



Barreto Tillers E1320HTRLR 2016 Actuator Valve Replacement

Guide to remove and replace the actuator valve on the Barreto Tiller E1320 2016.

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INTRODUCTION

This guide shows how to remove and replace the actuator valve on the Barreto Tiller E1320 2016.



TOOLS:

- [14mm Hex key](#) (1)
- [Fluid Extractor](#) (1)
- [9/16" socket](#) (1)
- [3/8" Drive Ratchet](#) (1)
- [3/8" Socket](#) (1)
- [Shop Towels or Rags](#) (1)
- [Chisel Scraper](#) (1)
- [7/8" Wrench](#) (1)
- [Adjustable Wrench](#) (1)

Optional

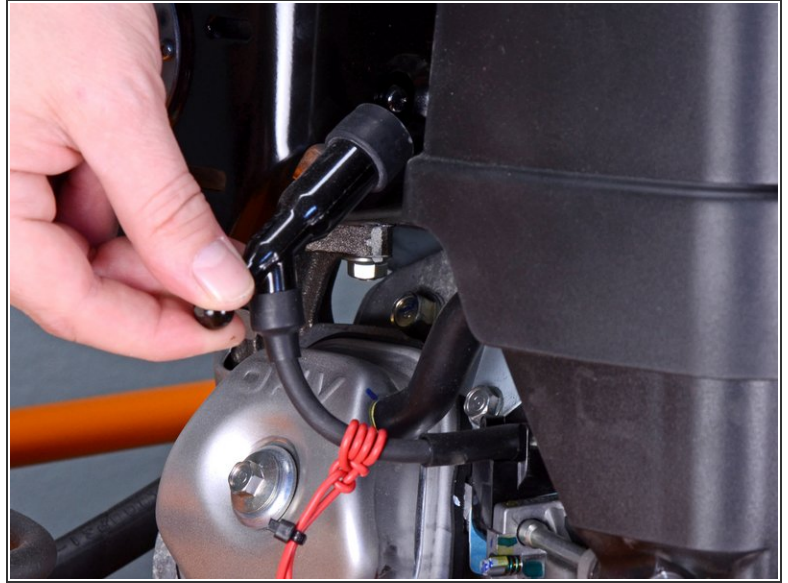
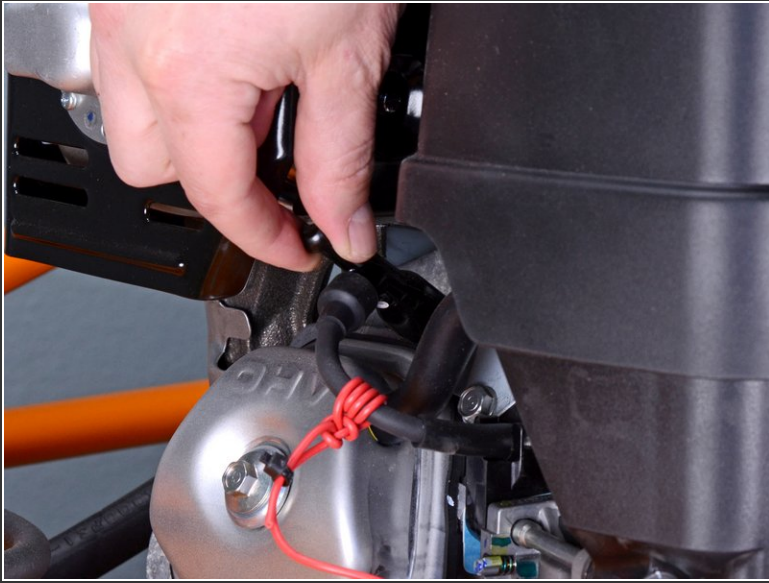
- [1 1/16" Wrench](#) (1)
- [Pipe Wrench](#) (1)
- [Flathead Screwdriver](#) (1)




PARTS:

- [Barreto Actuator Valve, O-Ring Ports 04016](#) (1)
- [Barreto C-Clip, 3/4 05028](#) (1)
- [Barreto O-Ring, -8 Fitting 03077](#) (1)
- [Barreto Relief Valve, 3000 Pound, O-Ring 04008-BO](#) (1)
- [Barreto Return Tube, #8 O-Ring 10481](#) (1)
- [Barreto Fitting, 6407-8-8 04567](#) (1)
- [Barreto Spring, Valve Spool Return 03055](#) (1)
- [Barreto Collar, 3/8 Id 03056](#) (2)
- [Barreto Washer, 3/8 Uss, Zinc 05108](#) (1)
- [Barreto Hh Cap Screw, 3/8-16 Nc X 1-1/2 G5 Zinc 05092](#) (1)

Step 1 — Disconnect the spark plug wire



 Before you begin, ensure that the engine is powered down and cool to the touch.

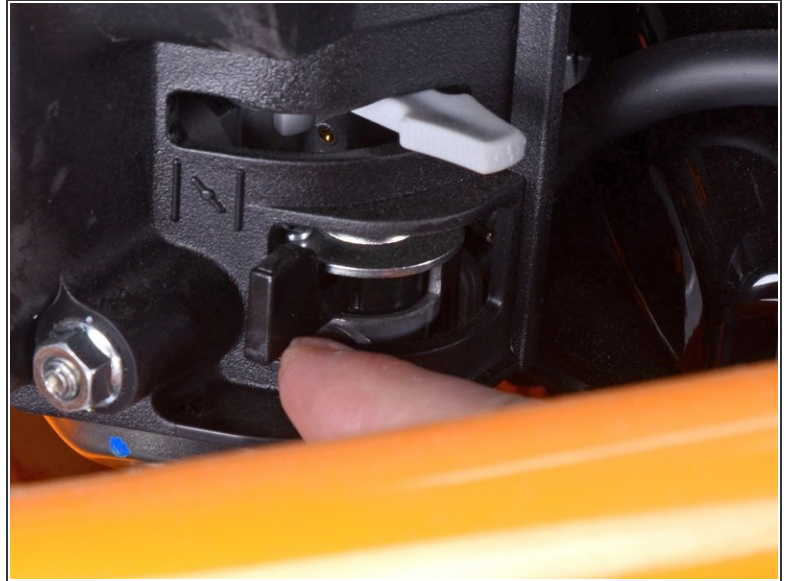
- Grab the plastic housing at the end of the spark plug wire and pull firmly to disconnect it.

Step 2 — Flip the engine switch to the off position



- Flip the red engine ON/OFF switch to the **OFF** position.

Step 3 — Close the fuel valve



- Flip the fuel valve lever to the **OFF** position.

Step 4 — Turn off the ignition



- Flip the ignition switch to the **OFF** position.
- Ensure the wheel drive control lever is set to the **neutral** position.

Step 5 — Allow the wheels to freewheel



- Pull the locking pin out and rotate it 90° to unlock the right wheel from the hub.
- Repeat for the left wheel.

Step 6 — Add wheel chocks



- Insert wheel chocks underneath each wheel to keep the device stationary during disassembly.

Step 7 — Remove the fill plug



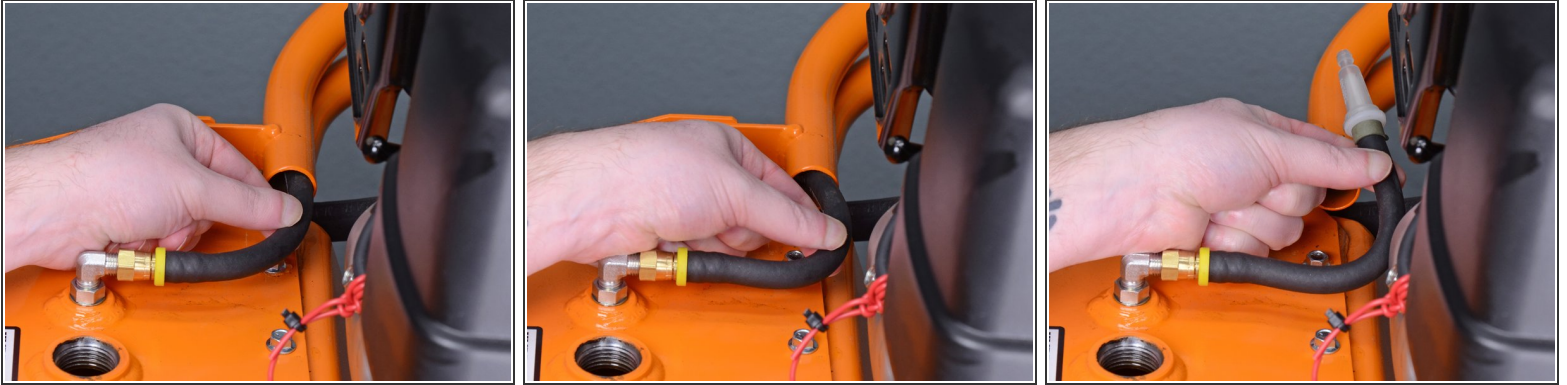
- Use a 14 mm hex key to remove the tank fill plug.

Step 8 — Remove the fluid



- Use a siphon to pump out as much fluid as you're able to, totaling about 14 gallons.

Step 9 — Remove the breather tube from the engine guard



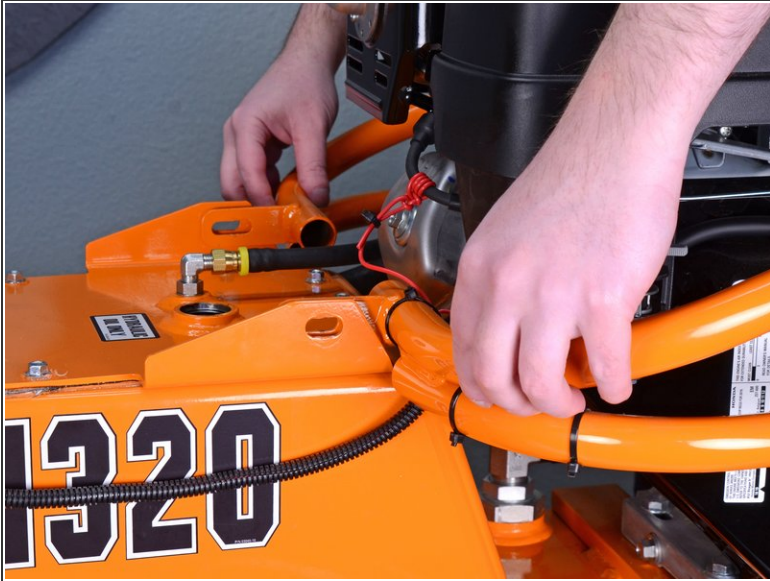
- Remove the end of the tank breather tube from inside the engine guard structural pipe.

Step 10 — Tilt up the engine guard



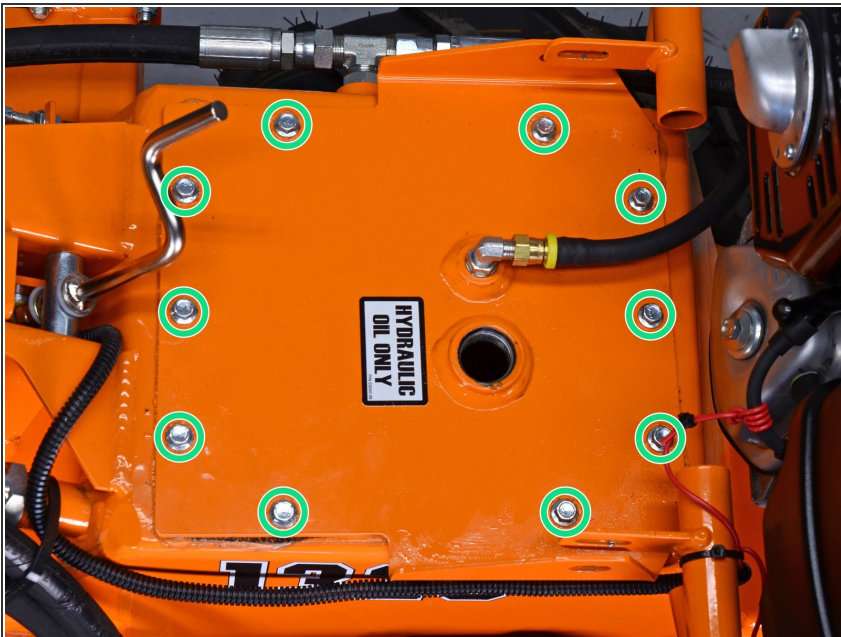
- Use a 9/16 inch socket and wrench to remove the two bolts and accompanying nuts securing the engine guard to the tank lid, one on each side.

Step 11



- Lift the engine guard up above the tank lid flanges.

Step 12 — Remove the tank lid bolts



- Use a 3/8 inch socket to remove the ten bolts securing the tank lid.

Step 13 — Clean the lid



- Use a shop towel to clean and remove any remnants of silicone gasket material from the top of the lid and surrounding areas.
- ⓘ Try to prevent any silicone remnants from falling into the hydraulic fluid tank.

Step 14 — Remove the tank lid



- Lift up on the lid to break the seal around the perimeter of the gasket.

Step 15



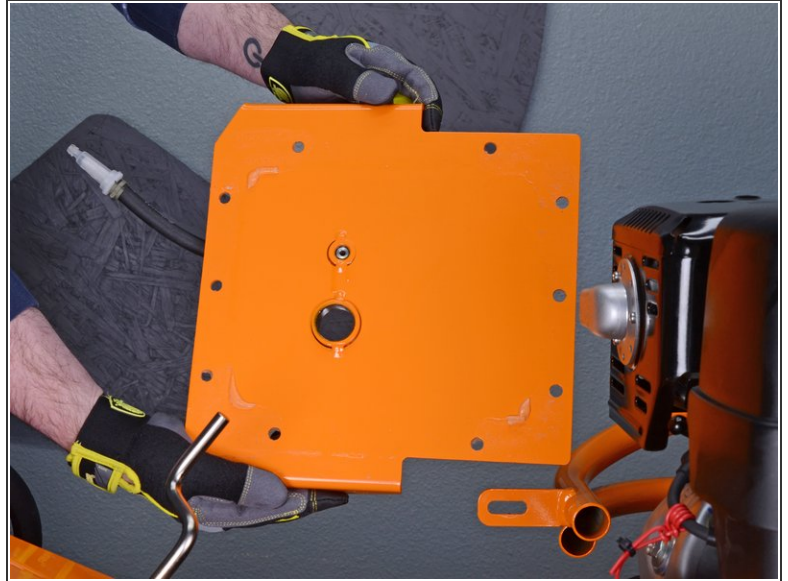
- Lift the tank lid out and around the engine guard mounting tabs to remove it.

Step 16 — Remove the old gasket



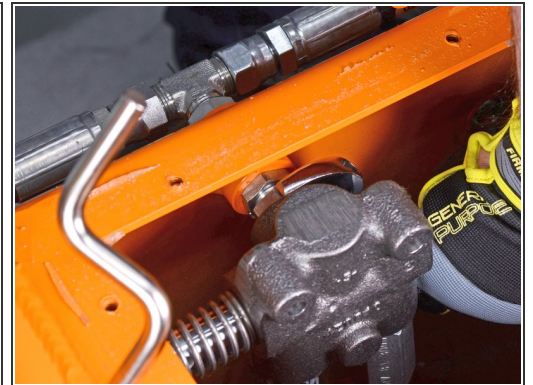
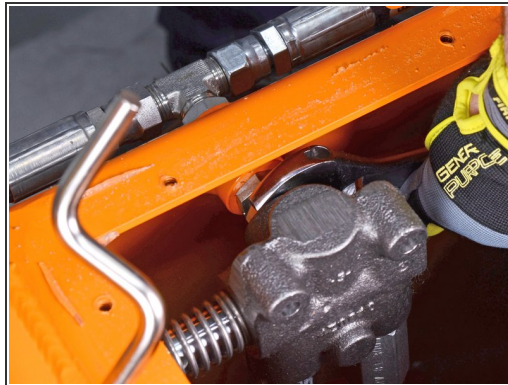
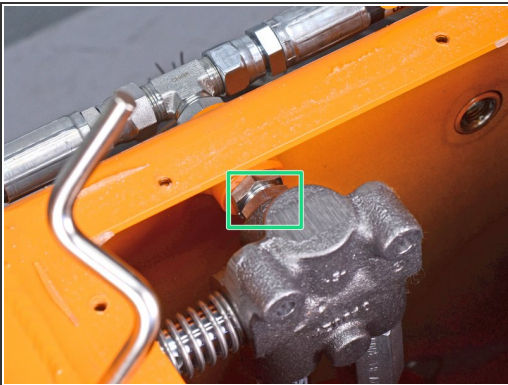
- ⓘ When peeling up the gasket, hold a shop towel underneath the lip of the tank to prevent any silicone remnants from falling in.
- Peel the gasket up from around the perimeter of the tank.
- Remove the gasket.

Step 17 — Reinstallation tip



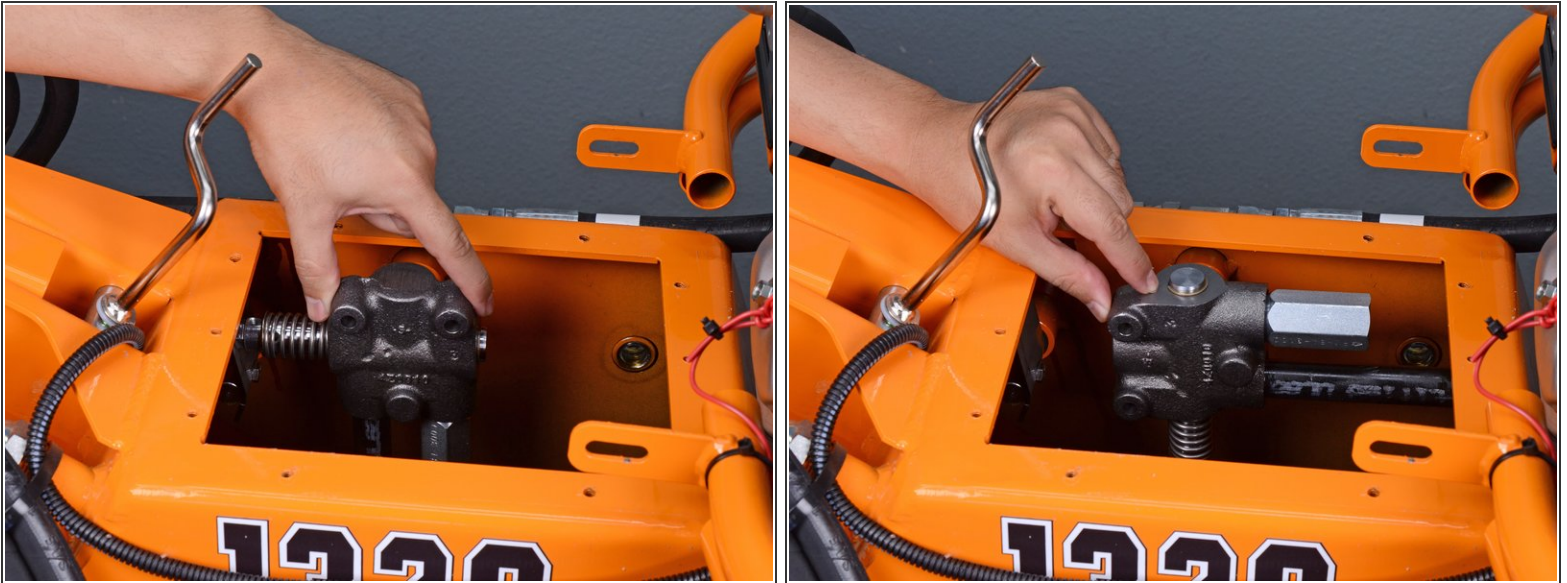
- ✦ Before reinstallation, remove all remnants of old silicone gasket from both the rim of the fluid tank as well as the tank's lid.

Step 18 — Loosen the fitting's lock nut



- Use a 7/8 inch open-ended wrench or an adjustable wrench to loosen the lock nut closest to the valve on the actuator fitting.

Step 19 — Rotate the actuator valve horizontal



- Rotate the actuator valve so the return tube and relief valve are horizontal and parallel to the tank opening, facing the engine.

Step 20 — Remove the relief valve



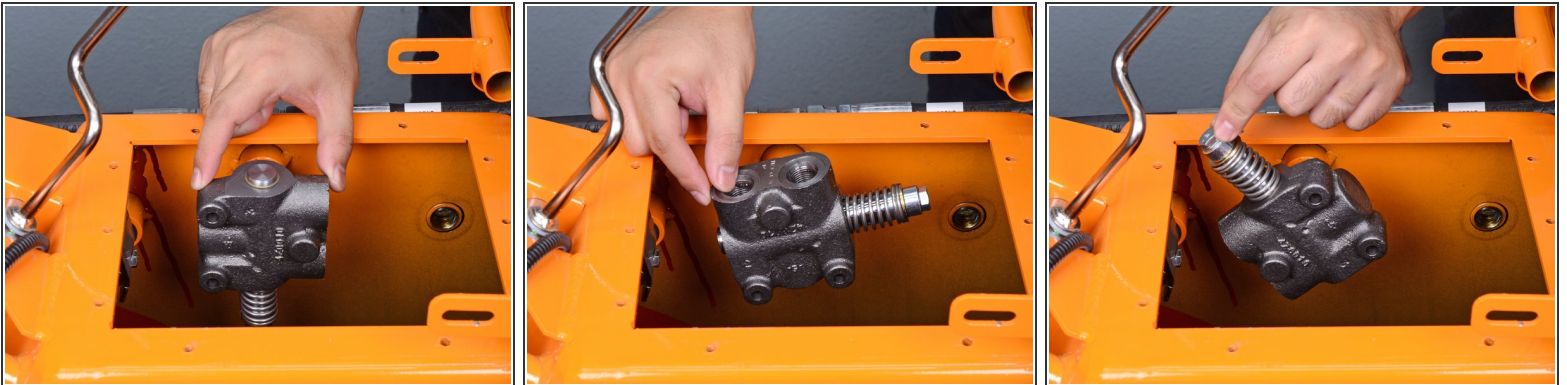
- Use a 1-1/16 inch wrench to loosen and remove the relief valve.
 - ⓘ This may require a bit of force. Use a breaker bar if necessary.

Step 21 — Remove the return tube



- Use a pipe wrench to remove the return tube.
- ⓘ This may require a bit of force. Use a breaker bar if necessary.

Step 22 — Loosen the actuator valve



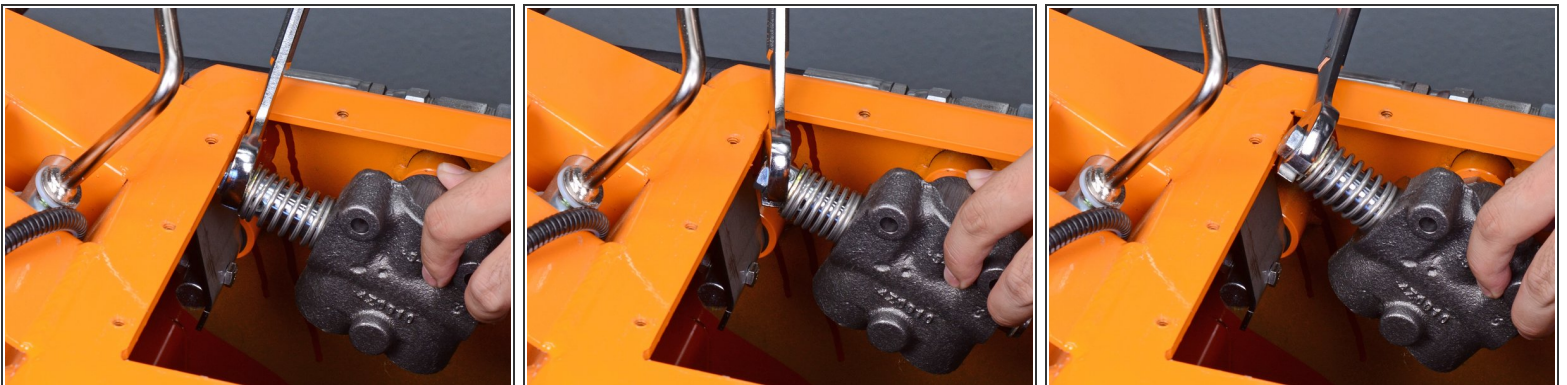
- Rotate the actuator valve counterclockwise to loosen it from the tank fitting.
- ⓘ Rotate the valve until the plunger assembly becomes blocked by the lip of the tank edge.

Step 23



- Using a long flathead screwdriver, pivot one end off of the edge of the tank, compressing the plunger assembly on the actuator valve.
- While the plunger assembly is compressed, rotate the actuator valve down, past the edge of the tank, and onto the strike plate.
- Repeat the last two steps to continue to loosen the actuator valve from the tank fitting.

Step 24 — Reassembly tip



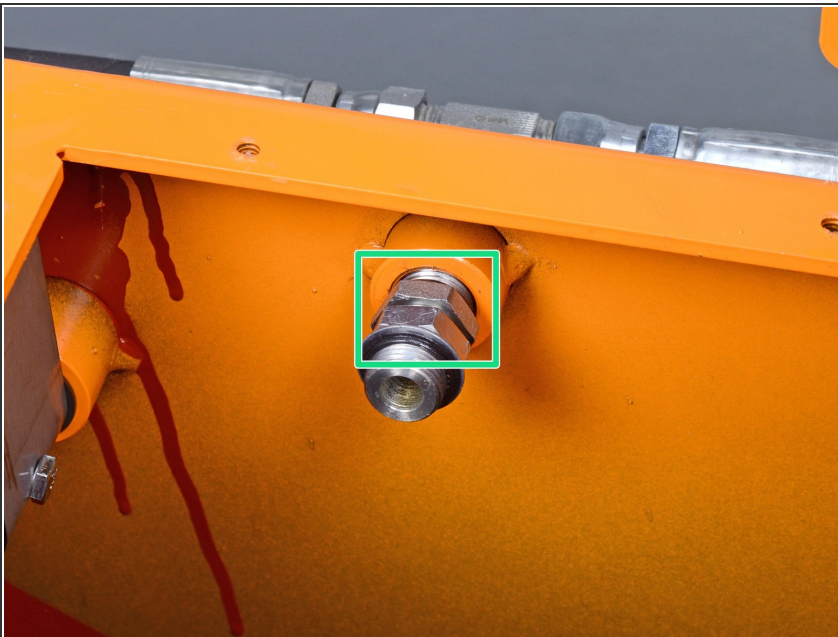
- ✦ **Reassembly tip:** In order to bring the plunger assembly backwards, up and over the tank edge, use an open-ended wrench to compress the plunger assembly while rotating the actuator valve.

Step 25 — Remove the actuator valve



- Remove the actuator valve.

Step 26 — Remove the tank fitting



- Use a 7/8 inch wrench to remove the tank fitting.
- ★ During reinstallation, install the fitting as shown, with the smaller, stationary nut facing the tank wall.

To reassemble your device, follow these instructions in reverse order.