Outline of Testimony of Ernie Adler
on
Lane Splitting By Motorcycles AB 236
on behalf of
NNVCOC

Purpose of Bill

To alleviate the problem that all motorcyclists in Nevada have when traffic is either stopped, or moving slower than 30 mph.

The over heating of air-cooled engines, heat exhaustion by the rider related to extreme temperatures, clutching, rear-end collisions, low visibility, all of which relate to stopped or slow moving traffic on Nevada's roads.

Potential Rider/Safety Benefits

1. Increased visibility for the motorcyclist. Lane splitting allows the motorcyclist to see traffic conditions ahead and to maneuver defensively; and

2. Increases reliability during warm weather; and

3. Relief of congestion; and

4. Reduces the number of motorcycle rear-end collision deaths, injuries and damage only crashes; and

5. Reduces the number of motorcycles rear-ending another vehicle resulting in deaths, injuries and damage.

Proposed Solution

We are proposing that all motorcyclists be allowed to move forward safely:

The evidence suggests that AB 236 will allow motorcycles to move safely through traffic, under the following circumstances:

1. When traffic is either stopped or moving slower than 30 mph; and
2. When the driver proceeds in a cautious and prudent manner.

Evidence

Information from the US National Highway Traffic Safety Administration (NHTSA) suggests that rear-end collisions are the most common type of collision dynamic for all vehicles in the United States.

Lane Splitting is actually a safety technique that removes the motorcycle and rider from the danger spot behind a stopped car, and places them into the more secure safety envelope that is created between two larger vehicles.

Studies show that nationwide the rear end crash rate in California, which has lane splitting, is lower than Nevada's or the Nation as a whole.

In a 2005-2009 comparison of motorcycle rear-end crash deaths to fatal rear-end crashes for all vehicles in four states (Arizona, California, Texas and Florida), showed that California rate was 7.3%, as opposed to 8.5% for the other three states.

Moving a motorcycle from behind traffic to a position next to traffic changes the risk to the rider. Comparing collision dynamics, a motorcycle that is lane splitting is no longer exposed to the full-force of a rear-end impact.

When a motorcycle is stopped behind another vehicle and is struck from the rear, the motorcycle and rider are exposed to an in-line contact. This is a full-force contact, where the vehicle's kinetic energy or momentum is transferred directly to the motorcycle, chances are very high that the rider will be launched from the motorcycle and will suffer injury. In a lane splitting crash the rider has a much greater chance of staying on his vehicle and not being thrown to the ground.

COLLISION AVOIDANCE

The following is an excerpt from the paper Lane Sharing as a Motorcycle Rider Safety Countermeasure, a Further Evaluation; published in the October 2012 issue of MOTORCYCLE CONSUMER NEWS.

Riders were tested as to how long it took the motorcycle rider to move out from behind and then just past the rear end of a stopped or stopping vehicle ahead in the same lane. This tested for a motorcycle from a stopped position to a position past the rear of a vehicle, including the time necessary to start and accelerate from a stopped position, as compared to swerving when the motorcycle is already moving.

There are a number of associated variables, such as perception and response time, immediate hazard detection with rider already scanning rear-view mirrors, etc. Combining the movement time for the motorcycle with the rider perception and response time gives a best case average of 4.25 seconds for a rider to move the motorcycle out of the path of a pending rear-end contact by a vehicle. For comparison, in a pending lane sharing contact, the perception and response time for a rider who

has detected the immediate hazard of a lane-changing vehicle in a cut-off situation, is about 1.25 seconds. It could be argued that the perception and response time could be closer to 1 second as in a lead vehicle situation. The difference between the lane sharing contact avoidance motion and rear-end collision avoidance motion is that in the lane sharing situation the motorcycle avoidance motion away from the vehicle is close to a parallel path of travel with that of the cut-off vehicle. That is, as the vehicle is moving laterally into the motorcyclist's path of travel the motorcycle avoidance motion to avoid contact is also in the same lateral direction of travel. Furthermore, the side movement into an adjacent lane for the lane-changing motion of a vehicle is limited when compared to its forward motion. This gives the motorcycle rider time to perceive and react to the vehicle in order to avoid a contact with or from the vehicle.

Distracted Drivers

With the increase use of smart phones it is believed that there will be more rear-end vehicle collisions. If this is true, lane splitting could reduce the number of motorcycle rider deaths and injuries.

Conclusions

Lane splitting allows a motorcycle rider who is stopped in traffic to move from a position of vulnerability to a position of relative safety. Also, on hot days it prevents the rider from overheating and possibly suffering heatstroke. Moreover, it prevents damage to air-cooled motorcycle engines, when the motorcycle is stranded in heavy traffic on a hot day.

References

1. Aiello, Joe - Motorcycle Joe on Lane Splitting - BergmanRiders.com. August 2008.
2. Lane Sharing Global Solution for Motorcycle Safety.
3. Unpublished testimony of Bobbie Hartman, before the Arizona State Legislature NCOM Legislative Task Force.
4. Motorcycle Safety Consulting, Lane Sharing: A Global Solution for Motorcycle Safety by Steve Guderian.