

MOTORCYCLE ATTIRE

The professional motorcycle driver is always dressed in such a manner as to present the image of safety. The race motorcycle is never operated unless all safety equipment is being worn. The public must perceive the race event and its staff members as being the model of safety conscious participants. By the very nature of his job, the motorcycle driver will have a lot of exposure to the public eye. A good image is a major key to the success of bicycle racing in the United States.

MOTORCYCLE HELMETS

The most important piece of equipment the driver has is his helmet. A motorcycle is never operated unless the driver is wearing one. The passenger must also be wearing a helmet. This is United States Cycling Federation Rule 1H11 and must be followed. This is an insurance regulation that must be adhered to in order for an event to get liability coverage. The public must never see a race motorcycle being operated by a driver without a helmet on his head.

The helmet must be approved by DOT, ANSI, or SNELL, and the helmet must be approved for use with motor driven cycles. Hard shell bicycle racing helmets do not meet these criteria. Everyone riding on a motorcycle must wear the correct type of

helmet.

Approved helmets come in a variety of styles. There are half helmets that come down to the tops of the ears. There are open face helmets that cover the ears and have a snap on visor that covers the face. There are full face helmets that have an opening for vision, but protect the chin and jaw. And there are hinged helmets that, when closed, are a full face helmet, but can be un-latched and the chin guard swung upward to create an open face helmet. The choice of helmet used is left up to the individual taste of the driver and passenger.

For added safety, the motorcycle driver and passenger should consider the visibility of a helmet when making a selection. A bright colored or white helmet is more easily seen at greater distances. A bright color is a good attention grabber for drivers of vehicles coming head on toward the motorcycle.

PROTECTIVE APPAREL

Two things are considered when selecting motorcycle apparel. First, for visibility and added safety, the colors should be light and bright. Second, for comfort, the material should be heavy and tight fitting. *Pants, jackets, and shirts should not be*

prone to flapping in the breeze. Constant flapping can be very fatiguing and annoying.

The driver and passenger of the motorcycle must wear long pants. The motorcycle must never be operated or ridden while wearing shorts. There must be some form of protection for the skin on the legs of the driver and passenger. It is worth noting that the lighter the fabric, the less protection the fabric offers in the event of a spill on the pavement.

The best form of protection is the leather riding suit, or simply leathers. These tight fitting leather garments offer protection from long slides on the pavement and deter penetration by blunt and sharp objects. A rider may be bruised during a fall, but large patches of road rash can be avoided by the use of leathers.

The driver and passenger should wear heavy shoes or boots that cover the ankles. Low cut sneakers should be avoided and sandals and bare feet are not even considered. Foot protection is very important in the event of a crash where the foot is caught underneath the motorcycle. The sturdier the footwear, the less damage that is likely to occur.

Upper body protection is also required. A motorcycle driver never operates the motorcycle shirtless. A T-shirt is the absolute minimum that can be worn. Better yet is a long sleeve shirt or jacket. Best is a leather jacket. The heavier the garment, the more protection that will be provided as a body

slides down the pavement.

In larger races, with big budgets, motorcycle drivers are provided with race apparel. In this case, due to sponsorship agreements, the driver should wear these garments during all race related activities. The motorcycle referee will wear black and white stripes.

FOUL WEATHER GEAR

When the weather turns rainy, it is advisable to wear a rain suit. There are many styles at different costs, but it is wise to buy the more expensive suits designed specifically for motorcycle applications. Select a rainsuit that is either yellow or orange in color. The rain suit will include rain gloves and rain boots. There is no more miserable experience than working in a bicycle race, in a driving rain, being cold, and being soaked to the bone.

DRIVING GLOVES

In nice weather, the motorcycle driver should wear some type of driving gloves. The gloves protect the hands in the event of a spill. The gloves also make the driver more comfortable during long events. Full fingered deer skin gloves are light and comfortable. Another good choice is the bicycle glove. Carry different weights of gloves for different temperatures.

EYE PROTECTION

Eye protection is also mandatory any time the eyes are directly exposed to the wind.

A windshield does not offer adequate protection. The only time eye wear is not necessary is when a visor is employed that covers the eyes. Use of eye protection is a law in most states. Glasses being used should employ shatter proof tempered lenses and have UV light protection.

There are many glasses manufacturers involved with bicycle racing. There will be times when a race is sponsored by a manufacturer that does not make your glasses of choice. The choice is left up to the driver, but it is bad form to wear a competitors glasses when a sponsor has invested big money in an event. Renegade eyewear may cause a manufacturer to drop an event or cause the promoter to drop the wearer.

ACCESSORY ITEMS

A few other things that are commonly overlooked are sunblocks, fluids, and race food. The nose and other areas of sensitive skin should be protected by sunblock to prevent sunburn and the possibility of skin cancer in the future. It will do the race no good if the driver is incapacitated by a severe sunburn. Select a sunblock that is at least 15, but stronger is better. Get the waxy kind that can be applied like a "chapstick".

The driver should also carry water or electrolyte drink, as well as food, to replace fluids, electrolytes, and carbohydrates lost during a long, hot race. The driver should never count on being taken care of by the race organizer or being

given the opportunity to stop and eat. He must take the responsibility to keep his own energy levels up. A word of warning to the well supplied motorcycle driver: don't give supplies to the riders. They will not be returned and the motorcycle driver will be without food and drink.

There are other items the motorcycle driver and passenger may wish to use, but these are additional items of personal taste that go above and beyond what is required. The motorcycle driver and passenger should take what they feel is necessary to remain happy and comfortable during an eight hour bicycle race.

The bottom line is to dress in a manner that affords the most protection in the event of a mishap. Dress for comfort to avoid the problems caused by fatigue. Dress with safety in mind. The motorcyclist must present the image of safety when in a position to be viewed by the public.

THE MOTORCYCLE

The motorcycle used in bicycle racing must be safe and mechanically sound. It must be meticulously maintained with service being provided by qualified mechanics. If the owner is doing the service, he should be very well-versed in his machine and what needs to be done to keep it in optimum operating condition.

MOTORCYCLE TIRES

The motorcycle must have the proper tires on the wheels. Off road tires (referred to as knobbies) are not acceptable, such as those found on dirt bikes and enduros. Rubber composition should provide good traction, since the motorcycle will be operated under severe cornering and wet conditions. Hard rubber compositions provide high mileage tires but reduced traction characteristics.

There must be matched and adequate tread patterns on both front and rear tires. The tires must be maintained at the proper air pressure. This is very important in obtaining a good "footprint" of the tire contacting the road surface. Low air pressure allows the sidewall to roll under and cause squirrely handling. Mismatched tire patterns can contribute to high speed wobble. Tires preferred by professional drivers are of the high performance sport touring or road racing type with good

handling characteristics on wet road surfaces.

Wheels must be balanced and properly maintained. Motorcycles in bicycle races are often operated at high speeds and handling must be precise. Out of balance wheels develop a hop and can cause loss of control while cornering at high speed.

BRAKING SYSTEMS

The brakes on both wheels must be operating within manufacturers specifications. Drum type brakes must be properly adjusted to be responsive and effective. Both drum type brake pads and caliper type brake pads must be inspected to assure adequate pad thickness. There can be no air in the brake lines, and if brakes feel spongy, lines must be bled by a qualified mechanic.

The rotors, drums, and brake pads should be inspected for glazing. Glazed or burned surfaces lose braking effectiveness. Also look for oil, grease, or brake fluid on these items. These materials also affect braking characteristics.

Races are often run in adverse conditions such as mud, dirt, rain, and snow. In these conditions brakes should be tested periodically to ensure they still function prop-

erly. These tests can indicate the failure of critical seals in disc brake calipers or frozen and seized drum brake mechanisms.

LIGHTS AND FLASHERS

All lights on the motorcycle must be working. If a bulb is burned out, it must be replaced immediately with the proper replacement part. Both high and low beam filaments in the head lamp must work. Turn signals and flashers must work as well, with defective bulbs and broken relays being replaced. Any breaks in the wiring harness must also be repaired or replaced. The horn must work and be very loud.

If a motorcycle does not come equipped with emergency flashers, the owner should consider having the flasher added. Emergency flashers increase the visibility of the motorcycle at greater distances. This feature increases the safety of the motorcycle.

FRAME CONDITION

The frame needs to be straight and tight. If there is any question about alignment, a mechanic should put the frame on a jig and bring it back into specification. If there is question about structural integrity following a crash, a mechanic should inspect all frame members and welds.

The swing arm and headset bearings must be properly adjusted and lubricated to prevent any high speed wobble from af-

fecting the steering and handling characteristics.

Front and rear shocks must be in good working condition. Front forks should have fluids and seals checked periodically and rear shocks that show leaks around the seals should be replaced immediately. Shocks that have lost the ability to dampen compression from bumps contribute significantly to the development of high speed wobble.

High speed wobble is a condition that can cause a motorcycle driver to lose control at high speed. The wobble is caused by harmonic vibrations that accumulate from loose wheel bearings, loose swing arm bearings, loose headset bearings, loose joints in the frame, bad shocks front and/or rear, under inflated tires, roll from horizontally mounted in line engines, and fatigued frame members. The handle bars shake uncontrollably as the frame flexes at the steering head.

Two simple tests can be performed to see if you might experience high speed wobble. First, set the throttle lock at 55 to 65 m.p.h. Remove the hands from the handle bars and tap the end of the throttle grip with the heel of the right hand. Handle bars on a properly maintained motorcycle will shake just once. If the front wheel begins wobbling and the severity increases, it's time to see the mechanic.

Second, while going through a sweeping corner at 50 m.p.h. close the throttle, causing compression braking, and take

the hands from the handle bars. With the frame and shocks compressed and everything stressed, you may experience wobble. If you feel wobble starting in either test, put your hands back on the handle bars immediately. Then go see your mechanic to have the problems corrected.

ENGINE

The motorcycle should have an engine with a minimum displacement of at least 500 cc's, with 750 cc's or more being desired. The engine should be of the four stroke design, either air cooled or water cooled. Engine configuration and number of cylinders is not important, as long as the engine can run at low speeds for hours at a time. Two stroke engines should be avoided.

Engine fluids should be checked daily during the bicycle race. Oil levels are brought up to maximum with the correct manufacturers brand and weight. Water cooled engines have the cooling fluids topped off. The motorcycle will be subjected to very harsh operating conditions requiring optimum lubrication and cooling.

The exhaust system should make the engine run quietly under all types of loads and conditions. The exhaust gases should be released close to the ground. Some exhaust systems on sport bikes point exhaust gases into the faces of cyclists riding behind them.

The engine and transmission need to provide enough torque for rapid accelerations when the motorcycle is fully loaded. Some motorcycles have highway gearing and cannot accelerate rapidly in first gear when traveling at a walking pace, such as on a steep climb. These kinds of motorcycles get overtaken in sprints and attacks.

DRIVER AND PASSENGER COMFORT

The motorcycle should be comfortable. The driver and passenger will be sitting on it for up to 8 hours at a time. The motorcycle should have a range of at least 150 miles per tank of gas. There must be room on board to store all the equipment and clothing required to work the event. This includes storage of rain suits.

IMAGE OF MOTORCYCLE AND DRIVER

When starting the race, the motorcycle should be cleaned and polished to make it presentable to the public. The overall image the driver tries to create is one of professionalism. Pride in the appearance of the motorcycle is part of the image. It takes a lot of time, work, and money to keep everything clean and in working order, but the event benefits from the effort. This is part of being a professional motorcycle driver.