

INDUSTRY WIDE LABOR-MANAGEMENT SAFETY COMMITTEE

SAFETY BULLETIN #20

GUIDELINES FOR THE SAFE USE OF MOTORCYCLES

This Safety Bulletin applies to motorcycles used in motion picture productions. When motorcycles are used for stunts, this Safety Bulletin should be read in conjunction with *Safety Bulletin #04 - Stunts*. And, when using a motorcycle as a camera bike, please see "Use of a Motorcycle as a Camera Bike," below.

Considerations for the Advanced Preparation of a Motorcycle Sequence

Safety is the first priority; acting and/or getting the shot is second. When safe operation of the motorcycle is not possible, the motorcycle should not be used, and an alternate means should be considered (e.g., process trailer, tow vehicle).

The motorcycle operator should hold a current, valid motorcycle operator's license and/or be qualified to operate the motorcycle. The operator should be familiar with the techniques for safely performing the requirements of the sequence to be photographed, taking into consideration the terrain, driving surface, and other conditions. The motorcycle operator may require additional training depending on their familiarity with the route or motorcycle. The Stunt Coordinator or qualified person (collectively the "Stunt Coordinator") should assess the capabilities of the motorcycle operator. Only authorized personnel should be allowed on the motorcycle.

Personal Protective Equipment (PPE)

Safety should always take precedence when considering what Personal Protective Equipment the motorcycle operator should use during filming or rehearsal. Costumes and wardrobes can be altered with padding and other inserts to provide protection in lieu of conventional protective equipment. Protective clothing and equipment (e.g., helmet, gloves, body armor, synthetic textiles, Kevlar) should be worn whenever possible. When traditional PPE cannot be worn because of the requirements of the scene, alternative means of protection should be considered (e.g., skull cap, padding).

The Stunt Coordinator should consult with the motorcycle operator to decide what PPE is necessary for the planned activities. The Stunt Coordinator has the authority to determine what PPE is worn. The Stunt Coordinator will review the PPE with Production Management and/or the designated safety representative to ensure that studio requirements are followed. No one in Production Management should pressure the motorcycle operator, or the Stunt Coordinator, to reduce the use of protective equipment.

The head of the motorcycle operator should be protected, whenever possible, with a helmet or other type of device, such as a skull cap under a wig. Motorcycle helmets are always preferred over skull caps as they are more protective. Motorcycle helmets used on productions should be certified or rated under an acceptable standard such as helmets certified by the U.S. Department of Transportation (DOT). The DOT symbol found on helmets indicates that it meets the Federal Motor Vehicle Safety Standard (FMVSS). Other acceptable standards include, but

are not limited to, the Economic Community of Europe (ECE), Snell Foundation, Fédération Internationale de Motocyclisme (FIM), or the Safety Helmet Assessment and Rating Programme (SHARP).

Motorcycle Modification

When motorcycle modification is necessary for creative purposes, it is important to not compromise its safe operation or the safety of the cast and crew. Custom-built motorcycles can impact the operator's ability to maneuver while riding including "dressed" motorcycles with large fairings and ample bodywork. A restrictive covering over the windshield can impact the operator's visibility and should be kept at a minimum whenever possible.

A cut-off switch (a.k.a. dead man switch or kill switch) may be considered for all picture motorcycles based on the activity. When utilized, this cut-off switch is attached to the operator in such a manner that the engine shuts off if the motorcycle operator were to separate from the motorcycle. Evolving electronic technology may provide similar protections. Such equipment should be installed by a qualified person.

Planning A Motorcycle Sequence

When planning a motorcycle sequence, consider:

- Location permitting requirements, such as for road closures, Intermittent Traffic Control (ITC), or driving grids.
- Ensuring adequate personnel are available for location lock-ups.
- Type, size, and condition of the motorcycle to be used.
- Intended speed and maneuvers.
- Operating the motorcycle in close proximity to other vehicles, equipment, people, or animals.
- Camera placement.
- Route conditions (e.g., curved, incline, crown, obstacles, clearances, length, width, paved, gravel, dirt, flat, hilly, wet, slippery).
- Planned special effects such as rain or wet downs.
- Bike dressing and other customization of the motorcycle.
- Anticipated weather.
- Lighting options, including placement and power.
- Visibility conditions and restrictions for the motorcycle operator (e.g., cameras, dust, spray, lights, set dressing, theatrical hazes or fogs).
- For stunt and action sequences, consider the following:
 - Use dry cell batteries in place of wet cell batteries due to their small size, reduced weight, and lower risk of chemical leakage if there is damage to the bike.
 - Use a race-designed fuel tank cap to reduce spillage upon tip-over.

Pre-Ride Inspection

Motorcycles, ramps, and other equipment shall be examined prior to use to determine if they are in proper operating condition.

While performing the motorcycle inspection, the items to check include, but are not limited to, brakes, steering, tires, battery, fuel system, and engine. Any item that is not functioning properly must be repaired by a qualified person before use. In particular, the fuel line switch (aka “petcock”) for older bikes should be checked and in good working order prior to use.

When using emerging technologies such as electric motorcycles, ensure the speed setting is at the intended level.

The motorcycle operator, Stunt Coordinator, and/or designated qualified person(s) should perform all necessary inspections and agree that all equipment is in good working order and is properly adjusted to suit the motorcycle operator.

Safety Meetings

The planned motorcycle sequence, including ramps, jumps, lay-downs, and other potential high-hazard activities, should be discussed at a safety meeting by all persons who are immediately involved.

In addition, a shot-specific safety meeting should be held by the First Assistant Director for the motorcycle operator, all performers and crew in proximity to the sequence. This safety meeting should discuss the following topics:

- Shot sequence and route (e.g., stunt action including crossovers/planned head-on or near misses, motorcycle speed, safety buffer(s), number and proximity of other vehicles, crew and camera placement, all background vehicles, and pedestrians involved).
- An “on-site walk-through” or a “dry run” with the Stunt Coordinator and all personnel involved in the event.
 - If possible, a slow-speed rehearsal should take place so that everyone can see the movement and path of the motorcycle.
- Environmental conditions (e.g., weather; surface conditions such as cement, special effects rain, wet downs, gravel, or dirt; and topography such as flat or hilly).
- Any changes to the original plan.
- Authority to abort, including signals to be used:
 - The Stunt Coordinator should determine and explain acceptable routes of escape/safety buffer(s) to personnel involved in the event; and
 - An understanding of the intended action, possible deviations, and authority to abort should be made clear.
- Production equipment (e.g., aerial lifts, vehicles, and lighting stands) selection, obstacles, and placement.
- Communication system(s) including designated channel.
- Signaling system to alert personnel to the motorcycle’s impending movement.
- Any issues with the motorcycle operator’s visibility.
- Scene action (e.g., stunts, performance, special effects).
- Personal protective equipment (e.g., harnesses, helmets, eye protection).
- Controlled or uncontrolled environment (closed course versus open roads with ITC) and the use of lock-ups to control pedestrian traffic.
- Emergency plan (e.g., escape routes and contingency plan).

If at any time a significant change to the sequence and equipment occurs, the First Assistant Director will conduct an additional meeting so that everyone understands the change(s).

Rehearsal

Rehearsals should be performed in advance of the motorcycle sequence. The motorcycle used in rehearsals should be the same as the one to be used for the sequence or as similar to the picture motorcycle as possible. The motorcycle should be customized and “dressed” in the same manner for both the rehearsal(s) and filmed sequence. The motorcycle operator should be equipped with PPE and any possibly compromising dressing or equipment (e.g., loose clothing, props, costumes, make-up, wigs) during the rehearsal(s).

Allow enough time for necessary rehearsals prior to filming. The motorcycle operator should do a test ride to become more familiar with the filming plans and where to ride during the scene. The test ride should then be followed by a slow-speed rehearsal with all involved.

Immediately Prior to Operation

- Verify communications between drivers and support vehicles (e.g., walkie-talkies).
- Perform an additional check regarding weather, road conditions, and route to ensure that all is clear.
- Ensure that the motorcycle operator is familiar with all plans, is confident with the route, all equipment, and is aware of where the camera(s) will be positioned for each take.

Operation

Motorcycle sequences should be planned and choreographed to minimize risk.

No person should be in the vicinity of motorcycle operations unless their assignment requires them to be there, and the motorcycle operator and Stunt Coordinator know of their position. Persons in the vicinity of the motorcycle operation should conduct themselves with caution.

Depending on the road conditions, speed, weather, controlled/uncontrolled environments, etc., the following should be considered during rehearsals and filming:

- Establish an area where only required personnel are permitted and establish a safety zone(s) for other production workers.
 - If feasible, a separate area can be established where non-essential personnel can safely watch the motorcycle performance.
- Only essential personnel should be allowed on the motorcycle.
- Equipment and personnel should not distract the motorcycle operator nor compromise the safety of the motorcycle or its operator.

A person qualified to administer emergency medical assistance shall be present or readily available at all rehearsals and performances during which motorcycles will be used. The production should consider engaging an ambulance in case emergency transportation to the nearest hospital is needed.

The use of a motorcycle with an internal combustion engine indoors should be done in a well-ventilated environment. It may be necessary to conduct air monitoring and periodic venting of the area.

Use of a Motorcycle as a Camera Bike

A camera bike is a motorcycle with a camera attached. For these motorcycles, in addition to the safety procedures mentioned above, the following safety procedures should be followed:

- Motorcycle operators must be licensed unless the motorcycle is being used off-road or at a track in a non-licensed situation (e.g., Motocross track, desert chase).
- The motorcycle operator should not hold or manually operate the camera while the motorcycle is in motion.
- All items placed on the camera bike or operator are to be properly secured. Extra equipment that is not used for the shot should be placed in a follow vehicle.
- All rigging of equipment is to be performed by qualified personnel in an area secured for the purpose of rigging, which is free of known hazards, including other vehicular traffic. The rigging must be discussed with the camera bike operator prior to the use of the motorcycle.
- The camera bike operator should be allowed sufficient time to familiarize and rehearse with the rigged motorcycle.
- The camera bike operator must inspect and be familiar with the motorcycle after any rigging/equipment changes are made to ensure that the safe operation of the motorcycle is maintained.
- When additional passenger(s) are on the camera bike, allow time for them to become familiar with the equipment and planned sequence (e.g., stability, load balance, route, speed). Ensure all passengers are securely positioned before the motorcycle operation.