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531 Views Updated: June 22nd, 2021 Owning a riding lawnmower can make cutting the grass an easy chore. However, because the machine is relatively complex, it can sometimes break down and not start. If that does happen, you need to know how to diagnose the problem so that you can get your mower up and running again.Your riding lawnmower won't start and you won't hear clicking if the battery is dead. Damaged solenoids can also prevent the riding mower from starting and you will need to replace it. Make sure that your transmission is in the correct position because that can keep the lawnmower from starting. This article will dive deep into each of these potential issues and show you how to fix them. In most cases, you should be able to correct the problem yourself before calling a professional to come to your house. The Problem: A Dead Battery By far, the most common reason for a riding lawnmower not to start is that the battery is either fully dead or no longer holding a charge. If you haven't replaced the battery in years, it could be corroded to the point where it won't provide any power to the engine. Similarly, if you left the ignition switch on, it could have drained the battery completely. Usually, if there is still a charge, you will hear clicking. The Solution: Charge or Replace the Battery Fortunately, this remedy is relatively easy, so you should be able to have your riding lawnmower up and running in no time. If the battery is not that old, we recommend charging it to see if that will be enough. In some cases, the unit may not hold a charge for too long, meaning that you have to jump-start it every time you want to run the mower. If that does happen, you will have to replace the whole thing. Charging the Battery The best option for doing this is to buy or rent a portable battery charger. You can potentially use your car to jump-start a lawnmower, but it can be risky. You can learn more about how to do that here. Most riding lawnmower batteries are 12 volts, so it should be easy to find a charger for your machine. Follow these steps: Step One: Lift the Mower Seat to Access the Battery – Most manufacturers place the battery under the seat. If it is not there, consult your owner's manual. Step Two: Connect the Charger – Start with the red clips and then connect the black ones. Also, make sure that your charger doesn't use more than 10 amps, or you will damage the battery. Step Three: Plug in the Charger – Hopefully, your lawnmower is relatively close to an outlet. However, using an extension cord is okay. Step Four: Wait an Hour – If your charger is running at 10 amps, it should take about an hour for a full charge. Fewer amps will take more time. Step Five: Disconnect the Charger – Do this in the reverse order of step two. Step Six: Replace the Seat and Test the Mower – If the machine still doesn't turn on, the battery likely isn't holding a charge, so it will have to be replaced. Replacing the Battery When replacing a lawnmower battery, you have to make sure that it is compatible with your specific make and model. Otherwise, the unit won't fit. Follow these steps to replace the battery. Step One: Lift the Mower Seat – Again, check your owner's manual if the battery is not there. Step Two: Disconnect the Negative Terminal (Black) – You always want to start with the negative terminal first so that you don't accidentally complete a circuit when working on the positive one. A socket wrench should be all you need to do this. Step Three: Disconnect the Positive Terminal (Red) – Try not to touch any metal components when removing the bolt. Step Four: Remove the Crossbar – Many lawnmowers have a bar that holds the battery in place. Usually, these mechanisms are fastened with a hook, so you don't need any additional tools. Step Five: Remove the Battery – Look for corrosion or acid on the bottom of the plate. If there is any residue, be sure to clean it off with vinegar before putting the new battery in. We also recommend wearing gloves to protect your hands. Step Six: Install the New Battery – Set it inside the holster and replace the crossbar (if applicable) Step Seven: Reconnect the Positive and Negative Terminals – Be sure to do this in the reverse of steps two and three. Still, try to avoid touching any metal when replacing the bolts. Step Eight: Lower the Seat and Test the Mower – Once the new battery is connected, the lawnmower should start right away. If it doesn't, move onto the next solutions within this article. The Problem: Incorrect Starting Procedure Modern riding lawnmowers have multiple sensors installed to prevent the machine from starting in an unsafe position. Because there are so many, it can be easy to forget one of them when starting the machine. Unlike your car, you have to do more than just press the brake pedal when turning the ignition. If the battery is not the problem, you are likely missing a step in your starting procedure. The Solution: Double-Check Your Starting Procedure Although some mowers are unique, these are the primary steps to follow when trying to start the machine. Sit in the Seat – A weight sensor ensures a driver is sitting down before the mower can turn on. The Blade is Turned Off – If the blade knob is in the on position, the engine won't engage. Transmission is In Park – Sometimes, you might have moved the handle by accident. Brake Pedal is Pressed – Don't forget this crucial step. Hood is Not Open or Ajar – On some mowers, if the hood is open or unfastened, a sensor will prevent the engine from starting. Inspect the hood to ensure that it is closed all the way. Another potential problem could be that the cutting deck is lowered. If you have done everything else correctly and the mower still isn't turning on, try raising the deck height. If that still doesn't work, the problem is likely the solenoid or the ignition system. The Problem: Faulty Solenoid Like your car, a riding lawnmower uses both a starter solenoid and a battery to start the engine. If you hear a clicking noise, the solenoid is working, but it isn't getting enough power from the battery. If there is no clicking and the battery is not the issue, the solenoid is probably dead. In that case, you will have to replace it. The Solution: Replace the Solenoid This job is relatively easy to do, and all you'll need is a socket wrench set and a pair of gloves. Here are the steps to put a new solenoid into your lawnmower. Step One: Lift the Seat and Access the Battery Step Two: Disconnect the Battery Terminals – Remember, start with the negative terminal (black) and then move to the positive one. Step Three: Remove the Battery – When doing this, check for corrosion or leaks at the bottom of the battery box. Clean it if necessary. Step Four: Disconnect the Seat Switch Wire Harness – Some models don't have this, so you can skip this step if so. Step Five: Remove the Battery Box – Usually, there are clips on either side holding it in place. Step Six: Make a note of the Wires Connected to the Solenoid – We recommend taking a picture, so you don't forget. Step Seven: Disconnect the Wires From the Solenoid – Since you don't have to worry about completing a circuit anymore, you can remove the terminals in any order. There are two sets of wires that have to be disconnected, so it helps to have a photo reference for later. Step Eight: Remove the Mounting Bolt – This is usually attached at the front of the solenoid. Step Nine: Remove the Old Solenoid – There is often a tab you will have to pull out to release the unit. Remove the mounting tab from the old solenoid. Step Ten: Place the New Solenoid – Put the mounting tab on the new unit and fasten it with the bolt. Step Eleven: Reconnect the Wires – Use your photo to ensure that they are connected correctly. Step Twelve: Replace the Battery Box – Use the tabs to hold it in place and re-engage the wire harness. Step Thirteen: Replace the Battery and Reconnect the Terminals – Remember to do this in the opposite order, starting with the positive terminal (red). Step Fourteen: Lower the Seat and Test the Mower – The machine should start immediately. In almost all cases, that means that the battery is drained. Recharge it, and the mower should start with no further interruptions.What if my mower starts and then dies immediately?In that instance, there can be multiple problems, from a dirty carburetor to a faulty spark plug. You will have to inspect these components to see if they are causing the issue. Published October 16th, 2020 12:14 PM Hi, this is Wayne with Sears PartsDirect. Today we're going to troubleshooting a riding lawn mower that doesn't do anything when you turn the key to start the engine—not even click.Before you do anything, make sure the parking brake is set and the blades are disengaged. The riding mower won't start otherwise. You'd be surprised how many people forget those steps and think something is wrong with their riding mower.Supplies you might needWork gloves and safety gogglesMultimeterWire brushClip-on meter probesWrench setWhat went wrongWhat is the significance of the click when you turn the key? When you hear the click, you know the starter solenoid coil is getting power from the battery through the ignition switch. If you don't hear that click, either the starter solenoid has failed or the starter solenoid coil isn't getting power. We'll show you how to pinpoint the cause by checking the riding mower's battery, solenoid posts and coil, fuse, ignition switch, brake interlock switch and blade switch. We'll use this Craftsman riding lawn mower for our troubleshooting. This type of riding mower is common, but the wiring and components in yours might be different. Refer to the wiring diagram for your model if you notice differences.How the riding mower starting system worksTo understand how we track down the problem, it helps to know how the starting system works:The positive, red battery cable connects to one of the two large terminal posts on the starter solenoid.The black wire connected to the other large terminal on the starter solenoid carries power to the starter motor to start the engine.A small red wire branches off the red solenoid terminal post to carry power through the ignition switch to the coil at the bottom of the starter solenoid.When you turn the key to the start position, the ignition switch sends power through the white wire and energizes the coil inside the solenoid. The coil closes an internal contact to send power from the red battery cable to the black wire, which powers the starter motor to spin the engine.Is the battery dead?So what can go wrong with the starting system?Well, a dead battery won't power up the starter system and could prevent the solenoid coil from clicking.To check the battery, we'll use a multimeter to measure the DC voltage across the battery terminals.Put on work gloves and safety goggles.Turn off the ignition.Access the battery. In this type of riding lawn mower, you lift the seat to get to the battery.With the multimeter set to measure DC voltage, touch the red multimeter probe to the positive or red battery terminal and the black meter probe to the negative or black battery terminal.If the battery is good, it measures more than 12 volts DC.If it measures less than 12 volts, the battery is weak or dead and you've likely found the problem. A weak or dead battery won't power the starter solenoid coil.Try recharging the battery using a charger. Or, in a pinch, you can use jumper cables to jump-start a riding lawn mower model that uses a 12-volt battery.If the battery won't recharge, replace it.Check for power to the solenoidIf the battery is okay, it means power is getting to the red battery cable. But, is voltage getting through the red battery cable to the red terminal post? To check that, let's measure voltage at the red terminal post.With the multimeter set to measure DC voltage, touch the red meter probe to the red post on the starter solenoid and the black meter probe to the negative terminal on the battery. It should measure more than 12 volts.A word of warning here: Don't let the meter lead touch both the solenoid posts at the same time or you'll see a severe spark. Shorting across the solenoid posts sends the current to the starter motor. Some of you may be tempted to short across the solenoid posts intentionally using an insulated screwdriver to start the engine. But we strongly discourage this approach, because this dangerous practice overrides safety switches.If the meter measures less than 12 volts, check the battery terminals and cable leads for corrosion. Clean corrosion off the battery terminals and battery cable leads with a wire brush—corrosion can prevent the red solenoid post from getting power. Recheck the voltage. If it still doesn't measure more than 12 volts at the red post, replace the red battery cable.Check for power to the solenoid coilSo, let's get back to troubleshooting the starting system.Now that we know the red terminal is getting power, the next step is to find out whether the solenoid coil gets power when you turn the key.If you measure voltage at the coil but the internal contact doesn't click, the starter solenoid is to blame. The solenoid clicks when it sends power to the starter motor.To check voltage on the solenoid coil wires, you need clip-on meter probes to hold the probes on the wires as you turn the ignition key, unless you have a helper to turn the key while you hold the probes on the wires.Pull the white and black wires off the spades of the solenoid.Set the multimeter to measure DC voltage.Clip the red meter probe to the white wire female spade connector and the black meter probe to the black wire female spade connector.Turn the ignition key to the start position, note the voltage reading on the meter display and then turn the ignition key off.If the multimeter measures battery voltage, it will be more than 12 volts. Replace the starter solenoid because the coil is getting power but not closing the internal contact to send power to the starter motor. Here's a video that shows you how to replace the starter solenoid.If it measures 0 volts, there's a break in the circuit to the solenoid coil. The starter solenoid is likely okay, it's just not getting power. Time to test the coil circuit.Test the coil circuitWe'll check the ground side of the circuit first. The black wire attaches to the solenoid coil and connects to the metal frame of the riding mower as a ground. A break in that wire keeps the coil from getting power.To check the ground wire, we check for resistance between the female spade on the black wire and the metal frame of the mower.Disconnect the negative battery cable and then the positive battery cable to completely kill power to the mower before checking resistance.Tuck the cables away from the battery to keep them from touching the posts and accidentally restoring power.Set the multimeter to measure resistance and touch one meter probe to the black wire female spade and the other meter probe to bare metal on the mower frame to ground it—I'm using the mower deck height lever.A reading near 0 ohms of resistance means the black wire is grounded.A reading of infinite resistance means you must to find and repair the break in the black ground wiring. Once you restore a good path to ground on the black wire, you should be able to start the engine.Check the fuseIf the ground side of the circuit is okay, we'll check the hot side of the circuit that begins with the small red wire on the starter solenoid terminal and ends at the white wire that connects to the coil spade.The circuit includes a fuse, the ignition switch, brake switch and blade switch.First, we'll check for a blown fuse because you can usually see a blown fuse just by looking at it.The fuse in this mower is right here next to the starter solenoid, but we need to pull out the battery and battery box to access the fuse.Move the zip tie over and pull the fuse from the holder.If you find the fuse element broken like this, replace the fuse because it's definitely blown.If you're unsure whether the fuse is blown, check for continuity through the fuse using your multimeter. Place one meter probe on each of the fuse leads to measure resistance through the fuse. You should measure near 0 ohms of resistance through the fuse. If you measure infinite resistance, replace the fuse because it's blown.Keep in mind that the fuse blew because of a short in a component or wiring. Follow the steps in this video to determine the cause of a blown fuse and fix the problem so the fuse doesn't blow again soon after you replace it.If the fuse is okay, reinstall it in the holder and secure it with the zip tie.Test the ignition switchNext, we'll check continuity through the red wire from the starter solenoid post to the ignition switch.Open the mower hood.Pull the wire harness off the ignition switch.Release the locking tabs on the ignition switch and push it out of the dash.Push the wire harness plug through the hole so you can easily access the contacts for testing.With the multimeter set to measure resistance, place one meter probe on the starter solenoid post with the red wire and the other meter probe on the female plug spade with the red wire attached.You should measure near 0 ohms of resistance through this section of wiring. If you measure infinite resistance, find and repair the break in the red wire.If this section of wiring is okay, we'll test the ignition switch next.When you turn the key to start the engine, internal ignition switch contacts should complete a circuit from the red wire on the B terminal to the white wire on the S terminal.To test the ignition switch, we'll measure the resistance between terminals B and S with the key turned to the start position. With the multimeter set to measure resistance, touch one meter probe to the B prong on the back of the ignition switch and the other meter probe to the S prong. Turn the key to start the engine and check the resistance in your meter display.You should measure near 0 ohms of resistance. If you measure infinite resistance, then replace the ignition switch because it isn't closing the contact B to S to send voltage to the solenoid coil.Test the brake interlock switchIf the ignition switch is okay, then we've isolated the circuit break to the section of white wire that includes the brake switch and blade switch.We'll check the brake switch first. To give you a better view, we've removed the hood.To access the brake switch, remove the air duct mounting screws and pull off the air duct.Carefully move the fuel tank out of the way. Drain some fuel from the tank if it's too heavy to lift.Next, remove the lower right dash fastener and pull off the lower dash. Now you can get to the brake switch for testing.Note the prongs that the white wires connect to because those are the prongs that we'll check resistance through to determine whether the brake switch is okay.Pull the wire harness off the brake switch.With your multimeter set to check resistance, touch one meter probe to one prong and the other meter probe to the other prong that connects to the white wires.You should measure near 0 ohms of resistance if the brake switch is okay.If you measure infinite resistance, replace the brake switch because it's broken. Here's a video that shows how.Check the blade switchIf the brake switch is okay, we'll check the blade switch.Remove the clutch lever assembly mounting screws and pull the assembly down slightly to access the blade switch.Note the prongs that the white wires connect to and then disconnect the wire harness from the blade switch.With your multimeter set to check resistance, touch the meter probes to the prongs that the white wire connected to.The multimeter should show near 0 ohms of resistance if the blade switch is okay. If it measures infinite resistance, replace the blade switch because it's broken.If the blade switch is okay, then there's a break in the white wire between the ignition switch and the solenoid coil that's preventing the coil from getting power. Find and repair the wiring break.Now that you've gotten through all of our troubleshooting tips, you should be able to start your mower. Now you can get to the real work of mowing your lawn!I hope this video helps you out today. Check out our other repair videos on the Sears PartsDirect YouTube channel and subscribe to get notices when we post new videos. By: Author John Cunningham. Published: 2018/12/11 at 6:53 pm This is a problem that usually arises in the spring, and for most, the fix is really simple. You've come to the right place, and you'll be cutting grass shortly. So what's the problem with a riding mower that won't start just clicks? The most common reason for a clicking sound on a riding mower, when you turn the key is a flat battery. Other possible reasons include: Faulty Battery Dirty / Loose Battery Connection Faulty Solenoid Binding Starter Motor Excessive Valve Lash Hydro-locked Engine Faulty Ignition Switch Faulty Control Module Faulty Starter Engine Seized Yes, it's a long list, but you won't have to check all of them; I'll bet your problem is one of the first three. I have listed the likely causes in order of commonality. Bad battery connections are very common, and by bad, I mean the power is not passing from the battery to the cables because the battery connections are loose, dirty, or damaged. Battery cables become loose because lawn tractors vibrate a lot; this is why it's a good idea to service your mower at the start of every season, no matter how well she runs. Dirty connections are usually caused by the weeping of battery acid at the battery poles. The acid then crystallizes, causing high resistance; it looks like a white, chalky build-up on the connectors. To clean the connections, add a couple of spoons of baking soda and a small amount of water and pour this onto the acid build-up on the connections and battery poles. The soda neutralizes and removes the acid; you'll need gloves and protective eyewear. After removing the acid, go ahead and remove the connectors and give them a good cleaning with a wire brush or sandpaper. If you have some petroleum jelly, a small coat will prevent a future build-up. Connector – Mower blades and engines cause a lot of vibration; bolts come loose from time to time. Check that both connections, positive (RED +) and negative (BLACK –), are clean and tight. Cables – Check the cables for damage, and corrosion; mice find them irresistible. A flat battery is a real pain in the ass. I know what it's like; you just want to cut the grass, right? The fastest way to solve this problem is to jump-start the mower. Leaking Battery – Check your battery for leaks before attempting to jump-start. If it leaks and it's a sealed battery, replace it. However, it's usually only wet batteries that leak, so best to check your electrolyte level and top up if necessary. As you know, the acid will burn the skin and eyes, so, you know, gloves, etc. If the acid build-up is excessive, your battery may be on its last legs, so don't be surprised if it fails or does so soon. But if the leaking is excessive, don't jump-start; replace it. Batteries are easy to fit; just be sure the battery is the correct size and the poles are in the proper places. You'll need jump leads and any 12-volt vehicle. Most cars, trucks, and even Hybrids have a regular 12-volt battery fitted somewhere. Sometimes, finding it is the hardest part. If you're unsure of the voltage, when you find the battery, a sticker on the casing will indicate 12v. Of course, your battery might be faulty; jump-starting will probably get you rolling, but the problem will still be there. You can test using a voltmeter test tool, which I've listed here on the "Small engine repair tools" page. To jump-start – begin by connecting the positive red (+) of the mower to the red (+) of the car.Now connect the negative black (-) on the car to a ground (GRD) source on the mower. (Any bare metal will work) Connect – If you are not familiar with jump-starting, you'll find a complete guide here, "Jump starting riding mower." Add the cables in sequence 1, 2, 3, and 4, start the mower, and while idling, remove jumper cables in reverse order 4, 3, 2, and 1. You can check the battery and alternator using a voltmeter. Batteries don't like sitting idle; they were designed to be charged and discharged continuously. A battery that gets fully discharged will sometimes not come back to life. Use a voltmeter to check the battery voltage, and connect red to positive and black to negative. I have listed a voltmeter on the "Small engine repair tools page." Test – Check battery voltage using a voltmeter – attach a voltmeter to the battery and set it to 20 volts. If you have a reading above 12.5 volts – go ahead and attempt to start the mower; watch the voltage; a reading below 8 volts is a bad battery and needs to be replaced. When buying batteries – wet batteries will not ship with acid. The acid must be purchased, and the battery must be filled and charged; it's a lot of work. I would buy a gel or maintenance-free sealed battery; these can be shipped, fully charged, and ready to roll. Check out quality common ride-on mower batteries on the Amazon link below. Amazon Ride-on Mower Battery You'll need a battery charger to keep your battery in top condition over winter. I recommend a trickle/smart charger; they're simple to use; pop on the color-coded crocodile clips, plug it in, and that's it. Forget it till next spring, then turn the key and mow. I've listed a good-quality smart charger on the "Small engine repair tools" page that won't break the bank. Batteries work best and last longer when their state of charge is maintained; off-season charging is always advised. Check out "Mower winter storage video." Charge – Always disconnect the battery before charging. Simply connect red to red, black to black, and plug in the charger. The length of time on charge will depend on how low the battery is and the amp rating of the charger. Usually, 2-3 hours cooking time. The solenoid is a large relay of sorts. When you turn the key to start your mower, a 12-volt supply from the ignition switch to the solenoid activates it. The solenoid's job is to connect the battery to the starter motor and crank over the engine for as long as you hold the key. The click sound is the solenoid trying to work by pulling in the armature; they fail regularly, and I replace lots of them. However, the click sound can also be made for a few other less common reasons, and without fully diagnosing, you may find replacing the solenoid doesn't solve the problem. Hey, if you feel lucky and don't want to do the diagnosing part, I understand. So, if your battery is full and the cables are tight, go ahead and replace the starter solenoid. They're cheap and easy to fit. Check out, "Mower solenoid repair tools" it lists useful tools and parts that will help you nail the repair. Solenoid – Solenoids are a universal fit; they give lots of trouble. On the upside, they're easy to fit and cheap to buy. . Often just finding the starter solenoid can be challenging; I sometimes think that they hide them for fun. If you don't find it under the hood, try under the rear wheel, behind the gas tank, or under the seat. The easiest way – follow the red battery cable from the battery. On some engines, the starter and solenoid will be one unit (Kawasaki and Honda engines). Where? – Husqvarna, craftsman-like to, hide theirs under the rear wheel fender or the dash beside the steering column. However, most solenoids will be easy to locate. Fitting is easy, but do disconnect the mower battery first. Remove – The first step in testing the solenoid – remove the spark plug. If, when removing the spark plug, gas pours from the spark plug hole – move on and check "Carburetor troubleshooting." Test – Turn the key; if the clicking sound persists, Go ahead and replace the solenoid. If, on the other hand, the engine cranks over, move on and check for excessive valve lash. Tight – Check the solenoid terminals; all wiring should be secure and free from corrosion. The gear head of the starter motor can bind against the flywheel; this locks the engine and starter motor together. So when you hit the key, all you hear is the click sound. Testing for this condition involves turning the engine by hand anti-clockwise. Some engines will have a cover over the flywheel; if so, try turning the crankshaft with a ratchet and socket from the underside of the engine. If turning the motor anti-clockwise frees it up – you have found your problem: the starter motor is binding. Usually, a spray of WD40 on the starter gearhead will fix it. If you are lucky, you can get the straw of the WD40 directed at the gearhead without removing any covers. Starters can bind for other reasons – worn bearings, worn gear head, misaligned or loose starter motor. Binding – Starters can bind against the flywheel. To fix it – spray the starter gear with WD40 and retest. If it continues to bind, replace the gear head or complete the starter motor. Turning the engine anti-clockwise by hand will unlock it. Engines have valves that open and close in sequence. The inlet valve allows the fuel/air mixture in. It then closes and seals the combustion chamber. After the power stroke, the exhaust valve opens and allows spent gases out. The valve lash describes a precise gap between the valve tip and the rocker arm. As the engine wears, this gap gets bigger and must be adjusted. The inlet and exhaust valve lash will usually have different specs. When the valve lash is set correctly – you crank over the engine, the valves open, and release cylinder pressure. This allows the engine to crank over at sufficient speed to create a spark strong enough to start up the engine. When the valve lash is out of spec, the valve is late opening, which means pressure in the cylinder is too great for the starter to overcome; that's when you hear the click sound. Check out "Valve lash adjusting" it's for a walk-behind mower, but the process is identical. Adjusting lash isn't difficult but will require an inexpensive tool called a feeler gauge. You'll find a link to a good feeler gauge set on the "Small engine repair tools" page. Test – If you can, place your hands on the flywheel screen – try turning the engine clockwise. If you're unable, you likely have excessive valve lash. Lash should be checked every season. Lash – Adjusting valve lash requires an inexpensive tool called a feeler gauge. A carburetor fuel supply usually consists of a fuel bowl, float, and needle. The float is, as its name suggests, a float. Attached to it is a needle with a rubber tip. The function of the float is to lift the needle as the fuel level rises in the fuel bowl. When the fuel bowl is full, the needle will be pushed against the fuel feed port, sealing it. Hydro-locking – Worn carburetor float needle seals have a habit of leaking gas into the cylinder, and when the cylinder is full of gas, the piston can't move; this is known as hydro-locking. Because the piston can't move, the engine will often make a clicking sound as you try to start the engine. Removing the spark plug and turning over the engine will release the gas, but the carburetor float valve and the engine oil will need to be replaced. Other signs that your carburetor needle seal leaks are: overfull oil level, white smoke from the muffler, gas dripping from the carburetor, and a strong smell of gas in the garage. Newer model carburetors have a fuel solenoid fitted to the bottom of the fuel bowl; its function is to stop the fuel supply when you shut the engine off. So, if you have this newer type of carburetor fitted, you will not likely have a hydro-locking condition. Failure commonly occurs in the older type carburetor when the rubber needle seal wears. This results in fuel filling the carburetor and eventually entering the cylinder and crankcase. If you have gas in the oil, don't run the engine; the diluted oil offers little protection to internal components. First, fix the issue by replacing the carburetor and then changing the oil. Check out "Carburetor types" page; it lists popular mower carburetors. Check out "Carburetor troubleshooting" also for more details on the issue. Check Oil – Too much oil is a sign that your carburetor needle seal is leaking unless, of course, you overfilled the oil yourself. Needle – The needle wears over time; they turn pink when worn. The fix – replace the seal or the complete carburetor. Using your manual fuel valve will prevent future problems. A faulty ignition switch can cause all kinds of problems; the click sound can be caused by a bad connection in or at the back of the switch. When turning the key, wiggle the wiring at the back of the ignition switch and see if it makes a difference. It will very often show you where the fault is. Wiring pinouts are specific to each manufacturer. Wiggle – Try wiggling the wires at the back of the ignition switch while attempting to start the engine; you may need a helper. Often wires come loose, but do check them for corrosion. Control Modules are not fitted to all mowers. The function of the control module is to receive a start request from the ignition switch and to output a 12-volt supply to the starter solenoid, but only if all safety sensors are in the correct position. Control modules do fail and also suffer from loose connectors. Try the wiggle test on the connectors and check for obvious signs of water/corrosion damage. The control module will often live behind the dashboard in a plastic box about the size of a mobile phone. Wiggle – Like the ignition switch; wires come loose, have a helper attempt to start the engine while you wiggle the wiring connectors. Check also for damage, water, or scorch marks on the panel itself. A faulty starter can fail electrically, mechanically, or both. Electrically – the copper winding can break; brushes can break or wear out. Mechanically – the top and bottom bearings and the gear head can wear. These issues can cause the starter to bind, so all you hear is the click sound. Checking the starter motor is easy; connect a 12-volt supply directly from the mower battery (+) to the supply wire at the starter. An even easier way is to cross the starter solenoid as per the guide below. If you find your starter has failed, removing and fitting a new one is simple. The starter motor for Briggs and Stratton offers a good quality starter. Be mindful that B&S has two types of starter – plastic gear head or metal; check before ordering. Starter – Some starters will have a solenoid and starter motor combined in one unit. To test, use a jumper lead to bring power from the positive (+) of the battery to the positive post of the starter. If the engine doesn't crank – Replace the starter. Common – Most mowers will have the starter and solenoid separate. Solenoids are fitted to the body, usually under the hood. Test – Cross a metal screwdriver from one connection to the other, as per the picture. There will be arcing (sparking) as the screwdriver contacts the poles. RISK OF FIRE – Keep clear of gasCAUTION THE ENGINE MAY TURN OVER – Place the mower in the park with the parking brake applied and the blade off. If the engine doesn't crank over – your starter is faulty; replace it. If you're still reading, I fear the worst has happened. It's unusual for mower engines to fail completely. They're generally well-built, robust units. I have seen failures like the con rod breaking out through the engine casing, the main bearing seizing, the con rod bending, and cylinder head failures. Some of these faults can be repaired, but most are uneconomic to repair. On the upside, if you have a total failure, a complete engine fully built with a guarantee is available, and fitting involves four bolts, two electrical connectors, a fuel line, a throttle cable, and a crank pulley. B&S and Kohler's engines are of great quality and ready to go. The completed job will take less than two hours. Be mindful that all engines are shipped without oil. Failure – Total failure doesn't happen often.A hard life, and low/poor quality oil, without doubt, increase the chances. Can you jump-start a mower? A flat or bad battery is a more common fault than a starter. Try jump-starting; if your mower starts, the battery needs attention. If jump starting doesn't work, investigate a faulty solenoid or starter. Can a bad alternator ruin a battery? A bad alternator can ruin a battery. Alternators have two main components. A voltage regulator monitors and controls battery charging, and the alternator's job is to create voltage. Common problems include a faulty regulator, which damages the battery, and alternator diode failure, which drains the battery. Riding Mower Troubleshooting & Repair Mower Troubleshooting & Repairs I've covered carburetor cleaning previously, and you can check it out here "Carburetor cleaning" or check out the video here. (It's a mower carburetor, but they're all similar). You may find the following post helpful – How ignition systems work? Need more info on the fuel system, carburetor components, and how they work, you can check them out here. Home » Blog » Lawn Mowers » Gas-Powered Lawn Mowers » 5 Reasons a Lawn Mower Clicks But Won't Start or Turn Over You go to start your lawn mower, but all you hear is click…click…click. Your mower just won't turn over and start. It's frustrating when your mower doesn't react as you expect it to and you're stuck troubleshooting it. Use this guide as a tool to help you identify the cause of your starting problem. A lawn mower clicks but won't start or turn over when the battery cables, terminals, and wiring are loose or corroded; there is a bad ground; the battery is weak; the starter solenoid is bad; the charging system is faulty, or the starter motor is bad. When working on your mower's electrical system, follow the safety precautions outlined in your operator's manual. This includes wearing gloves and eye protection. Reminder: Always disconnect the negative cable (black) from the battery before making any repairs to the electrical system. This post may include affiliate links. Purchases made through these links may provide a commission for us, at no extra cost to you. As an Amazon Associate, we earn from qualifying purchases. Follow all safety instructions provided in your equipment operator's manual before diagnosing, repairing, or operating. Consult a professional if you don't have the skills, or knowledge or are not in the condition to perform the repair safely. Check the cables and wiring from the battery to the solenoid and from the solenoid to the starter. Ensure they are in good condition and making good connections. Inspect the terminals to make sure they are free of corrosion and securely attached. These items need to have excellent conductivity and connections. SOLUTION: Remove any corrosion found on the wires. If you find that the cables keep coming loose or they are broken, they must be replaced. Bad cables can contribute to a bad battery and starting issues. Remove any corrosion on the terminals. Disconnect the battery from the mower and clean them. A wire brush and a baking soda mix consisting of 2 cups of water and 3 heaping tablespoons of baking soda work well. Repair or replace any wiring that has signs of corrosion. Add a dielectric grease to protect terminals and wiring from corrosion. Replace terminals when they are damaged or in bad condition. Check the black cable from the battery to the frame of the lawn mower. Check the ground from the solenoid. (A 3-post solenoid is self-grounded). Remove any corrosion you find and make sure it's making good contact. SOLUTION: Replace a damaged cable coming from the battery to the frame. Remove any corrosion found for the grounds from the battery and the starter solenoid. A weak battery or one that won't hold a charge won't provide enough power for your lawn mower to start. It will just click and not turn over or start. Check the voltage of a lawn mower battery Use a multimeter's red and black prongs and touch them to the corresponding colors of terminals on the lawn mower battery. The most common type of riding lawn mower and zero-turn lawn mower batteries have a voltage of 12 volts. You may get a voltage reading between 11.5 and 12.7. A reading of 11.5V indicates a battery that is almost dead while a 12.7V reading indicates a fully charged battery. Charge a lawn mower battery Put on your safety gear so your eyes and skin are protected from acid or electrical shock. Get access to the battery and its terminals. You may need the screwdriver to uncover the lawn mower's body to get access to the battery or battery casing. Leave the battery in its casing with the terminal cables attached. Connect the charging cables starting with the red cable first (The one with the positive sign on it) The red cable clamp goes onto the positive terminal, and the black cable clamp goes on the negative battery terminal. Make sure that your skin only touches the rubber coating of the charging cables and clamps. Set the charger's voltage level and amp level to the desired level. The average volt level for lawn mowers is usually 12 volts. More amperage charges the battery faster (Start with two amps and work up to no more than 10 amps). If your charger has a battery charging gauge, keep the charger connected until the battery is fully charged. SOLUTION: When the battery is weak, use a battery charger to charge it. If you find the battery will no longer hold a charge, it's time to replace it with a new one. A battery that dies and is able to be charged may indicate you have a problem with the mower's charging system. See information about the charging system below. When your mower keeps clicking, a likely cause is a bad lawn mower starter solenoid. The solenoid acts like an on-off switch. It is an electromagnet switch that is actuated to engage the starter motor so the engine will turn over. Most starter solenoids are mounted on the starter. However, they do not have to be to still work. Follow the positive wire from the battery to find the solenoid. There are many reasons why a starter solenoid can go bad. The internal spring can become weak or the copper plate can start to corrode. A bad ground, weak starter, or bad battery can also result in the starter solenoid failing. SOLUTION: Test your starter solenoid. You'll need a volt-ohms meter, screwdriver, continuity light, and some wrenches. Follow the instructions found in "How to Tell Your Lawn Mower Solenoid is Bad". If you are able to start your mower by bypassing the solenoid, it must be replaced. If you've checked the battery, cables, wiring, ground, and starter solenoid only to find them in good condition, but still have a starting problem, your starter may be the problem. The starter can be removed and tested. SOLUTION: A starter can be a pricey item on a lawn mower. I advise having your local dealership confirm you have a starter motor problem. You can also bring the starter to a local repair shop that specializes in starter and alternator repairs. The personnel at the repair shop can test the starter and oftentimes rebuild it if necessary. A bad charging system will not keep your battery charged and in turn, cause a weak battery to not start your mower. Depending on the size of your lawn mower, it may have an external alternator like the one you find on a car. It may also have an internal one located under the flywheel. Most lawn mowers will have an internal alternator. Perform the steps provided here to check the charging system using a volt-ohms meter. If you find your lawn mower is no longer charging the battery, I recommend having a mechanic familiar with your charging system perform further tests and necessary repairs. Troubleshooting the exact cause of a charging system can be quite difficult. If you're not familiar with the charging system, you will probably just end up throwing parts at your mower. This can get very expensive, especially since if you get it wrong, you can't return an electrical part. You could be looking at a bad stator/alternator, regulator, or other electrical problem. Lawn mower ownership doesn't come without its frustrations. Own a mower long enough, you are bound to run into many lawn mower problems including starting, smoking, leaking, cutting, and overheating. For mower troubleshooting, check out my guide Common Lawn Mower Problems: Solved. In This Article Show I'm here to help you solve a common problem many lawn owners encounter – a riding lawn mower that simply won't start with no clicking sound. This issue can be a real headache, particularly when you're prepared for a productive day of yard work and your reliable machine decides to go silent. But fret not! Over the years, I've encountered this problem multiple times and have honed my troubleshooting skills to quickly identify the root cause and implement effective solutions. Whether you're a seasoned gardener or a beginner, this guide will provide you with valuable insights into your riding lawn mower's 'no clicking' issue. While my expertise extends across various facets of lawn care and maintenance, I have a particular interest in empowering my readers to tackle technical issues with their equipment. When your riding lawn mower refuses to start and doesn't produce the usual clicking sound, you may feel a bit baffled. But don't worry, this issue is not as cryptic as it seems. Dreaming of Sweet, Juicy Strawberries From Your Own Garden?We've designed just the right guide to help you Enjoy the freshest, sweetest strawberries you've ever tasted, straight from your garden! Tap here to learn more now! The clicking sound you usually hear when you attempt to start your mower is typically generated by the starter solenoid. This component plays a crucial role in your mower's starting system by acting as a large switch that sends current from the battery to the starter motor. The clicking sound is the solenoid moving to close the electric circuit and start the mower. So, when your riding lawn mower doesn't start and there's no clicking sound, it often indicates a problem within the starting system, most commonly with the starter solenoid or the ignition switch. As we've discussed in the previous section, both these components can be tested using a multimeter, and if faulty, they need to be replaced. Here are the steps to follow when your mower isn't starting and you're not hearing the clicking sound: First, ensure that your mower's battery is not dead or drained. A weak battery may not be able to supply enough power to the starting system, causing the absence of a clicking sound. How to Grow Better Potatoes At Home This YearReady to Harvest Your Best Potatoes Ever at Home? How new guide shows you exactly how to get big, delicious potatoes easily and consistently. Click Here to Learn More Now As we discussed earlier, a faulty ignition switch could prevent the starting system from receiving power. Use a multimeter to check the continuity of the switch in its different positions (Off, On, Start). If the ignition switch checks out, the issue likely lies with the starter solenoid. The solenoid can fail due to burnt contacts, a broken coil, or other mechanical faults. You can use a multimeter to test for continuity or voltage across the solenoid's small terminals when the key is in the Start position. Lastly, don't forget to inspect the wiring connecting these components. Look for loose connections, corroded terminals, or damaged wires that might interrupt power flow. Remember, it's important to handle these components and tools carefully, and when in doubt, don't hesitate to contact a lawn mower repair professional. With more than a decade of hands-on experience dealing with all sorts of lawn care equipment issues, I've come across a multitude of reasons why a riding lawn mower might refuse to start. If you find yourself faced with a silent, non-starting mower, it's crucial to remember that this frustrating experience is usually due to a handful of common problems. Let's take a look at these: It may seem obvious, but you'd be surprised how often this issue is overlooked. An empty fuel tank is the simplest reason your mower won't start. On the other hand, if your mower has been idle for a long time, the fuel in the tank might have gone stale, which can prevent your mower from starting. Tired of Growing Small or Tasteless Tomatoes at Home?You're not alone! Growing delicious tomatoes can be challenging, leaving many gardeners frustrated every season. This guide gives you gives you simple, clear steps to grow healthy plants loaded with flavorful tomatoes. Click here to learn more now! The spark plug plays a pivotal role in starting your mower by igniting the fuel-air mixture in the engine. If it's dirty or damaged, it may not create the necessary spark to start the mower. The carburetor regulates the flow of air and gas into the engine. If it gets clogged with dirt or debris, the engine might not get the right fuel mixture to start. The battery is essential for initiating the start sequence in electric-start mowers. A dead or weak battery may not provide the necessary power to kick-start the engine. The ignition switch is responsible for starting the mower when you turn the key. If it's faulty, the electrical signal to start the engine will not be sent. While the above issues are fairly common, a distinct problem that can be particularly baffling is when the