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Home Blog Handheld Equipment String Trimmers 13 Reasons Your RYOBI String Trimmer Wont Start: SOLVED! Whether you call it a weed eater, weed wacker or string trimmer, it is an important tool for a well-manicured yard and garden. A RYOBI string trimmer will not start when the air filter is clogged, the spark plug is bad, the carburetor is dirty, old fuel restricts the fuel supply, an incorrect fuel mix is used, the wrong oil is used, the recoil starter is bad, or the engine is flooded. Follow all safety precautions in your operators manual to avoid injury while working on your string trimmer. This guide references 2-cycle and 4-cycle engines. While most gas-powered string trimmers on the market today use 2-cycle (2-stage) engines, you will also find 4-cycle (4-stage) engines. Check your operators manual if you are unsure what type of engine you are running on your string trimmer. 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 operators manual before diagnosing, repairing, or operating. Consult a professional if you dont have the skills, or knowledge or are not in the condition to perform the repair safely. When your trimmer wont start, the best thing to do is change out the maintenance items to rule these out as the potential problem. When the spark plug, air filter, and fuel filter are not regularly maintained or replaced, they can cause your string trimmer to not start or run sluggishly. An air filter is used on your string trimmer to protect the engine from dirt and other contaminants that can damage it. The air filter should be changed out annually and cleaned regularly. When the filter becomes dirty and plugged, sufficient air isnt able to pass through it. The engine doesnt get the air it needs to start and run. You may think you can resolve this by removing the filter so you dont run into this plugged air filter problem. This is a huge mistake. Never operate your string trimmer without an air filter, even if it is just for a short period so you can finish a task. Dirt in the engine can cause wearing and significant engine damage which may result in having to buy a new string trimmer. Solution: Remove the filter and wipe out any remaining dirt from the air filter housing. Replace a dirty air filter with a new air filter. The spark plug is a maintenance item that should be replaced each year to keep your string trimmer running at its best. The spark plug will become dirty over time with a buildup of carbon. This can cause the plug to misfire having intermittent starting problems. Other items to look for is cracked porcelain or burnt electrode; a loose spark plug wire; and an incorrect spark plug gap. These items can also cause a starting issue with your Ryobi. Solution: You can attempt to clean a dirty spark plug with a wire brush and reuse it. I prefer to replace it. It is an inexpensive part and one of the primary items responsible keep your string trimmer running. Make sure your spark plug is gapped to the manufacturers specification and the spark plug wire (boot) is securely attached. The fuel filter can be found inside the fuel tank. It attaches to the fuel line to strain the fuel before it enters the fuel system. Its function is to keep dirt and debris from getting into the fuel system that may clog the lines and carburetor damage your trimmer. When the fuel filter becomes plugged because it isnt changed out regularly or you are running very dirty fuel, the amount of fuel allowed to pass through the filter is reduced. This can cause your string trimmer to fail to start because the engine isnt getting the fuel it requires. Solution: Locate the fuel filter inside the fuel tank and replace it. Wipe around the fuel cap to remove any loose dirt so it doesnt fall into the fuel tank once you remove the cap. Gain access to the filter. A clean bent wire works well to fish the filter and pull it out of the tank. Remove the old filter from the fuel line. Be careful not to lose the retaining ring securing the line to the filter. Install the new fuel filter securing the fuel line to the filter using the retaining ring. Place the filter back inside the fuel tank and install the fuel cap. Using straight gas in a 2-cycle RYOBI string trimmer will damage the engine and cause it to seize up. Adding straight gas to your string trimmer is a quick way to ruin it. A 2-cycle RYOBI string trimmer uses gas and oil mixed at a ratio of 50:1. For example, a 50:1 mix equals 50 parts gasoline to 1 part oil. Some old RYOBI string trimmers use a gas-to-oil mix ratio of 32:1. You can find the correct mix ratio for your model in your operators manual. You may also find it located on the original fuel cap. When creating the oil and gas mixture for your string trimmer, use unleaded gasoline with a minimum octane rating of 89 (mid-grade) and maximum ethanol content of 10%. Add a 2-cycle premium oil that is ISO-L-EGD and JASO M345 FD certified. Mix it in an approved gas can before adding it to your string trimmer. Solution: Drain the fuel tank and fill it with the correct gas to oil mix. If you continue to have problems, have a small engine mechanic diagnose the problem and determine whether a cost-effective repair can be made. You can find more information about the right gas to use in your RYOBI string trimmer here. 2-Cycle Premixed Fuel A great option to reduce fuel problems and extend engine life is using an ethanol-free fuel mix. This is an ethanol-free blend of oil and fuel that is ready to pour into your string trimmers fuel tank. You wont have to deal with the bad effects of ethanol as discussed in the fuel section. Also, its convenient to have fuel available on your shelf when you need it. RYOBI 2-Cycle Gas to Oil Mix Mixture1 Gallon Gas2 Gallon Gas2.5 Gallon Gas50:12.6 oz Oil5.2 oz Oil6.4 oz Oil32:14.0 oz Oil8.0 oz Oil10.0 oz Oil If you have a RYOBI string trimmer with a 4-cycle engine, you will have separate fill ports for the engine oil and fuel. You will not mix oil and fuel together for this type of engine. Its important to use the correct engine oil and the right amount of oil. Never use 2-cycle engine oil in a 4-cycle string trimmer. RYOBI recommends using 20W-50 engine oil in the string trimmer. Oil is required to keep the engine components lubricated. When the wrong type or not enough oil is used, friction can build in the engine and overheat causing your string trimmer not to start and possibly ruin the engine. Solution: Drain the engine oil and fill it with the correct oil grade. When running your trimmer in very cold or very hot temperatures, you may have to adjust the viscosity to your ambient temperature. If you continue to have problems, have a small engine mechanic diagnose the problem and determine whether a cost-effective repair can be made. RYOBI 4-Cycle String Trimmer Engine Oil RYOBI20W-50 (Recommended), SAE30, 10W-30, 10W-40 Old fuel left in a string trimmer wont only cause fuel restrictions, but it can also damage the carburetor and engine. Gasoline can begin to break down as quickly as 30 days after purchase. The ethanol found in most types of gasoline attracts moisture from the air. This moisture and ethanol mixture gums up the fuel system and corrodes the components. Because gasoline can begin to go bad as soon as 30 days after purchase, the fuel must be consumed within this time frame. If you are unable to use it in this amount of time, add a fuel additive to stabilize the fuel so it lasts a little longer. Always use unleaded gasoline with a minimum octane rating of 89 (mid-grade) and maximum ethanol content of 10% (E10). Never use E15 or E85 in the engine as this will damage the engine and most likely void manufacturer warranties. Solution: Drain any old fuel remaining in your string trimmer and fill it with fresh fuel. This is an oil and fuel mixture for a 2-cycle engine and unleaded gasoline for a 4-cycle engine. Add a fuel stabilizer like Sea Foam Motor Treatment or STA-BIL to stabilize the fuel and reduce moisture in the fuel. A cracked RYOBI primer bulb that wont fill up with fuel wont function correctly to get fuel to the carburetor for starting the string trimmer. Solution: Replace with a new primer bulb. Old fuel sitting in your string trimmer can leave a gummy sticky deposit behind that restricts fuel flow. This can clog the fuel line and restrict the fuel flow your string trimmer requires to start. Solution: Replace a fuel line on your RYOBI string trimmer when it is cracked, kinked, or clogged. The fuel tank vent allows air into the tank. Without a vent, the fuel tank will create a vacuum that wont allow fuel to flow through the string trimmer. A good indication you may have a fuel tank vent problem is when your string trimmer runs for a few minutes and then shuts down and wont start until you remove or loosen the fuel cap to allow air into the fuel tank. When you tighten the cap and allow it to run and the string trimmer dies and fails to start until the cap is loosened, you most likely have a fuel vent problem. Solution: Replace the fuel tank vent so the air can flow into the fuel tank. Most likely, the fuel tank vent (sometimes referred to as a check valve) is located in the cap on a RYOBI string trimmer. The carburetor regulates the amount of fuel that is mixed with air to create combustion in the cylinder. Old fuel will gum up and clog the carburetor so it no longer functions properly. Solution: If you are a little mechanical you should be able to handle cleaning your carburetor. Clean thecarburetor by taking it apart and usingcarburetorcleaner toclean it. If the carburetor does not function after being cleaned, you may need to rebuild it or replace it with a new carburetor. Depending on the model string trimmer you run and the price of a carburetor, it may be best to invest in a new string trimmer rather than put money towards replacing a carburetor on an old trimmer. Your string trimmer uses a recoil to start the engine. A bad pulley; loose or missing spring; or broken clips can keep your recoil from working. Solution: You can attempt to replace the spring and restring the recoil. If it does not work because other components in your recoil are damaged, such as the clips or the pulley, you are better off just replacing the recoil assembly. You will find a spark arrestor in your string trimmer that can prevent it from starting. The spark arrestor is a small screen that can get plugged with soot. Solution: Disconnect the spark plug boot. Make sure your engine is not hot. Remove the engine cover and engine exhaust cover. Remove the spark arrestor and clean it with a wire brush to remove the soot. If you are unable to clean it sufficiently or it is broken or has a hole in it, replace it with a new spark arrestor. I have had customers bring their string trimmer to the repair shop because they cant get it started. Many times its due to a flooded engine which isnt too serious. The engine can become flooded when the choke is in the closed position and the starter rope was pulled many times allowing too much gas into the carburetor. It can also happen with the switch off and the starter rope being pulled multiple times or when the primer bulb is pushed too many times. Solution: Use the following procedure to unflood your string trimmer so the engine gets the correct fuel-to-air ratio required to start and run. Move the choke lever to the run position. Press the throttle trigger while pulling the starter rope over and over. This can take anywhere between 5 and 15 pulls before it starts. Your string trimmer engine will sputter first. Continue to pull a few more times and it should start. Reddit and its partners use cookies and similar technologies to provide you with a better experience. By accepting all cookies, you agree to our use of cookies to deliver and maintain our services and site, improve the quality of Reddit, personalize Reddit content and advertising, and measure the effectiveness of advertising. By rejecting non-essential cookies, Reddit may still use certain cookies to ensure the proper functionality of our platform. For more information, please see our Cookie Notice and our Privacy Policy. May 28, 2013 / Echo string trimmer hard to start, only when hot. I've had this Echo trimmer for more than 20 years, always starts easy especially when hot. But suddenly, it won't re-start when it's hot. Plug is a little dark, but otherwise looks good. I fiddled with the two mixture screws, so maybe I made it worse. What's the start position for the mixture screws, does 3/4 turn, and 1-1/2 turn, sound about right?Thanks for any help. May 29, 2013 / Echo string trimmer hard to start, only when hot. ******! Now it won't start, hot or cold. New plug, sprayed carb-cleaner in all the orifices, and set the L screw to 1-1/4, and the H screw to 7/8 turns. Still got nothing, just an occasional caugh.I guess I'll drop it off at the small engine repair place. May 30, 2013 / Echo string trimmer hard to start, only when hot. I've had this Echo trimmer for more than 20 years, always starts easy especially when hot. But suddenly, it won't re-start when it's hot. Plug is a little dark, but otherwise looks good. I fiddled with the two mixture screws, so maybe I made it worse. What's the start position for the mixture screws, does 3/4 turn, and 1-1/2 turn, sound about right?Thanks for any help. If you've had that trimmer for 20 years without a rebuild I'd say that's one impressive machine. If you don't know how to rebuild the carb, dropping it off to have it serviced is a good idea. They'll hopefully put a fresh carb kit in it and adjust the needles and she'll run just as good as she did 20 years ago. Good luck! May 30, 2013 / Echo string trimmer hard to start, only when hot. Try the poor man's voltage tester at the spark plug cable (diy this forum). My ryobi died of coil failure after ten years. Although spark was visible on the removed plug, not eough to fire. The tester requires a 1/8" jump. May 30, 2013 / Echo string trimmer hard to start, only when hot. If you've had that trimmer for 20 years without a rebuild I'd say that's one impressive machine. If you don't know how to rebuild the carb, dropping it off to have it serviced is a good idea. They'll hopefully put a fresh carb kit in it and adjust the needles and she'll run just as good as she did 20 years ago. Good luck! The best bet is to go buy a new echo! You had it for that long. that's fantastic. it's tired...get a new one and you will be so happy , it's a waste of money to bring to repair shop!These are so cheap in comparison to having repaired!!!!! Home Blog Handheld Equipment String Trimmers 13 Reasons Your RYOBI String Trimmer Wont Start: SOLVED! Whether you call it a weed eater, weed wacker or string trimmer, it is an important tool for a well-manicured yard and garden. 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Consult a professional if you dont have the skills, or knowledge or are not in the condition to perform the repair safely. When your trimmer wont start, the best thing to do is change out the maintenance items to rule these out as the potential problem. When the spark plug, air filter, and fuel filter are not regularly maintained or replaced, they can cause your string trimmer to not start or run sluggishly. An air filter is used on your string trimmer to protect the engine from dirt and other contaminants that can damage it. The air filter should be changed out annually and cleaned regularly. When the filter becomes dirty and plugged, sufficient air isnt able to pass through it. The engine doesnt get the air it needs to start and run. You may think you can resolve this by removing the filter so you dont run into this plugged air filter problem. This is a huge mistake. 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Also, its convenient to have fuel available on your shelf when you need it. RYOBI 2-Cycle Gas to Oil Mix Mixture1 Gallon Gas2 Gallon Gas2.5 Gallon Gas50:12.6 oz Oil5.2 oz Oil6.4 oz Oil32:14.0 oz Oil8.0 oz Oil10.0 oz Oil If you have a RYOBI string trimmer with a 4-cycle engine, you will have separate fill ports for the engine oil and fuel. You will not mix oil and fuel together for this type of engine. Its important to use the correct engine oil and the right amount of oil. Never use 2-cycle engine oil in a 4-cycle string trimmer. RYOBI recommends using 20W-50 engine oil in the string trimmer. Oil is required to keep the engine components lubricated. When the wrong type or not enough oil is used, friction can build in the engine and overheat causing your string trimmer not to start and possibly ruin the engine. Solution: Drain the engine oil and fill it with the correct oil grade. 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You will find a spark arrestor in your string trimmer that can prevent it from starting. The spark arrestor is a small screen that can get plugged with soot. Solution: Disconnect the spark plug boot. Make sure your engine is not hot. Remove the engine cover and engine exhaust cover. Remove the spark arrestor and clean it with a wire brush to remove the soot. If you are unable to clean it sufficiently or it is broken or has a hole in it, replace it with a new spark arrestor. I have had customers bring their string trimmer to the repair shop because they cant get it started. Many times its due to a flooded engine which isnt too serious. The engine can become flooded when the choke is in the closed position and the starter rope was pulled many times allowing too much gas into the carburetor. It can also happen with the switch off and the starter rope being pulled multiple times or when the primer bulb is pushed too many times. Solution: Use the following procedure to unflood your string trimmer so the engine gets the correct fuel-to-air ratio required to start and run. Move the choke lever to the run position. Press the throttle trigger while pulling the starter rope over and over. This can take anywhere between 5 and 15 pulls before it starts. Your string trimmer engine will sputter first. Continue to pull a few more times and it should start. Join Date: Aug 2010 Location: USA Posts: 134 Upvotes: 0 Received 2 Upvotes on 2 Posts Ryobi String Trimmer Starting Problems??? I have problems starting this trimmer. I have cleaned and rebuilt carb, new gas lines and fuel filter. Says to flip yellow lever and primer bulb 7 times. It will not start. If I squirt starting fluid in it fires right up and runs perfect and idles. I can trim day and it runs great. Shut off and it will start right up. Sits overnight and I cannot get it started. Any Suggestions? Thanks Have you checked out the priming system? It sounds like the primer bulb is not working. Do you see or feel the bulb fill with fuel after a few pushes? Join Date: Aug 2010 Location: USA Posts: 134 Upvotes: 0 Received 2 Upvotes on 2 Posts Yes, you can see gas go thru the line, as it pressurizes the tank. There are two lines on back of primer mount. Maybe it is suppose to go from tank thru primer to the other line and pump in carb. Maybe something is plugged in that? If ther primer is filling with gas, it's probably doing what it should. Does the yellow lever hold the throttle open a bit and disengage when you hit the throttle trigger? Join Date: Aug 2010 Location: USA Posts: 134 Upvotes: 0 Received 2 Upvotes on 2 Posts Yes it holds it open but not much. I replaced the primer. The short gas line that goes from the primer to the carb I disconnected from carb and pushed on the primer and gas did not come out of it? Even with the new primer bulb it will not start, as I said before one shot of starting fluid in carb it fires and runs great?? I am at a loss. I'd suspect an air leak between the carb and the engine or the choke not closing. Join Date: Aug 2010 Location: USA Posts: 134 Upvotes: 0 Received 2 Upvotes on 2 Posts If it were an air leak wouldn't that affect on how it runs? Because once started it runs perfect and will restart again but not after it sits Join Date: Aug 2010 Location: USA Posts: 134 Upvotes: 0 Received 2 Upvotes on 2 Posts I think it has to do with when you push the primer it is not pumping gas into the carb. Just not sure why. It's not supposed to.________________ Join Date: Aug 2010 Location: USA Posts: 134 Upvotes: 0 Received 2 Upvotes on 2 Posts What does the primer bulb do? I thought it always put gas in cylinder? Join Date: May 2010 Location: USA Posts: 542 Upvotes: 0 Received 49 Upvotes on 37 Posts I bought a new Ryobi 2-stroke trimmer last year. From day one I've never even tried to start it without a can of starter fluid nearby. I prime it and give it three tugs and if it doesn't start, I squirt some starter fluid around the intake without removing the filter cover. And it's rare that it doesn't start on the first tug after hitting it with the starter fluid (and this is Prestone, not the hi-ether good stuff). It never fails and to me it's a lot less headache than trying to figure out why it won't start. Join Date: Aug 2010 Location: USA Posts: 134 Upvotes: 0 Received 2 Upvotes on 2 Posts That's crazy, I agree that would be easier.. Its a nice trimmer and runs well when started. Would like to figure it out. Maybe I can check with ryobi?? Quote: What does the primer bulb do? I thought it always put gas in cylinder It circulates gas through the carb and back to the tank. It's purpose is to purge the lines and carb of air and fill the fuel reservoir in the carburetor. When you cold start it the choke has a full charge of fuel to work with.Your primer should be pumping gas one way from the tank, through the carb, and back to the tank. With that working the choke should start it cold. Join Date: Jun 2006 Location: United States Posts: 2,295 Upvotes: 0 Received 33 Upvotes on 29 Posts While the engine is running spray/dribble some carb/brake parts cleaner behind the carb and along the mating surfaces if the engine tempo changes you have an air leak it could be a failing gasket or a cracked insulator. Have a good one, Geo Join Date: Aug 2010 Location: USA Posts: 134 Upvotes: 0 Received 2 Upvotes on 2 Posts Thanks will give that a try, all the gaskets looked good when I put the carb back on. Primer Bulb is working and is doing what you said. Thanks Quote: The short gas line that goes from the primer to the carb I disconnected from carb and pushed on the primer and gas did not come out of it? Is this still the case?.. Join Date: Aug 2010 Location: USA Posts: 134 Upvotes: 0 Received 2 Upvotes on 2 Posts I started it up, sprayed brake cleaner all around gaskets on carb and did not change anything, still runs great. Yes I pulled that short hose that goes to carb again and the primer bulb does nothing with it removed just pumps air. Put back on and it pumped gas and fills the primer bulb. Actually I think it pressurizes the tank? I am at a loss. Quote: Actually I think it pressurizes the tank It really isn't intended to pressurize the tank. The primer just pulls gas from the tank, through the carb and returns the fuel to the tank. Consequently it returns the same amount it takes from the tank or close to it.There are some different types of primers, though. Some pump air into the carb bowl and force fuel up into the carb throat leading to the engine head. That may be one you were thinking of. . But fuel isn't moving through the bulb, just air. Join Date: Aug 2010 Location: USA Posts: 134 Upvotes: 0 Received 2 Upvotes on 2 Posts When I push on the primer bulb I can see fuel in the primer bulb. It is a new primer. There shouldn't be fuel in it when you push on it? You're good with what you have. You should have fuel in the bulb. Join Date: Aug 2010 Location: USA Posts: 134 Upvotes: 0 Received 2 Upvotes on 2 Posts I just wanted to post an update with this trimmer. I have played with this for sometime, as I have said that if I squirt starting fluid in it runs perfect. Let it sit over night and it will not start. So this has been sitting. I pulled it out today and again it would not start. I took the carb off and I switched the gas lines on the primer bulb. It is one of the snap on bulbs that is on the air cleaner bracket. There are two pins on the bulb one long and one short. Put it back together and primed it the 7 times it says it it started right up and ran perfect. I even sent a message to ryobi and they told me I needed a new carb. Shows what they know. Hope this helps someone else that has this problem Home Blog Handheld Equipment String Trimmers 13 Reasons Your RYOBI String Trimmer Wont Start: SOLVED! Whether you call it a weed eater, weed wacker or string trimmer, it is an important tool for a well-manicured yard and garden. A RYOBI string trimmer will not start when the air filter is clogged, the spark plug is bad, the carburetor is dirty, old fuel restricts the fuel supply, an incorrect fuel mix is used, the wrong oil is used, the recoil starter is bad, or the engine is flooded. Follow all safety precautions in your operators manual to avoid injury while working on your string trimmer. This guide references 2-cycle and 4-cycle engines. While most gas-powered string trimmers on the market today use 2-cycle (2-stage) engines, you will also find 4-cycle (4-stage) engines. Check your operators manual if you are unsure what type of engine you are running on your string trimmer. 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 operators manual before diagnosing, repairing, or operating. Consult a professional if you dont have the skills, or knowledge or are not in the condition to perform the repair safely. When your trimmer wont start, the best thing to do is change out the maintenance items to rule these out as the potential problem. When the spark plug, air filter, and fuel filter are not regularly maintained or replaced, they can cause your string trimmer to not start or run sluggishly. An air filter is used on your string trimmer to protect the engine from dirt and other contaminants that can damage it. The air filter should be changed out annually and cleaned regularly. When the filter becomes dirty and plugged, sufficient air isnt able to pass through it. The engine doesnt get the air it needs to start and run. You may think you can resolve this by removing the filter so you dont run into this plugged air filter problem. This is a huge mistake. Never operate your string trimmer without an air filter, even if it is just for a short period so you can finish a task. Dirt in the engine can cause wearing and significant engine damage which may result in having to buy a new string trimmer. Solution: Remove the filter and wipe out any remaining dirt from the air filter housing. Replace a dirty air filter with a new air filter. The spark plug is a maintenance item that should be replaced each year to keep your string trimmer running at its best. The spark plug will become dirty over time with a buildup of carbon. This can cause the plug to misfire having intermittent starting problems. Other items to look for is cracked porcelain or burnt electrode; a loose spark plug wire; and an incorrect spark plug gap. These items can also cause a starting issue with your Ryobi. Solution: You can attempt to clean a dirty spark plug with a wire brush and reuse it. I prefer to replace it. It is an inexpensive part and one of the primary items responsible keep your string trimmer running. Make sure your spark plug is gapped to the manufacturers specification and the spark plug wire (boot) is securely attached. The fuel filter can be found inside the fuel tank. It attaches to the fuel line to strain the fuel before it enters the fuel system. Its function is to keep dirt and debris from getting into the fuel system that may clog the lines and carburetor damage your trimmer. When the fuel filter becomes plugged because it isnt changed out regularly or you are running very dirty fuel, the amount of fuel allowed to pass through the filter is reduced. This can cause your string trimmer to fail to start because the engine isnt getting the fuel it requires. Solution: Locate the fuel filter inside the fuel tank and replace it. Wipe around the fuel cap to remove any loose dirt so it doesnt fall into the fuel tank once you remove the cap. Gain access to the filter. A clean bent wire works well to fish the filter and pull it out of the tank. Remove the old filter from the fuel line. Be careful not to lose the retaining ring securing the line to the filter. Install the new fuel filter securing the fuel line to the filter using the retaining ring. Place the filter back inside the fuel tank and install the fuel cap. Using straight gas in a 2-cycle RYOBI string trimmer will damage the engine and cause it to seize up. Adding straight gas to your string trimmer is a quick way to ruin it. A 2-cycle RYOBI string trimmer uses gas and oil mixed at a ratio of 50:1. For example, a 50:1 mix equals 50 parts gasoline to 1 part oil. Some old RYOBI string trimmers use a gas-to-oil mix ratio of 32:1. You can find the correct mix ratio for your model in your operators manual. You may also find it located on the original fuel cap. When creating the oil and gas mixture for your string trimmer, use unleaded gasoline with a minimum octane rating of 89 (mid-grade) and maximum ethanol content of 10%. Add a 2-cycle premium oil that is ISO-L-EGD and JASO M345 FD certified. Mix it in an approved gas can before adding it to your string trimmer. Solution: Drain the fuel tank and fill it with the correct gas to oil mix. If you continue to have problems, have a small engine mechanic diagnose the problem and determine whether a cost-effective repair can be made. You can find more information about the right gas to use in your RYOBI string trimmer here. 2-Cycle Premixed Fuel A great option to reduce fuel problems and extend engine life is using an ethanol-free fuel mix. This is an ethanol-free blend of oil and fuel that is ready to pour into your string trimmers fuel tank. You wont have to deal with the bad effects of ethanol as discussed in the fuel section. Also, its convenient to have fuel available on your shelf when you need it. RYOBI 2-Cycle Gas to Oil Mix Mixture1 Gallon Gas2 Gallon Gas2.5 Gallon Gas50:12.6 oz Oil5.2 oz Oil6.4 oz Oil32:14.0 oz Oil8.0 oz Oil10.0 oz Oil If you have a RYOBI string trimmer with a 4-cycle engine, you will have separate fill ports for the engine oil and fuel. You will not mix oil and fuel together for this type of engine. Its important to use the correct engine oil and the right amount of oil. Never use 2-cycle engine oil in a 4-cycle string trimmer. RYOBI recommends using 20W-50 engine oil in the string trimmer. Oil is required to keep the engine components lubricated. When the wrong type or not enough oil is used, friction can build in the engine and overheat causing your string trimmer not to start and possibly ruin the engine. Solution: Drain the engine oil and fill it with the correct oil grade. When running your trimmer in very cold or very hot temperatures, you may have to adjust the viscosity to your ambient temperature. If you continue to have problems, have a small engine mechanic diagnose the problem and determine whether a cost-effective repair can be made. RYOBI 4-Cycle String Trimmer Engine Oil RYOBI20W-50 (Recommended), SAE30, 10W-30, 10W-40 Old fuel left in a string trimmer wont only cause fuel restrictions, but it can also damage the carburetor and engine. Gasoline can begin to break down as quickly as 30 days after purchase. The ethanol found in most types of gasoline attracts moisture from the air. This moisture and ethanol mixture gums up the fuel system and corrodes the components. Because gasoline can begin to go bad as soon as 30 days after purchase, the fuel must be consumed within this time frame. If you are unable to use it in this amount of time, add a fuel additive to stabilize the fuel so it lasts a little longer. Always use unleaded gasoline with a minimum octane rating of 89 (mid-grade) and maximum ethanol content of 10% (E10). Never use E15 or E85 in the engine as this will damage the engine and most likely void manufacturer warranties. Solution: Drain any old fuel remaining in your string trimmer and fill it with fresh fuel. This is an oil and fuel mixture for a 2-cycle engine and unleaded gasoline for a 4-cycle engine. Add a fuel stabilizer like Sea Foam Motor Treatment or STA-BIL to stabilize the fuel and reduce moisture in the fuel. A cracked RYOBI primer bulb that wont fill up with fuel wont function correctly to get fuel to the carburetor for starting the string trimmer. Solution: Replace with a new primer bulb. Old fuel sitting in your string trimmer can leave a gummy sticky deposit behind that restricts fuel flow. This can clog the fuel line and restrict the fuel flow your string trimmer requires to start. Solution: Replace a fuel line on your RYOBI string trimmer when it is cracked, kinked, or clogged. The fuel tank vent allows air into the tank. Without a vent, the fuel tank will create a vacuum that wont allow fuel to flow through the string trimmer. A good indication you may have a fuel tank vent problem is when your string trimmer runs for a few minutes and then shuts down and wont start until you remove or loosen the fuel cap to allow air into the fuel tank. When you tighten the cap and allow it to run and the string trimmer dies and fails to start until the cap is loosened, you most likely have a fuel vent problem. Solution: Replace the fuel tank vent so the air can flow into the fuel tank. Most likely, the fuel tank vent (sometimes referred to as a check valve) is located in the cap on a RYOBI string trimmer. The carburetor regulates the amount of fuel that is mixed with air to create combustion in the cylinder. Old fuel will gum up and clog the carburetor so it no longer functions properly. Solution: If you are a little mechanical you should be able to handle cleaning your carburetor. Clean thecarburetor by taking it apart and usingcarburetorcleaner toclean it. If the carburetor does not function after being cleaned, you may need to rebuild it or replace it with a new carburetor. Depending on the model string trimmer you run and the price of a carburetor, it may be best to invest in a new string trimmer rather than put money towards replacing a carburetor on an old trimmer. Your string trimmer uses a recoil to start the engine. A bad pulley; loose or missing spring; or broken clips can keep your recoil from working. Solution: You can attempt to replace the spring and restring the recoil. If it does not work because other components in your recoil are damaged, such as the clips or the pulley, you are better off just replacing the recoil assembly. You will find a spark arrestor in your string trimmer that can prevent it from starting. The spark arrestor is a small screen that can get plugged with soot. Solution: Disconnect the spark plug boot. Make sure your engine is not hot. Remove the engine cover and engine exhaust cover. Remove the spark arrestor and clean it with a wire brush to remove the soot. If you are unable to clean it sufficiently or it is broken or has a hole in it, replace it with a new spark arrestor. I have had customers bring their string trimmer to the repair shop because they cant get it started. Many times its due to a flooded engine which isnt too serious. The engine can become flooded when the choke is in the closed position and the starter rope was pulled many times allowing too much gas into the carburetor. It can also happen with the switch off and the starter rope being pulled multiple times or when the primer bulb is pushed too many times. Solution: Use the following procedure to unflood your string trimmer so the engine gets the correct fuel-to-air ratio required to start and run. Move the choke lever to the run position. Press the throttle trigger while pulling the starter rope over and over. This can take anywhere between 5 and 15 pulls before it starts. Your string trimmer engine will sputter first. Continue to pull a few more times and it should start. Jul 9, 2014 / B&S Intek hard to start when hot. I have a 15Yr. old Ariens self propelled walk behind mower that I only use 3 or 4 times a year to mow the weeds on a slope at the edge of the yard...to steep for the riding mower. This Ariens has a 6.5 B&S Intek engine, and when cold it starts and runs great. However, if I stop it for anything after a half hour...add gas, etc., it is Very Hard to restart. If I pull the air filter, it sound like the fuel is "boiling" in the carburetor. I have rebuilt the carb, and there is a fiber "spacer" between the carb and the cylinder, which I assume is supposed to act as a "heat sink", but nothing I've tried, so far, seems to cure the "Hot restart" condition. Any Ideas??? Jul 30, 2014 / B&S Intek hard to start when hot. Heat will kill the coils. I'm guessing the coil has transistor switching inside which will die at about 259F , industrial grade parts. Try icing it when it quits to see if it starts . If injured transistor you must replace. You should install a temp gauge on head and watch it to avoid problems. Search this forum. Jul 30, 2014 / B&S Intek hard to start when hot. Heat will kill the coils. I'm guessing the coil has transistor switching inside which will die at about 259F , industrial grade parts. Try icing it when it quits to see if it starts . If injured transistor you must replace. You should install a temp gauge on head and watch it to avoid problems. Search this forum. Yes, I thought it might be an ignition problem, at one time. I hooked up a test light to the plug, one time when it was hot, and it seemed to get plenty of juice. Everything I've tried points to a flooding problem when the engine gets hot, and I shut it off for a couple of minutes. The "Boiling" sounds, at the carburetor, seems to be my best clue. It will start, after a dozen or more pulls, cough a bit, then settle in until I shut it off again. It's not big deal, as I don't use this old thing much, but it's just an aggravation that I'd like to resolve. I do have a spare coil off an old engine that shucked a rod some time back. Perhaps when I get a day with little to do, I may just see if that coil fits, and concentrate on the ignition aspect, and see if that helps. Thanks for responding. Keeping tall grass and light brush trimmed along fencing or around the base of tree trunks (or those pink flamingos you dutifully install on the front lawn each summer) is an essential finishing touch following a lawn cutting. To accomplish this, many professional and do-it-yourself landscapers rely on gas-powered string trimmers. Like with all gas-powered lawn and garden equipment, if the engine wont start, the string trimmer wont be of much use. What should you do if your gas-powered string trimmer isnt starting? Repair Clinic has identified seven likely reasons why the trimmer engine may not be starting along with the troubleshooting tips you can follow to fix the problem quickly. To successfully troubleshoot why a gas-powered string trimmer isnt starting, youll need to understand how a trimmer engine works. Not all string trimmers rely on a gas-powered engine (many trimmers are powered by a battery, a power cord, or even propane), but those trimmers that run on gasoline will use one of two different engine types. Commercial trimmer engines vs. residential trimmer engines Typically, commercial gas string trimmers utilize a four-cycle engine, while most residential string trimmers employ a two-cycle engine. While four-cycle engines will have a separate sump for oil, two-cycle engines will usually require the gasoline to be mixed with oil to provide the necessary lubrication for the engine to function smoothly. Since getting the right gas/oil mixture can be challenging, a product like TRUFUEL 50:1 Mix, which pre-mixes fuel and oil, can be poured directly into the string trimmer fuel tank. The basics of string trimmer engine operation To turn over the engine, the ignition switch must first be set to the start position. As the starter rope is pulled, the starter engages the drive cup attached to the flywheel, causing the crankshaft to rotate. The rotating crankshaft connects to a piston that moves vertically within the cylinder. When the piston descends, an intake port is exposed, allowing fuel, oil, and air to enter the cylinder. As the piston ascends, a vacuum is created, drawing the gas, oil, and air mixture through the carburetor and into the crankcase. The flywheel has permanent magnets installed in it, and as the magnets pass by the ignition coil, a magnetic field is generated. This magnetic field induces electricity, enabling the ignition coil to emit a high-voltage pulse to the spark plug. When the piston reaches the top of the cylinder, the spark plug ignites the compressed fuel and air mixture, propelling the piston back down. The spent fuel exits through an exhaust port, while fresh fuel enters the intake port, to continue the combustion process sustaining the engines operation. Additional engine components that assist with starting To assist with engine startup, particularly when its cold, string trimmer engines are equipped with either a choke, a primer bulb, or both. Pressing the primer bulb will draw extra fuel through the carburetor, while closing the choke will temporarily limit the airflow through the carburetor, creating a vacuum that will allow a higher amount of fuel to enter the cylinder. With all of these components working together to start and run the string trimmers engine, one malfunctioning part can prevent the string trimmer from starting. Here are the seven parts most likely to cause an engine starting problem as well as some troubleshooting advice on how to fix that problem: 1) Defective spark plug Due to carbon build-up or a weakened electrode, a spark plug will degrade over time and be unable to ignite the compressed fuel and air inside the engines combustion chamber to start or run the trimmer engine. You can use an ignition tester to help determine the strength of the spark plug, but its probably easier to simply replace it with a new one, something we recommend doing as part of an annual string trimmer engine tune-up. 2) Restricted carburetor Old or bad fuel can leave a gummy residue inside the carburetor creating a restriction. This will prevent the proper ratio of fuel and air from entering the cylinder which can cause the engine to have trouble starting. You should always make sure you keep fresh fuel in the tank and use a fuel stabilizer to help preserve its quality. You can try cleaning the carburetor ports with a dedicated carburetor cleaner, or WD-40, to clear out the restriction. If cleaning is not effective, you can often purchase a carburetor repair kit to replace some of the clogged components or install a new carburetor altogether. 3) Clogged fuel filter That gummy residue that can clog a carburetor can do the same to the fuel filter located in the trimmers fuel tank. Simply replace the filter with a new one to solve the problem. Again, this is something that is recommended anyway as part of the engines annual maintenance. 4) Broken rewind spring If the starters rewind spring is broken, the rope wont be able to recoil onto the pulley resulting in the engine not starting. Many rewind springs can be replaced independently of the starter, but this can be tricky since the tightly-wound spring can easily become unwound during installation, something that happens with enough intensity to cause injury. As a safety precaution, it may be better to replace the entire recoil starter instead of just the spring. 5) Malfunctioning recoil starter Other recoil starter components apart from the spring could be malfunctioning as well causing the starter to be unable to engage with the trimmer engine crankshaft. Inspect the starter rope, clutch, starter pawls, and, yes, the rewind spring for damage or wear and replace the component or components as necessary. Again, you may find it easier to simply install a brand-new recoil starter assembly to solve the problem. 6) Clogged spark arrestor The spark arrestor is a thin metal mesh designed to prevent sparks emitted by the engine from exiting the muffler and potentially starting a fire. Over time the arrestor can become clogged with debris and affect engine performance. You can try cleaning the arrestor with a wire brush or replace the part with a new one. 7) Dirty air filter By restricting the air coming into the carburetor, a dirty air filter can prevent the engine from starting as well. The air filter is yet another part that should always be replaced annually when tuning up the engine or whenever the filter appears visibly soiled. Top Reasons String Trimmer Not Starting String Trimmer Troubleshooting Your troubleshooting has identified that you need to install a new rewind spring to fix your string trimmer, but does it matter which spring you install? Yes! A successful repair requires that you install the exact original equipment manufacturer (OEM) part that matches your string trimmer model. By stocking only OEM parts, Repair Clinic assures you that youll be installing the right part. Enter the full model number of the string trimmer in Repair Clinics website search bar to view a comprehensive list of compatible parts, genuine OEM replacement parts from all the top string trimmer brands, including Craftsman, Echo, Husqvarna, Kawasaki, MTD, Poulan Pro, Ryobi, Toro, and Troy-bilt. You can then use the Part Category navigation filter (examples: Starter, Carburetor) along with the Part Title navigation filter (examples: Rewind Spring, Float Needle) to narrow the list down to the specific part or parts you need for your repair. Youve located the replacement part you need; now youre looking for some guidance on how to install the part. Repair Clinic has you covered by offering free string trimmer repair help in the Videos & Articles section of its website. Explore the vast collection of procedural videos, step-by-step guides, and equipment schematics to learn the proper way to install a rewind spring on an Echo Model GT225 String Trimmer or how to replace the carburetor on a Husqvarna Model 128CD String Trimmer. Its all part of Repair Clinics commitment to being your repair partner. Home Blog Handheld Equipment String Trimmers 13 Reasons Your RYOBI String Trimmer Wont Start: SOLVED! Whether you call it a weed eater, weed wacker or string trimmer, it is an important tool for a well-manicured yard and garden. A RYOBI string trimmer will not start when the air filter is clogged, the spark plug is bad, the carburetor is dirty, old fuel restricts the fuel supply, an incorrect fuel mix is used, the wrong oil is used, the recoil starter is bad, or the engine is flooded. Follow all safety precautions in your operators manual to avoid injury while working on your string trimmer. This guide references 2-cycle and 4-cycle engines. While most gas-powered string trimmers on the market today use 2-cycle (2-stage) engines, you will also find 4-cycle (4-stage) engines. Check your operators manual if you are unsure what type of engine you are running on your string trimmer. 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 operators manual before diagnosing, repairing, or operating. Consult a professional if you dont have the skills, or knowledge or are not in the condition to perform the repair safely. When your trimmer wont start, the best thing to do is change out the maintenance items to rule these out as the potential problem. When the spark plug, air filter, and fuel filter are not regularly maintained or replaced, they can cause your string trimmer to not start or run sluggishly. An air filter is used on your string trimmer to protect the engine from dirt and other contaminants that can damage it. The air filter should be changed out annually and cleaned regularly. When the filter becomes dirty and plugged, sufficient air isnt able to pass through it. The engine doesnt get the air it needs to start and run. You may think you can resolve this by removing the filter so you dont run into this plugged air filter problem. This is a huge mistake. Never operate your string trimmer without an air filter, even if it is just for a short period so you can finish a task. Dirt in the engine can cause wearing and significant engine damage which may result in having to buy a new string trimmer. Solution: Remove the filter and wipe out any remaining dirt from the air filter housing. Replace a dirty air filter with a new air filter. The spark plug is a maintenance item that should be replaced each year to keep your string trimmer running at its best. The spark plug will become dirty over time with a buildup of carbon. This can cause the plug to misfire having intermittent starting problems. Other items to look for is cracked porcelain or burnt electrode; a loose spark plug wire; and an incorrect spark plug gap. These items can also cause a starting issue with your Ryobi. Solution: You can attempt to clean a dirty spark plug with a wire brush and reuse it. I prefer to replace it. It is an inexpensive part and one of the primary items responsible keep your string trimmer running. Make sure your spark plug is gapped to the manufacturers specification and the spark plug wire (boot) is securely attached. The fuel filter can be found inside the fuel tank. It attaches to the fuel line to strain the fuel before it enters the fuel system. 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Using straight gas in a 2-cycle RYOBI string trimmer will damage the engine and cause it to seize up. Adding straight gas to your string trimmer is a quick way to ruin it. A 2-cycle RYOBI string trimmer uses gas and oil mixed at a ratio of 50:1. For example, a 50:1 mix equals 50 parts gasoline to 1 part oil. Some old RYOBI string trimmers use a gas-to-oil mix ratio of 32:1. You can find the correct mix ratio for your model in your operators manual. You may also find it located on the original fuel cap. When creating the oil and gas mixture for your string trimmer, use unleaded gasoline with a minimum octane rating of 89 (mid-grade) and maximum ethanol content of 10%. Add a 2-cycle premium oil that is ISO-L-EGD and JASO M345 FD certified. Mix it in an approved gas can before adding it to your string trimmer. Solution: Drain the fuel tank and fill it with the correct gas to oil mix. If you continue to have problems, have a small engine mechanic diagnose the problem and determine whether a cost-effective repair can be made. You can find more information about the right gas to use in your RYOBI string trimmer here. 2-Cycle Premixed Fuel A great option to reduce fuel problems and extend engine life is using an ethanol-free fuel mix. This is an ethanol-free blend of oil and fuel that is ready to pour into your string trimmers fuel tank. You wont have to deal with the bad effects of ethanol as discussed in the fuel section. Also, its convenient to have fuel available on your shelf when you need it. RYOBI 2-Cycle Gas to Oil Mix Mixture1 Gallon Gas2 Gallon Gas2.5 Gallon Gas50:12.6 oz Oil5.2 oz Oil6.4 oz Oil32:14.0 oz Oil8.0 oz Oil10.0 oz Oil If you have a RYOBI string trimmer with a 4-cycle engine, you will have separate fill ports for the engine oil and fuel. You will not mix oil and fuel together for this type of engine. Its important to use the correct engine oil and the right amount of oil. Never use 2-cycle engine oil in a 4-cycle string trimmer. RYOBI recommends using 20W-50 engine oil in the string trimmer. Oil is required to keep the engine components lubricated. When the wrong type or not enough oil is used, friction can build in the engine and overheat causing your string trimmer not to start and possibly ruin the engine. Solution: Drain the engine oil and fill it with the correct oil grade. When running your trimmer in very cold or very hot temperatures, you may have to adjust the viscosity to your ambient temperature. If you continue to have problems, have a small engine mechanic diagnose the problem and determine whether a cost-effective repair can be made. RYOBI 4-Cycle String Trimmer Engine Oil RYOBI20W-50 (Recommended), SAE30, 10W-30, 10W-40 Old fuel left in a string trimmer wont only cause fuel restrictions, but it can also damage the carburetor and engine. Gasoline can begin to break down as quickly as 30 days after purchase. The ethanol found in most types of gasoline attracts moisture from the air. This moisture and ethanol mixture gums up the fuel system and corrodes the components. Because gasoline can begin to go bad as soon as 30 days after purchase, the fuel must be consumed within this time frame. If you are unable to use it in this amount of time, add a fuel additive to stabilize the fuel so it lasts a little longer. Always use unleaded gasoline with a minimum octane rating of 89 (mid-grade) and maximum ethanol content of 10% (E10). Never use E15 or E85 in the engine as this will damage the engine and most likely void manufacturer warranties. Solution: Drain any old fuel remaining in your string trimmer and fill it with fresh fuel. This is an oil and fuel mixture for a 2-cycle engine and unleaded gasoline for a 4-cycle engine. 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Continue to pull a few more times and it should start.

Ryobi gas trimmer won't start. Ryobi whipper snipper hard to start. Ryobi trimmer won't start. Ryobi battery trimmer won't start.