



series

S2

SERVICE MANUAL

From the library of: Diamond Needle Corp

For Genuine Reece Replacement Parts — Call Toll Free 1-800-237-3323

For Reece Sales or Service — Call toll free 1-800-367-7332

CORRECTIONS & ADDITIONS
to Reece Series S2 Service Manual
(form no. 20-51, printed 4/19/79)

PAGE	DETAIL	CHANGE OR ADD	TO	DESCRIPTION (REMARKS)
1		02-0750-1-000 02-0751-1-000 02-0742-0-112	02-0750-1-100 02-0751-1-100 02-0752-0-112 02-0750-2-100 02-0750-2-112 02-0751-2-400	Error Addition Shurloop Type — Very Fine Addition Shurloop Type — Heavy Addition Shurloop Type — Extra Fine
2		Callout #19 Callout #10	Callout #10 Callout #19	
3	1 2	Callout #3 Callout #24	Callout #29 Callout #28 Add to Part Listing 28 01-4072 Washer 29 01-3053 Nut	
4			Add Callout #24 point to Link between Callouts (24,25,22) and (19,20,21,22)	
5	14 26	Callout #4 Callout 3 at 2,3 20-0351-1-801 20-0021-1-100	Callout #3 Callout #4 20-0351-1-000 20-0021-0-100	
7	14	20-0613	20-0613-0-850	
9	12 13	(31 & 36) 20-0586-0-075	(31 & 35)	Delete
10	11	20-0082-1	20-0082-1-850	(Includes 01-2157 (2) Detail #2
12	1 6	01-2013 20-0210-0-075 Clamp Plate for ASE	01-2013* 20-0210-0-015 Clamp Plate for	Add Footnote:— * for S2-OH-BH Models, use (2) 01-2884 with 20-0767-0-045 Needle Guard
13	10	20-0214-0-275 Cover Plate, Right 20-0214-0-175 Cover Plate, Left		(delete) (delete)
13 13 13 13	11	20-0093-0-004 20-0051-0-023 20-0051-0-022 20-0051-0-024 20-0051-0-025 20-0108-1-324 20-0108-1-224 20-0108-1-424	20-0093-1-004 20-0051-1-023 20-0051-1-022 20-0051-1-024 20-0051-1-025 20-0208-1-324 20-0208-1-224 20-0208-1-424	Clamp Feet Chart, under "Corrugation", at Fine, should read "For Thread Holders, see detail 31 and 32, page 12. Changes to Throat Plate and Mats Chart Change at Throat Plate and Mat Chart Under Mats, Part Number
14 14	5	Callout #2 20-7047	20-0747	Pointing to Wrong Clamp Arm

PAGE	DETAIL	CHANGE OR ADD	TO	DESCRIPTION (REMARKS)
15	15			Description should read: Cover Plate (includes detail 34)
18	1	01-5020	01-5020 01-6511	Description should read: Spring Plunger (only when used with Indexers)
20	9 11 19	20-0116-3 20-0119-2 20-0093-0-004	20-0116-5 20-0119-4 20-0093-1-004	
22	2 3 8 25	20-0585-5-0-811 20-0585-0-075 20-0348-1-811 20-0376-0-850 20-0596-0	20-0585 20-0348-1 20-0376 20-0596-1	(delete) Belt Guard Base
23	1 2	20-0649-0-041 20-0194-0-052	20-0649-1-041 20-0194-1-052	
25	2 4 6	01-6550 20-0397-0-015 20-0585-0-002	01-6555 20-0397-0-016 20-0348-0-003	Change description to read: Belt Guard Complete Asm.
26	7 13 26 34 35	20-0650-0-401 20-0323-0-001 01-2870 	20-0650-0-050 20-0323-1-001 01-2875 01-2884 20-0767-0-045	 (Add) (Add)
27				Callout 34 & 35 are located on Clamp Arm (Callout #8)
28	2	01-1047	01-1047-0-001	
29	14 15 15	----- -----	01-2027-0-007 01-7480-0-001	Screw (add callouts #14 & 15) Bushing (at screw betw. callouts 2 & 3*)
30	1 4 9 12	20-0194-0-052 20-0194 20-076-0-020 20-0767-0-023 20-2027 20-2027	20-0194-1-052 20-0767-0-023 20-2027-0-001 20-2027-0-001	(delete) (delete)
31	37 41	01-2103	01-2361 01-1065-1	
32	3 22	20-0649-0-042 20-0767-0-020	20-0649-1-042 20-0767-1-002	
33	1 2	20-0649-0-041 20-0649-0-042	20-0649-1-041 20-0649-1-042	
34	32	20-0174-0-032	20-0174-1	
36	16	20-0051-0-078	20-0051-1-078	

PAGE	DETAIL	CHANGE OR ADD	TO	DESCRIPTION (REMARKS)
38	4 8 17	20-0196-0-336 20-0767-0-020	20-0196-1-336 20-0624 20-0767-0-020	Description should read: Needle Guard (not shown)
39 39	12	Callout #11 Callout #12 20-0650-1-240 20-0650-0-340 20-0650-1-240 20-0650-1-340 20-0650-0-640 20-0650-1-240 20-0650-1-340 20-0650-0-640 20-0650-0-740 20-0650-0-740 20-0650-0-243 20-0650-0-343	Callout #12 Callout #11 20-0650-0-240 20-0650-0-340 20-0650-0-240 20-0650-0-340 20-0650-0-640 20-0650-0-240 20-0650-0-340 20-0650-0-640 20-0650-0-740 20-0650-0-740 20-0650-0-243 20-0650-0-343	
40	22	01-7480-0-000	01-7480-0-001	
41	27	20-0093-0-004	20-0093-1-004	
43	1 14 15	20-0649-0-705* 01-2563-1-406 20-0650-1-406* 20-0650-1-606* 20-0650-1-706*	20-0649-1-705* 01-2563 20-0650-0-406* 20-0650-0-606* 20-0650-0-707*	
44	6 9	20-0174-0-032 20-0133-0-105	20-0174-0-000 20-0133-1-105	
46	14 15	01-7048-0-002 01-1505	01-7480-0-001 01-2027-0-001	
47	30 31	20-0767-0-028 20-0196-0-228 20-0196-0-234 20-0196-0-328 20-0196-0-334	20-0767-1-028 20-0196-1-228 20-0196-1-234 20-0196-1-328 20-0196-1-334	
48	1	20-0357-0-009*	20-0357-1-009*	
49	25 44 45	20-0194 20-0196-0-659 20-0196-0-228	20-0194-1-043 20-0196-0-689 20-0196-1-228	
50	9 10		20-0767-1-020 01-2013	Description should read: Needle Guard (not shown) Description should read: Screw (not shown)
51	18		04-0002-0-046 04-0002-0-046	(Add) (Add) Note: — (Add) Same motor 50 & 60 Hz.
56	15		04-0096-1* 04-0096-1-053 04-0096-1-052 04-0096-1-051 04-0096-1-050	Container Container w/Solenoid for: 60hz/208-230V 60hz/115V 50hz/380V 50hz/220V
61	50	04-0439	40-0439	



series

S2

SERVICE MANUAL

ALL S2 MACHINES — EFFECTIVE AS OF #54290
ALL S2 OFFSET HEAD MODELS — EFFECTIVE AS OF #53203

97-00S2-M-001
25C — 4/79
Printed in U.S.A.

IMPORTANT

No safeguard, safety appliance or device attached to or forming an integral part of this machine shall be removed or made ineffective except for the purpose of making immediate repairs or adjustments.

Any such safeguard, safety appliance or device removed or made ineffective during the repair or adjustment of such machine shall be replaced immediately upon the completion of such repair or adjustment.

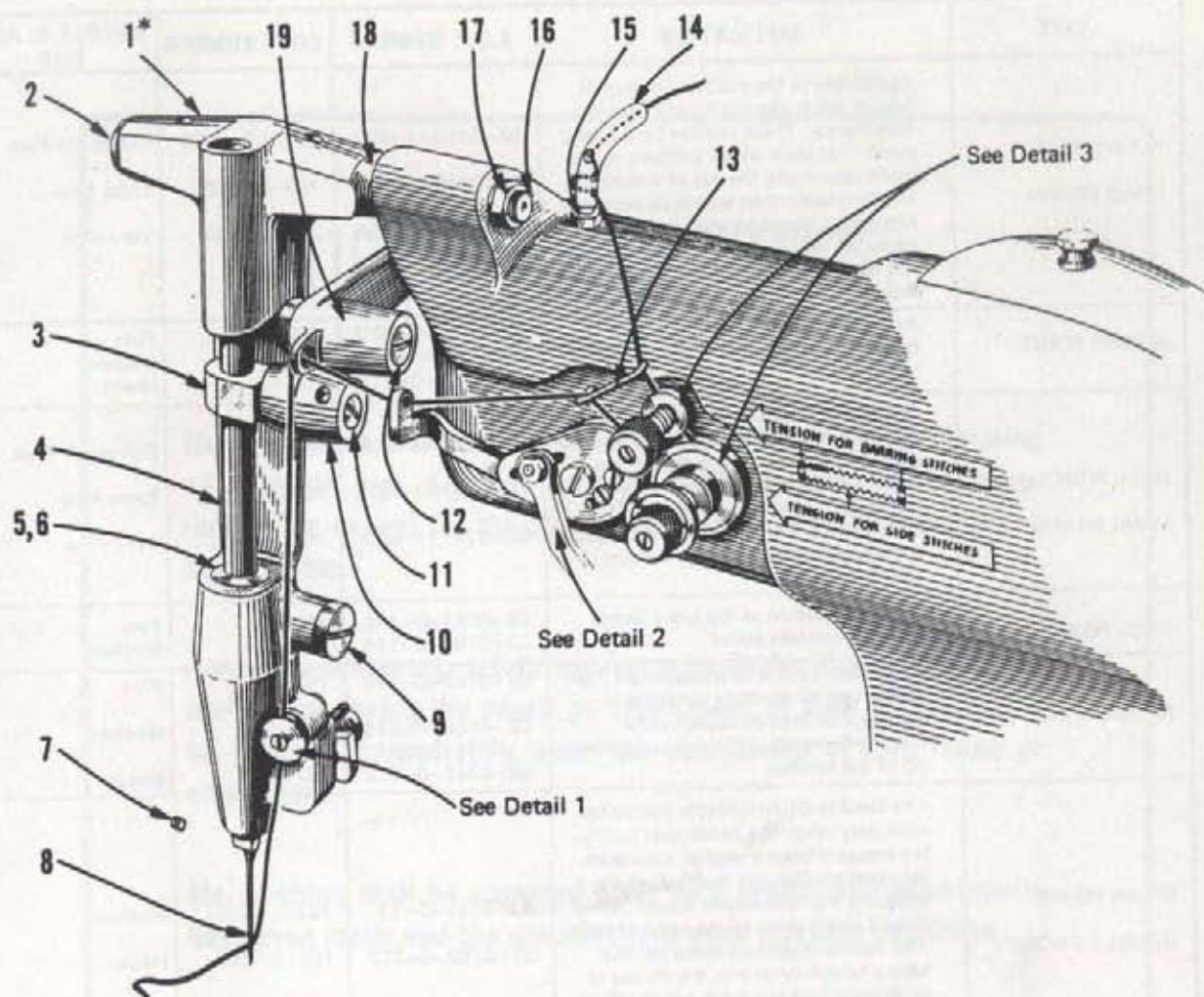
No machine shall be operated until such repairs and adjustments have been made and the machine is in good working condition.

Eyeglasses or safety glasses should be worn when operating sewing machines.

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Needles for the Reece Series S2 Machines are packaged and sold in boxes of 100, in the sizes and types listed. They are of superior struck groove construction, chrome plated and are spotted at the eye except in sizes 00 and finer. When ordering, specify quantity — (100, 200, etc.) and give the Needle E.D.P. Number.

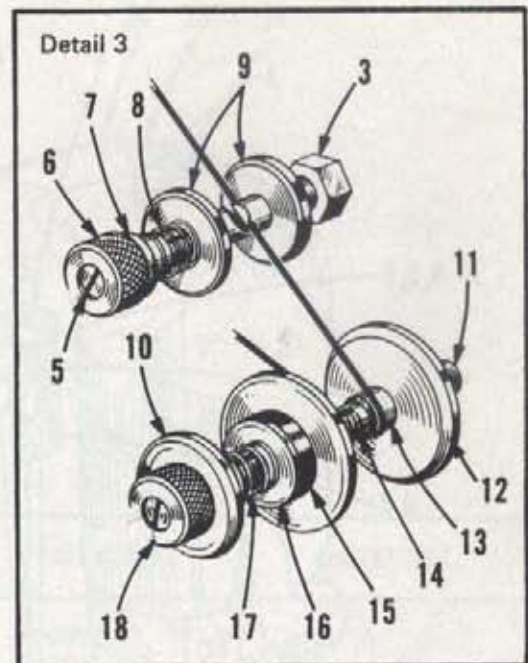
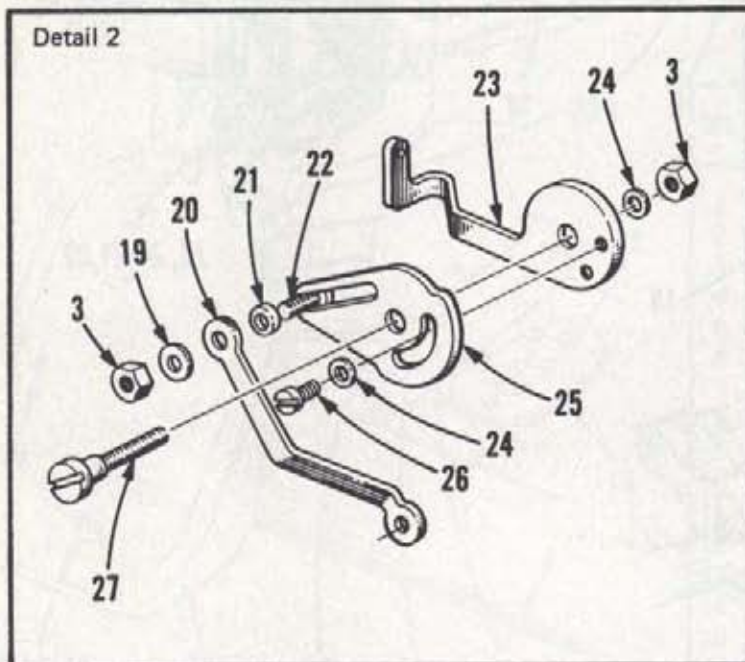
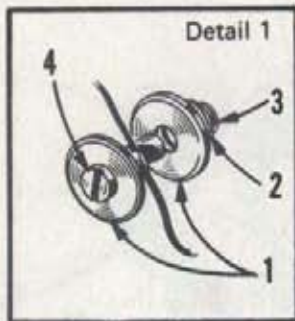
TYPE	APPLICATION	E.D.P. NUMBER	CODE NUMBER	NEEDLE BLADE SIZE
ROUND POINT LONG SHANK	Applicable to the majority of woven fabrics, knits and materials of similar consistency. These needles have a long shank that gives added stiffness to the blade permitting the use of one size smaller needle than would be normally required. Cannot be used on heavy materials that would be penetrated by the tapered portion of the needle's shank.	02-0750-1-400	750-LS-0000	Extremely Fine
		02-0750-1-000	750-LS-000	Extra Fine
		02-0750-1-000	750-LS-00	Very Fine
ROUND POINT	Applicable to the majority of woven fabrics, knits and materials of similar consistency.	02-0750-0-110 02-0750-0-111 02-0750-0-112	750-0 750-1 750-2	Fine Medium Heavy
BALL POINT LONG SHANK	Applicable to tightly woven or knitted fabrics, particularly silks and synthetics when the fibers of the materials are subject to damage or fracture by conventional Round Point needles. The Long Shank of this needle gives it the advantages stated for Round Point Shank needles.	02-0751-1-400	751-LS-0000	Extremely Fine
		02-0751-1-000	751-LS-000	Extra Fine
		02-0751-1-000	751-LS-00	Very Fine
BALL POINT	Same application as the Long Shank Ball Point needle above.	02-0751-0-110 02-0751-0-111	751-0 751-1	Fine Medium
SPEAR POINT	Applicable to fabrics containing a high percentage of starch or similar substances that tend to cause needle heating or resistance to proper pulling up of the stitches.	02-0752-0-110	752-0	Fine
		02-0752-0-111	752-1	Medium
		02-0742-0-112	752-2	Heavy
SPEAR POINT DOUBLE GROOVE	The Double Groove needle should be used only when the conditions justify it because it casts a smaller loop than standard needles and may introduce skipping. For this reason looper points should be set close to the needle blade. This needle is used on materials that have a tendency to trap the thread in its descent into the work which affects the thread take-up, or causes the thread to break at the needle's eye.	02-0752-0-211	752-1-DG	Medium
		02-0752-0-212	752-2-DG	Heavy
CROSS POINT LONG SHANK	Applicable to fine leather and similar materials as well as some types of plastics where conventional needles tend to leave excessive punctures. This needle permits a higher stitch density than Round Point needle. There may be a tendency in some cases, for the materials to cling to this needle, therefore, it should be used only after comparative test with other needles. The Long Shank of this needle gives it the advantages stated for Round Point Long Shank needles.	02-0753-1-100	753-LS-00	Very Fine
CROSS POINT	The same applications as the Cross Point Long Shank needle above.	02-0753-0-110 02-0753-0-111 02-0753-0-112	753-0 753-1 753-2	Fine Medium Heavy
ROCKED POINT	Applicable to leather and similar materials where conventional sharp pointed needles tend to leave excessive punctures. The slit made by the Rocked Point needle will tend to close up after penetration. This needle permits a higher stitch density than is possible in leather with a round point needle.	02-0754-0-110	754-0	Fine
		02-0754-0-111	754-1	Medium



DET.	PART NUMBER	DESCRIPTION
1	20-0005-0-811*	Needle Bar Rocker
2	01-2146	Screw
3	20-0008	Clamp
4	20-0001-1	Needle Bar (tb. S2-32)
5	20-0587	Cover
6	20-0588	Wick
7	01-2193	Needle Screw
8	—	See needle chart on page 1
9	01-1074	Eccentric Screw
10	20-0022-1	Driver Lever
11	01-2145	Screw
12	01-1036	Shoulder Screw

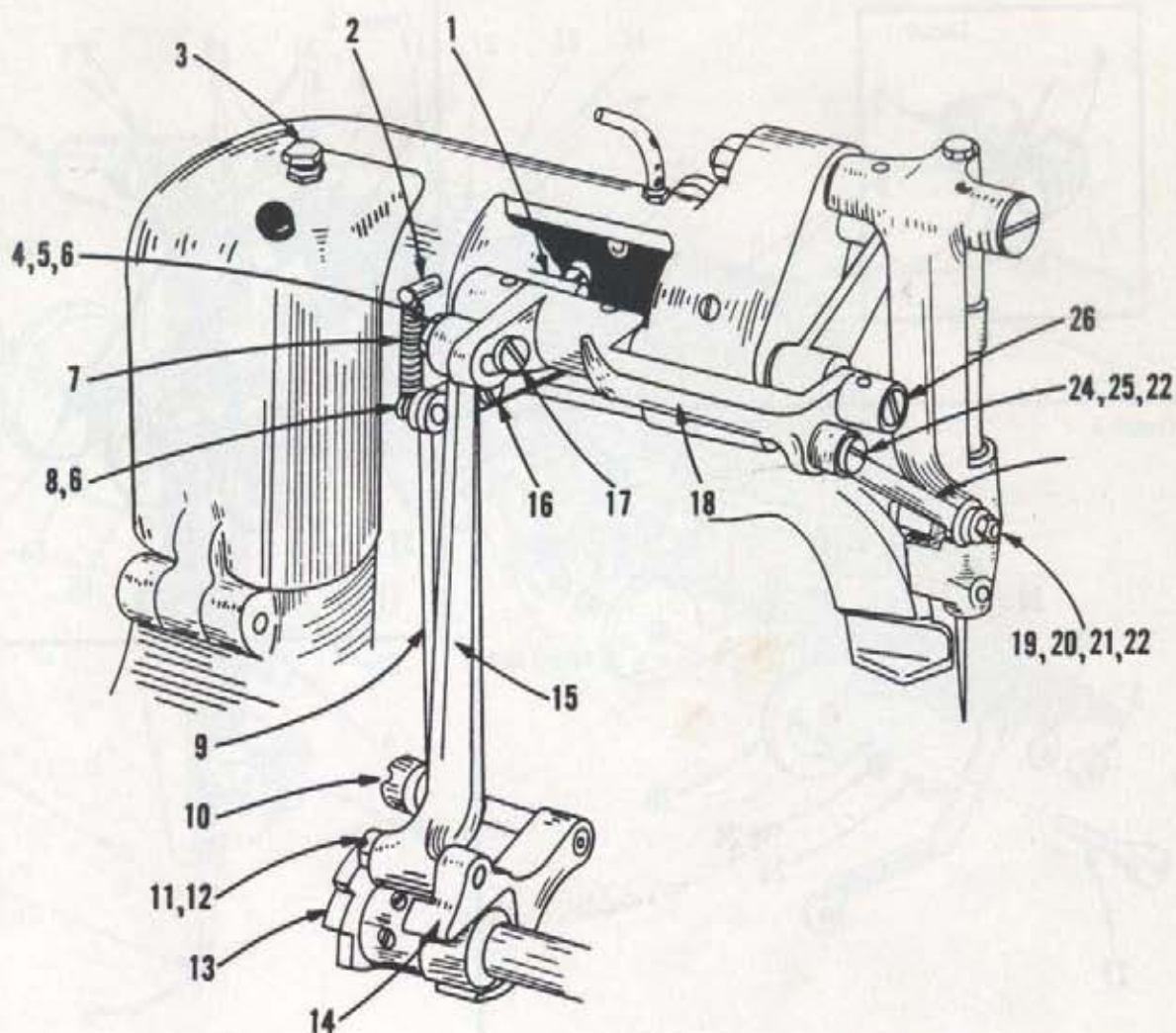
13	01-6090	Thread Guide
14	05-0043	Thread Smoother
15	01-3001	Nut
16	20-0014	Bearing Stud
17	01-3037	Nut
18	01-4017	Shim
19	20-0007	Link

* Assembly, refer to parts index for assembly components.



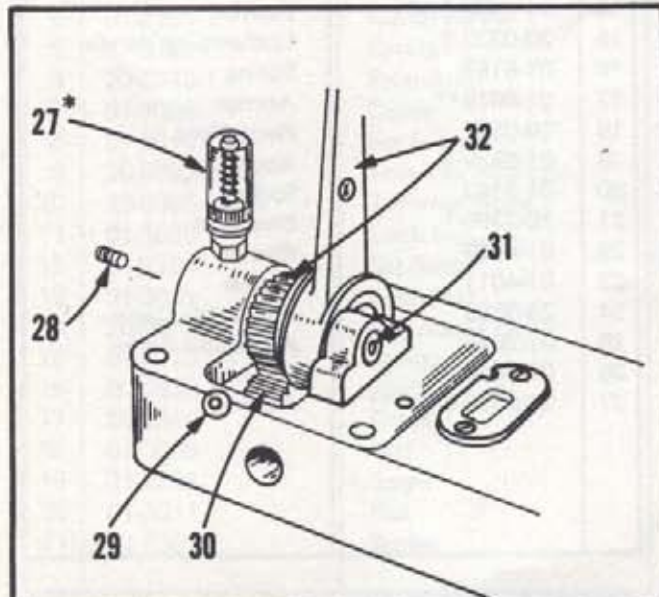
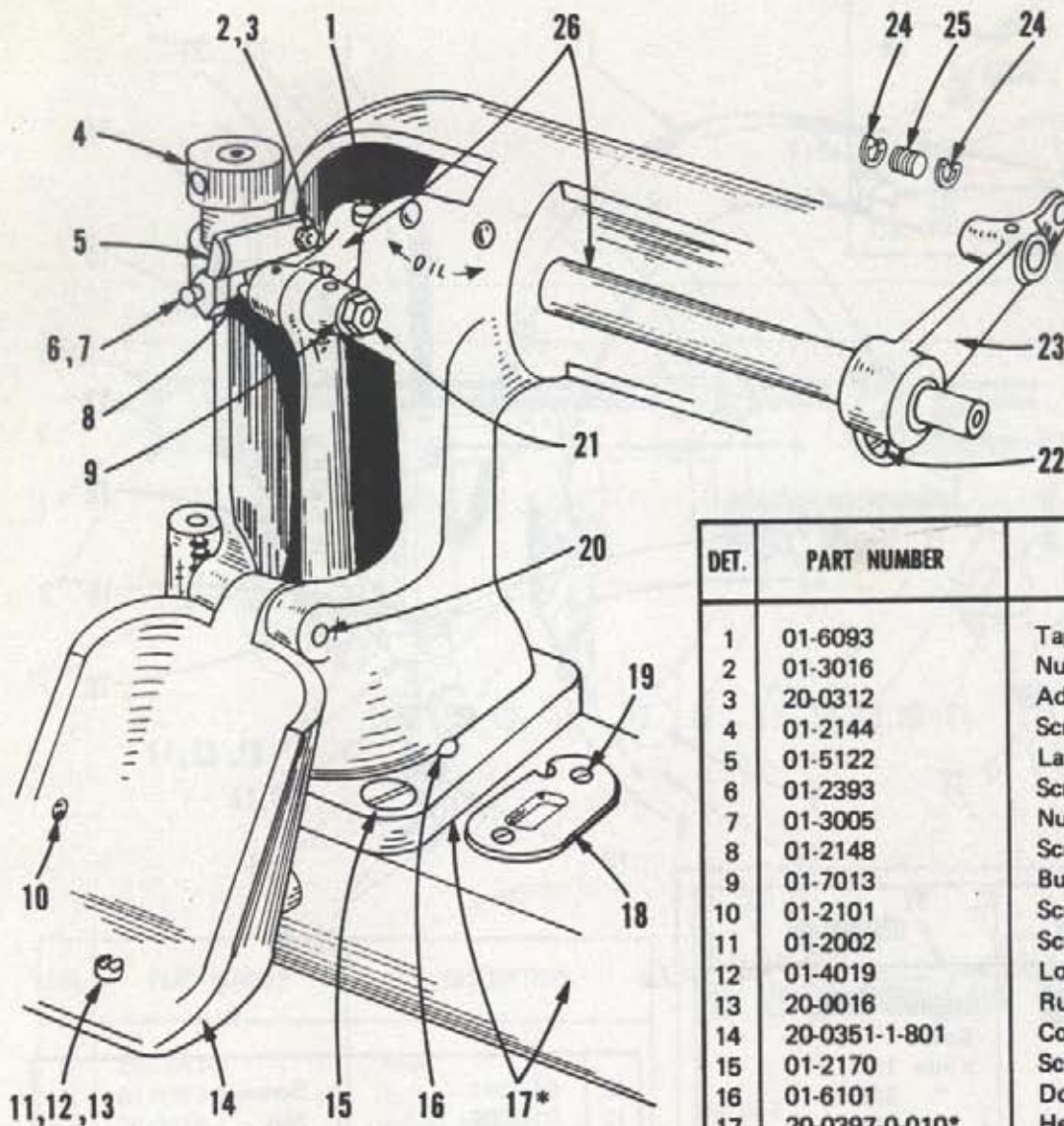
DET.	PART NUMBER	DESCRIPTION
1	01-4039	Tension Discs
2	01-5004	Spring
3	01-3426	Round Nut
4	20-0595-1	Screw
5	01-1099-1	Stud
6	01-3055	Knurled Adjustable Nut
7	20-0603	Check Collar
8	01-5151	Spring
9	01-4064	Tension Disc
10	20-0684	Check Collar
11	01-6300	Release Pin
12	20-0054	Tension Discs
13	20-0602	Bushing

14	01-1430	Stud
15	01-4062	Rubber Washer
16	10-4221	Release Washer
17	01-5098	Spring
18	01-3422	Knurled Adjustable Nut
19	01-4029	Washer
20	20-0608-0-015	Link
21	01-7017	Bushing
22	01-1065-1	Stud
23	20-0062-2	Take-up Lever
24	01-4406	Washer
25	20-0607-2	Adjustable Plate
26	01-2131	Screw
27	01-1505	Shoulder Screw



DET.	PART NUMBER	DESCRIPTION
1	20-0006	Release Lever
2	01-6833	Anchor (part of Head Assembly)
3	01-3040	Knob
4	01-7013	Bushing-Inside
5	01-3012	Nut
6	01-4011	Washer (2 used)
7	01-5134	Spring
8	01-6186	Pin
9	20-0011	Release Rod
10	01-1038	Shoulder Screw
11	01-2149	Screw
12	01-7012	Bushing

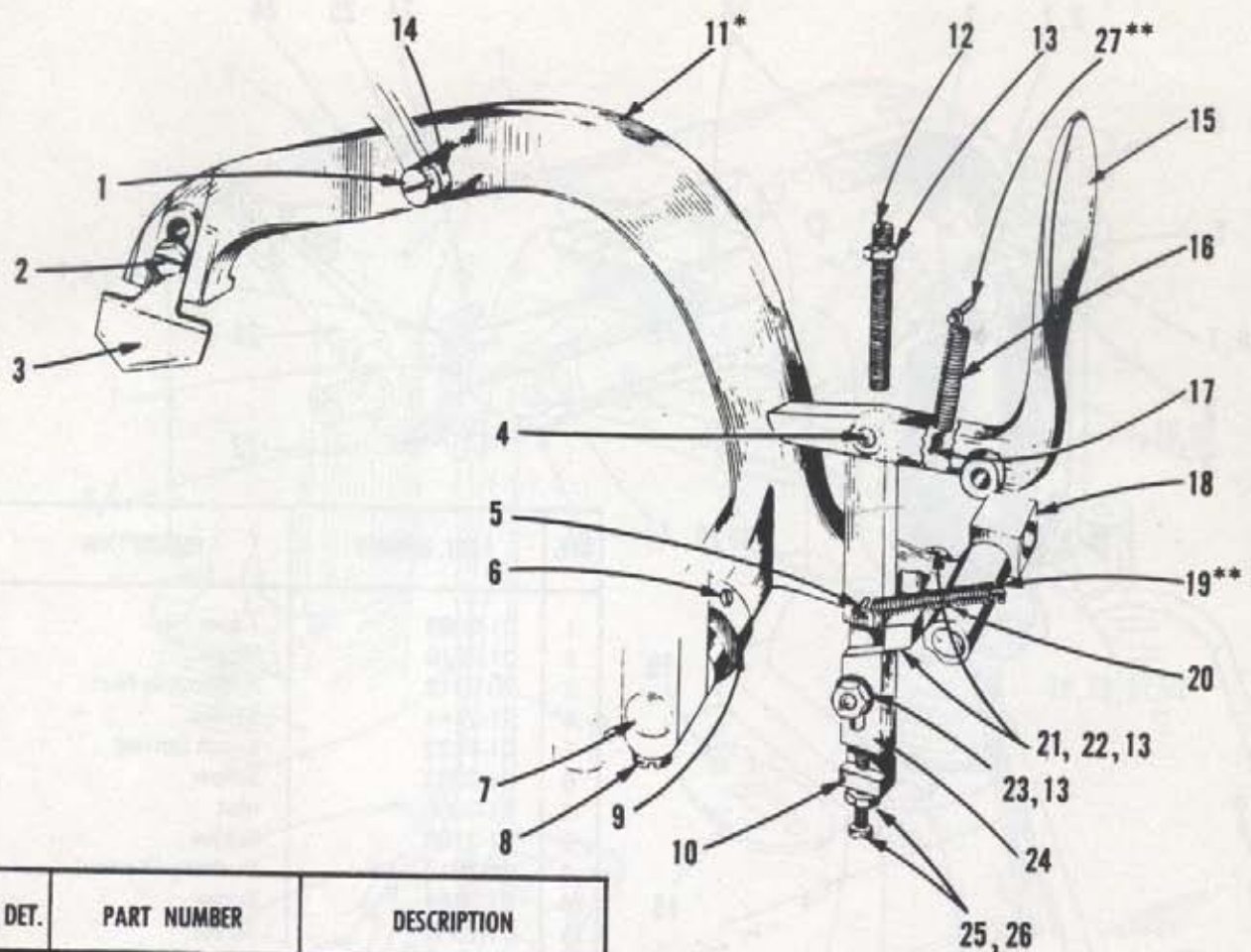
13	20-0047-2	Bite Cam
14	20-0043-1	Bite Cam Follower
15	20-0038	Link
16	01-1103	Shoulder Screw
17	20-0041	Stud
18	20-0024-2	Rocker
19	01-1074	Eccentric Screw
20	01-7018	Flanged Bushing
21	01-3001	Nut
22	01-4013	Washer
23	20-0611	Link
24	01-1006	Shoulder Screw
25	01-7022	Bushing
26	20-0021-0-100	Shaft



DET.	PART NUMBER	DESCRIPTION
1	01-6093	Taper Pin
2	01-3016	Nut
3	20-0312	Adjustable Nut
4	01-2144	Screw
5	01-5122	Latch Spring
6	01-2393	Screw
7	01-3005	Nut
8	01-2148	Screw
9	01-7013	Bushing (2 used)
10	01-2101	Screw
11	01-2002	Screw
12	01-4019	Lock Washer
13	20-0016	Rubber Bumper
14	20-0351-1-801	Cover
15	01-2170	Screw
16	01-6101	Dowel Pin
17	20-0397-0-010*	Head & Bedplate Asm. (see note)
18	20-0584	Cover Plate
19	01-2131	Screw
20	01-6115	Pivot Pin
21	01-3012	Nut
22	01-2127	Screw
23	20-0022-1-100	Drive Lever
24	20-0604	Clip
25	20-0605	Thread Guide Bushing
26	20-0021-1-100	Shaft
27	20-0029-2-100*	Oil Well Assembly
28	01-2194	Screw
29	20-0609	Oil Well
30	20-0079-0-850	Large Gear & Screws (4 screws used)
31	20-0020-2	Bearing Studs
32	20-0019-0-100	Small Gear & Strap

Note: Head and Bedplate are furnished only as a factory assembled unit. Furnish machine serial number.

* Assembly, refer to parts index for assembly components.

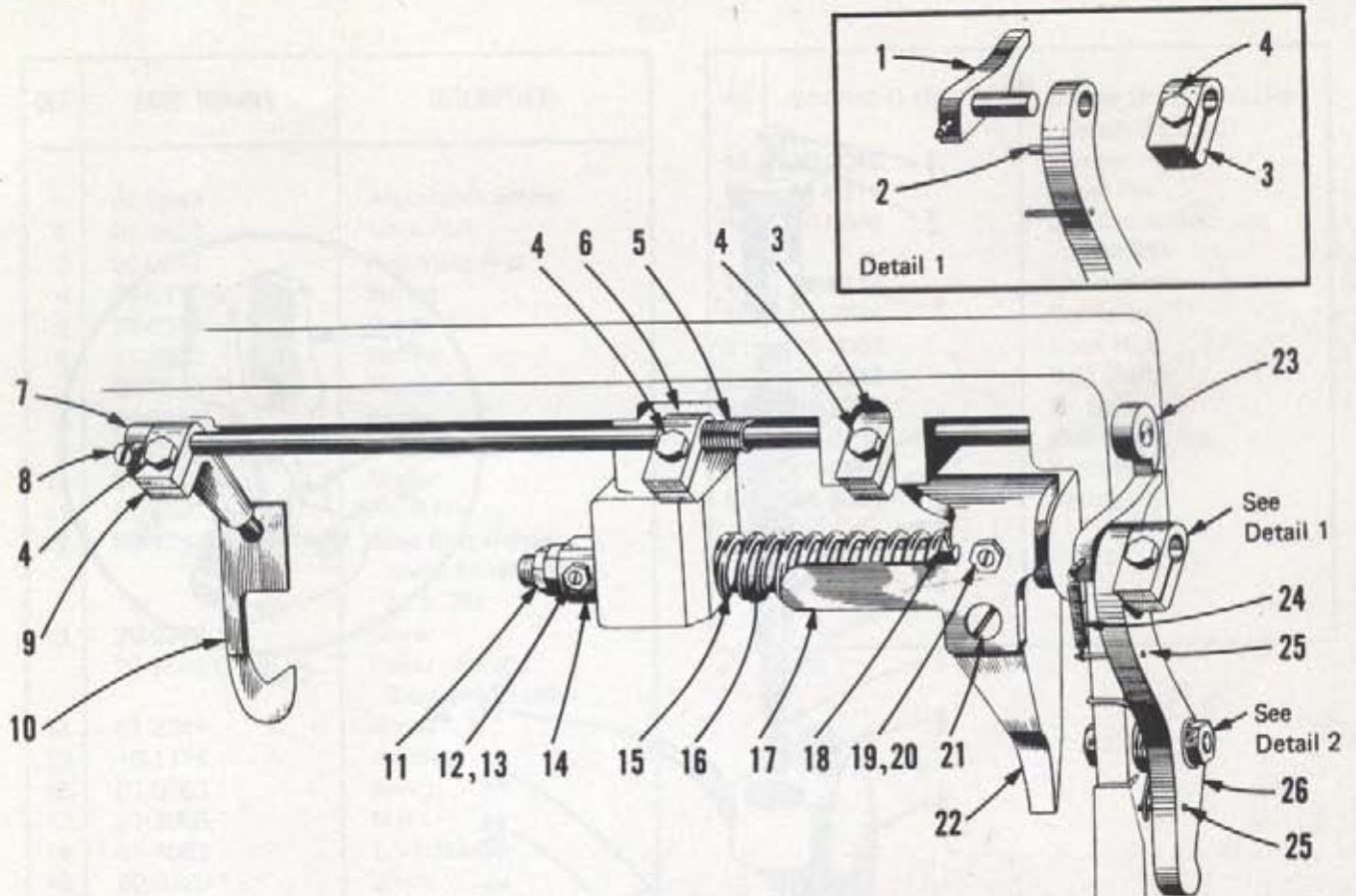


DET.	PART NUMBER	DESCRIPTION
1	01-2027-0-001	Shoulder Screw
2	01-2313	Screw
3	20-0356-1-049	Knife 1/4"
	20-0356-1-050	" 3/8"
	20-0356-1-051	" 7/16"
	20-0356-1-052	" 1/2"
	20-0356-1-053	" 9/16"
	20-0356-1-054	" 5/8"
	20-0356-1-055	" 3/4"
	20-0356-1-056	" 7/8"
	20-0356-1-057	" 1"
	20-0356-1-058	" 1 1/8"
	20-0356-1-059	" 1 1/4"
	20-0356-1-060	" 1 3/8"
4	01-1124	Shoulder Screw
5	01-6344	Anchor
6	01-2028	Set Screw
7	20-0358	Pivot Stud
8	01-2041	Set Screw
9	20-0571	Collar
10	20-0328	Link
11	20-0357-0-008*	Cutting Lever Asm.

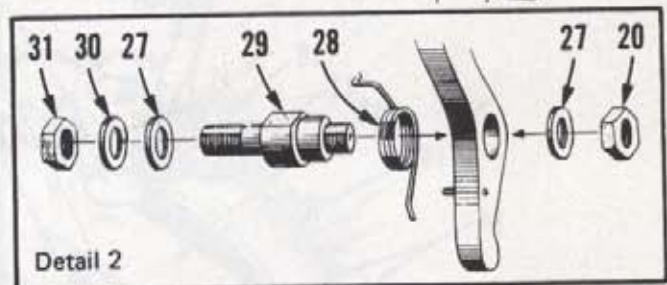
12	01-2341	Screw
13	01-3005	Nut
14	01-7480-0-001	Bushing
15	20-0332-2	Unclamping Handle
16	01-5157	Spring
17	01-6015**	Anchor
18	20-0321	Pivot Block
19	01-6839-2	Anchor
20	01-5143	Spring
21	20-0360-1	Stop Post
22	01-4003	Washer
23	01-4011	Washer
24	20-0583	Adjustable Catch
25	01-2045	Adjustable Screw
26	01-3016	Nut
27	01-6833-0-001**	Anchor

* Assembly, refer to parts index for assembly components.

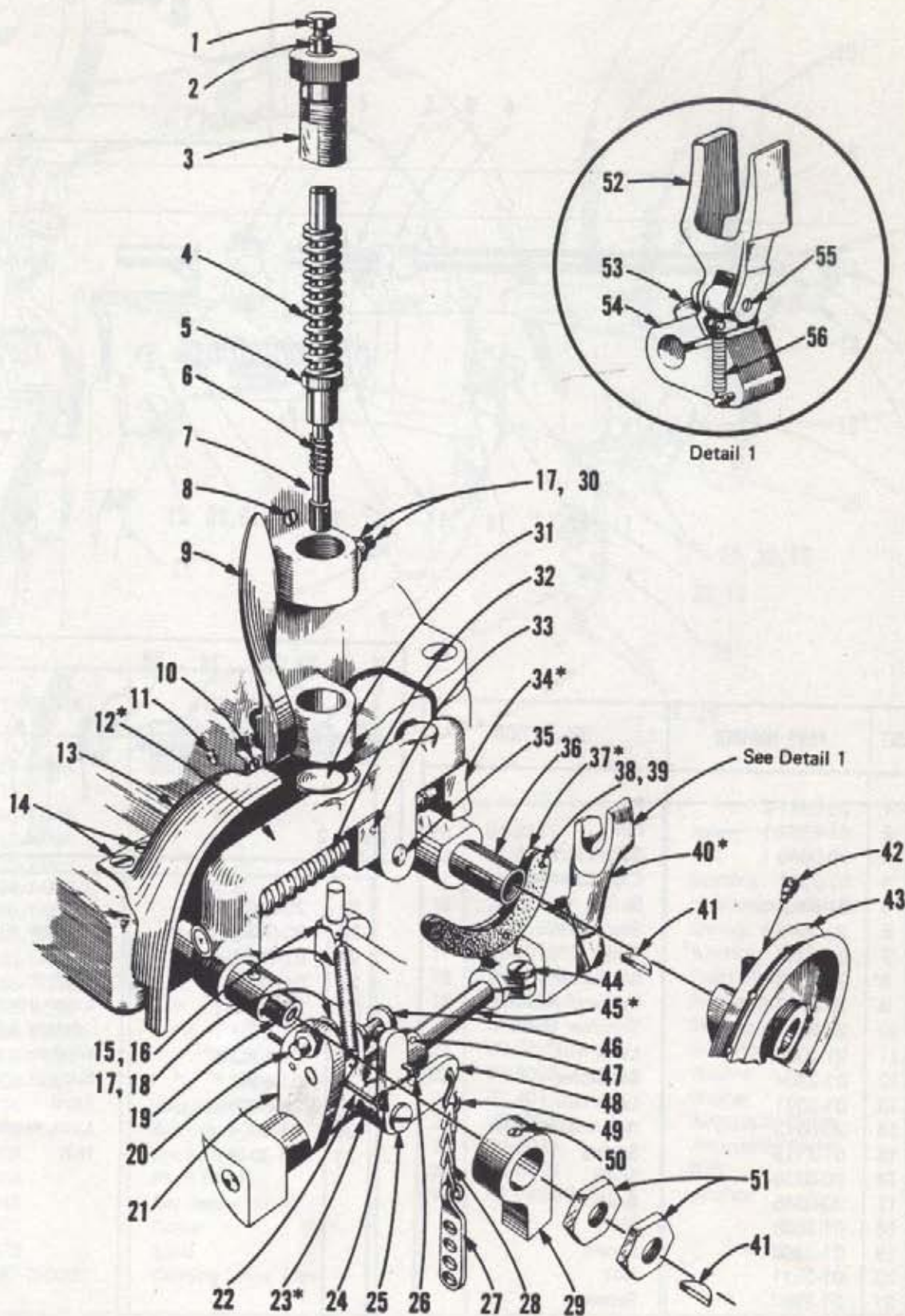
** Part of Head Bedplate Assembly



DET.	PART NUMBER	DESCRIPTION
1	20-0641-2	Pawl
2	01-6362-1	Pin
3	20-0646-1	Safety Arm
4	01-2386	Clamp Screw
5	01-5162	Spring
6	20-0643-1	Stop Arm
7	01-7039	Collar
8	01-2019	Set Screw
9	20-0092-0-004	Trimmer Actuator
10	20-0093-1-004	Trimmer Hook
11	01-3030	Lock Nut
12	01-2304	Set Screw
13	01-3021	Lock Nut
14	20-0613	Adjustable Collar
15	01-5113	Spring
16	20-0320-1	Shaft
17	20-0645	Bracket
18	01-3008	Nut
19	01-2366	Screw
20	01-3011	Nut
21	01-2367	Screw



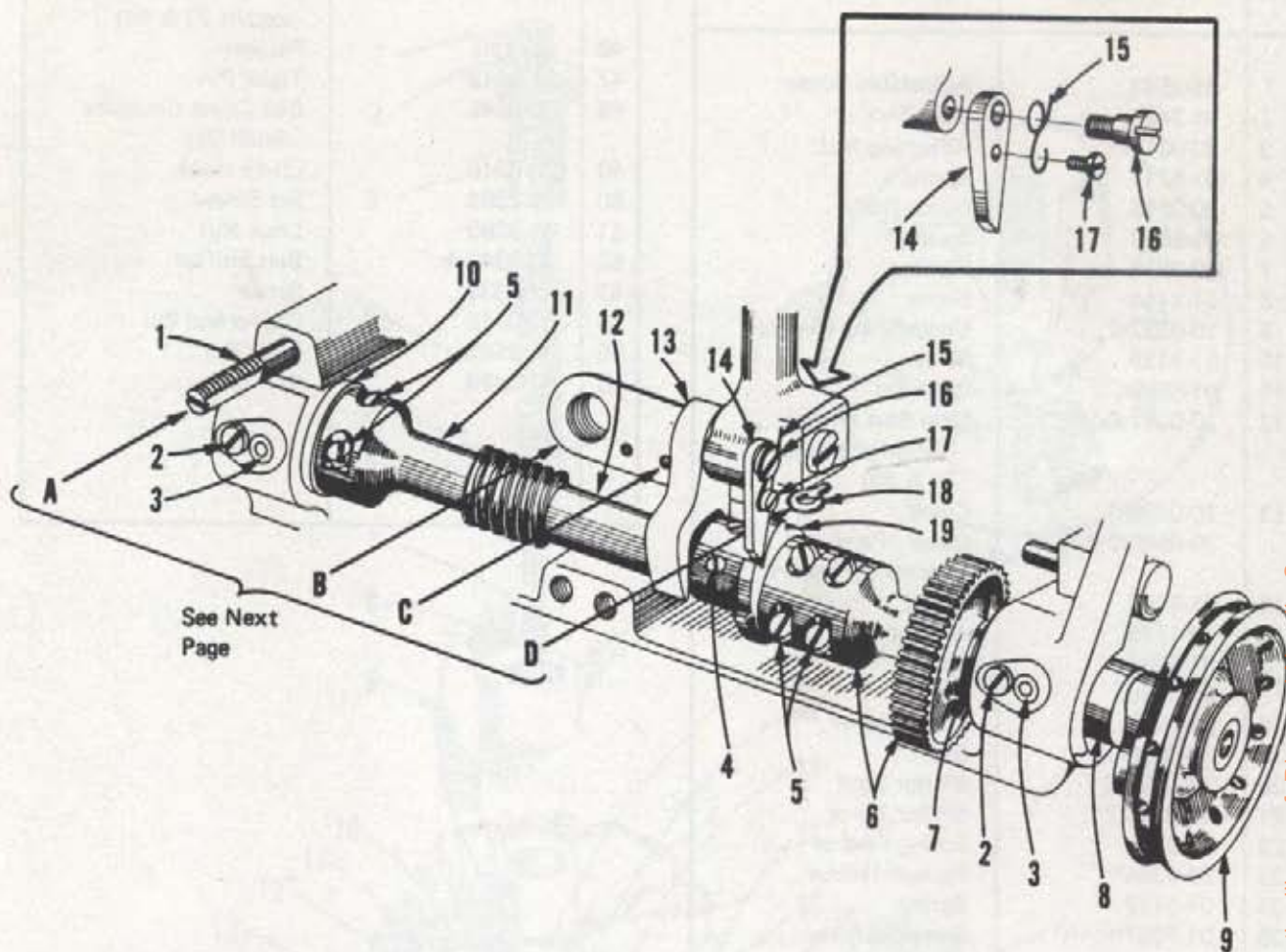
22	20-0323-1	Arm
23	20-0086-1	Ratchet and Rod
24	01-5033	Spring
25	01-6831	Anchor
26	20-0639-1	Lever (includes details 2 & 25)
27	01-4063	Washer
28	01-5161	Spring
29	20-0638	Stud
30	01-4004	Lock Washer
31	01-3042	Nut



DET.	PART NUMBER	DESCRIPTION
1	01-2543	Adjustable Screw
2	01-3423	Lock Nut
3	20-0312	Adjusting Nut
4	01-5111	Spring
5	20-0313	Guide Rod
6	01-5022	Spring
7	20-0316	Plunger
8	01-2144	Screw
9	20-0332-2	Unclamping Handle
10	01-2139	Screw
11	01-6590	Pivot Pin
12	20-0317-0-100*	Stop Bolt Holder (includes details 31 & 36)
13	20-0586-1	Cover
	20-0586-0-075	Cover - Parallel Garment Feeders
14	01-2344	Screw
15	10-1116	Anchor
16	01-5052	Spring
17	01-3005	Nut
18	01-4003	Lock Washer
19	20-0320-1	Shaft
20	20-0053-2	Shifter Stud
21	20-0040-2	Shifter Lever
22	20-0703	Spring Anchor
23	20-0044*	Plunger Holder
24	01-5152	Spring
25	01-1057	Shoulder Screw
26	01-6311	Anchor
27	04-0760	Adjustable Link
28	04-0747-2	Chain
29	20-0039-1	Actuator
30	01-2393	Screw
31	20-0318	Plunger Anvil
32	01-5112	Spring
33	01-6196	Taper Pin
34	20-0309-1-100*	Stop Bolt Asm. (includes detail 33)
35	01-6195	Stud
36	20-0070-3	Drive Shaft
37	20-0048-0-100*	Brake Shoe
38	20-0049	Leather
39	01-6313	Rivet
40	20-0343-4-100*	Belt Shifter (see insert)
41	01-8002	Key
42	01-2385	Set Screw
43	20-0074-3	Driving Pulley
44	01-2017	Screw

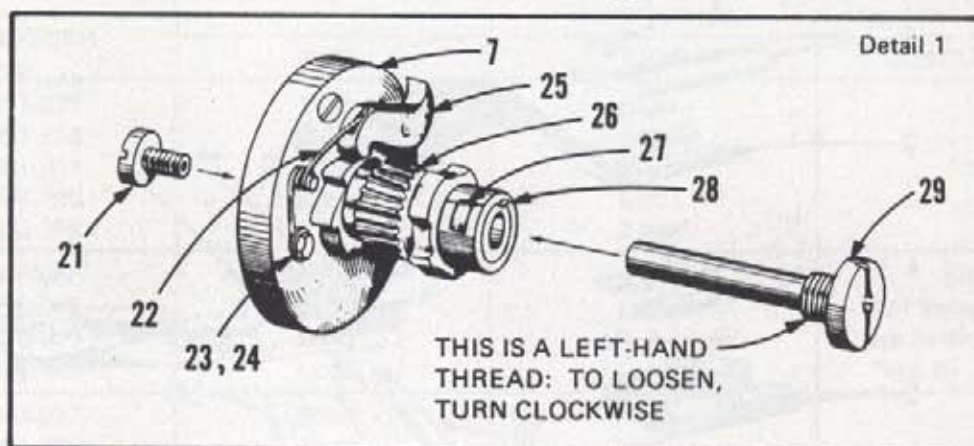
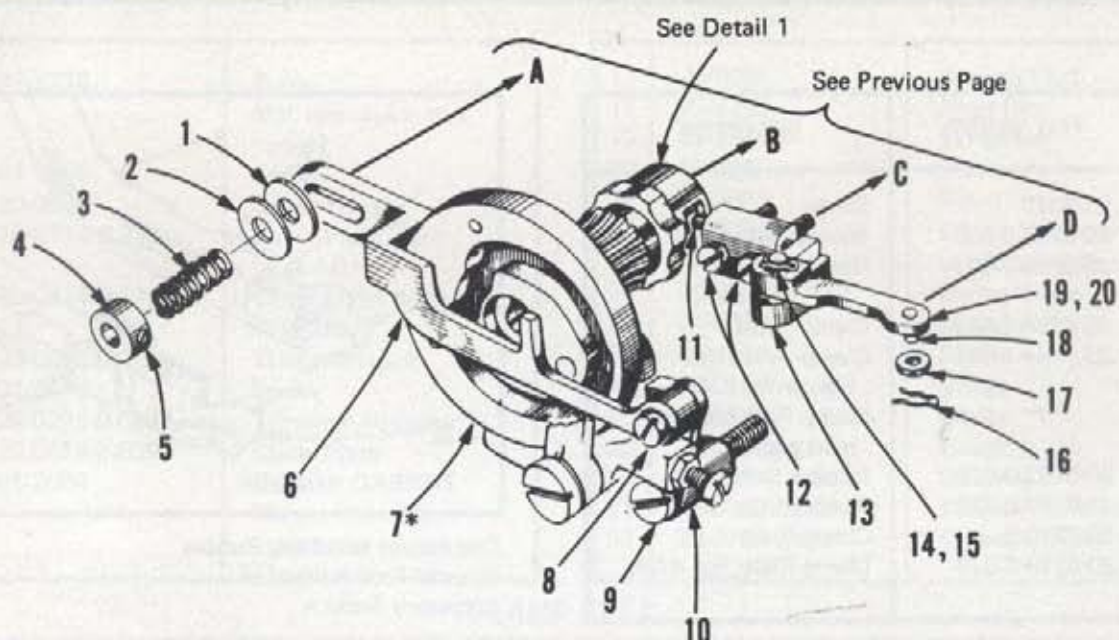
45	20-0042-0-100*	Shifter Shaft (includes details 23 & 48)
46	20-0045	Plunger
47	01-6312	Taper Pin
48	20-0046	Bell Crank (includes detail 26)
49	20-0715	Chain Hook
50	01-2394	Set Screw
51	01-3063	Lock Nut
52	20-0343-4	Belt Shifter
53	01-2338	Screw
54	20-0716	Clamp and Pin
55	01-6587	Pivot Pin
56	01-5469	Spring

*Assembly, Refer to Parts Index for Assembly Components.



DET.	PART NUMBER	DESCRIPTION
1	01-1094	Stud
2	01-2157	Screw
3	01-6197	Pin
4	01-2150	Screw
5	01-2305	Screw
6	20-0079-0-850	Large Gear (includes (4) of detail 5)
7	20-0623	Thrust Bearing
8	20-0072-1	Bushing
9	20-0074-3	Drive Pulley
10	20-0071-2	Bushing
11	20-0082-1	Worm Gear
12	20-0567	Space Collar
13	20-0043-1	Bit Cam Follower
14	20-0066	Pawl
15	01-5148	Pawl Spring

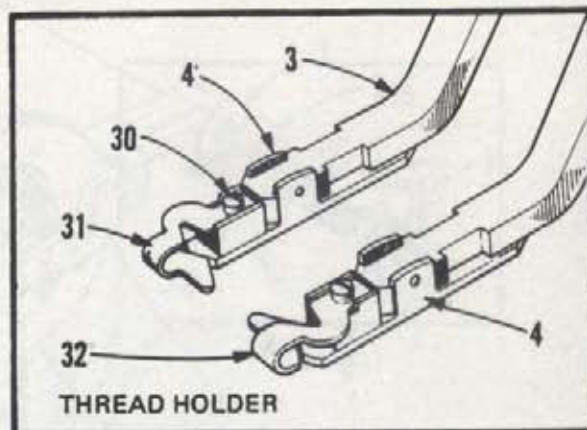
16	01-1057	Shoulder Screw
17	01-2004	Screw
18	20-0011	Release Rod (see page 4 detail 9)
19	20-0047-2	Bite Cam



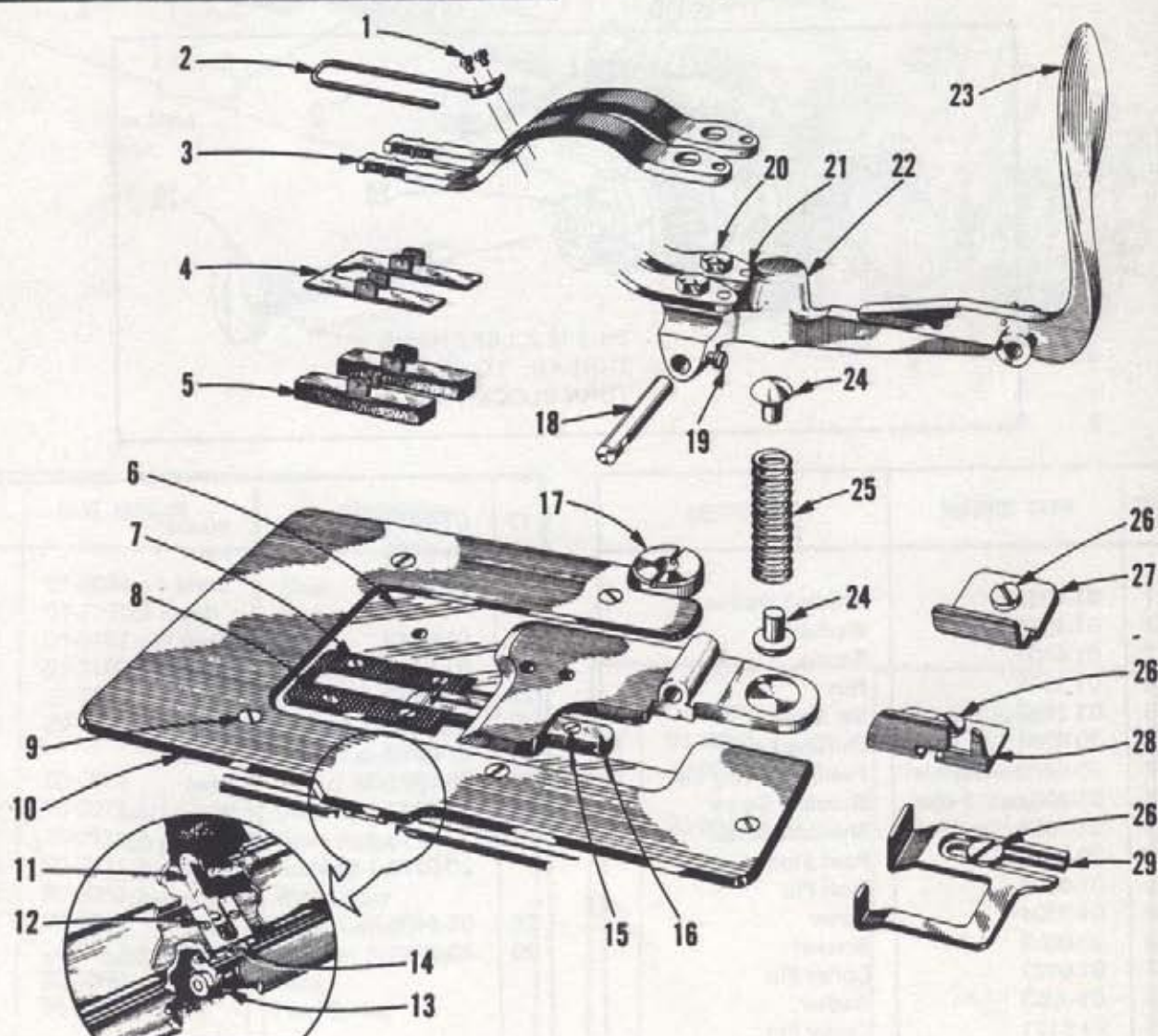
DET.	PART NUMBER	DESCRIPTION
1	01-4062	Friction Washer
2	01-4035	Washer
3	01-5108	Spring
4	01-3048	Nut
5	01-2052	Set Screw
6	20-0288	Shifting Lever
7	20-0276-3-801	Feed Reversing Cam
8	01-1053	Shoulder Screw
9	01-1054	Shoulder Screw
10	20-0290-1	Pawl Stop
11	01-6303	Push Pin
12	01-2024	Screw
13	20-0009	Bracket
14	01-6122	Cotter Pin
15	01-4063	Washer
16	01-6121	Cotter Pin

17	01-4011	Washer
18	01-6186	Pin
19	20-0010	Lever (includes detail 18)
20	01-6340	Pivot Pin
21	01-2146	Screw
22	01-5449	Spring
23	01-3016	Nut
24	01-4029	Washer
25	20-0271-3	Pawl
26	20-0277-1	Worm Gear
27	20-0278-1	Barring Cam
	20-0278-1-041	Barring Cam (3 stitch)
28	01-8405	Key
29	20-0281	Bearing Stud

DET.	PART NUMBER	DESCRIPTION
1	01-2013	Screw
2	20-0767-0-020	Needle Guard,
	20-0767-0-023	Needle Guard for
		1/2" high arm.
3	20-0194-1-043	Clamp Arms,
	20-0194-1-062	Clamp Arms, 1/2"
		high arm
4	--	Clamp Feet (see chart
		next page)
5	20-0197-0-029	Rubber Sole, long
	20-0197-0-035	Rubber Sole, short
6	20-0210-2	Clamp Plate
	20-0210-0-075	Clamp Plate, for AGF



Cement for attaching Rubber Soles to Feet is listed in Accessory Section.



7	01-2376	Screw	17	20-0281	Bearing Stud
8	---	Mat (see chart, this page)	18	01-6103	Pivot Pin
9	01-2395	Screw	19	01-2019	Set Screw
10	20-0214	Cover Plate	20	01-2355	Screw
	20-0214-0-275	Cover Plate, right CW-AGF	21	01-6055	Pin
	20-0214-0-175	Cover Plate, left CW-AGF	22	20-0190-1	Clamp Tailpiece
11	20-0093-0-004	Trimmer Hook	23	20-0332-2	Unclamping Handle
12	01-2075	Screw	24	20-0606	Spring Guide
13	20-0092-0-004	Trimmer Actuator	25	01-5082	Spring
14	20-0655-0-039	Cover Plate	26	01-2111	Screw
15	01-2084	Screw	27	20-0698	Gauge
16	---	Throat Plate (see chart this page)	28	20-0590	Gauge
			29	20-0591	Gauge
			30	01-2317	Screw
			31	20-0722-0-063	Thread Holder, left
			32	20-0722-0-064	Thread Holder, right

CLAMP FEET

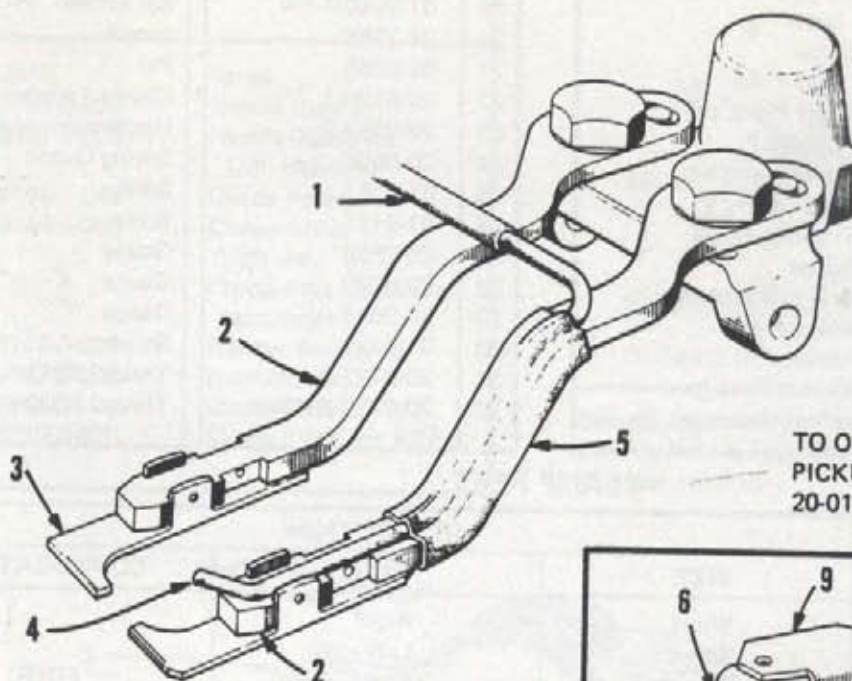
PART NUMBER	DESCRIPTION		
	SIZE	TYPE	CORRUGATION
20-0196-1-337 20-0196-1-336 20-0196-1-331 20-0196-1-330 20-0196-1-352	Short Short Long Long 1/2"	Right Left Right Left 2 used	FINE
20-0196-0-066 20-0196-0-065 20-0196-0-068 20-0196-0-067	Short Short Long Long	Right Left Right Left	FINE For Thread Holders see details 31 & 32 Page 10
20-0196-1-237 20-0196-1-236 20-0196-1-231 20-0196-1-230	Short Short Long Long	Right Left Right Left	COARSE
20-0196-0-135 20-0196-0-129	Short Long	2 used 2 used	RUBBER SOLED

THROAT PLATE AND MATS

Throat Plates and Mats are available in the following bites and corrugations. When replacing these parts, check that replacement parts have similar bite designs.

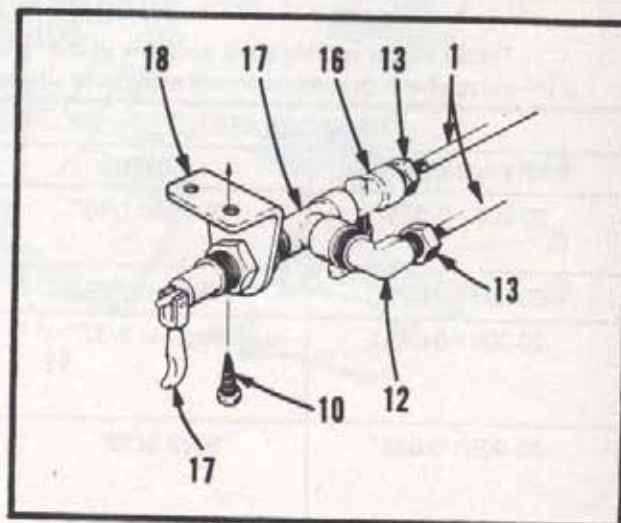
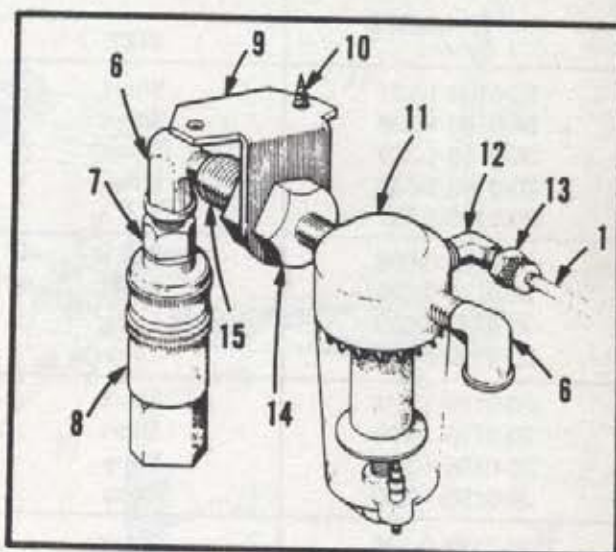
THROAT PLATE		MATS	
PART NUMBER	BITE	PART NUMBER	CORRUGATION
20-0051-0-023	Narrow 1/16"	20-0208-1-323 20-0208-1-423	FINE SMOOTH
20-0051-0-022	Medium 5/64"	20-0208-1-322	FINE
20-0051-0-024	Regular 3/32"	20-0208-1-324 20-0208-1-224 20-0208-1-424	FINE COARSE SMOOTH
20-0051-0-025*	Wide 3/32"	20-0108-1-324 20-0108-1-224 20-0108-1-424	FINE COARSE SMOOTH

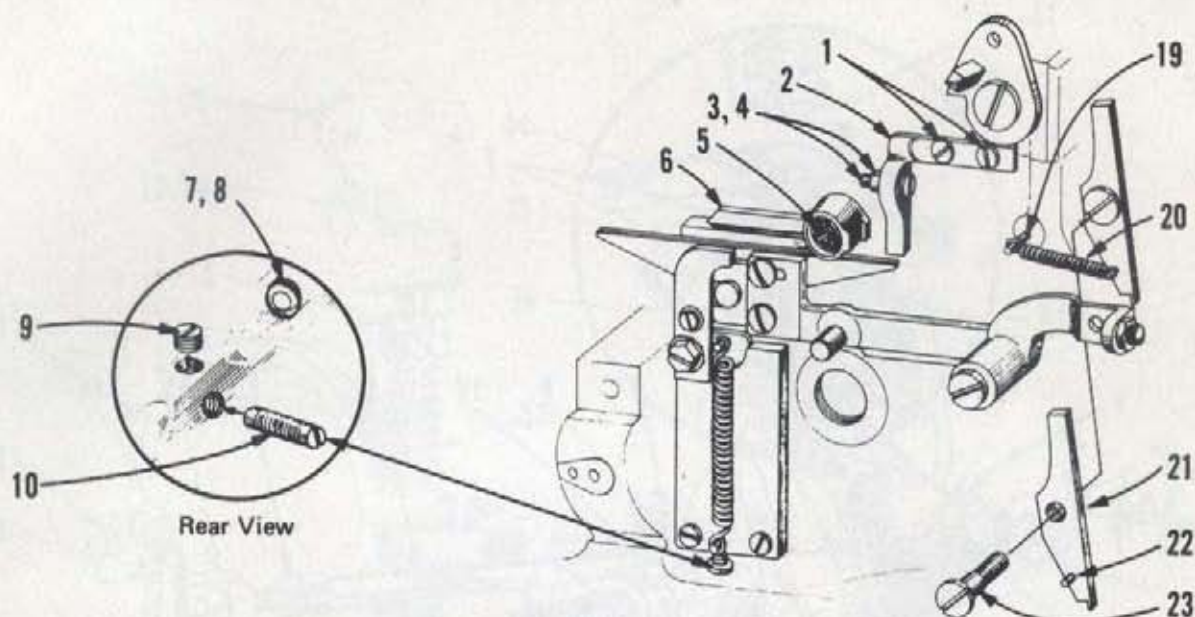
*Differs from 20-0051-0-024 only in the location of the cutting slot.



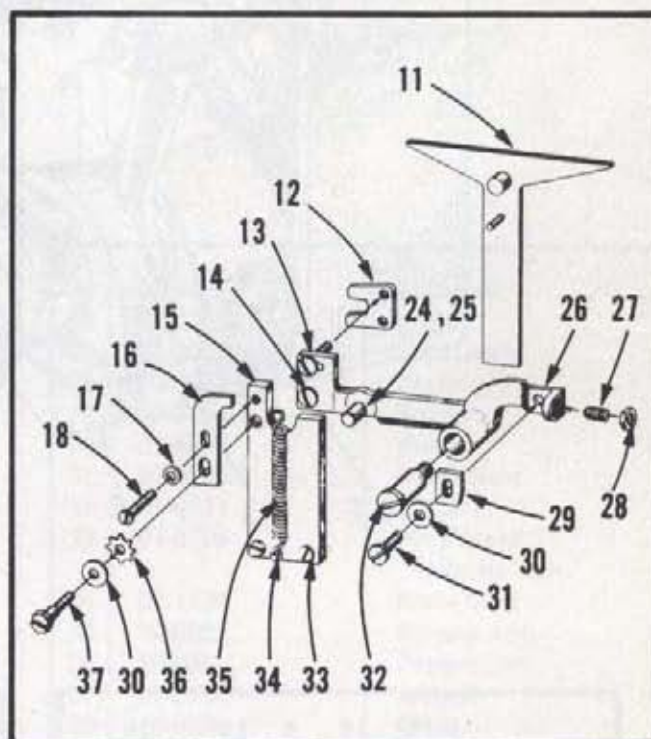
TO OBTAIN ENTIRE S2 THREAD PICKUP KIT, ORDER NUMBER 20-0194-0-276

DET.	PART NUMBER	DESCRIPTION
1	04-2040	Tubing
2	20-0194-0-176	Thread Pickup Clamp Arm (includes details 4 & 5)
3	—	Clamp Feet (see chart page 13)
4	20-0746	Air Tube (must be soldered to detail 2)
5	20-7047	Heat Shrinkable Tubing
6	07-0003-0-001	Street Elbow
7	20-6047	Plug
8	20-6048	Coupler
9	20-6091	Bracket
10	01-2616	Screw
11	04-0496	Filter
12	20-6245	Elbow (includes detail 13)
13	04-2041	Nut & Ferrule
14	20-6049	Nipple
15	20-6092	Bulkhead Adapter
16	20-6086	Needle Valve
17	20-6085	Toggle Valve
18	20-6089	Bracket

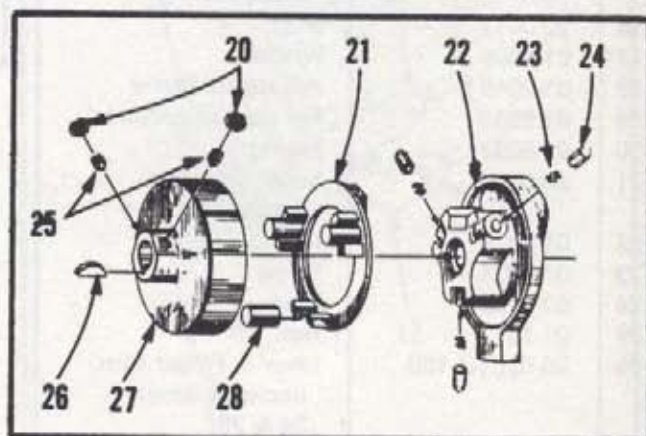
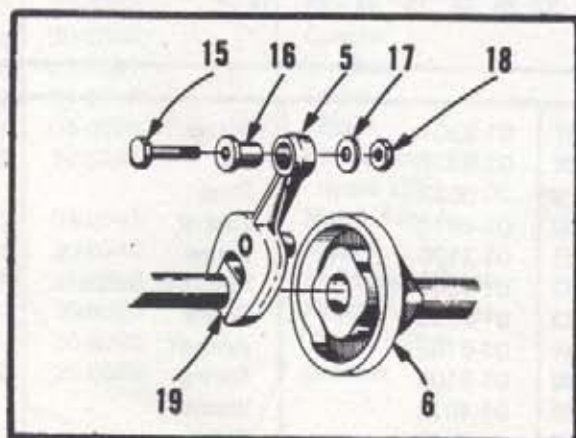
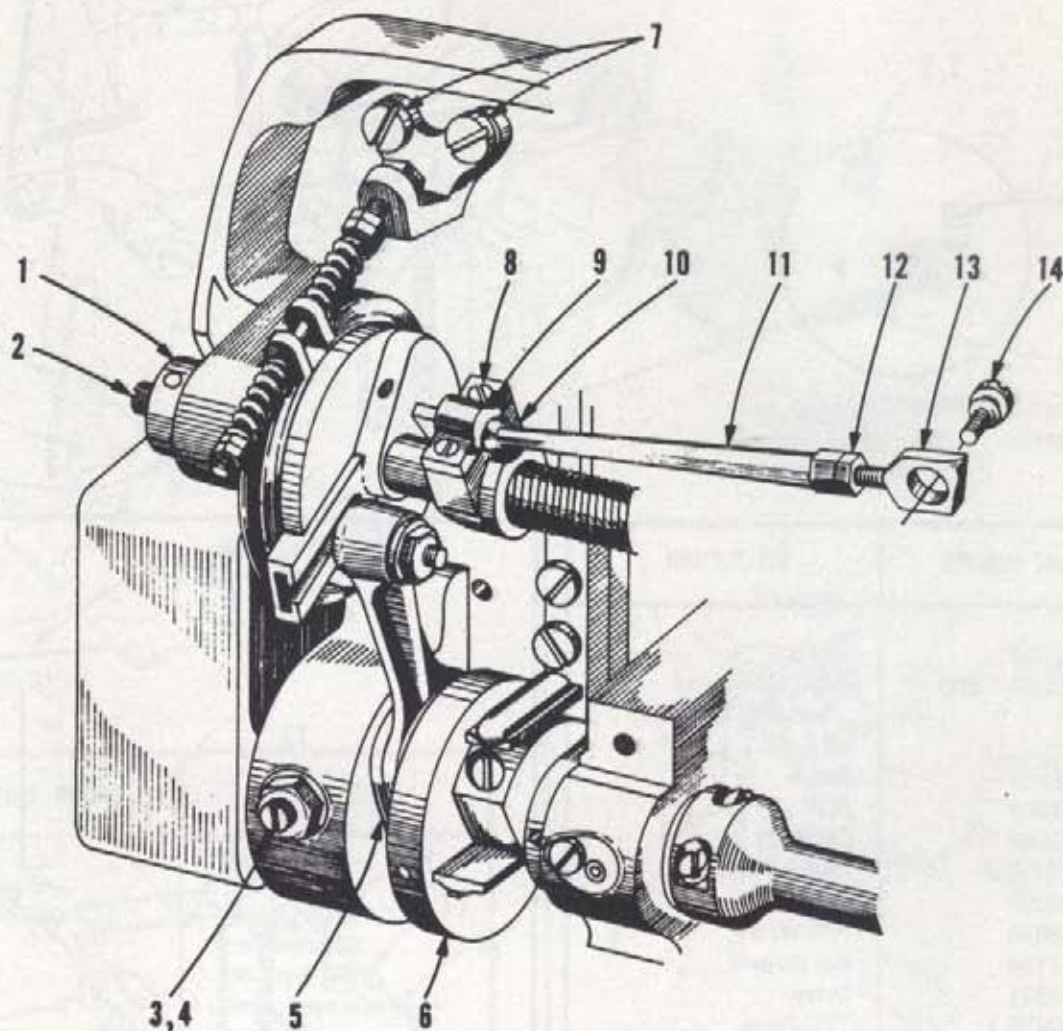


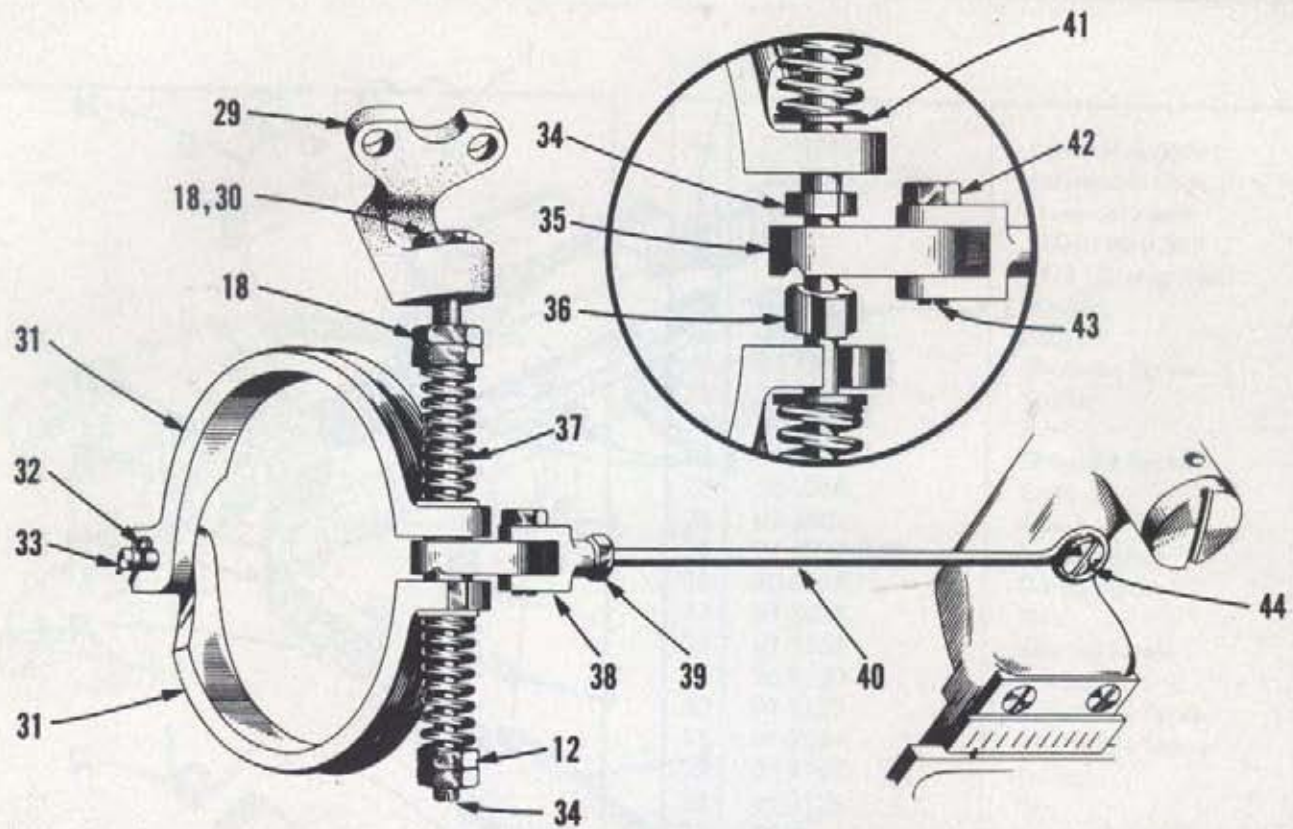


DET.	PART NUMBER	DESCRIPTION
1	01-2039	Screw
2	20-0230-1-850	Adjustable Stop (includes details 3 & 4)
3	01-2122	Screw
4	01-3001	Nut
5	20-0566	Oil Wick
6	20-0210-2	Clamp Plate
7	20-0609	Oil Well
8	20-0610	Felt Wick
9	01-2150	Set Screw
10	01-2331	Screw
11	20-0225-1	"T" Piece
12	20-0254	Adjusting Finger
13	01-2166	Screw
14	01-1051	Shoulder Screw
15	20-0222-1	Cover Plate (includes detail 35)
16	20-0012	Stop
17	01-4029	Washer
18	01-2045	Adjustable Screw
19	01-6833	Pin (part of bedplate)
20	01-5033	Spring
21	20-0634	Latch (includes detail 22)
22	01-6079	Anchor
23	01-1031	Screw
24	01-6108	Stud
25	01-7013	Roll
26	20-0251-1-100	Lever & Finger Asm. (includes details 24 & 25)



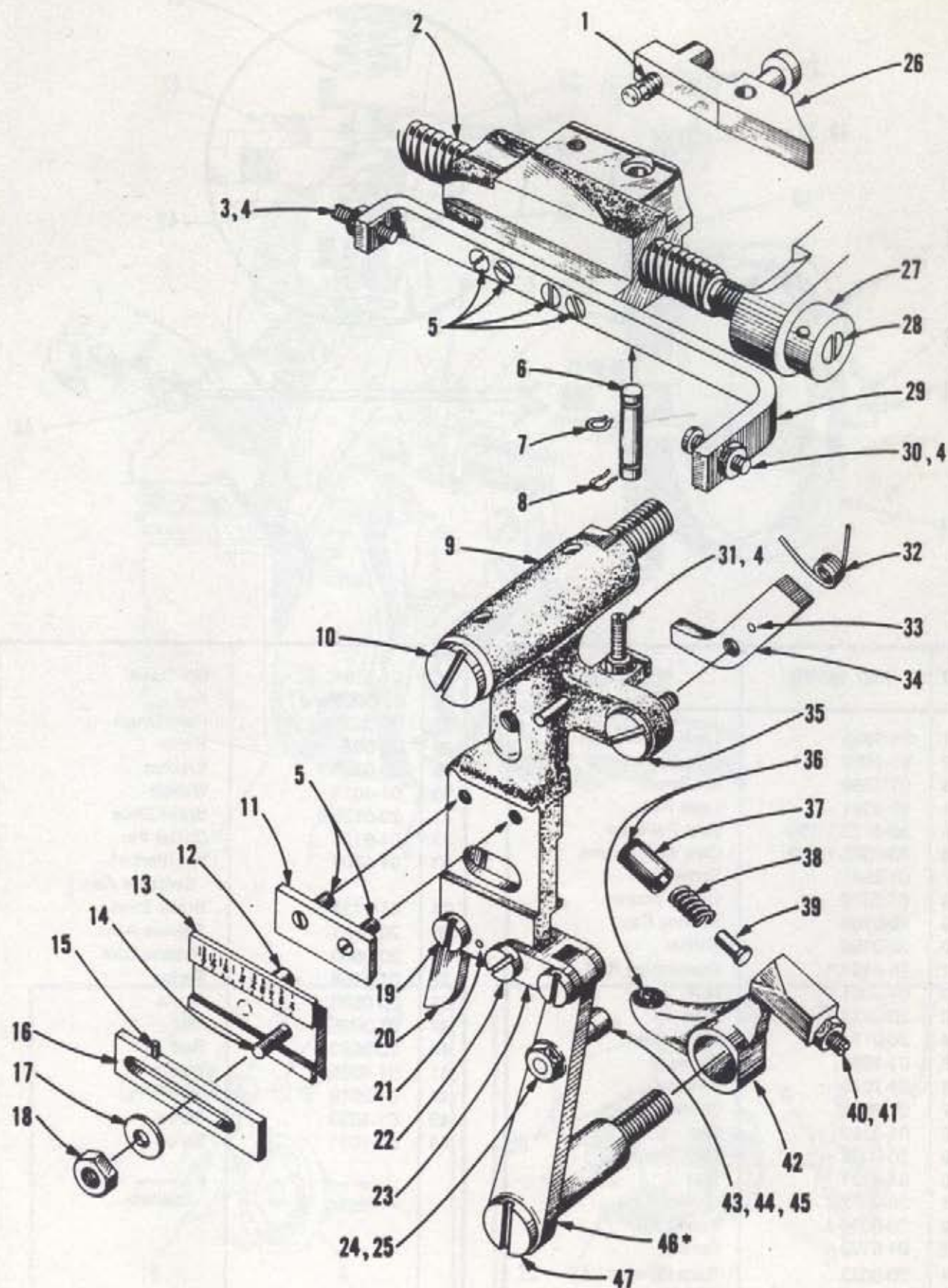
27	01-2304	Screw
28	01-3021	Nut
29	20-0633	Stop
30	01-4011	Washer
31	01-2130	Screw
32	01-1047	Shoulder Screw
33	01-2550	Screw
34	01-6165	Anchor
35	01-5106	Spring
36	01-4018	Washer
37	01-2332	Screw

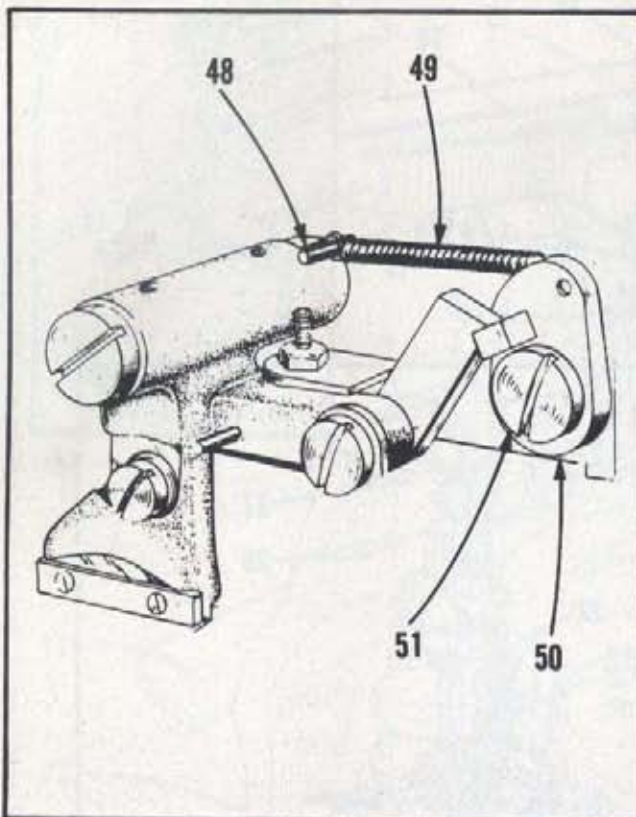




DET.	PART NUMBER	DESCRIPTION
1	01-3039	Lock Collar
2	01-2160	Bearing Screw
3	01-2359	Set Screw
4	01-3011	Lock Nut
5	20-0122-1-100	Cam Follower
6	20-0096-1-100	Cam with Screws
7	01-2041	Screw
8	01-2019	Clamp Screw
9	20-0169	Bearing Cap
10	20-0166	Shifter
11	20-0167-1	Connecting Rod
12	01-3001	Nut
13	20-0172	Link
14	20-0173	Ball Screw
15	01-1096	Screw
16	01-7029	Bushing
17	01-4002	Washer
18	01-3020	Nut
19	20-0036	Cam Block
20	01-3021	Nut
21	20-0032-1	Shifter Ring
22	20-0030-1	Feed Cage
23	01-5102	Spring
24	20-0033	Race Plunger

25	01-2304	Set Screw
26	01-8005	Key
27	20-0031	Feed Drum
28	20-0035	Roller
29	20-0134-1	Bracket
30	01-4011	Washer
31	20-0135-2	Brake Shoe
32	01-6121	Cotter Pin
33	01-6306	Pin (Part of Bedplate Asm.)
34	01-1134	Brake Stud
35	20-0661	Release Arm
36	20-0660	Release Cam
37	01-5156	Spring
38	20-0580	Clevis
39	01-3025	Nut
40	20-0582	Rod
41	01-4065	Washer
42	01-3016	Nut
43	01-1039	Screw
44	01-1071	Screw

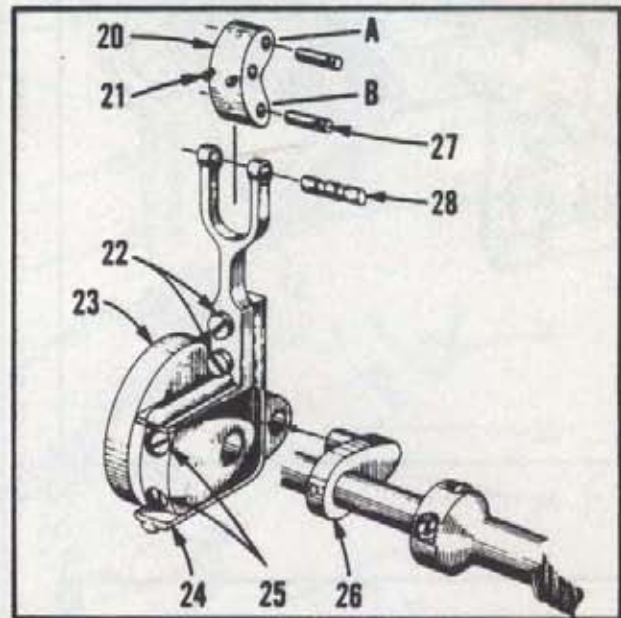
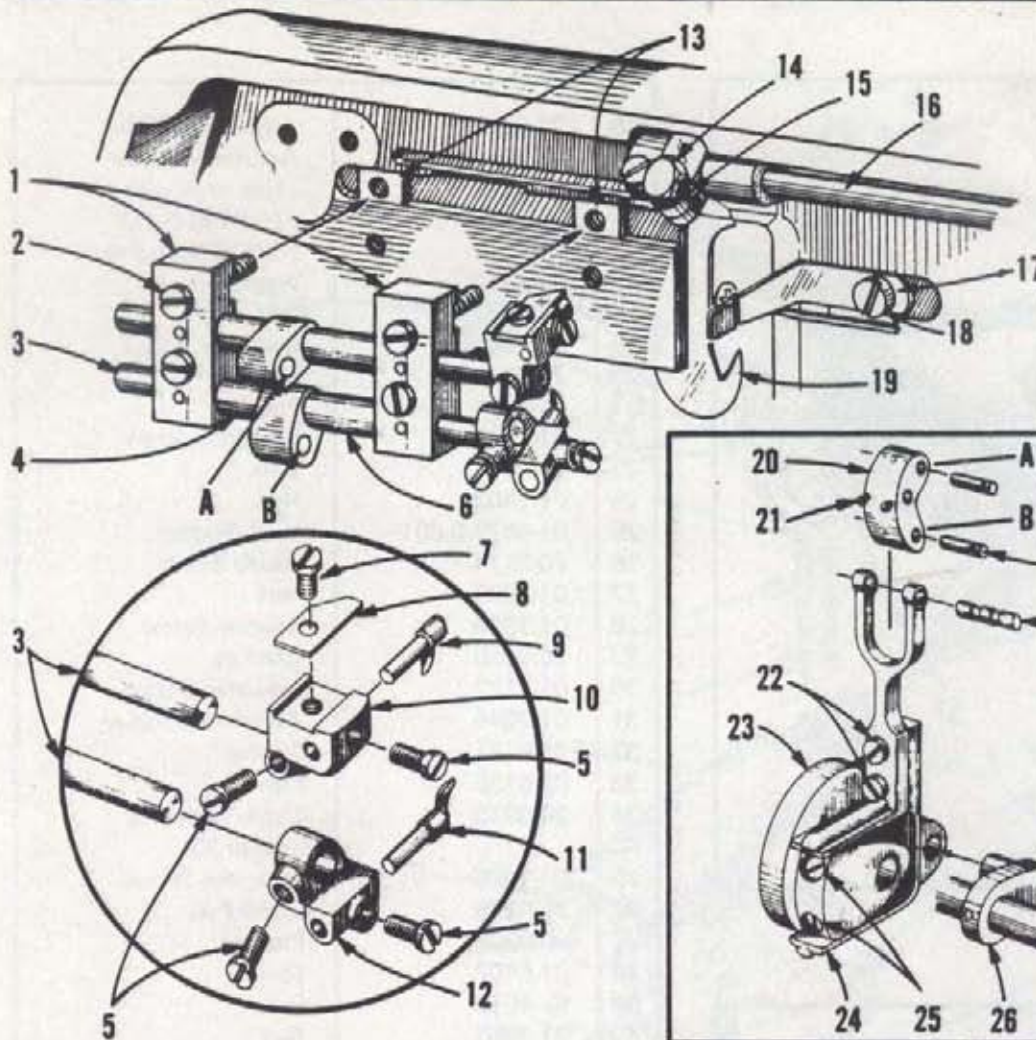




DET.	PART NUMBER	DESCRIPTION
1	01-5020	Spring
2	20-0133-0-100	Feed Screw and Feed Block
3	01-2505	Adjustable Screw
4	01-3001	Nut
5	01-2123	Screw
6	01-6508	Pin
7	01-6406	Retaining Ring
8	01-6121	Cotter Pin
9	20-0243-2	Rocker Lever (includes detail 21)
10	01-1044	Pivot Screw
11	20-0015	Cover Plate
12	01-6105	Pin
13	20-0236	Length Gage (inches)
	20-0236-0-001	Length Gage (mm)
14	01-1069	Stud
15	01-6106	Pin (part of detail 16)

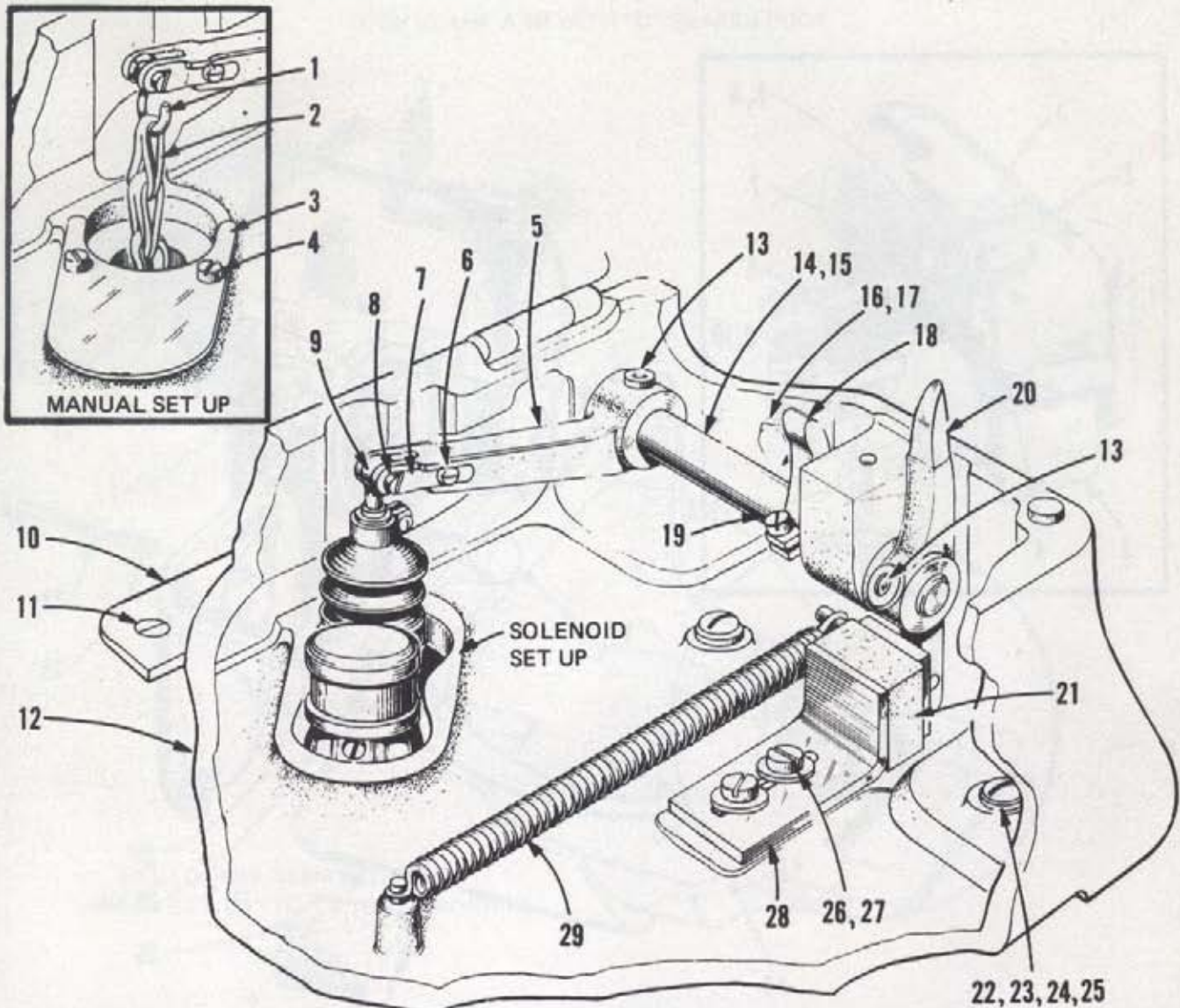
16	20-0240-1 20-0240-0-052	Adjustable Slide Adjustable Slide (use only with 20-0196-0-352 1/2" Clamp Feet)
17	01-4059	Washer
18	01-3053	Nut
19	01-1043	Shoulder Screw
20	20-0241-1	Shifter
21	01-6574	Pin
22	01-1045	Shoulder Screw
23	20-0246	Link
24	01-3402	Nut
25	01-4672-0-001	Lock Washer
26	20-0174-1	Guide Block
27	01-3039	Nut
28	01-2336	Bearing Screw
29	20-0180	Bracket
30	01-2122	Adjustable Screw
31	01-2044	Adjustable Screw
32	01-5147	Spring
33	01-6135	Pin
34	20-0013	Latch (includes detail 33)
35	01-1098	Shoulder Screw
36	20-0266	Brake Pad
37	20-0268	Plunger
38	01-5107	Spring
39	10-4019	Pin
40	01-3066	Nut
41	01-2560	Adjustable Screw
42	20-0263	Brake
43	01-1496	Screw
44	01-7535	Roller
45	01-7536	Spacer
46	20-0258-1*	Lever Asm. (includes details 24, 25, 43, 44 & 45)
47	01-1048	Pivot Screw
48	01-6822	Anchor (part of bedplate)
49	01-5038	Spring
50	20-0308-1	Latch
51	01-1097	Shoulder Screw

* Assembly, refer to Parts Index for assembly components.



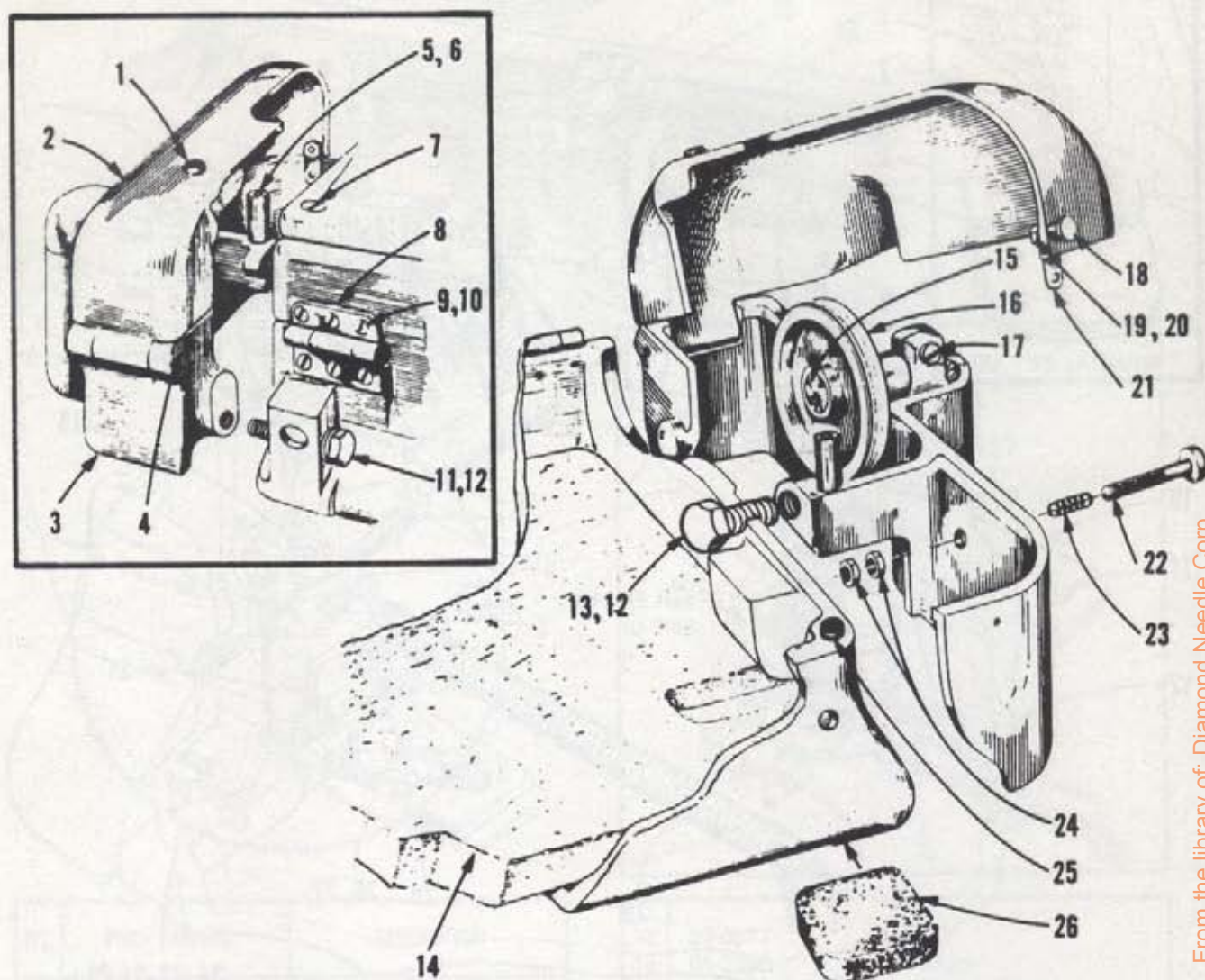
DET.	PART NUMBER	DESCRIPTION
1	20-0106-1	Bearing Blocks, Pair (replace both blocks at the same time)
2	01-2128	Screw
3	20-0107-2	Looper Drive Shaft
4	20-0569	Spacing Collar
5	01-2019	Screw
6	20-0570	Long Space Collar
7	01-2351	Screw
8	20-0094-1	Thread Trimmer Knife (for S2BH & 2 row tackers only)
	20-0094	Thread Trimmer Knife (for all other models)
9	20-0116-3	First Looper
10	20-0115-2	First Looper Holder
11	20-0119-2	Second Looper
12	20-0118-3	Second Looper Holder

13	20-0577	Key
14	01-2386	Screw
15	20-0092-0-004	Trimmer Actuator
16	20-0086-1	Rod
17	20-0624	Needle, Guard, Optional
18	01-2004	Screw, Optional
19	20-0093-0-004	Trimmer Hook
20	20-0110-1	Rocker
21	01-2334	Set Screw
22	01-2601	Screw (2 used)
23	20-0096-1-100	Looper and Feed Cam (includes detail 25)
24	20-0098-2-100	Looper Cam Follower (includes detail 22)
25	01-2372	Screw
26	20-0085-2	Rocker Arm
27	01-6096	Pivot Pin
28	01-6097	Pivot Pin



DET.	PART NUMBER	DESCRIPTION
1	04-0538	Hook (Manual)
2	04-0537	Chain (Manual)
3	20-0696	Cover (Manual)
4	01-2050	Screw (Manual)
5	20-0688	Lever
6	01-2157	Screw
7	01-5442	Clip
8	01-6534	Pin
9	04-0089	Upper Link
10	04-0119	Plate
11	01-2632	Screw
12	20-0398-3	Base
13	01-2548	Screw
14	20-0687	Shaft
15	01-8002	Key

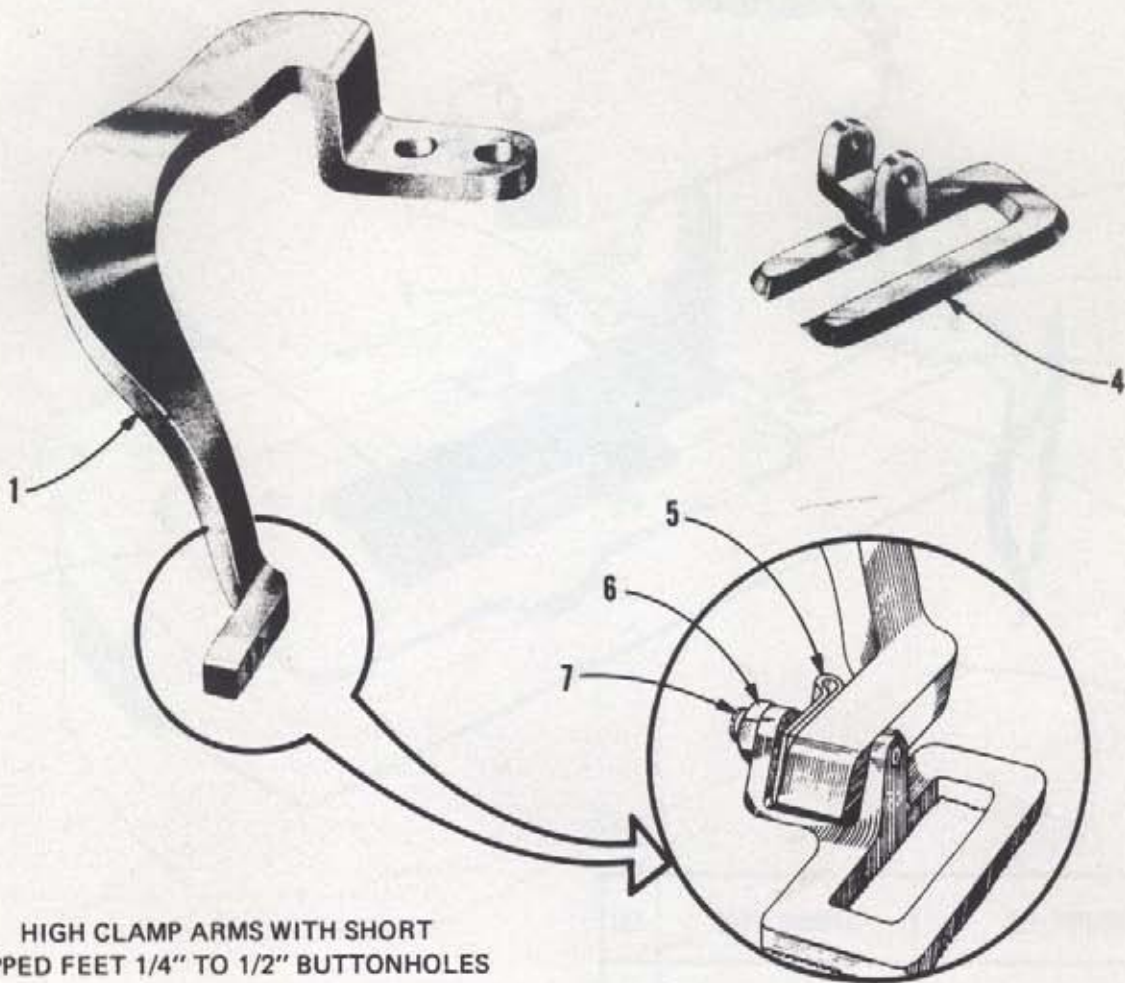
16	01-2020	Screw
17	01-4004	Washer
18	20-0690	Trip Lever
19	01-2156	Screw
20	20-0689	Arm
21	20-0692-1	Rubber
22	01-2547-1	Wood Screw
23	01-4052	Washer
24	01-4037	Rubber Washer
25	01-7016	Rubber Bushing
26	01-2017	Screw
27	01-4024	Washer
28	20-0691-1-100	Bumper (includes detail 21)
29	01-5158	Spring



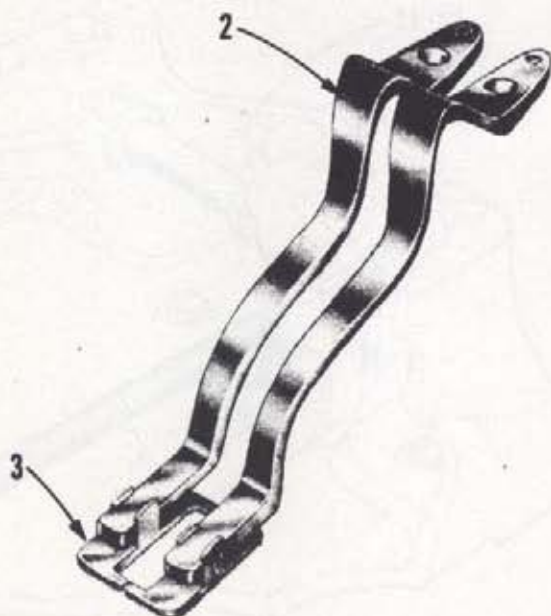
DET.	PART NUMBER	DESCRIPTION
1	20-0016	Bumper
2	20-0585-0-811	Belt Guard Cover
	20-0585-0-075	Belt Guard Cover (for parallel garment feeders)
3	20-0348-1-811	Belt Guard.
4	01-8314	Pin
5	01-8327	Pin
6	01-7037	Bumper
7	01-2170	Screw
8	20-0376-0-850	Hinge
9	01-4068	Washer
10	01-2339	Screw
11	01-2549	Screw

12	01-4004	Lock Washer
13	01-2020	Screw
14	05-0042-2	Pad (pkg. 5)
15	20-0345-0-100	Bearing Stud
16	20-0346-2	Idle Pulley
17	01-2171	Screw
18	01-3040	Knob
19	01-2059	Screw
20	01-4019	Lock Washer
21	01-5123	Latch Spring
22	20-0052	Plunger
23	01-5116	Spring
24	01-3011	Nut
25	20-0598	Bumper
26	20-0598-2	Felt Pad

HIGH CLAMP ARM WITH "U" SHAPED FOOT



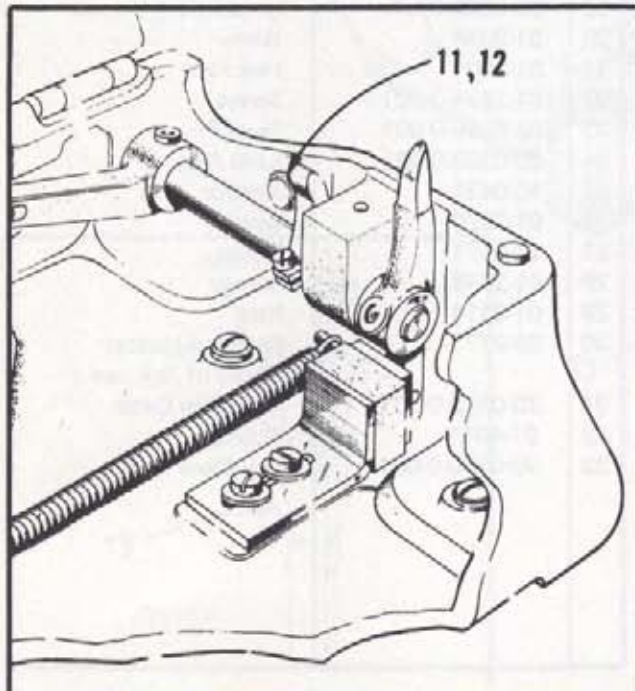
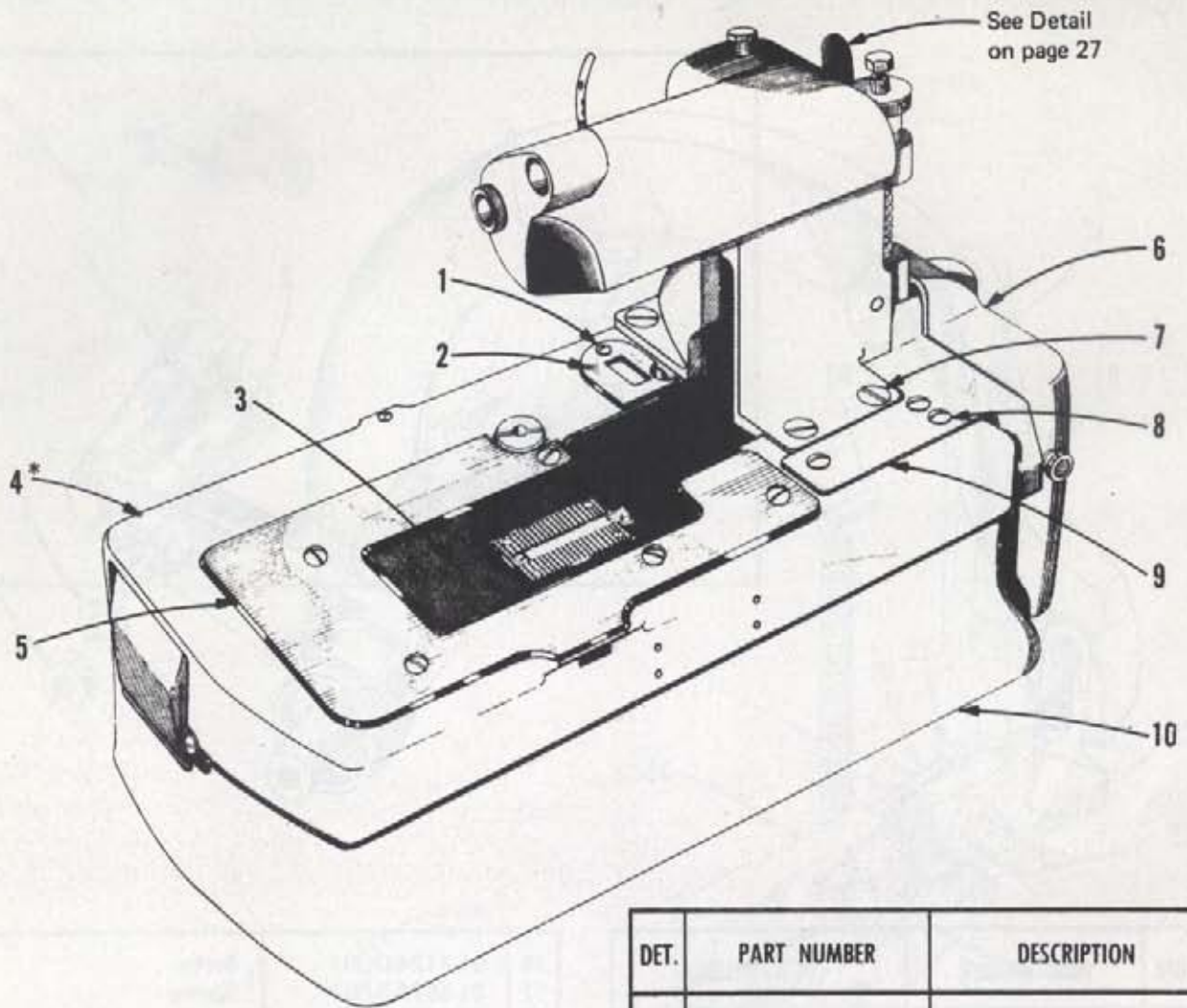
HIGH CLAMP ARMS WITH SHORT LIPPED FEET 1/4" TO 1/2" BUTTONHOLES



DET.	PART NUMBER	DESCRIPTION
1	20-0649-0-041	High Clamp Arm
2	20-0194-0-052	High Clamp Arm
3	20-0196-0-352	Foot, short Use 20-0240-0-052 1/2" Adjustable Slide
4	20-0650-0-401	Clamp Foot "U" shaped - 7/8"
	20-0650-0-501	Clamp Foot "U" shaped - 1-3/8"
5	01-5174	Spacer Spring
6	01-3065	Nut
7	01-1125	Screw

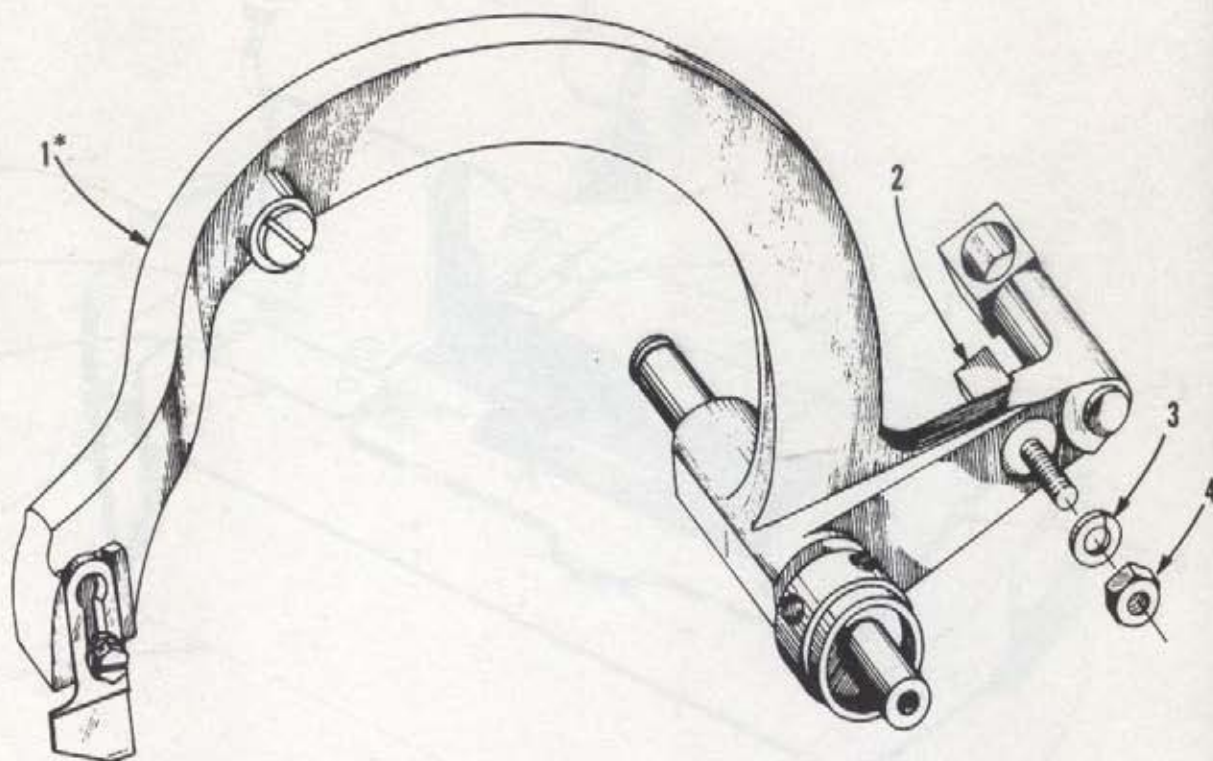
P24

Had nothing



DET.	PART NUMBER	DESCRIPTION
1	20-0584-1-001	Cover Plate
2	01-6550	Pin
3	20-0210-0-015	Clamp Plate
4	20-0397-0-015*	Head & Bedplate Asm.
5	20-0214-0-001	Cover Plate
6	20-0585-0-002	Belt Guard Cover
7	01-2422	Screw
8	01-2344	Screw *
9	20-0586-0-001	Cover
10	20-0398-4-801	Base
11	01-2020-0-001	Screw
12	01-4004	Washer

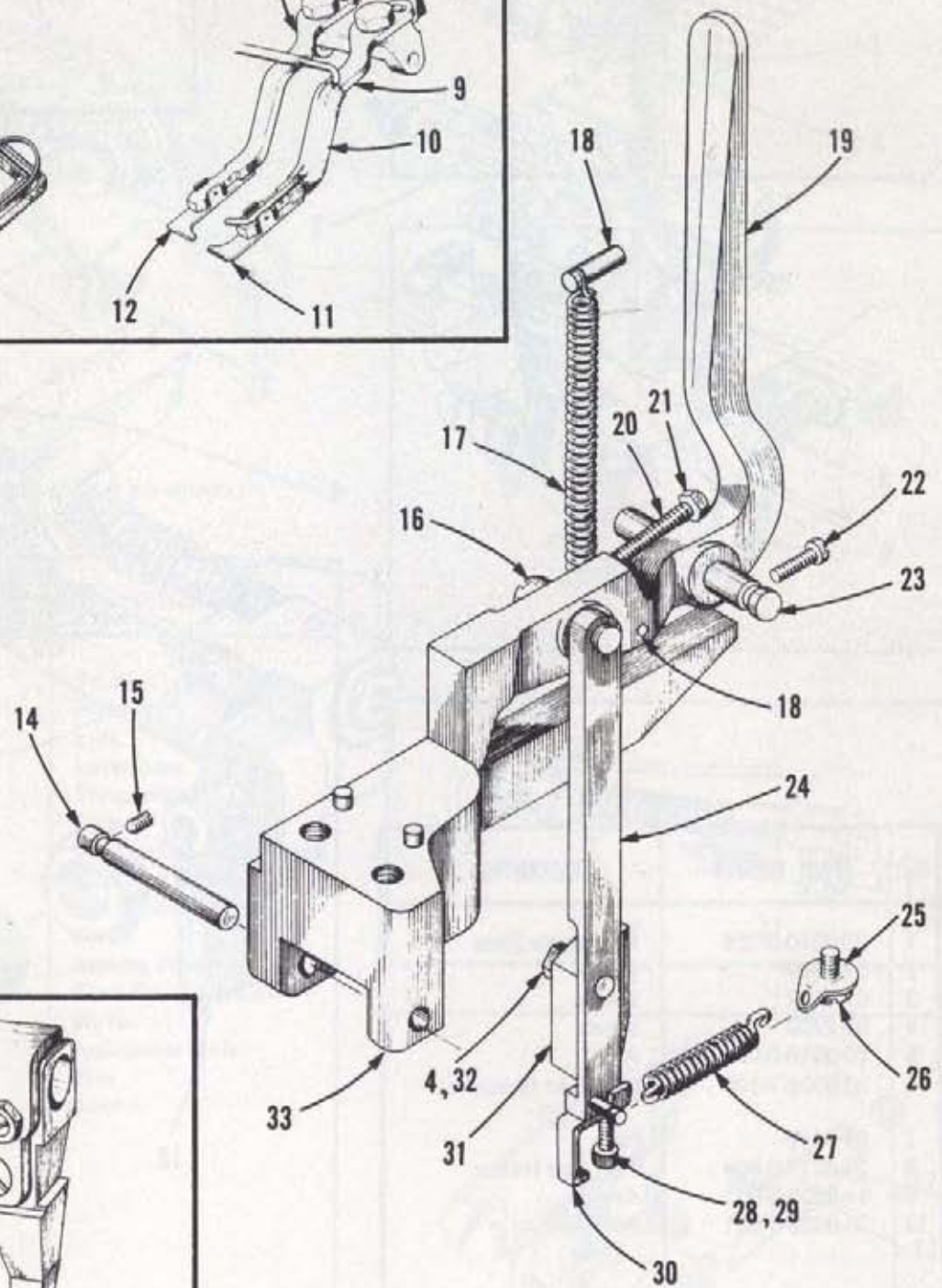
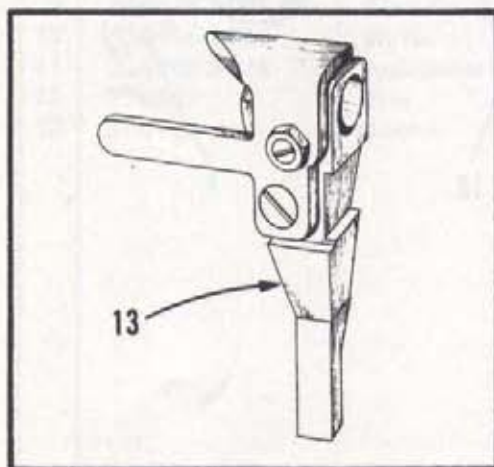
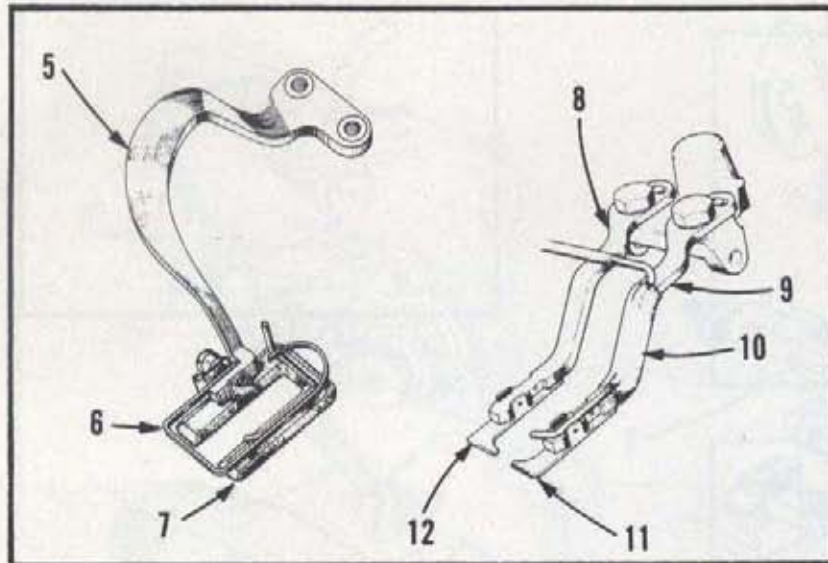
* Assembly, refer to Parts Index for assembly components

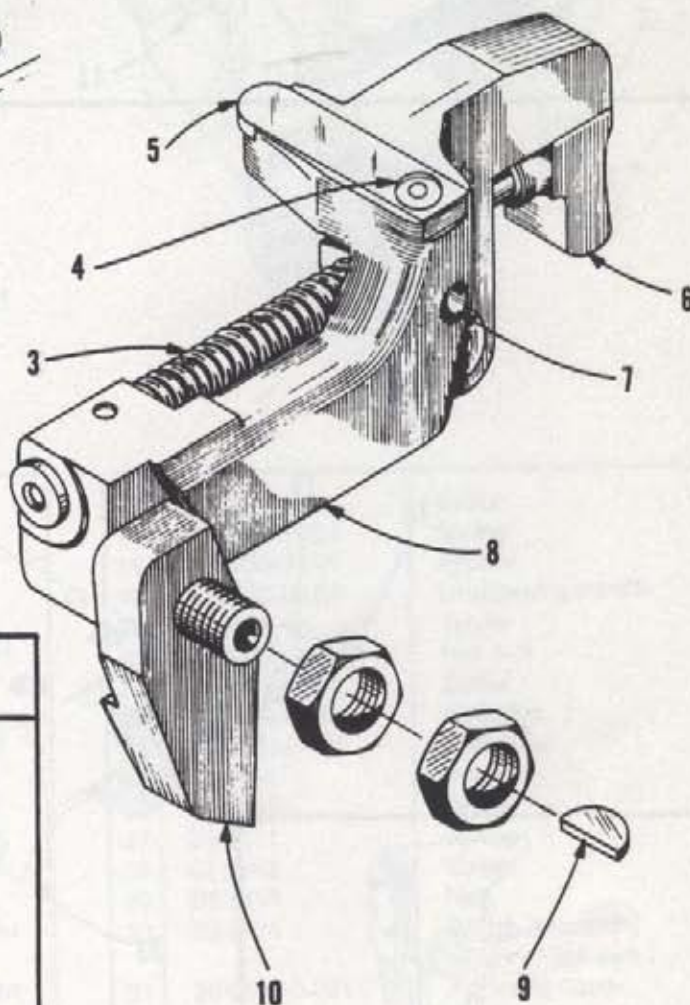
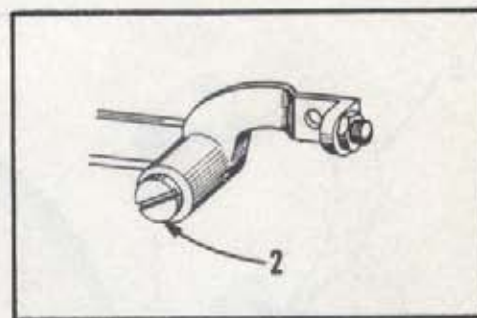
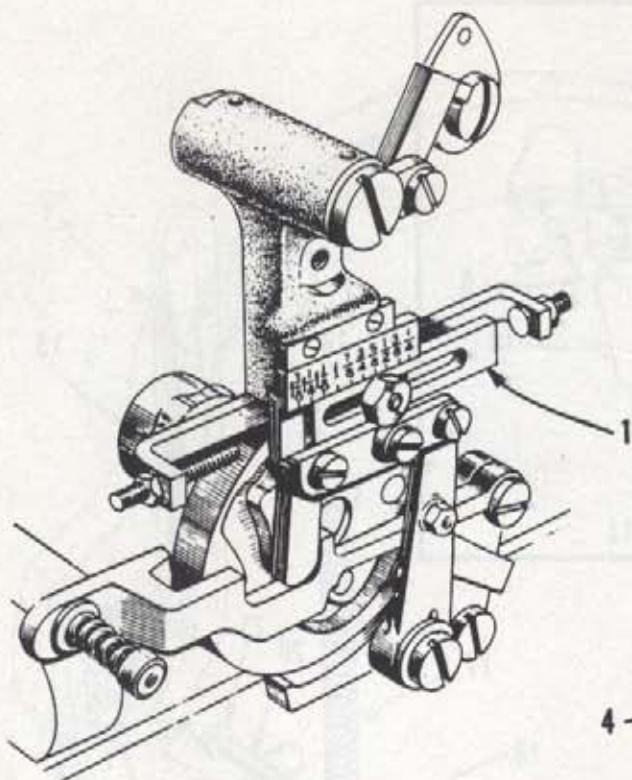


DET.	PART NUMBER	DESCRIPTION
1	20-0357-1-006*	Cutting Lever Asm.
2	20-0360-0-001	Stop Post
3	01-4003	Lock Washer
4	01-3005	Nut
5	20-0649-0-048	Clamp Arm
6	20-0767-0-043	Needle Guard
7	20-0650-0-401	Clamp Foot (7/8" "U" shape)
8	20-0194-1-004	Clamp Arm
9	20-0194-0-005	Clamp Arm
10	20-0747	Shrink Tube
11	20-0196-1-331	Clamp Foot (fine right long)
	20-0196-1-337	Clamp Foot (fine right short)
12	20-0196-1-330	Clamp Foot (fine left long)
	20-0196-1-336	Clamp Foot (fine left short)
13	20-0323-0-001	Arm
14	01-6103-0-001	Pivot Pin
15	01-2522	Set Screw

16	01-1124-0-001	Screw
17	01-5571-0-001	Spring
18	01-6833-0-001	Anchor
19	20-0332-0-001	Unclamping Handle
20	01-2044	Screw
21	01-3001	Hex Nut
22	01-2274-0-001	Screw
23	01-6590-0-001	Pivot Pin
24	20-0328-0-001	Link Asm.
25	40-0434	Anchor
26	01-2870	Screw
27	01-5571	Spring
28	01-2748	Screw
29	01-3414	Nut
30	20-0771	Switch Actuator (part of link asm.)
31	20-0583-0-001	Adjusting Catch
32	01-4011	Washer
33	20-0190-0-001	Tail Piece Asm.

* Assembly, refer to Parts Index for assembly components.

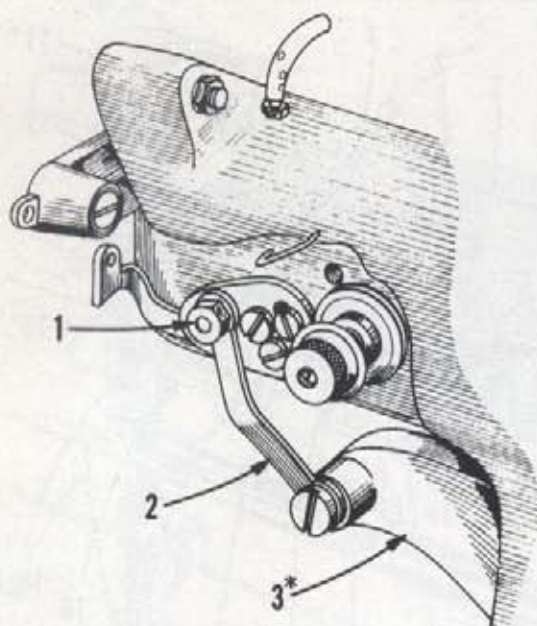




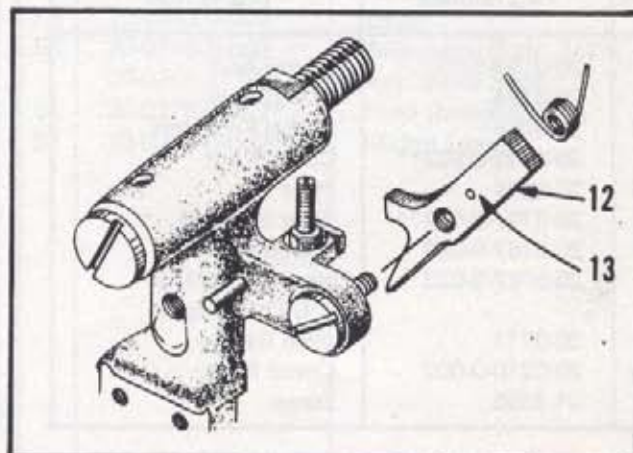
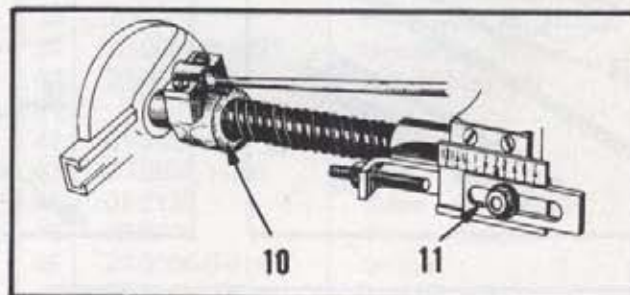
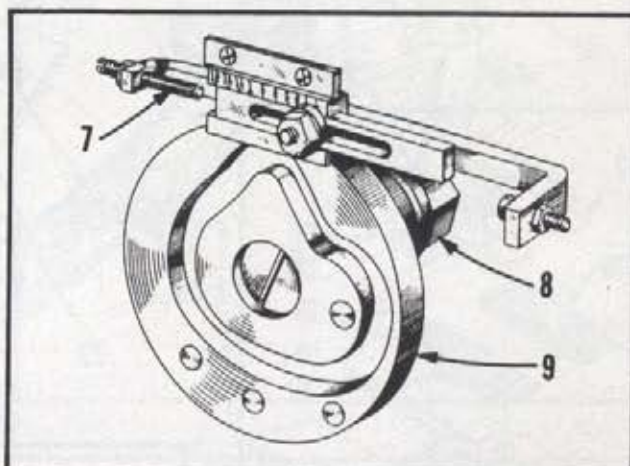
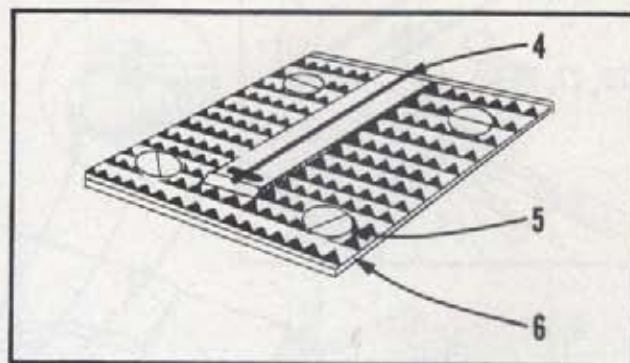
DET.	PART NUMBER	DESCRIPTION
1	20-0240-0-055	Adjustable Slide
2	01-1047	Screw
3	01-5112	Spring
4	01-2700	Screw
5	20-0318-0-001	Anvil
6	20-0309-1-100	Stop Bolt (includes detail 7)
7	01-6196	Pin
8	20-0317-0-904	Stop Bolt Holder
9	01-8002-0-001	Key
10	20-0039-0-001	Actuator

MODEL S2-TRB — 1½" TWO ROW TACKER BACK STARTING POSITION

29



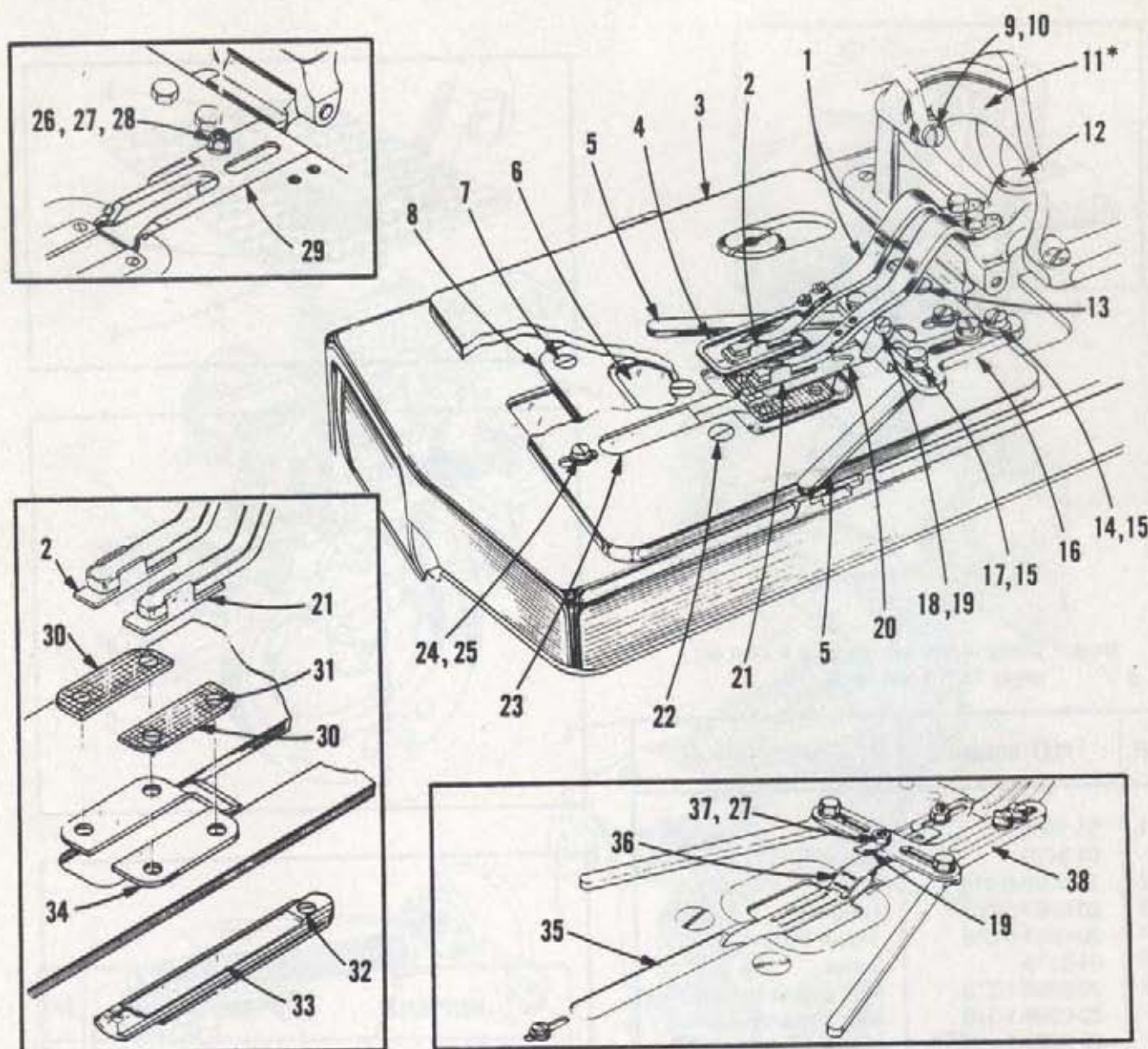
Note: Clamp Arms and Feet are shown on pages 12, 13 and 39.



DET.	PART NUMBER	DESCRIPTION
1	01-1065-1	Stud
	01-3426	Nut
2	20-0608-0-015	Link
3	20-0357-0-007*	Lever Asm.
4	20-0051-0-015	Throat Plate
5	01-2376	Screw
6	20-0208-1-215	Mat: course corrugations
	20-0208-1-315	Mat: fine corrugations
	20-0208-1-415	Mat: smooth surface
7	01-2352	Screw
8	20-0281-0-004	Bearing Stud
9	20-0276-1-004	Feed Reversing Cam
10	20-0166-0-015	Shifter
11	20-0240-0-015	Adjustable Slide
12	20-0647	Trip
13	01-6135	Anchor

* Assembly, refer to Parts Index for assembly components.

30 MODEL S2-SRCS — SINGLE ROW COLLAR STAY TACKER

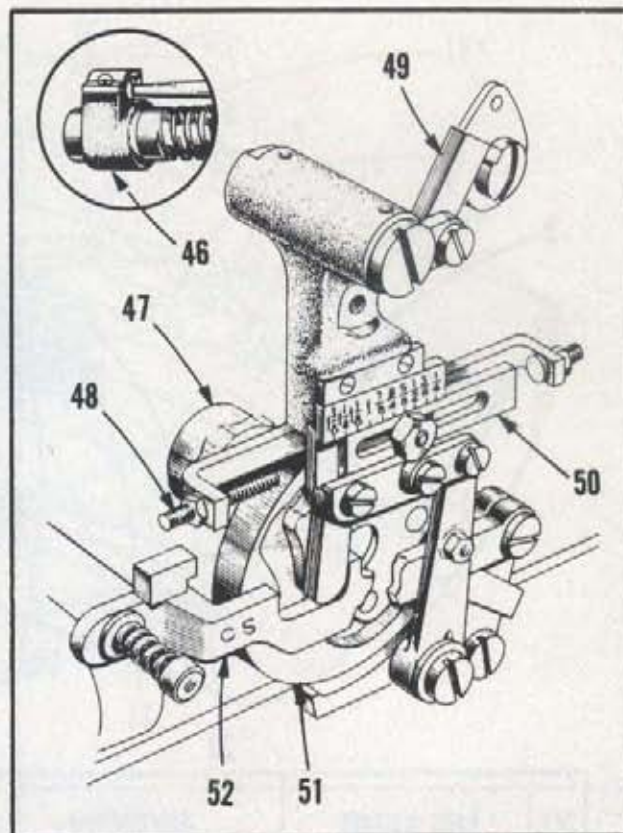
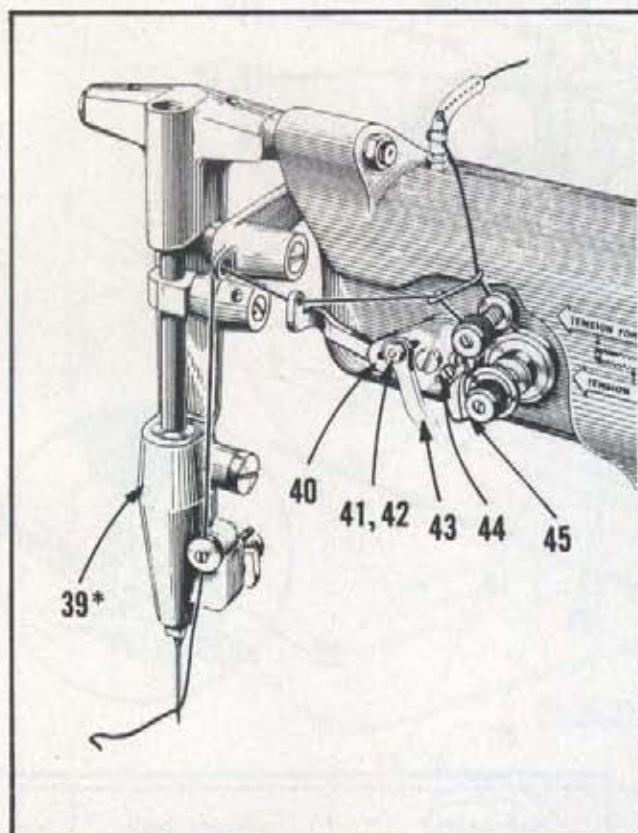


DET.	PART NUMBER	DESCRIPTION
1	20-0194-0-052	Clamp Arm
	20-0194	Clamp Arm
2	20-6064	Clamp Foot, left
	20-0196-0-502**	Clamp Foot
3	20-6024	Plate
	20-0707-0-502**	Plate (manual)
4	20-0767-0-020	Needle Guard,
	20-0767-0-023	Needle Guard for 1/2" high arm.
5	20-0711	Slide Gauge
6	20-0210-0-002	Clamp Plate
7	01-2395	Screw

8	20-0214-0-002	Cover Plate
	20-0214-0-502**	Cover Plate
9	01-2027	Screw
10	01-7480-0-001	Bushing
11	20-0357-0-007*	Cutting Lever Asm.
12	20-0190-1-011	Clamp Tail Piece
13	01-2600	Screw
14	01-2175	Screw
15	01-4011	Washer
16	20-0710	Rear Gauge (manual)
	20-0710-0-502**	Rear Gauge (manual)
17	01-2508	Screw
18	01-2136	Screw (manual)
19	10-2054	Clip

*Furnished only as an Assembly. Refer to Parts Index for assembly components.

**Used on 1/2" wide, 3" to 5" Collar Stay Models.

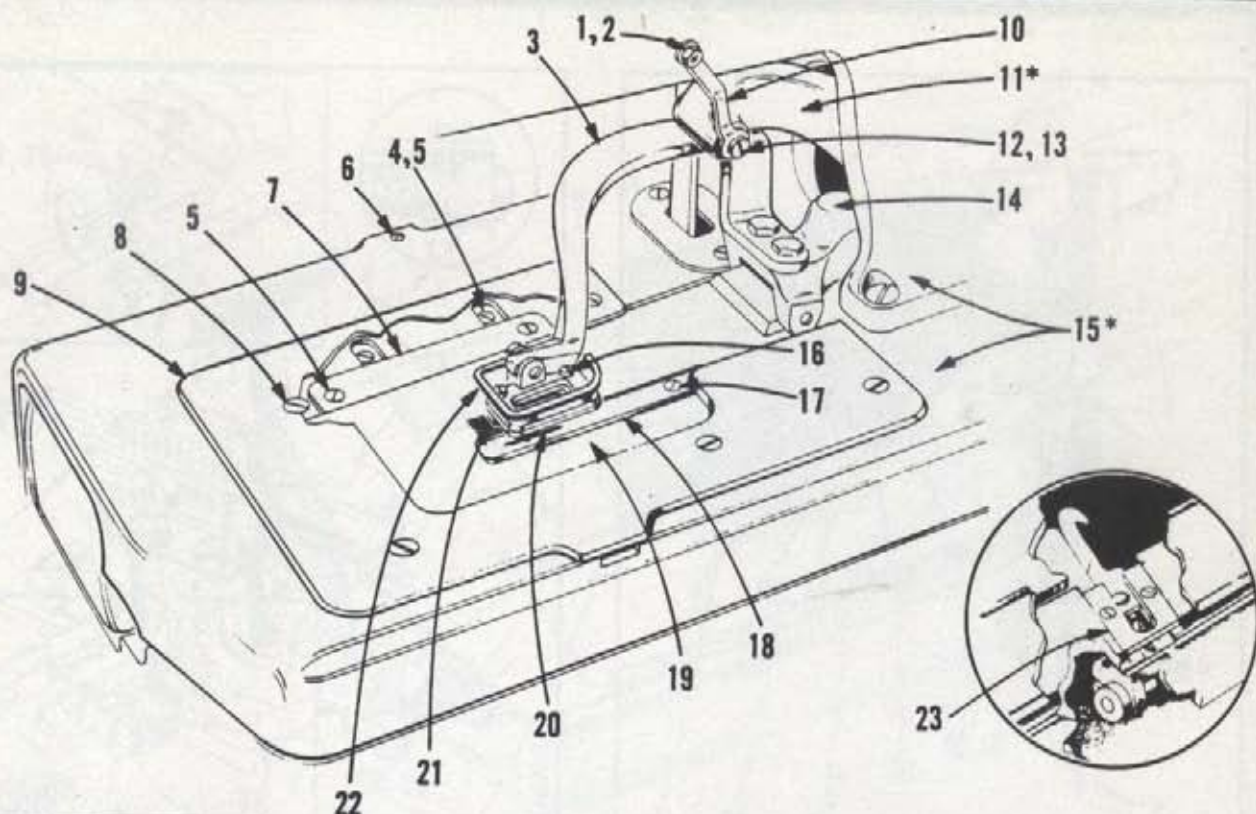


20	20-0708 20-0708-0-501** 20-0708-0-502**	Rear Stop Rear Stop, short (manual) Rear Stop, long (manual)
21	20-6063 20-0196-0-502**	Clamp Foot, right Clamp Foot
22	01-2589	Screw
23	20-0709-1 20-0709-0-502**	Front Stop Front Stop (manual)
24	01-2137	Screw
25	01-4420	Washer
26	01-2361	Screw
27	01-3025	Nut
28	01-4527	Nylon Washer
29	20-6096	Adaptor (manual)
30	20-6062 20-0208-0-501** 20-0208-0-502**	Mat Mat, right Mat, left
31	01-2642	Screw
32	01-2104	Screw
33	20-0051-1-002	Throat Plate
34	20-6037-1	Mat Plate
35	20-6025	Front Stop (automatic)
36	20-6065	Upper Stay Guide (automatic)

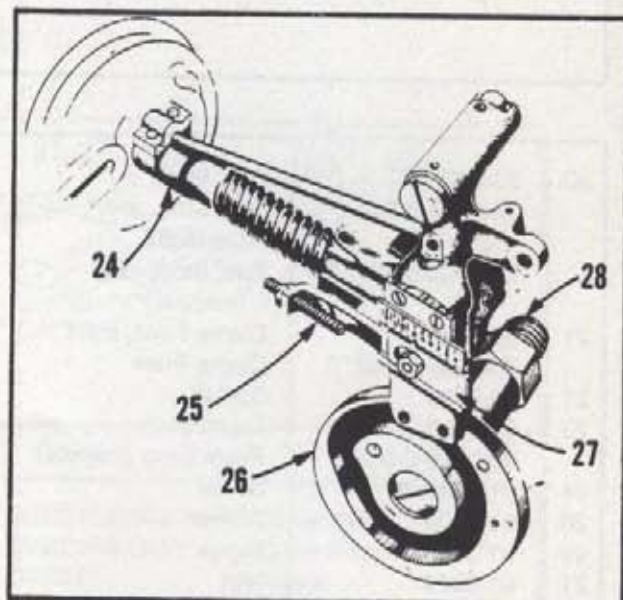
37	01-2103	Screw (automatic)
38	20-6066	Rear Gauge (automatic)
39	20-0005-0-102*	Needle Bar Rocker
40	20-0607-2	Adjustable Plate
41		Stud
42	01-3426	Nut
43	20-0608-1-002	Link
44	01-2131	Screw - no washer
45	20-0713	Tension Release
46	20-0166-0-015	Shifter
47	20-0704-0-002	Barring Cam
48	01-2352	Screw
49	20-0013-0-002	Latch
50	20-0240-0-050 20-0240-1**	Adjustable Slide, 3/4" Adjustable Slide
51	20-0276-0-002	Feed Reversing Cam
52	20-0288-0-002	Shifter Lever

*Furnished only as an Assembly. Refer to Parts Index for assembly components.
 **Used on 1/2" wide, 3" to 5" Collar Stay Models.

MODEL S2-TRPB — TWO ROW TAB TACKER FOR BOUND BUTTONHOLE TACKING



DET.	PART NUMBER	DESCRIPTION
1		Stud
2	01-3426	Nut
3	20-0649-0-042	Clamp Arm
4	20-0654	Stop
5	01-2396	Screw
6	01-2379	Screw
7	20-0653-0-007	Guide
8	01-2395	Screw
9	20-0214-1-007	Cover Plate
10	20-0608-1-002	Link
11	20-0357-0-007*	Cutting Lever Asm.
12	01-2027	Screw
13	01-7480-0-001	Bushing
14	20-0190-1-011	Clamp Tail Piece
15	20-0397-0-013*	Head & Bedplate Asm.
16	01-2318	Screw
17	01-2104	Screw
18	20-0051-1-007	Throat Plate
19	20-0210-1-007	Clamp Plate
20	20-0650-0-242	Tacker Clamp Foot
21	20-0667-0-993	Pad, left .09 (for thin material)
	20-0667-0-995	Pad, right .09 (for thin material)
	20-0667-0-994	Pad, left .075 (for heavy material)

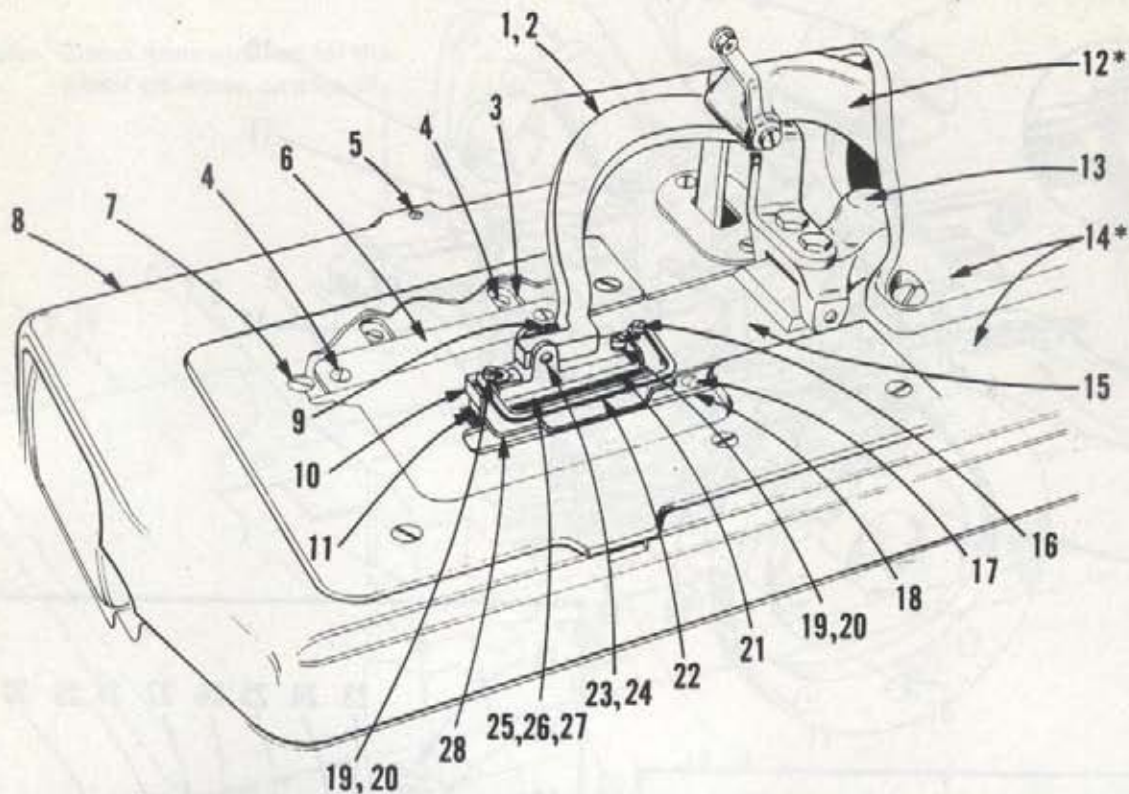


	20-0667-0-996	Pad, right .075 (for heavy material)
22	20-0767-1-020	Needle Guard
23	20-0655-0-042	Cover Plate
24	20-0166-0-015	Shifter
25	01-2352	Screw
26	20-0276-1-017	Feed Reversing Cam
27	20-0240-0-050	Adjustable Slide
28	20-0281-0-004	Bearing Stud

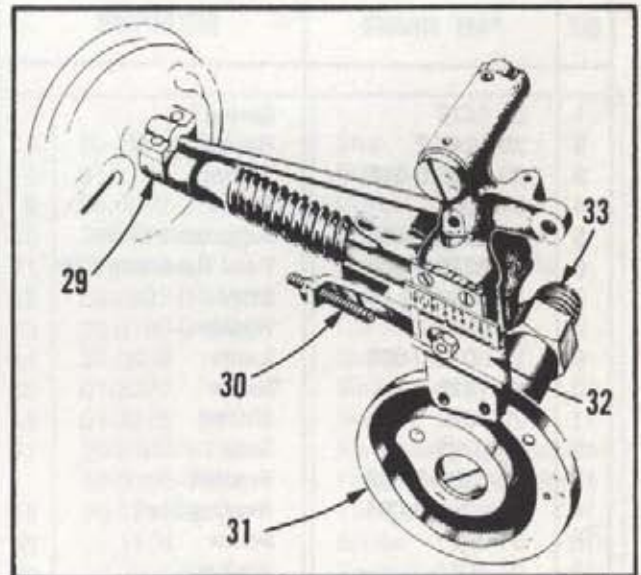
* Assembly, refer to Parts Index for assembly components.

MODEL S2-PW — TWO ROW TAB TACKER FOR POCKET WELT TACKING

33



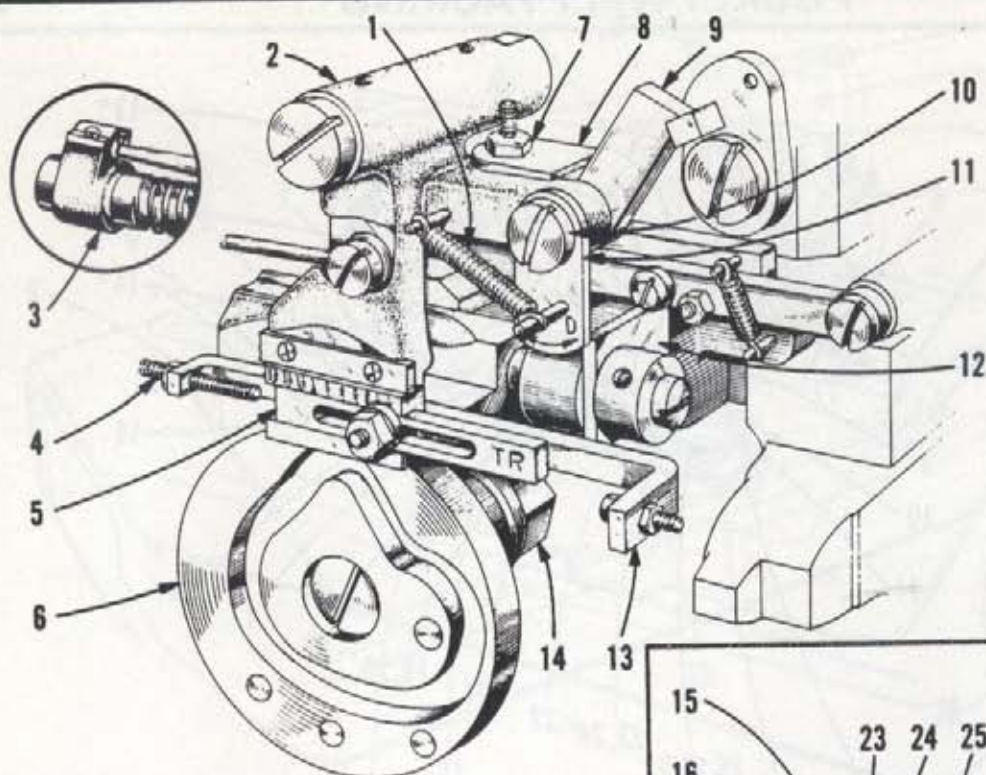
DET.	PART NUMBER	DESCRIPTION
1	20-0649-0-041	Clamp Arm - 1" and 1 1/4" tack.
2	20-0649-0-042	Clamp Arm - for 3/4" tack
3	20-0654	Stop
4	01-2396	Screw
5	01-2379	Screw
6	20-0653-0-007	Guide
7	01-2395	Screw
8	20-0214-1-007	Cover Plate
9	01-5174	Spacer Spring
10	20-0650-0-311	Clamp Foot
11	20-0667-0-988	Clamp Pad, left
12	20-0357-0-007*	Cutting Lever Asm.
13	20-0190-1-011	Clamp Tail Piece
14	20-0397-0-013*	Head & Bedplate Asm.
15	20-0210-0-008	Clamp Plate
16	01-2053	Screw
17	01-2104	Screw
18	20-0051-1-007	Throat Plate
19	01-2688	Screw
20	01-4535	Washer
21	20-0667-0-989	Clamp Pad, right
22	20-0767-0-021	Needle Guard
23	01-1125	Screw
24	01-3065	Nut
25	20-0748-0-155	Rubber, Pad, 3/4"
26	20-0748-0-157	Rubber Pad, 1"



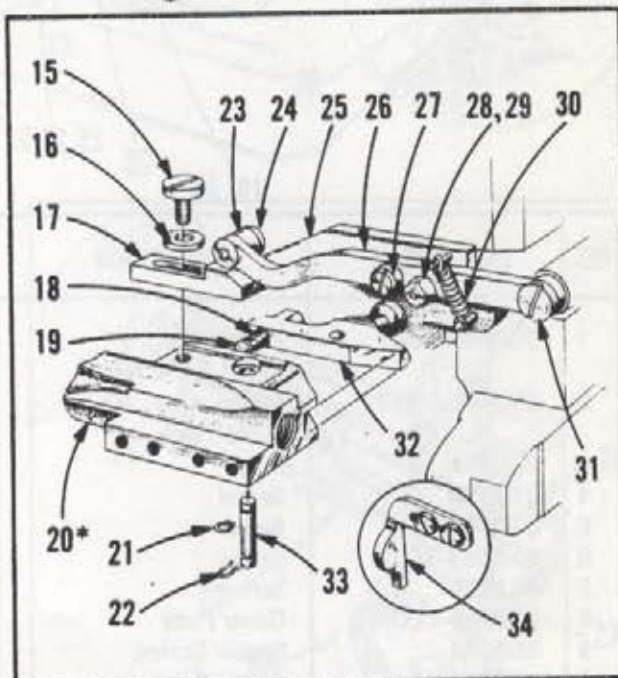
27	20-0748-0-159	Rubber Pad, 1-1/4"
28	01-5485	Clamp Spring
29	20-0166-0-015	Shifter
30	01-2352	Screw
31	20-0276-3-801	Feed Reversing Cam
32	20-0240-0-015	Adjustable Slide
33	20-0281-0-004	Bearing Stud

* Assembly, refer to Parts Index for assembly components.

MODEL S2-TK2F — 2" COMBINATION SINGLE & TWO ROW FRONT STARTING TACKER



DET.	PART NUMBER	DESCRIPTION
1	01-5429	Spring
2	20-0243-2	Rocker Lever
3	20-0166-0-015	Shifter
4	01-2044	Screw
5	20-0240-0-032	Adjustable Slide
6	20-0276-1-004	Feed Reversing Cam
7	20-0683	Stop
8	01-4067	Washer
9	20-0013-0-006	Latch
10	01-1425	Screw
11	20-0682	Shifter
12	20-0702	Stop
13	20-0180-0-032	Bracket
14	20-0281-0-004	Bearing Stud
15	01-2021	Screw
16	01-4011	Washer
17	20-0701	Wedge
18	01-5020	Spring
19	01-6511	Plunger Pin
20	20-0133-1-105*	Feed Screw and Feed Block
21	01-6406	Retainer Ring
22	01-6121	Cotter
23	01-7453	Roll
24	01-1437	Screw
25	20-0700	Latch



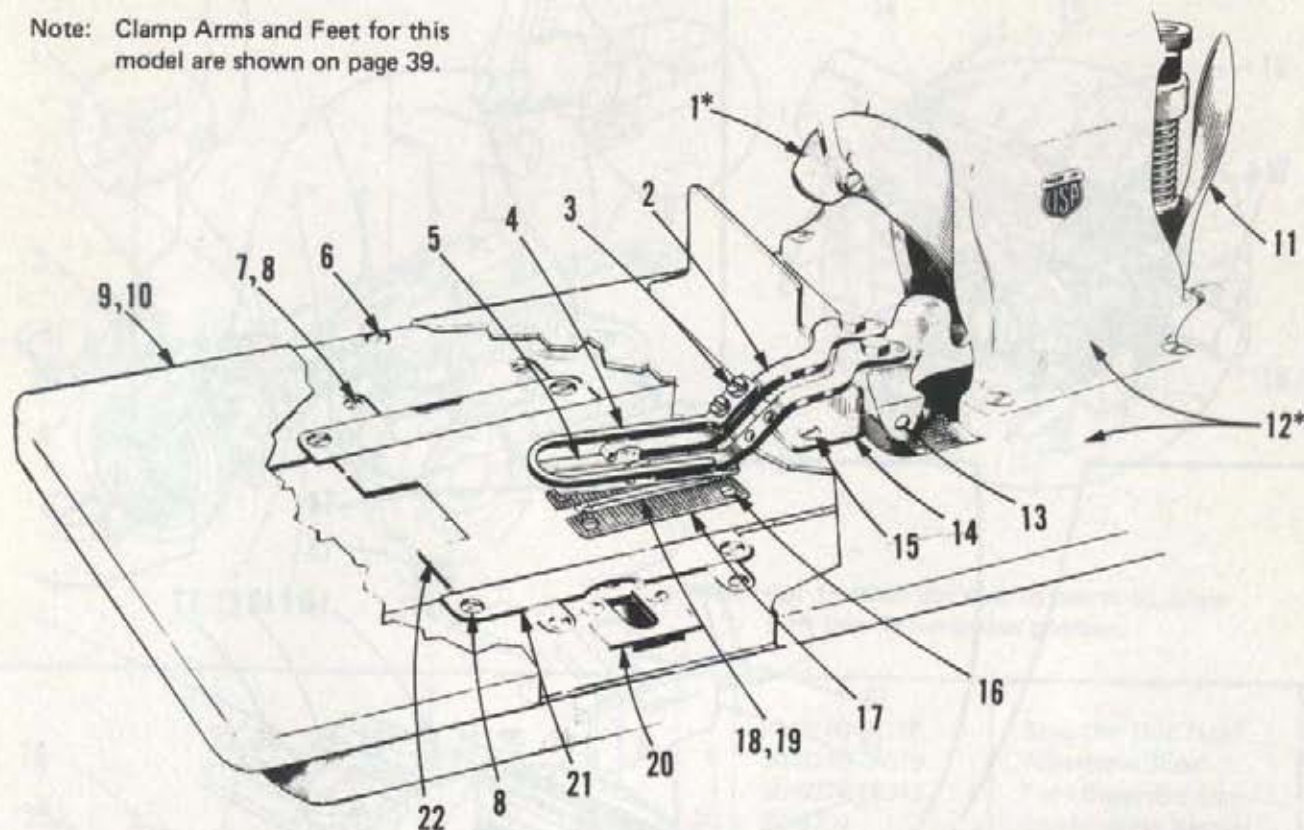
26	20-0699	Lever (includes details 23 and 24)
27	01-1002	Screw
28	01-3016	Nut
29	01-1438	Eccentric
30	01-5042	Spring
31	01-1097	Screw
32	20-0174-0-032	Guide Block
33	01-6508	Pivot Pin
34	20-0230-0-032	Adjustable Bumper

* Assembly, refer to Parts Index for assembly components.

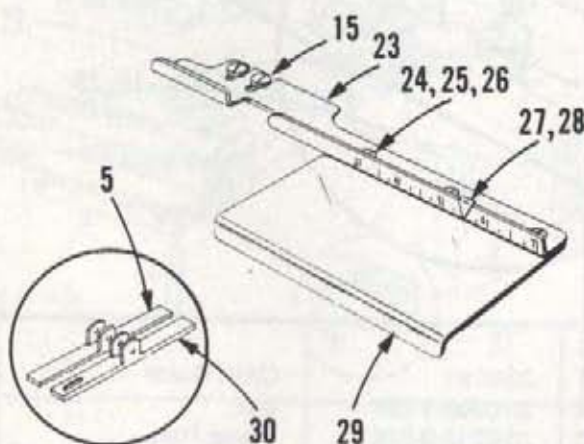
MODEL S2-TK2F — 2" COMBINATION SINGLE & TWO ROW FRONT STARTING TACKER

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Note: Clamp Arms and Feet for this model are shown on page 39.



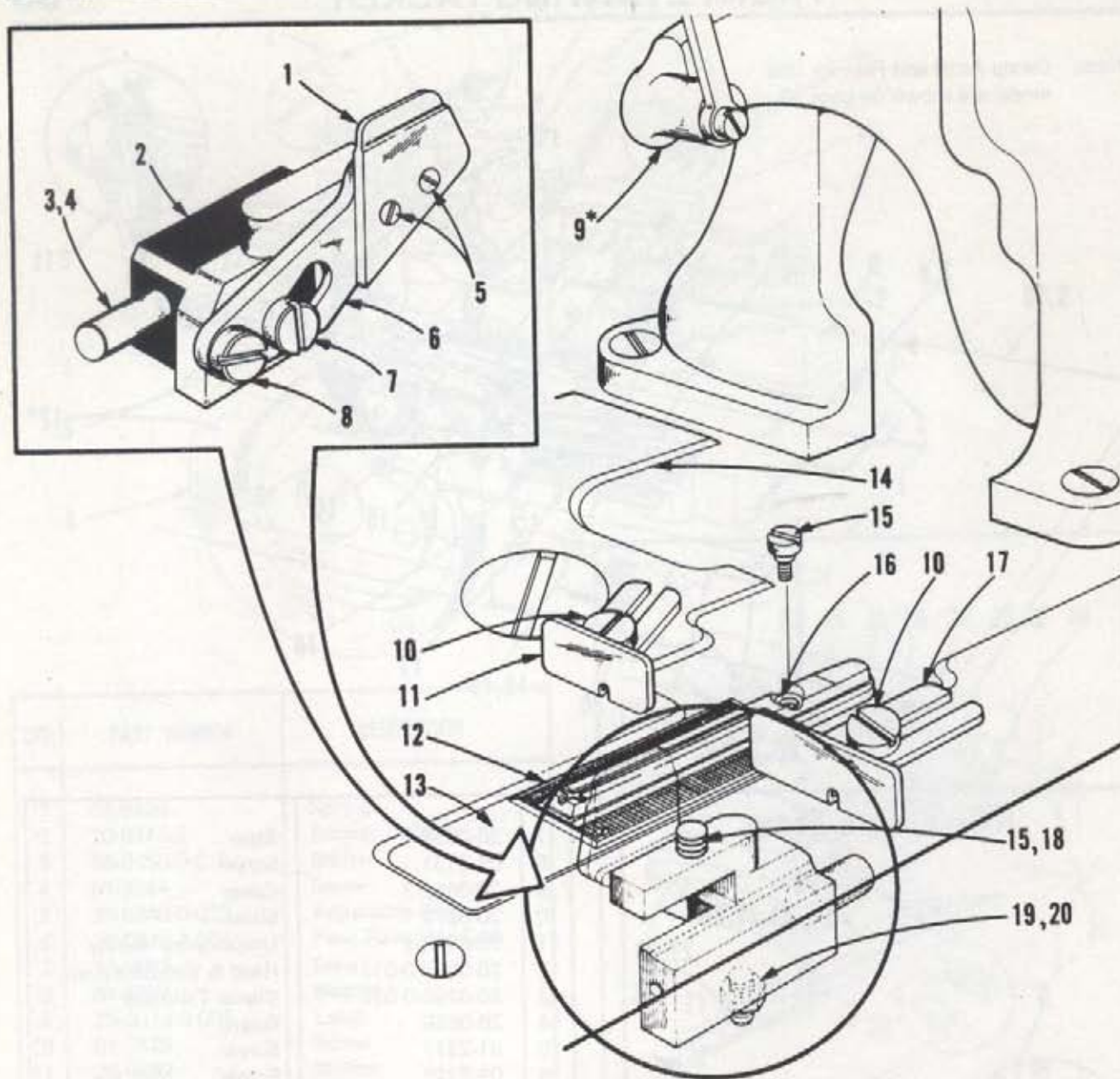
POCKET FLAP GAUGE



DET.	PART NUMBER	DESCRIPTION
1	20-0357-0-007*	Cutting Lever Asm.
2	20-0194-1-032	Clamp Arm
3	01-2013	Screw
4	20-0767-0-027	Needle Guard
5	20-0196-0-032	Clamp Foot
6	01-2379	Screw

7	20-0654	Stop
8	01-2131	Screw
9	20-0652-2	Cover
10	20-6272	Shim
11	20-0332-2	Unclamping Handle
12	20-0397-0-012*	Head & Bedplate Asm.
13	20-0190-0-032	Clamp Tailpiece
14	20-0658	Guard
15	01-2377	Screw
16	01-2376	Screw
17	20-0208-0-232	Mat (coarse corrugation)
	20-0208-0-332	Mat (fine corrugation)
18	20-0351-2-004	Throat Plate
19	01-2104	Screw
20	20-0655-0-041	Cover Plate
21	20-0653	Guide
22	20-0210-1-004	Clamp Plate
23	20-0693	Gauge
24	01-2312	Screw
25	01-3001	Nut
26	01-4067	Washer
27	20-0695	Pointer
28	01-2081	Screw
29	20-0694	Plate
30	20-0196-0-033	Clamp Foot, right

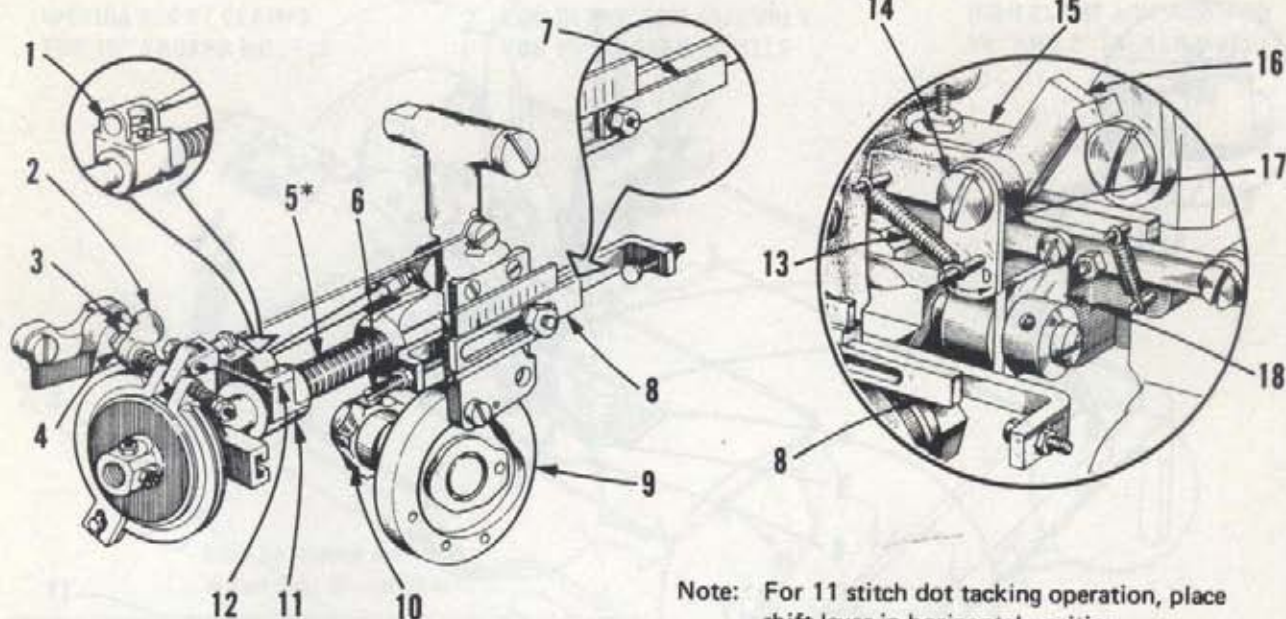
*Furnished only as an assembly. Refer to Parts Index for assembly components.



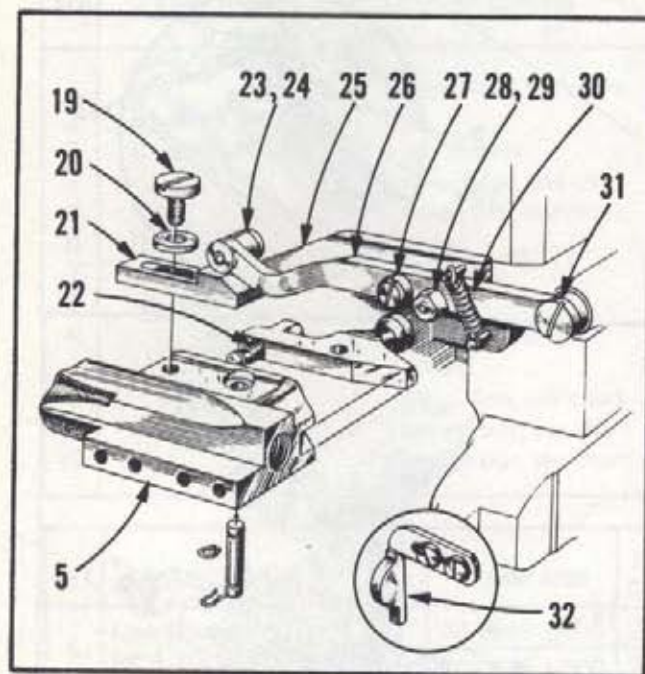
DET.	PART NUMBER	DESCRIPTION
1	20-0759	Position Plate
2	20-0756	Housing
3	20-0757	Plunger
4	01-5057	Spring
5	01-2015	Screw
6	20-0758	Link
7	01-1464	Screw
8	01-1051	Screw
9	20-0357-0-007*	Cutting Lever Asm.
10	01-2157	Screw

11	20-0761	Cloth Guide
12	20-0208-1-324	Mat
13	20-0210-0-078	Clamp Plate
14	20-0652-1-078	Cover
15	01-2084	Screw
16	20-0051-0-078	Throat Plate
17	20-0760-1	Cloth Gauge
18	01-4029	Washer
19	01-2304	Screw
20	01-3021	Nut

* Assembly, refer to Parts Index for assembly components.



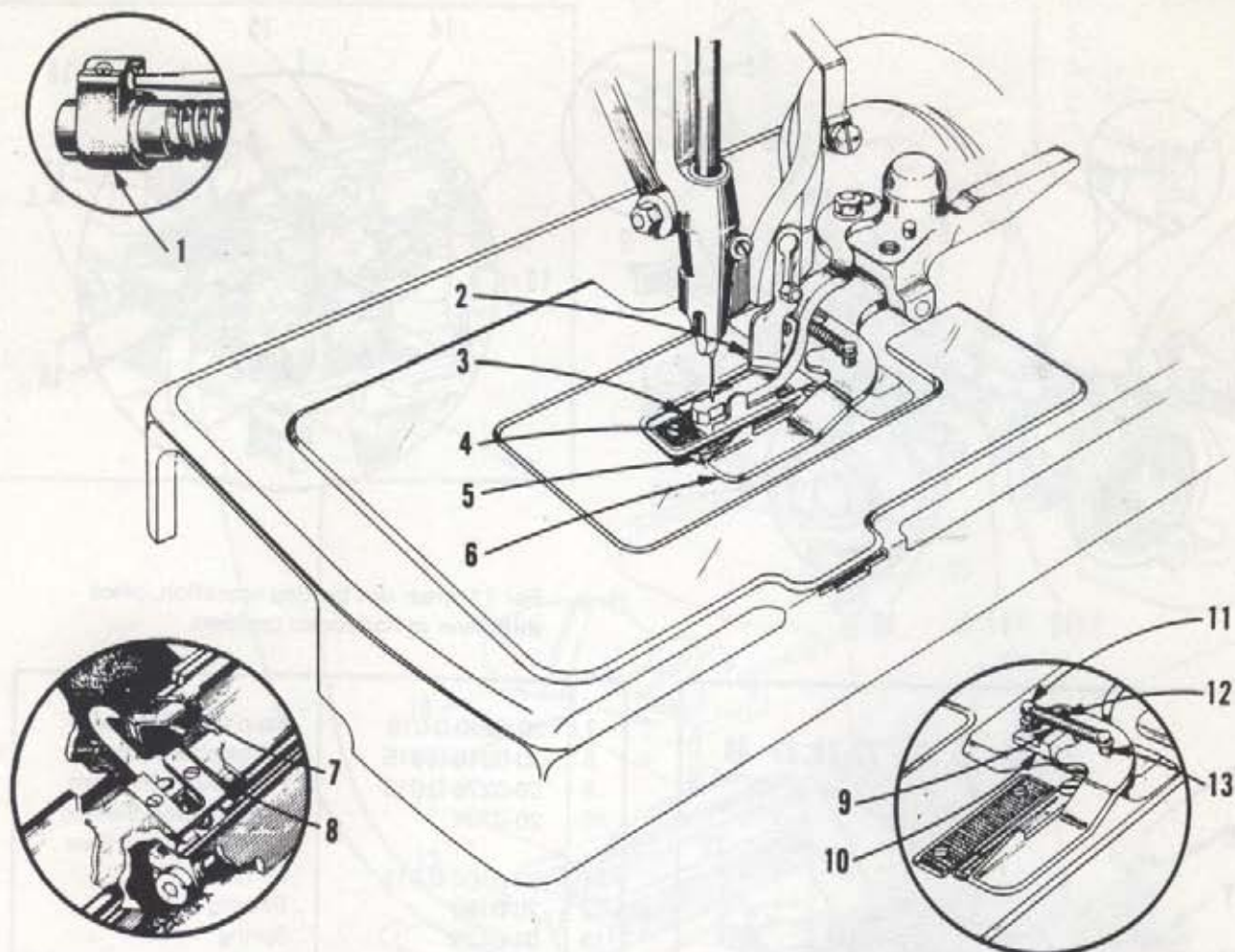
Note: For 11 stitch dot tacking operation, place shift lever in horizontal position.



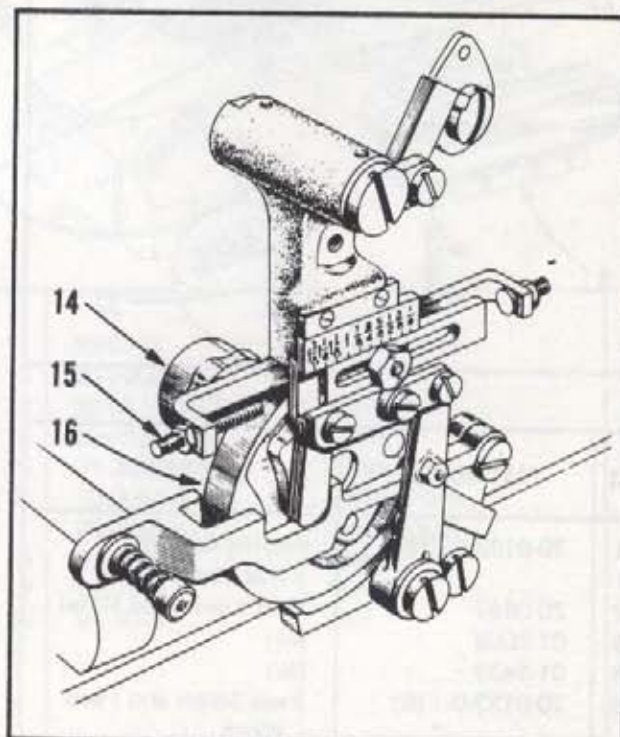
DET.	PART NUMBER	DESCRIPTION
1	20-0169-0-016	Bearing Cap (for Dot Tack)
2	20-0697	Shift Lever (See Note)
3	01-3068	Nut
4	01-3432	Nut
5	20-0133-0-116*	Feed Screw and Feed Block
6	01-2352	Screw

7	20-0240-0-016	Stop (for Dot Tack)
8	20-0240-0-015	Adjustable Slide
9	20-0276-0-013	Feed Reversing Cam
10	20-0704	Combination Barring Cam and Worm Gear
11	20-0166-0-015	Shifter
12	20-0169	Bearing Cap
13	01-5429	Spring
14	01-1425	Screw
15	20-0683	Stop
16	20-0013-0-006	Latch
17	20-0682	Shifter
18	20-0702	Stop
19	01-2021	Screw
20	01-4011	Washer
21	20-0701	Wedge
22	01-5020	Spring
23	01-7453	Roll
24	01-1437	Screw
25	20-0700	Latch
26	20-0699	Lever (includes details 23 and 24)
27	01-1002	Screw
28	01-1438	Eccentric
29	01-3016	Nut
30	01-5042	Spring
31	01-1097	Screw
32	20-0230-0-032	Adjustable Bumper

*Assembly, refer to Parts Index for assembly components.



DET.	PART NUMBER	DESCRIPTION
1	20-0166-0-015	Shifter
2	20-0356-1-052	Knife
3	20-0208-0-071	Mat
4	20-0196-0-336	Clamp Foot
5	20-0051-1-303	Throat Plate
6	20-0734	Cloth Gauge
7	01-2004	Screw
8	20-0767-0-020	Needle Guard
9	01-5048	Spring
10	10-2002	Stop
11	01-2643	Anchor Screw
12	01-1112	Shoulder Screw
13	01-6603	Anchor Pin
14	20-0278-1-073	Barring Cam
15	01-2044	Adjusting Screw
16	20-0276-3-801	Feed Reversing Cam



SPECIAL SHORT CLAMPS FOR 1½" TACKER MODELS



May be placed on
either side of clamp arm.

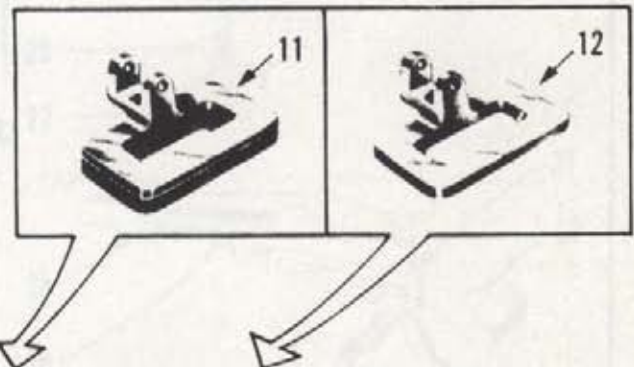
LOW CLAMP ARM ASSEMBLY FOR 1½" TACKER MODELS



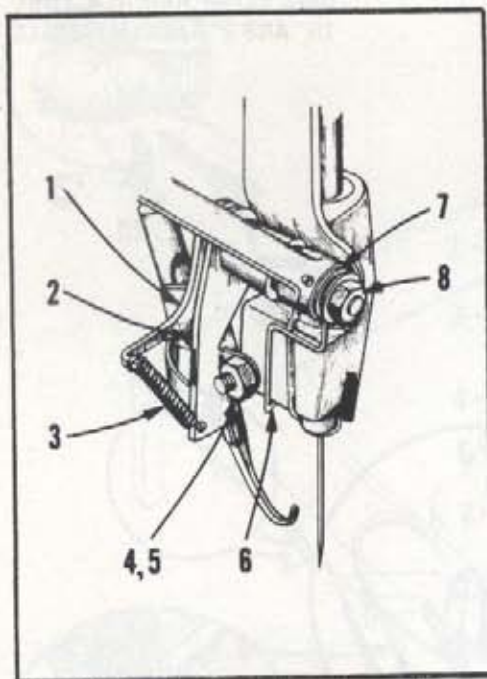
HIGH CLAMP ARM ASM. FOR 1½" AND 2" TACKER MODELS



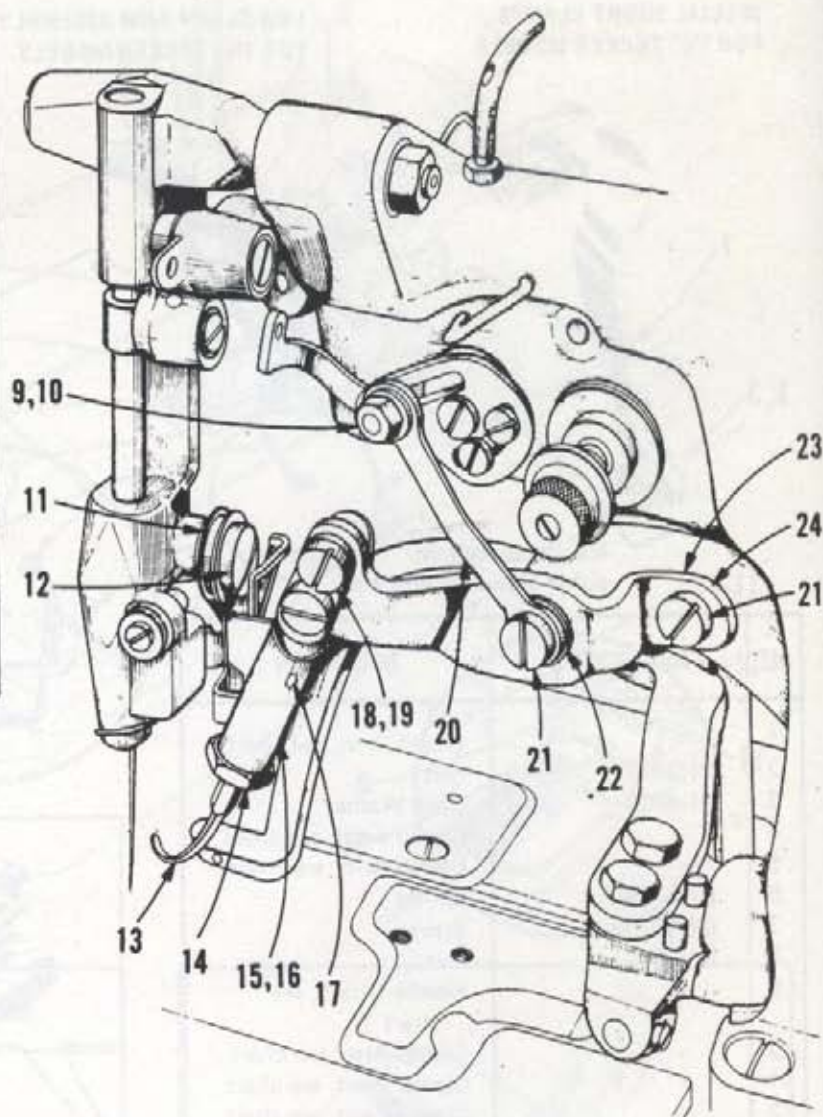
DET.	PART NUMBER	DESCRIPTION
1	—	Clamp Arm, see chart
2	01-3413	Nut
3	01-4003	Lock Washer
4	—	Clamp Foot, see chart
5	—	Clamp Arm, see chart
6	01-5174	Spring
7	01-1125	Screw
8	01-3065	Nut
9	—	Needle Guard, see chart
10	—	Clamp Arm, see chart
11	—	Clamp Foot, see chart
12	—	Clamp Foot, see chart



DET.	TACKER MODEL	MAX TACK	CLAMP ARM	CLAMP FOOT CORRUGATED	CLAMP FOOT RUBBER SOLED	RUBBER SOLE REPLACEMENT	GUARD
5	Low Clamps for 1-1/2" Tackers	3/8"	20-0649-1-000	20-0650-1-240	20-0650-0-241	20-0651-0-241	20-0767-1-002
		3/4"	20-0649-1-000	20-0650-0-340	20-0650-0-341	20-0651-0-341	20-0767-1-003
10	High Clamps for 1-1/2" Tackers	3/8"	20-0649-1-042	20-0650-1-240	20-0650-0-241	20-0651-0-241	20-0767-1-002
		3/4"	20-0649-1-042	20-0650-1-340	20-0650-0-341	20-0651-0-341	20-0767-1-003
		1 1/2"	20-0649-1-041	20-0650-0-640	20-0650-0-641	20-0651-0-641	20-0767-1-022
	High Clamps for 2" Tackers	3/8"	20-0649-1-045	20-0650-1-240	20-0650-0-241	20-0651-0-241	20-0767-1-002
		3/4"	20-0649-1-045	20-0650-1-340	20-0650-0-341	20-0651-0-341	20-0767-1-003
		1 1/2"	20-0649-1-046	20-0650-0-640	20-0650-0-641	20-0651-0-641	20-0767-1-022
		2"	20-0649-1-046	20-0650-0-740	none	none	20-0767-1-026
	S2 SD	2"	20-0649-1-047	20-0650-0-740	none	none	20-0767-1-025
1	Spec. short clamps for 1 1/2" Tackers	3/8"	20-0649-0-243	20-0650-0-243	none	none	20-0767-0-039
		3/4"	20-0649-0-343	20-0650-0-343	none	none	20-0767-0-040

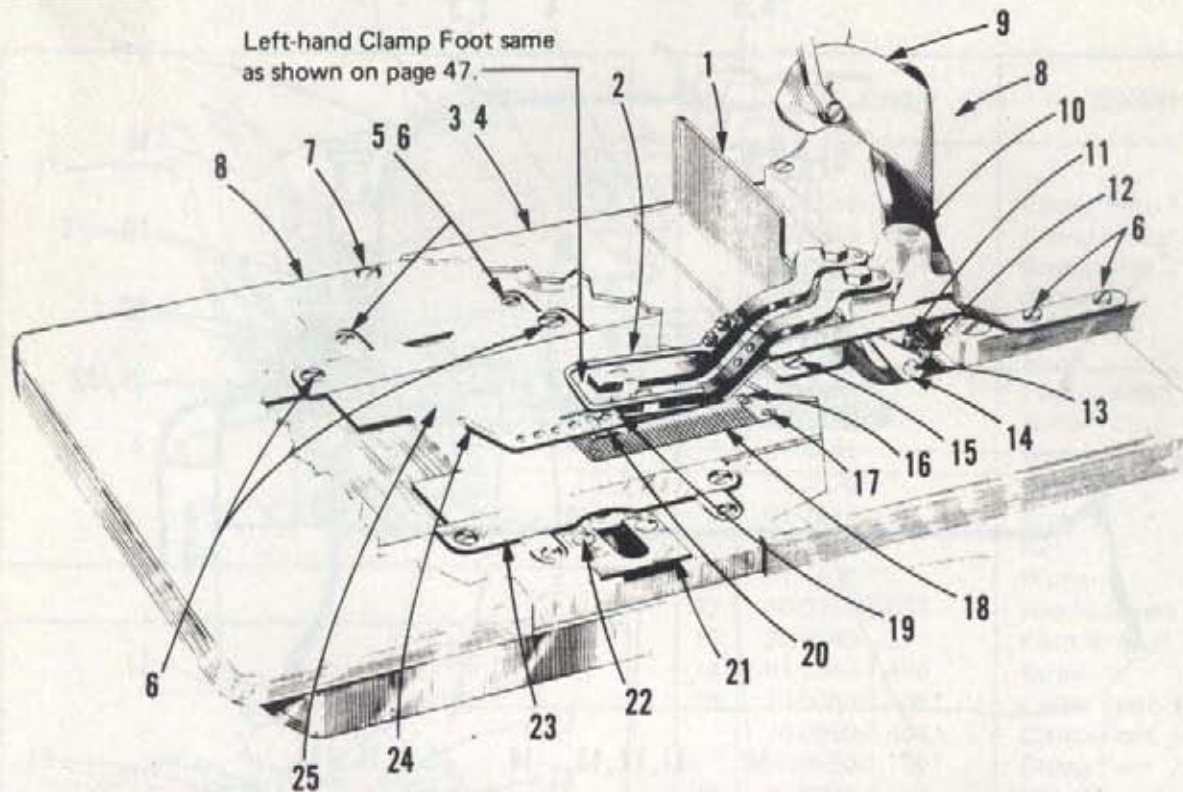


Note: To receive Mechanical Thread Pickup complete use;
20-0766-0-000

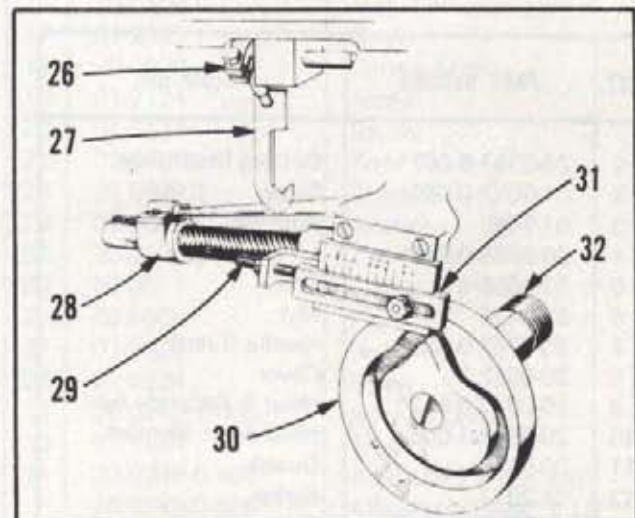


DET.	PART NUMBER	DESCRIPTION
1	20-0753	Latch
2	20-0754	Stop
3	01-5431	Spring
4	01-2333	Screw
5	01-3025	Nut
6	20-0755	Thread Guide
7	01-4013	Washer
8	01-3001	Nut
9	01-1065-1	Screw
10	01-3426	Nut
11	01-7481	Bushing
12	01-1463	Screw
13	20-0751	Hook

14	20-0752	Bushing
15	20-0750	Holder
16	01-5489	Spring
17	01-6631	Pin
18	01-2041	Screw
19	01-4402	Washer
20	20-0608-0-015	Link
21	01-2027-0-001	Screw
22	01-7480	Bushing
23	01-4002	Washer (not always used)
24	20-0749	Bracket



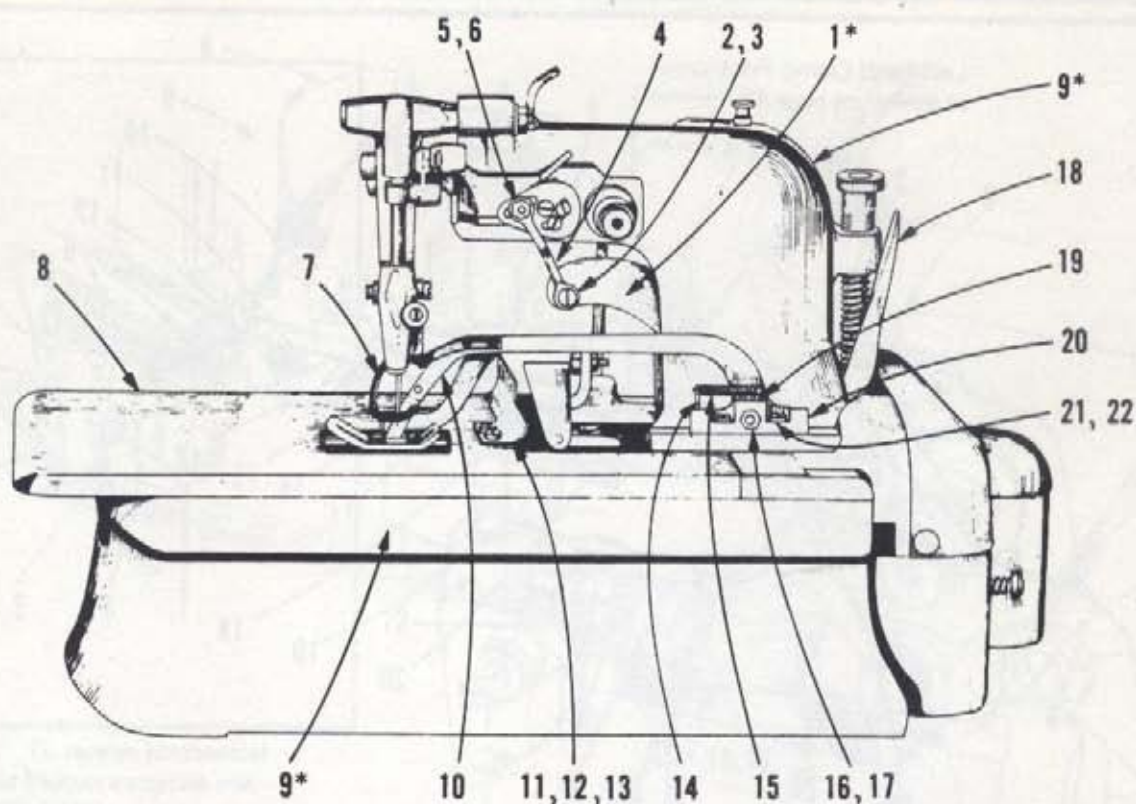
DET.	PART NUMBER	DESCRIPTION
1	20-0658	Guard
2	20-0767-0-020	Needle Guard
3	20-0652-2	Cover
4	20-6272	Shim
5	20-0654	Stop
6	01-2131	Screw
7	01-2379	Screw
8	20-0397-0-012*	Head & Bedplate Asm.
9	20-0357-0-007*	Cutting Lever Asm.
10	20-0190-1-011	Tailpiece
11	01-2019	Screw
12	01-2378	Screw
13	01-6338	Pivot Pin
14	20-0656	Level
15	01-2377	Screw
16	01-2104	Screw
17	01-2376	Screw
18	20-0208-1-204	Mat (coarse)
	20-0208-1-304	Mat (fine)
19	20-0196-0-604	Right Clamp Foot (short, coarse)
	20-0196-0-504	Right Clamp Foot (long, coarse)
20	20-0051-2-004	Throat Plate
21	20-0655-0-041	Cover Plate
22	01-2075	Screw
23	20-0653	Guide



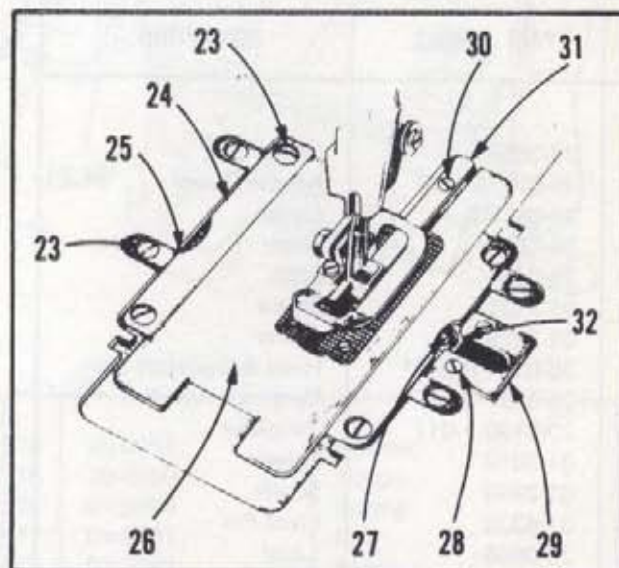
24	20-0648-2	Hold-down Member
	20-0648-0-998	Hold-down (offset)
	20-0648-0-997	Hold-down (short, offset)
25	20-0210-1-004	Clamp Plate
26	20-0092-0-004	Trimmer Actuator
27	20-0093-0-004	Trimmer Hook
28	20-0166-0-015	Shifter
29	01-2352	Screw
30	20-0276-1-004	Feed Reversing Cam (single row L.S.)
	20-0276-1-017	Feed Reversing Cam (two row L.S.)
31	20-0240-0-015	Adjustable Slide
32	20-0281-0-004	Bearing Stud

* Assembly, refer to Parts Index for assembly components.

MODEL S2-LS2N — 2" LABEL SEWER SINGLE & TWO ROW SEWING

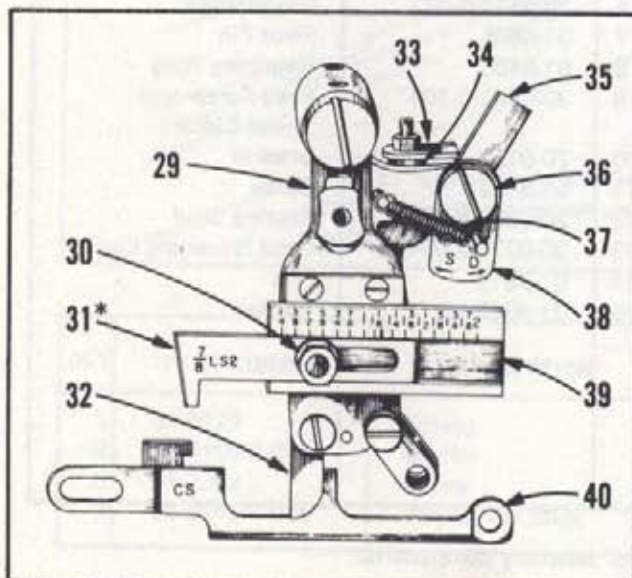
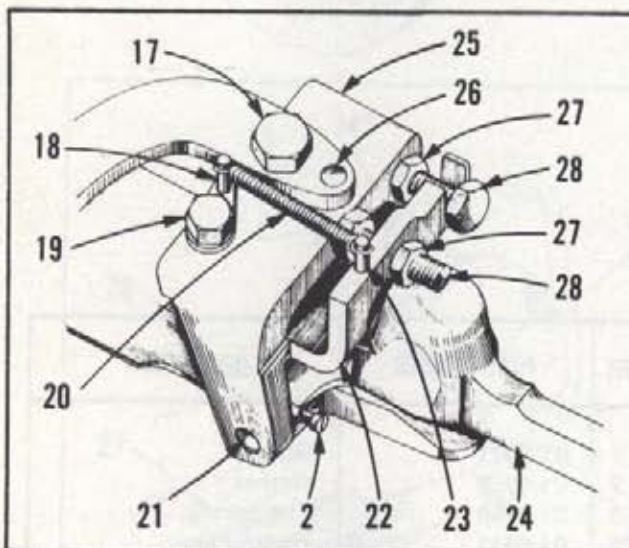
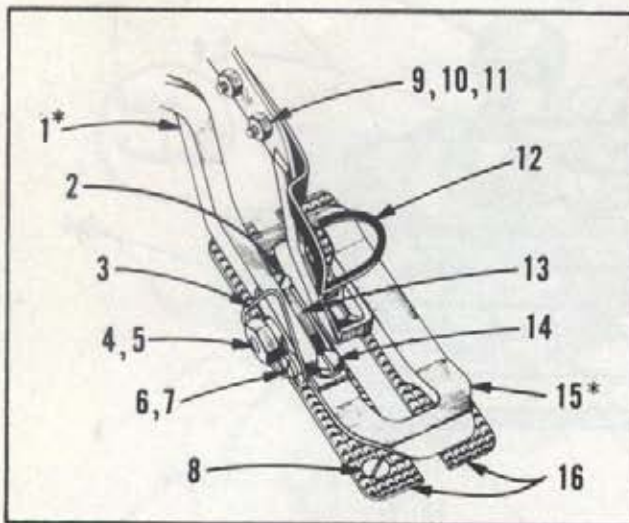


DET.	PART NUMBER	DESCRIPTION
1	20-0357-0-007*	Cutting Lever Asm.
2	01-2027-0-001	Screw
3	01-7480	Bushing
4	20-0608-0-015	Link
5	01-1065-1	Screw
6	01-3426	Nut
7	20-0767-0-031	Needle Guard
8	20-0652-2	Cover
9	20-0397-0-012*	Head & Bedplate Asm.
10	20-0648-1-006	Hold-down Member
11	20-0658	Guard
12	01-2377	Screw
13	20-6272	Shim
14	01-6038	Anchor
15	01-5052	Spring
16	01-2527	Screw
17	01-3005	Nut
18	20-0332-2	Unclamping Handle
19	01-6513	Anchor
20	20-0681	Bracket
21	01-2045	Screw
22	01-4029	Washer
23	01-2131	Screw
24	20-0653	Guide
25	20-0654	Stop



26	20-0210-1-004	Clamp Plate
27	20-0092-0-004	Trimmer Actuator
28	01-2075	Screw
29	20-0655-0-041	Cover Plate
30	01-2104	Screw
31	20-0051-2-004	Throat Plate
32	20-0093-0-004	Trimmer Hook

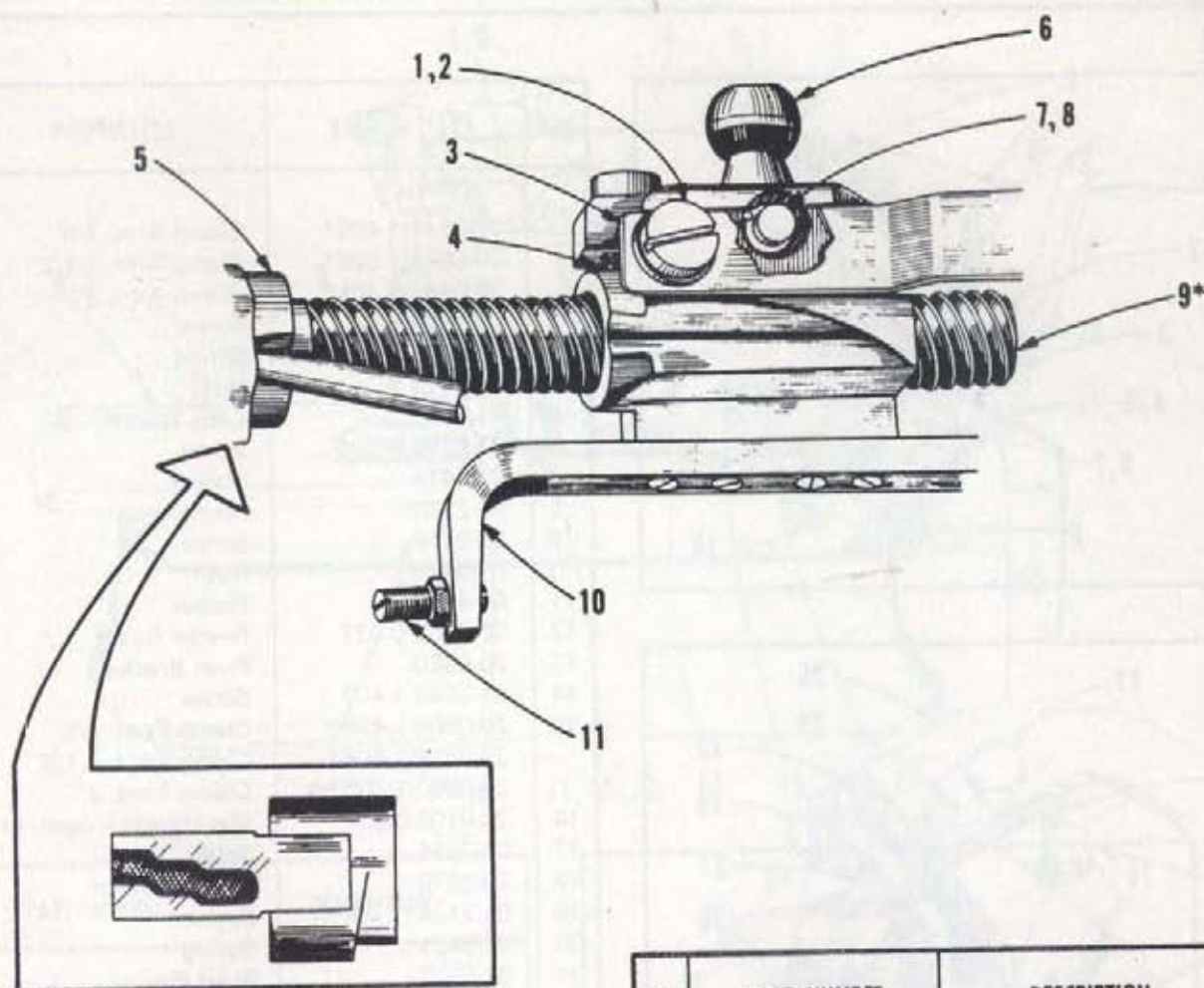
* Assembly, refer to Parts Index for assembly components.



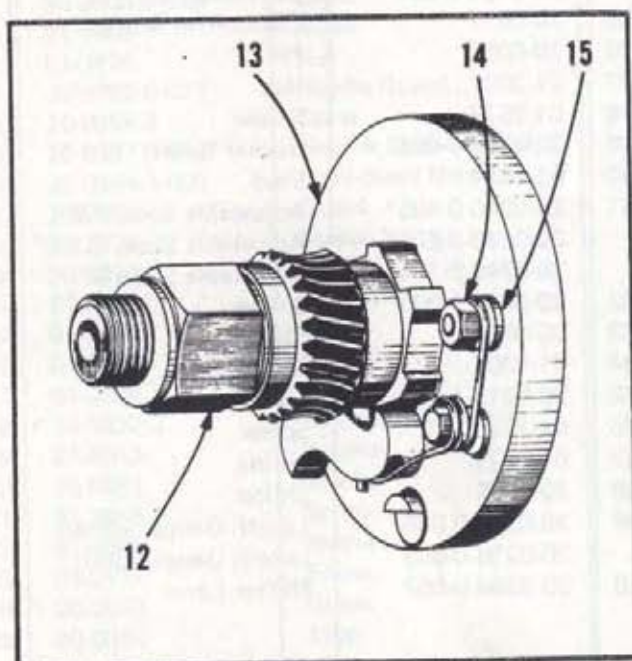
DET.	PART NUMBER	DESCRIPTION
1	20-0649-1-405*	Clamp Arm, 7/8"
	20-0649-1-605*	Clamp Arm, 1-1/2"
	20-0649-0-705*	Clamp Arm, 2"
2	01-2525	Screw
3	01-5445	Spring
4	01-3413	Nut
5	01-4003	Lock Washer
6	01-2136	Screw
7	01-4474	Washer
8	01-2376	Screw
9	01-2419	Screw
10	01-3414	Nut
11	01-4405	Washer
12	20-0767-0-031	Needle Guard
13	20-0680	Pivot Bracket
14	01-2563-1-406	Screw
15	20-0650-1-406*	Clamp Foot, 7/8"
	20-0650-1-606*	Clamp Foot, 1-1/2"
	20-0650-1-706*	Clamp Foot, 2"
16	20-0208-0-332	Mat (fine corrugation)
17	01-2355	Screw
18	20-0678	Spring Anchor
19	01-2124	Screw
20	01-5431	Spring
21	01-6507	Pivot Pin
22	20-0679-1	Bracket
23	01-6005	Anchor
24	20-0190-0-032	Tail Piece
25	20-0677	Clamp Arm Bracket
26	20-6055	Pin
27	01-3021	Nut
28	01-2526	Screw
29	20-0243-1-006	Rocker Level
30	01-1434	Stud
31	20-0240-0-405*	Adjustable Slide, 7/8"
	20-0240-0-605*	Adjustable Slide, 1-1/2"
	20-0240-0-705*	Adjustable Slide, 2"
32	20-0241-1-006	Shifter
33	20-0683	Stop
34	01-4067	Washer
35	20-0013-1-006	Latch
36	01-1425	Screw
37	01-5429	Spring
38	20-0682	Shifter
39	20-0236-0-005	Length Gauge (inches)
	20-0236-0-003	Length Gauge (mm)
40	20-0288-0-002	Shifter Lever

*These parts are not interchangeable.
Use only same sizes together.

MODEL S2-LS2N — 2" LABEL SEWER SINGLE & TWO ROW SEWING



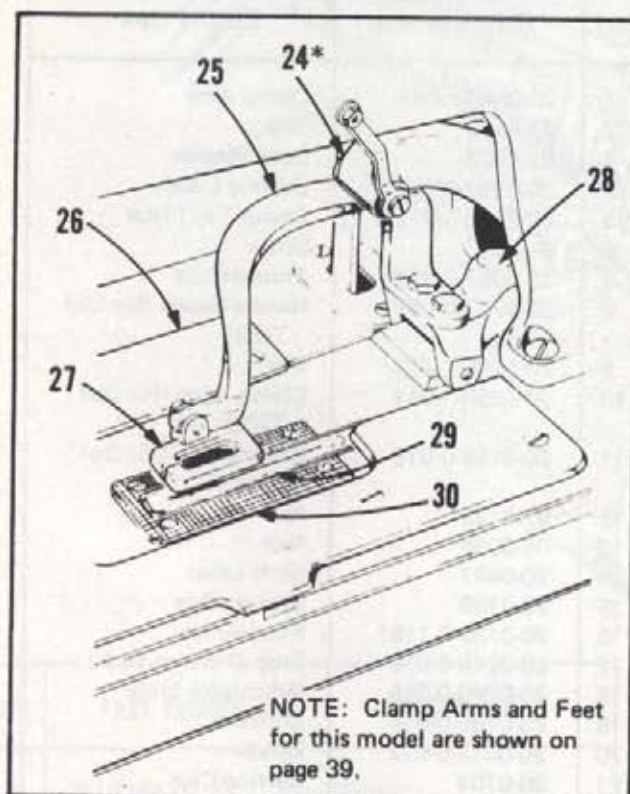
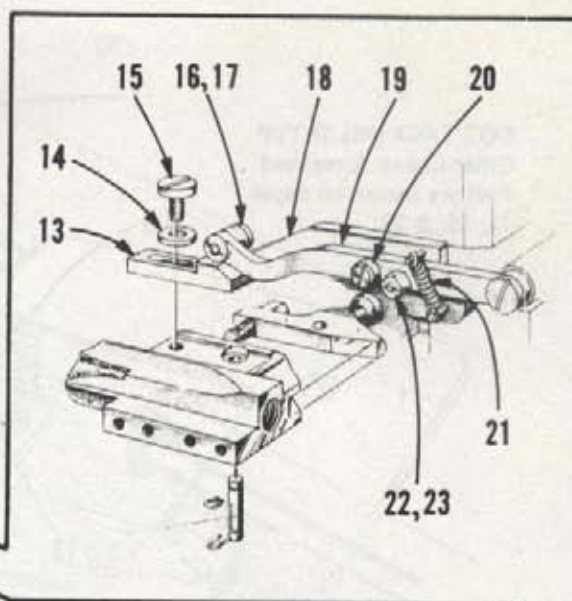
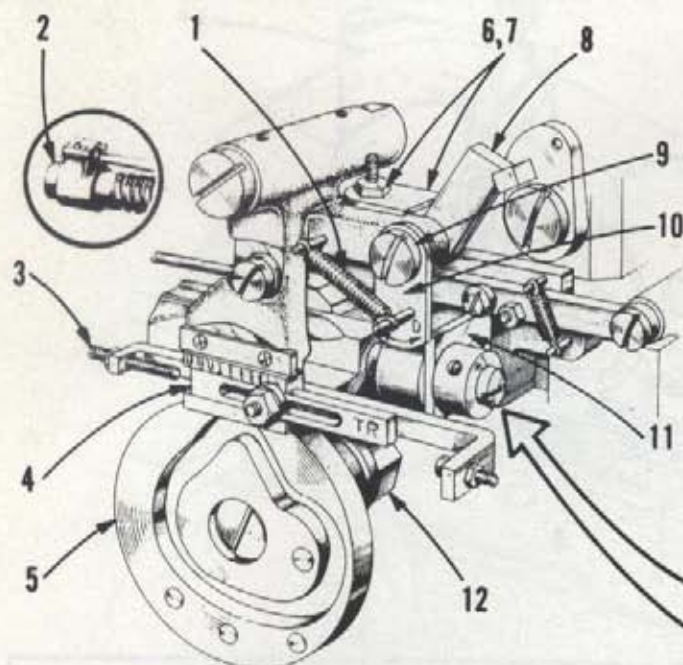
3 STAGE FEED SHIFTER



DET.	PART NUMBER	DESCRIPTION
1	01-2021	Screw
2	01-4059	Washer
3	01-5446	Flat Spring
4	01-6511	Plunge Pin
5	20-0166	Shifter
6	20-0174-0-032	Guide Block
7	01-6508	Pivot Pin
8	01-6406	Retaining Ring
9	20-0133-0-105*	Feed Screw and Feed Block
10	20-0180-1-005	Bracket
11	01-2122	Screw
12	20-0281-0-004	Bearing Stud
13	20-0276-2-004	Feed Reversing Cam
14	01-3016	Nut
15	01-4029	Washer

*Assembly, refer to Parts Index for assembly components.

MODEL S2-TKF-1-1/2" COMBINATION SINGLE AND TWO ROW-FRONT STARTING TACKER 44A



DET	PART NUMBER	DESCRIPTION
1	01-5429	Spring
2	20-0166-0-015	Shifter
3	01-2352	Screw
4	20-0240-0-015	Adjustable Slide

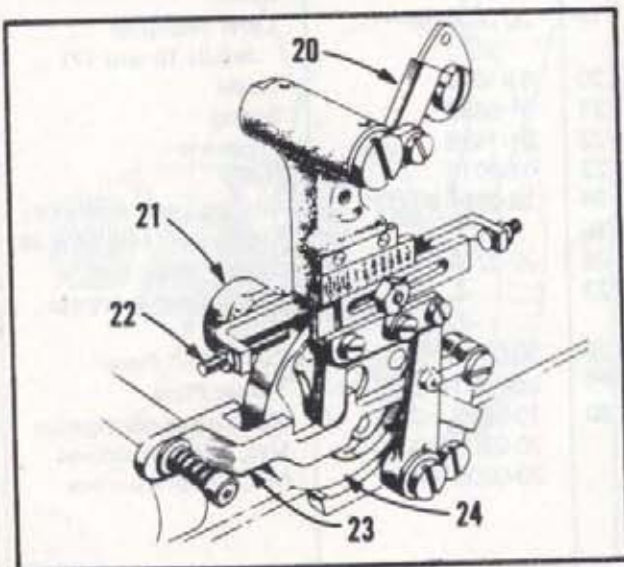
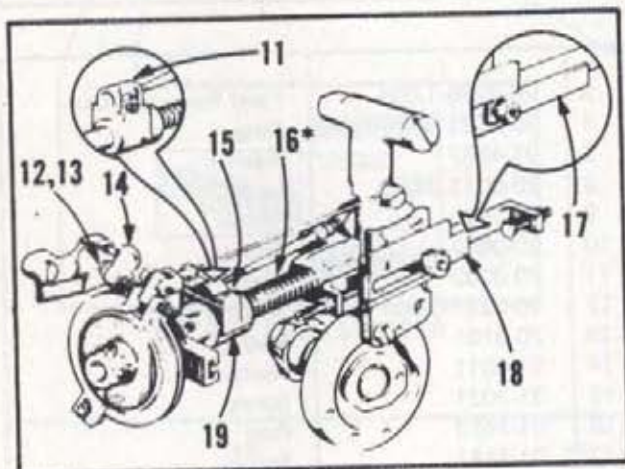
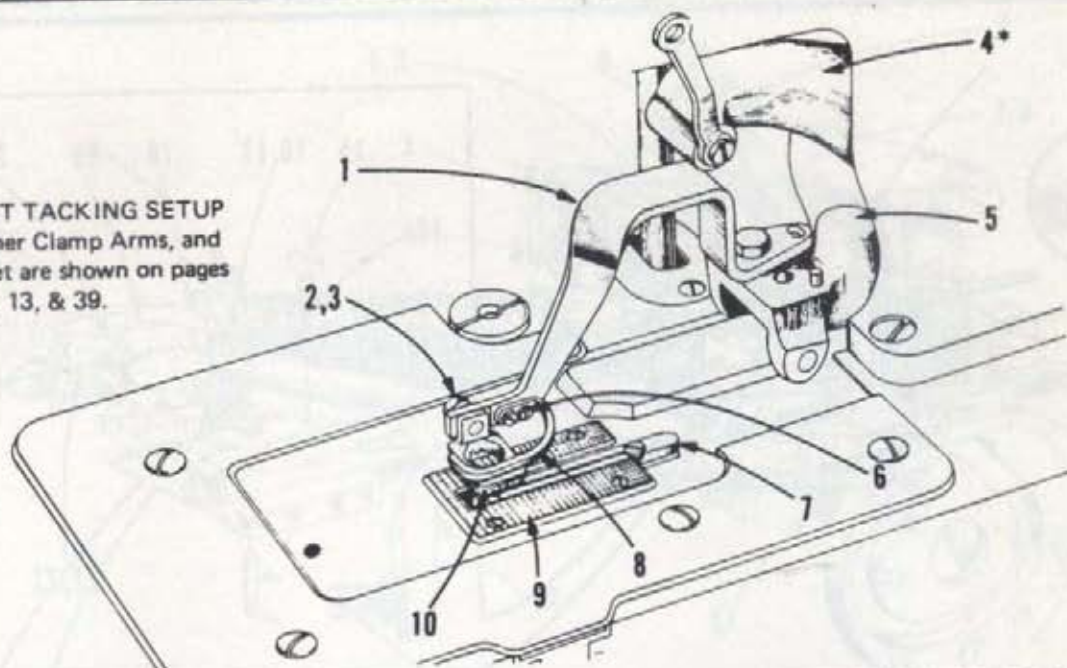
5	20-0276-1-004	Feed Reversing Cam
6	20-0683	Stop
7	01-4067	Washer
8	20-0013-0-006	Latch
9	01-1425	Screw
10	20-0682	Shifter
11	20-0702	Stop
12	20-0281-0-004	Bearing Stud
13	20-0701	Wedge
14	01-4011	Washer
15	01-2021	Screw
16	01-7453	Roll
17	01-1437	Screw
18	20-0700	Latch
19	20-0699	Lever (includes details 16 and 17)
20	01-1002	Screw
21	01-5042	Spring
22	01-1438	Eccentric
23	01-3016	Nut
24	20-0357-0-007*	Cutting Lever Assembly
25	—	Clamp Arm (see page 39)
26	20-0214-0-015	Cover Plate
27	—	Clamp Foot (see page 39)
28	20-0190-1-011	Clamp Tail Piece
29	20-0051-0-015	Throat Plate
30	20-0208-1-215	Mat, coarse corrugation
	20-0208-1-315	Mat, fine corrugation
	20-0208-1-415	Mat, smooth surface

*Furnished only as an Assembly.

44B

MODEL S2-SRWD - 1-1/2" SINGLE ROW TACKER WITH 5 STITCH DOT
MODEL S2-TRWD - 1-1/2" TWO ROW TACKER WITH 11 STITCH DOT (FRONT STARTING)

DOT TACKING SETUP
Other Clamp Arms, and
Feet are shown on pages
12, 13, & 39.

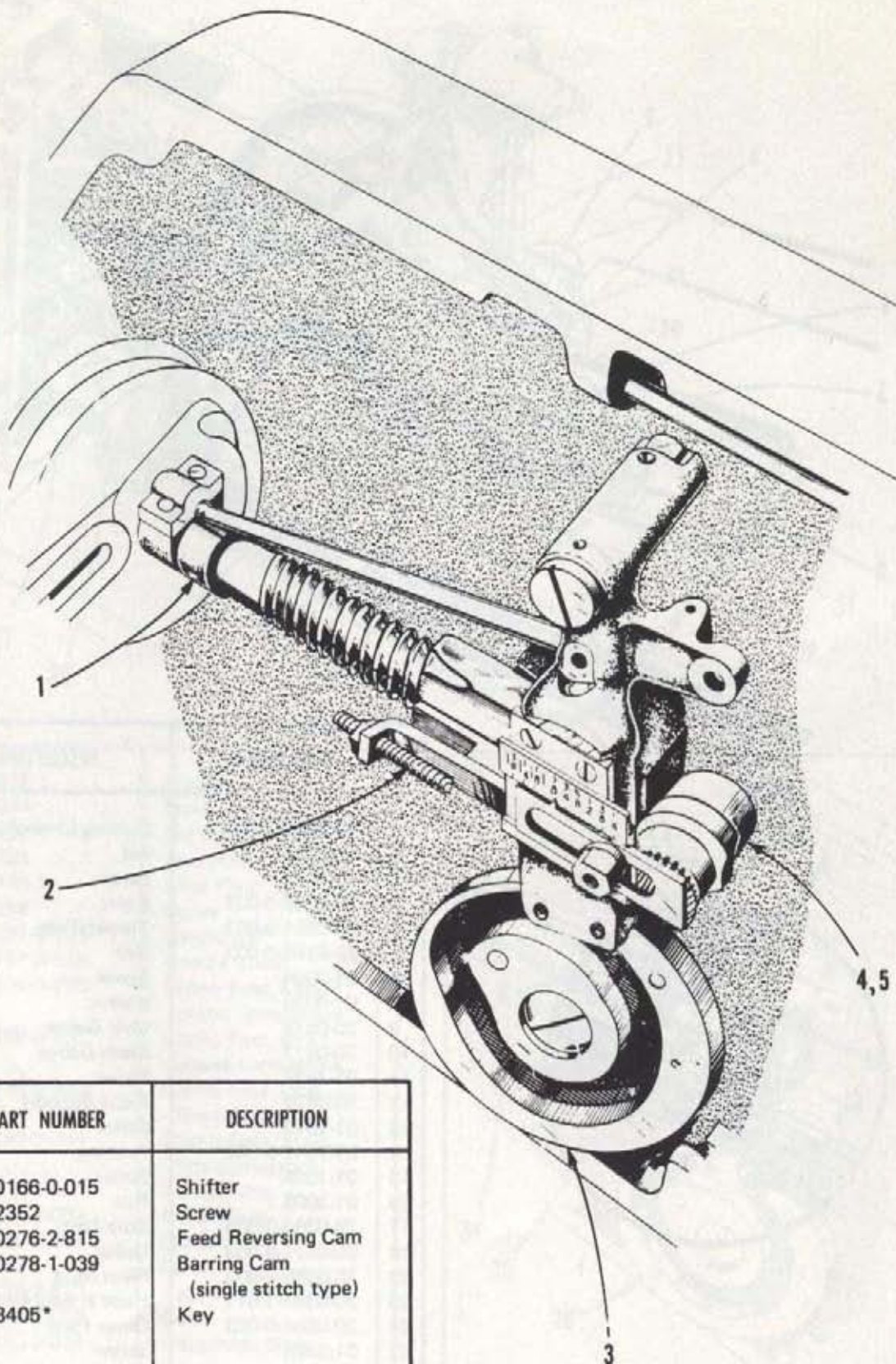


DET.	PART NUMBER	DESCRIPTION
1	20-0649-2-044	Clamp Arm
2	01-3413	Nut
3	01-4003	Lock Washer
4	20-0357-0-007*	Cutting Lever
5	20-0190-0-011	Clamp Tail Piece
6	01-2013	Screw
7	20-0051-0-014	Throat Plate
8	20-0767-0-029	Needle Guard (for Dot Tack)
9	20-0208-1-324	Mat
10	20-0650-1-044	Clamp Foot (for Dot Tack)
11	20-0169-0-016	Bearing Cap (for Dot Tack)
12	01-3432	Nut
13	01-3068	Nut
14	20-0697	Shift Lever
15	20-0169	Bearing Cap
16	20-0133-0-116*	Feed Screw
17	20-0240-0-016	Stop (for Dot Tack)
18	20-0240-0-015	Adjustable Slide
19	20-0166-0-015	Shifter
20	20-0013-0-012	Latch
21	20-0704	Barring Cam
22	01-2352	Screw
23	20-0288-0-012	Shifting Lever (for single row tack)
24	20-0276-0-013	Feed Reversing Cam (for single row tack)
	20-0276-0-018	Feed Reversing Cam (for double row tack)

*Furnished only as an Assembly.

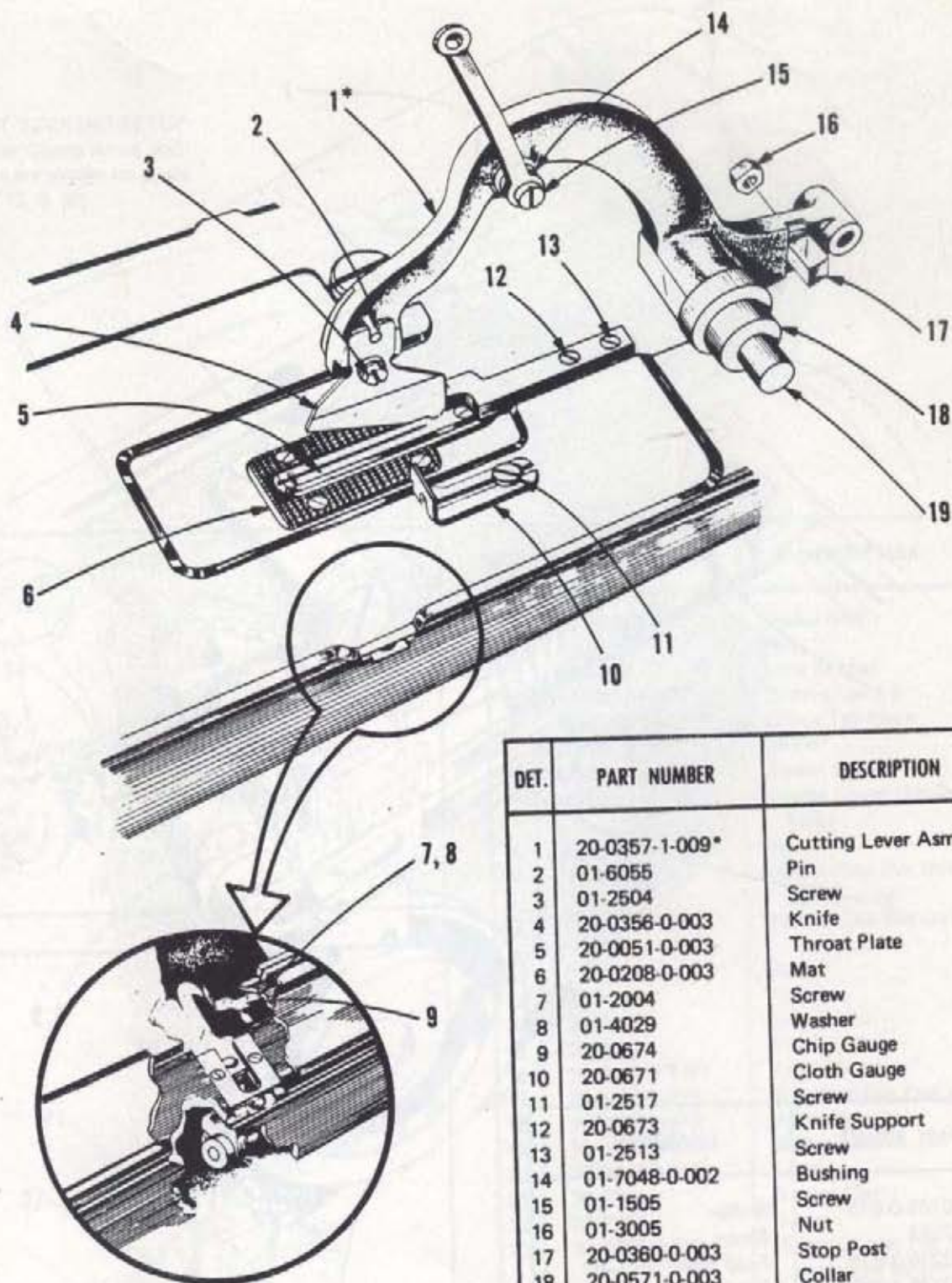
MODEL S2-CSBH — 1¼" CUFF SLOTTING MACHINE SINGLE STITCH BARS

45



DET.	PART NUMBER	DESCRIPTION
1	20-0166-0-015	Shifter
2	01-2352	Screw
3	20-0276-2-815	Feed Reversing Cam
4	20-0278-1-039	Barring Cam (single stitch type)
5	01-8405*	Key

MODEL S2-CAED — 1½" CUT-AFTER EDGER FRONT STARTING POSITION

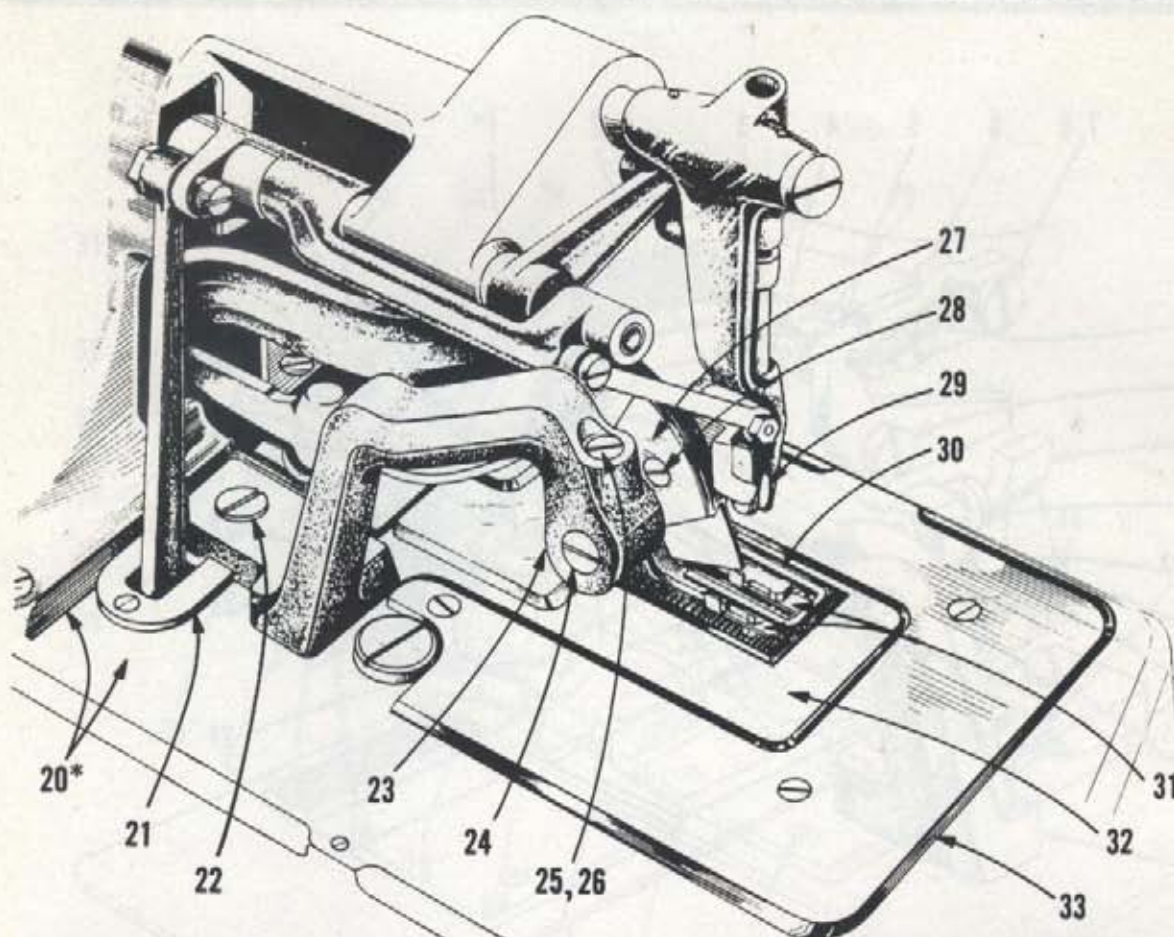


DET.	PART NUMBER	DESCRIPTION
1	20-0357-1-009*	Cutting Lever Asm.
2	01-6055	Pin
3	01-2504	Screw
4	20-0356-0-003	Knife
5	20-0051-0-003	Throat Plate
6	20-0208-0-003	Mat
7	01-2004	Screw
8	01-4029	Washer
9	20-0674	Chip Gauge
10	20-0671	Cloth Gauge
11	01-2517	Screw
12	20-0673	Knife Support
13	01-2513	Screw
14	01-7048-0-002	Bushing
15	01-1505	Screw
16	01-3005	Nut
17	20-0360-0-003	Stop Post
18	20-0571-0-003	Collar
19	20-0358-0-003	Pivot Stud
20	20-0397-1-011*	Head & Bedplate Asm.
21	20-0584-0-003	Cover Plate
22	01-2328	Screw

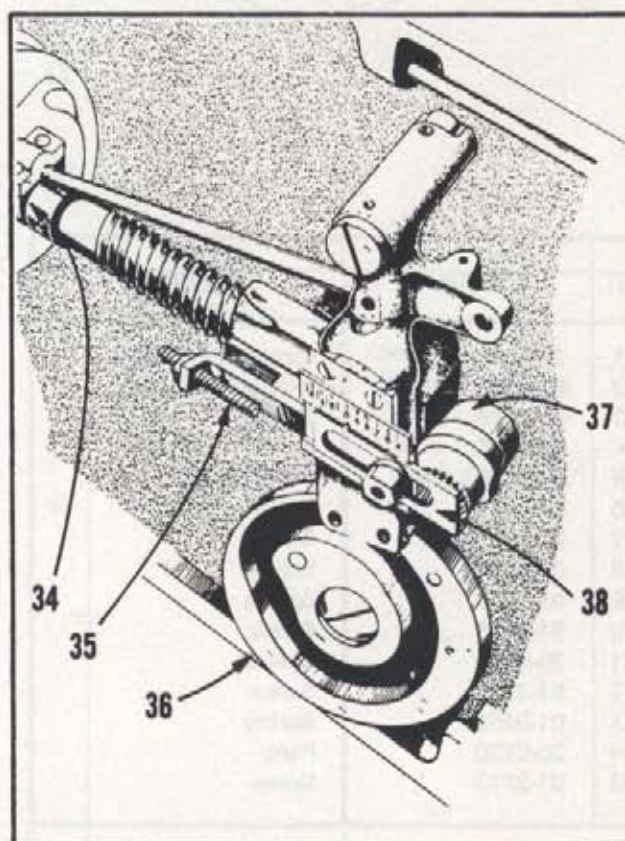
*Assembly, refer to Parts Index for assembly components.

MODEL S2 - CAED - 1½" CUT-AFTER EDGER FRONT STARTING POSITION

47

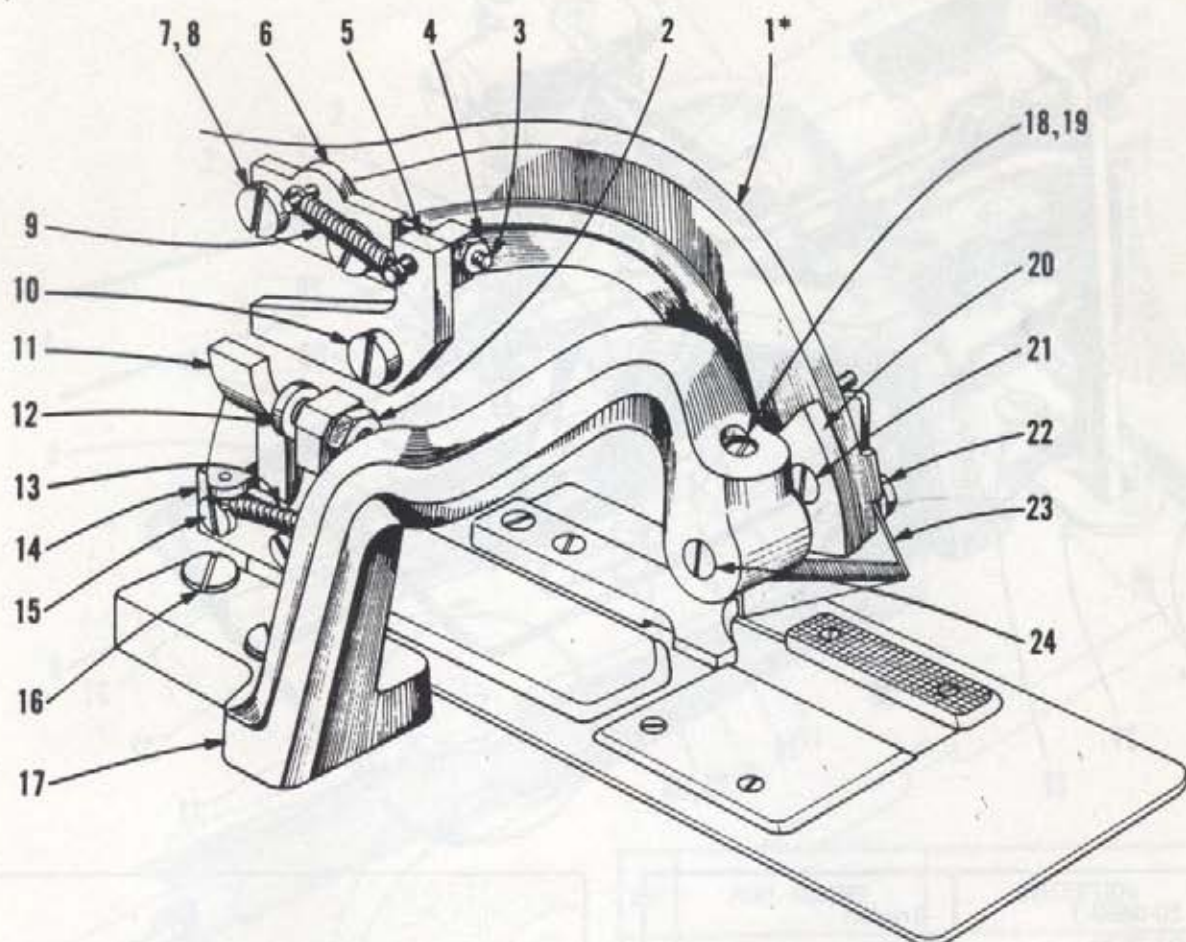


23	20-0669-1	Bracket
24	01-2634	Screw
25	01-2150	Set Screw
26	20-0733	Brass Plug
27	20-0670-1	Wear Plate
28	01-2339	Screw
29	20-0001-0-003	Needle Bar
30	20-0767-0-028	Needle Guard
31	20-0196-0-228	Clamp Feet, long, coarse corrugation
	20-0196-0-234	Clamp Feet, short, coarse corrugation
	20-0196-0-328	Clamp Feet, long, fine corrugation
	20-0196-0-334	Clamp Feet, short, fine corrugation
32	20-0210-1-003	Clamp Plate
33	20-0214-1-003	Cover Plate
34	20-0166-0-015	Shifter
35	01-2352	Screw
36	20-0276-2-815	Feed Reversing Cam
37	20-0278-2-003	Cam
38	20-0240-0-015	Adjustable Slide



*Assembly, refer to Parts Index for assembly components.

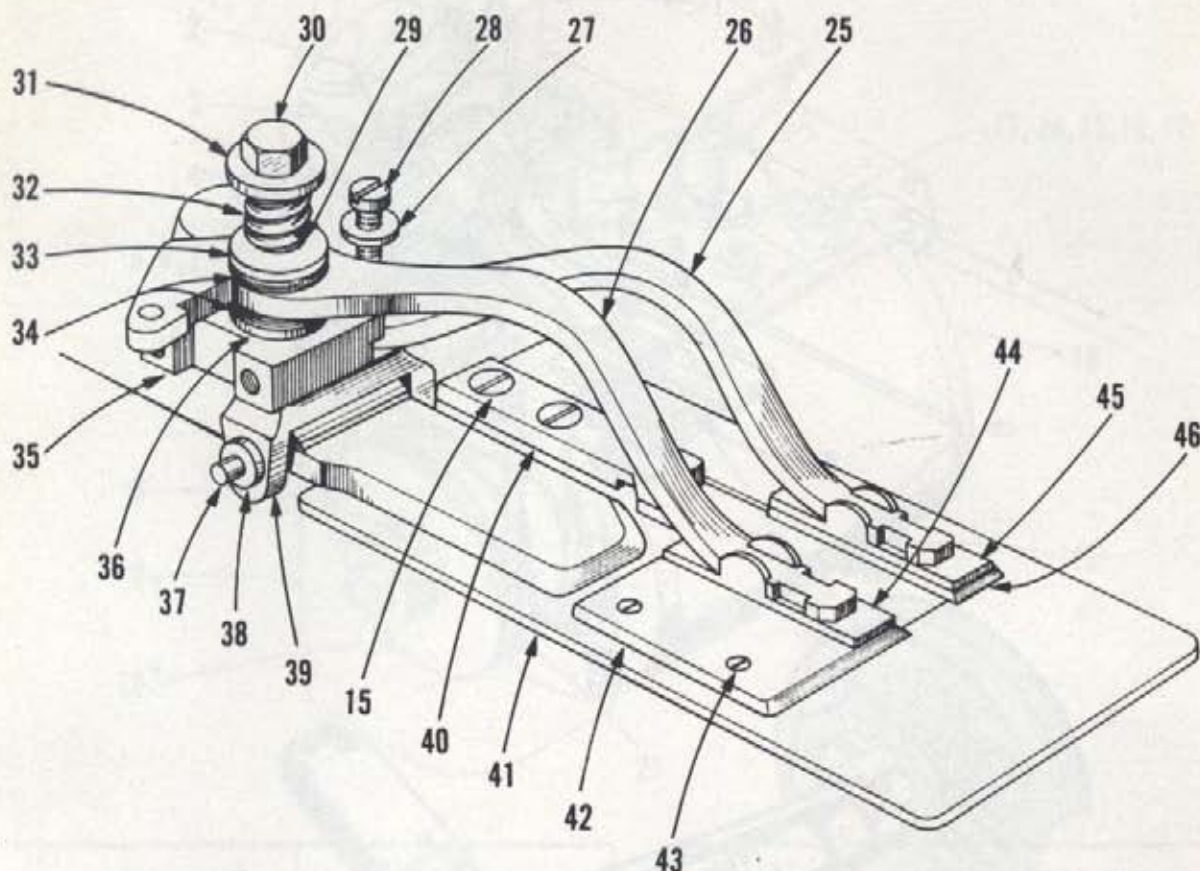
48 MODEL S2 — CAED — CHIP EJECTING MECHANISM



DET.	PART NUMBER	DESCRIPTION
1	20-0357-0-009*	Cutting Lever Asm.
2	01-3001	Nut
3	01-2076	Screw
4	01-3016	Nut
5	20-0728	Actuator
6	20-0727	Plate
7	01-2027-0-001	Screw
8	01-4011	Washer
9	01-5429	Spring
10	01-1455	Screw
11	20-0729	Ejector
12	01-2122	Screw
13	01-5452	Spring
14	20-0730	Plate
15	01-2513	Screw

16	01-2328	Screw
17	20-0669-1	Brace
18	01-2150	Screw
19	20-0733	Plug
20	20-0670-1	Plate
21	01-2339	Screw
22	01-2504	Screw
23	20-0356-0-003	Knife
24	01-2634	Screw

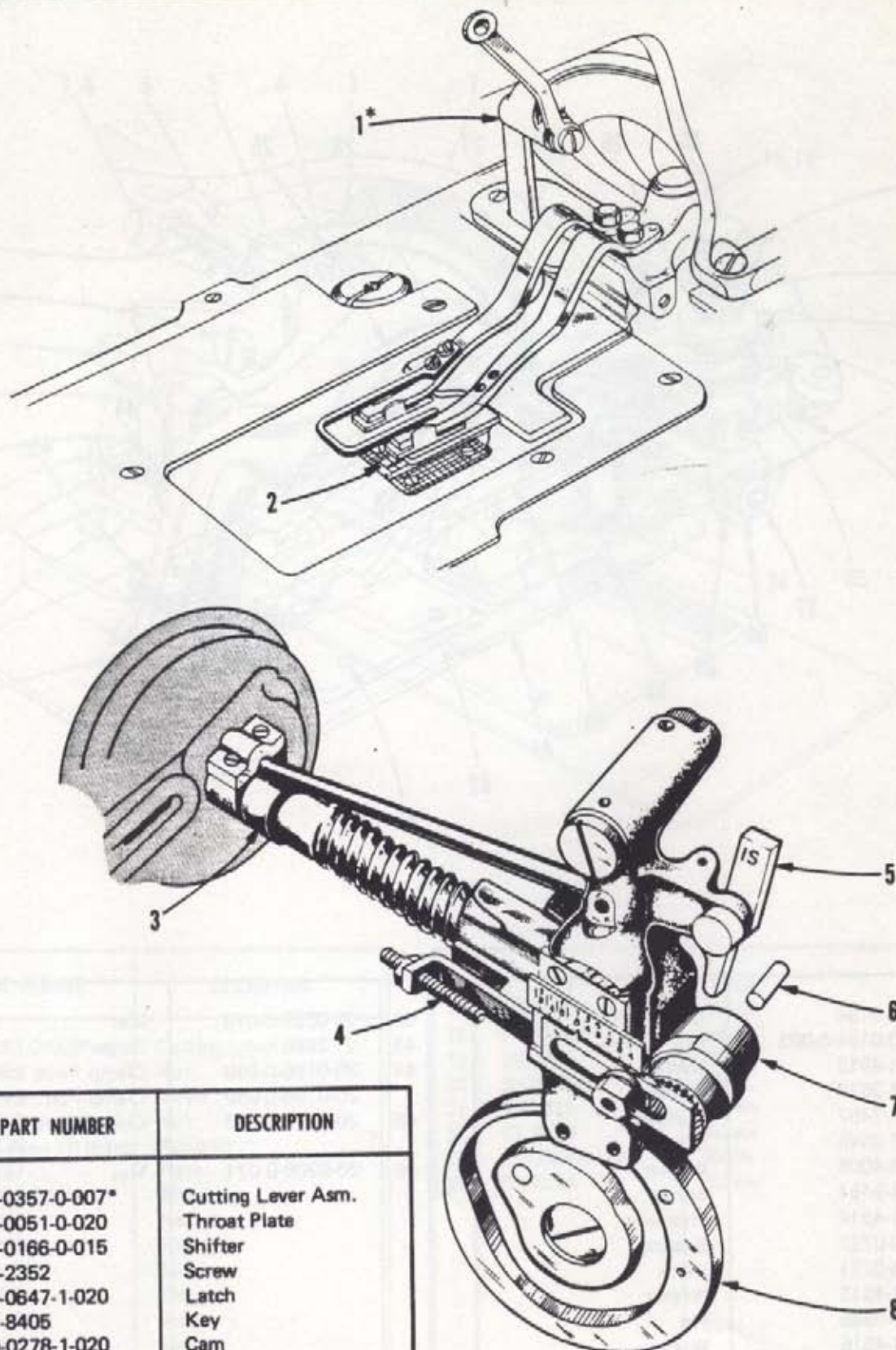
* Assembly, refer to Parts Index for assembly components.



25	20-0194	Clamp Arm
26	20-0194-0-003	Clamp Arm
27	01-4513	Washer
28	01-2635	Screw
29	01-7467	Bushing
30	01-2646	Screw
31	01-4006	Washer
32	01-5451	Spring
33	01-4514	Washer
34	20-0732	Bearing
35	20-0731	Block
36	01-4515	Washer
37	01-6595	Pin
38	01-4516	Washer
39	20-0190-1	Tailpiece
40	20-0673	Knife Support
41	20-0210-1-003	Clamp Plate

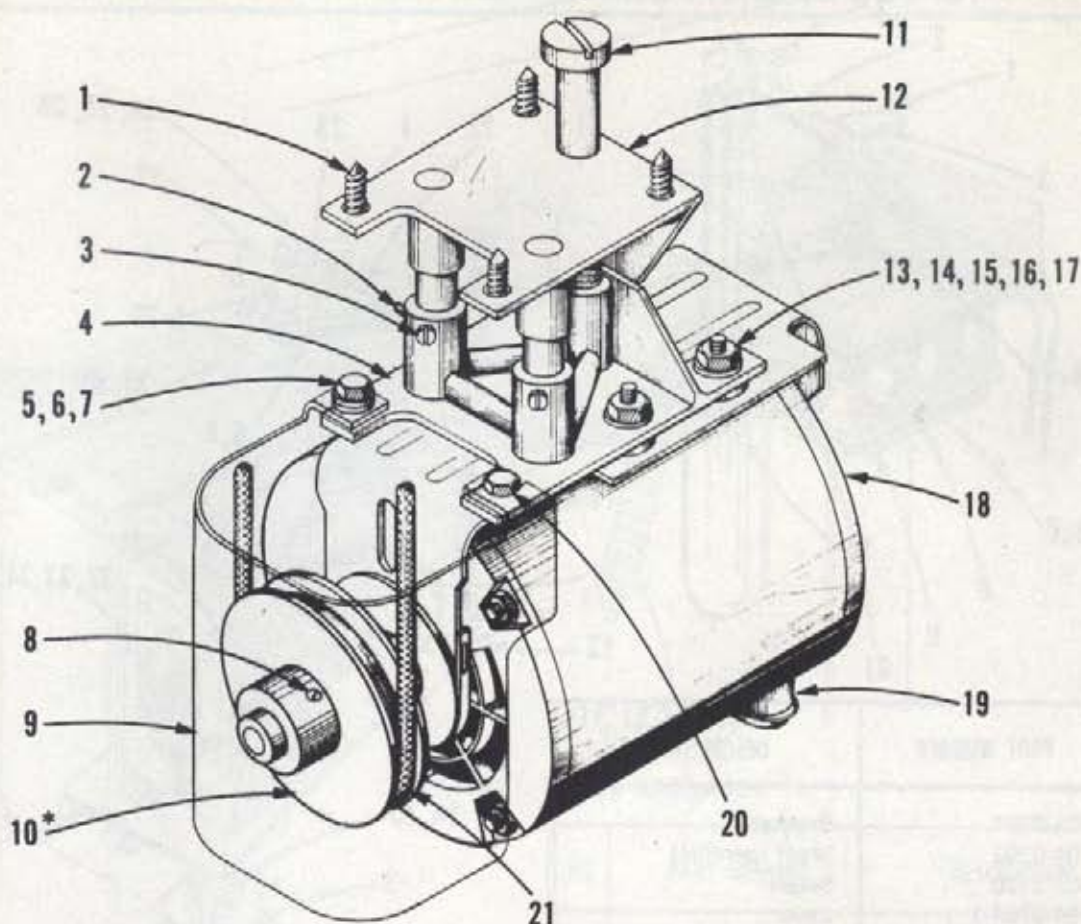
42	20-0208-0-070	Mat
43	01-2376	Screw
44	20-0196-0-569	Clamp Foot, long
45	20-0196-0-659	Clamp Foot, short
46	20-0196-0-228	Clamp Foot - see detail 31 page 47.
	20-0208-0-071	Mat

MODEL S2-ISBH — 1¼" BACK STARTING SINGLE STITCH BARRING



DET.	PART NUMBER	DESCRIPTION
1	20-0357-0-007*	Cutting Lever Asm.
2	20-0051-0-020	Throat Plate
3	20-0166-0-015	Shifter
4	01-2352	Screw
5	20-0647-1-020	Latch
6	01-8405	Key
7	20-0278-1-020	Cam
8	20-0276-2-011	Feed Reverse Cam

* Assembly, refer to Parts Index for assembly components.

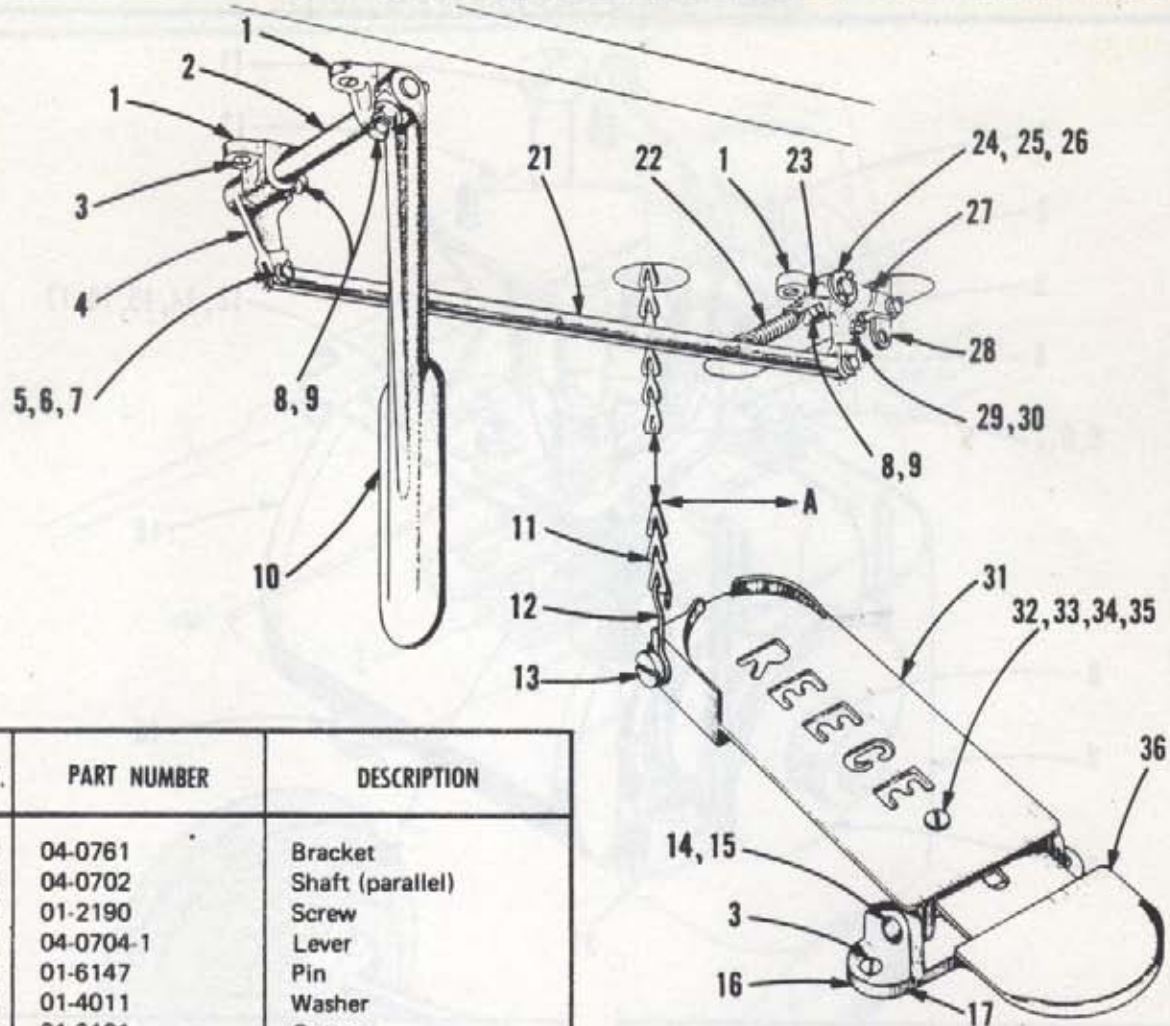


DET.	PART NUMBER	DESCRIPTION
1	01-2302	Screw
2	01-6031	Taper Pin
3	01-2158	Screw
4	04-0753-0-801	Bracket
5	01-1108	Screw
6	01-4004	Lock Washer
7	01-4006	Washer
8	01-2150	Set Screw
9	04-0754-1	Guard
10	04-0722-0-268*	Pulley (2.60 dia. used with 5/16" belts and 1725 RPM motors)
	04-0722-0-308*	Pulley (3.0 dia. used with 5/16" belts and 1440 RPM motors)
	04-0722-0-258**	Pulley (2.50 dia. used with 3/8" belts and 1725 RPM motors)
	04-0722-0-294**	Pulley (2.90 dia. used with 3/8" belts and 1440 RPM motors)
11	04-0751	Screw

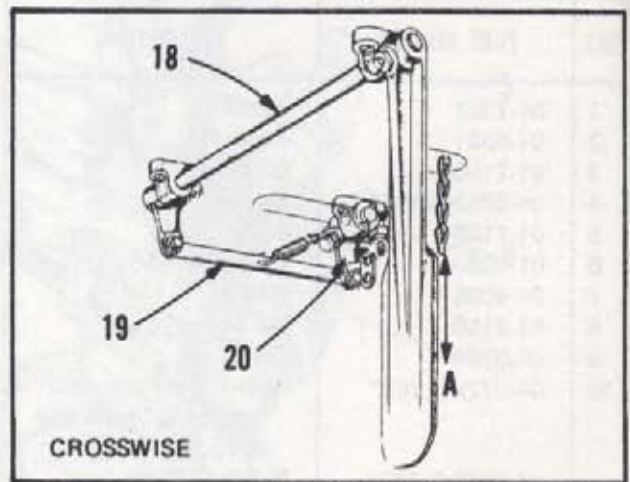
12	04-0752	Mounting Bracket
13	01-2093	Clamp Screw
14	01-4043	Washer
15	01-4026	Rubber Washer
16	01-4049	Lock Washer
17	01-3013	Nut
18	—	Motor (1/3 HP, 60 Hz, 1725 RPM)
	—	Motor (1/3 HP, 50 Hz, 1440 RPM)
19	04-0013	Connector
	04-0014	Connector (universal)
20	01-2390	Screw
21	05-0102-1-335	Endless Belt (5/16" for 1725 RPM motors)
	05-0102-1-340	Endless Belt (5/16" for 1440 RPM motors)
	05-0102-0-335**	Endless Belt (3/8" for 1725 RPM motors)
	05-0102-0-340**	Endless Belt (3/8" for 1440 RPM motors)

*Use one size smaller Motor Pulley on Models S2-SRCS and on all Automatic Garment Feeders with S2 Buttonhole Machines.

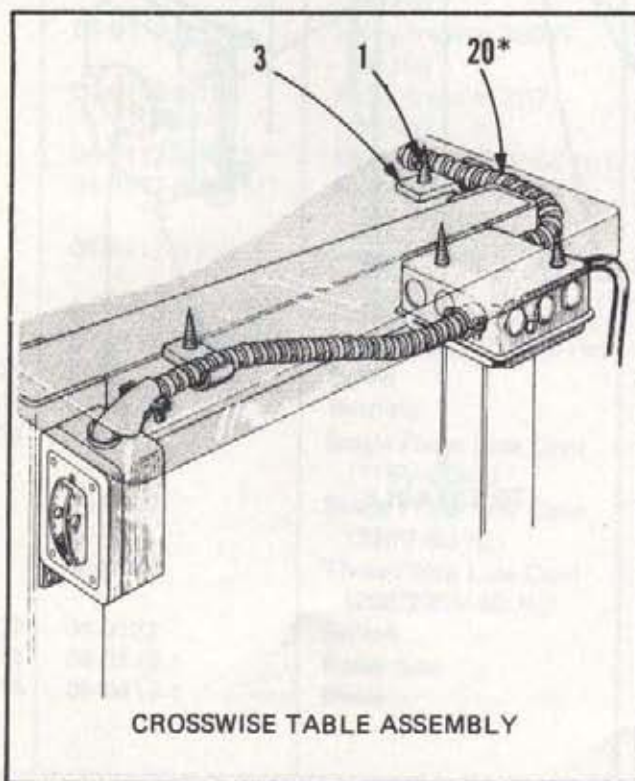
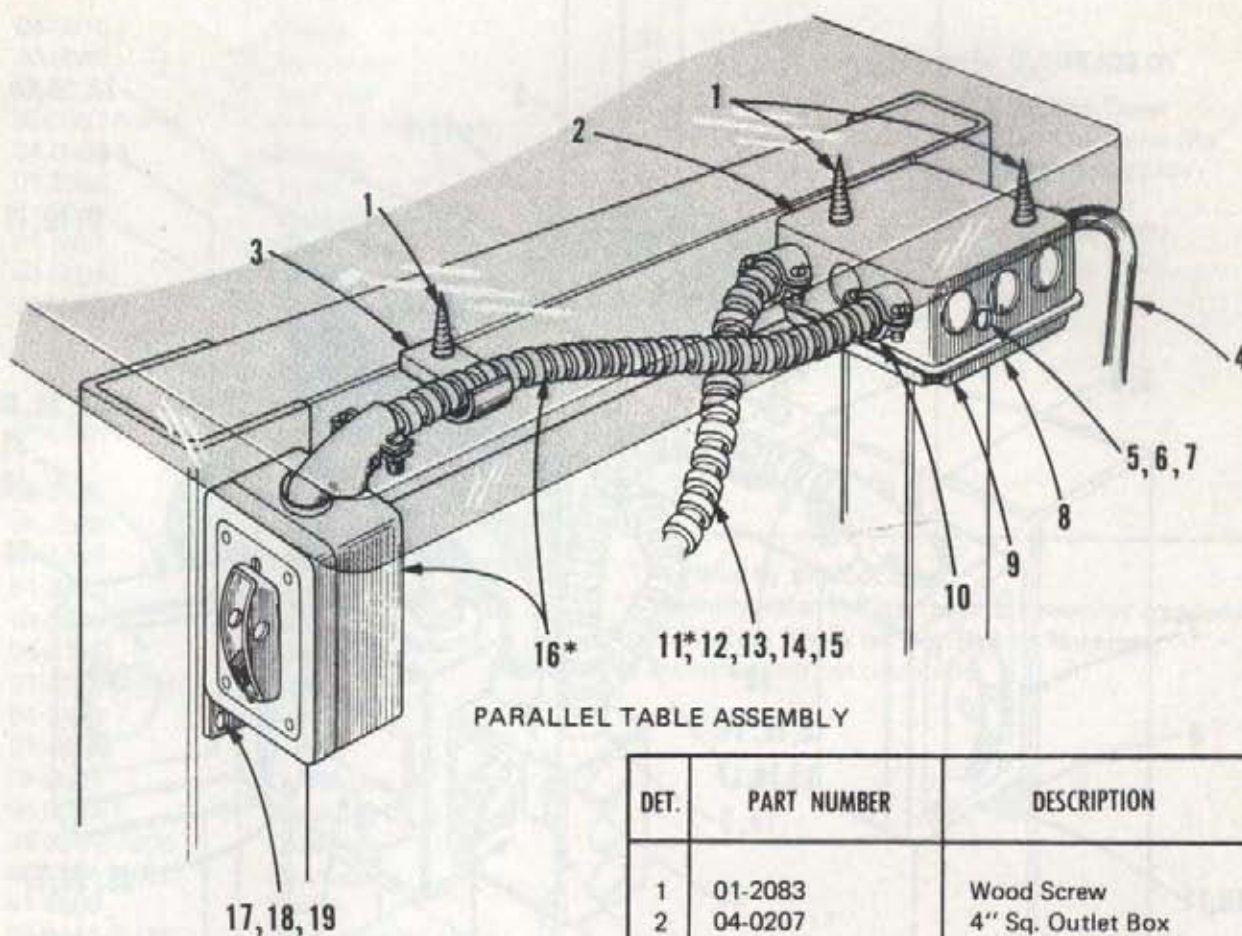
**Machines Prior to No. 30931, Not Updated.



DET.	PART NUMBER	DESCRIPTION
1	04-0761	Bracket
2	04-0702	Shaft (parallel)
3	01-2190	Screw
4	04-0704-1	Lever
5	01-6147	Pin
6	01-4011	Washer
7	01-6121	Cotter
8	01-2195	Screw
9	01-3009	Nut
10	04-0701	Knee Lever
11	04-0537	Chain, long
12	04-0536	Link
13	01-2046	Screw
14	01-6137	Pivot Pin
15	01-6131	Cotter Pin
16	04-0542	Bracket
17	04-0558	Block
18	04-0763	Shaft (crosswise)
19	04-0759	Link (crosswise)
20	04-0762	Lever (crosswise)
21	04-0758	Link (parallel)
22	01-5154	Spring
23	04-0749	Anchor
24	01-6542	Pin
25	01-4047	Washer
26	01-6123	Cotter
27	04-0748	Lever (parallel)
28	04-0760	Adjustable Link
29	01-2077	Screw
30	01-3005	Nut

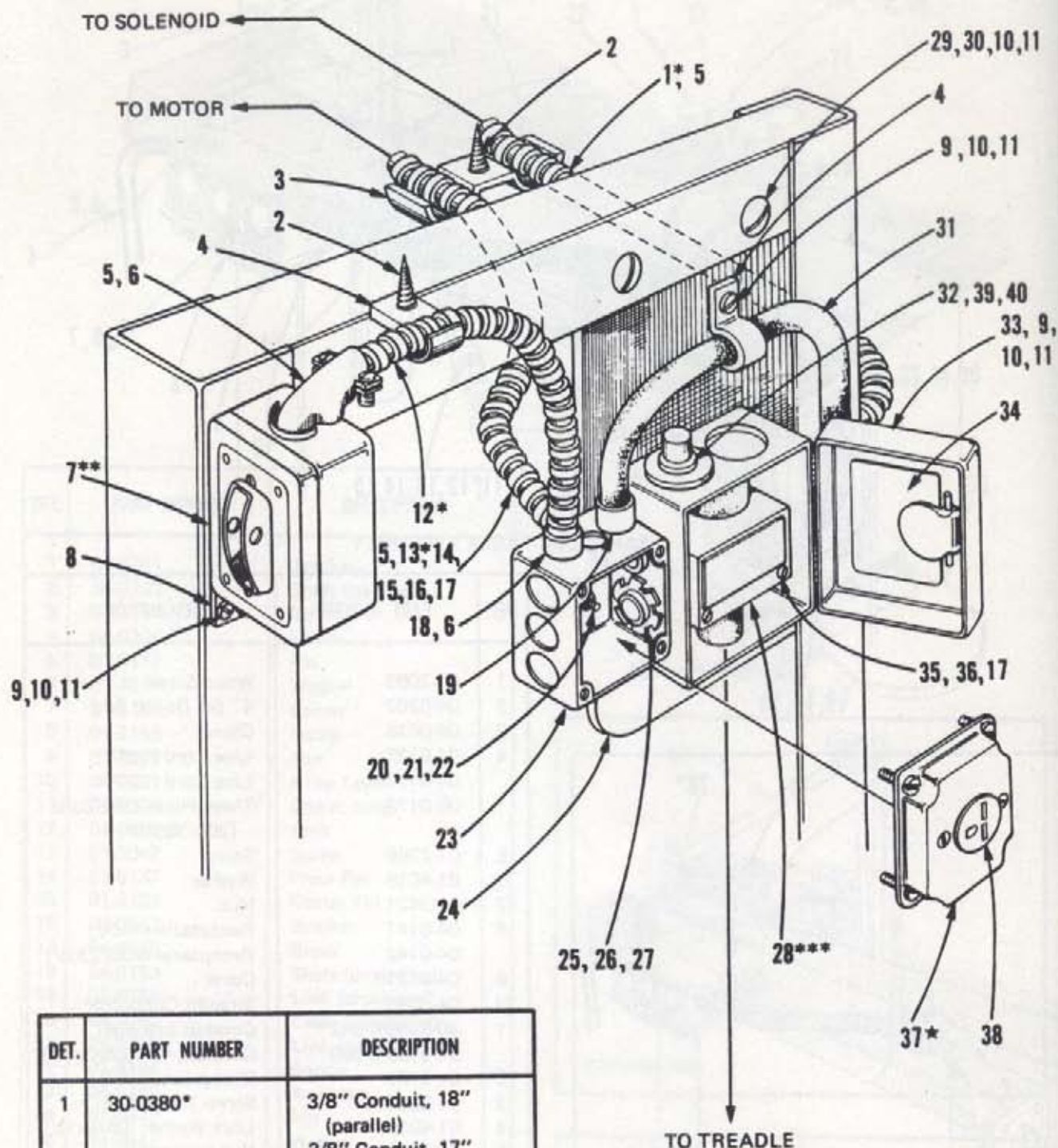


31	04-0539	Treadle
32	01-2189	Screw
33	01-4004	Lock Washer
34	01-4006	Washer
35	01-3007	Nut
36	04-0540	Treadle Heel



DET.	PART NUMBER	DESCRIPTION
1	01-2083	Wood Screw
2	04-0207	4" Sq. Outlet Box
3	04-0016	Clamp
4	04-0136	Line Cord (115V)
	04-0137	Line Cord (230V)
	06-0173	Three Phase Line Cord (208/380V)
5	01-2369	Screw
6	01-4018	Washer
7	01-3421	Nut
8	04-0141	Receptacle (115V)
	04-0142	Receptacle (208/230V)
9	04-0121	Cover
10	04-0143	Straight Connector
11	30-0380-0-052*	Conduit (parallel)
	04-0183-0-050*	Conduit, 42" (universal)
12	04-0187	Clamp (universal)
13	01-2039	Screw (universal)
14	01-4019	Lock Washer (universal)
15	01-3402	Nut (universal)
16	04-0003-0-050*	Switch Asm.
17	01-2368	Screw
18	01-4046	Lock Washer
19	01-3057	Nut
20	30-0380-0-056*	3/8" Conduit, 41" (crosswise)

*Available by the foot only.



DET.	PART NUMBER	DESCRIPTION
1	30-0380*	3/8" Conduit, 18" (parallel)
		3/8" Conduit, 17" (crosswise)
	04-0183-0-051	3/8" Conduit, 51" (universal)
2	01-2083	Screw
3	04-0126	Clamp

4	04-0016	Clamp
5	30-0044	Connector
6	04-0329	Insulator
7	04-0003-0-050**	Starter Switch Asm.
8	04-0065-1	Bracket
9	01-2368	Screw
10	01-4046	Lock Washer
11	01-3057	Nut
12	40-0594*	5/8" Conduit, 14"
13	30-0380*	3/8" Conduit, 61" (parallel)
		3/8" Conduit, 56" (crosswise)
	04-0183*	3/8" Conduit, 42" (universal)
14	04-0187	Clamp (universal)
15	01-2039	Screw (universal)
16	01-4019	Lock Washer (universal)
17	01-3402	Nut (universal)
18	04-0220	Connector
19	04-0143	Connector
20	01-2369-0-001	Screw
21	01-3421	Nut
22	01-4018	Washer
23	04-0207	Outlet Box, 4"
24	04-0062-1	Mounting Plate
25	04-0084-0-801	Connector
26	04-0084-0-802	Connector
27	01-4509	Washer
28	04-0112-0-115	Relay (regular 115V- 60 Hz)
	04-0112-0-179	Relay (regular 380V- 50 Hz)
	04-0112-0-180	Relay (regular 220V- 50 Hz)
	04-0112-0-195***	Relay (fast, 380V-50 Hz)
	04-0112-0-196***	Relay (fast, 230V-50 Hz and 220V-50 Hz)
	04-0112-0-230	Relay (regular 230V- 60 Hz)
	04-0112-1-115***	Relay (fast, 115V-60 Hz)
	04-0112-1-230***	Relay (fast, 230V-60 Hz)
29	01-2671	Screw
30	01-7472	Bushing
31	04-0136	Single Phase Line Cord (115V-60Hz)
	04-0137	Single Phase Line Cord (230V-60 Hz)
	06-0173	Three Phase Line Cord (208/230V-60 Hz)
32	04-0122	Switch
33	04-0113-1	Relay Box
34	05-0417-1	Decal

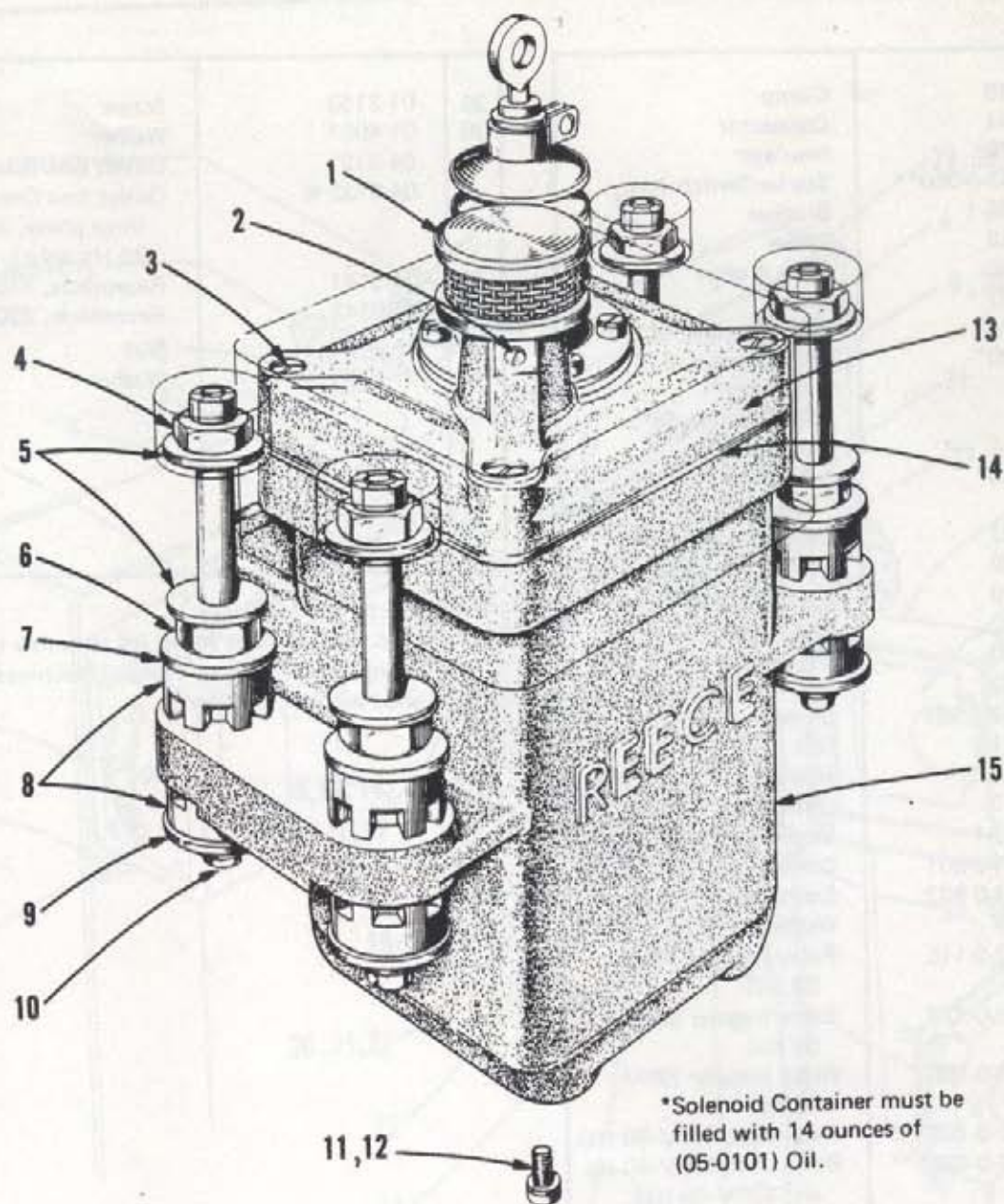
35	01-2153	Screw
36	01-4061	Washer
37	04-0121	Outlet Box Cover
	04-0132★	Outlet Box Cover (for three phase, 380V- 50 Hz only.)
38	04-0141	Receptacle, 110V
	04-0142	Receptacle, 230V
39	01-3430	Nut
40	01-4536	Washer

* Available by the foot only.

** Assembly, refer to Parts Index for assembly components.

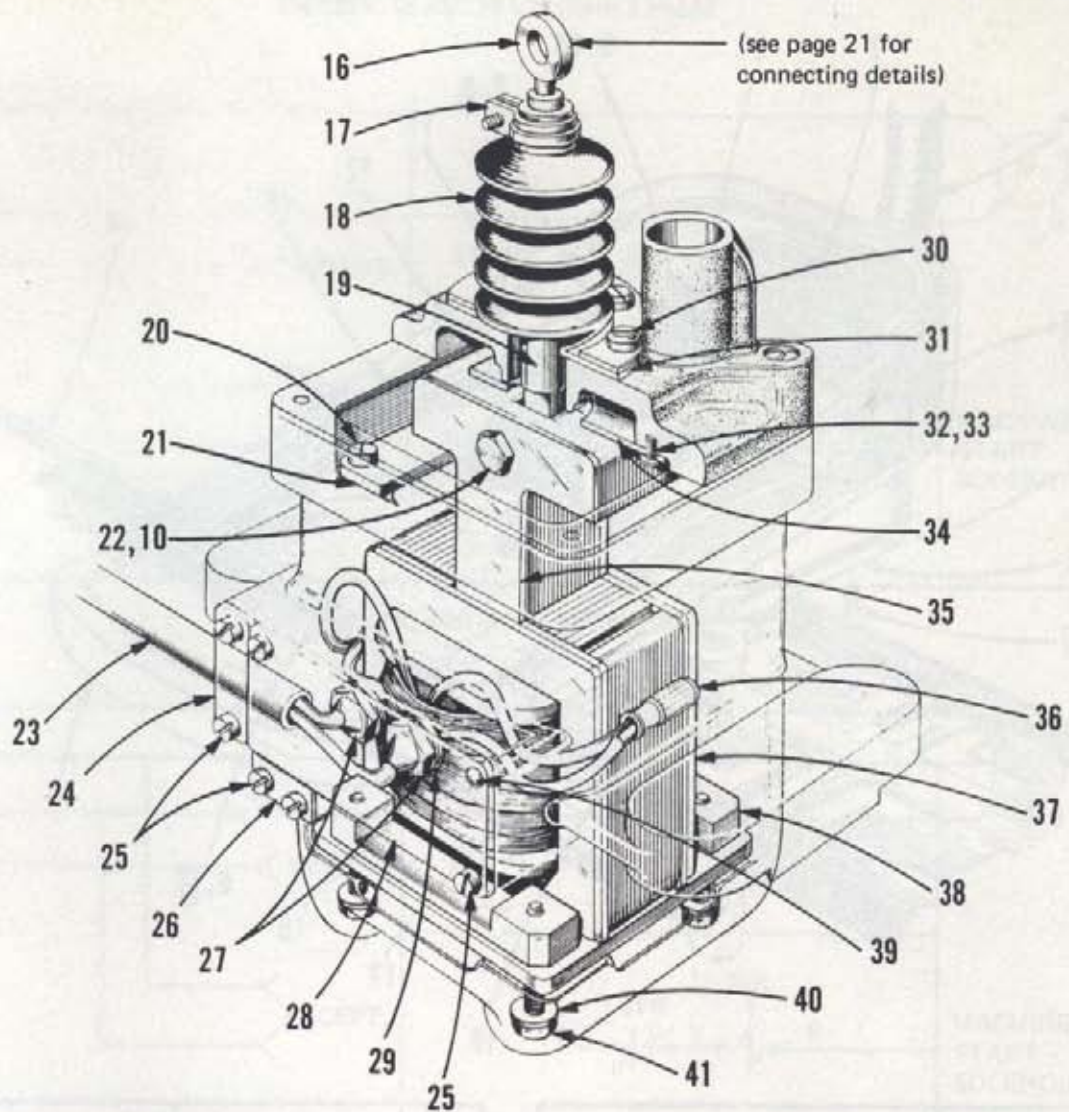
*** Fast Acting Relays for Dot Tacking Machines.

★ Furnished without receptacle.



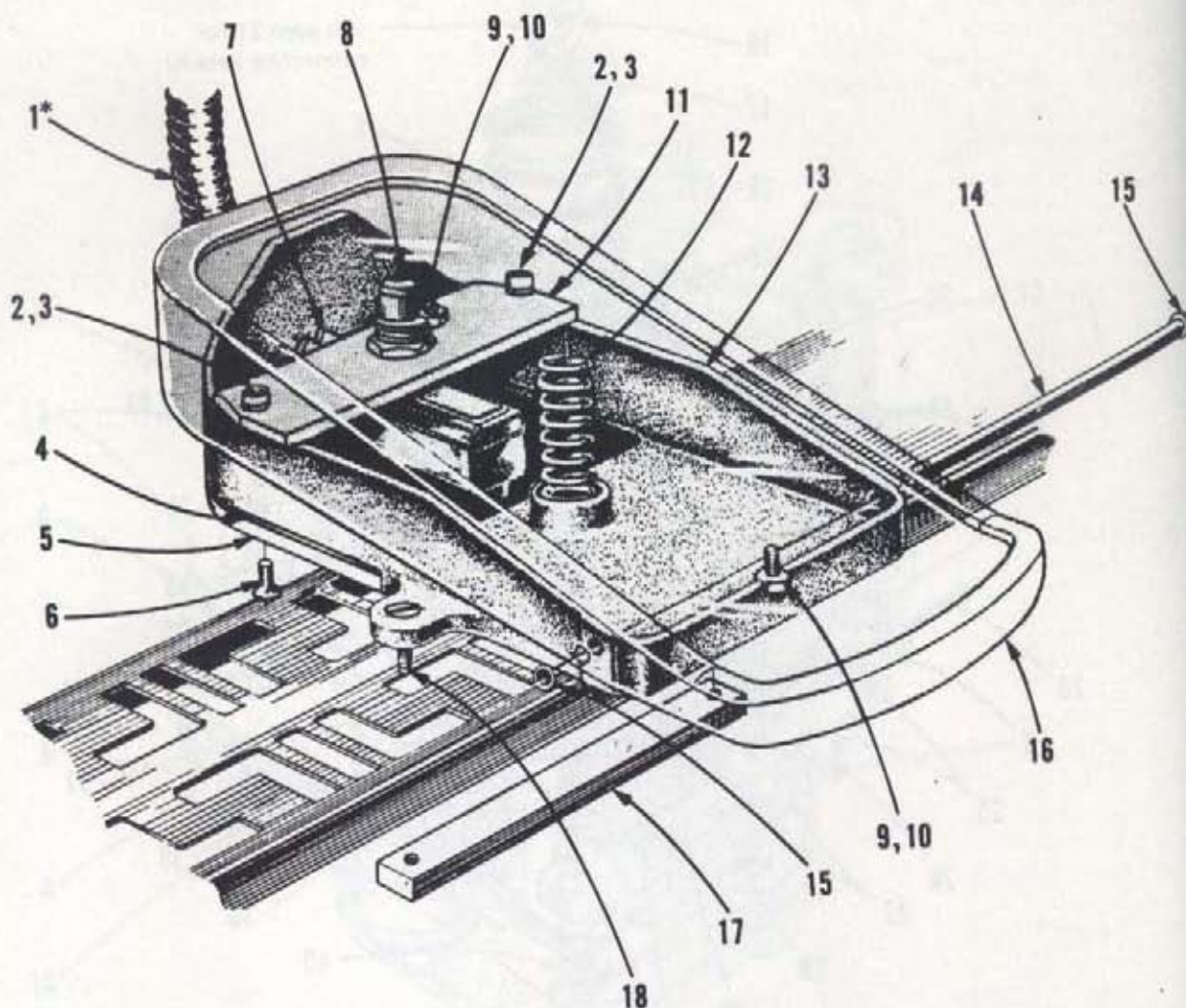
DET.	PART NUMBER	DESCRIPTION
1	04-0107	Breather
2	01-2554	Set Screw
3	01-2046	Screw
4	01-3429	Nut (cw & par.)
	01-3400	Nut (universal)
5	01-4043	Washer (cw & par.)
6	04-0098-2	Stud, Long (cw. & par.)
	04-0160	Stud, Short (universal)
7	01-4469	Washer (cw & par.)

8	04-0099	Isolator (cw & par.)
9	01-4468	Washer
10	01-3428	Nut
11	01-2553	Screw
12	01-4466	Seal Washer
13	04-0093	Cover
14	04-0095	Gasket
15	04-0096-1*	Container



16	04-0089	Upper Link
17	04-0116	Clamp
18	04-0090	Bellows
19	04-0091	Lower Link
20	01-2059	Screw
21	04-0097	Baffle
22	01-2551	Screw
23	30-0380-0-052	3/8" Cable, 42" Long
24	04-0102	Clip
25	01-2050	Screw
26	04-0168	Cover
27	04-0100-0-050	Terminal
28	04-0101-1-811	Cover (220V, 50 Hz)
	04-0101-1-812	Cover (380V, 50 Hz)
	04-0101-1-813	Cover (110V, 60 Hz)
	04-0101-1-814	Cover (205V, 60 Hz)
	04-0101-1-815	Cover (190V, 50 Hz)
29	01-4471	Seal Washer
30	01-2577	Screw
31	04-0092	Plate

32	01-2312	Screw
33	01-4065	Washer
34	04-0094	Baffle
35	04-0103-0-001	Plunger (supplied with det. 38 and can be ordered separately)
36	05-0369	Wire Connector
37	04-0103-0-110	Solenoid (110V, 60 Hz)
	04-0103-0-205	Solenoid (205V, 60 Hz)
	04-0103-0-520	Solenoid (220V, 50 Hz)
	04-0103-0-580	Solenoid (380V, 50 Hz)
	04-0103-0-008	Solenoid (190V, 50 Hz)
38	04-0106	Plate
39	01-2592	Drive Screw
40	01-4467	Washer
41	01-2552	Screw

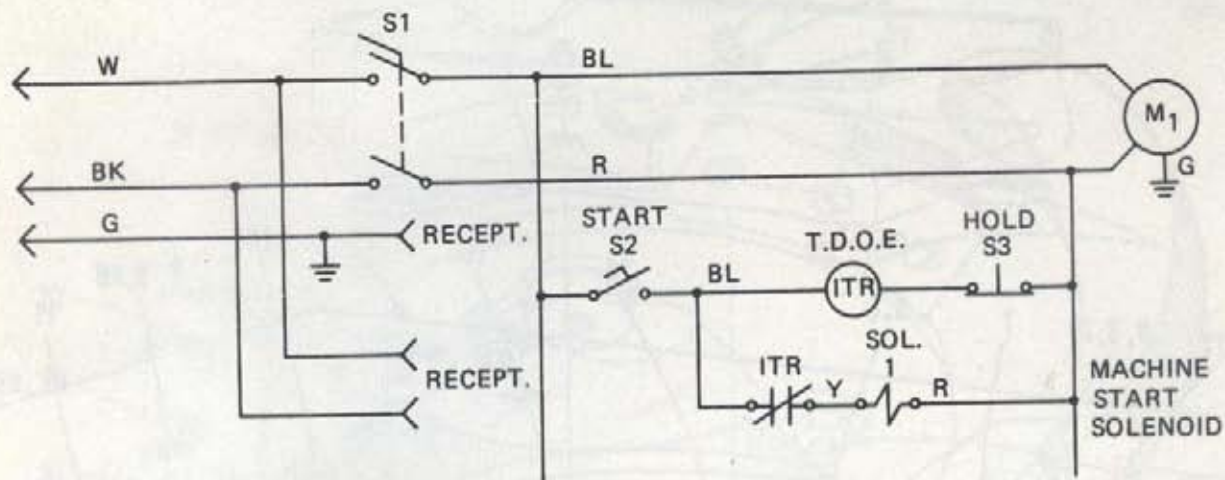


DET.	PART NUMBER	DESCRIPTION
1	30-0380-0-052*	Conduit, 30" (parallel)
	30-0380-0-56*	Conduit, 30" (crosswise)
2	01-2142	Screw
3	01-4407	Lock Washer
4	40-0536	Insulator
5	40-0537	Base Plate
6	01-2451	Screw
7	04-0087	Straight Connector, 3/8"
8	04-0117	Switch
9	01-2528	Screw
10	01-3416	Nut
11	04-0118	Switch Plate
12	01-5428	Spring
13	40-0535	Foot Base
14	40-0538-2	Shaft
15	01-6551	Retaining Ring
16	04-0111	Pedal

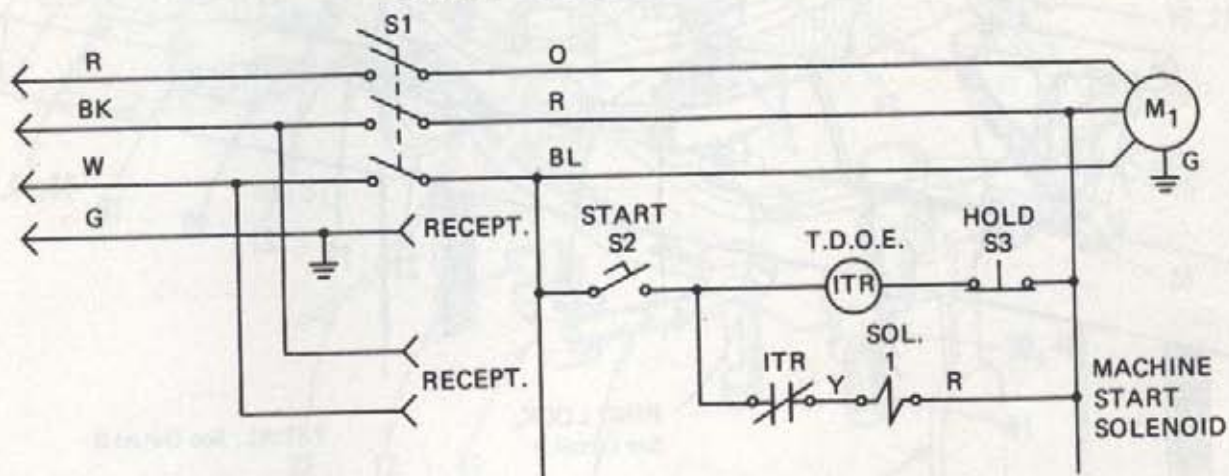
17	40-0301	Plate
18	01-2444	Screw

* Available by the foot only.

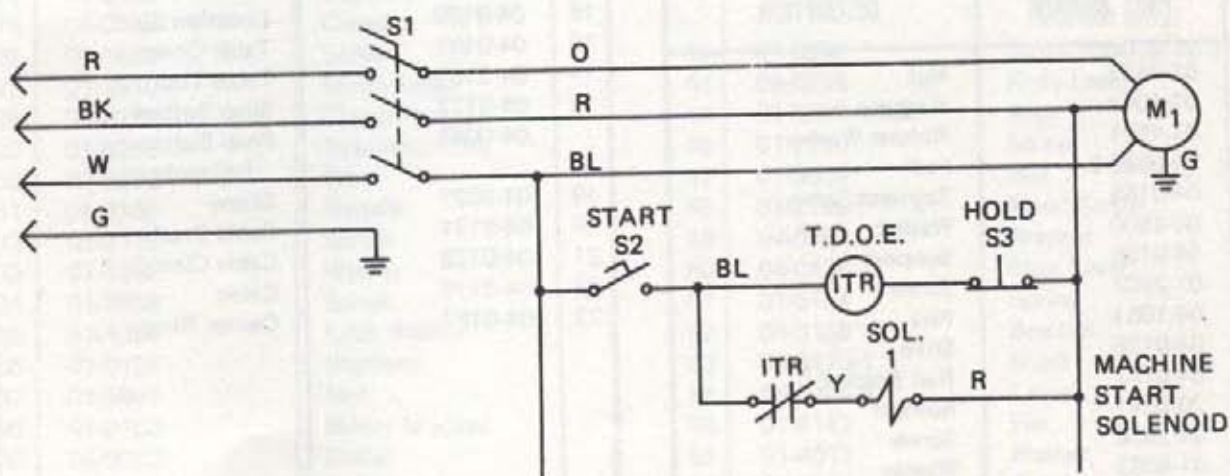
115/230V - 50 AND 60 HZ - SINGLE PHASE



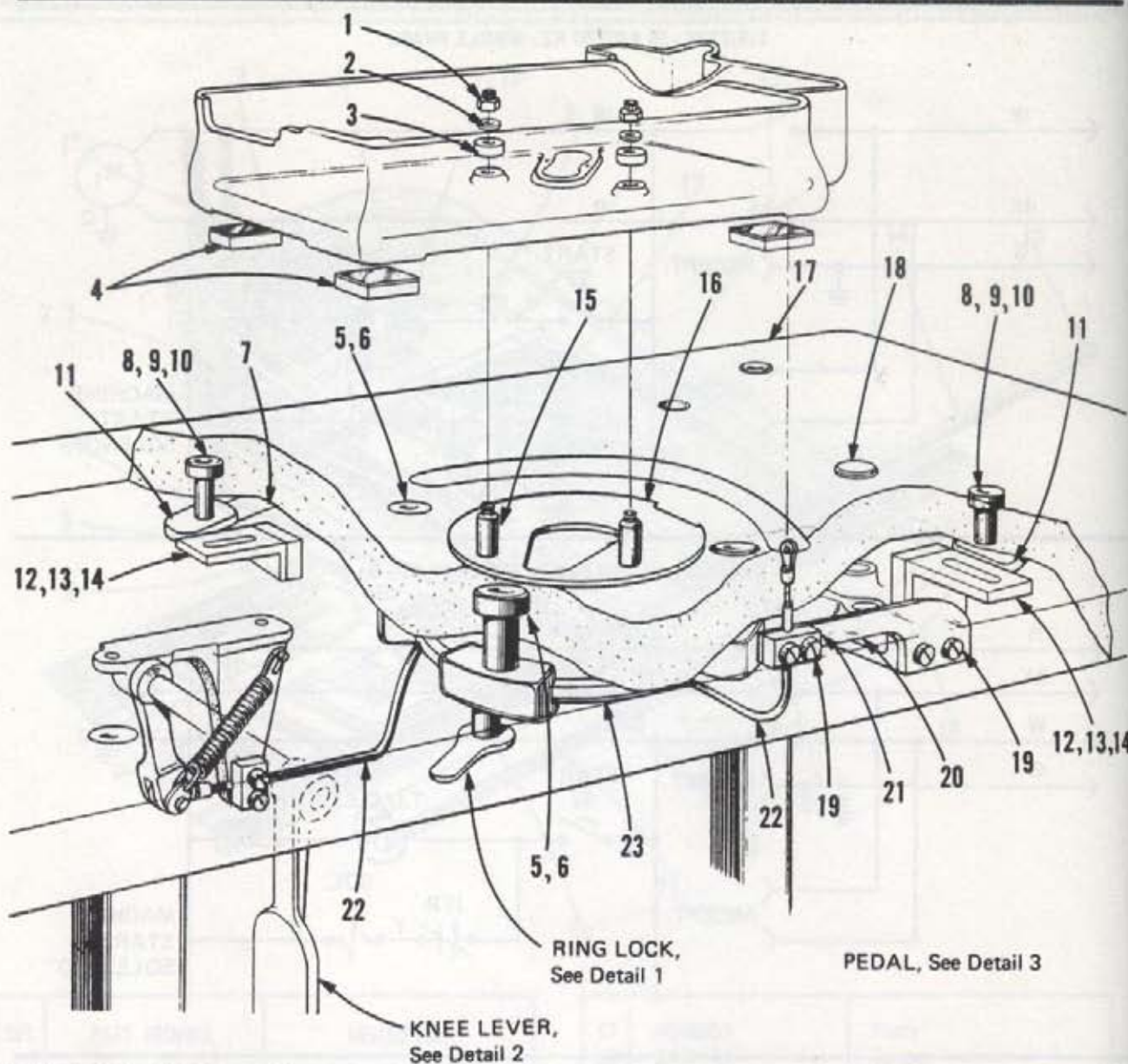
208/230V - 50 AND 60 HZ - THREE PHASE



380V - 50 HZ - THREE PHASE



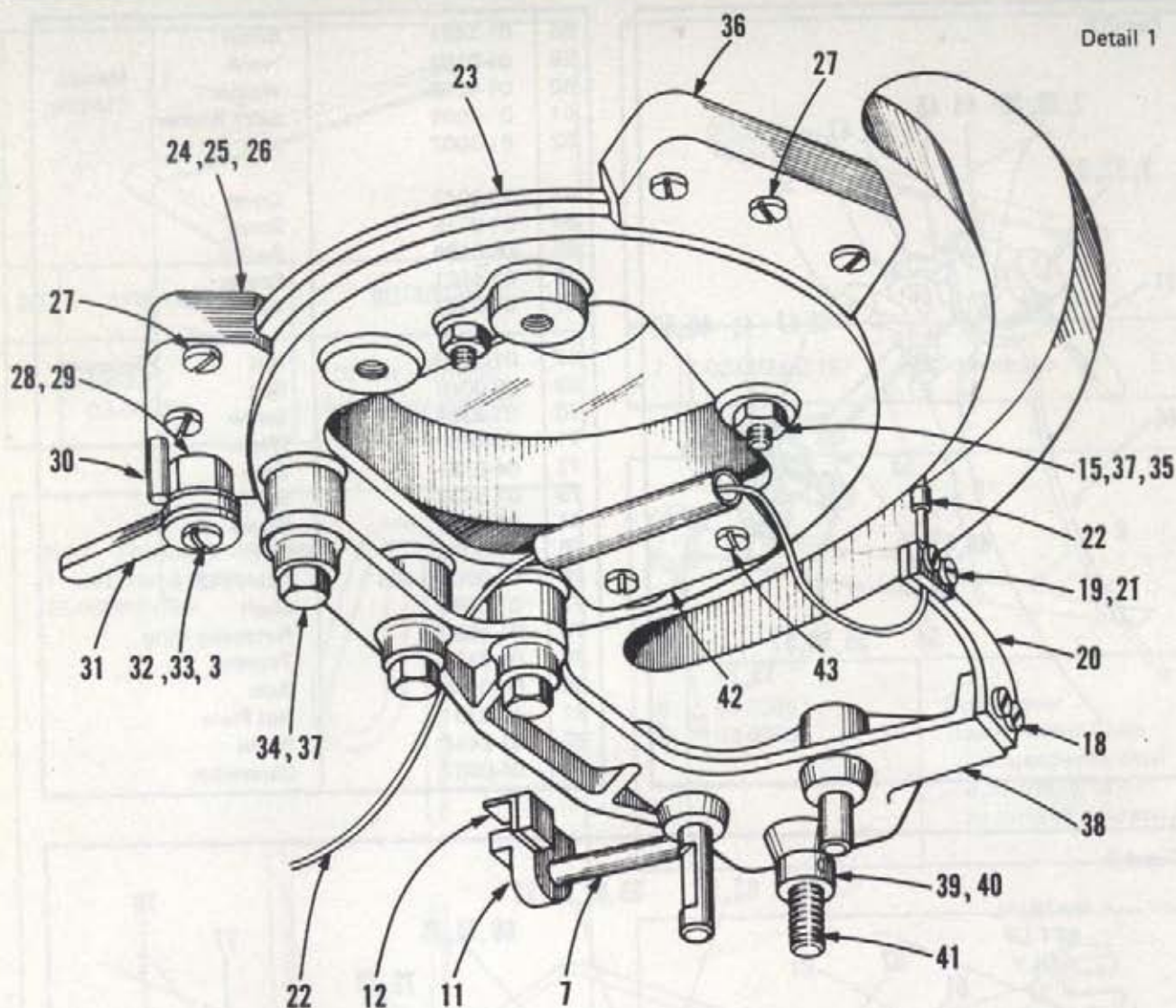
Note: M₁ 1/3 H.P. Motor with internal O/L Protection and Manual Reset.



DET.	PART NUMBER	DESCRIPTION
1	01-3429	Nut
2	01-4043	Washer
3	01-4501	Rubber Washer
4	20-0598-2	Pad
5	04-0158	Segment Screw
6	01-4500	Washer
7	04-0156	Support
8	01-2607	Screw
9	04-1061	Nut
10	04-0178	Shim
11	04-0157	Rail Bracket
12	20-0691-1	Bumper
13	01-2538	Screw
14	01-4063	Washer

15	04-0159	Location Stud
16	04-0161	Table Cover
17	04-0151	Table Top
18	04-0177	Snap Button
	04-0083	Snap Button (solenoid only)
19	01-2027	Screw
20	04-0171	Cable Bracket
21	04-0172	Cable Clamp
22	04-0175	Cable
23	04-0152	Center Ring

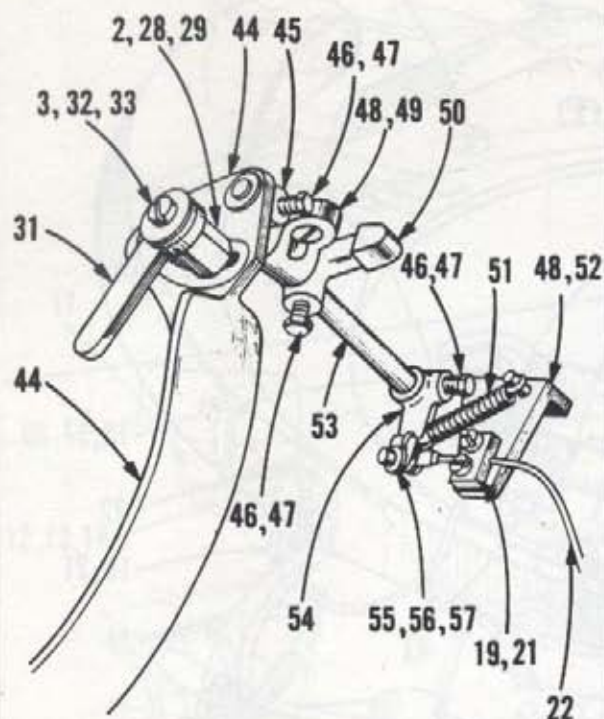
Detail 1



24	04-0155	Segment
25	04-0165	Clamp
26	01-1450	Screw
27	01-2610	Wood Screw
28	04-0167	Clamp Nut
29	01-6580	Retaining Ring
30	01-6579	Pin
31	04-0166	Handle
32	01-2115	Screw
33	01-4502	Washer
34	01-2608	Screw
35	01-4054	Lock Washer
36	01-0154	Segment
37	01-3041	Nut
38	04-0153	Motor Bracket
39	04-0222	Collar
40	01-2639	Set Screw
41	04-0162	Motor Adjust Screw

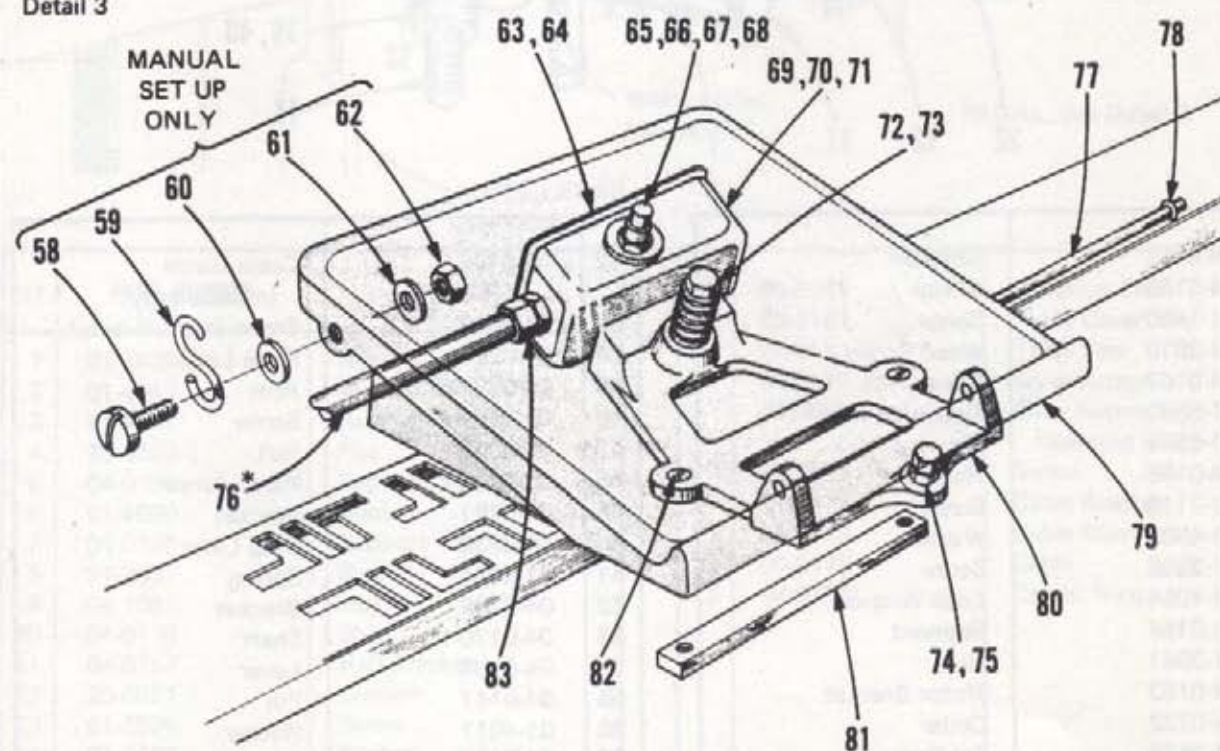
42	04-0176	Cable Guide (manual only)
43	01-2609	Screw (manual only)
44	04-0298	Knee Lever
45	04-0299-0-050	Arm
46	01-2195	Screw
47	01-3009	Nut
48	01-2190	Wood Screw
49	04-0761	Bracket
50	04-0439	Stop Lever
51	01-5154	Spring
52	04-0169	Bracket
53	04-0170-1	Shaft
54	04-0704-1	Lever
55	01-6147	Pin
56	01-4011	Washer
57	01-6121	Cotter

Detail 2

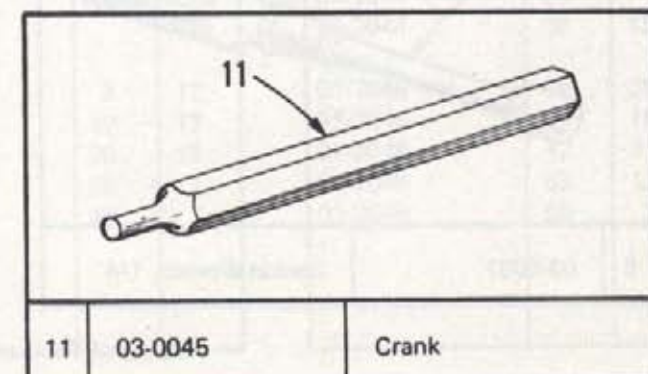
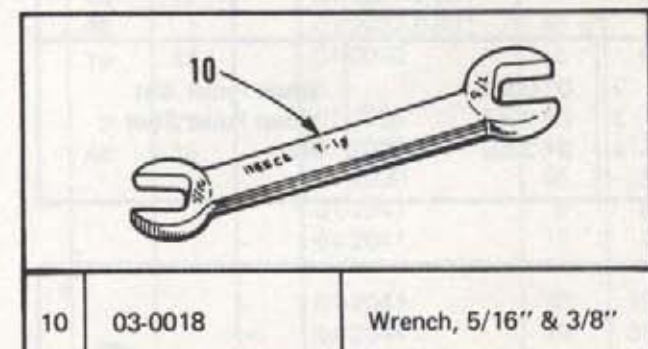
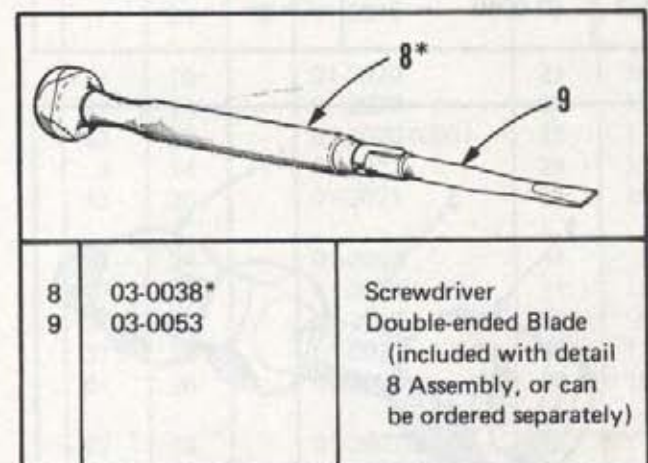
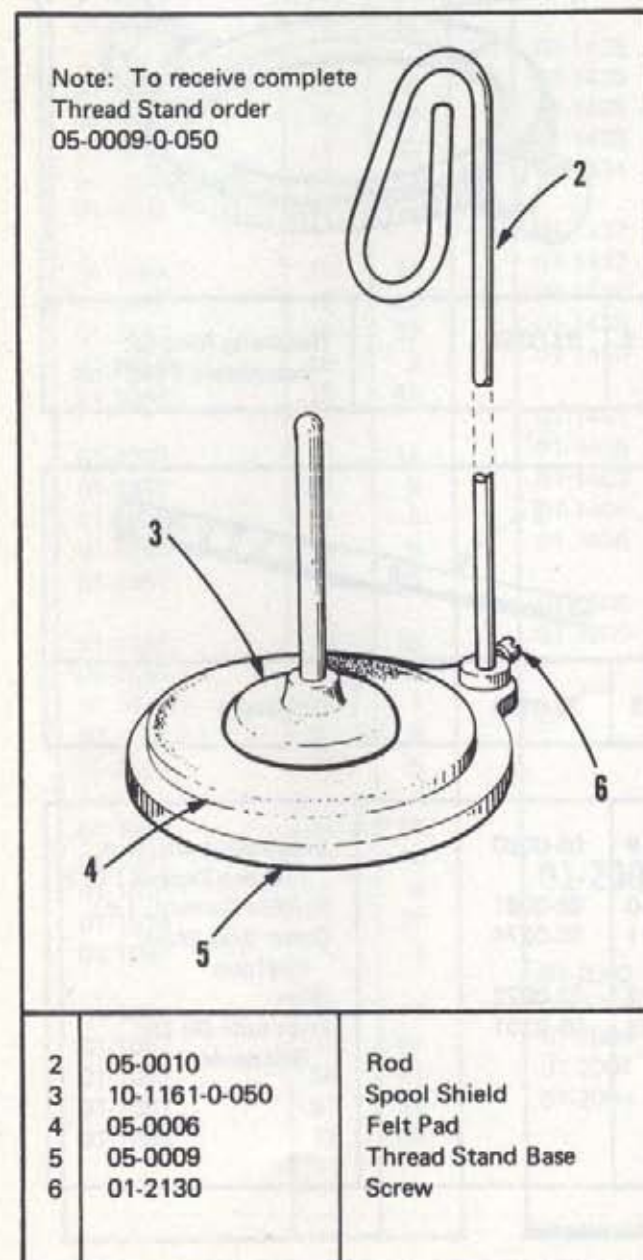
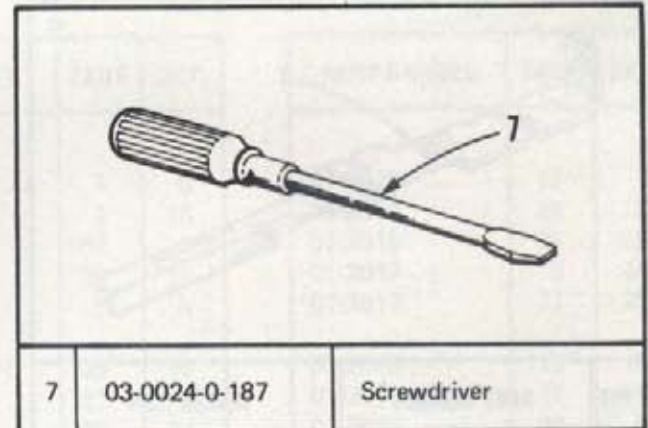
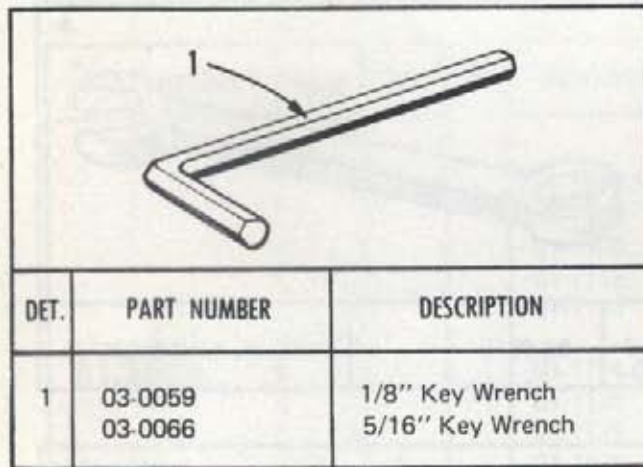


58	01-1451	Screw	Manual Starting
59	04-0182	Hook	
60	01-4503	Washer	
61	01-4004	Lock Washer	
62	01-3007	Nut	
63	30-0042	Cover	Solenoid
64	01-2715	Screw	
65	04-0184	Switch	
66	01-4461	Spacer	
67	04-0123	Washer (2 used)	
68	01-3430	Nut	
69	30-0040	Box	
70	01-2368	Screw	
71	01-4063	Washer	
72	04-0181	Stop	
73	01-5466	Spring	
74	01-2526	Screw	
75	01-3066	Nut	
76	06-0098-0-001*	Cable (42")	
77	01-6581	Shaft	
78	01-6582	Retaining Ring	
79	04-0180	Treadle	
80	04-0179	Base	
81	40-0301	Nut Plate	
82	01-2444	Screw	
83	04-0087	Connector	

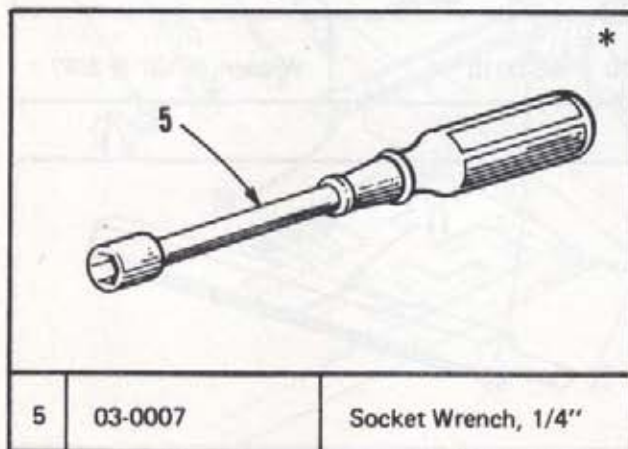
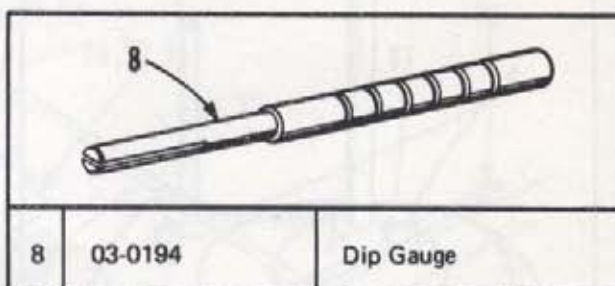
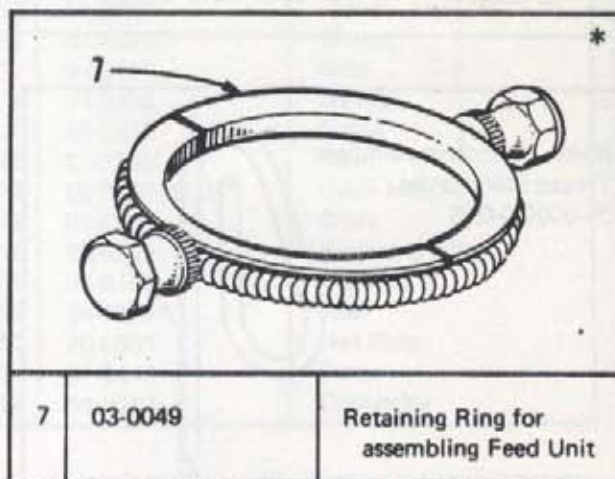
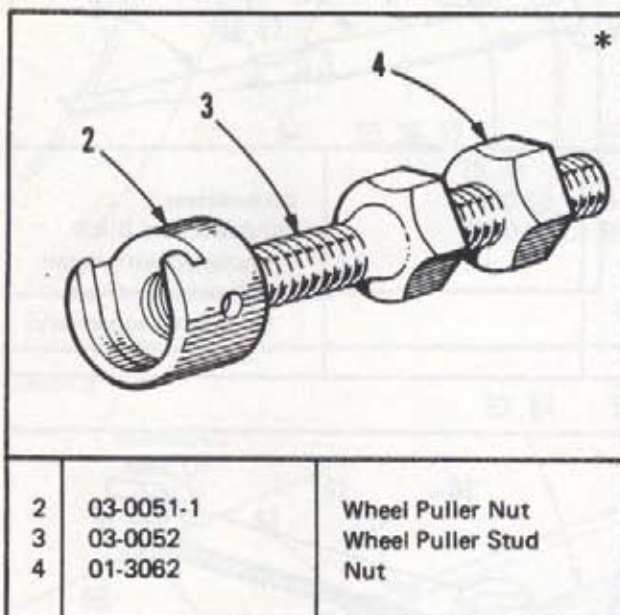
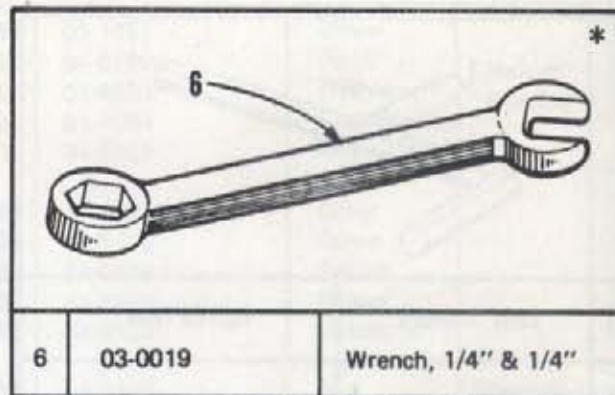
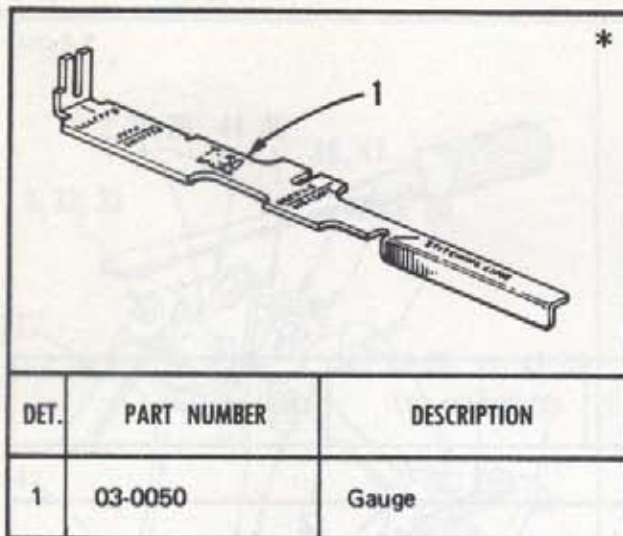
Detail 3



*Available by the foot only.



*Furnished as an Assembly.



*Optional Tools and Accessories.

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01-1002	37	27
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01-1031	15	23
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01-1038	4	10
01-1039	17	43
01-1043	19	19
01-1044	19	10
01-1045	19	22
01-1047	15	32
01-1047	28	2
01-1048	19	47
01-1051	15	14
01-1051	36	8
01-1053	11	8
01-1054	11	9
01-1057	9	25
01-1057	10	16
01-1065-1	3	22
01-1065-1	29	1
01-1065-1	40	9
01-1065-1	42	5
01-1069	19	14
01-1071	17	44
01-1074	2	9
01-1074	4	19
01-1094	10	1
01-1096	17	15
01-1097	19	51
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01-1097	37	31
01-1098	19	35

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01-1103	4	16
01-1108	51	5
01-1112	38	12
01-1124	6	4
01-1124-0-001	26	16
01-1125	23	7
01-1125	33	23
01-1125	39	7
01-1134	17	34
01-1425	34	10
01-1425	37	14
01-1425	43	36
01-1430	3	14
01-1434	43	30
01-1437	34	24
01-1437	37	24
01-1438	34	29
01-1438	37	28
01-1450	61	26
01-1451	62	58
01-1455	48	10
01-1463	40	12
01-1464	36	7
01-1496	19	43
01-1505	3	27
01-1505	46	15
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01-2004	10	17
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01-2013	35	3
01-2015	36	5
01-2017	9	44
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01-2019	13	19
01-2019	17	8
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01-2019	41	11
01-2019	7	8
01-2020	21	16
01-2020	22	13
01-2020-0-001	25	11
01-2021	34	15
01-2021	37	19
01-2021	44	1
01-2024	11	12
01-2027	30	9
01-2027	32	12
01-2027	60	19
01-2027-0-001	6	1
01-2027-0-001	40	21
01-2027-0-001	42	2
01-2027-0-001	48	7
01-2028	6	6
01-2039	15	1
01-2039	53	13
01-2039	55	15
01-2041	6	8
01-2041	17	7
01-2041	40	18
01-2044	19	31
01-2044	26	20
01-2044	34	4
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*Furnished only as an Assembly.

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PART NUMBER	PAGE	DET.
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01-2052	11	5
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01-2075	13	12
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01-2076	48	3
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01-2081	35	28
01-2083	53	1
01-2083	54	2
01-2084	13	15
01-2084	36	15
01-2093	51	13
01-2101	5	10
01-2103	31	37
01-2104	31	32
01-2104	32	17
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01-2115	61	32
01-2122	15	3
01-2122	19	30
01-2122	44	11
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01-2124	43	19
01-2127	5	22
01-2128	20	2
01-2130	15	31
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01-2131	41	6
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01-2136	30	18
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01-2137	31	24
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01-2142	58	2
01-2144	5	4
01-2144	9	8
01-2145	2	11
01-2146	2	2
01-2146	11	21
01-2148	5	8
01-2149	4	11
01-2150	10	4
01-2150	15	9
01-2150	47	25
01-2150	48	18
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01-2158	51	3
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01-2170	22	7
01-2171	22	17
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01-2331	15	10
01-2332	15	37
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01-2336	19	28
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01-2339	22	10
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01-2344	9	14
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*Furnished only as an Assembly.

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01-2369-0-001	55	20
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01-2379	41	7
01-2385	9	42
01-2386	20	14
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01-2393	5	6
01-2393	9	30
01-2394	9	50
01-2395	13	9
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01-2395	32	8
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01-2396	32	5
01-2396	33	4
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PART NUMBER	PAGE	DET.
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01-2522	26	15
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01-2528	58	9
01-2538	60	13
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01-2601	20	22
01-2607	60	8
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01-2610	61	27
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01-2632	21	11
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PART NUMBER	PAGE	DET.
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01-2700	28	4
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01-3001	4	21
01-3001	15	4
01-3001	17	12
01-3001	19	4
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01-3001	35	25
01-3001	40	8
01-3001	48	2
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01-3005	46	16
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*Furnished only as an Assembly.

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01-3021	43	27
01-3025	17	39
01-3025	31	27
01-3025	40	5
01-3030	7	11
01-3037	2	17
01-3039	17	1
01-3039	19	27
01-3040	4	3
01-3040	22	18
01-3041	61	37
01-3042	7	31
01-3048	11	4
01-3053	19	18
01-3055	3	6
01-3057	53	19
01-3057	55	11
01-3062	64	4
01-3063	9	51
01-3065	23	6
01-3065	33	24
01-3065	39	8
01-3066	19	40
01-3066	62	75
01-3068	37	3
01-3400	56	4

PART NUMBER	PAGE	DET.
01-3402	19	24
01-3402	53	15
01-3402	55	17
01-3413	39	2
01-3413	43	4
01-3414	26	29
01-3414	43	10
01-3416	58	10
01-3421	53	7
01-3421	55	21
01-3422	3	18
01-3423	9	2
01-3426	3	3
01-3426	29	1
01-3426	31	42
01-3426	32	2
01-3426	40	10
01-3426	42	6
01-3428	56	10
01-3429	56	4
01-3429	60	1
01-3430	55	39
01-3430	62	68
01-3432	37	4
01-4000		
01-4002	17	17
01-4002	40	23
01-4003	6	22
01-4003	9	18
01-4003	26	3
01-4003	39	3
01-4003	43	5
01-4004	7	30
01-4004	21	17
01-4004	22	12

PART NUMBER	PAGE	DET.
01-4004	25	12
01-4004	51	6
01-4004	52	33
01-4004	62	61
01-4006	49	31
01-4006	51	7
01-4006	52	34
01-4011	4	6
01-4011	6	23
01-4011	11	17
01-4011	15	30
01-4011	17	30
01-4011	26	32
01-4011	30	15
01-4011	34	16
01-4011	37	20
01-4011	48	8
01-4011	52	6
01-4011	61	56
01-4013	4	22
01-4013	40	7
01-4017	2	18
01-4018	15	36
01-4018	53	6
01-4018	55	22
01-4019	5	12
01-4019	22	20
01-4019	53	14
01-4019	55	16
01-4024	21	27
01-4026	51	15
01-4029	3	19
01-4029	11	24
01-4029	15	17
01-4029	36	18
01-4029	42	22
01-4029	44	15
01-4029	46	8
01-4035	11	2

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01-4037	21	24
01-4039	3	1
01-4043	51	14
01-4043	56	5
01-4043	60	2
01-4046	53	18
01-4046	55	10
01-4047	52	25
01-4049	51	16
01-4052	21	23
01-4054	61	35
01-4059	19	17
01-4059	44	2
01-4061	55	36
01-4062	11	1
01-4062	3	15
01-4063	11	15
01-4063	60	14
01-4063	62	71
01-4063	7	27
01-4064	3	9
01-4065	17	41
01-4065	57	33
01-4067	34	8
01-4067	35	26
01-4067	43	34
01-4068	22	9
01-4402	40	19
01-4405	43	11
01-4406	3	24
01-4407	58	3
01-4420	31	25
01-4461	62	66
01-4466	56	12
01-4467	57	40
01-4468	56	9
01-4469	56	7
01-4471	57	29
01-4474	43	7
01-4500	60	6

PART NUMBER	PAGE	DET.
01-4501	60	3
01-4502	61	33
01-4503	62	60
01-4509	55	27
01-4513	49	27
01-4514	49	33
01-4515	49	36
01-4516	49	38
01-4527	31	28
01-4535	33	20
01-4536	55	40
01-4672-0-001	19	25
01-5000		
01-5004	3	2
01-5020	19	1
01-5020	34	18
01-5020	37	22
01-5022	9	6
01-5033	7	24
01-5033	15	20
01-5038	19	49
01-5042	34	30
01-5042	37	30
01-5048	38	9
01-5052	9	16
01-5052	42	15
01-5057	36	4
01-5082	13	25
01-5098	3	17
01-5102	17	23
01-5106	15	35
01-5107	19	38
01-5108	11	3

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01-5111	9	4
01-5112	9	32
01-5112	28	3
01-5113	7	15
01-5116	22	23
01-5122	5	5
01-5123	22	21
01-5134	4	7
01-5143	6	20
01-5147	19	32
01-5148	10	15
01-5151	3	8
01-5152	9	24
01-5154	52	22
01-5154	61	51
01-5156	17	37
01-5157	6	16
01-5158	21	29
01-5161	7	28
01-5162	7	5
01-5174	23	5
01-5174	33	9
01-5174	39	6
01-5428	58	12
01-5429	34	1
01-5429	37	13
01-5429	43	37
01-5429	48	9
01-5431	40	3
01-5431	43	20
01-5442	21	7
01-5445	43	3
01-5446	44	3
01-5449	11	22
01-5451	49	32
01-5452	48	13
01-5466	62	73
01-5469	9	56
01-5485	33	28
01-5489	40	16

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01-5571-0-001	26	17
01-6000		
01-6005	43	23
01-6015	6	17
01-6031	51	2
01-6038	42	14
01-6055	13	21
01-6055	46	2
01-6079	15	22
01-6090	2	13
01-6093	5	1
01-6096	20	27
01-6097	20	28
01-6101	5	16
01-6103	13	18
01-6103-0-001	26	14
01-6105	19	12
01-6106	19	15
01-6108	15	24
01-6115	5	20
01-6121	11	16
01-6121	17	32
01-6121	19	8
01-6121	34	22
01-6121	52	7
01-6121	61	57
01-6122	11	14
01-6123	52	26
01-6131	52	15
01-6135	19	33
01-6135	29	13
01-6137	52	14

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01-6147	52	5
01-6147	61	55
01-6186	11	18
01-6186	4	8
01-6165	15	34
01-6195	9	35
01-6196	28	7
01-6196	9	33
01-6197	10	3
01-6300	3	11
01-6303	11	11
01-6306	17	33
01-6311	9	26
01-6312	9	47
01-6313	9	39
01-6314	22	4
01-6327	22	5
01-6338	41	13
01-6340	11	20
01-6344	6	5
01-6362-1	7	2
01-6406	19	7
01-6406	34	21
01-6406	44	8
01-6507	43	21
01-6508	19	6
01-6508	34	33
01-6508	44	7
01-6511	34	19
01-6511	44	4
01-6513	42	19
01-6534	21	8
01-6542	52	24
01-6550	25	2
01-6551	58	15
01-6574	19	21
01-6579	61	30
01-6580	61	29
01-6581	62	77
01-6582	62	78
01-6587	9	55

PART NUMBER	PAGE	DET.
01-6590	9	11
01-6590-0-001	26	23
01-6595	49	37
01-6603	38	13
01-6631	40	17
01-6822	19	48
01-6831	7	25
01-6833	4	2
01-6833	15	19
01-6833-0-001	6	27
01-6833-0-001	26	18
01-6839-2	6	19
01-7000		
01-7012	4	12
01-7013	4	4
01-7013	5	9
01-7013	15	25
01-7016	21	25
01-7017	3	21
01-7018	4	20
01-7022	4	25
01-7029	17	16
01-7037	22	6
01-7039	7	7
01-7048-0-002	46	14
01-7453	34	23
01-7453	37	23
01-7467	49	29
01-7472	55	30
01-7480	40	22
01-7480	42	3
01-7480-0-001	6	14
01-7480-0-001	30	10
01-7480-0-001	32	13

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01-7536	19	45
01-8000		
01-8002	9	41
01-8002	21	15
01-8002-0-001	28	9
01-8005	17	26
01-8405	11	28
01-8405	45	5
01-8405	50	6
02-0000		
02-0750	1	
02-0751	1	
02-0752	1	
02-0753	1	
02-0754	1	
03-0000		
03-0007	64	5
03-0018	63	10
03-0019	64	6
03-0022	64	12
03-0024-0-187	63	7
03-0038	63	8

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03-0045	63	11
03-0049	64	7
03-0050	64	1
03-0051-1	64	2
03-0052	64	3
03-0053	63	9
03-0059	63	1
03-0066	63	1
03-0194	64	8
04-0000		
04-0003-0-050*	53	16
04-0003-0-050*	55	7
04-0013	51	19
04-0014	51	19
04-0016	53	3
04-0016	55	4
04-0062-1	55	24
04-0065-1	55	8
04-0083	60	18
04-0084-0-801	55	25
04-0084-0-802	55	26
04-0087	58	7
04-0087	62	83
04-0089	21	9
04-0089	57	16
04-0090	57	18
04-0091	57	19
04-0092	57	31
04-0093	56	13
04-0094	57	34
04-0095	56	14
04-0096-1	56	15
04-0097	57	21
04-0098-2	56	6
04-0099	56	8

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04-0100-0-050	57	27
04-0101-1-811	57	28
04-0101-1-812	57	28
04-0101-1-813	57	28
04-0101-1-814	57	28
04-0101-1-815	57	28
04-0102	57	24
04-0103-0-001	57	35
04-0103-0-008	57	37
04-0103-0-110	57	37
04-0103-0-205	57	37
04-0103-0-520	57	37
04-0103-0-580	57	37
04-0106	57	38
04-0107	56	1
04-0111	58	16
04-0112-0-115	55	28
04-0112-1-115	55	28
04-0112-0-179	55	28
04-0112-0-180	55	28
04-0112-0-195	55	28
04-0112-0-196	55	28
04-0112-0-230	55	28
04-0112-1-230	55	28
04-0113-1	55	33
04-0116	57	17
04-0117	58	8
04-0118	58	11
04-0119	21	10
04-0121	53	9
04-0121	55	37
04-0122	55	32
04-0123	62	67
04-0126	54	3
04-0132	55	37
04-0136	53	4
04-0136	55	31
04-0137	53	4
04-0137	55	31
04-0141	53	8
04-0141	55	38

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04-0142	55	38
04-0143	53	10
04-0143	55	19
04-0151	60	17
04-0152	60	23
04-0153	61	38
04-0154	61	36
04-0155	61	24
04-0156	60	7
04-0157	60	11
04-0158	60	5
04-0159	60	15
04-0160	56	6
04-0161	60	16
04-0162	61	41
04-0165	61	25
04-0166	61	31
04-0167	61	28
04-0168	57	26
04-0169	61	52
04-0170-1	61	53
04-0171	60	20
04-0172	60	21
04-0175	60	22
04-0176	61	42
04-0177	60	18
04-0178	60	10
04-0179	62	80
04-0180	62	79
04-0181	62	72
04-0182	62	59
04-0183	55	13
04-0183-0-050	53	11
04-0183-0-051	54	1
04-0184	62	65
04-0187	53	12
04-0187	55	14
04-0207	53	2
04-0207	55	23

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04-0220	55	18
04-0222	61	39
04-0298	61	44
04-0299-0-050	61	45
04-0329	55	6
04-0439	61	50
04-0496	14	11
04-0536	52	12
04-0537	21	2
04-0537	52	11
04-0538	21	1
04-0539	52	31
04-0540	52	36
04-0542	52	16
04-0558	52	17
04-0594	55	12
04-0701	52	10
04-0702	52	2
04-0704-1	52	4
04-0704-1	61	54
04-0722-0-258	51	10
04-0722-0-268	51	10
04-0722-0-294	51	10
04-0722-0-308	51	10
04-0747-2	9	28
04-0748	52	27
04-0749	52	23
04-0751	51	11
04-0752	51	12
04-0753-0-801	51	4
04-0754-1	51	9
04-0758	52	21
04-0759	52	19
04-0760	9	27
04-0760	52	28
04-0761	52	1
04-0761	61	49
04-0762	52	20
04-0763	52	18
04-1061	60	9

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04-2040	14	1
04-2041	14	13
05-0000		
05-0006	63	4
05-0009	63	5
05-0010	63	2
05-0042-2	22	14
05-0043	2	14
05-0090	64	9
05-0091	64	10
05-0101	64	13
05-0102-0-335	51	21
05-0102-1-335	51	21
05-0102-0-340	51	21
05-0102-1-340	51	21
05-0369	57	36
05-0374	64	11
05-0417-1	55	34
06-0000		
06-0095-0-001	62	76
06-0173	53	4
06-0173	55	31

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10-0000		
10-1116	9	15
10-1161-0-050	63	3
10-2002	38	10
10-2054	30	19
10-4019	19	39
10-4221	3	16
20-0000		
20-0001-0-003	47	29
20-0001-1	2	4
20-0005-0-102*	31	39
20-0587	2	5
20-0588	2	6
20-0005-0-811*	2	1
20-0006	4	1
20-0007	2	19
20-0008	2	3
20-0009	11	13
20-0010	11	19
20-0011	4	9
20-0011	10	18
20-0012	15	16
20-0013	19	34

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20-0013-0-002	31	49
20-0013-0-006	34	9
20-0013-0-006	37	16
20-0013-1-006	43	35
20-0014	2	16
20-0015	19	11
20-0016	5	13
20-0016	22	1
20-0019-0-100	5	32
20-0020-2	5	31
20-0021-0-100	4	26
20-0021-1-100	5	26
20-0022-1	2	10
20-0022-1-100	5	23
20-0024-2	4	18
20-0029-2-100*	5	27
20-0030-1	17	22
20-0031	17	27
20-0032-1	17	21
20-0033	17	24
20-0035	17	28
20-0036	17	19
20-0038	4	15
20-0039-0-001	28	10
20-0039-1	9	29
20-0040-2	9	21
20-0041	4	17
20-0042-0-100	9	45
20-0043-1	4	14
20-0043-1	10	13
20-0044*	9	23
20-0045	9	46
20-0046	9	48
20-0047-2	4	13
20-0047-2	10	19
20-0048-0-100*	9	37
20-0049	9	38
01-6313	9	39
20-0049	9	38
20-0051-0-003	46	5

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20-0051-0-015	29	4
20-0051-0-020	50	2
20-0051—	13	Chart all types
20-0051-0-078	36	16
20-0051-1-002	31	33
20-0051-1-007	32	18
20-0051-1-007	33	18
20-0051-1-303	38	5
20-0051-2-004	35	18
20-0051-2-004	41	20
20-0051-2-004	42	31
20-0052	22	22
20-0053-2	9	20
20-0054	3	12
20-0062-2	3	23
20-0066	10	14
20-0070-3	9	36
20-0071-2	10	10
20-0072-1	10	8
20-0074-3	9	43
20-0074-3	10	9
20-0079-0-850	5	30
20-0079-0-850	10	6
20-0082-1	10	11
20-0085-2	20	26
20-0086-1	7	23
20-0086-1	20	16
20-0092-0-004	7	9
20-0092-0-004	13	13
20-0092-0-004	20	15
20-0092-0-004	41	26
20-0092-0-004	42	27
20-0093-0-004	13	11
20-0093-0-004	20	19
20-0093-0-004	41	27
20-0093-0-004	42	32
20-0093-1-004	7	10
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20-0096-1-100	20	23
20-0098-2-100	20	24
20-0106-1	20	1
20-0107-2	20	3
20-0110-1	20	20
20-0115-2	20	10
20-0116-3	20	9
20-0118-3	20	12
20-0119-2	20	11
20-0122-1-100	17	5
20-0133-0-100	19	2
20-0133-0-105*	44	9
20-0133-0-116*	37	5
20-0133-1-105*	34	20
20-0134-1	17	29
20-0135-2	17	31
20-0166	17	10
20-0166	44	5
20-0166-0-015	29	10
20-0166-0-015	31	46
20-0166-0-015	32	24
20-0166-0-015	33	29
20-0166-0-015	34	3
20-0166-0-015	37	11
20-0166-0-015	38	1
20-0166-0-015	41	28
20-0166-0-015	45	1
20-0166-0-015	47	34
20-0166-0-015	50	3
20-0167-1	17	11
20-0169	17	9
20-0169	37	12
20-0169-0-016	37	1
20-0172	17	13
20-0173	17	14
20-0174-0-032	34	32
20-0174-0-032	44	6
20-0174-1	19	26

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20-0180	19	29
20-0180-0-032	34	13
20-0180-1-005	44	10
20-0190-0-001	26	33
20-0190-0-032	35	13
20-0190-0-032	43	24
20-0190-1	13	22
20-0190-1	49	39
20-0190-1-011	30	12
20-0190-1-011	32	14
20-0190-1-011	33	13
20-0190-1-011	41	10
20-0194	30	1
20-0194	49	25
20-0194-0-003	49	26
20-0194-0-005	26	9
20-0194-0-052	23	2
20-0194-0-052	30	1
20-0194-0-176	14	2
20-0194-1-004	26	8
20-0194-1-032	35	2
20-0194-1-043	12	3
20-0194-1-052	12	3
20-0196-0-032	35	5
20-0196-0-033	35	30
20-0196-0-228	47	31
20-0196-0-228	49	45
20-0196-0-234	47	31
20-0196-0-328	47	31
20-0196-0-334	47	31
20-0196-0-336	38	4
20-0196-0-352	23	3
20-0196-0-502	30	2
20-0196-0-502	31	21
20-0196-0-504	41	19
20-0196-0-569	49	44
20-0196-0-604	41	19
20-0196-0-659	49	44
20-0196-1-330	26	12
20-0196-1-331	26	11

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20-0196-1—	13	Chart all types
20-0196-1-337	26	11
20-0197-0-029	12	5
20-0197-0-035	12	5
20-0208-0-003	46	6
20-0208-0-070	49	42
20-0208-0-071	38	3
20-0208-0-071	49	46
20-0208-0-232	35	17
20-0208-0-332	35	17
20-0208-0-501	31	30
20-0208-0-502	31	30
20-0208-1-204	41	18
20-0208-1-215	29	6
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20-0648-1-006	42	10
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*Furnished only as an Assembly.

PART NUMBER	PAGE	DET.

From the library of: Diamond Needle Corp

MAINTENANCE AND TROUBLE SHOOTING

This Service Manual provides information on the Installation, Operation and Adjustments for all Reece series S2 machines. It has been compiled for the S2 Buttonhole machine, the basic model of the S2 series. Most adjustments for other models are covered in these basic instructions.

Special instructions are provided for other models where adjustments differ from or are in addition to the basic buttonhole machine instructions.

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S2 MACHINE CHECKING ADJUSTMENTS

The following check adjustments and the quick examination of machine parts establish that the S2 machine is in proper mechanical adjustment. Sewing adjustments may then be refined without being concerned that mechanical settings are causing interference.

CHECKING SEQUENCES	ADJUSTMENT	PAGES	FIG/MACHINE CHECKING FIG.(MC)
1	Needle Bar "Rock-over"	29	Fig. 3 & 4
2	Needle Bar Vibrator Cam	12	MC-2
3	Needle Bar Height	11	MC-3
4	Stitch Bite & Stitch Line	28	MC-4A & 4B
5	Centralizing Knife*	21	MC-5A & 5B
6	Thread Take-up. Recheck when sewing	33	MC-6
7	Thread Trimming	34-36	MC-7A & 7B
8	Stop Motion Adjustment	24 & 25	MC-8A, 8B, 8C
9	Barring Cam*	13	MC-9
10	Side Clearance*	12	MC-10A, 10B
11	Center Stopping for Cutting*	20	MC-11
12	Feed Shifter Timing	18	MC-12A, 12B
13	Clamp Plate Stopping Position	14	MC-13A, 13B, 13C, 13D
14	Looper and Needle Bar	29 & 30	Fig. 5 thru 10
15	Looper and Needle Bar	31	Fig. 11-16
16	Recheck adjustment #6	—	—

*Buttonhole Machine Only

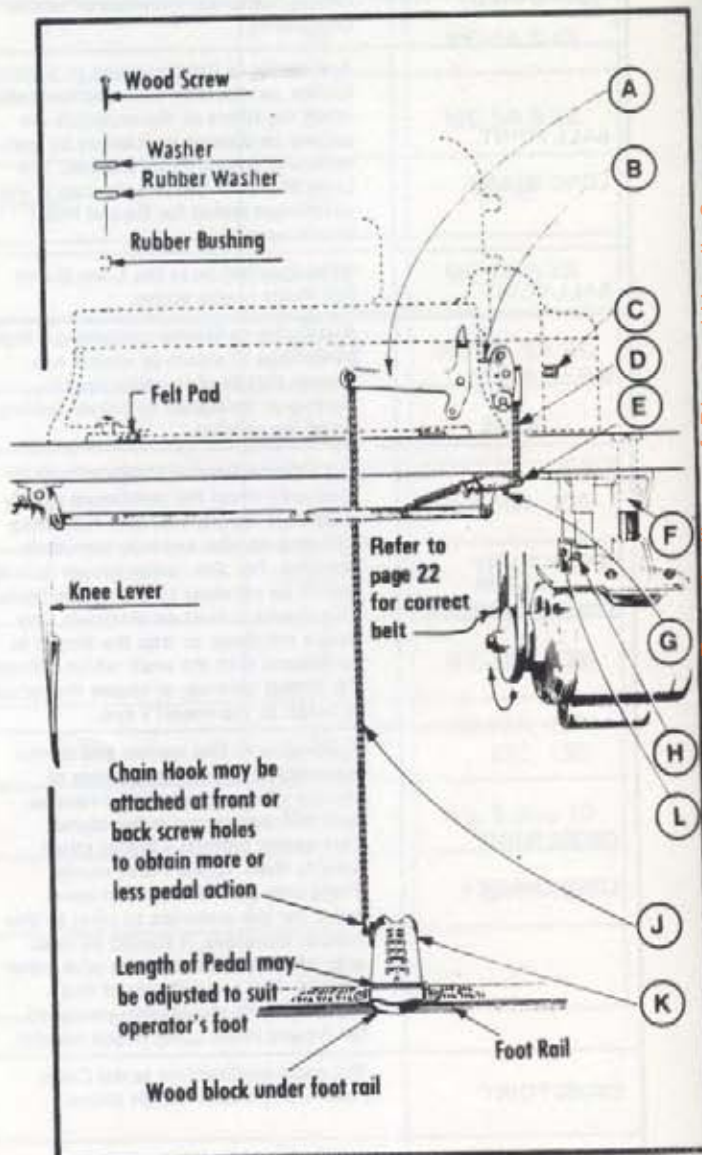
NEEDLES

1

Needles for the Reece Series S2 Machines are packaged and sold in boxes of 100, in the sizes and types listed. They are of superior struck groove construction, chrome plated and are spotted at the eye except in sizes 00 and finer. When ordering, specify quantity — (100, 200, etc.) and give the Needle E.D.P. Number.

TYPE	APPLICATION	E.D.P. NUMBER	CODE NUMBER	NEEDLE BLADE SIZE
ROUND POINT LONG SHANK	Applicable to the majority of woven fabrics, knits and materials of similar consistency. These needles have a long shank that gives added stiffness to the blade permitting the use of one size smaller needle than would be normally required. Cannot be used on heavy materials that would be penetrated by the tapered portion of the needle's shank.	02-0750-1-400	750-LS-0000	Extremely Fine
		02-0750-1-000	750-LS-000	Extra Fine
		02-0750-1-000	750-LS-00	Very Fine
ROUND POINT	Applicable to the majority of woven fabrics, knits and materials of similar consistency.	02-0750-0-110	750-0	Fine
		02-0750-0-111	750-1	Medium
		02-0750-0-112	750-2	Heavy
BALL POINT LONG SHANK	Applicable to tightly woven or knitted fabrics, particularly silks and synthetics when the fibers of the materials are subject to damage or fracture by conventional Round Point needles. The Long Shank of this needle gives it the advantages stated for Round Point Shank needles.	02-0751-1-400	751-LS-0000	Extremely Fine
		02-0751-1-000	751-LS-000	Extra Fine
		02-0751-1-000	751-LS-00	Very Fine
BALL POINT	Same application as the Long Shank Ball Point needle above.	02-0751-0-110	751-0	Fine
		02-0751-0-111	751-1	Medium
SPEAR POINT	Applicable to fabrics containing a high percentage of starch or similar substances that tend to cause needle heating or resistance to proper pulling up of the stitches.	02-0752-0-110	752-0	Fine
		02-0752-0-111	752-1	Medium
		02-0742-0-112	752-2	Heavy
SPEAR POINT DOUBLE GROOVE	The Double Groove needle should be used only when the conditions justify it because it casts a smaller loop than standard needles and may introduce skipping. For this reason looper points should be set close to the needle blade. This needle is used on materials that have a tendency to trap the thread in its descent into the work which affects the thread take-up, or causes the thread to break at the needle's eye.	02-0752-0-211	752-1-DG	Medium
		02-0752-0-212	752-2-DG	Heavy
CROSS POINT LONG SHANK	Applicable to fine leather and similar materials as well as some types of plastics where conventional needles tend to leave excessive punctures. This needle permits a higher stitch density than Round Point needle. There may be a tendency in some cases, for the materials to cling to this needle, therefore, it should be used only after comparative test with other needles. The Long Shank of this needle gives it the advantages stated for Round Point Long Shank needles.	02-0753-1-100	753-LS-00	Very Fine
CROSS POINT	The same applications as the Cross Point Long Shank needle above.	02-0753-0-110	753-0	Fine
		02-0753-0-111	753-1	Medium
		02-0753-0-112	753-2	Heavy
ROCKED POINT	Applicable to leather and similar materials where conventional sharp pointed needles tend to leave excessive punctures. The slit made by the Rocked Point needle will tend to close up after penetration. This needle permits a higher stitch density than is possible in leather with a round point needle.	02-0754-0-110	754-0	Fine
		02-0754-0-111	754-1	Medium

- NOTE 2: See Solenoid Starting Unit on Page 4.



1. Accessory box, supplied with machine, contains all necessary items for installation.

2. Make sure that motor specifications are correct for electrical supply, and that the Motor Pulley rotates in direction of arrow.

3. Locate machine on table as shown and outline position in pencil.

4. Tip machine on side. Remove cellophane seals from both sides of felt pads and insert pads into recessed areas at corners of machine base. Restore machine to original location on table and install four rubber bushings and wood screws with rubber and metal washers in the holes at corners of machine base.

5. Connect lower end of Short Chain (F) to Lever (H) and adjust Screw (G) to allow slack to exist in the Chain as described on Page 2, paragraph 5.

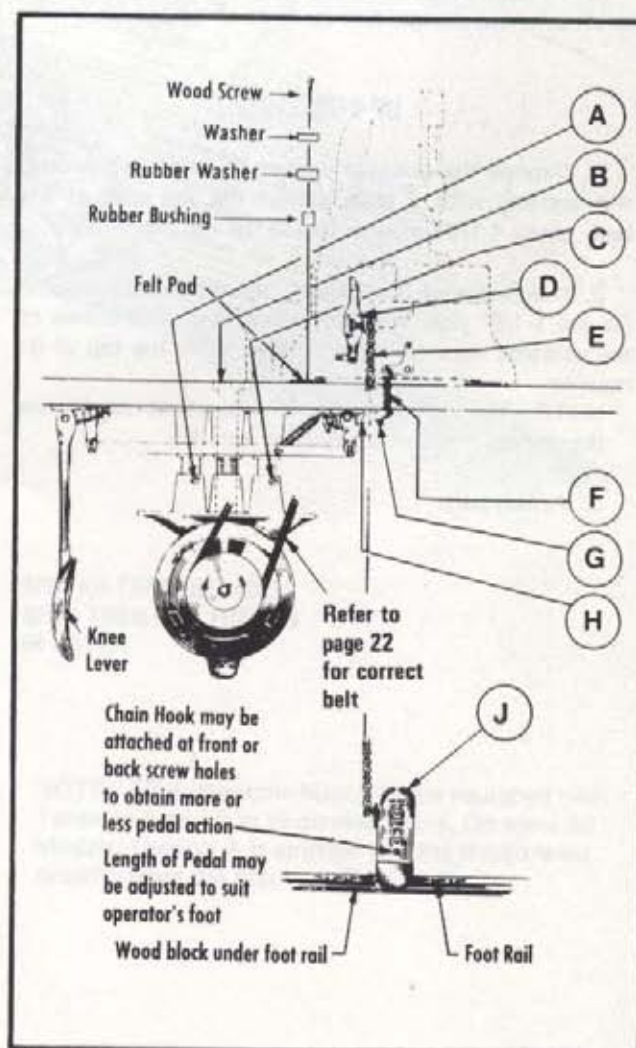
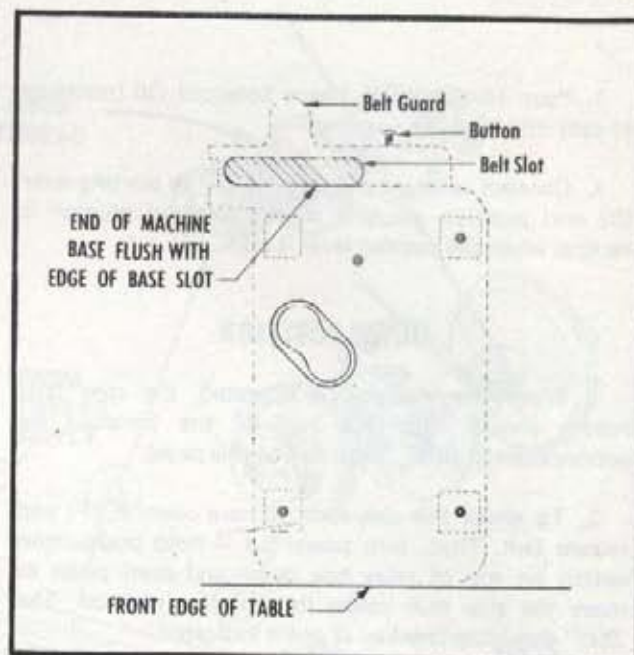
6. Attach Long Chain (E) to Lever (D) and let it hang vertically through chain hole. See Note 2, Page 2.

7. Place Pedal (J) on Rail as shown, so that left side of Pedal is in alignment with vertically suspended Chain (E). Then attach Pedal (J) to rail of table using wood block and screws provided in accessory box.

8. Attach Long Chain (E) to Pedal (J) so that toe of Pedal is approximately 5" above floor.

9. Install Belt and adjust belt tension by loosening (A) and (C) and turning Screw (B) to right or left as required. **IMPORTANT:** A reasonably tight belt tension should be maintained at all times and new belts should be tightened frequently during their initial stretching period.

10. Start machine in accordance with the Operating Instructions, Pages 6 and 7. For adjustments of Machine Starting and Stopping Mechanisms, refer to Pages 24, 25, 26 and 27.



1. Pour 14 ounces of Reece Solenoid Oil (contents of can) into breather opening.

2. Connect solenoid plunger link (A) to starting lever (B) and position machine so the solenoid plunger is vertical when the starting lever is up.

DOWN POSITION

1. When the machine is operated, the stop bolt holder should clear the side of the bedplate by approximately .005" (thickness of this page).

2. To check this clearance, remove cover at (F) and release belt. Then, turn power on — hold pushbutton switch on top of relay box down and press pedal to move the stop bolt holder into starting position. The .005" should be checked at point indicated.

3. To adjust the clearance, remove lever pin (A), and screw solenoid plunger link up or down as desired.

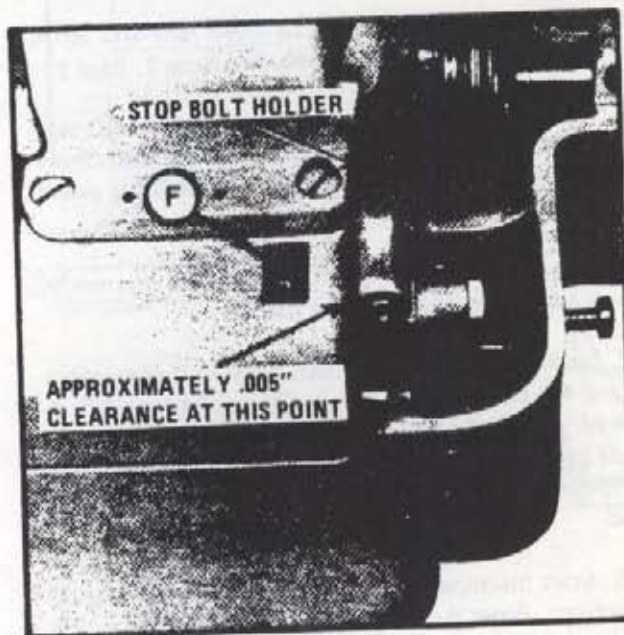
UP POSITION

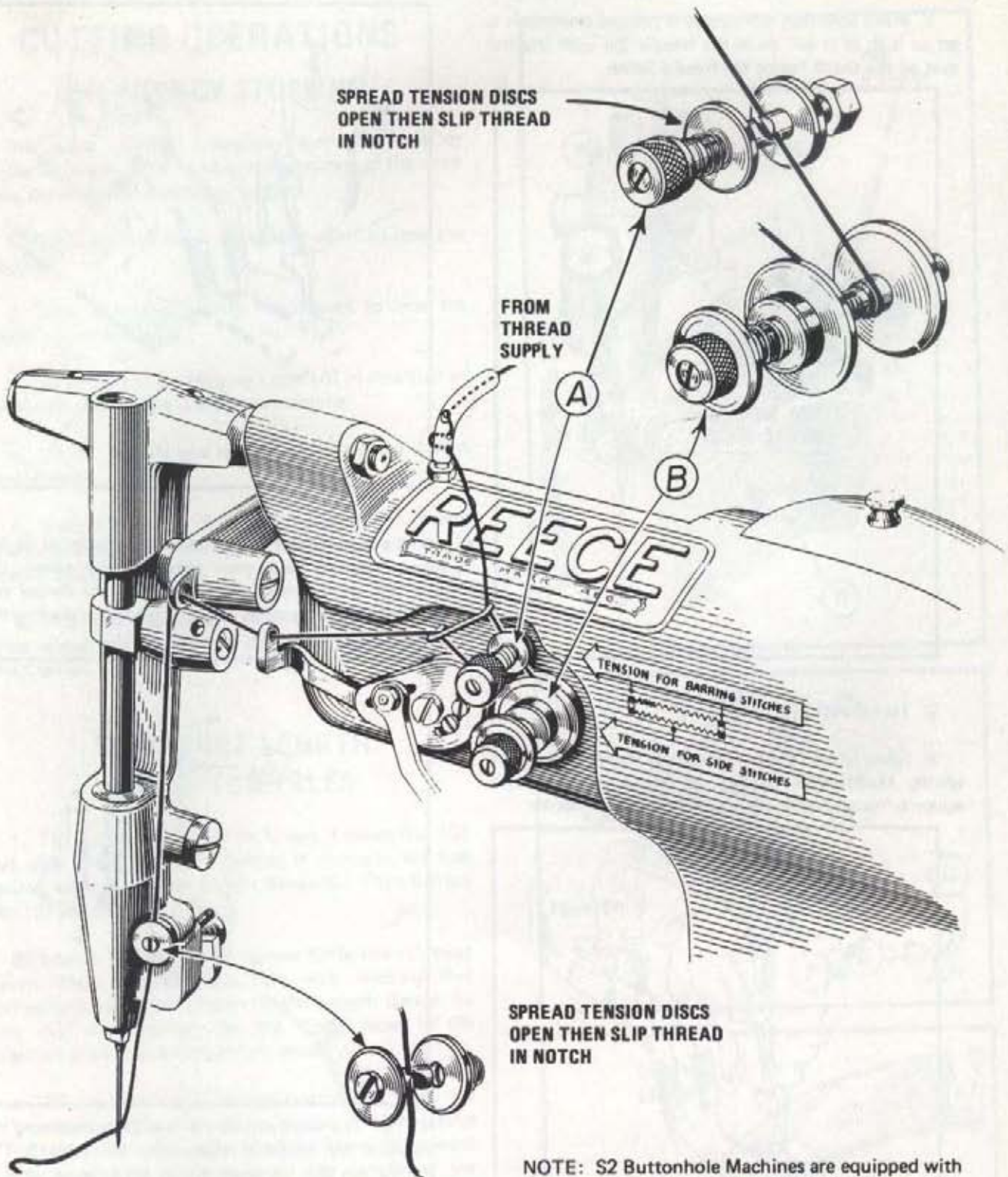
1. Depress the solenoid plunger to its down position, and sighting with a scale against the top edge of the base, check 1-1/8" plunger rise to the top position.

2. If adjustment is necessary, reposition bumper (D), for the 1-1/8" rise. This movement limits the stroke of the solenoid core to avoid contact with the top of its housing.

NOTE: The 1-1/8" upward movement establishes the correct position for starting arm (C).

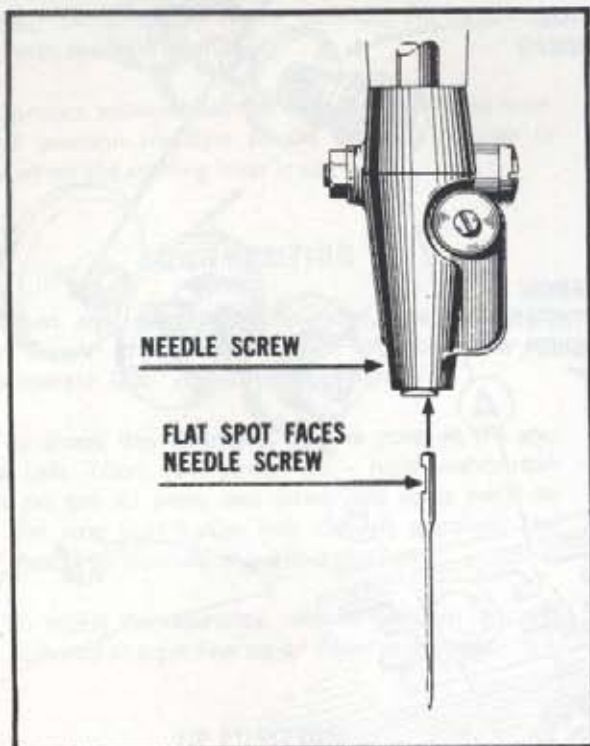
3. Attach belt.





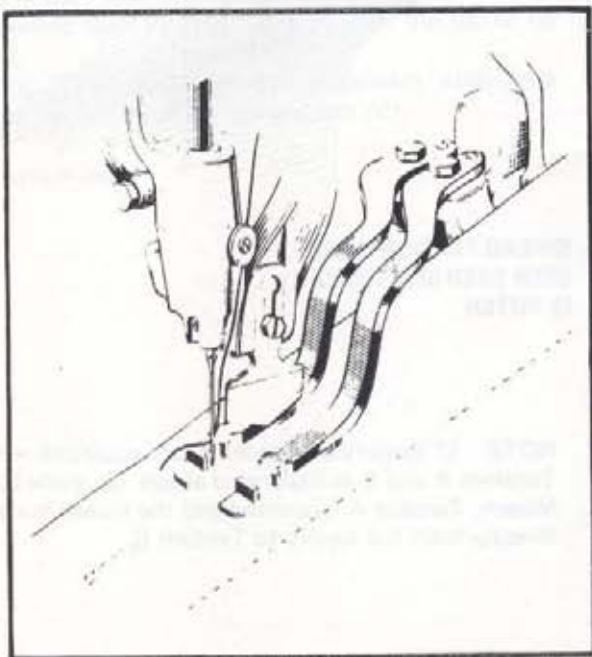
NOTE: S2 Buttonhole Machines are equipped with Tensions A and B as illustrated above. On some S2 Models, Tension A is omitted and the thread leads directly from the supply to Tension B.

1. Make sure that the needle is straight and that it is set as high as it will go in the Needle Bar with the flat spot on the shank facing the Needle Screw.

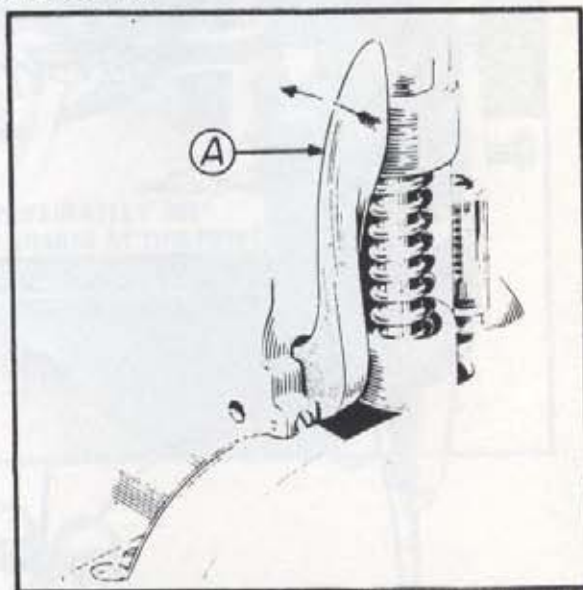


2. Turn motor on to start belt.

3. Insert work under Clamps as shown below, for sewing buttonholes parallel to border or as shown opposite for sewing buttonholes crosswise to border.



4. To start machine, depress starting pedal to its full extent. Machine will then automatically clamp the work, sew and cut the buttonhole, trim the thread and stop with clamps in raised position ready for starting the next buttonhole.



NOTE: The work can be clamped before starting the machine by partially depressing the pedal.* The clamps can also be raised at any time for removal or adjustment of the work by pressing Unclamping Handle (A) in direction of arrow, as shown opposite.

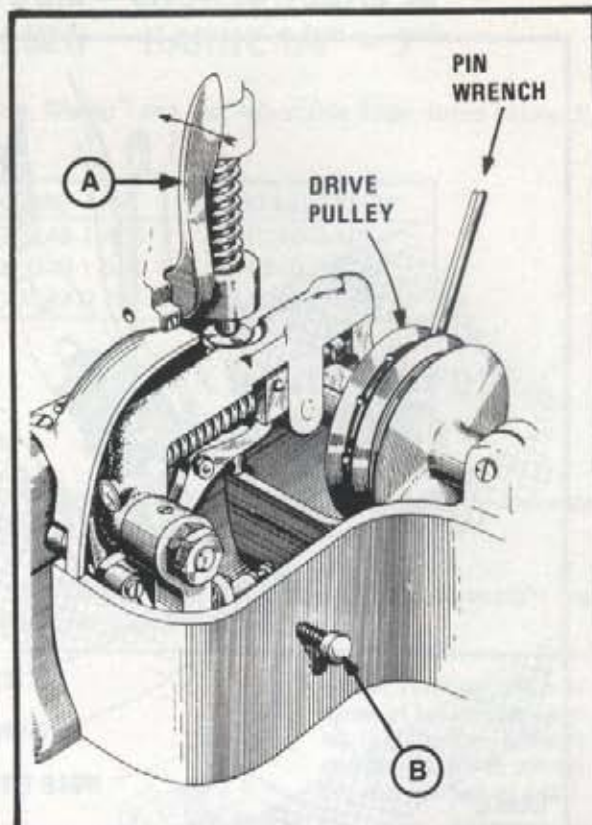
*On Solenoid equipped tables, the Knee Lever must be held to the side as the Pedal is pressed. To restart, follow directions on Page 7, detail 5.

CUTTING OPERATIONS

EMERGENCY STOPPING

In the event of any emergency such as thread or needle breakage, which necessitates removal of the work from the machine, proceed as follows.

1. Quickly press Knee Lever to the left to stop the machine.
2. Turn Drive Pulley with Pin Wrench to raise the needle out of the work.
3. Raise Clamps by pressing Lever (A) in direction of the arrow and remove work from machine.
4. Inspect Needle and replace with new one if bent or damaged.
5. Restart machine by pressing Button (B) inward and depress pedal. Then allow machine to operate to normal stopping position.
6. Rethread the Needle and resew the buttonhole after reinserting the work in the original position under the Clamps.

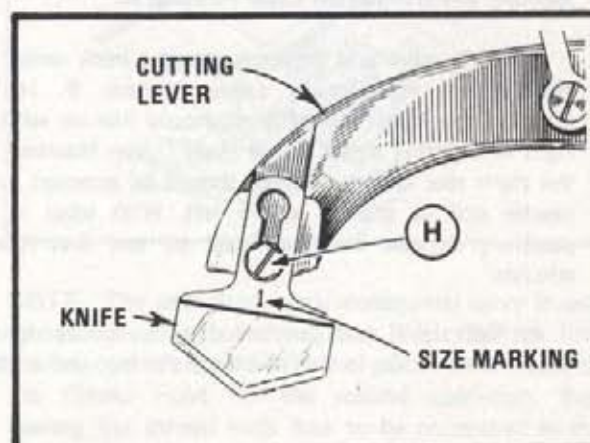
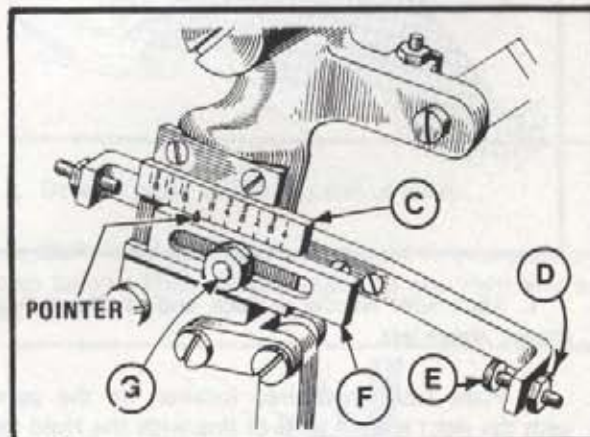


TO CHANGE LENGTH OF BUTTONHOLES

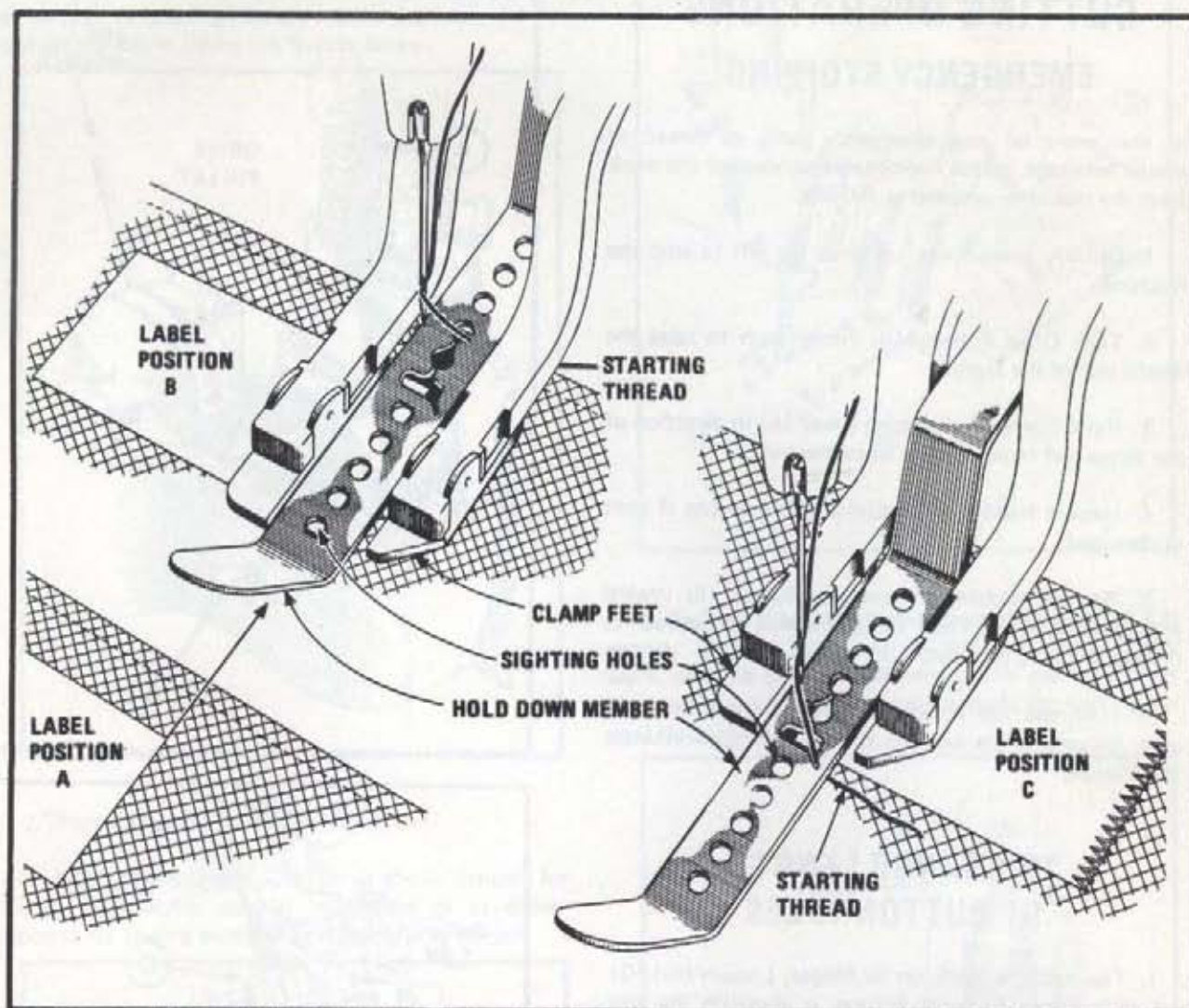
1. Tip machine back on its hinges. Loosen Nut (G) and slide Plate (F) until Pointer is opposite the size desired as shown on the Length Gauge (C). Then tighten Nut (G) securely.

2. Loosen Screw (H) and remove Knife from Cutting Lever. Then install Knife with size marking that corresponds with that chosen on the Length Gauge. Be sure that size marking on the Knife faces in the direction shown, and tighten (H) securely.

NOTE: If the length of the buttonhole does not measure exactly the same as the Length Gauge setting, loosen Nut (D) and adjust Screw (E) inward or outward as required until the length of the buttonhole corresponds with the gauge setting. When this adjustment has been established for one size buttonhole, the sizes of all buttonholes will correspond with the settings of the Length Gauge.



S2 LABEL SEWERS – MODEL S2-SRLS RANGE 1/4" – 1-1/2"



1. Start with Needle at back end of Clamp Feet as shown, above left.

2. Place label in desired location on the garment with the right end of label in line with the Hold Down Member as illustrated in Label Position A.

3. Slide label and garment straight back under the Hold Down Member to Label Position B. In this position the right end of label should line up with the right of Sighting Holes in the Hold Down Member, and the right rear corner of label should be exposed in the needle slot as shown, above left. With label in this position, depress Starting Pedal to sew first row of stitches.

4. Shift label and garment directly to the right to Label Position C. In this position, the left end of label

should line up with the left side of sighting holes and the left front corner should be exposed in needle slot as shown, above right. Then depress Starting Pedal and sew the second row of stitches.

NOTE: As the garment is moved from position A to B, the starting thread brushes back in the Hold Down Member to the position shown; and as the garment is shifted to Position C, the starting thread leads into the notch at the right side of needle slot as shown, above right. Thus in both of these positions, the thread will remain clear of the Clamp Feet to be fully consumed in the first stitch, leaving no thread ends on the label.

The right Foot is shortened and beveled as shown to avoid clamping the loose starting thread in case the thread curls toward the foot as the second side of the label is positioned for sewing.

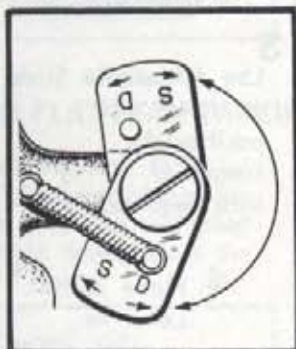
S2 LABEL SEWER – MODEL S2-LS2N – RANGE 1/4" – 2"

For maximum operating efficiency use the shortest Clamp Arm, Clamp Foot and Adjustable Slide, listed below, for the shortest sewing range that will accommodate your labels.

SEWING RANGE	CLAMP FOOT	CLAMP ARM	ADJUSTABLE SLIDE
1/4" to 7/8"	20-0650-0-406	20-0649-1-405	20-0240-0-405
1/4" to 1 1/2"	20-0650-0-606	20-0649-1-605	20-0240-0-605
5/8" to 2"	20-0650-0-706	20-0649-0-705	20-0240-0-705

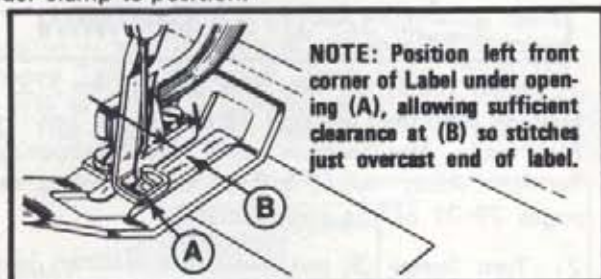
SINGLE OR TWO ROW STITCHING

The machine may be operated for either single sewing or double sewing each end of a label. For single sewing operation, tip machine back and swing shifter, pictured at the right, DOWN to "S" position. For double sewing operation, swing Shifter UP to "D" position.

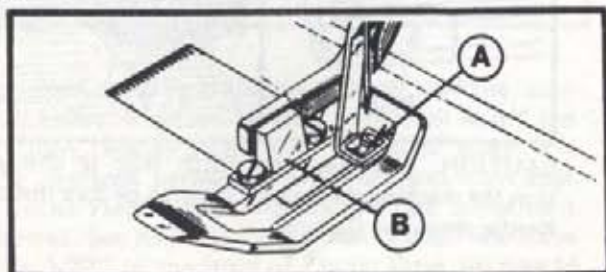


WORK HANDLING FOR SINGLE SEWING

1. Start with Clamp in back position.
2. Position label on garment and slide straight back under clamp to position.

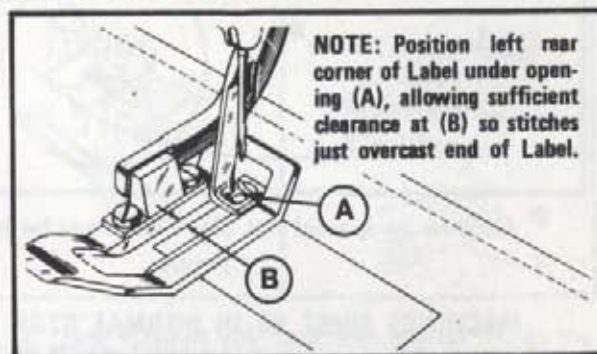


3. Depress pedal to sew left end of label.
4. Shift label and garment straight left to position shown below. Then depress pedal to sew right end of label.

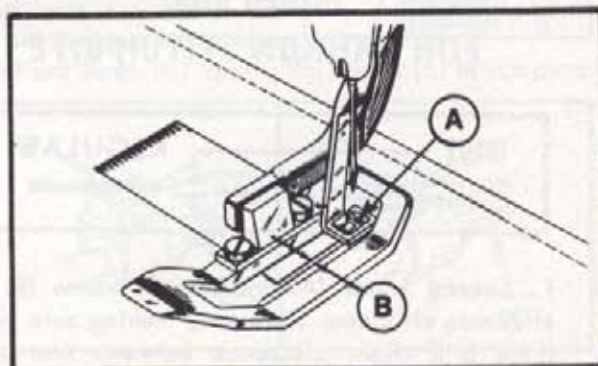


WORK HANDLING FOR DOUBLE SEWING

1. Sew one operation on scrap material to make sure clamp is forward.
2. Position label on garment and slide straight back under clamp to position shown.



3. Depress pedal to sew left end of label.
4. Shift label and garment straight left to position shown below. Then depress pedal to sew right end of label.



NOTE: The described work movements carry thread into the opening of the Clamp Foot for the first sewing operation, and into the groove at the rear of the Clamp Foot for the second operation, thus leaving the thread ends free to be consumed in the stitching.

S2 - COMBINATION REGULAR & DOT TACKERS Models S2-TRWD & S2-SRWD

INSTRUCTIONS FOR CHANGING LENGTH & WIDTH OF TACKS

FOR DOT TACKS

- 1 Use Clamp Foot and Arm as shown
- 2 Use Bearing Cap as shown
- 3 Use Adjustable Slide as shown
- 4 Place Shifter* Lever in horizontal position

FOR 1/4"-1-1/2" TACKS

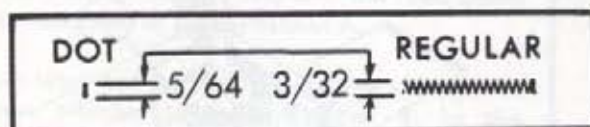
- 1 Use Clamp Foot and Arm as shown
- 2 Use Bearing Cap as shown
- 3 Use Adjustable Slide as shown and position for length of tack required
- 4 Place Shifter* Lever in vertical position

* Groove on special nut (01-3432) must be in a vertical position for proper Step #4 alignment.

MACHINES MUST BE IN NORMAL STOP POSITION WHEN MAKING CHANGES LISTED BELOW (FOR BOTH DOT TACKING AND REGULAR TACKING)

TO ADJUST WIDTH OF STITCH (Stitch Bite)

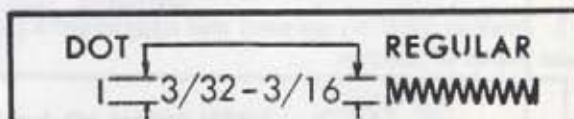
FOR NARROW STITCH BITE



1. Loosen Screw (A) and turn in Screw (B) to eliminate all clamp vibration, making sure that there is a slight clearance between Mat and Throat Plate at (X).

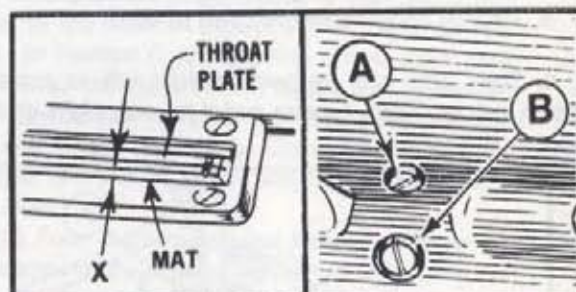
2. Adjust Stitch Bite as shown on page 28 of the S2 Service Manual, Maintenance and Troubleshooting Section. Also, adjust Loopers as described on pages 29-31 of the same manual.

FOR WIDE STITCH BITE



1. Adjust the Stitch Bite and Loopers for 3/32" bite, as described on page 28 of the S2 Service Manual, Maintenance and Troubleshooting Section. Also, adjust Loopers as described on pages 29-31 of the same manual.

2. Turn Screw (B) out until the desired bite is obtained.

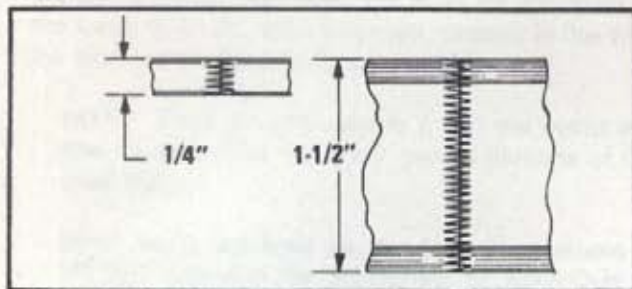


CAUTION: Whenever the Stitch Bite is changed, turn the machine through by hand to be sure that the Needle clears the Clamps.

OPERATING INSTRUCTIONS — FLAT SEAM TACKER 10A

MACHINE CAPABILITIES

1. "End to End" joining of bands 1/4" - 1-1/2" wide.



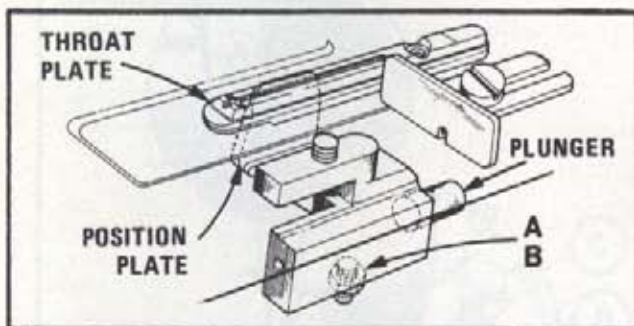
Machine has a retractable guage for close butting of ends.

2. Produces a 5 stitch "Dot" tack up to 3/16" wide.

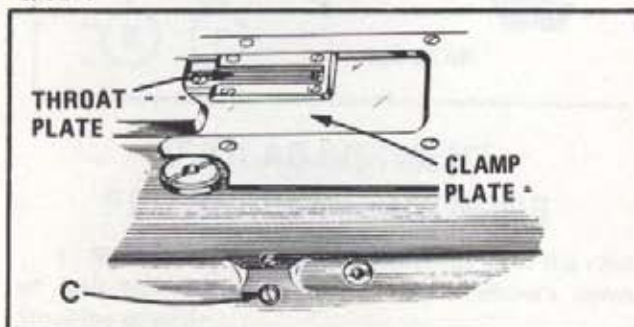
3. Produces Stay Tacks 1/4" to 1-1/2" with either single or two row stitching with wide 3/16" bite. Adjustable to regular bite 3/32" bite can be further narrowed to 5/16". Loopers must be adjusted to this bite change.

FOR CHANGING FROM FLAT SEAM TACKING TO WIDE BITE (3/16") AND DOT TACKING

Before proceeding, lock out Position Plate by latching the machine in sewing position by loosening nut (A) and tightening screw (B). This will keep Plunger in and the Position Plate down below the Throat Plate.

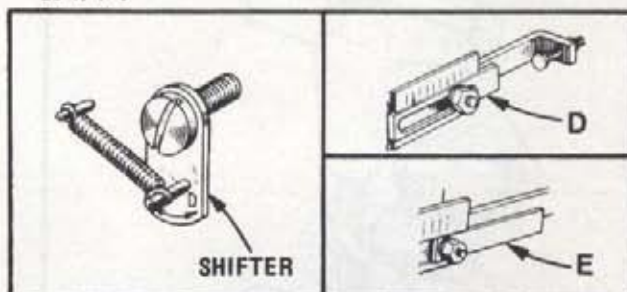


1. Check needle bite by first eliminating clamp vibration — turn in screw (C). Keep slight clearance between Throat Plate and Clamp Plate. Check and set bite to 3/32". If changed, adjust looper to new bite. The bite for most Flat Seam Tackers will be 3/32".



2. Press Stop Belt inward to latch machine, turn Drive Pulley with pin wrench until Roll is off the cam lobe, adjust screw (C) out until there is a slight clearance between Clamp Plate and front edge of Throat Plate. Check that barring cam adjustment is correct. See page 12. Check that Clamp Plate stops within 1/32" of the front of Throat Plate, see page 14.

3. Once adjustments 1 & 2 are checked, place Shifter in Single Row Tacking Position and set (D) at 1/4".

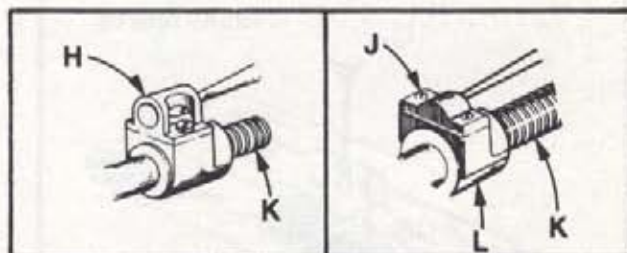


4. Sew forward 1/4" and then change (D) to the "Dot" Tacking Stop (E).

5. Sew back to starting position. Flip Shifter (F) to lock rear Brake Shoe (G).



6. Replace Bearing Cap (H) with (J), which has a pin that goes into groove of Feed Screw (K) locking the Shifter (L) in one place.



7. Operate the machine as a Dot Tacker for a few cycles then change the Clamp Arms to the Dot Tacker Arm & Foot Assembly. Turn through cycle with pin wrench making sure that the needle clears the clamp foot.

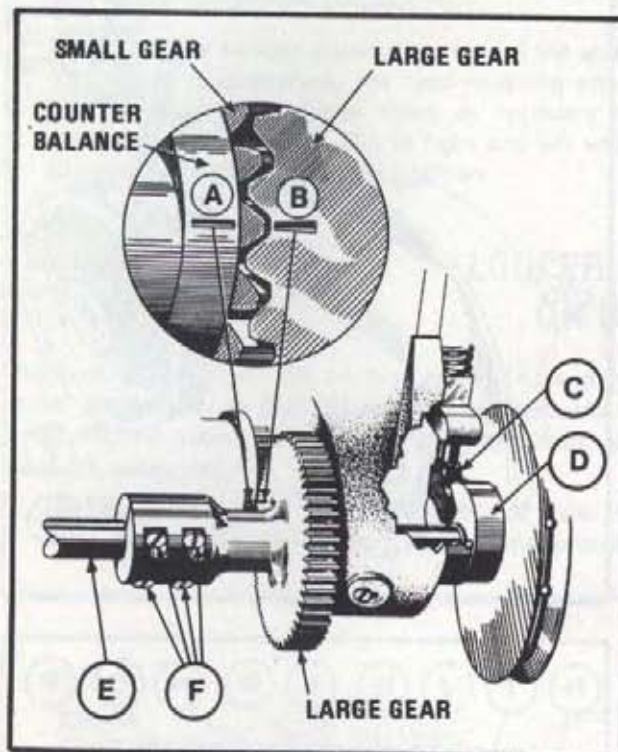
8. To change back to regular or wide bite tacking operating, following above procedure from 7 through 3.

GEAR ASSEMBLY

1. In the event that gears are disassembled, they should be reassembled with the mark on the tooth of the Large Gear (B), shown at right, directly in line with the mark on the Counter Balance at (A).

NOTE: Since the gear ratio is 2 to 1 the marks will line up only once for every two revolutions of the small gear.

When marks are lined up, the four clamp screws at (F) are accessible for adjustment of Rock-Over in machine stop position. See adjustment 3, page 29.



GEAR ADJUSTMENT FOR NEEDLE BAR TIMING

1. Make sure that the Stop Bolt (C) is in the recess of Cam (D) as shown. This is the Machine's normal stopping position.

2. Loosen four screws (F), and turn Large Gear on Shaft (E) until the Needle Bar, shown at right, is at the highest point of its stroke. While maintaining this position, tighten lightly screws (F), then adjust Large Gear sidewise as required until a very slight amount of end play (.001-.002) exists in the main shaft. Then tighten screws (F) securely.

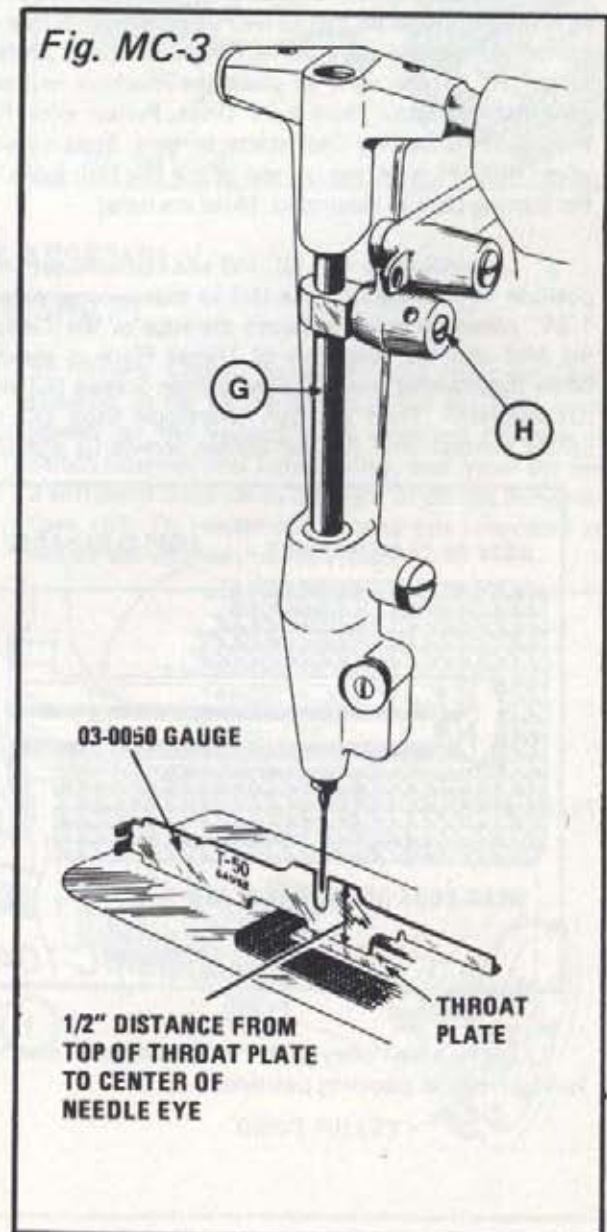
NEEDLE BAR HEIGHT ADJUSTMENT

1. Make sure that the machine is in its normal stopping position as described above — (Gear adjustment — Item 1).

2. Make sure that the Needle is set as high as it will go in the Needle Bar (G).

3. Loosen Set Screw (H) at right and adjust height of Needle Bar so that the center of the needle eye is $\frac{1}{2}$ " above the top of the Throat Plate. Use Needle Height Gauge 03-0050 in manner illustrated. Then tighten Screw (H) securely.

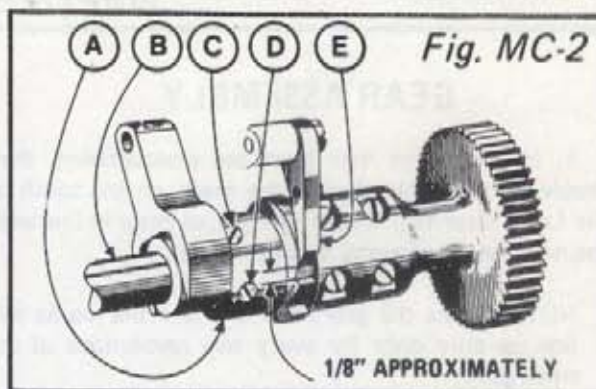
Fig. MC-3



TO SET NEEDLE BAR VIBRATOR CAM

1. Position Needle Bar Vibrator Cam (A) so that Screw (D) faces the flat spot on Shaft (B). After the proper location has been obtained tighten Screws (C) and (D) securely.

NOTE: When this setting has been correctly established, the end of Latch (E) will be approximately 1/8" from the second notch in Cam (A) as shown, which is its normal stopping position.



MAT AND THROAT PLATE SIDE CLEARANCE (For Buttonhole Machines only)

1. Press Stop Bolt Shaft (G) inward to latch machine in sewing position so that Drive Pulley (F) will be free to turn. Tip machine back on its hinges and press Shifter Lever (H) to the right to place the machine in Feed reversing position. Then turn Drive Pulley with Pin Wrench until Barring Cam starts to turn. Stop turning when Roll (P) is on top of one of the five high lobes of the Barring Cam as illustrated. (Also see note)

2. Loosen Screws (I), (J), (N) and (O) and set the position of Adjustable Yoke (M) so that approximately 1/64" clearance exists between the edge of the Clamping Mat and the rear edge of Throat Plate as shown. While maintaining this position, tighten Screws (N) and (O) securely. Then position Overthrow Stop (K) to lightly contact Stud (L) and tighten Screws (I) and (J).

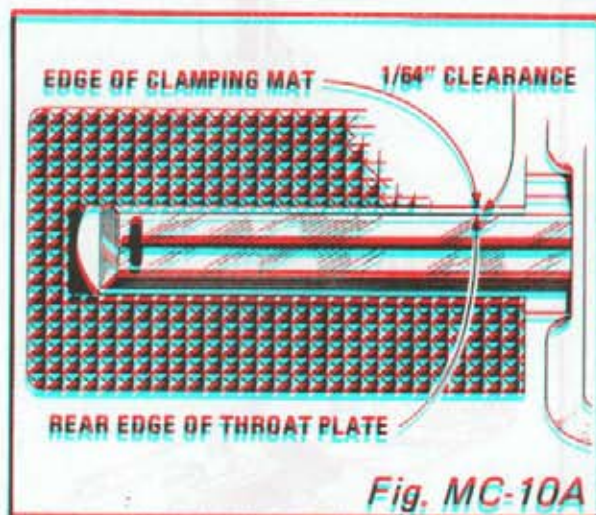


Fig. MC-10A

3. Turn Drive Pulley with Pin Wrench until machine locks in normal stopping position.

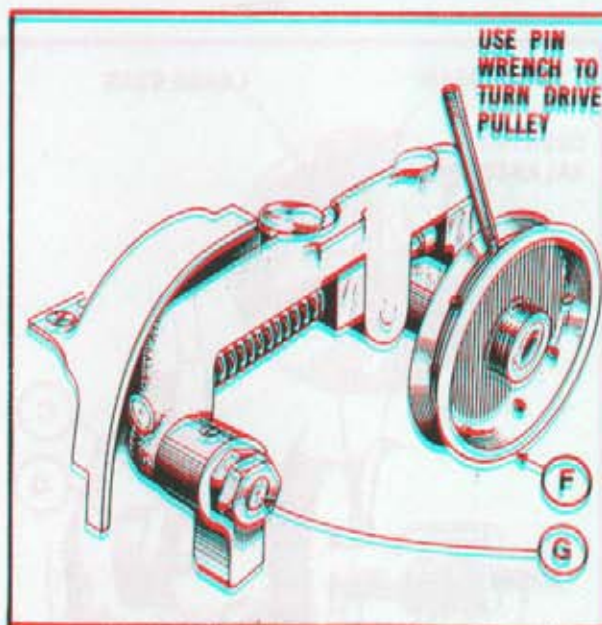


Fig. MC-10B

NOTE: The Barring Cam has five high lobes and one low lobe, (this low lobe is marked with an "X").

BARRING CAM ADJUSTMENT

FOR BUTTONHOLE MACHINES, WIDE BITE TACKERS AND COLLAR STAY TACKERS. FOR ALL OTHER TACKERS, LABEL SEWERS AND EDGERS, SEE PAGE 25.

Start machine and stop it while sewing the first row of stitches. Tip machine back and press Shifting Lever (G) to the right to reverse the feed. Then turn Drive Pulley slowly with Pin Wrench and observe the barring movement of the Clamp Plate in relation to the needle position. When the needle is rising on its front stroke the Clamp Plate should start to shift in direction X just as the eye of the needle emerges from the hole in the Throat Plate. (See detail.) If adjustment is necessary, loosen Screws (E) and (F) and turn Gear (H) in either direction as required to obtain the above described result. Then press Gear (H) against Collar (I) and tighten Screws (E) and (F) securely.

NOTE: If the barring action stops before the above adjustment is completed, the feed reversing action can be repeated as many times as necessary by alternately shifting Lever (G) to right and left while keeping the machine in sewing position.

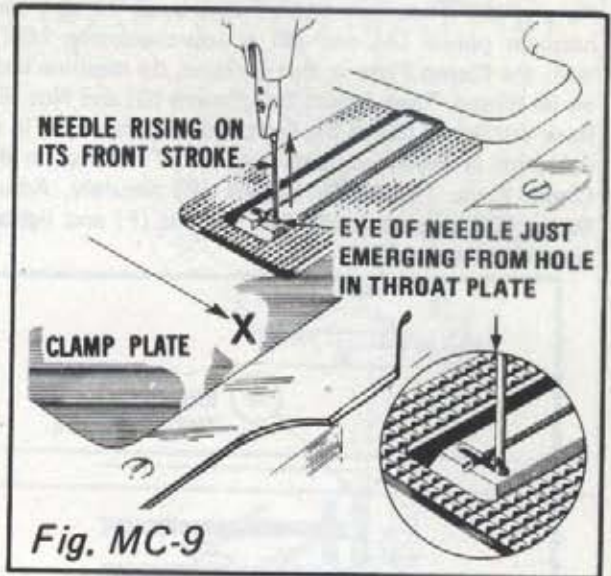


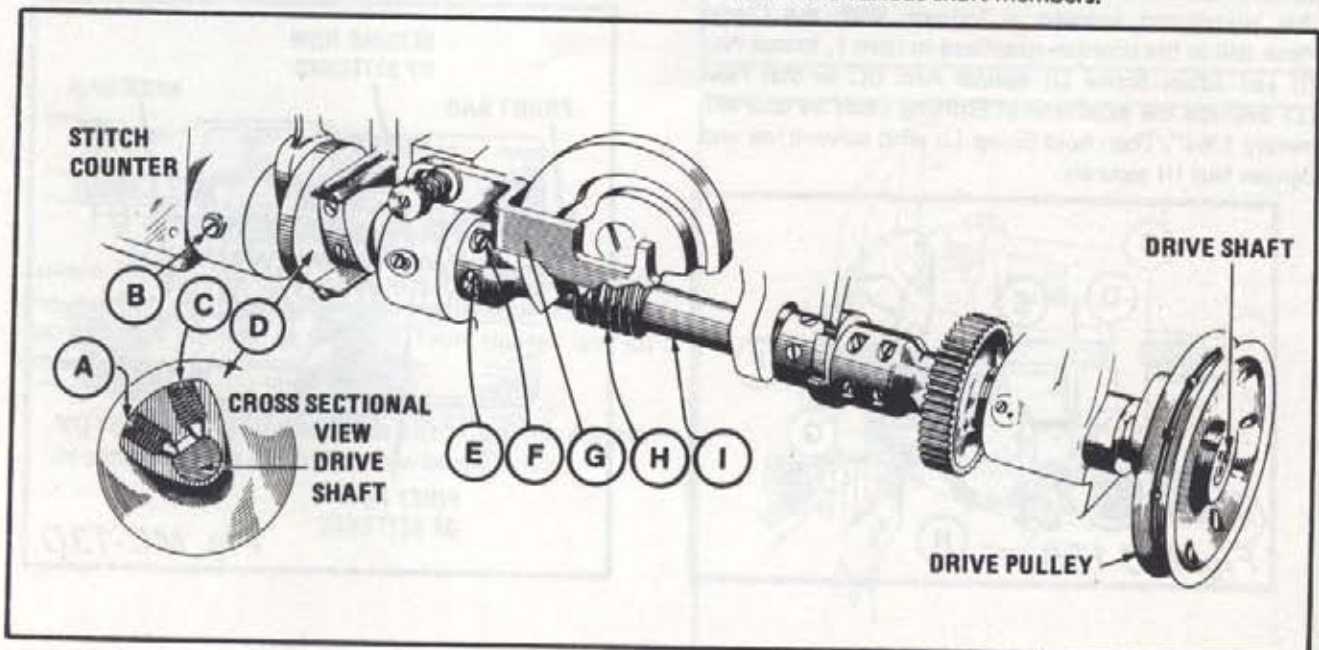
Fig. MC-9

LOOPER CAM ASSEMBLY ON DRIVE SHAFT

Position Looper Cam (D) so that screws (A) and (C) enter the groove on the Drive Shaft as illustrated in cross section view. For Looper Cam Adjustment see page 30, paragraph 7.

NOTE: In the event that disassembly of Cam (D) from the machine is necessary at any time, proceed

as follows. Loosen Screw (B) and move the Stitch Counter as far to the left as it will go. Then loosen screws on the various shaft members between the Stitch Counter and Drive Pulley, and move the shaft a sufficient distance to the right to permit removal of Cam (D). To reassemble, reverse this procedure and retune the various shaft members.



TO ADJUST CLAMP PLATE STOPPING POSITION TO END OF THROAT PLATE

1. Operate machine to a point where the end of the Mat at (A) is approaching close to the end of the Throat Plate at (B). Then turn Drive Pulley until the clearance between points (A) and (B) is approximately $1/32''$. With the Clamp Plate in this position, tip machine back on its hinges. Then loosen two Screws (G) and Nut (E). Back out Screw (D) to the limit. Move Bumper (H) in or out until it lightly contacts boss (C) of the cup on the Clamp Plate. Tighten SetScrews (G) securely. Adjust Screw (D) to contact the Bed Plate at (F) and tighten Nut (E) securely.

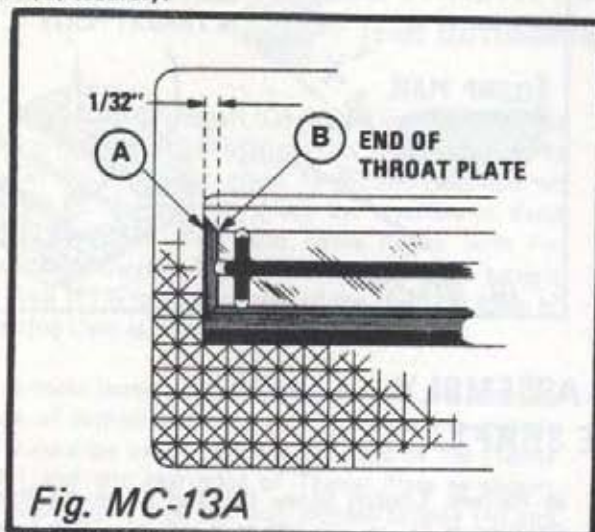


Fig. MC-13A

2. When Bumper (H) has been adjusted as described above, the forward movement of the Clamp Plate is blocked. Therefore, the feed reversing and barring action must be timed to occur at this point. To make this adjustment, proceed as follows: With the Clamp Plate still in the position described in item 1, loosen Nut (I) and adjust Screw (J) against Arm (K) so that Pawl (L) overlaps the extension of Shifting Lever by approximately $1/64''$. Then hold Screw (J) with screwdriver and tighten Nut (I) securely.

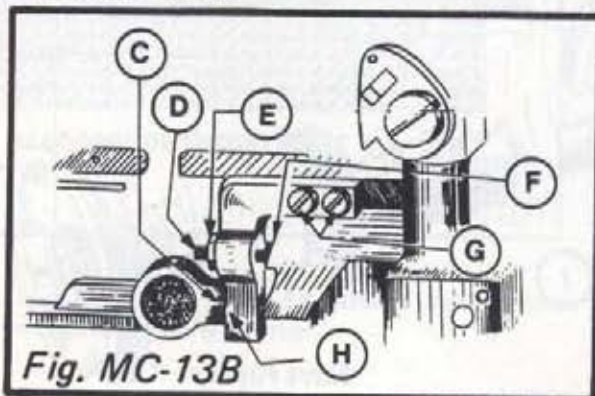
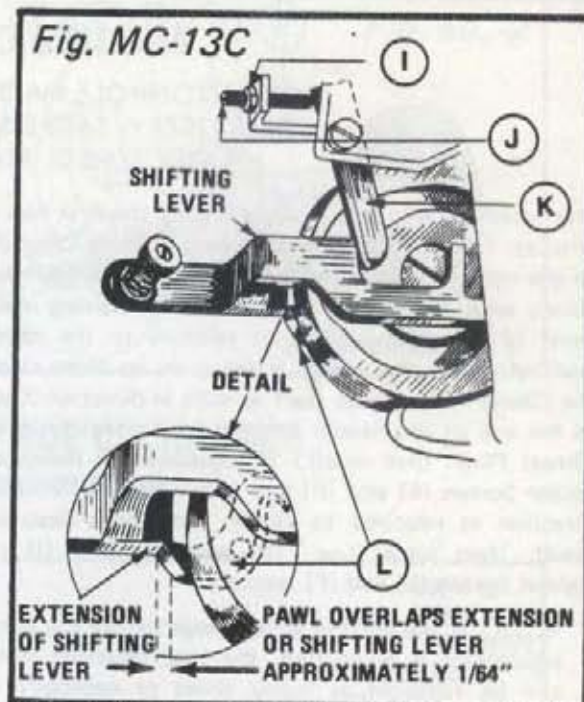


Fig. MC-13B



NOTE: The function of Bumper (H) is to maintain the relation between the end of the Throat Plate and the Mat at the stopping point, and by the same token maintain the relation between the first row of stitches and the front bar of the buttonhole, as illustrated below. If any gap in the stitching exists at this point, the engagement of Pawl (L) on the extension of the Shifting Lever is too short and should be increased by adjusting Screw (J) slightly outward. If there is any crowding of the row stitches at the front bar, the engagement of Pawl (L) is excessive and should be decreased by adjusting Screw (J) slightly inward.

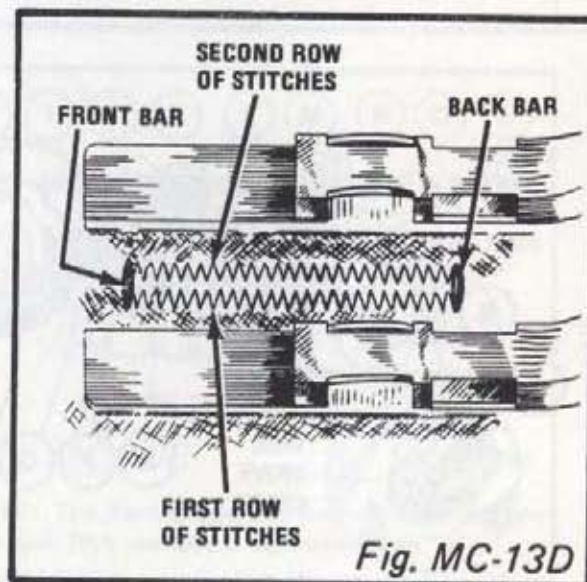
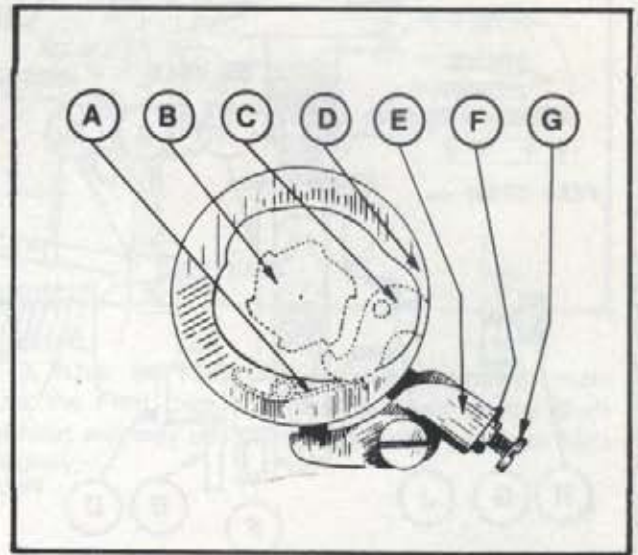


Fig. MC-13D

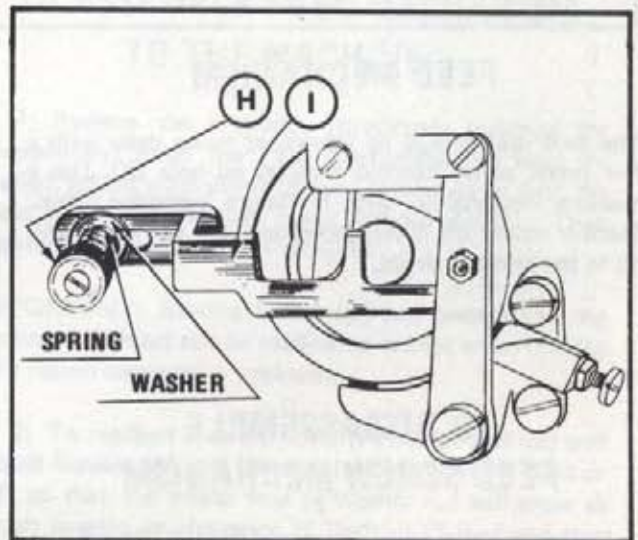
BRAKE ADJUSTMENT ON FEED REVERSING CAM

The pressure of Brake (E) on Feed Reversing Cam (D) should be just sufficient to prevent the Cam from moving after it comes to a stop at the end of each barring cycle. At this time, Pawl (C) on the reverse side of the Cam will be held away from the Ratchet (B). Should the brake pressure be too light, the Cam will reverse slightly under the influence of Spring (A). This will permit Pawl (C) and Ratchet (B) to contact each other intermittently during the entire cycle instead of just during the barring operation. To adjust the brake pressure, loosen Nut (F) and adjust Screw (G) inward for more pressure and outward for less pressure until the point of minimum pressure is reached at which Cam (D) will remain stationary at the end of each barring cycle.



SHIFTING LEVER FRICTION ADJUSTMENT

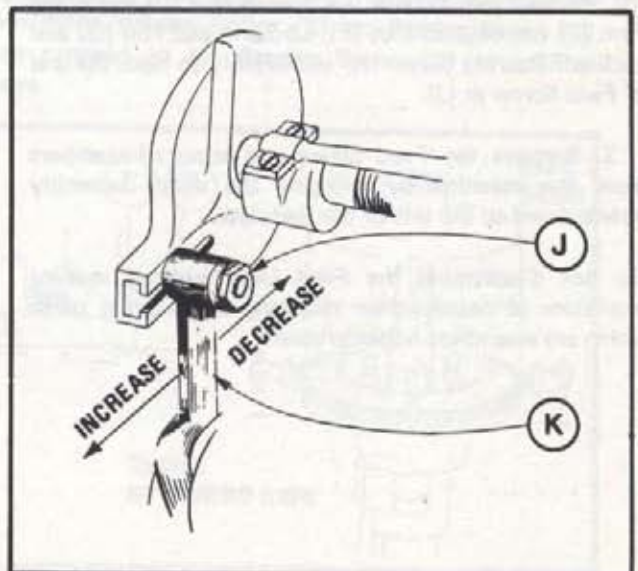
Friction is applied to Shifting Lever (I) by means of the spring and washer under Knurled Nut (H). This is to prevent the Shifting Lever from moving except when actuated to reverse the clamp feed at each barring position. Knurled Nut (H) should be adjusted to provide the minimum friction on Lever (I) to permit the machine to operate without reversing the feed, or from barring at position other than at ends of buttonhole. Neoprene washer should be kept clean and fairly free of oil.

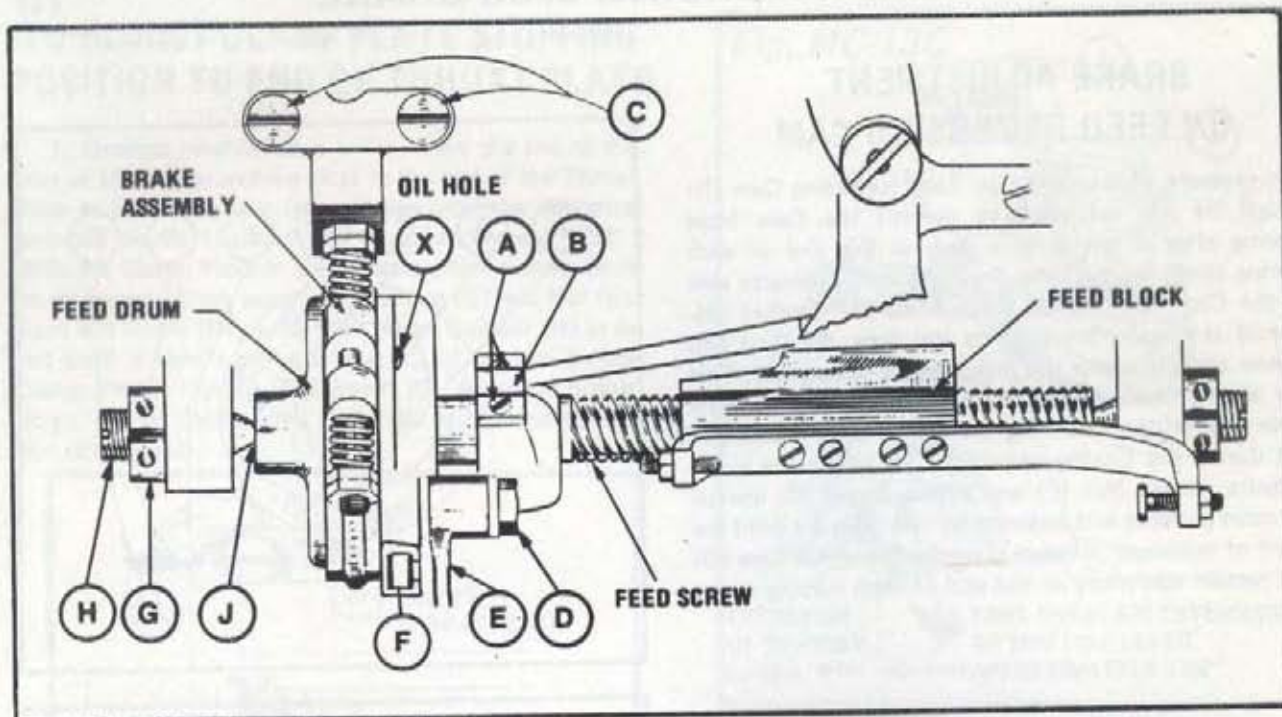


TO ADJUST STITCH DENSITY

Loosen Nut (J) and move Lever (K) outward to increase the number of stitches in the buttonhole or inward to decrease the number of stitches. Then tighten Nut (J) securely.

NOTE: The adjustment does not affect the number of stitches in the end bars of the buttonholes.





FEED MECHANISM

The feed unit should be lubricated twice daily with a few drops of oil inserted through oil hole (X). Use a medium viscosity oil with minimum gumming effect. Electric motor oil is recommended. Do not apply any oil to the brake or drum.

TO DISSASSEMBLE FEED SCREW MECHANISM

1. Remove the two Screws at (A) and lift off Cap (B). Remove two Screws (C), loosen Nut (D) and swing Arm (E) out beyond Slot (F). Loosen Lock Nut (G) and back off Bearing Screw (H) sufficiently to clear the end of Feed Screw at (J).

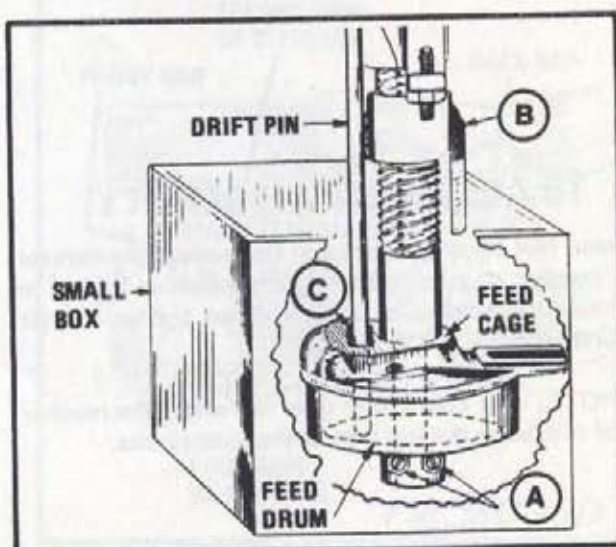
2. Remove the Feed Screw and attached members from the machine by swinging the entire assembly outward and to the left of the Bedplate.

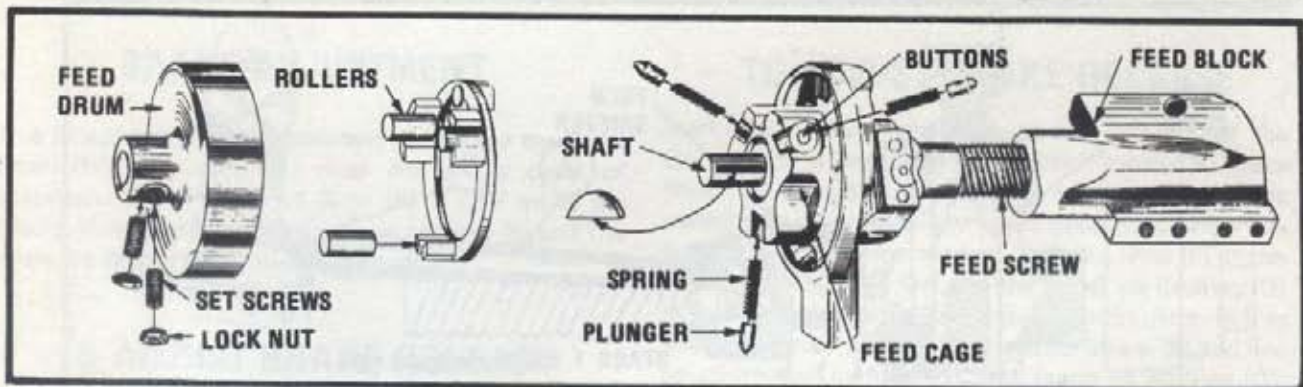
Do not disassemble the Feed Unit without making provisions as described for retaining the internal parts which are assembled under pressure.

TO DISSASSEMBLE FEED UNIT

1. Remove two Lock Nuts and Set Screws at (A).
2. Withdraw Shifter (B) from the Feed Case.

3. Insert a small diameter Drift Pin (preferably of Brass) through opening (C) in the Feed Cage, so that it contacts the inside of the Feed Drum. Then while holding the unit inside of a small box for retaining the parts, as shown, tap the end of the Drift Pin lightly to drive the Feed Drum off the Feed Screw Shaft. After the Drum has been removed, the internal parts will be fully exposed for inspection.





TO ASSEMBLE FEED UNIT

1. Make sure that all parts are thoroughly clean and in good working order.

NOTE: The buttons, illustrated above, will become brightly burnished along parallel lines of contact with Rollers, but as long as the surfaces of the buttons remain smooth, their positions in the Feed Cage should not be altered. If the buttons become worn due to lack of proper lubrication, they may be removed and rotated slightly to present new surfaces of contact for the Rollers. In this case, each button must be reinstalled in the same recess of the Feed Cage from which it was removed and care must be taken to see that buttons are seated squarely to the full depth of the recess in the Feed Cage.

2. Assemble parts in the manner illustrated above.

NOTE: Special Retaining Ring 03-0049 is used, as shown, to hold the Rollers, Plungers and Springs in place while Feed Drum is pressed far enough on the Shaft to encircle the rollers. The Retaining Ring is then removed and the Drum is pressed the rest of the way to lightly contact the body of the Feed Cage. If Retaining Ring is not available, a heavy elastic may be used.

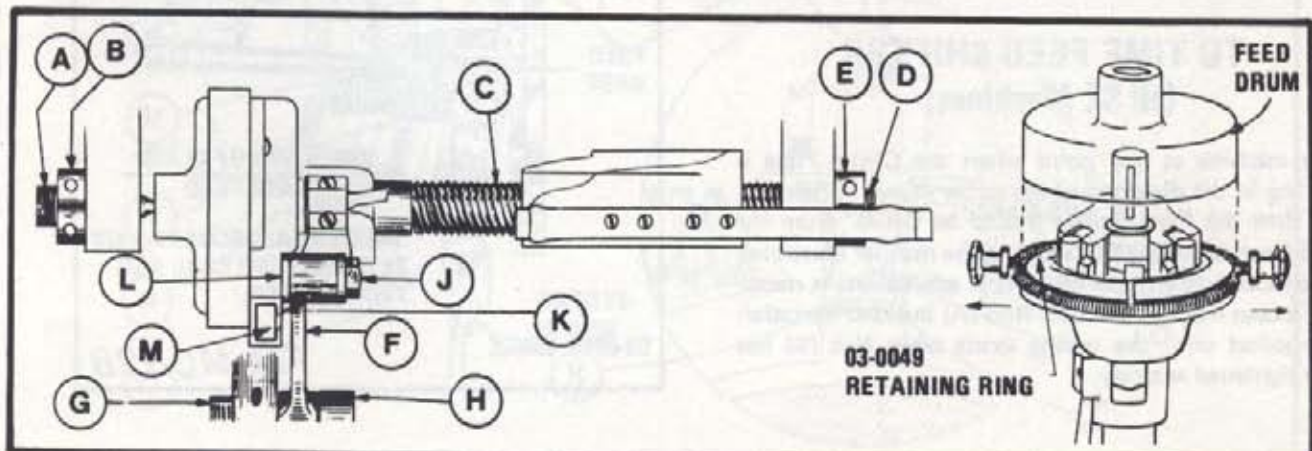
3. After the Feed Unit has been assembled, make sure the Feed Cage will oscillate freely on the Shaft without end play and tighten Set Screws and Lock Nuts securely.

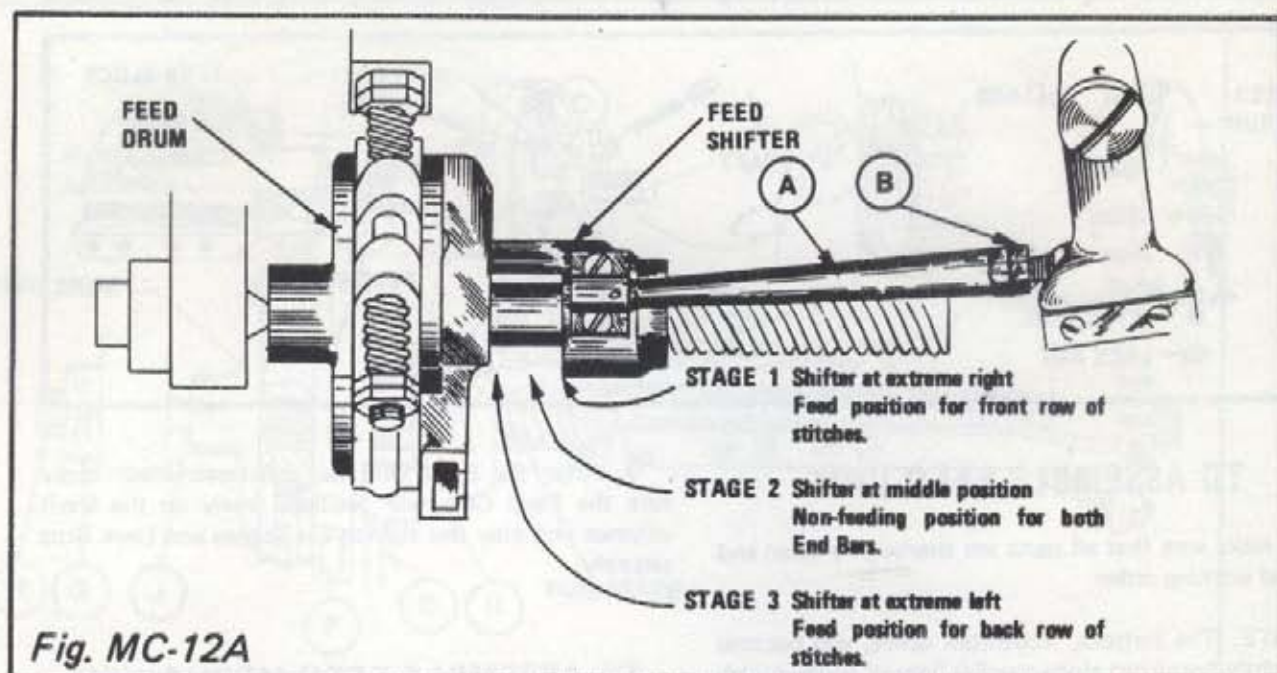
TO ASSEMBLE FEED MECHANISM TO THE MACHINE

1. Reverse the procedure previously outlined for disassembly. After the Feed Mechanism has been installed, adjust cone point bearing screw (A) so that the Feed Screw (C) will turn freely without end play. Then tighten Locking Collar (B) securely.

IMPORTANT: Bearing Screw (D) has been set in the factory and need not be readjusted except when it is for any reason removed or replaced.

2. To readjust — swing Lever (F) out of Slot (M) and adjust Screws (A) and (D) equal amounts to the right or left so that the inside face of Washer (L) will show as much overlap as clearance at Contact (K) when Lever (F) is pressed from side to side. When this setting has been made, tighten Collar (E) on Bearing Screw (D), then proceed to set Bearing Screw (A) as outlined above.





FEED SHIFTER

The Feed Shifter positions the Internal Ring and Rollers located in the Feed Unit, to feed in the required direction at the required time.

S2 TACKERS AND S2 LABEL SEWERS (MODELS S2-SRLS & S2-TRLS) ARE EQUIPPED WITH "2 STAGE" FEED SHIFTERS.

S2 LABEL SEWERS (MODELS S2-LS2N SER. NO. 41046 AND ABOVE) ARE EQUIPPED WITH "3 STAGE" FEED SHIFTER AS USED ON S2 BUTTONHOLE MACHINES.

Fig. MC-12A

2 STAGE FEED SHIFTER



Fig. MC-12A

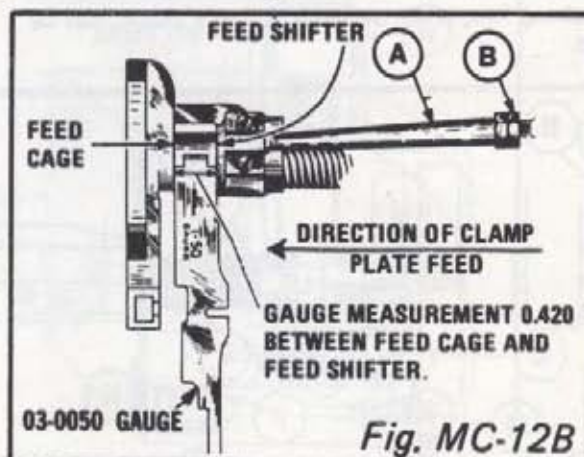
3 STAGE FEED SHIFTER



On all types of S2 Machines the Feed Shifter must be timed to shift from one Stage to another during the intervals when the Feed Drum, top of page, is absolutely stationary.

TO TIME FEED SHIFTER (all S2 Machines)

Stop machine at any point when the Clamp Plate is Feeding in the direction of the arrow shown at right. At this time the Feed Shifter should be 0.420" from the Feed Cage. Use 03-0050 Gauge in the manner illustrated for checking this measurement. If adjustment is necessary loosen Nut (B) and turn Rod (A) in either direction as required until the setting exists when Nut (B) has been tightened securely.



BRAKE ADJUSTMENT

This Brake operates with constant pressure of the Brake Shoe (H) on Drum (L) over the entire cycle of operation. The pressure of Shoe (P) is OFF when the Clamp Plate feeds in the direction marked X, and ON when the feed is in the direction marked Y.

TO ADJUST BRAKE RELEASE
FOR CLEARANCE AT Z:

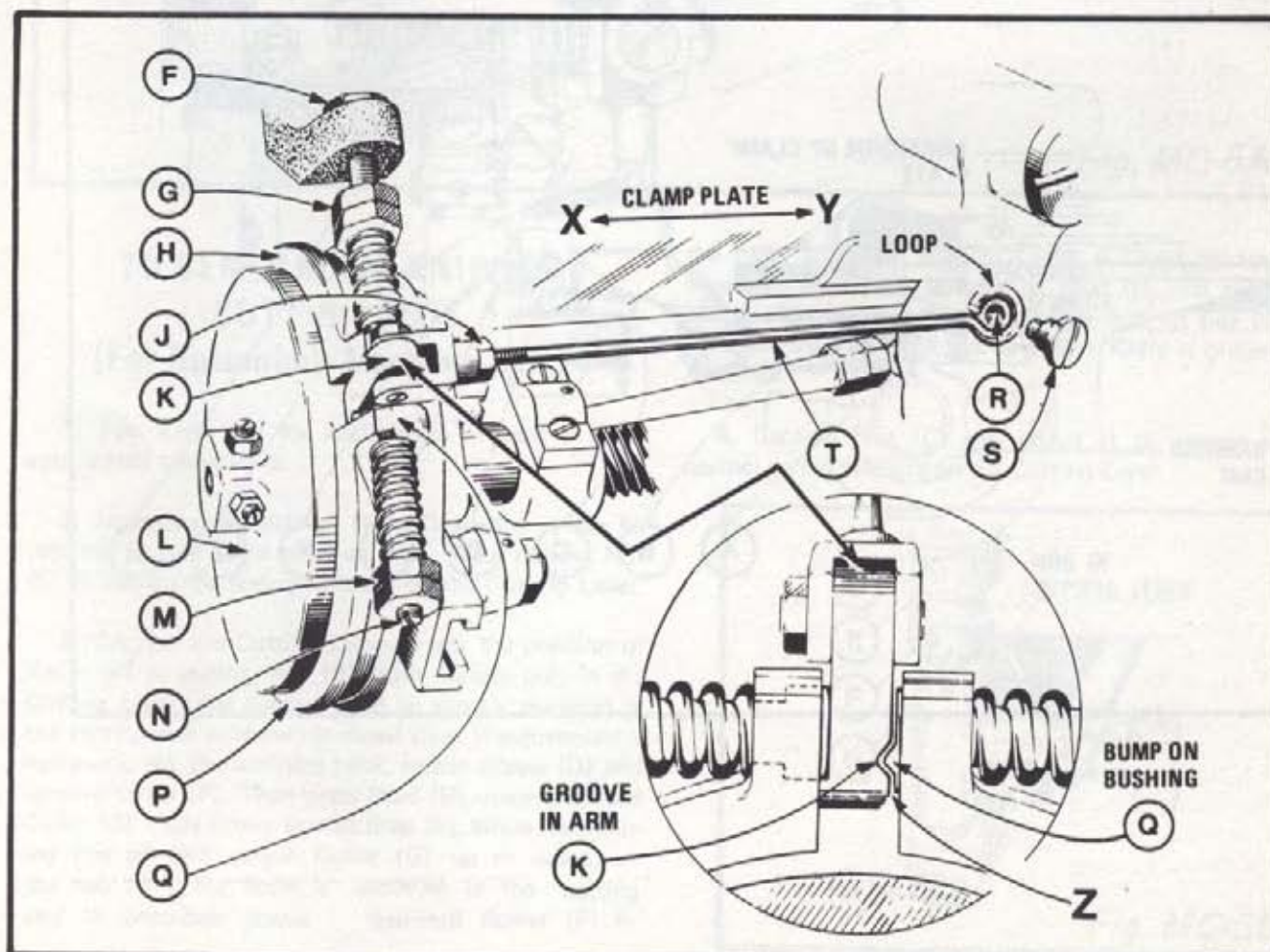
Adjust Nuts (G) so that Brake Shoe (H) exerts light pressure on Drum (L) and position Nuts (M) on Screw (N) as shown. Then remove Screws (S) and swing Arm (K) so that bump of Bushing (Q) matches groove in Arm (K) as shown in detail view. A slight amount of play should exist between Bushing (Q) and Arm (K), so that Brake Shoe (P) will be free to contact Drum (L). If no clearance exists, or if there is too much play, adjust as follows: Loosen Nut (F) and turn Screw (N) inward or outward until the described result is obtained. Then tighten Nut (F) and replace Screw (S).

TO ADJUST BRAKE RELEASE

Start the machine and stop at any point when the Clamp Plate is feeding in the direction marked X. Brake Shoe (P) should at this time be released. Restart the machine and stop it at any point when the Clamp Plate is feeding in direction marked Y. Brake Shoe (P) at this time should be fully ON and the bump on Bushing (Q) should coincide with the depression in Arm (K) as shown in detail view. If not, remove Screw (S) and line up depression in Arm (K) with bump on Bushing (Q), then loosen Nut (J) and Screw Rod (T) in or out until the loop in Rod (T) is lined up with Hole (R). Then replace Screw (S) and tighten Nut (J) securely.

TO VARY THE RELATIVE STITCH
DENSITY OF ONE ROW TO THE OTHER

Set the Stitch Regulator, illustration on bottom of page 15, for the desired overall Stitch density. Then adjust the pressure of Brake Shoe (P) by means of Nuts (M) to increase or decrease the Stitch density of one row to the other. Reset the Stitch Regulator again if that seems necessary.



TO SET CLAMP PLATE POSITION WITH RESPECT TO CUTTING (For Buttonhole Machines only)

1. Operate Machine through its Cycle and Stop Machine just before the Cutting Action is about to occur.

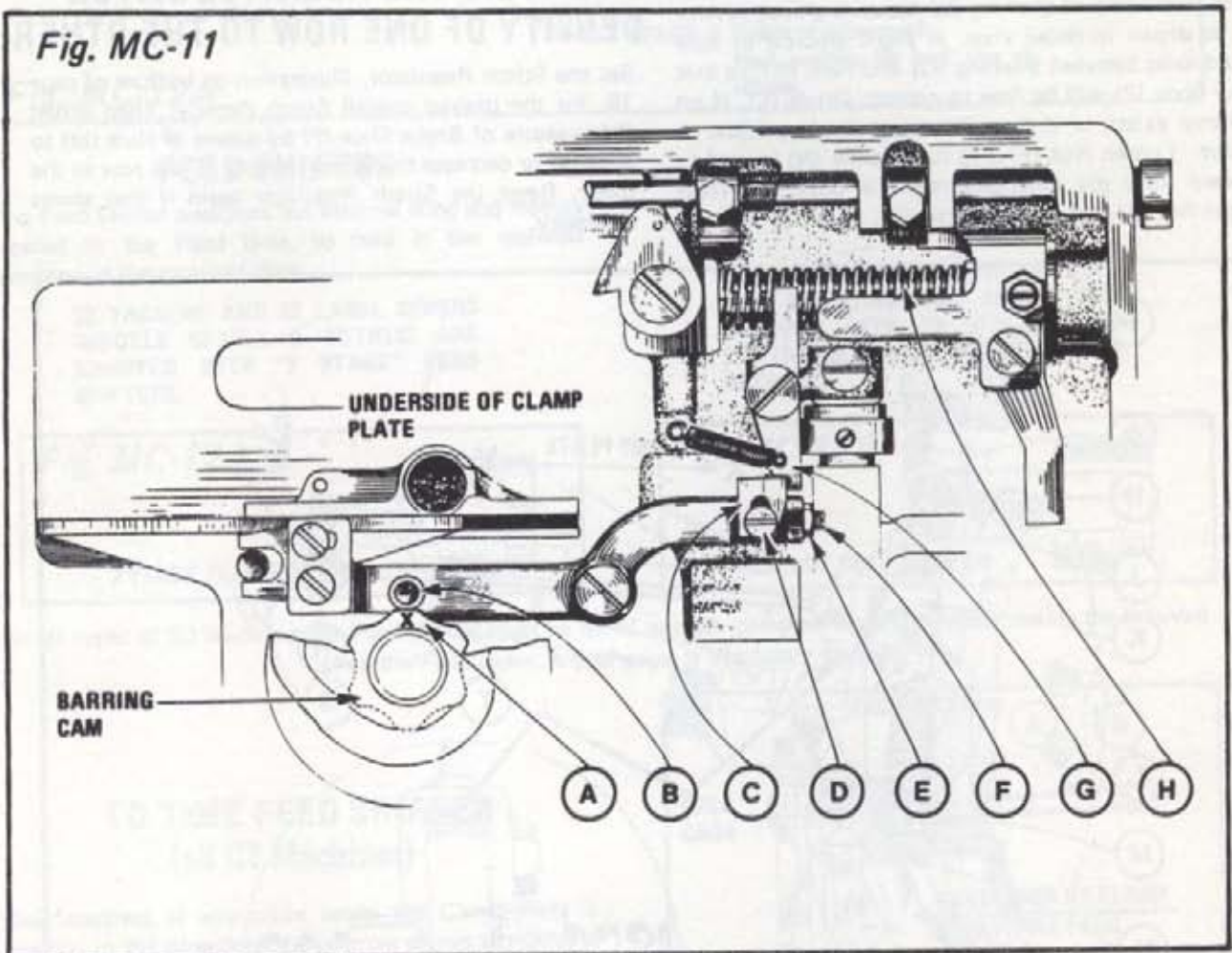
2. Tip Machine back on its Hinges and turn Drive Pulley with Pin Wrench until Stop Bolt (H) shifts to the right. Then turn Drive Pulley slowly until Roll (B) is resting on the Cam Lobe marked X as shown at (A).

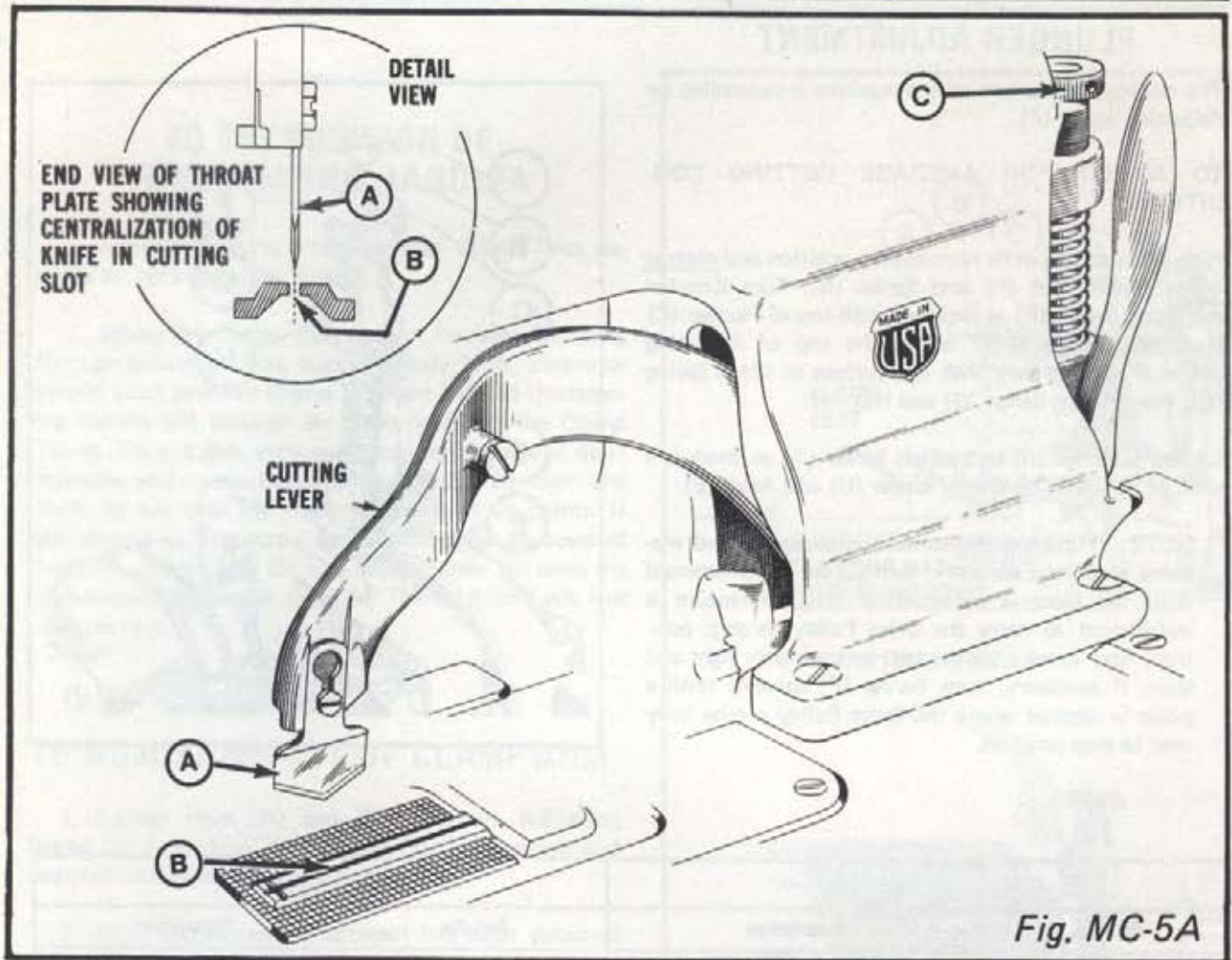
3. With Roll (B) resting on the Low Lobe marked X of the Barring Cam as shown, loosen Nut (E) and Screws (D) and (F). Then press Stop Plate (C) firmly upward against the notch in Latch (G) in the position shown. While holding the Stop Plate (C) in this position, tighten Screws (D) and (F) and Nut (E) securely.

NOTE: The Cam Lobe marked X is the Low Lobe of the barring Cam which brings the Clamp Plate to the Central Point where the Cutting Action takes place.

NOTE: Latch (G) should be seated on Stop Plate (C) as shown when the Machine comes to its normal stopping position at the end of each operating cycle.

Fig. MC-11





TO CENTRALIZE KNIFE IN CUTTING SLOT (For Buttonhole Machines only)

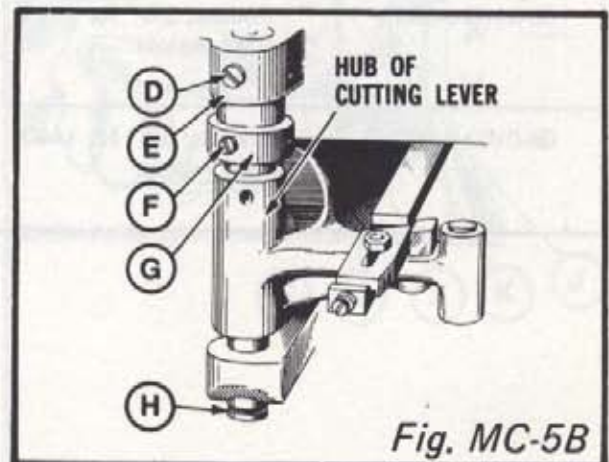
1. Test Knife (A) for straightness. If bent or damaged, install a new knife.

2. Note the position of Nut (C) so that it can be returned to the same position later. Then remove Nut (C) to release the spring pressure on the Cutting Lever.

3. Depress the Cutting Lever to test the position of Knife (A) in cutting slot (B). With no side play in the Cutting Lever, the Knife should be exactly centered in the cutting slot as shown in detail view. If adjustment is necessary, tip the machine back, loosen Screw (D) and remove Screw (F). Then press Stud (H) upward so that Collar (G) bears firmly against Boss (E). While maintaining this contact, screw Collar (G) up or down on the hub until the knife is centered in the cutting slot as described above. Reinstall Screw (F) in

the most accessible hole in Collar (G) and tighten it securely. Then press upward on Stud (H) and tighten Screw (D) securely. Recheck to see that no side play exists in the Cutting Lever and that Knife is properly centered.

4. Replace Nut (C) and adjust it to restore the normal spring pressure on the Cutting Lever.



PLUNGER ADJUSTMENT

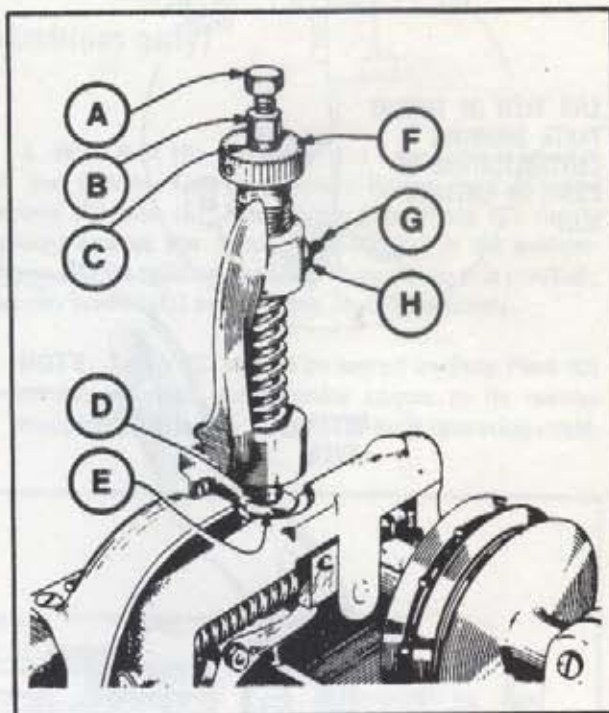
The cutting momentum of the machine is controlled by Adjusting Screw (F).

TO ADJUST FOR AVERAGE CUTTING CONDITIONS:

With the machine in its normal stop position and *clamps down*, loosen Nut (H) and Screw (G). Turn Knurled Adjusting Screw (F) as required until top of Plunger (C) is approximately 1/16" above the top of Adjusting Screw (F). Make sure that flat surface of (F) is facing (G), then tighten Screw (G) and Nut (H).

Loosen Locknut (B) and adjust Screw (A) so there is a wink of clearance between Plunger (D) and Anvil (E).

NOTE: If cutting momentum is excessive and machine stops too abruptly, turn Screw (F) downward until the blow is softened. If the momentum is insufficient to carry the Drive Pulley to stop position, first check that the belt is reasonably tight and then, if necessary, turn Screw (F) upward until a point is reached where the Drive Pulley carries fully over to stop position.



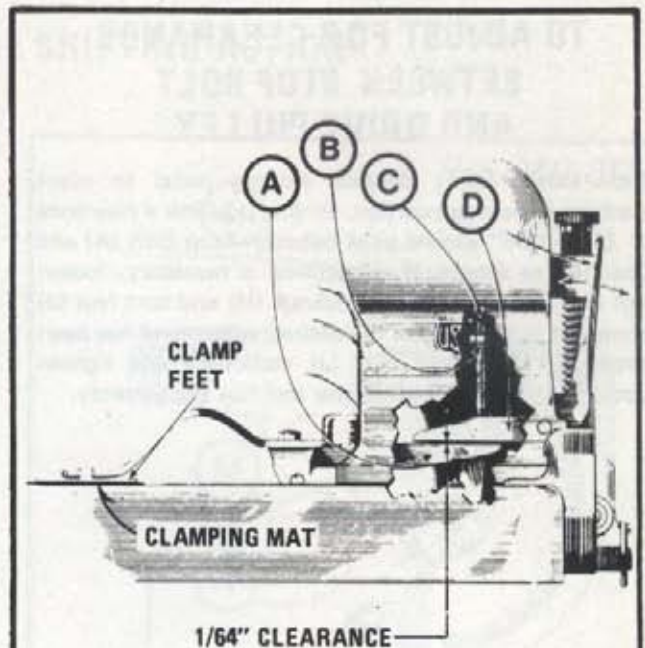
BELTS		PULLEY*	
Part No.	Description	Part No.	Description
05-0102-1-335	Endless, 5/16" for 1725 RPM motors	04-0722-0-268	2.60 dia. 5/8" bore
05-0102-1-340	Endless, 5/16" for 1440 RMP motors	04-0722-0-308	3.00 dia. 5/8" bore
		04-0722-0-314	3.00 dia. 14mm bore
MACHINES PRIOR TO NO. 30951, NOT UPDATED			
05-0102-0-335	Endless, 3/8" for 1725 RMP motors	04-0722-0-258	2.50 dia. 5/8" bore
05-0102-0-340	Endless, 3/8" for 1440 RPM motors	04-0722-0-294	2.90 dia. 14mm bore
		04-0722-0-288	2.80 dia. 5/8" bore

*Use one size smaller motor pulley on models S2-SRCS and all Automatic Garment Feeder with S2 Buttonhole machines.

TO SET POSITION OF UNCLAMPING HANDLE

1. Depress Starting Pedal so that Clamp Feet descend on bare Clamping Mat.

2. When the Clamp Feet are on the bare Clamping Mat, as shown at right, approximately 1/64" clearance should exist between Clamp Tailpiece (A) and Unclamping Handle (D) through the entire length of the Clamp Travel. To test this, start and stop the machine at short intervals and move Unclamping Handle (D) back and forth to see that the clearance exists at all points. If adjustment is necessary, open back cover on head of machine, loosen Nut (B) and adjust Screw (C) until the above specified play is obtained. Then tighten Lock Nut (B) securely.



TO ADJUST HEIGHT OF CLAMP ARM

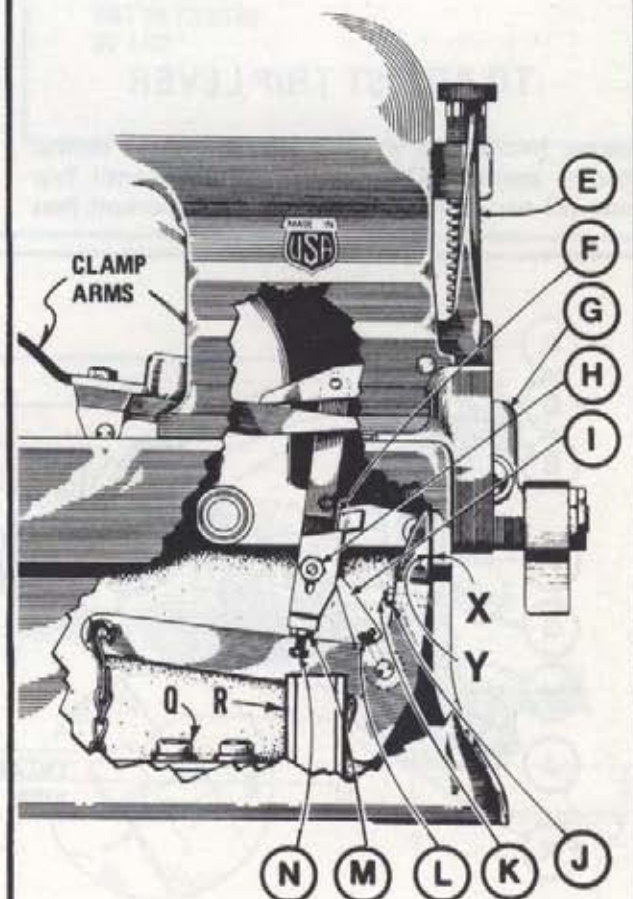
1. Loosen Nuts (H) and (M) and turn Adjusting Screw (N) inward to increase the Clamp Elevation and outward to decrease Clamp Elevation.

2. After the desired adjustment has been obtained tighten Nuts (H) and (M) securely.

TO ADJUST CLAMP TRIPPING

1. With machine in normal stopping position, loosen Screws (Q) and adjust Bracket (R) so that minimum clearance exists between the Starting Lever and Bed-plate (distant X-Y).

2. Depress the Starting Pedal slowly to test the clamp tripping action. The Clamps should descend before the Stop Bolt Holder (G) starts to move to the left. If not, adjust as follows: Tip machine back on its hinges, loosen Screw (L) and set Lever (I) to trip the clamps as described above. Then tighten Screw (L) securely. Raise clamps by pressing Lever (E) to the left. Recheck Clamp descent by pedal action. If necessary repeat the adjustment until the Clamps descend as described above.



NOTE: When this adjustment is correct, a gap of approximately 1/32" to 1/16" will exist at (F) each time the machine stops under power.

TO ADJUST FOR CLEARANCE BETWEEN STOP BOLT AND DRIVE PULLEY

With Motor OFF, depress starting pedal to place machine in sewing position. In this position a clearance of .003"-.004" should exist between Stop Bolt (A) and Cam (B) as shown. If adjustment is necessary, loosen Nut and Screw (K), then Locknut (H) and turn Nut (J) inward or outward until the desired adjustment has been obtained. Then hold Nut (J) stationary and tighten Locknut (H) and tighten Screw and Nut (K) securely.

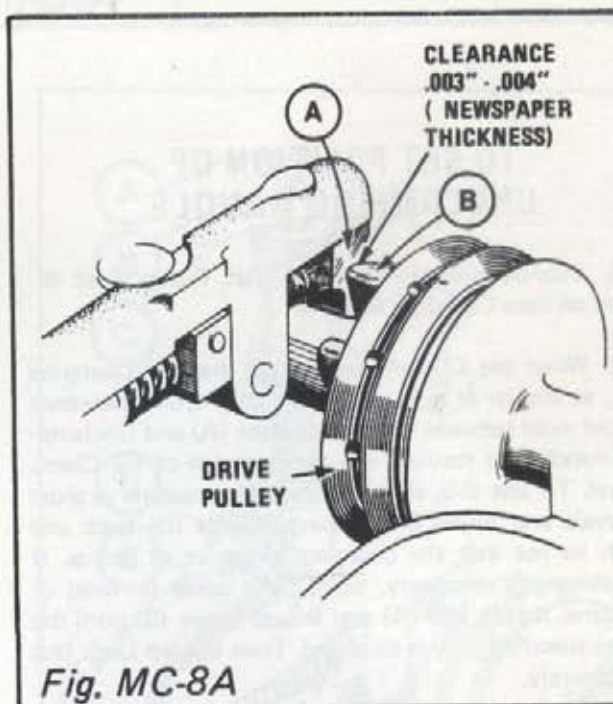


Fig. MC-8A

TO ADJUST TRIP LEVER

Operate machine to a point just before the normal stopping position. Then turn Drive Pulley until Trip Lever (E) has approached very close to Knockoff Post

(D) on Latch (C). At this time, the end of Trip Lever (E) should overlap Post (D) approximately $\frac{1}{8}$ " as shown in enlarged view. To adjust, loosen Locknut (G) and adjust Screw (F) inward or outward, as required, until the above specified overlap has been obtained. Then tighten Locknut (G) securely.

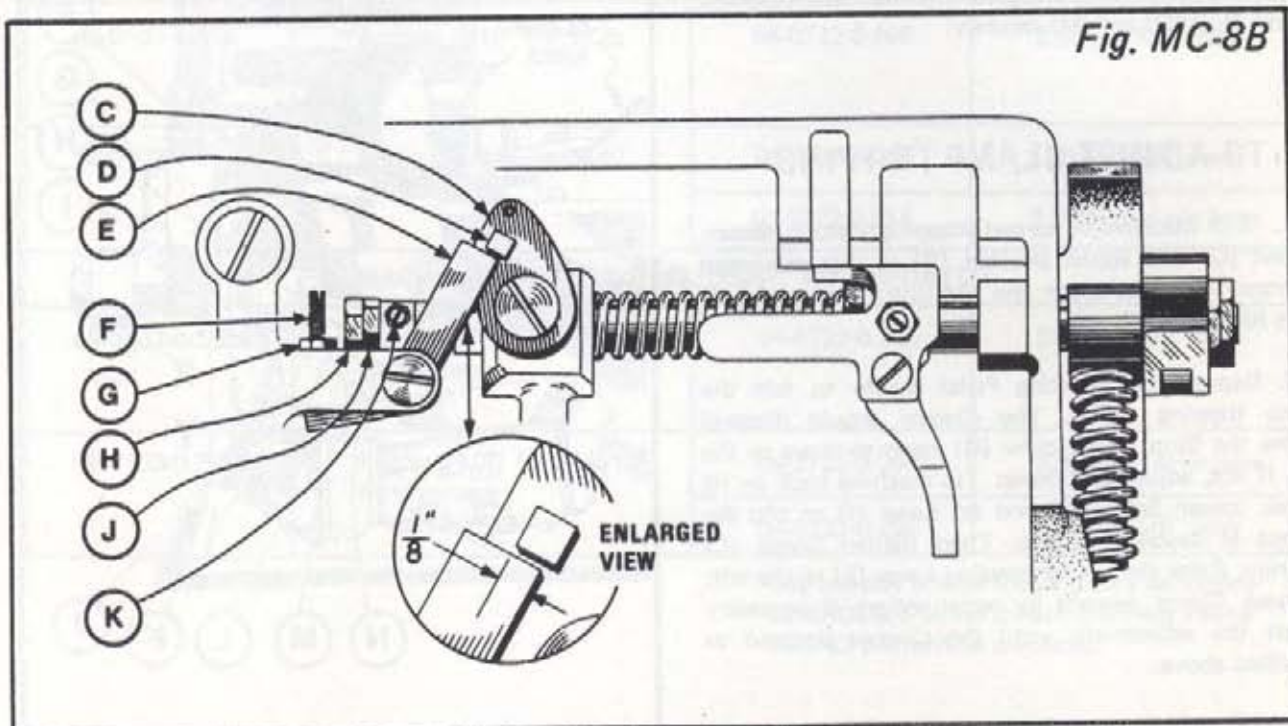


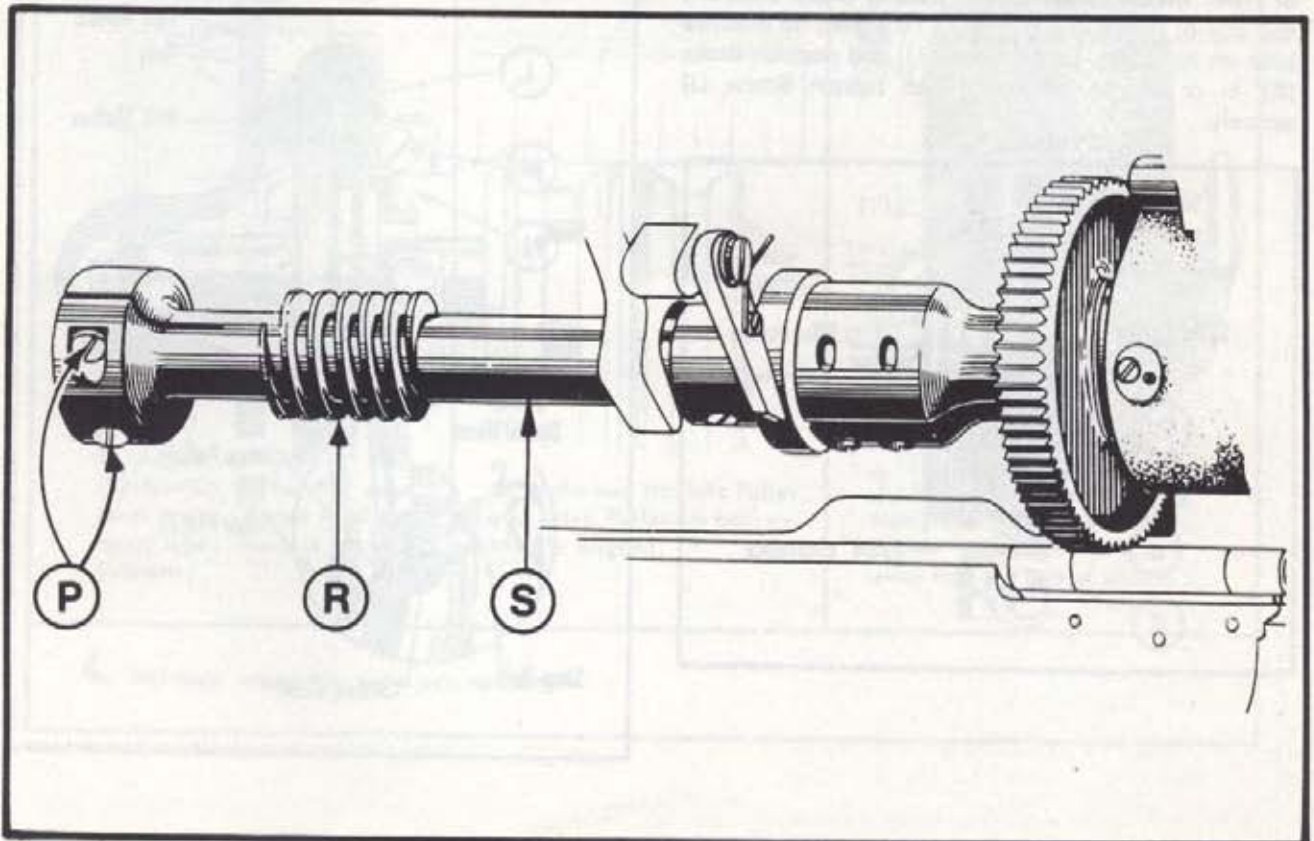
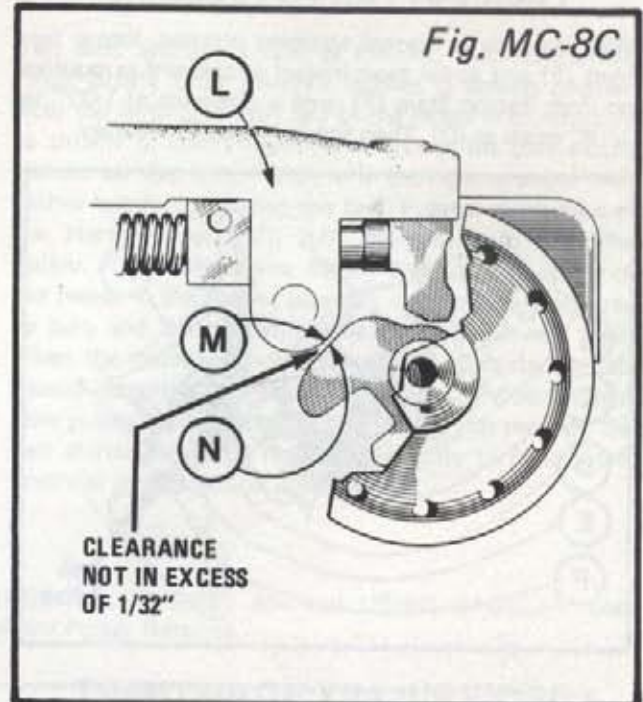
Fig. MC-8B

TO TIME STOP BOLT SIDE SHIFTING ACTION

With the machine in position described in the preceding adjustment, turn Drive Pulley slowly with Pin Wrench and stop when Stop Bolt Holder (L) shifts outward. This action should occur immediately after Large Lobe (N) of the Cam on the Drive Pulley passes point (M) of the Stop Bolt Holder. The gap between the Cam and the Holder at this point should be no more than $1/32''$ as shown.

On S2 Buttonhole machines, S2 Wide Bite Tackers and Collar Stay Tackers, the Stop Bolt Holder will automatically shift in the above described manner when the Barring Cam adjustment has been established as described on page 13.

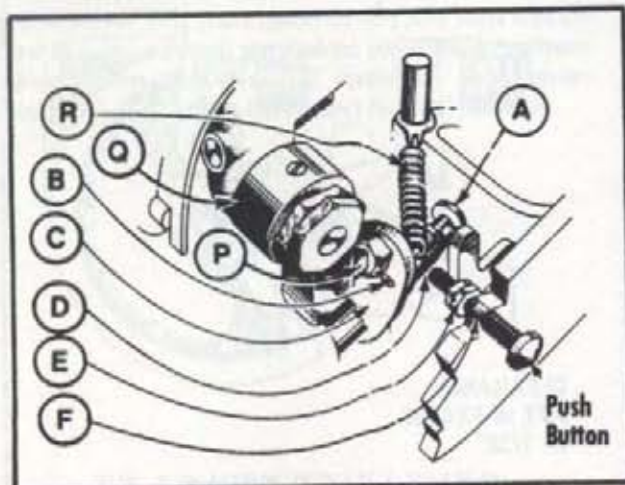
On S2 Tacking and S2 Label Sewing machines which have no barring movement of the Clamp Plate and on S2 Cut-After Edgers (S2-CAED), the adjustment should be made as follows: Loosen two Screws (P) and turn Gear (R) in either direction until a setting is obtained where the Stop Bolt Holder shifts to the right in the manner described above. Then press Gear (R) against Collar (S) and tighten Screws (P) securely.



IMPORTANT: When making the adjustments on this sheet be sure that Plunger (A) is engaged in Hole (B) of Shifter Lever (C) as shown. If not, press Push Button inward to make the engagement.

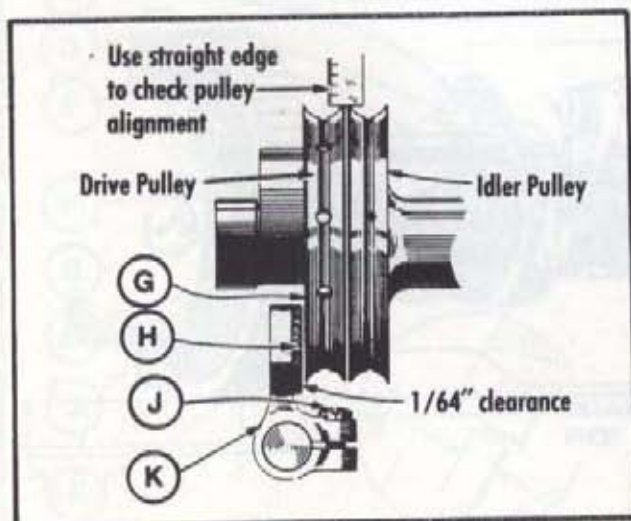
PUSH BUTTON ADJUSTMENT

With machine in normal stopping position, loosen two Nuts (E) and screw them inward or outward as required on Push Button Stem (F) until a clearance of $1/32''$ to $1/16''$ exists at (D). Then tighten Nuts (E) securely.



DRIVE PULLEY ADJUSTMENT

When machine is in normal stopping position a clearance of $1/64''$ should exist between Leather Brake Shoe (H) and side of Pulley (G) as shown. To adjust, tip machine back on its hinges, loosen Screw (J) and position Brake (K) in or out as required. Then tighten Screw (J) securely.



BELT SHIFTING ADJUSTMENT

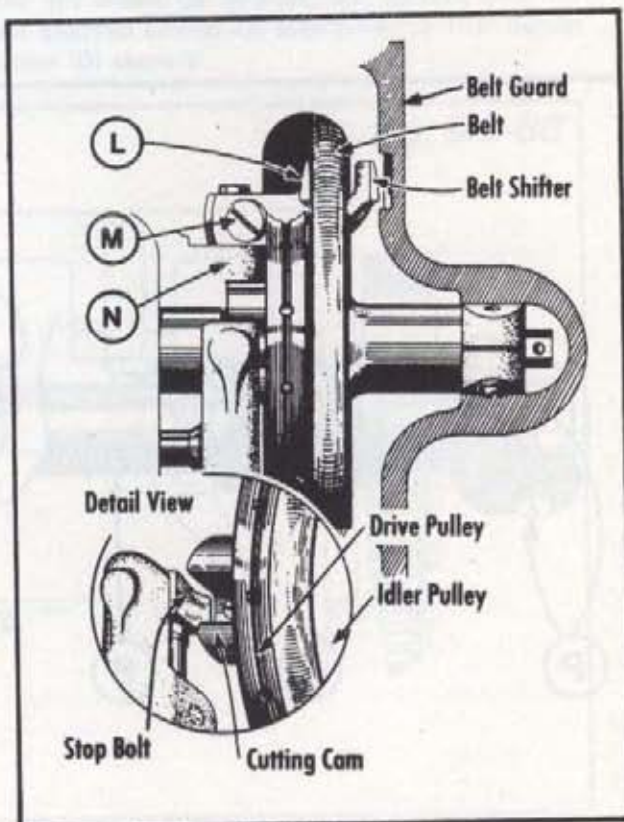
1. Use $5/16''$ heavy type, round Leather Belting or Round Endless Belting. The Belt Shifter is designed for these belts and other sizes will not operate efficiently. See page 22 for belt specification. Also see No. 9 on page 27.

2. Line up Motor Pulley centrally with respect to a plumb line dropped between the Idler and Drive Pulley.

3. Make sure that the clearance between stop bolt and Cutting Cam on Drive Pulley is adjusted as described on page 24, paragraph 1.

4. Make sure that the Idler and Drive Pulleys are accurately aligned as shown so that the rim of neither pulley will extend beyond the other to retard the belt shifting action. Use a straight edge as shown to check this alignment. If adjustment is necessary, shift position of Belt Guard as required within the limits of the bolt holes in the machine base.

5. With machine in normal stopping position, adjust Belt Shifter as follows: Loosen Screw (M) and position Belt Shifter so that prong (L) of the fork just clears the side of the belt as shown. While maintaining this position, press Belt Shifter inward so that its Hub lightly contacts Boss (N) and tighten Screw (M) securely.



6. Position Shifter Stud (P) for machines with serial numbers 30730 and below, as follows:

For 05-0102 Endless Belts: The flat on Stud (P) should face outward creating a space which allows extra stop bolt travel before the belt shifts. This insures that the machine is locked in sewing position before belt shifting occurs.

For Leather Belts: The flat on Stud (P) should face down. In this case, belt shifting conditions remain the same as with the former shifter stud.

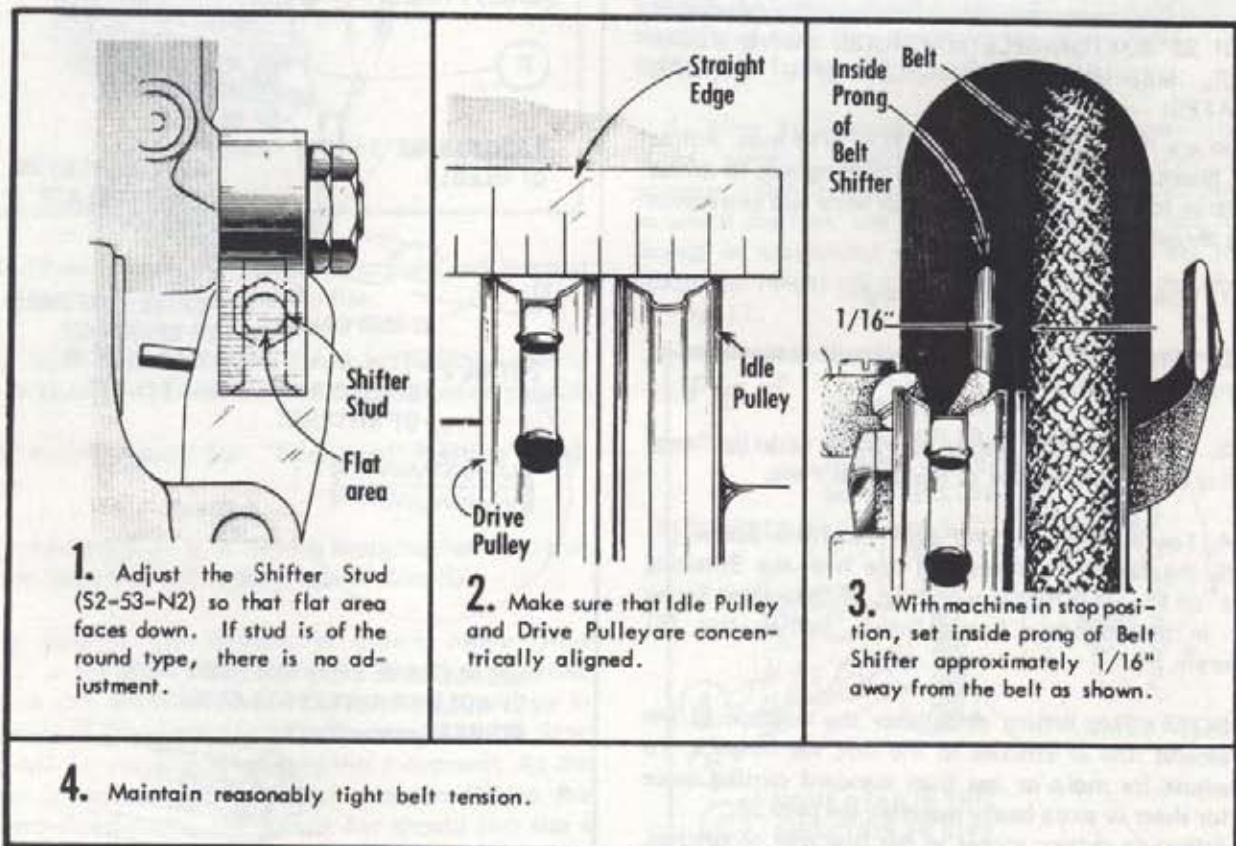
7. When positioning the Belt Shifter for 05-0102 Endless Belts, the inside or round surface of Stud (P) should be in contact with the inside surface of Actuator (Q).

8. Start machine and shut off motor. Position Spring Clip (R) for the lightest spring tension that will prevent low prong of the belt shifter from rubbing the belt in this position. Then check at the start of a cycle to see

that the belt does not shift before the Stop Bolt is latched. If the belt shifts before the machine latches, either the Spring is too tight, or the Belt Shifter is positioned incorrectly.

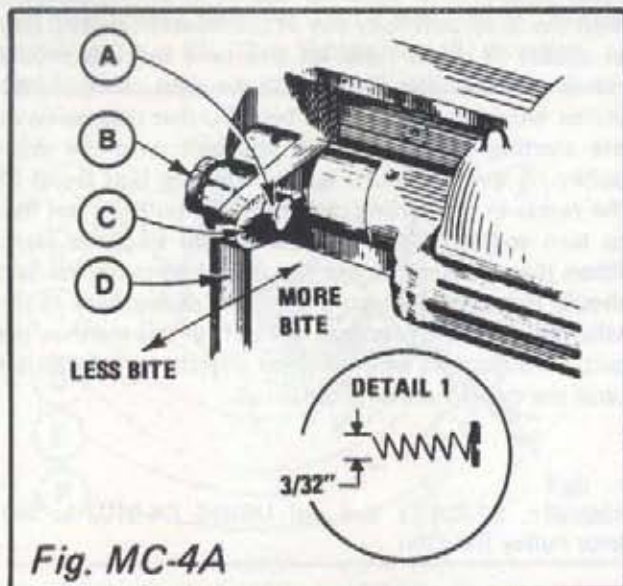
Test Belt Shifting action as follows: Depress Starting Pedal slowly until machine latches in sewing position with the Stop Bolt fully out of the recess in cutting cam as shown in detail view. At this time the belt should remain on the Idler Pulley with the right prong of belt shifter barely contacting the belt. Further depression of the starting pedal will shift the belt onto the drive pulley. If the belt shifts before the stop bolt is out of the recess in the cutting cam, the drive pulley is not free to turn and the belt will be subjected to excess wear. When the machine reaches the end of its cycle, the belt should instantly shift from the drive pulley back to the idler pulley. If the belt does not shift in this manner, the belt shifter should be readjusted slightly to right or left until the desired action is obtained.

9. BELT SHIFTER ADJUSTMENT FOR S2 MACHINES (No. S2-30931 and up) USING 04-0102-1: See page 22 for Belt and Motor Pulley Relation



STITCH BITE SETTING

A $3/32''$ Stitch Bite Setting is standard for most types of material (see Detail 1). As illustrated, Stud (A) for the $3/32''$ Bite should be approximately in the center of Slot (C). To adjust for more or less Bite, loosen Nut (B) and move link (D) in the direction required as indicated by arrows and tighten Nut (B) securely.



FOR S2 BUTTONHOLE MACHINES USING REGULAR, MEDIUM OR NARROW BITE THROAT PLATES: —

Bites are R — $3/32$, M — $5/64$, N — $1/16$ inch. Adjust the Needle Thrust in relation to cutting slot in throat plate as follows:— (see page 32 for wide and extra wide bite throat plates).

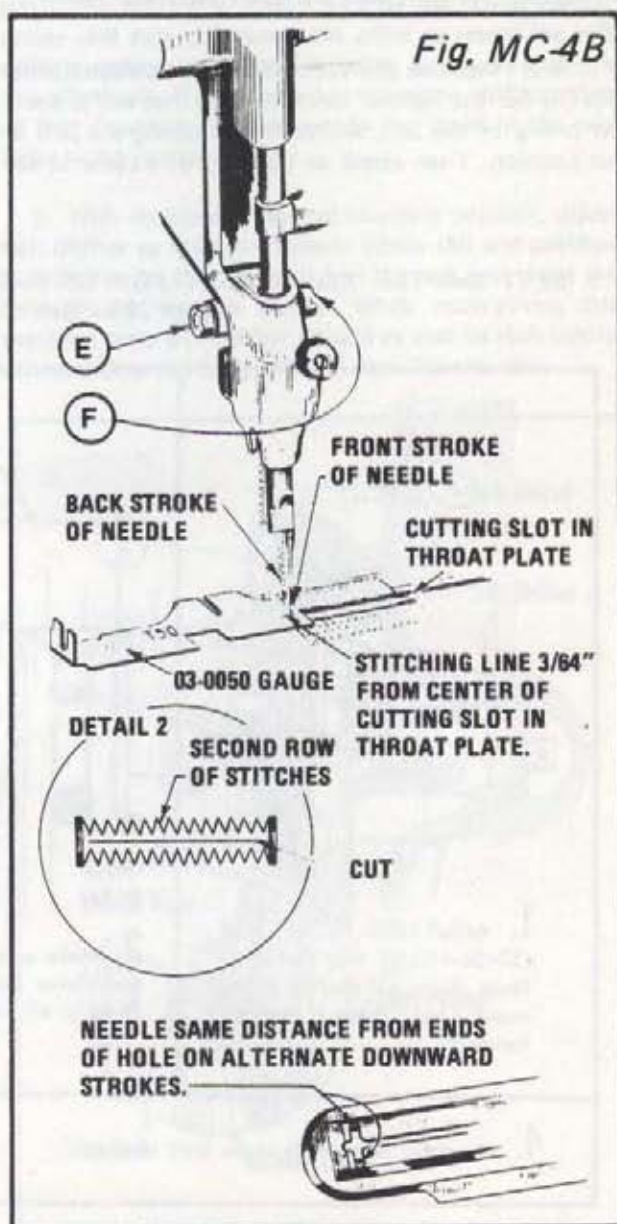
1. Make sure that Needle is straight.
2. Turn Drive Pulley until the Needle descends on its front stroke as illustrated.
3. Insert 03-0050 Gauge as shown with its flange fitting in the cutting slot of the Throat Plate.
4. Loosen Nut (E) and turn Eccentric Screw (F) until the Needle is directly in line with the Stitching line on the 03-0050 Gauge. Then, while holding Screw (F) in place with a Screw Driver, tighten Nut (E) securely.

NOTE: This setting establishes the relation of the second row of stitches to the Cut, see Detail 2. To adjust for more or less than standard cutting space for sheer or extra heavy material, see page 32. Adjusting cutting spaces to the first row of stitches, see page 32.

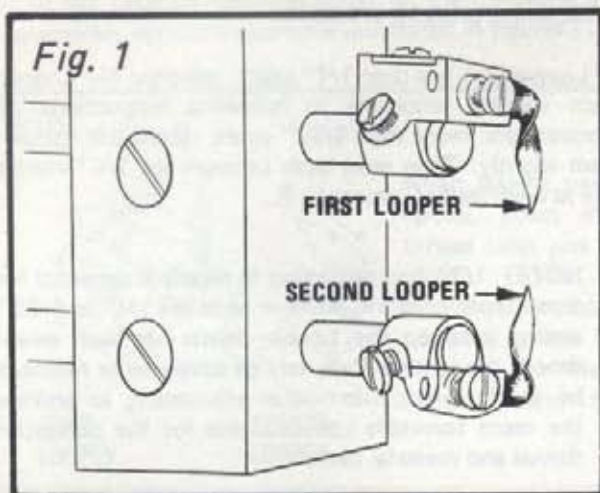
FOR S2 TACKERS, LABEL SEWERS AND CUT AFTER EDGERS —

Centralize Needle Thrust in Needle Hole of Throat Plate as follows:

1. Make sure Needle is straight.
2. Turn Pulley by hand and observe Needle Thrust into the needle hole of the Throat Plate on alternate downward strokes.
3. If adjustment is necessary, loosen Nut (E) and turn Eccentric Screw (F) as required until the correct setting is obtained. Then while holding Screw (F) in place with a Screw Driver, tighten Nut (E) securely.



NOTE: In the following adjustments "First" and "Second" Loopers will be referred to as shown in Fig. 1. "Front" and "Back" strokes of Needle will be referred to as shown in Fig. 2.



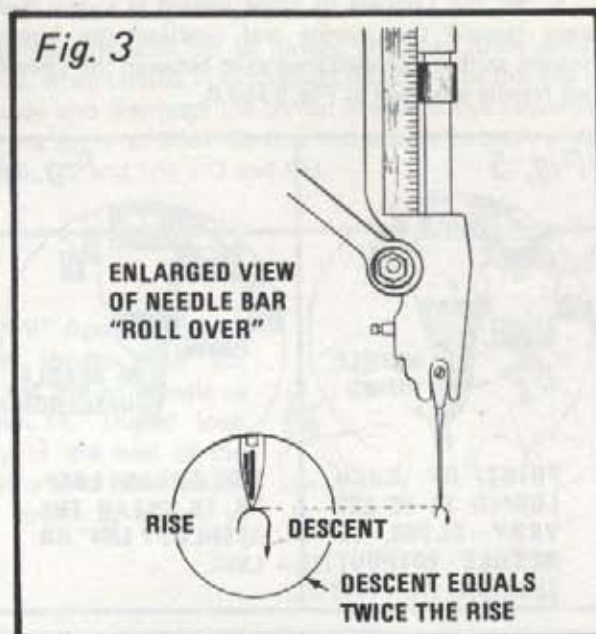
1. Check to see that Needle is straight and inserted as high as it will go in the Needle Bar.

2. Make sure that needle thrust in respect to cutting slot in Throat Plate is established as described on page 28.

3. Adjust Needle Bar "Rock-over" Position as follows:

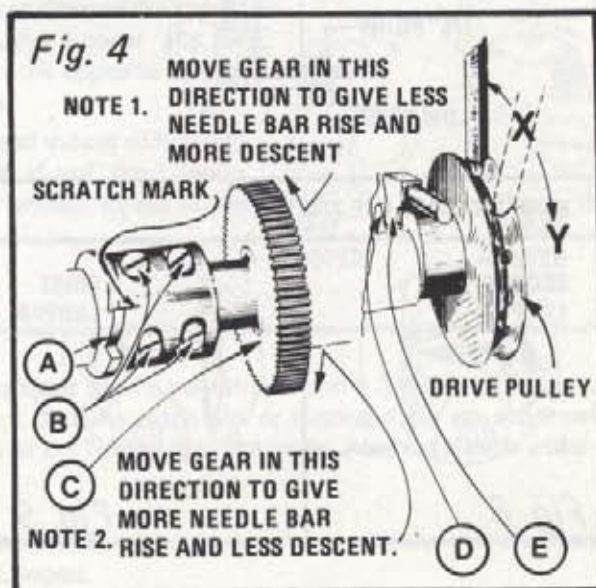
Make sure machine is in Normal Stopping Position, that is, with Stop Bolt (E) in the recess of Cam (D).

Using 03-0045 Pin Wrench, as shown, rotate Drive Pulley as far back as it will go in direction of arrow marked (X) and then as far forward as it will go in direction of arrow marked (Y). The spring on the Stop Bolt will be compressed during this movement. As the Pulley is rotated from the back position (X) to the forward position (Y), the Needle Bar should first rise a slight distance and descend twice the distance that it has risen. A Scale may be used, as illustrated, at right, for measuring the Needle Bar rise and descent.

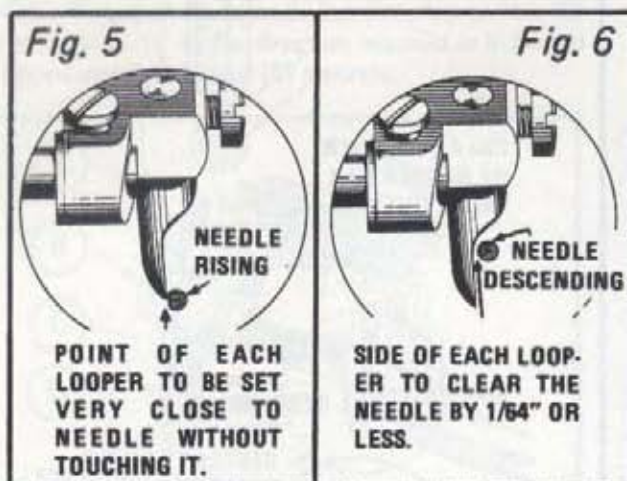


If adjustment is necessary, loosen the four Screws (B) on hub of Gear (C) and while holding the Drive Pulley stationary, adjust the Gear position as specified in Notes 1 and 2, until the required Needle Bar rise and descent has been obtained. Then tighten the four Screws slightly and tap the Gear sidewise as required until a very slight amount of end play exists in the Main Shaft. Then tighten four Screws (B) securely.

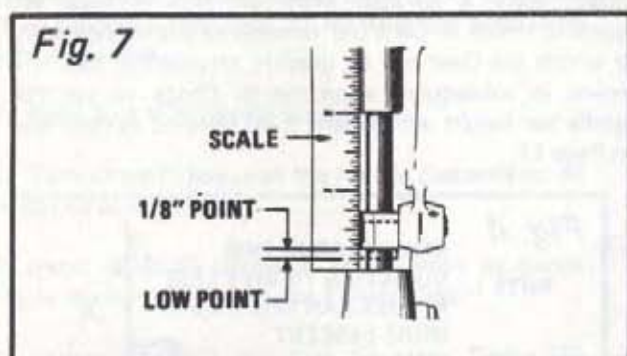
4. After the preceding adjustment has been established, place a Scratch Mark on hub of Gear (C) opposite notch in Cam (A) to serve as a reference point to which the Gear can be quickly returned in case it is moved in subsequent adjustments. Check to see that needle bar height adjustment is established as described on Page 11.



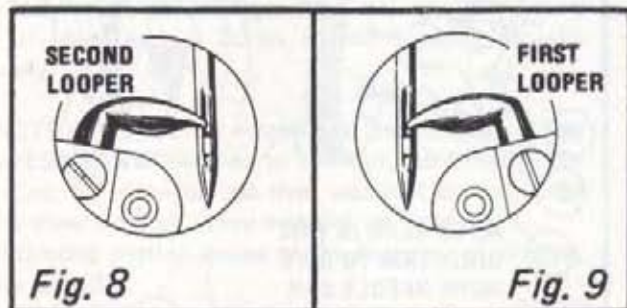
5. Set the Loopers to point inward at a very slight angle toward the Needle and position the Looper Holders so that side clearance exist between the Loopers and Needle as shown at Fig. 5 and 6.



6. Using a Scale for measurement as shown, turn Drive Pulley until the Needle Bar has risen exactly 1/8" from the bottom of its front stroke. In this position, set the second Looper (Fig. 8) so that its point is at the center of the Needle Blade as shown. Again, using the Scale for measurement turn the Drive Pulley until the Needle Bar has risen exactly 1/8" from the bottom of its back stroke.* In this position set the first Looper (Fig. 9) at the center of the Needle Blade as shown. After making these adjustments, reset the side clearance between the Loopers and Needle as shown in Fig. 5 & 6.



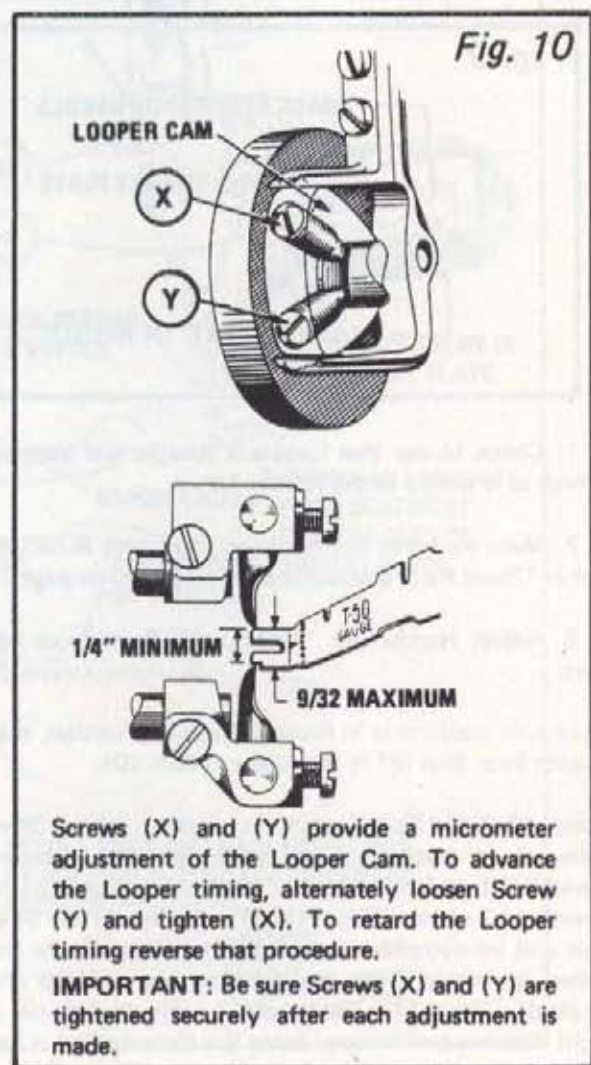
* MODEL S2-SRCS USE 3/32"



7. Turn Drive Pulley until the Needle is at the bottom of its front stroke. Check distance between point of Loopers using 03-0050 Gauge as illustrated (Fig. 10). This distance should not be less than 1/4" or more than 9/32". If the Looper points are not within these limits, proceed as follows:

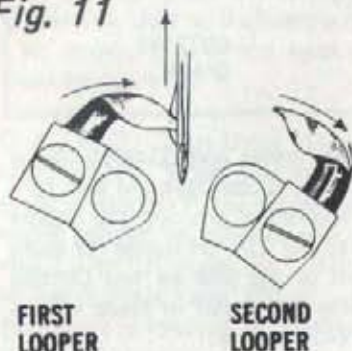
If Loopers are less than 1/4" apart, advance the Looper Cam slightly according to following instructions. If Loopers are more than 9/32" apart, retard the Looper Cam slightly. Then reset both Loopers for 1/8" needle rise as described in paragraph 6.

NOTE: 1/8" Looper timing to needle is standard for most types of work, however once the 1/4" to 9/32" setting between the Looper points has been established, the Looper Cam may be advanced or retarded by the following micrometer adjustment, to provide the more favorable Looper action for the particular thread and material used.



8. Thread the needle, place cloth under the clamps, tip machine back on its hinges, and turn drive pulley forward while observing the sewing action. Figures 11 thru 16, when viewed in succession, illustrate the manner in which first one looper and then the other looper should engage and disengage the thread in continuous sequence. Since the Loopers function similarly, the following instructions apply to both the first and second Loopers in the respectively opposite positions illustrated in figures (11 and 14), (12 and 15), (13 and 16).

Fig. 11



When Needle has risen 1/8" from bottom of stroke, point of looper should enter the thread loop just above the eye of Needle as shown, Figures 11 and 14. Thread loop should then slide freely to the heel of the Loopers where it remains until the Needle descends on the next stroke as shown in Figures 12 and 15.

Fig. 14

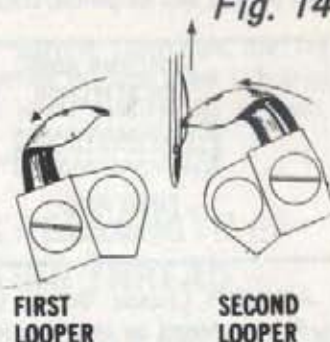
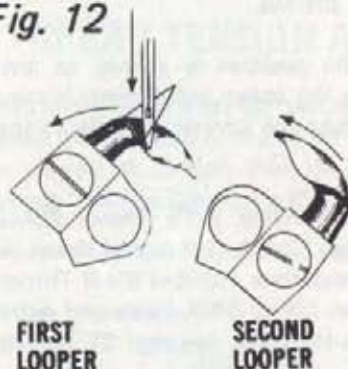


Fig. 12



As the Needle descends it should enter the thread loop which is held by the Looper as shown, Figures 12 and 15. The Needle should descend reasonably close to the heel of looper *without touching it*. The thread loop should start to slide down off the Looper shortly after the point of the Needle has descended below the bottom of the loop.

Fig. 15

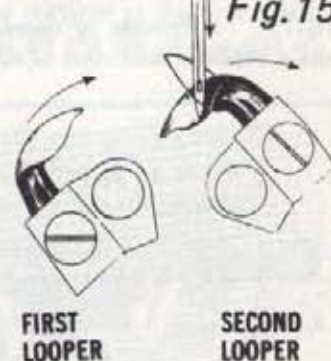


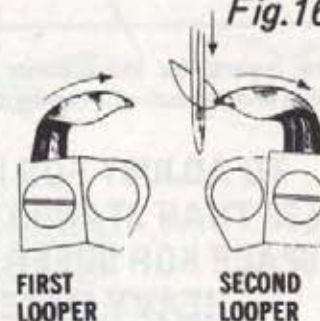
Fig. 13



As the Needle continues to descend the thread loop should slide off the Looper and be drawn up out of reach of the opposite Looper on the succeeding stroke.

IMPORTANT: The Thread should slide freely on and off the Loopers. If not, the Loopers should be polished until smooth thread action is obtained.

Fig. 16

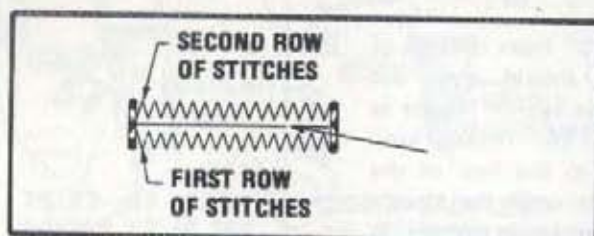


NOTE 1: The illustrations shown on this page apply to standard sewing conditions with a 3/32" stitch bite and normal cutting space between rows of stitches. In the event that the stitch bite or cutting space are abnormally wide or narrow, one Looper will pass higher above the eye of the Needle than the other. Also the Needle will pass closer to the heel of one looper than the other.

NOTE 2: Any changes in stitch bite or centralization of the needle vibration which appreciably alter the needle position will necessitate corresponding readjustment of the Loopers.

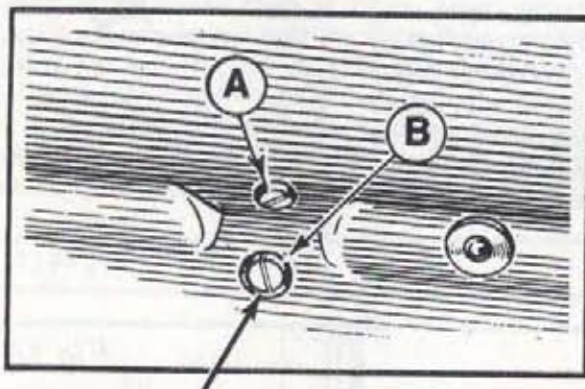
ADJUSTING CUTTING SPACE TO FIRST ROW OF STITCHES (For Buttonhole Machines only)

The Needle Setting to the 03-0050 Gauge shown on Page 28 established the standard cutting space to the second row of stitches. A similar amount of cutting space to the first row of stitches should be established so that the cut will be central between both rows.



TO ADJUST: Loosen Screw (A). Turn Screw (B) inward or outward as required in accordance with the instructions, until the desired setting has been obtained. Then, tighten Screw (A) securely.

NOTE: To increase or decrease the overall cutting space between both rows of stitches, see below.



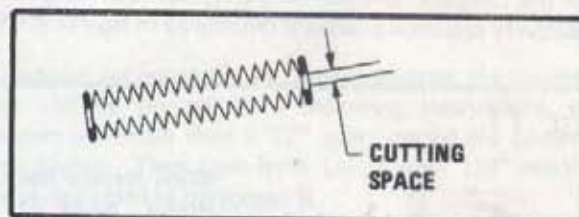
Screw inward for less distance between first row of stitches and the cut — or outward for more distance.

TO ADJUST FOR MORE OR LESS THAN STANDARD CUTTING SPACE FOR SHEER OR EXTRA HEAVY MATERIALS (For Buttonhole Machines only)

The Standard Cutting Space has been established by the two previous adjustments.

1. Setting Needle position to the 03-0050 Gauge as shown Page 28 which established the relation of the second row of stitches to the cut.

2. Setting the distance between the first row of stitches and the cut in the manner described and illustrated at left. Any change in the cutting space (more or less) will therefore require resetting both adjustments as follows.

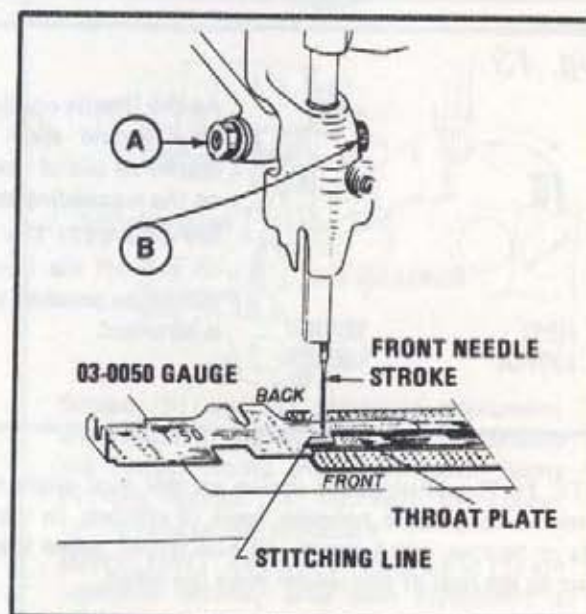


TO ADJUST: 1. With the Needle and 03-0050 Gauge in the positions shown below, loosen Nut (A) and turn Eccentric Screw (B) as required to position the Needle $1/64''$ or less back of Stitching Line on Gauge for more Cutting Space or in front of the line for less Cutting Space. Then while holding Screw (B) in place with a screw driver, tighten Nut (A) securely.

2. Repeat the adjustment, for adjusting Cutting Space to the first row of stitches.

NOTE: If the Needle position is altered to any appreciable extent in the above adjustment, it may be necessary to readjust the Loopers slightly to the new Needle position.

WIDE BITE and EXTRA WIDE BITE Throat Plates utilize a $3/32$ inch Regular Bite. Adjust needle thrust to an R "Regular" Bite Throat Plate. Remove the R Throat Plate and replace with an EW or EWX (wide and extra wide). Adjust knife in cutting slot, see page 21. Adjust cutting space.



THREAD TAKE-UP ADJUSTMENT

Thread Take-up is adjustable for various weights or thickness of material. When Thread Take-up Lever (D) is properly adjusted, the thread slack is gradually pulled on the down stroke of the Needle by the action of Boss (B) in depressing the thread as it passes between Points (A) and (C). Just as the Needle reaches the lowest point of its stroke, the thread slack over the entire system should be taken up.

TO ADJUST: Turn Drive Pulley by hand and observe thread action when sewing either row of stitches on regular material. If the thread becomes taut before the Needle reaches its lowest point, loosen Screws (G) and move Lever (D) down, or if slack exists in the thread at this point, move Lever (D) up until the point of correct adjustment is reached as described above. Then tighten Screws (G) securely.

THREAD TENSION ADJUSTMENT

When the Thread Take-up has been adjusted as outlined above, the firmness of the stitch setting is dependent on the degree of tension that is applied on the Thread through Tension Discs (J) and (L).

To adjust tension of the Barring Stitches, screw Nut (K) inward to tighten or outward to loosen. This, also effects the row stitches.

To adjust Tension for the Row Stitches, screw Nut (H) inward to tighten or outward to loosen. This does not effect the barring stitches.

NOTE: During the Barring Operation, the Thread Tension is only effective through Discs (L). Disc (J) automatically open when the Barring Stitches are being sewn.

TO REGULATE LENGTH OF STARTING THREAD

The amount of Thread drawn off to start the first stitch in the buttonhole is controlled by the position of Lever (F). When correctly adjusted, only a slight end of thread will protrude above the material at the first stitch and this will be covered up by the bar at the end of the buttonhole.

To adjust, loosen Nut (E) and move Lever (F) to the right for more starting thread or to the left for less starting thread. Then tighten Nut (E) securely.

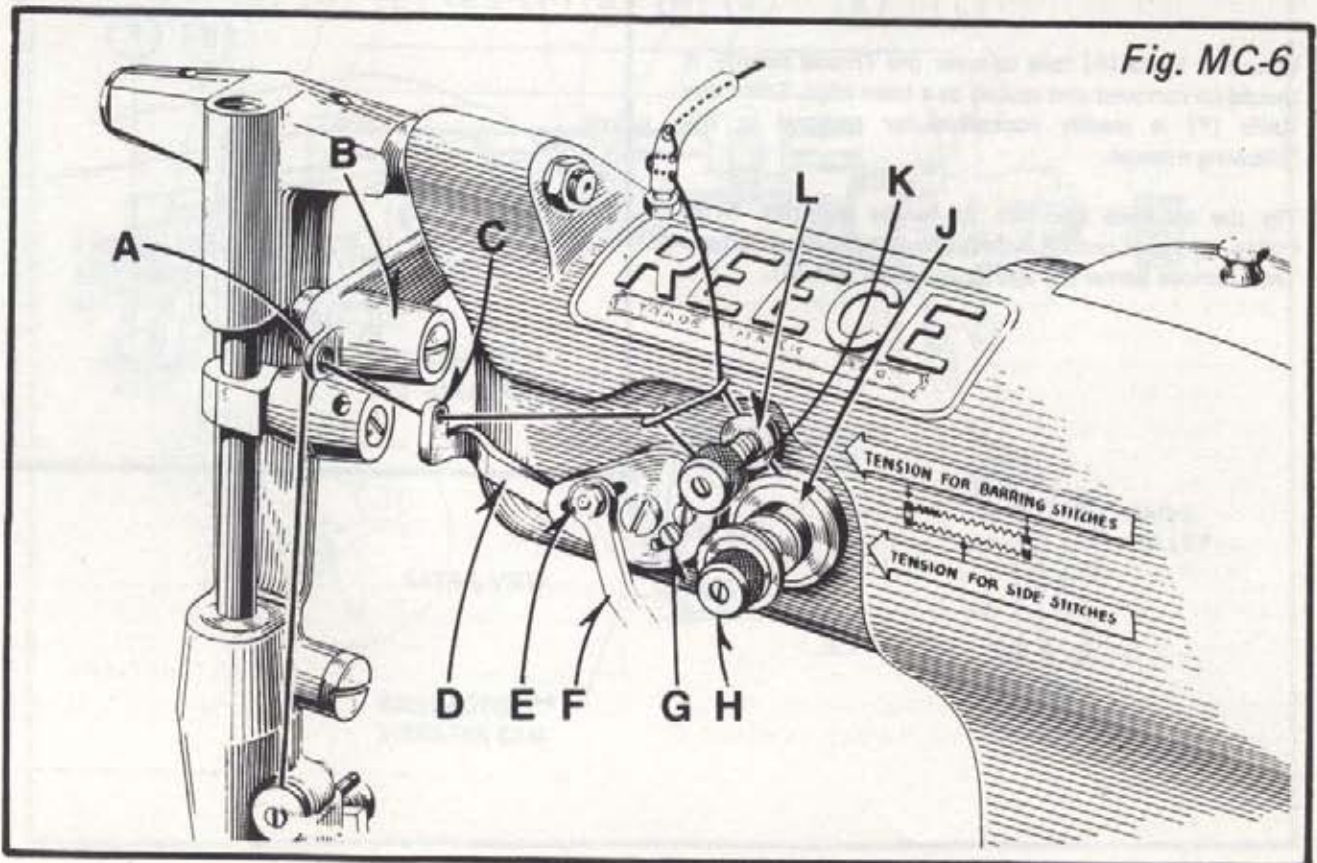
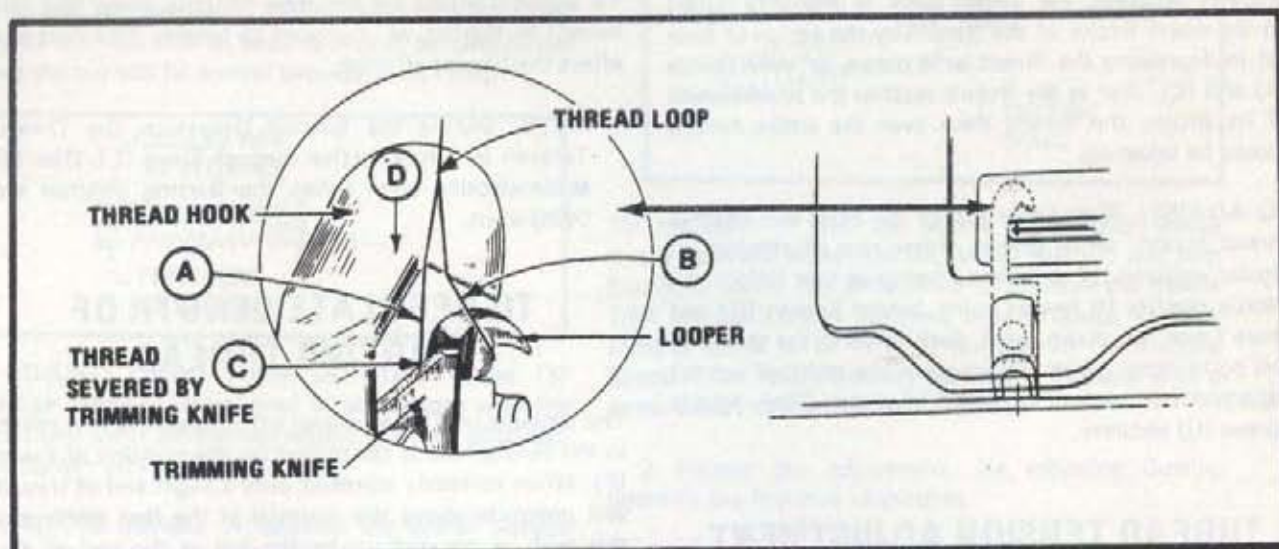


Fig. MC-6

Thread trimming takes place at the completion of the last stitch in the manner illustrated in enlarged view. As the thread hook moves in the direction of Arrow (D), it pulls both legs (A) and (B) of the thread loop forward.

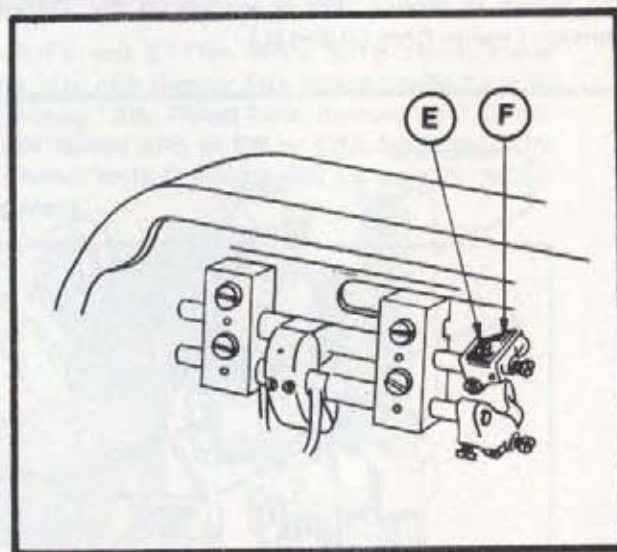
When the thread hook approaches the end of the stroke, leg (A) is brought into contact with the Trimming Knife causing severance of the Thread at point (C).



SHARPENING KNIFE

Whenever Knife (F) fails to sever the Thread cleanly, it should be removed and stoned to a keen edge. Trimming Knife (F) is readily accessible for removal in the following manner.

Tip the machine back on its hinges and turn Drive Pulley by hand until Loopers assume position shown. Then remove Screw (E) and Trimming Knife (F).



TO TIME THE OPERATION OF THE THREAD HOOK

Press Stop Bolt Shaft inward until it locks. Turn Drive Pulley approximately 1/2 turn. Unlock Latch (E) so that Stop Bolt Shaft shifts back to the right. Turn Drive Pulley slowly until Pawl (J) engages the first Notch of the Vibrator Cam as shown. Loosen Screw (G) and rotate Ratchet (K) to engage Pawl (L) as shown in detail view. While maintaining this position, make sure that Member (H) is seated on the Bed Plate Boss (F) * and tighten Screw (G) securely. This setting accomplishes two objectives (1) to time the operation of the Thread Hook, and (2) to keep the Thread Hook motionless in the event of a Roll-Back of the Drive Pulley due to the Knife sticking in heavy work or failure of the Drive Pulley to carry fully through to Stop Position. Such Roll-Backs are usually the result of a loose Belt. To test the Setting; turn Drive Pulley forward a short distance and allow it to snap back to the point where Pawl (J) contacts the first Notch of the Vibrator Cam. There

should be no movement of the Thread Hook when this Roll-Back takes place.

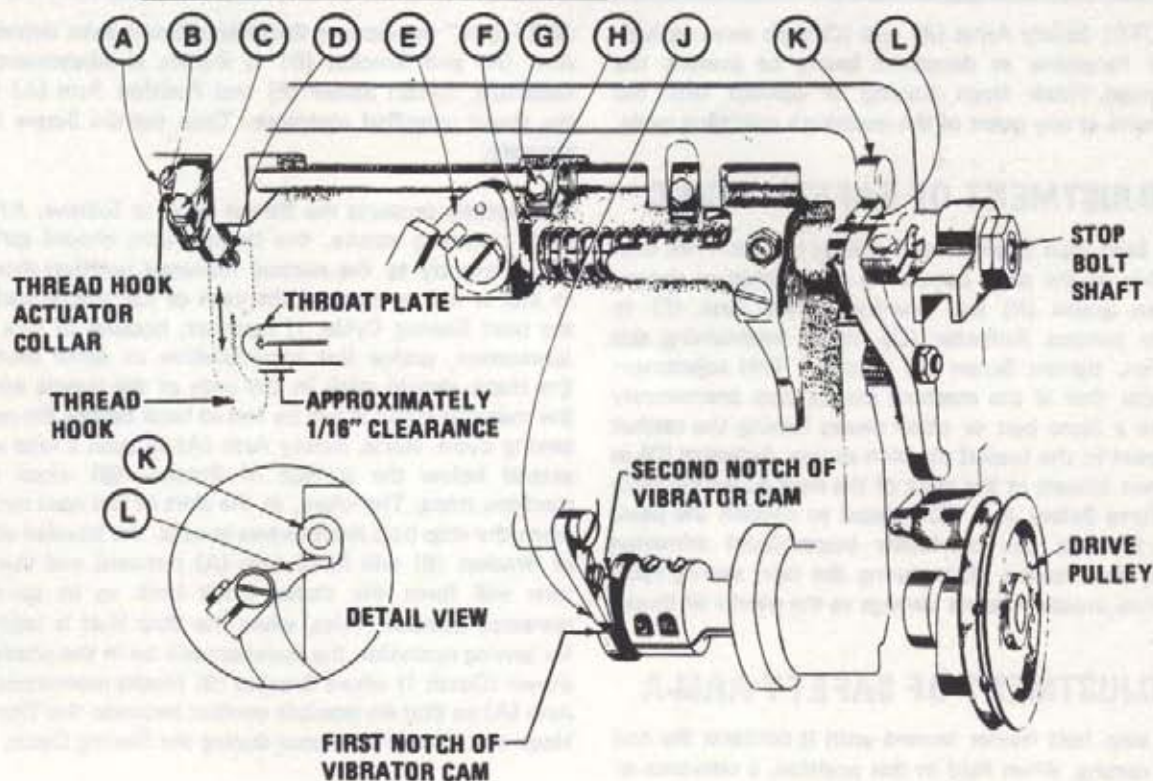
TO POSITION THE THREAD HOOK AND THE THREAD HOOK ACTUATOR COLLAR

To position Collar (A): Loosen Screws (B) and (C). Set the Stem of Actuator (D) centrally in the hole of the Thread Hook as shown and tighten Screw (C). Oscillate Actuator (D) back and forth over its entire range to be sure that it operates freely without binding at any point. Then set Collar (A) against the side of Actuator (D) and tighten Screw (B) securely.

To position the Thread Hook: Loosen Screw (C) and swing Actuator (D) so that the point of the Thread Hook is 1/16" below the edge of the Throat Plate as shown below. While maintaining this position press the Actuator against Collar (A) and tighten Screw (B) securely.

*Before tightening Screw (G), move Latch (E) all the way to the right.
MEMBER (H) MUST CLEAR LATCH (E)

Fig. MC-7A



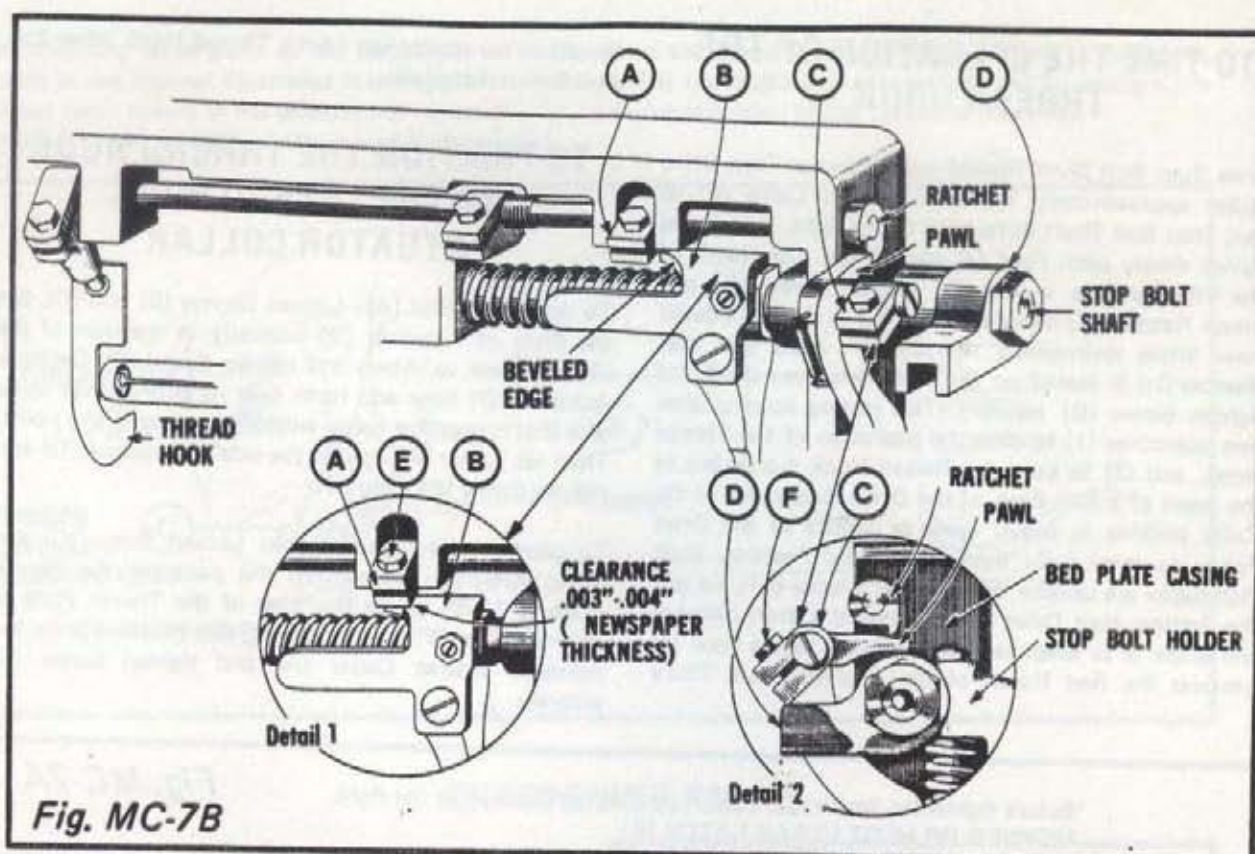


Fig. MC-7B

NOTE: Safety Arms (A) and (C) each serve individual functions as described below to prevent the Thread Hook from coming in contact with the Needle at any point of the machine's operating cycle.

ADJUSTMENT OF SAFETY ARM-C

Press Stop Bolt Shaft inward until it latches. Then with the side of the pawl contacting the ratchet as shown. Loosen Screw (F) and position Safety Arm (C) to lightly contact Actuator (D). While maintaining this position, tighten Screw (F) securely. This adjustment provides that if the machine should stop prematurely due to a loose belt or other causes leaving the ratchet and pawl in the loaded position shown, Actuator (D) as it moves inward at the start of the next operating cycle will force Safety Arm (C) upward to unlatch the pawl. This prevents the previously incompleting stroke from taking place during the next sewing cycle and thus avoids possible damage to the needle or thread hook.

ADJUSTMENT OF SAFETY ARM-A

Press stop bolt holder inward until it contacts the bed plate casting. When held in this position, a clearance of

.003"-.004" (newspaper thickness) should exist between Arm (A) and Bracket (B) as shown. If adjustment is necessary, loosen Screw (E) and Position Arm (A) for the above specified clearance. Then tighten Screw (E) securely.

This setting protects the thread hook as follows: After each trimming stroke, the thread hook should spring back instantly to the normal retracted position shown so that it will be clear of the path of the needle during the next Sewing Cycle. If however, because of lack of lubrication, undue lint accumulation or other causes, the Hook should stick in the path of the needle when the machine stops, it will be forced back before the next sewing cycle starts. Safety Arm (A) in such a case will extend below the surface of Bracket (B) when the machine stops. Therefore, at the start of the next cycle, when the stop bolt shaft moves inward, the beveled edge of Bracket (B) will force Arm (A) outward and this in turn will force the thread hook back to its normal retracted position. Also, when the Stop Bolt is latched for sewing operation the members will be in the position shown (Detail 1) where Bracket (B) blocks movement of Arm (A) so that no possible contact between the Thread Hook and Needle can occur during the Sewing Cycle.