

INSTRUCTIONS AND PARTS BOOK
FOR

Columbia

HIGH SPEED, SINGLE NEEDLE,
REVERSE FEED
LOCKSTITCH MACHINE
MODEL N430-2

MANUFACTURED FOR
AND
DISTRIBUTED BY
Union Special
CORPORATION

400 N. FRANKLIN STREET
CHICAGO U. S. A.
60610

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*Dany Smith
at Unispecial*

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• Revised Jan. 1, 1981

Applies particularly to machines after serial NO.U340586

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INSTRUCTIONS FOR HIGH SPEED INDUSTRIAL SEWING MACHINE

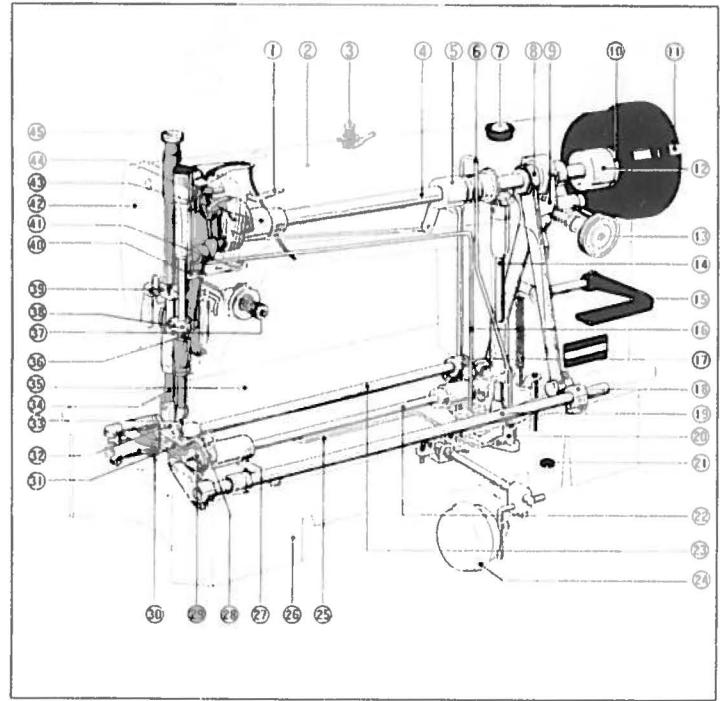
This booklet is a guide to the proper use of the high speed industrial sewing machine. This single needle lock stitching machine is specially designed for operation at 4,500 stitches a minute and has an automatic oiling system.

The main parts of this machine is made of special steel.

In this lubricating system, oil is automatically supplied to the major moving parts enabling a continuous operation of the machine at greatest efficiency without fear of overheating.

SPECIFICATIONS

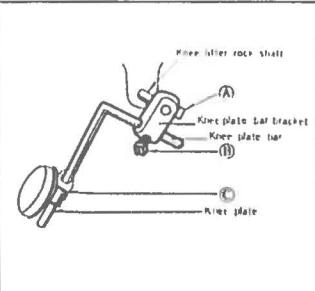
Sewing material	General cloth
Recommended top speed	4,500 s.p.m.
Needle bar stroke	30.5 mm
Thread take-up	Link motion type
Stitch length	0 - 4mm
Stitch length adjustment	Dial regulator type
Reverse sewing	Spring return lever type
Presser bar stroke	13 mm
Lubrication	Full automatic force feed lubrication
Oil check window	Oil jet indicating type
Oil back flow device	Plunger pump type
Oil tank	Separate from the head
Rotating hook	Full rotating automatic oiling high speed hook
Lubrication for hook	Adjustable screw type
Knee lift device	Link type built-in arm
Lubrication oil	White spindle oil



III Mounting & Adjustment of knee lifter

1) How to mount:

- (1) Mount the oil reservoir on table board.
- (2) Mount the knee plate bar bracket to the end of the knee lifter rock shaft by bolt (A).
- (3) Insert the shorter part of knee plate bar into the hole of knee plate bar bracket and tighten the bolt (B).
- (4) Then tighten the knee plate by bolt (C) as shown in Fig.

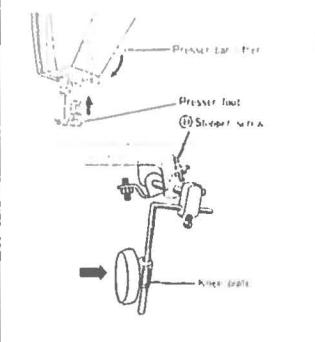


- o Place the machine head onto the oil tank on which the knee lifter mechanism is mounted, and move the knee plate to right and left so that the presser foot lifts and down accordingly.
- o Adjustable screws (D) & (E) fixed on the knee lifter rock shaft crank are for purpose of adjustment of the knee lifter operation to be not worked excessively. Please adjust that screws properly.

2) How to adjust:

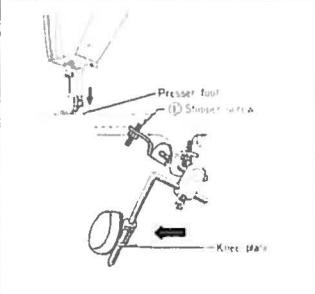
o Screw D:

- (1) Lift the presser foot by the presser bar lifter fixed on the machine head.
- (2) Move the knee plate of knee lifter mechanism to right so that the presser foot lifts slightly.
Then stop moving the knee plate at the position where the presser bar lifter moves downwards naturally.
- (3) At the same time, adjust the screw (D) so that the tip of screw would come in contact with the oil tank.



o Screw E:

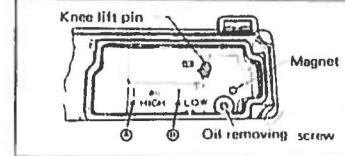
- (1) Release the knee plate slowly from right to the former position.
- (2) Stop the knee plate at the position where the presser foot comes in contact with the needle plate.
- (3) At the same time, adjust the screw (E) so that the tip of screw would come in contact with the oil tank.



- 4 -

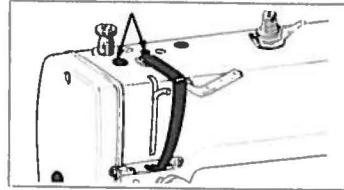
1 Lubrication-1

Before starting to operate pour oil up to the position(A) of oil tank. While operating you are requested to check the oil volume periodically, and in case of oil volume would come less than the position (B) replenish oil up to the position(A).



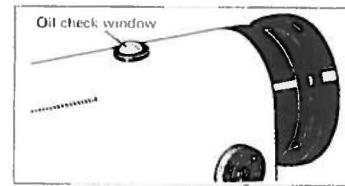
2 Lubrication-2

When starting to sew initially and after kept idle for a long time without using it is essential to oil enough through the oil holes in the red colored rubber plugs.



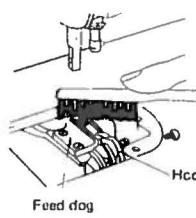
3 Condition of oil lubrication

While operating the machine it is necessary to check the condition of oil lubrication through the oil check window.

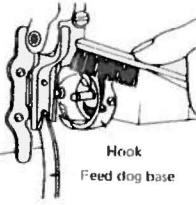


4 Periodical cleaning *Remove the throat plate and clean the feed dog.

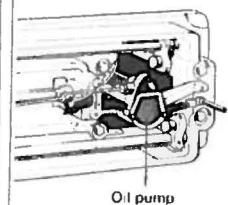
* Remove the throat plate and clean the feed dog.



* Tip back the machine head and clean the hook.



* Tip back the machine head and clean the oil pump screen.

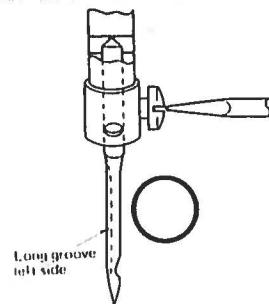


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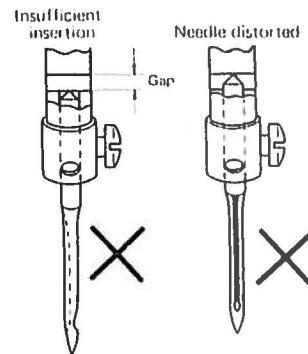
How to use the machine

1) How to insert needle.

Insert the needle upto the bottom of needle clamp and tighten the screw keeping the long groove side of needle toward the left.



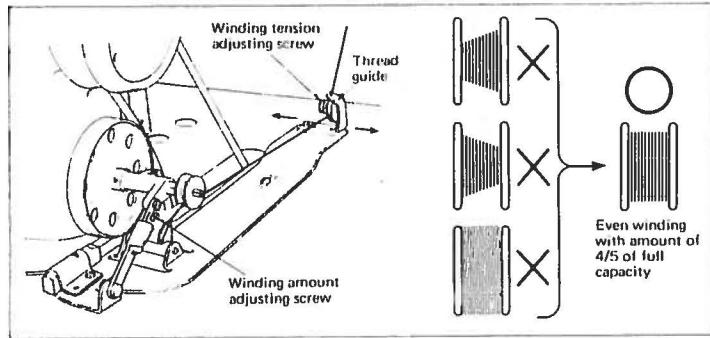
Note: Before making the following adjustment, switch off the power source.



2) How to operate the bobbin winder.

Note: In the event it is necessary to run the machine without material, raise the presser foot to avoid contact with feed dog.

- Adjustment:**
- Thread tension — Particularly in case of nylon or synthetic thread, it is desirable that the bobbin be wound loosely.
 - Uneven winding — In case of uneven winding, adjust the thread guide slightly toward the least wound part of bobbin to obtain even winding.
 - Adjustment for bobbin fullness
 - If the bobbin is too full, turn adjusting screw counterclockwise.
 - If the bobbin is not full enough, turn adjusting screw clockwise.

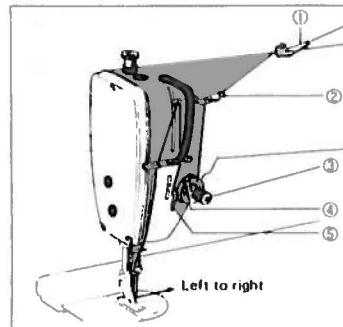


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How to use the machine

3) Threading

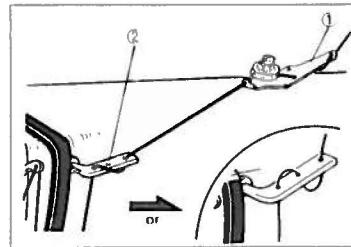
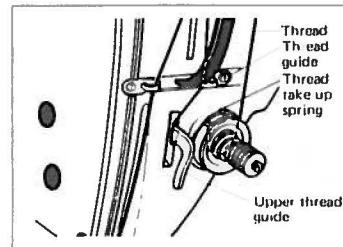
Raise the thread take-up lever to its highest position and thread the upper thread in the following order.



5) Adjustment of thread guide

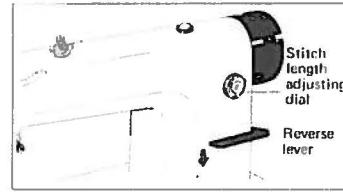
Adjustment of the position of the thread guide influence tightness of stitches, adjust the attaching position of the thread guide according to materials to be sewn and sewing specifications.

Thread guide position	1	2	3
	Left	Center	Right
Material weight	Heavy	Medium	Light



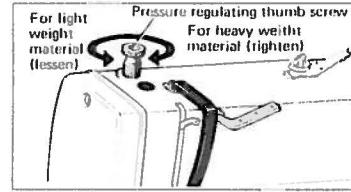
4) Adjustment of stitch length & reverse lever

Note: For desired stitch length, push the reverse lever downward and adjust by stitch length adjusting dial.



6) Adjustment of presser foot pressure

Pressure on the presser foot is to be adjusted in accordance with materials to be sewn.



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How to use the machine

7) How to use the machine:

- (1) Lift the presser foot.
- (2) Holding the end of the upper thread with left hand and turn the hand wheel slowly.
- (3) After 1 rotation of the hook, the upper thread is pulled out drawing the lower thread through the hole of the throat plate shown in Fig.
- (4) Pull the lower thread to over and under of the presser foot as shown in Fig.

- (5) Place material to be sewn under the needle.
- (6) Turn the hand wheel toward you so that the needle enters the material.
- (7) Then lower the presser foot and start to sew.

When starting to sew, please pull out approx 10 cm of needle thread so the thread will not be pulled out of the needle eye.

Remember that if you start to sew rapidly from the beginning after dropping the present foot, the thread may break.

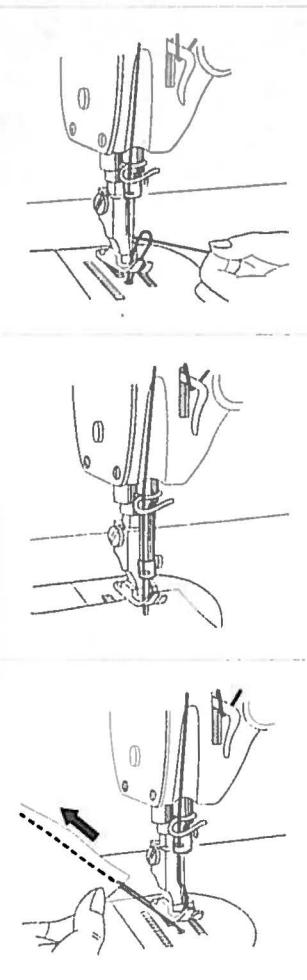
The first 4-5 stitches should be sewn slowly and then increase the speed gradually.

8) How to Remove Material after Stitching or Chaining off:

- (1) When sewing off, the take-up lever should be lift at its highest position.
- (2) Lift the presser foot.
- (3) Pull out the sewn fabric diagonally to the left.
- (4) Trim both of the upper and lower thread.

If the take-up lever is down and the fabrics is removed, the upper thread will be cut by hook, and the needle will be bent & the hook damaged.

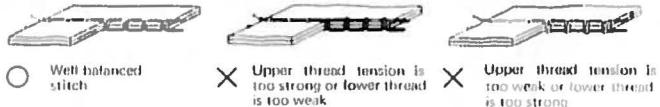
When sewing-off, it is recommended that the upper thread pulled out about 10cm length for ease in starting the next garment.



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How to use the machine

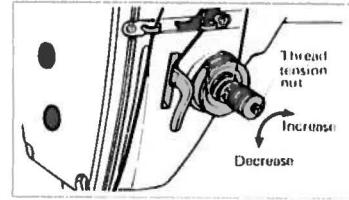
9) Adjustment of thread tension:



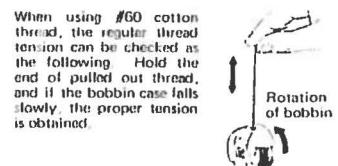
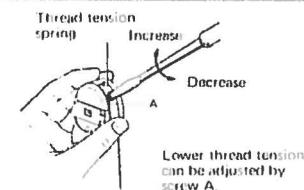
10) Upper thread tension:

- ** Upper thread is adjusted according to the lower thread tension.
- ** Upper thread tension is adjusted by tension regulating thumb nut.

For sewing on special fabric with special thread, the desired tension can be obtained by adjusting the height and tension of the thread take up spring.



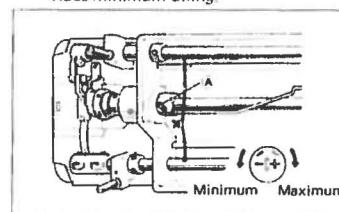
11) Bobbin thread tension:



12) Adjustment of hook oil lubrication:

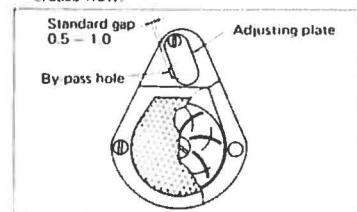
Adjustment is made by loosening the screw 'A' within the range of five turns.

- * Tightening the screw provides maximum oiling.
- * Loosening the screw five times provides minimum oiling.



13) Adjustment of oil pump:

For normal sewing, it is necessary to adjust the oil pump flow, however when sewing at low speed, check: oil flow at window on top of machine arm, closing the oil by pass hole of the pump will increase flow.



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14) Adjustment of timing to open tension disc of upper thread tension regulator

The tension release pin may be adjusted so that thread tension is relaxed when the Presser Foot is raised (adjustable from 2 - 7 mm in height.)
Use following instruction.

1. Remove the rubber plug and loosen the screw A.

2. Move the thread tension releasing cam to the right or the left.

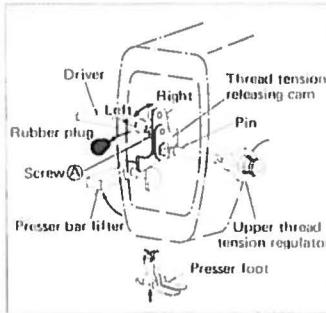
Positioned to the right... slow

Positioned to the left quick

3. Tighten the screw A after the opening condition of the thread tension disc has been checked.

(Note)

To aid adjustment, place a piece of material under Presser Foot which has same thickness as the height of Presser Foot (2 - 7 mm) when the thread is desired to release.
Tighten the screw A securely after adjustment.



Problem	Cause	Solution
Skip stitches	(1) Needle *Bent *Not proper size for thread	Change needle. Replace needle with one of proper size.
	(2) Wrong needle *Needle not inserted all the way *Needle twisted *Needle in backwards	Replace with proper needle. Insert as per instructions Page 2, Item 1.
Loose stitch on top	- Needle thread too tight. - Bobbin thread too loose.	Loose needle thread tension. Tighten bobbin thread tension.
Loose stitch on bottom	- Needle thread too loose. - Bobbin thread too loose.	Tighten needle thread tension. Tighten bobbin thread tension.
Breaking thread	- Needle thread tension too tight. - Lint between tension disc. - Excessive or uneven winding bobbin. - Lint deposits in bobbin case. - Damaged thread tension spring on bobbin case. - Bobbin inserted wrong into bobbin case. - Incorrect threading	Loosen needle thread tension. Remove tension discs and clean. Rewind correctly with the bobbin wound to 4/5 of its full capacity. Remove and clean with brush. Replace. Replace bobbin, so it rotates clock- wise when the bobbin thread is pulled out. Check threading diagram
Puckering	(1) Needle and thread too big for fabric	Change to proper size needle and thread.
	(2) Thread tensions not balanced.	Adjust tensions until a uniform stitch is obtained.
	(3) Too much pressure on presser foot	Loosen pressure.

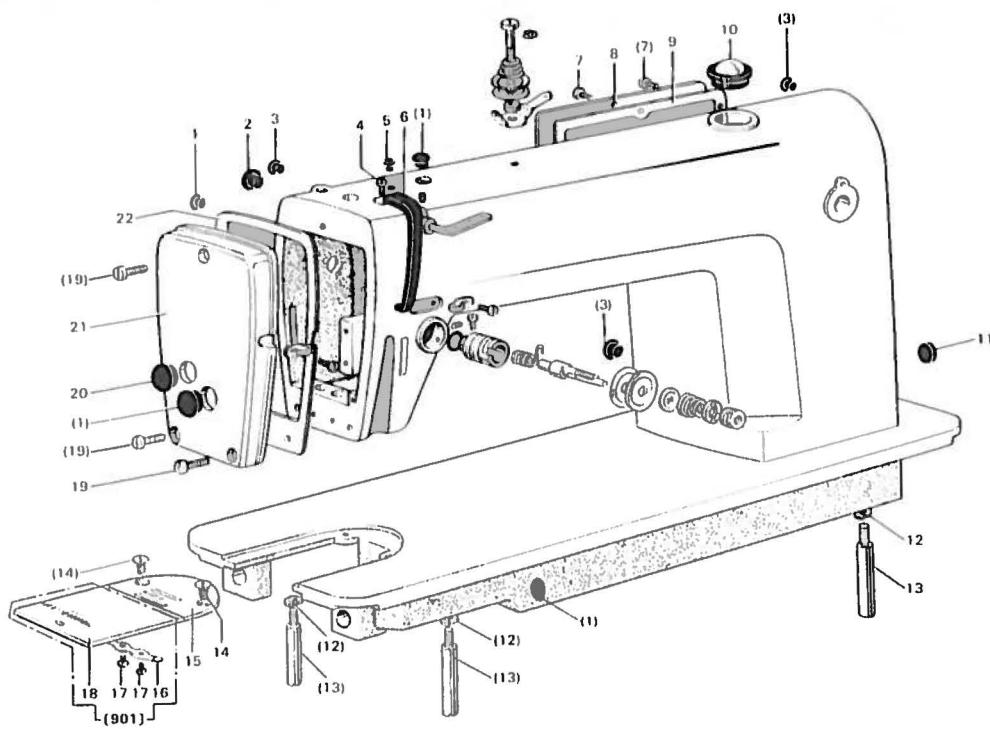
PARTS BOOK
FOR
HIGH SPEED, SINGLE NEEDLE,
LOCK STITCH MACHINE
MODELS N430-2 & N430-3

Remarks: When ordering parts, be sure to include model number, parts number and its figure number.

- Revised Jan. 1: 1981
- Applies particularly to machines after serial No. U-340586.

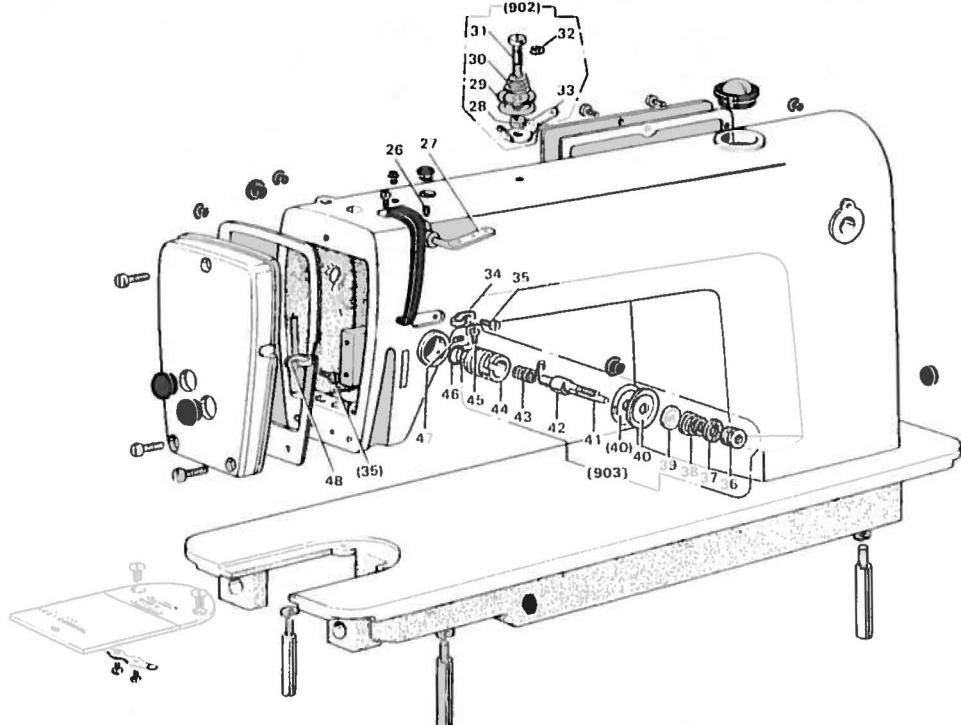
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ARM BED & ITS ACCESSORIES



ARM BED & ITS ACCESSORIES

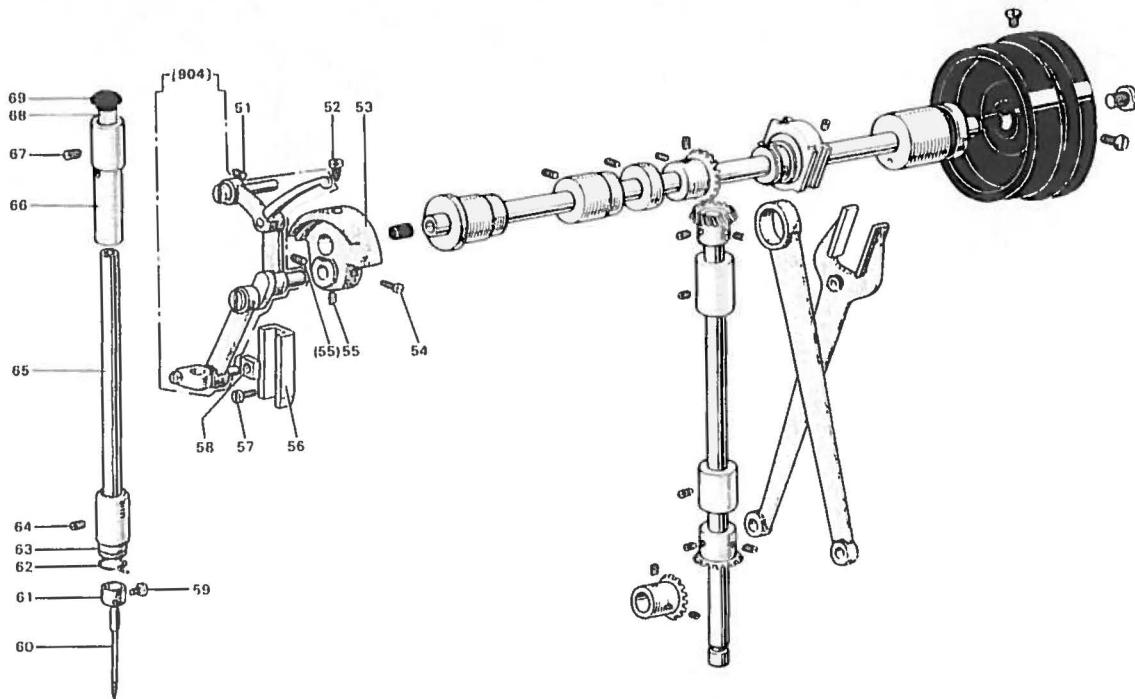
Fig. No.	Parts No.	Ref. No.	Description	Amt. Req.
1	M9 1180 080	W502069H01	Rubber plug (ø11.8)	4
2	M9 1900 080	W501374H01	Rubber plug (ø19)	1
3	M9 0880 080	W501320H01	Rubber plug (ø8.8)	3
4	M9 1107 002	W500092H01	Screw 11/64(40)x5.5	1
5	M9 0570 080	W502078H01	Rubber plug (ø5.7)	1
6	MF 10A0 584	W468291H01	Thread take-up cover	1
7	M9 1101 004	W466810H01	Screw 11/64(40)x8	8
8	MF 80A0 880	W344943H01	Arm side cover	1
9	MF 80A0 691	W344944H01	Gasket for arm side cover	1
10	MF 20A0 135	P 674006X01	Oil check window	1
11	M9 2700 080	W486306H01	Rubber plug (ø 27)	1
12	M9 0621 053	S 561111H02	Spring washer for leg #6	3
13	MF 10A0 151	W452343H01	Leg	3
14	M9 1104 011	B508843H01	Screw 11/64(40)X7	2
15	MF 20A0 101	W326216H01	Needle plate (Regular);	1
	MF 11D1 101	W328830H01	Needle plate (Chain off)	1
16	MF 10A0 471	B 419207H01	Spring for slide plate	1
17	M9 0604 002	B 509070H01	Screw 3/32(56)X2.2	2
18	MF 70A0 470	W462712H02	Slide plate	1
901	MF 70E0 470	ZM00046	Slide plate complete	1
19	M9 1102 004	W467880H01	Screw 11/64(40)X10	3
20	M9 5002 080	W472710H01	Rubber plug (ø 19)	1
21	MF 20A0 830	W331470H01	Face plate	1
22	MF 70A2 691	W470264H02	Gasket for face plate	1



ARE BED & ITS ACCESSORIES

Fig. No.	Parts No.	Ref. No.	Description	Amt. Req.
26	M9 1108 001	B 503846H01	Set screw 11/64(40)X5.5	1
27	MF 10A0 180	B 409034H01	Three hole thread guide	1
28	MF 20A0 476	W470268H01	Spacer for pre-tension	1
29	MF 10A1 555	W501636H01	Tension discs for pre-tension	2
30	MF 20A0 245	W475419H01	Tension spring for pre-tension	1
31	M9 1104 016	W470267H01	Screw type tension stud	1
32	M9 0503 065	S 592411H03	E-type stop ring #3	1
33	MF 70A0 180	W481446H01	Thread guide for pre-tension	1
902	MF 70E0 550	W341647G01	Pre-tension complete	1
34	MF 80A0 181	W483484H01	Thread guide for arm center	1
35	M9 0909 003	W501901H01	Screw 9/64(40)X6	2
36	M9 1608 046	W476469H01	Thumb nut for thread tension regulator	1
37	MT 60A0 802	W476470H01	Thumb nut revolution stopper	1
38	MN 10A3 245	W461785H01	Thread tension spring	1
39	MM 11A0 556	W477611H01	Thread tension releasing discs	1
40	MF 10A0 555	W444059H01	Thread tension discs	2
41	M9 0204 060	B 509216H01	Thread tension releasing pin	1
42	MF 10A0 553	B 419178H01	Thread tension stud	1
43	MF 80A1 187	W486372H01	Thread take-up spring	1
44	MF 10A0 709	W453140H01	Thread tension regulating bushing	1
45	M9 0901 002	W500741H01	Set screw 9/64(40)X4	1
46	M9 1501 085	P 648001X01	Rubber ring S15	1
47	M9 1508 001	B 509088H01	Set screw 15/64(28)X8	1
48	MF 10A0 181	W452151H01	Thread guide for face plate	1
903	MF 80E0 210	W346065G01	Thread tension regulator complete	1

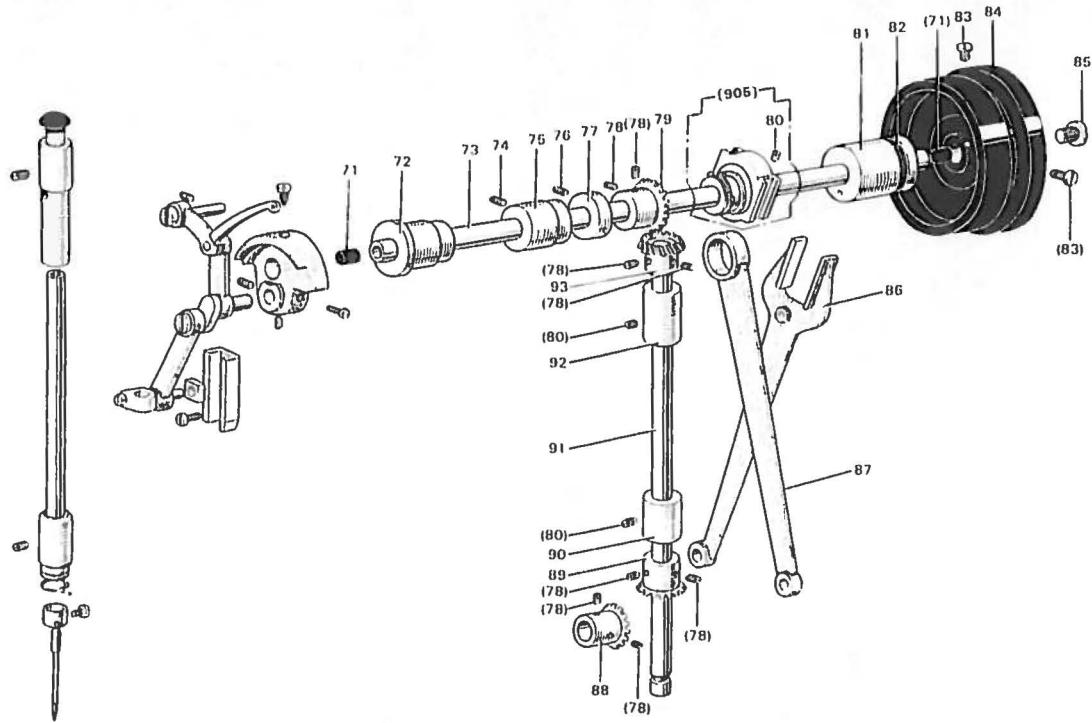
THREAD TAKE-UP LEVER & NEEDLE BAR MECHANISM



THREAD TAKE-UP LEVER & NEEDLE BAR MECHANISM

Fig. No.	Parts No.	Ref. No.	Description	Amt. Req.
904	MF 80E0 580	W346054G01	Thread take-up lever complete	1
51	M9 1516 001	W500006H01	Set screw 15/64(28)X13	2
52	M9 1802 006	B 503851H01	Set screw 9/32(28)X14	1
53	MF 80E0 383	W484898H01	Crank	1
54	M9 1801 002	W500306H01	Set screw 9/32(28)X13	1
55	M9 1608 001	B 504016H02	Set screw 1/4(40)X6	2
56	MF 80A0 662	W444056H02	Needle bar connecting link guide	1
57	M9 1110 002	W500294H01	Screw 11/64(40)X8	2
58	MF 10A0 325	W443934H01	Square block	1
59	M9 0815 002	W484210H01	Needle clamp screw 1/8(44)X4.5	1
60	MF 70A0 128	S 970010H01	Needle DBX1 - 2 - 14	1
61	MF 80A1 181	W486318H01	Thread guide for needle bar	1
62	MF 10A1 181	W502073H01	Thread guide for needle bar bushing	1
63	MF 10A0 664	W450055H01	Needle bar bushing (lower)	1
64	M9 1102 001	W500489H01	Set screw 11/64(40)X2.7	1
65	MF 80A0 660	W486319H01	Needle bar	1
66	MF 70A0 663	W481449H01	Needle bar bushing (upper)	1
67	M9 1503 001	B 508971H01	Set screw 15/64(28)X4.5	1
68	MF 10A2 740	W500003H01	Felt for Needle bar bushing (upper)	1
69	M9 0881 080	W502944H01	Rubber plug ø 8.8	1

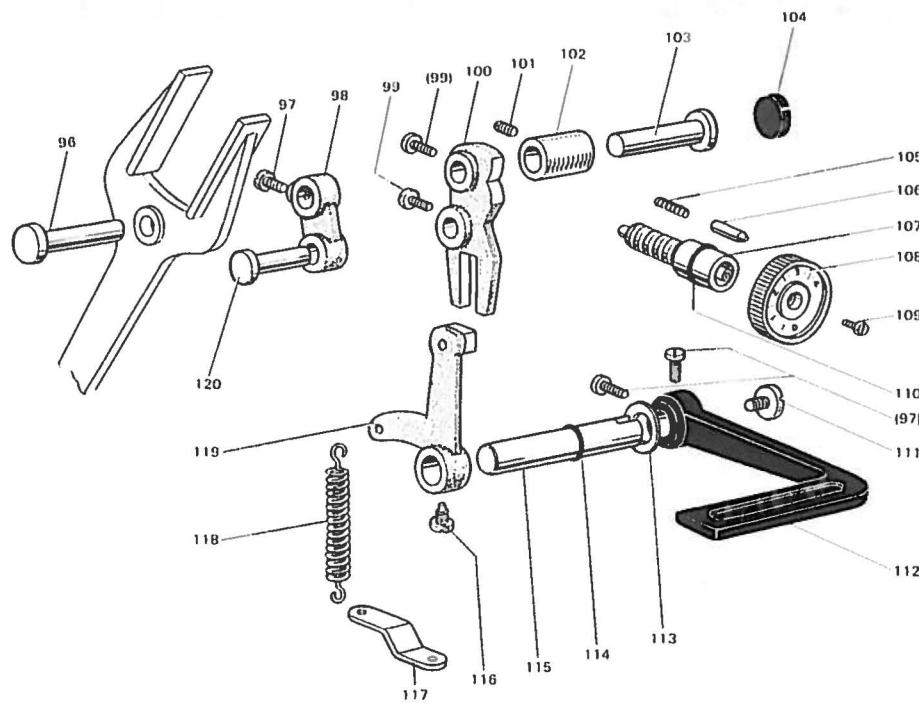
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ARM SHAFT & VERTICAL SHAFT MECHANISM

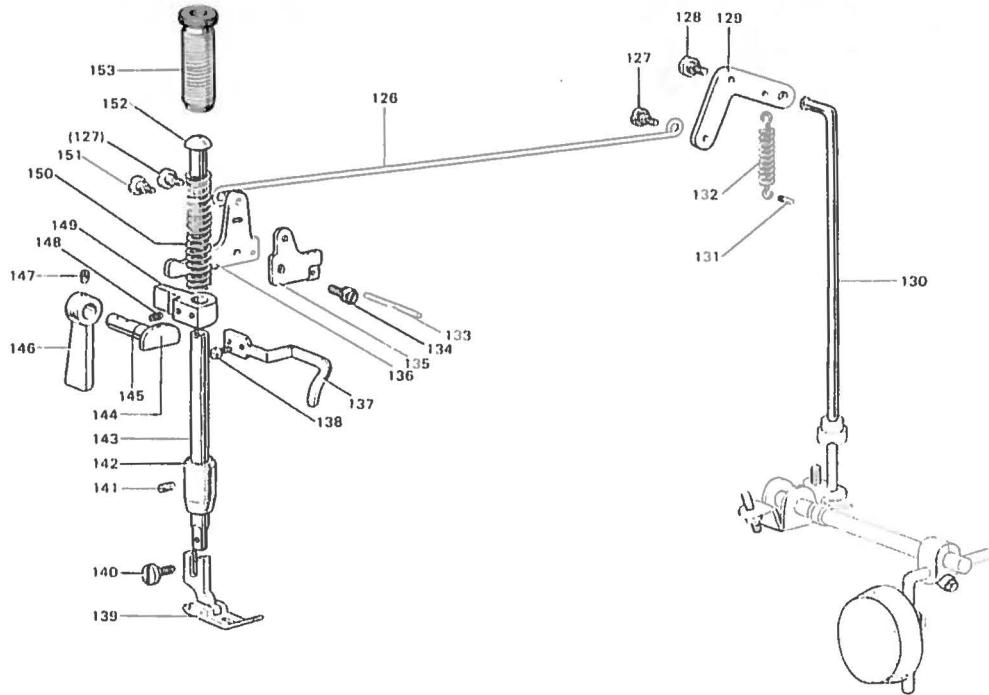
Fig. No.	Parts No.	Ref. No.	Description	Amt. Req.
71	M9 0740 080	W478175H01	Rubber plug for arm shaft ø 7.4X10	2
72	MF 80AO 232	W486300H01	Bushing for arm shaft (left)	1
73	MF 80AO 230	W346047H01	Arm shaft	1
74	M9 1516 001	W500006H01	Set screw 15/64(28)X15	1
75	MF 70AO 234	W481452H01	Bushing for arm shaft (middle)	1
76	M9 1602 001	W500036H01	Set screw 1/4(40)X4	2
77	MF 70AO 352	W476422H01	Collar for arm shaft	1
78	M9 1606 001	P 911000X01	Set screw 1/4(40)X7	8
79	MF 10AO 331	P 611003X02	Bevel gear for arm shaft	1
905	MF 70EO 280	W481451G01	Feed cam complete	1
80	M9 1513 001	B 509060H01	Set screw 15/64(28)X10.5	3
81	MF 70AO 233	W481413H01	Bushing for arm shaft (right)	1
82	M9 1473 086	W481476H01	Oil seal for arm shaft (right)	1
83	M9 1502 002	W500509H01	Set screw 15/64(28)X12	2
84	MF 10AO 682	W453500H01	Balance wheel	1
85	M9 2201 003	W461726H01	Screw 11/32(28)X10	1
86	MF 10AO 744	W320448H01	Feed forked connecting rod	1
87	MF 70AO 384	W450961H01	Crank rod for feed lifting rock shaft	1
88	MF 10AO 332	P 611002X02	Bevel gear for hook shaft	1
89	MF 10AO 334	P 611001X02	Bevel gear for vertical shaft (lower)	1
90	MF 70AO 522	W481418H02	Bushing for vertical shaft (lower)	1
91	MF 10AO 520	W450080H01	Vertical shaft	1
92	MF 70AO 521	W481418H01	Bushing for vertical shaft (upper)	1
93	MF 10AO 333	P 611000X02	Bevel gear for vertical shaft (upper)	1

STITCH LENGTH REGULATOR MECHANISM



STITCH LENGTH REGULATOR MECHANISM

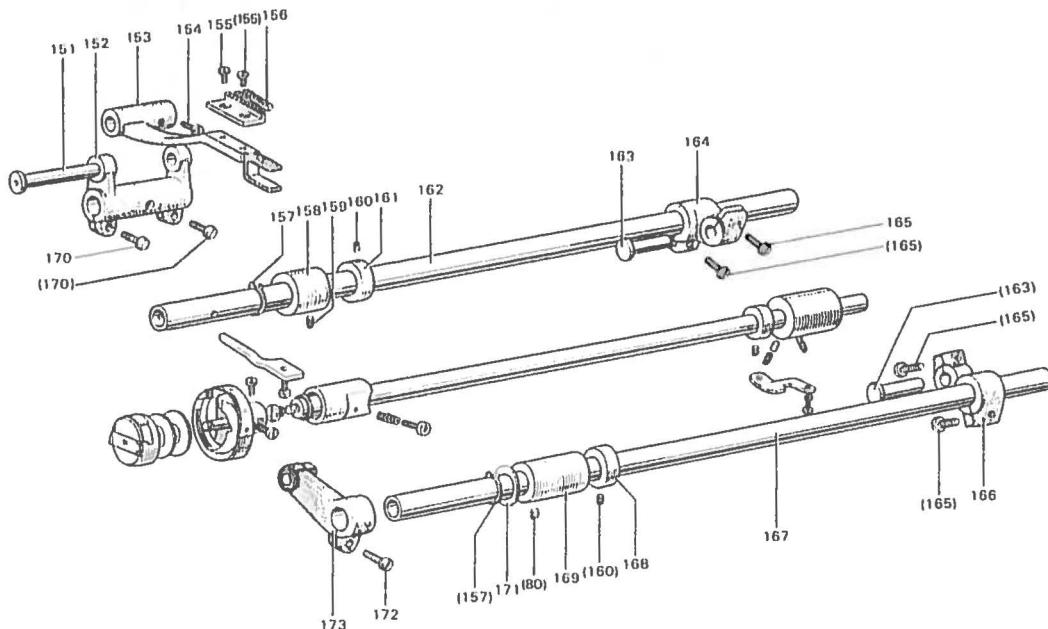
Fig. No.	Parts No.	Ref. No.	Description	Amt. Req.
96	M9 0718 063	W481425H01	Set pin \varnothing 7.2X19	1
97	M9 1501 002	W502945H01	Screw 15/64(28)X8.5	3
98	MF 70A0 153	W481677H01	Feed connecting link	1
99	M9 1504 002	B 508963H01	Screw 15/64(28)X10	2
100	MF 80A0 152	W447221H02	Feed regulator	1
101	M9 1513 001	B 509060H01	Set screw 15/64(28)X11	1
102	MF 70A0 750	W479396H03	Bushing for feed regulator	1
103	M9 0904 063	W479395H01	Set pin	1
104	M9 2001 080	W479394H01	Rubber plug \varnothing 20X4	1
105	MF 10A2 572	B 509164H01	Spring for stopper pin	1
106	MF 80A0 852	W481688H02	Stopper pin for stitch length regulator	1
107	MF 80A0 641	W484899H01	Screw bar	1
108	MF 11D0 631	W331486H01	Dial for stitch length regulator (0-4)	1
109	M9 1209 002	B 503887H01	Screw 3/16(28)X8	1
110	M9 1000 085	S 648001H06	O-ring \varnothing 10 for screw bar	1
111	M9 1207 003	B 509288H01	Screw 3/16(28)X6.5	1
112	MF 80A0 632	W346067H01	Reverse sewing lever	1
113	M9 5003 053	B 503895H01	Spring washer	1
114	M9 0600 085	S 648001H04	O-ring for reverse sewing lever shaft	1
115	MF 10A0 633	W450088H01	Shaft for reverse sewing lever	1
116	M9 1501 007	B 509256H01	Screw 15/64(28)X14.5	1
117	MF 10A0 709	W501378H01	Bracket for spring	1
118	MF 10A0 572	W447225H01	Spring for reverse sewing crank	1
119	MF 40E1 635	W462614G03	Reverse sewing crank complete	1
120	M9 0905 063	W501377H01	Set pin for feed connecting link	1



PRESSER FOOT MECHANISM

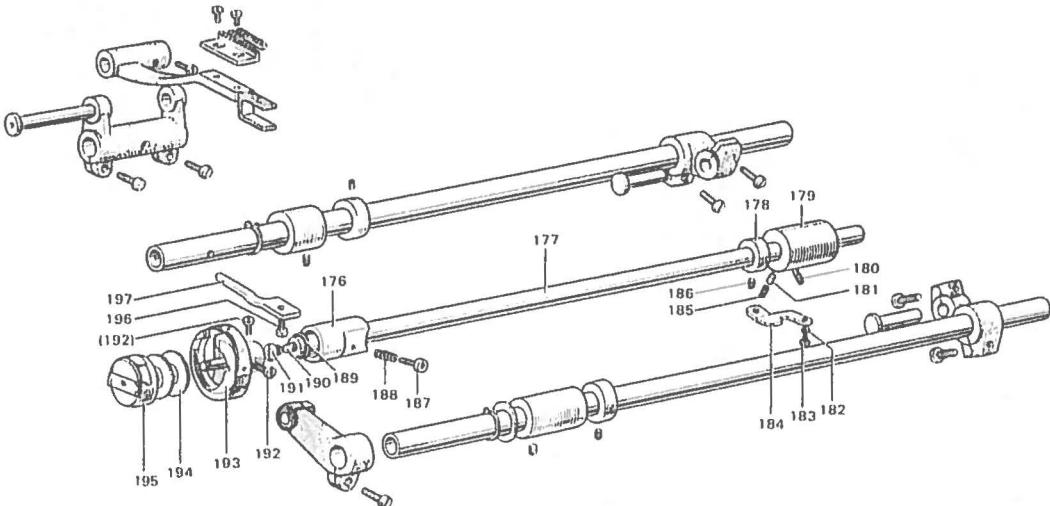
Fig. No.	Parts No.	Ref. No.	Description	Amt. Req.
126	MF 70A0 738	W481477H01	Knee lifter rod	1
127	M9 1219 015	W481460H01	Hinged screw 3/16(28)X6.7	2
128	M9 1503 031	W481459H01	Bolt for knee lifter lever	1
129	MF 70A0 950	W481458H01	Knee lifter lever (right)	1
130	MF 70A0 511	W481456H01	Knee lifter connecting rod	1
131	M9 0506 060	P 587017X01	Pin for spring ø 5X24	1
132	MF 70A0 572	W481478H01	Spring for knee lifter lever	1
133	M9 041 906	W502957H05	Tension releasing pin ø 4X37.5	1
134	M9 1504 031	W481459H02	Bolt 15/64(28)X13.5	1
135	MF 70A0 350	W484212H01	Tension releasing cam	1
136	MF 70A2 950	W481457H02	Knee lifter lever (left)	1
137	MF 10A0 216	W502083H01	Thread guide	1
138	M9 1107 002	W500092H01	Screw 11/64(40)X5.5	1
139	MF 10A0 105	W450580G01	Presser foot (Regular)	1
	MF 21D0 105	W472730G01	Presser foot (Chain-off)	1
140	M9 0939 002	W464016H02	Screw 9/64(40)X11	1
141	M9 1102 001	W500489H01	Set screw 11/64(40)X2.7	1
142	MF 10A0 267	W502081H01	Bushing for presser bar	1
143	MF 10A0 262	W502079H01	Presser bar	1
144	MF 80A0 253	W487032H01	Presser bar lifting cam	1
145	M9 0800 086	P 625001X01	Oil seal for presser bar lifting cam	1
146	MF 80A0 252	W486373H01	Presser bar lifter	1
147	M9 1109 001	W500985H01	Set screw 11/64(40)X6.6	1
148	M9 1508 001	B 509088H01	Set screw 15/64(28)X8	1
149	MF 70A1 265	W481461H02	Presser bar lifting bracket	1
150	MF 10A0 259	W502444H01	Presser spring	1
151	M9 1118 002	B 509061H01	Screw 11/64(40)X10	1
152	MF 20A0 703	W475491H01	Presser bar guide	1
153	M9 3209 035	W481436H01	Thumb screw for presser regulator 1/2(28)X6.3	1

FEED ROCK SHAFT & FEED LIFTING SHAFT MECHANISM



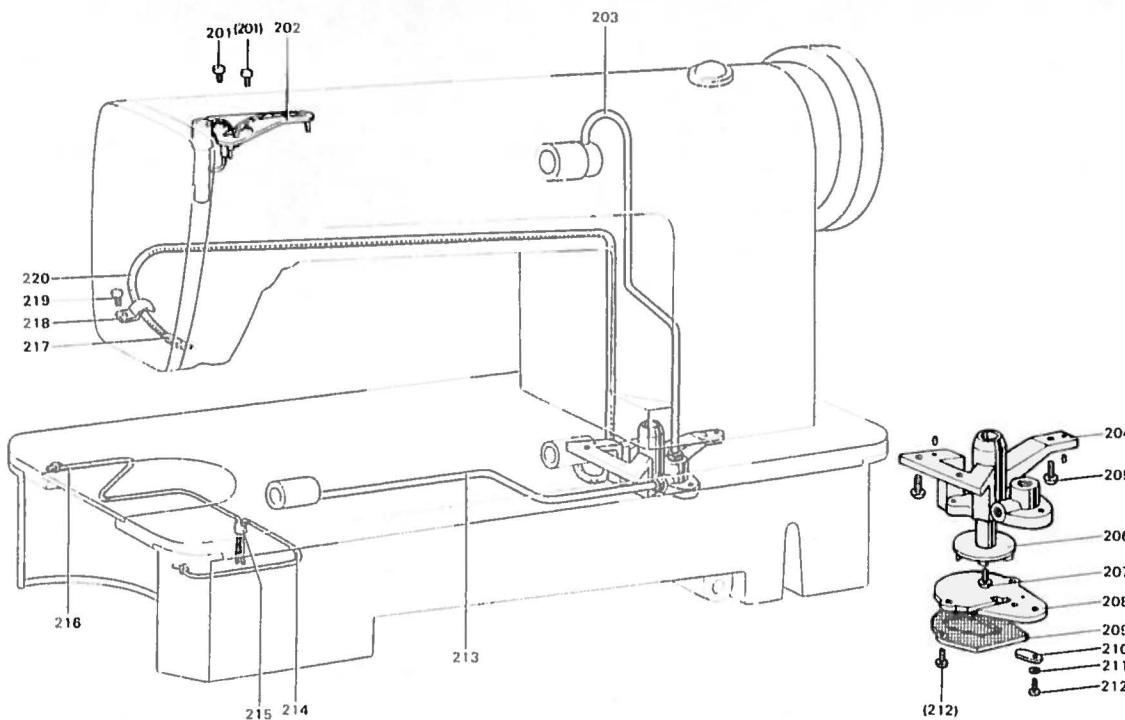
FEED ROCK SHAFT & FEED LIFTING SHAFT MECHANISM

Fig. No.	Parts No.	Ref. No.	Description	Amt. Req.
151	MF 70A0 283	W481422H01	Shaft for feed bar	1
152	MF 70A0 278	W481421H01	Feed rock shaft crank (left)	1
153	MF 70A1 281	W484831H01	Feed bar	1
154	M9 1103 002	B 509062H01	Screw 11/64(40)X5	1
155	M9 0806 002	B 508857H01	Screw 1/8(44)X6	2
156	MF 20A0 104	W453578H01	Feed dog (Regular)	1
	MF 11D0 104	W457555H01	Feed dog (Chain-off for N430-2)	1
	MF 11D1 104	W467237H01	Feed dog (Chain-off for N430-3)	1
157	M9 0315 065	S 591411H15	C-type stop ring	2
158	MF 70A1 286	W481475H01	Bushing for feed rock shaft (left)	1
159	M9 1503 001	B 508971H01	Set screw 15/64(28)X4.5	1
160	M9 1602 001	W500036H01	Set screw 1/4(40)X4	4
161	MF 80A0 352	W482357H01	Collar	1
162	MF 70A0 491	W481420H01	Feed rock shaft	1
163	M9 0904 060	W502476H02	Pin for feed rock shaft crank (right)	2
164	MF 70A0 279	W481473H01	Feed rock shaft crank (right)	1
165	M9 1204 003	B 508978H01	Screw 3/16(28)X12	4
166	MF 80A0 277	W486374H01	Feed lifting rock shaft crank (right)	1
167	MF 70A0 460	W481673H02	Feed lifting rock shaft	1
168	MF 70A0 352	W476422H01	Collar for feed lifting rock shaft	1
169	MF 70A0 286	W481663H01	Bushing for feed lifting rock shaft (left)	1
170	M9 1513 001	B 509060H01	Set screw 15/64(28)X10.5	1
171	M9 1502 050	W481674H01	Washer	1
172	M9 1112 002	W501889H01	Screw 11/64(40)X12	1
173	MF 70E0 276	W484828G01	Crank complete for feed lifting rock shaft	1
174	M9 1203 002	B509178H01	Screw	2



ROTATING HOOK AHAFT & ROTATING HOOK MECHANISM

Fig. No.	Parts No.	Ref. No.	Description	Amt. Req.
176	MF 80AO 451	W346051H01	Bushing for hook shaft (left)	1
177	MF 80AO 450	W486311H01	Rotating hook shaft	1
178	MF 10AO 352	B 422844H01	Collar for hook shaft	1
179	MF 80AO 452	W486309H01	Bushing for hook shaft (right)	1
180	MF 80AO 688	W486304H01	Pipe for hook shaft bushing	1
181	M9 5008 063	W486305H01	Plunger	1
182	M9 0601 053	S 561121H05	Spring washer	1
183	M9 1515 002	B 508963H02	Screw 15/64(28)X10	1
184	MF 80AO 154	W486312H01	Guide plate	1
185	MF 80AO 572	W486303H01	Spring	1
186	M9 1503 001	B 508971H01	Set screw 15/64(28)X4.5	2
187	M9 1506 030	W486327H01	Oil adjusting screw	1
188	MF 80A1 572	W486330H01	Spring for oil adjuster	1
189	M9 0803 086	P 625002X01	Oil seal for rotating hook shaft	1
190	MF 70A4 740	W486324H01	Felt for hook shaft	1
191	M9 1251 030	W500190H01	Special screw 3/16(32)X6.7	1
192	M9 1101 002	W500194H01	Set screw 11/64(40)X4.0	2
193	MF 10AO 120	W218864H01	Rotating hook (HSL-BS(J)	1
194	MF 10AO 123	W462632H01	Bobbin	1
195	MF 10EO 125	P 976009X01	Bobbin case	1
196	M9 1118 002	B 509061H01	Screw 11/64(40)X10	1
197	MF 10AO 229	W462633H01	Rotating hook positioner	1



LUBRICATION MECHANISM

Fig. No.	Parts No.	Ref. No.	Description	Amt. Req.
201	M9 0939 002	W464016H02	Screw 9/64(40)X11	2
202	MF 80A0 601	W486313G01	Oil braid fitting plate	1
203	MF 80A1 688	W476410G02	Oil pipe for arm shaft	1
204	MF 80A0 783	W346046H01	Oil pump (body)	1
205	M9 1103 004	W467868H01	Screw 11/64(40)X13	3
206	MF 10A0 685	W470288H01	Oil pump impeller	1
207	M9 0810 002	W501133H01	Screw 1/8(44)X8	1
208	MF 10A0 601	W461088H01	Oil pump fitting plate	1
209	MF 10E0 337	W481402G01	Oil pump screen	1
210	MF 10A1 742	W470250H01	Oil adjusting plate	1
211	M9 0402 053	W500297H01	Spring washer	1
212	M9 0801 004	W467881H01	Screw 1/8(44)X13	3
213	MF 80A2 688	W461745G02	Oil pipe for hook shaft	1
214	MF 10E2 148	W444138H01	Oil braid for feed lifting mechanism	1
215	MF 80A0 780	W501092H01	Holder for oil braid	1
216	MF 10E2 148	W462982H01	Oil braid for feed rock mechanism	1
217	MF 10A0 740	W502394H01	Felt pouch for return oil filter	1
218	MF 70A0 689	W484833H01	Holder for oil pipe	1
219	M9 1107 002	W500092H01	Screw 11/64(40)X5.5	1
220	MF 20A0 731	W484209H03	Oil return pipe	1

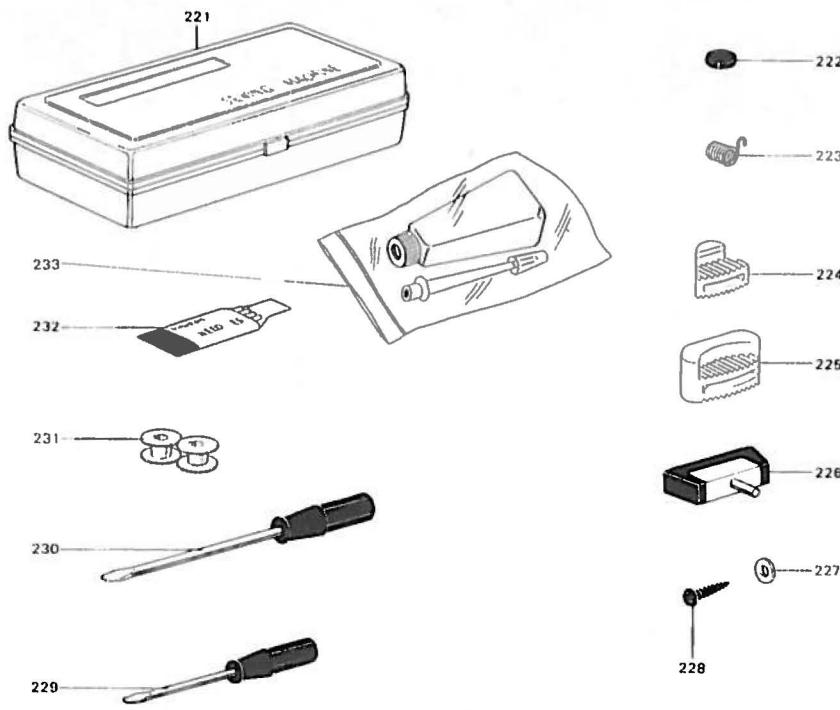
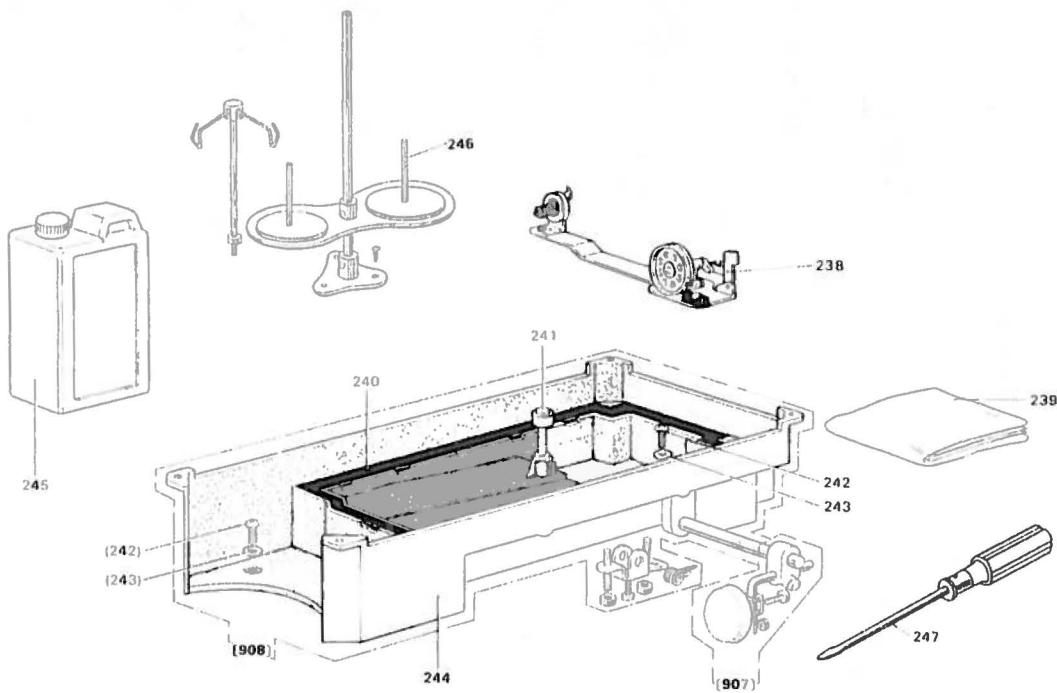
ACCESSORY BOX & ITS ACCESSORIES**ACCESSORY BOX & ITS ACCESSORIES**

Fig. No.	Parts No.	Ref. No.	Description	Amt. Req.
211	MF 10A0 749	W231722H02	Accessory box	1
222	M9 0701 099	P 463000X01	Magnet block for reservoir	1
223	MF 80A1 187	W486372H01	Thread take-up spring	1
224	MF 70A1 419	W476426H02	Vibration preventing rubber (small)	2
225	MF 70A0 419	W476425H02	Vibration preventing rubber (large)	2
226	MF 70E0 418	W481678G01	Table hinge with rubber cushion (Complete)	1
227	M9 0607 050	S 562131H04	Washer for bobbin winder	2
228	M9 0401 041	S 519132H01	Screw for bobbin winder	2
229	MB 02A1 608	P 842002X01	Screw driver (small)	1
230	MB 02A0 608	P 842003X01	Screw driver (middle)	1
231	MF 10A0 123	W462632H01	Bobbin	4
232	MF 70A0 128	S 970010H01	Needle DBX1-2 #14	4
233	MF 80A0 137	P 831002X01	Oil with oiler	1

OIL RESERVOIR & OTHER ACCESSORIES



OIL RESERVOIR & OTHER ACCESSORIES

Fig. No.	Parts No.	Ref. No.	Description	Amt. Req.
236	M9 1101 004	W466810H01	Screw 11/64(40)X8	3
237	M9 1506 004	W467868H02	Screw 11/64(40)X8	3
238	MF 80E0 190	W487145H01	Bobbin winder complete	1
239	MF 10A0 734	W220641H01	Vinyl cover	1
240	MF 20A2 691	W471440H02	Gasket for oil reservoir (small)	1
	MF 20A3 691	W471441H02	Gasket for oil reservoir (large)	1
241	MF 70A0 578	W481685H02	Knee lifter lifting rod	1
242	M9 2002 002	W486334H01	Oil drain screw 5/16(28)X10	2
243	M9 7001 052	W470200H01	Washer	2
907	MF 40E0 727	W341682G04	Knee lifter complete	1
244	MF 80A0 139	P 997000X04	Oil reservoir	2
908	MF 70E0 139	W341681G01	Oil reservoir complete	1
245	MF 10E1 149	W227466H02	Oil can	1
246	MF 10E2 193	W220644G01	Cotton stand complete	1
247	MF 60A0 608	W319408H01	Screw driver (large)	1

SEWING PARTS FOR MODELS N430-2 & N430-3

Specification	Needle Plate	Feed Dog	Presser Foot
Regular parts for Model N430-2, for light to medium material.			
Chaining-off parts for Model N430-2, for light to medium material.			
Chaining-off parts for Model N430-3, for medium to heavy material.			