

FISCHBEIN® MODELS 100 & 101 EMPRESS™ SERIES SEWING HEAD
OPERATOR'S MANUAL

7. SPARE PARTS LIST

PARTS	Where Used / page(s)	Part No.	Qty.
Gasket, Top Cover	Plate cover or Tape clipper / 48, 50	10092	1
Lubricating Oil (1 quart) *	(not shown)	10200	3-qts
Screw, soc flat #10-32 x ½	Needle Guard Holder / 60, 62	F103212	6
Oil Filter	Oil filter system / 48, 50	15054	2
Gasket, Bottom Cover	Main housing / 48, 50	10093	2
Knife Spring	Thread chain knife (100 only) / 64	10089	4
Knife, Moving	Thread chain knife (100 only) / 64	31029	4
Knife, Stationary	Thread chain knife (100 only) / 64	31032	4
Knife, Bed - Wide	Tape clipper (101 only) / 50	10446	4
Knife, Moving – Wide (101 only)	Tape Clipper (101 only) / 68	10443	4
Guide, Rotary Knife – Bag	(100 only) / (not shown)	31134	1
Gasket, Manifold Cover	Oil filter system / 48, 50	10095	1
Plate, Throat Wide and Medium Tape	Throat Plate (101 only) / 50	10485	1
Plate, Throat Narrow Tape	Throat Plate (101 only) / 50	10495	1
Gauge, Oil Pressure (60 PSI)	Oil filter system / 48, 50	15053	1
Seal, Lever Arms	Lever arm assembly / 52, 54	31014	1
Needles, Square (package of 10)	Needle arm assembly / 52, 54	C100-S	4
Chuck, Needle	Needle arm assembly / 52, 54	10031	1
Screw, Needle Clamp	Needle arm assembly / 52, 54	10011	2
Screw, soc cap #6 – 32 x ¾	Lever arm assembly / 52, 54	SC63234	2
Plug, Drilled Clamp	Presser Foot / 52, 54	10213	1
Plug, Tapped Clamp	Presser Foot / 52, 54	10214	1
Plug, Tapped Clamp	Needle Lever / 52, 54	10212	1
Plug, Drilled Clamp	Needle Lever / 52, 54	10211	1
Pad, Spring - Presser Foot	Presser Foot / 52, 54	10190	1
Seal, Feed Dog	Feed dog assembly / 60, 62	10077	2
Screw, Pan HD #5 – 40 x 9/16 SS	Needle Guard / 60, 62	P540916	2
O-Ring, Feed Slide Rod	Feed dog assembly / 60, 62	10075	2
Feed Dog (100 only) – Standard	Feed dog assembly (100 only) / 60	10078	1
Feed Dog Wide Tape Standard MV	Feed dog assembly (101 only) / 62	10486	2
Feed Dog Narrow Tape 1 ¼ Standard	Feed dog assembly (101 only) / 62	10496	2
Feed Dog Medium Pull Tape	Feed dog assembly (101 only) / 62	10565	2
Seal, Looper & Knife Shaft Seal	Looper assy / 66 Thd. knife (100 only) / 64	15104	2
Gasket, Looper & Knife Shaft	Looper assy / 66 Thd. knife (100 only) / 64	15105	2
Looper, Two Thread	Looper assembly / 66	10060	4
Looper, Single Thread	Looper assembly / 66	10208	4
Screw, flat head #8 – 32 x ½	Fixed Blade Tape Clipper / 50	F83212	4
Screw, flat head #10 – 32 x 3/8	Throat plate & Levers seal / 48, 50, 52, 54	F103238	12
Presser Foot, Curved	Presser foot assembly (100 only) / 52	10185	1
Presser Foot 2-2.5" Wide Tape	Presser foot assembly (101 only) / 54	10484	1
1 7/8" Medium Tape	Presser foot assembly (101 only) / 52	10562	1
1 ¼" – 1 ½" Narrow Tape	Presser foot assembly (101 only) / 52	10494	1
Narrow "Pull Tape" (Tear Tape)	Presser foot assembly (101 only) / 52	10553	1
Wide "Pull Tape"	Presser foot assembly (101 only) / 52	10558	1

* **NOTE:** No substitution oils are accepted. Use of any other oil will void the product warranty.

**FISCHBEIN® MODELS 100 & 101 EMPRESS™ SERIES SEWING HEAD
OPERATOR'S MANUAL**

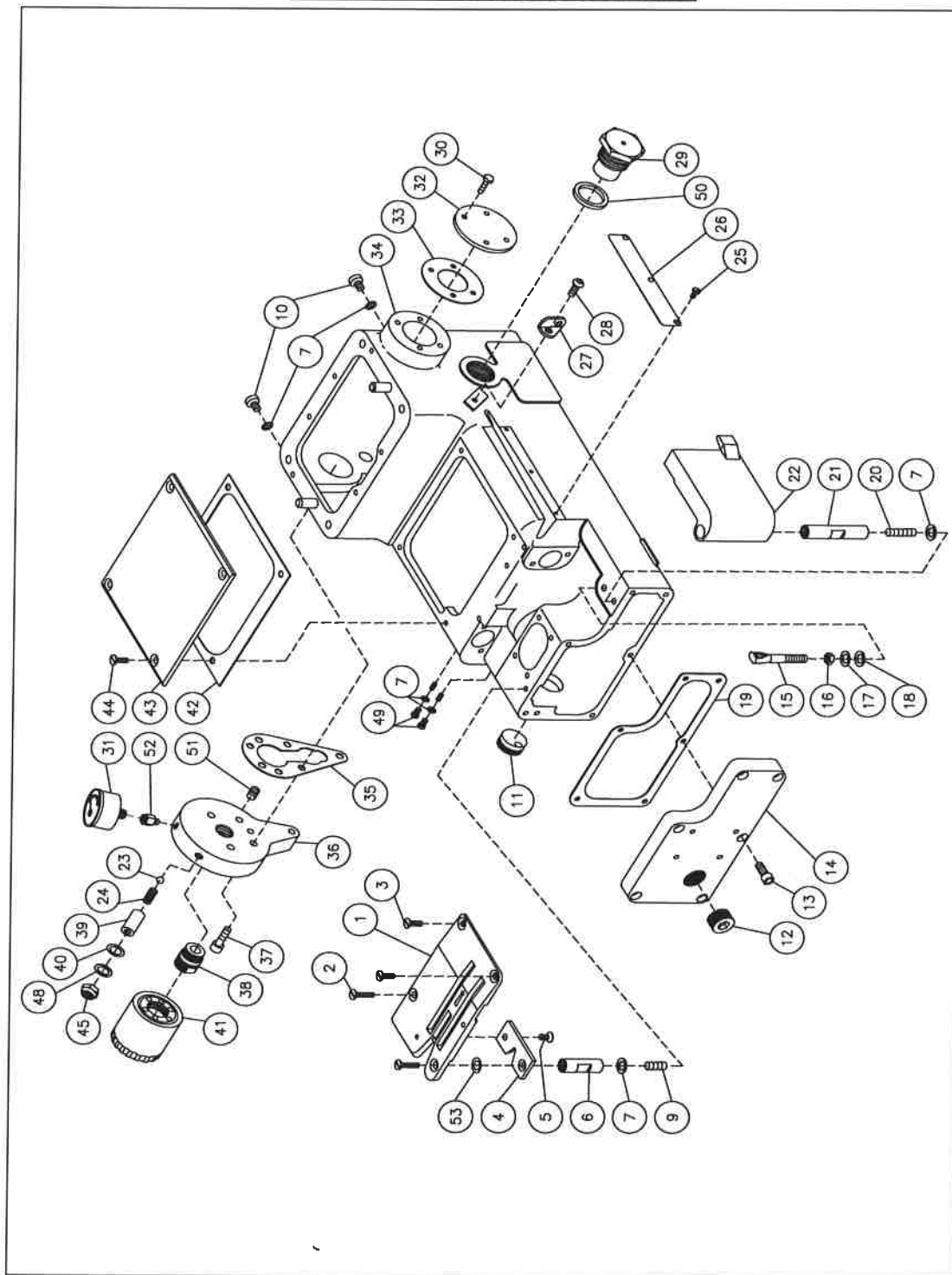
PARTS	Where Used / page(s)	Part No.	Qty.
SCREW, FLAT HD #10-32 X 5/8	Throat Plate / 48, 50	F103258	2
SCREW, SOC BTTN #10-32 X 1/2	Looper assy / 66 Thd. knife (100 only) / 64	SB103212	2
WASHER, COMPRESSION	Tape clipper assembly / 68	10438	4
SCREW, SOC FLAT M4 X 12MM	Rotary Air knife / 70, 74	SFM412	2
SCREW, SOC SET M4 X 6MM	Rotary Air knife / 70, 74	SSM46	4
SCREW, SOC FLAT M4 X 16MM	Rotary Air knife / 70, 74	SFM416	4

8. DRAWINGS AND PARTS LISTS

PART No.	DESCRIPTION	PAGE
8.1	MODEL 100 HOUSING	48-49
8.1.1	MODEL 101 HOUSING	50-51
8.2	MODEL 100 NEEDLE & PRESSER FOOT ASSEMBLIES	52-53
8.2.1	MODEL 101 NEEDLE & PRESSER FOOT ASSEMBLIES	54-55
8.3	MODEL 100 LEVER-HOUSING	56-57
8.3.1	MODEL 101 LEVER-HOUSING	58-59
8.4	MODEL 100 FEED ASSEMBLY	60-61
8.4.1	MODEL 101 FEED ASSEMBLY	62-63
8.5	MAINSHAFT ASSEMBLY	64-65
8.6	LOOPER ASSEMBLY	66
8.7	OIL PUMP ASSEMBLY	67
8.8	TAPE CLIPPER	68-69
8.9	ROTARY AIR KNIFE (110 VAC)	70-72
8.10	ROTARY AIR KNIFE (24 VDC)	74-76

8.1

MODEL 100 HOUSING



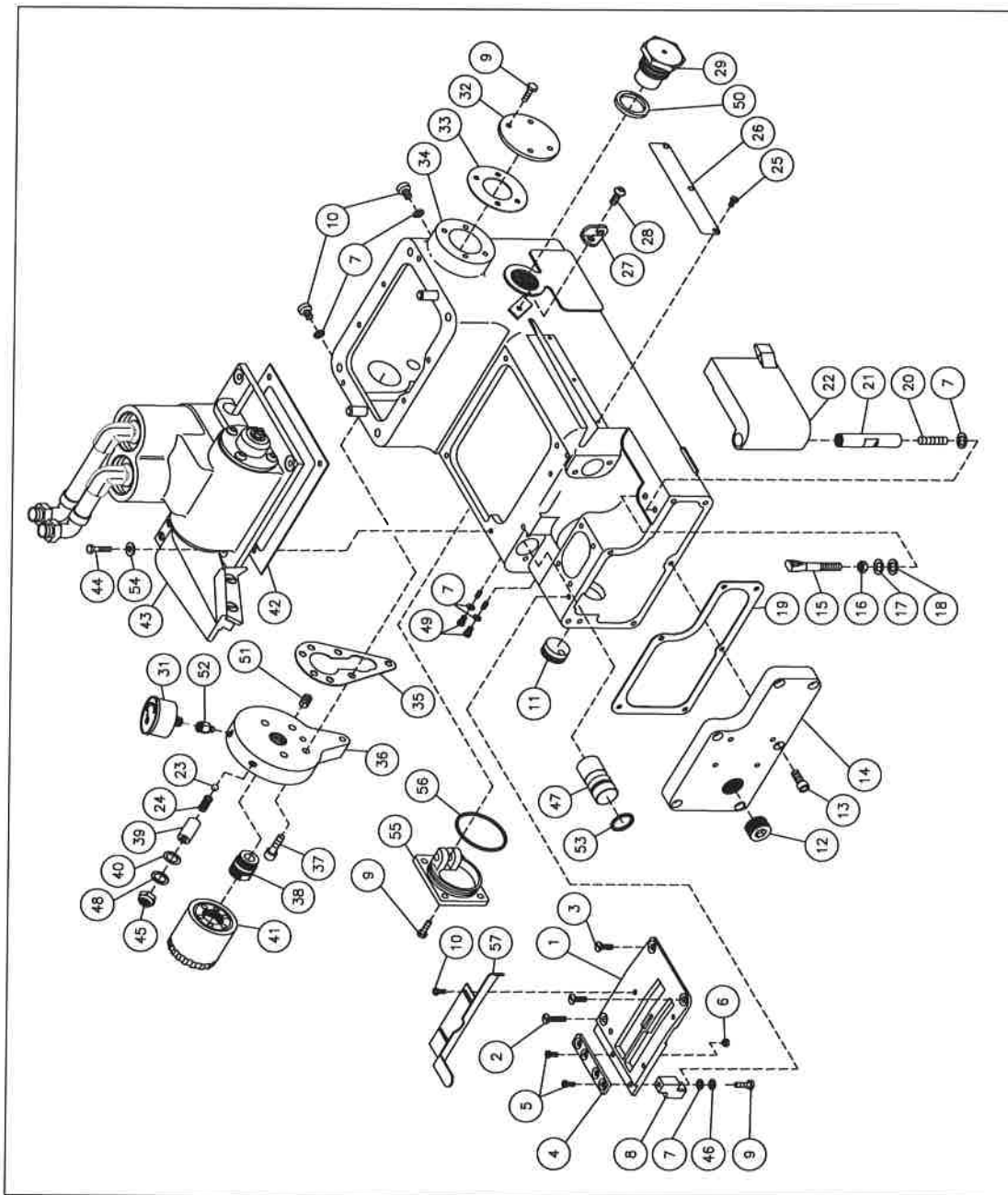
Item No.	Quantity	Part No.	Description:
1	1	10017	Throat plate
2	2	F103258	Screw, Flat 10-32 x 5/8
3	2	F103238	Screw, Flat 10-32 x 3/8
4	1	31032	Stationary knife

**FISCHBEIN® MODELS 100 & 101 EMPRESS™ SERIES SEWING HEAD
OPERATOR'S MANUAL**

Item No.	Quantity	Part No.	Description:
5	1	F83214	Screw, Flat 8-32 x 1/4
6	1	10015	Post, short-throat plate
7	6	WN 10	Washer, Nylon
8			
9	1	SS103258	Screw, Soc. Set 10-32 x 5/8
10	2	B103214	Screw, Binding HD 10-32 x 1/4
11	1	10112	Window, oil level
12	1	10111	Plug, drain – magnetic
13	6	SC103258	Screw, Soc. Cap 10-32 x 5/8
14	1	15072	Cover, bottom
15	1	10170	Pull off looper thread
16	1	NH1420	Nut, Hex 1/4-20
17	1	WF14	Washer, Flat ¼
18	1	10052	Washer, Nylon
19	1	10093	Gasket, cover – bottom
20	1	SS10321	Screw, Soc. Set 10-32 x 1
21	1	10016	Post, long – throat plate
22	1	10005	Door , looper
23	1	15069	Ball , chrome (part of Item 36 (15056) assy)
24	1	15078	Spring, pressure (part of Item 36 (15056) assy)
25	3	B632316	Screw, Binding HD 6-32 x 3/16
26	1	10098	Cover, groove – thread
27	1	10164	Eyelet, thread – short
28	1	SB103212	Screw, Soc. BTTN 10-32 x 1/2
29	1	10116	Assy, plug – breather
30	4	H103212	Screw, Hex HD 10-32 x 1/2
31	1	15053	Gauge, oil pressure 60 PSI
32	1	15079	Plate, cover – side
33	1	10094	Gasket, mainshaft seal
34	1	31002	Housing, main
35	1	10095	Gasket, cover – manifold
36	1	15056	Manifold, filter-oil assy (includes items 23,24,39,40,45,48)
37	5	SC103234	Screw, Soc. Cap 10-32 x 3/4
38	1	15062	Nipple , filter oil
39	1	15064	Plug, adjusting – manifold (part of Item 36 (15056) assy)
40	1	15074	Seal, Pressure Control–Manifold (part of Item 36 (15056) assy)
41	1	15054	Cartridge, oil – filter
42	1	10092	Gasket, cover –top
43	1	10014	Plate, cover – top
44	4	F103238	Screw, Flat HD 10-32 x 3/8
45	1	11268	Nut, lock (part of Item 36 (15056) assy)
46			
47			
48	1	A3934	Washer, Thrust (part of Item 36 (15056) assy)
49	2	B103238	Screw, BTTN 10-32 x 3/8
50	1	10338	O-ring, 7/8 ID
51	1	10125	Plug 1/8 NPT
52	1	16034	Fitting, Adapter 1/8 M x 1/8 F 45 Deg
53	.5	15024	Spacer, Shim

8.1.1

MODEL 101 HOUSING

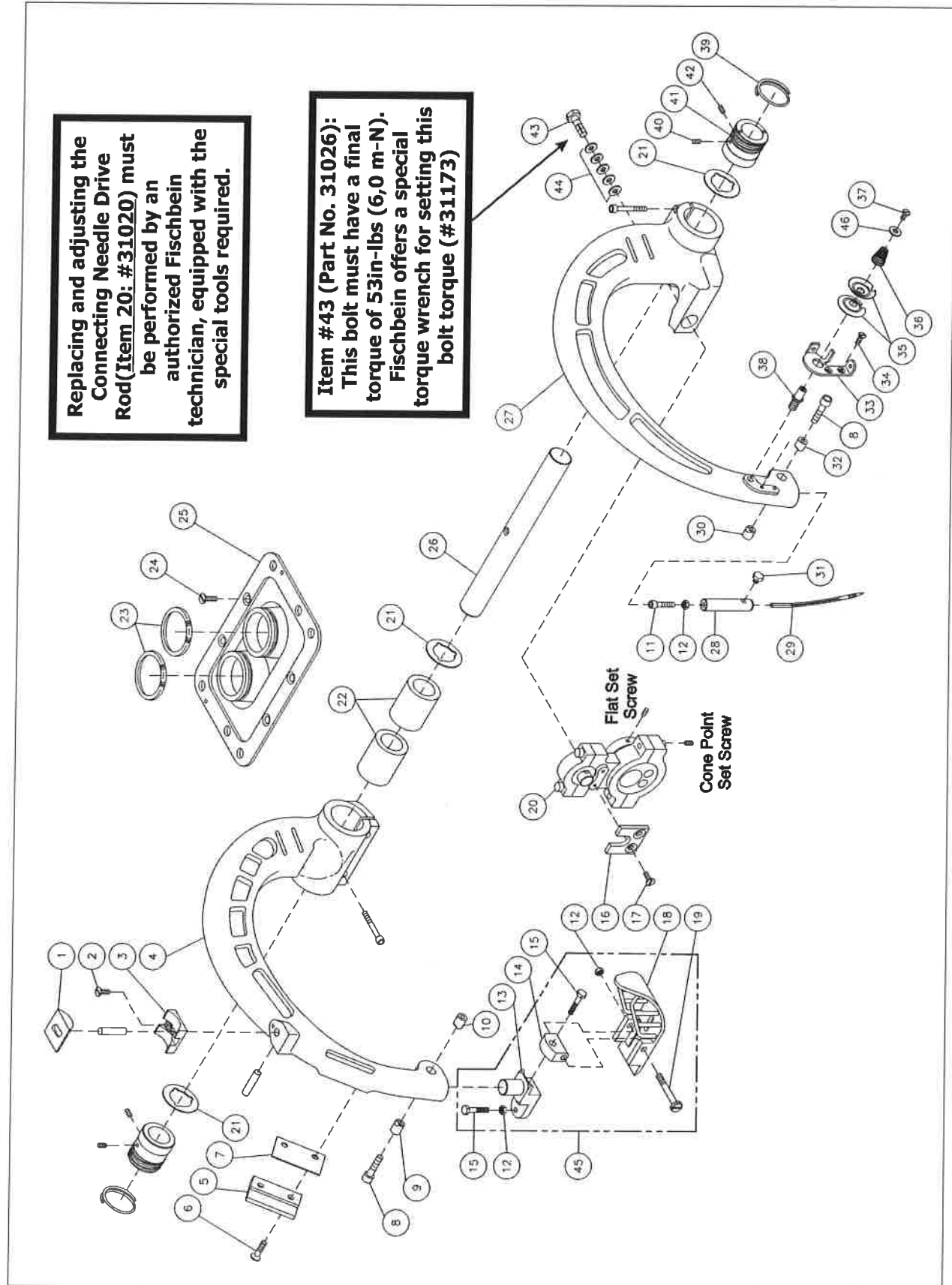


Item No.	Quantity	Part No.	Description:
1	1	10485	Throat plate, Wide Tape (STD)
2	1	F103258	Screw, Flat 10-32 x 5/8
3	2	F103238	Screw, Flat 10-32 x 3/8
4	1	10446	Knife, Blade-Bed (wide)
5	2	F83212	Screw, Flat 8-32 x 1/2
6	1	NH832	Nut, Hex #8-32
7	6	WN10	Washer, Nylon
8	1	10434	Post-Offset
9	5	H103212	Screw, Hex HD 10-32 x 1/2

**FISCHBEIN® MODELS 100 & 101 EMPRESS™ SERIES SEWING HEAD
OPERATOR'S MANUAL**

Item No.	Quantity	Part No.	Description:
10	4	B103214	Screw, Binding HD 10-32 x 1/4
11	1	10112	Window, oil level
12	1	10111	Plug, drain – magnetic
13	6	SC103258	Screw, Soc. Cap 10-32 x 5/8
14	1	15072	Cover, bottom
15	1	10170	Pull off looper thread
16	1	NH1420	Nut, Hex 1/4-20
17	1	WF14	Washer, Flat ¼
18	1	10052	Washer, Nylon
19	1	10093	Gasket, cover – bottom
20	1	SS10321	Screw, Soc. Set 10-32 x 1
21	1	10016	Post, long – throat plate
22	1	10005	Door, looper
23	1	15069	Ball, chrome (part of Item 36 (15056) assy)
24	1	15078	Spring, pressure (part of Item 36 (15056) assy)
25	3	B632316	Screw, Binding HD 6-32 x 3/16
26	1	10098	Cover, groove – thread
27	1	10164	Eyelet, thread – short
28	1	SB103212	Screw, Soc. BTTN 10-32 x 1/2
29	1	10116	Assy, plug – breather
30			
31	1	15053	Gauge, oil pressure 60 PSI
32	1	15079	Plate, cover – side
33	1	10094	Gasket, mainshaft seal
34	1	31002	Housing, main
35	1	10095	Gasket, cover – manifold
36	1	15056	Manifold, filter Assy. (includes items 23,24,39,40,45,48)
37	5	SC103234	Screw, Soc. Cap 10-32 x 3/4
38	1	15062	Nipple, filter oil
39	1	15064	Plug, adjusting – manifold (part of Item 36 (15056) assy)
40	1	15074	Seal, Pressure Control-Manifold (part of Item 36 (15056) assy)
41	1	15054	Cartridge, oil – filter
42	1	10092	Gasket, cover –top
43	1	31035	Assy, Clipper
44	4	H103258	Screw, Hex HD 10-32 x 5/8
45	1	11268	Nut, lock (part of Item 36 (15056) assy)
46	1	WF10	Washer, Flat #10
47	1	10442	Plug
48	1	A3934	Washer, Thrust (part of Item 36 (15056) assy)
49	2	B103238	Screw, BTTN 10-32 x 3/8
50	1	10338	O-ring, 7/8 ID
51	1	10125	Plug 1/8 NPT
52	1	16034	Fitting, Adapter 1/8 M x 1/8 F 45 Deg
53	1	10441	O-ring, 5/8 ID
54	4	10438	Washer, Compression
55	1	10085	Bracket, Pivot Knife
56	1	10084	O-ring, Pump Body & Knife Plug
57	1	10449	Fence, Throat

8.2 MODEL 100 NEEDLE & PRESSER FOOT ASSEMBLY

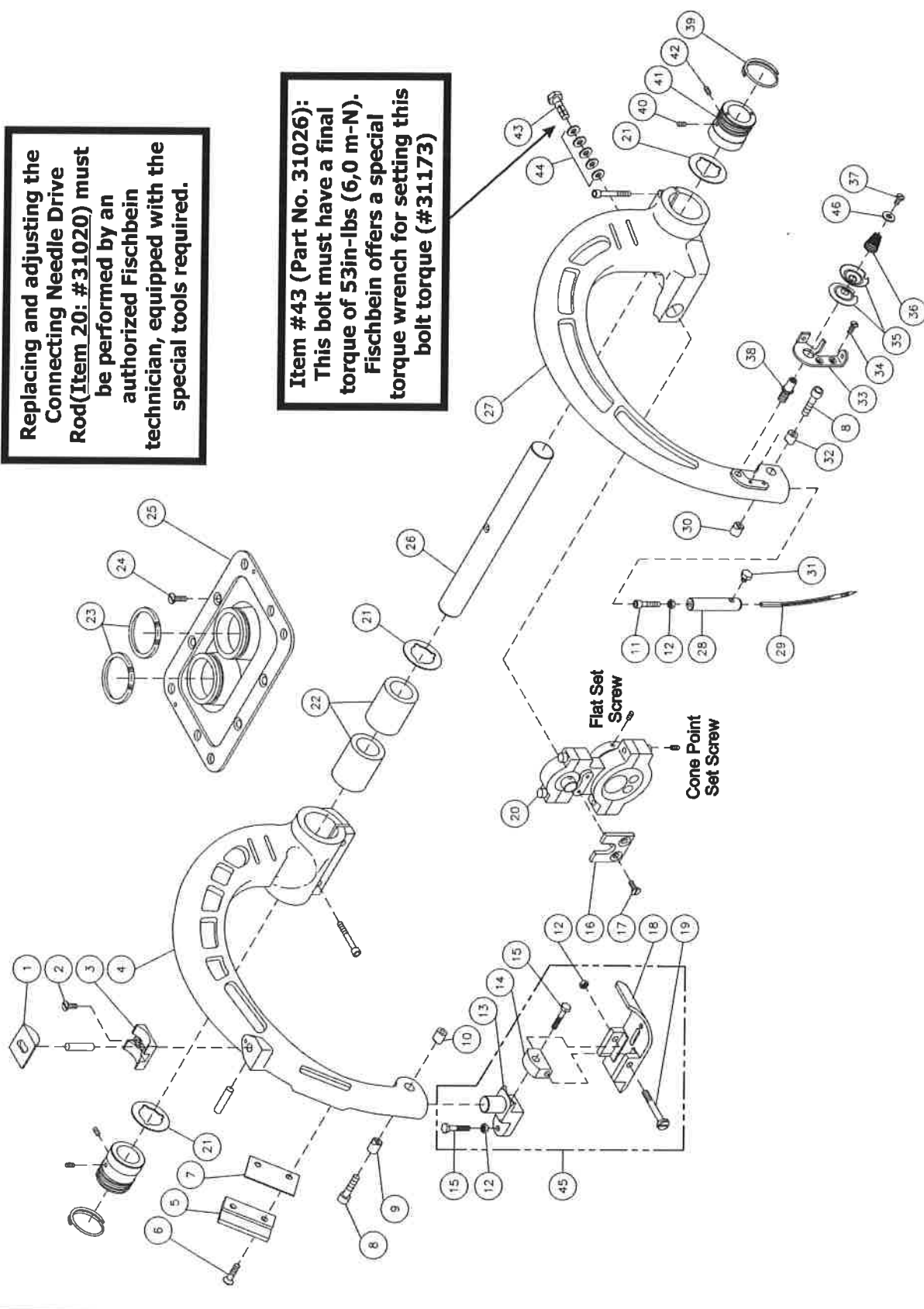


**FISCHBEIN® MODELS 100 & 101 EMPRESS™ SERIES SEWING HEAD
OPERATOR'S MANUAL**

Item No.	Quantity	Part No.	Description:
1	1	10190	Pad, spring presser foot
2	1	F63214	Screw, Flat 6-32 x ¼
3	1	10189	Cradle, pad presser foot
4	1	10004	Lever, presser foot
	2	SC14201	Screw, Soc. Cap 1/4-20 x 1
	2	PS14112	Pin, Spring
5	1	10163	Clamp, bearing sheet
6	2	SF103258	Screw, Soc. Flat 10-32 x 5/8
7	1	10162	Sheet, bearing presser foot
8	2	SC63234	Screw, Soc. Cap 6-32 x ¾
9	1	10213	Plug, clamp drilled (presser foot)
10	1	10214	Plug, clamp tapped (presser foot)
11	1	SC103234	Screw, Soc. Cap 10-32 x ¾
12	3	11309	Nut, Hex – Special CZ
13	1	10155	Shank, presser foot
14	1	10156	Block, hinging presser foot
15	2	H103258	Screw, Hex 10-32 x 5/8
16	1	10048	Retainer, rod connecting
17	2	SF103238	Screw, Soc. Flat 10-32 x 3/8
18	1	10185	Presser foot
19	1	10182	Bolt, hinging presser foot
20	1	31020	Rod, connecting needle drive
	1	15109	Screw, Soc. Set Cone Point ¼-20 x 3/8
	1	SS142014	Screw, Soc. Set ¼-20 x ¼
21	3	31042	Washer, Thrust (special)
22	2	10029	Bushing, lever presser foot
23	2	10128	Spring, garter lever seal
24	4	F103238	Screw, Flat 10-32 x 3/8
25	1	31014	Seal, levers
26	1	10026	Shaft, lever
27	1	31024	Lever, needle
	2	SC1420114	Screw, Soc. Cap 1/4-20 x 1 ¼
28	1	10031	Chuck needle
29	1	C100-S	Needle
30	1	10212	Plug, clamp tapped
31	1	10011	Screw, clamp needle
32	1	10211	Plug, clam drilled
33	1	10166	Guide, thread (needle lever)
34	2	F54038	Screw, Flat 5-40 x 3/8
35	2	10119	Disc, tension (needle lever)
36	1	10009	Spring, tension (needle lever)
37	1	B103214	Screw, binding HD 10-32 x ¼
38	1	10113	Stud, tension (needle lever)
39	2	10023	Insert, thread – lever shaft bushing
40	2	SS1032516	Screw, Soc. Set 10-32 x 5/16
41	2	10025	Bushing, shaft levers
42	2	SS1032316	Screw, Soc. Set 10-32 x 3/16
43	1	31026	Screw, Hex 1/4-28 X 1/2 GR8 LG LOK
44	5	15076	Washer, Spring ¼
45		10157	Assembly, presser foot
46	1	WF8	Washer, Flat # 8

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8.2.1 MODEL 101 NEEDLE & PRESSER FOOT ASSEMBLY



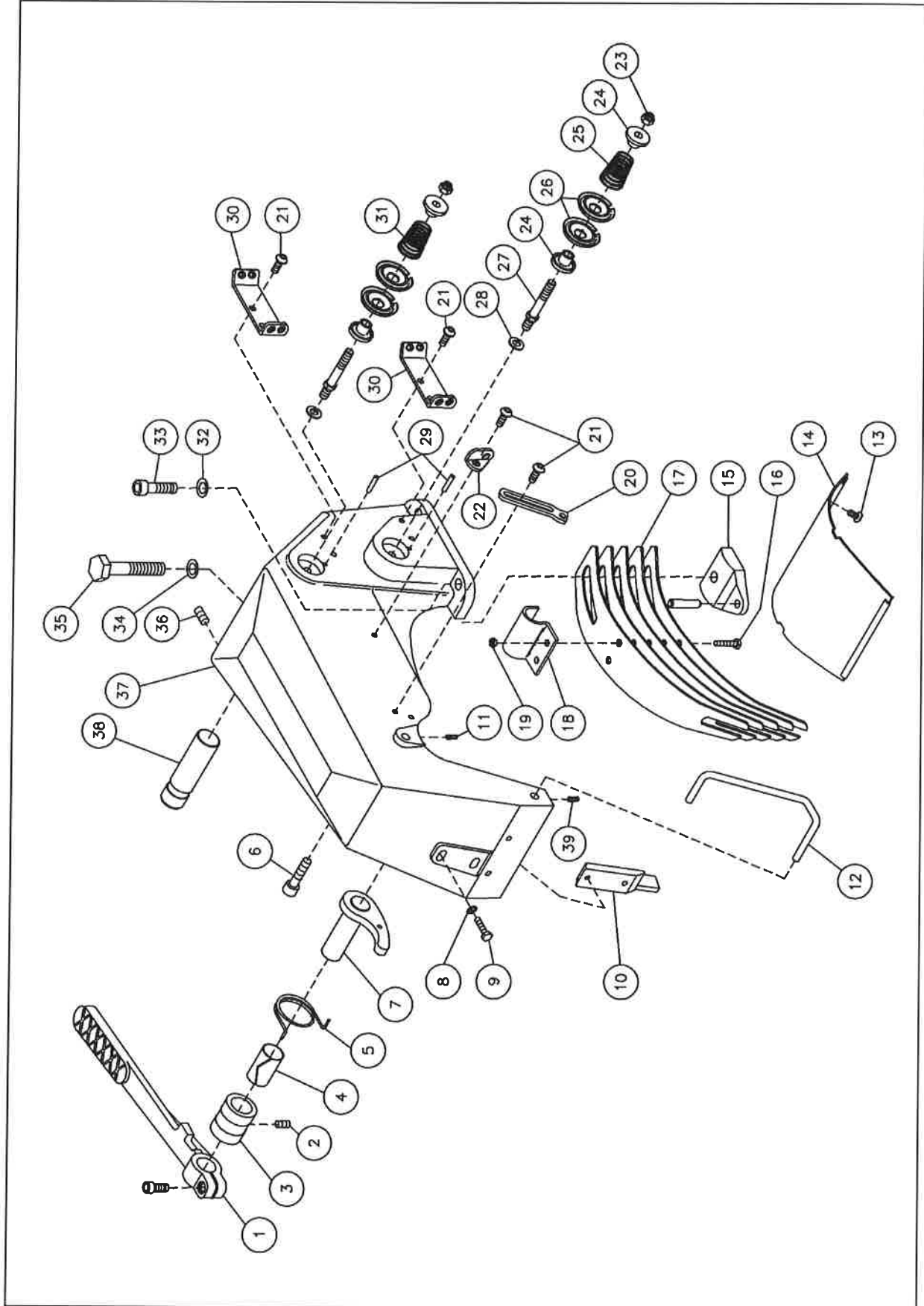
**FISCHBEIN® MODELS 100 & 101 EMPRESS™ SERIES SEWING HEAD
OPERATOR'S MANUAL**

Item No.	Quantity	Part No.	Description:
1	1	10190	Pad, spring presser foot
2	1	F63214	Screw, Flat 6-32 x 1/4
3	1	10189	Cradle, pad presser foot
4	1	10004	Lever, presser foot
	2	SC14201	Screw, Soc. Cap 1/4-20 x 1
	2	PS14112	Pin, Spring
5	1	10163	Clamp, bearing sheet
6	2	SF103258	Screw, Soc. Flat 10-32 x 5/8
7	1	10162	Sheet, bearing presser foot
8	2	SC63234	Screw, Soc. Cap 6-32 x 3/4
9	1	10213	Plug, clamp drilled (presser foot)
10	1	10214	Plug, clamp tapped (presser foot)
11	1	SC103234	Screw, Soc. Cap 10-32 x 3/4
12	3	11309	Nut, Hex 10-32
13	1	10155	Shank, presser foot
14	1	10156	Block, hinged presser foot
15	2	H103258	Screw, Hex 10-32 x 5/8
16	1	10048	Retainer, rod connecting
17	2	SF103238	Screw, Soc. Flat 10-32 x 3/8
18	1	10484	Presser foot, Tape (wide)
19	1	10182	Bolt, hinging presser foot
20	1	31020	Rod, connecting needle drive
	1	15109	Screw, Soc. Set Cone Point 1/4-20 x 3/8
	1	SS142014	Screw, Soc. Set 1/4-20 x 1/4
21	3	31042	Washer, Thrust (special)
22	2	10029	Bushing, lever presser foot
23	2	10128	Spring, garter lever seal
24	4	F103238	Screw, Flat 10-32 x 3/8
25	1	31014	Seal, levers
26	1	10026	Shaft, lever
27	1	31024	Lever, needle
	2	SC1420114	Screw, Soc. Cap 1/4-20 x 1 1/4
28	1	10031	Chuck needle
29	1	C100-S	Needle
30	1	10212	Plug, clamp tapped
31	1	10011	Screw, clamp needle
32	1	10211	Plug, clam drilled
33	1	10166	Guide, thread (needle lever)
34	2	SF54038	Screw, Flat 5-40 x 3/8
35	2	10119	Disc, tension (needle lever)
36	1	10009	Spring, tension (needle lever)
37	1	B103214	Screw, binding HD 10-32 x 1/4
38	1	10113	Stud, tension (needle lever)
39	2	10023	Insert, thread – lever shaft bushing
40	2	SS1032516	Screw, Soc. Set 10-32 x 5/16
41	2	10025	Bushing, shaft levers
42	2	SS1032316	Screw, Soc. Set 10-32 x 3/16
43	1	31026	Screw, Hex 1/4-28 X 1/2 GR8 LG LOK
44	5	15076	Washer, Spring 1/4
45		10481	Assembly, Presser Foot, Tape (wide)
46	1	WF8	Washer, Flat # 8

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8.3

MODEL 100 LEVER - HOUSING

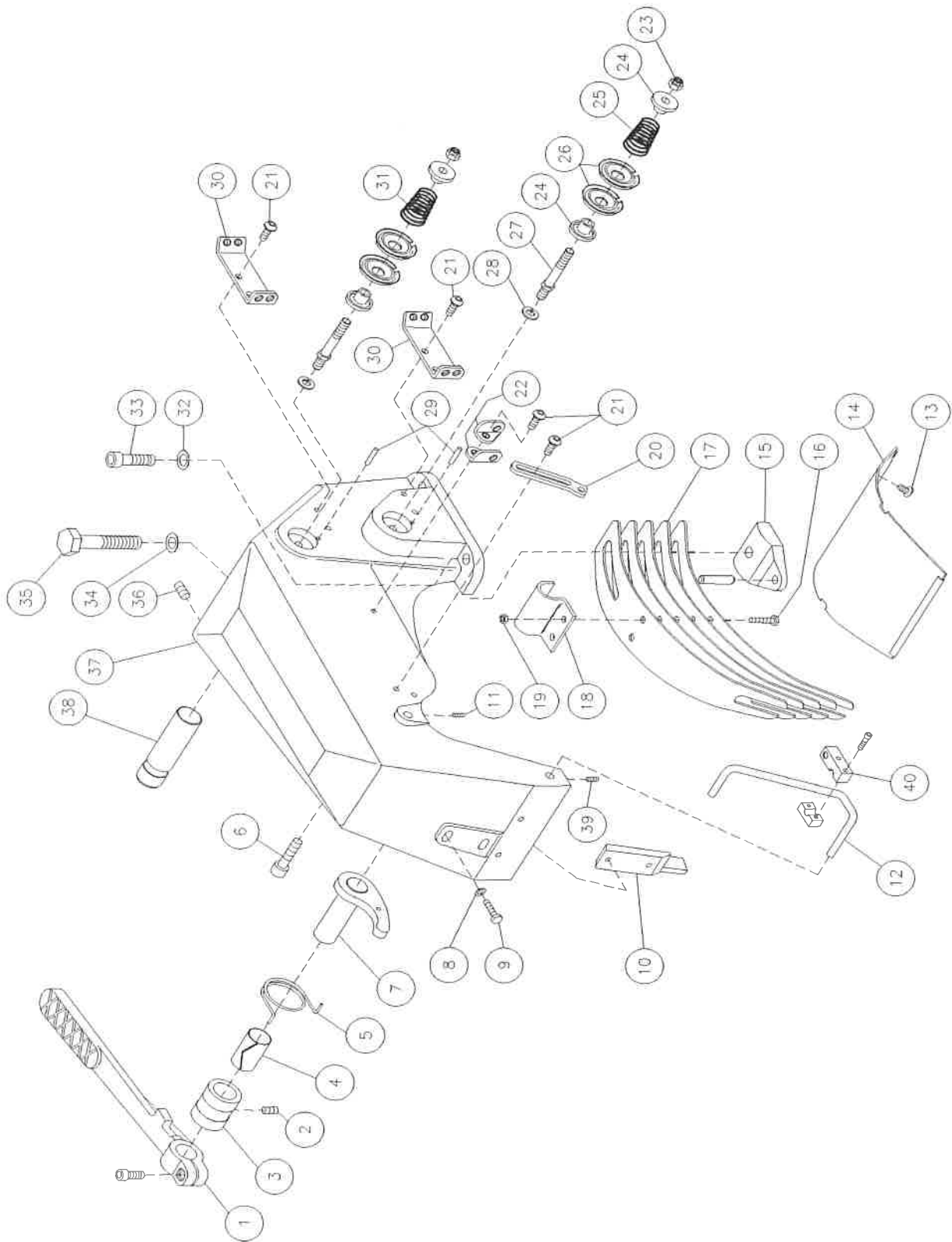


**FISCHBEIN® MODELS 100 & 101 EMPRESS™ SERIES SEWING HEAD
OPERATOR'S MANUAL**

Item No.	Quantity	Part No.	Description:
1	1	31034	Lever, lifter presser foot
	1	SC142034	Screw, Soc. Cap 1/4-20 x 3/4
2	1	SS142014	Screw, Soc. Set 1/4-20 x 1/4
3	1	10139	Bushing, lifter presser foot
4	1	10186	Liner, bushing lifter presser foot
5	1	10187	Spring, lifter lever
6	1	SC5161858	Screw, Soc. Cap 5/16-18 x 5/8
7	1	10142	Cam, lifter presser foot
8	2	WS10	Washer, Spring 10
9	2	H103278	Screw, Hex HD 10-32 x 7/8
10	1	10161	Guide, lever presser foot
11	1	SS1032516	Screw, Soc. Set 10-32 x 5/16
12	1	10188	Guard, tension needle
13	2	B103238	Screw, Binding HD 10-32 x 3/8
14	1	31031	Cover, guard lever
15	1	10146	Plate, presser foot
	1	PS 141	Pin, Spring
16	2	H103234	Screw, Hex HD 10-32 x 3/4
17	5	10145	Spring, presser foot
18	1	10144	Clamp, spring presser foot
19	2	1-178	Nut, lock
20	1	10171	Pull off, needle thread
21	7	SB103212	Screw, Soc. BTTN 10-32 x 1/2
22	1	10164	Eyelet, thread short
23	2	NH1428L	Nut 1/4-28 locking
24	4	10114	Sleeve, tension
25	1	10008	Spring, tension looper thread
26	4	10120	Disc, tension large
27	2	10115	Stud, tension
28	2	11120	Washer, Lock
29	2	PS18114	Pin, Spring retaining tension disc
30	2	10165	Eyelet, thread long (Guide)
31	1	10007	Spring, tension needle thread
32	4	10234	Washer, Spring
33	4	SC516181	Screw, Soc. Cap 5/16-18 x 1
34	1	WF38	Washer, Flat 3/8
35	1	H3824134	Screw, Adj. 3/8-24 x 1 1/4
36	1	SS142038	Screw, Soc. Set 1/4-20 x 3/8
37	1	31033	Housing, levers (LT Blue)
38	1	10143	Shaft, spring presser foot
39	1	SS1032316	Screw, Soc. Set 10-32 x 3/16

8.3.1

MODEL 101 LEVER - HOUSING



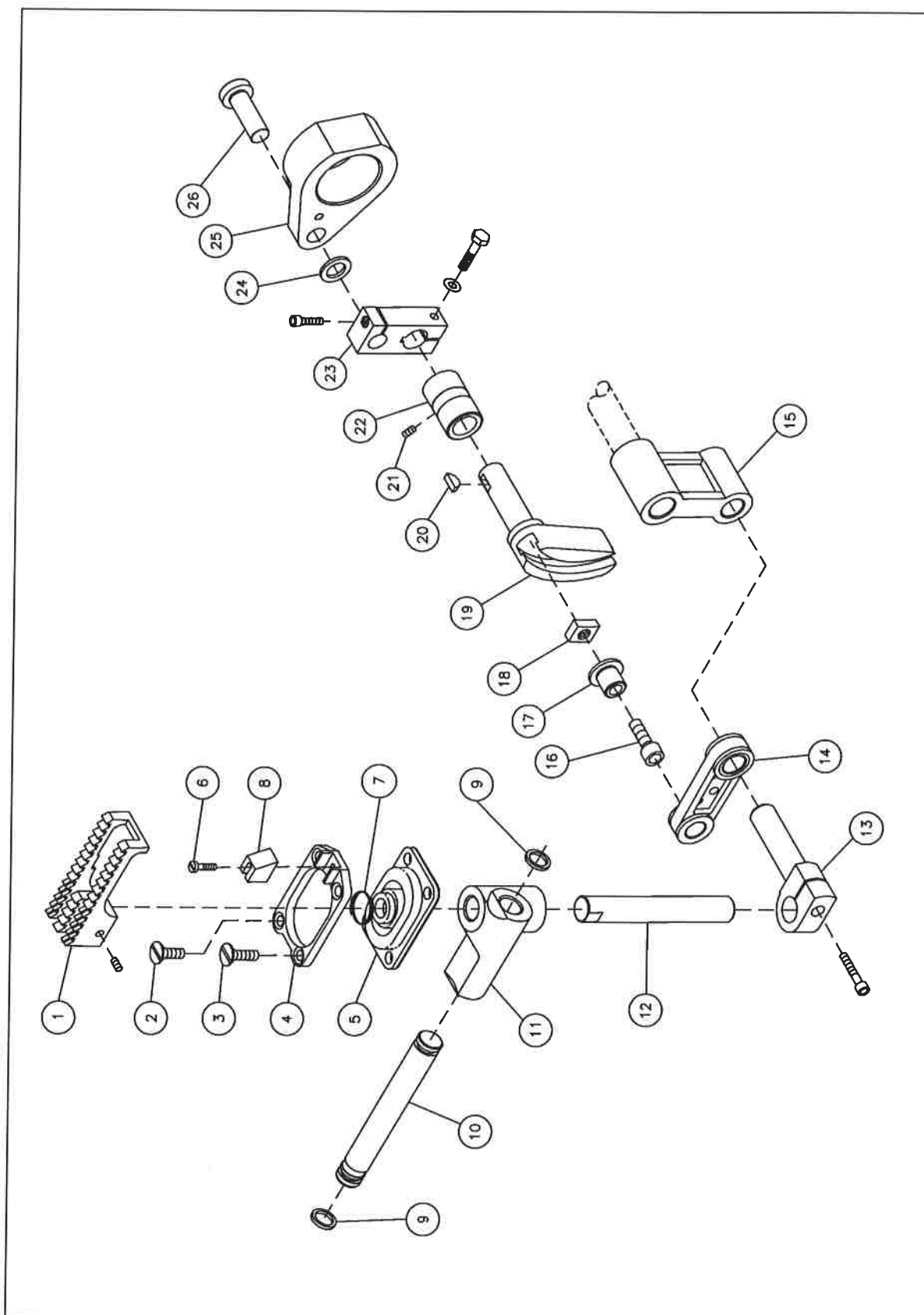
**FISCHBEIN® MODELS 100 & 101 EMPRESS™ SERIES SEWING HEAD
OPERATOR'S MANUAL**

Item No.	Quantity	Part No.	Description:
1	1	31034	Lever, lifter presser foot
	1	SC142034	Screw, Soc. Cap 1/4-20 x 3/4
2	1	SS142014	Screw, Soc. Set 1/4-20 x 1/4
3	1	10139	Bushing, lifter presser foot
4	1	10186	Liner, bushing lifter presser foot
5	1	10187	Spring, lifter lever
6	1	SC5161858	Screw, Soc. Cap 5/16-18 x 5/8
7	1	10142	Cam, lifter presser foot
8	2	WS 10	Washer, Spring 10
9	2	H103278	Screw, Hex HD 10-32 x 7/8
10	1	10161	Guide, lever presser foot
11	1	SS1032516	Screw, Soc. Set 10-32 x 5/16
12	1	10188	Guard, tension needle
13	2	B103238	Screw, Binding HD 10-32 x 3/8
14	1	31031	Cover, guard lever
15	1	10146	Plate, presser foot
	1	PS141	Pin, Spring
16	2	H 103234	Screw, Hex HD 10-32 x 3/4
17	5	10145	Spring, presser foot
18	1	10144	Clamp, spring presser foot
19	2	1-178	Nut, lock
20	1	10171	Pull off, needle thread
21	7	SB103212	Screw, Soc. BTTN 10-32 x 1/2
22	2	10164	Eyelet, thread short
23	2	NH1428L	Nut 1/4-28 locking
24	4	10114	Sleeve, tension
25	1	10008	Spring, tension looper thread
26	4	10120	Disc, tension large
27	2	10115	Stud, tension
28	2	11120	Washer, Lock
29	2	PS18114	Pin, Spring retaining tension disc
30	2	10165	Eyelet, thread long (Guide)
31	1	10721	Spring, tension-light needle thread
32	4	10234	Washer, Spring
33	4	SC516181	Screw, Soc. Cap 5/16-18 x 1
34	1	WF38	Washer, Flat 3/8
35	1	H3824134	Screw, Adj. 3/8-24 x 1 3/4
36	1	SS142038	Screw, Soc. Set 1/4-20 x 3/8
37	1	31033	Housing, levers (LT Blue)
38	1	10143	Shaft, Spring Presser Foot
39	1	SS1032316	Screw, Soc. Set 10-32 x 3/16
40	1	10216	Eyelet, Rip Cord

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8.4

MODEL 100 FEED ASSEMBLY

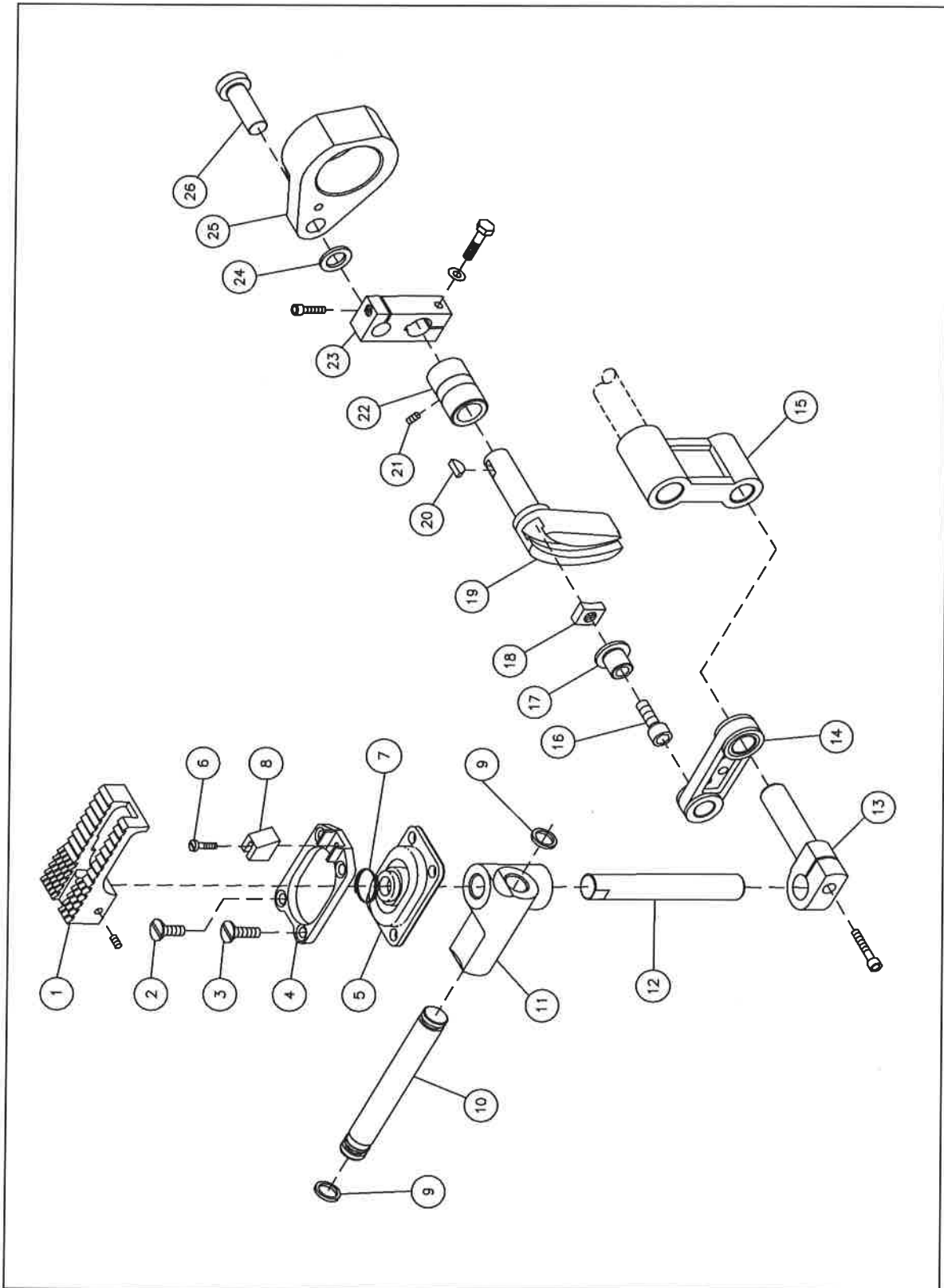


**FISCHBEIN® MODELS 100 & 101 EMPRESS™ SERIES SEWING HEAD
OPERATOR'S MANUAL**

Item No.	Quantity	Part No.	Description:
1	1	10078	Dog feed
	1	SS1032516	Screw, Soc. Set 10-32 x 5/16
2	1	F103238	Screw, Flat 10-32 x 3/8
3	3	F103212	Screw, Flat 10-32 x 1/2
4	1	10177	Holder, guard needle
5	1	10077	Seal, dog feed
6	1	P540916	Screw, Pan HD 5-40 x 9/16
7	1	10124	Ring, Garter-Seal (Feed Dog)
8	1	10174	Guard, needle
9	2	10075	O-ring
10	1	31012	Rod, slide feed
11	1	10073	Slide feed
12	1	31011	Rod, carrier feed dog
13	1	31008	Clamp, rod feed dog carrier
	1	SC142078	Screw, Soc. Cap 1/4-20 x 7/8
14	1	31010	Link, stroke feed
15	1	31009	Link, lift feed
16	1	SC142878	Screw, Soc. Cap 1/4-28 x 7/8
17	1	10068	Pivot, adjusting feed stroke
18	1	10067	Nut, pivot feed stroke
19	1	31007	Lever, slotted feed rocker
20	1	T3192	Key
21	1	SS1032516	Screw, Soc. Set 10-32 x 5/16
22	1	10109	Bushing, shaft feed rocker
23	1	31005	Lever, pin feed rocker
	1	SC54012	Screw, Soc. Cap 5-40 x 1/2
	1	H103234	Screw, Hex 10-32 x 3/4
	1	WF10	Washer, Flat #10
24	1	10215	Washer, Thrust
25	1	31023	Rod, connecting prim. Feed stroke
26	1	31006	Pin, rod feed stroke connect.

8.4.1

MODEL 101 FEED ASSEMBLY

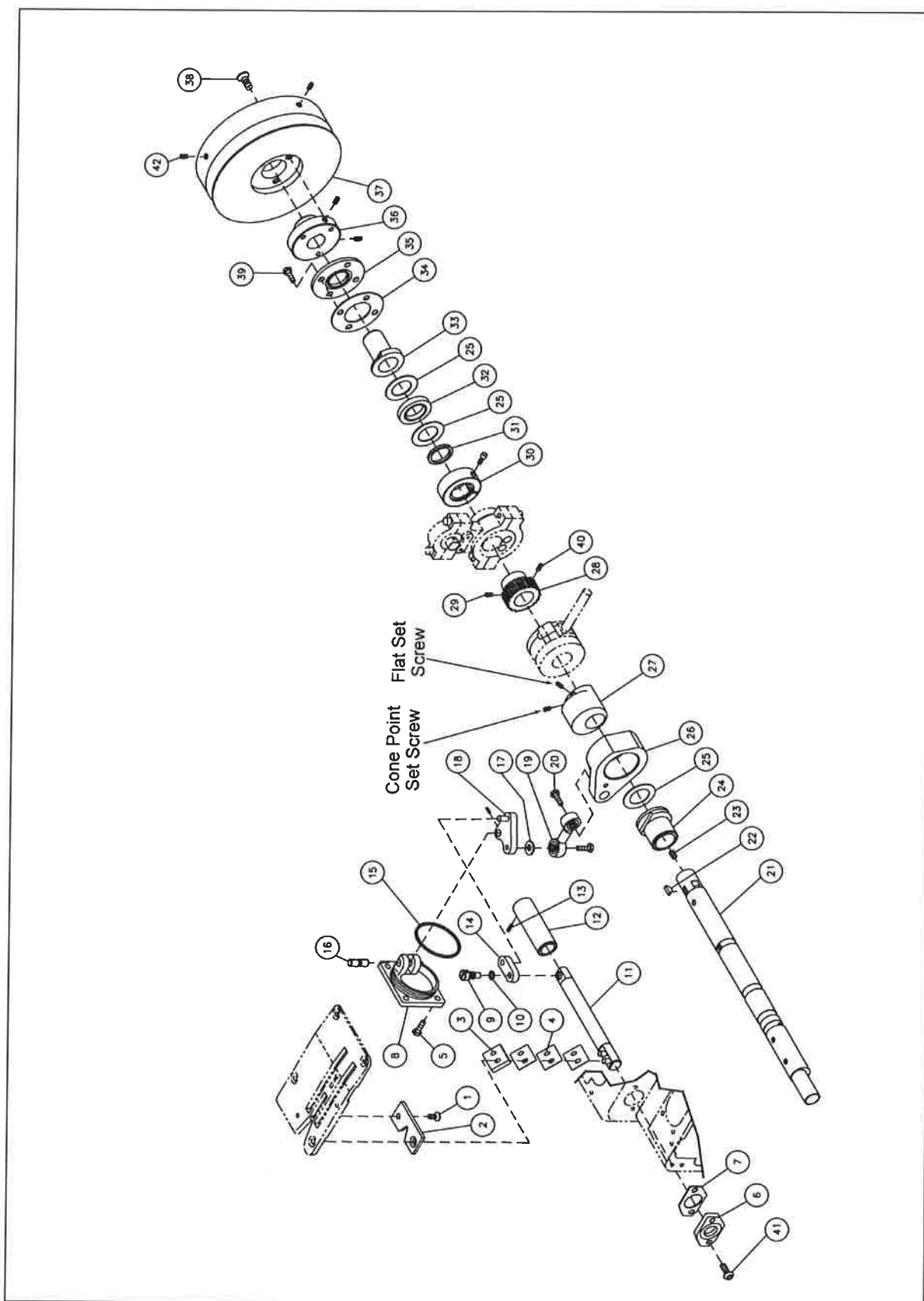


**FISCHBEIN® MODELS 100 & 101 EMPRESS™ SERIES SEWING HEAD
OPERATOR'S MANUAL**

Item No.	Quantity	Part No.	Description:
1	1	10486	Dog, feed, Tape (STD)
	1	SS1032516	Screw, Soc. Set 10-32 x 5/16
2	1	F103238	Screw, Flat 10-32 x 3/8
3	3	F103212	Screw, Flat 10-32 x 1/2
4	1	10177	Holder, guard needle
5	1	10077	Seal, dog feed
6	1	P540916	Screw, Pan HD 5-40 x 9/16
7	1	10124	Ring, Garter-Seal (Feed Dog)
8	1	10174	Guard, needle
9	2	10075	O-ring
10	1	31012	Rod, slide feed
11	1	10073	Slide feed
12	1	31011	Rod, carrier feed dog
13	1	31008	Clamp, rod feed dog carrier
	1	SC142078	Screw, Soc. Cap 1/4-20 x 7/8
14	1	31010	Link, stroke feed
15	1	31009	Link, lift feed
16	1	SC142878	Screw, Soc. Cap 1/4-28 x 7/8
17	1	10068	Pivot, adjusting feed stroke
18	1	10067	Nut, pivot feed stroke
19	1	31007	Lever, slotted feed rocker
20	1	T3192	Key
21	1	SS1032516	Screw, Soc. Set 10-32 x 5/16
22	1	10109	Bushing, shaft feed rocker
23	1	31005	Lever, pin feed rocker
	1	SC54012	Screw, Soc. Cap 5-40 x 1/2
	1	H103234	Screw, Hex 10-32 x 3/4
	1	WF10	Washer, Flat #10
24	1	10215	Washer, Thrust
25	1	31023	Rod, connecting prim. Feed stroke
26	1	31006	Pin, rod feed stroke connect.

8.5

MAIN SHAFT ASSEMBLY



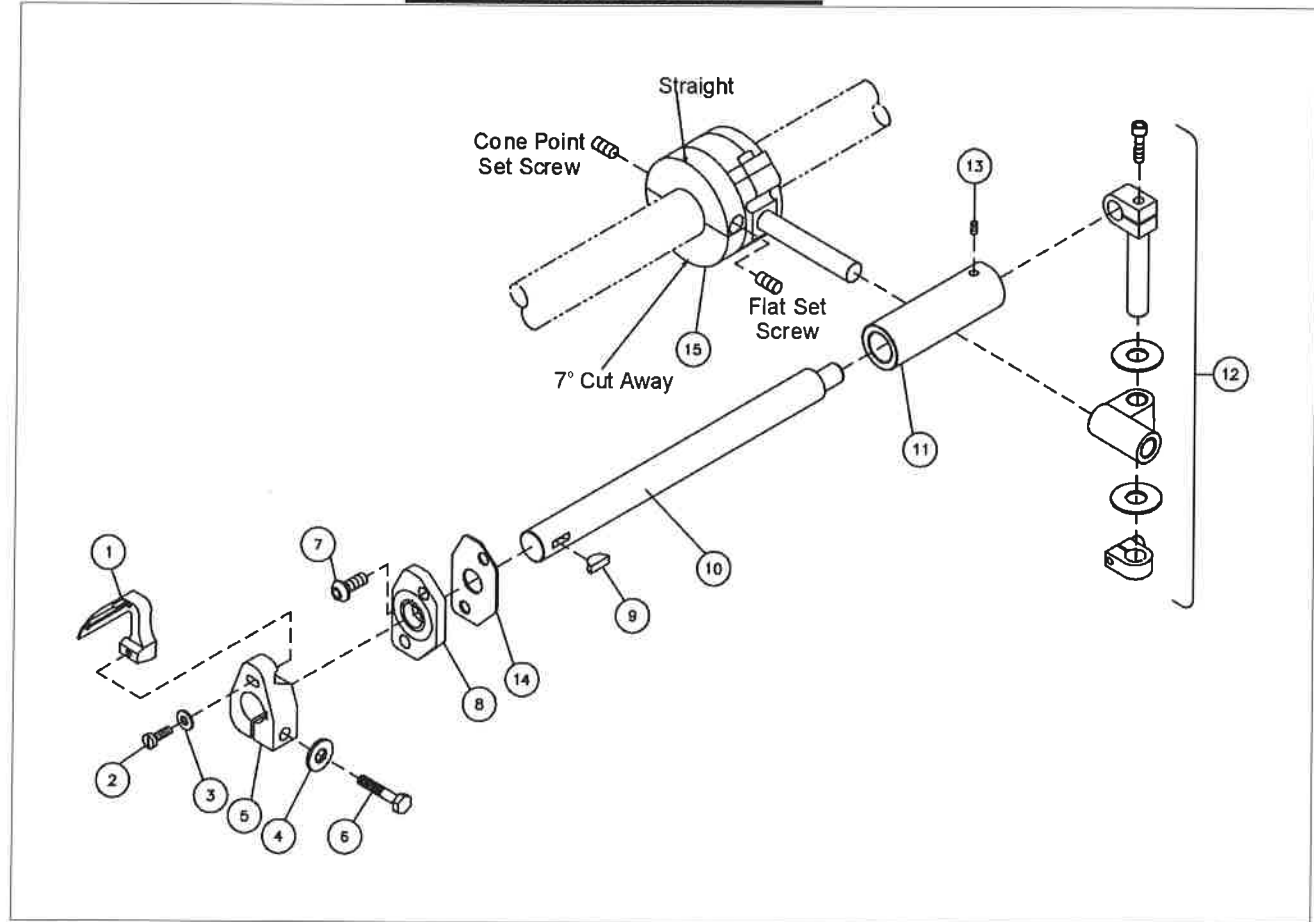
**FISCHBEIN® MODELS 100 & 101 EMPRESS™ SERIES SEWING HEAD
OPERATOR'S MANUAL**

Item No.	Quantity	Part No.	Description:
1	1	F83214	Screw, Flat #8-32 x ¼
2	1	31032	Stationary knife
3	1	31029	Moving knife
4	3	10089	Spring knife
5	4	H103212	Screw, Hex HD #10-32 x ½
6	1	15104	Assy, looper shaft seal
7	1	15105	Gasket, looper shaft seal
8	1	10085	Bracket, pivot knife
9	1	10087	Screw, pivot knife
10	1	11120	Washer, Lock
11	1	31016	Shaft, knife
12	1	10056	Bushing, shaft knife
13	1	SS103214CP	Screw, Soc. Set #10-32 x ¼ cone point
14	1	10086	Link, knife
15	1	10084	O-ring, Pump Body & Knife Plug
16	1	10083	Shaft, bell crank knife
17	1	WF10	Washer, Flat #10
18	1	10082	Crank, bell knife
	1	SS540316	Screw, Soc. Set #5-40 x 3/16
19	1	10080	Assembly, connecting rod knife
20	2	H103278	Screw, Hex HD #10-32 x 7/8
21	1	31015	Shaft, main
22	1	T3192	Key
23	1	10125	Plug, pipe mainshaft
24	1	31022	Bushing, mainshaft needle end
25	3	T3129	Washer, Thrust
26	1	31023	Rod, connecting prim. Feed stroke
27	1	31004	Eccentric, stroke feed
	1	15108	Screw, Soc. Set ¼-20 x 3/8
	1	15109	Screw, Soc. Set Cone Point ¼-20 x 3/8
28	1	31028	Gear, drive pump
29	1	SS832316CP	Screw, Soc. Set 8-32 x 3/16 cone point
30	1	15043	Collar, lock mainshaft
	REF		Screw, Soc. Cap HD 1/4-28 x 5/8
31	1	15032	O-ring, ¾ ID x 15/16 OD
32	1	P4024	Bearing, thrust
33	1	31021	Bushing, mainshaft drive end
34	1	10094	Gasket, mainshaft seal
35	1	10035	Assembly, seal mainshaft
36	1	10038	Hub, pulley
	2	15108	Screw, Soc. Set ¼-20 x 3/8
37	1	10199	Pulley, adjustable assembly
	2	SS142038	Screw, Soc. Set ¼-20 x 3/8
38	3	SF103258	Screw, Soc. Flat #10-32 x 5/8
39	4	SC103212	Screw, Soc. Cap #10-32 x ½
40	1	SS832316	Screw, Soc. Set #8-32 x 3/16
41	2	SB103212	Screw, Soc. BTTN #10-32 x ½
42	2	15108	Screw, Soc. Set ¼ - 20 x 3/8

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8.6

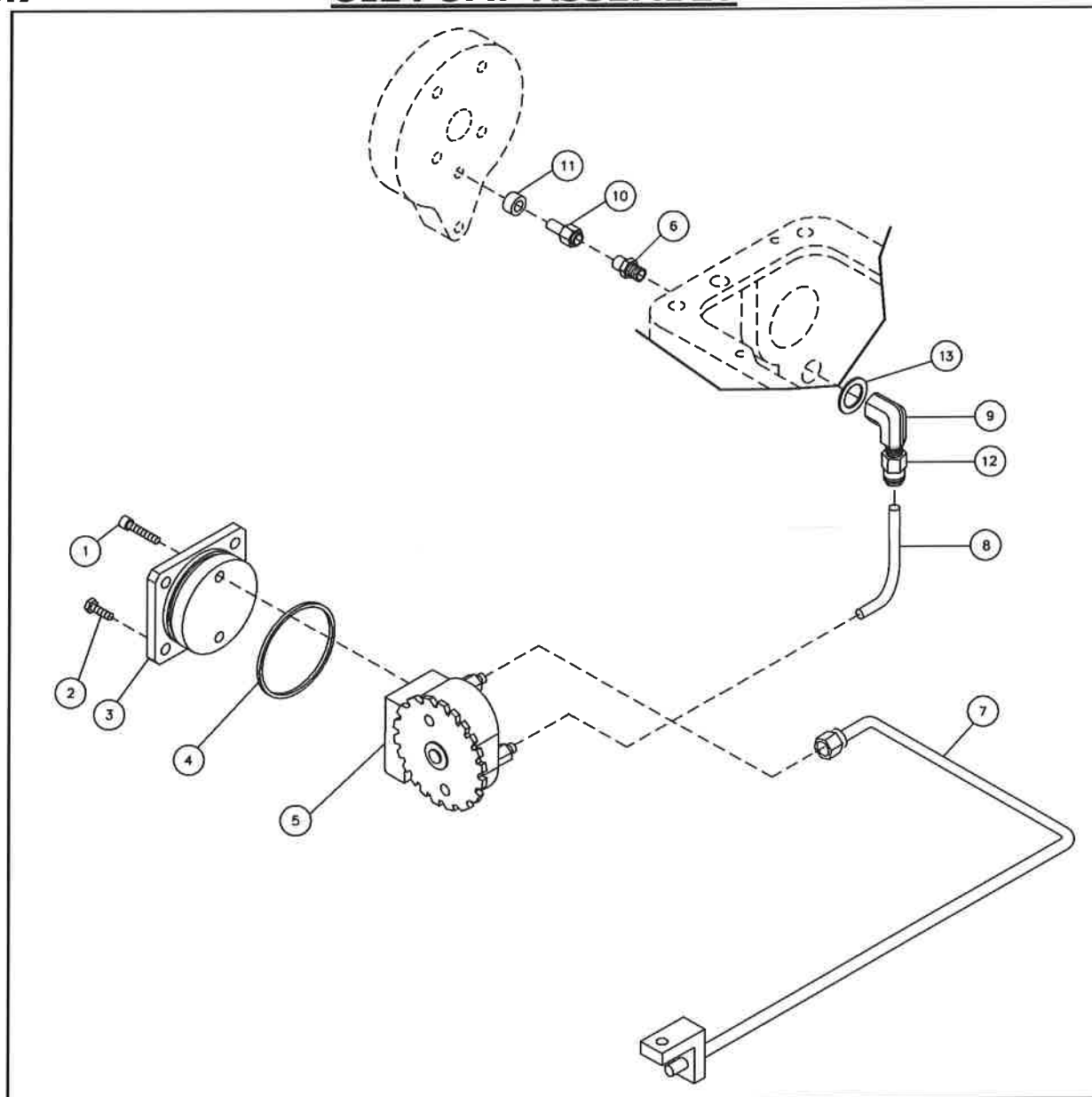
LOOPER ASSEMBLY



Item No.	Quantity	Part No.	Description:
1	1	10060	Looper
2	1	SC54012	Screw, Soc Cap 5-40 x 1/2 UNC
3	1	WF5	Washer, Flat 5
4	1	WF10	Washer, Flat 10
5	1	10059	Holder, Looper
6	1	H103234	Screw, Hex 10-32 x 3/4
7	2	SB103212	Screw, Soc. BTTN 10-32 x 1/2
8	1	15104	Assembly, Seal, Knife Shaft
9	1	T3192	Key
10	1	31013	Shaft, Looper
11	1	10056	Bushing, Shaft Looper
12	1	10173	Assembly, Pivot Looper
	2	15066	Washer, Thrust
	1	15065	Clamp
	1	15039	Pin, Pivot Looper
	1	10153	Knuckle, Pivot Looper
	1	SC103258	Screw, Soc. Cap 10-32 x 5/8
13	1	SS103214CP	Screw, Soc. Set 10-32 x 1/4 cone point
14	1	15105	Gasket, Looper Shaft Seal
15	1	31018	Assembly Cam, Looper
	1	SS103258CP	Screw, Soc. Set Cone Point 10-32 x 5/8
	1	SS103212	Screw, Soc. Set 10-32 x 1/2

8.7

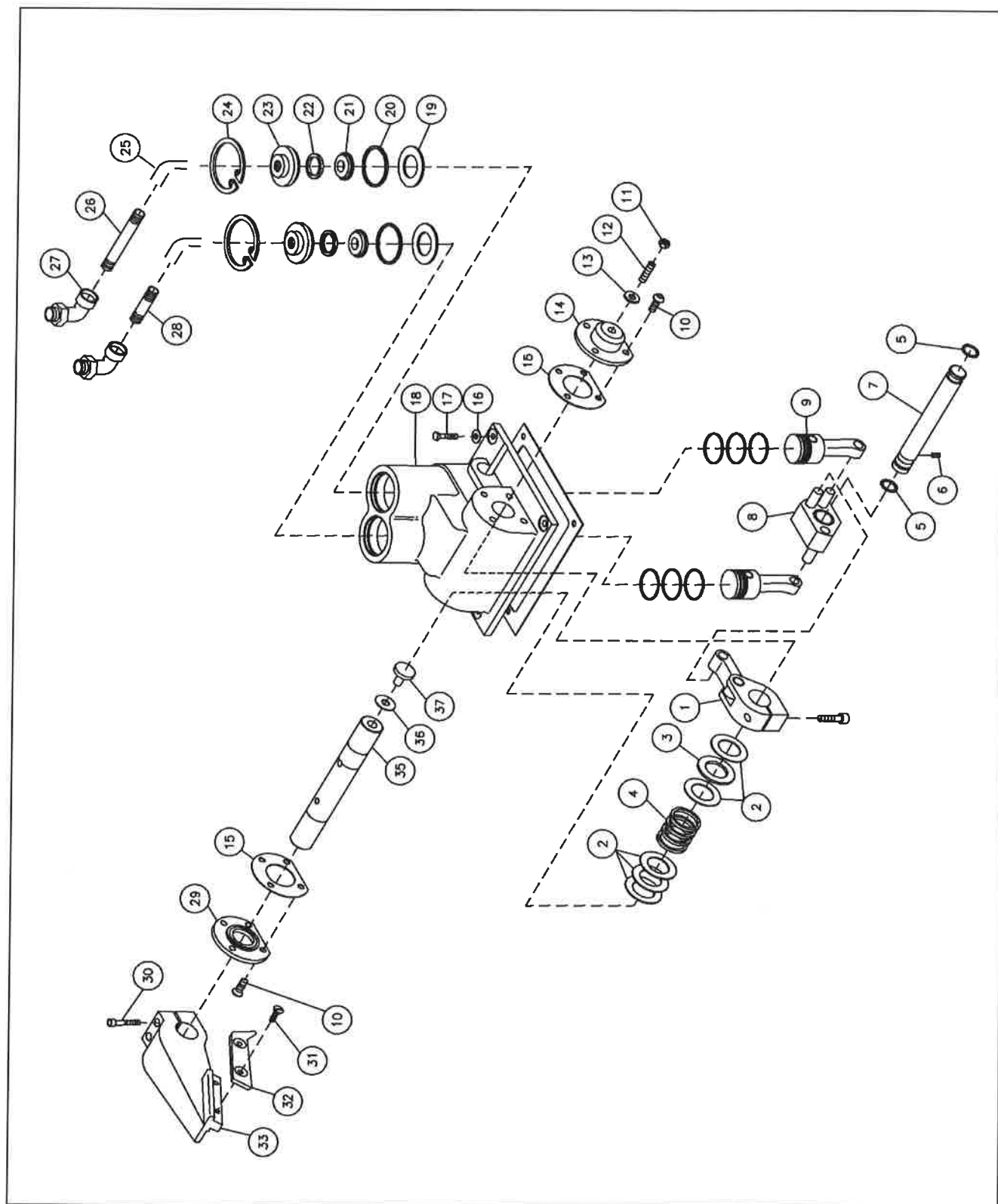
OIL PUMP ASSEMBLY



Item No.	Quantity	Part No.	Description:
1	2	SC103278	Screw, Soc. Cap 10-32 x 7/8
2	4	H103212	Screw, Hex HD 10-32 x 1/2
3	1	15015	Mount Pump
4	1	10084	O-ring
5	1	31096	Assembly, Gear Pump (modified)
6	REF	15059	Fitting, Male Conn 1/8 M X 1/4 T (Part of 15088)
7	1	15050	Assy, Oil Line - Intake
8	3.5 in (89mm)	67735	Tubing, Hydraulic 1/4 OD X .170 ID
9	1	66085	Fitting, Elbow 1/8 F X 1/8 F
10	1	15088	Tubing, copper (includes item #6)
11	1	A1882	Bushing, Neoprene
12	1	67733	Fitting, Conn. 1/8 MNPT X 1/4 T(SP)
13	1	15077	Washer, Nylon Special

8.8

TAPE CLIPPER (31035)



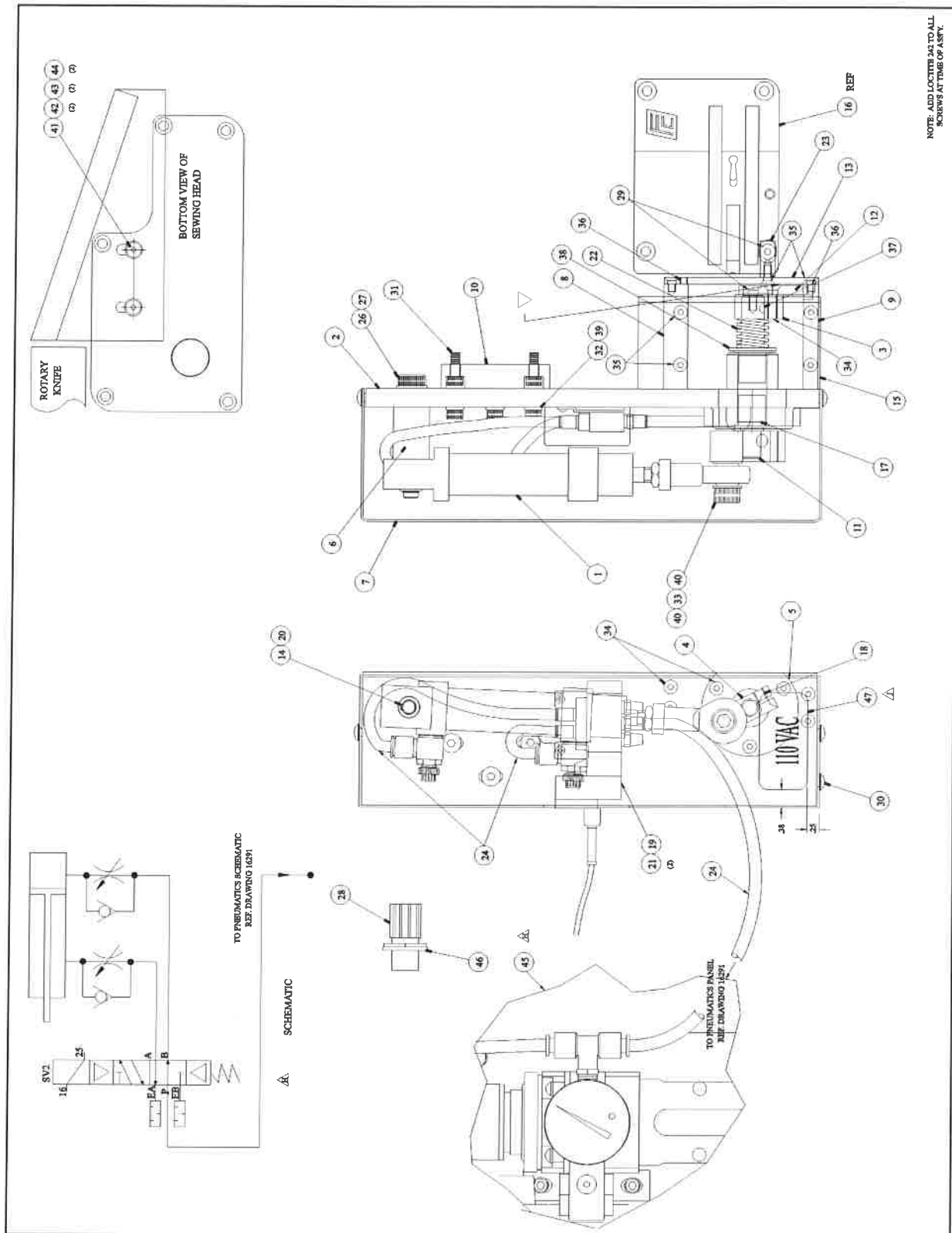
**FISCHBEIN® MODELS 100 & 101 EMPRESS™ SERIES SEWING HEAD
OPERATOR'S MANUAL**

Item No.	Quantity	Part No.	Description:
1	1	10447	Assembly, Lever Cutter
	1	SC14201	Screw, Soc. Cap ¼-20 x 1 Locking
2	5	T3129	Washer, Thrust
3	1	P4024	Bearing, Thrust
4	1	10424	Spring, Compression
5	2	10420	O-ring-Crankshaft
6	1	SS1032316	Screw, Soc. Set 10-32 x 3/16
7	1	10419	Crankshaft
8	1	10404	Assembly, Crank
9	2	10458	Assembly, Piston-Tape Clipper
	4	10398	Ring, Backup
	2	10399	U-Cup
10	4	SB103214	Screw, BTTN 10-32 x ¼
11	1	NH1428	Nut, Hex ¼-28
12	1	10440	Screw, Adjusting
13	1	10052	Washer, Nylon
14	1	10430	Plate, Cover
15	2	10429	Gasket
REF	1	10092	Gasket, Cover-Top
16	4	10438	Washer, Compression
17	4	H103258	Screw, Hex 10-32 x 5/8
18	1	31036	Housing, Cutter
19	2	10406	Washer, Head Cylinder
20	2	10409	O-ring, Cylinder Head
21	2	10407	Plate, Bumper
22	2	10408	Ring, Bumper
23	2	10410	Head, Cylinder
24	2	10411	Ring, Snap
25	2	P4957	Fitting, Elbow Street
26	1	P4944	Fitting, Nipple Long
27	2	P4962	Fitting, Elbow Female
28	1	P4943	Fitting, Nipple Short
29	1	10403	Assembly, Seal-Shaft
30	2	SC1420114	Screw, Soc. Cap 1/4-20 x 1 ¼
31	2	F103212	Screw, Flat 10-32 x ½
32	1	10443	Knife, Moving
33	1	10432	Lever, Knife
34			
35	1	10426	Shaft, Knife
36	1	10428	Washer, Thrust
37	1	10427	Shaft, Thrust

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8.9

ROTARY AIR KNIFE (31130) (110 VAC)



**FISCHBEIN® MODELS 100 & 101 EMPRESS™ SERIES SEWING HEAD
OPERATOR'S MANUAL**

Item No.	Quantity	Part No.	Description
1	1	31101	KIT, AIR CYLINDER ASSY
2	1	31131	PLATE, SUPPORT
3	1	31103	HUB, MOVABLE KNIFE MOUNTING
4	1	31104	LEVER, AIR CYLINDER DRIVE
5	1	31105	HUB, DRIVESHAFT SUPPORT
6	1	31106	PIN, AIR CYLINDER PIVOT
7	1	31132	COVER
8	1	31108	BRACKET, UPPER FIXED BLADE
9	1	31109	BRACKET, LOWER FIXED BLADE
10	1	31110	BLOCK, MOUNTING
11	1	31111	SHAFT, MOVABLE KNIFE
12	1	31112	BLADE, MOVABLE KNIFE
13	1	31113	BLADE, FIXED KNIFE
14	1	15066	WASHER, THRUST-.312 ID X .750
15	1	31115	COVER, SIDE
16	REF	31037	PLATE, THROAT (STD)
16	REF	31038	PLATE, THROAT (LONG STITCH)
17	2	31117	BEARING, DU FLANGED
18	1	SFM510	SCREW, SOC FLAT M5 X 10mm
19	1	31128	KIT, SOLENIOD
20	1	31120	E-RING, CIRCLIP D8
21	2	PHM258	SCREW, PAN HD M2.5 X 8mm
22	1	31122	SPRING, COMPRESSION
23	1	31123	BLOCK, MOUNTING THROAT PLATE
24	6.0 FT	31129	TUBING, POLYURETHENE, GREEN, 6mm
25			
26	1	WFM10	WASHER, FLAT M10
27	1	SCM1022	SCREW, HEX M10 X 22mm
28	1	16035	CORDGRIP, 1/2NPT
29	2	SFM412	SCREW, SOC FLAT M4 X 12mm
30	3	SBM510	SCREW, SOC BUTTON M5 X 10mm
31	4	SC103278	SCREW, SOC CAP #10-32 UNF X 7/8
32	4	SCM618	SCREW, SOC CAP M6 X 18mm
33	1	SCM825	SCREW, SOC CAP M8 X 25mm
34	8	SFM416	SCREW, SOC FLAT M4 X 16mm
35	7	SFM48	SCREW, SOC FLAT M4 X 8mm
36	4	SSM46	SCREW, SOC SET M4 X 6mm
37	2	T3192	KEY, WOODDRUFF

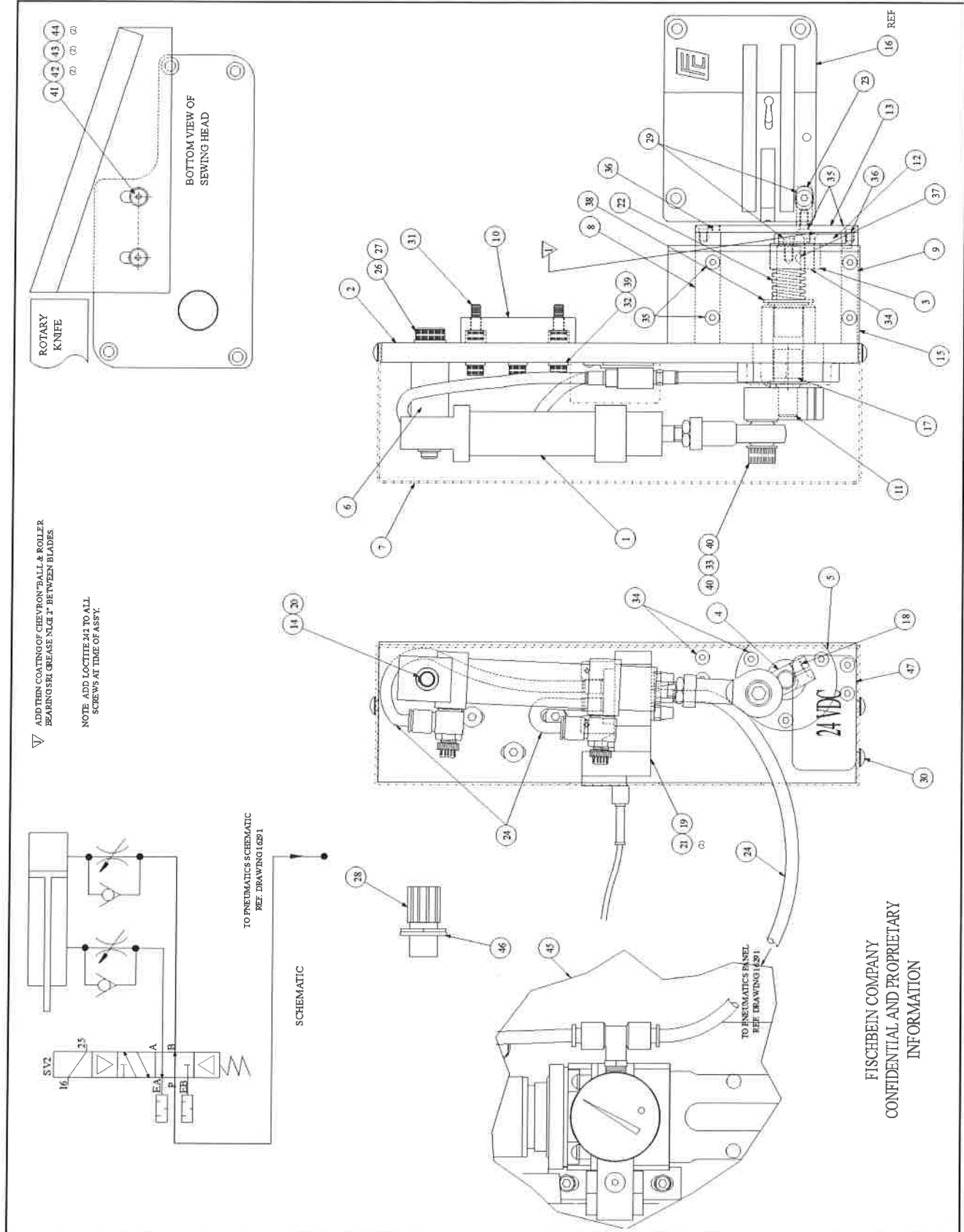
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**FISCHBEIN® MODELS 100 & 101 EMPRESS™ SERIES SEWING HEAD
OPERATOR'S MANUAL**

Item No.	Quantity	Part No.	Description
38	1	WFM12	WASHER, FLAT M12
39	4	WFM6	WASHER, FLAT M6
40	2	WFM8	WASHER, FLAT M8
41	1	31156	GUIDE, AIR KNIFE BAG
42	2	SC103238	SCREW, SOC CAP #10-32 UNF X 3/8
43	2	WF10	WASHER, FLAT #10
44	2	WL10	WASHER, LOCK #10
45	REF	16291	DWG, PNEU SCHEM STD NEEDLE COOLER
46	1	P4139	SEAL, MOISTURE (1/2")
47	1	31158	LABEL, VOLTAGE (110 V)

8.10

ROTARY AIR KNIFE (31165) (24 VDC)



**FISCHBEIN® MODELS 100 & 101 EMPRESS™ SERIES SEWING HEAD
OPERATOR'S MANUAL**

Item No.	Quantity	Part No.	Description
1	1	31101	KIT, AIR CYLINDER ASSY
2	1	31131	PLATE, SUPPORT
3	1	31103	HUB, MOVABLE KNIFE MOUNTING
4	1	31104	LEVER, AIR CYLINDER DRIVE
5	1	31105	HUB, DRIVESHAFT SUPPORT
6	1	31106	PIN, AIR CYLINDER PIVOT
7	1	31132	COVER
8	1	31108	BRACKET, UPPER FIXED BLADE
9	1	31109	BRACKET, LOWER FIXED BLADE
10	1	31110	BLOCK, MOUNTING
11	1	31111	SHAFT, MOVABLE KNIFE
12	1	31112	BLADE, MOVABLE KNIFE
13	1	31113	BLADE, FIXED KNIFE
14	1	15066	WASHER, THRUST-.312 ID X .750
15	1	31115	COVER, SIDE
16	REF	31037	PLATE, THROAT (STD) LO-SP
16	REF	31038	PLATE, THROAT (LONG STITCH) LO-SP
17	2	31117	BEARING, DU FLANGED
18	1	SFM510	SCREW, SOC FLAT M5 X 10mm
19	1	31162	KIT, SOLENIOD, 24VDC
20	1	31120	E-RING, CIRCLIP D8
21	2	PHM258	SCREW, PAN HD M2.5 X 8mm
22	1	31122	SPRING, COMPRESSION
23	1	31123	BLOCK, MOUNTING THROAT PLATE
24	6.0 ft (1,83M)	31129	TUBING, POLYURETHENE, GREEN, 6mm
25			
26	1	WFM10	WASHER, FLAT M10
27	1	SCM1022	SCREW, HEX M10 X 22mm
28	1	16035	CORDGRIP, 1/2NPT
29	2	SFM412	SCREW, SOC FLAT M4 X 12mm
30	3	SBM510	SCREW, SOC BUTTON M5 X 10mm
31	4	SC103278	SCREW, SOC CAP #10-32 UNF X 7/8
32	4	SCM618	SCREW, SOC CAP M6 X 18mm
33	1	SCM825	SCREW, SOC CAP M8 X 25mm

FISCHBEIN® MODELS 100 & 101 EMPRESS™ SERIES SEWING HEAD
OPERATOR'S MANUAL

Item No.	Quantity	Part No.	Description
34	8	SFM416	SCREW, SOC FLAT M4 X 16mm
35	7	SFM48	SCREW, SOC FLAT M4 X 8mm
36	4	SSM46	SCREW, SOC SET M4 X 6mm
37	2	T3192	KEY, WOODDRUFF
38	1	WFM12	WASHER, FLAT M12
39	4	WFM6	WASHER, FLAT M6
40	2	WFM8	WASHER, FLAT M8
41	1	31156	GUIDE, AIR KNIFE BAG
42	2	SC103238	SCREW, SOC CAP #10-32 UNF X 3/8
43	2	WF10	WASHER, FLAT #10
44	2	WL10	WASHER, LOCK #10
45	REF	16291	DWG, PNEU SCHEM STD NEEDLE COOLER
46	1	P4139	SEAL, MOISTURE (1/2")
47	1	31148	LABEL, VOLTAGE (24 VDC)

9. MACHINE SET UP PARTS LISTS

9.1 MODEL 100

<u>PRESSER FOOT</u>		<u>THROAT PLATE</u>	<u>FEED DOG</u>
Std. Curved (Replacement)	10185	10017	10078 (4 Ctr. Teeth)
Std. Curved Assembly	10157	10017	10078
Includes Presser Foot	10185		
Shank	10155		
Block	10156		
Bolt	10182		
Nut	11309		
2" Stitch		10018	10079 (3 Ctr. Teeth)
Filler Cord (R/C)	10285	10017	10078
2" Stitch	10285	10018	10079
Moving Knife Blade (Std.)	31029		
Stationary Knife (Std.)	31032		
Two Thread Looper	10060		
Needles	C100-S	Square Point for Paper	
	C100-RP	Round Point used for woven poly, burlap.	
	C80-S	0.08" Diameter Square Point	

9.2 MODEL 101

<u>PRESSER FOOT</u>		<u>THROAT PLATE</u>	<u>FEED DOG</u>
Std. Wide Tape (2" – 2 1/2")	10484	10485	10486
Std. Wide Tape Assy.	10481	10485	10486
Includes Presser Foot	10484		
Shank	10155		
Block	10156		
Bolt	10182		
Nut	11309		
Narrow Tape (1 1/4" – 1 1/2")	10494	10495	10496
Narrow Tape Assy.	10490	10495	10496
Includes Presser Foot	10494		
Shank	10498		
Block	10497		
Bolt	10499		
Nut	11309		
Medium Tape (1 7/8") (Pull Tape Same Parts)	10562	10485	10565
Wide Pull Tape (Base Only)	10558	10485	10486
Narrow Pull Tape (Base Only)	10553	10485	10496
Tape or Chain (Brussels Only)	10479	10489	10491
Two Thread Looper	10060		
Single Thread Looper	10208		
Needles	C100-S C100-RP C80-S	Square Point for paper (.100") Round Point for woven poly, burlap 0.08" Diameter Square Point	
Throat Fence	10449		
Moving Knife	10443		
Bed Knife	10446		

10. SAFELY DISPOSING OF A SEWING HEAD

If a Fischbein sewing head becomes damaged beyond repair or simply worn to a nonfunctional state after years of service, it should be taken out of service only after it is safe to dispose of it. First, drain all the oil out of the machine as described in section 2.4 of this manual. Dispose of the oil according to your appropriate local environmental regulations. After the oil has been drained and disposed of, bring the sewing head to a recycling center or metal scrap facility.