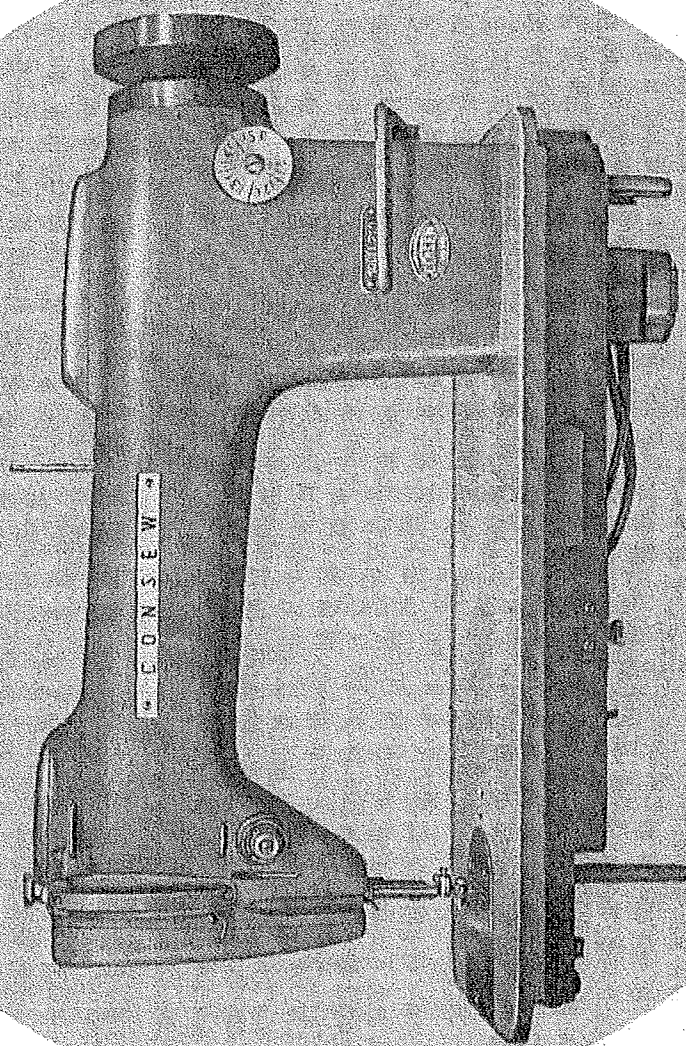


HIGH SPEED INDUSTRIAL SEWING MACHINE

USER'S
**HAND
BOOK**

CONSEW
MODEL 210



Single-Needle Lock Stitch with
fully automatic Lubrication

Description:

1. Stitch Regulator
2. Tacking Lever
3. Oil level Indicator
4. Knee Lifter Lever
5. Needle Clamp
6. Tension Regulator (upper thread)
7. Thread Take-up lever
8. Pressure Regulator
9. Oil Feed Window

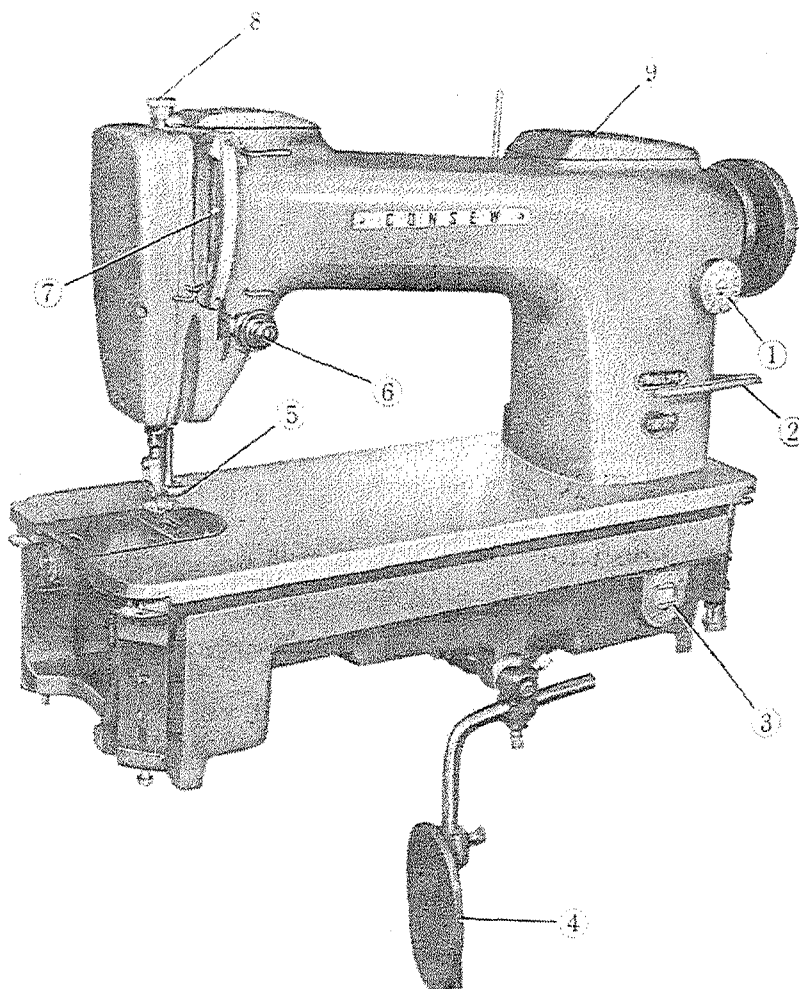


Fig. 1

CHARACTERISTI

1. The CONSEW Model 210 machine for sewing light, medium, and heavy-weight material is all-gear driven and automatically lubricated at every bearing with separately adjustable oil feed for the rotary hook. All bearings are diamond bored sleeve types, except for needle bearings at the thread take-up.
2. Drop Feed design with a maximum stitch length 6 to the inch.
3. The belt groove in the machine handwheel has an effective diameter of $2\frac{9}{16}$ " when using $\frac{3}{8}$ " wide "V" belting. For $\frac{5}{16}$ " dia round belting the effective diameter is $2\frac{3}{8}$ ".
4. Maximum presser Foot lift is $\frac{3}{8}$ ".
5. Needle style 16×257 (all sizes)

IMPORTANT NOTE:

Do not operate machine for any reason whatsoever unless oil reservoir has been filled and machine has been oiled according to instructions on page 5.

Maximum operating speed is 4,500 stitches per minute

How to set up

For purposes of shipment the machine and its oil pan are separated. Unpack machine with great care to prevent loss of any assembly part and to prevent the entry of foreign matter into the head and the oil pan. Attach to oil pan corners the four Z-shaped straps using two shoulder screws each. Loosen adjustment screws at bottom of straps until there is clearance between screw heads and rubber pads at underside of oil pan. (Fig. 2)

The oil pan fits into standard size table cut-out (19" x 7¼") and is supported at the four corners without screws or bolts. The weight of the head alone suffices for accurate seating. Note that the oil pan must settle down easily into the cut-out without use of force. If necessary rasp the edges of the cut-out and those of the corner supports.

No felt pads are required on top of these corner supports. They should be removed, if the machine is to be installed into an old table. To level the oil pan within the table cut-out, put machine head in place, having inserted the hinge hooks into the bed beforehand. With the machine head resting on the neoprene rubber oil pan gasket, turn adjustment screws (Fig. 2) until

top of machine bed projects evenly above the surface of the table top. The machine hinges must not support the head except when it is tilted back.

Insert plunger "P" into its seat inside the oil pan (Fig. 3) and assemble knee lifter lever and pad to its component parts at the front of the oil pan. Adjust stops of knee lifter mechanism so that there is only a little play before it starts to lift the presser foot and that it is raised all the way without any strain on the lifter parts and without tendency to lift the entire head.

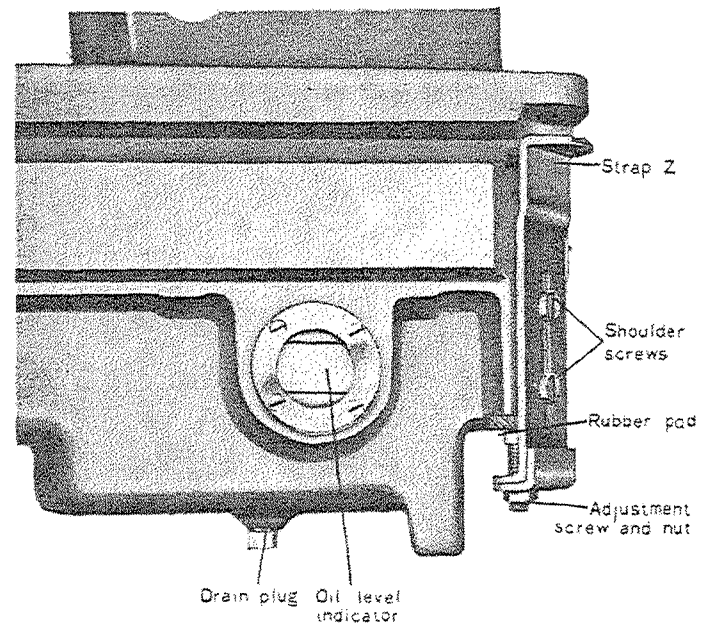


Fig. 2

The Lubrication Item

Oiling of the operating parts of Model 210 machine is entirely automatic. Oil is contained in the oil pan at the bottom of the machine head and is circulated from there to all parts which require lubrication and cooling. The oil pan should be filled with good quality sewing machine oil, either ordinary or stainless type, of a grade similar to SAE10, to the level indicated by the word "High" inside the pan. The upper red line of the oil level indicator (2), (Fig. 1) shows the corresponding oil level. Check oil level daily and never allow it to fall below the lower red line of the oil level indicator or below the "low" mark inside the oil pan. Oil is filled directly into the oil pan when the head is tilted back. Total oil capacity is approximately 1½ pints (24 fl. ounces.)

To remove accumulated impurities from the lubricating oil, a magnet has been included with the machine. Remove it from the accessory box and place it along the circular flat rim at the bottom of the oil pump (see Fig. 3). At this location, the largest flow of oil passes the magnet with most efficient cleaning as a result.

NOTE: Before operating a new machine or one which has been standing idle for a period of several weeks, remove the arm cover plate right next to the pressure regulator (7). Soak with oil the four oil wicks now exposed and replace cover. After a few minutes of operation the automatic oiling system will do the lubricating.

The oil supply for the rotating hook can be controlled through adjustment of the needle valve "V" at the underside of the machine bed (Fig. 3). While this valve is adjusted at the factory to feed the correct amount of lubricant, operating conditions may require either an increase or a decrease in the oil flow to the hook. To determine the amount of oil supplied to the hook, hold a piece of tissue or similar paper under the hook and operate machine. After a very brief period of operation a slight trace of oil should become visible on the paper. If not, check flow and adjustment of needle valve. Also, remove from oil screen "S" at bottom of oil pump "O" any accumulation of lint or other foreign matter, at the same time lift the magnet from the rim of the oil pump, wipe it clean and replace it.

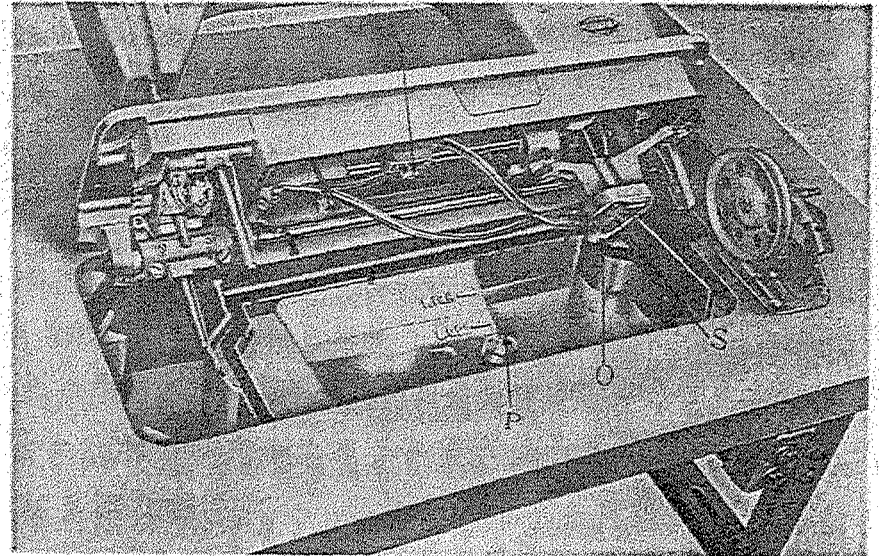


Fig. 3

Threading the mach

Turn handwheel toward you until needle (10) reaches its highest point and take-up lever (7) is near the end of its upward travel, as shown on Fig. 4. Lead thread from hole of spool pin (1) through three holes in thread guide (2), then downward through guard (3) and between and around tension discs (4) from right to left. Upward into thread take-up spring (5) and down under slack thread regulator (6), up and through guard (3) into eye of take-up lever (7) from right to left, down through thread guides (8 and 9) into thread guide (10) and from left to right through the eye of the needle. Pull two to three inches of thread through the eye of the needle.

Removal of bobbin case

Turn handweel toward you until needle reaches its highest point. Open slide plate by pulling it to the left. Pass left hand under table into opening on oil pan. With left thumb and index finger open the hinged latch (L) (Fig. 5) at the front of the bobbin case. Grasp latch and pull bobbin case and bobbin from rotary hook. While the latch is held open, the bobbin will be retained in the bobbin case. Release of the latch and turning of the open side of the bobbin case downward will cause the bobbin to drop out.

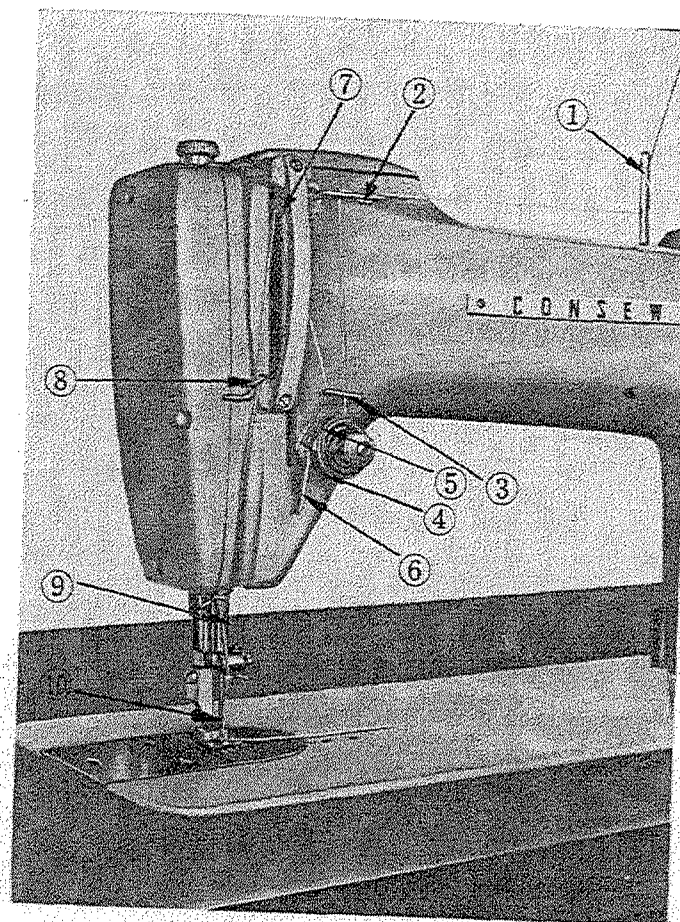


Fig. 4

Threading and Inserting the Bobbin Case

Hold the bobbin between the thumb and forefinger of your right hand and pull out a length of two or three inches of thread. Holding the bobbin case in your left hand, turn the open side up and place the threaded bobbin into it.

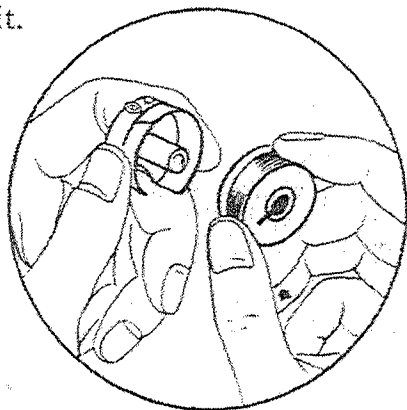


Fig. 5-1

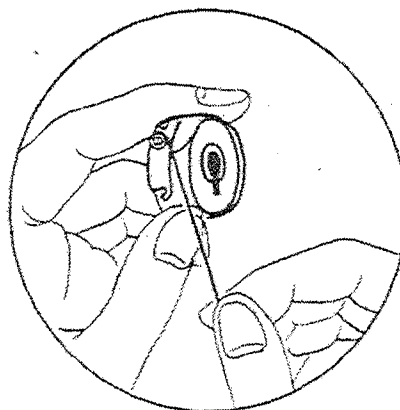


Fig. 5-2

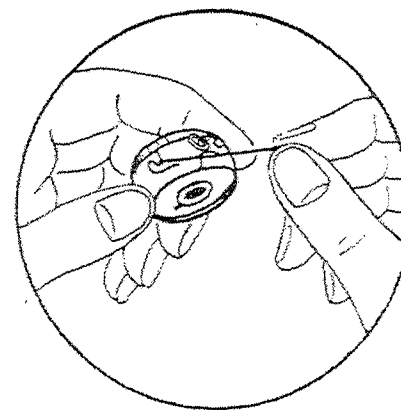


Fig. 5-3

With the right hand guide the thread into the slot in the edge of the bobbin case. Then pull the thread to the left, under the tension spring and into the delivery eye. In order to keep the bobbin from dropping out of the case when it is turned with the open side down, always keep the hinged latch at the front of the bobbin case open.

Take the threaded bobbin case by the latch and place it on the center stud A (Fig. 6) of the bobbin case holder. Release latch and press bobbin case onto center stud until the latch catches the undercut thereon with a click that can be heard. Permit two to three inches of bobbin thread to hang down freely. Be sure to push slide plate to the right before starting to sew.

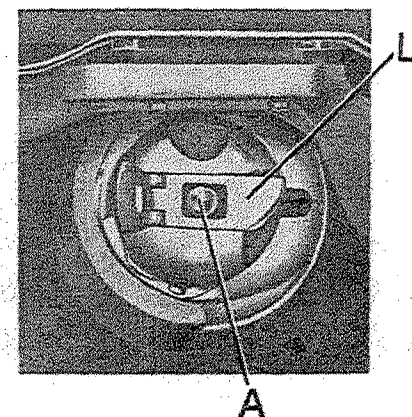


Fig. 6

Inserting a New Ne

Turn handwheel of machine toward you until needle bar reaches its highest point. Loosen set screw in needle clamp at bottom end of needle bar and push needle up into bar as far as it will go. Long groove in needle must face toward the left and the eye must be in line with the arm of the machine. Tighten needle set screw securely.

To Commence Sewing

Turn the balance wheel toward you with the right hand until the needle moves down and up again to its highest point, thus catching the lower (bobbin) thread. Now pull the end of the upper thread you are holding and the bobbin thread will be brought up with it through the needle hole in the needle plate, as shown in (Fig. 7). Place both ends of thread back under the presser foot. Place the fabric to be sewn beneath the presser foot, lower the foot upon it and then start the machine.

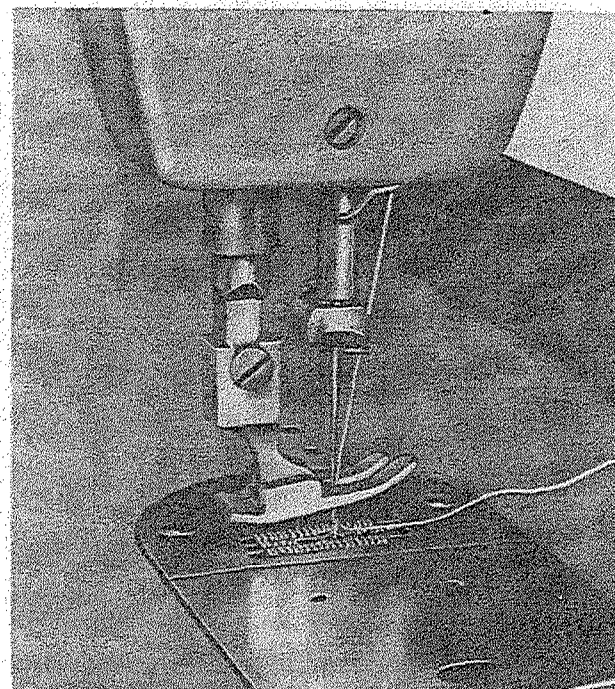


Fig. 7

To Remove the Work

Raise the needle bar to its highest point, lift the presser foot and draw the fabric back and to the left. Cut the ends of the threads a few inches long from the needle.

To Regulate the Tensions

For ordinary stitching, the tension on the upper and lower threads should be equal so as to lock both threads in the center of the fabric,

Thus:



If the tension on either thread is stronger than on the other, imperfect stitching will be the result. If the tension on the upper thread is greater than that on the lower thread, it will lie straight along the upper surface of the fabric,

Thus:



If the tension on the lower thread is greater than that on the upper thread, the lower thread will lie straight along the underside of the fabric,

Thus:



A. Tension of the upper (N) thread

Before adjusting the tension of the upper thread, be certain that the presser foot is let down and not in lifted position. Turn serrated nut "N" on tension device to the right to increase tension and to the left, if you desire to decrease it.

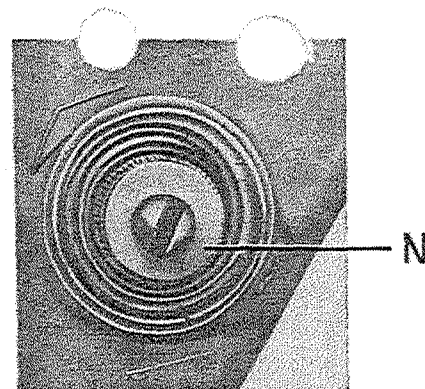


Fig. 8

B. Tension of the lower (bobbin) thread

The tension of the lower thread is regulated by the screw on the bobbin case tension spring (see Fig. 9).

Use the small driver to tighten the screw slightly to increase the tension, or loosen it to slacken the tension.

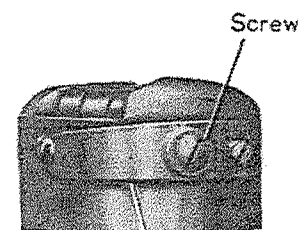


Fig. 9

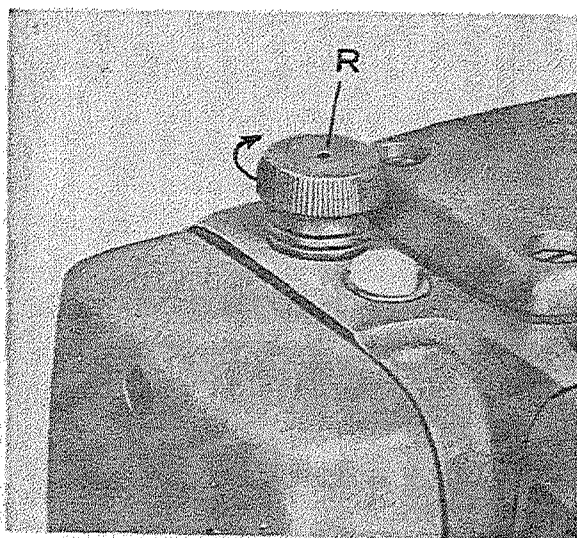


Fig. 10

To Regulate the Pressure of the Presser Foot

The pressure of the presser foot on the material is regulated by the Regulator Screw (R) (Fig. 10) on top of the machine. Turn this regulator to the left to decrease it. Do not employ more foot pressure than is required to feed the material properly.

How to Adjust the Length of Stitch and to do Tacking

The stitch length is regulated by turning dial (D) at the front of the machine (Fig. 11). When number "0" on dial appears uppermost, the machine does not feed. Turning dial counterclockwise will gradually increase the stitch length until the maximum is reached when number 5 is on top. As the stitch length is increased, it can be noticed that tacking lever (T) slowly moves in upward direction.

When shortening the stitch length, it will be found of advantage to depress lever (T) slightly as dial (D) is being turned clockwise. To do tacking for the purpose of locking the ends of seams, rapidly depress and release lever (T) as the needle approaches the edge of the material.

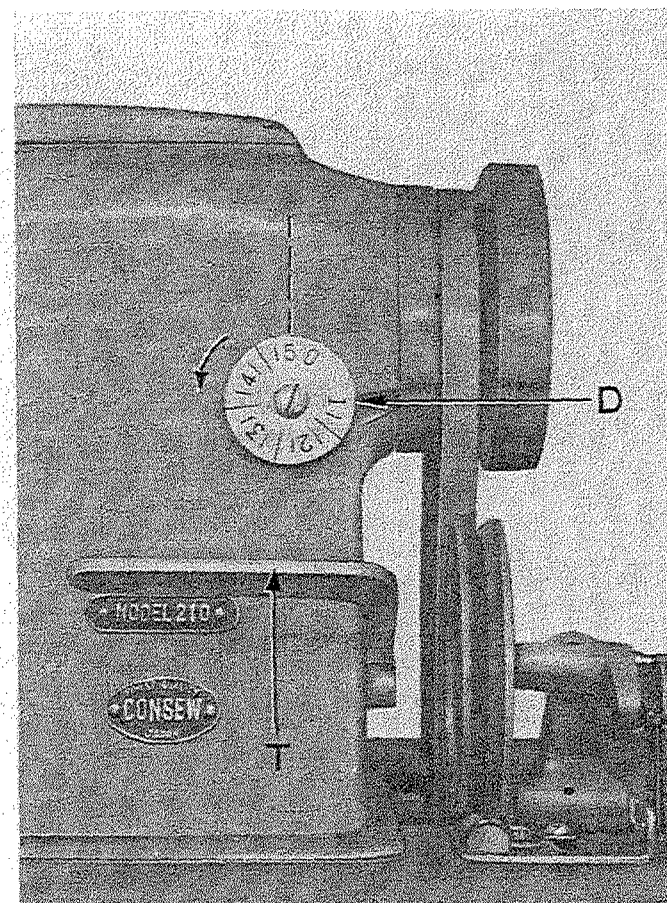


Fig. 11

The Bobbin Winder

The bobbin winder is mounted on the table top with its pulley in front of the driving belt so that the pulley will separate from the belt after the bobbin has been wound with sufficient thread (Fig. 12).

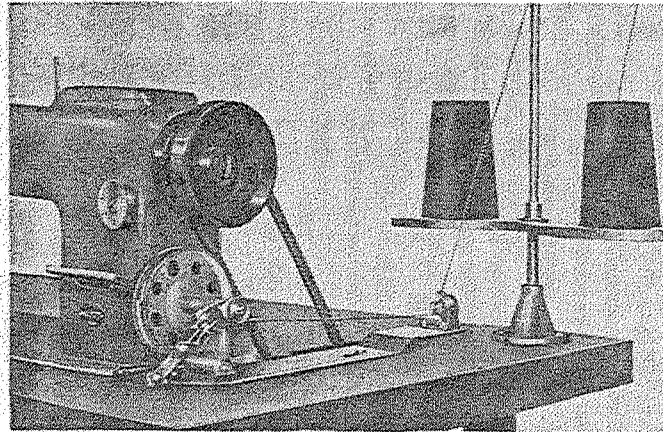


Fig. 12

1. Push bobbin on bobbin winder spindle as far as it will go.
2. Pass thread from thread stand downward through eye in tension bracket, then between and around the back of the tension discs. Bring thread forward toward bobbin and wind from below in clockwise direction several times around bobbin.
3. Push bobbin winder lever downward until wheel contacts the drive belt and start machine.
4. After bobbin is filled with thread, release will cause wheel to disengage from belt and winding will stop. Cut thread and remove bobbin from bobbin winder spindle.
5. Adjustment screw can be turned in or out to increase or decrease the amount of thread wound on the bobbin.

When fine thread is wound on bobbins, use light tension. It is regulated by turning the knurled nut on the tension bracket at the rear of the bobbin winder. Bobbin can be wound while the machine is sewing.

Adjustment of the knee lifter

The knee lifter mechanism is assembled to the oil pan of the machine except that for shipping purposes lever (J) and knee pad (K) are disassembled. After the oil pan has been positioned in the table top and the head set in place and locked to the oil pan, insert lever and knee pad as shown in Fig. 13. Tighten their respective set screws when in most comfortable position for the operator. While lever (J) is shown inserted from the left, it can also be inserted from the right whenever more knee space is desired. Set stops of knee lifter mechanism so that there is only little play before it starts to lift the presser foot and to allow raising of the presser foot all the way but not beyond the maximum. This will avoid any possible strain on the lifter mechanism and the related parts of the head itself.

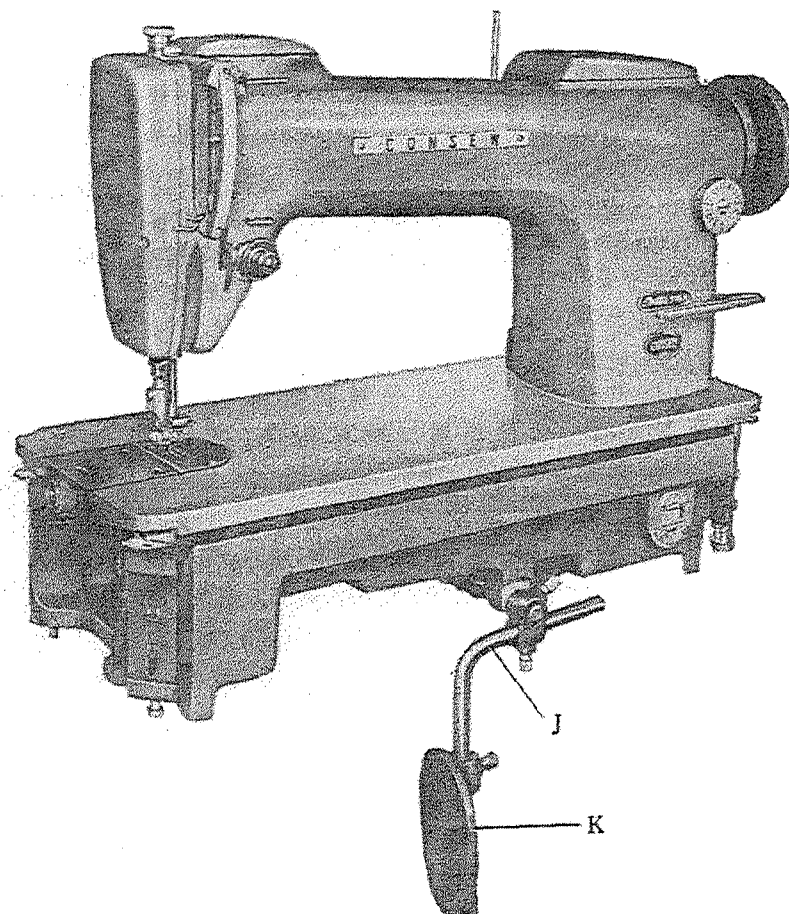


Fig. 13

ADJUSTMENT OF TENSION RELEASE

The machine is normally adjusted at the factory so that the tension of the upper thread will be released when the presser foot is raised in excess of $17/64"$. If it is desired to effect thread tension release with a lesser lift such as when sewing very thin materials, this adjustment can be made by the user.

To change the timing of the thread tension release, proceed as follows :

1. Remove face plate from machine making sure that its gasket will not be damaged under any circumstances.
2. Do not wipe blue-colored sealing compound from the gasket nor from any of the contact surfaces of the face plate and the arm.
3. Loosen screw A (Fig. 14) to adjust regulating arm B. Set the height of arm B so that there will be upper thread tension when the presser foot is lifted for tacking. The upper thread tension must be completely released only when the presser foot is in fully raised position.
4. Tighten screw A securely and replace face plate making certain that all its screws are tightened uniformly.

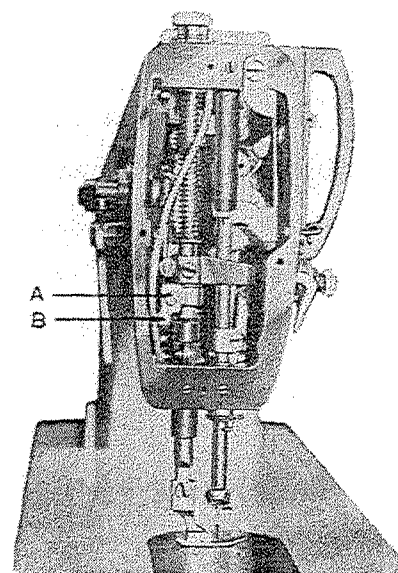
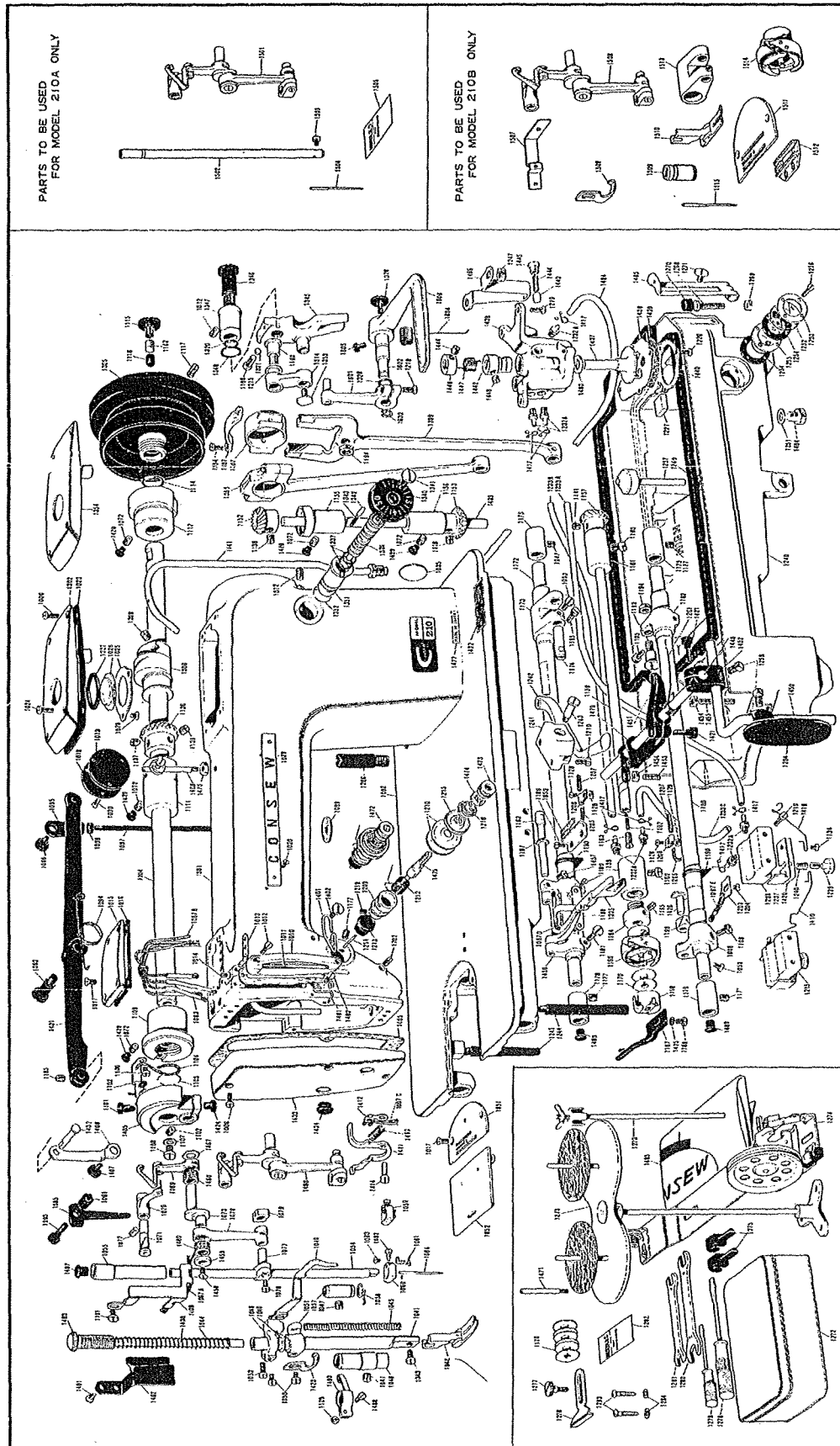


Fig. 14

NEEDLE AND THREAD CHART

Sizes of Needles	Classes of Work	Sizes of Cotton, Linen or Silk
14	Shirtings, Sheetings, Calicoes, Muslins, Silks, Dress Goods and all classes of general work	60 or 80 Cotton A and B Silk
16 & 17	All kinds of Heavy Calicoes, Light Woolen Goods, Heavy Silk, Seaming, Stitching etc.	40 to 60 Cotton C Silk
18	Tickings, Upholstery, Woolen Goods, Trousers, Boys' Clothing, Cloaks, etc.	30 to 40 Cotton D Silk
19	Heavy Woolens, Tickings, Bags, Heavy Coats, Trousers and Heavy Clothing generally	24 to 30 Cotton E Silk 60 to 80 Linen
21	Bags, Coarse Cloths & Heavy Goods	16 to 20 Cotton 40 to 60 Linen

CONSEW MODEL 210, 210A & 210B



PARTS TO BE USED
FOR MODEL 210A ONLY

PARTS TO BE USED
FOR MODEL 210B ONLY

MODEL 210, 210A & 210B

PART NO.	PART NAME	PART NO.	PART NAME	PART NO.	PART NAME	PART NO.	PART NAME
1002	BED ONLY	1102	SET SCREW FOR 1480	1213	PACKING FOR 1472	1336	FEED REGULATOR DIAL SHAFT
1005	GASKET FOR 1433	1103	RETAINER PLATE FOR 1104	1214	TENSION RELEASE PIN	1337	OIL SEAL FOR 1336
1006	SCREW FOR 1433	1104	OIL WICK FOR 1480	1215	TENSION RELEASE WASHER	1340	FEED REGULATOR DIAL
1010	GUARD FOR TAKE UP LEVER	1105	SPRING FOR 1104	1216	TENSION SPRING	1340	LOCK SCREW FOR 1340
1011	GASKET FOR 1010	1106	SCREW FOR 1103	1218	SET SCREW FOR 1475	1342	STOP PIN FOR 1240
1012	SCREW FOR 1010	1107	TOP SHAFT FRONT PACKING	1219	SCREW FOR OIL PUMP	1343	SPRING FOR 1342
1013	THREAD GUIDE WITH THREE HOLES	1108	SCREW FOR 1107	1226	SCREW FOR 1440	1345	FEED REGULATOR FORK
1014	SET SCREW FOR 1013	1109	TOP SHAFT FRONT BUSHING	1227	MAGNET	1346	FULCRUM SHAFT FOR 1345
1015	COVER PLATE FOR OIL WELI.	1111	TOP SHAFT CENTER BUSHING	1232	OIL HOSE NIPPLE	1347	BUSHING FOR 1345
1016	GASKET FOR 1015	1112	TOP SHAFT REAR BUSHING	1233A	OIL HOSE (A)	1348	OIL SEAL FOR 1347
1017	SCREW FOR 1015	1114	PACKING FOR 1305	1233B	OIL HOSE (B)	1351	FEED REGULATOR DIAL BUSHING
1018	BACK COVER PLATE	1115	CAP SCREW FOR 1305	1233C	OIL HOSE (C)	1352	OIL SEAL FOR 1351
1019	GASKET FOR 1018	1116	TOP SHAFT OIL STOPPER	1235	OIL REGULATOR COMPLETE	1353	CAP SCREW FOR 1314
1020	SCREW FOR 1018	1117	SET SCREW FOR 1305	1236	OIL REGULATOR BODY	1354	TOP COVER PLATE
1023	GASKET FOR 1302	1128	SCREW FOR 1206	1237	OIL REGULATOR PLATE	1355	CRANK ROD COMPLETE
1024	SCREW FOR 1302	1129	NUT FOR 1128	1239	OIL REGULATING VALVE	1401	THREAD GUIDE, RIGHT
1025	FRAME FOR 1026	1134	SCREW FOR 1418 & 1419	1240	SPRING FOR 1239	1405	TAKE UP LEVER CRANK
1026	OIL GAUGE WINDOW	1136	TOP SHAFT GEAR	1241	BRACKET FOR 1242	1407	HINGE SCREW FOR 1431
1027	PACKING FOR 1026	1137	SET SCREW FOR CAM & GEAR	1242	KNEE LIFTER RELEASE LEVER	1408	OIL WICK RETAINER
1028	SCREW FOR 1026	1138	SET SCREW FOR 1136	1243	HINGE SCREW FOR 1242	1411	THREAD TENSION RELEASE
1029	NAME PLATE	1141	SET SCREW FOR 1137	1244	BED LEG FRONT	1412	OIL WICK RETAINER
1030	SCREW FOR 1029	1152	VERTICAL SHAFT UPPER GEAR	1245	BED LEG REAR	1413	SPRING FOR 1411
1035	PLUG FOR BED HOLE	1153	VERTICAL SHAFT LOWER GEAR	1247	NUT FOR 1466	1414	SHAFT FOR 1481
1040	THRUST WASHER FOR 1041	1155	VERTICAL SHAFT UPPER BUSHING	1248	OIL PAN ONLY	1417	OIL HOSE CLIP
1041	PRESSER BAR ONLY	1156	VERTICAL SHAFT LOWER BUSHING	1249	OIL PAN GASKET	1418	OIL HOSE SUPPORTER (A)
1042	HINGED FOOT COMPLETE	1157	HOOK SHAFT GEAR	1251	PACKING FOR 1464	1419	OIL HOSE SUPPORTER (B)
1043	SCREW FOR 1042	1158	HOOK SHAFT ONLY	1252	OIL GAUGE WINDOW	1420	OIL REGULATING PLATE
1044	SPRESSER SPRING OUTER	1159	HOOK SHAFT FRONT BUSHING	1253	FRAME FOR 1252	1421	CLAMP SCREW FOR 1451 & 1452
1045	PRESSER SPRING INNER	1160	SET SCREW FOR 1159 & 1161	1254	PACKING FOR 1252	1422	NEEDLE SIZE PLATE
1046	BUSHING FOR 1041	1161	HOOK SHAFT REAR BUSHING	1255	OIL GAUGE COVER	1423	ADJUST PLATE FOR TENSION
1047	SET SCREW FOR 1046 & 1057	1162	FELT FOR 1158	1256	SCREW FOR 1253	1424	CLAMP SCREW FOR 1480
1048	PRESSER BAR GUIDE BRACKET	1163	SET SCREW FOR 1162	1257	KNEE LIFTER PLUNGER	1425	SPRING WASHER FOR 1168
1049	THRAD REGULATOR	1164	OIL DEFLECTOR FOR 1159	1259	SET SCREW FOR KNEE LIFTER	1426	STUD FOR 1199
1050	SCREW FOR 1048 & 1423	1165	SET SCREW FOR 1164	1261	SPRING FOR 1451	1428	PLUG FOR SCREW HOLE
1051	PRESSER BAR LIFTER	1166	ROTATING HOOK ASSEMBLY	1264	KNEE LIFTER PAD	1430	PRESSURE REGULATOR BAR
1053	SET SCREW FOR 1048	1167	HOOK RETAINER	1266	GUIDE SLEEVE FOR 1097	1431	KNEE LIFTER LEVER
1054	NEEDLE BAR ONLY	1168	SCREW FOR 1167	1268	OIL PAN HOLDING SCREW	1432	KNEE LIFTER BAR
1055	NEEDLE BAR UPPER BUSHING	1169	BOBBIN CASE ASSEMBLY	1269	NUT FOR 1268	1433	FACE COVER PLATE
1056	NEEDLE BAR LOWER BUSHING	1170	BOBBIN	1270	OIL PAN CUSHION RUBBER	1434	PLUG FOR 1433
1058	THREAD GUIDE FOR 1057	1172	FEED ROCK SHAFT	1271	SCREW FOR 1465	1435	VERTICAL SHAFT ONLY
1059	NEEDLE CLAMP COMPLETE	1173	FEED ROCK ARM	1272	ACCESSORY BOX	1436	OIL PUMP BODY
1060	NEEDLE CLAMP BODY	1174	HINGED PIN FOR 1173	1273	SPOOL HOLDER	1437	OIL PUMP IMPELER
1061	SLIDING GUIDE FOR 1060	1175	REAR BUSHING FOR 1172	1274	BOBBIN WINDER ASSEMBLY	1438	OIL PUMP COVER
1062	SCREW FOR 1060	1176	FRONT BUSHING FOR 1172	1275	BED HINGE COMPLETE	1439	OIL PUMP FILTER
1063	SCREW FOR 1061	1177	SET SCREW FOR 1176	1276	CLOTH GUIDE	1440	FRAME FOR 1439
1064	NEEDLE	1181	CLAMP SCREW FOR 1456	1277	CLOTH GUIDE THUMB SCREW	1441	OIL FEED TUBE COMPLETE
1067A	OIL WICK	1183	FEED BAR SHAFT	1278	SCREW DRIVER, LARGE	1442	OIL RETURN CAM SHAFT
1069	TAKE UP LEVER BODY	1186	SCREW FOR 1453	1279	SCREW DRIVER, SMALL	1443	PIN FOR 1442
1070	TAKE UP LEVER LINK	1187	THRUST WASHER FOR 1183	1280	WRENCH, LARGE	1444	SPRING FOR 1444
1071	HINGED STUD FOR 1070	1188	OIL WICK HOLDER	1281	WRENCH, SMALL	1445	SCREW FOR 1443
1072	SET SCREW FOR 1071	1189	SCREW FOR 1188	1282	NEEDLES	1446	SET SCREW FOR 1442
1073	NEEDLE BAR CRANK	1190	RUBBER FLANGE	1283	WOOD SCREW FOR 1274	1447	SPRING JOINT
1076	NEEDLE BAR CRANK CONNECTION	1192	FEED LIFTING BELL CRANK	1284	WASHER FOR 1283	1448	COLLAR FOR 1447
1077	NEEDLE BAR BRACKET	1193	JOINT SCREW FOR 1192	1301	ARM JOINT	1449	KNEE LIFTER SHAFT
1078	CLAMP SCREW FOR 1077	1194	NUT FOR 1193	1302	TOP COVER PLATE ONLY	1450	KNEE LIFTER ARM
1079	SLIDING BLOCK FOR 1077	1195	SET SCREW FOR 1192	1304	TOP SHAFT ONLY	1451	KNEE LIFTER LOWER LEVER
1083	GUIDE TUBE FOR 1067B	1196	FEED LIFTING SHAFT	1305	HAND WHEEL	1452	KNEE LIFTER ARM JOINT
1085	PRESSER BAR LIFTER LEVER	1198	CLAMP SCREW FOR 1608	1306	FRID CAM	1453	ADJUST SCREW FOR 1448
1090	HINGE SCREW FOR 1085	1199	SLIDING BLOCK FOR 1335	1307	GUIDE FOR FEED FORK	1454	NUT FOR 1453
1091	LOCK NUT FOR 1085	1202	SCREW FOR 141	1308	SET SCREW FOR 1306	1455	ADJUST SCREW FOR 1451
1093	HINGE SCREW FOR 1431	1203	OIL WICK SUPPORT	1314	FEED REGULATOR LINK	1456	FEED BAR BELL CRANK
1094	SPRING FOR 1431	1204	SCREW FOR 1203	1315	ADJUSTING WASHER FOR 1193	1457	SET SCREW FOR 1183
1095	KNEE LIFTER LINK	1205	OIL WICK FOR FEED SHAFT	1320	PACKING FOR 1346	1458	CAP SCREW FOR 1459
1096	LINK SCREW FOR 1095	1206	OIL WICK CONTROL BAND	1321	SOFT PLUG FOR 1346	1459	THRUST WASHER FOR 1460
1097	KNEE LIFTER PULL ROD	1207	VINYL SLEEVE FOR 1205	1326	CAP SCREW FOR 1606	1460	BEARING ROLLERS COMPLETE
1098	NUT FOR 1097	1209	TENSION BARNEL	1328	OIL SEAL FOR 1602	1461	SET SCREW FOR 1462
1099	FELT WASHER FOR 1097	1210	TENSION DISC	1335	FEED BAR		
1101	SET SCREW FOR 1405	1211	CHECK SPRING				

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