Chapter W2 – Memphis Gold

June 2009

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Meeting Time – 1st Thursday of each month
Eat at 6:30 PM – Meet at 7:30 PM
Perkins – 1340 S Germantown Rd.
Germantown, TN

From the Chapter Director
By: Glenda Keough

May has been pretty much another washout month, at least on the weekends. I don't know about everyone else, but I'm ready for all this rain to give it a rest for a while. We were able to make bike night on Beale street a couple of times this month and as always had a great time. A few of us were also able to make it to the rain delayed ride for Agape children's services. We had a good ride through the north Shelby county countryside and then back to Arlington for hot dogs and hamburgers with all the fixins' and drawings for lots of door prizes. The weather was a little iffy, but a few hit & miss light sprinkles didn't dampen anyone's spirits. The ride raised around $3,000.00 for the organization and by all accounts was a success.

I have my fingers crossed that June will be a little kinder to us than the past two months have been. We have a ride to Lambert's in Sikeston, MO planned for June 20th. What a fun place to eat. Just remember that they don't accept plastic, so you will want to bring some of the green stuff with you when we go. Also, there is a group planning on riding to Clarksville for chapter Q's fun day. We will leave Friday, June 5th and return on Sunday, June 7th. More details about those rides at the June meeting. And too, I hope you plan to participate in the Altzheimer's Association "Ride to Remember" poker run on Saturday, June 27th. If the weather will cooperate we should have lots to look forward to in June.

Don't forget the June meeting is Thursday, June 4th at the Perkins Restaurant on Germantown Parkway at Wolf River Boulevard. I hope we'll see you there.

Glenda

W2'ers are ready for the AGAPE ride.

RIDER EDUCATION
By Alan Keough

What is countersteering?

Written March 29, 2007
By Ian Johnston

Introduction

Countersteering is a source of contention among motorcyclists. Some believe it exists or is effective, others don't, and some are effectively agnostic. In this article, I hope to explain to you why it exists, how it works, and why you want to know how to use it.

I don't have any "official" credentials to offer on my knowledge of this. I've done experiments with my own bikes to satisfy myself that what I present here is correct. I urge you to (safely) do your own experimentation. If you are riding a motorcycle and haven't yet taken a safety training course, such as those offered by Team Oregon or the MSF, I urge you to take one as soon as you can.

First, a quick definition. Wikipedia (currently) defines countersteering like so:

When riding a bicycle or a motorcycle, countersteering is a method of initiating a turn by a small, momentary turn of the front wheel, usually via the handlebars, in the opposite (counter) direction.

That's a good definition, but it's dry and isn't very illuminating. (Not to criticise Wikipedia -- it's just that you're probably here because the textbook explanations haven't helped.) Note that an important part you may have skipped is that it's the way of *initiating* a turn. Don't confuse countersteering with steering where you want to go, as long as the bike is balanced.

My own (dry, unilluminating) definition is like so:

Countersteering is the act of turning a two-wheeled cycle in one direction by momentarily steering the front wheel in the opposite direction.

Note that there's nothing in there about steering into a turn. You will obviously need to, especially at low speeds, but that's just *steering*, and is no longer *counter*steering.

Wait, This is Long, Why Should I Care?

In short, the reason you care about all this is that the only safe, sure way of controlling a bicycle or motorcycle is with countersteering. Shifting your weight or thinking "lean right" aren't enough. Countersteering is precise, happens exactly as you command it to happen, and can be applied at a moment's notice. It will save your life. It will make your riding better.

If you'd rather watch a quick version, try this on for size:

What is Balance?

To start out with, let's establish some basic ideas about balance. Imagine, if you will, that you're standing with your right foot two feet (or so) in front of your left, so they're in line. Naturally, you're going to be balancing your body in a side-to-side way rather than the front-to-back you normally do when they're next to each other in a natural standing position.

Now, imagine that your left foot, in the back, is glued to the floor. It can't move, for the purposes of this mental experiment. Your right foot, in front, can move side to side, but you can't move it backwards.

Just so you know why I'm putting these weird limitations on the experiment, this simulates the wheels of a motorcycle or bicycle. Your right foot is the front tire, and your left foot is the rear tire.

Now, let's add some dynamism. If someone pushes you to the right, how do you move your forward foot? You pick it up and move it right, to counteract the force, so you don't fall over toward the right. A push to the left? Move your foot to the left. Feel free to stand up and try it out, it may make more sense if you actually do it.

Now, imagine that you want to *lean* to the left. Which way do you move your foot? It goes to the right, to push you to the left. It's not much of a move, but certainly if you move your foot to the left, that's not going to give you much lean to the left. Sure, you can do it, but if you had springs holding you upright, you'd have to move your foot right and push against the spring force.

This is a silly sort of introduction, but it gives us the foundation of how a two-wheeled, single-track vehicle like a bicycle or motorcycle works.

On your Bike

Now, let's move our imagination to the bike. It doesn't matter if we're talking about a motorcycle or a bicycle (or a weird ski-based vehicle which has two skis inline like the tires on a bike).

You can try these things on your bike, but if you do, do it in a safe area where you don't have to worry about cars or potholes or dogs or anything else. For some of this discussion, that means a racetrack, so keep that in mind before you try everything out.

Now, let's consider low speed. Many people argue that countersteering doesn't exist at low speeds. Indeed, that *seems* to be the case: it feels exactly as though you can just turn the bars toward your intended turning direction, and you go there. I'm talking about *low* speed, like 3-5 MPH.

Think back to our earlier experiment, with your feet in line with each other. Stand up now and do it. See, if you shift your butt just a little bit to one side, you can start leaning the other direction. But if you don't shift anything (don't cheat with your arms, I'm watching), you can't start a lean. This demonstrates one way in which countersteering "doesn't exist" at low speeds. Just shift your butt a little bit, and you can start steering the direction you want to go.

Now, try going the other way. Without shifting any weight (you'll have to do this on the bike, unless you have some kind of cool slide-o-gizmo for the standing experiment), press very lightly on the right handlebar. That turns your wheel to the left. You immediately and decisively fall over to the right. Gently! I'm not trying to make you fall over, so turn into the fall to pick the bike up before it goes very far. Consciously countersteering at low speed can drop your bike on its side before you know what happened.

What does this demonstrate? It shows that countersteering *does* exist at low speed. Really, go as slow as you want, if you do it without shifting your weight, pressing on the right bar will always make you fall over to the right. That's countersteering. You have to steer left to go to the right. (Although granted, as I showed above, you can do it other ways than countersteering -- that doesn't mean countersteering is an invalid option, though.)

You should be aware that trying to consciously countersteer at very low speeds can be dangerous, as even the slightest handlebar input has a large effect on the bike.

Here is a brief video demonstrating slow-speed countersteering:

Speed It Up a Bit

Now, let's go a bit faster. Call it 12-13 MPH. That's where most people claim countersteering starts working. Gently, push on that right handlebar again. (Or left, of course, either way works the same.) Now, it starts to get obvious, particularly on motorcycles. The bike leans to the right, even though you just pointed the front wheel to the left. The more you turn the wheel to the left (ie, push on the right bar), the faster the bike heels over to the right.

Now, at this speed, what do you do to keep from just falling flat on your right? Turn into the curve. On a bicycle, even at this speed, it happens so fast it's over before you know it. Narrow your focus down to the quarter of a second between when you're going straight, and when you're turning right.

One way of proving that this really happens (particularly at higher speeds) is to set up a video camera as I did above -- near tire level, aiming at the front tire. Ride at the camera, and look for that twitch as you swerve away. You can see that method demonstrated in the following handy video:

Speed It Up Some More

Ok, now we're into motorcycle territory. Bicyclists, if you can find a big open hill, you can demonstrate the same thing, but we're really into motorcycles-only at this point. We're talking about 40-50 MPH.

Find a straight that goes into a curve, or a really big open parking lot. Do the same thing again: at speed, push on that right (or left) bar. The bike smoothly leans over, leaning faster the harder you push. It's really obvious at this speed.

Ah, but now comes the time when you want to stop leaning. The goal isn't to fall over, it's to turn. Now, you steer the wheel back towards the curve -- you reduce pressure on the right bar. On some bikes, you might actually completely relax that countersteering pressure. On some bikes, you'll maintain some pressure on the right bar to keep the bike leaned. Whatever the case, you've reduced your countersteering force to go the direction you want to go.

Top Speed

Ok, now get going as fast as you safely can. The faster the better, for the purposes of illustrating this principle. Let's call it 100 MPH (on a closed track, of course).

Now, give the right (or left) bar a gentle shove. Nothing happens. Push harder. Harder. *Now* it starts leaning, but you have to push *hard*. It's still countersteering. You steer left (quite hard left, usually) to go right. In order to stay leaned over, you'll probably maintain quite a lot of pressure on the right bar (steering left).

Once the bike's been leaned over at high speed, the geometry of the bike actively works to stand it back up again. In order to maintain a given lean at speed, you'll actually be "countersteering" in the sense of pressing constantly on the turn-side grip. The wheel may not be pointing away from the turn, but you're fighting the bike's built-in desire to turn into the lean and pick itself up to straight-and-level.

(**find out more next month**)

For Sale **$1950** Kawasaki Eliminator
Call Ron - 861-2143 2001 BN125

MINT Condition
65 - 70 MPG

For Sale **$3500** Honda Reflex
Call Ron - 861-2143 2004 NSS250
Mint Condition 70 MPG Easy and FUN to Ride

Engine Type: 249cc liquid-cooled single-cylinder four-stroke
Bore and Stroke: 72.7mm x 60.0mm
Compression Ratio: 10.5:1
Valve Train: SOHC; two valves per cylinder
Carburetion: 30mm CV with auto-en-richer
Ignition: Fully transistorized
Transmission: Automatic V-Matic
Front Suspension: 33.0mm hydraulic fork; 3.9-inch travel
Rear Suspension: Single-side swing arm with dual hydraulic shocks with seven-position spring-preload adjustability; 4.7-inch travel
Front Brake: Single 240.0mm disc with CBS three-piston caliper
Rear Brake: Single 220.0mm disc with CBS single-piston caliper
Front Tire: 110/90-13
Rear Tire: 130/70-12
Wheelbase: 60.8 inches
Seat Height: 28.3 inches
Dry Weight: 351.0 pounds
Fuel Capacity: 3.2 gallons

Top of the line – HANDY Motorcycle Lift
PRICE for everything listed below
$750

1) Handy Lift – new price is $908
2) CV – 17 Vise for lift – new price is $143
3) 12 inch wide side extensions for lift – new price is $212
4) Handy Lift Dolly used to move lift – new price is $61
5) Universal scissor jack – new price is $195
6) Air Compressor for lift (Sears) – new price is $300

Total $1819
(Note: have original manual for lift)

This is the best lift on the market today. It is the professional model that will lift up to 1500 pounds (note: this lift will allow you to service your motorcycle, four-wheeler or riding lawn mower). While it is used it is in excellent condition. Contact Ron Page at 861-2143 to view the lift.

Todd Ferrell taking a curve on Deals Gap.

June 2009

Sun	Mon	Tue	Wed	Thu	Fri	Sat
	1	2	3	4 W2 Meeting	5	6 N Meeting
7	8 Brenda Hopper B-Day	9	10	11 MS-Y Meeting	12	13 I Meeting
14 Flag Day	15	16	17	18	19	20 Lamberts Ride
21 Father's Day – D2 Meeting	22	23	24	25	26	27
28	29	30	1	2 Wing Ding	3 Wing Ding	4 Wing Ding

Hey! Wanna Race?

Do I have to read what I'm signing?

GWRRA Memphis Gold - W2
9116 Deer Meadow Dr
Cordova, TN 38016