear.
9. Salisbury or BTR rear axles to be used and ratios free.
10. Gearboxes to be of conventional configuration i.e. H pattern, but ratios free.

Class 10f Standard Aero 8

1. Engines to be BMW M62 up to 4.6 litre capacity.
2. Engines must remain exactly as fitted ex.factory.
3. Fuel injection and engine management systems to be as fitted by factory.
4. Air cleaners optional.
5. Exhaust systems are free, however catalytic converters must be retained.
6. Standard Morgan suspension geometry to be retained front and rear.
7. Body construction to be Morgan aluminium chassis and timber body frame, with alloy body panels. GRP wings of roadgoing weight i.e.(not lighter than aluminum) are allowed.
8. Front and rear brakes to remain as ex factory.
9. Road legal tyres on Max 18 inch dia. rims.
10. Rear axle and gearbox type to remain as ex factory.

3.2.13 Class 11 Racing Plus 8, Standard Aero 8.

Class 11a Racing Plus 8

1. Any Rover V8 engine of any capacity can be used and any level of performance modification is allowed.
2. No castings to be used in the engine unit other than genuine Rover manufactured items.
3. Exhaust systems are free.
4. Air cleaners free, but air intakes not to protrude more than 130mm above the bonnet line.
5. Morgan suspension systems to be retained front and rear but dampers and geometry free and rear axle may be located using panhard rods, anti-tramp bars etc. Morgan Motor Company 4 link or Suplex 5 link also permitted for rear suspension assembly.
6. Morgan steel chassis, which may be reinforced, to be used, but body construction optional. The vehicle silhouette to be accurately retained.
7. Wheels and tyres free, including the use of slicks.
8. Transmission and transmission ratios free. Sequential gear selection not allowed.
9. Brakes free, handbrake to operate at both rear wheels, any form of ABS not allowed.

Class 11b Standard Aero 8

1. Engines to be BMW N62 up to 4.8 litre capacity.
2. Engines must remain exactly as fitted ex.factory.
3. Fuel injection and engine management systems to be as fitted by factory.
4. Air cleaners optional.
5. Exhaust systems are free, however catalytic converters must be retained.
6. Standard Morgan suspension geometry to be retained front and rear.
7. Body construction to be Morgan aluminium chassis and timber body frame, with alloy body panels. GRP wings of roadgoing weight i.e.(not lighter than aluminum) are allowed.
8. Front and rear brakes to remain as ex factory.
9. Road legal tyres on Max 18 inch dia. rims.
10. Rear axle and gearbox type to remain as ex factory.

Class 11c Modified 4/4 or Plus 4

1. Engines to be of 4 cylinder configuration only.
2. Unlimited performance modifications allowed in accordance with Motorsport UK regulations within the following conditions -
3. Fuelling systems free.
4. Engine management systems free.
5. Exhaust system free.
6. Forced induction systems permitted.
7. Standard Morgan suspension systems to be retained front and rear but front end geometry free and rear axle may be located using panhard rods, anti-tramp bars etc. Morgan Motor Company 4 link or Suplex 5 link also permitted for rear suspension assembly.
8. Morgan steel chassis to be used, but body construction optional. Vehicle silhouette to be accurately retained.
9. Tyre and wheel sizes optional.
10. Salisbury or BTR rear axles to be used and ratios free.
11. Gearboxes to be of conventional configuration i.e. H pattern, but ratios free.

3.2.14 Class 12 Modsport Morgans, Modified Aero 8

Chassis

Type and dimensions free, but must conform to conventional Morgan shape in plan. The location of the engine, gearbox and final drive relative to each other must be as per road legal Morgan. Location of engine must be such that the rear of the cylinder block does not pass beyond the front line of the Bulkhead / Toe-board, as in a production Morgan.

Suspension

Free.

Engine

To be a derivative of any engine catalogued by Morgan Motor Co. during the production run of any particular Morgan model: - ie

Ford -- Lotus Twin Cam, BDA, Zetec, Duratec, V6 etc.

Triumph -- TR based

Rover -- any V8 derivative

Fiat -- any 4 Cylinder TC – Volumex, Argenta etc.

No limit on engine capacity and tuning to any level permitted.

Bodywork

Construction and materials free, but side elevation and plan to conform to production silhouette above wheel centres as per Motorsport UK Regs. – below wheel centres free.

Brakes

Free.

Wheels and Steering

Free.

Tyres

Free, but must conform to appropriate Motorsport UK Regs.

Aero 8

1. Any Aero 8 model to be run in modified or racing specification set up.

3.2.15 Tyres

Any road legal tyre may be used from tyres listed in the current Motorsport UK Year Book Section (L) (Permitted Tyres).

Slick tyres may be used in Class 12 (Modsports Morgans).

It should be noted that any road legal tyre not shown in List 1A Section (L4) will be regarded as a List 1B tyre for scoring purposes.

As per Section (S)12, all road going production class cars are eligible to use List 1a and List 1b tyres only.

For clarity, all road going production class cars are as follows –

1h, 1, 2, 4, 5b, 6a, 6b, 8a, 8b, 9a, 9b, 10b, 11b (except for period defined vehicles)

All modified class cars are eligible to use List 1a, List 1b and List 1c tyres.

For clarity, all modified class cars are as follows –

3, 5a, 7, 8c, 9c, 10a, 10c, 10d, 10e, 11a, 12.

Safety Requirements

Competitors should familiarise themselves with the Safety Criteria discussed in Section (K) (Safety) of the Motorsport UK Year Book, particular attention being paid to the following points.

Section (K 1.1 to 1.3) – Rollover Bars

Section (K 2.1) – Seat Belts

Section (K 3.1 to 3.4) - Fire Extinguishers

Section (K 9.1 to 9.3) – Overalls

Section (K 10.1 to 10.4) – Crash Helmets

Section (K 11.1 to 11.3) – Goggles / Visors

Section (K 2.3) – Head Restraints

Section (S 9.2.1) – Specific Protective Clothing

APPENDIX TO TECHNICAL REGULATIONS

1. As a general rule, any past or present factory fitted component available during the series production run of a car eligible for a specific Standard Car class, can be used without affecting the “Standard” status of the car. Specific components fitted to limited production run cars are not eligible for standard class cars. If anyone has any doubts about a particular aspect of this, please contact a member of the organising team: see para 15 below.
2. **Standard Class Cars**
All cars competing in standard classes i.e. Class 1h, 1, 2, 4, 6, 8, 9, 10 and 11 - any modifications to the suspension or braking systems beyond the specification stated in the particular class will result in a penalty of 1% per type of modification, being applied to the specific target time at each event
3. **Standard Class Cars**
All cars competing in standard classes, i.e. Class 1h, 1, 2, 4, 6, 8, 9, 10 and 11 must retain all interior door trims and passenger seat(s) as fitted, ex factory unless as stated in the specific regulations.
4. **Standard Class Cars**
All cars competing in standard classes, i.e. Class 1h, 1, 2, 4, 6, 8, 9, 10 and 11 must retain all bodywork profiles strictly as fitted, ex factory.
5. **Braking Systems**
For clarity, on all standard class cars, the following enhancements are permissible in standard specification braking systems –
Alternative friction material – ie EBC Green Pads
Replacement front discs of equal dimension and construction.

Any change to the dimensions of the contact patch, additional cooling systems, etc. are considered to be modifications and penalties will be applied as per appendix 2.
6. **Electronic Driver Aids**
Electronic driver aids such as ABS, Traction control, Launch control are only permissible in classes 10, 11 and 12.
7. **Front Suspension Geometry**
For clarity, on all standard class cars, the fitting of negative camber plates is permissible but the suspension geometry must remain within the manufacturer’s tolerances.
8. **Wheel and Tyre Dimensions**
Wheel rim width and diameter dimensions will be as described in the relevant paragraphs above. The wheel rim and/or tyre must not protrude beyond the edge of the bodywork when the car is moving forwards in a straight line. Motorsport UK Yearbook Section (J 5.2.6) refers.
9. **Catalytic Converters** where legally required, are to be retained at all times.
10. The Technical Committee reserve the right to re-classify any car that does not conform to the current class structure.
11. For forced induction cars, 40% should be added to the cars declared unforced capacity.

12. Where event conditions permit, (usually where there is a Morgan only Class), windscreens may be removed and aero screens used instead, except Aero 8's where windscreens must remain fitted.
13. The use of a "one piece" front end, e.g. cowl, bonnet, front wings etc. combined to form a single piece of bodywork is not allowed, except for cars in Class 12, (ModSports).
14. Entrants in Class 12, (ModSports), are reminded that they are not eligible for any annual awards for fastest time during the season at named venues including Prescott, Shelsley Walsh and Harewood, but may be eligible for awards for Technical Originality or Ingenuity.

15. Championship Committee

Julie Baines	Tel 0161 427 7150
Simon Baines	Tel 0161 427 7150
Clive Glass	Tel 01704 889003
Chris Bailey	Tel 01924 201086

16. Technical Committee

Andrew Thompson
 Chris Bailey
 Simon Baines
 Simon Ashby

17. Example of Specific Competitor & Vehicle Data

Specific Competitor Data

Gradient	0.000686		
Mean Power	181	bhp	134971.7 W
Mass	824	kg	
Cf	1.15	Grip Factor	1.15
Circuit Grip	1		
Mass Grip Modifier	1		
CdA	1.2		
Rho	1.225		
vMax	126.7357		
dt	0.01		

18. Example of Track Data Calculations for Specific Competitor

Sample Track Data Calculations for Specific Competitor

Curborough Figure 8		1457					Target total
Sector		Length	Radius	Elevation	Vcorner	Time	
Start	S1	91	0	69	0	5.75	65.02168387
T1	S2	103	130	0	38.29615	3.358852	
T2	S3	67	90	0	31.86432	2.184884	
T3	S4	59	90	0	31.86432	1.924003	
Straight	S5	35	0	0	0	1.571672	
T4	S6	39	65	0	27.07947	1.576457	
Molehill	S7	37	28	0	17.77307	2.081801	
T6	S8	45	60	0	26.01711	2.531921	
Straight	S9	51	0	0	0	2.904047	
Hairpin	S10	94	27	0	17.45281	5.385953	
Straight	S11	58	0	0	0	2.734761	
Crossover	S12	49	55	0	24.90949	1.967122	
T9	S13	57	65	0	27.07947	2.288285	
Straight	S14	38	0	0	0	1.34	
T10	S15	47	110	0	35.22733	1.828054	
Hairpin	S16	50	22	0	15.75414	3.173768	
Straight	S17	86	0	0	0	3.915554	
Crossover	S18	60	60	0	26.01711	2.306175	
T13	S19	45	60	0	26.01711	1.729631	
Straight	S20	51	0	0	0	2.78279	
T14	S21	94	27	0	17.45281	5.385953	
Finish	S22	201	0	70	0	6.3	
	S23						