

# HP 82143A (Helios) Feed Repair



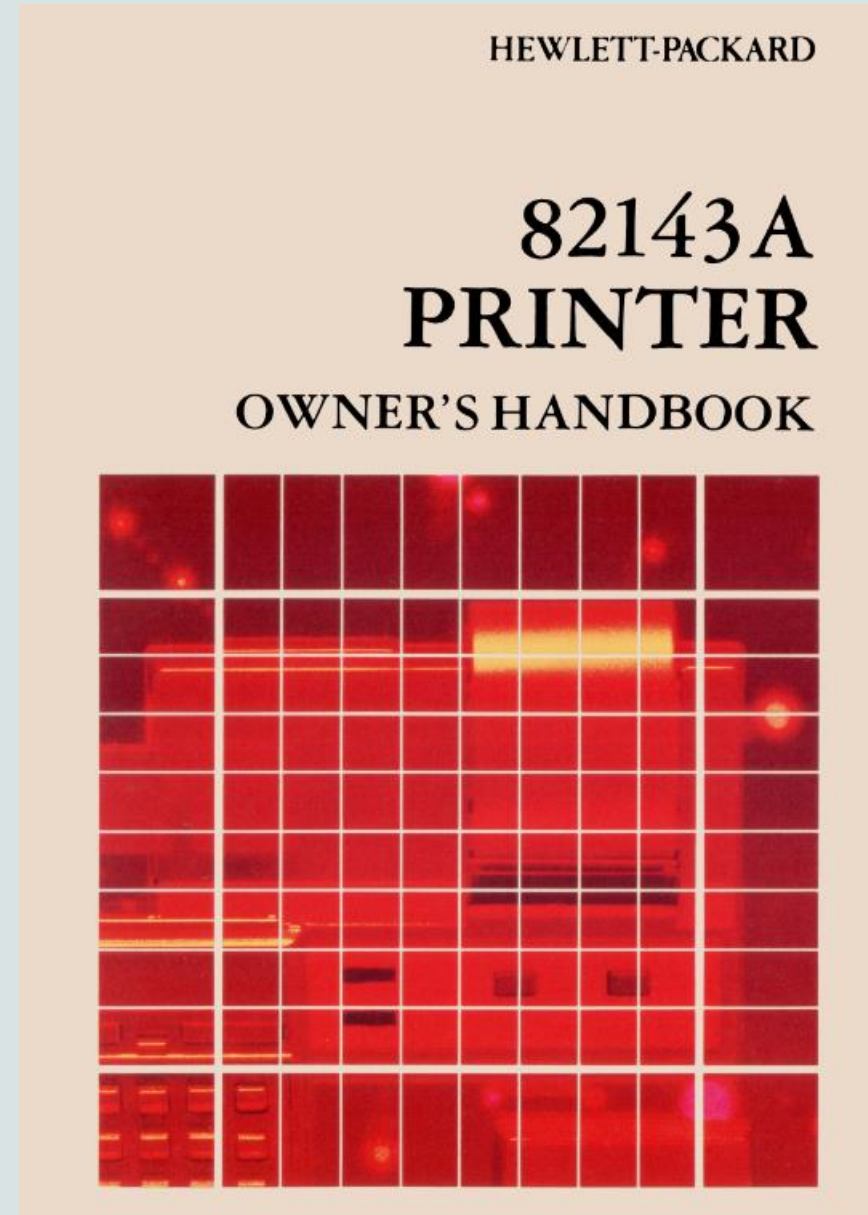
• ANDREW CHILDS

# About the 82143A

- Thermal Printer for HP 41 Series calculators
- Proprietary connector fits HP41 expansion slot
- Introduced 1<sup>st</sup> August 1979
- 'similar' print mechanism to HP91, 92 & 97

Ebay purchase between £35 and £252!

Black or Blue thermal paper



# Case Removal

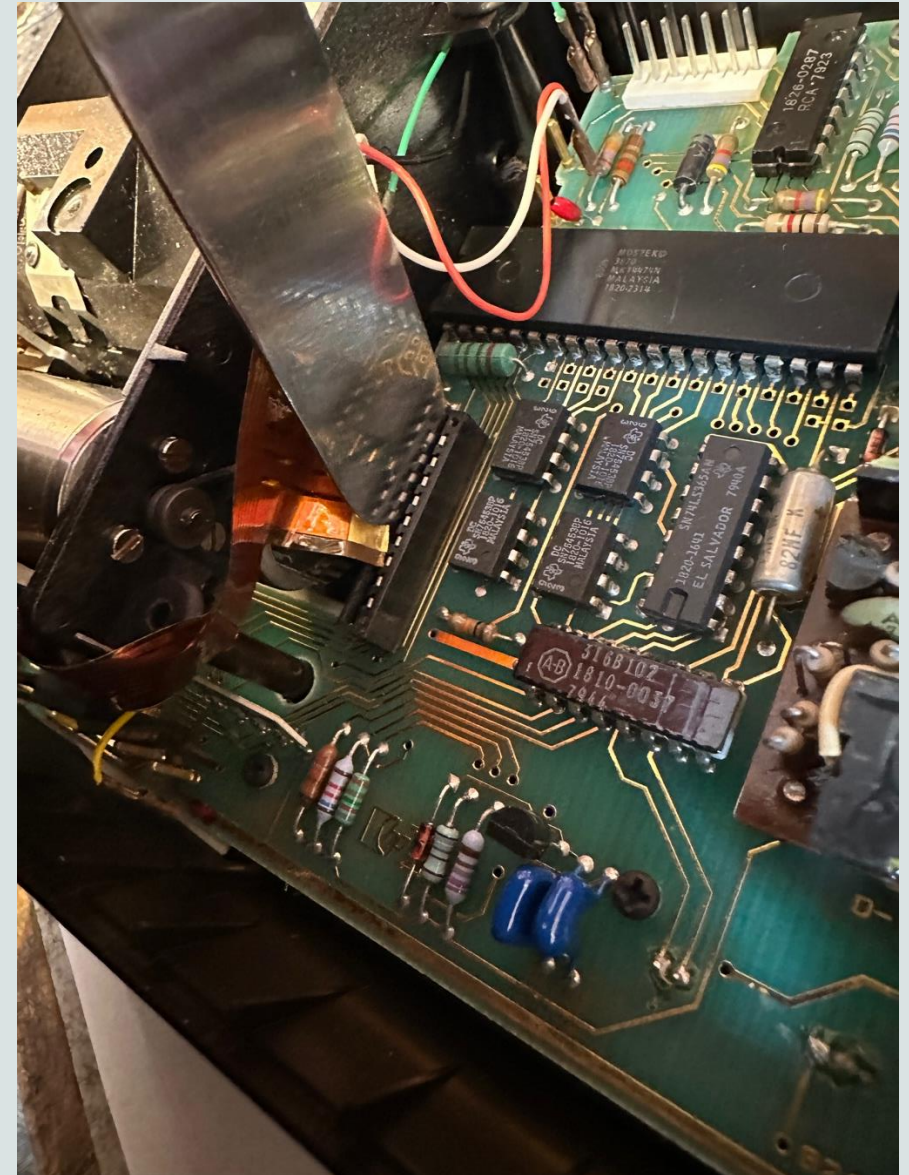
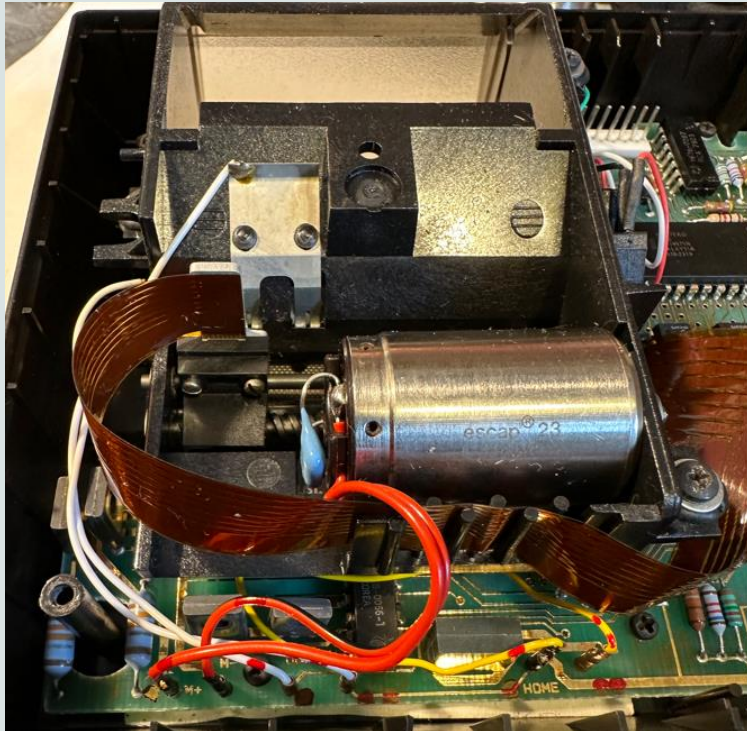
- 5Nr screws on the underside
- 4Nr concealed under rubber feet.





# Removing the print assembly

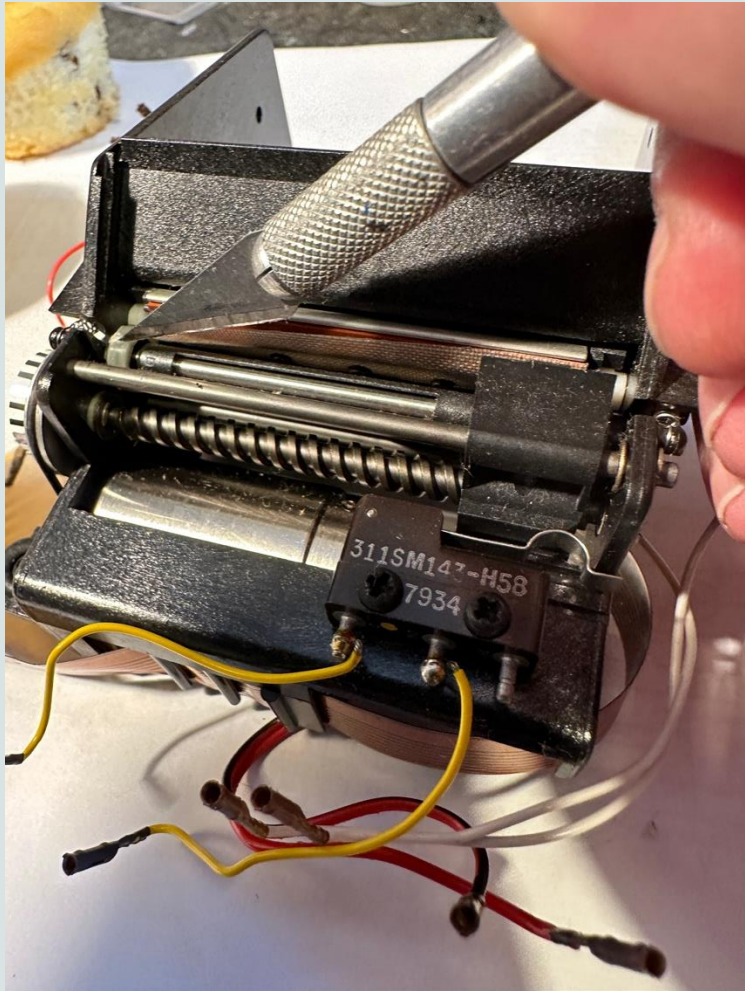
- Many push on connections
- Delicate film ribbon – release pressure on contact surface before extracting





# Similar to....

HP 82143A



HP 91

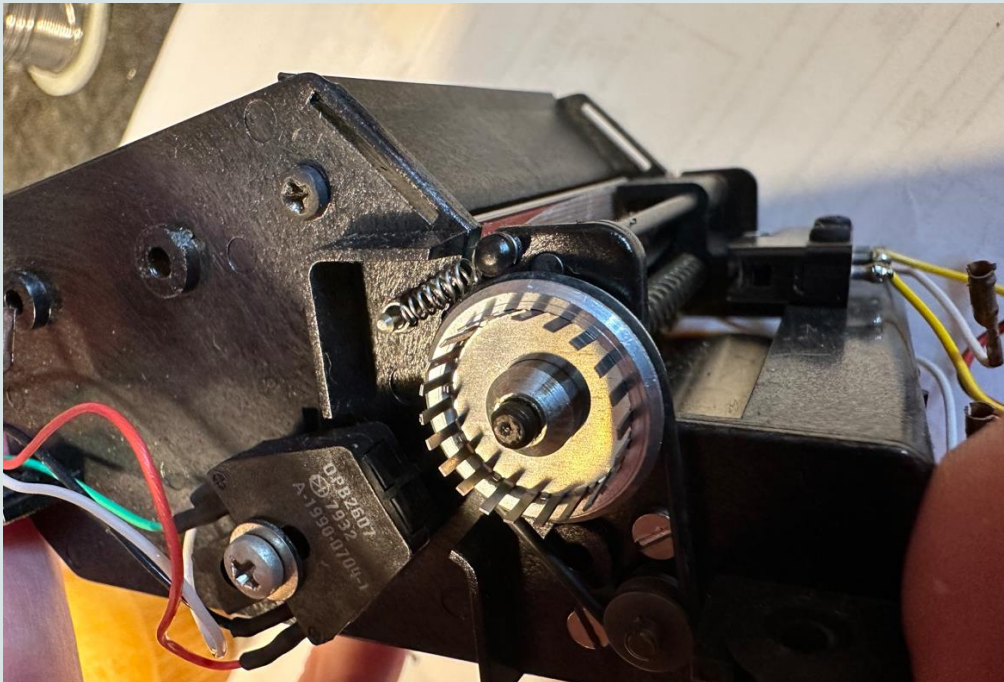




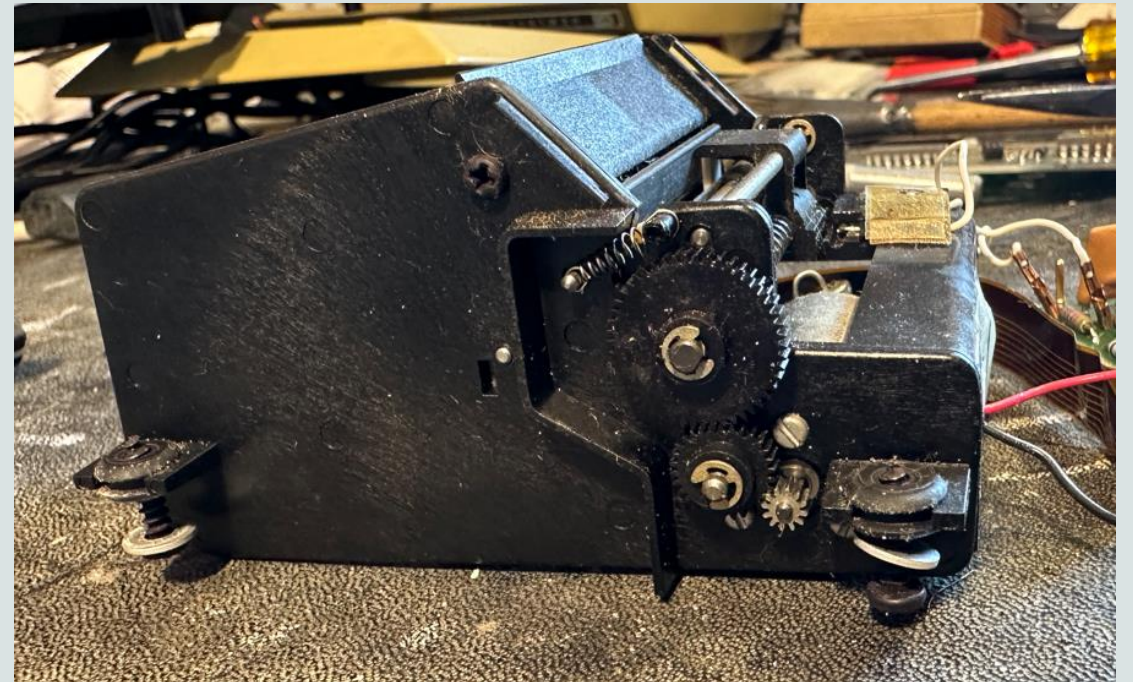
# Differences

- Belt driven – HP 82143A
- Reflective opto switch & wheel – HP 82143A
- Microswitch carriage return sensor – HP 82143A
- No doubt many other subtle differences – platen coating, platen charge / bias plate

HP 82143A

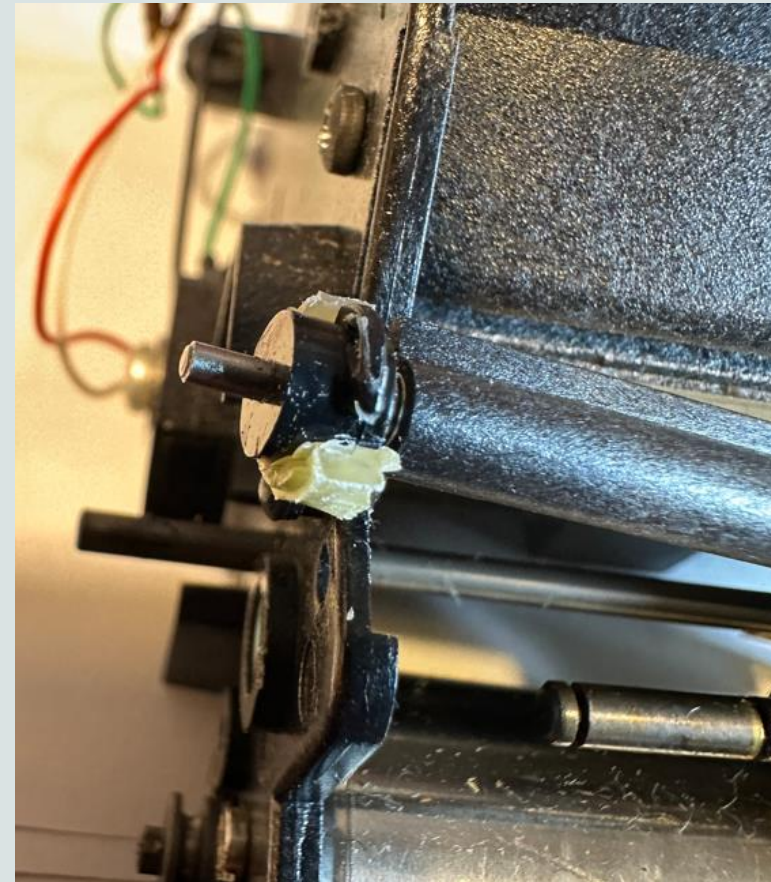
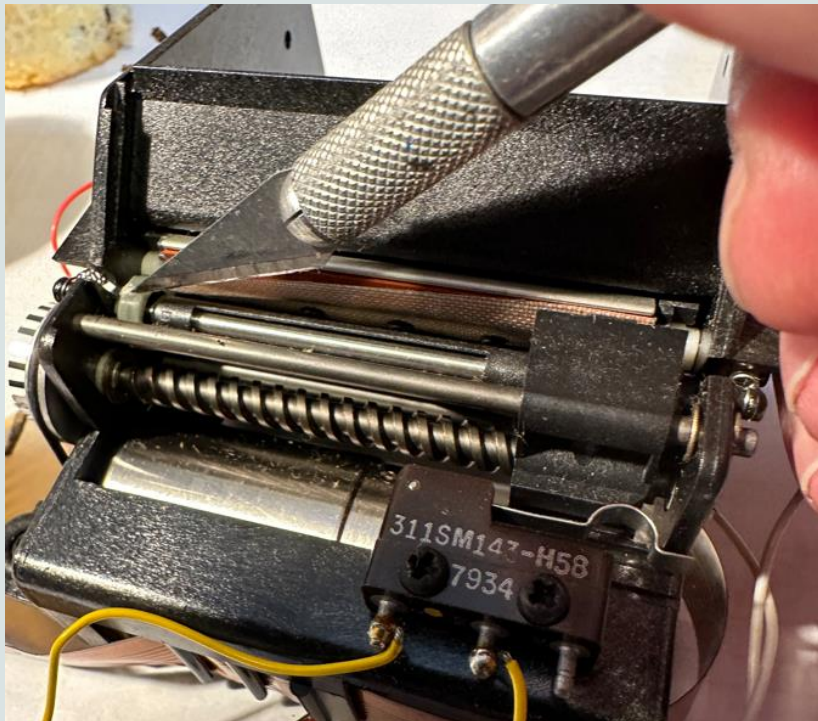


HP 91



# The common problem

- The printers tend to work but will not advance paper





# Replacement feed roller

## Dimensions & specification

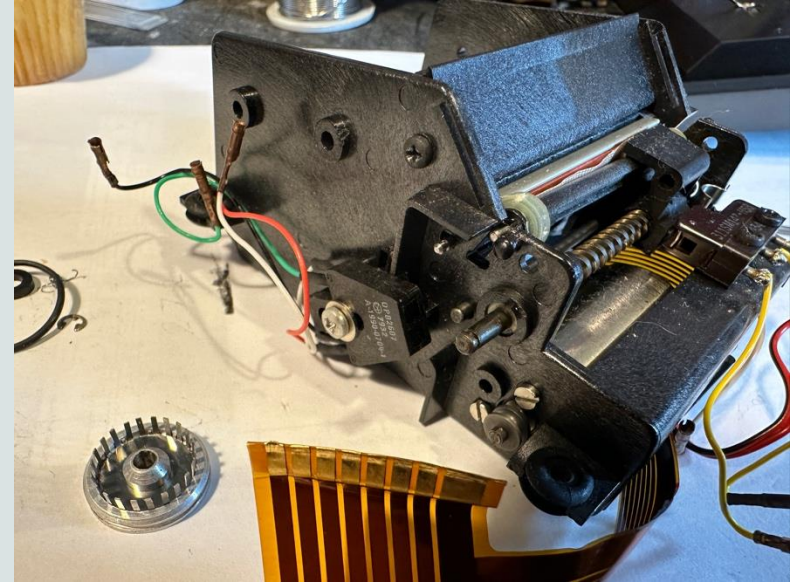
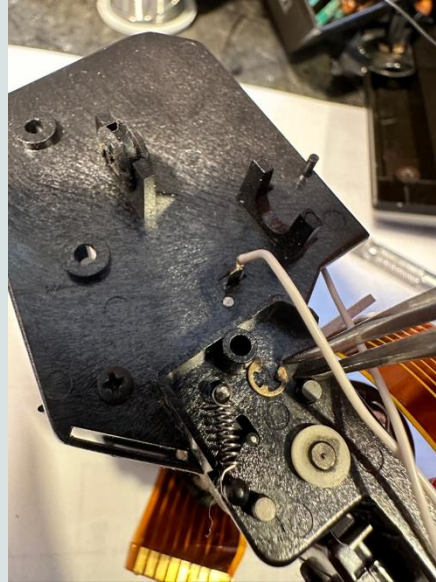
- 4.47mm ID X 7.83mm OD X 1.68mm CS
- **Buna-N O-Rings 70 Duro (NBR)**

(Nitrile, also known as Buna-N or NBR, is a copolymer of Butadiene and Acrylonitrile).



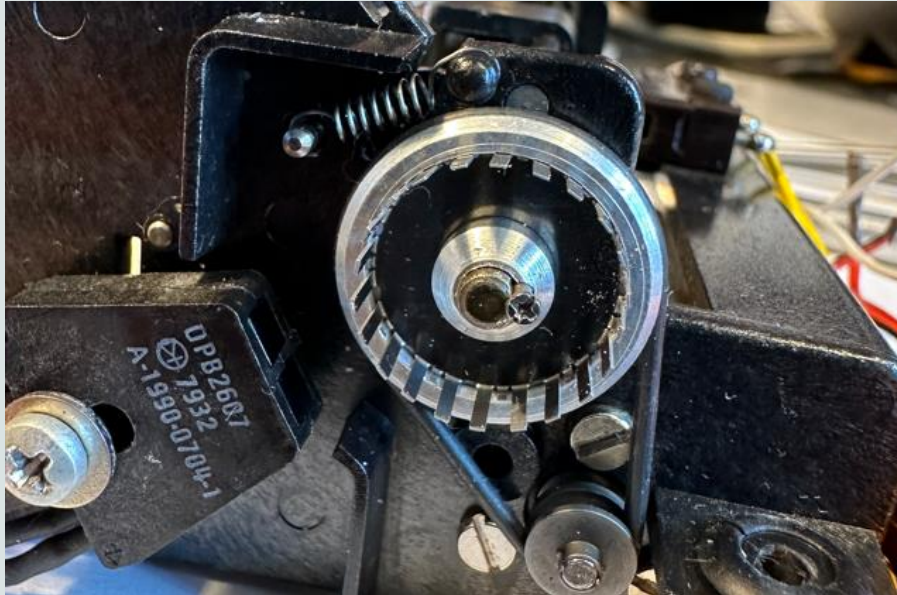
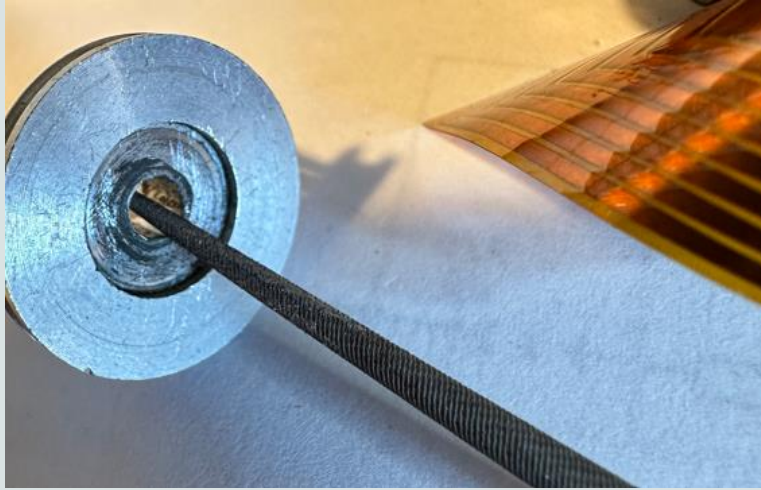


# Disassembly



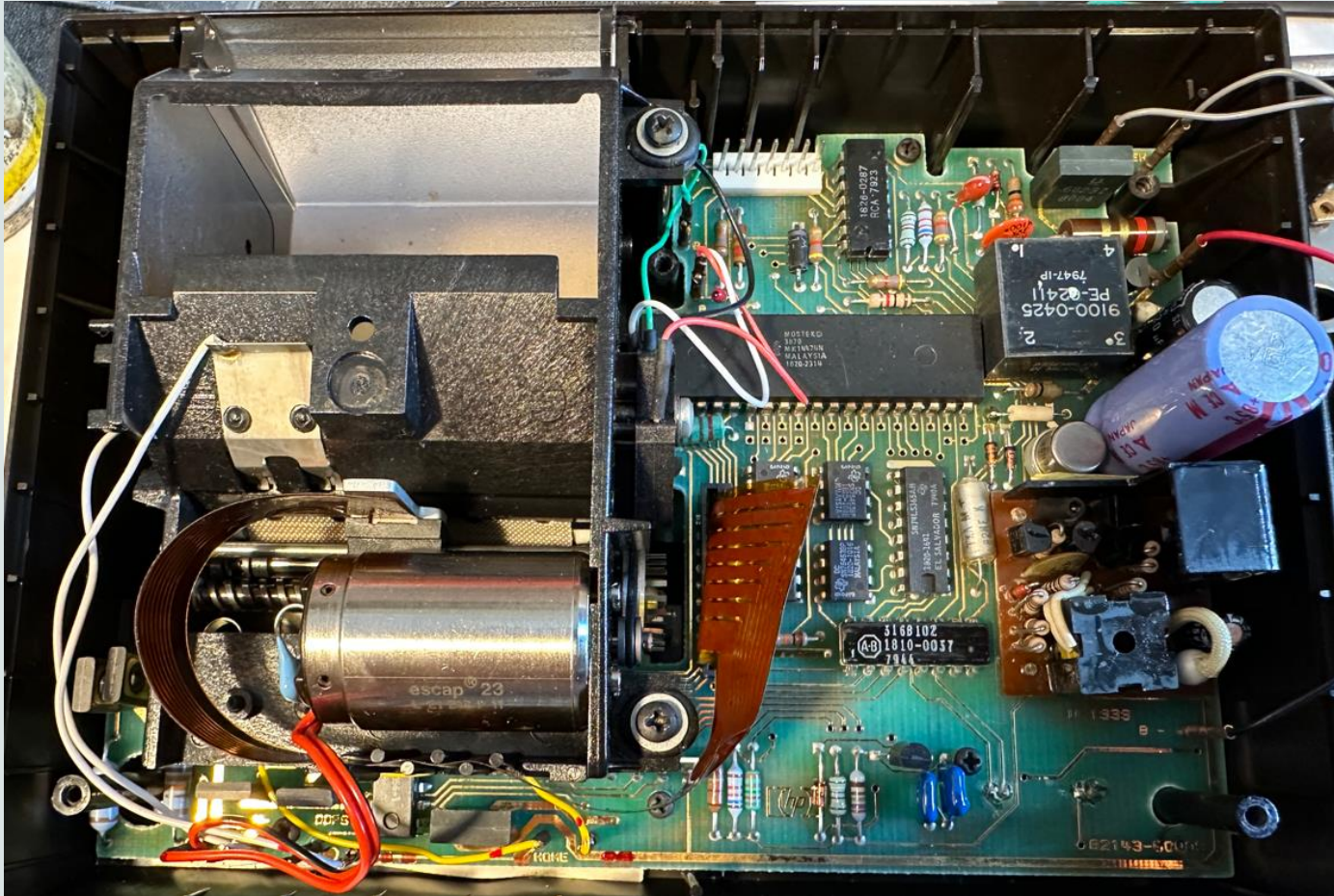


# Position Sensor Wheel & Spindle





# Assembly





# Completion

