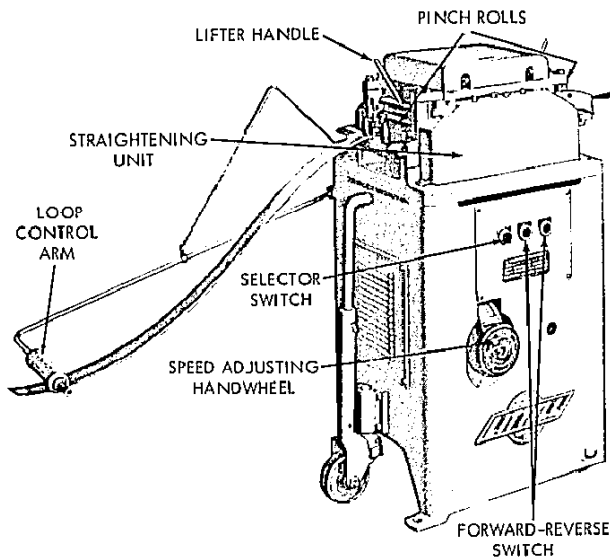


# PARTS LIST AND OPERATING INSTRUCTIONS FOR NUMBER 208 SERIES VARIABLE SPEED STRAIGHTENING MACHINE



## OPERATING INSTRUCTIONS

### ELECTRICAL CONNECTIONS

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

### ELECTRICAL CONTROLS

The machine is equipped with a magnetic starter and a three unit control station. The three unit control station consists of a selector type switch arranged for manual or automatic operation and two push button switches for forward or reverse "jogging" when the selector switch is in the "HAND" or manual position only. (When selector switch is in the "AUTO" or automatic position, machine will operate only in forward direction.)

For manual operation or "jogging," turn selector switch counterclockwise to "HAND" position and press "FORWARD" or "REVERSE" button, as required. Machine will operate only as long as either button is depressed.

For automatic operation, turn selector switch clockwise to "AUTO" position. The machine will run continuously unless the loop control arm is in the extreme down position.

### LUBRICATION

Before placing machine into operation, check all parts for proper lubrication. Lubrication requirements are as follows:

- Reeves Moto - Drive Unit. Lubricate in accordance with manufacturer's recommendations as shown on unit.
- Straightener Unit. Lubricate all operating parts daily in accordance with instructions shown on lubrication plate mounted on side of machine.

- Straightener Unit Gear Train. Lubricate gear train felt packed bearings at least once a week with lubricating oil.

### FEEDING DIRECTION

The machine, as normally shipped, is arranged for right to left direction of operation. Machines can be arranged for left to right direction of operation on special order only.

### STRAIGHTENER UNIT ADJUSTMENT

The bank of upper straightener rolls must be adjusted for the thickness, width, and temper of the material to be straightened. Higher settings are required for thicker and softer materials; lower for thinner and harder materials. The first or incoming roll of the upper bank should be set lower than the last or outgoing roll so as to give a slight up curve to the material. These adjustments are accomplished by turning the worm at either end of the bank with the handwheel provided. It may be necessary to experiment with different settings to find the best for your material. Once found, record the settings indicated on the dials for the specific material being straightened.

### PINCH ROLL ADJUSTMENT

The pinch roll springs for the incoming pinch roll must be drawn down to exert sufficient pressure to push the material through the straightener rolls without slippage. Adjust spring setscrews evenly to assure straight tracking of the material through the rolls and to avoid creeping to either side. The same tension adjustments must then be made to the outgoing pinch roll-spring setscrews. Springs must not be drawn down solid at any time.

### SPEED ADJUSTMENT

To prevent running out of material or frequent starting and stopping of straightener, set speed of straightener at speed of using equipment. Calculate approximate feeding speed of the using equipment (strokes per minute x feed length). With straightener running, and loop control arm just above off position, adjust speed adjusting handwheel on Moto - Drive Unit to speed at which stock is being used.

### LOOP CONTROL ARM

The loop control arm maintains a constant loop of material between the straightening machine and the using equipment. If the loop of stock exceeds normal operating depth, the loop control arm drops, thus shutting off the straightening machine motor. As excess stock is used up by the using equipment, the loop control arm raises and starts the straightening machine which then resumes feeding of stock to the using equipment. This function is accomplished by the use of an adjustable cam, located within the base of the machine, which actuates an "ON-OFF" limit switch.

The cam can be easily adjusted on location to meet specific operating conditions. To adjust, rotate cam on shaft until desired results are obtained.

**F. J. LITTELL MACHINE CO.**

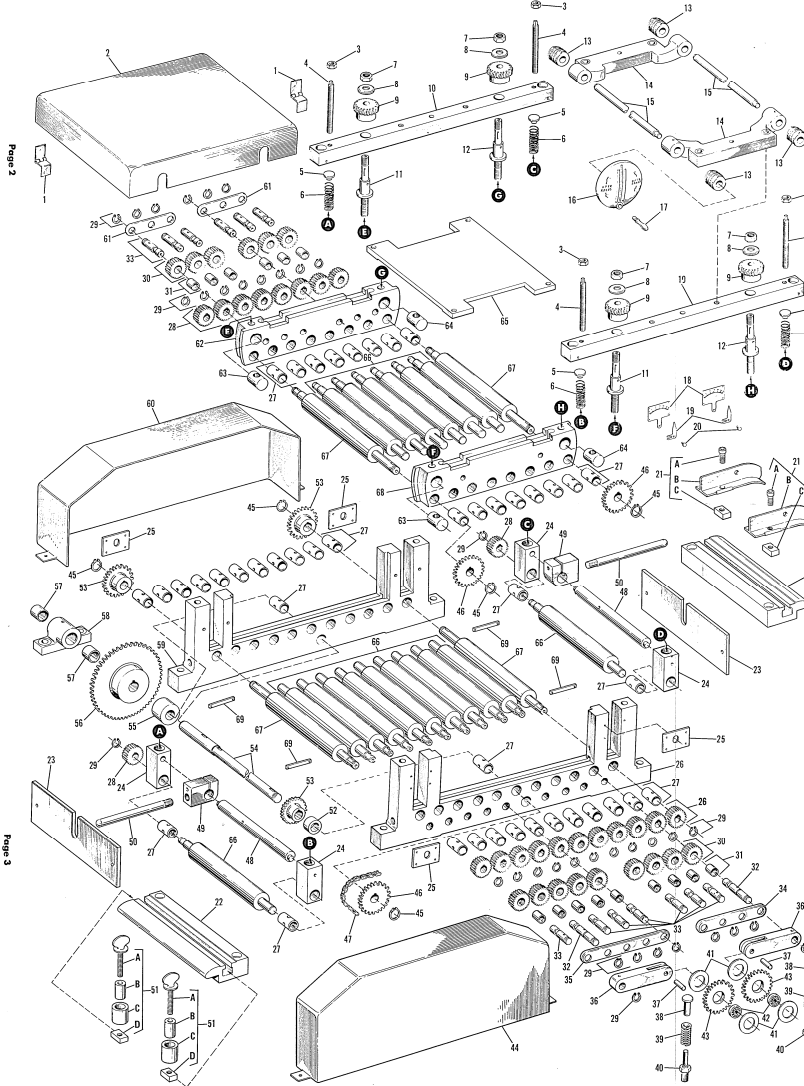
4101 N. RAVENSWOOD AVENUE

CHICAGO 13, ILLINOIS



No. 208-17PD STRAIGHTENING MACHINE

**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.

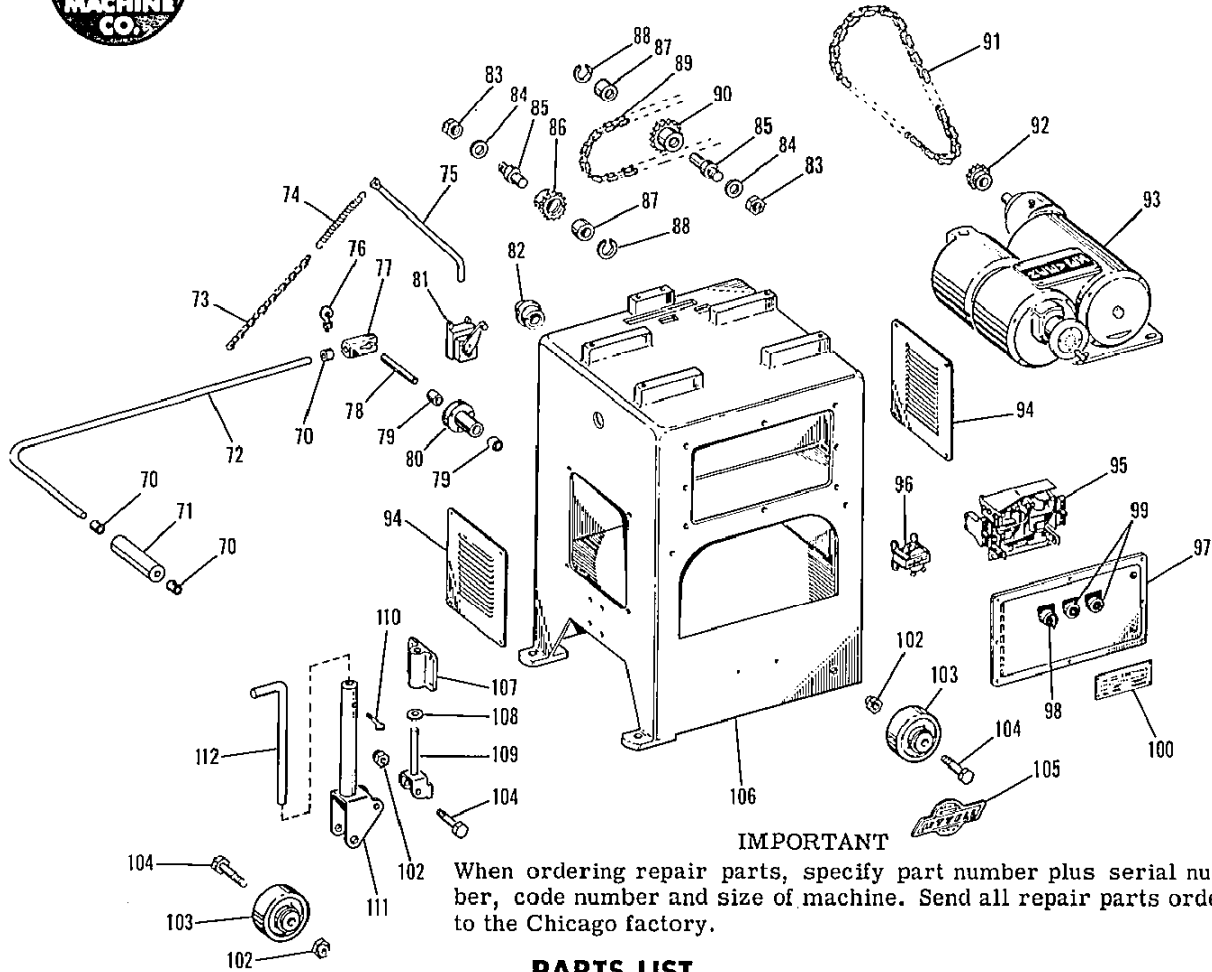


**PARTS LIST**

INDEX NO.	DESCRIPTION	PART NO.	INDEX NO.	DESCRIPTION	PART NO.
1	Hinge . . . . .	22A-10911	38	Plunger . . . . .	23A-33669
2	Cover . . . . .	22B-10910	39	Spring . . . . .	22-90049
3	Hex. Nut . . . . .	3/8-16	40	Guide . . . . .	23A-33668
4	Setcrew . . . . .	3/8-16 x 4"	41	Spacer . . . . .	23A-33666
5	Spring Button . . . . .	23A-33677	42	Bearing . . . . .	Nice 1605DS
6	Spring . . . . .	Danly #9-1203-11	43	Sprocket . . . . .	Cullman 35A-19
7	Hex. Nut . . . . .	32-34585	44	Guard . . . . .	23A-33665
8	Steel Washer . . . . .	Boston G1050RH	45	Retaining Ring . . . . .	14-90923
9	Gear . . . . .	22B-10909	46	Drive Sprocket . . . . .	23A-33667
10	Bearing Cap . . . . .	22A-10904	47	Chain . . . . .	24-90919
11	Adjusting Screw (L. H.) . . . . .	22A-10903	48	Lifter Shaft . . . . .	22A-22022
12	Adjusting Screw (R. H.) . . . . .	Boston GH1056RH	49	Lifter Handle Clamp . . . . .	22A-21998
13	Worm . . . . .	23B-33664	50	Lifter Handle . . . . .	23A-33676
14	Adjusting Screw Cap . . . . .	22A-10908	51	Roller Guide Assembly . . . . .	13-32072
15	Adjusting Screw Shaft . . . . .	23-90391	51A	Thumb Screw . . . . .	13A-31805
16	Handwheel . . . . .	22A-33672	51B	Roller Hub . . . . .	13A-31806
17	Handle . . . . .	23A-33671	51C	Roller . . . . .	13A-31807
18	Indicator Plate . . . . .	23-34759	51D	Nut . . . . .	13A-31904
19	Indicator Pointer . . . . .	13-32093	51D	Sprocket Spacer . . . . .	23A-33683
20	Pivot Pin . . . . .	3/8-16 x 3/4"	52	Drive Sprocket . . . . .	23A-33684
21	"T" Stock Guide Assembly . . . . .	13B-31975	54	Drive Shaft . . . . .	22A-18336
21A	Hollow Hd Cap Screw . . . . .	15A-31949	55	Spacer . . . . .	22A-18337
21B	Guide . . . . .	23A-33662	56	Sprocket . . . . .	Cullman 41B35
21C	Nut . . . . .	22A-18340	57	Bushing . . . . .	14-90287
22	Stock Table . . . . .	22A-18380	58	Drive Shaft Bracket . . . . .	23A-33663
23	Guard . . . . .	22A-18341	59	Rear Bearing Frame . . . . .	22C-19913
24	Upper Roll Box . . . . .	22A-11812	60	Guard . . . . .	22A-20136
25	Roll Box Retainer . . . . .	22C-10912	61	Retainer (3 Hole) . . . . .	22A-18343
26	Front Bearing Frame . . . . .	22-90290	62	Rear Upper Bearing . . . . .	22B-10915
27	Bushing . . . . .	22A-33691	63	Adjusting Screw Nut . . . . .	(L. H.) . . . . . 22A-10906
28	Roll Gear . . . . .	13-90922	64	Adjusting Screw Nut . . . . .	(R. H.) . . . . . 22A-10905
29	Retaining Ring . . . . .	33690	65	Bridge Plate . . . . .	22B-10918
30	Idler Gear . . . . .	91114	66	Roll . . . . .	23A-33666
31	Bushing . . . . .	22A-18342	67	Power Roll . . . . .	23A-33687
32	Idler Gear Pin . . . . .	22A-18341	68	Front Upper Bearing . . . . .	Frame . . . . . 22B-10914
33	Idler Gear . . . . .	22A-18343	69	Lifter Shaft Support . . . . .	22A-36588
34	Retainer (4 Hole) . . . . .	22A-18345			
35	Retainer (5 Hole) . . . . .	23A-33670			
36	Idler Arm . . . . .	23--91122			
37	Rollpin . . . . .				



# No. 208-17PD STRAIGHTENING MACHINE



**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 NO.
70	Collar . . . . .	99--90437
71	Roller . . . . .	23A-33673
72	Control Arm . . . . .	23A-33675
73	Chain . . . . .	41--90918
74	Spring . . . . .	41--90058
75	Spring Rod . . . . .	41A-35274
76	Eye Bolt . . . . .	41A-35066
77	Control Arm End . . . . .	23A-33676
78	Pivot Pin . . . . .	22B-18348
79	Bushing . . . . .	22--90292
80	Bushing . . . . .	23A-33539
81	Limit Switch . . . . .	93--90567
82	Cam . . . . .	23A-33658
83	Hex. Nut . . . . .	3/4-10
84	Washer . . . . .	35--34591
85	Idler Pin . . . . .	22A-18340
86	Idler Sprocket . . . . .	22A-18339
87	Ball Bearing . . . . .	22--90233
88	"Spirolox" Ring . . . . .	22--90076
89	Roller Chain . . . . .	24--90919
90	Idler Sprocket . . . . .	22A-18338
91	Roller Chain . . . . .	Migr's #41
92	Drive Sprocket . . . . .	Cullman 41B13
93	Moto-Drive Unit . . . . .	Reeves

INDEX NO.	DESCRIPTION	PART NO.
94	Louver Plate . . . . .	24A-33771
95	Magnetic Starter . . . . .	92--90500
96	Transformer . . . . .	
97	Control Panel . . . . .	22B-18335
98	Selector Switch . . . . .	94--90551
99	"Forward" "Reverse" Switch . . . . .	94--90547
100	Speed Indicator Plate . . . . .	24A-33735
101	Hinge . . . . .	"Mc Master-Carr"
102	Elastic Stop Nut . . . . .	5/8-11
103	Caster Wheel Assembly . . . . .	23A-23651
104	Hex. Head cap Screw . . . . .	5/8-11 x 3-1/2"
105	Serial Plate . . . . .	22A-10151
106	Base . . . . .	22C-18334
107	Steering Wheel Bracket . . . . .	23A-33656
108	Finished Washer . . . . .	23--34594
109	Steering Wheel Pivot . . . . .	23B-33607
110	Thumb Screw . . . . .	5/16-18 x 1-1/2"
111	Steering Wheel Post . . . . .	23B-33546
112	Steering Wheel Handle . . . . .	23A-33608