DATE: 2025-10-15

TECHNICIAN: Gabriel Robinson

DESCRIPTION OF PROBLEM:

washing machine was no longer draining water and was humming during the draining cycle of the machine.

DESCRIPTION OF WORK:

Replaced the faulty drain pump assembly.

NOTES OF WORK DONE:

TOOLS USED:

- Process of elimination
- Knowledge of
    - basic electronics
    - basic engineering
    - electric motor construction
- Vise-Grips
- Hex Screwdrivers

WHAT I DID:

1. Ran the washing machine once observing it during “normal” operation till it started failing.
    1. Observed that some water would drain then it would stop with the motor humming loudly the whole time.
2. Unplugged the washing machine.
3. Drained the tub with a shop vac of the water stuck in the machine.
4. Checked the drain to see if it had a blockage, it did not.
    1. Opened the back of washing with a Hex Screwdriver.
    2. Disconnected the draining tube from the tube manage mounts and faceplate.
    3. Tested the tube by running water through it and observing the flow rate.
    4. The flow rate was good and up to code. (time to move up the chain of what could be wrong.)
    5. Put the draining tube back into the washing machine connecting some of the tube restraints but leaving it unmounted to the drain pump.
5. Checked the Centrifugal pump

1. Looked in pump to check the condition of the impeller, it looked fine and I didn’t see any debris or damage within the pump.
2. Looked at the motor. I saw the plates for the motor where very rusty and corroded.
3. Unmounted the motor from the washing machine disconnecting the tubes, wires, and screws. Putting them of to the side in labeled containers, to insure the parts all go back together correctly.
4. Gave the motor a deeper look over testing everything.
    1. Nudged, poked, and testing what should move moved and what shouldn’t didn’t.
    2. Observed very heavy corrosion on the plates of the motors stator.
        1. So that was the cause of the draining failure, and what was causing the humming.
5. Check the manufactures parts website for replacements, was outside of budget for downtime and money.
6. Noted part numbers
7. Searched for local replacement parts shops that stocked the part.
8. Found local small business that had the part bought it from them.
9. Stayed under budget for downtime and money, saving $50+ and up to a week for time it would have taken to have the part shipped.
10. Installed the new motor reconnecting the tubes, wires, and mounting screws in place.
11. Screwed the back of the washing back together.
12. Plugged the Washing machine back in power
13. Ran the washing on quick wash observing it the whole time, looking for any other problems.
    1. Observed none.
14. The washing machine was back in working order.
15. Job done.