

GALKIN AUTOMATED PRODUCTS

GAP3300 SERIES FLANGE MACHINE

PARTS LIST

**205 PARK AVENUE
HICKSVILLE, N.Y. 11801 U.S.A**



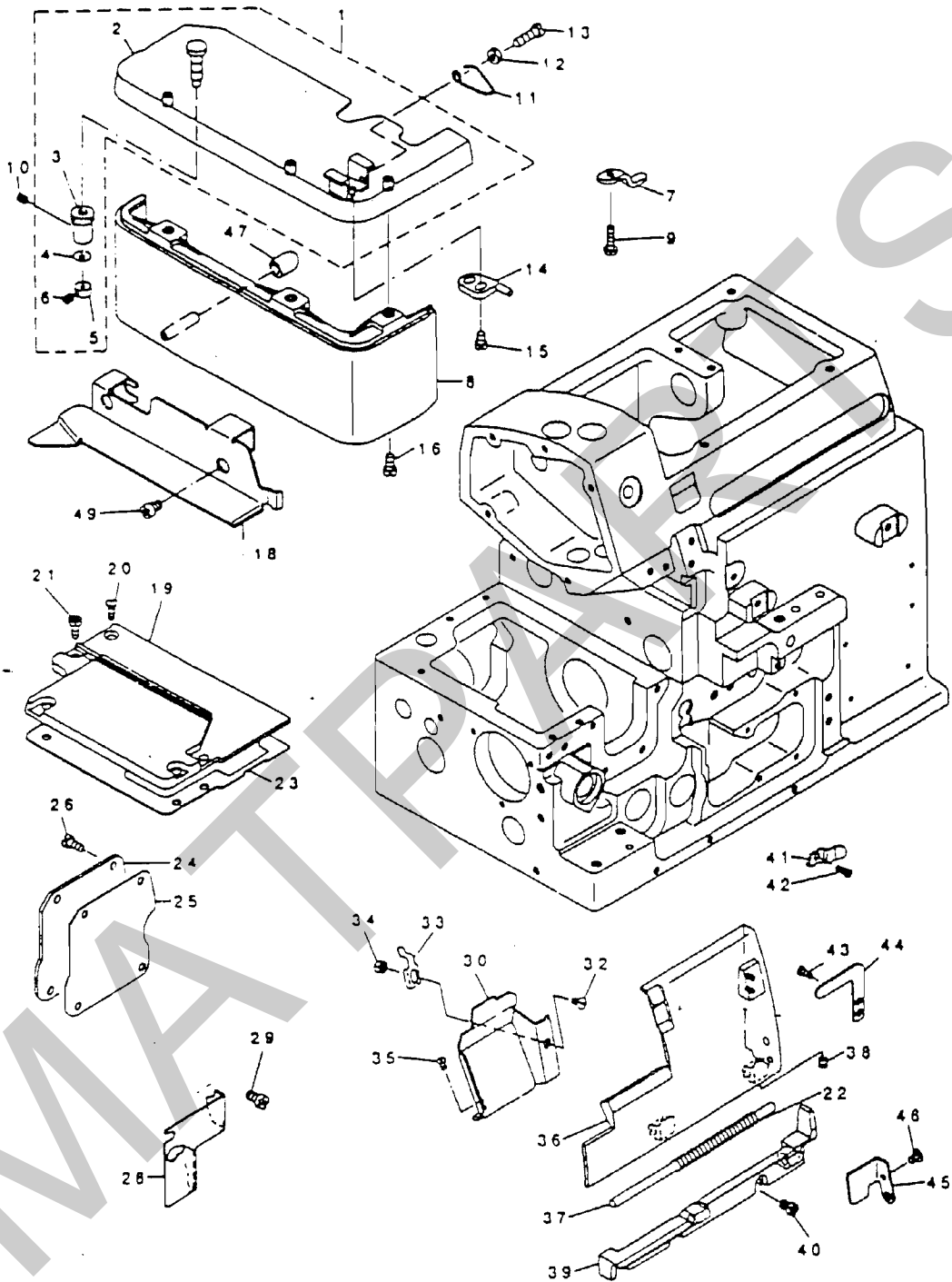
PARTS LIST - MODEL GAP3300 MATTRESS FLANGER

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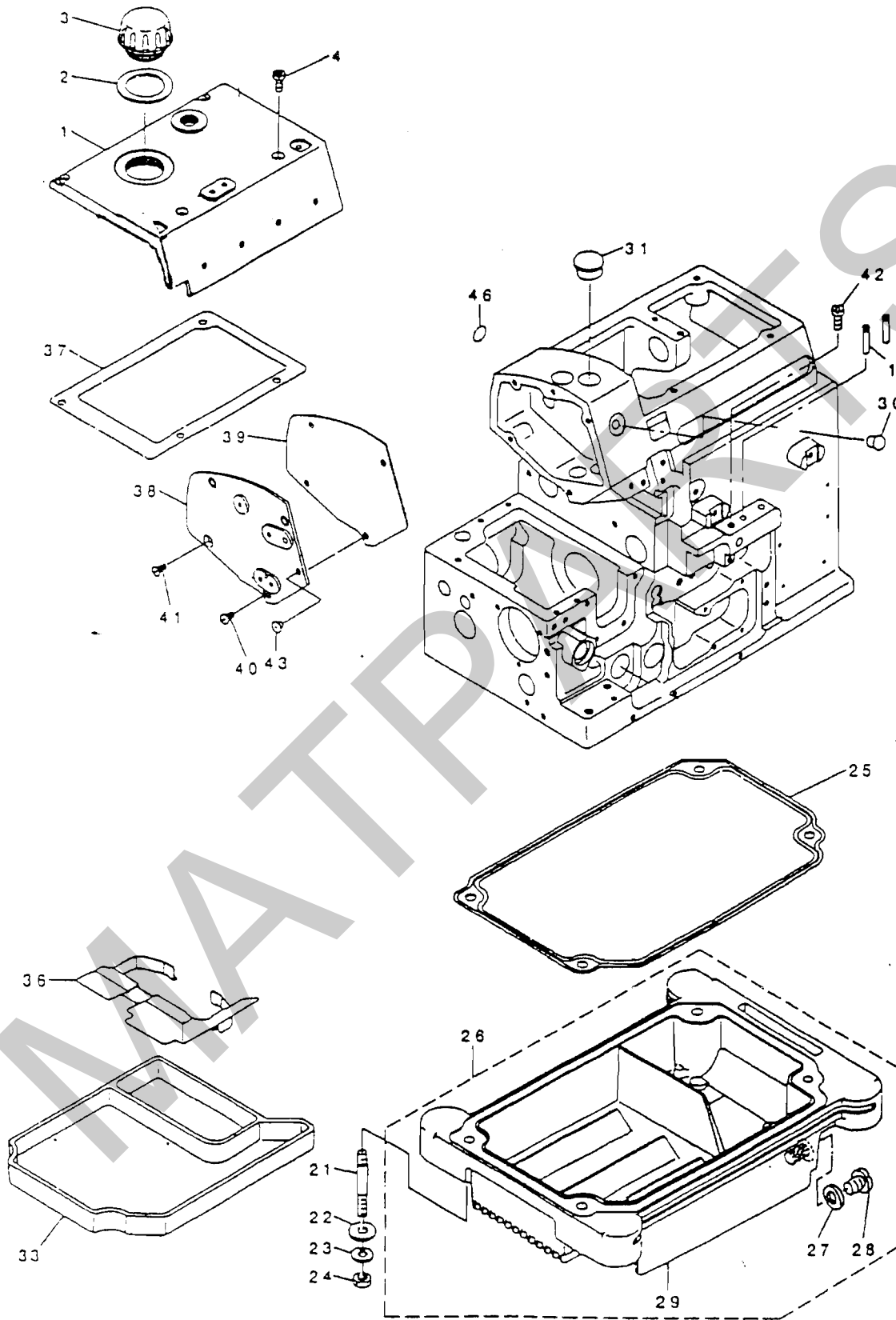
1. FRAME COMPONENTS(1)



1. FRAME COMPONENTS (1)

ITEM	QTY	PART No.	NAME
1	1	C121-05359	Cloth Plate Assembly
2	1	C121-02752	Cloth Plate Assembly
3	1	115-01301	Eccentric Bushing
4	1	WZ-0420350-KP	Disc Spring
5	1	CS-0400671-SD	Thrust Holder
6	1	SM-8040302-TP	Set Screw
7	1	121-03511	Cloth Plate Supporter
8	1	119-49005	Cloth Base Cover
9	1	SS-7091410-SP	Screw
10	1	CSS-8110410-TP	Screw
11	1	118-02402	Spring
12	1	CNS-6110420-SP	Nut
13	1	SS-6111440-SP	Screw
14	1	121-03305	Stop
15	2	SS-7110710-SP	Screw
16	2	CSS-4091015-SP	Screw
18	1	123-70300	Cloth Base Side Cover
19	1	122-50510	Feed Mechanism Cover
20	1	SM-1040801-SC	Screw
21	4	SM-4040855-SP	Screw
22	1	B1140-716-000	Spring
23	1	122-50601	Gasket
24	1	119-51100	Cover
25	1	118-04309	Gasket
26	4	SM-4040855-SP	Screw
28	1	121-02406	Chip Guard Cover, Left
29	2	CSS-7110510-SP	Screw
30	1	123-79608	Cloth Waste Cover
32	1	SS-2090520-SL	Screw
33	1	121-01515	Cloth Waste Cover Stop
34	1	NS-6090310-SN	Nut
35	2	CSS-3090610-SP	Screw
36	1	121-01309	Looper Cover
37	1	118-03004	Looper Cover Hinge Pin
38	1	CSS-8110410-TP	Screw
39	1	121-01200	Looper Cover Bracket
40	3	SM-4041055-SP	Screw
41	1	121-03404	Looper Cover Presser Spring
42	1	SM-4040655-SP	Screw
43	1	CSS-7090530-SP	Screw
44	1	121-03206	Looper Cover Presser Plate
45	1	121-01408	Guide Plate
46	1	CSS-7090610-SP	Screw
47	1	118-02204	Rubber Plug
49	2	CSS-4120615-SP	Screw

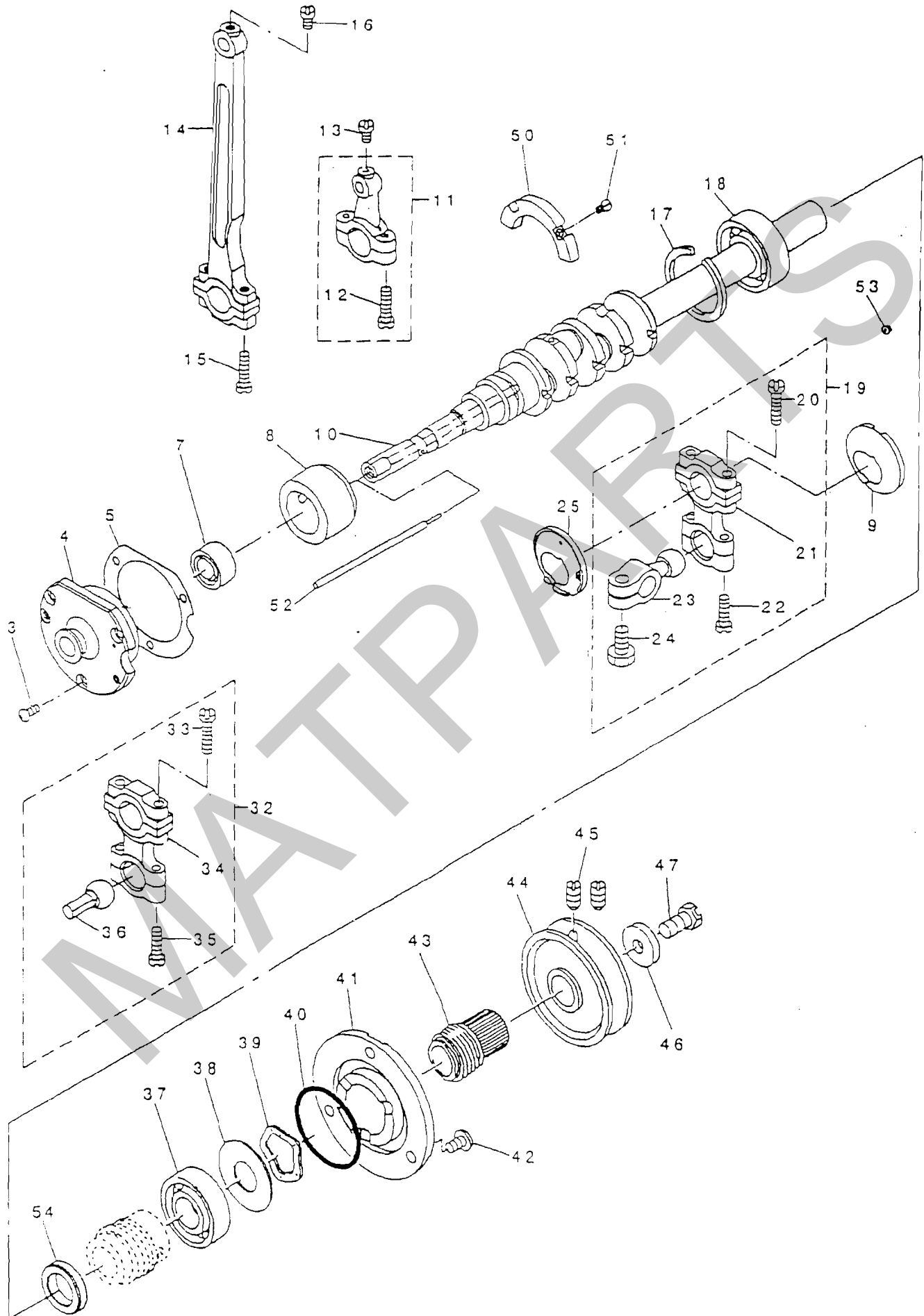
2. FRAME COMPONENTS(2)



2. FRAME COMPONENTS (2)

<u>ITEM</u>	<u>QTY</u>	<u>PART No.</u>	<u>NAME</u>
1	1	C122-50304	Upper Cover
2	1	121-00707	Gasket
3	1	121-00608	Oil Cap
4	6	SM-4051255-SP	Screw
13	2	118-05207	Thread Guide, Large
21	4	115-03703	Screw Stud
22	4	WP-0751576-SD	Washer
23	4	WS-0822010-KP	Spring Washer
24	4	NS-6680410-SP	Nut
25	1	115-03919	Oil Reservoir Gasket
26	1	115-03885	Oil Reservoir Assembly
27	1	RO-0742401-00	Rubber Ring
28	1	SM-0081001-SD	Screw
29	1	115-03810	Oil Reservoir
30	1	TA-0750704-R0	Rubber Plug
31	1	TA-1701107-R0	Rubber Plug
33	1	118-41350	Filter Base Assembly
36	1	118-42804	Shelter Plate
37	1	122-50403	Upper Cover Gasket
38	1	C3328	Side Cover
39	1	C3329	Side Cover Gasket
40	3	SM-4040855-SP	Screw
41	1	SM-1040801-SC	Screw
42	1	CSS-9151210-TP	Screw
43	1	122-58000	Bushing
46	1	100-04109	Ground Mark

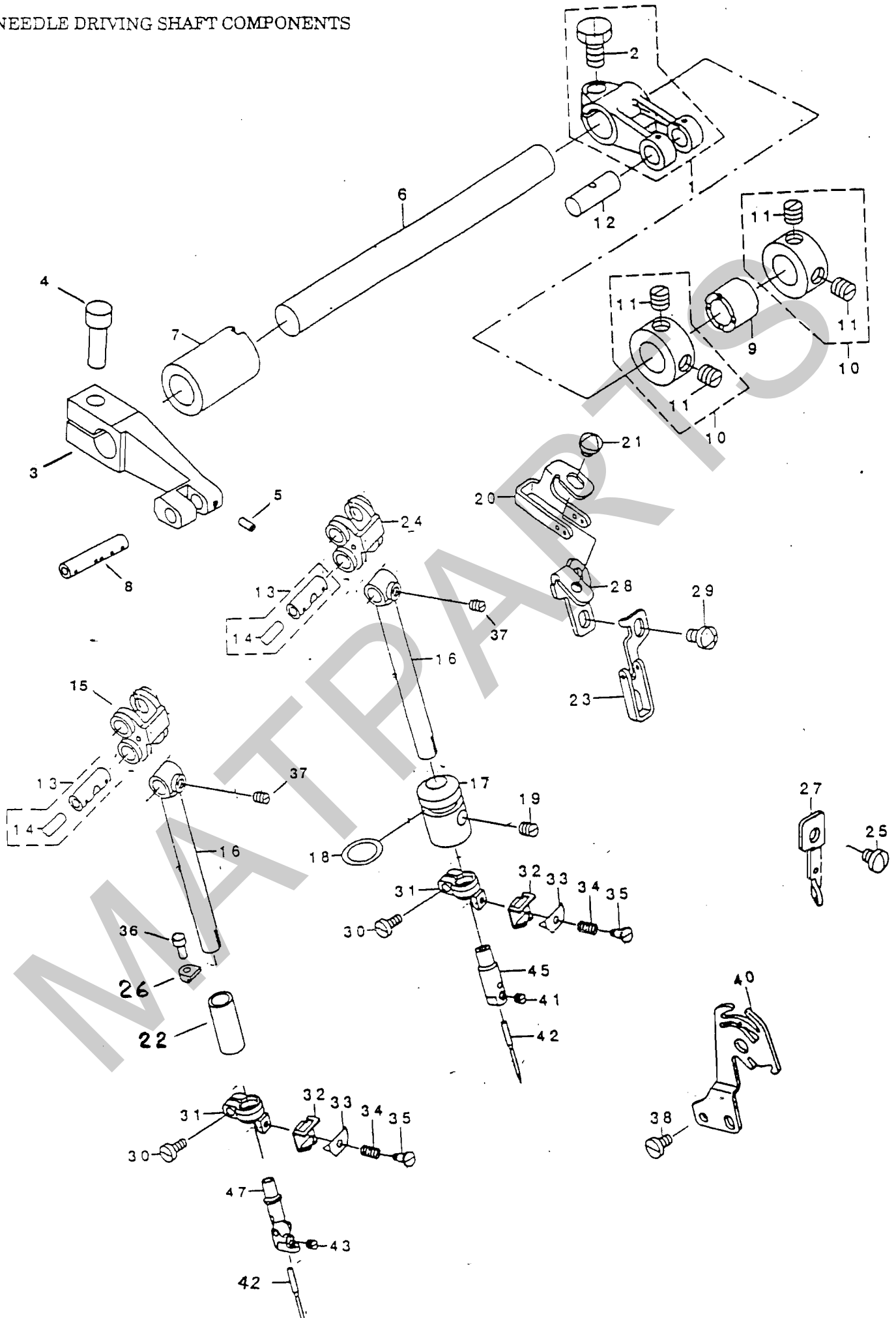
3. CRANKSHAFT COMPONENTS



3. CRANKSHAFT COMPONENTS

<u>ITEM</u>	<u>QTY</u>	<u>PART No.</u>	<u>NAME</u>
3	3	SM-4040855-SP	Screw
4	1	121-08304	Crankshaft Bushing
5	1	121-08403	Gasket
7	1	SB-1100003-00	Ball Bearing
8	1	121-08007	Crankshaft Bushing
9	2	123-75408	Stopper, R
10	1	121-71506	Crankshaft
11	1	121-32115	Knife Driving Rod Assembly
12	1	SS-7111810-TP	Screw
13	2	SS-7110840-SP	Screw
14	1	123-72603	Connecting Rod
15	2	SS-7111810-TP	Screw
16	1	SS-7110840-SP	Screw
17	1	B1212-704-000	Bearing Retainer
18	1	B1211-804-000	Ball Bearing
19	1	123-75051	Upper Looper Arm Assembly
20	2	SS-7111810-TP	Screw
21	1	121-25001	Looper Driving Rod
22	2	SS-7111410-TP	Screw
23	1	121-22313	Upper Looper Arm
24	1	SM-6061202-TP	Screw
25	2	123-75309	Stop
32	1	123-75259	Lower Looper Arm B Assembly
33	2	SS-7111810-TP	Screw
34	1	121-25001	Looper Driving Rod
35	2	SS-7111410-TP	Screw
36	1	121-20101	Lower Looper Arm
37	1	B1211-804-000	Ball Bearing
38	1	115-10609	Washer
39	1	WZ-2640310-KH	Waved Washer
40	1	RO-3473501-00	Rubber Ring
41	1	121-07702	Thrust Holder
42	3	SM-4050855-SP	Screw
43	1	118-11502	Oil Shield
44	1	120-02606	V-Belt Pulley
45	2	SS-8151150-SP	Screw
46	1	WP-0764016-SP	Washer
47	1	SS-9681610-TP	Screw
50	1	121-07900	Balancer
51	2	SS-4080620-TP	Screw
52	1	121-08106	Oil Adjusting Bar
53	5	SS-5080212-TP	Screw
54	1	122-52508	Thrust Cover

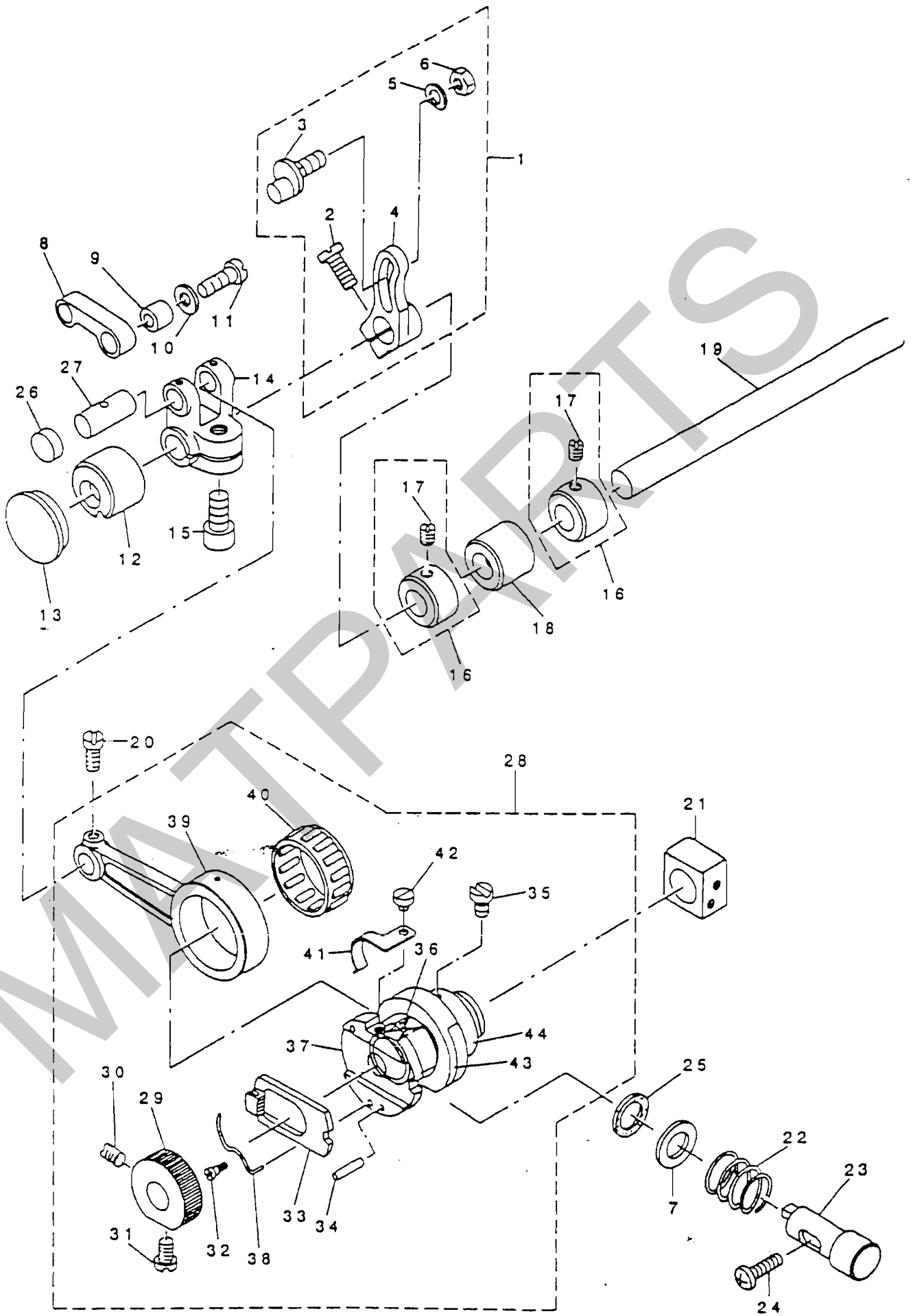
4. NEEDLE DRIVING SHAFT COMPONENTS



4. NEEDLE DRIVING SHAFT COMPONENTS

ITEM	QTY	PART No.	NAME
1	1	121-09260	Feed Forked Crank Assembly
2	1	SM-6061202-TP	Screw
3	1	C3302	Needle Drive Arm
4	1	C252012SCS	Screw
5	1	C044004SSS	Set Screw
6	1	121-09302	Needle Driving Shaft
7	1	122-52805	Bushing, Rear
8	1	C3310	Needle Drive Link Pin
9	1	121-09500	Bushing, Rear
10	2	CS-1201010-SH	Thrust Collar Assembly
11	4	SS-8660610-TP	Screw
12	1	118-23804	Crank Pin
13	2	C3334	Link Pin
14	2"	CQ-2520000-00	Oil Wick
15	1	C3332	Needle Driving Link, Left
16	2	C3319	Needle Holder
17	1	123-72108	Needle Holder Bushing, Right
18	1	RO-1082401-00	Rubber Ring
19	1	SS-8110710-SP	Screw
20	1	121-11209	Needle Thread Guide
21	1	SS-4110515-SP	Screw
22	1	C3313	Needle Holder Bushing, Left
23	1	123-86603	Chain Looper Thread Guide
24	1	C3333	Needle Driving Link, Right
25	1	SM-4040855-SP	Screw
26	1	C3314	Needle Holder Bushing Clip
27	1	123-72405	Chain Loop Takeup Lever Guide
28	1	121-12108	Needle Thread Guide Stand
29	1	SM-4040855-SP	Screw
30	2	CSS-6080720-SP	Screw
31	2	C122-80608	Needle Clamp
32	2	C121-10706	Needle Thread Presser Guide
33	2	C121-10904	Needle Thread Presser Plate
34	2	C121-10805	Needle Thread Presser Spring
35	2	CSD-0280401-SL	Hinge Screw
36	1	C044004SCS	Screw
37	2	CSS-8090530-TP	Screw
38	2	SS-6090670-TP	Screw
40	1	123-72207	Chain Looper Takeup Lever
41	1	CSS-8080310-TP	Screw
42	2	135 X 7/21	Needle (available in 20, 21 or 22)
43	2	CSS-8080310-TP	Screw
45	1	C123-78808	Needle Clamp, Right
47	1	C123-79004	Needle Clamp, Left

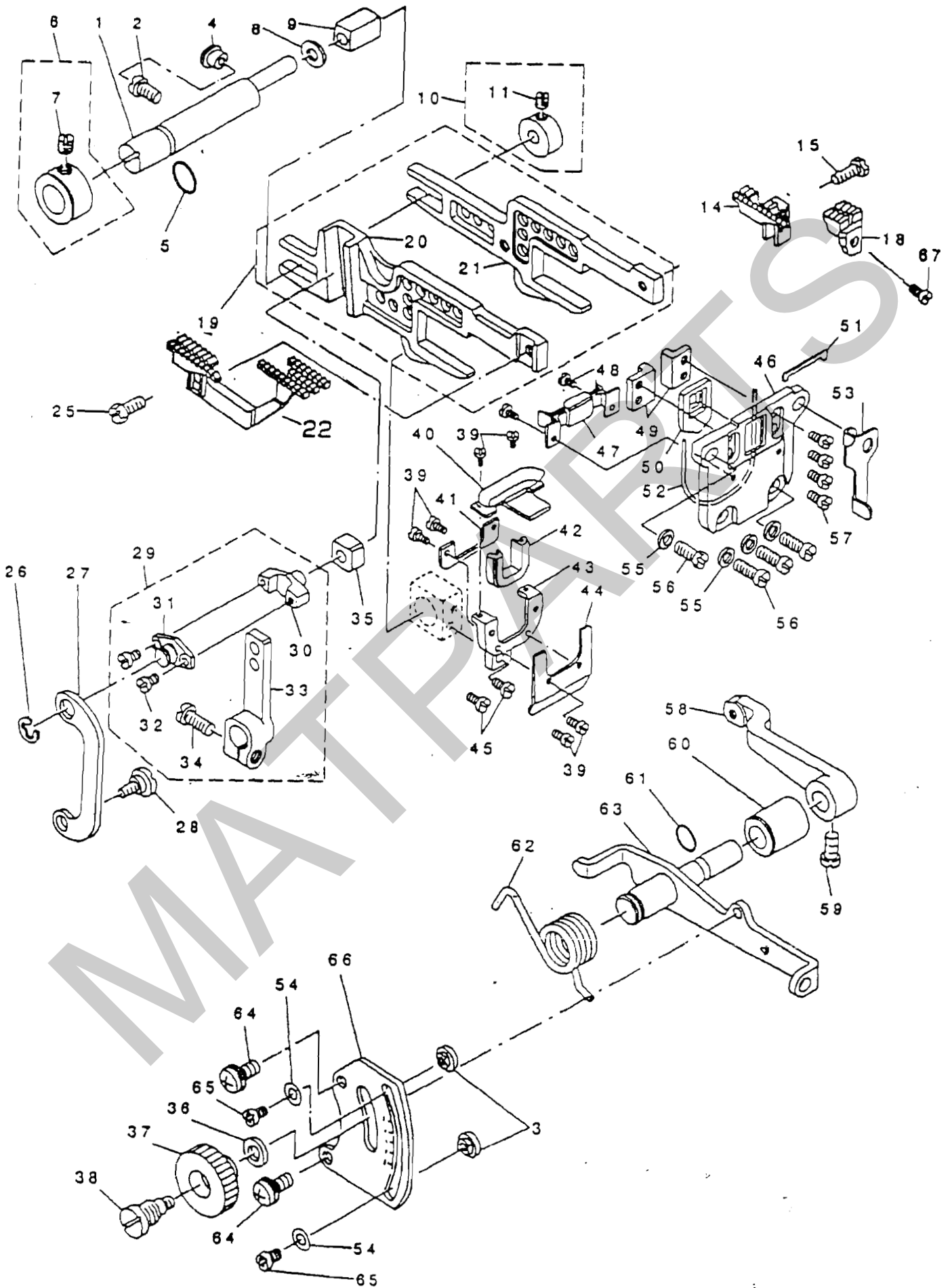
5. FEED MECHANISM COMPONENTS(1)



5. FEED MECHANISM COMPONENTS (1)

ITEM	QTY	PART No.	NAME
1	1	118-24067	Main Feed Rocker Assembly
2	1	SM-6051202-TP	Screw
3	1	118-24018	Pin
4	1	115-30110	Main Feed Rocker
5	1	119-48601	Washer
6	1	NS-6620320-SP	Nut
7	1	B1654-704-000	Washer
8	1	118-24109	Main Feed Link
9	1	B1620-804-000	Collar
10	1	B2107-816-000	Washer
11	1	CSS-6121220-TP	Screw
12	1	121-17206	Feed Rocker Shaft Bushing, Front
13	1	TA-2050416-R0	Rubber Plug
14	1	121-19210	Forked Link
15	1	SM-6061202-TP	Screw
16	2	CS-095081A-SH	Thrust Collar Assembly
17	4	CSS-8110410-TP	Screw
18	1	121-17305	Feed Rocker Shaft Bushing, Rear
19	1	121-18907	Feed Shaft
20	1	SS-7110910-TP	Screw
21	1	118-28704	Slide Block
22	1	B1652-704-000	Spring
23	1	B1550-704-000	Push Button Stud
24	1	SM-4041455-SN	Screw
25	1	B1651-704-000	Felt
26	1	TA-1030402-R0	Rubber Plug
27	1	118-23804	Crank Pin
28	1	121-16174	Feed Eccentric Body Assembly
29	1	B1605-704-000	Ratchet Gear
30	1	SS-8110750-SP	Screw
31	1	SS-6110710-TP	Screw
32	1	SD-0260271-SP	Hinge Screw
33	1	B1604-704-000	Ratchet Pawl
34	2	PS-0300132-KH	Spring Pin
35	2	CSS-7110810-SP	Screw
36	1	121-16307	Feed Cam Block
37	1	121-16406	Feed Adjusting Cam
38	1	B1606-704-000	Ratchet Pawl Spring
39	1	121-16505	Crank Rod
40	1	121-16703	Needle Bearing
41	1	121-17107	Ratchet Gear Spring
42	1	SS-6080320-SP	Screw
43	1	121-16208	Feed Cam
44	1	121-16109	Feed Eccentric Body

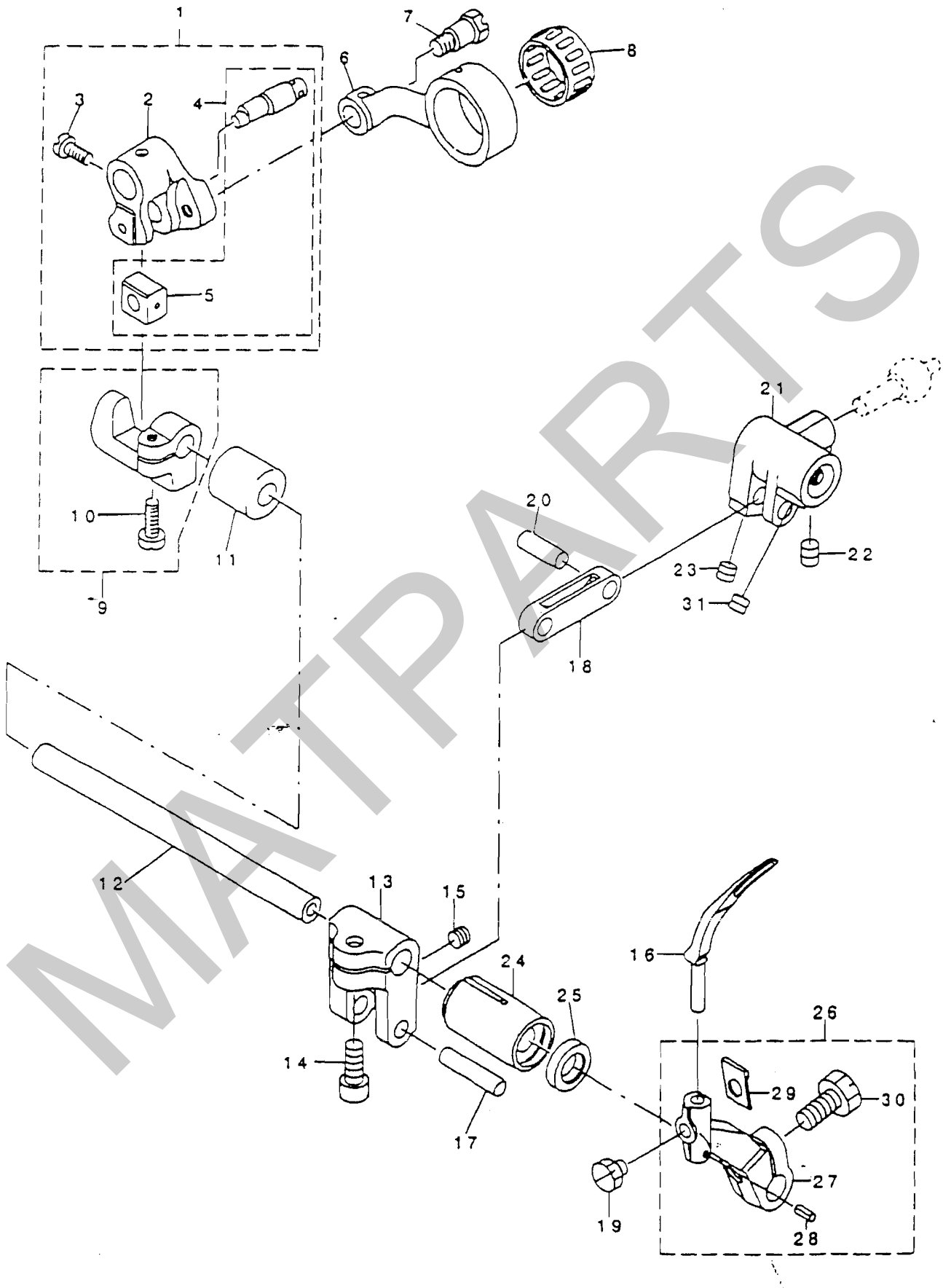
6. FEED MECHANISM COMPONENTS(2)



6. FEED MECHANISM COMPONENTS (2)

ITEM	QTY	PART No.	NAME	ITEM	QTY	PART No.	NAME
1	1	118-24505	Feed Bar Shaft	41	1	121-19806	Rubber Presser Plate
2	1	SM-4040855-SP	Screw	42	1	121-19608	Oil Shield Rubber
3	2	115-29005	Stopper	43	1	121-19905	Rubber Cover
4	1	TA-0800504-R0	Plug	44	1	121-20002	Rubber Base Plate
5	1	RO-0781901-00	Rubber Ring	45	2	SS-7090620-TP	Screw
6	1	118-24653	Thrust Collar Assembly	46	1	121-19400	Rubber Case
7	1	SS-8660330-SP	Screw	47	1	118-27607	Oil Shield Rubber, Lower
8	1	115-29914	Washer	48	2	CSS-7060510-SP	Screw
9	1	B1624-704-000	Slide Block	49	2	118-24703	Feed Bar Support
10	1	118-28050	Collar Assembly	50	1	121-19509	Rubber
11	1	CSS-8110410-TP	Screw	51	1	118-27904	Rubber
14	1	C115-28304	Main Feed Dog	52	1	RO-4801201-00	Rubber Ring
15	1	CSS-9111050-SP	Screw	53	1	118-28407	Throat Plate Support
18	1	C115-28502	Auxiliary Feed Dog	54	2	WP-0371016-SD	Washer
19	1	121-17461	Main Feed Bar Assy	55	4	WP-0480856-SP	Washer
20	1	121-17511	Differential Feed Bar	56	4	SM-4041055-SP	Screw
21	1	121-17412	Main Feed Bar	57	4	CSS-6090620-SP	Screw
22	1	A18060	Differential Feed Dog	58	1	118-28605	Diff. Feed Rocker
25	1	CSS-9111010-SP	Screw	59	1	SS-6061110-SP	Screw
26	1	RE-0500000-K0	E-Ring	60	1	B1645-704-000-A	Bushing
27	1	118-26310	Adjusting Link	61	1	RO-0601501-00	Rubber Ring
28	1	SD-0720271-SP	Hinge Screw	62	1	119-91502	Spring
29	1	118-28563	Diff. Feed Rocker Assy	63	1	118-25858	Rocker Shaft Assy
30	1	118-25304	Pin	64	2	SL-4051231-SC	Screw
31	1	118-26401	Pin Cover	65	2	SS-4090515-SP	Screw
32	2	CSS-6080410-SP	Screw	66	1	118-27102	Diff. Feed Graduation Plate
33	1	118-28514	Diff. Feed Rocker Assy	67	1	CSS-4080610-SP	Screw
34	1	SM-6051202-TP	Screw				
35	1	B1414-555-000	Slide Block				
36	1	WP-0621016-SD	Washer				
37	1	B1647-704-000-A	Differential Feed Lock Nut				
38	1	B1646-704-000-A	Diff. Feed Hinge Screw				
39	6	SS-7060310-SP	Screw				
40	1	121-19756	Rubber Plate Assembly				

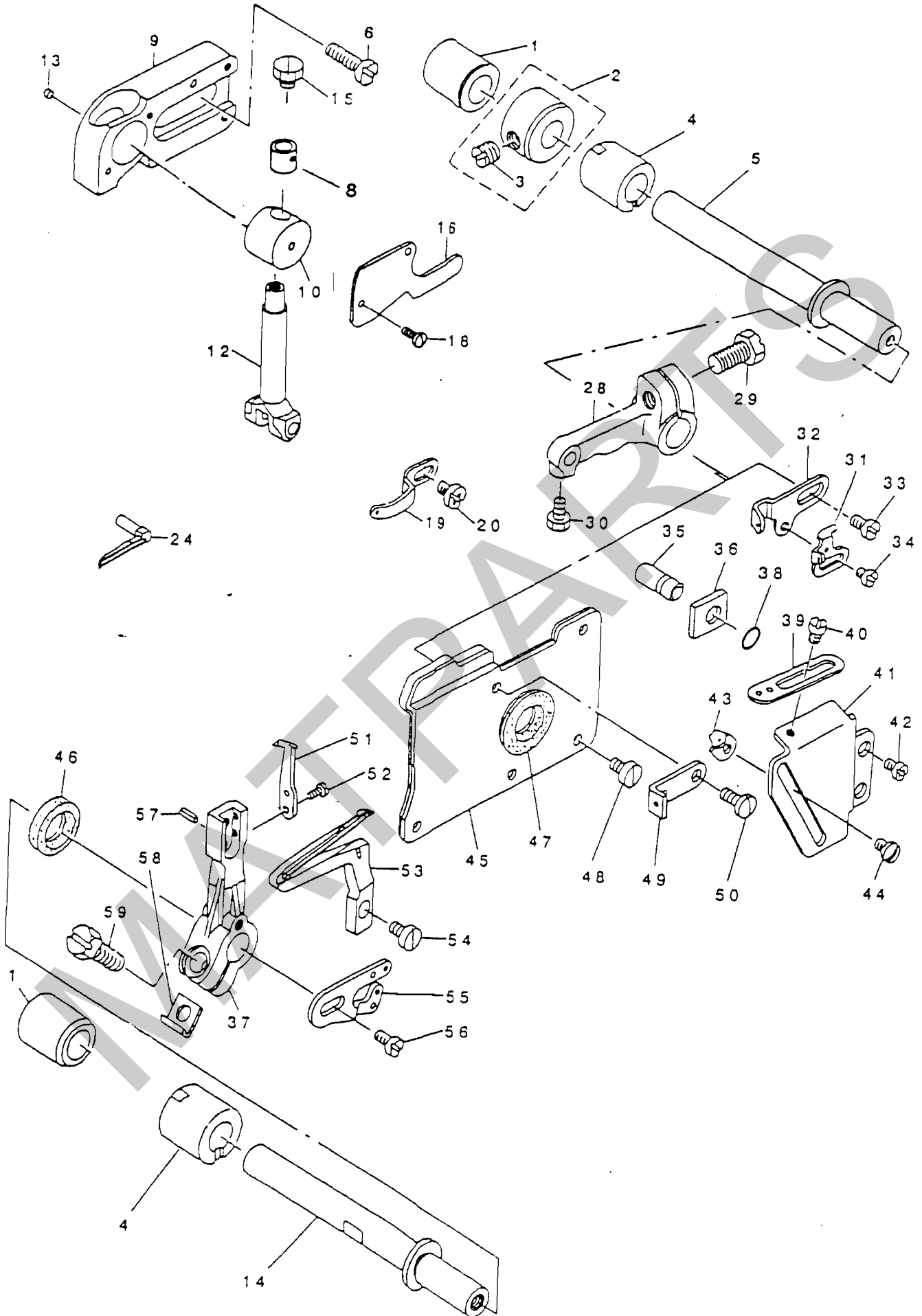
7. CHAIN LOOPER COMPONENTS(FOR MOG-3716)



7. CHAIN LOOPER COMPONENTS

<u>ITEM</u>	<u>QTY</u>	<u>PART No.</u>	<u>NAME</u>
1	1	B2103-816-0A0	Slider Arm Assembly
2	1	B2103-816-000-B	Chain Looper Shaft Slide Arm
3	1	SS7110720-TP	Screw
4	1	118-29751	Chain Looper Slide Block Pin
5	1	B2105-816-000	Chain Looper Slide Block
6	1	B2105-816-000-A	Chain Looper Rod
7	1	SD-0720803-TH	Step Screw
8	1	B2119-816-B00	Bearing B
9	1	121-20465	Bracket Assembly
10	1	SM-6051202-TP	Screw
11	1	B2111-716-000	Rear Bushing
12	1	118-29207	Chain Looper Shaft
13	1	123-74104	Chain Looper Shaft Driving Arm
14	1	SM-6051202-TP	Screw
15	1	SM-8050402-TP	Screw
16	1	C123-84400	Chain Looper
17	1	122-58505	Pin
18	1	123-74203	Chain Looper Shaft Driving Link
19	1	SS-9110430-TP	Screw
20	1	122-59008	Pin
21	1	123-74005	Driving Ball Arm Bracket
22	1	SM-8050602-TP	Screw
23	1	SM-8050402-TP	Screw
24	1	121-22008	Front Bushing
25	1	B2525-352-000	Oil Seal Ring
26	1	118-29363	Chain Looper Driving Arm Assembly
27	1	A118-29314	Chain Looper Driving Arm
28	1	CPS-0200062-KH	Spring Pin
29	1	CB2531-704-000	Washer
30	1	CSS-9151210-TP	Screw
31	2	SM-8050402-TP	Screw

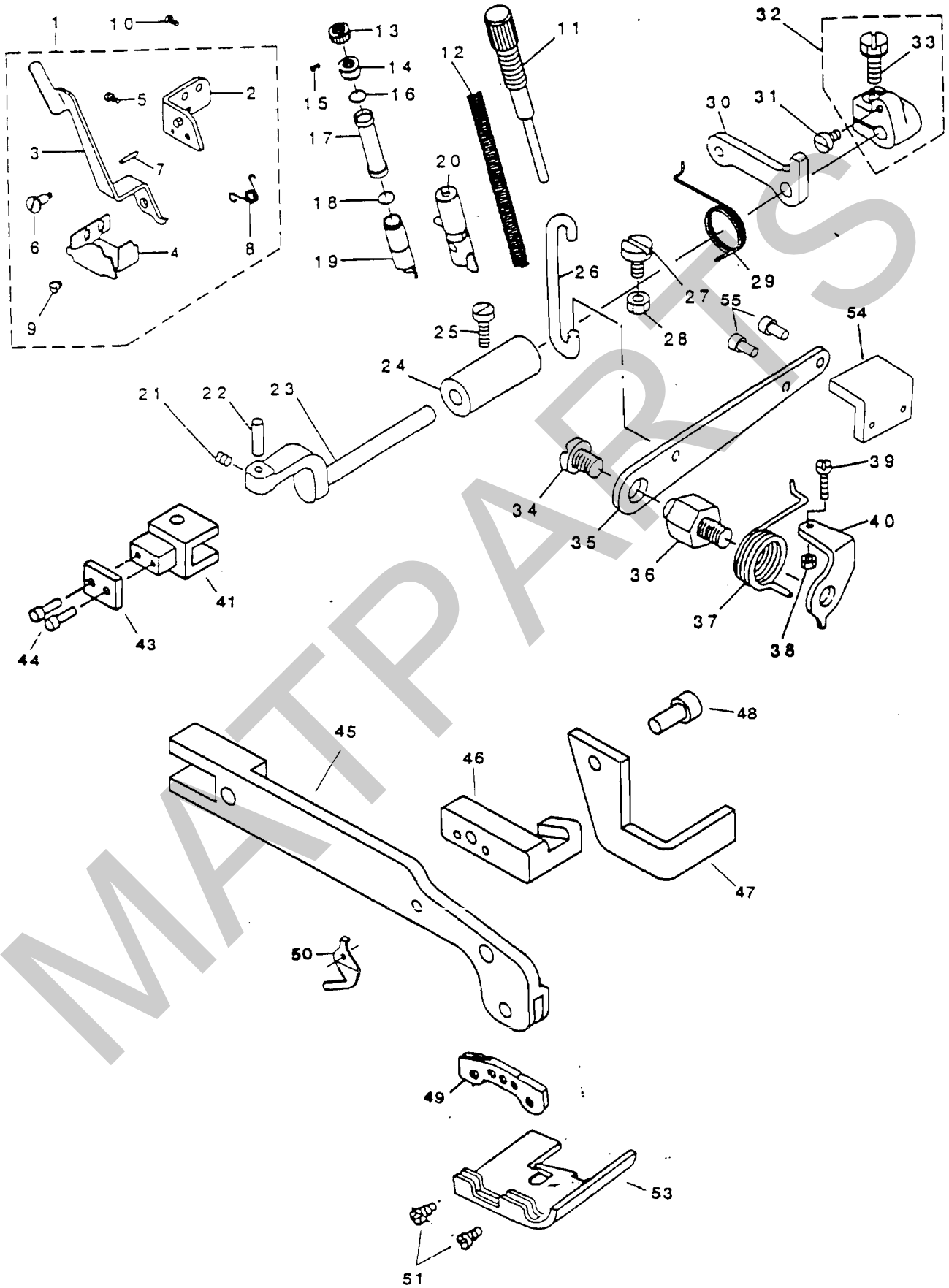
8. UPPER & LOWER LOOPER COMPONENTS



8. UPPER & LOWER LOOPER COMPONENTS

<u>ITEM</u>	<u>QTY</u>	<u>PART No.</u>	<u>NAME</u>
1	2	122-54009	Rear Bushing
2	2	CS-1031210-SH	Thrust Collar Assembly
3	4	SS-8060610-TP	Screw
4	2	118-34702	Front Bushing
5	1	121-22404	Upper Looper Shaft
6	2	SM-6061200-SP	Screw
8	1	APT251634	Looper Collar
9	1	115-44400	Upper Looper Guide Retainer
10	1	115-44517	Upper Looper Guide
12	1	115-82103	Upper Looper Holder
13	1	120-04503	Upper Looper Guide Felt
14	1	121-23410	Lower Looper Shaft
15	1	SS-9090410-TP	Screw
16	1	120-04206	Upper Looper Guide Cover
18	2	SS-7060610-SP	Screw
19	1	118-33308	Upper Looper Thread Guide
20	1	SS-4090615-SP	Screw
24	1	123-83501	Upper Looper
28	1	115-82012	Upper Looper Arm
29	1	SS-9151210-TP	Screw
30	1	SS-9090610-TP	Screw
31	1	118-33506	Lower Looper Thread Takeup
32	1	121-24004	Thread Takeup, Right
33	1	SS-7110840-SP	Screw
34	1	SS-6080410-SP	Screw
35	1	118-31906	Pin
36	1	115-45100	Gauge
37	1	121-24806	Lower Looper Support Arm
38	1	RO-0371801-00	Rubber Ring
39	1	121-23907	Thread Guide, Right
40	1	SS-3090610-SP	Screw
41	1	121-23808	Looper Thread Takeup Cover
42	2	SM-4040655-SP	Screw
43	1	118-33407	Lower Looper Thread Guide
44	1	SS-3090610-SP	Screw
45	1	121-23667	Oil Shield Assembly
46	1	B2508-704-000	Oil Seal
47	1	B2530-704-000	Upper Looper Shaft Rubber Ring
48	4	SS-6090630-SP	Screw
49	1	118-33100	Looper Thread Guide
50	1	SS-7090850-SP	Screw
51	1	118-90001	Traveling Needle Guard
52	2	SS-6060440-TP	Screw
53	1	123-84202	Lower Looper
54	1	SS-6090620-TP	Screw
55	1	123-75705	Looper Thread Takeup, Left
56	1	SS-7110840-SP	Screw
57	1	PS-0300062-KH	Spring Pin
58	1	B2531-704-000	Washer
59	1	SS-9151210-TP	Screw

9. PRESSER FOOT COMPONENTS(1)

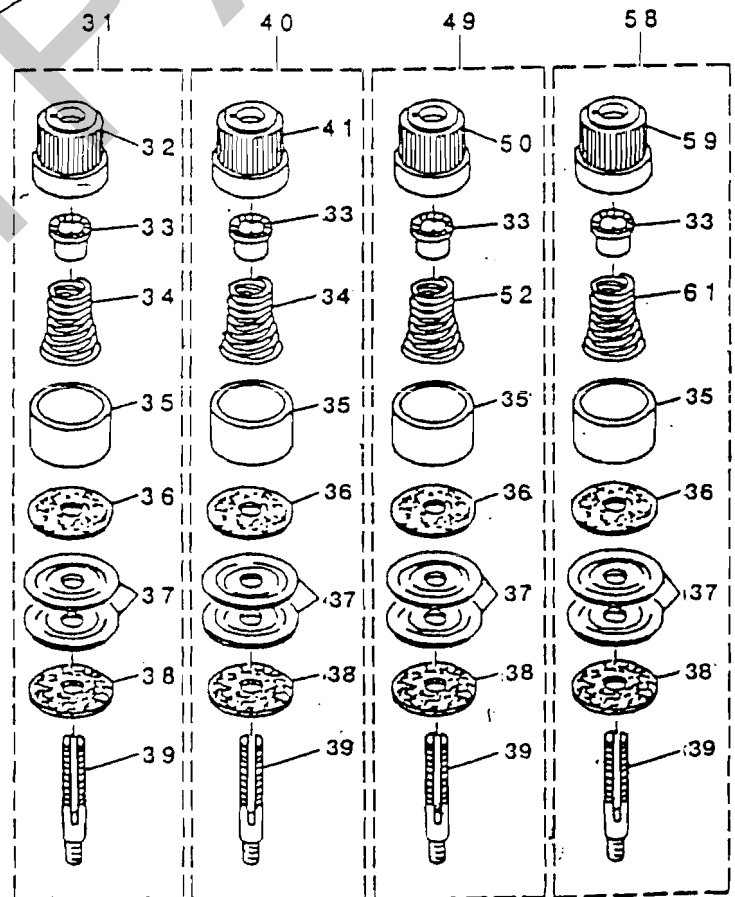
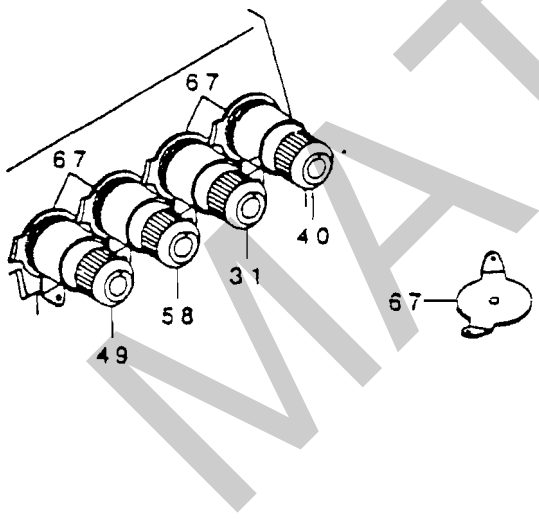
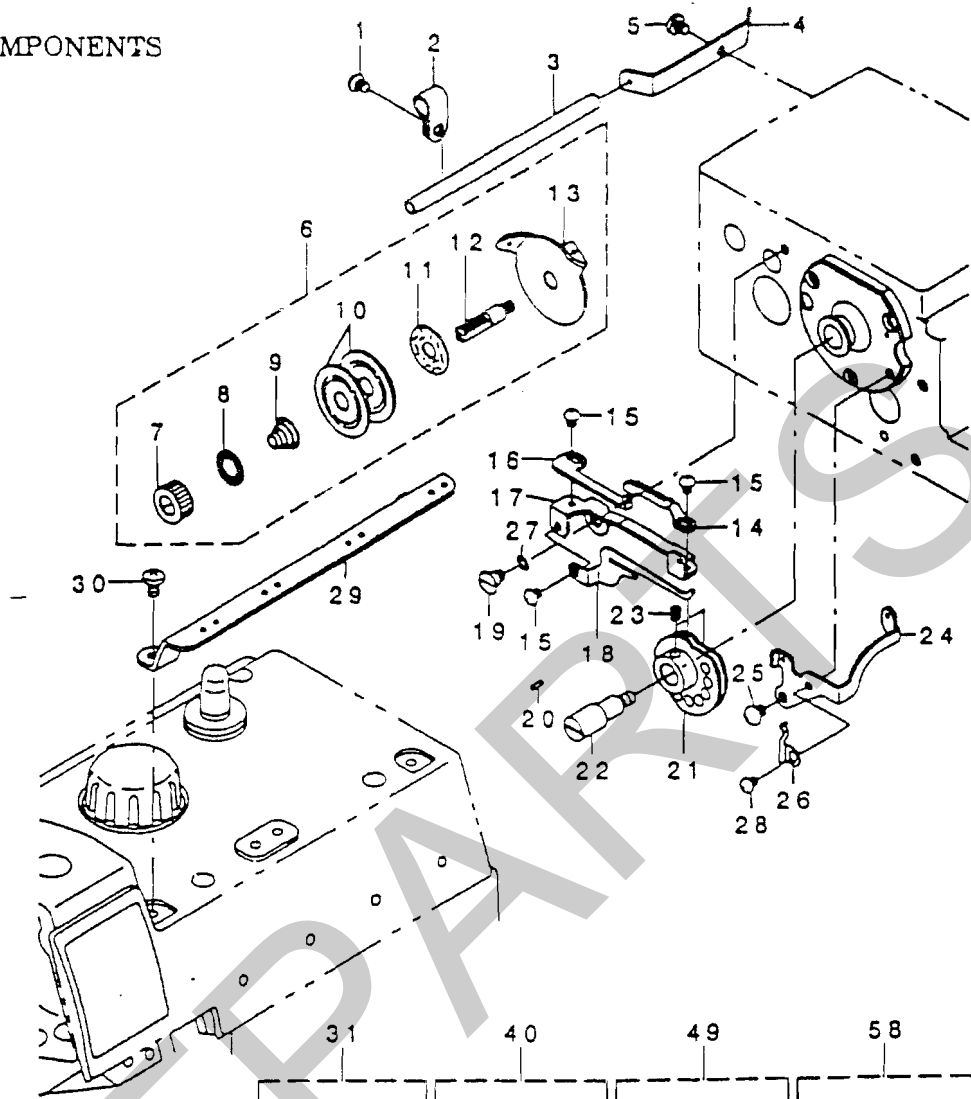


9. PRESSER FOOT COMPONENTS (1)

ITEM	QTY	PART No.	NAME
1	1	121-15051	Foot Lifting Lever Stand Assembly
2	1	121-15002	Foot Lifting Lever Stand
3	1	121-15101	Presser Foot Lifting Lever
4	1	121-15200	Stop
5	2	CSS-7110510-SP	Screw
6	1	SD-0640241-SP	Hinge Screw
7	1	PS-0300142-KH	Spring Pin
8	1	121-15309	Spring
9	1	SS-6080340-SP	Screw
10	2	SS-4110715-SP	Screw
11	1	121-14716	Presser Regulator Screw
12	1	121-15903	Presser Sprong
13	1	121-14807	Presser Regulator Nut
14	1	121-14609	Presser Regulator Screw Washer
15	1	SM-8040402-TP	Screw
16	1	RO-1100901-00	Rubber Ring
17	1	121-14906	Presser Bar Cover
18	2	RO-1100901-00	Rubber Ring
19	1	123-73007	Presser Bar Bushing
20	1	121-14468	Presser Bar Assembly
21	1	SS-8110510-SP	Screw
22	1	CB1534-804-000	Presser Foot Arm Hinge Shaft
23	1	121-13205	Presser Foot Shaft
24	1	121-13304	Bushing
25	1	SS-6121510-SP	Screw
26	1	118-19414	Lifting Hook
27	1	SM-6061200-SP	Screw
28	1	NM-6060003-SC	Nut
29	1	118-19703	Presser Foot Arm Spring
30	1	121-13502	Lifting Arm
31	1	SS-6110710-TP	Screw
32	1	121-13452	Presser Foot Shaft Thrust Arm
33	1	CSS-9151210-TP	Screw
34	1	SS-7161040-SP	Screw
35	1	118-19315	Lifting Lever
36	1	118-19109	Lifting Lever Screw
37	1	118-19208	Lifting Lever Spring
38	1	NS-6110420-SP	Nut
39	1	SS-7111410-SP	Screw
40	1	B1529-804-000	Presser Foot Lifting Lever Stop
41	1	CPT151606	Presser Foot Arm Link
43	1	CPT151612	Presser Foot Arm Link Clamp Plate
44	2	C044008BHSC	Screw
45	1	CPT151616HD	Presser Foot Arm
46	1	C3312	Presser Foot Arm Latch
47	1	C3316	Presser Foot Anti-Lift Angle
48	1	C083206FHSC	Screw
49	1	C115-21507	Presser Foot Hinge
50	1	B1528-804-000-A	Thread Trimmer
51	3	C115-22703	Hinge Screw
53	1	C3335	Presser Foot
54	1	C3326	Presser Foot Push Pad
55	2	C102406SCS	Screw

C3342 As Complete

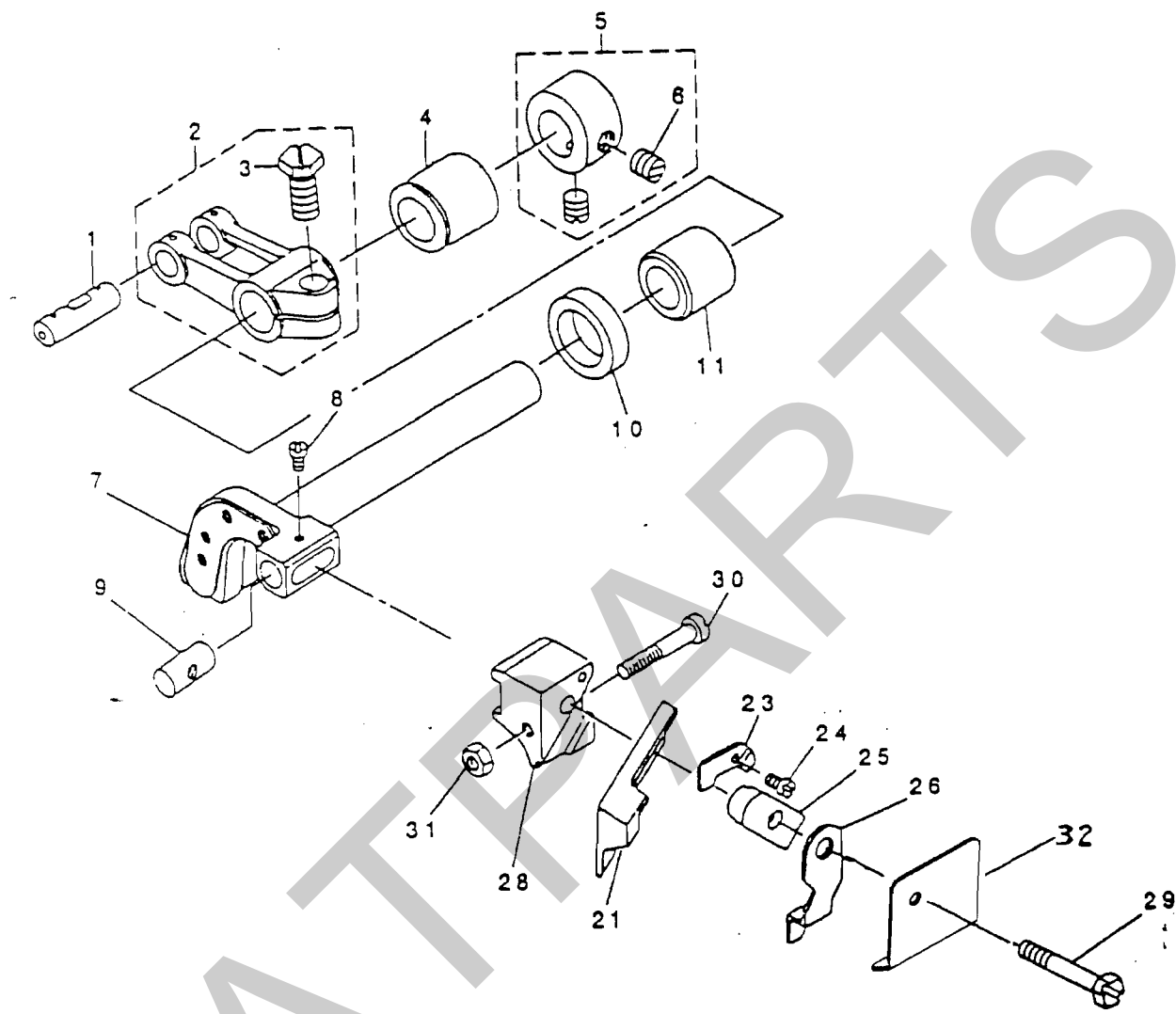
11. THREAD TENSION COMPONENTS



11. THREAD TENSION COMPONENTS

ITEM	QTY	PART No.	NAME
1	1	SM-4050855-SP	Screw
2	1	B3113-352-000	Mounting Bracket
3	1	B2401-816-000	Looper Thread Guide Tube
4	1	B2402-716-000	Looper Thread Guide Tube Guide
5	1	SS-5150510-SP	Screw
6	1	115-50852	Tension Controller
7	1	B2314-019-000	Tension Post Nut
8	1	B3120-125-000	Rotating Stop
9	1	B2017-372-000	Tension Spring, No.1
10	2	B3126-012-000	Tension Disc
11	1	B3120-352-000	Thread Tension Spring Felt
12	1	C115-50803	Thread Tension Post
13	1	C115-50308	Thread Guide
14	1	121-20903	Thread Guide A
15	3	SS-4090415-SP	Screw
16	1	121-21000	Thread Guide B
17	1	121-20804	Thread Guide Base
18	1	121-21109	Thread Guide Hook
19	1	SD-0600341-TP	Hinge Screw
20	1	PS-0200052-KH	Spring Pin
21	1	B2201-816-000	Thread Cam
22	1	B2202-816-000	Shaft
23	2	CSS-8110410-TP	Screw
24	1	121-21208	Thread Guide
25	1	SS-4110515-SP	Screw
26	1	121-21307	Thread Guide Spring
27	1	WZ-0640312-KO	Waved Washer
28	1	SS-4090415-SP	Screw
29	1	122-54405	Center Thread Guide
30	2	C102406SCS	Screw
31	1	122-54850	Thread Tension, Complete (Yellow Dot)
32	1	119-56901	Thread Tension Knob, Yellow Dot
33	4	B3112-704-000	Tension Spring Bushing
34	2	B3102-804-000	Tension Spring, Yellow
35	4	119-57305	Tension Disc Presser
36	4	B3120-704-000	Thread Tension Spring Felt
37	8	122-54504	Thread Tension Disc
38	4	122-54603	Thread Tension Rubber
39	4	B3105-804-000	Tension Post
40	1	122-54751	Thread Tension, Complete (Red Dot)
41	1	119-56703	Thread Tension Knob, Red Dot
49	1	123-76554	Thread Tension, Complete (Purple Dot)
50	1	119-57107	Thread Tension Knob, Purple Dot
52	1	115-50100	Tension Spring, Purple
58	1	122-55451	Thread Tension, Complete (Green Dot)
59	1	119-57206	Thread Tension Knob, Green Dot
61	1	115-50209	Tension Spring, Green
67	4	B3108-704-000	Thread Guide

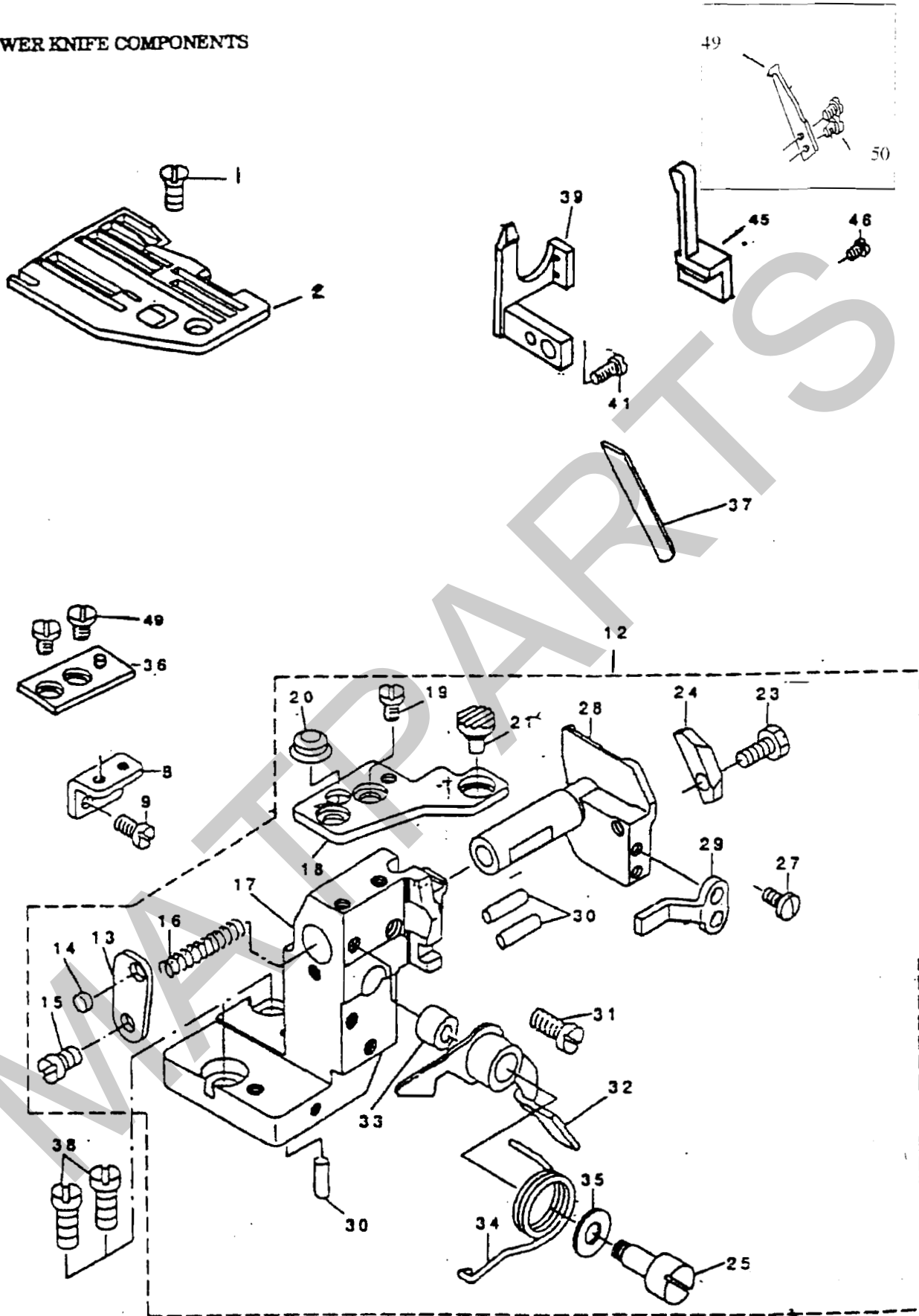
12. UPPER KNIFE COMPONENTS



12. UPPER KNIFE COMPONENTS

<u>ITEM</u>	<u>QTY</u>	<u>PART No.</u>	<u>NAME</u>
1	1	118-23804	Crank Pin
2	1	121-32262	Feed Forked Arm Assembly
3	1	SM-6061202-TP	Screw
4	1	121-32502	Rear Bushing
5	1	CS-111101E-SH	Collar Assembly
6	2	SS-8660330-SP	Screw
7	1	121-32304	Knife Driving Arm Shaft
8	1	CSS-4060310-SP	Screw
9	1	115-65801	Upper Knife Guide Shaft
10	1	115-66809	Oil Seal
11	1	121-32403	Front Bushing
21	1	C115-65900	Upper Knife
23	1	C115-65702	Washer
24	1	CSS-4060310-SP	Screw
25	1	115-65504	Upper Knife Presser Plate
26	1	C115-65603	Upper Knife Cover
28	1	C115-65405	Upper Knife Support
29	1	CSS-9112420-TP	Screw
30	1	CSS-7092110-TP	Screw
31	1	CNS-6090310-SP	Nut
32	1	C3315	Scrap Deflector

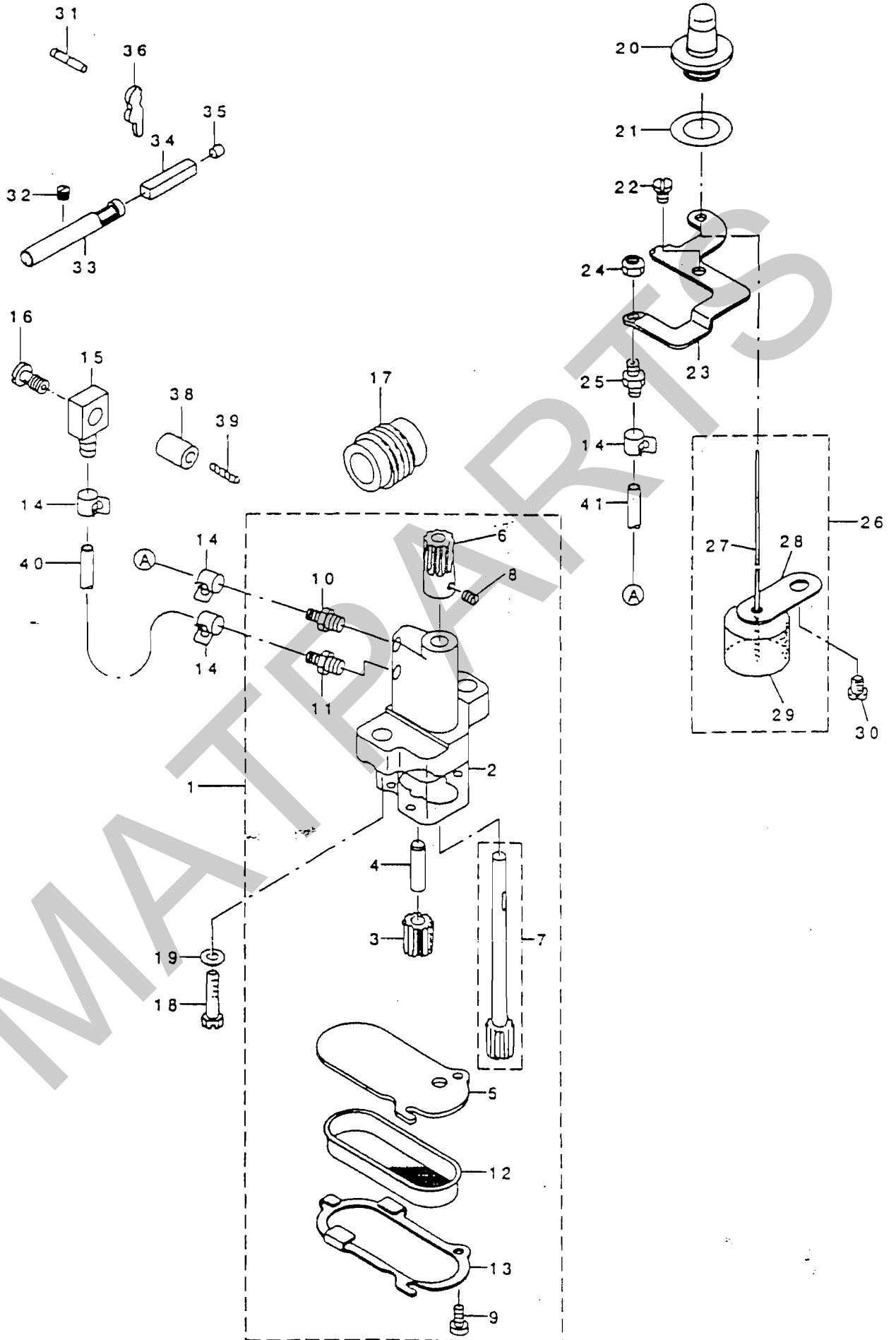
13. LOWER KNIFE COMPONENTS



13. THROAT PLATE & LOWER KNIFE COMPONENTS

ITEM	QTY	PART No.	NAME
1	1	CSS-2110710-SL	Screw
2	1	C18040N	Throat Plate
8	1	APT251615	Throat Plate Base Retainer
9	2	SM-4051055-SP	Screw
12	1	123-77578	Lower Knife Bracket Assembly
13	1	121-33211	Spring Stop
14	1	118-06304	Plug
15	1	SS-7110720-SP	Screw
16	1	118-46607	Spring
17	1	121-32619	Lower Knife Bracket
18	1	121-02208	Throat Plate Base
19	2	CSS-6110610-TP	Screw
20	1	121-03701	Rubber Plug
21	1	121-03602	Rubber Plug
23	1	CSS-9111010SP	Screw
24	1	123-77602	Lower Knife Presser
25	1	123-78204	Lever Shaft
27	2	SS-7090710-SP	Screw
28	1	123-77800	Lower Knife Slide Stud
29	1	123-77909	Rotating Stop
30	3	121-33708	Holder Pin
31	1	CSS-7151120-SP	Screw
32	1	121-02950	Lever Assembly
33	1	121-03107	Rubber Plug
34	1	123-78006	Lever Spring
35	1	WP-0621036-SP	Washer
36	1	APT251615	Throat Plate Base
37	1	C115-66502	Lower Knife
38	2	SS-6151440-SP	Screw
39	1	CPT251604	Needle Guard
41	1	SS-7110840-SP	Screw
45	1	C3311	Needle Guard, Front
46	2	CSS7060510-SP	Screw
49	2	CSS-6110610-TP	Screw
50	1	C025604BHS	Screw
51	1	C118-90605	Needle Guard

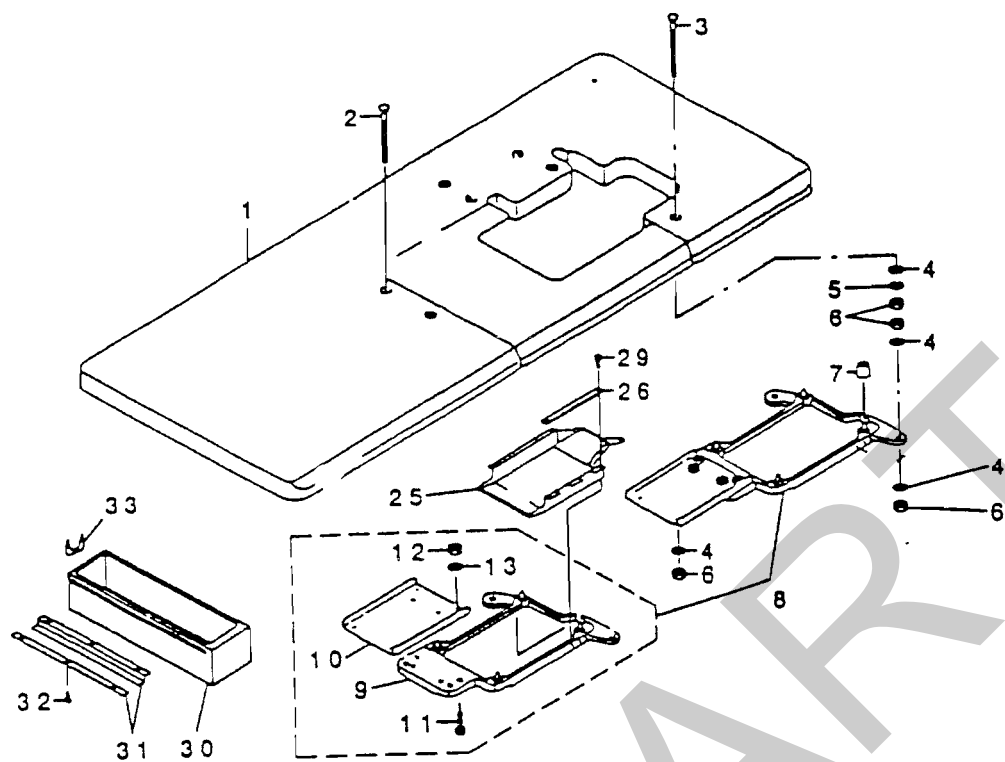
14. LUBRICATION MECHANISM COMPONENTS



14. LUBRICATION MECHANISM COMPONENTS

ITEM	QTY	PART No.	NAME
1	1	122-55550	Oil Pump Assembly
2	1	122-55501	Oil Pump
3	1	118-40303	Oil Pump Pinion
4	1	118-40402	Gear Pump Shaft
5	1	122-55600	Cover
6	1	118-41707	Worm Gear
7	1	118-41855	Oil Pump Shaft Large Assembly
8	2	CSS-8110410-TP	Screw
9	2	SS-6090810-SP	Screw
10	1	SQ-1150453-MZ	Connecting Screw
11	1	SQ-1150451-MZ	Connecting Screw
12	1	122-55709	Pump Screen
13	1	122-55808	Pump Screen Support
14	4	122-56004	Oil Tube Holder
15	1	SQ-0000451-MZ	Connecting Screw
16	1	SQ-1150441-SD	Connecting Screw
17	1	118-40600	Worm
18	2	SM-6061802-TP	Screw
19	2	WP-0651056-SH	Washer
20	1	121-30100	Oil Gauge
21	1	121-30209	Rubber Packing
22	2	SM-4050855-SP	Screw
23	1	122-55907	Oiler Exit Support
24	1	NS-6110310-SP	Nut
25	1	SQ-1110451-MZ	Connecting Screw
26	1	121-29854	Float Assembly
27	1	121-29904	Oil Gauge Bar
28	1	121-30001	Float Support
29	1	121-29805	Float
30	1	SM-4060801-SE	Screw
31	1	114-04704	Oil Wick
32	1	SM-8050402-TP	Screw
33	1	121-30308	Oiling Pin
34	1	121-30407	Oiling Felt
35	1	TA-0400301-M0	Plug
36	1	118-41608	Upper Looper Guide Oil Felt
38	1	118-34603	Oil Supply Bushing
39	1	122-52706	Oil Supply Felt
40	2	BP-3000002-00	Vinyl Pipe

15. TABLE COMPONENTS



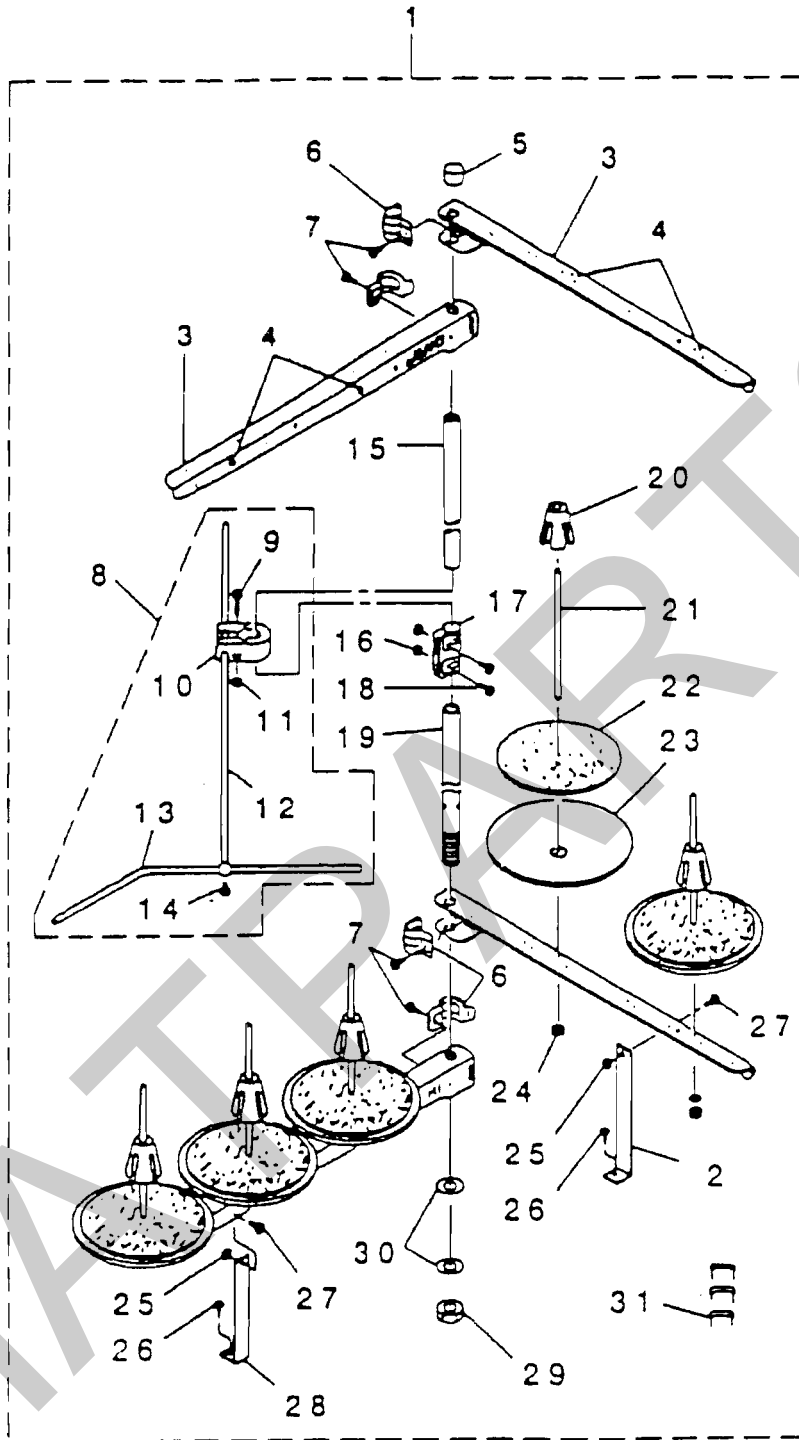
MATPARTS

15. TABLE COMPONENTS

<u>ITEM</u>	<u>QTY</u>	<u>PART No.</u>	<u>NAME</u>
1	1	CT581FTF	Table Assembly
2	2	115-71809	Bolt C
3	2	115-71908	Bolt D
4	12	WP-1102016-SC	Washer
5	4	WS-1002560-KR	Lock Washer
6	12	NS-6240630-SN	Nut
7	4	115-71403	Rubber Cushion
8	1	118-49375	Frame Support Plate Assembly
9	1	118-49361	Frame Support Plate Assembly
10	1	118-50906	Frame Support Auxiliary Plate
11	4	SM-9082513-CF	Screw
12	4	NM-6080600-SM	Nut
13	4	WP-0850002-SC	Washer
25	1	118-48411	Cooling Fan Case
26	1	118-50815	Case Sponge
29	5	CSS-6090630-SP	Screw
30	1	CT333	Drawer
31	2	CT333S	Drawer Support
32	4	C1012SMS	Wood Screw

MAATPARTS

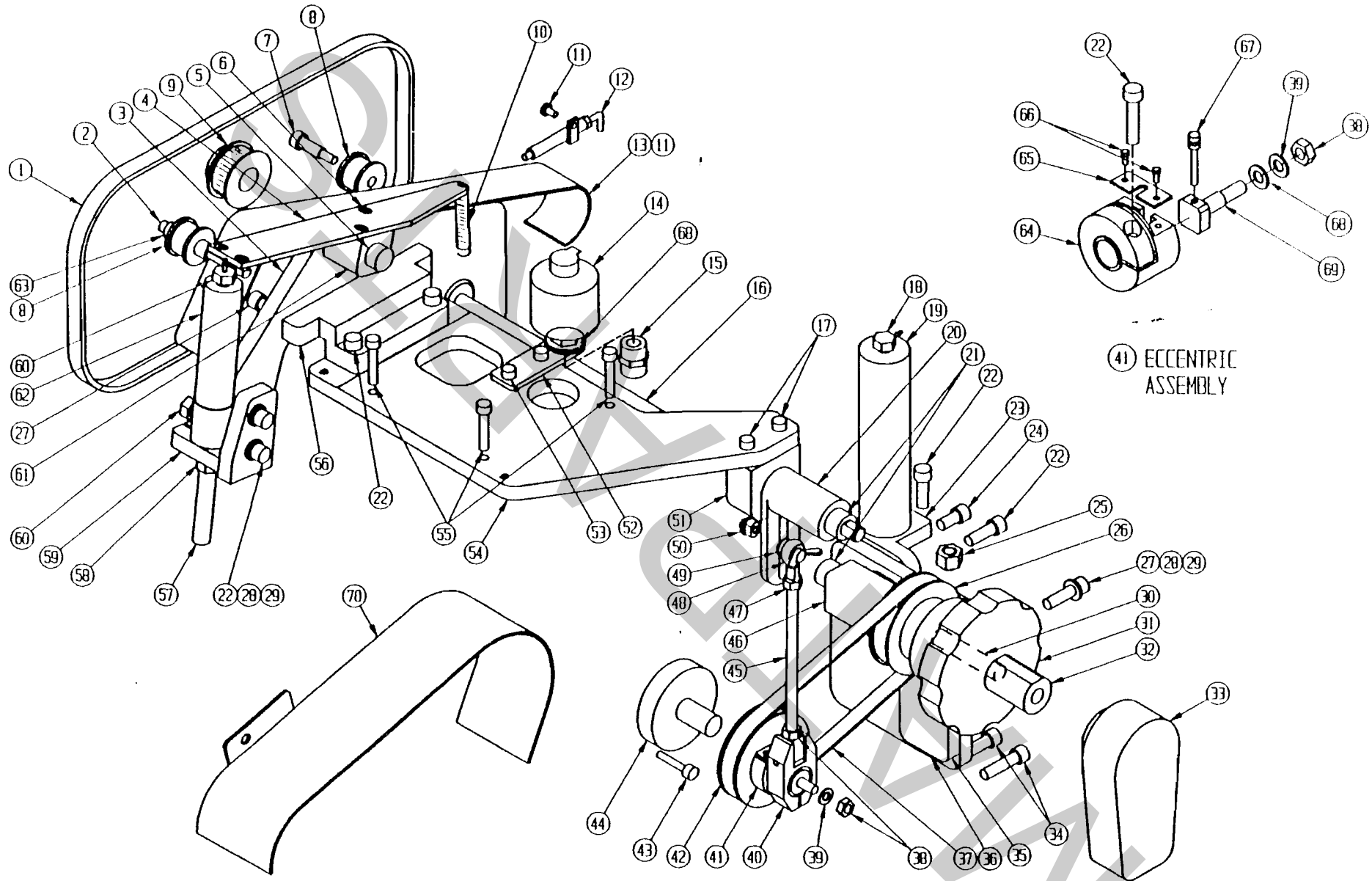
16. THREAD STAND COMPONENTS



16. THREAD STAND COMPONENTS

ITEM	QTY	PART No.	NAME
1	1	120-27850	Thread Stand Assembly
2	1	B3321-704-L0B	Spool Rest Arm Support B
3	4	119-69508	Spool Rest Arm A
4	5	B3319-704-L00	Thread Guide
5	1	B3311-704-000	Spool Rest Rod Cap
6	4	B3318-704-L00-A	Thread Guide Arm Joint
7	4	SM-6061610-SC	Screw
8	1	B3309-704-0A0	Thread Guide Arm Assembly
9	1	SM-6053000-SE	Screw
10	1	B3304-704-000-A	Thread Guide Arm Holder
11	1	NM-6050001-SE	Nut
12	1	B3309-704-000	Thread Guide Arm
13	1	B3311-804-000	Lower Thread Guide
14	1	SS-7110540-SP	Screw
15	1	111-85204	Upper Spool Rest Rod
16	2	NM-6050001-SE	Nut
17	1	B3305-704-000-A	Spool Rest Rod Joint
18	2	SM-4051405-SE	Screw
19	1	111-85105	Lower Spool Rest Rod
20	5	111-85501	Spool Retainer
21	5	B3320-704-LOO-A	Spool Pin
22	5	B3311-012-000	Spool Rest Cushion
23	5	119-66504	Spool Rest
24	5	NM-6050001-SE	Nut
25	2	NM-6060001-SE	Nut
26	2	SK-3382001-SE	Screw
27	2	SM-4061201-SE	Screw
28	1	B3321-704-L00	Spool Rest Arm Support A
29	1	B3317-704-000	Nut
30	2	WP-1612616-SE	Washer
31	3	MAO-11532000	Cord Staple

17. TOP FEED ATTACHMENT COMPONENTS

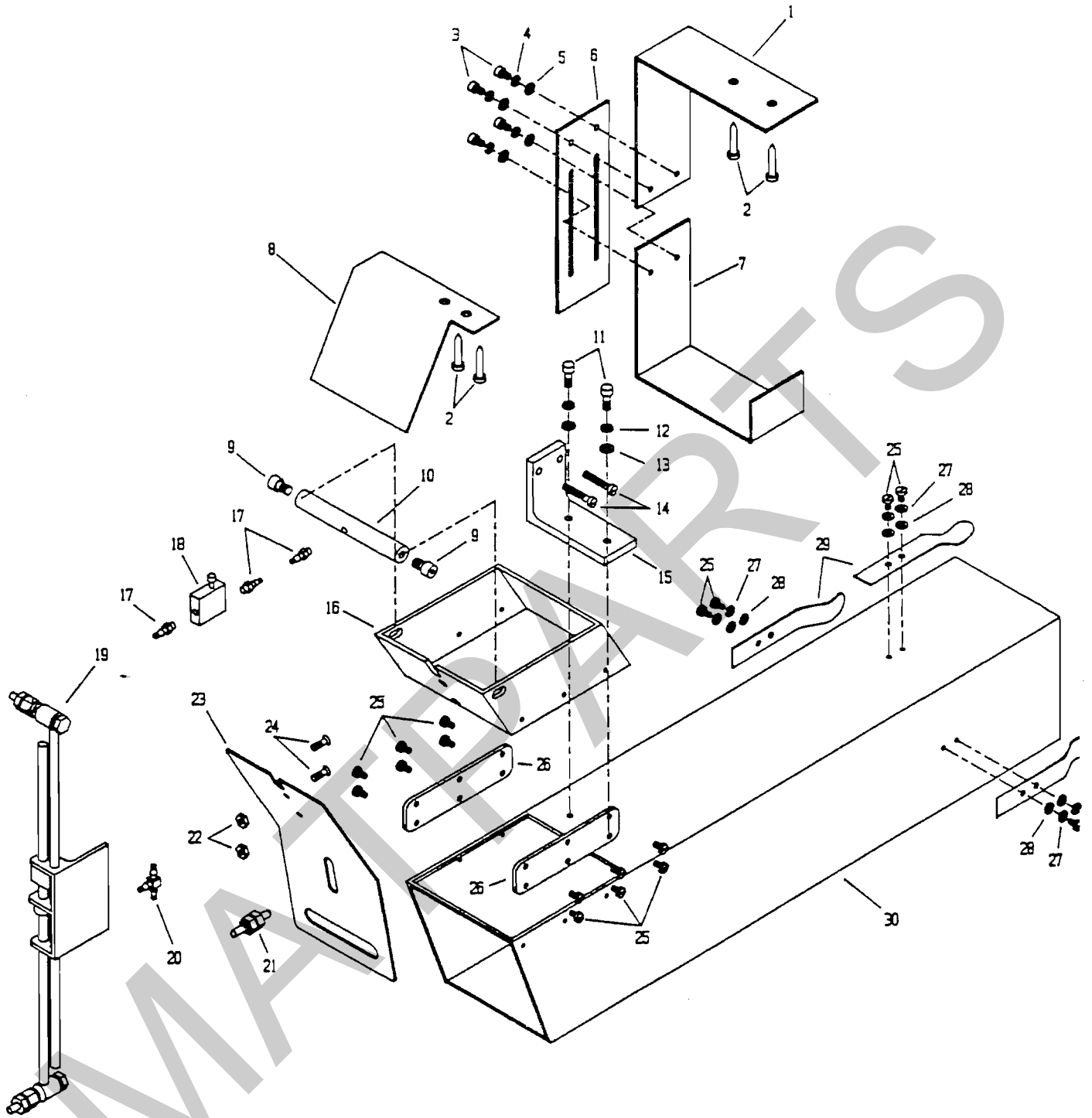


(41) ECCENTRIC ASSEMBLY

17. TOP FEED ATTACHMENT COMPONENTS

ITEM	QTY	PART No.	NAME	ITEM	QTY	PART No.	NAME
1	1	CB364S	Top Feed Belt	41	1	A750005A	Eccentric Assembly
2	1	CPT151610	Idler Roller Shaft	42	1	CB362-1	Synchronizer Drive Pulley
3	1	A3305	Top Feed Support Plate	43	1	CSS7112420SP	Screw
4	1	CPT151608	Belt Tension Arm	44	1	CPT251613	Handwheel Adapter
5	1	C3112SHS	Shoulder Screw	45	1	C398-5	Connecting Rod (5")
6	4	C063204FHSC	Screw	46	1	A3323	Synch. Shaft Brg Housing
7	2	C2510SHS	Shoulder Screw	47	1	CB406	Nut, Left Hand
8	3	C3309	Idler Roller	48	1	A11508W	Ball Joint, Left Hand
9	1	CB305M	Top Feed Drive Pulley	49	1	C823B	Shoulder Washer
10	1	CB441	Spring	50	1	C823C	Slide Nut
11	3	C063204PHS	Screw	51	1	A3306	Clutch Housing
12	1	A118-54403N	Belt Oiler Wick Holder	52	1	C3318	Oil Cup Mounting Plate
13	1	C3331	Top Feed Belt Guard	53	2	C102408SCS	Screw
14	1	C231D032	Oil Cup	54	1	C3303	Mounting Plate
15	1	CB619	Female Hex Coupling	55	4	C103216SCS	Screw
16	1	C3307	Top Feed Drive Shaft	56	1	C3304	Top Feed Support Plate Bkt.
17	2	C102412SCS	Screw	57	1	C3317	Foot Plunger
18	1	CB533	Elbow Fitting (1/8)	58	1	CC25STN	Nut
19	1	CB684	Air Cylinder	59	1	C3308	Foot Plunger Cylinder Bkt.
20	1	APT329R16	Clutch Assembly	60	2	CB579	Elbow Fitting (1/16)
21	3	C37STC	Collar	61	1	APT151609	Tension Arm Bearing Block
22	7	C252012SCS	Screw	62	1	CB686	Air Cylinder
23	1	C3321	Foot Lift Cylinder Bracket	63	2	C25STC	Collar
24	1	C252008SCS	Screw	64	1	A750005	Eccentric Body
25	1	C3124NCN	Nylon Cap Nut	65	1	C11509	Cap Plate
26	1	CB362	Synchronizer Shaft Pulley	66	2	C87U	Cap Plate Screw
27	4	C252014SCS	Screw	67	1	CB404	Eccentric Adjusting Screw
28	2	C25LKW	Lockwasher	68	1	C25HVW	Washer - Heavy
29	2	C25STW	Washer	69	1	C11502	Eccentric Adjusting Stud
30	1	C3324	Synchronizer Shaft	70	1	C3330	Synchronizer Belt Guard
31	1	C3327	Handwheel				
32	1	C3325	Synchronizer Adapter				
33	1	CB1112	Motor Synchronizer				
34	2	C252016SCS	Screw				
35	1	C3322	Synchronizer Shaft Support Angle				
36	1	C3320	Foot Lift Mounting Plate				
37	1	CB312	Synchronizer Belt				
38	2	CB405	Nut, Right Hand				
39	1	C10STW	Washer				
40	1	A11507	Rod End Assembly				

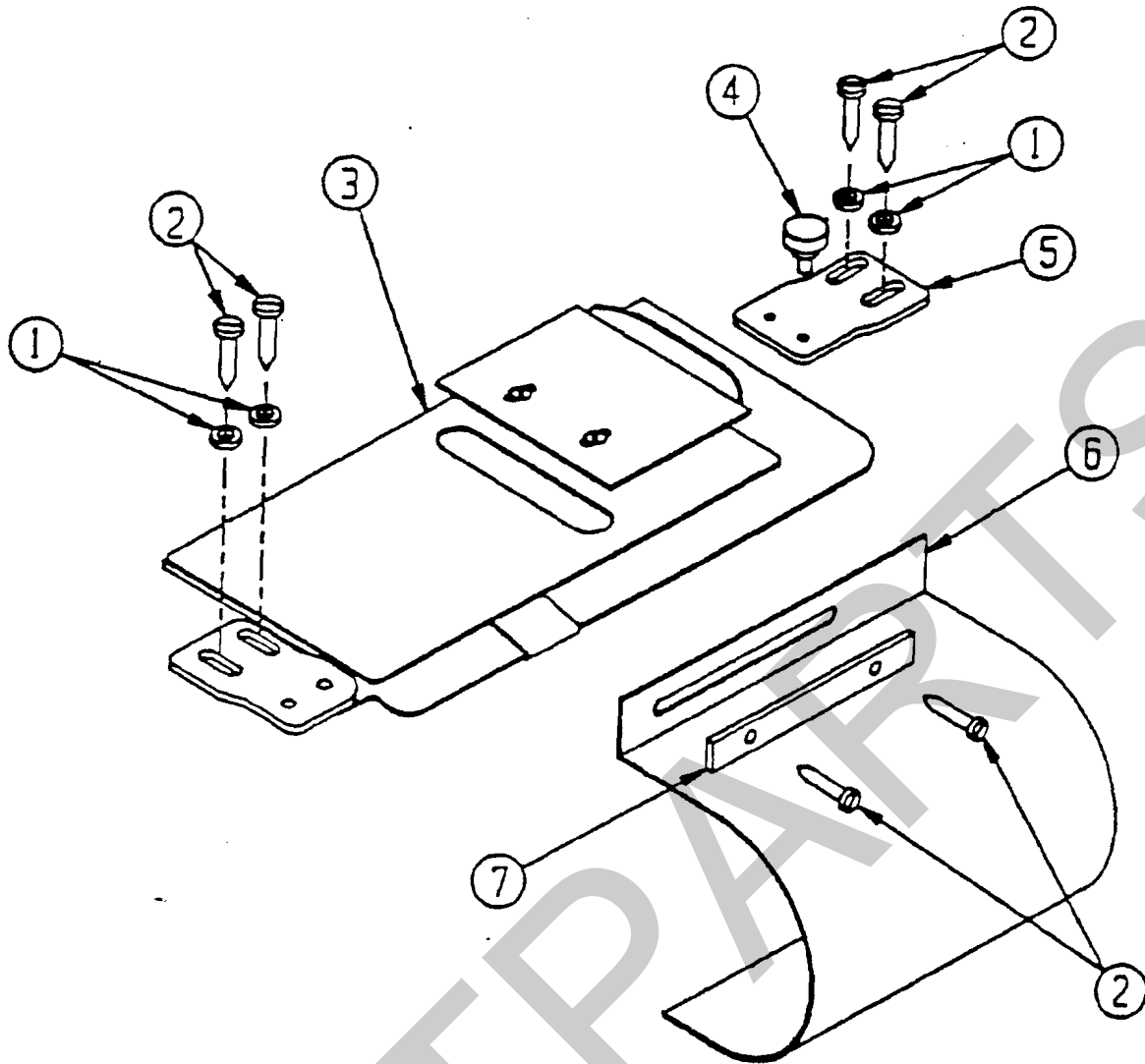
18. WASTE DISPOSAL COMPONENTS



18. WASTE DISPOSAL COMPONENTS

ITEM	QTY	PART No.	NAME
1	1	C581VP002	End Support Top Mount Angle
2	4	C1016SMS	Screw
3	4	C083204SCS	Screw
4	4	C08LKW	Lockwasher
5	4	C08STW	Washer
6	1	C581VP003	End Support Adjust Plate
7	1	C581VP004	End Support Angle
8	1	C581VP012	Scrap Deflector
9	2	C252006SCS	Screw
10	1	C581VP005	Top Lip Air Flow Tube
11	2	C102408SCS	Screw
12	2	C10LKW	Lockwasher
13	2	C10STW	Washer
14	2	CSS-7112420-SP	Screw
15	1	C581VP001	Mounting Clip
16	1	C581VP009	Top Inlet Tube
17	3	CB521	Hose Barb (1/8)
18	1	CB515	Flow Control Valve
19	1	A581TV	Treadle Valve Assembly
20	1	CB549	Hose Tee (1/8)
21	1	CB563	Bulkhead Fitting
22	2	C0832STN	Hex Nut
23	1	C581VP006	Blower Mount Plate
24	2	C083208FHSC	Screw
25	12	C063204BHS	Screw
26	2	C581VP008	Connecting Bar
27	6	C06LKW	Lockwasher
28	6	C06STW	Washer
29	1	C581VP007	Scrap Bag Clip
30	1	C581VP010	Main Tube

19. FLANGE GUIDE COMPONENTS



ITEM	QTY	PART No.	NAME
1	4	C10STW	Washer
2	6	C1016SMS	Screw
3	1	A18142	Adjustable Flange Guide Assembly
4	1	CB407	Thumb Screw
5	1	A18146	Flange Guide Catch Bracket
6	1	CPT151618	Flange Guard
7	1	CPT151619	Washer Plate

GALKIN AUTOMATED PRODUCTS

GAP3300 SERIES FLANGE MACHINE

OPERATION MANUAL

**205 PARK AVENUE
HICKSVILLE, N.Y. 11801 U.S.A**



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OPERATING AND SETUP INSTRUCTIONS for GALKIN MODEL 3300 SERGER-FLANGER

=====

1. INTRODUCTION

A. Machine Description

The Galkin 3300 Serger-Flanger was designed expressly for high speed attachment of flanging to mattress pads.

B. Galkin Customer Service

If you have any questions concerning the machine, or this manual, please feel free to contact Galkin Automated Products, either by telephone or by fax.

Telephone number (516) 822-6944
Fax number (516) 822-0443

C. Machine Specifications

Machine type	Overlock with safety stitch
Top feed	Patented Power Trac synchronized belt type
Stitch type (F.S.T.)	516
Maximum sewing speed	5800 stitches per minute
Recommended sewing speed	4200 stitches per minute
Material thickness	Flat goods up to 6 inches (1 - 152mm)
Overall stitch width	15/16 inch (24mm) std. - 1-3/16 (30mm) option
Stitch length	4 - 5 stitches per inch (.2s/mm)
Overedging width	3/16 inch
Distance to safety stitch	3/4 inch (1" optional)
Needle size	135 x 7, #21
Needle height56 inch (14.2mm)
Electrical (standard)	110V - 1 phase - 60Hz - 1/2 HP or 220V - 3 phase - 60Hz - 1/2 HP Other voltages optional
Lubrication	Automatic lubrication (sump); separate feed belt oiler

2. SETUP

A1. Power Connection

A sewing motor has been provided with the machine, consistent with your requirements (single or 3-phase, at the correct voltage). Provide a suitable electric power connection, as indicated on the specification plate on the motor. To ensure safety, always connect the green wire to ground. **NOTE:** Before running machine, make sure motor rotates in the correct direction (see Page 6, Sect. C).

A2. Air Connection

The GAP3301 requires a compressed air supply with a minimum capacity of 80p.s.i. To connect your machine to your factory's compressed air source, simply connect your factory air line to the male quick disconnect joining the *clear vinyl tube* and *black plastic tube*. The clear tube terminates at your machine's main filter regulator, the black tube terminating at your waste disposal tube. The quick disconnect supplies air to both lines, and should be connected to an air line capable of supplying 80psi minimum at all times. If you have many existing drains on a current air line, you may wish to consider running an additional line to the machine.

B. Lubrication

The sewing machine is equipped with an automatic oiling system. The oil reservoir was drained for shipment. **CAUTION** - Do not operate the sewing machine without filling the oil reservoir. Serious damage may occur if it is run without lubrication.

1) Sump

The oil filler cap and sight gauge are located on top of the machine as indicated in Figure 01. Fill the sump, adding light machine oil, until the green indicator in the gauge rises to just below the upper red line. Do not overfill, as this may cause excess oil to spill, or to collect where it may damage work.

2) Top Feed Belt Oiler

To reduce wear on the top feed belt, a belt oiler has been included on the machine. Figure 01 shows the oil cup located immediately behind the sump filler cap. Keep the belt oiler cup filled with the same oil used in the machine sump. The belt oiler wick, located under the top feed belt, should be checked frequently to be sure it remains in contact with the belt.

3) Additional Lubrication

Before running the machine, apply two or three (2-3) drops of oil at the needle bars as indicated in Figure 02. Also apply oil to the upper looper guide, where shown in Figure 03.

4) Oil Change and Filter Cleaning

For best operation, change sump oil monthly. To drain the sump, remove the sump plug, located at the right, front of the pan. Filters are located in the pan, and may be accessed by lifting the machine. Clean the foam filter by blowing off the dirt with compressed air. Also, remove the lubrication pump screen and blow off any dirt or lint. When clean, replace the screen and sump plug, and refill the sump per paragraph 1), above.

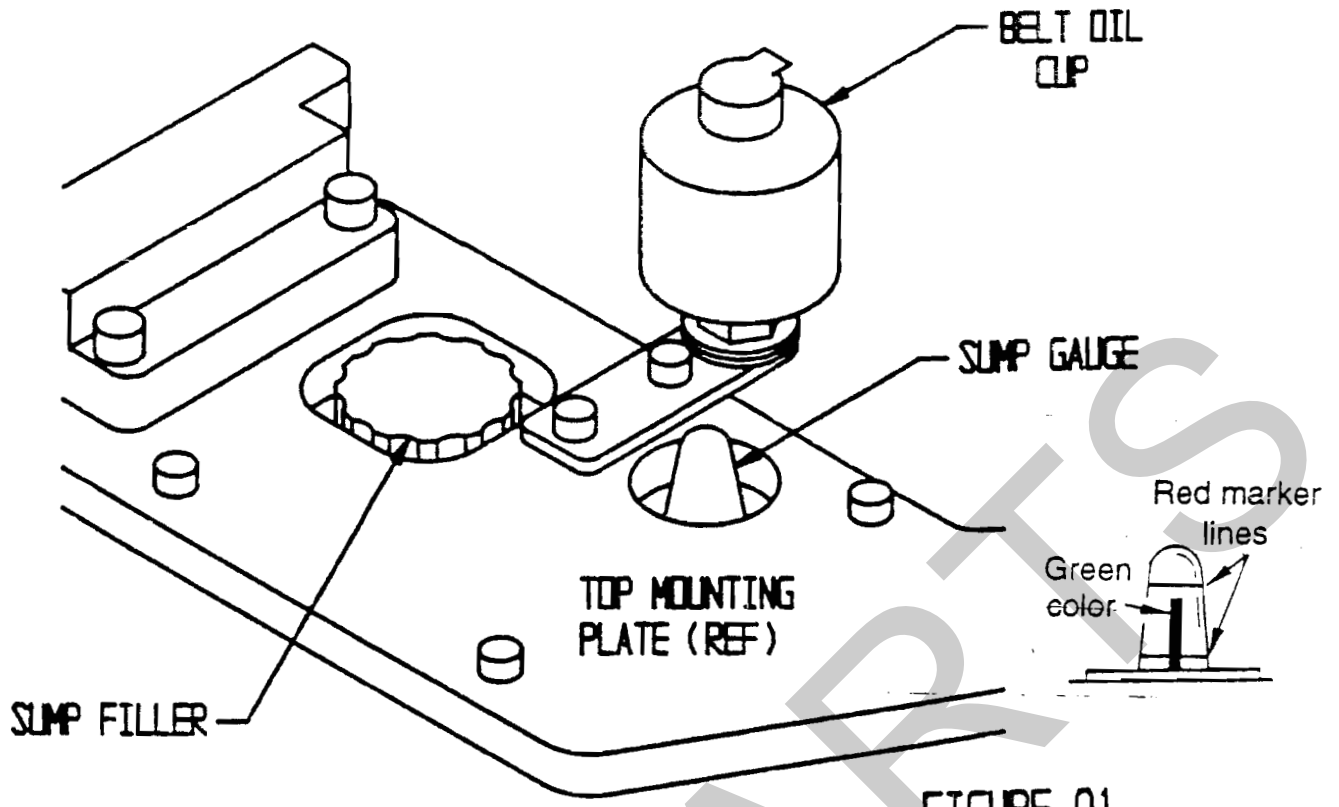


FIGURE 01
OIL SUMP FILLER
SUMP GAUGE
BELT OIL CUP

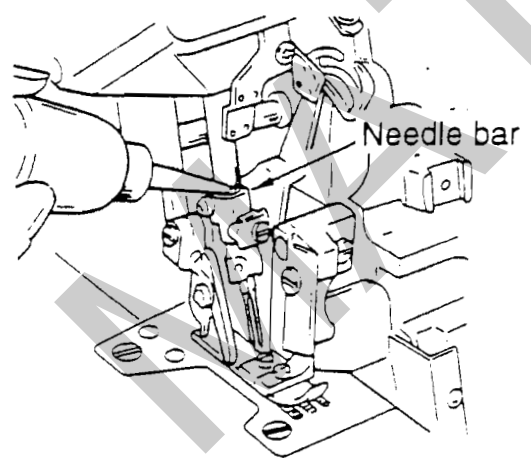


FIGURE 02
NEEDLE BAR
OILING

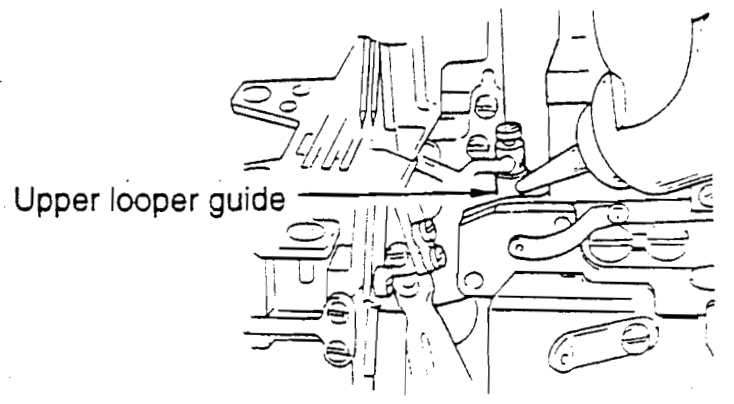


FIGURE 03
UPPER LOOPER
GUIDE OILING

C. Motor Rotation

The machine handwheel must turn clockwise when viewed from the handwheel end. The oil pump will not function when the machine operates in reverse rotation. To check rotation, turn on the motor and use the foot pedal to turn over the machine slowly, while checking direction. Do not run the machine for an extended period. If the handwheel turns in the wrong direction, stop immediately.

Turn off the motor and unplug power. Reverse motor direction by rewiring connections or reprogramming as appropriate. For single phase motors, a diagram may be found for reverse wiring, either on the specification plate or inside the wire connection access opening. For 3-phase motors, exchange connections of any two of the three "hot" legs. Servomotors are reversed by programming. Check motor manual for method of programming rotation.

D. Motor Speed

Maximum recommended sewing speed is 4200 stitches per minute. Pulley combinations and/or motor settings have been chosen to reflect this recommendation. The sewing machine is capable of speeds up to, 5800 stitches per minute. At such speeds; however, wear life of parts becomes a problem. Of particular concern would be wear to top feed parts; especially the top feed belt, clutches and eccentric tie rod ends.

E. Threading

Thread the sewing machine as shown on the threading diagram, Figure 04.

F. Flange Guide Adjustment (Figure 05)

Adjust the flange guide to control the flange material. Material should be able to move freely from under the sewing machine stand, around the curved flange guard, and through the flange guide to feed straight into the machine. Referring to Figure 05, adjust the flange guide to control the flange. Set the panel guide to guide the pad into the sewing machine.

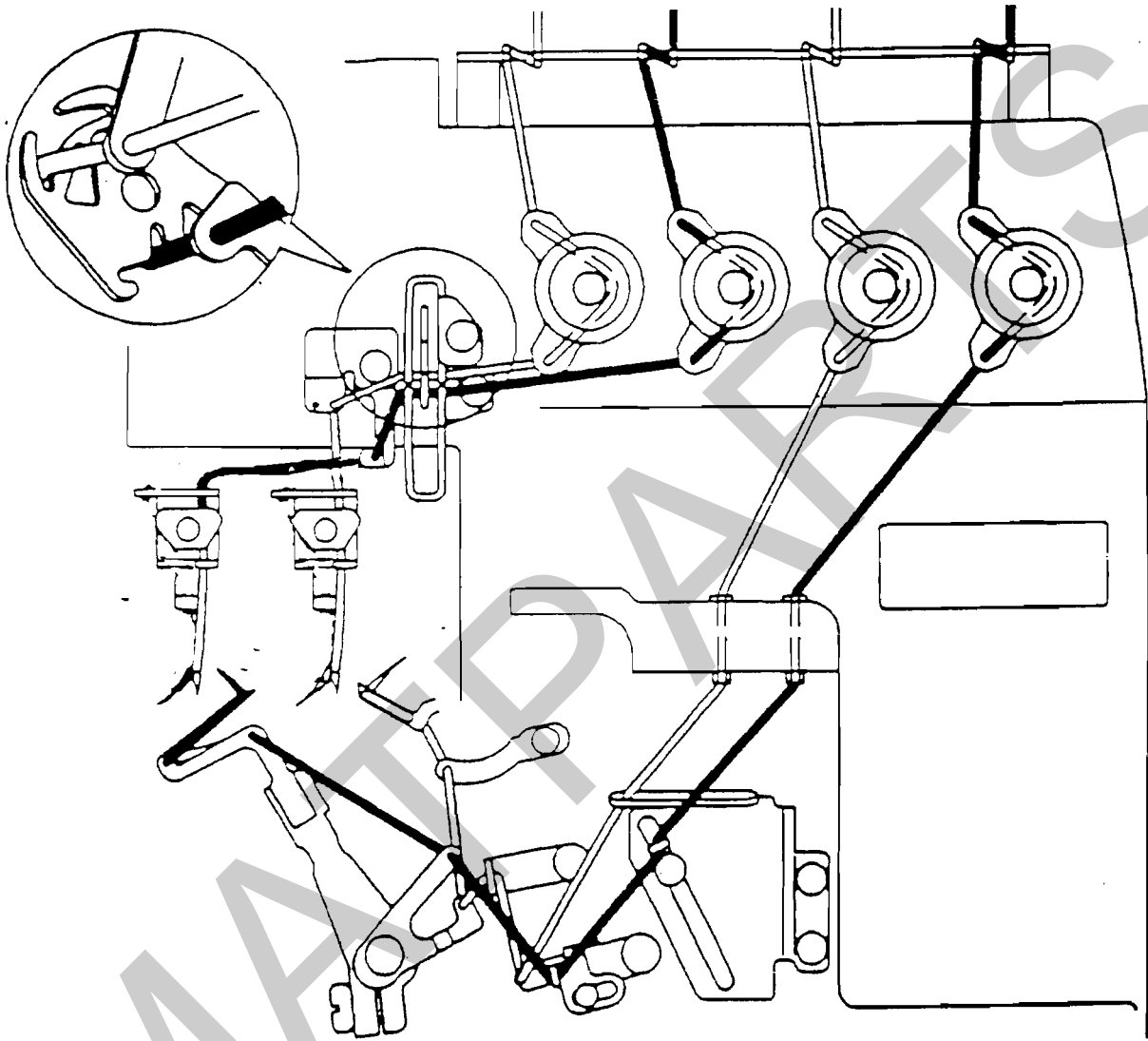


FIGURE 04
THREADING
DIAGRAM

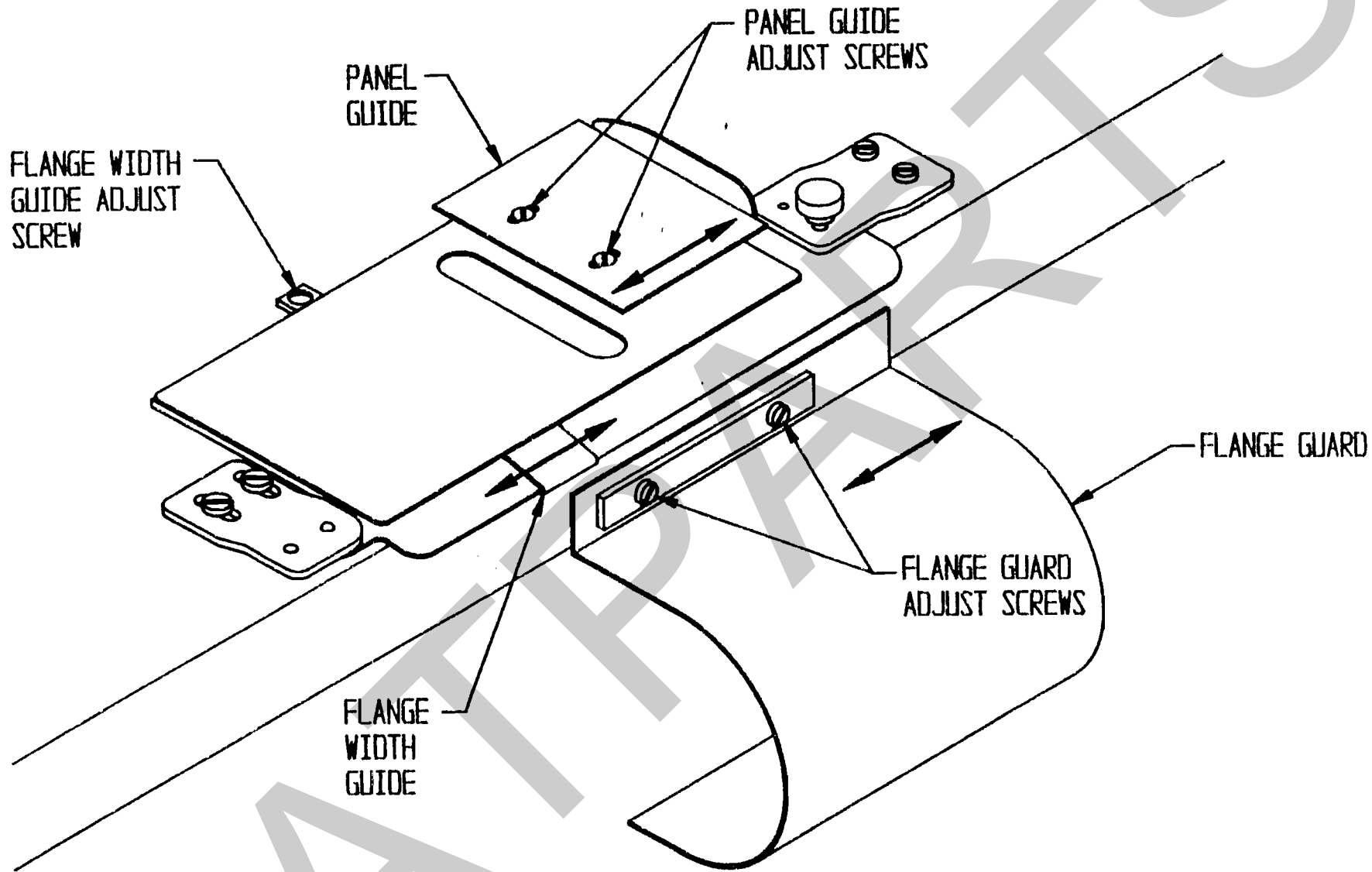


FIGURE 05
FLANGE GUIDE
ADJUSTMENT

G. Optional Flange Handling Equipment

1) Flange Rack

An optional flange rack is available for the GAP 3300 Flanger. If this option has been purchased, it is to be mounted to the motor mount bar on the machine stand (see Figure 06). Note that, when held between the reel flanges, flange material should guide straight through the flange guide at the front of the table. Adjustment to accomplish straight feed may be made by moving the rack assembly along the motor mount bar, and by adjusting the position of the reel flanges on the rack.

Flange rolls can be loaded to the rack by removing the side plate at the open end and placing the roll on the shaft. Replace the side plate, making sure it does not restrict the flange material from feeding to the flange guide.

2) Flange Unwind Stand

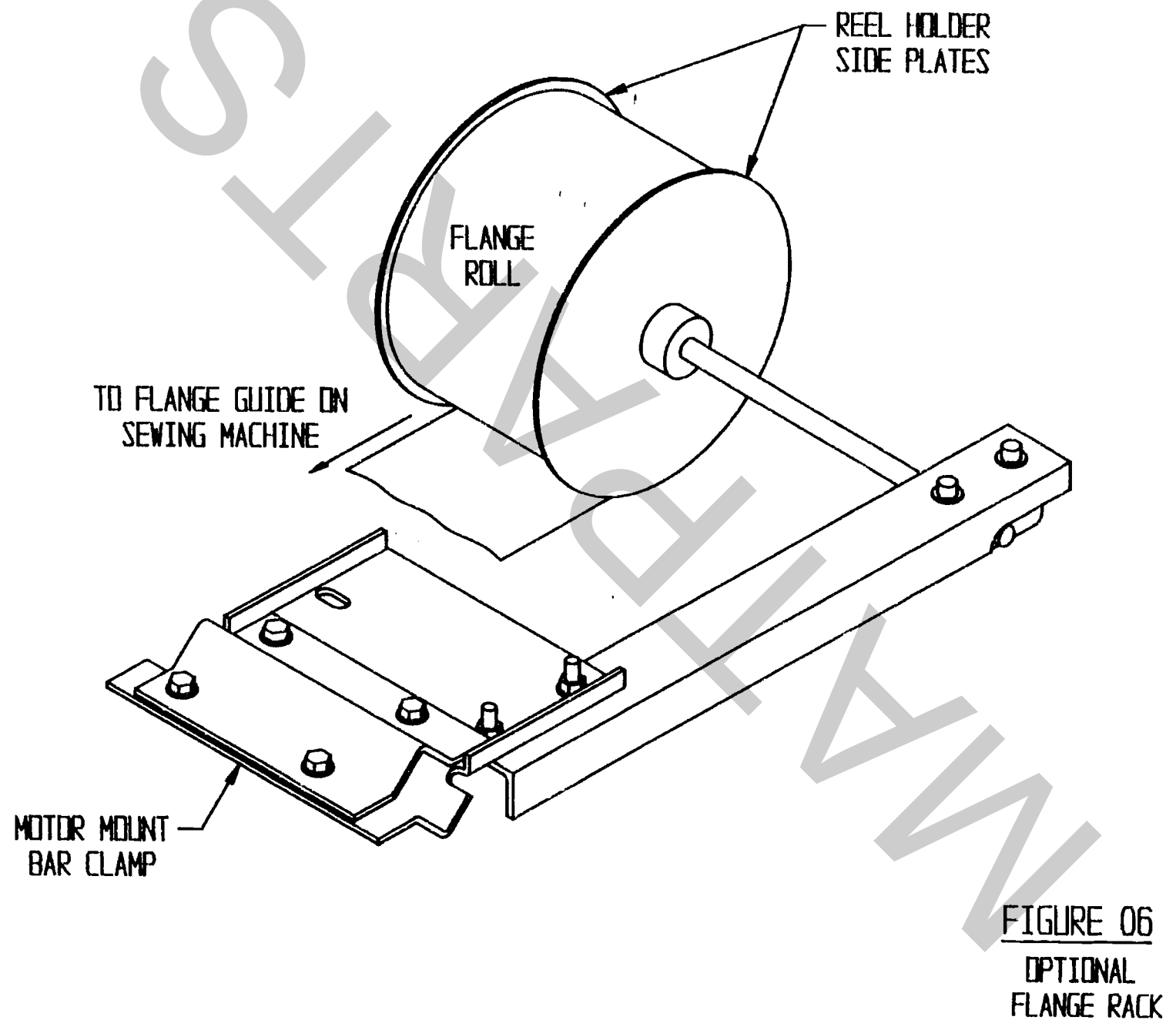
As an alternate to the flange rack, a motorized flange unwind stand may be specified (see Figure 07). The unwind stand should be located on the floor behind the sewing table, with the dancer arm facing the sewing machine. Locate the stand to allow for straight feed of the flange material to the flange guide at the front edge of the table. Standard voltage for the unwind stand motor 110 volts a.c. If a different voltage is required, a special transformer will be connected to adapt the motor. If such a transformer is included, connect to a single phase power line at the voltage shown on the transformer.

To load a roll of flange material, remove the reel holder from the stand. Remove one of the side plates of the reel holder and place the roll of material on the shaft. Replace the side plate. Tip the feed belt back and place the reel holder shaft on the stand bearings so that the material will unwind from the bottom of the roll toward the sewing machine. Lead the end of the flange material over the stand cross bar, and under the dancer arm, then under the sewing machine stand, around the curved flange guard on the front edge of the table, then to the flange guide. Operation of the unwind stand is automatic. As material is pulled from the roll, the dancer arm will rise to turn on the drive belt. When enough material has been unwound to lower the dancer arm, the drive belt will stop.

3. OPERATION

A. Presser Foot

An air operated hold down plunger keeps the front of the foot from lifting too far while sewing. This plunger lifts in coordination with the foot, by heeling the foot treadle. This arrangement allows for very high lift when inserting work, while providing excellent control of the foot under heavy panel sewing loads.



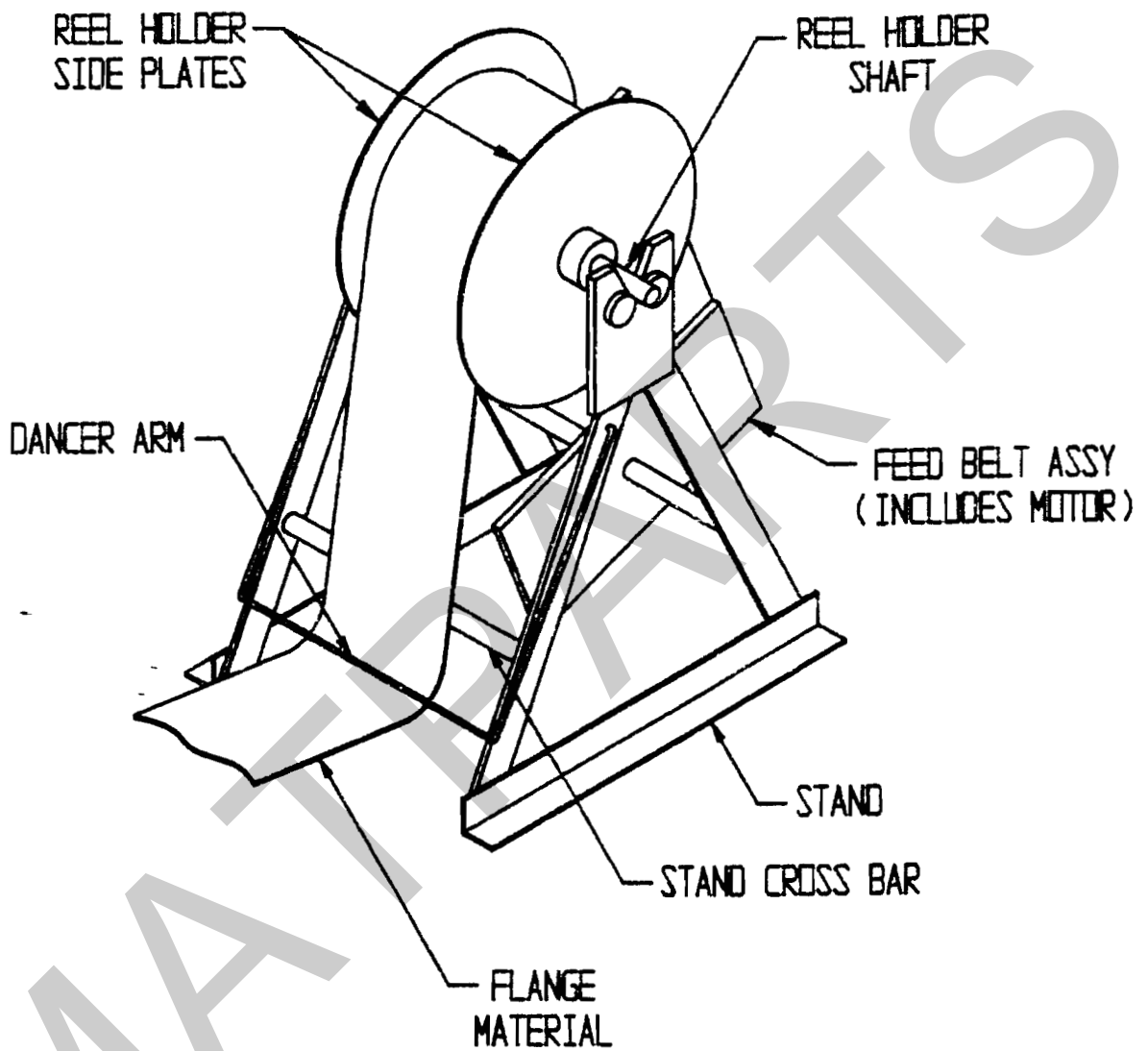


FIGURE 07
OPTIONAL FLANGE
UNWIND STAND

B. Sewing Control

Sewing is controlled by the foot treadle. From its neutral position, toeing the treadle lightly will start the machine at slow speed. Increasing toe pressure will increase the speed up to maximum. Release the treadle to stop sewing. As mentioned above, heeling the treadle will lift the presser foot, while releasing the foot hold down plunger.

The adjustable pad guide on top of the flange guide can assist in proper placement and guidance of the pad during sewing. Work may be inserted to the machine, either from the side or from the front.

There is no technical need to change sewing speed during sewing, either while sewing straight or curved portions of the pad. The only limit will be the operator's ability to control the pad while sewing.

4. ADJUSTMENTS

The following are standard adjustments for the GAP3300 sewing machine:

A. Feed Adjustment

1) Fixed Stitch Count Setting

The 3300 flanger is factory set for the minimum stitch count (maximum stitch length) of which it is capable. The minimum stitch count is five (5) stitches per inch. This setting is considered to be fixed (not adjustable). If adjustment to higher stitch count (shorter stitches) is required, contact Galkin Automated Products for guidance. Other feed adjustments which are factory set, and considered not adjustable are feed dog height and differential feed.

2) Top Belt Feed Adjustment

Because of varied thickness' and combinations of materials, the top feed belt may require adjustment of its feed stroke length to obtain smooth stitching. Refer to Figure 08 for location of adjustment components. Primary adjustment is obtained using the double-headed adjusting screw. To set, first loosen the lock nut indicated on Figure 08. Then turn the double-headed screw, turning clockwise to reduce belt feed, and counter-clockwise to increase feed. Change the setting in small increments to reduce "hunting" for the correct setting. Tighten the lock nut and check feed under power. Repeat the adjustment as necessary. If the belt feed is off by just a small amount, a fine adjustment may be made by loosening the wing screw at the top of the eccentric connecting rod. Move the screw in the slot in the drive lever, toward the shaft to increase the belt feed stroke, or away from the shaft to decrease the belt stroke. Tighten the wing screw and test feed.

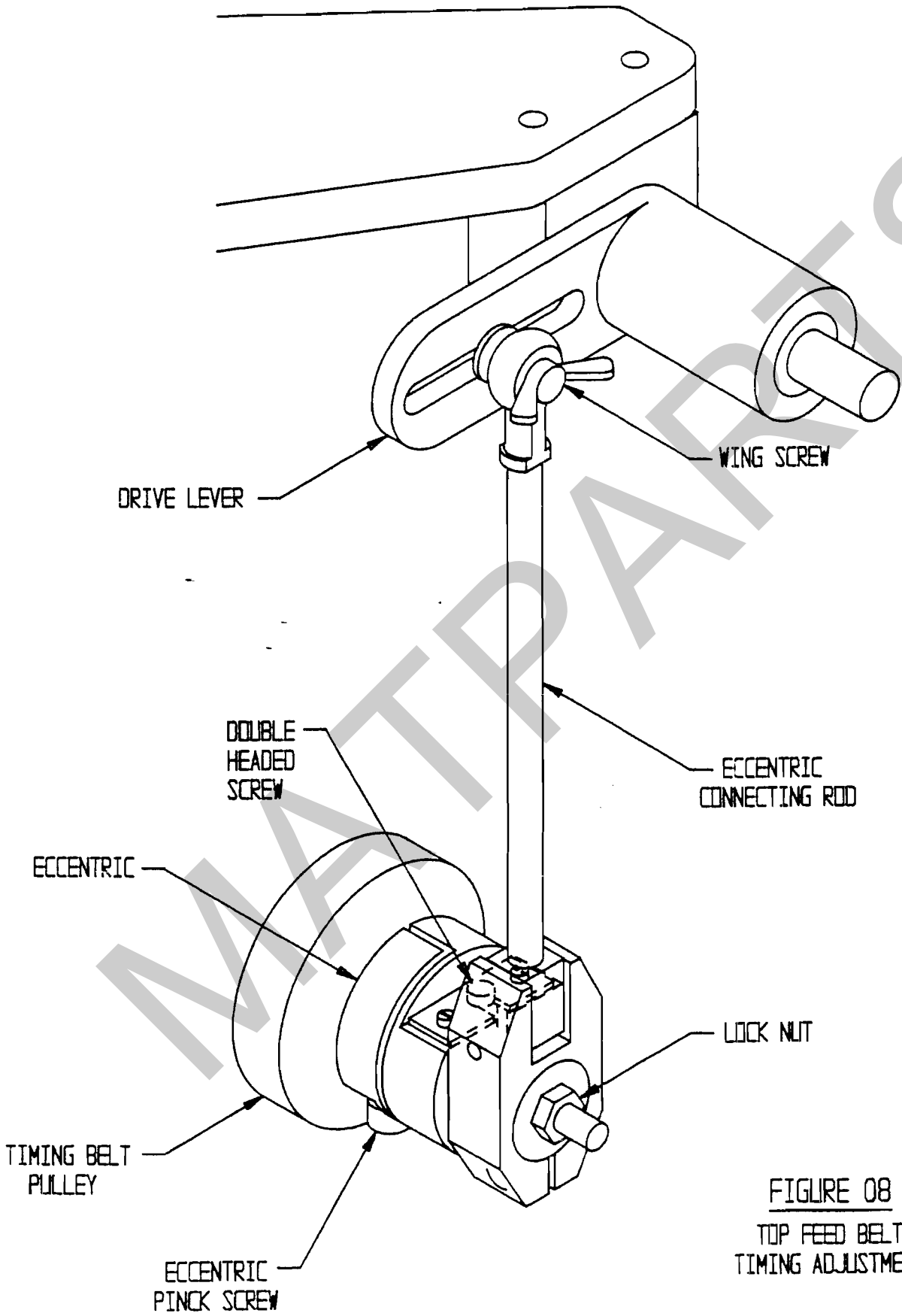


FIGURE 08
TOP FEED BELT
TIMING ADJUSTMENT

B. Timing Top Feed To Bottom Feed (Figure 08)

The top feed belt was timed to the bottom feed at the factory before shipping. If the timing slips out of synchronization with the bottom feed dog, resetting is easy. The belt should just begin to move as the feed dog moves.

To adjust, remove the motor synchronizer belt guard, at the right side of the sewing machine. Loosen the two (2) set screws holding the timing belt pulley to the belt drive eccentric and move the pulley to the right. This will allow access to the eccentric pinch screw. Loosen the pinch screw to allowing the eccentric body to move on the machine shaft. If the belt starts to move before the feed dog, turn the eccentric body slightly toward the front of the machine. If the feed dog moves first, turn the eccentric toward the back of the machine. Make very slight changes at one time. This will prevent "hunting" for the right setting. When the top belt is timed to the feed dog, tighten the pinch screw, and reset the timing belt pulley. Test timing under power.

C. Thread Tensions

Set all thread tensions at a light level of tension. When pulled by hand, thread should move freely through the needle, with little resistance. Make sure tensions are not over tight. Too tight tensions will cause gathering of material.

D. Needle Height

As shown in Figure 09, the correct needle height setting is 9/16 inch (14.4mm) between the right (overlock) needle and the throat plate. Make the measurement when the needle is at the top of its travel. In order to set needle height, first remove the sewing machine side cover and gasket. This will give access to the needle driving arm. Loosen the pinch screw at the rear of the arm, and turn the arm slightly in the shaft to adjust height. As always, the height specified above is for reference. Needle height should be adjusted as necessary to properly work with the loopers. Tighten the driving arm pinch screw after setting height.

E. Throat Plate Position

The throat plate should be set to the machine so that there is 1/16 inch (1.6mm) between the point of an entering needle and the front of the needle slot (Figure 10). An incorrectly set throat plate may cause needle breakage and damage the feed dogs. To adjust, lift the the presser foot. Swing out the cloth plate cover and remove the throat plate. This gives access to the hidden screw holding the throat plate base to the machine frame (Figure 11). Loosen just this one screw slightly, and replace the throat plate, screwing it to the base plate. Now loosen the other three base plate screws and adjust the position of the throat plate. Tighten just the three available base plate screws to test the adjusted throat plate position. Once the setting is correct, and the three available screws are firmly tightened, remove the throat plate from the base. Tighten the last screw, and replace the throat plate.

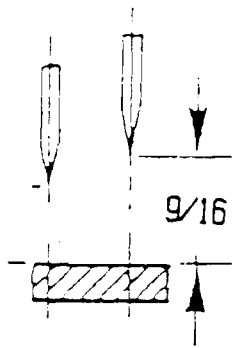


FIGURE 09
NEEDLE HEIGHT
SETTING

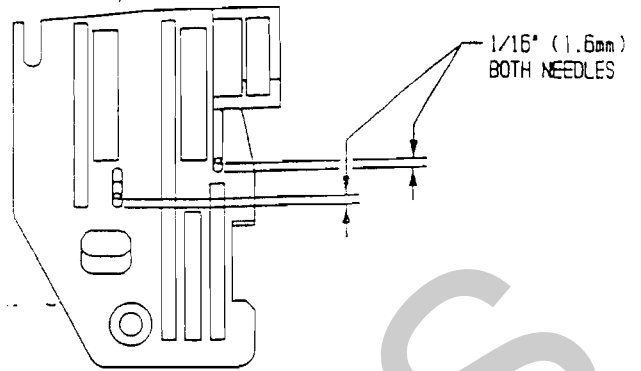


FIGURE 10
THROAT PLATE
POSITION

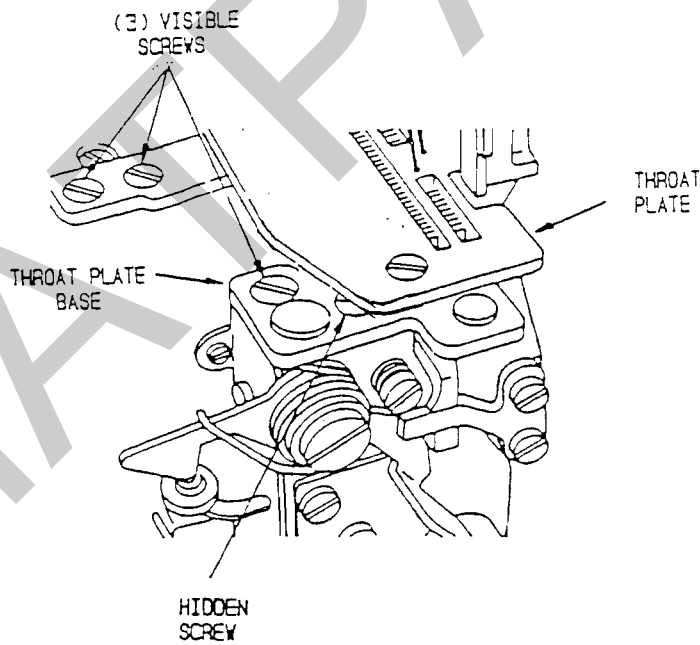


FIGURE 11
THROAT PLATE
ADJUSTMENT

F. Lower Loper Adjustment

As shown in Figure 12, when the lower looper is at the extreme left of travel, set the distance (J) from the point of the looper to the center of the needle at $9/64$ inch (3.7mm). To adjust, loosen the pinch screw indicated, and turn the looper holder on its arm. If the distance is set too small or too large, skipped stitches may result when sewing with certain types of thread.

The lower looper should clear the upper looper by the thickness of a piece of paper (.004 inch or 0.1mm) as indicated on Figure 13. Too large a clearance will result in skipped stitches or broken thread. Too little or no clearance will break the needle or damage the looper.

G. Upper Loper Position

1) Height Setting

Setting the upper looper too high, or too low, will result on the looper failing to catch the needle thread, or in needle or thread breakage. To set the height, use a 5mm hex wrench on the screw at the end of the upper looper bracket to adjust looper height to $17/32$ inch (13.7mm) above the throat plate, (Figure 13, dim D) when the upper looper is at the extreme left of its travel.

2) Protrusion

Set upper looper protrusion to $13/64$ inch (5.1mm) to the needle (Figure 13, dim E).

3) Clearance Setting

See Section 4.F., above, for clearance between the upper and lower loopers.

H. Chain Loper Adjustment

1) Loper Position

Looper position is set to ensure proper stitch forming. Set the position so that, when the looper is at the leftward most point of its travel, the point is $1/16$ inch (1.7mm) from the center of the needle (Figure 14, dim L).

2) Loper Clearance (Figure 14)

As the point of the looper passes behind the needle, it should just clear the back of the needle by about .004 inch (paper thickness). If not properly set, the looper may miss, picking up the thread, or it may hit the needle, breaking the needle or damaging the looper.

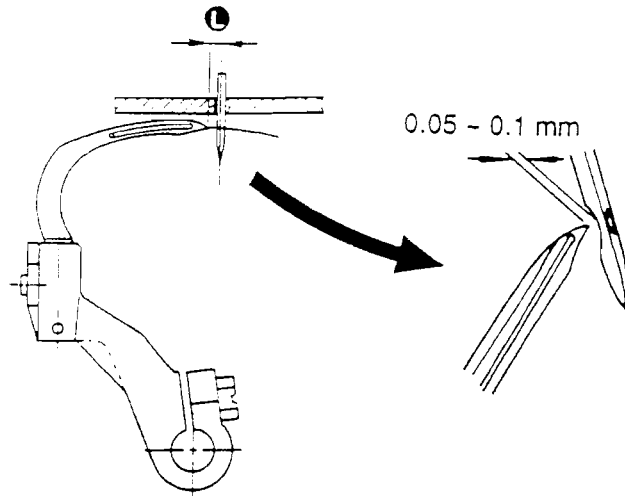


FIGURE 14
CHAIN LOOPER
SETTING

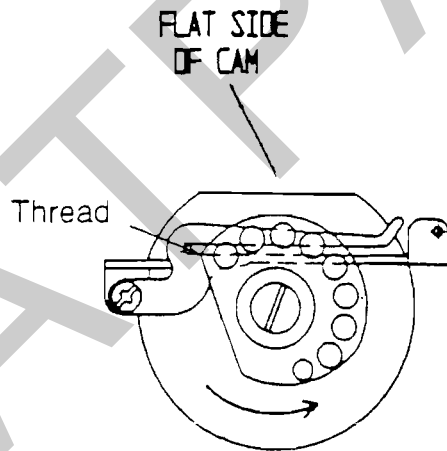


FIGURE 15
CHAIN LOOPER THREAD
TAKEUP CAM SETTING

I. Chain Looper Thread Take-up Cam (Figure 15)

Set the chain looper take-up cam so that, when the needles are all the way up, the flat side of the cam is horizontal. At this setting, the cam should release the chain looper thread when the needles are 1/32 to 1/16 inch (1.0 to 2.0mm) below the needle plate.

J. Looper Thread Take-ups And Guides

Figure 16 shows adjustments of the looper thread take-ups and guides.

K. Edge Trimming Knives

1) Vertical Adjustment

a) Lower Knife Height

Loosen the set screw (2), indicated in Figure 17, and adjust lower knife (1) height to be flush with, or slightly below the top of the throat plate. Tighten screw (2).

b) Upper Knife Height (Figure 17)

Loosen set screws (4) and set upper knife height so that when it is at the lowest point of travel, it overlaps the lower knife by between 1/64 and 1/32 inch (0.5 - 1.0mm). Tighten set screws (4).

2) Overedge Width Adjustment (Figure 17)

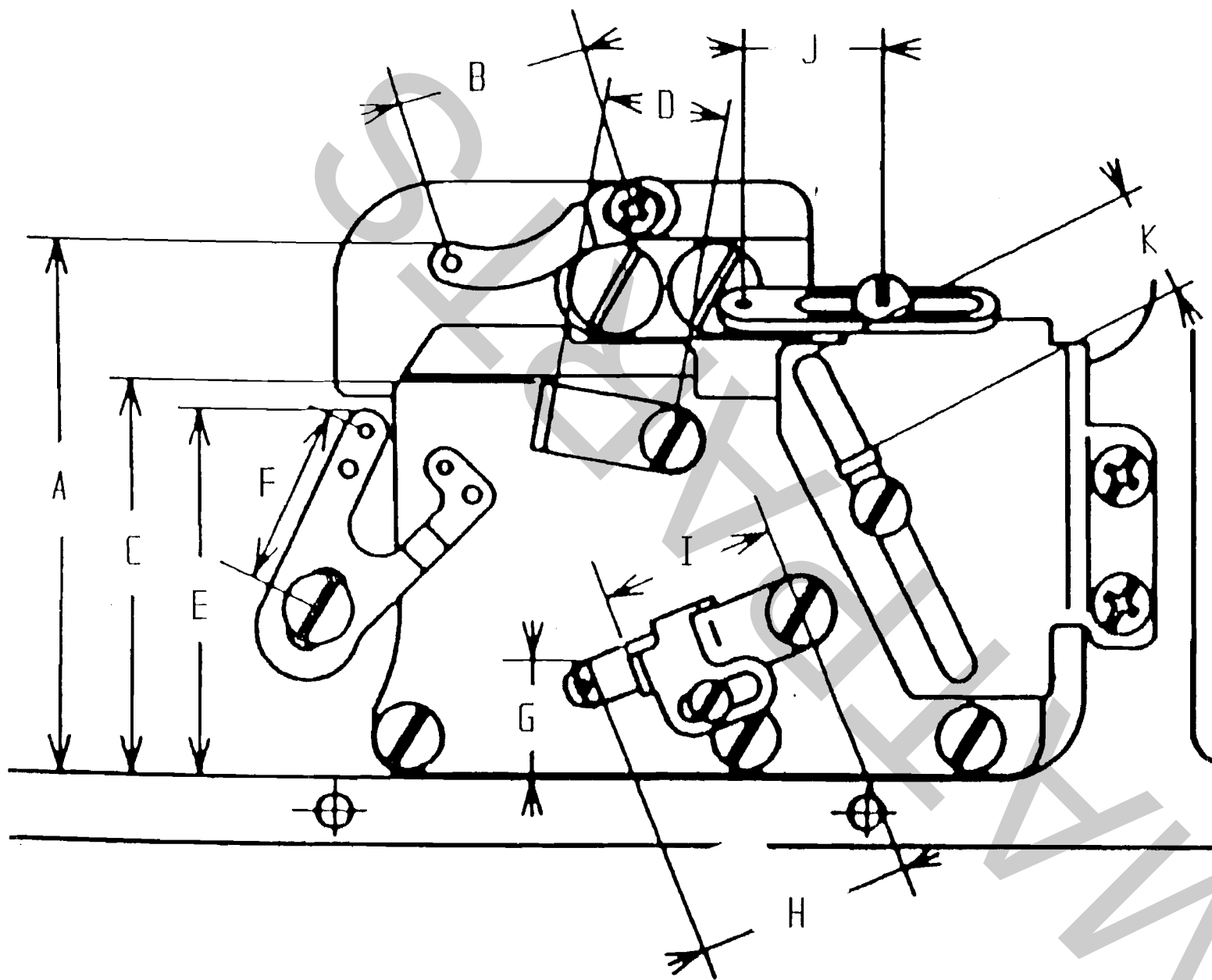
Overedge width is slightly wider than the knife cut width. To adjust, loosen screw (5) and push the lower knife (1) all the way to the left, and tighten screw (5). Loosen set screw (6) and position the upper knife (3) to the cut width required. Tighten screw (6). Loosen screw (5) and move the lower knife to the right until it contact the upper knife. Tighten screw (5) firmly to prevent the internal spring from moving the lower knife during operation. If screw (5) is not tight, the knives will break.

3) Knife Sharpening

The lower knife may be resharpened when it dulls. Figure 18 shows the correct sharpening angles for the lower blade. The upper knife has a cemented carbide edge which is considered ungrindable. Replace the upper knife when it becomes dull.

L. NEEDLE GUARDS

Incorrect needle guard settings are probably the single most common cause of thread, looper and needle breakage, and of stitch skipping. Be certain needle guard settings are measured properly, as indicated in Figure 19. Needle guards should be set to eliminate excessive play or deflection of needles. If guards are set too tight to needles, breakage of threads, needles and/or loopers will occur. If settings are too loose, stitches will skip.



	INCH	mm
A	2-3/4	70
B	7/8	22
C	1-7/8	48
D	23/32	18
E	1-11/16	43
F	7/8	22
G	7/16	11
H	1-1/16	27
I	29/32	23
J	23/32	18
K	7/8	22

FIGURE 16
 LOOPER THREAD TAKEUPS
 AND GUIDES SETTING

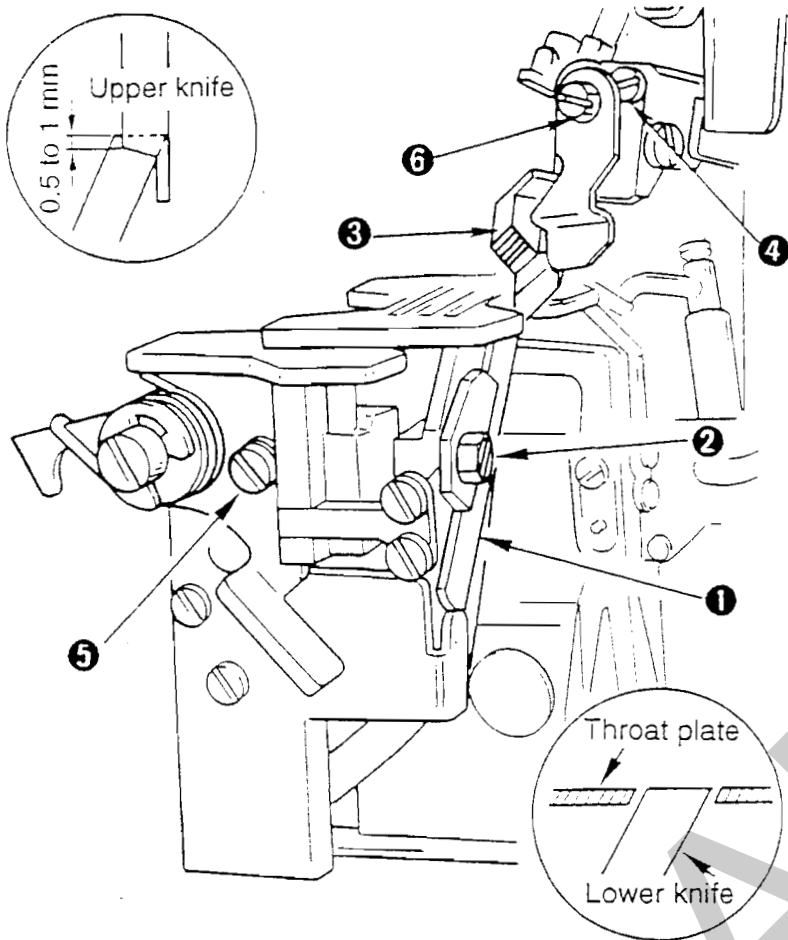


FIGURE 17
EDGE-TRIMMING
KNIFE ADJUSTMENT

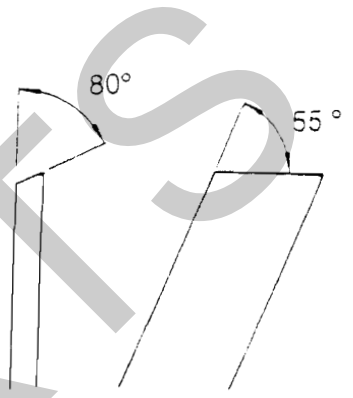


FIGURE 18
EDGE TRIMMING LOWER
KNIFE SHARPENING

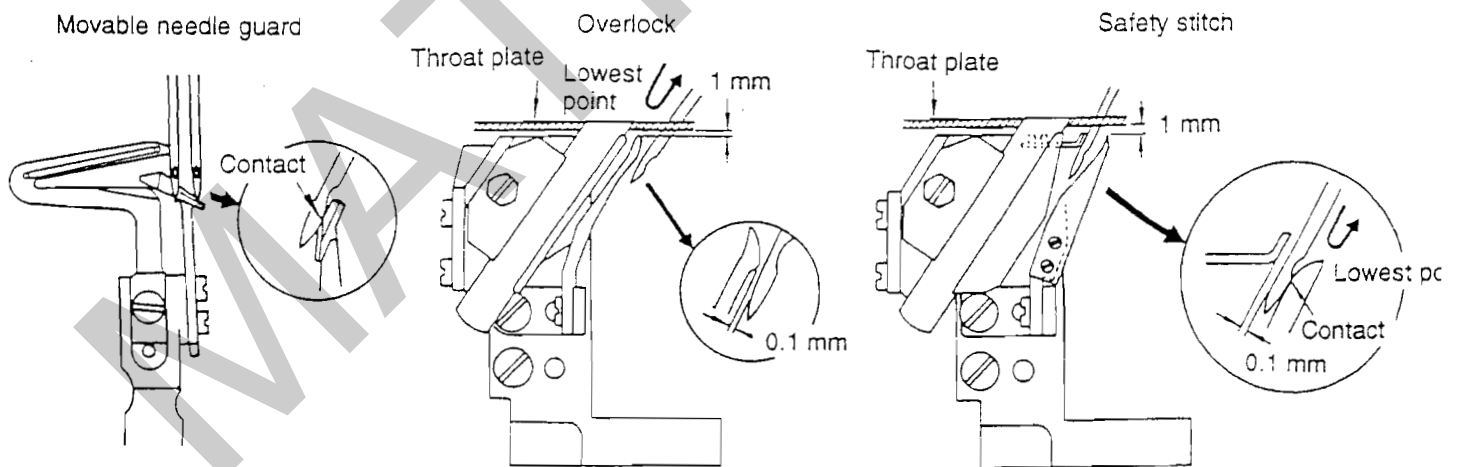


FIGURE 19
NEEDLE GUARDS
SETTING

HEAVY DUTY TRANSLATOR ARM ASSEMBLY

P/N (A3349) - USE ON 3300 SERIES

