

# 1118 SERIES

Standard Subclasses

# U.S. BLIND STITCH MACHINE CORP.

# **MAINTENANCE & PARTS CATALOG**

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# U.S. BLINDSTITCH MACHINE CO.

400 Veterans Blvd., Carlstadt, NJ 07072
Tel: 201-809-2009 • 1-800-225-2852 • FAX: 201-861-9201
www.USBlindstitch.com

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# III – MAINTENANCE INSTRUCTIONS FOR 1118, 1099 & 1108 SERIES

# INTRODUCTION

- A. Replacing the Looper
- B. Replacing the Needle Guide
- C. Replacing the Shoe
- D. Replacing the Feeder

#### **MAINTENANCE INSTRUCTIONS**

#### INTRODUCTION

All U.S. BLIND STITCH machines are designed for long life and trouble-free performance. When installed and lubricated in accordance with the INSTALLATION AND OPERATING INSTRUCTIONS, only the minimum maintenance normally associated with industrial sewing machines will be required. These maintenance requirements will generally be confined to the four locations described below, at which wear may be expected after extended use. When such wear does occur, the worn part may be readily replaced by following the appropriate instructions. For ease of installation, and to insure satisfactory service, it is essential that only genuine U.S. BLIND STITCH parts and needles are used. They are the <u>only</u> parts designed specifically for the machine, with the builtin long life and excellent wearing characteristics typical of the U.S. BLIND STITCH machine.

#### A. REPLACING THE LOOPER

- 1. Should it become necessary to replace the looper (item "B" in Figure 6), loosen the looper clamp screw (item "A" in Figure 6) and remove the old looper. Because of the precise fit of the looper in the looper rod it may be necessary to exert a moderate amount of force to pull the looper out. Insert the new looper into the end of the rod as far as it will go before bottoming on the looper shoulder.
- 2. Any time a looper is moved or changed, recheck the looper timing and reset if necessary. Proper looper timing is absolutely essential for correct stitch formation. As described in detail below, a properly timed looper will pass over the needle in the correct position to pick up the loop, and also clear the chain-off pin, feeder, looper slot, and needle. The first check point for timing the looper is at the position where the looper picks the thread loop off the needle during the needle return stroke. Referring to Figure 7, (Point "C"), the long prong of the looper should pass over and just clear the scarf of the needle, approximately 3/32" (2.4mm) behind the end of the needle eye. At the same time, the short prong of the looper should pass over the needle with about 1/64" (.406mm) clearance, and must be so set that it also clears the chain-off pin (item "D" in Figure 7).

- 3. To adjust the looper so that the timing checks out as noted in paragraph 2, it may be rotated within its clamp by a limited amount. This adjustment should be made with the looper clamp screw (item "A" in Figure 6) loosened, and the looper bottomed against its shoulder. Do not move the looper in or out, and do not attempt to force the looper to turn beyond the limited amount of travel available.
- 4. If the adjustment described in paragraph 3 is insufficient to provide the correct timing, it will be necessary to turn the looper rod (item "E" in Figure 6) itself. This may be accomplished by loosening with looper rod clamp screw (item "C" in Figure 6). The rod is then free to turn in the looper rod fork (item "D" in Figure 6). It will normally be necessary to make only a very small adjustment in order to get the looper into the correct rotational position for proper timing. If, for any reason, the rod has been removed or the basic setting of the looper rod has been disturbed by a large amount, it may be reset by noting that the distance from the center of the looper rod fork pin (item "F" in Figure 6) to the rear face of the looper rod ball (item "G" in Figure 6) is normally 4 & 3/32 inches (104mm) (refer to Figure 6). If the rod is set to this dimension then only minor adjustment will be required to bring the looper into the correct timing position. Note that this dimension is merely a guide to assist in setting a rod and variations may be expected from machine to machine.
- 5. If, after completing the above adjustments, it is found that the looper is either too low or too high, it will be necessary to adjust the eccentric stud. First loosen the two set screws (item "A" in Figure 7). Place a wide blade screwdriver in the slot of the eccentric stud (item "B" in Figure 7) and, using a slight turning motion, raise or lower the looper as required. Once the proper height is established, check to see whether the looper must be moved to the left or to the right prior to retightening the eccentric block set screws. If such a movement is required, it may be obtained by lightly tapping the eccentric block in the correct direction with the handle of a screwdriver.

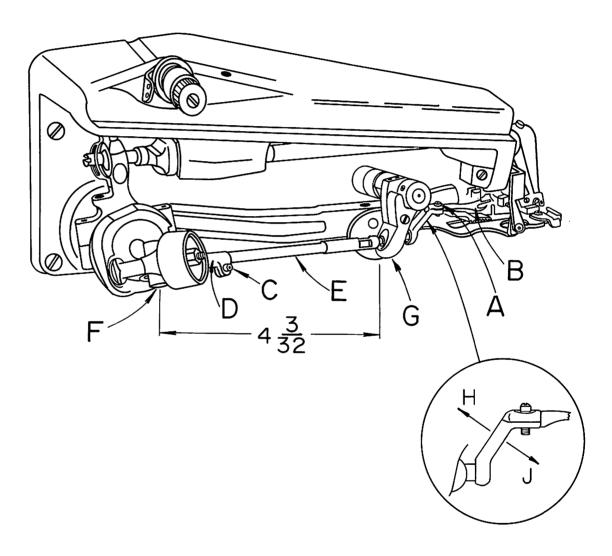


FIGURE 6

- 6. Once the looper is timed with respect to the needle as outlined in paragraphs 2 thru 5 above, slowly turn the handwheel in a direction away from the operator, until the looper approaches the edge of the looper slot. (Point "C" in Figure 8) in the presserfoot. At this point make sure the small prong of the looper clears this edge. If it does not clear, adjust the eccentric block as outlined in paragraph 5 until the interference is eliminated.
- 6A. If timing of looper still proves difficult, its possible that looper sweep required adjustment. If looper is too close to chain off pin and also, too close to needle guide on opposite position, the looper sweep is too short.

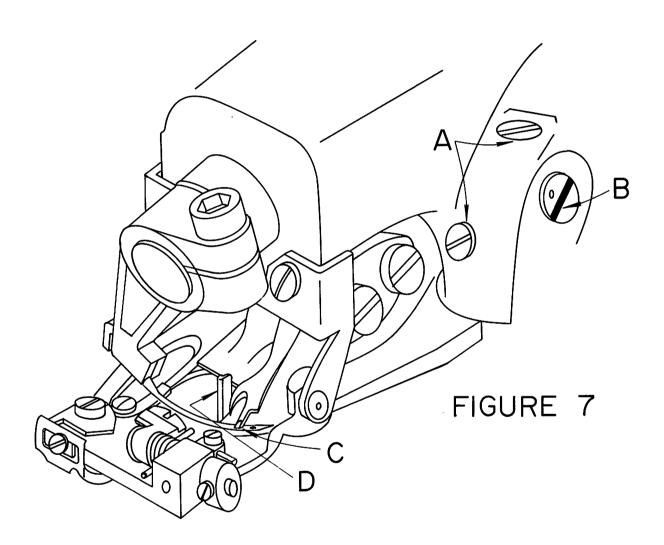
If looper on pick up stroke, is too far to right of chain off pin and too close to needle rest at left of presserfoot, the looper sweep is too wide.

For adjustment, refer to insert illustration (Figure 6). To widen looper sweep, flex or bend looper crank in direction of arrow "H".

To shorten looper sweep, flex or bend looper crank in direction of arrow "J".

Both adjustments should be gradual and sweep checked frequently.

7. Continue turning the handwheel away from the operator until the point of the needle starts to enter the area in between the looper prongs. (Refer to Point "D" in Figure 8). If the needle strikes the crotch of the looper, the looper has generally been set too far forward. Check to see if the looper has been inserted into the clamp as far as it will go. It should be inserted until the shoulder on the looper is stopped on the clamp. If this check is satisfactory, recheck the distance from the center of the looper rod fork pin to the rear face of the looper rod ball. Refer to paragraph 4 and reset if necessary. If neither of the above two measures corrects the problem, it is possible that the needle lever may be set too low and required adjustment.



- 8. Once clearance is established between the needle and the looper crotch, continue turning the handwheel away from the operator until the needle passes between the looper prongs, clearing both the long and the short prong. If difficulty is experienced at this point, it may be necessary to modify some of the previous adjustments to the eccentric block or the looper rod length. If this is done, recheck the previous points to insure that a position is established which will satisfy all of the clearance conditions.
- 9. After all the necessary adjustments have been made, tighten all set screws and the lock nut and recheck all the adjustment points. Referring to Figure 9, the looper should now clear the chain-off pin ("D"), feeder ("E"), looper slot ("F"), needle, and pass over the needle in the correct position to pick up the loop.

#### B. REPLACING THE NEEDLE GUIDE

1. After considerable service, it may be expected that the wearing action of the needle will cause a sharp edged groove to form on the needle guide (item "G" in Figure 9).

This condition can cause thread breakage and uneven penetration. When this happens the guide should be replaced. The needle guide was specifically designed as a readily replaceable wear plate to prevent damage to the presserfoot from the action of the needle.

2. Loosen the needle guide attaching screw (item "A" in Figure 9) and remove the worn needle guide. Clear out any lint or dirt that may have accumulated under the old guide and insert the new guide. Insure that the new guide is seated flush with the top and side of the presserfoot and then retighten the attaching screw. Slowly turn the handwheel in the direction away from the operator and check to insure that the new guide fits properly under the needle and that no interference has been introduced between the guide and the looper.

#### C. REPLACING THE SHOE

- 1. The shoe, (item "E" in Figure 8), also known as a cloth retainer, normally will not required replacement. However, in the event of wear due to the particular fabrics being used, or if the shoe or spring suffers any damage, they may be readily replaced.
- 2. The first step is to remove the complete front guide assembly by unscrewing the front guide holder attaching screw (item "A" in Figure 8). Next loosen the shoe pin and the shoe eccentric barrel lock screws, (item "B" Figure 8), and slide out the shoe pin (item "F"), shoe and retaining spring (item "G"). Before removing these components it is advisable to note the manner in which the spring is assembled so that it may be reinstalled in the same way.

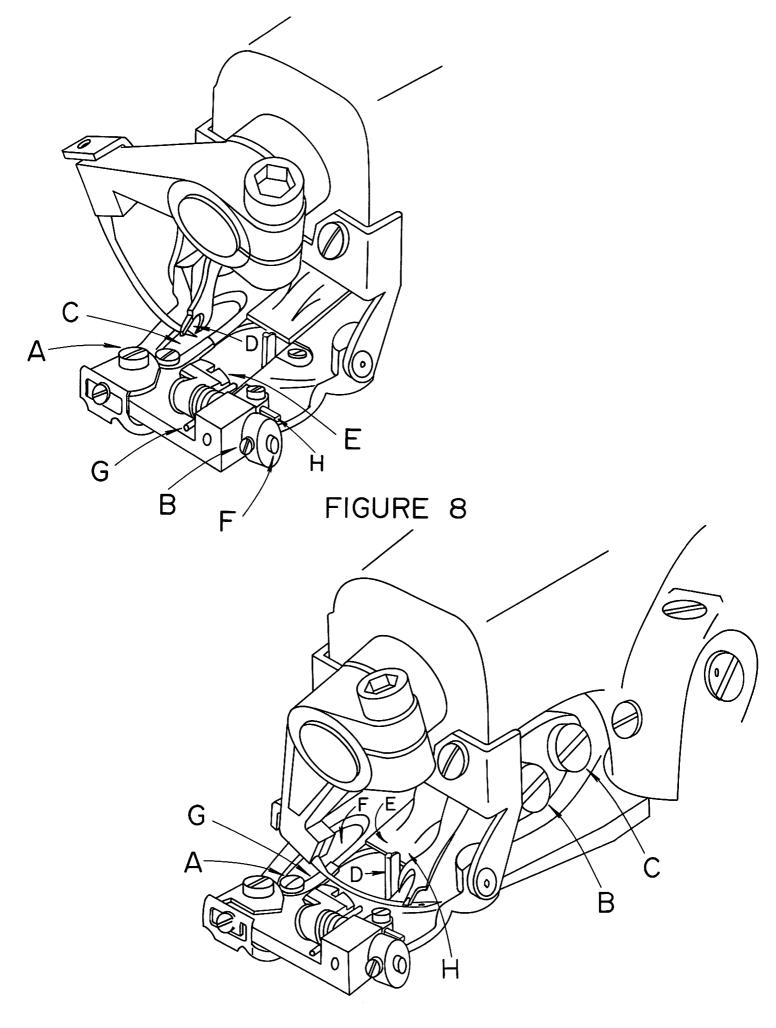


FIGURE 9

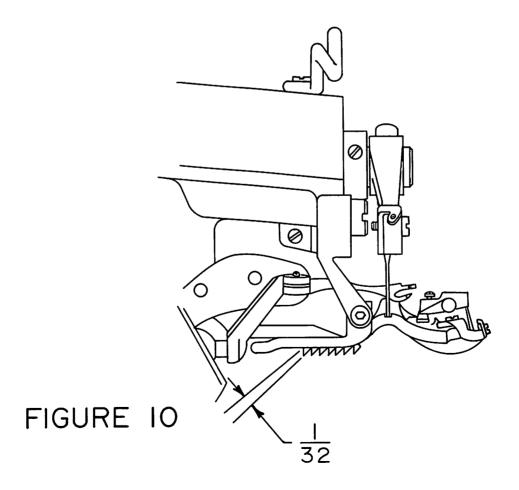
- 3. When replacing an old shoe, make sure that the replacement shoe properly fits the pin without binding and without excessive looseness. In the event that the pin has worn and does not fit the new shoe properly, it should be replaced at the same time as the shoe-pin. After replacing the shoe, shoe pin spring into shoe eccentric barrel, retighten screws (item "B" Figure 8), and check to insure that the center of the shoe is lined up with the center of the rib. Also insure that the shoe clears both sides of the opening of the presserfoot.
- 4. In and out position of shoe should now be checked. For light fabrics, shoe should be as close to needle as possible. For heavy fabrics with seam, shoe should be set back as far as possible from needle. To move shoe in and out turn eccentric barrel (item "I" Figure 8). After the correct location is established, be sure to tighten screws, (item "B" Figure 8).
- 4A. An additional shoe adjustment is also possible. The height of the shoe can now be controlled, (item "H" in Figure 8). This is a tapered pin and position can be adjusted so that the shoe, whenever required, can be controlled as far as elevation is concerned. By moving the tapered pin in or out the shoe can be kept from pressing down on some fabrics which require little, if any shoe pressure. By having this control, it sometimes will aid in penetration of difficult fabrics. The normal position of the shoe, when set properly on most fabrics, is that the shoe will show movement on the penetration cycle on one ply of fabric.

#### 5. REPLACING THE CHAIN OFF PIN

- 1. After considerable service, it may become necessary to replace the chain off pin, (Item "D" in Figure 7).
- 2. Remove the chain off pin attaching screw and remove the chain off pin, clean out any lint or dirt that may have accumulated. Attach the new chain off pin, using the screw previously removed. Insure that the chain off pin is against the side and forward edge of the slot in the presserfoot, and then tighten the screw.

#### D. REPLACING THE FEEDER

- 1. In the event that the machine develops difficulty by failing to properly feed the work, a worn feeder is frequently found to be the cause. After considerable service, especially with certain hard fabrics, the feeder teeth have a tendency to become dull, and the feeder should be replaced. In order to remove the old feeder, remove the front feeder attaching screw (item "B" in Figure 9) and loosen the rear feeder attaching screw (item "C" in Figure 9). The old feeder may then be slid out of place. Insert the new feeder under the rear screw and replace the front screw.
- 2. Before tightening the attaching screws check to see that the feeder is set to the proper depth. Referring to Figure 10 this should be approximately 1/32" (.795mm) below and parallel to the bottom of the presserfoot for all light and medium weight fabrics. For heavy fabrics, the setting should be approximately 1/16" (1.59mm) below and parallel to the bottom of the presserfoot. These dimensions are intended as guides and may be modified as required by the specific fabrics. Once the proper depth is established, rotate the handwheel slowly in a direction away from the operator and check to insure that the feeder clears the looper (see Figure 9, Point "H") and also clears both sides of the feeder slot in the presserfoot. Firmly tighten feeder attaching screws (Figure 9, Items "B" & "C") before resuming sewing.

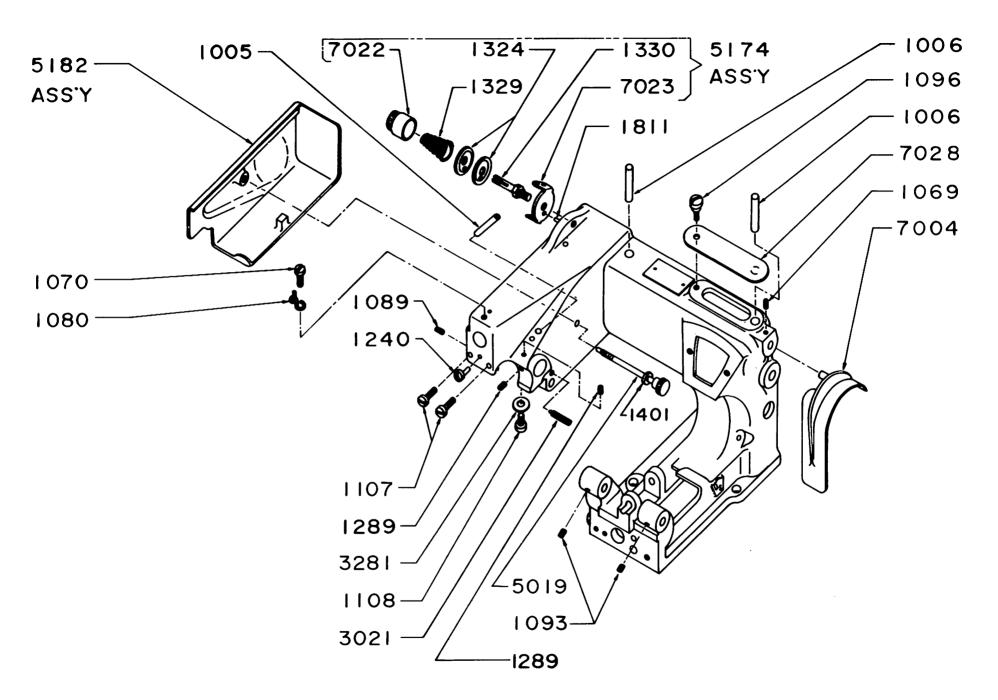


# 1118 SERIES PARTS CATALOGUE COVERING THE FOLLOWING STANDARD SUB-CLASSES:

1118	1118 <b>-</b> S
1118-C	1118-1
1118-K	1118-2
1118-N	1118-9

### MAIN FRAME GROUP

5182	Side Cover Assembly	1005	Tube, Oil
1401	Washer, Clamp Screw	1006	Wick, Oil
5019	Screw, Side Cover	1093	Screw, Set
7004 1069	Guard, Belt Screw, Guard	1289 1240	Screw, Set Pin, Presserfoot
5174	Thread Tension Regulating Ass'y.	1089	Screw, Set
	Consists of:	7028	Plate, Top Cover
	7023 Thread Guide	1096	Screw, Top Cover
	1324 Disc. Thread Tension	1107	Screw, Bridge Mtg.
	1330 Post, Thread Tension	3281	Washer, Clamp Screw
	1329 Spring, Tension	1108	Screw, Clamp
	7022 Nut, Tension	1080	Thread Guide
	1811 Pin, Spring	1070	Screw, Thread Guide
3021	Screw, Feed Lever Plate		



MAIN FRAME GROUP

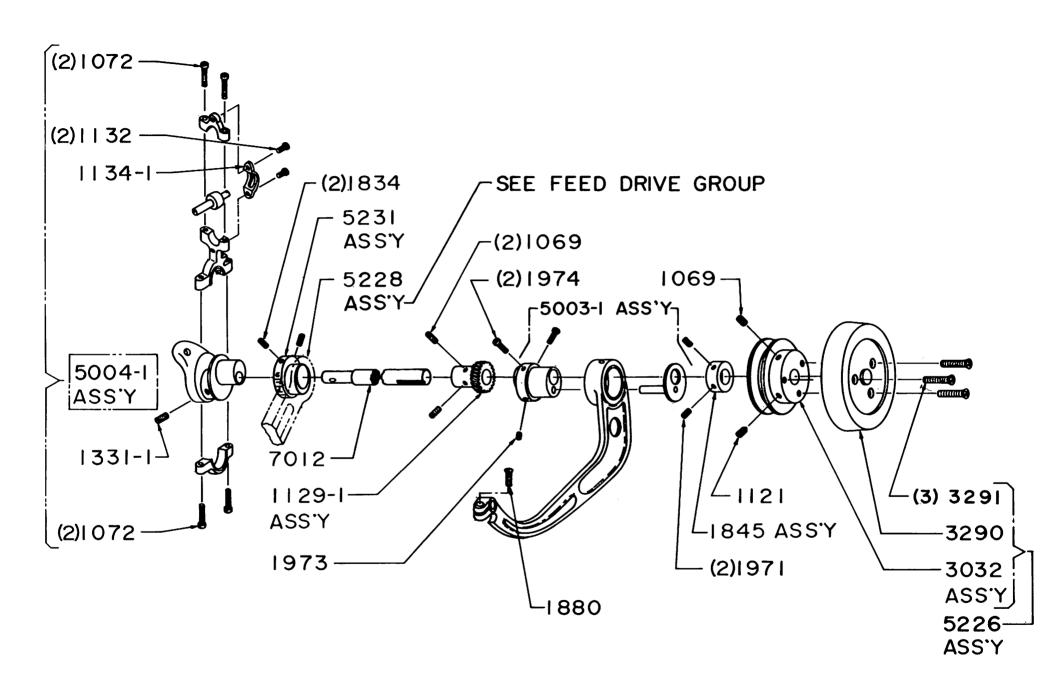
#### MAIN SHAFT GROUP

7012	Main Shaft	1129-1	Gear Spiral 2 to 1 Ratio
5003-1*	Rib Connection Lever & Eccentric Ass'y.		1069 Screw
	1974 Screw Eccentric	1845	Collar Ass'y.
	1973 Screw For Stud		1971 Screw
	1880 Screw, Clamp	5226**	Handwheel Ass'y.
5004-1*	Needle Connection Ass'y.		3290 Handwheel
	1072 Screw		3291 Screw
	1134-1 Guard		3032 Pulley Ass'y.
	1132 Screw		1121 Screw
	1131-1 Screw		1069 Screw
5231	Stitch Collar Ass'y., Regular		
	1834 Set Screw		

\*Sold as an Assembly Only

\*\*The Following Optional Handwheel Ass'y. Are Available

5188-1 Handwheel With Position Hub
5240 Handwheel Double Pulley Ass'y.
5253 Handwheel, Double Pulley and
Positioner Hub Ass'y.



MAIN SHAFT GROUP

#### NEEDLE DRIVE GROUP

5082	Needle Lever Ass'y.	5135	Collar A	ss'y.
	1076 Screw		1089	Screw
	3050 Screw	1095	Shaft	
	1137 Clamp		1118	Screw
	1243 Pin -			
	1136 Lever			

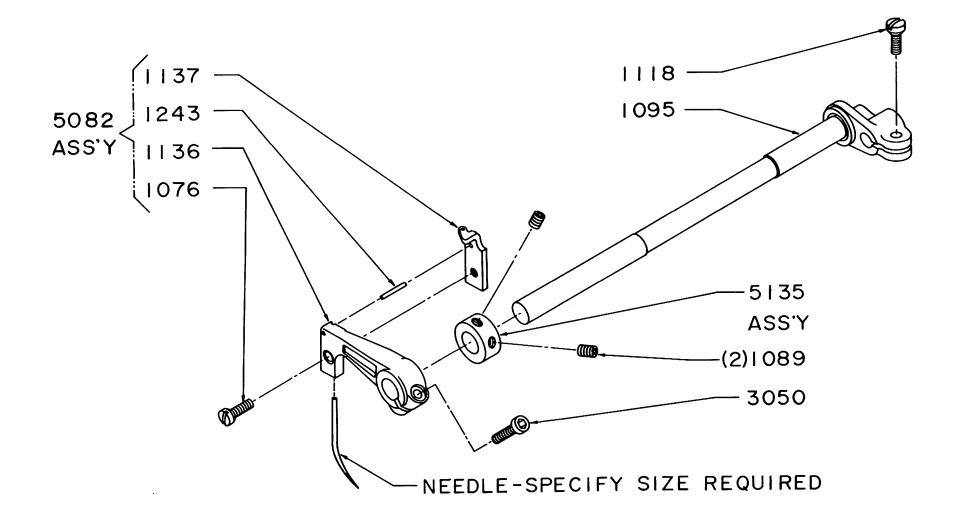
#### NEEDLE SIZES AVAILABLE

Use Genuine U.S.B.S. Needles For Best Results

Long Needles - System 251

Regular Point Sizes	Ball Point Sizes	Spear Point Sizes
00	10	10
10	15	15
15	20	20
20	25	25
25		30
30		35
35		65
40		
55		

Short Needles Also Available - Ask For List



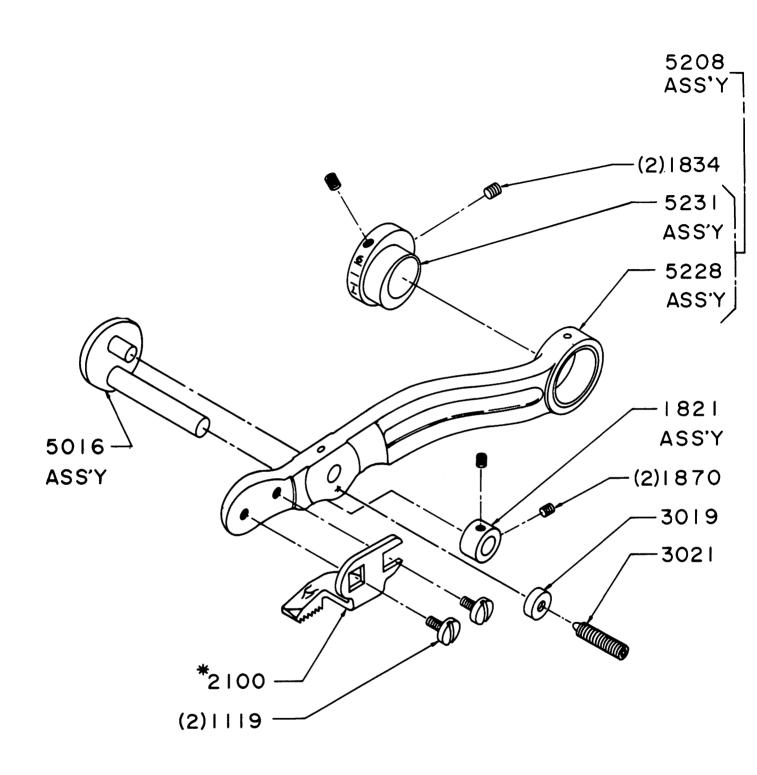
NEEDLE DRIVE GROUP

# FEED DRIVE GROUP

5208	Feed Lever & Stitch Collar Ass'y. (Sold as Ass'y. only)
5016	(Sold as Ass'y. only) Feed Rocker Ass'y.
3019	Feed Lever Plate
3021 1821	Screw - Lever Plate Thrust Collar Ass'y.
	1870 Set Screw
2100*	Feeder
	1119 Feeder Screw

# \*Types of Feeders Available

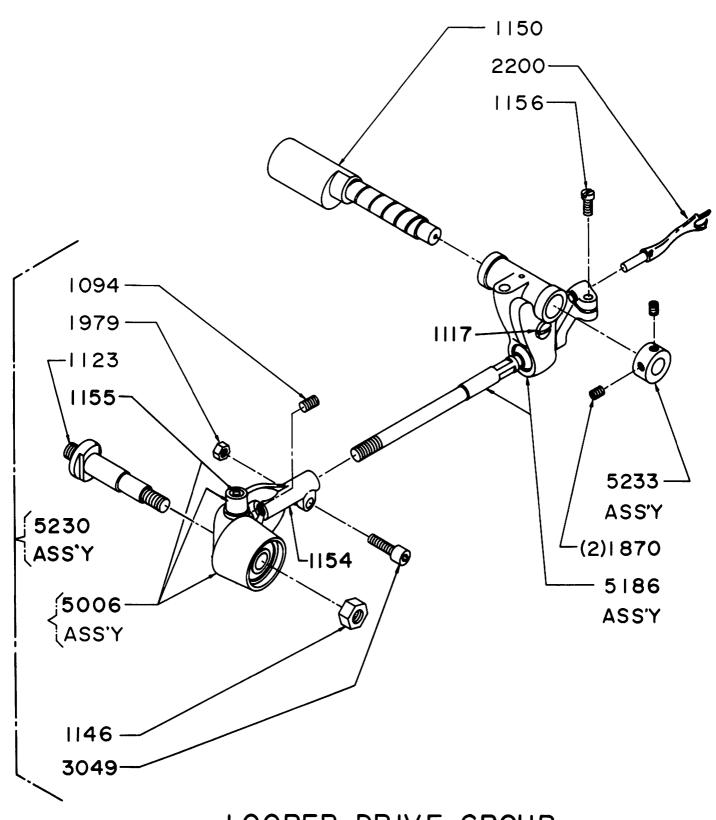
Fine 2101 Armoloyd 2125 Carbide 2119 Rubber 2120



FEED DRIVE GROUP

# LOOPER DRIVE GROUP

Dart No	Description
FALC NO.	Description.
2200	Looper
1150	Stud, Looper Adjustment
5233	Collar Ass'y.
	1870 Set Screw
5230	Looper Rod Fork, Sleeve & Stud Ass'y.
	Consists of:
	1154 Fork
	1155 Pin
	3049 Screw
	1979 Nut
	1123 Stud
	1146 Nut
	5006 Looper Rod Sleeve Ass'y.
	(Not sold separately)
	1094 Screw
5213	Looper Rod & Fork Ass'y.
	Consists of:
	5185 Looper Rod & Ball Ass'y.
	1154 Fork
	3049 Screw
	1979 Nut
5186	Looper Rod & Carrier Ass'y.
	Consists of:
	5017 Looper Rod Carrier Ass'y.
	1117 Screw
	5185 Looper Rod & Ball Ass'y.
5206	Looper Rod, Fork & Carrier Ass'y.
	Consists of:
	5186 Ass'y.
	1154 Fork
	3049 Screw
	1979 Nut



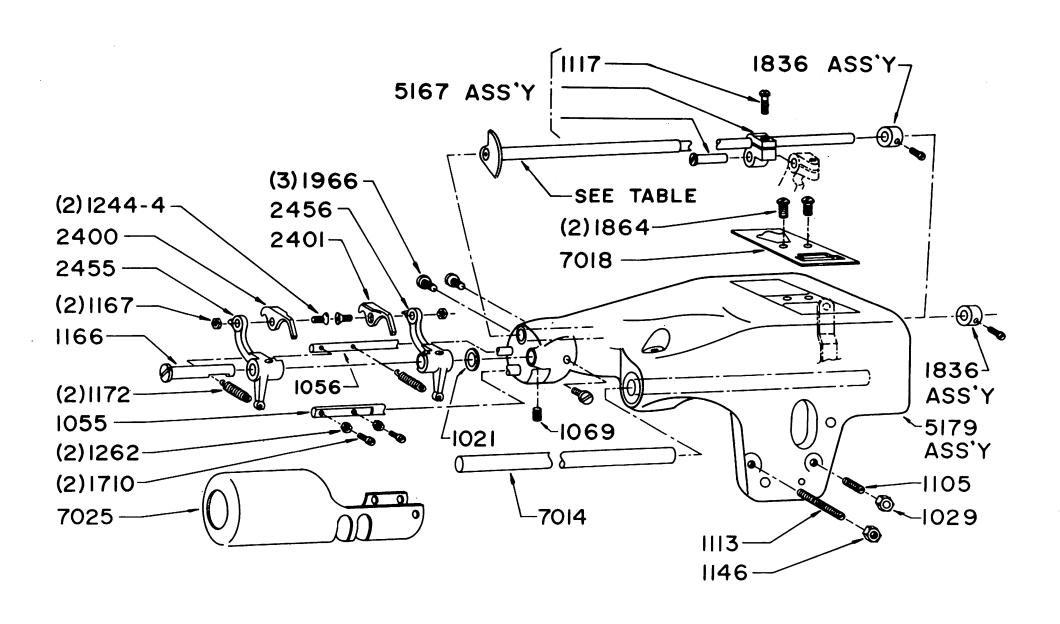
LOOPER DRIVE GROUP

# FEED FRAME I GROUP

5179	Feed Frame Ass'y.	2455	BKT, L.H. Platten
1836	Collar Ass'y.	2456	BKT, R.H. Platten
	1079 Set Screw	1166	Stud
5167	Rib Shaft Crank Ass'y.	1069	Set Screw
	1117 Screw	1021	Spacer := 1021-1 = .010";
7018	Plate, Window		-2 = .015", etc.
1864	Screw, Plate	1172	Spring
1056	Post, Spring	1710	Screw, Limit
1262	Nut	1055	Post
2400	Platten, L.H.	2401	Platten, R.H.
1244-4	Screw, Platten	1113	Screw, Frame
1146	Nut	1105	Screw
1029	Nut	7025	Cylinder
1966	Screw, Cylinder	7014	Shaft, Rocker
1167	Nut. Platten Lock		•

# TABLE

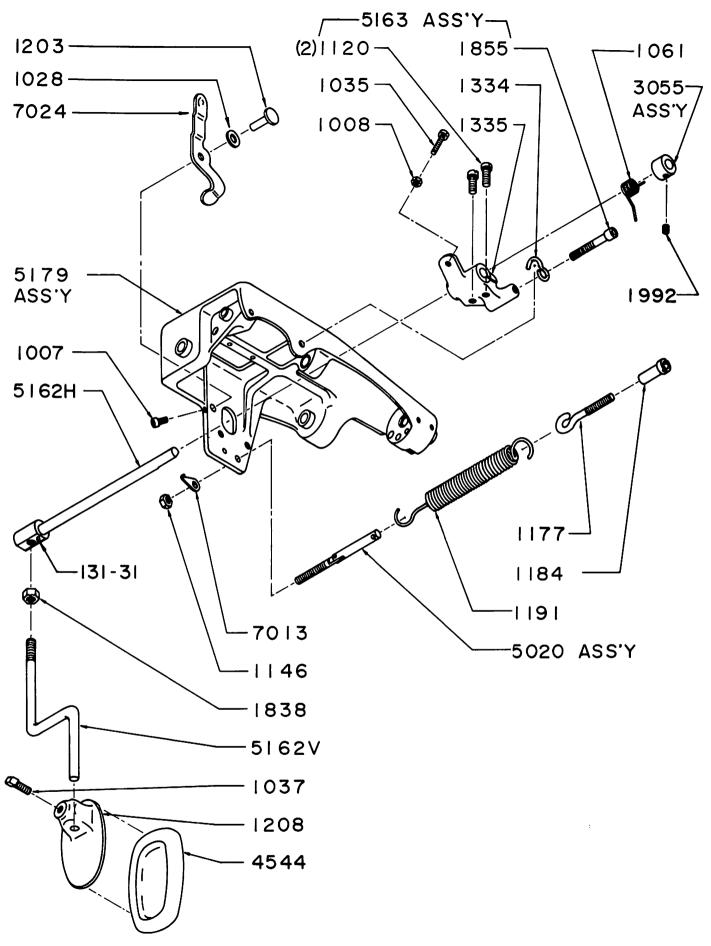
Model	Rib Shaft Ass'y.
	0000
1118	8008
1118-C	8007
1118-K	8004
1118-N	8008
1118-S	8000
1118-1	8001
1118-2	8007
1118-9	8001



FEED FRAME GROUP I

# FEED FRAME GROUP II

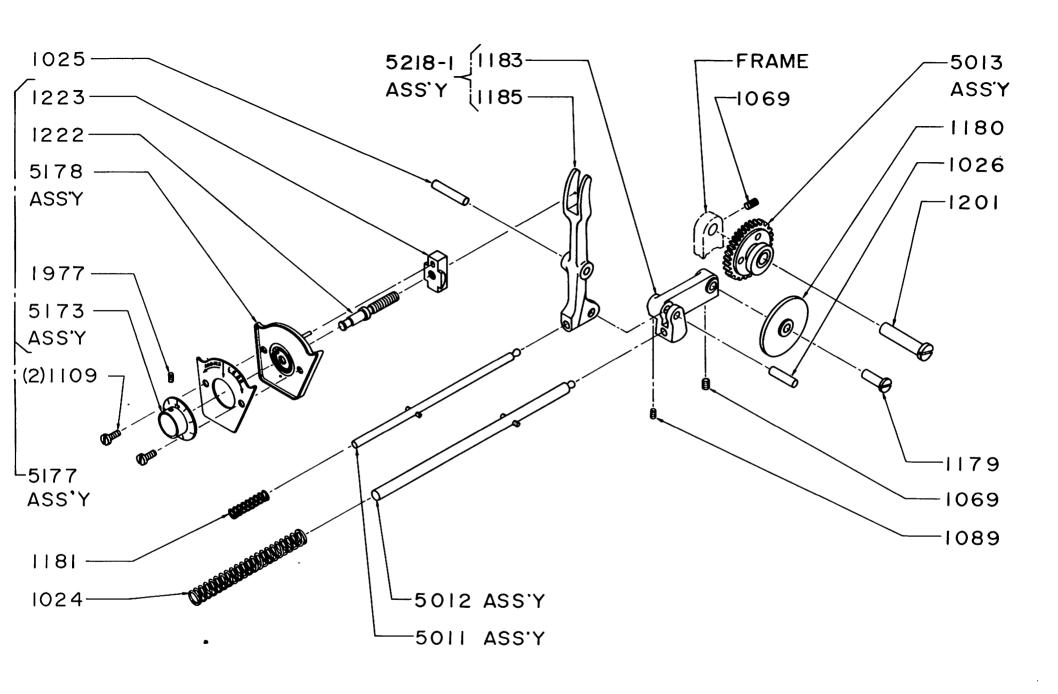
5020	Spring Link Ass'y.
	1176 Pin
1146	Nut, Ret'ng.
1177	Screw, Link
1184	Nut, Spring
1191	Main Spring
5163	Lift Arm Ass'y.
	1335 Lift Arm
	1855 Screw
	1334 Hook
	1120 Screw
	1035 Screw
	1008 Nut
3055	Collar Ass'y.
	1992 Set Screw
1061	Spring
5235	Knee Pedal Ass'y.
	1208 Knee Pedal
	1037 Screw
7013	
	Vertical Offset Rod
	Nut
4544	Pad, Pedal
	Horizontal Rod, Knee Press
131-31	
7024	
1203	
1028	
1007	Screw



FEED FRAME GROUP I

### REGULATING GROUP

1201	Pin, Pivot, Gear	5013	Gear Ass'y., Skip Stitch-2:1 Ratio
1069	Set Screw	5177	Regulator Ass'y Complete
1180	Cam Follower		1109 Screw, Regulator
1179	Pin, Pivot, Follower		5173 Dial & Ratchet Ass'y.
1069	Set Screw		5178 Dial Plate Ass'y.
1183	Support Arm		1223 Shoe
1026	Pin, Pivot, Arm		1222 Screw
1089	Set Screw		1977 Screw
1185	Regulating Fork	1025	Pin
5012	Push Rod Ass'y.	5011	Push Rod Ass'y.
	1023 Pin		1022 Pin
	1024 Spring		1181 Spring



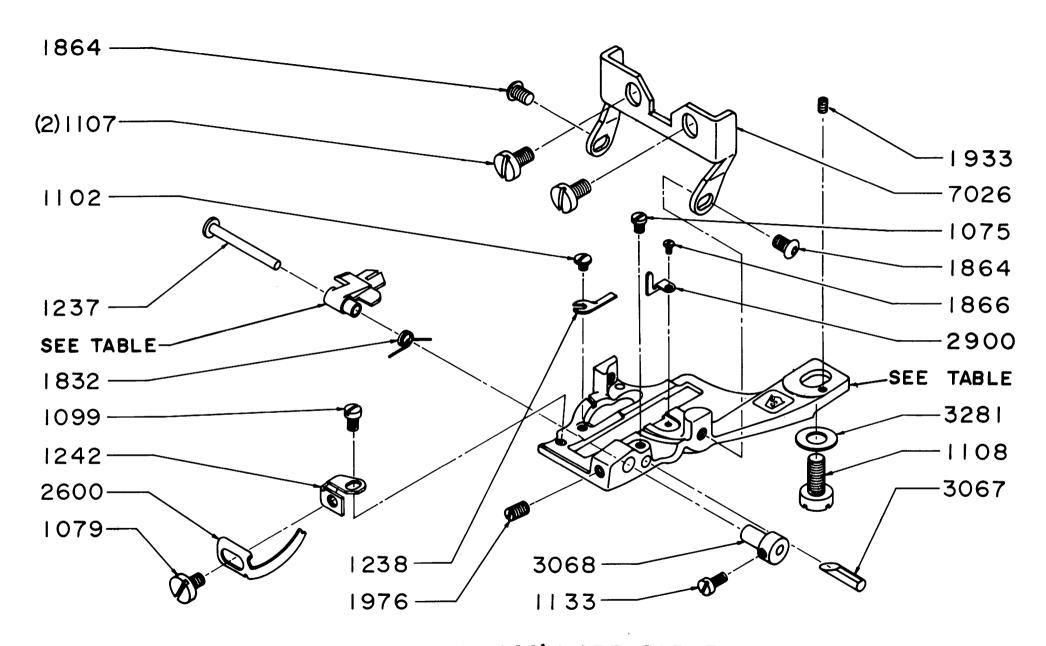
REGULATING GROUP

# PRESSERFOOT ASS'Y.

# 1118 SERIES

Partial Ass'y.*	See Table	Consists o See Table 2900 1866	Presserfoot Pin - "Chain-Off" Screw Needle Guide Screw
Complete Ass'y.**	See Table 3067 1075 3068 1133 1237 1832 1976 1242 1099 2600 1079 1107 7026 1864	Shoe Wedge Screw Bushing, S Screw Pin Spring Set Screw Bracket Screw Guide Screw Screw, Bri Bridge Screw	hoe Adjustment

		Table		
Model	Shoe	Presserfoot	Partial Ass'y.*	Complete Ass'y.**
1110	2552	2351	8501	8601
1118 1118C	2553 2550	2350	8500	8600
1118K	2550	2350	8500	8600
1118N	2554	2352	8502	8602
1118-1	2550	2350	8500	8600
1118-2	2550	2350	8500	8600
1118-9	2550	2350	8500	8600



PARTIAL ASS'Y SEE TABLE COMPLETE ASS'Y SEE TABLE PRESSERFOOT GROUP

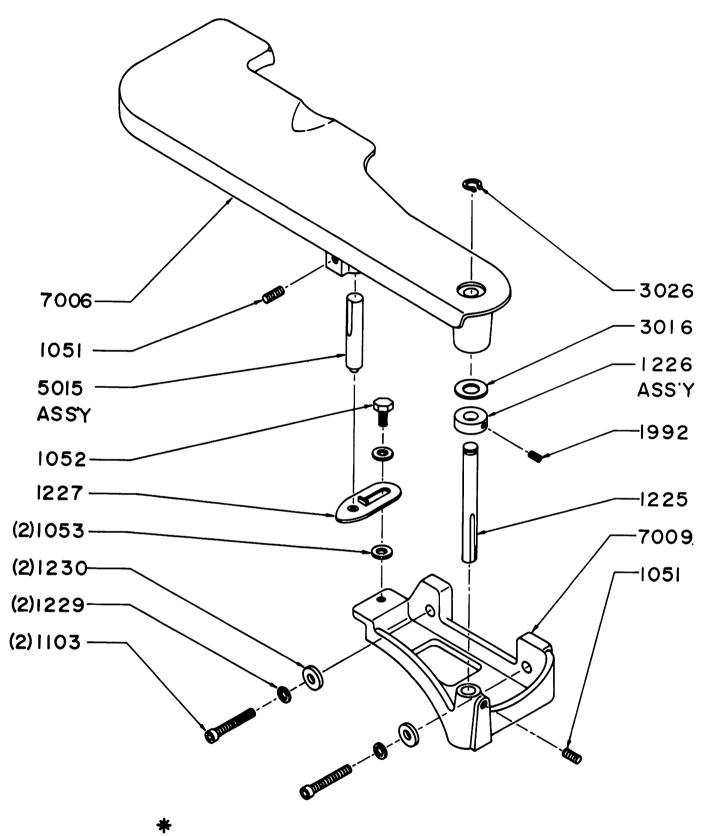
# FRONT PLATE GROUP

7006	Swing Plate	1225	Pivot Pin
1051	Screw	3026	Retaining Ring
5015	Stop Pin Ass'y.	7009	Support Bracket
1227	Stop Plate	1103	Screw
1052	Screw	1230	Washer, Flat
1053	Washer	1229	Washer, Lock
1051	Set Screw	1226	Collar Ass'y.
3016	Spring Washer		1992 Set Screw

# 5251 \* Complete Swing Plate Ass'y.

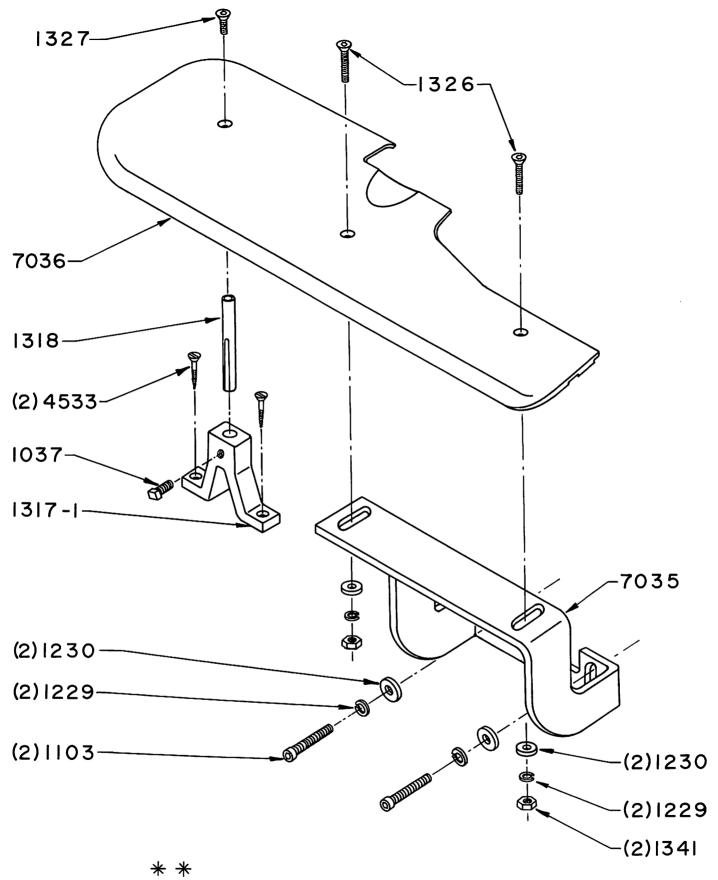
# NOTE:

Subclasses 1118-9, 1099-9, use stationary workplate. Complete assembly number 5264.



COMPLETE ASS'Y NO. 5251

FRONT PLATE GROUP



COMPLETE ASS'Y. NO 5264
FRONT PLATE GROUP