

# Motorcycles – Preplanning

## Actsafes Safety Bulletin #20

This bulletin provides guidelines for using motorcycles in motion picture productions, including street bikes, dirt bikes, electric bikes, and other two- or three-wheeled motorized vehicles that fall under the *Motor Vehicle Act*. This includes vehicles that are on or off camera, including those used for filming. This bulletin is for use in prep to ensure adequate planning for all departments in advance of any motorcycle sequences, especially stunts. When motorcycles are used for stunts, refer to [Safety Bulletin #4 – Stunts](#). Refer to the accompanying Safety Bulletin #20a Motorcycles – Call Sheet Memo for additional information.

## HAZARDS

Anything that could interfere with the normal operation of a motorcycle may be a hazard, including:

- Modifications that affect the way the motorcycle handles, such as outriggers, truss pieces, or dressing that make the motorcycle wider, change the centre of gravity, or affect weight transference
- Sidecars attached to the motorcycle
- Costumes or prostheses that may impair the operator's vision or ability to control the vehicle
- Wet conditions or other inclement weather
- Rough or unusual road or surface conditions
- An unexpected breach of the area by vehicles, pedestrians, or animals
- Pyrotechnics, special effects, or other elements that could affect the operator
- High-speed manoeuvres, precision riding, jumps, or other stunts
- Burns from hot exhaust pipes and other engine components
- Exposure to carbon monoxide and exhaust emissions

## CONTROL MEASURES

### Risk assessments

Conduct a risk assessment for the motorcycle sequence. Risk assessments should be documented.

When conducting a tech survey or scouting a location, it is advisable to include the stunt coordinator and motorcycle operator(s) to help determine the appropriateness of the location for the shooting sequence. Location considerations should include having a space that is free of obstacles and large enough to perform the stunt safely. Locations should also have runaway lanes and enough space to abort the action if needed.

When considering control measures to mitigate a risk, ensure they won't create other hazards.

If hazards to the performers and crew can't be adequately controlled, consider an alternative, such as a process trailer or tow vehicle.

### Licensing and qualifications

When casting motorcycle operators, their skill sets, qualifications, and experience are more important than any other factors. Consider the following:

- For street-legal motorcycles, operators should hold a valid motorcycle license, unless the motorcycle is being used off-road or at a track in a non-licensed situation (e.g., motocross track, desert chase). If operating on a public roadway, a license is required.
- For off-road or dirt bikes, operators must be experienced and capable of operating the bikes provided by the production.
- The operator must be familiar with and competent in the techniques for safely performing the requirements of the sequence.
- The stunt coordinator or their designate must assess the motorcycle operator's capabilities for all on-camera work.



# Motorcycles – Preplanning

## Actsafes Safety Bulletin #20

- The operator may require additional training or rehearsals depending on their familiarity with the route and the motorcycle.
- Only authorized personnel are allowed on a motorcycle.

### Authority of stunt coordinators and motorcycle operators

The stunt coordinator always has the final authority on who is qualified to perform on a motorcycle and whether or not the sequence is safe. If the operator believes the sequence is unsafe, they are not obligated to continue. They may exercise their right to refuse unsafe work.

### Motorcycle modifications

When modification is necessary for creative purposes, it is important not to compromise the safe operation of the motorcycle or the safety of the performers and crew. Custom-built, modified, or dressed motorcycles can affect the operator's ability to manoeuvre while riding.

Consider consulting with a qualified professional if a motorcycle is significantly modified to the point that the safe operation of the motorcycle may be affected (e.g., the centre of gravity, affect weight transference, or the turning radius changes).

Consider whether or not it's appropriate to use a cut-off switch on a picture motorcycle to shut off the engine in case the operator becomes separated from the motorcycle. Be aware that cut-off switches can introduce additional hazards (e.g., rapid deceleration if the switch is triggered accidentally).

### Motorcycle sequences

When planning a motorcycle sequence, consider the following:

- The location's suitability for the required sequence.
- Location permitting requirements — for example, for road closures or intermittent traffic control (ITC).
- Adequate personnel are available for location lock-ups.
- Type, size, power, and condition of the motorcycle to be used, and its suitability for the required work. For example, if a high-horsepower bike isn't necessary, consider one with less horsepower.
- Operation of the motorcycle near other vehicles, equipment, obstacles, the crew, other people, or animals.
- Camera placement and understanding of camera movement for the shot.
- Route, surface, and weather conditions (e.g., curved or inclined, paved or gravel, wet or dry).
- Acceptable routes of escape if it's necessary to abort.
- Planned special effects such as rain or wet downs.
- Bike dressing and other motorcycle customization.
- Lighting, including placement and power.
- Costumes, prosthetics, or props that could interfere with the operator's vision or their ability to operate the bike safely.
- Visibility conditions and restrictions for the motorcycle operator (e.g., cameras, dust, spray, lights, set dressing, theatrical hazes or fogs, pyrotechnics).

A person qualified to administer emergency medical assistance must be present or readily available at all rehearsals and performances involving motorcycle stunts. The production should consider engaging emergency medical services in case transportation to hospital is needed.

When using a motorcycle indoors, make sure the environment is well ventilated. It may be necessary to conduct air monitoring and periodic venting of the area. For more information, see [Actsafes safety bulletin #13, Controlling Carbon Monoxide Exposure](#).



# Motorcycles – Preplanning

## Actsafes Safety Bulletin #20

### Helmets

In British Columbia, a helmet is required when riding on a motorcycle. Helmets must be certified under a standard acceptable to WorkSafeBC.

If the script calls for performers to ride without a certified helmet (e.g., skull cap), consider applying for a variance from WorkSafeBC (at least 30 days before the on-camera motorcycle work) for possible alternatives:

- [Variances to & acceptances under the OHS Regulation](#)
- [Request for Variance to the OHS Regulation](#)

### Personal protective equipment (PPE)

Safety should always take precedence when considering what PPE the motorcycle operator uses during filming or rehearsal.

The motorcycle operator must use a helmet. Other protective clothing and equipment (e.g., gloves, body armor, synthetic textiles, Kevlar) should be worn whenever possible.

Costumes and wardrobes can be altered with padding and other inserts to provide protection.

The stunt coordinator should consult with the motorcycle operator to decide what PPE is necessary for the planned activities and review it with production management and/or the designated safety representative to ensure that PPE requirements are followed.

No one in production should pressure the motorcycle operator or the stunt coordinator to use less PPE.

### Rehearsals

- Motorcycle sequences should always be rehearsed.
- The motorcycle used in rehearsal should be the same as the one used for the sequence.
- The rehearsal conditions should also be similar to the conditions of the actual shoot, including the use of PPE

## RELATED RESOURCES

- CSA standard CAN3-D230-M85, Protective Headgear in Motor Vehicle Applications
- [Section 8.12](#) of the Occupational Health and Safety Regulation
- [Controlling Carbon Monoxide Exposure](#) (Actsafes safety bulletin #13)
- Motorcycles - Call Sheet Memo (Actsafes safety bulletin #20a)

### Actsafes Safety Association

Actsafes is a not-for-profit health and safety association supporting British Columbia's arts and entertainment industries. Actsafes provides resources and training to employers, workers, and supervisors. We are always here to provide information relevant to best practices around health and safety in the arts and entertainment industries in B.C.

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