

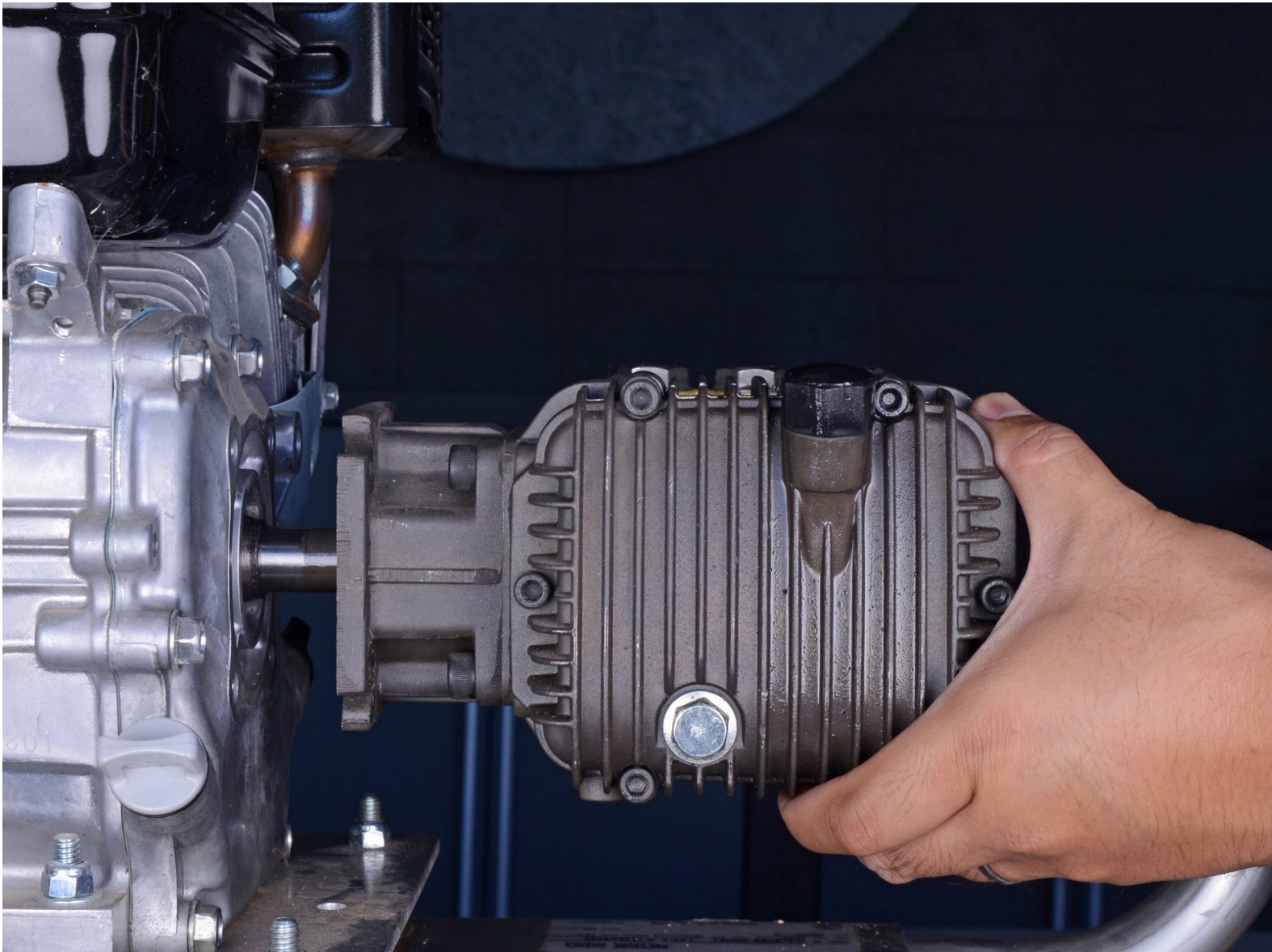


MiTM Pressure Washers CA2703HDHB1 2017

Pump Assembly Replacement

Remove and replace the pump assembly for a Mi-T-M gas pressure washer.

Written By: Arthur Shi



INTRODUCTION

This guide shows how to remove and replace the entire pump assembly as a whole unit for the Mi-T-M gas pressure washer.

You have to remove the output assembly from the pump in order to replace the pump assembly. This requires removing many tight pipe fittings.

You will need something that is 3" tall to place underneath the pump assembly. This can be a wooden block, brick, etc. This will help brace the pump while you work on removing the fittings.

The following tools are optional, but can help with disassembly:

- 1/4" socket
- 11/16" wrench
- 3/4" wrench
- 15/16" wrench
- 1" wrench



TOOLS:

- [1/2" Wrench](#) (1)
- [Adjustable Wrench](#) (1)
- [Adjustable Wrench, large](#) (1)

Jaws open over 1"

- [Flathead Screwdriver](#) (1)
- [Wooden Block—3"](#) (1)
- [2.5 mm Hex Key](#) (1)
- [lubricating oil](#) (1)
- [Teflon tape](#) (1)



PARTS:


- [Mi-T-M Pump 3-0428](#) (1)
- [Mi-T-M Lockwasher 29-0007](#) (1)

Step 1 — Determine the unloader assembly



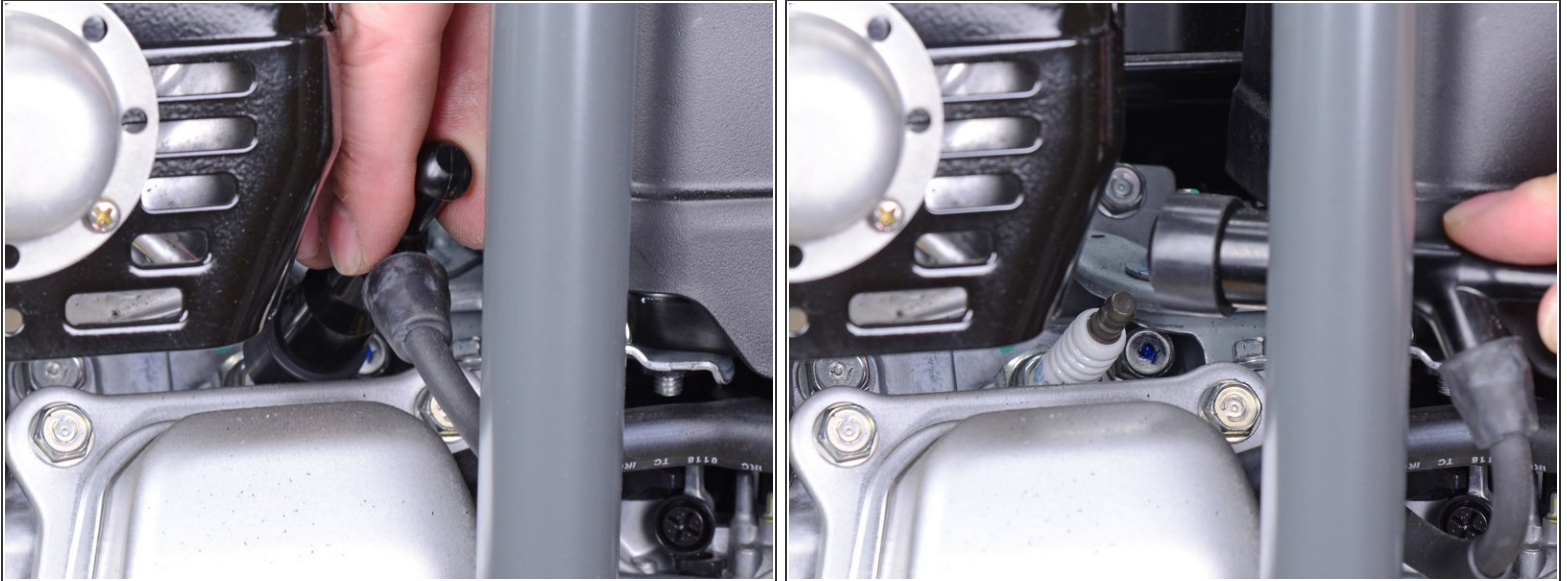
- **There are two versions of the unloader assembly:**

- First image—earlier pressure washers feature an all-in-one assembly (part 8-0631) that's easy to replace, but gave users the ability to break the pump.
- Second image—later models use a tamper-proof, harder to remove unloader (part 8-0656), connected by a series of pipe fittings.

 This guide is written for the tamper-proof unloader assembly.

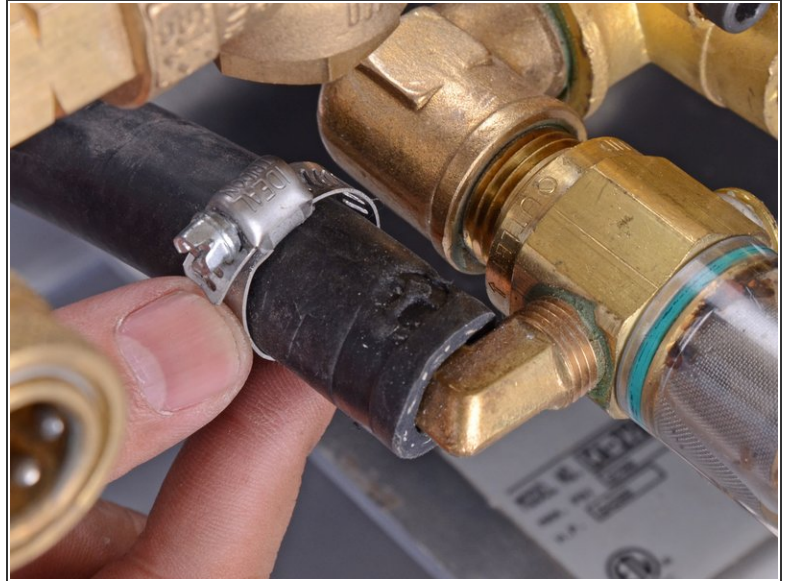
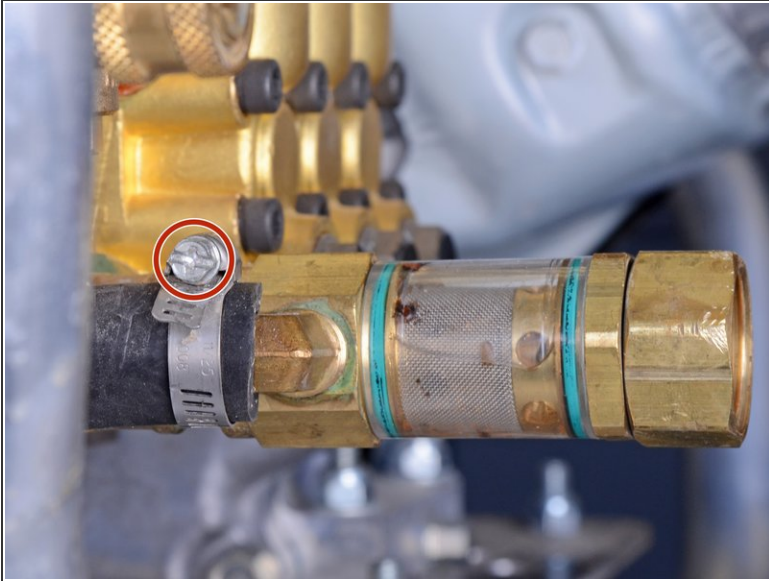
- If you need to remove an all-in-one style unloader, use a large adjustable wrench to unscrew the two large Banjo bolts. This will disconnect the unloader from the pump assembly.

Step 2



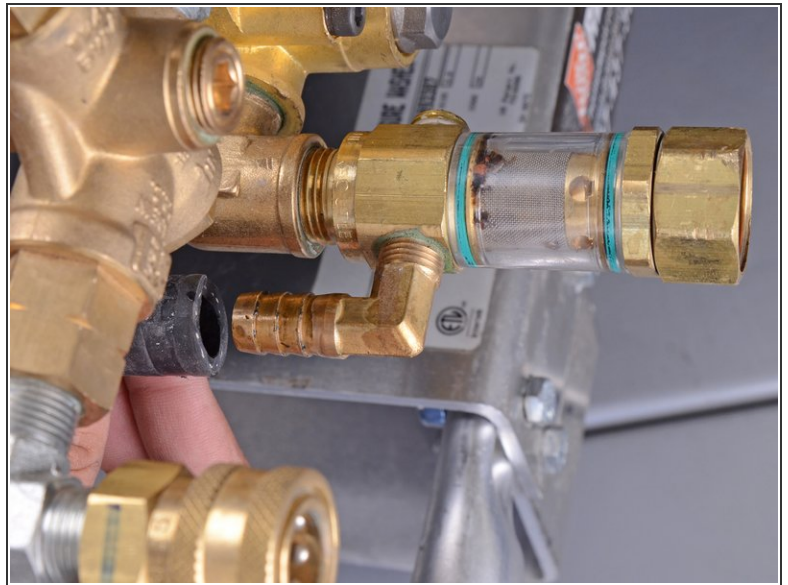
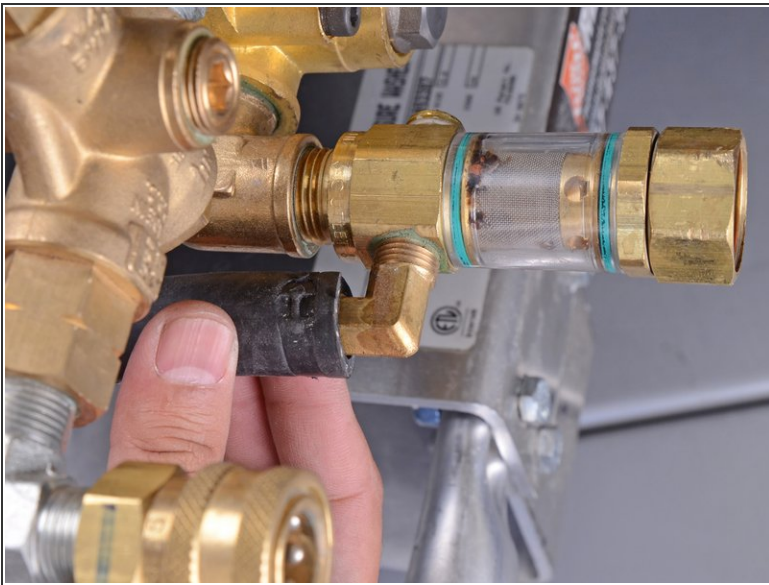
- i** Before you begin, be sure that the engine is powered off and is cool to the touch.
- Grab the plastic housing at the end of the spark plug wire.
 - Pull firmly to disconnect the wire from the spark plug.

Step 3 — Loosen the hose clamp



- Use a 1/4" socket or a large flathead screwdriver to loosen the hose clamp near the inlet filter.
- Slide the hose clamp away from the end of the hose.

Step 4 — Disconnect the return hose



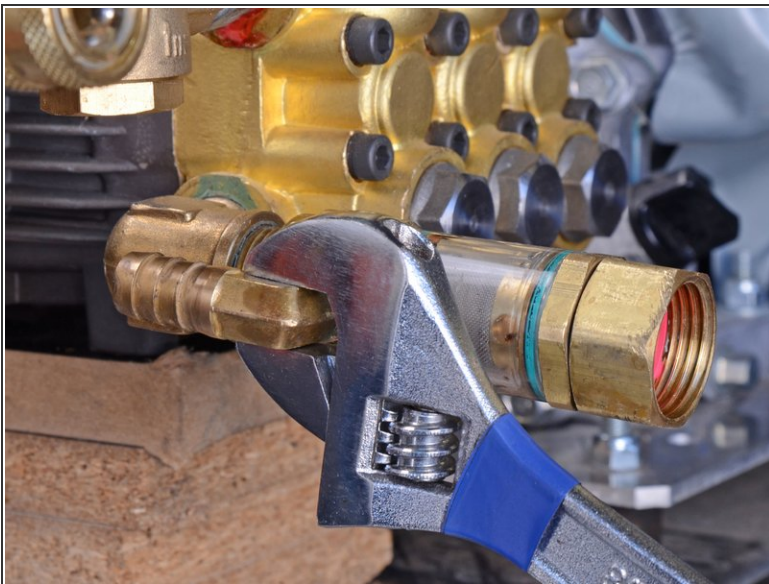
- Wiggle the hose and pull it off of the brass nipple.

Step 5 — Position the support block



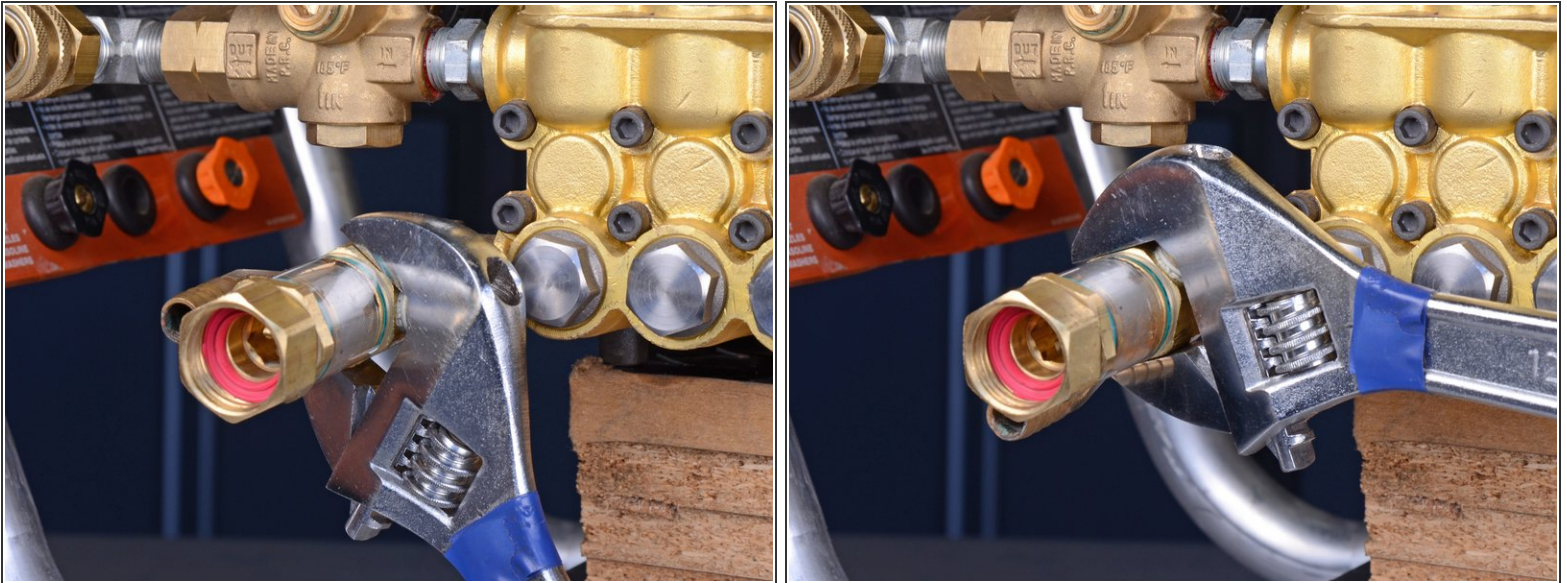
- Slide a 3" tall block underneath the pump assembly to help support the pump.

Step 6 — Re-position the return elbow



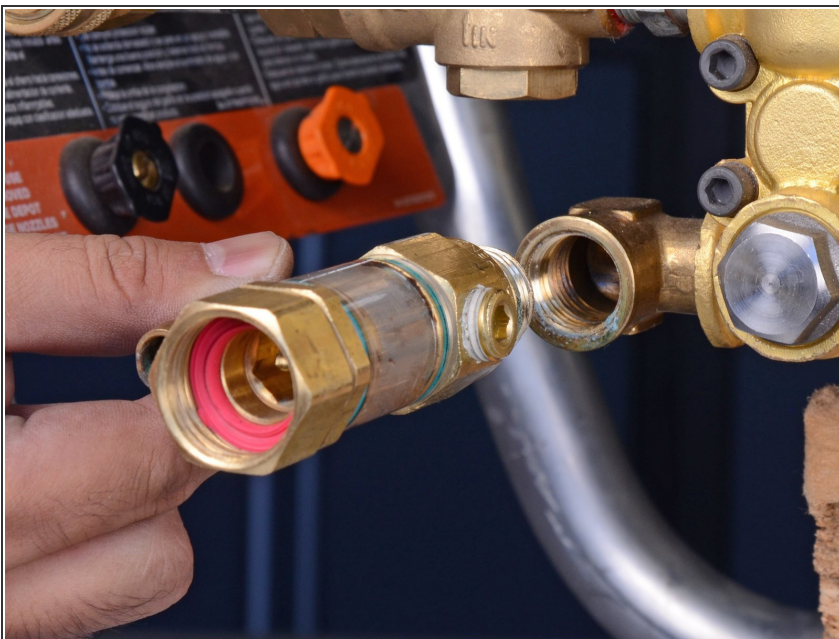
- Use a 1/2" or adjustable wrench to loosen and twist the return elbow **half a turn**, so that it faces the opposite direction.
 - ⓘ This will allow the fitting to clear the pump edge without being removed.

Step 7 — Loosen the filter



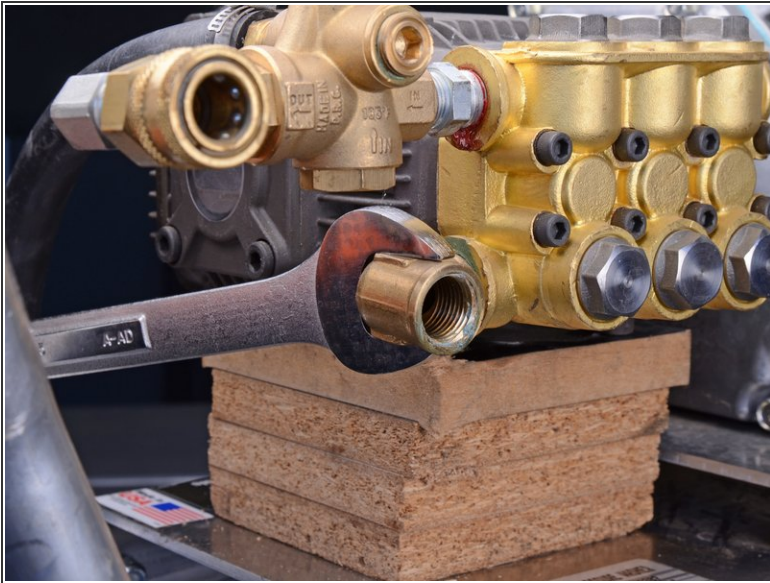
- Use a large adjustable wrench to loosen and unscrew the filter.

Step 8 — Remove the filter



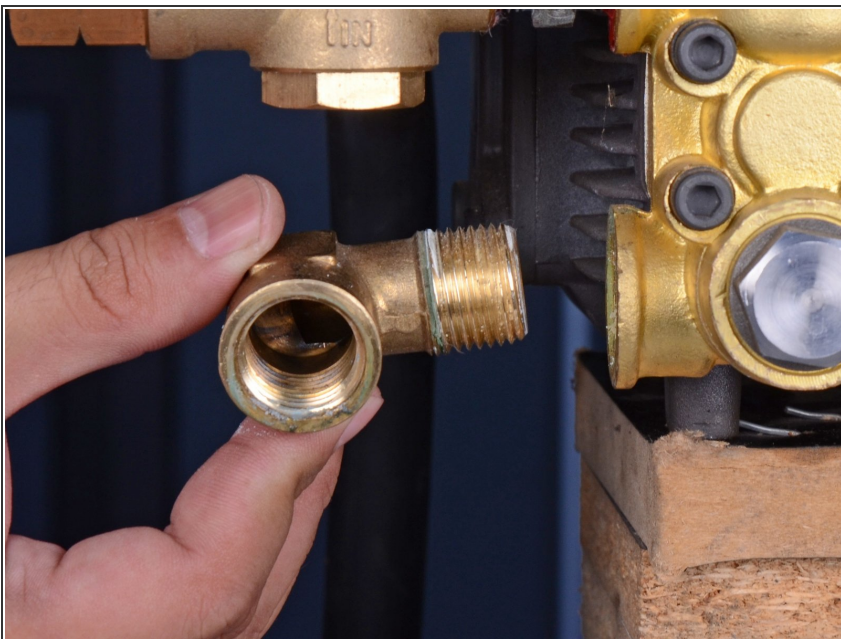
- Remove the filter with the return elbow attached.

Step 9 — Loosen the input elbow



- Use a 1" or large adjustable wrench to loosen and unscrew the pump input elbow.

Step 10 — Remove the input elbow



- Remove the input elbow fitting.

Step 11 — Loosen the output assembly



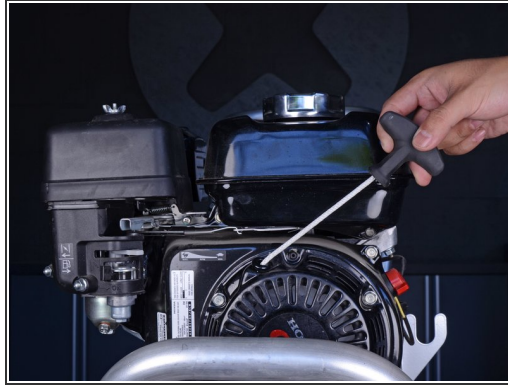
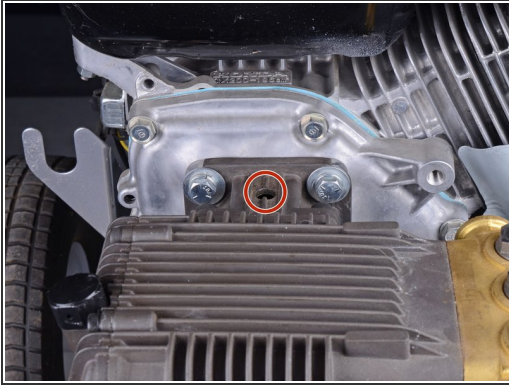
- Use a 3/4" or adjustable wrench to loosen and disconnect the coupling from the pump assembly.

Step 12 — Remove the output assembly



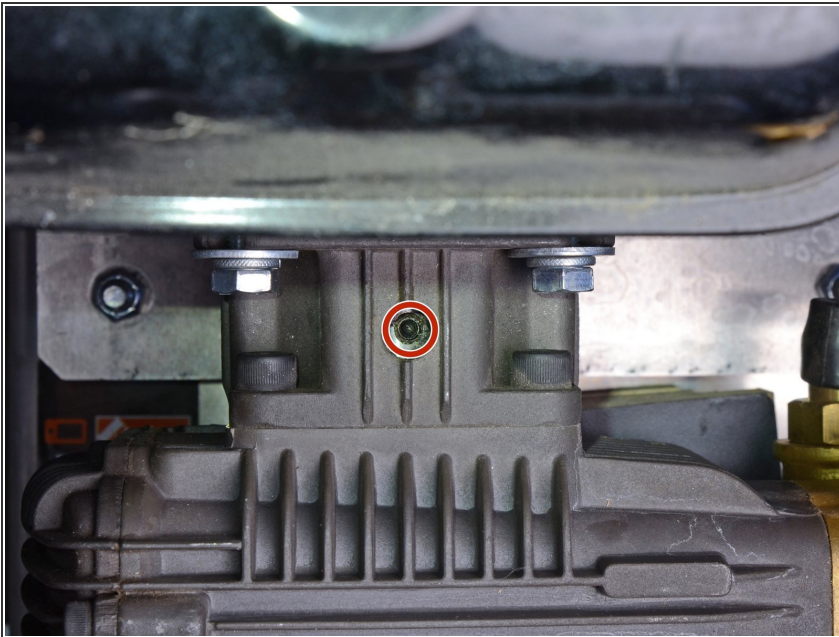
- Remove the output assembly.

Step 13 — Align the axle



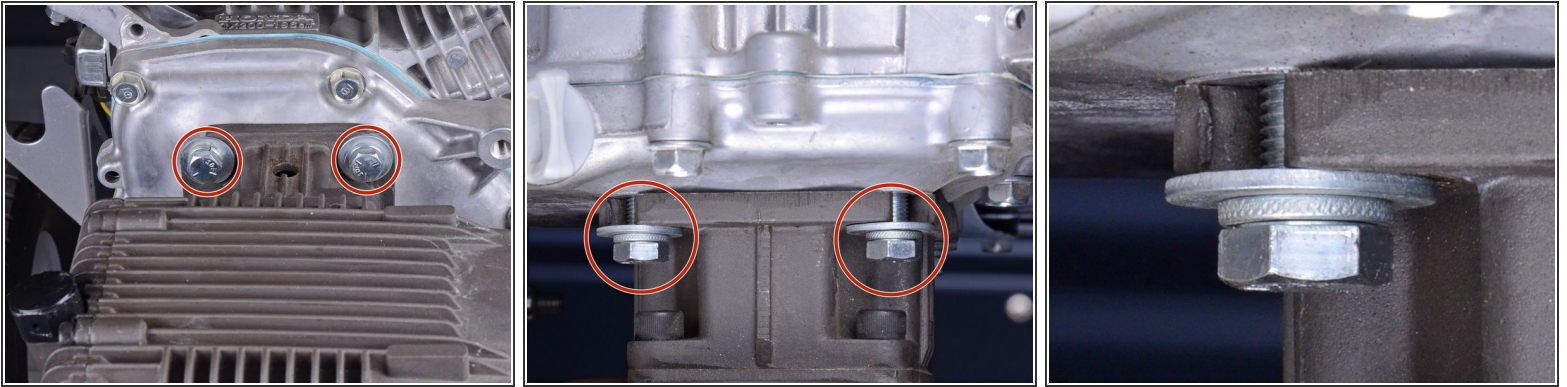
- Look through the top access hole on the pump, near the engine coupling. You should be able to see the pump shaft through the hole.
- Slowly pull the starter cable. This will slowly turn the engine's axle.
- Keep rotating the axle until you can see the set screw through the access hole.

Step 14 — Loosen the set screw



- Insert a 2.5 mm hex key into the set screw and loosen it counter-clockwise by **two full turns**.
- ⓘ Do not completely loosen the screw, or you will lose it.

Step 15 — Remove the mounting bolts



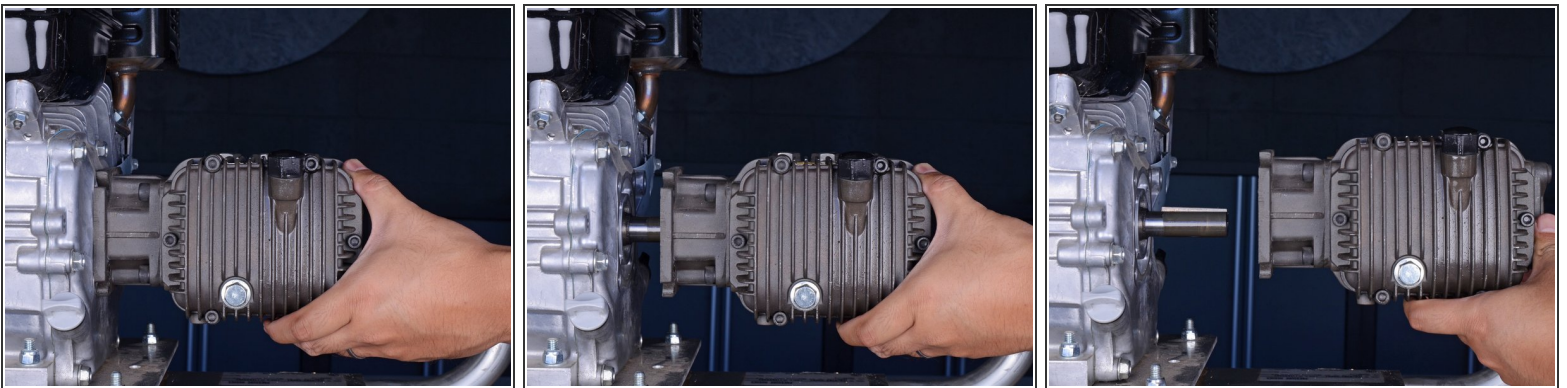
- Use a 1/2" wrench to remove the four 30 mm long bolts which mount the pump to the engine.

ⓘ You should still have the support block under the pump assembly to help bear the pump's weight.

✦ **Re-assembly tip:** note how the washers are stacked when reinstalling the bolts.

✦ Replace the lock washers with new ones.

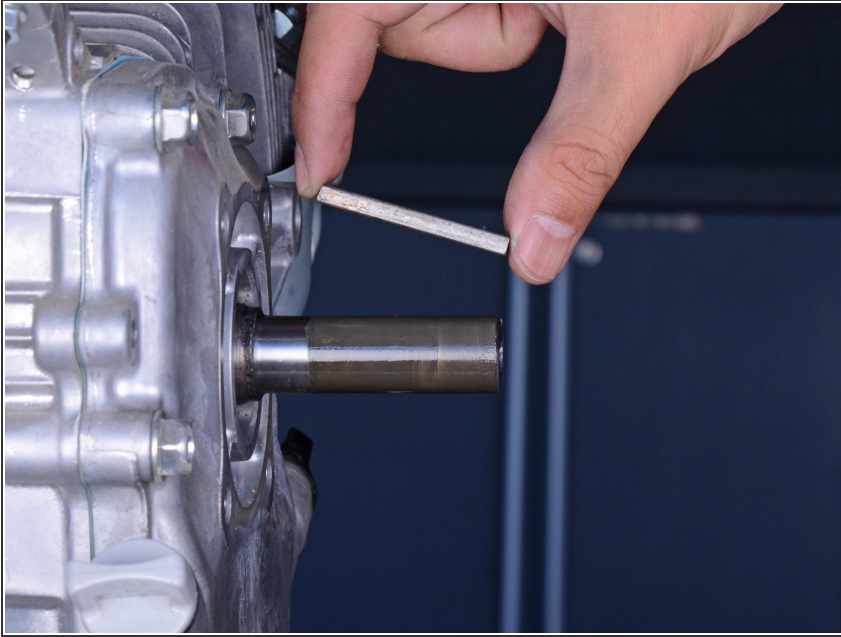
Step 16 — Slide the pump assembly off



- Carefully pull the pump assembly away from the engine until it de-couples from the engine axle.

ⓘ If you are having a hard time pulling the pump away, loosen the axle set screw by **half a turn**, and try again.

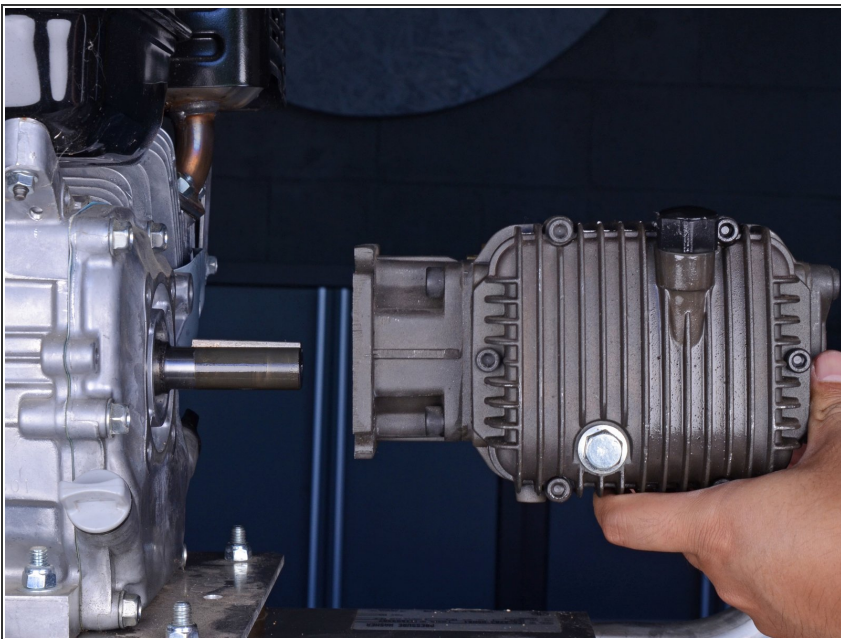
Step 17 — Remove the axle key



- Remove the axle key from either the engine axle, or the pump shaft.

★ **Re-assembly note:** Wipe the axle and key clean and coat with lubricating oil.

Step 18 — Re-attach the motor



★ **Re-assembly note:** To re-attach the motor:

- Press the axle key into the notch on the engine axle.
- Align the pump shaft with the keyed axle. You may have to rotate the pump to do so.
- Slide the pump onto the axle until the coupling surfaces touch.
- ⓘ If there is a significant gap between the pump and engine, pull the pump off, and re-set the axle key.

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

When you re-connect the fittings, clean off the old thread sealant and apply new thread sealant (tape or pipe dope).