



General steps to get you started. When you're building, of course, you'll want to look at the rulebook for official rules. Here are some steps that are common to any build. I can't tell you all the secrets, or you'll beat me. Racing is not fun if you're racing yourself, so reach out to other racers if you're stuck on a build. We want you out there on the track. Many of our racers have found resources for parts thru the years. Just ask!

The following is made possible by George Herrin. George is a 8 time ARMA National Champion, 4 time USLMRA National Champion, and Retired from BP. The following is a thread that George did on building a mower. The thread is from 2007, so that is why we say you'll want to look in the rulebook for official rules. This is meant to give you the steps along with pictures to guide you in your build. *Thank you George for sharing!* This original posting can be viewed on [www.heimow.com](http://www.heimow.com). "Heimow" is a message board for racers that was and for some, is still used for a communication on mower racing. Wisconsin Lawnmower Racing Association likes to use it as a resource for answers to common questions thru the years. We do not use it as our communication board currently.

## Here you MOW.

**Find a mower.** Most find mowers on local for sale boards, in your neighbors back yard, or sitting on the side of the road.

Strip the mower down.



OK with the chassis apart I mount the rear bearing cassettes before I do anything else why you ask. Because it's just what I do. No particular reason other than the parts are easier to handle while apart. It is very important to mount the holders so when everything is assembled it is in direct line with original transaxle. USLMRA

says you can move the axle up but not forward or rearward. So this is what we do to lower the chassis.



You want to make sure that both sides are the same in the case of this chassis I measured from the front of the frame side panel to the front edge of the cassette holder,  $(28-7/8)$  and from the top of the side panel to the top of the holder  $(2-1/4)$  and be sure you have it square to the frame. All these measurements are decided using the shortest tire I run. And if using adjustable cassettes you will generally have as much as  $3/8$  up and down adjustability in your ride height.

OK now that they are placed I will weld them into place. I use a century gas-less welder. It goes both ways but just use it gas less. It welds Through most paints on most chassis's if it has a clean starting spot then take your time and let the heat and flux do its job. I do however clean most of the surfaces before I start so to make it easier. Flux core is forgiving but the biggest draw back is the mess it leaves when done. Most of the time a good wire brush will clean it all up. Here is a picture of my welder and the welded cassettes



It will be a chassis legal for several organizations. Will be 4 inches of the ground front and rear and will be a MTD chassis.

Right off the bat it will be USLMRA legal. It will be able to be widened with just the movement of collars and spacers. And with the adjustable cassettes I can go lower or higher. Just to name a few things.

Sir George,

Dropping back to your wire feed welder. Your machine looks like a 110 volt. Besides the splatter, any problems or hints to pass along? I have something similar and I am just getting used to it

*Reply:* YUP, its 110 and best advice I can give is practice on some old metal. Flux core like to be used HOT!!! And it isn't the best to weld thin stuff with. Until you know its capabilities and yours and be sure the surfaces are clean. One thing about flux core, is it will weld thru dirty or painted surfaces if you are decent with it. Some situations on these things, you don't have any choice too cramped top: get er clean. But in the 7 years I been using it, I have never had a weld from this machine let go on anything. I cannot say that about the high dollar gas welder I use at work. Again It took me a bit of time to learn it though. Penetration and settings is much different than flux core welding. Gas is real clean and pretty but that don't make it a good weld. Hope I haven't confused you.



Ok here you see some points you must cut or grind away. The guides so that you can get a bigger pulley on there for speed, The other points you will see why in pics to come



This is to show you how and where I cut the guides off at.



This is the very front of the sub frame. You cut the lower lip off square with the rest of the chassis. This is a legal cut in US.



Here you see where I have cleaned the inside corners of the front sub frame for welding which again you will see why in pics to come.



This is the rear frame panel and again, you see I have cleaned for welding



Ok here I am assembling the two side panel frames to the front sub frame. I use a straight edge to get it all straight.



Here I use a dial caliper to make sure it is all straight. This is important. Once I am happy, I tighten all the bolts tight.



I angle cut each end so it fits snug end to end.



Then, I lay my frame rails in this is how I discretely stiffen my chassis. Then I clamp them in several locations from both directions using c-clamps up and down to make sure they are tightly in the frame. Now before welding and using the

calipers same as in above picture I want to make sure they are straight on the rear section before I weld them in. The next photos will show the welded in rails.



As you can see the rails are welded in. See how I don't do a solid weld end to end. Not needed, and the extra heat would warp the chassis.



Now this is inside the side frame panels. I use the same tubing to stiffen the box or tunnel of the frame. Makes for a solid chassis and it isn't add much extra weight either.



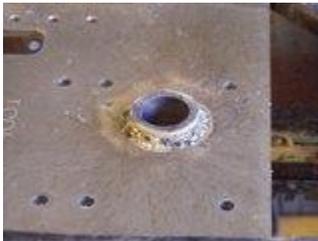
Ok here you see where the E.C. Distributing tranny plate butts right up against the front sub frame. ALSO it goes in the tunnel and sets on top of the frame rail supports. You can bolt or weld it in I choose to weld it then it becomes a part of the frame and helps stiffen it.



Here you see that I have mounted a tranny lower case. Then you slip the plate bushing into the the hole which self aligns on the input shaft.



As you can see it aligns perfectly. Now tack it in place and then remove the tranny case and weld it completely in.



Here it is welded completely in place. This bushing supports the weakest link (the input shaft) of the 700 tranny and with this setup if you break the input shaft it is due to case fatigue or worn or bad bearings.

George,

What size is the stock that you use for the frame rails?

*Reply:* 3/4 thin wall. Once welded in stiffens quite nicely and very rigid. And don't add a lot of weight either. Square tube  $\frac{3}{4}$  by  $\frac{3}{4}$



Ok here's the rails and tranny plate from the bottom all done and welded in.



Ok here you can see inside the tunnel. You can see the bushing sticking up from the plate this supports the tranny input all the way up to the case bottom. Also if you can enlarge the pic you will see how the rear plate is welded in, not just bolted. All done on the inside.



Ok here you can see the support I build that fits inside the dash. I use the same tubing as I did on the frame 3/4 thin wall. It has a place for the shaft to go thru and placement of the upper column and bearing support.



Here you can see how it fits snugly inside the dash. This dash support has taken a 60 mph end over end kart wheel without busting the plastic dash.



Ok on to the steering column and its bearing setup. Here is another product E.C. Distributing sells, it's a universal weld in bearing mount and 5/8 spherical bearing. These work well on uneven and even surfaces where you mount on metal to weld them in I use one top and bottom.



Here is the lower steering column support and bearing welded in. Notice in the pictures how it fits right in the pocket where the oem parts were. you will also notice how I use 5/8 lock collars one on top of lower bearing, and one on the bottom of upper bearing. I use a grinder and put a small notch so I can get to set screw.



Here is an overall view of the dash and support and column all in.

George.....Are the spherical bearings held into the sleeve by a cir-clip or do the collars take care of that??

Reply: Quite honestly they are a press fit so they hold themselves in. BUT what I have found once the carrier is weld in it isn't so easy to press `em in. SO before I

weld them in using the Dremel tool and a metal barrel type bur bit, I run it around the inside till my bearing slips in freely, then the collars hold them in from that point. Several chassis with that setup out there now for a season.



Here you can see where I have finally come back and cut the whole and slot for the rear axle. Doing it this way allows me to unbolt the cassettes and simply drop the whole axle out the bottom.



This is a view from inside to show how I cut right thru the frame rail I installed for stiffness. Now that I have my cut out I will go ahead and weld each side to the edge.



This photo shows how I weld the rear plate in. Idea is to make this thing one solid frame assembly.

One more...on locking collars....steel or aluminum? Thanks!

Reply: Aluminum run for 6 years never had a problem.

George,

What kind of tool are you using to cut the frame where the axel goes in?

Reply: Sawz-all and a air Die Grinder with a big de-burring bit.



Here you can see I have rebolted the running/foot boards on and I will show you how I open the center-remove the bar yet maintain support for the boards.



First thing I do is tack weld the rod to the frame on the inside of the frame itself. Once both sides are tacked in place I cut the center out.



Here you can see the cut and fully welded remaining bit of rod. Much more to come so stay tuned.....

I have gotten the axle in fender height and seat mount done. Rear brakes done  
Frame notched for the sprocket, tranny pulley belt guides and clutch mounted.



Here I have mounted the E.C. Distributing adjustable cassette. I chose the wrong  
holders so instead of cutting the whole lip off, I notched them so the adjustment  
screw.



Here you can see I used 3/8 allen bolts to bolt them in.



Here you can see where I drew my cut lines to notch the rear of the frame for  
sprocket clearance.



Okay using the trusty ole sawzall I cut the notch out for the sprocket



Here's another angle on the sprocket and the notch cut. Sorry, I tended to work and forgot to get the as I went here.



More on the build. Here you see I am setting up the brake system. These are not new brakes but some I had and want to try on this build.



Here is an overall view of the brakes and rotor. Yup its a big rotor but the bigger it is the less force needed to stop it. It is a motorcycle rotor redrilled to fit the MCP brake hub. Everything is setup so the rotor hub is against the bearing hub and I put a slit collar outside the brake hub to hold it all in place. The caliper is bolted to the

frame with a couple shims between it and frame to align it to the rotor.



Here you can see the clearance between caliper and tire. Tire 19 inches from center of frame. That's the outer sidewall.

Looking good George!!! On the last photo showing the brake set-up with the tire installed...what is the square tubing on top of the frame? Fender mount?

Reply: Yes... this day I got carried away with my building, and my picture taking suffered. I will show it in upcoming pictures.



Here you can see the lock collars. E.C. sells these, and I use them outside each axle bearing like in the pic to keep axle in place, both sides of wheel hubs and both sides of brake and sprocket hubs. In this build case the brake hub is against the bearing hub so it only required one side. A total of 9 on this setup where I usually use 10.



With the rear axle in and brake mounted. I am happy with all. I moved the tranny pulley belt guides while I have it all upside down. Here you can see how I do my belt guides. I weld flanged nuts to the plate and then I simply screw bolts in for my guides.



Here is a good view of the flanged nuts welded in place. The setup also makes for a fast removal setup if you are in a hurry.



Here is an overall view of rear axle in place, with tranny pulley and clutch and guides in place. Also, notice the center of the running board rod is cut out as described in earlier details. This gives wide open access to everything.



Now on the top side of the chassis with the axle and wheels on I turn to working on fender mount and seat mount for wheel clearance. Anyone taking a mtd apart or knows them, knows the full fenders are mounted on a channel type pedestal. I reuse these. I cut the factory seat bracket the inside width of these pedestals.



Now this is an example of my building taking over and me not getting the pictures I wanted. But here you can see where I have added a 1" square tube to the top of the regular fender mounts. And you can see how I have welded the cut seat mount flush with the top of the tubing.



Here is a better view of what I have done. You can see at the rear where I added an upright support with same size tubing. Fender will bolt down on top of all this and seat will bolt into the slotted groove where it gives you the ability to slide the seat forward or backwards the original amount. ALL legal and great for fine tuning the handling of your mower. Fenders will still bolt into the original holes in the running boards giving the appearance they haven't been moved.



Since I am getting so much done in a short amount of time, I decided before I quit I will mount the front axle beam. I clamp two straight edges to the top of the frame I pull the axle up to it and center it equally side to side and clamp it in place.



Here is another look at it clamp up. I now tack it all in place, remove the clamps and weld it up.



Front beam welded in place and ready to start front end assembly.

Is the welds on your frontend to the stock chassis the only thing that holds your front end on? Or do you tie it into your frame somehow?

Reply: Its welded to the chassis, which is welded to the frame stiffening rails on the inside. That's all that holds it and never lost one yet. And I have had some horrific crashes.....

George,

Is your caliper mounted sold to the chassis? I thought a caliper was supposed to have a little bit of "float" to it.

Reply: Yes mechanicals are generally mounted with float or the rotor one. With these, both pads are pushed out then pulled back by spring pressure to ensure zero drag. So you simply mount it solid and center the rotor in the middle.



Ok here is my clutch pedal. I drilled 5/8 holes thru the side of the running board and ran the pedal thru the running board thru the frame. I used a 5/8 i.d Bushing and with it slid on the pedal welded it to the bottom of the running board. This will support it and keep a lot of the rattle previous mowers have had due to the sides of the running boards wallowing out allowing the pedal to bounce.



Here is the brake pedal, I used an arm from an extra steering kit I had for the linkage mount. I slotted the running board so it sticks up thru it on the top side. Notice I don't have the center mount on this pedal. It doesn't receive all the vibration the clutch pedal gets from the belt. So it isn't needed.



Here is both pedals mounted as you can see I got ahead of myself in work again instead of picture taking. I will get to everything you see here in up coming pictures.



Here is my rod mount for my clutch pedal. I make the arm then weld it to the 5/8 lock collar. I then slip it over the end of the pedal and use a bolt instead of the set screw to lock it down. I drill into the pedal and tap it so that I am screwing not only thru the collar but into the pedal also. Makes for a sure tight fit.



Ok to make up clutch linkage I use a sump pan and crank bolt the pan in place as though its the motor, put the crank thru it, then slip the motor pulley on. This allows me to put a belt on so that I can't get my clutch pedal in the right place and make the linkage rod. Here you see everything in place. I marked the rod where to cut. I then cut it and tap both ends for 3/8 right and left hand threads and screw the rods ends into it. All my rods are hollow 1/2 o.d. aluminum stock cut to size. I simply tap it for the 3/8 rods ends.



Here is the clutch assembly completed, rod in place. Next I will show you how I do the guides for the motor pulley.



Ok here is the placement of my front pulley guides. I hold it right up against the pulley without touching it. Tack the flanged nut in place. I do this to all three, then remove the bolts and pulley and weld them on solid. This makes for a fast guide removal to change belts quickly if needed.



Here you see all three in place. Also you see an idler on the return side. This is more a guide to stop back lash when getting off the throttle at the end of the straights. It isn't tight against the belt. You will see what i mean in upcoming pics.



Here the belt is passing thru the idler. no pressure on it notice the depth of the belt. Now when the next three pics are up, look at the depth with pressure on the belt.



Now notice with my finger slightly pushing on belt, it sits deeper. So as you can see, it is simply there to keep belt from whipping back and forth. The guide on this pulley is not as the others. I drilled a hole, tapped it for standard thread, and ran a flanged nut on a 1/4 inch bolt. Screw it into the frame and the flange nut is the jam nut to keep it from backing out.



Here is the complete belt system done and everything in place.



**Here** you see how I have added the clutch spring. This spring is the deck belt tension spring. I have a spacer under the cod on the clutch the spring hook on it rod keeps it from slipping off. I then drilled and tapped a two 3/8 holes between the rear chain tensioner and side frame rail. This allows me two separate places to adjust clutch spring tension.



here is another view of everything from the other end. Now that the drive system is complete I have one more thing to do before going top side and thats assemble the EC front axle. That will be the next picture.

George....Is the pivot point of your clutch setup mounted directly to the chassis or is there a backing type plate used?

Reply: It is mounted directly to the chassis the front sub frame to be exact. The center pivot bolt is a 1/2 shoulder bolt. There is a 1/4 inch spacer under the clutch plate to raise it to the right height. I drill a 3/8 hole and on the top side of chassis. I use a flanged nut to tighten it up. I do not use a back plate. It is right next to the end of the plate and it has a rolled lip on the end. It's very sturdy and I have not had any problems with any of my clutches mounted this way.



Ok here is the front end with all the parts assembled. At this point slip 4 wheels on and I have a rolling chassis. With everything on the bottom done time to flip it over and finish up top side



Ok, I have slipped the fenders on to bolt them in place and to check rear wheel clearance. and fit. In the upcoming pictures, you will see a mower can be dropped to 4 inches and clear tires without one cut on the fenders or body work. You see in the above pic the fenders mount on the running boards in the original location.



Here is a picture of the fender and seat mount, looking from the rear and under the fender. Using the original mounts, I added a 1 inch square tube on top of it to raise the fender 1 inch.



Here you can see the fender mounted and bolted down. I used 5/16 button head allen bolts to bolt it down. I had to redrill and tap the holes into the square tube the fender now sits on. These bolts allow the seat to sit dang near flush on the fender. Also allows the seat to slide back and forth easily on the bolts. As you can see, the factory seat mount allows this. A great fine tuning asset in handling.



With my tallest tire on the mower (turf Masters), you see they fit and still have right at a 1/4 inch clearance. The chassis is 4-1/8 inch off the ground on the rear. And nothing has been cut.



Well here is an over view of the fenders with tires on, dash slipped in place and seat on top. With this done, I can now slip the steering column in, set the steering wheel height, and finish the steering link to front axle. Dang, almost ready to slip a motor on and test it out. Hope everyone is enjoying this build.

George ,  
Your build is great for me, as one of my mowers I want to build is a MTD, looks just like yours. I'll be referring back to this often.

My other mower is a Murray. How similar are they to the MTD?

Reply: Thanks guys glad you all like the pics and postings. Nomowjunk depending on the year of the Murray, it could be way different. *But the build on any chassis is very similar. The basics are all the same.*

George,  
Do you use 9/16" belt pulleys and 1/2" belts?

Reply: Quite honestly they are supposed to be 1/2 pulleys. Yet the belt sits very deep in them which leads one to think they are a/b pulleys. But in reality, these mock up pulleys have more than 2 seasons of BP racing on them. This has actually

spread the pulleys apart some, giving the appearance that they are bigger than what they really are.

Ok all body work is on and chassis is a complete roller.



Here you see the steering column in place, inside the dash area.



Here is the pitman arm on the end of the shaft. The next photo will show you the depth from where it comes thru the frame to the bottom of the frame.



With a straight edge across the bottom of the frame, this gives you an idea as to the exact location I have it in. Just for you to know I make my pivot points on the spindle from center of king pin, to rod bolt hole 4.5", then on the steering column,

from center of column, to rod bolt hole anywhere from 2 to 2.5". I went 2.5 initially on this one, but moved it in a 1/4". Just a bit more detail for you all to digest.



Here you can see how I gauge where to cut the shaft off at. I leave it long enough so it serves as a stop at full right turn. I don't have a stop for left turn. I have never went over. The tire hits the grill before it does, so it serves as a stop. I don't use the left turn much. Now the right in counter steering, yea I sometimes hit full lock.



Here is an overall view of my steering set up with the E.C. Axle. I have been using this setup for going on 5 years now. I love it. 1/4, maybe a tad more, is all you will ever turn the wheel in a race.



Here is an overall view of the steering and front end with tires on it.



Now I am mounting the front grill mounts. I clamp a straight edge to the frame to be sure I am straight with the top of the axle, and frame. Then I use a straight edge to make sure I am not at and off left or right.



See here I am checking to make sure its square to the axle. The hood mount holes are 11.5 inches center to center Frame is 13 wide so I went 3/4 of an inch from the side of frame and drew a line on the axle beam to know where to place the mounts.



Here you see both mount welded on. Notice how I have drilled a hole, stuck a bolt in, and welded the head to the tube. Makes it easier to remove the hood and grill. Simply spin the nut off top side. You don't need two wrenches to do it.



Here you can see how it sit right over the bolts. To secure it, a couple fender washers , flange nuts, and you're done.



Here is the first view of the rolling chassis with the body work mounted. Using the hood and grill from the 04 chassis was my back up this year.



Here is another view of it. I need to clean up a bit before continuing on with it. Still have to fix the battery mount location, some tabs welded in dash area for upper grill support location, brakes, motor and wiring. Then some body work to paint it.



First trip out of the shop, thought I would snap a couple pictures with the present BP beside it.



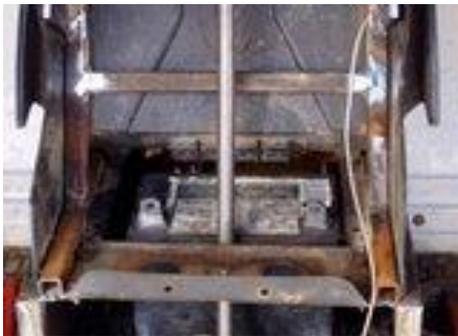
Heres another shot of them. Now to finish up a couple things (deck) grill support mounts, battery location.



Ok, I put my battery behind the steering column under the dash. Here you can see I use 1/4 tubing to keep it located and I will run a aluminum bar across the top it won't move at all when top bar is on.



Here you see the back of the battery is up against the lip on the sub frame. Just to the right, you can see the flange nut that holds the clutch assembly.



Here you go, the battery with dash on. Will be pretty concealed when fuel tank is in place.



On MTD's without side panels, to hold the grill, they have two rods that attach to the dash. I weld a 1/4" thick flat bar to the dash support cage so it has something to bolt to besides the plastic dash.



Here are the grill support rods bolted to the dash, and the bar I weld in. I drill and tap for 1/4 threads, then simply run a bolt in, no nut. Makes for quick removal.



Here I welded a bolt to the front of the side panel to hold the hood latch.



Here is the bungees I use to latch the hood. Cheap, a whole bag full at Walmart for 3.99 like 20 mix sizes. They are just that Bungee cords with very small metal hooks on the end. The last ones the wife got me were in a small plastic jar. She says and were by the touch up paint.



Ok, one last thing to do, except the body work and prep for paint and that's the

deck. Above, left side of deck, is all I use of the original deck. Rules state you must use original steel deck. Well, I do. but just a little bit of it.



I hold it up to the running board and mark my line on each end so I know how much to cut off the bottom. I want it the same thickness of my running boards.



This is a handy tool an aluminum yard stick. Being very flexible makes it a good straight edge, even on rounded surface. I clamp it on one end, then hold it on the other and mark it with a sharpie. Then cut the bottom off.



Here ya go. The deck pieces welded in place. Nothing left now but some slight bondo to clean it up and weld the shifter hole closed in the right fender. Then bondo it, then finish the body work, paint it, the wiring and motor. (Another Big INDIAN) 🤪



I got out to the shop today and installed the brakes. First picture is the rear brakes with lines attached.



Above is a close up of the Hegar front brakes. The axle is keyed with a 3/16 key and has 2 set screws to keep it tight. Never had any trouble with these brakes.



Above you see both front brakes on. Next I will post the running of the front brake lines. I did something a little different there.

Ok many of the MTD fenders have cut outs on the left side that allow the lines to go between the fenders and frame. Very nice fit and makes less work.



Ok here is where I stepped outside the box.. I bought some brake tubing from napa and ran the nylon brake tubing inside it. Keeps it from vibrating and gives it a cleaner look and some extra protection. I run this one down because the headers will be right there and this keeps it off the headers.



It also runs up and inside the frame around to the right side behind the steering column in front of the battery. Again extra protection of the lines.



Here it is a simple, run right down the right side, right on top of the chassis. No headers here to dodge or get around.



And yes, the crank was ground for cam lobe clearance. This is the 31 crank used before the billet rods came out. It was from the older 16 hp ohv and used the new AVS rod and piston.

Ok here you can see an aluminum plate. (below picture) I used this as a back plate for the master cylinders to give them support so it doesn't flex the side panel. Also where the front brake lines go thru the side panel, I used a rubber grommet to keep them safe.



Here are the master cylinders mounted and the all lines attached.



Here is my mechanical brake bias. The mechanical bias is attached to the pedal with all thread rod. I used some blue fuel line and slid it over the rod to give it a better look.

Very simple setup and I am going to make it adjustable on the fly from the dash. It adjusts from front to back.

Ok a couple things in this picture you should notice. The first notice: the corner, how I have taken a 4" grinder with a flap disk and rounded the corner. And also the shims between the actual wheel hub and the brake caliper assembly. This is some times required because the caliper will just run the back of some rims. Note: you cannot use a rim with more than 2.5 back spacing. True Roll rims do not hit. The ones I have are Circle/Van-k and I believe they have been bought out again by another company.



Here you see the rotor and the pins/dowels it floats on. When shimming between hub and caliper, be sure you do not shim so much. The rotor will float off the pins. This could result in a nasty ride at the end of the straight.



Here is an up close look at the mounting I make for the mph sensor which connects to my Digatron Tach. It is a magnetic type switch and trips everytime one of the dowels the rotor floats on passes by them.



Above, you can see the new battery in place. I have some scrap aluminum angle pieces that I used to make the hold down. It goes over the rear top corner of the battery. As I tighten, it pulls down and forward locking battery in place. Also notice the rubber cover over the positive terminal. A serious must do.



George,  
Mowers looking nicer and nicer everytime I see it. Something about the brake setup. The pins that the disk floats on, aren't you worried that they are too short? That the disk will "twist" and pop off the pins? I know you said to make sure you don't shim too much, but it still doesn't look like there's much there holding it.

Reply: Well when I first did this 4 years ago, I thought you know this might not work. But been running the same wheels and brakes for 4 years now with no troubles there, so I now know it works. Been tested in race conditions for 4 years. Doesn't get more confident than that.

Ok, I use the factory key switch for two reasons. One for static displays where there may be kids around or getting on the mower for pictures. I can turn off the key which kills power to Starter button. So if a kid hits it, it won't do anything. Also it will start and kill the mower. Less wear and tear on kill tether switch when testing at home. Also turns power on to the brake lights and oil pressure gauge light. Both have an additional rocker switch on the dash. Lighting is not wired on this until after I paint it.



I run the wires for the starter button and kill switch up through the boot that covers the steering column, above the dash, thru a hole I drill in the steering wheel, then over to the starter button, and kill switch in center of wheel.



Heres a shot of the wiring overall, inside of dash. All will have colored loom over it once the mower gets painted.



Ok here is the dash, the business end of it. You can see the small aluminum plates I made to cover the existing holes in the dash. Left side has the oil gauge and will have a second light switch for the gauge light. The right will have a volt meter, I haven't found one I like yet. That way I can just look and see if the battery is hot or needs charging.



Here is a more top look at the steering wheel. 4 display digatron in top of wheel, Hand throttle just to the right of center, with starter button right there. I grab the throttle and starter button at same time with right hand while slipping the cap on the tether with left hand. Tether switch dead center. Everything is real close and easy to get to without having to look around.



Here is the throttle setup ast the carbs. I use a throttle linkage kit from E.C. I believe the part number is 1k-122. I do modify it just a bit, but each application will be different.



Ok, I installed the rear sprocket and idler, lined everything up with tranny, and locked it all down.



Here is a closer look at the idler adjuster that we make and sell at EC to go with the tranny plate. It and the Idler sprocket is sold separately. It has 4 holes in tranny plate to make adjusting, no matter what the slack in chain is, relatively easy.



Ok a tip for V-Twins guys: the breather hose from the breather on the Indian. I go to Advance Auto and get this little filter. It is really for the valve cover of these little rice burners, but works great on here. And it's a washable and re-oil type filter. Comes in several colors too.



Ok I am done with everything on the lift, so I set it down, raised the front, and installed the exhaust. Here you can see the whole bottom and exhaust ready to test.



This is how it looked for the first test run. No seat. But this test run is just riding around the yard get things hot, and then put it back on the lift and check

everything to see its all ok. Also check to make sure everything is tight and no problems with anything.



Here it is complete and been run pretty hard for 15 laps. And it sure feels good. This is one of my best builds to date. Oh and BTW my front yard is huge and smooth!!!!!! and can run it pretty good.



Source:

Herron, George.

“Heymow.”

<http://www.heykow.com/index.php?topic=1613.0>

(accessed March 6<sup>th</sup>, 2016)