Hitchin' a ride

By Bill Brobst

Two-wheelers and four-wheelers have been at odds throughout this century over competing philosophies. Simply put, four-wheelers are dull, drab and practical, while two-wheelers are exciting, exhilarating and invigorating. Four-wheelers are transportation, while two-wheelers are recreation. Four-wheelers travel across the country, while two-wheelers travel through it.

When you bought your first motorcycle, you cast your vote firmly on the side of fun. Where you were going became only slightly more important than how you'd get there.

But when you're planning a long-distance motorcycle trip, staring at the mountains of clothing, riding gear, camping equipment and other such necessities that must be reduced to a comparative molehill to fit on your bike, it's hard not to yearn for that one great practical advantage of a car: the trunk.

Wouldn't it be nice, we've all thought at one time or another, to combine that kind of storage capacity with the pleasures of riding. Car makers have been trying to achieve that blend for years by building convertibles, but they've always come up short. After all, you can't have the satisfaction of tugging on the handlebars and feeling a convertible lean over into a curve.

The problem, however, may not be so much in the number of wheels as in their arrangement. There is a way to combine four wheels and a trunk with the inherent joys of motorcycling. It's just a matter of hooking up a trailer to the back end of your bike.

Ten years ago, trailers behind motorcycles were big attention getters, since there were probably no more than a few thousand in the country. Now, 40 manufacturers are producing more than that number every year.

Trailers do offer a lot of advantages over stacking a large load on the back of your bike, but *only* if both the trailer and the cycle are set up right to begin with. And that's where things can get tricky.

Have you read your motorcycle owners manual recently? Manuals for most cycles large enough to pull a trailer contain a clear statement regarding their use. They say, in simple language, "Don'tl! Motorcycles aren't designed to pull trailers." Most auto makers put the same kind of disclaimer in their owners manuals, especially for small cars. The manufacturers say this not because trailering is necessarily dangerous, but to protect themselves against possible lawsuits. Riders might misuse a trailer, or use an untested homemade trailer rig whose instabilities might cause an accident.

Because of this attitude, you can't just consult an official source for information about how to haul a trailer behind your bike. Instead, your best bet is to talk to people who have tried it, particularly with your model of motorcycle. And, as a result, most of the information about motorcycle trailering (including this article) consists of opinion, personal experiences and educated guesses rather than proven fact.

It is a fact, however, that trailers are becoming increasingly common, particularly behind bigger touring bikes. And, of course, the manufacturer's disclaimer makes it neither illegal nor necessarily unsafe to pull a trailer. It's a matter of personal choice.

How big a cycle do you need to pull a trailer? There are lots of rules of thumb, most of them without real scientific basis. One says that the engine size (in cc's) should be twice the loaded weight of the trailer. If you're riding two-up, add the passenger's weight to the trailer weight, and apply the rule of thumb. Obviously, smaller bikes can pull heavier trailers—they do it all the time. But pulling too heavy a trailer puts great strain on the engine and devastates the gas mileage and high-speed performance.

Another rule of thumb relates to braking power. If your bike has dual disc front brakes and good rear brakes, and you're riding two-up, the loaded trailer weight should not exceed half the loaded cycle weight. But then there are all sizes of thumbs.

The main obstacle you have to overcome in hooking a trailer to a motorcycle concerns articulation. No, that's not something you do in the privacy of your home. It just means that the rig has a joint in the middle. The combination of two rolling pieces connected in this fashion results in a dynamic and uncertain relationship. Whatever one piece

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braking force. Practically speaking, most couplings end up near the axle height, usually in line with it or slightly above. In any case, a higher mounting, near the seat height for instance, will seriously decrease rear braking force and take its toll on handling.

The most common method of attachment is with a 1 7/8-inch ball on the hitch mount. The trailer coupler should have a 360-degree swivel. The ball bolt should closely fit the hole in the hitch mount. If the hole is too large, use a bushing to take up the slack. Also, a lock nut is mandatory to prevent loosening of the ball under the vibrations that exist with all cycles. A loose ball causes rapid wear and possible loss of the trailer.

Keep a thin layer of grease on the ball. It gets a bit messy at times, but will help to ensure that the coupler doesn't seize on the ball. Also, for the same reason, don't over-tighten the coupler onto the ball. And, to protect your coupling and your clean hands, install a mud flap. The mud, grease, road oil and little stones that mess up hands, tongue and trailer face will be greatly reduced.

A lot of cyclists worry about what changes to make in the cycle's suspension system for tailering. Actually, nothing is needed. The stock system is quite adequate.

Tongue weight should be about 8 to 10 percent of the loaded trailer weight; definitely not much less. Too light a tongue weight results in trailer sway. A typical trailer tongue weight is from 30 to 40 pounds (static). At speed, it's usually a bit less, due to aerodynamic tongue lift (caused by air pushing against the front of the trailer). Most of the extra weight is suspended from the top rear shock mount. That's not significant, considering the weight of a passenger or the gear piled on the back.

Once you have the hitch installed, there's one final modification you must make to your motorcycle before you take your trailer out on the road. Legally, you must have taillights, running lights, brake lights and turn signals hooked up on the trailer. Most riders splice in a four- or five-wire connector at the back end of the bike to handle these extra lights. However, you should be aware that some bikes may experience electrical problems if the wires are not spliced in at the right place. The best advice is to talk to someone who's done this work on your model.

With the final connections made, you're ready to hitch up a trailer and give your rig a trial run. Remember, as with any new equipment, take it easy at first. It will take a while for the strange sensation to disappear, but soon you may even get to the point where you enjoy dragging your tail. And we're sure you'll enjoy the extra room a trailer gives you when you take that first long-distance trip. AD