

FÉDÉRATION EUROPÉENNE DU MODELISME AUTOMOBILE



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PREAMBLE

Based on its Statutes the Fédération Européenne du Modélisme Automobile (FEMA) bears a special responsibility to promote and govern tether car racing. The following Sporting Code, in conjunction with the Technical Regulations, shall improve safety and establish equal terms of competition when conducting tether car racing.

The document is provided on the basis that all persons taking part in tether cars racing events participate at their own risk and undertake all necessary measures not to compromise safety. FEMA or its Executive Board members do not accept any liability to any person for the information (or the use of such information) which is provided in this document or incorporated into it by reference.

Every effort has been made to ensure that the information provided in this document is accurate. However, if you notice any errors or ambiguities, please let us know.

The FEMA Executive Board

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Note: All referenced forms are available as separate download at www.speedmodelcar.org

1. GENERAL

1.1. Scope

1. These regulations are mandatory and binding for all FEMA member countries.

1.2. Application

1. These regulations are to be used for all questions that may arise during FEMA sanctioned events. They are to be interpreted in such a manner that the original purpose is always maintained.
2. Should the regulations not cover a certain topic the FEMA board, the race jury and the race director must always decide in favor of the highest safety standard.

1.3. Comradeship

1. Every competitor is obligated to adhere to the regulations and to behave fairly among other competitors.

1.4. Offences / Sanctions

1. In the case of an offence against official regulations the FEMA board, in the presence of a country representative of the relevant member country, will autonomously decide on the penalty.
2. Depending on the severity of the offence, the penalty will typically range from a warning or censure up to a one-year race ban. In the worst case, a model car driver may receive a lifelong ban for all FEMA races.

2. SANCTIONING

2.1. Application

1. Sanctions for international races during the year are obtained through an application to FEMA. FEMA must receive the application by 1st March of the year that the race should be held. All FEMA sanctioned races are recorded in the FEMA race calendar. Late applications will not be entered in the FEMA race calendar.
2. The track must hold a current track inspection approval
3. FEMA will sanction a maximum of 2 international races (with the exception of European Championships) and an unlimited number of national races for each race track in each calendar year.

2.2. Classes

1. If not stated otherwise in an invitation, FEMA sanctioned events include all racing classes according to TR 2.2.
2. Old-timer and nostalgic models, which are not fulfilling the current FEMA regulations, may be admitted to FEMA races for demonstration reasons if deemed safe by the race Jury. They will start last in the respective class.
3. Regulation of the classes: racing classes that show less than 10 competitors (not model cars) at 2 consecutive European Championships are no longer recognized as a racing class.
4. A competitor may start with a maximum of two cars in each class. For the placement in a race and point calculation for the team score only the fastest of the two cars in each class will be counted.

2.3. Participants

1. Only competitors from FEMA affiliated countries may participate in FEMA races. Guests from the WMCR are always welcome to participate in FEMA races and are included in the ranking the same way as a FEMA member, with exception of the European Championships (see SC 6.2).
2. Registration for racing in a FEMA race must be done with the race organizer no later than one week before the race. Drivers who do not register on time must start the first heat at the end of their class.
3. Every race participant, known as a competitor, must follow the directions of the race organizer and the race jury.
4. A speedmodelcar race is not only a competitive sporting event, but also a social event where international friendship is encouraged. However, at the sole discretion of the race organizers or the race jury, anyone under the influence of alcohol or drugs will not be allowed to participate.
5. All participants and horsers must wear appropriate clothing / shoes that permit the safe execution of starting or horsing a model. Race participant and the horser may be banned from racing / horsing, if deemed unsafe by the race organizer or the race jury.
6. The driver must be present at the FEMA races in which he or she competes and must be at the start.

7. The driver must personally perform the race. That means he or she must be able to start the model, initiate the time keeping and turn off the car. Beginners and those with disabilities are allowed to be assisted by a helper.
8. A driver may horse his car personally and allow an assistant to take his or her place for the start, commencing of time keeping and the stopping of the car.
9. The minimum age for a participant in model race car sports is 12 years old. Younger participants may only partake in accompaniment of an experienced driver.

2.4. Officials

1. For FEMA races there shall be a national organizing committee (race organizer) responsible for the planning and execution of races. The organizing committee must always have a race organizer and two timekeepers. At the races contained in the FEMA race calendar, the following persons should be on the organizing committee:
 - Race Organizer.
 - Two Timekeepers.
 - Cable Marshal.
 - Fuel Marshal.
 - Race Jury = Stewards (3 independent people)
2. Race Organizers and Race Jury have the following responsibilities:
 - ensuring that FEMA regulations are upheld.
 - to check and ensure that the cars meet the safety requirements.
 - to deal with any protests and/or appeals and decide on them with a simple majority.
 - to ensure the starting line-up for competitors and the order of the different classes.
 - to ensure that a copy of the current regulations is available at the race.
3. At FEMA races the Race Jury is named by the Race Organizer.

3. CARS

3.1. Inspection

1. Constant personal inspection of the model car is mandatory. A yearly approval must take place annually before the race season starts and are to be carried out by the Technical Delegates of the FEMA Members (see TR 1.3).
2. Results of the technical inspection are to be reported to the FEMA General Secretary and the result will be published on the FEMA website. However, the participant is asked to keep a copy of the latest inspection form.
3. Model cars that do not meet the technical regulations are not allowed to take part in FEMA races.

3.2. Registration

1. All car participating in FEMA races must have a Model Identification Number (MIN) as described in TR 2.10.
2. The participant is responsible for keeping the model registration up to date. Changes in ownership must be reported to FEMA.
3. Model cars without valid MIN or outdated ownership information are not allowed to take part in FEMA races. The participants may provide evidence for MIN submitted updates not yet published at the FEMA website.
4. Frequent ownership changes for a certain MIN or driver which are deemed unsportsmanlike by FEMA may lead to sanctions according to SC 1.4.
5. Model registration must be checked by the race organizer at all FEMA races. If this not done, the race and records set at the race will be considered invalid.

3.3. Checks

1. Race organizers have the authority to check at any time during a competition the model cars for compliance with technical regulations including checking the cylinder capacity during a race.
2. Checks may be conducted for all participants, a random sample or based on reasonable suspicion.
3. The race organizers may require a model car to be dismantled by the competitor to make sure that the conditions of eligibility or conformity are fully satisfied.

3.4. Car Chassis Inspection

1. Before each race or practice, all chassis, regardless of the class, must be inspected and visibly checked by the race organizer for weaknesses such as cracks, holes, or other indications that the chassis is not capable of withstanding the forces occurring during a run.
2. Chassis with visible cracks or exhibits holes that may structurally weaken the chassis shall not be allowed to race or practice.
3. A chassis that has been repaired, must be judged by the Race Jury, Stewards (3 People) before permitted to race or practice.
4. If there is any doubt about the quality of the repair, the club that is organizing the race will have the authority to forbid any car to practice or race if it not considered to be safe.

3.5. Fuel

1. Only standard uniform fuel is to be used at FEMA races.
2. The mixing of fuel shall be done in the following by volume ratio: 20% castor oil (1st pressing) and 80% methanol (water-free quality). Due to the different densities of the components, the fuels must be mixed according to volume and not weight.
3. The race organizer must provide the fuel for the official training and races.
4. The race organizer may charge drivers for the fuel they use.
5. Cars are to be fueled under the supervision of the fuel marshal. The competitor has to show to the fuel marshal that the fuel tank of the car is empty. The car may only leave the fuel station in order to be taken to the track, after leaving the fuel station no further fuel may be added.
6. The race organizer may take fuel samples for testing from individual cars at his or her discretion, to check that the fuel regulations are being respected.
7. If a competitor is asked for a fuel test after his race, he or she must follow the directions of the race jury.
8. Should the competitor not comply with a fuel test or have broken the fuel regulations the punishment is disqualification. In this case the race committee must file a written protocol with the FEMA board immediately.
9. Penalties for those breaking the fuel regulations must come from the FEMA board as well as a member of the country association of which the driver is a member.

WARNING: Methyl alcohol (CH^3OH) is very poisonous. Keep fuel containers out of the reach of children. Young drivers are to be carefully monitored when handling fuel.

3.6. Control of Starting Weight

1. The race organizer shall control the starting weight of every car, directly before the start of the heat in which the car is racing (see TR 2.3).
2. A scale that measures an accuracy of 5 grams is to be used. The maximum tolerance for weight is +10 grams.
3. The race organizer must carry out a weight control with FEMA Number and the start weight for every car in all heats.

4. TRACKS

4.1. Inspection

1. Each race track is to be inspected every 3 years by FEMA according to Form F3. Identified deficiencies must be resolved prior to the next FEMA race. Tracks that do not comply with safety standards must not host a FEMA race and will not be included in the official race calendar.

4.2. Cables and Cable Replacement

1. Cables as described under TR 4 shall be used for all FEMA races. The cable dimensions are to be selected according to the current applicable speed limits for each class. Valid cable strengths are determined by FEMA.
2. Once a speed of 5 km/h under the allowed maximum speed has been reached in accordance with table TR 4.5, the race organizer is responsible for getting a cable with the next largest dimension ready.
3. If the speed limit is surpassed during a FEMA race, the next strongest cable is to be used in subsequent races for that class (see TR 4.5).
4. Once a race has started it is to be completed with the same cable as long as safety is ensured.
5. If a cable needs to be replaced during a race due to damage or breakage, the cars that have already raced shall not race again.
6. In case of damage to the cable, the race organizer decides on when the cable is to be replaced.

4.3. Accidents and Damage to Cables

1. Accidents during races and training must be reported to the technical secretary of FEMA within 30 days for statistical purposes. They are to be reported in the following manner:
 - Send in the broken cable or bridle.
 - In the case of a breakage of the chassis, a photo must be sent in.
 - Description of the course of events (during a free run, defective tire, while turning car off, speed, etc.)
 - Description with a photograph of the consequences to the safety devices.
2. All of the information will be used for statistical purposes. The information is intended to identify potential weaknesses and problems and opportunities for improvement.

5. ORGANISATION

5.1. Number of Heats

1. At FEMA races the race organizer determines the number of heats.
2. At the European Championships three heats are to be driven.
3. Training between heats is not permitted.
4. Should a race be limited to one or two heats due to extraordinary circumstances (example: rain etc.), the results from the one or two heats will suffice for the evaluation of the race.

5.2. Starting Order

1. The race organizer determines the starting order of the classes and drivers. There must be enough time given to drivers with two cars to setup between starts.
2. The starting order should go from top to bottom in the first heat and from bottom to top in the second. If a third heat takes place, the starting order shall follow the standings after the first two heats from bottom to top.

5.3. Start / Start Time

1. Upon being called a driver must be at the track within a minute. If the track is free the car must be attached to the cable immediately.
2. Once the car is attached to the cable, the driver has 3 (three) minutes to start the car. During this time period the car may be stopped for adjustment and started again.
3. The race organizer and race jury may reduce the start time to 2 (two) minutes in the second heat if this is deemed necessary for reasons of time.
4. Drivers may have a maximum of two assistants including a horser for the start preparations.
5. Only completely assembled cars may start.
6. The direction to start timing is given by the competitor or in extraordinary circumstances by another person during the 3-minute period or as long as the car is under its own power.
7. Should the car not run on its own power after 3 (three) minutes, the start will be declared invalid and the car must be removed from the track.
8. The competitor must shut off the engine within 10 laps using the track's shut off device after the stop signal for timing has been given. Should this not be done the run will be deemed invalid.

5.4. Horsing

1. Competitors are responsible for having a horser lead the cable from the centre post in order to prevent damage to the cable during the start and stop.
2. Once the horser has stepped onto the platform the model may no longer be influenced by the horser.
3. Within the 3-minute start time the competitor may stop the car and restart it.
4. It is not permitted to use the cable to stop the car after it has been turned off. The cable may only be led.
5. It is forbidden to horse from the platform.
6. The horser must always have a hand on the centre post when horsing.

7. The horser must always wear a glove on the leading hand. The glove must be made available by the event organizer at no cost.
8. The competitor is responsible for ensuring that his or her horser knows, understands and follows these rules. Noncompliance with these rules will lead to the competitor being disqualified.

5.5. Time Keeping / Time Keeper's Protocol

1. The speed of a model car is recorded over 500 metres (8 laps).
2. Timing may not commence until the car has completed three entire laps without the assistance or influence of the horser.
3. The competitor must be given a visible and/or audible signal to tell him or her that timing is completed.
4. The measured speed must be recorded in a log.
5. If a car experiences damage during the time keeping such as losing a wheel, the resonance tube, or top cover (excluding glow plugs and rubber tyres), the speed must not be counted.
6. The race organizer must provide adequate evidence for the accuracy and precision of the timing system.

5.6. Placing / Result Lists

1. Immediately after each race a list of results must be prepared.
2. Should multiple competitors have reached the same speed, then the sum of the times from all heats determines the placement. If these results do not yield a different result then an elimination race will be held after the other heats. This is only to be done for the evaluation of the first three places. Other drivers with the same results will be given the same position.
3. After the race the result lists must be promptly sent to the FEMA Public Relations Secretary.
4. The Speedmodelcar Worlds 20 Fastest is only open to racers with a valid FEMA license and WMCR members. Speeds can only be claimed at FEMA races that are published on www.speedmodelcar.org and published National WMCR races.

5.7. Briefing

1. A race briefing must be held by the race organizer prior to the race to ensure that all race participants are aware of the rules.
2. All drivers, horsers and other active helpers must be personally present at the race briefing or separately briefed by the race organizer.
3. At major events, the race organizer may alternatively hold the race briefing with the Team Captains and ask them to inform their team members about the content.
4. The race briefing shall be based on Form F4 and must contain at least the information outlined therein.
5. All drivers, horsers and other active helpers must sign Form F4 after the briefing.

5.8. Cancellation of a Race

1. The cancellation of a race or heat must be done by the race organizer under the use of the existing rules.

2. If a second heat cannot be carried out, the results from the first heat and the results of the other completed classes of the second heat should provide the basis for a result list.
3. If a race is disrupted for more than an hour the race organizer and the race jury will decide if the heat of the started class will be held again. Records achieved before the disruption will be counted as records but will not count towards the race results.

5.9. Protests

1. Protests, for example, against a car or a competitor, must be given to the race organizer immediately in written form. Protests filed after the results are made known will not be considered.
2. Protests against a run of a competitor must be made to the race organizer immediately, if possible before the time keeping systems are zeroed.
3. Every submitted protest carries a 50 EURO fee payable to the race organizer or the race jury. The race jury decides on the submitted protests.
4. If the protest is upheld, the offending competitor must pay the fee of 50 EURO, this goes in equal shares to the FEMA and the race organizer. The protesting party will receive their protest fee back in full.
5. If the protest is rejected, the protest fee will be divided equally amongst the FEMA and the race organizer. The protest fee is not a penalty, but a compensation for the race organizer and the FEMA.
6. The race organizer is obliged in either case to pay 50% of the protest fee to the FEMA treasurer within 10 days.
7. The sport commissioner must report the protest, decision and reason to the FEMA board in written form within 10 days.

5.10. Records

1. FEMA must receive a fully completed record claim (Form F5) and the official timing log signed by the race organizer, the race jury, time keepers and the competitor.
2. Records will only be acknowledged if they were set at a FEMA race using electronic timing systems and during a regular heat. Competitors from at least three different countries must have taken part in the race.
3. As soon as a record speed has been set the race organizer must control the car and the cable and ensure that they meet the provisions of the regulations. Then the official record protocol must be completed.
4. The inspection of the car and the measurement of the engine are to be carried out in private by a person chosen by the race organizer and in the presence of the competitor, the race organizer or a member of the race jury.
5. Records will also be acknowledged if they were achieved on a 1/4-mile track (402 metre) at WMCR races and they used the same cable sizing / strengths.
6. To measure the cylinder capacity, measuring tools with a resolution of 0.01 mm and a repeat accuracy of 0.02 mm must be used.
7. If the measurements indicate a value exceeding the specified value, then 0.02 mm is to be subtracted from the stroke and the inner diameter and the calculation is to be redone. If the new calculation is still outside the accepted tolerance, then the measurement must be done by another person. If the results are still inconsistent

then a third measurement is to be carried out by a third person. All protocols inside and outside the accepted tolerance must be forwarded to the FEMA and the WMCR only if a world record.

8. If the results of the calculations show a cylinder capacity that is too large, the driver will be disqualified, and the record will not be acknowledged. In this case, written notification must be given to the FEMA board immediately. The penalty for the driver will come from the FEMA board in accordance with SC 1.4.

6. EUROPEAN CHAMPIONSHIPS

6.1. General

1. The European Championships are held annually by FEMA. It includes the individual European Championships in classes 1, 2, 3, 3b, 4 and 5, as well as the team title and European Cup for the classes 1 to 5.
2. The FEMA delegates meeting decides on the venue and date for the European Championship. The honor of hosting the event is offered to all FEMA countries.
3. Before the European Championship can take place on a track it must have hosted at least one international FEMA race.
4. At the European Championships, the rules must be followed in accordance with the Technical Regulations, but with the following exception and additions:
5. The three (3) heats must take place within three (3) days with one heat per day.
6. Before the race, a check of the vehicle registration certificate must be done, along with a technical review of the model car.
7. The race organizer of the European Championships is required to announce the event to member countries at least 4 months in advance of the event. The announcement must contain the following information:
 - An accurate description of the location of the track.
 - Official training times.
 - Time when cars are to be inspected and vehicle registration certificates checked.
 - Start times for the races.
 - Place and time of the FEMA Delegate Assembly (General Assembly).
 - Possible formalities such as Visas etc.
 - Various accommodation options.
 - Catering facilities.
 - Time, date and location of the banquet and/or party.
 - The names and positions of the organizing committee (race organizer, time keepers, cable marshal, race jury etc.).

6.2. Notifications

1. The competitor under whose name the car is being raced shall be present at the European Championships.
2. Registration for the European Championships must be received at the address on the announcement of the event at least six (6) weeks before the event. It must be accompanied by the official FEMA registration form. Late registration is not permitted.
3. Competitors from overseas (non-FEMA countries) may participate in the race with a valid international license and be entered in the rankings. However, they may not race competitively, and they will not be recorded in the rankings of the European Championships.
4. Every country that has met its financial and other obligations to FEMA may, enter a maximum of 24 cars from classes 1 to 5 (including 3b) at the European Championships. The distribution of cars amongst the six classes is optional.

5. The current European Champions do not count to the contingent of 24 cars. Therefore, a country could enter a maximum of 30 cars, if all European Champions for each class came from the same country.
6. The current European Champion has the right to start first in the first heat and to start last in the third heat of his class.
7. Each country must appoint a team captain. The team captain will act as contact person for the race organizers in case of disagreement or similar instances.

6.3. Ranking of Competitors

1. The competitors finishing in positions 1 through to 3 in each class are awarded with a medal at the European Championships. These medals are paid for by FEMA.
2. At least the three top placing drivers from each class will be given a certificate from the race organizer at the European Championships.
3. The national anthem of the winner of each class is to be played at the European Championships.

6.4. Ranking for the Team Title

1. For the team ranking the 2 fastest competitors of each country and class (except 3b) are counted. The following point system shall be used for the determination of placement/ranking:

Rank	Points	Rank	Points	Rank	Points	Rank	Points
1	400	6	95	11	22	16	5
2	300	7	71	12	17	17	4
3	225	8	53	13	13	18	3
4	169	9	40	14	9	19	2
5	127	10	30	15	7	20	1

Table: Team ranking.

2. For 8 lap tracks the cable must have a length of 9.725 - 9.745m at 10% of the test load from the centre post to the centre of the outside shackle pin.

6.5. European Cup

1. A challenge trophy (European Cup) is awarded at the European Championships.
2. In the evaluation of this European Cup, the speeds of the best competitors in each class (except 3b), and country are added. The sum is the score for the ranking.

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