

# ***OPERATING INSTRUCTIONS***



# **Model 105EWDS Marking Machine**

105EWDS Machine S/N: \_\_\_\_\_

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## **LIMITED WARRANTY**

JanTech warrants its products and accessories to be free from defective materials and workmanship for a period of six (6) months from date of purchase. This warranty does not apply to any product which has been disassembled, damaged, subjected to misuse, abnormal service and mishandling, nor any product altered, repaired, or disassembled by anyone other than those authorized by JanTech. During this warranty period, JanTech, at its option, may repair or replace such product at no cost to the purchaser for labor and/or materials when returned with proof of purchase to JanTech, transportation costs pre-paid.

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# **SECTION: 1**

## **GENERAL INSTRUCTIONS**

1. Keep the machine clean. Do not let splattered ink accumulate on the machine. Wipe ink off before it dries. Use a cloth moistened with thinner. Be especially careful when using epoxy ink. Do not allow any epoxy ink to cure on the machine.
2. **Always** switch the machine **OFF** when you leave it.
3. Always use good quality ink that is not too old to be reliable.
4. Be certain that the ink roll and the offset pad are in good condition. Good condition means that both are clean and smooth with no cuts, nicks, flaws, dried ink or other irregularities.
5. Do not let the ink get too dry on the machine while printing. When the ink becomes tacky, add a very small amount of slow dry thinner to the ink and cycle the machine to mix it. However, if the ink is nearly cured, the thinner will not help. At this point, remove the remaining ink and re-ink the machine. If possible, use an ink of a consistency that will make the use of a thinner unnecessary.
6. Keep rubber printing dies clean and free of dried ink. To clean, wipe them **gently** with a soft cloth moistened with thinner. Never scrub or soak the rubber printing dies in thinner.
7. Make certain that the "PRINT UNIT" is the correct thickness and securely mounted to the machine.
8. If you are using type, be certain that it is securely held in the typeholder.
9. Be careful not to over-ink the machine. A very small amount of ink will mark many parts. If you think there may be too much ink on the machine, wipe some off with a clean cloth. Cycle the machine to smooth out the remaining ink.

## CLEAN-UP

Clean-up of the Model 105 is fast and easy. Ink should never be left and allowed to dry on the machine or print dies.

The solvents you use should be selected for compatibility with the rubber parts of the machine as well as for dissolving the ink. Solvents commonly used for clean up include isopropyl alcohol (anhydrous), acetone, lacquer thinner, denatured alcohol, and others that do not leave a residue.

Start by removing the print unit from the print arm of the machine. The print die should be cleaned with a solvent that is compatible with the die. Rubber or polymer die materials can be damaged by some solvents. Care should also be taken so that the die is not damaged by abrasion, particularly if a soft material is used for a die.

Next, clean the ink roll. It is best cleaned by wiping with a clean soft rag, moistened with solvent. Never submerge the ink roll or any other rubber part in solvent. Wipe the ink roll clean and allow the solvent to immediately flash dry. When the ink roll is clean, park it with the ink roll latch.

The Ink plate is now accessible for cleaning. Use a clean soft rag, moistened with solvent to wipe it clean.

It is also good practice, particularly if changing colors, to clean the ink roll and ink plate **prior** to beginning a print job. This will assure there is no residue, dust or other contamination on these surfaces that will affect the job.

## LUBRICATION

Periodically, apply a drop of general purpose lubricating oil to each of the holes marked "OIL," on the upper surface of the printing arm of the machine.

## REPAIRS

If your JanTech machine needs repairs beyond what you can do, consider sending the machine to the factory for attention. Contact your JanTech dealer or the factory direct for further information regarding this service.

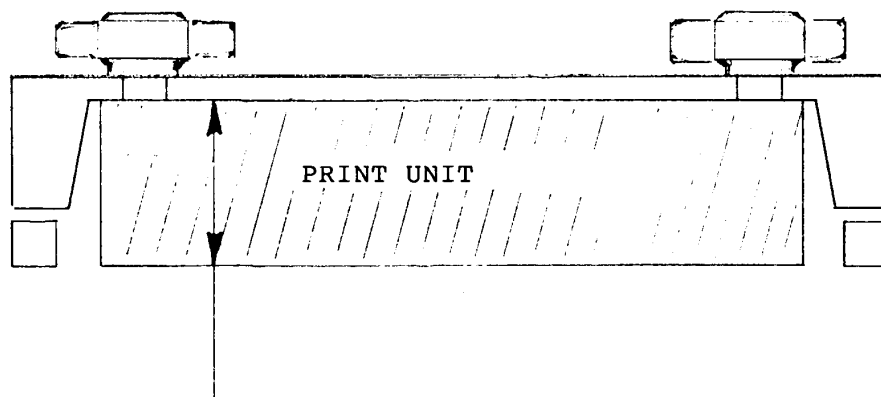
## PRINT UNIT

**Print Unit** is used to describe any item installed on the machine which is coated with ink and makes an imprint, either directly on a part or on an offset pad. The Print Unit might be any number of items: a rubber printing die, a photoengraving, pieces of metal type held in a typeholder, rubber type characters in a holder, etc.

Any Print Unit used **must** be of a thickness that falls within the limits shown below. It must be flat. It can **not** be bowed, curved or sloping from side-to-side or front-to-rear. In addition, it **must** be sharp and clean with no nicks, dents, breaks or other deformations. These conditions must be met to insure good imprints.

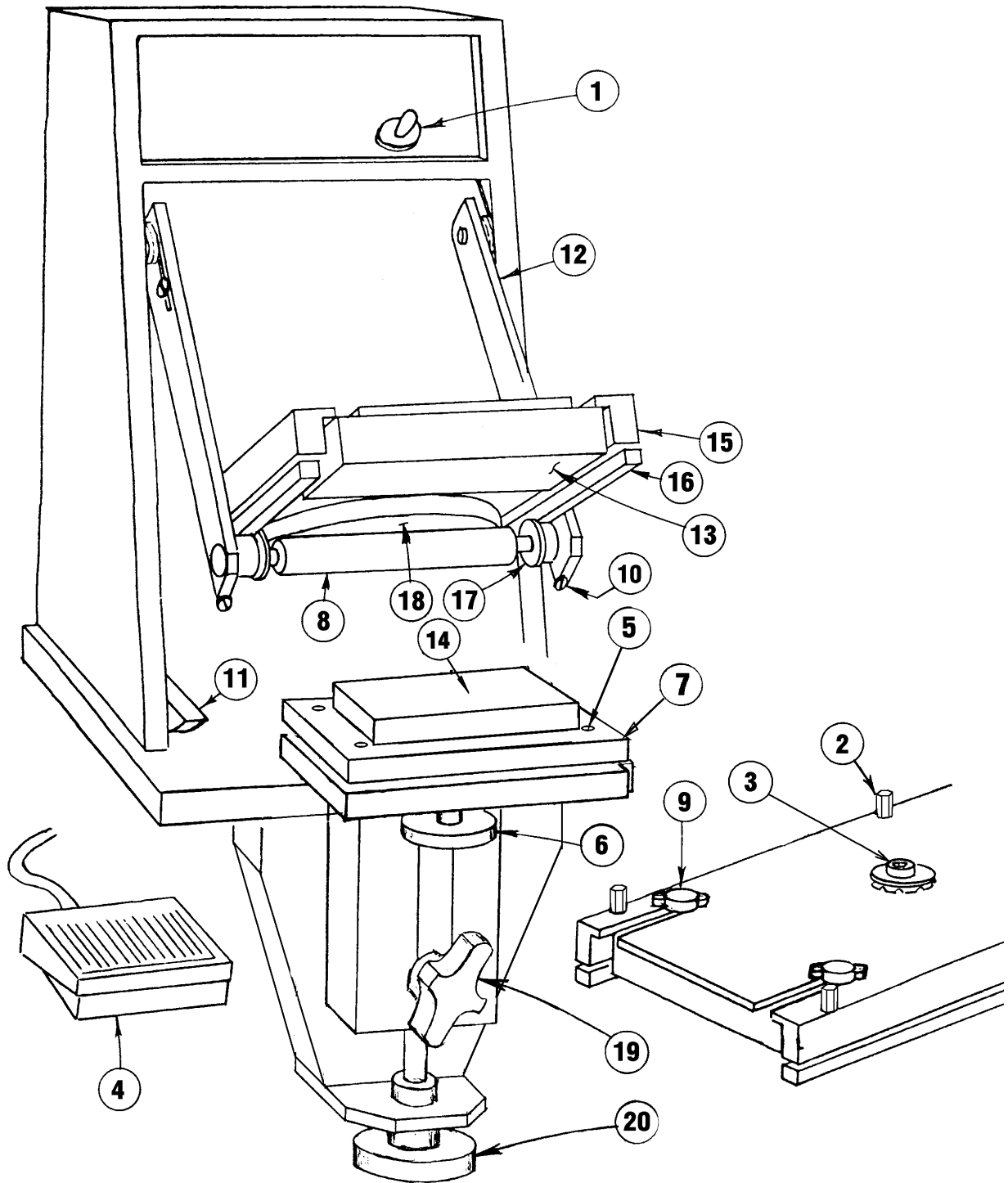
**NOTE:** The overall thickness of the Print Unit, including die must be as close as possible to 0.918 inches. A standard Die Mounting Block (part #215) is 0.750 inches thick. Allowing, for example, 0.010 inches for adhesive backing, the Printing Die should be 0.158 inches thick. Depending on the actual thickness of the die plates and adhesive you are using, it may be necessary to either shim the die plate or reduce the thickness of the mounting block by machining. The backside of the Printing Dies **must** be flat and smooth to assure a uniform total thickness across the mounted die plate.

See drawing below:



**Ideal total thickness including print die is 0.918 inches (23.3 mm).**

# Model 105EWDS Illustration



# SECTION: 2

## ADJUSTMENTS AND CONTROLS

Refer to Model 105EWDS Illustration on page 6 for item numbers.  
Refer to Appendix B on Page 12 for part numbers.

**Item 1: Master Switch, (Part #201)**

Notice that there are three positions on the Master Switch: **ON**, **OFF** and **JOG**. Moving the switch to the **OFF** position will shut off the machine at any time. If the machine is switched off during a cycle, the cycle will be automatically completed when the switch is moved to the **ON** position.

The **ON** position is used for all normal operations.

The **JOG** position is used to move the machine through a cycle in small increments for the purpose of adjustments.

**Item 2: Guide Rail Adjusting Screws, (Part #204)**

There are four (4) Guide Rail Adjusting Screws: two (2) near the front and two (2) near rear of the printing arm. When turned, these screws raise or lower the guide rails that determines the amount of contact between the Ink Roll, the Print Unit and the Ink Plate.

**Item 3: Ink Plate Pivot Screw, (Part #251)**

The Ink Plate Pivot Screw serves as the shaft on which the Ink Plate rotates.

**Item 4: Foot Switch, (Part #206)**

The Foot Switch starts a cycle of the machine, when depressed and held down for approximately two (2) seconds. The cycle will continue to completion even when the Foot Switch has been released. The machine can be stopped in mid-cycle by moving the Master Switch to the **OFF** position. Holding the Foot Switch down will cause the machine to cycle continuously.

Make certain that nothing is in the way of the Printing Arm as it descends.

**Item 5: Work Table Leveling Screws, (Part # 236)**

There a four (4) Work Table Adjusting Screws. These screws permit the tilt of the Work Table to be adjusted.

**Item 6: Work Table Lock, (Part #255)**

The Work Table Lock must be loosened before making any adjustments to the Work Table. After adjustments have been made, retighten the Work Table Lock.

**Item 7: Work Table, (Part #235)**

The Work Table holds the Offset Pad, a part to mark, or possibly a part-positioning device. The table is indexable within a short range to permit fine tuning of imprint placement.

**Item 8: Ink Roll Assembly, (Part #210)**

The Ink Roll rolls across the Ink Plate and Print Unit when the machine is cycled. It is very important that the Ink Roll be in good condition; free of irregularities, clean and not excessively worn. When replacing the Ink Roll, do not over-tighten the Ink Roll Bearing Clamp Screws.

**Item 9: Print Unit Retaining Screws, (Part #211)**

There are two (2) Print Unit Retaining Screws. When these are loosened, the Print Unit can slide out of the Printing Arm.

**Item 10: Ink Roll Bearing Clamp Screws, (Part #212)**

There are two (2) Ink Roll Bearing Clamp Screws. When these are loosened, the Ink Roll Arms can be moved aside to remove the Ink Roll.

**Item 11: Ink Roll Arm Latch, (Part #213)**

The Ink Roll Arm Latch permits the Ink Roll Arms to be held out of the way while changing the Print Unit or cleaning the machine. To use the latch, push the left Ink Roll Arm down, push down on the latch and release the Ink Roll Arm.

**Item 12: Ink Roll Arm, (Part #214 [Right] or #224 [Left])**

There are two (2) Ink Roll Arms, one left and one right. These arms carry the Ink Roll assembly.

**Item 13: Print Unit, (Select from Part #'s 215 [Standard], 247, 260 or 262 as applicable)**

The Print Unit is the item that is installed in the machine to make a mark.

**Item 14: Offset Pad, (Part #216)**

Specially compounded, the Offset Pad is used when the machine is set up to do **offset** marking. An imprint is made on the pad and then transferred to the part being marked. The Offset Pad is secured to the table with double-faced tape.

**Item 15: Printing Arm, (Part #401)**

The Printing Arm carries the Print Unit and swings downward when the machine is cycled to make an imprint.

**Item 16: Guide Rails, (Part #212)**

The Guide Rails guide the Ink Roll over the Ink Plate and Print Unit.

**Item 17: Ink Roll Guide Wheels, (integral with Part #210)**

The Ink Roll Guide Wheels roll on the Guide Rails to keep the Ink Roll properly aligned.

**Item 18: Ink Plate, (Part #257)**

The rotating Ink Plate serves as the reservoir for wet ink and to evenly apply the ink to the Ink Roll.

**Item 19: Main Height Adjustment Lock, Part #547**

Loosen the Main Height Adjustment Lock before adjusting the Main Table Height Adjustment knob (Item 20).

**Item 20: Table Height Adjustment, Part #258**

The Table Height Adjustment screw is used to elevate the Work Table for the item being marked.

# **SECTION: 3**

## **SETTING UP TO PRINT**

**(Refer to Model 105EWDS Illustration, page 6)**

1. Install a Print Unit (Item #13). Be certain that the Print Unit is in good condition and the correct height is equal to 0.918 inches.
2. Make certain that the Work Table (Item #7) is low enough that the Print Unit will not touch the Offset Pad (Item #14) or the part to be marked, when the machine is **jogged** through a cycle.
3. **Jog** the machine enough to position the Ink Roll (Item #8) over the rear half of the Ink Plate (Item #18). Adjust the rear Guide Rail Adjusting Screws (Item #2) until the Ink Roll is just barely touching the Ink Plate about the same amount on both sides.
4. **Jog** the machine to position the Ink Roll on the face of the Print Unit. Adjust the two (2) front Guide Rail Adjusting Screws (Item #2) to create a very small space about the thickness of a business card on each side between the Print Unit and the Ink Roll. **Jog** the machine to put the Ink Roll back over the rear half of the Ink Plate and re-adjust the rear Guide Rail Screws. At this point, the Master Switch can be moved to the **ON** position and the machine will automatically complete its cycle.
5. Apply a dab of ink, not larger than a pea, to the Ink Roll. Cycle the machine until the ink is evenly spread over the Ink Plate. If the ink is not spreading evenly, make certain that the Ink Roll is making proper contact with the Ink Plate.
6. After the Ink Roll is coated with ink, gradually raise the Guide Rails (Item #16) and cycle the machine until the Print Unit begins to become "inked." At this point, make final adjustments to the Guide Rail Adjustment Screws. Remember, the purpose of these adjustments is to obtain the lightest possible contact between the Ink Roll, Print Unit and Ink Plate, while still getting adequate ink coverage.
7. With ink on the Print Unit, gradually raise the Work Table until the ink mark begins to appear on the object being marked. Adjust the height and tilt of the Work Table to obtain the least possible contact with the Print Unit and still get a complete mark.



**Model 105EW**  
**With alternate work table**

# **SECTION: 4**

## **Model 200 Imprint Placement Fixture**

The Model 200 Imprint Placement Fixture mounts on a Model 105EWDS Marking Machine. It was created to provide a means for placing an offset imprint in a precise or difficult location. With this fixture, offset imprints may be made in depressed areas, on uneven surfaces, and close to obstructions such as pins or raised areas. Also with this fixture, the quality of the imprint can be visually verified before it is transferred to the part being marked, and minor variations in parts thickness will not affect the quality of the imprint.

### **Installation of the Model 200 Fixture**

Remove the EW work table assembly from the base of the machine. Secure the base extension and clamp assembly to the machine base as shown in the illustration, using the two shoulder bolts "A" into the holes in the base plate from the underside. The threaded portion of the lock screw "C" should be located in the blind hole in the thrust plate, but not tightened. Slide the plate "D" of the fixture under the end of clamp plate "B". The fixture may then be clamped in place by tightening lock screw "C".

### **Operation of the Model 200 Fixture**

When the inked machine is cycled, the printing arm "E" swings downward and makes an imprint on the transfer pad "F." The handle "G" is then rotated toward the front and the pad is brought down on the part to be marked "H," which will be located by a positioning device, "J" (not provided). Such positioning devices are usually fabricated to suit the part being marked and are secured to the fixture work table "P" with double faced tape or some other means.

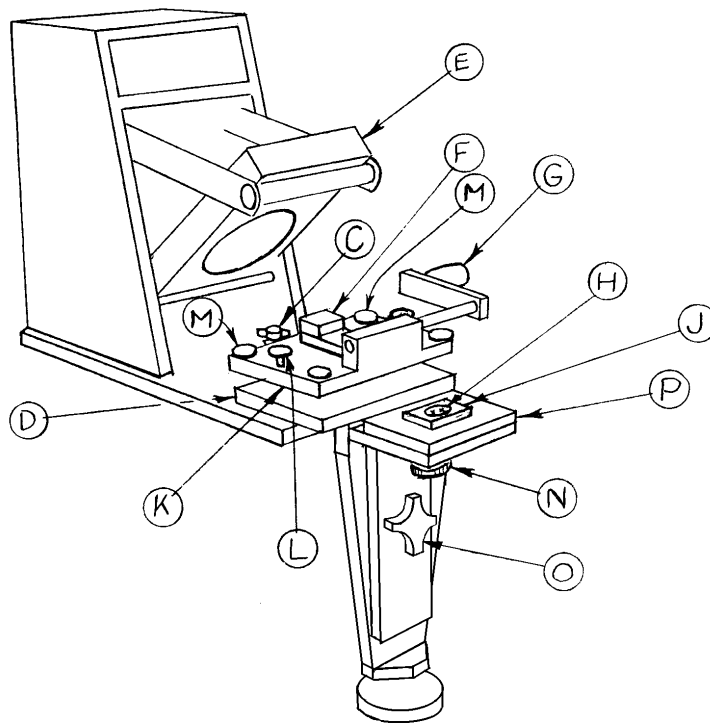
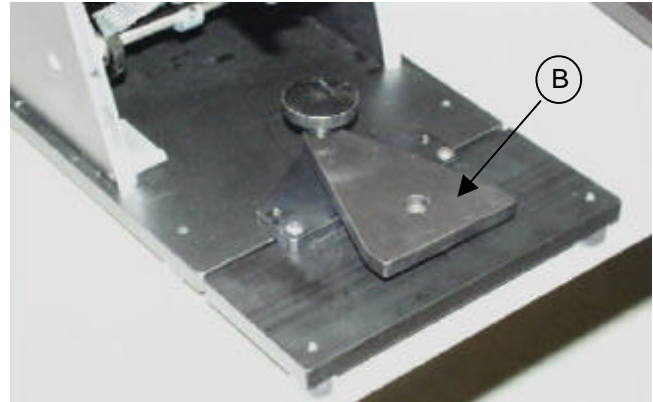
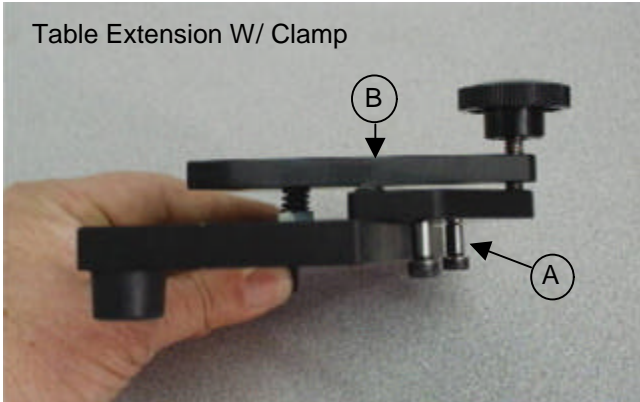
### **Setup and Adjustment of the Model 200 Fixture**

Using a sharp blade, trim a section of offset pad to the size necessary to place the mark in the desired location of the part and secure the pad section with double faced tape to the transfer arm as shown, "F." With a proper Print Unit in the machine and the basic adjustments made to the guide rails (See machine Operating Instructions), loosen the two screws "L." By alternately loosening screws "L" and tightening the four screws "M," lower the upper part of the fixture enough that when the machine is cycled, no imprint is made on the transfer pad. Then alternately cycle the machine and raise the fixture until the beginning of an imprint is made on the transfer pad. Using screws "L" and "M," adjust height and tilt of the fixture until a complete imprint is made.

At this time, if necessary, loosen lock screw "C," and move the entire fixture to place the imprint at the desired location on the pad.

Place a part to be marked in the positioning device (if used). Pull the handle to the front and see where the imprint comes down. Loosen screw "O" and adjust the height of the part so that the pad touches the part squarely. If necessary, shim the work table "P" to adjust for tilt. Loosen knob "N" and move the table "P" so that the imprint is made in the proper place on the part.

# Model 200 Imprint Placement Fixture



# APPENDIX A

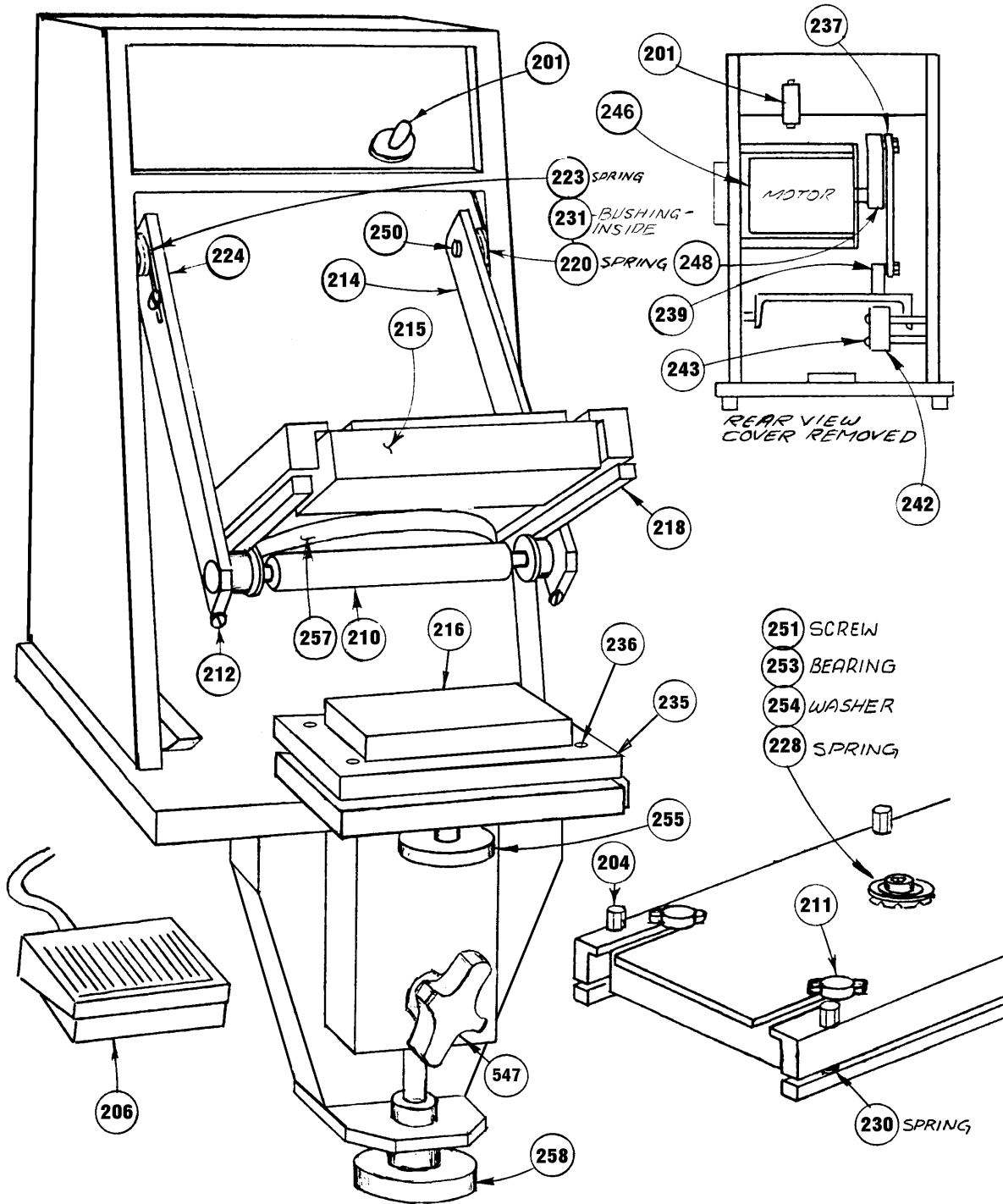
## PARTS LIST

### Model 105EWDS

<u>Part #</u>	<u>Part Name</u>
201	Master Switch
204	Guide Rail Adjusting Screws
206	Foot Switch with Cord
210	Ink Roll Assembly
211	Print Unit Fastening Screw (2)
212	Ink Roll Bearing Clamp Screw (2)
214	Ink Roll Arm Assembly, right
215	Die Mounting Block
216	Offset Pad
218	Guide Rail (2)
220	Ink Roll Arm Return Spring, right
223	Ink Roll Arm Return Spring, left
224	Ink Roll Arm Assembly, left
228	Ink Plate Thrust Spring
230	Guide Rail Backup Spring (4)
231	Ink Roll Arm Return Spring Bushing (inside spring)
235	Indexable Work Table Top
236	Leveling Screws
237	Connecting Link Assembly
239	Anchor Block
242	Limit Switch
246	Drive Motor, 115 VAC
248	Crank Arm
250	Ink Roll Arm Pivot Screw
251	Ink Plate Pivot Screw
253	Ink Plate Pivot Bearing
254	Washer
255	Table Lock Knob Assembly
257	Ink Plate Assembly
258	Work Table Adjusting Screw
902	Operating Instruction Manual & Video

# APPENDIX B

## Model 105EWDS Parts



# APPENDIX C

## Wiring Diagram

