

ARTISAN®

















**TK-117, TK127,
TK-138**

AM-117, AM127, AM 138
Sewing Machines

**Operators Manual
and
Spare Parts List**

FEATURES:

- The number of stitches per shell is changeable simply by moving the one-touch lever on the frame cap and moving the edge guide simultaneously.
- All kinds of thread are available, including woolen yarn.
- Suitable for light to heavy fabrics such as sweater, overcoats, robes, socks, blankets, cushions, wherever a shell-stitch on edge is appropriate.

	MODEL		
	AM-138	AM-127	AM-117
NEEDLE	DB × 1 (SIZE 19-24) DP × 5 (SIZE 18)	DB × 1 (SIZE 19-22) DP × 5 (SIZE 18)	DC × 1 (SIZE 19-21)
STITCH FORMS	1  4  8  	1  4  8  	3  6  
SHELL SIZE DIMENSIONS (mm)	Large 	Medium 	Small 
SEWING THICKNESS	6 mm	5 mm	2.8 mm
SPEED	1200 s.p.m.	1700 s.p.m.	1900 s.p.m.

1. IMPORTANT

- (1) Before starting this machine, oil bearings of all moving parts.
- (2) Threading machine. See Fig. (1)

————— Indicates the sewing thread
----- Indicates ornamental thread

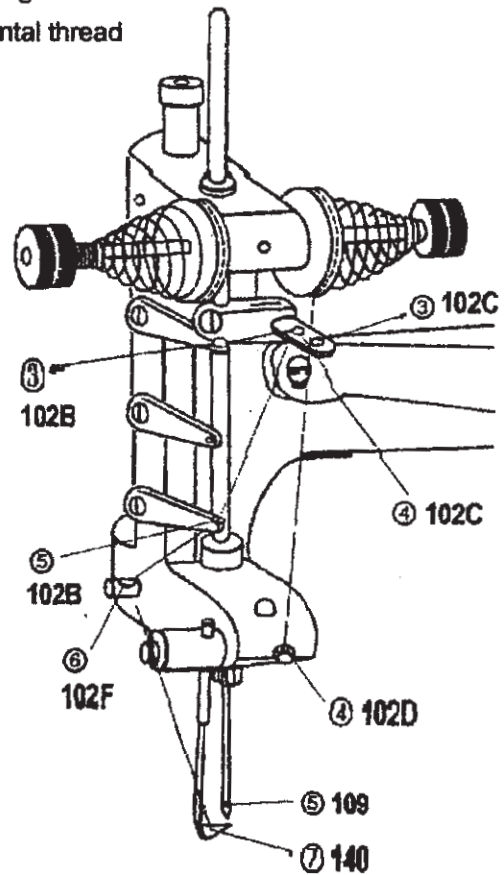
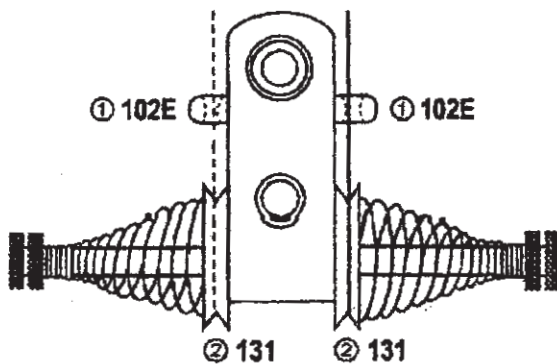


Fig. (1)

- (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.

2. 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.

3. REPLACING LATCH MEEDLE

Turn the pulley until the latch needle comes under the looper and loosen the set screw (188) through the hole located in the frame cap (184). You can remove the latch needle 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)

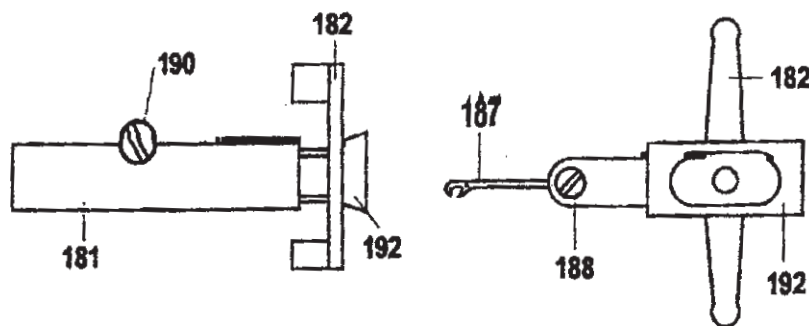


Fig. (2)

4. 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:

Model AM-138 and AM-127 ———— 0.5 m/m

Model AM-117 ———— 0.2 m/m

The looper set screw (144) can make the above adjustments.

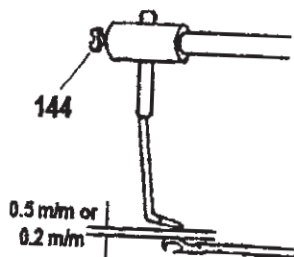


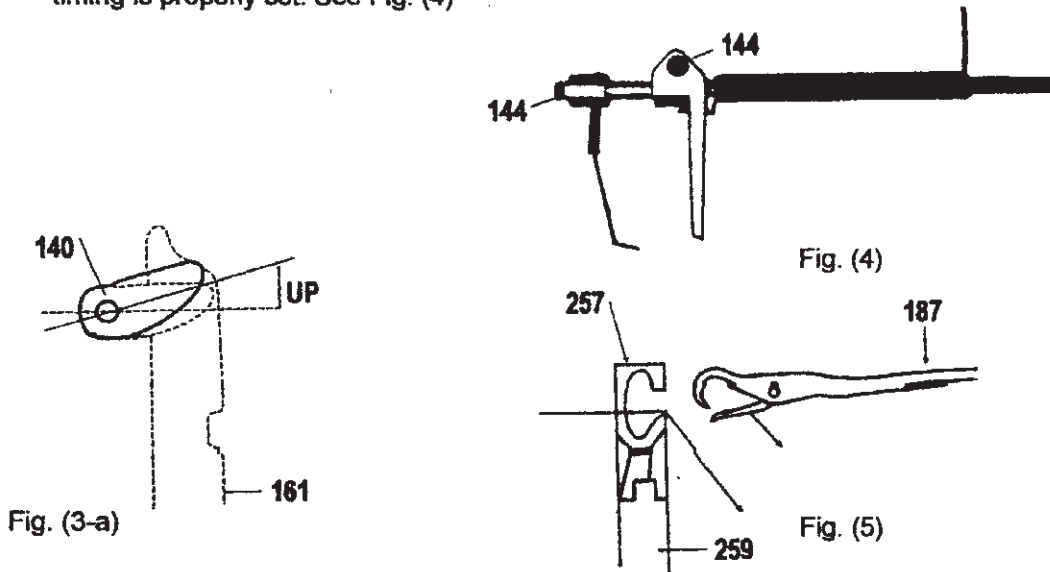
Fig. (3)

(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 touches to the needle.

Incorrect setting is the cause of the skip of seams and make it sure that this timing is properly set. See Fig. (4)



(d) Needle guide (206) serves the purpose not only to guard the needle in its correct position but also 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.

5. REPLACEMENT OF SEAM FORMING PLATE (161)

Seam forming plate (161) serves a purpose of chaining fingers and is important for the satisfactory seam. Replace the plate whenever the needle damages it.

Setting the different plate can be made as follows.

(a) Model AM-138

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) Model AM-127 and AM-117

The timing point is marked on the seam forming plate and the base cover and accordingly, set by these points. Fig. (6).

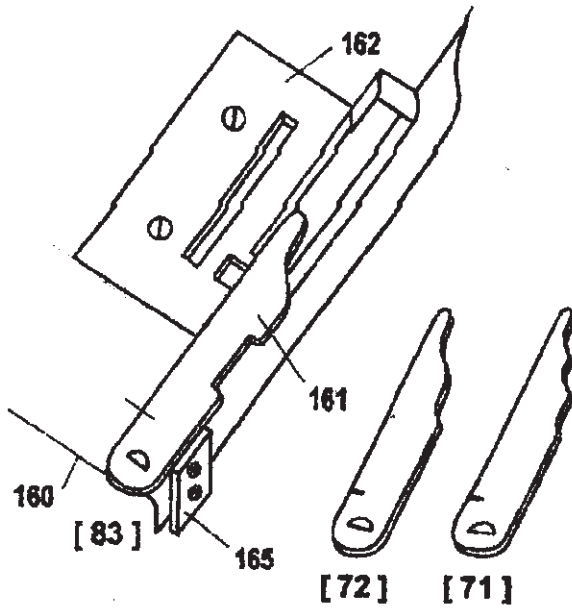


Fig. (6)

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 model 138, but a little slant on model 127 and quite slant on model 117. See Fig. (7).

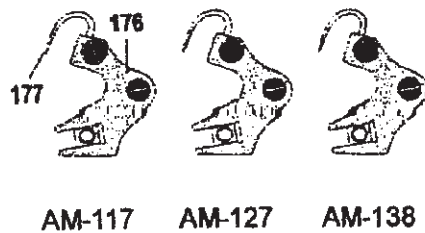


Fig. (7)

7. REMOVING AND SETTING OF FRAME CAP (184)

(a) REMOVING

First, remove the latch needle and remove the screws (190) on the slide (271) and guide (275). Then loosen two screws (189) and (184) to remove the frame cap by pulling out.

(b) SETTING

While trying to put the cover plate in its position, turn the pulley in both ways (rear and forward) with manual slight adjustment, so that the two rollers on the latch needle carrier will meet the cam groove, then push the cover forward.

It is suggested that you remove the latch needle before hand, whenever you start this procedure.

8. CHANGE LEVER

Model 138 and 127, the different numbers of stitches per shell can be obtained by the stitch number adjusting per shell can be obtained by the stitch number adjusting lever. Press the ratchet (274) for the change to the different stitch number.

Model 117, this lever is not equipped and the change of the stitch number can be obtained by the cam (203-22) and attached to the feed gear (200-22).

Application of two cams (as shown in the parts catalog) forms four-stitch shells and by removing one side cam, the machine forms eight-stitch shells.

Model 117, the arrangement is similar to model AM-22, but with the different cam (203-17) and gear (200-17). Stitch number is six per shell by two cams and 3-stitch by one cam.

9. ADJUSTING THE FEED VOLUME AND SEAM WIDTH

(a) Feed volume

Open the side covers and move the feed connecting rod (251) for adjustment, by loosening the nut (254). Fig. (8)

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

Model 138—————10 m/m to 12 m/m

Model 127—————7 m/m to 9 m/m

Model 117—————5 m/m to 6 m/m

(c) 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 height of the

feed dog and is good for thinner material. Fig. (9)

Higher position for heavier material.

Lower position for thinner material.

Fig. (8)

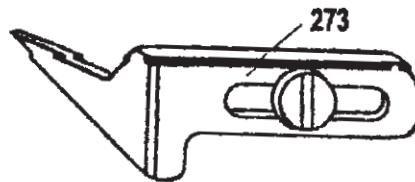
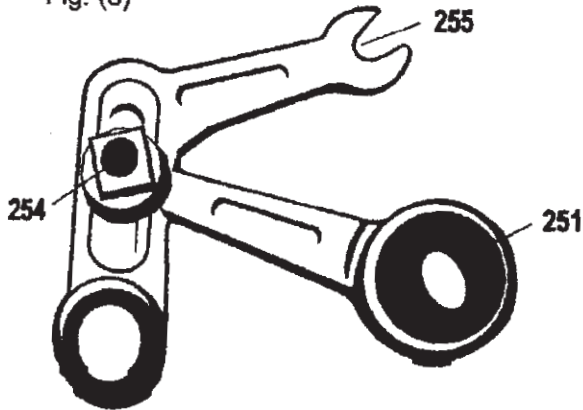


Fig. (8-a)

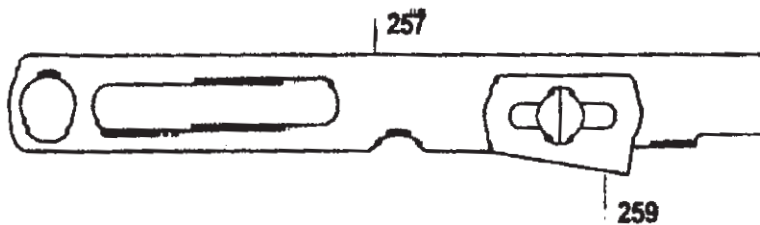


Fig. (9)

10. SUGGESTIONS

This machine produces different sizes shell stitches by the application of different kinds of clothes, thread and yarn.

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

- (a) Make the tension of looper thread of yarn always a little loose.
- (b) For using the synthetic stretchable thread, loosen the tension of the looper thread, and also make the tension of the sewing thread tighter.
- (c) For stretchable materials, make the tension of the looper thread tight to prevent the strength of the material itself. Model 127 is recommended for sewing extremely stretchable materials.

Kinds of thread and yarns to be used for the large shell stitch:

Model 138 – large size shell stitch, wool and synthetic

Model 127 – medium size shell stitch, wool and synthetic

Model 117 – small size shell stitch, cotton and nylon

(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).

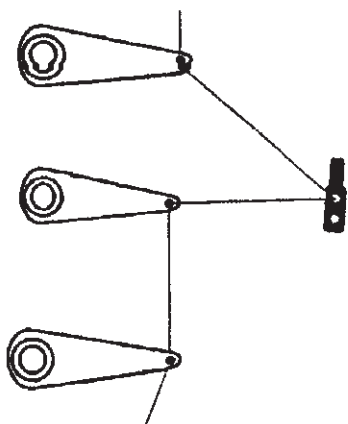


Fig. (10)

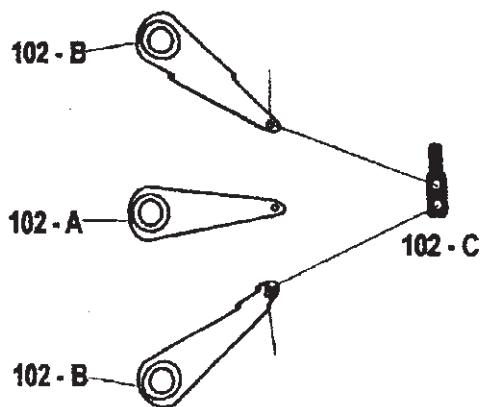
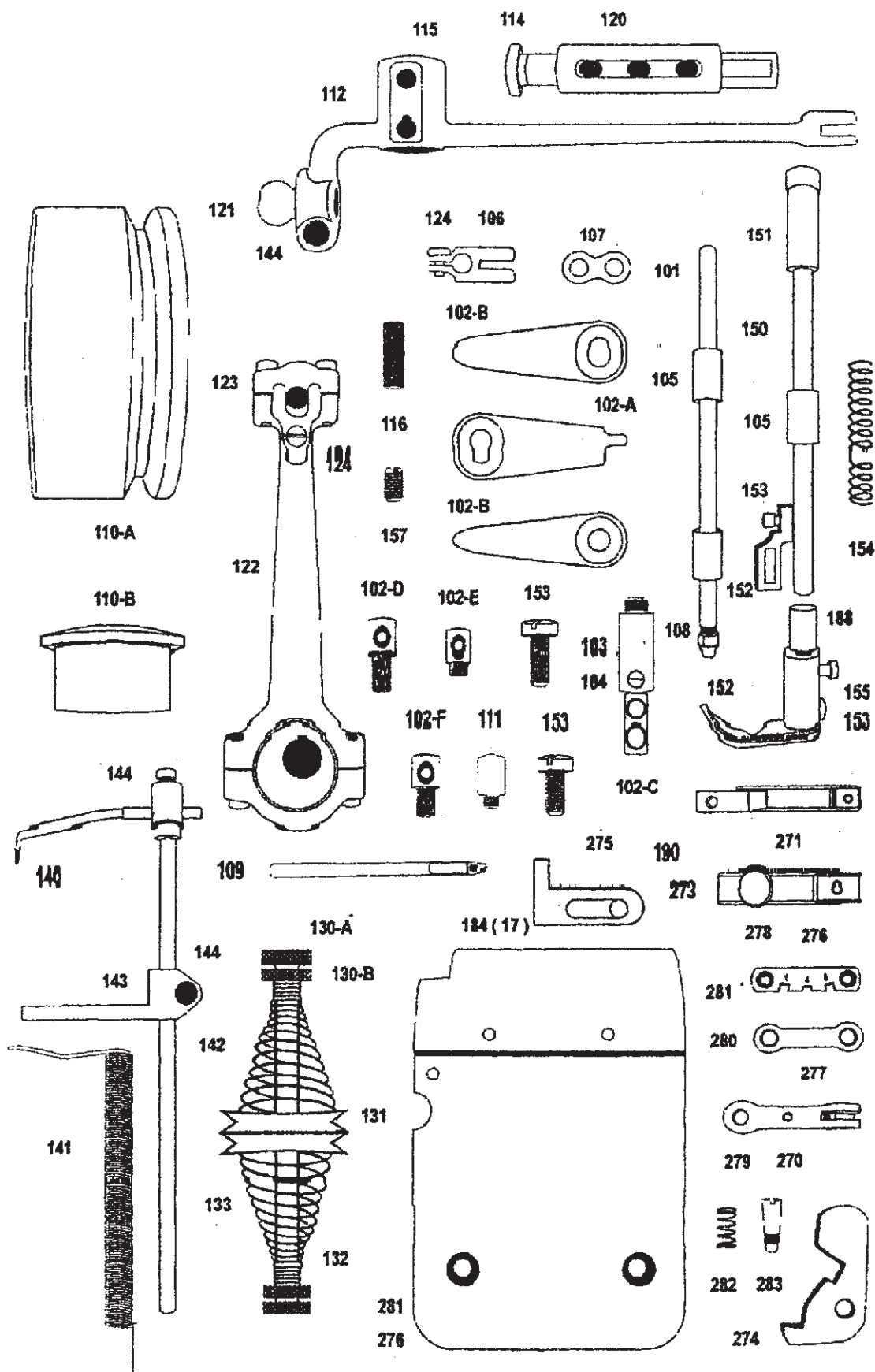
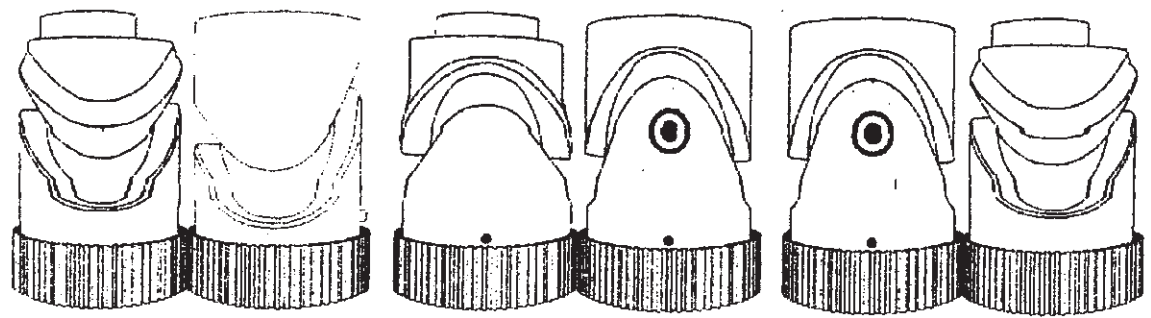
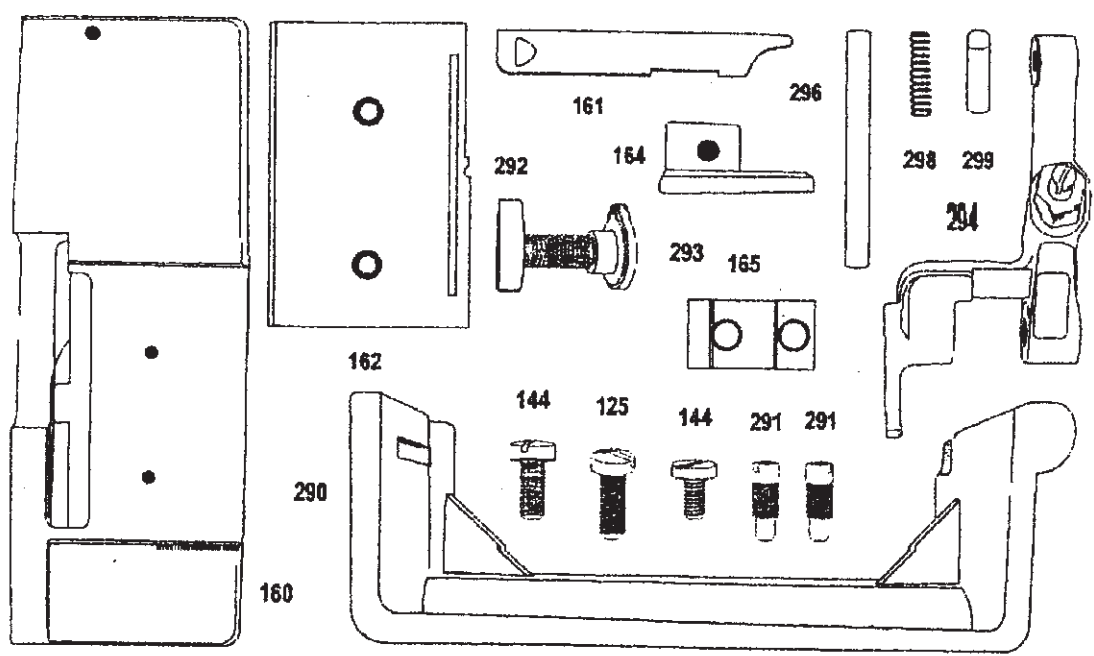


Fig.(11)

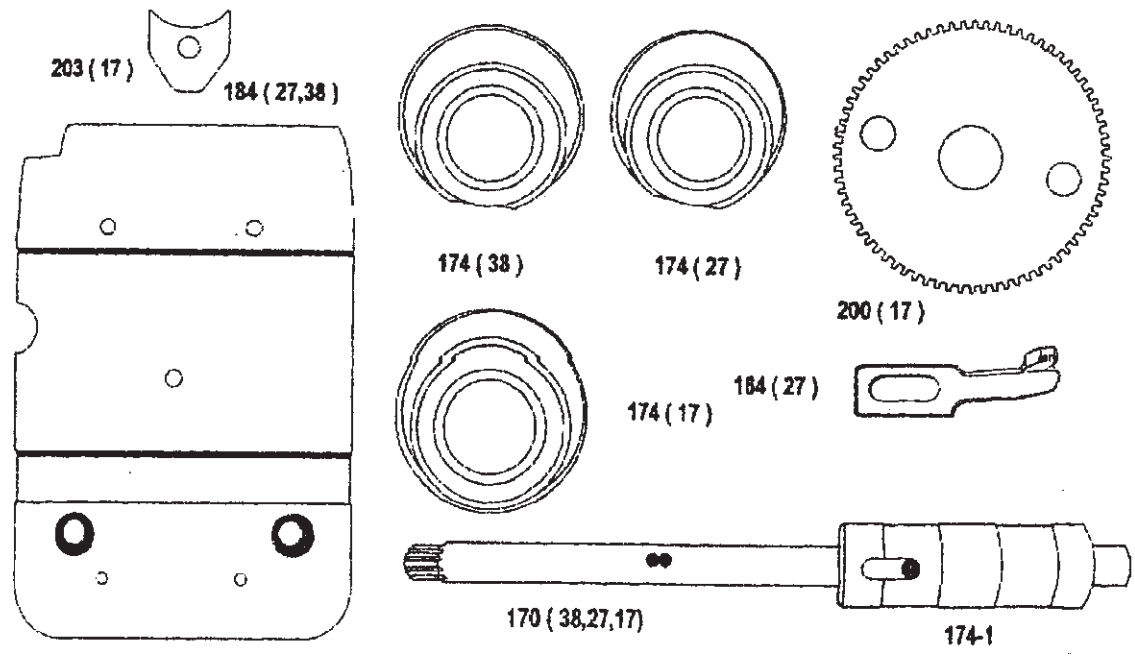
101	Needle bar	133	Tension spring
102-A-F	Thread guides	140	Looper
103	Set screw for thread guide 102-C	144	Looper set screw
153	Set screw for thread guide 102-A and B	141	Looper shaft spring
104	Connecting rod stud (large)	142	Looper shaft
105	Needle bar bushing (also serve as presser bar bushing lower)	143	Cam slide
157	Needle bar bushing screw	144	Cam slide set screw
106	Needle bar guide	150	Presser bar
124	Needle bar guide screw	151	Presser bar bushing upper
107	Connecting rod for 112	157	Presser bar bushing screw
108	Needle clamp nut	152	Presser foot bracket
109-38	Needle for 138	153	Presser foot bracket screw
109-17	Needle for 117	154	Presser foot spring
110A	Driving wheel	155	Presser foot
110B		188	Presser foot screw (upper)
116	Driving wheel set screw	153	Presser foot screw (lower)
111	Connection rod stud (small)	184-17	Frame cap
112	Needle bar actuating lever bushing	270	Stitch number adjusting lever
114	Needle bar actuating lever rod	279	Stitch number adjusting lever screw
115	Needle bar actuating lever rod SCREW	271	Stitch number adjusting lever slide
120	Bracket for looper shaft	272	Connecting slide for feed lifting lever
214	Screw for 120	190	Set screw for 271 and 272
121	Ball stud for needle bar connecting rod	273	Guide adjusting slide
144	Screw for 121	278	Guide adjusting slide screw
122	Needle bar connectin rod	274	Ratchet for 270
125	Needle bar connectin rod screw	275	Guide (seam width)
123	Needle bar connectin rod spring	190	Guide screw
124	Needle bar connectin rod spring screw	276	Stitch number indicator
130-A	Tension nut A	281	Stitch number indicator screw
130-B	Tension nut B	277	Connecting bar for 270 and 271
131	Tension plate	280	Screw for 277
132	Tension stud	282	Ratchet spring
		283	Stud for 274



160	Bade cover	164-17	Thread guide shim for 117
125	Bade cover screw	174-17	Feed eccentric for 117
161	Seam forming plate	199-17	Feed bar stopper for 117
162	Needle plate	200-17	Feed lifting gear for 117
163	Needle plate screw	203-17	Feed lifting cam for 117
164	Thread guide shim	206-17	Needle guard for 117
144	Thread guide shim screw		
165	Pressure plate for 161		
144	Screw for 165		
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		
257	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 138		
172-38	Upper cam for 138		
171-27	Lower cam for 127		
171-27	Upper cam for 127		
171-17	Lower cam for 117		
172-17	Upper cam for 117		
180	Cam set screw		
184	Frame cap for 127 and 138		
155-27	Presser foot for 127		
164-27	Thread guide shim for 127		
174-27	Feed eccentric for 127		
170-27-L	Main shaft for 127		
174-27-L	Feed eccentric for 127		
155-17	Presser foot for 117		



172 (17) 171 (17) 172 (27) 171 (27) 171 (38) 172 (38)



170 (38,27,17) 174-1

166	Plug pin on body	203-27,38	Feed lifting cam (8-stitch)
170	Main shaft	144	Feed lifting cam screw
173	Upper shaft	204-27,38	Feed lifting gear bracket
174	Feed eccentric for 138	214	Feed lifting gear bracket set screw
179	Feed eccentric screw	212	Needle guard bracket screw
175	Cover plate for thread carrier assembly	206	Needle guard & needle guard bracket
125	Set screw for 175	213	Needle guard screw
176	Thread carrier bracket	207-27,38	Feed lifting lever
111	Pivot screw	208-27,38	Feed lifting lever rocker screw
177	Thread carrier	209	Feed lifting cam guide
124	Thread carrier screw	188	Feed lifting cam guide screw
178	Slide guide	210	Feed lifting lever rocker screw
181	Latch needle carrier guide (L-shape)	251	Feed connecting rod
190	Screw for 181	252	Stitch adjusting stud
182	Latch needle carrier	253	Feed roller
183	Lib key	254	Nut for 252
144	Screw for 183	255	Feed lever
184	Frame cap	157	Feed lever screw
189	Frame cap screw	256	Feed lever stud
185	Upper gib	257	Feed bar bracket
186	Lower gib	258	Feed bar bracket rocker screw
144	Gib screw	259	Feed lifting adjuster
187-38	Latch needle for 138	124	Feed lifting adjuster screw
187-17	Latch needle for 117	260	Feed bar bracket pressing spring
188	Latch needle for set screw	261	Feed and feed bar
191	Cam roll	111	Feed and feed bar screw
192	Latch needle carrier block	262	Subsidiary feed
199	Feed bar stopper for 138 and 127	200-17	Feed lifting gear for 117
200-27,38	Feed lifting gear for 138 and 127	203-17	Feed lifting gear for 117
201	Feed lifting cam(1-stitch)	204-17	Feed lifting gear bracket for 117
144	Feed lifting cam screw	207-17	Feed lifting lever for 117
202	Feed lifting cam(4-stitch)	208-17	Feed lifting lever rocker for 117
211	Feed lifting cam screw	209-17	Feed lifting cam guide for 117

