



Safe filming and recording involving vehicles

Entertainment Information Sheet No 22

Introduction

This information sheet is one of a series produced by HSE in consultation with the Joint Advisory Committee for Broadcasting and the Performing Arts. It gives general guidance on the risks associated with filming and recording of and from vehicles and is relevant to both television and radio. The general principles can be applied to all road vehicles.

Activities this guidance relates to

- Road test or other car-shooting on public roads
- Filming of motorcycles from cars at normal speeds on public roads
- Road test and driving shots of cars and motorcycles at high(er) speeds on tracks
- Recording interviews, dialogue or commentary by a driver or passenger in a moving car
- Filming or recording commentary of motor racing rallying, from trackside or using mounted cameras
- Recording commentary as a passenger in a motor racing car
- Use of A-frames, low-loaders or modified vehicles
- Off-road use

Legislation

The main legal requirements covering recording from vehicles are the Health and Safety at Work etc Act 1974, the Management of Health and Safety at Work Regulations 1999 (the Management Regulations) and the Road Traffic Acts of 1988 and 1991 and related legislation.

The Management Regulations require a suitable and sufficient risk assessment to be carried out by employers (or self-employed people) to assess the risk to employees and others who may be affected by their activities and to determine the control measures necessary to avoid risk or reduce it to acceptable levels. An opportunity arises during risk assessment to consider the application of any other relevant health and safety legislation, including the requirement to consider fire precautions and emergency procedures. You must consult employees on health and safety matters, either directly or through elected safety representatives.

If a vehicle is to be used on the public highway all road traffic legislation must be complied with, including the Road Traffic Acts 1988 and 1991. The Highway Code and local by-laws, as well as health and safety legislation, will also be relevant. If road traffic legislation

cannot be complied with, then private land must be used but all relevant health and safety legislation must still be complied with.

The activities of the production must not put any other road users at risk. This includes ensuring that warning signs for all vehicles are fully operational and visible to other road users, eg braking lights.

There are certain incidents that occur on the road that may be reportable to HSE as well as the police. The most likely situation in broadcasting would be if someone who is unloading by the roadside is injured. Any incident resulting in major injury at a racetrack, on a closed road or on a private road is also reportable.

Risk assessment

Operations from or near vehicles involve risk and therefore a risk assessment **must** be carried out before any production activity. This must be reviewed as necessary if more information becomes available or if circumstances change. The risk assessment will determine what control measures are needed.

The risk assessment may require an exchange of information with other parties, eg event organisers or police. These other parties should also have carried out a risk assessment. The broadcast organiser should liaise with these bodies to make sure that all hazards arising from the event have been identified and that everyone is aware of the risks arising from each other's activities and of the control measures that are in place.

What can go wrong?

- Injury to crew, presenters or other workers
- Injury to members of the public/onlookers
- Hearing damage - exposure to high levels of noise could cause hearing damage
- Inability to communicate between presenters and crews
- Driving at high speed (race speeds on motor racing circuits and maximum speed limits on public roads)
- In-car camera/recording equipment could injure passengers in vehicles
- Distracting other drivers

Competence

All drivers need to be competent for the activity they are to be involved in; anything that they are asked to do should be within their ability. This is of particular concern when the driver is an artiste or a member of the public. Adequate time should be allowed for rehearsal, especially if the driver is inexperienced in

delivering pieces to camera etc. Competence includes being aware of the vehicle's limitations, the limitations of their own driving ability, and not being tempted or encouraged to exceed them.

If the presenter or reporter is at the wheel they should not be distracted from driving, for example by being in sole charge of recording equipment.

Where specialist driving is required, for example vehicle stunts or high-speed work, the driver should have appropriate experience and, where applicable, qualifications. The vehicle should be suitable for the activity.

Unless the camera operator and bike rider are experienced in the activity, manned cameras on motorcycles should not be used.

Participation

If the impression that a presenter is participating in a race is required, you should consider whether participation is really necessary to achieve the recording or pictures that are needed. Recording the piece without pressures of participation is a good control measure. All speeds and manoeuvres must be kept to safe and legal limits, the action recorded in short sections and the presenter's place at the finish pre-determined and known by all participants.

Position of equipment/personnel

The equipment and any operator must not obstruct the driver's view, distract their attention while driving or put other road users at risk. The position of the camera operator/reporter must be safe in all circumstances, including all foreseeable emergencies.

When working in motor racing pits, production teams should have a 'minder' with them to look out for dangerous car movements or equipment in potentially dangerous positions. These are high-risk areas and the risk assessment must clearly demonstrate the need to be present, the nature of the activities and the proposed control measures with specific reference to communications, positioning of personnel and provision of appropriate personal protective equipment. Trackside positions should take account of the possibility of vehicles skidding off the track, eg beyond bends or at wet/muddy stretches. Where this risk exists, an assessment must be made and unmanned equipment or protective barriers should be used.

When filming from the passenger seats of vehicles, people should be properly seated with seat belts on. People should not crouch in a footwell. The camera can be held in the required position, and the picture viewed via a battery monitor.

When shooting through a side window, operators should not lean out or let the camera lens protrude beyond the plane of the vehicle. Similarly, a side-mounted camera may be a hazard to vehicles overtaking and/or pedestrians if it protrudes.

When filming 'up and bys' on a public road, the camera and equipment should be at least a metre from the edge of the road and on the inside of any bends ('up and bys' describes the way the camera is used to track the vehicle.)

Filming by a pillion passenger facing backwards on a bike is only acceptable if the bike is properly adapted, the rider and camera operator are specialists and the activity does not take place on public roads unless they are closed, for example during the London Marathon. For work on or close to the public highway, the need for the correct classification of high-visibility clothing must be considered in the production risk assessment.

Restraints on equipment and people

On public roads drivers and passengers must be effectively restrained in accordance with road traffic legislation. Wherever possible, lightweight cameras should be used. In any moving vehicle, including buses or coaches, people should remain seated and should be adequately restrained by the use of seat belts or other appropriate harnesses. Camera operators must not stand up and shoot through the sunroof while the vehicle is moving.

There must be effective measures to prevent loaded equipment striking any occupant in the event of an emergency stop or collision. Steps should be taken to prevent small items of equipment from causing a hazard to the normal operation of the vehicle or striking somebody in the event of a collision.

The likelihood that convertible-type or open-backed vehicles may overturn must be considered and appropriate controls put in place. The controls should be identified as a result of the risk assessment and may include the use of vehicles fitted with roll bars. Any film or recording equipment should either be securely mounted, or independently secured by safety lanyards. The only exception is for a small, hand-held camera used in the front seat, but even then the risk to a driver in a side-impact must be considered. The effect of the deployment of airbags must also be considered as any equipment in the vicinity may be pushed violently towards occupants of the vehicle.

Communication

Drivers and crews must be briefed beforehand of the shots to be attempted. There must be effective communication between camera car and filmed car.

When using a tracking vehicle the driver of the overtaking vehicle should decide when it is safe to pass. Only police officers may direct traffic.

Selection of equipment

When it is not possible to use a full-size camera safely, for example to achieve close-up, car-to-car shots of wheels, a remote mini-camera should be used. Mini-

camera equipment and mounts must be fit for purpose and should only be fitted by competent persons. Unmanned, fixed mini-cameras can be used for pieces to camera on motorcycles. They must be placed so as not to increase the likelihood of injury should the rider come off the motorcycle in an accident.

Vehicles must be fully maintained and in a roadworthy condition, complying with the road traffic and vehicle legislation that applies. They must also be used in the way they were designed to be used. If there is any modification to a vehicle this must be subject to a full risk assessment.

Pieces to camera/microphone while driving

Presenters need to keep their eyes on the road and look at the camera for no longer than they would normally look away to inspect their instruments or look in the rear-view mirror. They should also try to keep both hands on the wheel when recording pieces to camera, except for the occasional gesture or operation of controls.

Tracking shots

Tracking on public roads can only be done with the permission of the police. Tracking shots (car-to-car) can only be done from a specially modified tracking vehicle, or from an estate or hatchback with the tailgate locked and secured in the 'up' position. The police will not normally allow this on public roads. Tracking in this manner is only permissible on closed roads or private land once the risks have been assessed and controls put in place.

The camera operator should be seated with a seat belt on. Care must be taken to ensure no loose objects will fall out of the moving car - the camera and any other kit must be secured with a safety line.

Tracking must not be done from the boots of saloon cars, or from any open doors.

Use of low-loaders and 'A-frames'

Care must be taken when shooting cars mounted on low-loaders or A-frames. Legally, these vehicles are grouped with caravans and, as such, it is illegal for them to carry passengers without prior permission from the police.

The vehicle must be fully secured and chocked by a qualified person, usually the supplier. The keys should be taken out of the car and lights, reflectors and tripods fully secured. Make sure that the lights do not create glare that may distract other motorists. Anyone filming or recording must be securely harnessed to appropriate anchor points and no one is permitted to sit on the handrails.

There must be a nominated person who will be responsible for the control of the tracking vehicle and who will work in conjunction with the driver.

Safety rails on low-loaders and A-frames must not be altered for any recording purpose unless full approval is given by the equipment supplier and the work is carried out by experienced and qualified vehicle technicians.

The maximum weight and limit on numbers of persons for low-loaders and A-frames must not be exceeded. Information regarding the maximum weights permitted can be found on a plate located either in the cab of the vehicle or on the nearside of the trailer. Further confirmation can be gained from the 'plating certificate' issued to the vehicle operator/owner.

If you are using a low-loader with an extension platform fitted and the vehicle exceeds the legal road width of 2.55 m, it is advisable to request the presence of the police to ensure people's safety due to the extra width of the vehicle.

All unit crew personnel working on or around a low-loader or A-frame must be fully briefed in the safety measures.

Noise

The Noise at Work Regulations 1989 require employers to carry out a noise assessment if their employees are likely to be exposed to noise levels above 85 dB(A) time-weighted over an 8-hour period. A rough rule of thumb would be if two people have to shout to talk with each other at a normal distance.

There are further requirements concerning reducing exposure, providing ear protection etc. Protection must also be provided where there may be sudden peak noise levels of 140 dB(A), for example those created by starting up performance vehicles and motorbikes.

Vehicle noise levels are a particular problem at motoring events, as talkback may have to be at high levels for operators to hear it clearly. The consequent risk of hearing damage can be reduced by either wearing sound-excluding headphones so the effect of vehicle noise is reduced, or allowing loud talkback through ordinary headphones but wearing high-fidelity earplugs to reduce the noise levels reaching the ear.

In-built safety measures in cars

These should be used appropriately and must not be removed or interfered with. Head restraints should be as close to the ideal position (top of ears level with the top of the restraint) as the design allows, and should never be removed if there is someone in the seat.

High-speed work

Cars should not be used for car-to-car shots at high speeds with the tailgate open as this could impair the stability of the vehicle, could force the tailgate down on the camera operator and may draw exhaust fumes into the vehicle. You should consider attaching a mini-camera to the back of the tracking vehicle instead.

Checklist

Dos

- A risk assessment **must** be carried out before any production activity.
- There must be an exchange of information with other interested parties regarding risks and control measures.
- All relevant legislation must be complied with.
- The competence of all drivers should be assessed in relation to the activity they are to be involved in.
- When filming 'up and bys' on a public road, the camera and equipment should be at least a metre from the edge of the road and on the inside of any bends.
- There must be effective communication between camera car and filmed car when direction of the action is required.
- All vehicles should be fit for purpose and roadworthy.
- Everyone must be properly seated and restrained including camerapersons.
- All camera and kit must be independently secured.
- Use lightweight cameras wherever possible.
- Wherever possible, all those at risk from passing vehicles should wear the correct classification of high-visibility clothing.
- When filming/recording in motor racing pits, production teams should have a 'minder' with them looking out for dangerous car movements or equipment in potentially dangerous positions.
- Drivers and crews must be briefed beforehand of the shots to be attempted.
- Trackside and roadside positions should take account of the possibility of vehicles skidding off the track or road. Where this risk exists an assessment must be made and unmanned equipment or protective barriers should be used.
- Tracking on public roads can only be done with the permission of the police.
- Tracking shots (car-to-car) on public roads can only be done from a specially modified tracking vehicle.
- When using A-frames and low-loaders, the vehicles must be secured by a qualified person, all personnel filming and/or recording must be harnessed and all equipment secured.
- Inform and request the presence of local police if using a low-loader with an extension platform.
- Users/hirers of low-loaders or trailers are advised to request a copy of the vehicle-plating certificate to check maximum permissible towing and carrying loads.

Don'ts

- Camera operators must not stand up and shoot through the sunroof while the vehicle is moving.
- Tracking must not be done from the boots of saloon cars, or from any open doors.
- People should not crouch in a footwell.
- Cars should not be used for car-to-car shots at high speeds with the tailgate open.

- Maximum weight limits of A-frames and low-loaders must not be exceeded, their safety rails must not be altered and no one should sit on the handrails.

Further reading

Go-karts: Guidance for safe operation and use HSG200 HSE Books 2000 ISBN 0 7176 1752 1

Health and safety at motor sport events: A guide for employers and organisers HSG112 HSE Books 1999 ISBN 0 7176 0705 4

Road Traffic Acts 1988, 1991 The Stationery Office

The Highway Code The Stationery Office 2001 ISBN 0 11 552290 5

The Stationery Office (formerly HMSO) publications are available from The Publications Centre, PO Box 276, London SW8 5DT Tel: 0870 600 5522 Fax: 0870 600 5533 Website: www.tso.co.uk (They are also available from bookshops.)

HSE priced and free publications are available by mail order from HSE Books, PO Box 1999, Sudbury, Suffolk CO10 2WA Tel: 01787 881165 Fax: 01787 313995 Website: www.hsebooks.co.uk (HSE priced publications are also available from bookshops and free leaflets can be downloaded from HSE's website: www.hse.gov.uk.)

Further information

For information about health and safety ring HSE's Infoline Tel: 08701 545500 Fax: 02920 859260 e-mail: hseinformationservices@natbrit.com or write to HSE Information Services, Caerphilly Business Park, Caerphilly CF83 3GG.

This leaflet contains notes on good practice which are not compulsory but which you may find helpful in considering what you need to do.

© *Crown copyright* This publication may be freely reproduced, except for advertising, endorsement or commercial purposes. First published 06/03. Please acknowledge the source as HSE.