



**Black & Webster**

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## INSTALLATION, OPERATING, MAINTENANCE INSTRUCTIONS

# Electropunch – Model C

**Description:** The Model C Electropunch is an electric high speed production tool for staking, riveting, marking and punching.

Upon receipt of your Model C Electropunch inspect for any damage that may have occurred during shipping. If there is damage, notify Black & Webster immediately. Study all instructions and drawings carefully before installation.

### INSTALLATION

**Mounting:** See Figure 1.

**Wiring:** The Model C is equipped with a Power Pak (control unit), an electrical cord and a molded three-prong plug. See Power Pak installation instructions.

**Tools:** The striking tool must have a shank .624 to .625 x 7/8" long with a shoulder on the shank which butts against the bottom of the spindle. Harden tool after machining for longer life.

#### Set-up:

1. Loosen the two large cap screws (fig. 2, #17) that are holding the yoke clamp (fig. 2, #15). Next, loosen the four set screws (fig. 3, #4) on the right side of the frame which hold the gib (fig. 3, #18) in position. **Caution** - Excessive loosening will result in the gib falling out.
2. Position the head for easy access to the spindle. This is accomplished by using the hand-wheel on the elevating screw assembly (fig. 3, #19).
3. Install and lock tool in spindle. Pull spindle down and insert taper pin (fig. 3, #25) in hole provided. Insert workpiece in nest. Lower head until the tool engages the workpiece.
4. Slightly tighten the four set screws, then tighten the cap screws. Take the taper pin out of the spindle. **Caution** - If head is in the full DOWN or UP position, avoid excessive tightening of top or bottom set screws to prevent gib from bending.

### OPERATION

The Model C Electropunch receives its power from the Power Pak. Closing the hand switch(es) or foot switch initiates the firing circuit, after which power to the Electropunch passes through this switch. The operator must hold the switch closed for 60 milliseconds for the Model C to achieve full power. Holding the switch longer will not overheat the Electropunch coil, as power is cut off by the Power Pak. The switch must be released to refire the machine.

Power of the Model C Electropunch is varied by turning the control knob on the Power Pak.

### MAINTENANCE

The spindle bearing should be cleaned and lubricated every few days with four or five drops of oil furnished with each machine. Remove the guard cover (fig. 3, #8) to find oil hole.

## TROUBLESHOOTING

### Sluggish Spindle

1. Dirty spindle/bearing - clean with Agitene or other solvent and wipe clean, applying one or two drops of Molub-Alloy Lubricant.

### Unit does not operate:

1. Check all electrical connections to be sure electrical contact is being made.
2. Check the solenoid. If it does not operate, check the coil for an open winding with a continuity test.
3. See Power Pak Installation & Maintenance Instructions.

## TO DISASSEMBLE

For replacement of a coil or cleaning the spindle bearing, remove the guard cover and unscrew the lock nut found on top of the guide plate. Clamp a .625 dia. piece in the tool hole so that a wrench or other means may be used to hold the spindle from rotating when unscrewing the lock nut. IF THIS IS NOT DONE, THE GUIDE PIN MAY BEND. After the guide plate has been removed, the spindle may be driven down through the armature and out through the bearing in the bottom of the solenoid.

## LIMITED WARRANTY

We warrant these articles to be free from defect in material or workmanship in accordance with the following terms and conditions. Our obligation under this warranty is limited to repairing or replacing, at our plant in Waltham, Massachusetts, any part which in our sole judgement has a defect. Notice of such defect must be given to us within a period of 12 months from the date the article was shipped by us and must be returned to our plant with freight charges prepaid. Defects in the material and workmanship of parts manufactured by those other than Black & Webster will be warranted only to the extent that such part is warranted by its manufacturer. The foregoing is in lieu of all other express or implied warranties. There is no warranty of merchantability and no warrant of fitness for any particular purpose, application or use. There are no warranties which extend beyond the description on the face hereof, express or implied. The remedies provided for herein shall be customer's exclusive remedies for any breach of warranty, and under no circumstances will Black & Webster, Inc., be liable for special consequential damages. This warranty is void unless the articles covered by the warranty have been properly installed, maintained and used.

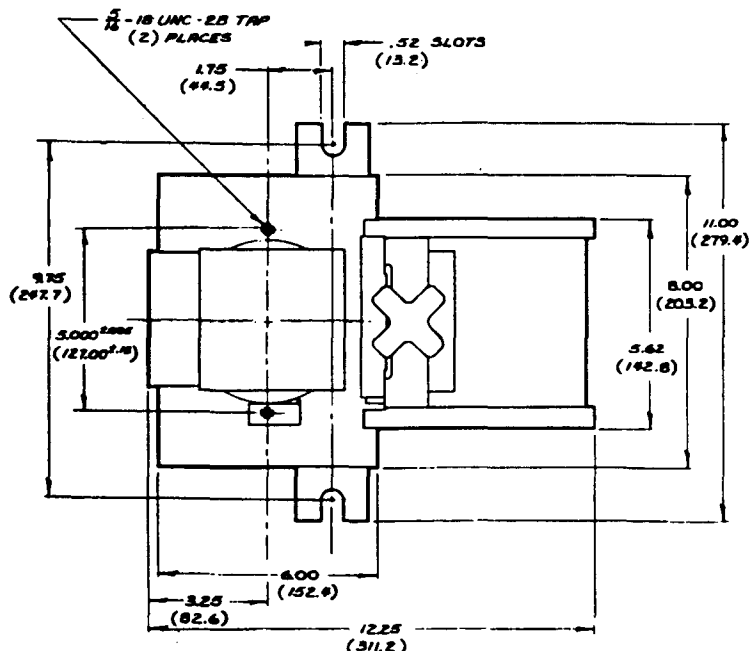


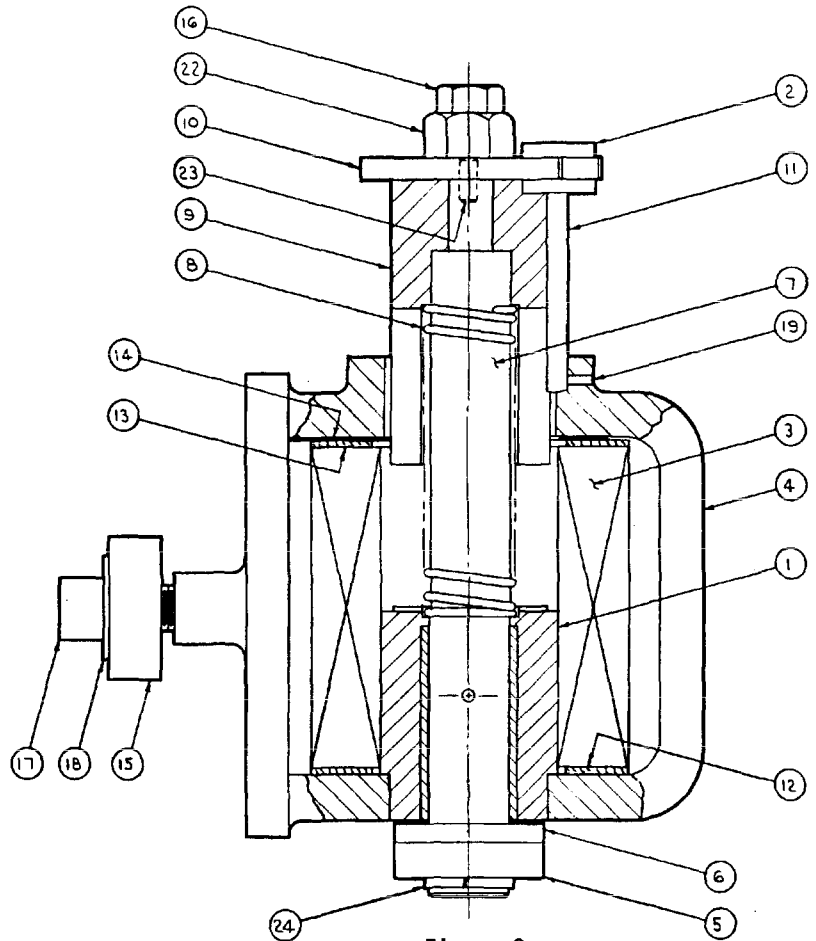
Figure 1.

**BILL OF MATERIAL FOR MODEL C  
HEAD ASSEMBLY ONLY**

<u>ITEM NO.</u>	<u>PART NUMBER</u>	<u>NAME</u>	<u>QTY.</u>
1	200204	Core w/Spacer and Bearing	1
2	200211	Spool Guide w/Bearing	1
3	200226	Coil w/Term Board	1
4	200231	Yoke	1
5	200232	Tool Holding Clamp	1
6	200234	Shock Pad	1
7	200235	Spindle	1
8	200237	Spindle Return Spring	1
9	200241	Armature	1
10	200242	Guide Plate	1
11	200245	Guide Pin	1
12	200247	Coil Insulator w/Slot	1
13	200248	Coil Insulator	1
14	200251	Coil Hold-Down Spring	1
15	200302	Yoke Clamp	1
16	200254	Locking Hex Nut	1
17	200303	Soc Hd Cap Scr 5/8-18 x 2 1/4 Lg	2
18	200306	5/8 Flat Washer	1
19		Roll Pin 1/8 dia x 5/8 Lg	1
20		Soc Hd Cap Scr 1/4-20 x 1 Lg	1
21		Soc Hd Set Screw 5/16-24 x 1 Lg	2
22		Hex Nut 5/8-18	1
23		Dowel 1/4 dia x 5/8 Lg	1
24	200233	External Ring	1

**OPTIONAL ITEMS**

8	200238	Spindle Return Spring - Heavy Duty	1
	200145	Cushion	1



**Figure 2.**

BILL OF MATERIAL FOR  
MODEL "C" ELECTROPUNCH ASS'Y

ITEM NO.	PART NUMBER	NAME	QTY.
1		RD HD Drive Screw #2 x 3/16	4
2	200125	Nameplate - 115 V 50/60 Hz	1
	200126	- Other	
3		RD HD Screw #6-32 x 1/4 LG	4
4		Soc HD Set Screw 1/4-28 x 1" LG	4
5		Hex Nut 1/4-28	4
6		RD HD Screw #8-32 x 1/4 LG	4
7		Lock Washer #8	2
8	200297	Guard	1
9		RD HD Screw #10-32 x 1/4 LG	4
10		Lock Washer #10	4
11	200317	Strain Relief	1
12		Internal Tooth Lock Washer #6	1
13	200260	Model "C" Head Assembly	1
14	200299	Connection Box	1
15	200314	Grommet	1
16		Wire #16 AWG x 3" LG	1
17		Terminal Ring	2
18	200309	Gib	1
19	200269	Elevating Screw Assembly	1
20	200308	Frame	1
21		RD HD Screw #8-32 x 1/2 LG	1
22	200129	Cable Clamp	1
23	200322	Coil Cable	1
24	101204	Single Steel Jack Chain #18 x 12"	1
25	101406	Taper Pin #2 x 1"	1
26	201822	Model PK Power Pak Assembly	1

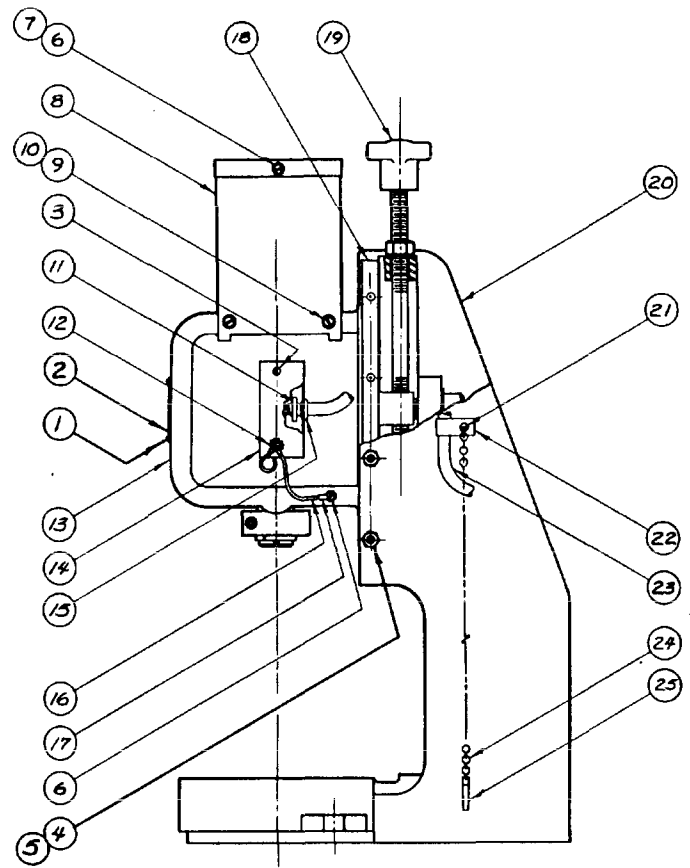


Figure 3.