

Syracuse H.O.G. Monthly Newsletter Volume XXII, Issue 7 – July, 2015







By Ken Yackel:

SCREAMIN EAGLE CAFE RIDE

Sunday June 7th was the start of a great 300 plus mile ride. The ride started at 9:30 however riders started showing up at 9:00. At 9:30 after a quick ride meeting and making sure we were all current members, 10 bikes and 13 riders headed out for a day of fun and food. Our first fuel and hydration stop was at the Nice n Easy in Barneveld. After getting fuel and water, off we went heading towards Inlet NY. The ride up Route 28 was very pretty, and we saw a lot of wildlife along the way. Upon arrival at the Screaming Eagle, the staff had tables set up waiting for us.

After a very filling lunch and Mary Amyot wrestling with her drink and some fried pickle, we were off again heading towards Speculator and Poland along Route 28 North. Several young deer were crossing the road so we had to slow down and be very cautious. The ride down 30 was a beautiful route passing many small lakes and rivers. Our destination was to be Wades for ice cream. With the ride leader, me, watching the GPS instead of listening to Deb yelling at me WRONG WAY WRONG WAY we ended up at Stewarts in Poland. However some who knew better did turn on 365 and had some great goodies at Wades. Over all, it was a great day for riding with great friends. In ending it was a great day to SADDLE UP AND RIDE.

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Meeting Minutes - June 21, 2015

By Debbie Yackel, Assistant Director:



The meeting was called to order at 10am by Director Bill Becker who then led us in the Pledge of Allegiance. Bill then wished the all the Fathers in attendance a Happy Father's Day and then welcomed new members Christopher Croad and Shari Clubine and guests. Rich Milazzo our HOG Manager thanked

everyone who volunteered for the MDA Ride for Life and those who came to the dealership and welcomed the Ladies of Harley visitors. Rich reported that the rest of the workshops have been postponed and will most likely take place during open house and demo days. Rich also spoke of the fashion show that will take place in September, the Dinosaur on Wednesdays and Sharkeys on Thursdays, and the PHD mobile app, as well as, discussing options that are STILL IN THE WORKS, regarding discounts, events, etc. So check out the PHD mobile app and see what's happening.

Assistant Director Ken Yackel also thanked everyone who participated in the MDA Ride for Life. There was a great turnout from HOG!

The Treasurer's Report was given by Marj Canino, who is now our new treasurer and will be working with Dick Davidson for a little while. Marj reported that we are in good shape for the picnic in September and our Annual Dinner in January.

Membership Officer Jim Shepard reported that as of today's meeting we have 150 paid members. Jim will be stepping down as Membership Office and Secretary Debbie Yackel will be managing the membership until a replacement is found. If you are interested in replacing Jim, please see Ken.

Road Captain Kevin Reney went over the upcoming month's rides that are scheduled. Check the website as there have been a few changes. Kevin reiterated again that if you need to change, cancel, or reschedule a ride, you NEED TO CALL KEVIN ASAP and let him know so an update can be sent out via our website and text message updates and a message left at the parts counter regarding the changes. Kevin also mentioned that you need to read the whole email not just the heading. Make sure you scroll all the way down as the heading may or may not pertain to the email.

Safety Officer Rob Gabor spoke of the annoying car driver that speeds up and then slows down over and over as you are trying to pass. Rob saw this happen while he was riding in Las Vegas and a biker was killed. So please let the annoying driver go and back off and be safe.

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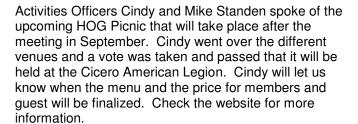
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Community Service Officer Karen Whedon was not in attendance but sent a message that the turnout for the MDA Ride for Life was profitable for them and also thanked the volunteers and HOG's that attended.

Webmaster Chris Blakley wants to make sure everyone is signing up for the text message alerts. If you have not signed up yet, please see Chris.

Editor Rob Gabor is looking for submissions for the newsletter. If you have a few pictures that you have taken when you've been on rides or a write up about a ride you have been on, he would like to put them in the newsletter. It's a club newsletter, not just for the officers.

Garry Canino our Historian became a Lady of Harley on June 6th. Garry along with other HOG members met the 2 ladies that were traveling across the country on "The Inspired Ride." The women completed their journey on June 20th in San Francisco.

New Business – Cindy Standen talked about how bad Spencer Street is with potholes and has devised a petition to fix the roads around the dealership. Cindy is looking for volunteers to knock on doors and getting signatures for the petition. If you are interested in helping out, see Cindy. John Snyder told us that there is a website that pertains to reporting potholes. The more complaints, the better the chances are that they might be fixed. Barb Snyder, John Snyder, Dick Davidson, and Bob Davidson are going to the NYS Rally and will be helping out with the bike games. If you are interested in volunteering, contact Barb or Dick.

T-Shirt Bingo – this month's state was DELAWARE. There were no winners and the pot increases to \$30. A motion was made and the meeting was adjourned at 11am with 40 members in attendance.





LADIES OF HARLEY

By Terry Lynn Clark:



Hi everyone. Summer is here in all her glory... heat and rain. I hope everyone has had a chance to enjoy the sunshine in between the raindrops.

Last month I made my annual trip to the MidAtlantic Women Motorcycle Rally, (MAWMR) to raise money to support two cancer support groups. One is called HOPE, the other is Pinkout. These groups support women with cancer, helping with expenses not covered by insurance.

The members of the group have fund raisers during the year and during the Saturday night dinner, checks are presented. This year the attendance was low, 135 women but \$26,000 was raised for the charities.

Each of the three nights there is a DJ under the tent for entertainment. During the day there are self-guided rides, games, tat contest, biker games, a silent auction and vendors. Saturday night there is a guest speaker as well as an auction to raise more money.

We have been in Gettysburg for over 10 years, this coming year the event will be moved to Shepardtown, West Virginia. The date will be June 16-18, 2016. Check with me and I will give you the website to check it out.

Please ride safe and see you in the wind.





DIRECTOR

By Bill Becker:



Well...so far it's been HAZY, COOL, HOT, HUMID and at times RAINY! I guess you could call it your typical Central New York Summer!

I would like to start off by THANKING all of our members who once again that made the MDA's "Ride for Life" a HUGE success. This was the 9th Annual Ride and it had the most bikes registered ever! The Onondaga County Sheriff's Office assisted in providing our group with traffic safety, doing a fantastic job in ensuring all of the course intersections had a Deputy standing by to wave us through. We had both a very large group of HOG Volunteers who assisted preevent parking and road guards making this event a big success.

Unfortunately, July starts to moves us closer to Labor Day, but don't worry we still have a calendar full of great rides to get involved in. Not to mention some other fantastic club events created by our own Cindy and Mike such as the September Picnic. If you are new member to the Club and have not heard about this yet, please don't hesitate to introduce yourself and get involved in some of our scheduled rides. Just ask any one of the club's officers and they can tell you what we are all about, and how you can get involved.

RIDE and Stay Safe!

ACTIVITIES OFFICERS

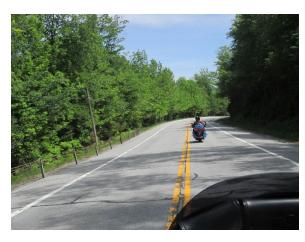
By Cindy & Mike Standen:

It's July already – seriously??? Where did the last 6 months go?

Can you believe it's time to start thinking about our Annual Picnic? This year we have decided on the Cicero American Legion for our picnic following our September 20th meeting. They'll be the usual ride planned from here to there where we'll enjoy some fun & hopefully a sun-filled afternoon chowing down some BBQ Ribs, Roasted Chicken, Hotdogs & Coneys along with all the fixings. Cost to members is \$10.00 (with the Club picking up the difference) and Guests/Non-Members charge is \$20.00. Please make your checks payable to Cindy Standen and mail to 343 Snowdale Drive, Syracuse, NY 13209 or give them to us at the upcoming meeting or any ride we might join you on. We need your name and the name of your guest on the memo line of the check.



Last meeting we told you about our endeavor to try to bring the City to recognize the horrible conditions of Spencer Street from PHD down to Hiawatha Blvd. We began a petition which we'll be working on the next few months. Just before the



July 4th Holiday Mike and I hit the streets visiting about 19 of the 50 or so businesses on Spencer. We saw a great response from the businesses and will continue to get signatures and move forward with this little project. Please take a moment at the July meeting to read and sign the petition – we'll be passing it around.



And remember.....Freedom and Wind Outlast Hard Times!



MEMBERSHIP

By Debbie Yackel:



As of today's meeting, we now have 150 paid members.

The following National Memberships are expiring:

July 2015

Michael E. Christopher Paul Klimsa James S. Popielarczyk Jack Soccio

August 2015

Bernie Antonio John Ebert Larry Robinson Lisa Sheremeta Calvin Simmons

September 2015

Christopher Blakley Joseph Noboa

HEAD ROAD CAPTAIN

By Kevin Reney:



Due to the possibility of multiple posts going onto the Web site on any given day, pay attention to the daily emails.

If multiple posts go up on a single day, they will all be shared via one email!

ASSISTANT DIRECTOR

By Ken Yackel:



I would like to start by saying thank you to all the Syracuse HOG Members that either rode or helped out at the MDA Ride. It was great to see that turn out.

Also lets all welcome Marj Canino, as our new club treasurer. We are also looking for a member to take the membership officers position, Debbie is filling in for the time being. If interested please contact myself or Debbie. If anyone is interested in mentoring for any other positions contact one of the officers for information.

Cindy and Mike Standon have put a lot of effort into making this year's Club picnic an event to remember, so let's have a big turn out this year and all have a lot of fun.

In closing I must say that Batwings rule, so saddle up and let's ride.



SAFETY OFFICER

By Rob Gabor:



This month, I will address counter-steering with this article. Enjoy the long read as there's plenty of useful information here.

Counter-steering

By James R. Davis

Everyone who has driven a motorcycle has experienced it, the MSF classes mention (but don't explain) it, and motorcyclists discuss it all the time. But what is it, really? How does it work? Why does it work? All questions I will try to deal with in this discussion.

At very slow speeds we steer a motorcycle by turning the handlebar in the direction we wish to go. We can only do that at speeds of less than about 5 MPH. At any higher speed we do the exact opposite, whether we realize it or not. For example, assuming we want to turn to the right, we actually TRY to turn the handlebar left. This results in the front wheel leaning to the right and, as a result of the lean of the wheel, a turn to the right. This is counter-steering.

Why is it that we don't get confused regardless of our speed? Because we have learned that steering a motorcycle is an effortless chore. That attempt to turn the handlebar to the left FEELS like we are pushing the right grip rather than pulling on the left one. It feels like that because the harder we push it, the more the motorcycle turns to the right and, thus, it feels like the right grip is pushing back at you that much harder. In other words, we quickly learn to associate counter-steering feedback with the hand closest to the direction in which we wish to turn. Further, even a little bit of experience shows that counter-steering is essentially <u>effortless</u> while trying to turn the handlebar in the direction you

want to go is virtually <u>impossible</u>. Humans are relatively fast studies, after all.

It takes only a modest familiarity with a gyroscope to understand counter-steering - at least to understand how most people believe it starts to work. The phenomenon is called *Gyroscopic Precession*. This is what happens when a lateral force is applied to the axis of a spinning gyroscope. The spinning gyroscope translates the force vector ninety degrees off the direction of spin. Thus, if we try to turn our front wheel to the left, the force we use appears as a lateral force forward against the axle on the right side and this is translated into a force that tries to lean the wheel to the right. Similarly, trying to turn the wheel to the left.

But gyroscopic precession is not a necessary component of counter-steering. No matter how slight, if your front wheel deviates from a straight path your motorcycle will begin to lean in the opposite direction. It is entirely accurate to assume that even without gyroscopic precession, the act of steering the front wheel out from under the bike would start countersteering in the opposite direction. This is a result of steering geometry - rake. You can observe it at a complete stop. Just turn your handlebars in one direction and you will see that your bike leans in the opposite direction as a result. [Please note that though gyroscopic precession is not a necessary component of countersteering it GREATLY facilitates it. Indeed, it is the precession of the REAR tire that results from the momentary change of direction of the bike that 'pushes' about 80% of the bulk of the bike into a lean in the direction you want to go.]

In the case of a motorcycle, your handlebar input is immediately translated by gyroscopic precession into a lean in the opposite direction. Since your front wheel is attached to the bike's frame, the body of the bike also attempts to lean. It is the lean of the BIKE that overwhelms the handlebar effort and drags the front wheel over with it - gyroscopic precession merely starts the process and soon becomes inconsequential in the outcome.

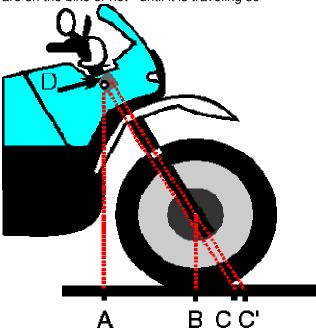
If, for example, you had a ski rather than a front wheel, the front would actually begin to turn in the direction of handlebar input (just like it does with a wheel instead of a ski) and body lean

Safety continued:

in the opposite direction would then overwhelm that ski making counter-steering still effective.

The ONLY WAY to turn a motorcycle that is moving faster than you can walk is by leaning it (if it only has two wheels). We have talked only about what starts that lean to take place. Indeed, all we have talked about is the directional change of the front wheel along with the simultaneous lean of the bike, both in the opposite direction signaled by handlebar input. So then what happens?

Before getting into what is actually somewhat complicated let me say that if you were to let go of your handlebars and provide no steering information whatever (or you were to get knocked off your motorcycle), after some wildly exciting swings from side to side your motorcycle would 'find' a straight course to travel in and would stabilize itself on that course, straight up! That's right, your motorcycle has a self-correcting design built into it - known as its <u>Steering Geometry</u> - that causes it to automatically compensate for all forms of leaning and speed changes and end up standing straight up, going in a straight line, whether you are on the bike or not - until it is traveling so



RAKE GEOMETRY

slowly that it will fall down. This diagram shows

a typical motorcycle front-end. The handlebars are connected to the steering column, which is connected to the knee bone, which is... Oops, wrong discussion. The steering column (actually called the 'steering stem') does not connect to the knee bone, nor does it connect directly to your forks! Instead, it connects to what is known as the $\underline{triple-tree}$ (shown as \underline{D} in the diagram.) This is merely where both forks are tied, along with the steering stem, to the bike's frame. You will notice that the triple-tree extends towards the front and that as a result the forks are offset forward some distance from the steering stem. (Notice the red diagonal lines marked \underline{C} and $\underline{C'}$.) This is known as the *offset*.

Now please notice that the forks are not pointing straight down from the triple-tree, but are instead at an angle. This angle is known as the \underline{rake} . Were it not for that rake (and modest offset) the front tire would touch the ground at point \underline{A} . (Most rake angles are approximately 30 degrees.)

What the rake does for you is profoundly important. For one thing, it causes any lean of the wheel to be translated into a turn of the wheel towards that lean. For another, it slows down your steering. That is, if you turn your handlebar 20 degrees at slow speed your course will change something less than 20 degrees. [At higher speeds you NEVER would turn your handlebars 20 degrees - the front wheel is <u>always</u> pointing virtually straight ahead.] Rake, in the case of higher speed turning then really does SLOW DOWN the realization of the turn. (We will see why soon.)

Looking at the diagram, imagine that instead of pointing to the right the wheel is pointing straight at you. (The body of the motorcycle remains pointing to the right.) You will now recognize that the *contact patch* which was B before the wheel turned has now got to be near where C' is at. In other words, the fact that your wheel is on a rake results in the consumption of part of your steering input into a displacement of the contact patch of the wheel. (This is why steering is 'slower' - and the greater the rake, the slower it is. Note that 'slow steering' is NOT the same as 'under-steer'.)

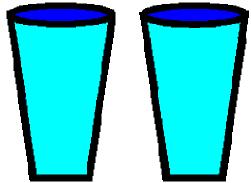
Notice also that where the red diagonal line marked $\underline{C'}$ touches the tire is higher than where B touches the tire. This demonstrates that a

Safety continued:

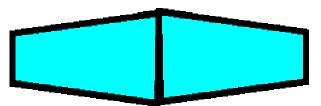
consequence of turning is that the front-end of your motorcycle actually lowers based on rake geometry. The distance between where \underline{B} and \underline{C} (not \underline{C} ') touch the ground is called \underline{trail} . (Trail, as you can see, is determined by rake angle, offset and tire radius.) Some motorcycles will have the hub of the front wheel either above or below the forks rather than directly in the middle of them. In effect, these placements are designed to reduce or increase the effect of the offset in order to increase or reduce trail.

The stability of your motorcycle at speed is a function of how long its trail is. However, have you ever noticed that the front wheel on bikes that have excessive rakes (and therefore long trail) have a tendency to flop over (at low speeds) when they are not aligned perfectly straight ahead? This is the phenomena that explains just one of the reasons why your wheel actually turns in the direction you want to go after it begins to lean in that direction. Any lean whatever of the wheel, because gravity tries to lower the front-end, receives an assist from gravity in its efforts to move the contact patch forward along the trail. Further, notice that the pivot axis of your forks is along C, not C' and that this is behind the bulk of the front-end. Thus, gravity plays an even bigger role in causing the wheel to turn than at first glance it would appear. (And now you see why you have steering dampers - so that a little lean doesn't result in a FAST tank-slapping fall of the wheel in the direction of the lean.)

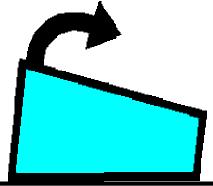
But there is another, more powerful, reason that the lean is translated into a turn - <u>Camber Thrust</u>. Unlike automobile tires, your motorcycle rides on tires that are rounded instead of flat from side to side. When you are riding vertically your contact patch is right in the middle of the tire, at its farthest point from the hub of the wheel. When you are leaning you are riding on a part of the tire that is closer to the hub of the wheel. The farthest parts of the tire from the hub of the wheel are TURNING FASTER than any part closer to that hub. Thus, when you are leaning the outside edge of the contact patch is moving faster than is the inside edge.



Imagine taking two tapered drinking glasses and putting them together as in the next diagram. Does this not bear a striking resemblance to the profile of your tires when looking at them head on?



Now imagine placing one of those glasses on its side on the table and giving it a push. Note that the glass MUST move in a circle because the lip of the glass is moving faster than any other part of it. The same is true of your tires. This camber thrust forces your wheel to turn in response to a lean.



Thus, both the rake geometry and camber thrust conspire to cause a leaning front wheel to become a turn in the direction of the lean. Then, of course, the motorcycle body follows the wheel and it, too, leans in the direction of the turn.

Safety continued:

So, now you know what counter-steering is, how it works, and why. What might just now be occurring to you is with all of these forces conspiring to cause the wheel to lean and then turn in the direction you want to go, what stops that wheel from going all the way to a stop every time a little counter-steer is used? And, as I earlier mentioned, how does a pilotless motorcycle automatically right itself?

The answer to both of those questions is centrifugal force and, again, rake geometry. For any given speed and lean combination there is only one diameter of a circle that can be maintained. This is a natural balance point at which gravity is trying to pull the bike down and centrifugal force is trying to stand it up, both with equal results. (If you have Excel on your system you might want to click on this link for a model that demonstrates this concept.)

If the speed is increased without a corresponding decrease in the diameter of the turn being made, centrifugal force will try to stand the bike more vertically - i.e., decreases the lean angle. This, in turn, decreases the camber thrust and the bike will, of its own accord, increase the diameter of the turn being made.

If the speed had been held constant but the bike attempts to shorten the diameter of the turn beyond that natural balance point then centrifugal forces are greater than gravity and it stands taller, again lengthening the diameter of the turn as described earlier.

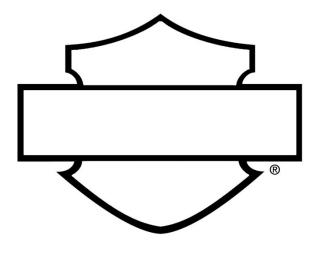
Once your bike is stable in a curve (constant speed and constant lean) then it will stay that way until it receives some steering input. i.e., you again use some counter-steering or the road surface changes or the wind changes or you shift your weight in some way or you change speed.

As soon as any form of steering input occurs the stability of the bike is diminished. Momentum, camber forces and rake geometry will then engage in mortal combat with each other which will, eventually, cause the motorcycle to find a way to straighten itself out. That momentum will try to keep the motorcycle going in a straight line is obvious, but it also works with traction in an

interesting way. That is, because the front tire's contact patch has traction the momentum of the entire motorcycle is applied to the task of trying to 'scrub' the rubber off that tire. If the body of the motorcycle is aligned with the front tire (only possible if traveling in a straight line) then there is essentially no 'scrubbing' going on. But if the bike is not in perfect alignment with the front tire, then momentum will try to straighten the wheel by pushing against the edge of that contact patch which is on the outside of the curve. As the contact patch touches the ground somewhere near point B, and because that is significantly behind the pivot axis of the frontend (red-dashed line C), the wheel is forced to pivot away from the curve.

I believe you now see why if the bike were to become pilotless it would wildly gyrate for a few moments as all of these conflicting forces battled each other and the bike became stable by seeking a straight path and being vertical. Clever, these motorcycle front-end designers. No?

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HISTORIANS

By Garry and Marj Canino:

Silent Gray Fellow

In the last issue of the High Road I talked about Lisa and Kris and their "challenge" to duplicate the efforts of Effie and Avis Hotchkiss who rode cross country 100 years ago in 1915. One of the items mentioned in the article that I found interesting was that Effie purchased a 1915 Grey Fellow.

I thought I would do a little research on the so called Gray fellow. So here goes.

The information that I mention here is taken from the book "Growing Up Harley Davidson", written by Jean Davidson, granddaughter of Harley Davidson founder Walter Davidson.

Marj and I were fortunate enough to meet Ms. Davidson in 2005 in Geneva, and had the pleasure of talking with her for a short period of time as in her words "we're fellow teachers".

Her book mentions "that Silent Grey Fellow". The reasoning behind the word silent was that motorcycles appealed to a wide variety of personalities and riders, from post carriers, policemen, farmhands, commuters, it was a machine that you could trust a machine that you could always count on.

The first Harley-Davidson motorcycles built were painted black, but Henry Ford was mass-producing his horseless carriages in black. Side note, the joke of the day was "you could buy a ford motor car in any color that you wanted so long as it was black".

The "boys" wanted to produce a motorcycle that was not flashy but blended in with society, they didn't want to scare the horses or mules that they shared the road with, or startle folks in the street, so they produced a motorcycle to blend in with the environment, and not stand out or be showy, hence they built their motorcycles with a large muffler to subdue the engine noise.

In contrast to the color black, they chose as their own, the color gray.

The word "fellow" was added to "evoke in people the feeling of getting on a trusted reliable friend and ride out in the country and enjoy the sky, the birds, the scenery, the motorcycle was designed to be a person's best friend.

Conversations of the day centered around the fact that a motorcycle could be purchased rather inexpensively, and could be run at a rather modest cost, one person was heard to say that it 'was the poor man's friend". With it they could take a little run in the country and fill their lungs with fresh air, it would add ten years to his life.

It's interesting to compare the image of the motorcycle of 100 years ago in society with the image of the motorcycle of today.



MEMBER ARTICLE

By Chris Croad:

It seems every June I end up with a week or so of "use-it-or-lose-it" vacation time. If I don't use it by June 30...it's gone, and there's nothing worse than losing paid vacation. So regardless of having any specific plans or not, I make sure to find a way to burn those days. Sometimes a couple of days vegging out on the couch binging on NetFlix is just what the doctor ordered.

I took my week this year hoping to get some time on my recently acquired 2012 Electra Glide Ultra Limited, but the weather wasn't really cooperating too much, so I was looking for things to do. Trolling around the Internet, I discovered that the Harley Davidson Factory Vehicle Operations Plant in York, PA had tours available, and Google Maps told me it was less than 5 hours away. The York plant builds all Softail, Touring and Trike models. So I purchased two tickets online for the "Steel Toe" Tour. At \$35 per person for a 2 hour, behind the scenes factory tour, I thought it was a pretty good bargain. I asked my Dad if he wanted to go with me (since everyone else was working), and he said yes.

My Dad is 75 years old. He's a retired "mill rat" (as he calls himself) having worked 20+ years at the Rome Cable wire factory. He's also an inactive US Marine ("inactive", because as he says, there's no such thing as an ex-Marine). Dad is also the person who got me involved with motorcycles. He was a Wing Nut, and had a 1977 Honda Gold Wing when I was a kid. I learned to ride on that bike when I was 18, and it was the first motorcycle I owned when he hung up his helmet and handed me the key. He hasn't ridden in 25+ years, but he's enjoyed helping me clean and polish both my previous ride (2008 Heritage Softail Classic) and my current Ultra. I can tell when he looks at it he'd like to be on the road again, but I think he's worried about being able to hold up 900lbs of bike.



We went on a Wednesday, and left at 6:30AM to make a 1:00PM tour appointment. It's a simple drive; south on I-81 to I-83 to York. The plant is only a mile or two off the interstate. We got there a little early and stopped at a nearby Wendy's for some grub, and then drove to the factory. It was easy to find and there was plenty of parking for cars and motorcycles. I noted that employees who rode Harleys got to park right up front near the doors.

When we walked in the visitor center a friendly employee greeted us and gave us our tickets. We were given an orange vest that we had to wear the entire time we were on the factory floor, a commemorative pin, and a 5\$ coupon to the gift shop. They also gave us what amounted to a set of rubber galoshes with steel toes (which we had to return), that we slipped over our own shoes. (You could wear your own steel toe shoes if you wanted to).

We still had a little time to kill, so we wandered the Visitor's Center looking at the static displays of bikes in various stages of the manufacturing process. It was interesting to see some softails and touring bikes at different stages of being built.

Chris Croad continued:

Promptly at 1:00, the tour started with us meeting our guide, and a brief movie on the history of the Harley Davidson Company. Our group was made up of 8 people, and we were given radio receivers and earpieces to wear so we could hear our tour guide over the noise of the factory. We were given some stern safety warnings before actually getting into the factory. We were going to be on the floor of an active factory with fork trucks and robotic transport systems running all over the place, so understanding "out of bounds" was important.

We then entered the factory. Right at the entrance were several 10,000 lb. presses used to press either steel into gas tank halves or fenders. Robots moved them on and off the presses, and handed them off to plasma-cutting robots which removed extra metal and cut needed holes in the steel. The tanks halves then moved to another robot to be welded together. All would then be sent further down the line for cleaning and some combination of powder coat, priming and painting.

Next we saw the robots that welded the frames. Pieces of the frames were inserted by hand into a welding jig, and robots took over to perform all of the welds. A certified welder then inspected each completed frame, and corrected any problems. The frames were also sent further down the line for powder coating.

My Dad was amazed by the cleanliness of the factory. His factory days were spent in facility built during the US's manufacturing heyday. His factory was a noisy, dangerous and dirty place. The York factory was clean. Not just the floors, but also the equipment and the air. Huge ventilation systems carried away all the welding and painting fumes.

Next stop was the paint portion of the factory. We weren't allowed into the actual painting lines as they're sealed against dust and dirt. It requires special clothes to enter, but we saw the tins conveyed into, and out of the area. Again, robots handle nearly all of the painting (even the pin striping), but skilled workers inspect, buff out, touch up or reject all of the tins that come out. Rejected tins are sent back to be stripped and repainted.

Then the real fun started. As the frames come out of powder coat, they're mounted on a mobile robot that drives around the factory. A VIN number is stamped on the frame, and the motorcycle now "exists" in the Harley Davidson system. Based on the frame style, a build sheet is placed on the moto-bot identifying the bike to be built, and it makes its way down the line.

From here on, the roles of robot and human are reversed with most of the build work being done by Harley Davidson employees while machines assist. The bot takes the frame to the first of 5 assembly lines; line A thru line E. There are 52 total workstations along the lines with each workstation designed to have its task accomplished in 90 seconds, but thanks to a successful program where employees identify improvements, the current average is 80 seconds. Each employee is encouraged to find ways to speed the process. A consistent savings of only 1.2 seconds on a workstation adds up to 2,200 additional bikes being produced in year.

As the frame moves down the line, it begins to turn into a Harley as it's mated up with power trains and body pieces from other HD factories as well as the tins manufactured at York.

I was most amazed by the process. They don't do a run of Softails, and then a run of Road Glides, and then a run of Electra Glides. Each bike is built to specification in the order that dealer purchases arrive. So as a worker at the factory, you may be installing shocks on a Softail on the frame in front of you now that's headed to Syracuse. The next one might be an Electra Glide destined for New Zealand, and the one after that may be a Street Glide going to Texas. Computers manage the entire process making sure the needed parts are brought to each station as they're needed. Employees are also cross-trained to work in multiple areas, and cycle through different workstations every 2 hours to prevent boredom and fatigue.

Most of the bikes exit the process at the D line, but trikes and models that require a tour pack continue onto Line E to be finished up. The completed bikes are the run down a line where the electronics are tested, and inspections are performed. The robot cart finally lifts the bike

Chris Croad continued:

into a dyno area where several lucky employees get to hop on the bike, start it up, and "ride" a couple of miles performing a number of tests. If the bike passes all the tests, it's loaded onto a specially designed metal pallet, moved onto a truck and sent to the dealer. If not, the bike is sent back to have the problems corrected.

Each and every employee has the ability to stop the line if they notice a problem. Managers come running to see what the problem is and what needs to be done to fix it. Quality is stressed, and stopping the line does not weigh negatively on the employees. I picked up a real sense of pride from the workers there. The workers are part of a union (the same union my Dad was a member of), and had to accept some tough concessions when the factory was rebuilt after the "Great Recession" of 2008/2009, but the pride in their work was evident, and my Dad noted that he didn't sense any of the "us vs. them" between company and union that he experienced when he worked a factory. They run 2, 10 hour shifts Monday through Thursday and complete approximately 400 bikes per shift. No inventory is kept. Each bike is built "just in time" to order.

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Just like Disney World, the tour ended at the gift shop, and I surprisingly little money on a hat for myself and a shirt for my Girlfriend. It was a very enjoyable tour, and we learned a lot about the process. It was fun seeing where my Ultra came together, and a wonderful day spent with my Dad. We headed home right after the tour and were back before 9PM. It makes for a nice day trip, or a relaxing overnighter.

I highly recommend the tour if you some time to spend. Be sure to check the HD website (search "factory tour") if you plan to go. Steel Toe tours are shut down in the late summer as the plant produces new models, and they limit or add tours on other dates. Tours fill up fast, so they recommend buying tickets early. (I bought mine two weeks prior). There's also a free, 1 hour tour, but you don't get to see as much of the process.

Chris Croad is a new member of the Syracuse HOG chapter, having joined the chapter last month with his girlfriend Shari Clubine. They enjoy riding their recently acquired 2012 Electra Glide Ultra Unlimited and are looking forward to taking part in a few chapter rides and meeting other members of the club.



MDA MUSCLE RIDE PICTURES



Upcoming Rides & Events

(Please check the Syracuse HOG website for all updates and cancellations)

Date	Day	Ride Name	Leader	Time
07/12	Sunday	Dansville	Rob Lancette	9:00 AM
07/15	Wednesday	(TBD)	Marcella Becker	6:00 PM
07/16-18		NY HOG Rally		
07/17	Friday	PHD Bash for Nationals	PHD Event	(TBD)
07/19	Sunday	PHD Backyard BBQ	PHD Event	12:00 PM
07/19	Sunday	Chapter Meeting		10:00 AM
07/19	Sunday	The Fort in Morrisville	Mike Standen	11:00 AM
07/21	Tuesday	Greenwood Winery	Barb Snyder	6:00 PM
07/25	Saturday	Sticky Lips Henrietta	Bill Becker	10:00 AM
07/26	Sunday	Thirsty Moose	Dan Marsh	9:00 AM
08/01	Saturday	(TBD)	Kevin Reney	9:00 AM
08/02	Sunday	Old Forge Kayak Rental	Rob Lancette	9:00 AM
08/04	Tuesday	White Water Grill	Kevin Reney	6:00 PM
08/08	Saturday	River House	John Snyder	3:00 PM
08/09	Sunday	Keuka Lake	Dan Sturtz	9:00 AM
08/12	Wednesday	Grist Mill		6:00 PM
08/16	Sunday	Chapter Meeting		10:00 AM
08/16	Sunday	Buffalo Head	Bill Becker	11:00 AM
08/20	Thursday	The Distillery	Barb Snyder	6:00 PM
08/22	Saturday	Eisenhower Locks	Rob Lancette	9:00 AM
08/23	Sunday	PHD Backyard BBQ	PHD Event	12:00 PM
08/30	Sunday	Anchor Bar	Ken Yackel	9:00 AM



Performance Harley-Davdison 807 North Geddes St. Syracuse, NY 13204

For up-to-date information, please visit our website at: www.syracusehog.com