FEATURES CARACTERISTICAS :

The number of stitches per shell is changable simply by moving the one-touch lever on the frame cap and moving the edge guide simultaneously.

Any kinds of thread available, including woolen yarn.

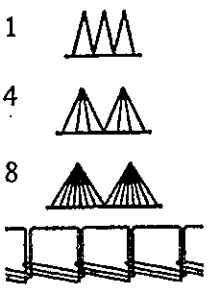
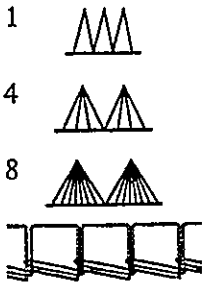
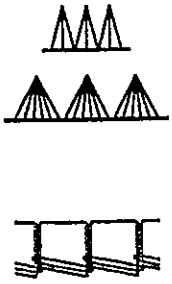
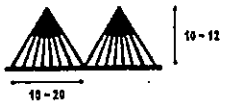
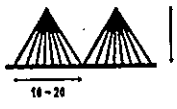
Suitable for light to heavy fabrics such as:sweater, dressing sacks, overcoats, robes, socks, blankets cushions,wherever a shellstitch on edge is appropriate, El numero de puntadas por pechina puede cambiarse moviendo simultaneamente la palanca de cambio y la quia del acabado de la pechina.

Puede trabajar con cualquier tipr de hilos, incluso con lanas.

Para tejidos finos o gruesos, como jerseys, vestidos, abrigos, calcetines, tunicas, mantas, almohadillas, cualuier tipo de confeccion donde sea posible al puntada de pechina.

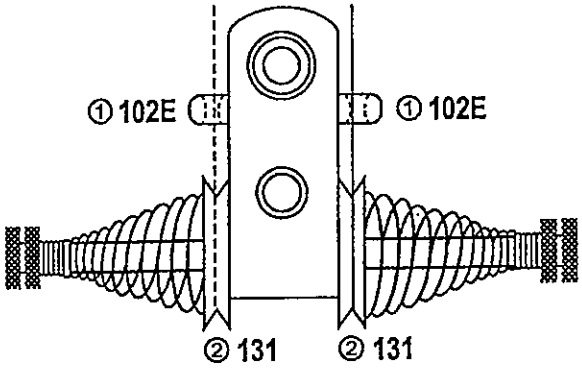
特　點：

- 簡易變更貝形針數之裝置
- 任何種類之線均適用，包括毛線。
- 只要是適合飾邊之布料，不論薄類或厚類大多適用，如毛衣、外套、大衣、長袍、襪子、毛毯、墊子等等。

	MODEL MODELO 機型		
	MJL -38	MJM - 27	MJS - 17
Needle Aguja 針	DB×1 #19-24 DP×5 #18	DB×1 #19-22 DP×5 #18	DC×1 #19-21
Stitch forms Formas de puntada 線跡	1 4 8 	1 4 8 	3 6 
Shell size Dimensiones de la pechina (mm) 貝形大小	Large 大 Large 	Mediun 中 Mediun 	Small 小 Small 
Sewable thickness Grosor maxima del tejido 可縫厚度	6 mm	5 mm	2.8 mm
Speed velocidad 轉速	1,200 s.p.m.	1,700 s.p.m.	1,900 s.p.m.

1. IMPORTANT

1. Before staritng the machines, oil bearings of all moving parts.
2. Threading Machine See Fig. (#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 throuhg the looper.
   Pass ornamental thread through the rhread 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.

一、注意要點

1、開始使用機器前，先對所有傳動零件添加針車油使運轉更順暢。
2、穿線法：請依圖示穿線
   ———————— 表縫紉線
   ---------- 表修飾線
3、托住線穿過車針孔 needle hole 的桌子並順時鐘轉動浦力 pulley (# 110) 直到縫紉線 sewing thread 被活動勾針 Latch hook (#187) 勾住。
在修飾線 ornamental thread 穿過鉤針 looper (#140) 後，重覆上面的動作。當編縫薄料時以引線器 theead guede (# 102 - A) 代替引線器 thread guede (#102-B) 。

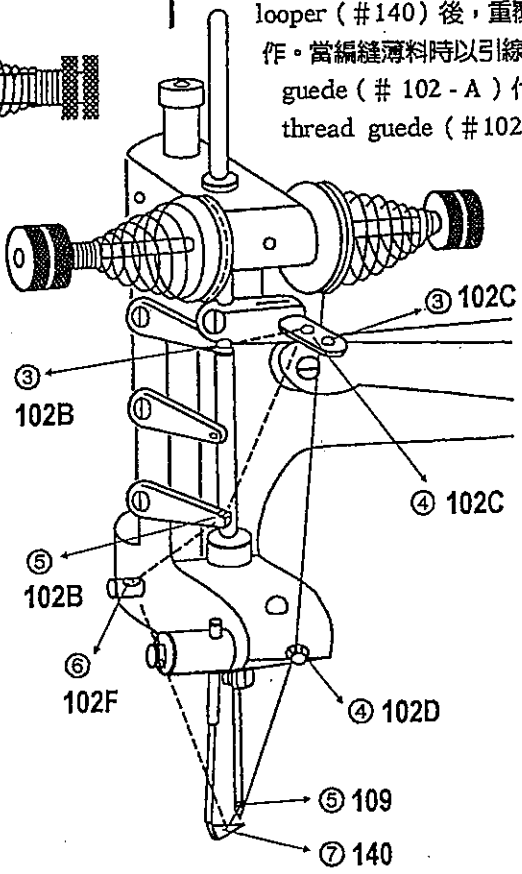


Fig.#1

二、車針的更換

順時鐘轉動浦力 pulley (#110) 直到車針needle (#109) 移到它的最高點，並轉開針留 needle clamp nut (#1108) 換上新的車針後轉緊針留 needle clamp nut (#108) 。當車針meele (#109) 損壞或太舊時請更換，不然會影響到機器的運轉。

3. RRPLACING LATCH NEEDLE

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

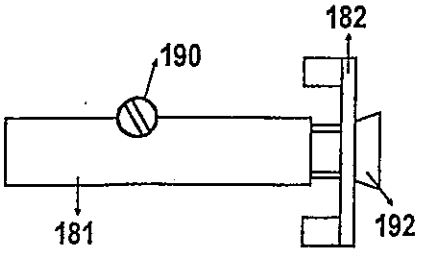
Insert the new Latch Needle until it reaches to the deepest point, but make it sure that the Latch Needle is not inserted twisted.

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.

三、活動勾針 latch needle （＃187）的更換

轉動浦力 pulley 直到活動勾針 latch needle（＃187）在鉤針 looper（＃140）的下面，透過前蓋板 frame cap（＃184）的洞可轉開螺絲（＃188），然後活動勾針 latch needle（＃187）便可用手移動。插入新的活動勾針latch needle（＃187）直碰觸到最深點，但小心不要插歪。

假如發現活動勾針 Latch needle 有任何的偏移時，轉動螺絲（＃190）調整活動勾針傳動導引器 latch needle carrier guide（L-shape）（＃181）的位置，讓 L 形導引器 L-shape guide 輕輕抓住活動勾針傳動器 latchneedle carrier(＃182)。



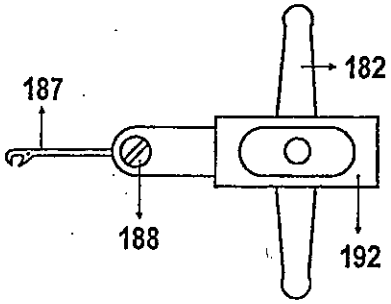


Fig #2

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 :

On Model MJL-38
and MJM-27..... 0.5 m/m
On Model MJS-17..... 0.2 m/m

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

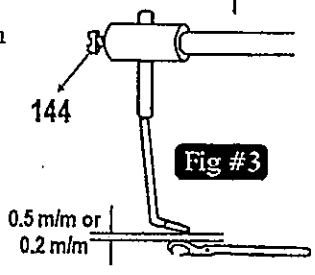


Fig #3

四、鉤針 looper （＃140）擺動的時序 timing

鉤針 looper（＃140）的目的是修飾縫紉線 sewing thread編織的縫接口，所以縫紉線要能輕易的被活動勾針 latch needle（＃187）勾住，總之鉤針looper（＃140）的擺動時序，對於編縫滿意的縫接形狀有很大的影響。

（a）鉤針looper的高度的調整

調整螺絲（＃144），讓鉤針 looper（＃140）與活動勾針 latch needle（＃187）的間隙如下圖示。

MJL-38、MJM-27..... 0.5m/m
MJS-17..... 0.2m/m

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

(c) Adjustment of the Looper Movement
This can be made by the cam slide set screw #143-S. Set the looper, so that it comes to the closeest position to the needle, when the needle goes up, but not touch to the needdle.
Incorrect setting is the cause of the skip of seams and make it sure that this timing is porperly set.
See. Fig. #4.

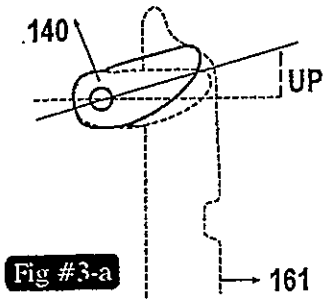


Fig #3-a

(b) 鉤針looper 前端的調整如下3-a圖示

(c) 鉤針looper 移動的調整
調整螺絲 cam slide screw (#143-S) 來修正鉤針 looper的移動，讓鉤針looper (≒140) 上升時最靠近車針 needle (#109) 但又不會互相碰觸，縫接口會跳針是因為上述鉤針 looper 時序 timung 的不正確設定。

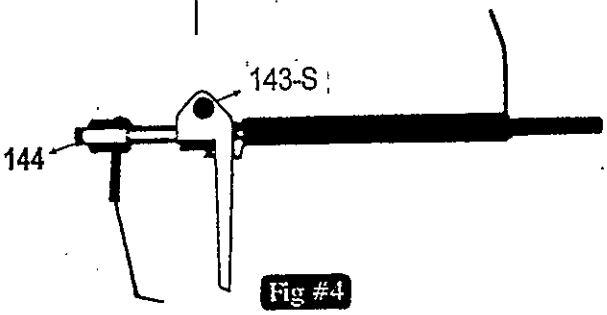


Fig #4

(d) 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 Guaed, which accepts the Needle of sizesup to #22, in its standard model.

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

(d) 針受 needle guard (#206)
針受 needle guard (#206) 不單只是保護車針needle 進到正確的位置，也有打開活動勾針latch needle 的功能。鬆開針受托架螺絲 needle guard bracket screw (#212) 便可調整引線器 thread guide 的位置，讓活動勾針 atch needle 頂端盡可能的靠近針受 needle gurard。

針受 needle guard 接受車針 needle 的尺寸為 #22，此為標準尺寸。若想使用較粗的車針 needle，請更換特殊的針受 needle guard。

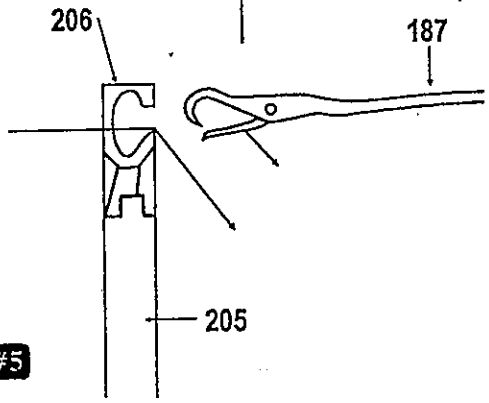


Fig #5

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 it is damaged by the needle.

Setting the different plate can be made as follows.

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

(b) On Models MJM-27 and MJS-17
The timing point is marked on the seam forming plate and the base cover and accordingly, set by these points. Fig. #6.

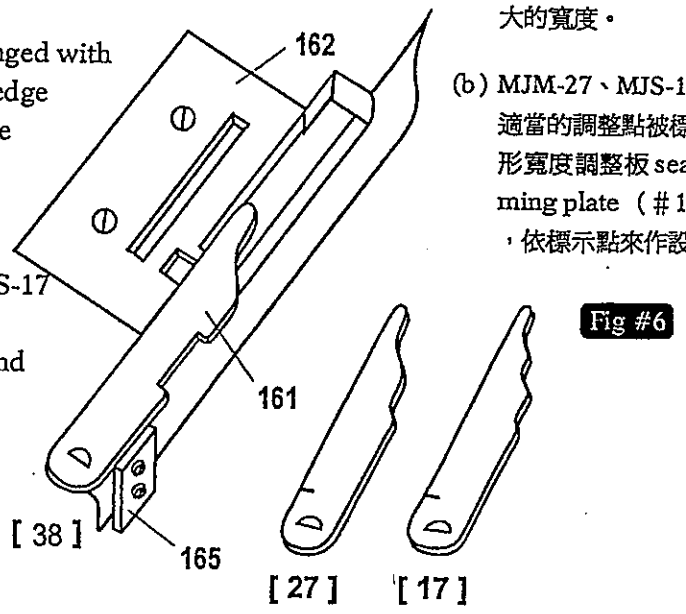


Fig #6

五、貝形寬度的調整

貝形寬度調整板 seam forming plate（#161）決定鏈狀的寬度，不同寬度的調整如下。

（a）MJL-38 貝形寬度調整調整板 seam forming plate（#161）用右徹邊緣的制止器來設定，讓縫接口拉到最大的寬度。

（b）MJM-27、MJS-17 適當的調整點被標示在貝形寬度調整板 seam forming plate（#161）上，依標示點來作設定。

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 MJL-38, but a little slantly on Model MJM-27 and quite slantly on Model MJS-17. (See Fig. #7)

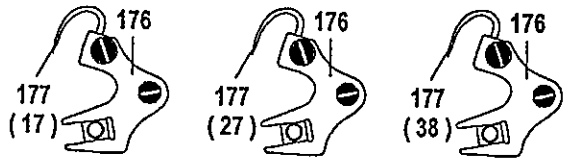


Fig #7 MJS-17 MJM-27 MJL-38

六、帶線器 thead carrier（#177）

帶線器 thead carrier（#177）的功用是當縫紉線 seaing thread 穿過活動勾針 latch needle 後，帶動修飾線穿過鉤針 looper。MJL-38 的帶線器 thread carrier 是平直的，MJM-27的帶線器 thread carrier 是有一點斜角，MJS-17的帶線器 thread carrier 則有很大的斜角。

7. REMOVAL AND SETTING OF FRAME CAP.#184

(a) REMOVAL

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 asjustment, so that the two rollers on the latch needle carrier will meet the cam froove, then push the cover forward.
It is suggested that you remove the latch needle beforehand, whenever you start this procedure.

8. CHANGE LEVER

On Models MJL-38 and MJM-27, the different numbers of stitches per shell can be obtained by the stitch number asjusting lever. Press the Ratchet #274 for the change to the different stitch number.

On Model MJS-17, this lever is not equipped and the change of the stitch number can be obtained by the cam (#203-22) 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 8 stitch shells.

On Model MJS-17, the arrangement is similar ot Model HF-22, but with the different cam (#203-17)and gear (#200-17). Stith number is six per shell by two cams and 3 stitches by one cam.

七、前蓋板 frame cap (#184) 的移動與調整

(a) 移動

移開活動勾針 latch needle 和針織數調整滑桿 stitch number adjusting lever slide (#271) 上的螺絲及布料導引器 seam width guide (#275) ，然後鬆開螺絲 (#189) 和螺絲 (#184) 後，便可移動前蓋板frame cap (#184) 。

(b) 調整

當要放上蓋板 cover plate 前 ，用手慢慢的前後轉動浦力 pulley，並確定活動勾針傳動器 latch needle carrier 上的滾輪緊密的咬合後，才可關上蓋板 cover plate。

八、針織數stitch number的調整

MJL-38、MJM-27 每一貝形的針織數，可由針織數調整桿 stitch number adjusting lever 來改變，利用制輪 ratchet (#274) 便可設定不同的針織數。其每一貝形的針織數可調為1、4、8 針。

MJS-17 利用凸輪 cam (#203-17) 與送料齒輪feel gear (#200-17) ，可調出每一貝形的針織數為 3、6針，若是6針請配用 2 個凸輪cam (#203-17) ，若是 3 針請配用 1 個凸輪cam (#203-17) 。

9. ADJUSTING THE FEED VOLUME AND SEAM WIDTH

(a) Feed Vloume

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

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

On Model MJL-38.....10 m/m to 12 m/m
On Model MJM-27..... 7 m/m to 9 m/m
On Model MJS-17..... 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 Bracker #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)

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

九、貝形寬度 seam width 與貝形大小 feed volume 及厚薄的調整

(a) 貝形大小 feed volume 打開邊蓋，鬆開螺母nut (#254) 便可調整送料連結桿 feed connecting rod (#251)，往上往下移動便可調整貝形大小 feed volume。

(b) 貝形寬度 seam width 布料導引器 seam guide (#275) 可調整些許的貝形寬度 seam width。

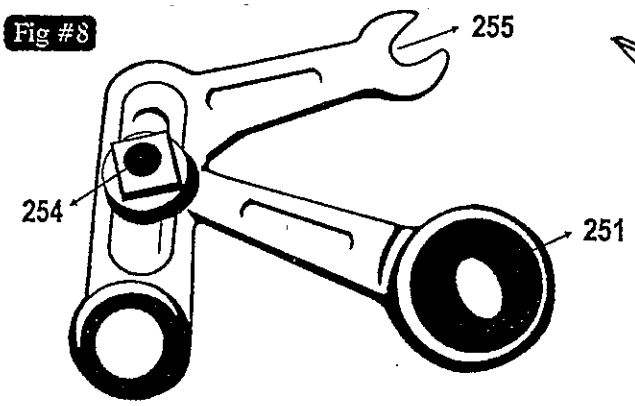
MJL-38：10 m/m to 12m/m
MJM-27：7 m/m to 9m/m
MJS-17：5m/m to 6m/m

(c) 厚薄的調整

向左移動調整器 adjuster (#259) 便可包縫厚重的布料，向右移動調整器 adjuster (#259) 便可包縫輕薄的布料。

◎調高適用厚布料
◎調低適用薄布料

Fig #8



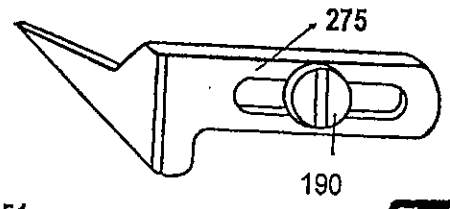


Fig #8-a

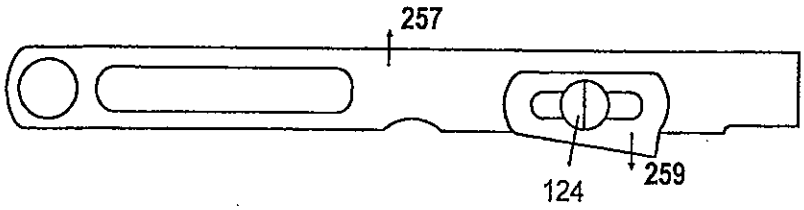


Fig #9

10. SUGGESTIONS

COBALT Clam-shape stitch Machine produces the different sizes and taste shell stitches by the application of the 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 or 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 stretch of the material itself.
Model MJM-27 is recommended for sewing extremely strechable materials.

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

For Model MJL-38 ~(Large size Shell stitch)
Wool and synthetic

For Model MJM-27 ~ (Mediun size shell stitch)
wool and synthetic

For Model MJS-17 ~ (small size shell stitch)
Cotton and tetlon.

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

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

十、建議

應用不同的布料、線和紗可以包縫出不同的貝形飾邊，請依下列程序作調整。

(a) 調整紗拉 tension 讓鉤針線 l ooper thread 或紗 yam 有一點寬鬆。

(b) 使用會伸縮的合成線時，調整紗拉 tension 讓鉤針線looper thread 寬鬆一點，讓縫紉線 sewing thread 有緊一點。

(c) 使用會伸縮的布料時，調整紗拉 tension 讓鉤針線 looper thread 緊一點，防止布料自行拉長。
MJL-38：大貝飾邊、毛線 wool 和合成線 synthetic
MJM-27：中貝飾邊、毛線 wool 和合成線 synthetic
MJS- 17：小貝飾邊、棉料 cotton 和尼龍線 tetlon

(d) 調整引線器 thread guide 的角度可得到較寬鬆的鉤針線 looper thread，如下右圖示：

(e) 如果必要的話，請將鉤針線 looprt thread 依 #102B、#102A、#120C、#120B順序穿線，如左圖示。

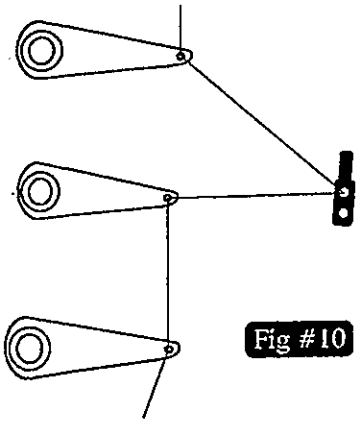


Fig #10

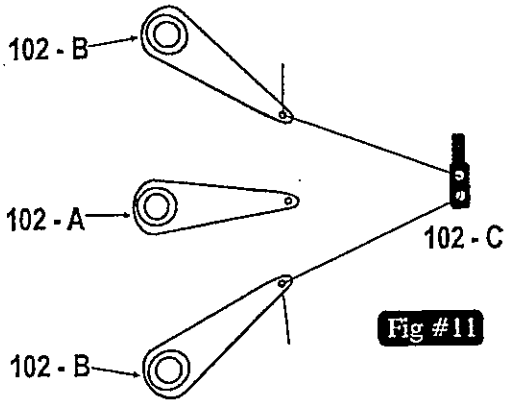
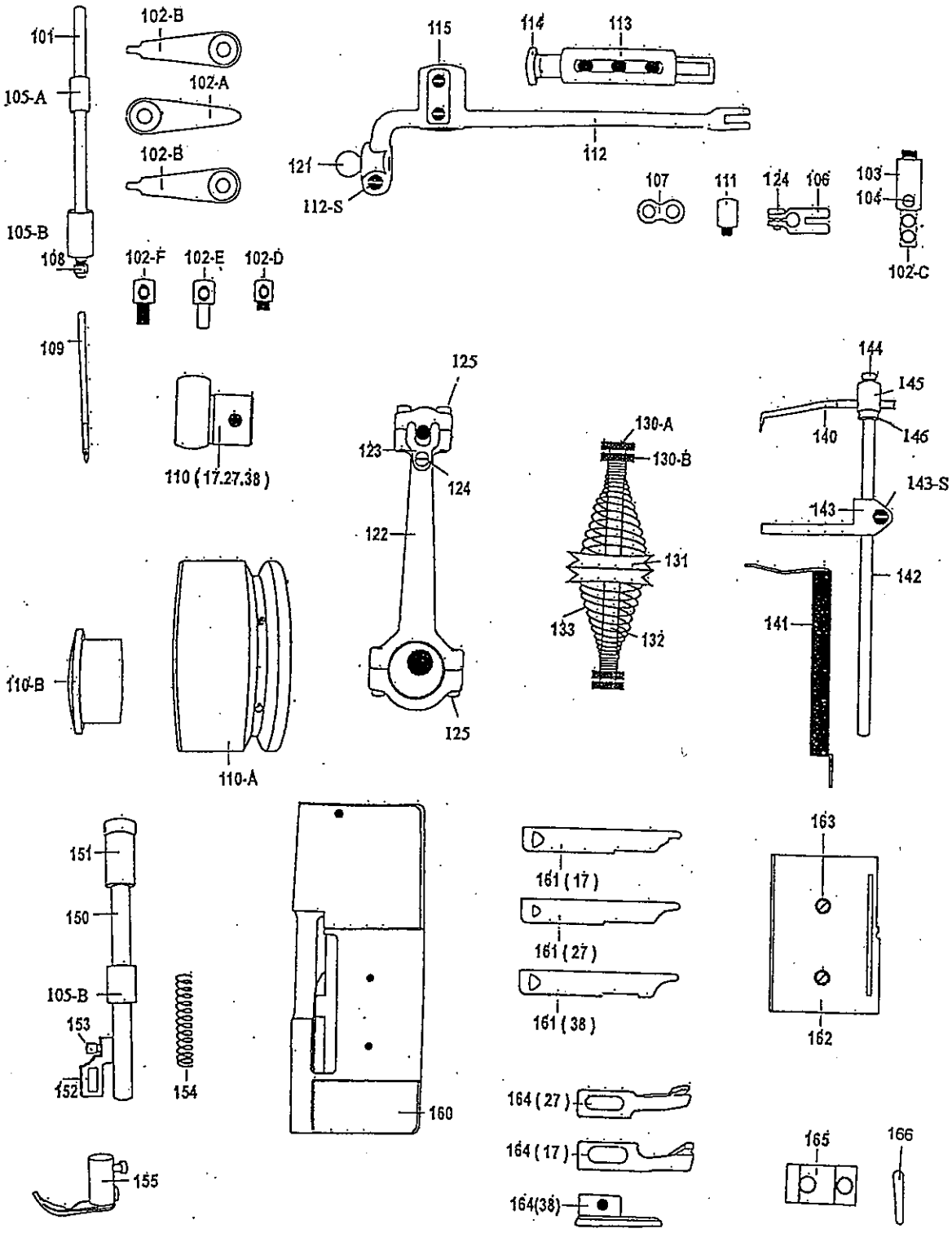
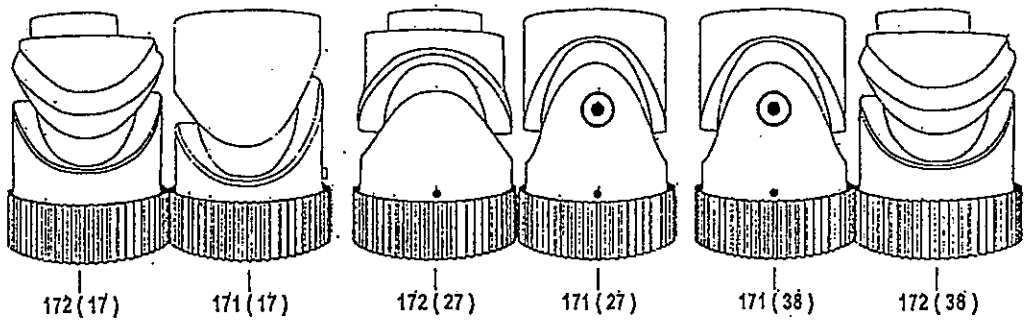


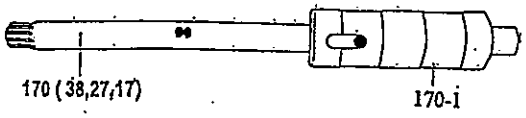
Fig #11


101
102-B
105-A
102-A
102-B
105-B
108
102-F
102-E
102-D
109
110 (17.27.38)
110-B
110-A
115
114
113
121
112-S
112
107
111
124
106
103
104
102-C
125
123
124
122
125
130-A
130-B
131
133
132
144
145
140
146
143-S
143
142
141
151
150
105-B
153
152
154
155
160
161 (17)
161 (27)
161 (38)
164 (27)
164 (17)
164(38)
163
162
165
166

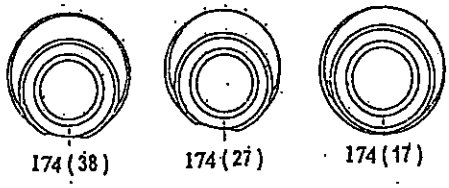
101	Needle Bar
102A-F	Thread Guides
103	Set Screw For Thread Guide 102-c
104	Connecting Rod Stud(Large)
105	Needle Bar Bushing(also serve As Presser Bar Bushing Lower)
157	Needle Bar Bushing Screw
106	Needle Bar Guide
124	Needle Bar Guide Screw
107	Connecting Rod
108	Needle Clamp Nut
109-38	Needle For MJL-38
109-17	Needle For MJS-17
110A	Driving Wheel
110B	
111	Connection Rod Stud(Small)
112	Needle Bar Actuating Lever Bushing
112-s	Screw For 112
113	Needle Bar Actuating Lever Bushing
114	Needle Bar Actuating Lever Rod
115	Needle Bar Acurating Lever Rod Screw
121	Ball Stud For Needle Bar Connecting Rod
122	Needle Bar Connecting Rod
125	Needle Bar Connecting Rod Screw
123	Needle Bar Connecting Rod Spring
124	Needle Bar Connecting Rod Spring Screw
130-A	Tension Nut A
130-B	Tension Nut B
131	Tension Plate
132	Tension Stud
133	Tension Spring

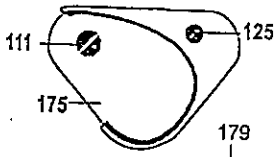
140	Looper
141	Looper Shafe Spring
142	Looper Shaft
143	Cam Slide
143-s	Screw For 143
144	Cam Slide Set Screw
145	
146	
150	Presser Bar
151	Presser Bar Bushing Upper
152	Presser Foot Bracket
153	Presser Foot Bracket Screw
154	Presser Foot Spring
155	Presser Foot
160	Bade Cover
161	Seam Forming Plate
162	Neddle Plate
163	Neddle Plate Screw
164	Thread Guide Shim For
165	Pressure Plate For 161
166	


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


170 (38,27,17)
170-1


173-1
173


174 (38)
174 (27)
174 (17)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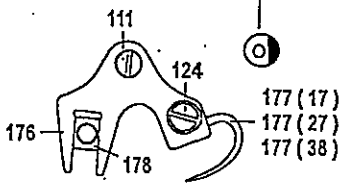
125
175
179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124
177 (17)
177 (27)
177 (38)
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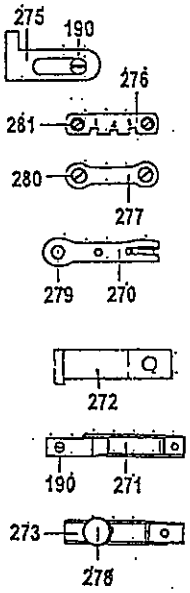
178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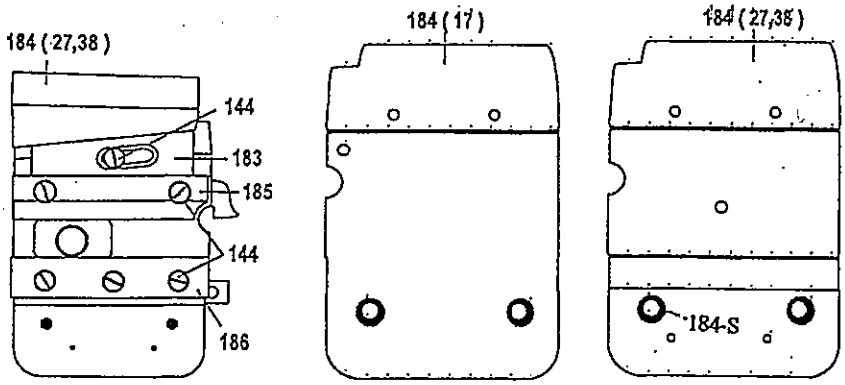
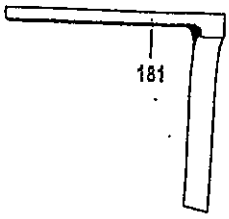

184 (27,38)
144
183
185
144
186
184 (17)
184 (27,38)
184-S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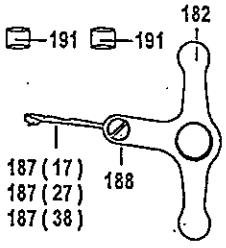
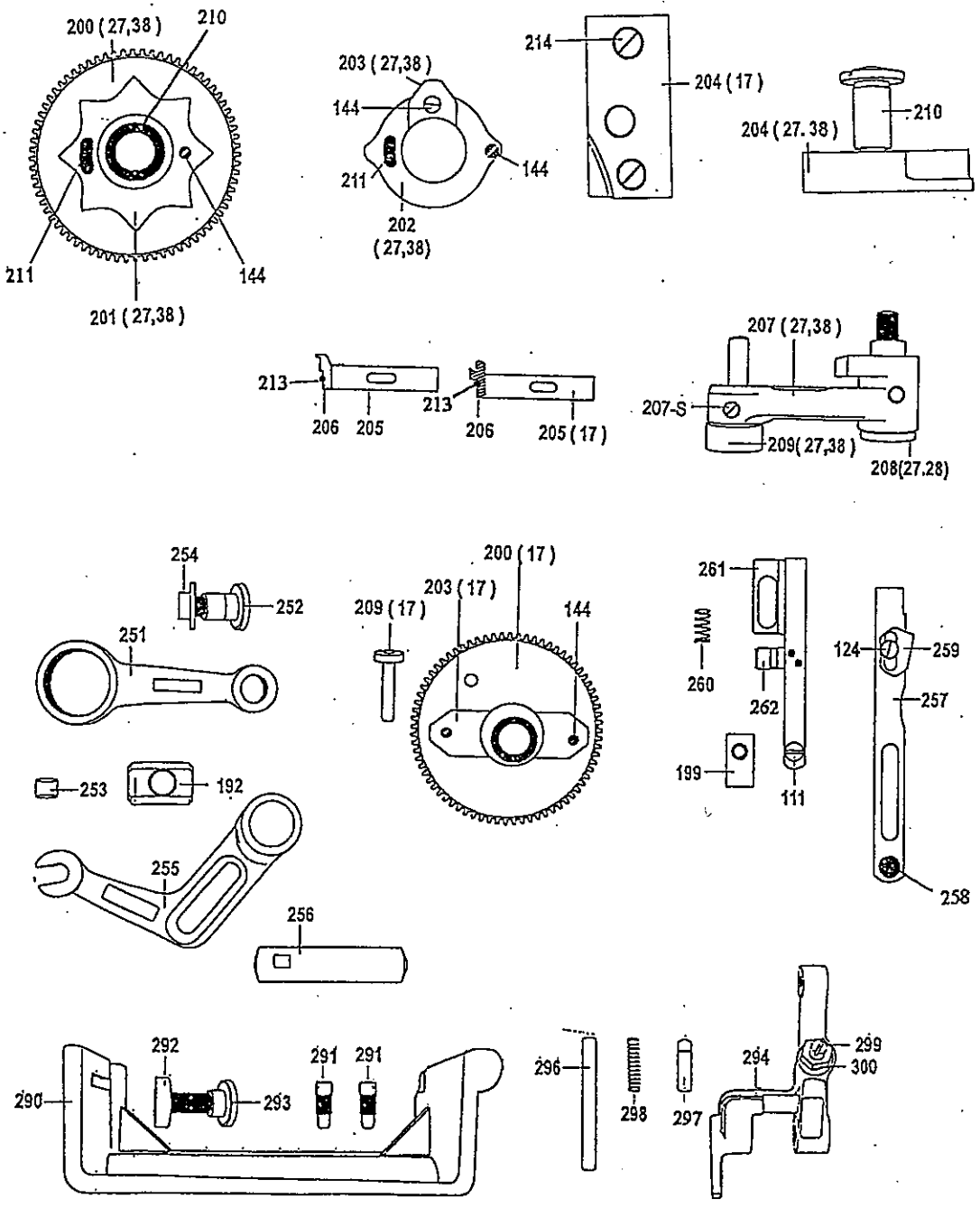

182
191
191
187 (17)
187 (27)
187 (38)
188


282
283


274

171-38	Lower Cam For MKL-38
172-38	Upper Cam For MJL-38
171-27	Lower Cam For MJM-27
171-27	Upper Cam For MJM-27
171-17	Lower Cam For MJM-17
172-17	Upper Cam For MJM-17
170	Main Shaft
173	Upper Shafe
174	Feed Eccentric
175	Cover Plate For Thread Carrier Assembly
125	Set Screw For 175
111	Pivot Screw
176	Thread Carrier Bracket
177	Thread Carrier
124	Thread Carrier Screw
179	Feed Eccentric Screw
178	Slide Guide
181	Latch Needle Carrier Guide (L-Shape)
183	Lib Key
144	Screw For 183
184	Frame Cap
189	Frame Cap Screw
185	Upper Gib
186	Lower Gib
144	Gib Screw
182	Latch Needle Carrier
187-38	Latch Needle For MJL-38
187-17	Latch Needle For MJS-17
188	Latch Needle For Set Screw
191	Cam Roll
275	Guide (Seam Width)
190	Guide Screw
276	Stitch Number Indicator
281	Stitch Number Indicator Screw
277	Connecting Bar For 270 And 271
280	Screw For 277
270	Stitch Number Adjusting Lever
279	Stitch Number Adjusting Lever Screw
271	Stitch Number Adjusting Lever Slide
272	Connecting Slide For Feed Lifting Lever
190	Set Screw For 271 And 272
273	Guide Adjusting Slide
278	Guide Adjusting Slide Screw
274	Ratchet For 270
282	Ratchet Spring
283	Stud For 274


200 (27,38)
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211
144
201 (27,38)
203 (27,38)
144
211
144
202
(27,38)
214
204 (17)
204 (27. 38)
210
213
206
205
213
206
205 (17)
207 (27,38)
207-S
209(27,38)
208(27.28)
254
252
251
253
192
255
256
200 (17)
203 (17)
209 (17)
144
261
260
262
199
111
124
259
257
258
292
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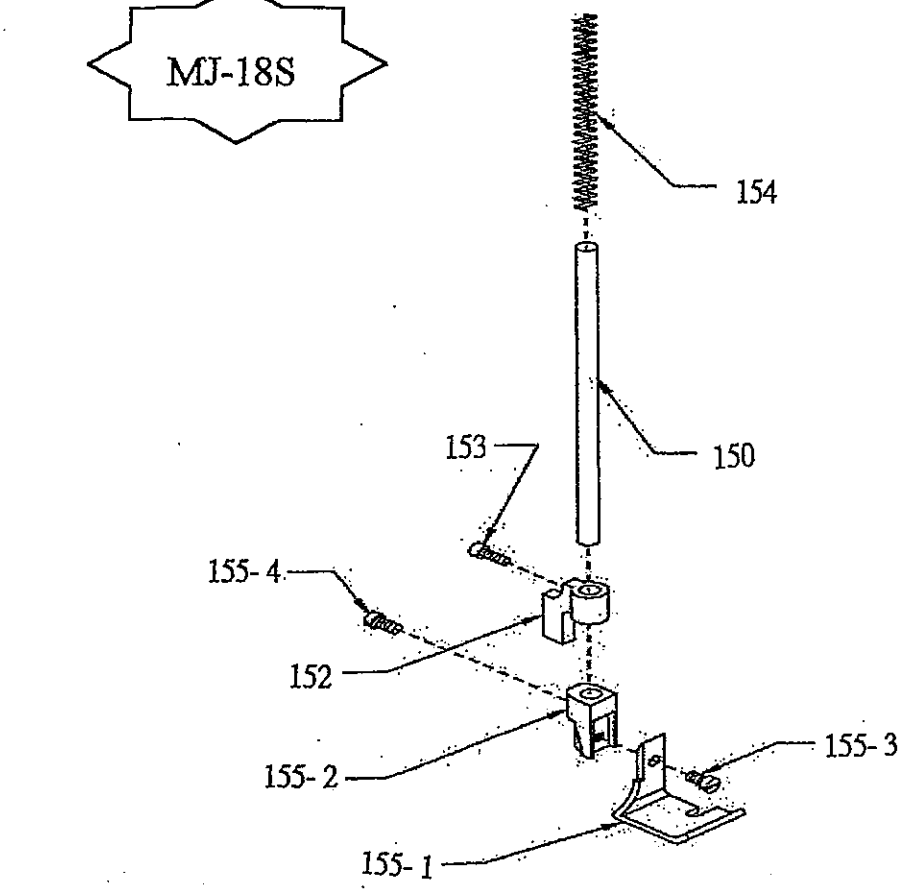
300

200-27,38	Feed Lifting Gear For MJL-38 And MJM-27
201	Feed Lifting Cam (1 stitch)
144	Feed Lifting Cam Screw
202	Feed Lifting Cam (4 stitch)
211	Feed Lifting Cam Screw
203-27,38	Feed Lifting Cam (8 stitch)
144	Feed Lifting Cam Screw
204-27,38	Feed Lifting Gear Bracket
214	Feed Lifting Gear Bracket Set Screw
210	Feed Lifting Fear Rocker Screw
206	Needle Guard & Needle Guard Bracket
213	Needle Guard Screw
207-27,38	Feed Lifting Lever
207-s	Feed Lifting Lever Screw
208-27,38	Feed Lifting Lever Rockr Screw
209	Feed Lifting Cam Guide
188	Feed Lifting Cam Guide Screw
251	Feed Conecting Rod
252	Stitch Adjusting Stud
253	Feed Roller
254	Nut For 252
255	Feed Lever
192	Latch Needle Carrier Block
256	Feed Lever Stud
257	Feed Bar Bracket
258	Feed Bar Bracker Rocker Screw
259	Feed Lifting Adjuster
124	Feed Lifting Adjuster Screw
260	Feed Bar Bracker Pressing Spring
261	Feed And Feed Bar
111	Feed And Feed Bar Screw
262	Subsidiary Feed
199	Feed Bar Stopper For IMJL38 And MJM-27
144	Screw For 165
290	Side Cover
291	Side Cover Screw
292	Side Cover Stopper
293	Stopper Knob
294	Presser Foot Lift Assembly
297	Presser Foot Lift Assembly
298	Presser Foot Lift Assembly
299	Presser Foot Lift Assembly
300	Presser Foot Lift Assembly

MJ-18S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155- 2
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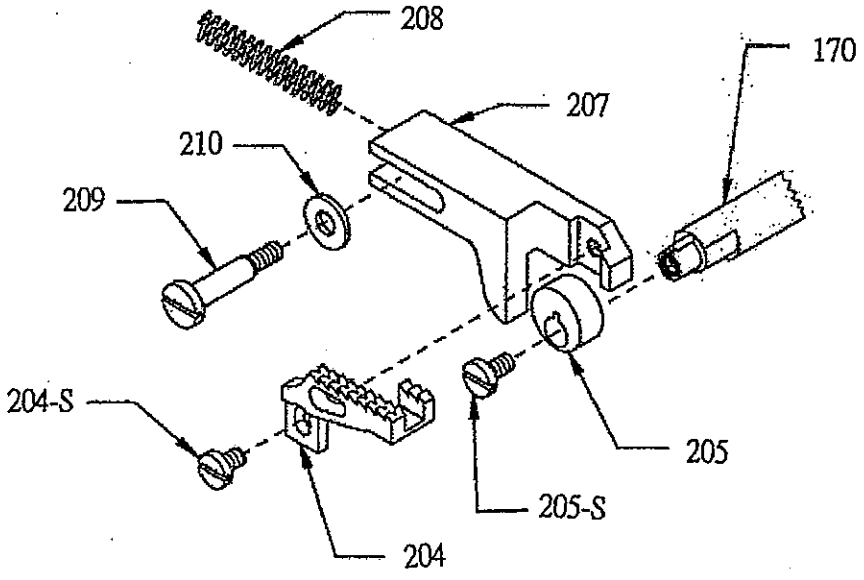
155- 1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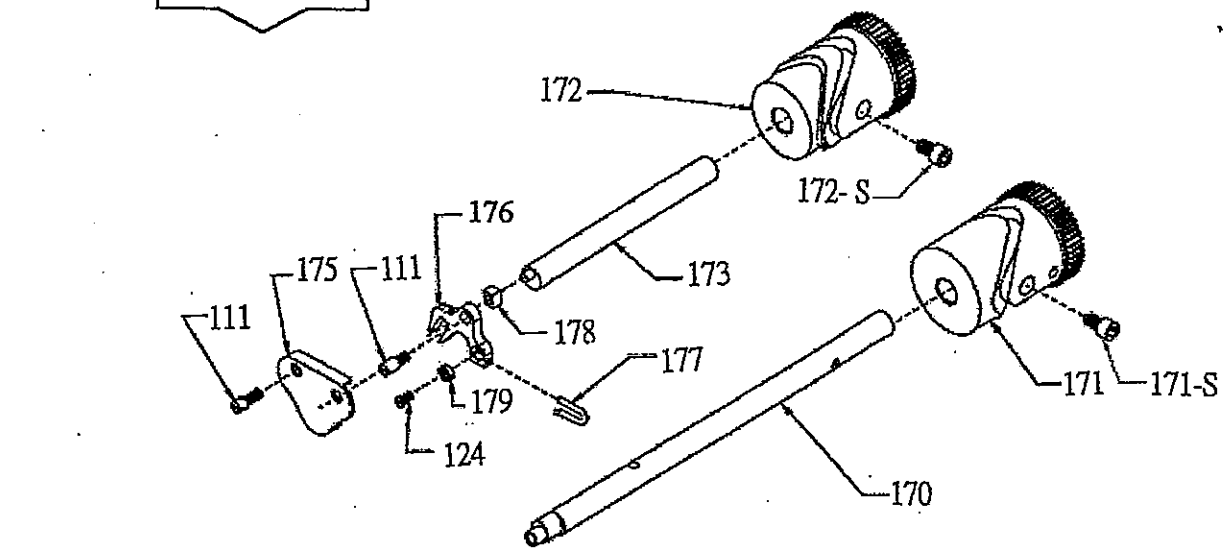
205-S
204

MJ-18S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171-S
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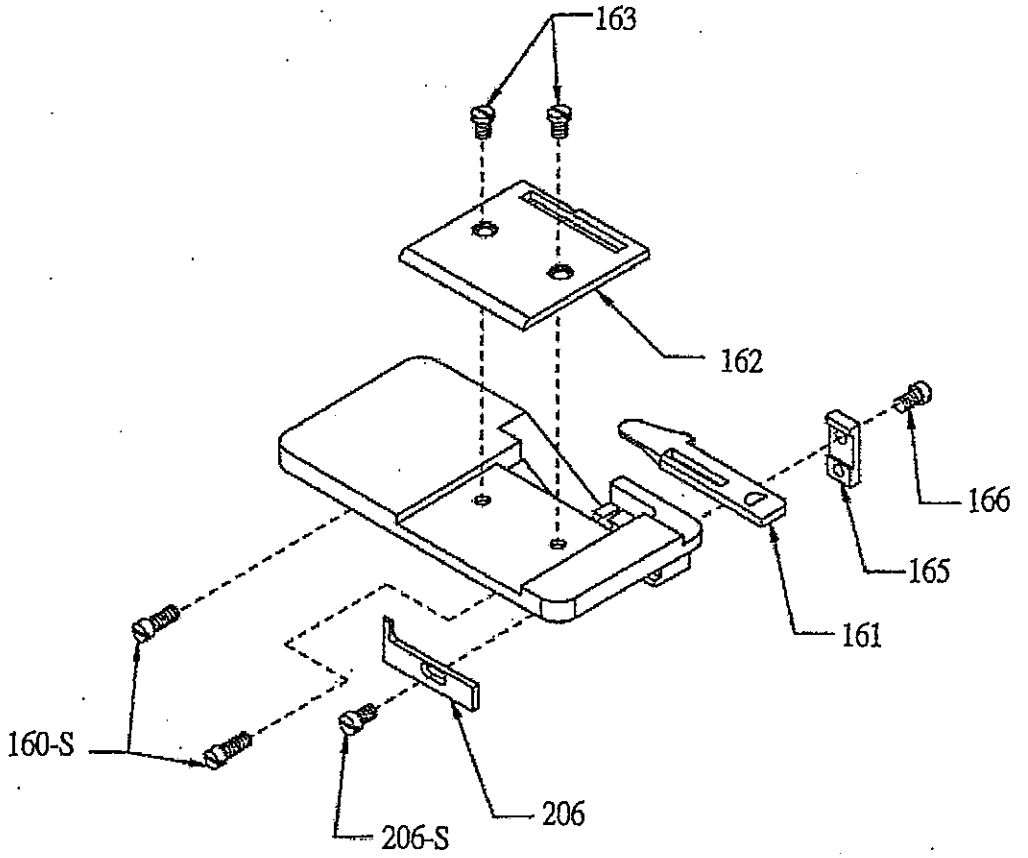
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160-S
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206-S