

# CAMS CLUB RESOURCE GUIDE

## CHAPTER 12A: ORGANISING MOTORKHANA



Australian Government  
Australian Sports Commission

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*Production Vehicles (road cars)*



*Specials - Purpose-Built Vehicles (non-road cars)*



## **A MOTORKHANA**

A motorkhana is a competition designed to test the acceleration, braking and general manoeuvrability of the vehicle encompassing the skill and judgment of the driver. A motorkhana may be conducted on a sealed or an unsealed surface. No straight section of any test may exceed 60 metres in length without a turn of at least 90 degrees. Only one vehicle is allowed on each test at any one time, and each vehicle will commence from a standing start and come to a complete stop within the finish garage.

There is no actual requirement to do certain manoeuvres, simply to drive the course in the correct manner as laid out on the test diagram and complete certain requirements. The aim of a motorkhana is to drive around a set of markers (using flags or cones) whilst adhering to a set course laid out on the ground, in as short a time as possible. Both forward and reverse driving may be required.

Penalties are applied for striking and / or displacing a marker, for not following the prescribed course, incorrect manoeuvres, not stopping astride a line or not finishing correctly in a 'garage'. The competitor with the fastest times and least penalties (which are expressed in time) is the winner.

*The National Motorkhana Code in the CAMS Manual of Motor Sport, written for State and National Championship motorkhana events, may be used as a guide for the conduct of Club events.*

An organising permit is required and insurance is automatically included in the permit fee.

Each state has a CAMS Auto Test Panel which meets regularly and can assist with any enquiries on conducting an event.

## 1. OVERVIEW

### 1.1 Motorkhana Tests

Each motorkhana test must be contained within an area of 100 metres x 50 metres, including any garages. The CAMS Motorkhana Tests Booklet (available on the CAMS website) provides diagrams for a number of tests. These are not intended to be exhaustive, and organisers of club motorkhana events may devise tests of their own, particularly to suit the size and shape of the venue being used.

### 1.2 Who May Compete In Motorkhanas

Any member of the organising club/s may compete:

- Provided the driver holds at least a CAMS Level 1 licence ('One Day Licence') or, as a minimum, a Level 2NS / 2NSJ licence (an annual licence).
- If a junior is not under 12 years of age, and is able to demonstrate an ability to control the vehicle.
- An inexperienced driver may carry an experienced passenger (or an experienced driver may carry a junior or inexperienced adult passenger) for the purpose of instruction and guidance. Refer to Article 19 of the National Motorkhana Code. Minimum age of any person is 12 years and a passenger must complete a "Passenger In Vehicle Disclaimer" form (or parent / guardian must sign).

### 1.3 Driver / Passenger Apparel (refer to Schedule D of CAMS Manual of Motor Sport)

- A safety helmet is not compulsory (unless in a 'motorkhana special' vehicle) and is recommended for drivers of open vehicles
- Short sleeve shirt and short pants are acceptable
- Enclosed shoes compulsory (bare feet, thongs or sandals not permitted)
- At least a lap-type seat belt, properly adjusted, must be worn

If the vehicle has no windscreen the driver must wear adequate non-shattering protective goggles.

### 1.4 Eligible Vehicles

Any vehicle is eligible, subject to acceptability of the Clerk of Course, provided it complies with Schedule A ('General Requirements for Cars and Drivers') of the CAMS Manual of Motor Sport (however, it does not require to be fitted with roll over protection) and, if a motorkhana special, with Group 4H regulations; it must be subject to scrutiny prior to the event with particular attention given to brakes, steering and tyre condition, seat belts, seats, secure wheels and no loose objects in the cabin.

### 1.5 Safety At Venue

- The CAMS Medical Response segment of the Non-Speed Event Application Form (available on the CAMS website) and forwarded to CAMS.
- It is recommended that a first aid kit (e.g. from St. John Service) and fire extinguishers (minimum 2 x 0.9kg) be provided at the venue.

#### Guideline to Safety;

The CAMS Safety 1st Event Package provides essential information for organisers of either motorkhana / khanacross events of the potential risks of the activities associated with these events (other than the competition component, where risks are minimised through the application of the CAMS National Competition Rules). The CAMS Safety 1st Event Package also provides important information on how to assess and manage hazards and is available on the CAMS website.

## 2. PLANNING THE EVENT

### 2.1 Determining to Hold a Motorkhana

Establish the broad period in which to conduct the event and hands decision making powers relating to the event to the Sporting Committee. Factors to be taken into consideration when selecting a period are other events on the Club's calendar, other events (public or motor sport) that may affect attendance by competitors and officials, effect of wet weather on a non-sealed surface venue.

### 2.2 Deciding on Type Of Motorkhana – Bitumen Surface, Gravel Surface, Grass Surface

Factors to be taken into consideration are: wishes of competitors for a specific type of surface, availability of venues with desired surface, likely weather conditions, and venue cost.

### 2.3 Looking For A Venue

#### Guideline: Seeking a Venue

A list of established venues will be available through the CAMS State Office.

Motorkhanas require a smooth, level area – either sealed or loose gravel or grass.

- For sealed events car parks, circuits, airstrips are available
- Gravel / unsealed surface areas can be used, as well as a paddock with good grass cover and firm underlying soil

The surface should be flat, without steps and bumps and free of obstacles. If there are obstacles set the test to suit the layout. If spectators will be in attendance make sure a viewing area is set aside in a safe location.

Once a suitable site has been located, permission to hold the event must be obtained from the land owners and any other relevant bodies. If approval is required from Local Council, Police, Environment Authorities, etc permission should be sought some six months before the event, to allow ample time to complete all necessary approvals, particularly if the site has not previously been used for motor sport.

### 2.4 Selecting a Date According To Availability Of Venue

#### Guideline: Event Date

Selecting a date will be influenced by the availability of a suitable venue.

Clubs usually plan a calendar of events 12 months in advance, higher level events being submitted to CAMS in September to November the previous year (the higher the status of the event, the earlier the submission). Usually when the national and state championship events are set, dates for other events are allocated. However, for club sport activities there is no reason why a club cannot determine at any time to conduct an event.

'Standard' venues used by clubs are available but these are often booked out well ahead, so planning to use one of these venues needs to be made well in advance. The main venues in each state, and contact details, are available from CAMS. However, clubs are encouraged to seek out new venues that are suitable.

### 2.5 Budget

#### Guideline: Budget

Unless there is a specific ruling by the club's committee one of the prime objectives in running an event is to do so without making a financial loss. Therefore a budget should be drawn up to determine its financial viability and then used to monitor expenditure and income against the budgeted figures to allow any adjustments to be made so that a loss is not incurred.

Main expenditure items to consider are:

- CAMS permit fee
- Hiring of a venue
- Hiring / purchase of any equipment (determine what equipment can be borrowed)
- Car numbers (if purchased; often water-based white shoe cleaner is used to mark numbers on glass – if it is wet weather put number on inside of car)
- Fuel / accommodation for officials, if required
- Stationery including printing photocopy paper
- Trophies / Awards

Income will generally be based on entry fees; if sufficient entries are in doubt a club subsidy may be considered.

## 2.6 Appointing an Event Organising Committee

Appoint a Clerk of Course, or Event Manager, to organise the event and to select the organising committee.

## 2.7 The Event Organising Committee

### Guideline: Event Organising Committee

An Organising Committee should consist at least two persons – the Clerk of Course and the Secretary. A club may have an Event Organiser who may not necessarily be the Clerk of Course and thus the committee would consist of three persons.

This committee is invested with all necessary powers for the organisation of the meeting and the enforcement of the Supplementary Regulations. However, there is no limit to the number of positions that can be created. A suggestion for a club motorkhana is:

- Clerk of Course
- Assistant Clerk of Course
- Secretary / Treasurer
- Chief Scrutineer
- Chief Timekeeper – not necessary if using stopwatches but may be needed if electronic timing is being used as it may be necessary to have someone who knows how the system works!

Other officials - such as Timing Officials, Scorer/Results Official, Equipment Officer, Officials' Coordinator, Chief Spectator Marshal - will have specific roles and may need to attend some committee meetings so that they gain an understanding of the planning of the event and their exact roles in it.

### Clerk of Course or Event Director

The Clerk of Course is responsible for the entire conduct of the event and all officials are responsible to this official, who must ensure the following takes place:

- Event planning
- Documentation - to be conducted prior to the event, usually on the day
- Scrutiny - to be conducted prior to the event, usually on the day; occasionally prior to the event
- Officials recruitment - ongoing from when it is decided to conduct the event
- Test set up and operation - checking the tests setup, placement of officials, safety considerations
- Timing of tests
- Results for the end of the day announcement, and detailed results to be issued after the event

For a motorkhana where there is no Steward the Clerk of Course has the responsibility of investigating an incident that may give rise to an insurance claim. A written report must be submitted to CAMS as early as possible.

If there is a single Clerk of the Course he/she may not compete. The appointment of a Deputy or Assistant Clerk of Course is necessary if the Clerk of Course is competing in the event.

### Deputy or Assistant Clerk/s of Course

One or more Assistant Clerks of Course may be appointed and specific roles allocated to them, but the overall responsibility rests with the Clerk of Course.

### Secretary of the Event

The role of the Secretary includes receiving and processing entries, collecting entry fees, organising documentation (on the day) and may include organising the issue of results. The Secretary may compete.

### Scrutineer

The Scrutineer is responsible for checking cars for safety prior to the event and re-inspecting any damaged vehicles that may occur during the event. The Scrutineer(s) may compete.

## 2.8 Essential Officials

### Guideline: CAMS Requirements For Essential Officials Attending The Event

- The Clerk of Course is an Essential Official and cannot compete unless an Assistant Clerk of Course has been appointed. Both must be CAMS accredited at least as a Club Chief. Either the Clerk of Course or the Assistant Clerk of Course must of necessity always be on duty while one or the other is competing and during such time the acting Clerk of Course must be clearly and readily identifiable as such (e.g. by wearing an armband or a tabard marked 'Clerk of Course').
- Should the club not have an accredited Clerk of Course (or Assistant) it should contact another club/s or CAMS and seek one for the day's activities.
- If a Steward is not present any matter arising from the event which requires action by the Stewards shall be referred to a stewards' hearing which shall be organised by CAMS (after the event). Refer to NCR169 xix.



## Guideline: Equipment and Documents List (Sample)

A check list of equipment and documents needed should be made well in advance. Markers and / or flags should be sufficient to cover breakages, Timing equipment (electronic or hand-held stop watches with reliable batteries) and safety bunting or barriers must all be organised and checked to make sure they will do the job required. Sufficient replacement markers should be at each test area, along with any equipment needed to secure them (hammers, sand, bases, etc.).

### Equipment

- Barricades, if deemed required
- Broom/s to clear away any rubble on a bitumen test
- Car numbers, if numbers are issued; or provision for marking numbers on vehicles (eg: use of liquid chalk or white shoe cleaner to write number on window)
- Chalk to mark cone positions on hard surface and paint spray cans on grass
- Fire Extinguishers (minimum 2 x 0.9kg)
- First aid kit
- Hammer/s if using stakes, and flags on dirt surface
- Markers (cones or flags), with extra to allow for breakage
- Measuring tape or wheel
- Pens, clipboards to hold documents for recording vehicle numbers and times
- Radios (two-way) if used
- Rope or bunting for controlling spectators, to mark 'no go' areas; or to mark competition area
- Safety vests for all officials
- Table and chairs where considered required
- Timing equipment (electronic, or hand held stop watches with reliable batteries)
- Weather protection (hot or wet)

### Documents

- CAMS Permit (for posting on notice board)
- CAMS OH&S Policy documents (for posting on notice board)
- CAMS Trainee Officials Licence forms
- Entry Forms for entries on the day
- Medical Response/Emergency Services Form (copy from Permit Application Form)
- Officials Sign On Sheet (CAMS)
- Passenger Indemnity Sheets (CAMS)
- Results sheets (to fill in on the day); or these can be by computer and printer
- Supplementary Regulations and Further Regulations (if any) for entries on the day
- Test Diagrams for competitors
- Test diagrams with layout dimensions for officials
- Timing Record Sheets

## Guideline: Officials

The number of officials required to run the event will vary according to whether spectators are likely to be present, and the number and type of tests planned for the day and the number to be run at the one time. In addition to the timing officials and observers required for each test, an additional official is required as an observer wherever a test contains a field garage.

If need be contact CAMS for assistance with appropriately accredited officials.

## 3. ON THE DAY – BEFORE THE TESTS

### 3.1 Day Schedule

#### Guideline: Day Schedule (Sample)

Conducting an event on the day successfully depends very much on the day schedule being prepared with care, and its issue to relevant officials. Once the number of entries is known (or anticipated) and the number of tests to be conducted determined, as well as the number of runs by competitors at each test, the day's schedule can be prepared in detail.

Some issues that need to be considered are:

- time for setting up;
- time for any competitor practice (if allowed) or reconnaissance (on foot, walking around tests);
- time on program for competitors to carry out test;
- on some events, time for competitors to turn around and return to the holding area;
- buffer time:
  - delays in recovering vehicles (stalled, broken down);
  - planned breaks (eg: lunch).

#### DAY SCHEDULE PRIOR TO TESTS

Time	Activity	Who Is Responsible
0800	Open entry gates (if applicable)	Clerk of Course
0800	Officials arrive and sign CAMS Sign On Sheet	Secretary
0815	Set up an official notice board and place on it the CAMS Permit and OH&S Policy; sketch of tests	Secretary
0815 – 0900	Set up tests	Available officials
0815	Set up documentation	Secretary
0830	Competitors arrive	
0830 – 0930	Receipt of entries; documentation	Secretary
0830 – 0930	Scrutiny of cars	Scrutineers
0900	Place first aid kit and fire extinguisher/s in strategic location/s	Clerk of Course
0930 – 0945	Officials allocation and briefing	Clerk of Course
0945 – 0955	Drivers briefing	Clerk of Course
1000	Start tests (after Clerk of Course check)	Clerk of Course

### 3.2 Documentation

#### Guideline: Documentation

An official (usually the event secretary) receives entries and conducts documentation checks. This can be carried out at a suitable location at the event venue, or at scrutiny (or even over a car bonnet!!). Checks are to cover:

- competitor's competition licence and club membership – checking expiry dates in particular;
- entry form is correctly completed and disclaimer/s signed;
- underage indemnity form completed by a parent or guardian;
- passenger indemnity form completed (if applicable).

The following can be issued to competitors:

- car number for affixing to the vehicle (if applicable – using white shoe cleaner is satisfactory);
- (spare) supplementary regulations;
- further instructions (if any);
- test diagrams and instructions (if used).

### 3.3 Scrutiny

#### Guideline: Scrutiny

Scrutiny of vehicles is carried out to ensure they meet safety requirements for the event and should be checked by scrutineers using a prepared scrutiny check sheet (see the attached Motorkhana Safety Scrutiny Check List). Vehicles should be presented in a "ready-to-go" condition.

Selection of the scrutiny location needs to take into consideration:

- sufficient space for more than one vehicle to be checked at any one time;
- a suitable area for unloading vehicles off trailers;
- ample parking nearby for assembly of vehicles waiting to be checked;
- area is not accessed directly from a main road (to avoiding vehicles banking back onto the road);
- if documentation is carried out in the scrutiny area make sure that it doesn't congest the actual scrutiny area.

It is best to rope off the actual scrutiny area to allow for a clear flow of vehicles and to avoid congestion with spectators

and non-scrutiny officials.

## 3.4 Officials' Briefing

### Guideline: Officials Briefing

- Welcome and thank you for participating;
- Ensure all officials have 'signed-on' for CAMS insurance cover;
- Schedule for the day;
- If unaware of a situation ask do not assume;
- Never turn back to competing cars and keep an eye on the competing car at all times to ensure the correct route has been used – and for safety reasons.
- Reminder of:
  - no litter to be left behind – use bins or take rubbish;
  - no smoking (where this applicable);
  - no consumption of alcohol under any circumstances.

### The Tests

- Guide the competitor up to the start of the garage;
- Timing begins when the car starts to move and finishes when the front of the car passes the front of the finish garage;
- Timing is to the tenths and hundredths of a second (eg:.01);
- Stopwatches, record time as it reads (eg: 39.17);
- Reminder of the penalties to be applied;
- Do not add the penalty to the time, the penalty needs to be written separately;
- If a timing error occurs the driver can have a re-run;
- Cars must enter the finish garage in a forward direction and stop within the garage – stopping within the garage must be stressed;
- Reruns (when permitted);
- Spectator marshalling instructions (where applicable).

## 3.5 Competitors' Briefing

### Guideline: Competitors Briefing

A competitor briefing should be held prior to the start of competition and preferably be conducted by the Clerk of Course. A written briefing is an alternative and can be issued at documentation.

The briefing should include:

- A welcome to the event;
- Introduce key officials; and any special guests
- Comment on fact that motorsport is dangerous and can result in damage to vehicles and equipment and injury to persons;
- Introduction of senior officials (Assistant Clerk of Course, Steward/s – if appointed);
- Brief outline of day's activities;
- Show sample of boards, flags, signs to be used;
- Number of runs (practice run); running order; starting & finishing procedure; timing method; re-runs;
- Penalties to be applied;
- Vehicle recovery (if relevant);
- How to drive the event (if there are novice drivers – or could ask them to stay back after briefing for their own special briefing);
- Any safety issues/procedures;
- Medical/first aid available and procedures;
- Any special requirements of the event;
- Reminder of:
  - apparel requirements;
  - no speeding in area (drive at walking pace at all times when not competing);
  - no litter to be left behind – use bins or take rubbish;
  - no smoking (where this applicable);
  - no consumption of alcohol under any circumstances.

## 4. ON THE DAY – THE TESTS

The following is a simplified version of conducting a motorkhana; refer to the National Motorkhana Code for further details.

### 4.1 Number of Tests and Runs

#### Guideline: Setting Up Tests

- Ensure that the markers are laid out accurately (their location can be marked by chalk on bitumen surface or by using a paint spray can on dirt/grass surface) so that the test remains the same for all competitors (the markings allow any displaced marker to be replaced in its original location);
- Practice may be permitted at Clerk of Course discretion (however, this depends on time availability as to allow practice at each test take up time);
- The number of tests and runs at each tests is at the discretion of the Clerk of Course. If two or three runs are permitted usually the best time is the one that counts to the results;
- Before each test begins, a final check should be made by the Clerk of Course to ensure the test layout complies with the diagrams as issued, and if electronic timing gear is used that it is correctly positioned and operating. Check that test officials are in a safe position.

### 4.2 Reruns

#### Guideline: Reruns

Re-runs should only be allowed:

- Due to timing failure;
- If a false time has been recorded, as determined by a timing official.

### 4.3 Test Routine

#### Guideline: Test Routine

- The start is by indicating to the driver that timing is ready and that he/she can start in his/her own time;
- Finish is by stopping COMPLETELY in the finish garage in a forward direction;
- If a test marker/cone has been displaced from its original position by a driver during an attempt at the test, and if the driver is required to negotiate that marker again during the test, the driver must proceed according to the original position of the marker;
- So long as a driver covers all of the required course of a test, even if this entails retracing of an incorrect path, the attempt will be accepted as valid;
- A vehicle must complete the full distance of the motorkhana under its own power.

### 4.4 Timing

#### Guideline: Timing

- Timing is normally to 0.01 of a second and carried out by a manually operated stopwatch operated by an official, or by electronic timing;
- If using stop watches, timing commences when the car starts to move and finishes when the front of the car passes the entry line to the garage (the car must come to a complete stop within the confines of the garage).

### 4.5 Penalties

#### Guideline: Penalties

##### Exclusion

- 'Hooning', as deemed by the Clerk of Course.

Plus 5 seconds (added to the time recorded by the driver incurring the infringement)

- Knocking any marker, 5 seconds is added for every infringement;
- Finishing a test with part of the vehicle outside the finish garage.

Slowest time plus 5 seconds ('ST+5')

5 seconds is added to the slowest time recorded by a driver who completed the test correctly (ie: with no penalties applied). If the ST+5 is greater than double the fastest time recorded, then the time to be applied is double the fastest time:

- Failing to halt completely at the finish of a test;
- Finishing a test with the vehicle completely outside the finish garage boundaries;
- Failure to complete a test;
- Reversing after crossing the designated finish line;
- Wrong direction – failing to complete the test as per the diagram.

Slowest time plus 10 seconds ('ST+10')

- Failure to attempt a test.

## 4.6 Results

### Guideline: Results

Placings are decided on the aggregate of elapsed times on the tests completed, plus any penalties. The winner/s are the driver/s having the lowest aggregate, including any penalties, at the completion of the event. In the case of equal scores, the tied drivers are declared joint winners.

## 5. POST EVENT

### 5.1 Documents to CAMS

- EP101: Clerk of Course Report
- EP102: Stewards Report – Race, Speed and Non-Speed Events (sent in by Steward/s)
- EP107: Incident Report – if an incident occurred, together with either one or both of:
  - EP105: Vehicle Damage Report (if substantial damage to a vehicle/s)
  - EP106: Personal Injury Report (if an injury has been sustained)
- Form 5-3-5: Venue and Personnel Report
- Any Trainee Officials Licence Application Forms
- A set of results

These documents are to be completed & forwarded to CAMS within 7 days.

### 5.2 Results

Guideline: Results

Compile results and distributed to competitors within 72 hours of the event (or place on website).

### 5.3 Presentation

Guideline: Presentation

Purchase of trophies for presentation to award winners

### 5.4 Budget Summary

Guideline: Budget Summary

Prepare a summary of the expenditure and income and present it to the Committee.



851 DANDENONG RD  
MALVERN EAST, VIC 3145  
PH 1300 883 959  
FAX (03) 9593 7700  
EMAIL [INFO@CAM.S.COM.AU](mailto:info@cams.com.au)



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