

1. MAIN SPECIFICATIONS

Item	M	H	B
Material	Light		Medium-Heavy
Max. sewing speed	5000rpm	3500rpm	3000rpm
Stitch length	0-5mm	0-7mm	0-8mm
Needle bar stroke	31.8mm		35mm
Presser	By hand	5.5mm	6mm
	By knee	13mm	13mm
Needle	DB×1#14	DP×5#18	DB×1#22
Rotating hook	Auto lubricated hook		Auto lubricated large hook
Lubrication	Auto lubricated		
Motor	370W Clutch motor		

2. PREPARATION AND LUBRICATION

1) Cleaning the machine

Before leaving the factory, the machine parts are coated with rust-preventive grease, which may be hardened and contaminated by dust during storage and shipment. This grease must be removed with gasoline.

2) Examination

Though every machine is confirmed by strict inspection and test before leaving the factory, the machine parts may be loose or deformed after long distance transportation with jolt. A thorough examination must be performed after cleaning the machine. Turn the balance wheel to see if there is running obstruction, parts collision, uneven resistance or abnormal noise. If these exist, adjustment must be made accordingly before run-in operation.

3) Oiling (Fig.1)

(1) Required amount of oil

Line (A) on the oil reservoir: Max. Oil level

Line (B) on the oil reservoir: Min. Oil level

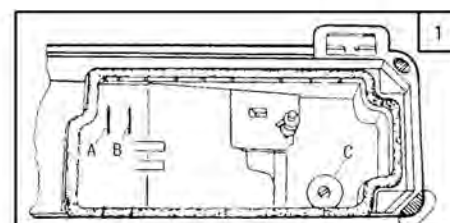
If oil level goes down under line (B), oil cannot be distributed to each part of the machine, thus causing the parts a seizure.

(2) Replenishing

Always use only No.18 special machine oil for high speed sewing. Be sure to replenish oil to line (A) before starting operation.

(3) Replacing oil

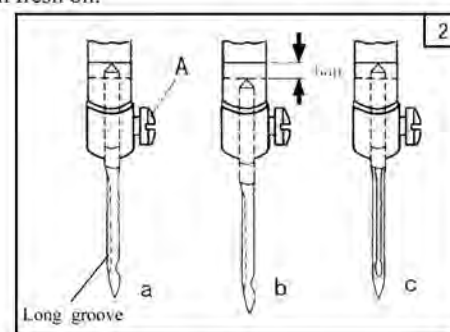
To replace oil, remove screw (C) to drain oil. After completely draining off oil, clean the oil reservoir and securely tighten screw (C), then fill the reservoir with fresh oil.



3. REPLACE NEEDLES(Fig.2)

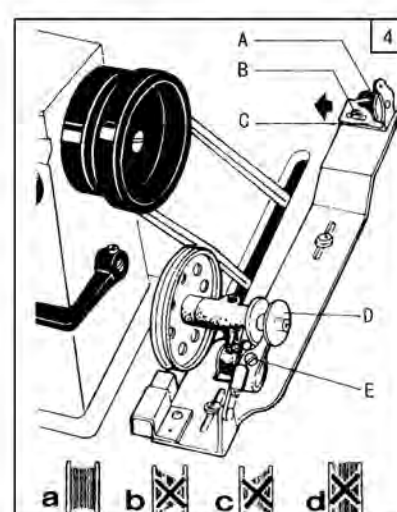
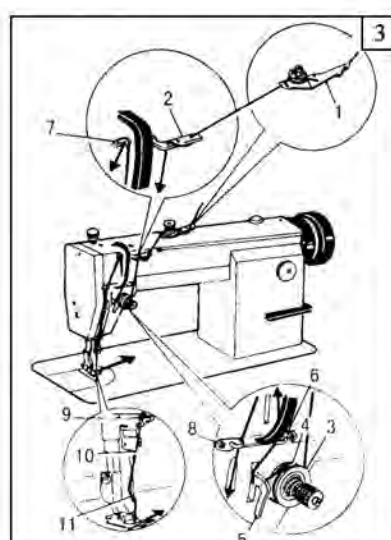
Turn the balance wheel to lift needle bar to the upper end of its stroke. Loosen needle clamp screw (A). While keeping the long groove of the needle leftward fully insert the needle shank up to the bottom of the needle socket. Then tighten needle clamp screw (A).

Note: Fig. (b): insufficient insertion. Fig. (c): wrong direction of long groove.



4. NEEDLE, THREAD AND MATERIAL TO BE SEWN

Needle Size	Thread Number	Material
No.9	No.100-No.80	crepe, georgette, organdie
No.11	No.80-No.60	silk, muslin, poplin
No.14	No.60-No.50	cotton, light, woolen
No.16	No.50-No.30	woolen, tarpaulin, thin leather



5. THREADING(Fig.3)

To thread the needle, raise needle bar to the upper end of its stroke, lead the thread from spool and perform threading as shown in Fig.3. To draw the bobbin thread, hold the end of the needle thread and turn the balance wheel to lower the needle bar and then to lift it to its highest position. Pull the needle thread and the bobbin thread is drawn up. Put the ends of needle thread and bobbin thread forward under presser foot.

6. WINDING ADJUSTMENT(Fig.4)

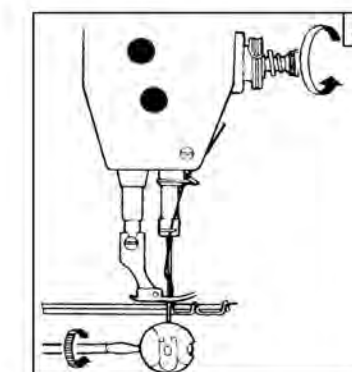
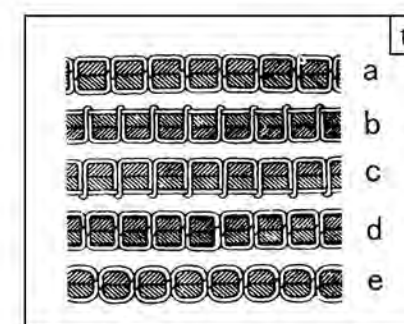
(1) The wound bobbin thread should be neat and tight, if not, adjust the winding tension by turning tension stud nut (A) of bobbin winder tension bracket.

Note: nylon or polyester thread should be wound with little tension; otherwise, bobbin (D) might break or deform.

(2) When the wound thread layer does not present a cylindrical shape as shown in Fig.4 (a), loosen set screw (B) of bobbin winder tension bracket and slide bracket (C) leftward or rightward. If thread is wound as shown in Fig.4 (b), move the bracket rightward, but if thread is wound as shown in Fig.4 (c), move the bracket leftward.

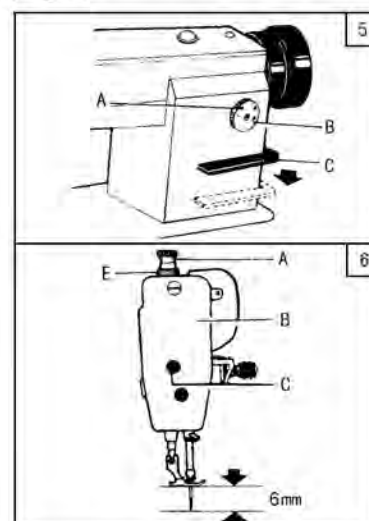
After adequately positioning the bracket, tighten set screw (B).

(3) Do not overfill the bobbin. The optimum length of thread will fill about 80% of bobbin capacity. This can be adjusted by adjusting screw (E) of bobbin winder stop latch.



7. SET STITCH LENGTH AND REVERSE FEEDING(Fig.5)

- 1) Stitch length can be set by turning dial (A).
- 2) The figures on face (B) of dial show stitch length in mm.
- 3) Reverse feeding starts when reverse feed lever (C) is depressed, and the machine will feed forward again if reverse feed lever (C) is released.



8. POSITION PRESSER BAR(Fig.6)

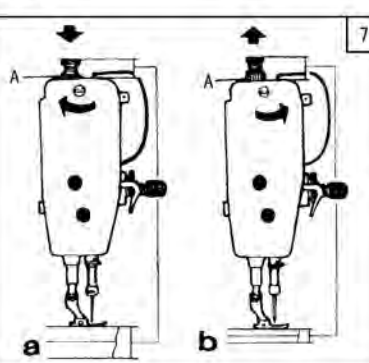
- 1) Loosen lock nut (E) and pressure regulating thumb screw (A).
- 2) Remove Rubber Plug from face plate (B).
- 3) Loosen screw (C) and adjust the position of Presser Bar till the presser foot is 6 mm above the throat plate will the presser foot lifted to its highest.
- 4) Tighten screw (C) and put in the rubber plug.
- 5) Tighten pressure regulating thumb screw (A) and lock nut (E).

9. ADJUST THE PRESSURE OF PRESSER FOOT(Fig.7)

Pressure of presser foot is to be adjusted in accordance with thickness of materials to be sewn.

First loosen lock nut (A). For heavy materials, turn the pressure regulating thumb screw as shown in Fig.7 (a) to increase the pressure, while for light materials, turn the pressure regulating thumb screw as shown in Fig.7 (b) to decrease the pressure. Then tighten lock nut (A).

The pressure of presser foot is recommended to be less as long as normal feeding is ensured.



10. ADJUST THREAD TAKE-UP SPRING(Fig.8,9)

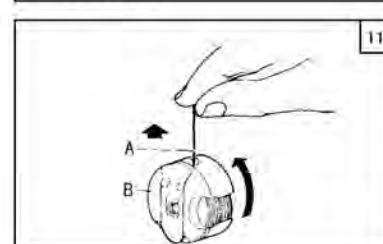
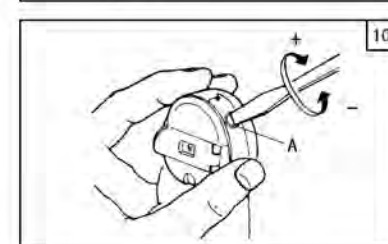
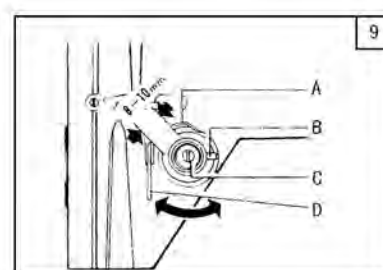
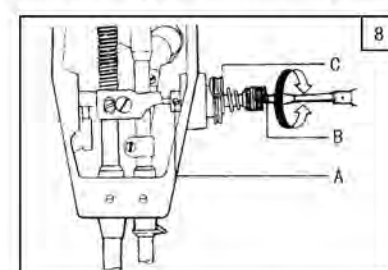
1) Adjusting the thread take-up spring tension

Loosen set screw (A), turn tension stud (B) clockwise to increase the spring tension, or turn the stud counter-clockwise to decrease the spring tension. After the adjustment, be sure to tighten set screw (A). The thread take-up spring tension should be about 30g. To attain this, first loosen set screw (A), turn tension stud (B) counter-clockwise to decrease the tension of thread take-up spring (C) to zero, then turn tension stud (B) clockwise until spring (C) comes to the notch of thread tension regulating bushing, and again turn tension stud (B) halfway back (counter-clockwise). After the adjustment, tighten set screw (A).

2) Adjusting the thread take-up spring stroke

Loosen set screw (B), turn stud (C) clockwise to increase the stroke or turn stud (C) counter-clockwise to decrease the stroke. After the adjustment, tighten set screw (B).

Before leaving the factory, the thread take-up spring has properly been adjusted. Readjustment is needed only in the case of special material or special thread.



11. ADJUST THREAD TENSION(Fig.10,11)

In principle, thread tension is to be adjusted in accordance with materials, thread and other factors.

In practice, thread tension is adjusted according to the stitches obtained. The needle thread tension should be adjusted with reference to the bobbin thread tension. Turn tension spring regulating screw (A) of bobbin case clockwise for more tension, or turn the screw counter-clockwise for less tension.

It is common practice to test the bobbin thread tension as shown in Fig.11. Hold the end of the thread from delivery eye. If the bobbin case is falling slowly, the proper tension is obtained. The needle thread tension can be adjusted by setting (1) the take-up spring tension, (2) the thread take-up spring stroke and (3) tension spring. All these adjustments will be described in the following.

12. ADJUST THREAD GUIDE AND THREAD TENSION(Fig.12,13)

The position of the thread guide affects stitch tightness and therefore must be adjusted according to sewing materials and sewing conditions.

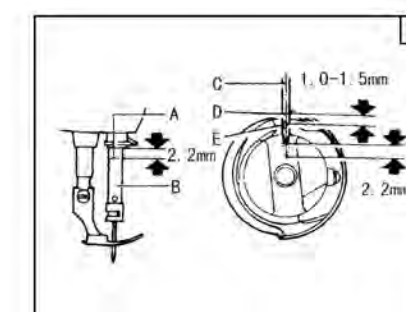
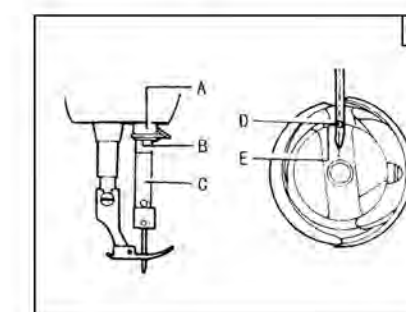
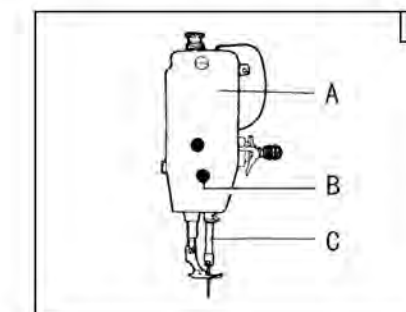
Thread guide position	1	2	3
	Leftward	Center	Rightward
Material weight	Heavy	Medium	Light

Fig.12 shows different stitch forms. Normal stitch form should be as shown in Fig.12 (a). When abnormal stitches cause puckering and thread break-age, the tension of needle thread and bobbin thread must be adjusted accordingly.

(1) In case needle thread tension is too strong or bobbin thread tension is too weak, as shown in Fig.12 (b), turn the thumb nut counter-clockwise to decrease the needle thread tension, or tighten the tension spring regulating screw of bobbin case to increase the bobbin thread tension (Fig.13).

(2) In case needle thread tension is too weak or bobbin thread tension is too strong, as shown in Fig.12 (c), turn the thumb nut clockwise to increase the needle thread tension, or loosen the tension spring regulating screw of bobbin case to decrease the bobbin thread tension.

(3) In case of the stitch forms as shown in Fig.12 (d) and (e), adjustments can be made with reference to the above means.



13. TIME NEEDLE TO ROTATING HOOK(Fig.14,15,16,17)

1) Adjusting the needle position (Fig.14)

- (1) Turn balance wheel by hand to bring needle bar (C) to the lowest position of its stroke.
- (2) Remove rubber plug from face plate (A).
- (3) Loosen set screw (B) of needle bar adaptor.
- (4) Move needle bar (C) vertically to adjust needle timing.
- (5) After the adjustment, tighten set screw (B) and put in the rubber plug. The standard needle timing (Fig.15) is to align timing mark (B) on the needle bar and the bottom of needle bar bushing (A) and meanwhile align the inner surface (E) of the hook and the center of needle eye (D) when the needle bar gets down to its lowest position.

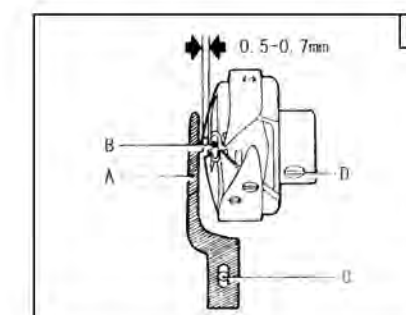
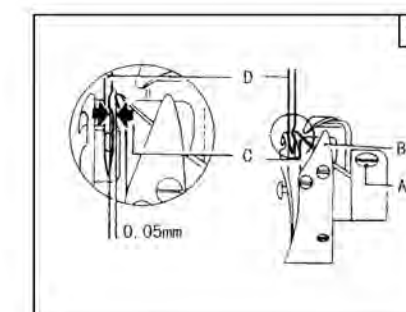
2) Adjusting the hook point timing

Timing of needle motion to rotating hook motion has a great effect on sewing performance. The standard hook point timing (Fig.16) is to align hook point (D) and needle centerline (C) when needle bar (B) is lifted by 2.2mm from the lower end of its stroke. Besides, hook point (D) should be 1.0-1.5mm above the upper end of needle eye (E).

When adjusting the hook point timing, also notice that the clearance between the bottom of needle notch and hook point (C) should be approx. 0.05mm (Fig.17).

14. REPLACE ROTATING HOOK(Fig.18)

- 1) Lift needle bar to the highest position of its stroke.
- 2) Remove throat plate, take down needle and bobbin case.
- 3) Loosen screw (C) of hook positioner and take down hook positioner (A).
- 4) Loosen two screw (D) of rotating hook.
- 5) Turn the balance wheel to raise feed bar to its highest position, then take down the rotating hook by turning it away from feed bar.
- 6) Installing the hook can be done in reverse sequence. Note that needle (B) and the convex surface of hook positioner (A) should align with a clearance of 0.5-0.7mm between them.



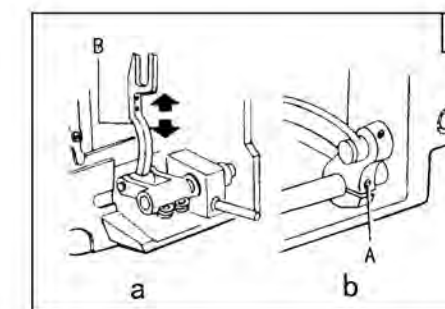
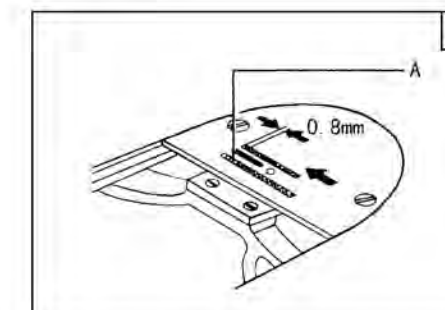
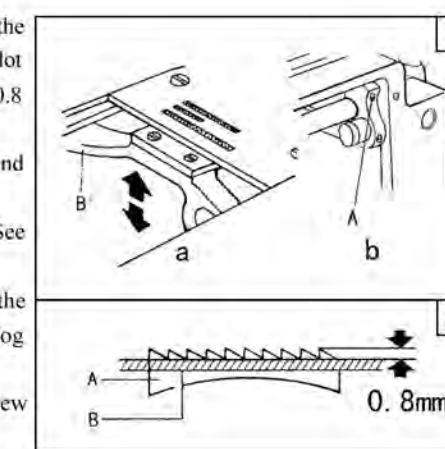
15. ADJUST THE HEIGHT OF FEED DOG(Fig.19,20)

- 1) Turn the balance wheel until feed dog is lifted to its highest position from throat plate surface.
- 2) Loosen screw (A) of feed lifting rock shaft crank right (See Fig.19, b).
- 3) Move feed bar (B) in the direction shown by the arrow in Fig.19 (a) to adjust the height of the feed dog. The standard height of feed dog is that the top of feed dog is 0.8 mm above throat plate surface (B).
- 4) After the adjustment, be sure to tighten screw (A).

16. ADJUST THE POSITION OF FEED DOG(Fig.21,22)

The standard position of feed dog is that the clearance between the front end of the throat plate slot and the first tooth of the fully advanced feed dog is 0.8 mm, as shown in Fig.21.

- 1) Fully advance the feed dog toward the front end of the throat plate slot.
- 2) Loosen feed rock shaft crank screw (A). See Fig.22 (b).
- 3) Move feed bar (B) in the direction shown by the arrow in Fig.22 (a) to adjust the feed dog position.
- 4) After the adjustment, be sure to tighten Screw (A).

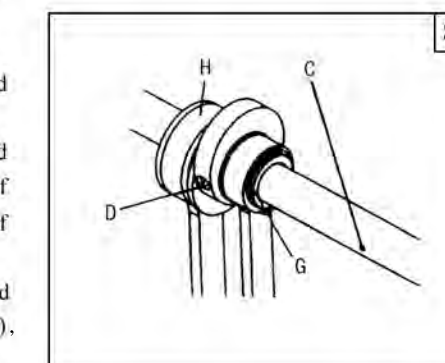


17. TIME FEED MOTION TO NEEDLE MOTION(Fig.23,24)

The standard timing of feed motion to needle motion is that the top of feed dog (C) is flush with throat plate surface (B) when the point of needle (A) reaches throat plate surface (B). (Fig.23)

If feed motion is not timed to needle motion, adjust as follows (Fig.23 and Fig.24).

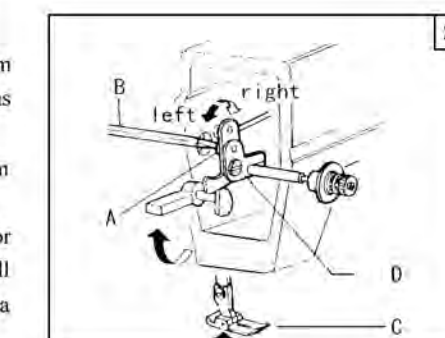
- 1) Remove arm side cover (F).
- 2) Loosen set screws (A) and (D) of feed and feed lifting eccentric.
- 3) Hold feed and feed lifting eccentric (B) and turn balance wheel (E) slowly until the upper edge of arm shaft oil hole (C) aligns with the lower edge of reference hole (G) of feed and feed lifting eccentric.
- 4) Leave a clearance of 0.3-0.5 mm between feed and feed lifting eccentric (B) and eccentric sleeve (H), then tighten set screws (A) and (D).



18. ADJUST OPENING TIME OF THE TENSION DISCS(Fig.25)

Within the presser foot lift range of 2-7 mm opening time of the tension discs can be adjusted as follows:

- 1) Remove the rubber plug from the back of arm and loosen screw (A) of knee lifter lever (left).
- 2) Move the tension releasing cam leftward for earlier opening or rightward for later opening. It will facilitate the adjustment to put under the presser foot a block as thick as the presser foot lift.

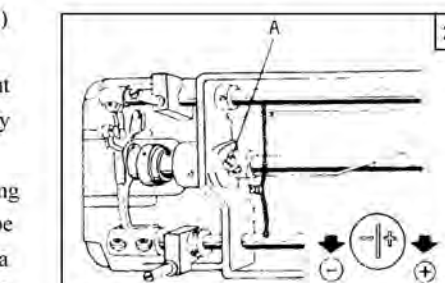


19. LUBRICATION ADJUSTMENT(Fig.26)

Adjusting the lubrication of rotating hook.

Oil adjusting screw (A) can adjust the lubrication of the rotating hook as follows:

- (1) Turn oil adjusting screw (A) clockwise to increase oil and turn oil adjusting screw (A) counter-clockwise to decrease oil.
- (2) Oil adjusting screw (A) adjusts oil amount within 5 turns. When oil adjusting screw (A) is fully tightened, oil amount is maximum.
- (3) Readjustment depends on temperature, sewing speed and the like. In practice, oil amount can be judged as follows: remove the throat plate and place a piece of paper on instead, run the machine for about 20 seconds, then check the oil splashed on the paper.



A. 机壳部件

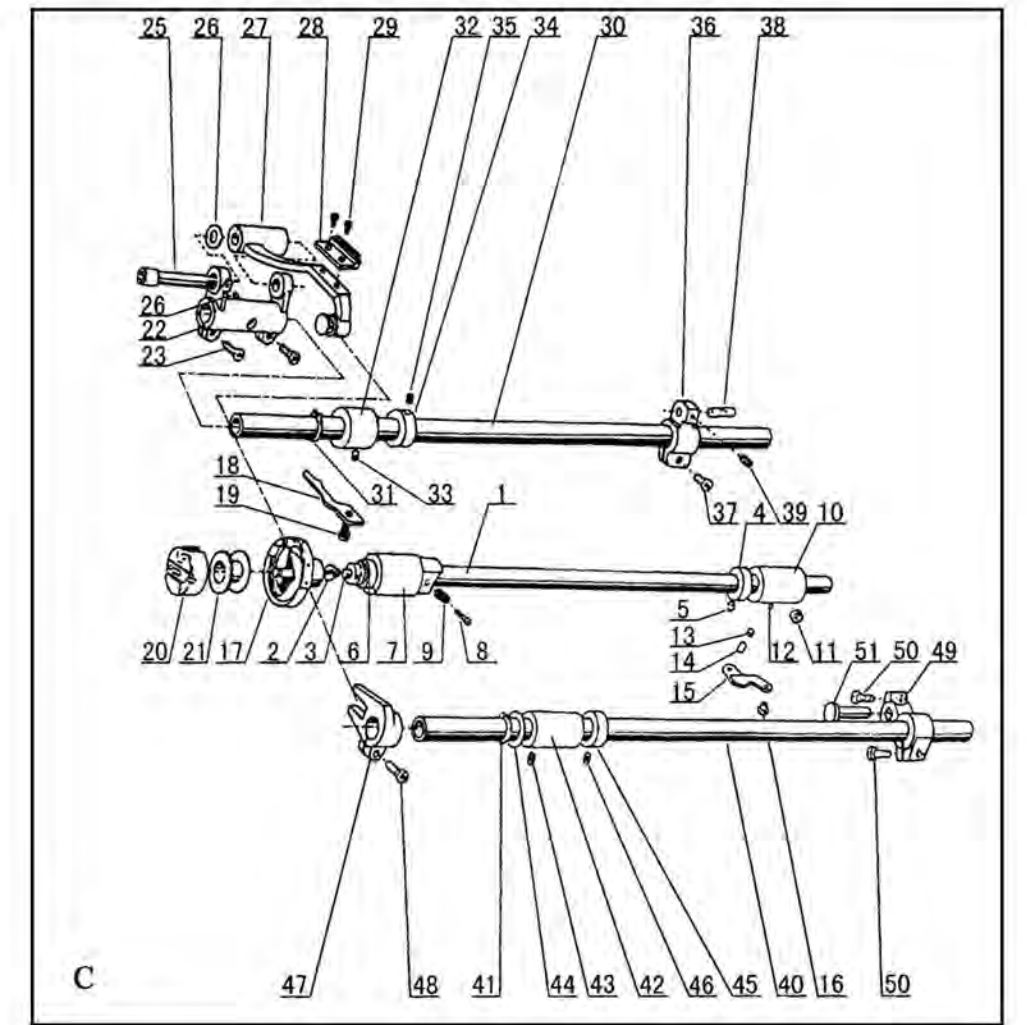
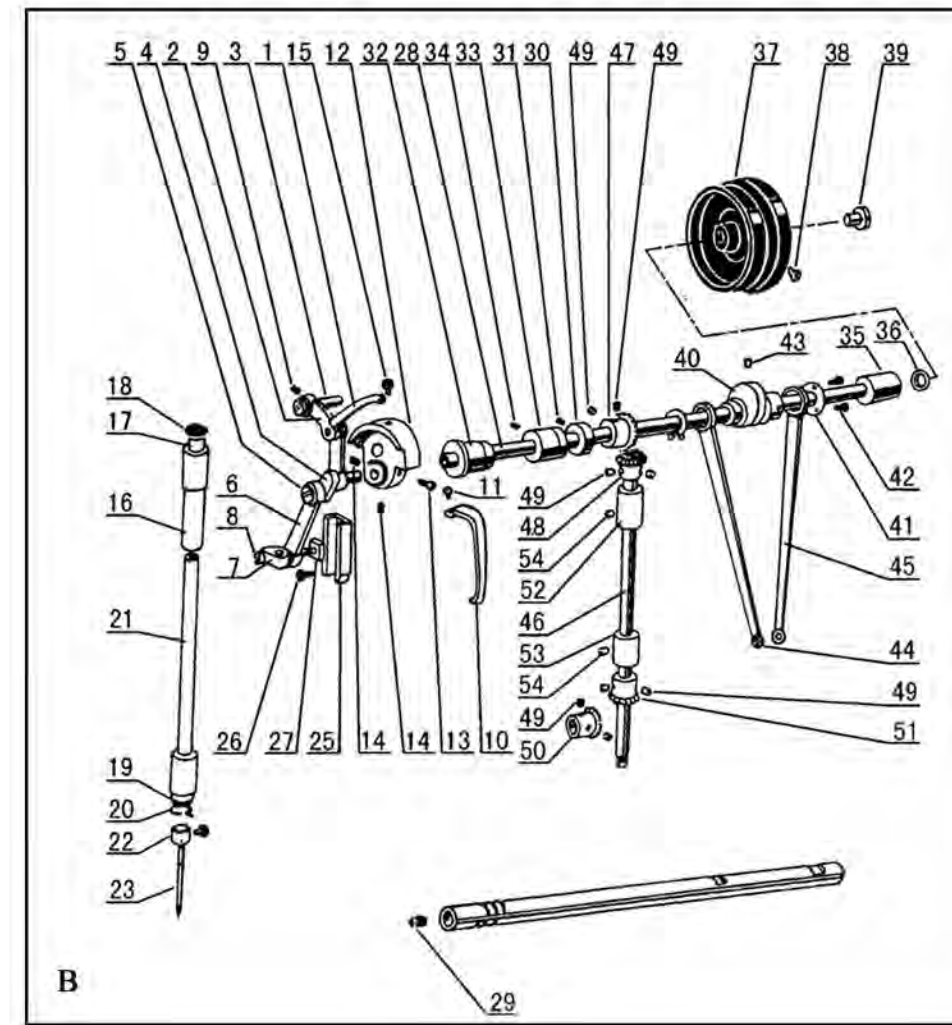
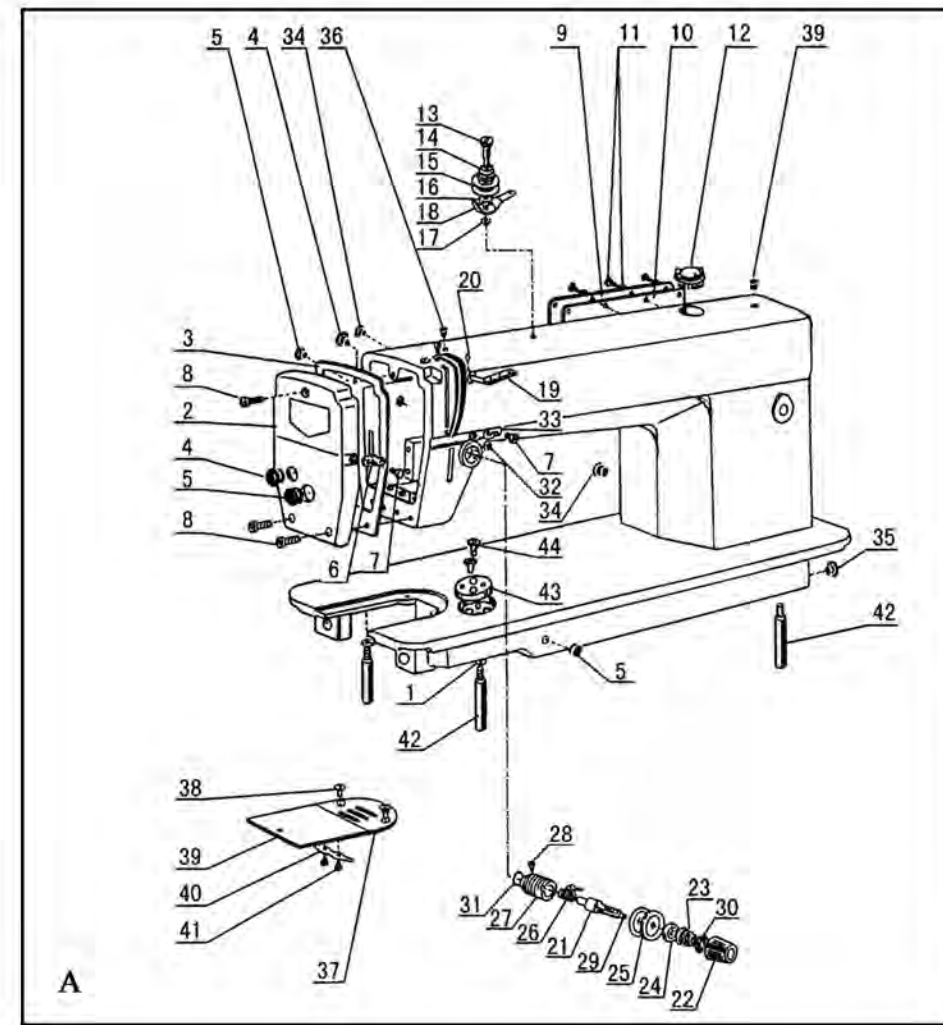
ARM BED AND ITS ACCESSORIES

序号 Fig. No.	样本编号 Part No.	名称	Description	M	H	B
A01	H005008060	弹簧垫圈	Spring washer	3	3	3
A02	H5408B0661	面板	Face plate	1	1	1
A03	H5408B0662	面板垫片	Gasket for face plate	1	1	1
A04	HA307B0673	橡皮塞(Φ19)	Rubber plug(Φ19)	2	2	2
A05	HA307B0674	橡皮塞(Φ11.8)	Rubber plug(Φ11.8)	3	3	3
A06	HA106B0675	面板线勾	Thread guide on face plate	1	1	1
A06	HA607B0671	面板线勾	Thread guide on face plate	1	1	1
A07	HA106B0676	面板线勾螺钉	Screw	2	2	2
A08	HA300B2160	面板螺钉	Screw	3	3	3
A09	HA308B0681	后盖板	Arm side cover	1	1	1
A10	HA108B0682	后盖板垫片	Gasket for arm side cover	1	1	1
A11	HA300B2170	后盖板螺钉组件	Screw	8	8	8
A12	H1210B0671	油窗	Oil check window	1	1	1
A13	HA112B0691	小夹线螺钉	Screw type tension stud	1	1	1
A14	HA112B0692	小夹线弹簧	Spring for pre-tension	1	1	1
A15	HA112B0693	小夹线板	Disk for pre-tension	2	2	2
A16	HA112B0694	小夹线过线板垫块	Space for pre-tension	1	1	1
A17	H007013030	开口挡圈	Stop ring	1	1	1
A18	HA112B0695	小夹线过线板	Pre-tension thread guide	1	1	1
A19	HA100B2100	三眼线勾	Three-hole thread guide	1	1	1
A20	HA100B2110	三眼线勾螺钉	Set screw	1	1	1
A21	HA115B0701	夹线螺钉	Thread tension stud	1	1	1
A22	HA310B0701	夹线螺母小组件	Thumb nut	1	1	1
A23	HA115B0703	夹线弹簧	Thread tension spring	1	1	1
A23	HA505B0671	夹线弹簧	Thread tension spring	1	1	1
A23	HA607B0668	夹线弹簧	Thread tension spring	1	1	1
A24	HA310B0702	松线板	Thread tension disc	1	1	1
A25	HA310B0705	夹线板	Thread tension disc	2	2	2
A26	HA115B0706	挑线簧	Thread take-up spring	1	1	1
A26	HA505B0672	挑线簧	Thread take-up spring	1	1	1
A27	HA310B0703	挑线簧	Thread take-up spring	1	1	1
A28	HA115B0708	挑线簧	Thread take-up spring	1	1	1
A29	HA115B0709	挑线簧	Thread take-up spring	1	1	1
A30	HA115B0710	挑线簧	Thread take-up spring	1	1	1
A31	HA115B0711	挑线簧	Thread take-up spring	1	1	1
A32	HA300B2080	挑线簧	Thread take-up spring	1	1	1
A33	HA100B2140	线勾	Thread guide	1	1	1
A33	HA600B2050	线勾	Thread guide	1	1	1
A34	HA300B2090	橡皮塞(Φ8.8)	Rubber plug(Φ8.8)	3	3	3
A35	HA300B2100	橡皮塞(Φ27)	Rubber plug(Φ27)	1	1	1
A36	HA300B2110	橡皮塞(Φ5.7)	Rubber plug(Φ5.7)	2	2	2
A37	HA300B2120	针板	Needle plate	1	1	1
A37	HA500B2030	针板	Needle plate	1	1	1
A38	HA300B2190	针板螺钉	Needle plate screw	2	2	2
A39	HA124B0711	推板	Slide plate	1	1	1
A40	HA124B0712	推板簧	Slide plate spring	1	1	1
A41	HA124B0713	推板簧螺钉	Screw	2	2	2
A42	HA100B2220	底板撑杆	Leg	3	3	3
A43	HA300B2140	夹边座	Cloth guide plate	1	1	1
A44	HA300B2130	夹边座螺钉	Screw	2	2	2

B. 挑线、上轴部分

NEEDLE BAR AND THREAD TAKE-UP MECHANISM

序号 Fig. No.	样本编号 Part No.	名称	Description	M	H	B
B01	HA1111C104	挑线杆	Thread take-up lever	1	1	1
B01	HA3111C104	挑线杆	Thread take-up lever	1	1	1
B01	H1111C104	挑线杆	Thread take-up lever	1	1	1
B02	HA104C0652	挑线连杆	Thread take-up lever link	1	1	1



序号 Fig. No.	样本编号 Part No.	名称	Description	M	H	B
B02	H1111C104	挑线连杆	Thread take-up lever link	1	1	1
B03	HA104C0653	挑线连杆铰链轴	Hinge pin	1	1	1
B04	HA104C0654	挑线曲柄	Thread take-up crank	1	1	1
B04	HA504C0651	挑线曲柄	Thread take-up crank	1	1	1
B05	HA104C0656	挑线曲柄螺钉(左旋)	Screw(left-handed)	1	1	1
B06	HA1172C104	针杆连杆	Needle bar link	1	1	1
B06	HA3172C104	针杆连杆	Needle bar link	1	1	1
B07	HA104C0658	针杆接头	Needle bar adaptor	1	1	1
B08	HA106B0676	针杆接头螺钉	Set screw	1	1	1
B09	HA100C2020	挑线连杆铰链轴螺钉	Set screw	1	1	1
B10	HA300C2020	挑线杆防护罩	Thread take-up guard	1	1	1
B10	HA600C2020	挑线杆防护罩	Thread take-up guard	1	1	1
B11	HA300C2030	挑线杆防护罩螺钉	Set screw	1	1	1
B12	HA108C0661	针杆曲柄	Needle bar crank	1	1	1
B12	HA307C0661	针杆曲柄	Needle bar crank	1	1	1
B13	HA100C2060	针杆曲柄螺钉	Screw	1	1	1
B14	HA307C0662	挑线曲柄定位螺钉	Screw	2	2	2
B15	HA100C2070	针杆曲柄定位螺钉	Screw	1	1	1
B16	HA100C2080	针杆轴套(上)	Needle bar bushing(upper)	1	1	1
B17	HA100C2100	针杆轴套(上)毛塞	Felt plug	1	1	1
B18	HA300C2050	针杆轴套(上)橡皮塞	Rubber plug	1	1	1
B19	HA300C2060	针杆轴套(下)	Needle bar bushing(lower)	1	1	1
B19	HA804B0652	针杆轴套(下)	Needle bar bushing(lower)	1	1	1
B20	HA300C2070	针杆轴套(下)过线勾	Thread guide	1	1	1
B21	HA300C2080	针杆	Needle bar	1	1	1
B21	HA500C2020	针杆	Needle bar	1	1	1
B22	HA100C2150	针杆过线环	Thread guide for needle bar	1	1	1
B22	HA500C2030	针杆过线环	Thread guide for needle bar	1	1	1
B23	HA100C2160	机针	Needle	1	1	1
B23	H100C2010	机针	Needle	1	1	1
B23	HA500C2040	机针	Needle	1	1	1
B24	HA100C2170	夹针螺钉	Screw	1	1	1
B25	HA100C2180	针杆接头滑块导轨	Guide for slide block	1	1	1
B26	HA100C2190	滑块导轨螺钉	Set screw	2	2	2
B27	HA100C2200	针杆接头滑块	Slide block	1	1	1
B28	H1204C0651	上轴	Arm shaft	1	1	1
B29	HA104D0652	上轴橡皮塞(Φ7.4×10)	Rubber plug(Φ7.4×10)	2	2	2
B30	HA108G0661	上轴紧圈	Collar for arm shaft	1	1	1
B31	HA105D0662	上轴紧圈螺钉	Set screw	2	2	2
B32	HA100D2030	上轴轴套(左)	Arm shaft bushing(left)	1	1	1
B33	HA100D2040	上轴轴套(中)	Arm shaft bushing(middle)	1	1	1
B34	HA100C2020	上轴轴套(中)螺钉	Set screw	1	1	1
B35	HA300D2020	上轴轴套(右)	Arm shaft bushing(right)	1	1	1
B36	HA306D0666	上轴轴套(右)油封	Oil seal	1	1	1
B37	HA307D0671	主动轮	Balance wheel	1	1	1
B37	H2000C2040	主动轮	Balance wheel	1	1	1
B38	HA110D0672	主动轮螺钉	Set screw	2	2	2

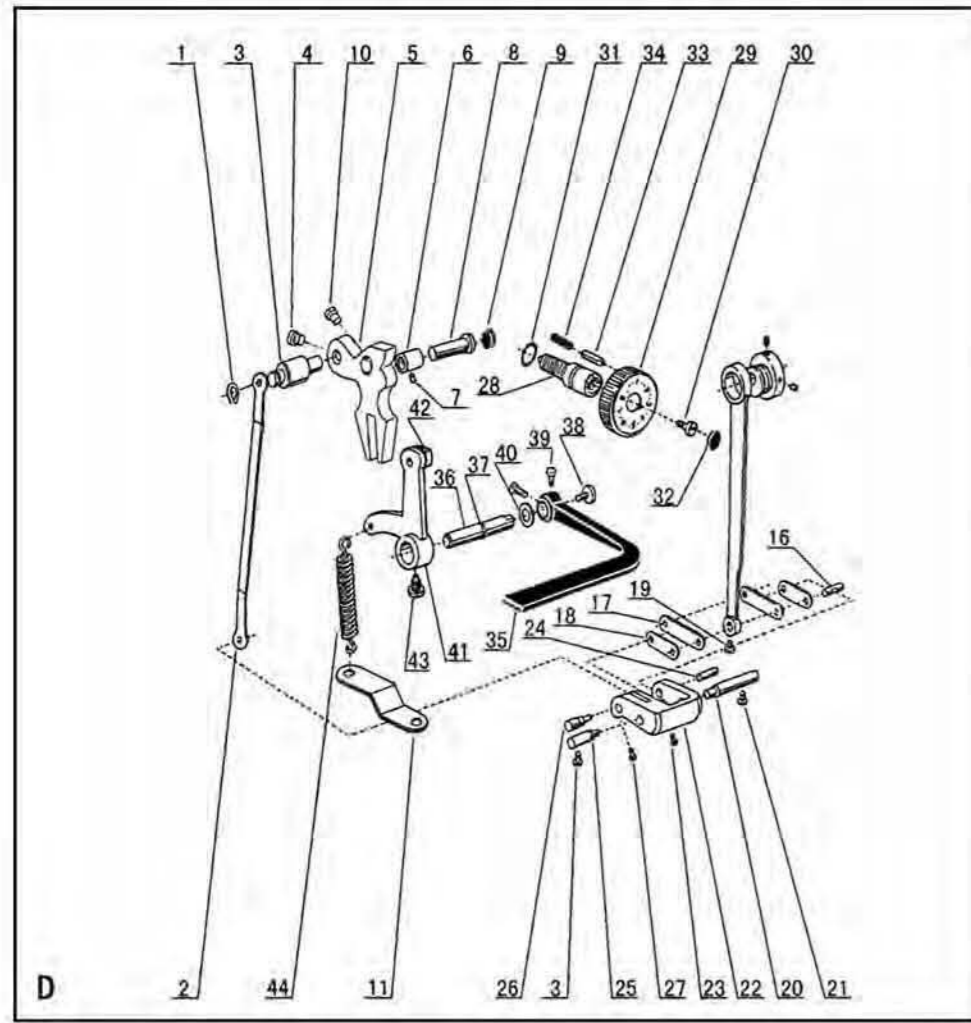
序号 Fig. No.	样本编号 Part No.	名称	Description	M	H	B
B39	HA100D2080	上轴油封螺钉	Screw	1	1	1
B40	HA7311C106	送布凸轮	Feed and feed lifting eccentric	1	1	1
B40	HA8211C105	送布凸轮	Feed and feed lifting eccentric	1	1	1
B41	HA7311C206	送布凸轮垫圈	Washer	1	1	1
B42	HA7311C306	送布凸轮垫圈螺钉	Set screw	3	3	3
B43	HA100C2020	送布凸轮定位螺钉	Set screw	2	2	2
B44	HA112D3013	抬牙连杆	Crank rod for feed lifting rock	1	1	1
B45	HA7311C506	送布连杆	Crank rod for feed rock shaft	1	1	1
B46	HA113D0691	竖轴	Vertical shaft	1	1	1
B47	HA113B2112	竖轴伞齿轮	Bevel gear for arm shaft	1	1	1
B48	HA113D2122	竖轴伞齿轮(上)	Bevel gear for vertical shaft(up)	1	1	1
B49	HA108C0663	伞齿轮螺钉	Set screw	8	8	8
B50	HA113D2212	下轴伞齿轮	Bevel gear for hook shaft	1	1	1
B51	HA113D2222	竖轴伞齿轮(下)	Bevel gear for vertical shaft(lower)	1	1	1
B52	HA100D2110	竖轴轴套(上)	Vertical shaft bushing(upper)	1	1	1
B53	HA100D2110	竖轴轴套(下)	Vertical shaft bushing(lower)	1	1	1
B53	HA600D2010	竖轴轴套(下)	Vertical shaft bushing(lower)	1	1	1
B54	HA100C2020	竖轴轴套螺钉	Set screw	2	2	2

C. 抬牙送布、勾线部分

FEEDING AND FEED LIFTING & LOWER SHAFT MECHANISM

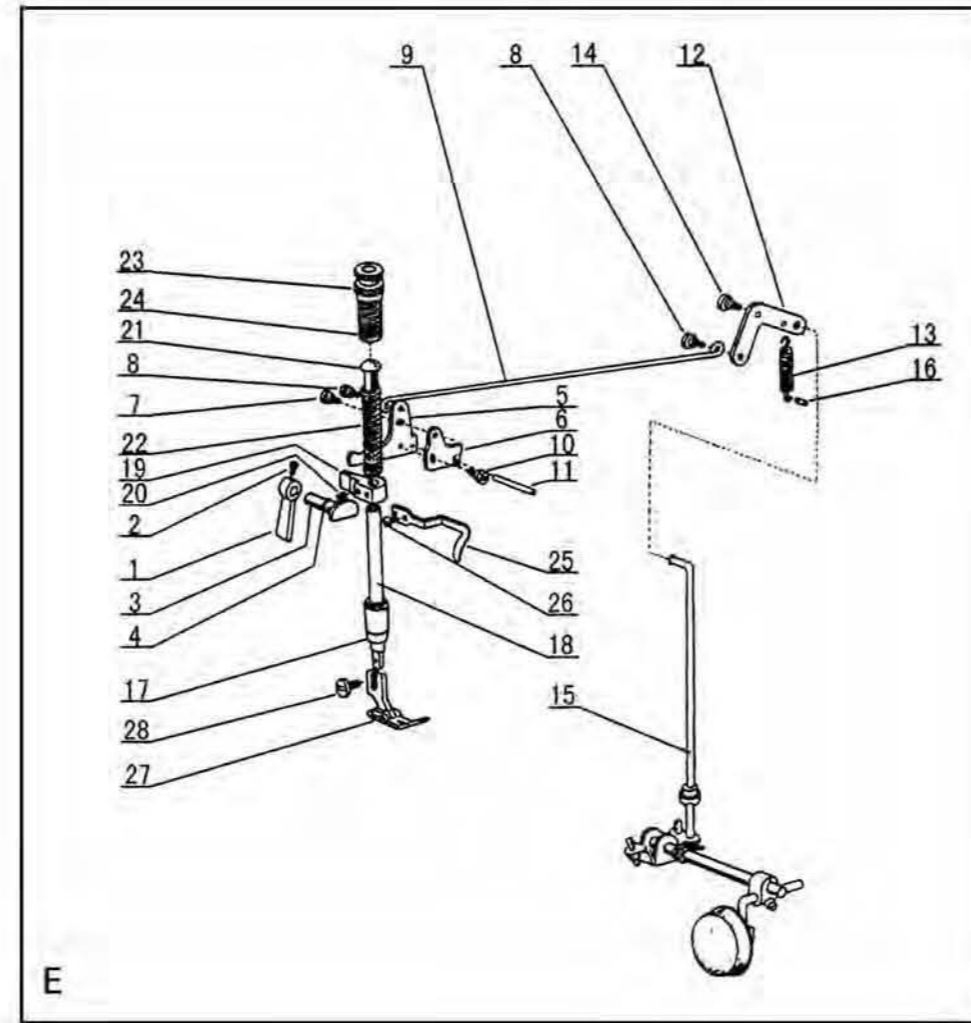
序号 Fig. No.	样本编号 Part No.	名称	Description	M	H	B
C01	HA704E0651	下轴	Rotating hook shaft	1	1	1
C01	HA904E0651	下轴	Rotating hook shaft	1	1	1
C02	HA111E104	下轴滤油塞螺钉	Filter screw	1	1	1
C03	HA111E204	下轴滤油塞	Filter	1	1	1
C03	H1006E8001	下轴油绳	Oil wick	1	1	1
C04	HA305E0661	下轴紧圈	Collar for rotating hook shaft	1	1	1
C05	HA305E0662	下轴紧圈螺钉	Set screw	2	2	2
C06	HA106E0071	下轴油封	Oil seal for rotating hook shaft	1	1	1
C07	HA100E2040	下轴轴套(左)	Hook shaft bushing(left)	1	1	1
C08	HA300E2030	油量调节螺钉	Oil adjusting screw	1	1	1
C09	HA100E2060	油量调节弹簧	Spring for oil adjusting	1	1	1
C10	HA311E0671	下轴轴套(右)	Hook shaft bushing(right)	1	1	1
C11	HA100C2020	下轴轴套(右)螺钉	Set screw	1	1	1
C12	HA110E0672	下轴轴套油管	Oil pipe for hook shaft bushing	1	1	1
C13	HA300E2100	柱塞	Plunger	1	1	1
C14	HA300E2110	柱塞弹簧	Plunger spring	1	1	1
C15	HA100E2100	挡板	Guide plate	1	1	1

序号 Fig. No.	样本编号 Part No.	名称	Description	M	H	B
C15	HA600E2020	挡板	Guide plate	1	1	1
C16	HA104F0654	挡板螺钉	Set screw	1	1	1
C17	HA115E0069	旋梭组件	Rotating hook complete	1	1	1
C17	HA500E2030	旋梭组件	Rotating hook complete	1	1	1
C17	HA600E2070	旋梭组件	Rotating hook complete	1	1	1
C18	HA300E2050	旋梭定位勾	Rotating hook positioner	1	1	1
C18	HA500E2020	旋梭定位勾	Rotating hook positioner	1	1	1
C18	HA600E2040	旋梭定位勾	Rotating hook positioner	1	1	1
C19	HA100E2150	旋梭定位勾螺钉	Screw	1	1	1
C20	HA119E0070	梭芯套组件	Bobbin case	1	1	1
C20	HA300E2070	梭芯套组件	Bobbin case	1	1	1
C20	HA608E0067	梭芯套组件	Bobbin case	1	1	1
C21	HA100E2170	梭芯	Bobbin	1	1	1
C21	HA600E2060	梭芯	Bobbin	1	1	1
C22	HA104G0011	牙架曲柄	Feed rock shaft crank	1	1	1
C23	HA104G0012	牙架曲柄螺钉	Screw	2	2	2
C24	HA104G0656	牙架垫圈	Washer	1	1	1
C25	HA705J0654	牙架曲柄偏心轴	Shaft for feed bar(eccentric)	1	1	1
C26	HA100C2190	牙架曲柄偏心轴螺钉	Screw	1	1	1
C27	HA7131J105	牙架	Feed bar	1	1	1
C28	HA104G0653	送布牙	Feed dog	1	1	1
C29	HA104G0654	送布牙螺钉	Set screw	2	2	2
C30	HA300E2050	送布轴	Feed rock shaft	1	1	1
C31	H007009150	轴用弹性挡圈	Stop ring	1	1	1
C32	HA100G2040	送布轴轴套	Feed rock shaft bushing	1	1	1
C33	HA305E0662	送布轴轴套螺钉	Set screw	1	1	1
C34	HA108G0661	送布轴紧圈	Collar	1	1	1
C35	HA105D0662	送布轴紧圈螺钉	Set screw	2	2	2
C36	HA7311C706	送布轴曲柄(右)	Feed rock shaft crank(right)	1	1	1
C36	HA8211C205	送布轴曲柄(右)	Feed rock shaft crank(right)	1	1	1
C37	HA7311C606	送布轴曲柄(右)螺钉	Screw	1	1	1
C38	HA706C11B1	曲柄连杆短销	Feed rock shaft crank pin	1	1	1
C39	HA7311C806	曲柄连杆短销螺钉	Screw	1	1	1
C40	HA704K0652	抬牙轴	Feed lifting rock shaft	1	1	1
C41	H007009150	轴用弹性挡圈	Stop ring	1	1	1
C42	HA100G2120	抬牙轴轴套	Feed lifting rock shaft bushing	1	1	1
C43	HA100C2020	抬牙轴轴套螺钉	Set screw	1	1	1
C44	HA100C2130	抬牙轴轴套垫圈	Washer	1	1	1
C45	HA108G0661	抬牙轴紧圈	Collar for feed lifting rock shaft	1	1	1
C46	HA105D0662	抬牙轴紧圈螺钉	Set screw	2	2	2
C47	HA711K104	抬牙曲柄(左)	Feed lifting rock shaft crank(left)	1	1	1
C48	HA111G0683	抬牙曲柄螺钉	Screw	1	1	1
C49	HA705K0661	抬牙轴曲柄(右)	Feed lifting rock shaft crank(right)	1	1	1
C49	HA306G0					



D. 针距调节部件
STITCH REGULATOR MECHANISM

序号 Fig. No.	样本编号 Part No.	名称	Description	M	H	B
D01	H007013050	开口挡圈	Stop ring	1	1	1
D02	HA7311C406	针距连杆	Feed connecting link	1	1	1
D03	H1204E0652	针距调节连杆轴	Hinge pin	1	1	1
D04	HA100C2190	针距调节连杆轴螺钉	Set screw	1	1	1
D05	H1204E0651	针距调节摆杆	Feed regulator cam	1		
D05	H1404E0651	针距调节摆杆	Feed regulator cam		1	1
D06	HA704B0655	针距调节摆杆轴套	Feed regulator bushing	1	1	1
D07	HA100C2020	针距调节摆杆轴套螺钉	Screw	1	1	1
D08	HA100F2040	针距调节摆杆铰链轴	Hinge pin for feed regulator	1	1	1
D09	HA700B2120	橡皮塞 (Φ20×6)	Rubber plug(Φ20×6)	1	1	1
D10	HA104F0654	针距调节摆杆铰链轴螺钉	Screw	1	1	1
D11	HA100F2140	弹簧架	Spring retainer	1		
D16	HA706C11B2	曲柄连杆销	Link stud	1	1	1
D17	HA706C1192	曲柄连杆(长)	Link(long)	2		
D17	HA8211C305	曲柄连杆(长)	Link(long)	2	2	2
D18	HA706C1191	曲柄短连杆	Link(short)	2	2	2
D19	HA7311C806	曲柄连杆短轴螺钉	Set screw	1	1	1
D20	HA700C2040	针距调节曲柄定位销(右)	Feed regulator shaft(right)	1	1	1
D21	HA111G0683	针距调节曲柄定位销(右)螺钉	Set screw	1	1	1
D22	HA7311C906	针距调节曲柄	Stitch length adjusting crank	1	1	1
D23	HA7311CD06	曲柄短轴螺钉	Set screw	1	1	1
D24	HA7311CE06	曲柄短轴销	Link stud	1	1	1
D25	HA700C2050	针距调节曲柄定位销(左)	Feed regulator shaft(left)	1	1	1
D26	HA7311CF06	连杆偏心轴	Link stud	1	1	1
D27	HA7311CC06	连杆偏心轴螺钉	Screw	1	1	1
D28	HA109F0671	针距调节螺杆(54.3)	Feed regulator screw bar	1	1	1
D29	HA307F0661	针距标盘	Dial	1		
D29	HA506F0672	针距标盘	Dial		1	1
D29	H2004F0066	针距标盘	Dial	1		
D30	HA109F0673	针距标盘螺钉	Screw	1	1	1
D31	HA109F0674	针距调节螺杆O型圈	O-ring	1	1	1
D32	HA300F2050	针距标盘橡皮塞	Rubber plug	1	1	1
D33	HA100F2080	止动销	Stopper pin	1	1	1
D34	HA100F2090	止动销弹簧	Spring for stopper pin	1	1	1
D35	HA309F0671	倒缝操纵杆	Reverse feed lever	1	1	1
D36	HA113F3021	倒缝操纵杆短轴	Reverse feed lever pin	1	1	1
D37	HA113F3022	倒缝操纵杆短轴O型圈	O-ring	1	1	1
D38	HA113F0683	倒缝操纵杆吊架螺钉	Screw	1	1	1
D39	HA104F0654	倒缝操纵杆螺钉	Screw	2	2	2
D40	HA100F2110	倒缝操纵杆垫圈	Washer	1	1	1
D41	HA115F0691	倒缝操纵杆曲柄	Reverse feed lever crank	1	1	1
D42	HA115F4011	倒缝操纵杆曲柄滑块轴小组件	Reverse feed lever crank pin	1	1	1
D43	HA100F2130	倒缝操纵杆曲柄螺钉	Screw	1	1	1
D44	HA115F0692	操纵杆曲柄弹簧	Spring for feed regulator crank	1	1	1

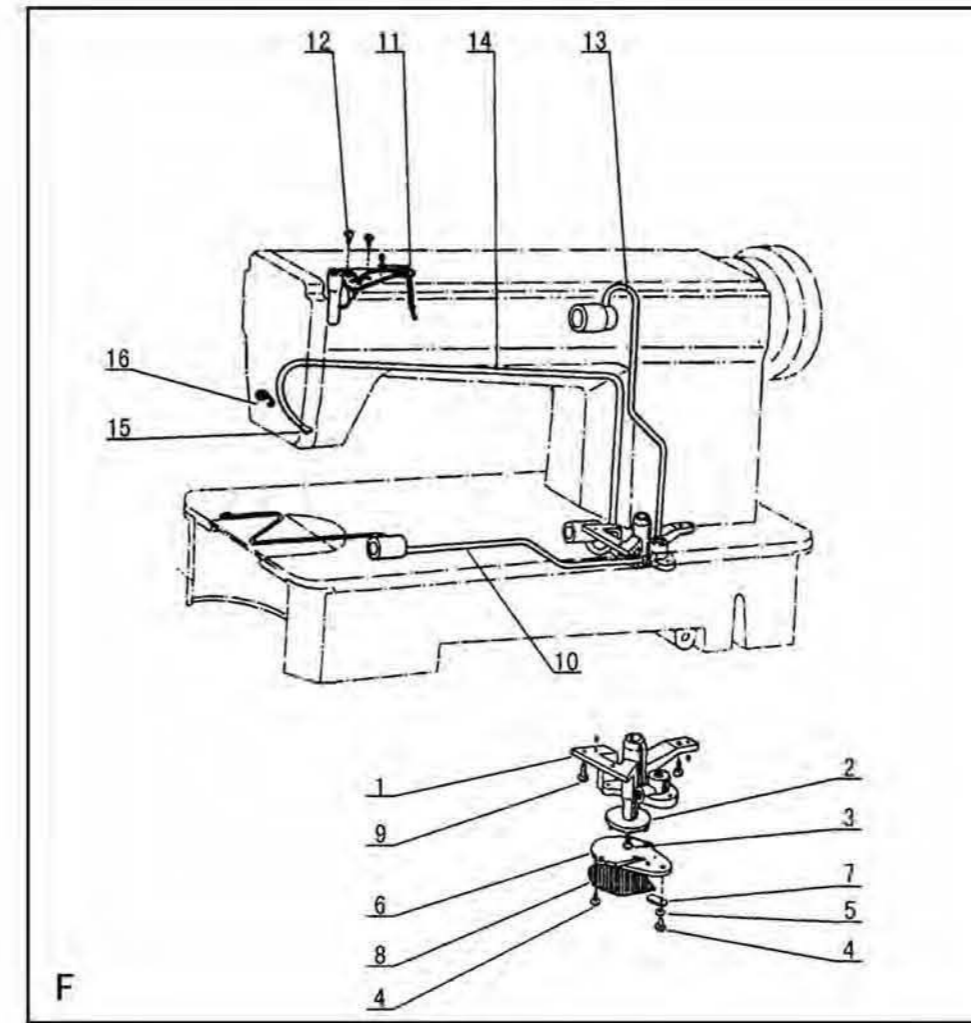


E. 压脚部件
PRESSER FOOT MECHANISM

序号 Fig. No.	样本编号 Part No.	名称	Description	M	H	B
E01	H1204F0651	压脚扳手	Presser bar lifter	1	1	1
E02	HA300B2170	压脚扳手螺钉	Set screw	1	1	1
E03	H1205F0661	压脚提升凸轮	Presser bar lifter cam	1	1	1
E04	HA300H2080	压脚提升凸轮O型圈	O-ring	1	1	1
E05	HA107H1011	膝控提升杆(左)	Knee lifter lever(left)	1	1	1
E06	HA305H6611	松线凸轮	Tension releasing cam	1	1	1
E07	HA107H1013	膝控提升杆(左)螺钉	Screw	1	1	1
E08	HA107H0662	铰链轴螺钉	Screw	2	2	2
E09	HA107H0663	膝控提升杆	Knee lifter rod	1	1	1
E10	HA100H2050	松线凸轮螺钉	Screw	1	1	1
E11	HA100H2060	松线杆	Tension releasing pin	1	1	1
E12	HA110H0671	膝控提升杆(右)	Knee lifter lever(right)	1	1	1
E13	HA110H0672	膝控提升杆(右)弹簧	Spring for knee lifter lever	1	1	1
E14	HA100H2050	膝控提升杆(右)螺钉	Screw	1	1	1
E15	HA306H0671	膝控提升杆	Knee lifter connecting rod	1	1	1
E16	HA100H2080	弹簧销	Pin for spring	1	1	1
E17	HA300H2090	压脚轴套	Presser bar bushing	1	1	1
E18	HA300H2110	压脚杆	Presser bar	1	1	1
E19	HA307H0671	压脚杆吊架	Presser bar lifting bracket	1	1	1
E20	HA3411D308	压脚杆导架螺钉	Screw	1	1	1
E21	HA100H2120	压脚杆弹簧导柱	Presser bar spring guide	1	1	1
E22	HA100H2130	压脚杆弹簧	Presser bar spring	1	1	1
E23	HA117H0692	调压螺钉锁紧螺母	Lock nut	1	1	1
E24	HA309H0681	调压螺钉	Pressure regulating thumb screw	1	1	1
E25	HA300H2120	大线勾	Upper thread guide	1	1	1
E26	HA100C2040	大线勾螺钉	Set screw	1	1	1
E27	HA310H0669	压脚组件	Presser foot complete	1	1	
E27	H1106H0666	压脚组件	Presser foot complete		1	1
E28	HA100H2150	压脚螺钉	Screw	1	1	1

F. 润滑部件
OIL LUBRICATION MECHANISM

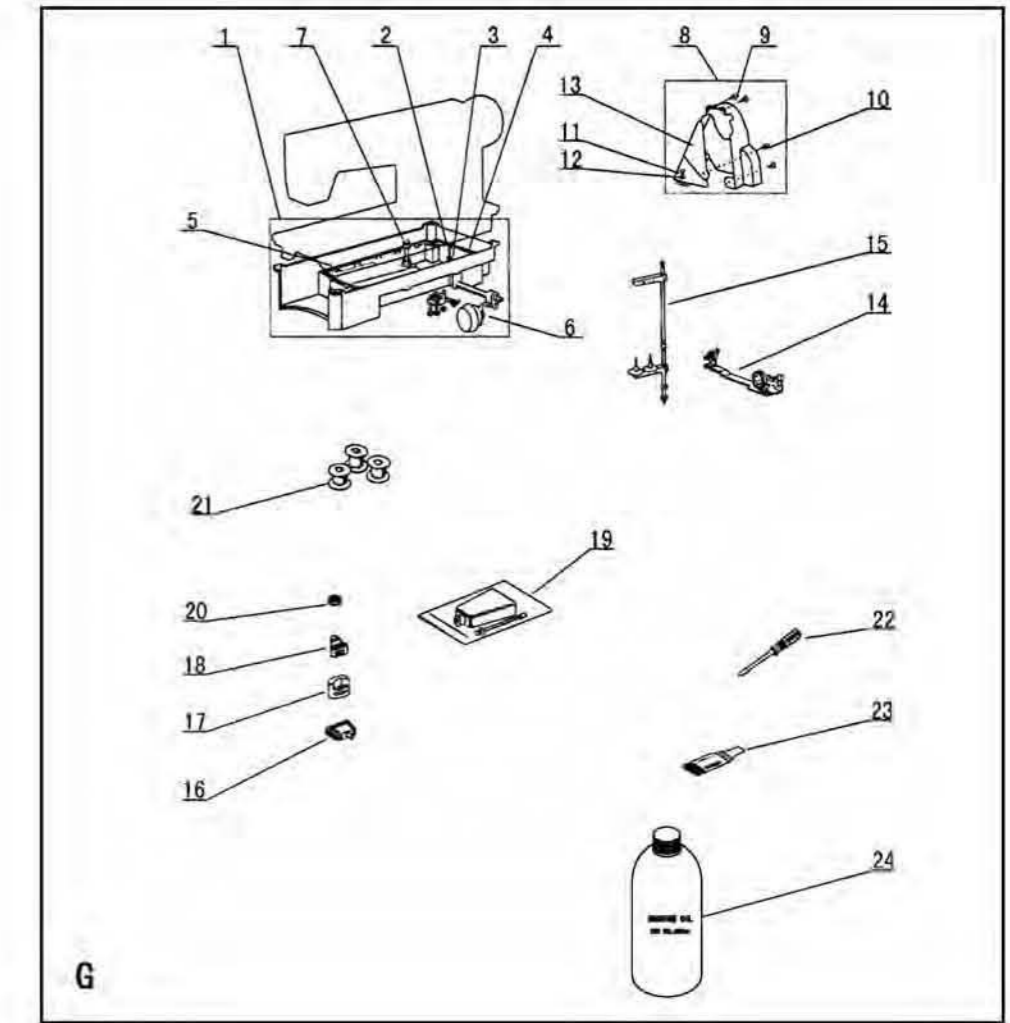
序号 Fig. No.	样本编号 Part No.	名称	Description	M	H	B
F01	HA100I2010	油泵体	Oil pump body	1	1	1
F02	HA100I2020	油泵叶轮	Oil pump impeller	1	1	1
F03	HA100I2030	油泵叶轮螺钉	Screw	1	1	1
F04	HA300I2050	油泵调节板螺钉	Screw	3	3	3



序号 Fig. No.	样本编号 Part No.	名称	Description	M	H	B
F05	HA100I2050	油泵调节板螺钉弹簧垫圈	Spring washer	1	1	1
F06	HA100I2060	油泵体盖板	Oil pump fitting plate	1	1	1
F07	HA100I2070	油量调节板	Oil adjusting plate	1	1	1
F08	HA111I0065	油泵滤网组件	Oil pump screen complete	1	1	1
F09	HA100I2090	油泵体螺钉	Screw	3	3	3
F10	HA113I0066	下轴油管组件	Oil pipe for hook shaft	1	1	1
F11	HA304I0065	油线固定板大组件	Oil braid fitting plate	1		
F11	HA504I0065	油线固定板大组件	Oil braid fitting plate		1	1
F12	HA100H2150	油线固定板螺钉	Screw	2	2	2
F13	HA116I0068	上轴油管组件	Oil pipe for arm shaft	1		
F13	H5604G0065	上轴油管组件	Oil pipe for arm shaft		1	1
F14	HA305I0661	回油管	Oil return pipe	1	1	1
F15	HA100I2150	回油管滤油毡	Felt pouch	1	1	1
F16	HA300I2060	回油管弹簧夹	Piper holder	1	1	1

G. 附件
ACCESSORIES

序号 Fig. No.	样本编号 Part No.	名称	Description	M	H	B
G01	HA304J0065	油盘组件	Oil reservoir	1	1	1
G02	HA104J0652	放油螺钉	Oil drain screw	1	1	1
G03	HA104J0653	放油螺钉垫圈	Washer	1	1	1
G04	HA104J0654	油盘垫(小)	Gasket for oil reservoir(small)	1	1	1
G05	HA104J0655	油盘垫(大)	Gasket for oil reservoir(large)	1	1	1
G06	HA106J0066	膝控磁块组件	Knee lifter complete	1	1	1
G07	HA106J0661	膝控提升顶杆	Knee lifter lifting rod	1	1	1
G08	HA305J0066	皮带罩组件	Belt cover complete	1	1	1
G09	HA300B2170	皮带罩架螺钉	Screw	2	2	2
G10	HA300J2280	皮带罩板螺钉	Screw	2	2	2
G11	H801045200	皮带罩木螺钉	Screw	4	4	4
G12	HA300J2230	皮带罩木螺钉垫圈	Washer	2	2	2
G13	HA305J0663	皮带罩	Belt cover	1		
G13	HA305J0665	皮带罩	Belt cover		1	1
G13	H200800070	皮带罩板组件	Belt cover plate complete			1
G14	HA109J0068	绕线器组件	Bobbin winder assy.	1	1	
G14	HA905S0066	绕线器组件	Bobbin winder assy.			1
G15	HA200J2030	绕线器组件	Thread stand assy.	1	1	1



序号 Fig. No.	样本编号 Part No.	名称	Description	M	H	B
G16	HA307J0067	机壳铰链组件	Table hinge with rubber cushion	1	1	1
G17	HA300J2050	机头防振垫块(大)	Vibration preventing rubber	2	2	2
G18	HA300J2060	机头防振垫块(小)	Vibration preventing rubber	2	2	2
G19	HA100J2110	小油壶	Oil with oiler	1	1	1
G20	HA100J2120	磁块	Magnet block for reservoir	1	1	1
G21	HA100E2170	梭芯	Bobbin	3	3	
G21	HA600E2060	梭芯	Bobbin			3
G22	HA300J2210	螺钉起子(小)	Screw driver(small)	1	1	1
G23	HA100C2160	机针	Needle	4		
G23	H1000C2010	机针	Needle		4	
G23	HA500C2040	机针	Needle			4
G24	HA120I8001	油箱	Oil box	1	1	1

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Description covered in this manual is subject to change for improvement of the commodity without notice