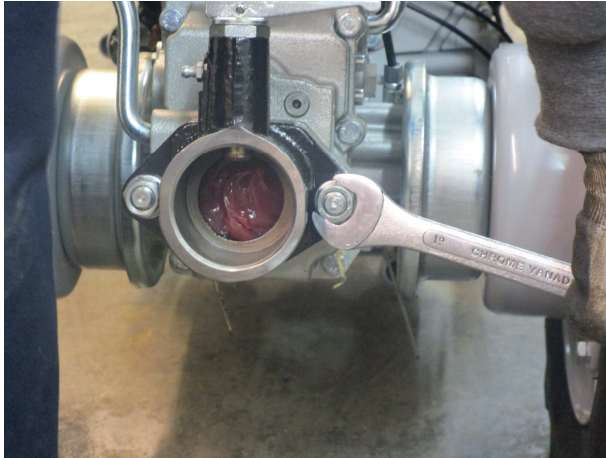
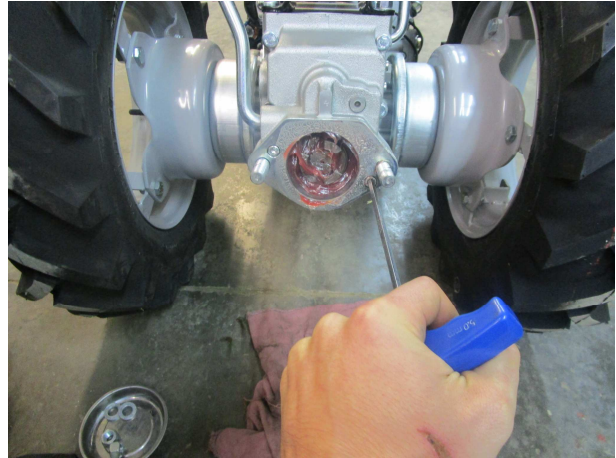


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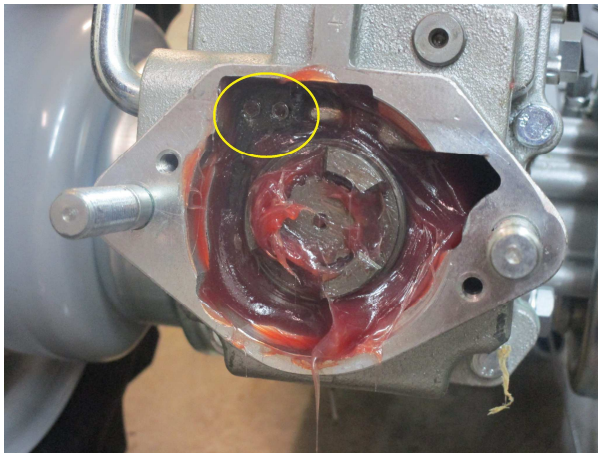
G110 PTO detent spring replacement



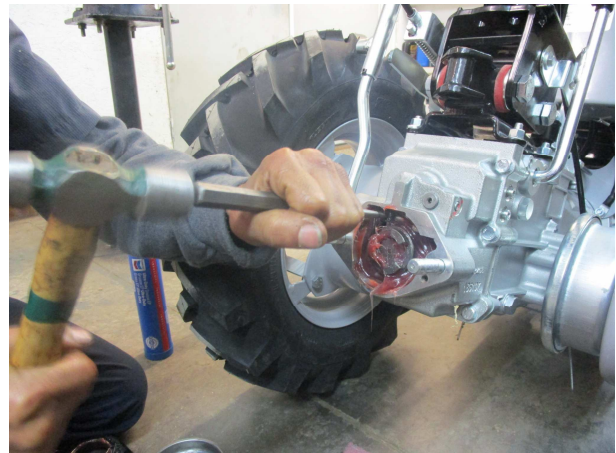
1. Use a 19mm wrench to remove the pto stud nuts and “female” half of the quick coupling.



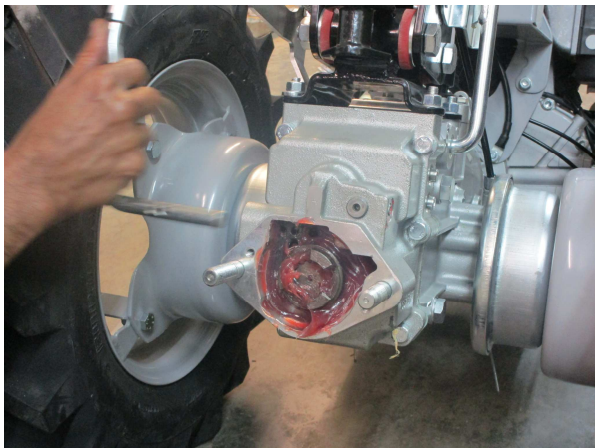
2. A 5mm allen wrench is then used to remove two bolts that hold on the reinforcement plate.



3. Remove grease in the PTO cavity. Two roll pins couple the outer pto lever and the shifting lever. The outer lever slides through the inner one and has matching holes.



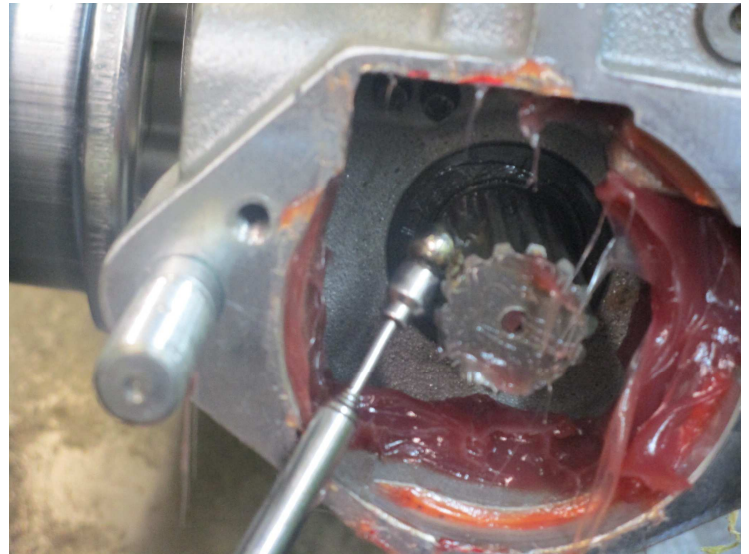
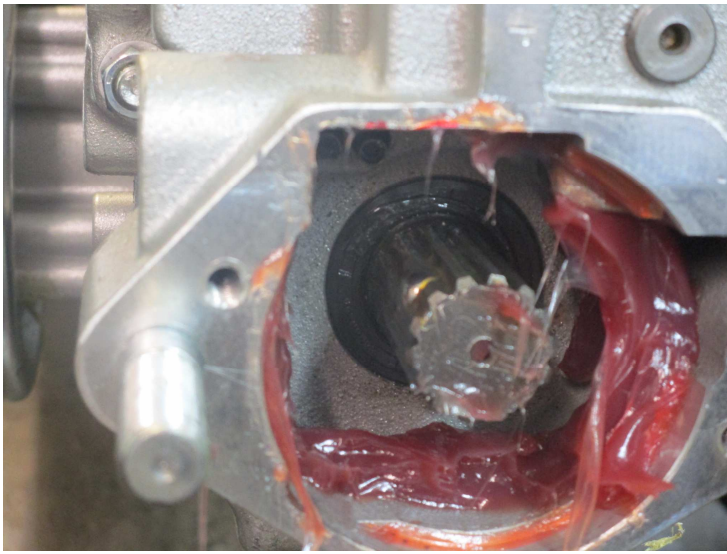
4. Place the PTO lever into the disengaged position. Use a 3/16” punch to drive out the two roll pins. The pins will go into a recess in the back upper corner of the housing, where they can be retrieved later.



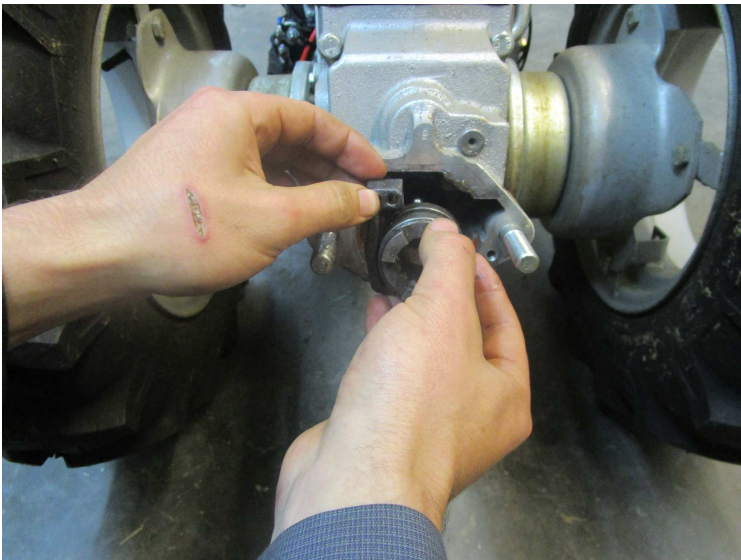
5. When the pins are removed, the outer lever should slide out with relative ease. Might have to twist it forward & back a bit.



6. Flat head screw drivers or pry bars can be used to remove the sliding PTO coupler.



7. You can see the recess for the roll pins to fall into once they are driven out, in the picture on the left. Recover the roll pins with a magnet or long-nose pliers. The detent ball and spring are located in a hole in the side of the shaft; also sometimes there is a thin “shim” down inside the hole (under the old spring). Remove the old spring (and the shim, if it’s there).—scraping around the bottom of the hole with a pick or a piece of wire should dislodge the shim, if it’s in there. If you want to “rotate” the shaft to the appropriate position (hole on the “lower” side of the shaft for getting the old spring/shim out, or the “upper” side for getting the new parts installed), you can crank the engine slowly [with Active clutch lever depressed, if your G110 has this clutch type] to turn the shaft to an appropriate position. **HOW THE SYSTEM WORKS:** The sliding coupler has 2 circular grooves inside it that correspond to the “engaged” or “disengaged” PTO positions. As the coupler is moved in or out by the linkage, the spring-loaded ball “pops” from one groove to the other, to hold the coupler in place.



8. Drop the new spring into the hole in the shaft, then put a glob of grease on the top of the spring to help hold the ball in place while you get the PTO coupler installed. As in the picture above to the left, the PTO shift lever must be fitted into its corresponding groove on the outside of the PTO coupler while reinstalling the PTO coupler. The taper on the back end of the PTO coupler can be used to push the ball down in to its hole as you slide it onto the shaft. Then, making sure the splines (grooves) on the PTO shaft are aligned with the PTO coupler, push the coupler hard onto the shaft to compress the ball down into place (a tap with a hammer or block of wood may be helpful).

9. Re-assemble the rest of the components in reverse order of disassembly. **MAKE SURE** PTO area in tractor is at least 3/4 full of grease!! **DO NOT** engage the PTO lever to test the work performed until **everything** is reinstalled. Otherwise the PTO coupler will slide off the PTO shaft!