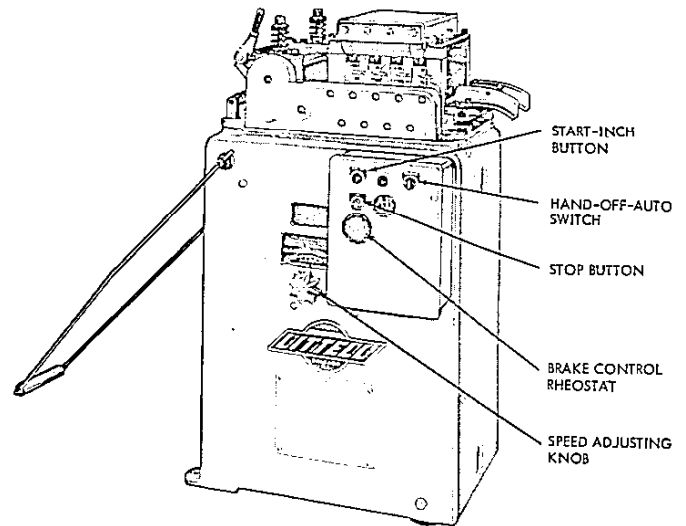
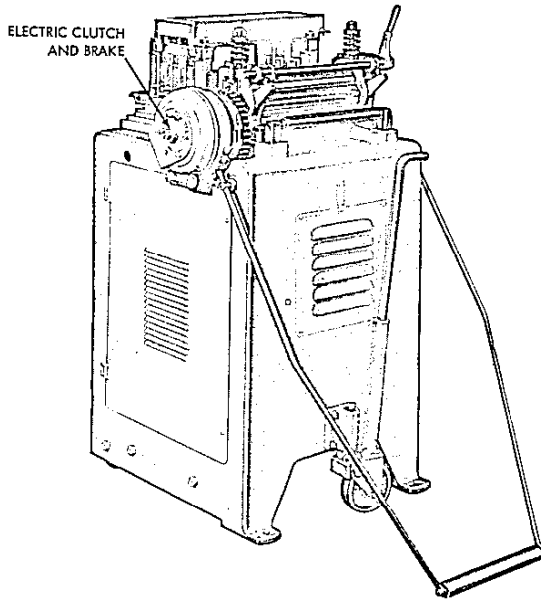




PARTS LIST AND OPERATING INSTRUCTIONS FOR ELECTRIC CLUTCH AND BRAKE FOR NO. 308 AND 312 STRAIGHTENING MACHINES



OPERATING AND MAINTENANCE INSTRUCTIONS

ELECTRICAL CONNECTION

Check motor furnished with machine for operation voltage. Connect to power source of proper voltage and electrically ground machine before putting into operation. See wiring diagram furnished with machine.

ELECTRICAL CONTROLS

This machine is equipped with a Warner Electric Clutch and Brake. The operation of the clutch and the brake is controlled by a manual three-way switch marked "HAND," "OFF" and "AUTOMATIC." To straighten stock proceed as follows:

A. Raise pinch rolls and put stock through straightener head and pinch rolls. Then close pinch rolls on stock.

B. Place three-way switch in "HAND" position and press "START-INCH" button. The machine will start operating and continue to operate as long as "START-INCH" button is held in. The button should be depressed long enough to produce a loop of stock to go under the arm control and into the feed on the press or whatever the ultimate using equipment is.

C. When stock has been threaded through straightening machine, pinch rolls, under the control arm and up to the using equipment, turn three-way switch from "HAND" to "AUTO."

D. Push "START-INCH" button. The motor on the straightening machine will immediately start. The position of the Arm Loop Control determines whether the brake or clutch will be engaged. If the Arm Loop Control is in bottom position, the brake will be engaged and there will not be any pay-off of stock. If Arm Loop Control is raised, the brake is disengaged and the clutch is engaged. Stock is then straightened and advanced thru straightener under the Arm Loop Control to the using equipment. As long as the using equipment is using up the prestraightened stock the machine will

continue to operate. If an excess of stock is formed and a loop is produced, the Arm Loop Control will drop down causing the clutch to become disengaged and the brake to become engaged.

E. To shut off machine, push "Stop" button or turn three-way switch to "OFF" position. Either method is satisfactory for shutting off motor on unit.

ADJUSTMENTS

Two adjustments can be made. One is with the brake control rheostat. The brake can be set up for instantaneous stop or a slower stop as is desired for the particular job.

Another adjustment which should be made whenever job requirements change is the speed of the straightening machine. The speed adjusting knob should be turned to a position where the stock is straightened and supplied at about 10% faster rate than what it is used up. This will guarantee sufficient supply of prestraightened stock and will not require machine to start and stop constantly. Starting and stopping of the machine however, does not have any detrimental effect, as the motor does not stop. Starting and stopping of the machine is obtained by engaging and disengaging of the clutch. There is no starting torque every time the machine begins to supply prestraightened stock. This is the main advantage of this type of unit. It can operate at maximum speed for a few seconds and come to a rapid controlled stop and be immediately started again to supply stock at maximum speed. This is quite often used for hump feeding. The stock is rapidly advanced into the die and can be stopped almost instantaneously when the right amount has been supplied to the die with a positive stop.

MAINTENANCE

For maintenance, see Warner Electric Clutch and Brake manual. Do not oil. Do not attempt to machine armatures.

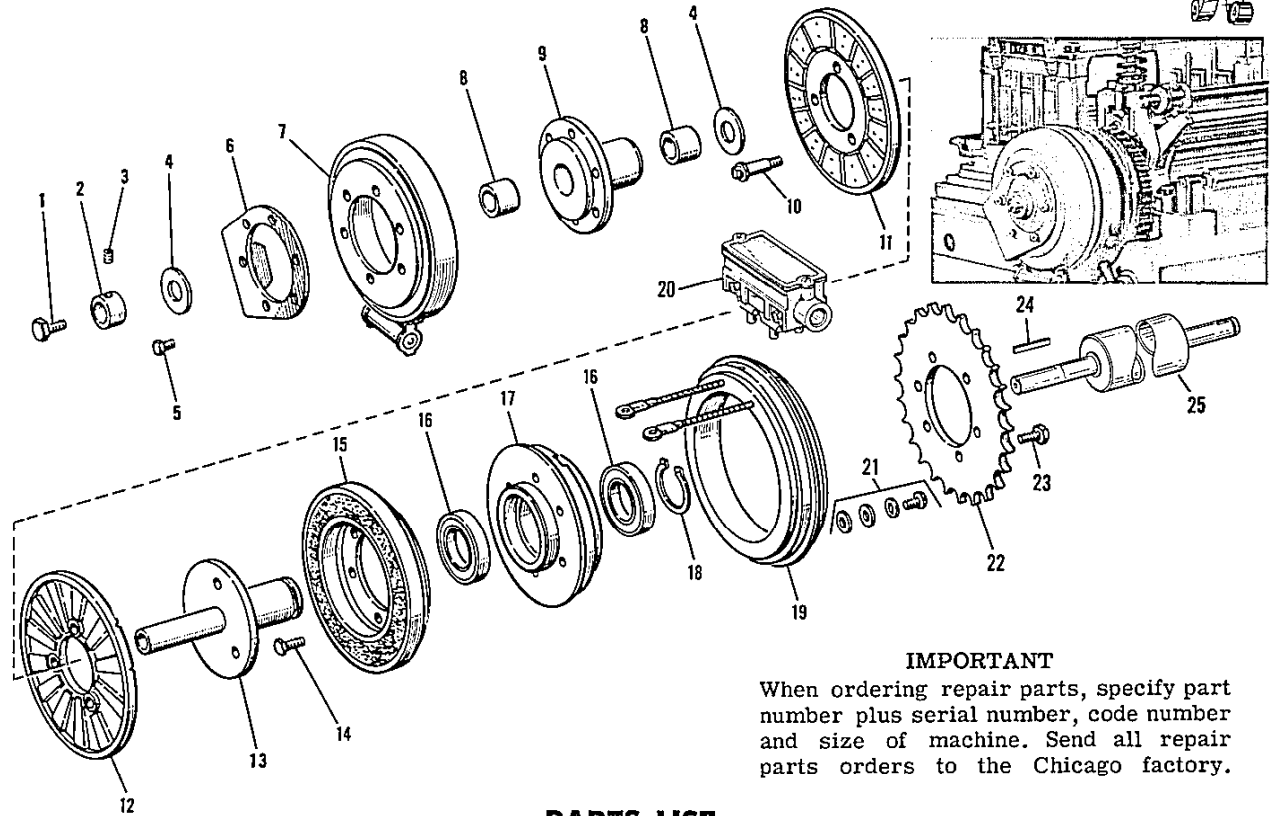
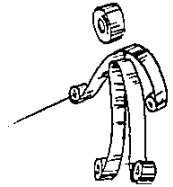
F. J. LITTELL MACHINE COMPANY

4101 N. RAVENSWOOD AVENUE

CHICAGO, ILLINOIS 60613



ELECTRIC CLUTCH AND BRAKE FOR NO. 308 AND 312 STRAIGHTENING MACHINES



IMPORTANT

When ordering repair parts, specify part number plus serial number, code number and size of machine. Send all repair parts orders to the Chicago factory.

PARTS LIST

INDEX NO.	DESCRIPTION	PART NUMBER
1	Bolt - Hex 1/2"-13 x 5-1/2" LG	00000
2	Collar - Steel (Hallowell)	90160
3	Screw - Set, Hollow Head 1/4"-20	00000
4	Washer - Brass	B 23200
5	Bolt - Hex 5/16"-18 x 3/4" LG	00000
6	Arm - Torque, Brake	B 16605
7	Assembly - Magnet, Brake, 90 Volts *5311-631-004	00000
8	Bushing - (Oilite #A-1212-2)	90350
9	Hub - Brake	B 16606
10	Pin - Drive	A 16604
11	Armature - Brake *5301-111-001	00000
12	Armature - Clutch *5301-111-001	00000
13	Hub - Inner Clutch	B 16607
14	Bolt - Hex 5/16"-18 x 3/4" LG	00000
15	Assembly - Magnet, Clutch, 90 Volts *5301-631-005	00000
16	Bearing - Ball (N. D. #93-L-09)	90276
17	Hub - Collector Ring	B 16608
18	Ring - Retaining (Waldes #5100-177)	90064
19	Ring - Collector *5301-749-001	00000
20	Assembly - Brush Holder *5300-178-001	00000
21	Assembly - Mounting, Collector Ring *5301-101-002	00000
22	Sprocket - Driven (Cullman #50-A-36)	A 16451
23	Bolt - Hex 5/8" x 18	00000
24	Key - 1/4" x 1/8" x 2"	00000
25	Assembly - Lower Feed Roll For #308 Straightener (Specify Roll Finish) For #312 Straightener (Specify Roll Finish)	00000

* Warner Electric Brake Parts