

# United Sidecar Association

**Newsletter No. 9**

**June 1977**

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The Newsletters will continue. In response to pleas from members the Editor will continue his efforts. But, he needs your help. Contributions urgently needed. We hope to expand our Technical Assistance Department and answer members inquiries.

We have had an inquiry and a new member from New York. He would like to know about braking. Hence the article written for the 3rd Wheel is published herein.

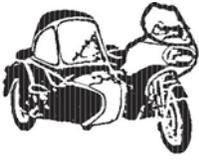
Terry Strassenburg is planning to install a R90/6 engine in a /2 frame and I know you know of someone who has done this. Any tips or suggestions will be welcome.

The Editorial policy is determined by the Editor and may or may not represent the views of the Committee or the Membership at large. All members are invited to air their views - just send them in.

As a Biker, several laws have been passed to restrict your freedom and action which you are or should be aware of. For example, it is desirable to wear a helmet for the right reasons. If worn for the wrong reasons they can be a nemesis. Several riders who were not ashamed to be counted spoke up and were responsible for the repeal of the compulsory helmet law in Illinois. You are encouraged to wear one, for the right reasons, but the choice is YOURS.

The lights-on law is another that has doubtful merit. Many bikes were not designed to operate with lights on at all times. Others have generators that simply cannot supply adequate current to run the lights and keep the battery up if the lights are on at all times. However, this is of minor consequence. Is the law effective? Does it reduce accidents and save lives? Or is it just another infringement of our vast dwindling rights? In every State which has had compulsory headlight laws there have been few reductions in accident rates. Rather, the reverse is unfortunately true in every case.

In one police controlled test, a motorcyclist was stationed at an intersection signalling to turn left with his light on. The motorists were stopped 200 yards down the road and asked if they saw the motorcyclist with his light on. 85 out 100 said they did NOT.



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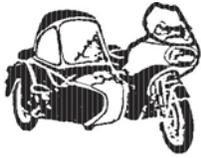
In another test a group of motorcyclists rode a definite route to work each day. They determined the number of times they were forced to take evasive action - either braking or swerving - to avoid the actions of a motorist. Slowing down without braking was not counted. This was done on several occasions with lights

on and on others with lights off. No significant difference in the number of evasive actions could be noted with or without lights. However, when the same group drove the same route but dressed to resemble motorcycle police, the number of evasive actions required DROPPED by 20 to 1. In other words, the Motorist CAN see a Motor-cyclist IF he wants to and the presence or absence of lights in the daytime does not appear to be a factor. Of course, if you feel having your lights on is beneficial, you should be allowed to have them on. But, you cannot force or inflict this on your fellow riders. And, of course, sidecar outfits are forced to comply with the present lights on law.

The State Representatives who feel the law should be repealed are: Cal Skinner (33rd), James McCourt (11th), Ben Polk (36th), Roger McAuliffe (16th), Lee Daniels (40th), Lawrence Di Prima (18th), Roger Keats (1st) and Michael McClain (48th). Most of these are on the House Motor Vehicles Committee which passed the law and can repeal the law. Cal Skinner is drafting such a repeal and is con-vincing the House to hold a hearing on the subject. I have been asked to testify. He cannot do this on his own and neither can I. Your support is necessary. The AMA is against the headlight law and so is ABATE. Write to me if you want to add your voice to support the right to repeal this law. And, write if you feel lights on are good and why with supportive evidence that they have been beneficial.

## **JUNE MEETING:**

Saturday 11th at 11:00 A.M. at the Cuckoo's Nest (formerly Plantation) in Monee. The earlier time seems to agree with everyone (a dozen showed up) and provides the opportunity for a club run for those who wish to participate after the meeting.



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## TO BRAKE OR NOT TO BRAKE

The debate on whether it is advisable, nay necessary, to install a sidecar brake is an everlasting controversy. This article will generally review the pros and cons of several set-ups. But, brakes cannot be discussed without at least a knowledge of braking systems and tires.

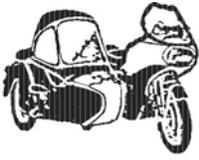
When a sidecarist obtains a mount, he must make certain modifications. All mounts manufactured today are designed for solo riding and the sidecarist is totally ignored. The wheels, for example, are designed only for vertical loading; hence roller or ball bearings are used and not tapered bearings which can withstand the tremendous side thrusts generated with sidehacks. Telescopic front forks are used and not the more rugged Earle type forks. And, tires are provided with a narrow footprint and tread on the sides to maintain tire contact when the bike is laid over. There is not much that can be done except for the tires. On all wheels, change to a tire with a flat footprint and get lots of rubber on the road, such as in a trials universal. The Metzeler Trial can be used front and rear or a Gelande B may be used up front. Avon make a special Triple Duty MK II tire for sidecar use only. The flat profile tread ensures maximum road adhesion, positive steering and cling rubber grip on wet roads; although Avon's SM.MK II may be used on the rear with excellent results.

There is a maximum effective combination to reduce one's forward momentum to zero which is based upon type of tire, type of road surface, dryness of road surface, type and condition of brakes and which wheels are braked.

Brakes can be improved to some extent by adding a second disk to a single disk up front; changing a single leading shoe brake plate for a dual leading shoe brake plate, using softer brake linings or pads to increase the coefficient of friction, using brake actuating levers with a higher mechanical advantage or by adding sidecar brake.

Just as it takes a fair degree of skill to handle a sidehack, so it takes some skill to handle a triple braked outfit. Have you ever slammed on your brakes only to find your outfit beginning an uncontrollable spin? Not only must you have good brakes, you must also know how to use them.

One setup often seen, is for the sidecar brake, mechanically operated, to be linked to the rear wheel brake. This is not generally satisfactory as the braking characteristics of both systems is markedly different, as is the load on each wheel. The sidecar wheel may lock up and cause the outfit to slew while the rear brake provides hardly any bite. Or else, the rear wheel will lock while the sidecar brake is hardly functional. Even if optimum linkage distribution can be achieved, sidecar load variations will allow unusual surprises to occur when braking.



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A better system is obtained when both the rear wheel and the sidecar wheel are hydraulically operated, especially if a variable power distribution valve can be used to adjust for sidecar load changes.

A less sophisticated system but one that affords extreme flexibility, is to have three independent brakes. With most solos, one foot and one hand brake are used. The sidecar brake can be operated by foot or hand. For example, I had one outfit equipped with a front dual leading shoe brake operated with the right hand; a dual leading shoe sidecar brake operated with the left hand (on a separate lever next the clutch lever) and a left foot operated rear brake, also dual leading shoe.

On my current machine, I have a dual disk front operated with the right hand; a single leading shoe sidecar brake operated with the right foot; and a dual leading shoe rear operated by the left foot.

### **The advantage of totally independent control is:**

The rear brake and sidecar brake can be operated at optimum conditions at all times if necessary; the sidecar brake is not used unless re-quired for an emergency; and the sidecar brake can be used to steer the outfit.

Upon approaching a fast right hander, only the sidecar wheel is braked allowing the outfit to slew sideways slightly while at the same time the changing down and opening the throttle. Even without a chair passenger you will be surprised at how rapidly you can now make those "S" turns and bends to the right. But do not try it on outfits with small engines (700cc or less). And practice on deserted roads until you KNOW what you are doing, starting at very slow speeds and gradually working up as you gain in skill.

Above all, know what your brakes can do, and check them regularly. Never run with less than 60% (riveted) or 40% (bonded) of the original lining thickness. Keep the lining dry and free of all lubricants. Keep all cables well oiled and all internal and external shafts oiled or lubricated. Your life may depend on your care in maintaining the brakes.

Hal Kendall

Secretary, United Sidecar Association