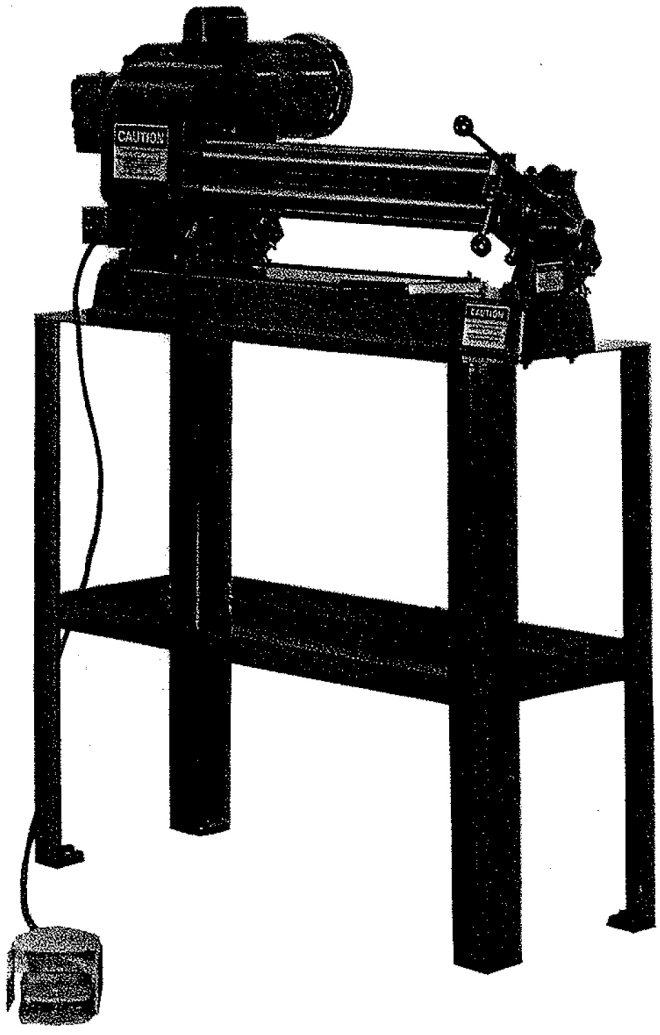
HAND AND POWER OPERATED SLIP ROLLERS

OPERATIONS MANUAL



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DISCLAIMER

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CAUTION

TO PREVENT SERIOUS BODILY INJURY AND DAMAGE TO THE MACHINE

BOLT THE MACHINE TO THE STAND AND THE STAND TO THE FLOOR

PART NO. 030-6504001

To prevent injury, we at Di-Acro insist that the roller be secured to the stand and the stand be fastened to the floor. The diagram on page three illustrates the pattern in which the 1 /2" diameter bolts should be embedded into the floor. When bolting the Di-Acro slip roller to the stand, it is recommended that 3/8" diameter bolts are used to secure the machine properly. Even though the Di-Acro manual and power rollers are simple to operate, another word of caution is advised. Loose clothing can easily become entangled in the rolls if not guarded.

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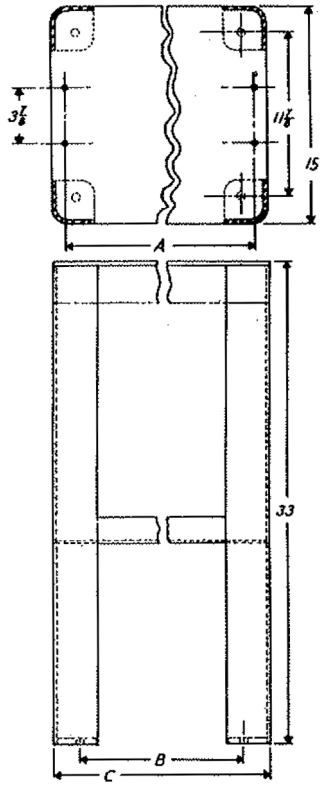
FLOOR PLAN
Securing The Roller To A Solid Foundation



In the chart below, distances A, B, & C are variable depending on the length of the roller that the stand will be used with.

Example: The bolts that secure the length of the stand to the floor should be 29 718" for the 24" slip roller.

	12"	24"	36"
A	16 15/16	28 5/10	40 5/16
B	20 7/8	29 7/8	44 7/8
C	24	33	48

Before the operation, maintenance and a few simple procedures are explained about the hand and power operated rollers. It is important for you to realize that the manual and power operated rollers are identical in construction except for the obvious differences in the length and operation of the rollers due to different power sources.

The idler roll cam on the power roller has been substituted by two metal blocks and an adjustment gauge on the manual roller. The use of small pieces of stock on the manual operated roller jus-tlfies this substitution.

TECHNICAL DATA

- **MOTOR -** 1/3 H.P.
- **VOLTAGE -**115 volt A.C. single phase 60 cycle
- **CURRENT -** 4.7 Amperes
- **ROLLER SPEED -** 15 feet per minute
- **CALIBRATED REAR ROLL INDICATORS** motor and all electrical equipment (115 volts for safety).
- **WELDED STEEL BASE -** extends the full length of the machine for permanent alignment of housing, bearings and rolls.
- **MAGNETIC BRAKE -** provides a positive stop that enables the operator to work to a scribed line without having to compensate for roll coasting. The rolls can be stopped or reversed using the control switch.

HAND OPERATED ROLLERS

Di-Acro Rollers	No. 12	No. 24	No. 36
Max. Form. Width	12"	24"	36"
Mat. Cap. -Steel	16 gauge	20 gauge	22 gauge
Diameter or Rolls	2"	2"	2"
Minimum Radius	1"	1 "	1"
Maximum Radius	No Limit	No Limit	No Limit
Floor Space (on stand)	15"x18 1/2"	15"x40"	15"x52"
Shipping Wt. Lbs.	115	170	230
Stand Weight Lbs., Net	86	108	140

POWER ROLLERS

Di-Acro Rollers	No. 24	No. 36
Max. Forming Width	24"	36"
Material Cap.-Steel	20 gauge	22 gauge
Diameter of Rolls	2"	2"
Minimum Radius	1 "	1"
Maximum Radius	No Limit	No Limit
Floor Space	24"x40"	24"x52"
Weight Lbs., Net	425	540
Shipping Weight, Lbs.	500	590

ACCESSORIES

The rolls may be grooved at a slight extra charge for forming round, flat, square and other shaped ductile materials.

OPERATOR CONTROL and FOOTSWITCH CONTROL

As the operator is facing the upper and lower pinch roll on the power driven roller, the on and off switch is on the left hand side. This switch enables the operator to drive the rollers in a for-ward or reverse direction; or to stop the rollers completely if desired. The power driven roller is also equipped with a foot switch that enables the operator to use both hands to feed the stock into the roller. However, the foot switch only allows the operator to rotate the rollers in a forward direction or to stop the rolling opera-tion.

FRONT AND REAR ADJUSTMENT SCREWS

The four adjusting screws (two located in the front and two located in the rear) have been built into the left and right side frames.

The two front adjusting screws enable the operator to raise or lower the pinch roll, so that the correct gap between the upper and lower pinch roll may be obtained to feed the desired stock into the machine.

The left and right rear adjusting screws assist the operator in raising or lowering the idler roll which determines the degree of bend in the stock that is being fed through the machine. The right and left side frames are each equipped with a scale to aid the operator in determining the correct angle of bend in the stock.

FORMING CIRCLES

HOW TO FORM CIRCLES IN JUST TWO PASSES.

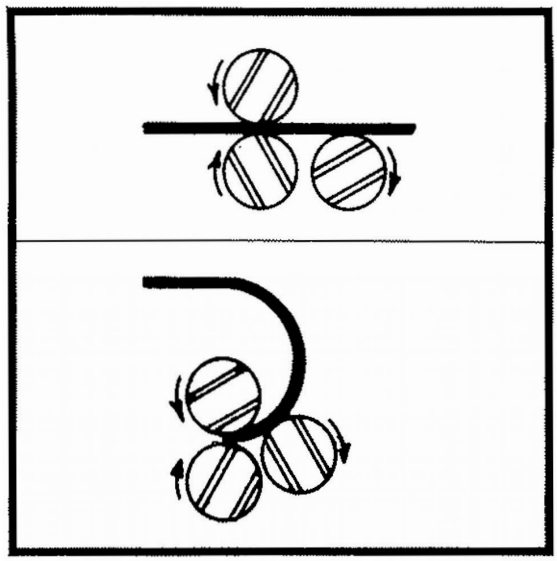
LENGTH OF MATERIAL - necessary to form the desired size circle is the first consideration in circle forming. To determine approximate length of material needed - use the formula C= ¶ D. C is Circumference. ¶ equals 3.1417. D is Diameter. For exam-ple, to find the length of material needed (C or Circumference) to form a circle 4" in dia-meter multiply 3. 1 4 1 7 by 4". Result - 12.5667 is the circumference or approxi-mate length of material needed. Cut a few pieces of material to this length for test forming. Material may have to be lengthened or shortened depending upon results of the test forming run.

TO ADJUST ROLLER - for material thick-ness loosen the thumb screw to the right of the adjusting screws. Turn the adjusting screws to raise or lower the lower pinch roll. Insert the material between the rolls from the front of the machine and set rolls so the material fits tightly. Re-tighten the thumb screws and remove the material from between the rolls.

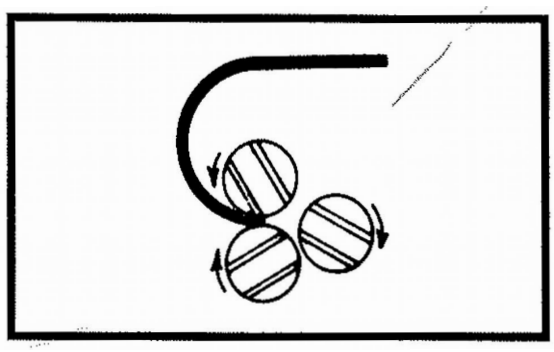
TO ADJUST THE ROLLER - for the dia-meter of circle to be formed; raise the idler roll by pulling the cam lever toward the oper-ator until the idler roll seems to "fall into place". Loosen the thumb screws next to the rear adjusting screws on the back of the roller. Set the idler roll by turning the rear adjusting screws. After the idler roll has been set for the desired angle of bend, tighten the thumb screws.

NO EXACT FORMULA - can be followed when making this adjustment because material "springback" varies with the kind of material being formed. Only by test forming several pieces can the correct adjustments be obtained. Rolls must be adjusted exactly parallel or the material will spiral during the rolling process.

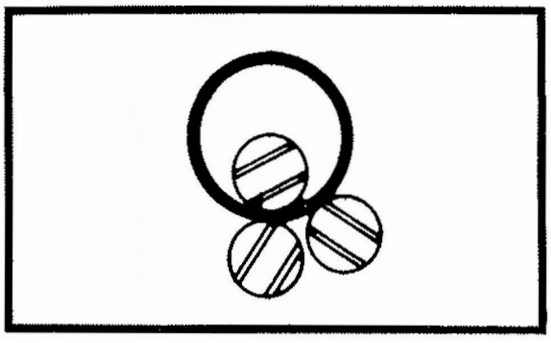
TO OPERATE ROLLER - after diameter adjustments have been made, insert material from front of roller and turn operating handle in a clockwise direction until about half of the material has passed through the rolls; if roller is power operated make sure that the upper pinch roll is rotating in a counter clockwise direction. Then, while feeding material, raise the idler roll. Continue turning until a half circle has been formed. It is important that you operate the roller while engaging the cam lever, for if the cam lever is engaged while the rolls are not turning, a noticeable flat spot or line will be formed across the width of the material.



AFTER HALF CIRCLE - has been formed, re-insert the formed end of the material into the roller (as illustrated) and turn operating handle in a clockwise direction to form a complete circle. If roller is power operated turn switch in a position that allows the upper pinch roll to rotate in a counter clockwise direction.

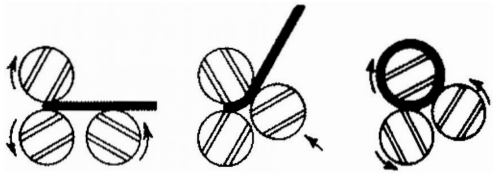


TO REMOVE THE FORMED PART - lift clamp handle and slide the support lever handle to the right. The upper pinch roll will rise. Slide the material off roll. If the material is not long enough or if the formed part is not the proper diameter, additional samples will have to be made. Thousands of identical parts can be precisely duplicated when proper adjustments of the roller have been made.



REVERSE ROLLING

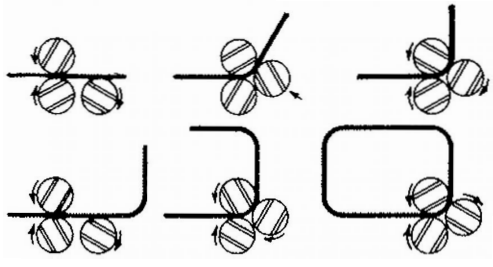
CIRCLES - the same diameter as the diameter of the rolls and slightly larger, can be formed with the Di-Acro Roller in just one pass. To make the adjustment for material thickness and to determine the length of material needed, see the instructions given under "How To Form Circles In Just Two Passes".



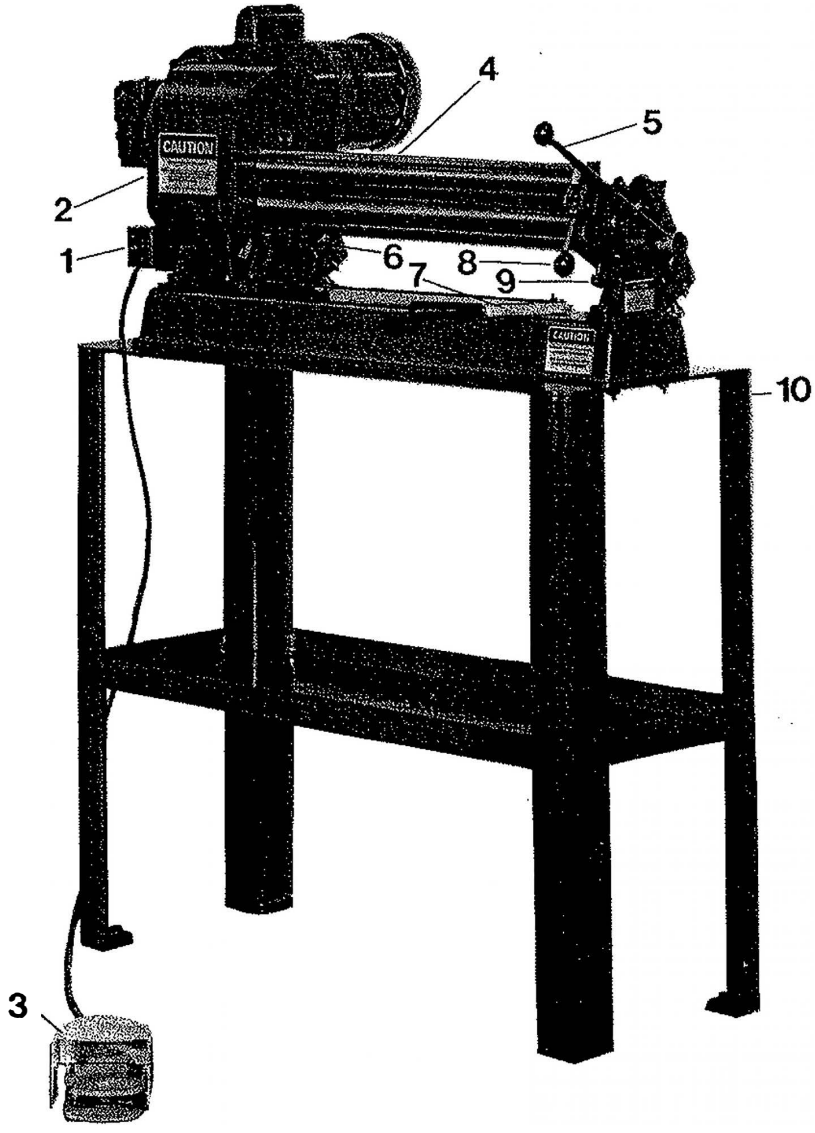
BENDS CAN BE LOCATED AT ANY POINT IN METAL

TO OPERATE - insert material to be formed from the rear of the machine. Material should be inserted in the machine so that the rolls just "nip" the end of the mater-ial. Then, place the idler roll into operating position and operate machine so that the upper pinch roll rotates in a clockwise direction. If adjustments are correct and the material is the right length, a perfect circle is formed.

FLAT MATERIAL - can be rolled part way through the rolls and bent by raising the idler roll using the cam lever. Disengaging the cam lever lowers the idler roll, and the material again passes through the rolls without being bent. It is possible to form a wide variety of shapes with the Di-AcroRoller.



NOMENCLATURE



Item No.	Description	Page No.
1	Terminal Box	10
2	Drive Group	9
3	Footswitch Assembly	10
4	Roller Group	11
5	Idler Roll Cam Lever	11
6	Thumb Screw	11
7	Support Lever	11
8	Clamp Stud	11
9	Front Adjusting Screw	11
10	Stand	11

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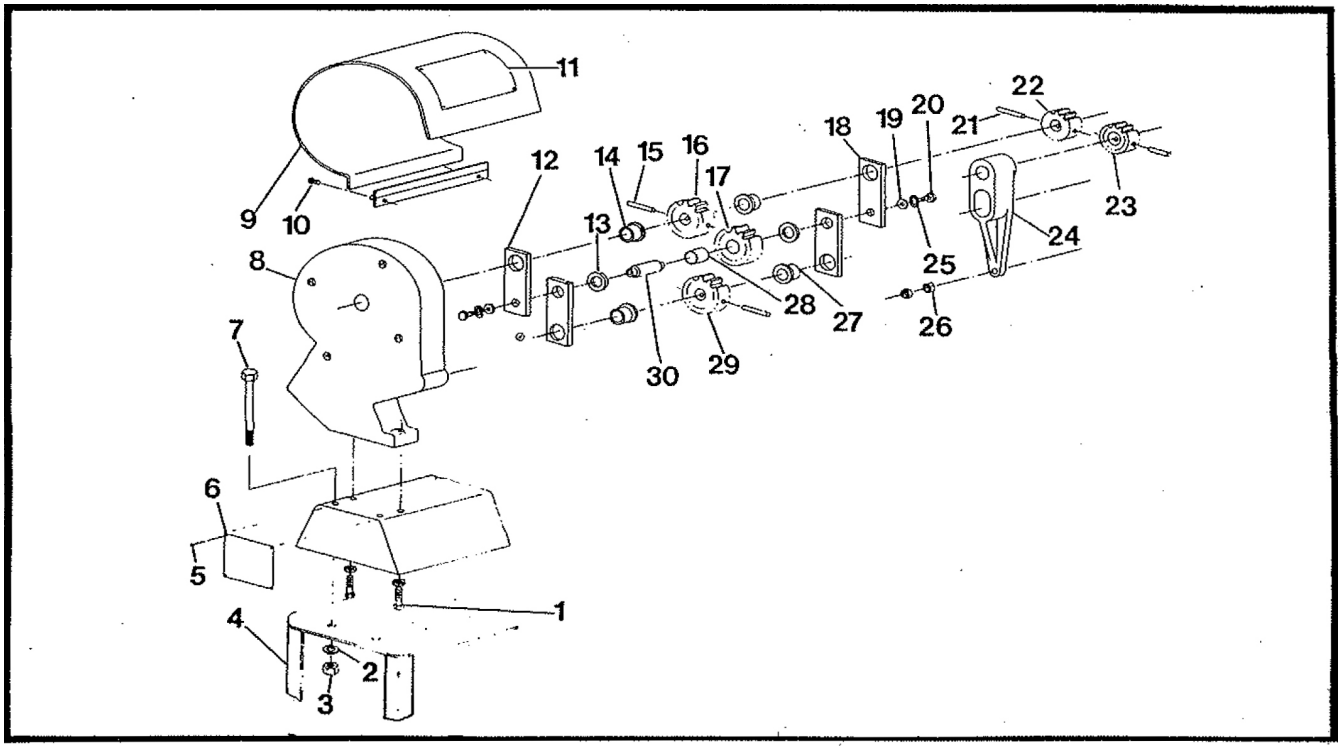
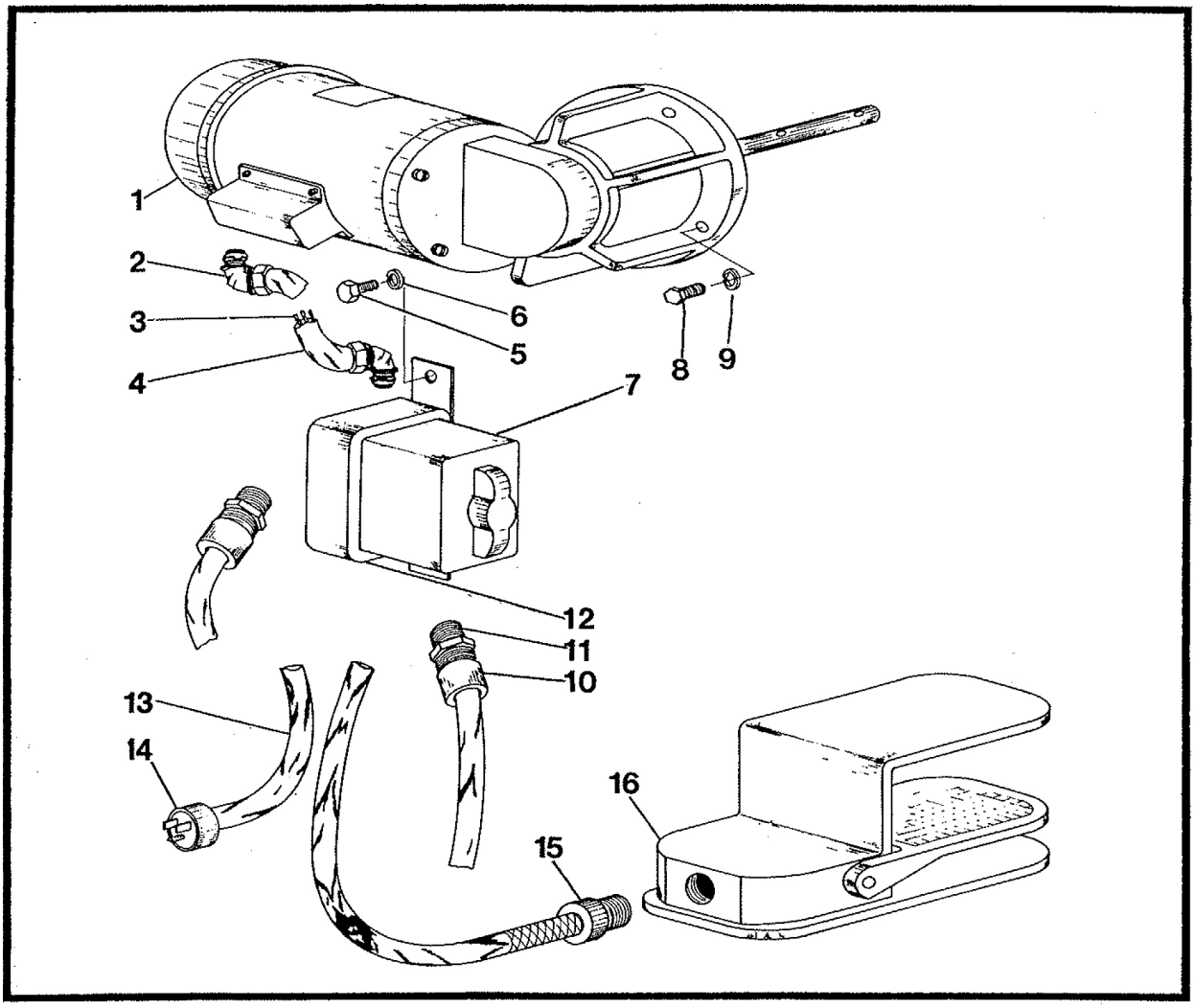
EXPLODED ASSEMBLY (Drive Group)



Item No.	Part No.	Description	Qty Used
1	21A0308C0304	HEX HD CAP SCREW	10
2	4902008	LOCK WASHER	16
3	30X0308C	NUT	4
4	445-1109034	STAND ASSEMBLY #24	1
	460-1109038	STAND ASSEMBLY #36	1
5	29AXXX0X0108C	DRIVE SCREW	12
6	035-6503001	WARNING PLATE	1
7	21A0308C4000	HEX HD CAP SCREW	4
8	425-1110060	MOTOR MOUNT	1
9	425-1106080	HOOD ASSEMBLY	1
10	22AXX10C0308	RD HEAD MACH SCREW	2
11	425-6501138	NAMEPLATE	1
12	425-1201071	LINK – UPPER	2
13	3107104	THRUST BEARING 3/4ID	2
14	3113106	FLANGE BEARING ¾ x 1 x ½	2
15	1203118	SPRING PIN ¼ x 2	3
16	425-3901075	POWER GEAR B	1
17	425-3901077	POWER GEAR D	1
18	425-1201070	LINK – LOWER	2
19	4901102	FLAT WASHER ¼	2
20	21A0104C0508	HEX HD CAP SCREW	2
21	1203120	SPRING PIN ¼ x 1 ½	2
22	421-3901031	GEAR	1
23	425-3901074	POWER GEAR A	1
24	425-1106028	GEAR CAP	1
25	4902005	LOCK WASHER ¼	4
26	31X0516C	JAM NUT	2
27	3113105	FLANGE BEARING 7/8 x 1 5/8	2
28	3104111	BEARING ¾ x 7/8 x ¾	1
29	425-3901076	POWER GEAR C	1
30	425-1108072	LINK SPACER	1

EXPLODED ASSEMBLY
(Foot Switch)



Item No.	Part No.	Description	Qty Used
1	425-3301081	GEAR MOTOR	1
2	3315080	ST ELL INS 900 x ½	2
3	3316905	WIRE 14 AWG BLACK	8
4	3314907	ST COND ½	1
5	21A0104C0508	HEX HD CAP SCR	2
6	425-4902005	LOCKWASHER ¼	4
7	3303056	DRUM SWITCH	1
8	21A0308C0304	HEX HD CAP SCR	10
9	4902008	LOCKWASHER	16
10	425-3315116	BUSHING .37 / .43	2
11	3315111	STR CORD GRIP ½	2
12	3307119	TERMINAL BOX	1
13	3316903	FLEX CORD 2 COND	20
14	3315112	CAP	1
15	3315112	DELUXE CORD GRIP	1
16	3303002	FOOT SWITCH	1

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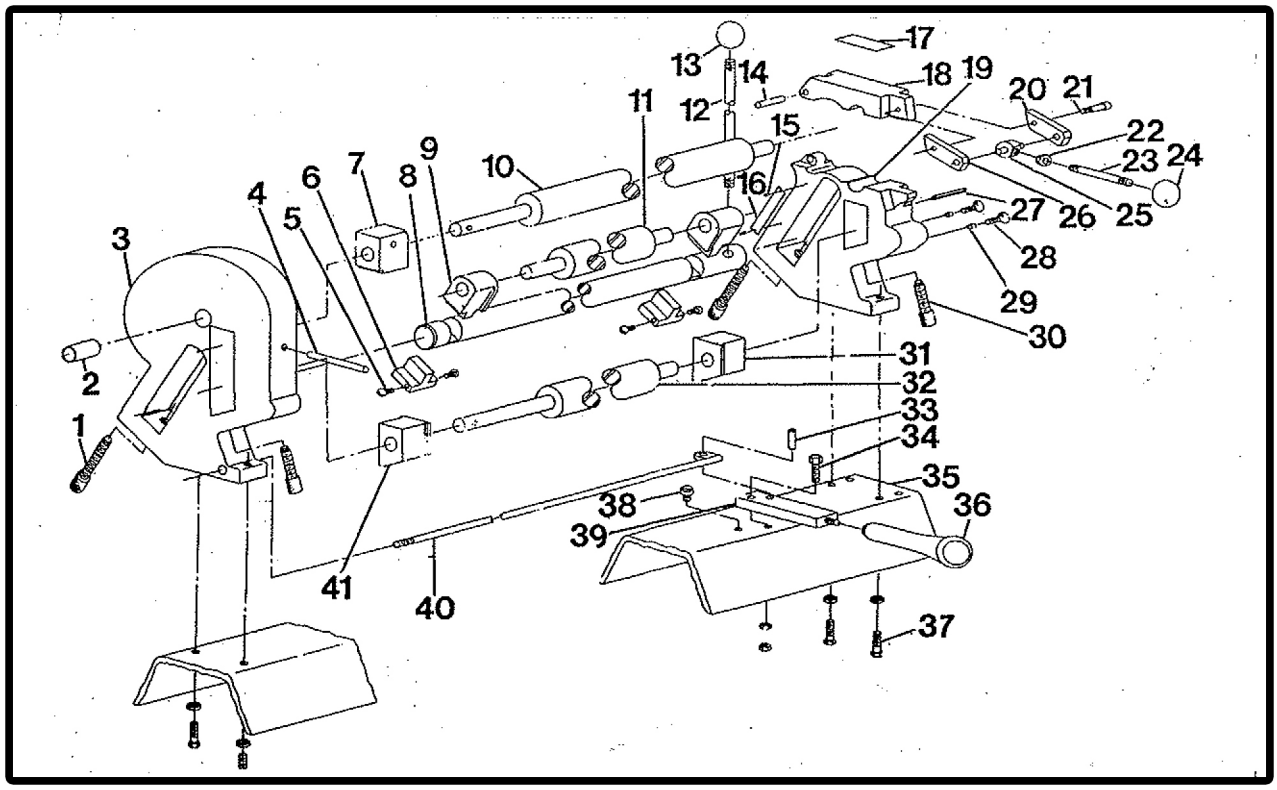
EXPLODED ASSEMBLY
(Roller Group)



Item No.	Part No.	Description	Qty Used
1	410-4701025	ADJ SCREW REAR	2
2	3104112	BEARING ¾ x 3/8	1
3	425-1103003	SIDE FRAME L	1
4	421-1203017	LOCKING PIN	1
5	22D0104C0102	TRUSS HD MACH SCREW	4
6	421-1202010	CLAMP BLOCK	2
7	421-1214016	PIVOT BOX	1
8	440-1202007	IDLER ROLL CAM #24	1
	460-1202007	IDLER ROLL CAM #36	1
9	421-1214005	IDLER ROLL BOX	1
10	445-1214015	UPPER PINCH ROLL #24	1
	465-1214015	UPPER PINCH ROLL #36	1
11	440-1214004	IDLER ROLL #24	1
	460-1214004	IDLER ROLL #36	1
12	421-1202009	IDLER ROLL CAM LEVER	1
13	1208107	KNOB	1
14	1203178	DOWEL PIN	1
15	29AXXX0X0108C	DRIVE SCREW	12
16	410-1601034	SCALE	2
17	420-6503001	SAFETY SIGN	1
18	421-1110018	CLAMP	1
19	425-1103002	SIDE FRAME R	1
20	421-1103035	CLAMP BLOCK LINK R	1
21	25X0516X0304	SHOULDER SCREW	1
22	31X0308C	JAM NUT	3
23	421-4701020	CLAMP STUD	1
24	1208106	KNOB	1
25	421-1202036	CLAMP LOCK CAM	1
26	421-1103034	CLAMP LOCK LINK L	1
27	1203118	SPRING PIN ¼ x 2	3
28	28A0104C0102	THUMB SCREW	4
29	410-1108030	SPACER	4
30	410-4701025	ADJ SCREW FRONT	2
31	421-1214013	LOWER PINCH ROLL BOX R	1
32	445-1214012	LOWER PINCH ROLL #24	1
	465-1214012	LOWER PINCH ROLL #36	1
33	210-1203008	PIN	1
34	21A0308C1104	HEX HD CAP SCREW	1
35	445-1101001	BASE #24	1
	465-1101001	BASE #36	1
36	1208114	HANDLE	1
37	21A0308C0304	HEX HD CAP SCREW	10
38	22B0308C0508	FILL HD MACH SCREW	1
39	421-1110041	SUPPORT LEVER	1
40	440-1110040	ROD WELDMENT #24	1
	460-1110040	ROD WELDMENT #36	1
41	421-1214014	LOWER PINCH ROLL BOX L	1