

SINGER/CHAMPION

MODELO - AH-38

AH-27

AH-17

= TAKING-138



CHAMPION

OPERATING INSTRUCTIONS

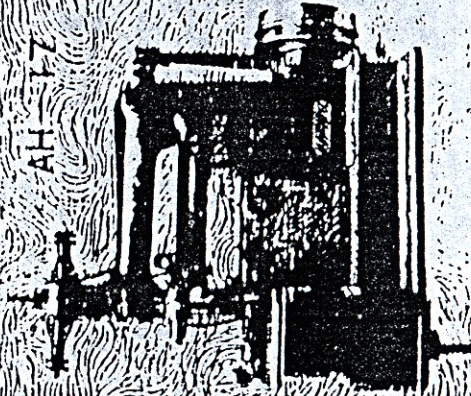
FOR

OVERLOCK SHELL STITCH MACHINE

MODEL AH-38

AH-27

AH-17



A. HOSOF SEWING MACHINE CO. LTD.

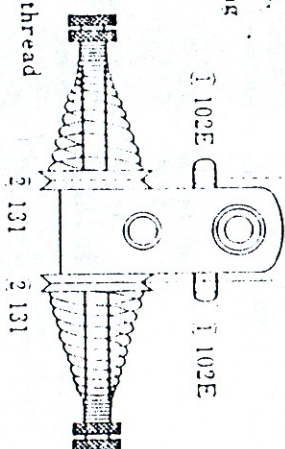
[W] - ORIGINAL

IMPORTANT

1. Before starting the machines, oil bearings of all moving parts.

2. Threading Machine

See Fig. 1 = 1)



— indicates the sewing thread

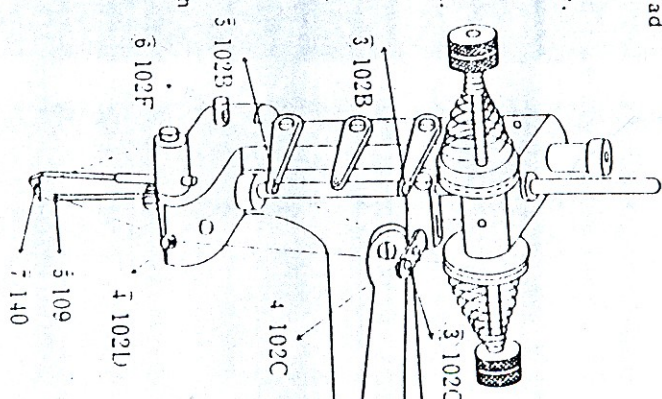
..... indicates ornamental thread

3. Hold the tale of the thread passed through the needle hole.

and turn the hand pulley clockwise until the sewing thread is hooked by Latch Hook.

Repeat the same procedure mentioned above after the ornamental thread passes through the looper.

Pass ornamental thread through the thread guide (= 102-A), instead of through guide (102-B) for sewing the thinner material. or more take-up stroke is required.



(Fig. = 1)

REPLACING NEEDLES

Turn the pulley away (clockwise) until the needle reaches in its highest point and loosen the needle clamp nut (≈ 108) by the wrench supplied as accessory to remove the old or defective needle.

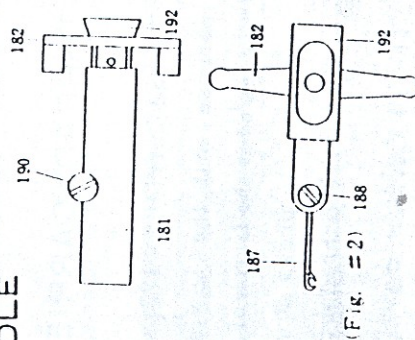
Insert the new needle and tighten the needle clamp nut (≈ 108).

Always replace the old or defective needles.

They affect the satisfactory operation of the machine.

REPLACING LATCH NEEDLE

Turn the pulley until the Latch Needle comes underneath the looper and loosen the set screw (≈ 188) by the driver through the hole located in the Frame Cap (≈ 184). By this, the Latch Needle can be removed by hand.



Insert the new Latch Needle until it reaches to the deepest point but make it sure that the Latch Needle is not inserted twisted.

Should you find any excess play on the Latch Needle, adjust the position of the Latch Needle Carrier Guide (L-shape) (≈ 181) by loosening the Screws (≈ 190), so that the L-shape Guide holds Latch Needle Carrier (≈ 182) lightly.

See, Fig. ≈ 2 .

TIMING OF LOOPER

Looper serves the purpose to reinforce the seams made by sewing thread, always to ease the sewing thread to be hooked by the Latch Needle.

Accordingly, the looper timing is most important to obtain the satisfactory seams.

(a) Adjustment of the Looper Heights

Set the looper so that it will be positioned with the following clearance between the Latch Needles:

On Model AH-22, AH-38 and AH-27 0.5m/m
On Model AH-17 0.2m/m

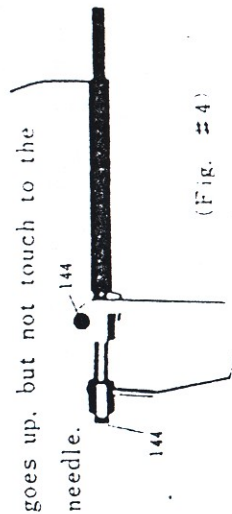
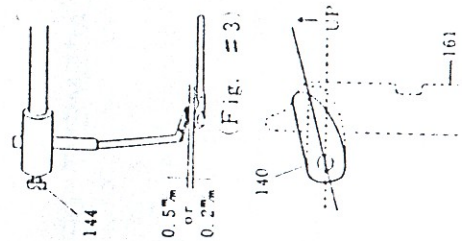
The above adjustments can be made by the Looper Set Screw ≈ 144 .

(b) Looper Toe is to be adjusted as shown by (Fig. ≈ 3 -a)

(c) Adjustment of the Looper Movement

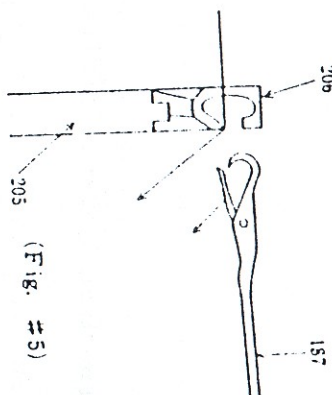
This can be made by the cam slide set screw ≈ 144 .

Set the looper, so that it comes to the closest position to the needle, when the needle goes up, but not touch to the needle.



correct setting is the cause of the said occurrence. Be sure that this timing is properly set. See Fig. # 4.

Needle Guide (# 206) serves the purpose not only to guard the needle in its correct position, but to open the Latch of Needle, occasionally.



Adjust the position of the thread guide by loosening the Needle Guard Bracket Screw #212 so that the top point of the Latch Needle comes to as close as to the Needle Guide, as shown in the Fig. #5.

The machine is equipped with the Needle Guard, which accepts the Needle of sizes up to #22, in its standard model.

If the thicker needle will be used, replace the needle guard as well, which can be obtained at the special requirement.

PLACEMENT OF SEAM FORMING PLATE #161

Seam Forming Plate #161 serves a purpose of Chaining Fingers. It is important for the satisfactory seam. Replace the plate whenever it is damaged by the needle.

Setting the different plate can be made as follows.

(a) On Models AH-38 and AH-42 Seam Forming Plate is designed with the stopper in its right side edge and accordingly, set the plate by pulling the same to the fullest extent.

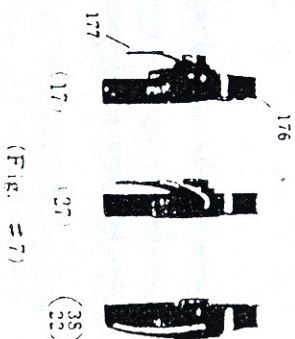
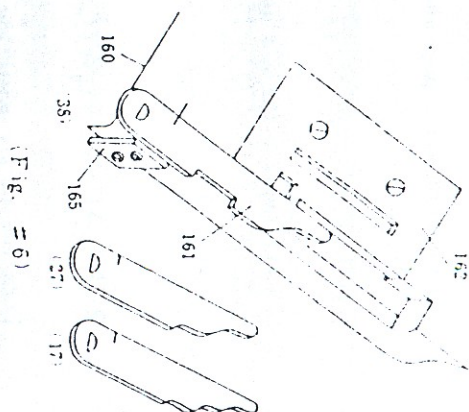
(b) On Models AH-27 and AH-17 The timing point is marked on the seam forming plate and the base cover and accordingly, set by these points.

Fig. # 6.

THREAD CARRIER

Thread Carrier (# 177) serves the purpose that the sewing thread passes over the Latch of the Needle, as well as to press down the ornamental thread through the looper.

Thread Carrier # 177 should be set horizontally on Models AH-38 and AH-22, but a little slantly on Model AH-27 and quite slantly on Model AH-17. (See Fig. # 7)



AND SETTING OF FRAME CAP # 184

the Latch Needle and remove the screws # 190 on the and Guide # 275.

two screws # 189 and # 184 to remove the Frame Cap

to put the cover plate in its position, turn the ways (rear and forward) with manual slight adjustment, so rollers on the latch needle carrier will meet the when push the cover forward.
that you remove the latch needle beforehand, whenever procedure.

LEVER

38 and AH-27, the different numbers of stitches per obtained by the  stitch number adjusting the Ratchet # 274 for the change to the different

22, this lever is not equipped and the change of the can be obtained by the cam (# 203-22) attached to the 10-22).

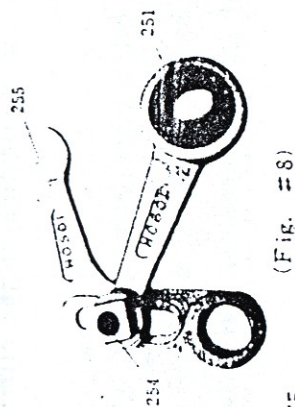
two cams (as shown in the parts catalog) forms four d by removing one side cam, the machine forms 8

7, the arrangement is similar to Model AH-22, but nt cam (# 203-17) and gear (# 200-17). Stitch number l by two cams and 3 stitches by one cam.

ADJUSTING THE FEED VOLUME AND SEAM WIDTH

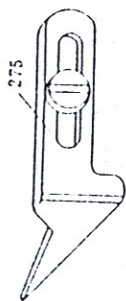
Feed Volume

Open the side cover and move the Feed Connecting Rod # 251 for adjustment, by loosening the nut # 254. (Fig. # 8)



Seam width can be adjusted but very slightly by the seam guide # 275. (Fig. # 8-a)

On Model AH-38 10m/m to 12m/m
On Model AH-27 7m/m to 9m/m
On Model AH-17 5m/m to 6m/m



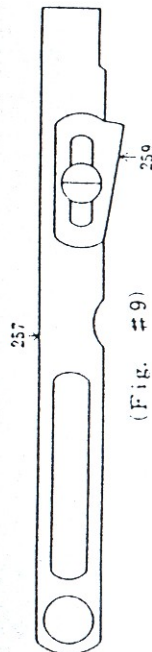
(Fig. # 8-a)

Heights of the Feed Lever # 261 can be adjusted by the adjustor # 259, located on the Feed Bar Bracket # 257.

By moving the adjuster # 259 to the left side, higher position of the feed is obtained and is good for heavier material.

Movement to the right side, lower the heights of the feed dog and is good for thinner material.

(Fig. # 9)



(Fig. # 9)

— Higher Position for Heavier Material.
— Lower Position for Thinner Material.

SUGGESTIONS (I)

Union Shell Stitch Machine produces the different sizes and shell stitches by the application of the different kinds of threads, thread and yarn.

In order to obtain the better shell stitches, the followings are suggested:

Make the tension of Looper Thread or Yarn always a little loose.

For using the synthetic stretchable thread, loosen the tension of the looper thread, and also make the tension of the sewing thread tighter.

For stretchable materials, make the tension of the looper thread tight to prevent the stretch of the material itself.

Model AH-27S is recommended for sewing extremely stretchable materials.

Is of Thread and Yarns to be used for the Large shell stitch:

For Model AH-38 and AH-22 — (Large size Shell stitch)

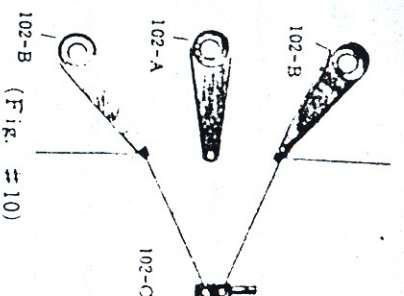
Wool and synthetic

For Model AH-27 (Medium size shell stitch) — wool and synthetic

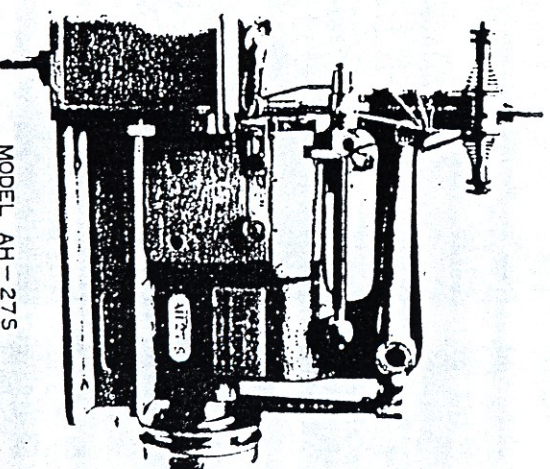
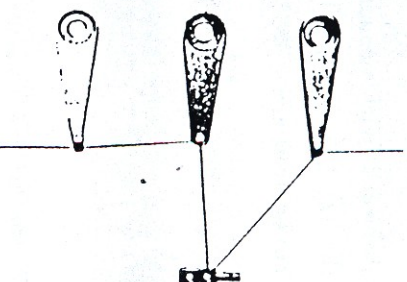
For Model AH-17 (small size shell stitch) — Cotton and rayon.

SUGGESTIONS (II)

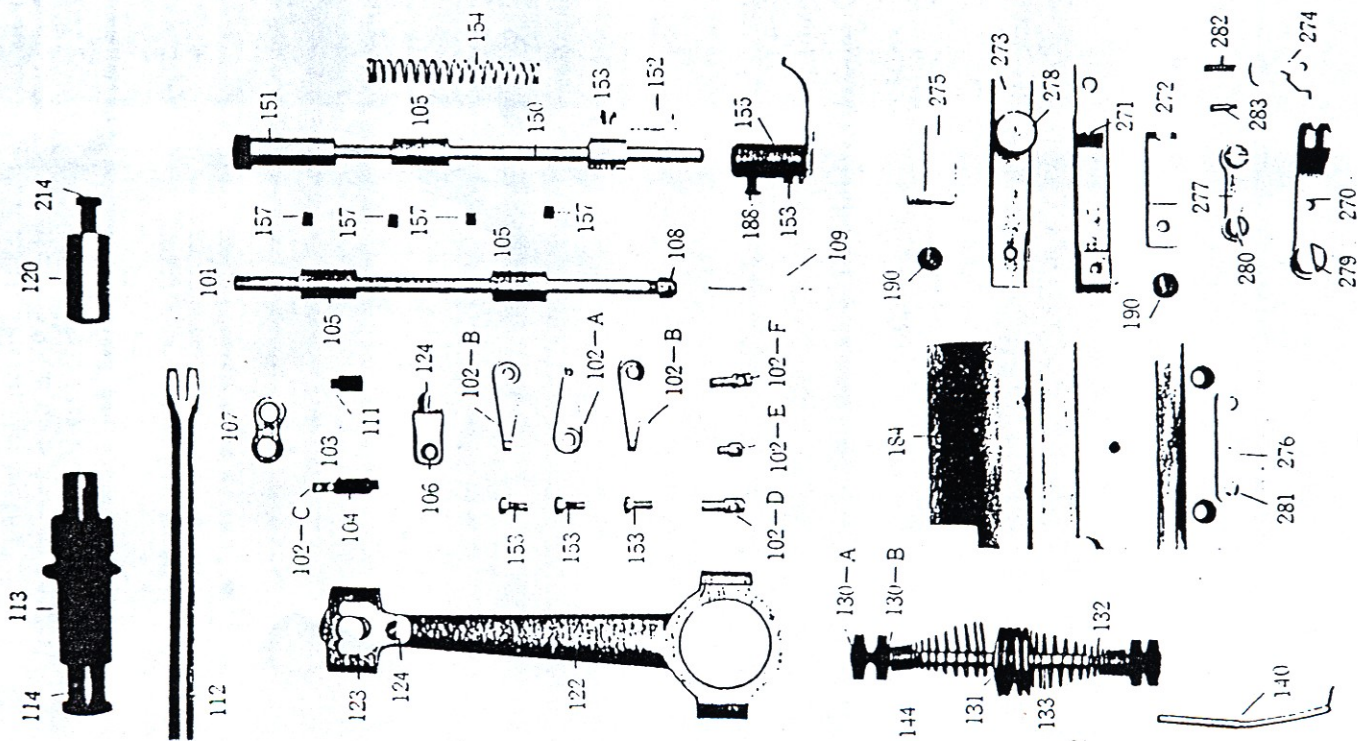
(d) In order to obtain more loose tension on the looper thread, adjust the angle of the thread guide, as illustrated. (Fig. # 10)



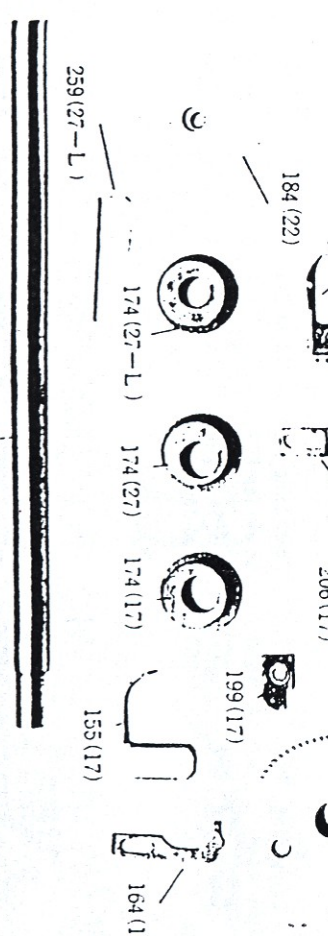
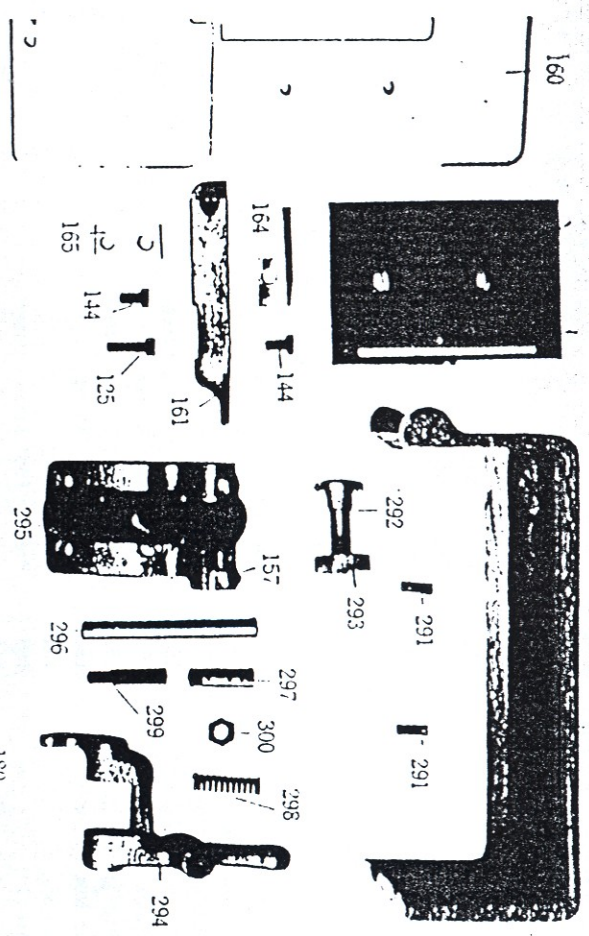
(e) If necessary, pass the looper thread through # 102A after # 102B before through to # 102C. (Fig. # 11)



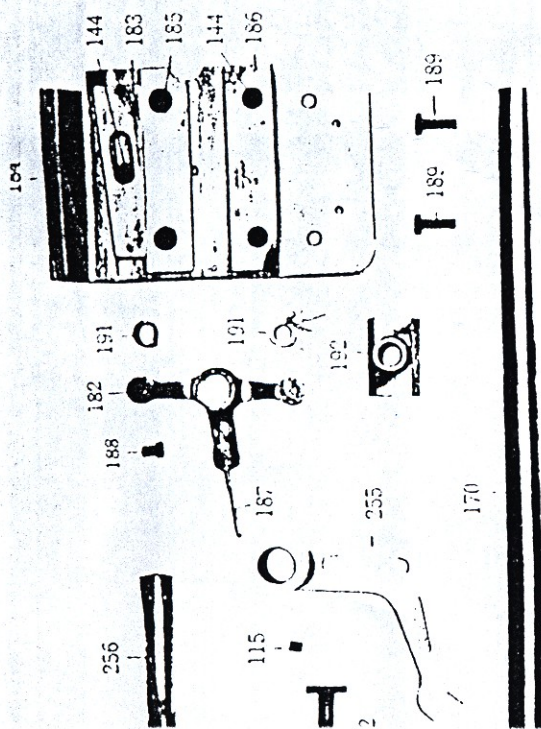
MODEL AH-27S



101	Needle Bar	132	Tension Stud
102 A-F	Thread Guides	133	Tension Spring
103	Set Screw for Thread Guide 102-C	140	Looper
153	Set Screw for Thread Guide 102-A and B	144	Looper Set Screw
104	Connecting Rod Stud (Large)	141	Looper Shaft Spring
105	Needle Bar Bushing (also serve as Presser Bar Bushing Lower)	142	Looper Shaft
157	Needle Bar Bushing Screw	143	Cam Slide
106	Needle Bar Guide	144	Cam Slide Set Screw
124	Needle Bar Guide Screw	150	Presser Bar
107	Connecting Rod for 112	151	Presser Bar Bushing Upper
108	Needle Clamp Nut	157	Presser Bar Bushing Screw
109-38	Needle for AH-38	152	Presser Foot Bracket
109-17	Needle for AH-17	153	Presser Foot Bracket Screw
110	Driving Wheel	154	Presser Foot Spring
116	Driving Wheel Set Screw	155	Presser Foot
111	Connecting Rod Stud (Small)	188	Presser Foot Screw (Upper)
112	Needle Bar Actuating Lever	153	Presser Foot Screw (Lower)
113	Needle Bar Actuating Lever Bushing	184	Frame Cap for AH-38 and 27
114	Needle Bar Actuating Lever Rod	270	Stitch Number Adjusting Lever
115	Needle Bar Actuating Lever Rod Screw	279	Stitch Number Adjusting Lever Screw
120	Bracket for Looper Shaft	271	Stitch Number Adjusting Lever Slide
214	Screw for 120	272	Connecting Slide for Feed Lifting Lever
121	Ball Stud for Needle Bar Connecting Rod	190	Set Screw for 271 and 272
144	Screw for 121	273	Guide Adjusting Slide
122	Needle Bar Connecting Rod	278	Guide Adjusting Slide Screw
125	Needle Bar Connecting Rod Screw	274	Ratchet for 270
123	Needle Bar Connecting Rod Spring	275	Guide (Seam Width)
124	Needle Bar Connecting Rod Spring	190	Guide Screw
130-A	Tension Nut A	276	Stitch Number Indicator
130-B	Tension Nut B	281	Stitch Number Indicator Screw
131	Tension Plate	277	Connecting Bar for 270 to 271
		280	Screw for 277
		282	Ratchet Spring
		283	Stud for 274



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|--------|------------------------------------|----------|-----------------------------|
| 160 | Base Cover | 170-27-L | Main Shaft for AH-27L |
| 125 | Base Cover Screw | 174-27-L | Feed Eccentric for AH-27L |
| 161 | Seam Forming Plate | 155-17 | Presser Foot for AH-17 |
| 162 | Needle Plate | 164-17 | Thread Guide Shim for AH-17 |
| 163 | Needle Plate Screw | 174-17 | Feed Eccentric for AH-17 |
| 164 | Thread Guide Shim for AH-38 and 22 | 199-17 | Feed Bar Stopper for AH-17 |
| 144 | Thread Guide Shim Screw | 200-17 | Feed Lifting Gear for AH-17 |
| 165 | Pressure Plate for 161 | 206-17 | Feed Lifting Cam for AH-17 |
| 144 | Screw for 165 | 206-17 | Needle Guard for AH-17 |
| 290 | Side Cover | | |
| 291 | Side Cover Screw | | |
| 292 | Side Cover Stopper | | |
| 293 | Stopper Knob | | |
| 294 | Presser Foot Lift Assembly | | |
| 295 | Presser Foot Lift Assembly | | |
| 153 | Presser Foot Lift Assembly | | |
| 296 | Presser Foot Lift Assembly | | |
| 157 | Presser Foot Lift Assembly | | |
| 297 | Presser Foot Lift Assembly | | |
| 298 | Presser Foot Lift Assembly | | |
| 299 | Presser Foot Lift Assembly | | |
| 300 | Presser Foot Lift Assembly | | |
| 171-38 | Lower Cam for AH-38 | | |
| 172-38 | Upper Cam for AH-38 | | |
| 171-27 | Lower Cam for AH-27 | | |
| 172-27 | Upper Cam for AH-27 | | |
| 171-17 | Lower Cam for AH-17 | | |
| 172-17 | Upper Cam for AH-17 | | |
| 180 | Cam Set Screw | | |
| 184-22 | Frame Cap for AH-22 | | |
| 155-27 | Presser Foot for AH-27 | | |
| 164-27 | Thread Guide Shim for AH-27 | | |
| 174-27 | Feed Eccentric for AH-27 | | |



166	Plug Pin on Body	204	Feed Lifting Gear Bracket
170	Main Shaft	214	Feed Lifting Gear Bracket Set Screw
173	Upper Shaft	205	Needle Guard Bracket
174	Feed Eccentric for AH-38 and AH-22	212	Needle Guard Bracket Screw
179	Feed Eccentric Screw	206	Needle Guard
175	Cover Plate for Thread Carrier Assembly	213	Needle Guard Screw
125	Set Screw for 175	207	Feed Lifting Lever
176	Thread Carrier Bracket	208	Feed Lifting Lever Rocker Screw
111	Pivot Screw	209	Feed Lifting Cam Guide
177	Thread Carrier	188	Feed Lifting Cam Guide Screw
124	Thread Carrier Screw	210	Feed Lifting Gear Rocker Screw
178	Slide Guide	251	Feed Connecting Rod
181	Latch Needle Carrier Guide (L-Shape)	252	Stitch Adjusting Stud
190	Screw for 181	253	Feed Roller
182	Latch Needle Carrier	254	Nut for 252
183	Gib Key	255	Feed Lever
144	Screw for 183	157	Feed Lever Screw
184	Frame Cap	255	Feed Lever Stud
189	Frame Cap Screw	257	Feed Bar Bracket
185	Upper Gib	258	Feed Bar Bracket Rocker Screw
186	Lower Gib	259	Feed Lifting Adjuster
144	Gib Screw	124	Feed Lifting Adjuster Screw
187-38	Latch Needle for AH-38	260	Feed Bar Bracket Pressing Spring
187-17	Latch Needle for AH-17	261	Feed and Feed Bar
188	Latch Needle for Set Screw	111	Feed and Feed Bar Screw
191	Cam Roll	262	Subsidiary Feed
192	Latch Needle Carrier Block	200-22	Feed Lifting Gear for AH-22
199	Feed Bar Stopper for AH-38 and 27	203-22	Feed Lifting Cam for AH-22
200	Feed Lifting Gear for AH-38 and 27	204-22	Feed Lifting Gear Bracket for AH-22
201	Feed Lifting Cam (1 stitch)	207-22	Feed Lifting Lever for AH-22
144	Feed Lifting Cam Screw	208-22	Feed Lifting Lever Rocker for AH-22
202	Feed Lifting Cam (4 stitch)	209-22	Feed Lifting Cam Guide for AH-22
211	Feed Lifting Cam Screw		
203	Feed Lifting Cam (8 stitch)		
144	Feed Lifting Cam Screw		

