



GLOBAL

ZZ 510 (-H)

SERIES

**SINGLE NEEDLE ZIG-ZAG SEWING MACHINE &
SINGLE NEEDLE UPPER / LOWER FEED ZIG-ZAG
MACHINE**

Instruction & Parts Manual

Thank you very much for JUMBAO sewing machine. Before use your new machine, please read the safety instructions below and the explanations given in the instruction manual.

With industrial sewing machines, it is normal to carry out work while positioned directly in front of moving parts such as the needle and thread take-up, and consequently there is always a danger of injury that can be caused by these parts. Follow the instructions from training personnel and instructors regarding safe and correct operation before operating the machine so that you will know how to use it correctly.

SAFETY INSTRUCTIONS

1. Safety indications and their meanings

This instruction manual and the indications and symbols that are used on the machine itself are provided in order to ensure safe operation of this machine and accidents and injury to yourself or other people.

Indications



CAUTION

This instructions which follow this term indicate situations where failure to follow the instructions could cause injury using the machine or physical damage to equipment and surroundings.

Symbols



This symbol (r) indicates something that you should be careful. The picture inside the triangle indicates the nature of the caution that must be taken. (For example, the symbol at left means "beware of injury".)



This symbol (X) indicates something that you must not do.



This symbol (~) indicates something that you must do. The picture inside the circle indicates the nature of the thing that must be done. (For example, the symbol at left means "you must make the ground connection".)

2. Note on safety

CAUTION

Environmental requirements



Use the sewing machine in an area which is free from sources of strong electrical noise such as high-frequency welders. Sources of strong electrical noise may cause problems with correct operation.



The relative humidity should be within the range of 45%-85% during use, and no dew formation should occur in any devices. Excessively dry or humid environments and dew formation may cause problems with correct operation.



Any fluctuations in the power supply voltage should be within $\pm 10\%$ of the rated voltage for the machine. Voltage fluctuations which are greater than this may cause problems with correct operation.



Avoid exposure to direct sunlight during use. Exposure to direct sunlight may cause problems with correct operation.



The power supply capacity should be greater than the requirements for the sewing machine's electrical consumption.



In the event of an electrical storm, turn off the power and disconnect the power cord from the wall outlet. Lighting may cause problems with correct operation.



The ambient temperature should be within the range of 5°C - 35°C during use. Temperatures which are lower or higher than this may cause problems with correct operation.

Installation



Machine installation should only be carried out by a qualified technician.



All cords should be secured at least 25mm away from any moving parts. Furthermore, do not excessively bend the cords or secure them too firmly with staples, otherwise there is the danger that fire or electric shocks could occur.



Contact your JUMBAO dealer or a Qualified electrical work that may need to be done.



If using a work table which has casters, the casters should be secured in such a way so that they cannot move.



The sewing machine weighs approximately 36KG. The installation should be carried out by two or more people.



Use both hands to hold the machine head when tilting it back or returning it to its original position. If only one hand is used, the weight of the machine head may cause your hand to slip, and your hand may get caught.



Be sure to connect the power cord until installation is complete. The machine may operate if the treadle is depressed by mistake, which could result in injury.



Be sure to wear protective goggles and gloves when handling the lubricating oil and grease, so that they do not get into your eyes or onto your skin. Otherwise inflammation can result. Furthermore, do not drink the oil or eat the grease under any circumstances, as they can cause vomiting and diarrhea. Keep the oil out of children.



Be sure to connect the ground. If the ground connection is not secure, you run a high risk of receiving a serious electric shock, and problems with correct operation may also occur.

CAUTION

Sewing



This sewing machine should only be used by operators who have received the necessary training in safe use beforehand.



The sewing machine should not be used for any applications other than sewing.



Be sure to wear protective goggles when using the machine. If goggles are not worn, there is the danger that if a needle breaks, parts of the broken needle may enter your eyes and injury may result.



Turn off the power switch at the following times. The motor will keep turning even after the power is switched off as a result of the motor's inertia wait until the motor stops fully before starting work. The machine may operate if the treadle is depressed by mistake, which could result in injury.

- When threading the needle
- When replacing the bobbin and needle
- When not using the machine and when leaving the machine unattended



If using a work table which has casters, the casters should be secured in such a way so that they cannot move.



Attach all safety devices before using the sewing machine. If the machine is used without these devices attached, injury may result.



Do not touch any of the moving parts or press any objects against the machine while sewing. As this may result in personal injury or damage to the machine.



Use both hand to hold the machine head when tilting it back or returning it to its original position. If only one hand is used, the weight of the machine head may cause your hand to slip, and your hand may get caught.



If an error occurs in machine, or if abnormal noises or smells are noticed, immediately turn off the power switch. Then contact your nearest JUMBAO dealer or a qualified technician.



If the machine develops a problem, contact your nearest JUMBAO dealer or qualified technician.

Cleaning



Turn off the power switch before carrying out cleaning. The motor will keep turning even after the power is switched off as a result of the motor's inertia. Wait until the motor stops fully before starting work. The machine may operate if the treadle is depressed by mistake, which could result in injury.



Use both hand to hold the machine head when tilting it back or returning it to its original position. If only one hand is used, the weight of the machine head may cause your hand to slip, and your hand may get caught.



Be sure to wear protective goggles and gloves when handling the lubricating oil and grease, so that they do not get into your eyes or onto your skin, otherwise inflammation can result. Furthermore, do not drink the oil or eat the grease vomiting and diarrhea.

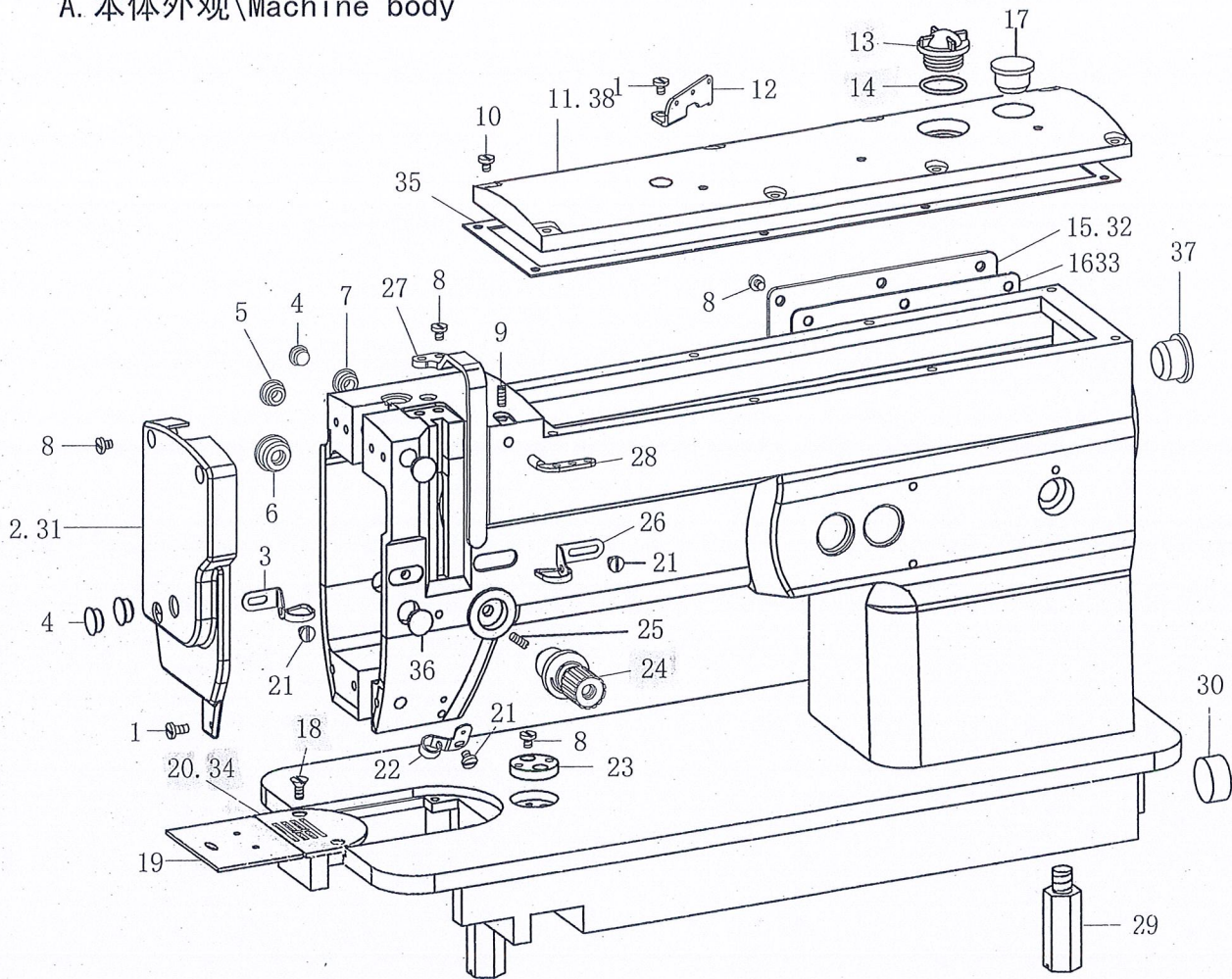


Use only the proper replacement parts as specified by JUMBAO.

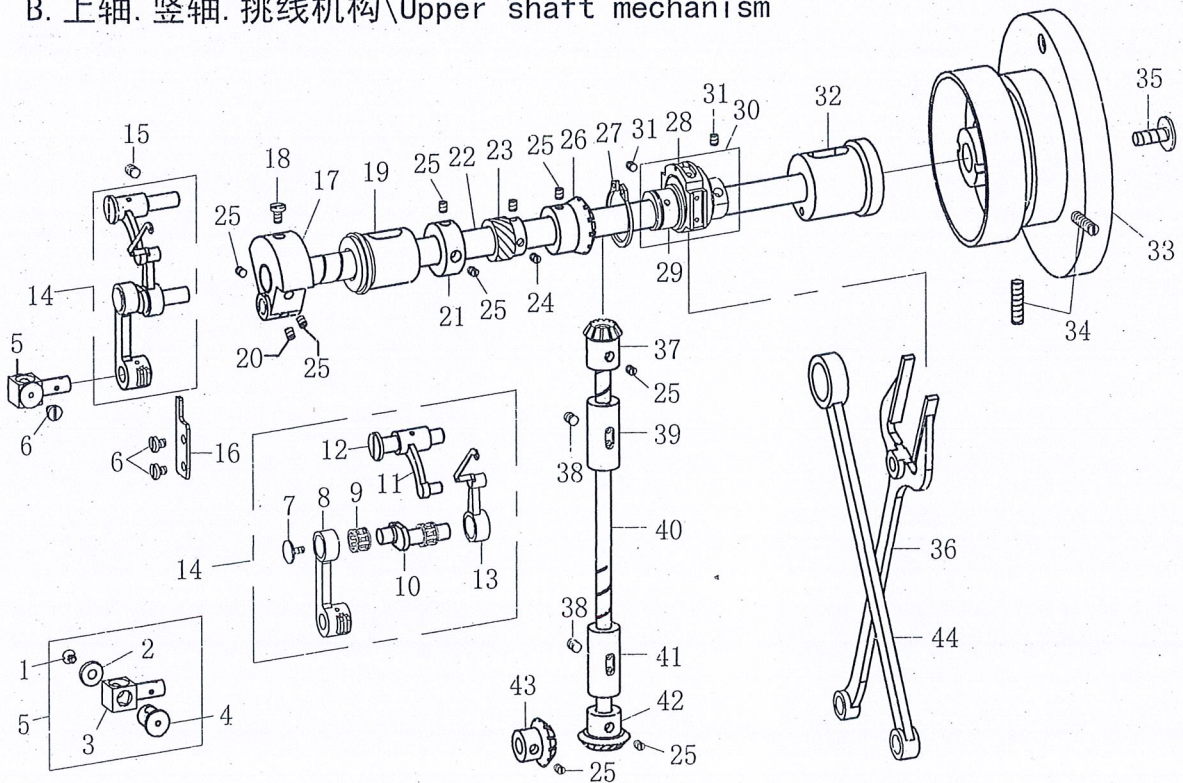
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A. 本体外观\Machine body



B. 上轴. 竖轴. 挑线机构\Upper shaft mechanism



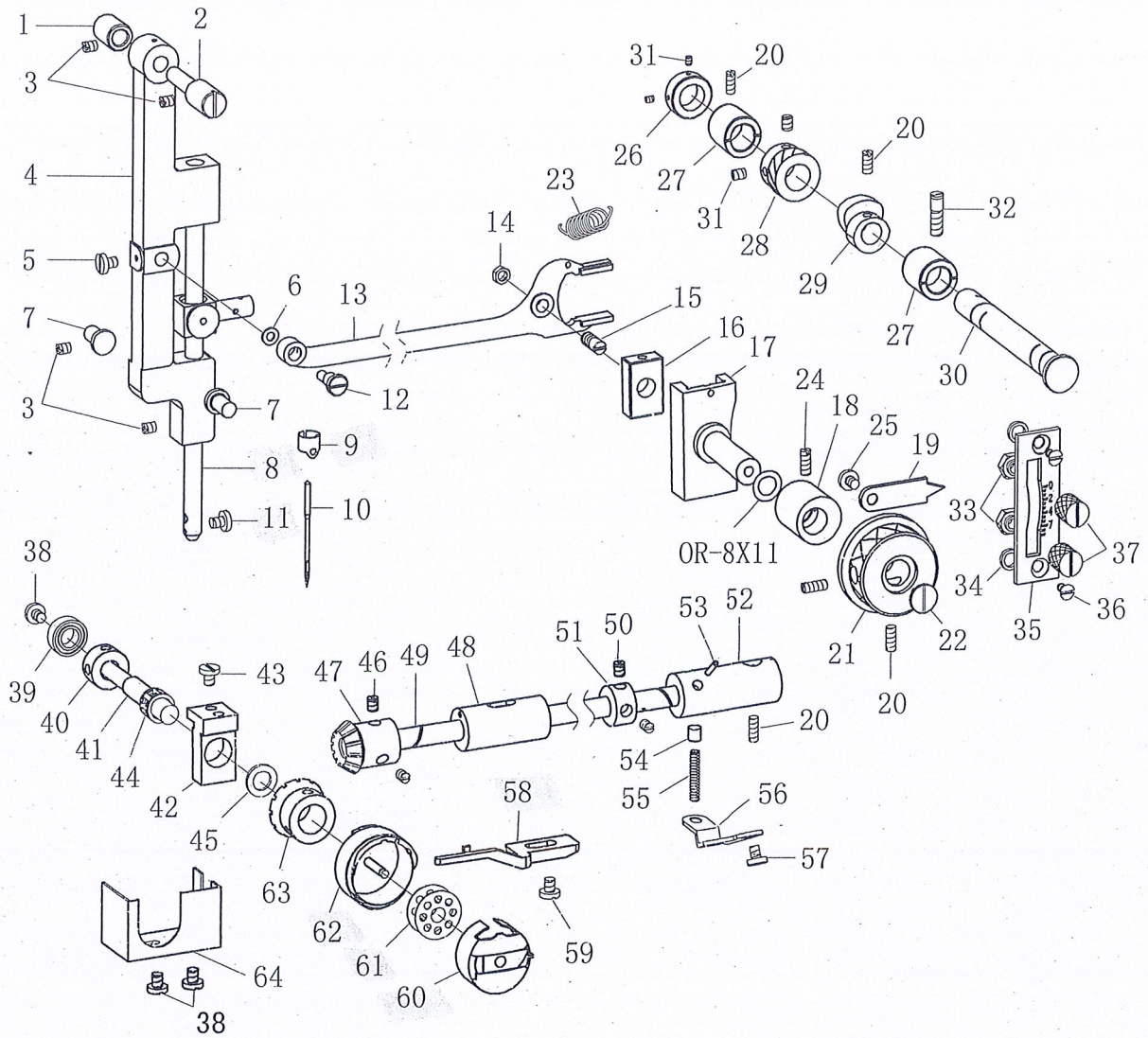
A. 本体外观机构/Machine body

注	序	仓 储 号	名 称	量	注	序	仓 储 号	名 称	量
	01	Y43-D8X6	螺丝 11/64-40X5	3	01	20	1530A-20	针板	1
01	02	1530A-2	1530 面板	1		21	Y35-D7X7	螺丝 9/64-40X7	3
	03	1530A-3	上座左线勾 DY2-29	1		22	810-28	上座下线勾	1
	04	P11.8X5	橡皮塞 (D=11)	4		23	1530A-23	拉叭座 DY2-22	1
	05	P10.8X4	橡皮塞 (D=10)	3		24	1530A-24	夹线组 DY2-901	1
	06	P15.8X6	橡皮塞 (D=14.5)	1		25	Y59-D0X7	螺丝 15/64-28X7	3
	07	P8.8X5	橡皮塞 (D=8)	1		26	1530A-26	上座右线勾 DY2-5	1
	08	Y43-D7X7	螺丝 11/64-40X7	8		27	1530A-27	挑线杆防护罩	1
	09	Y43-D0X6	螺丝 11/64-40X6	8		28	810-19	三眼线勾	1
	10	Y43-D7X9	螺丝 11/64-40X9	8		29	1530A-29	底板支撑杆	3
	11	1530A-11	顶盖	1		30	P24X7	橡皮塞 (D=23.5)	1
	12	1530A-12	顶盖线勾 33A-35	1	02	31	2530A-31	2530 面板	1
	13	1530A-13	油窗	1	02	32	2530A-32	2530 後盖板	1
	14	OR-18	油窗 O 型圈	1	02	33	2530A-33	2530 後盖板油垫	1
01	15	1530A-15	1530 後盖板	1	02	34	2530A-34	2530 针板	1
01	16	1530A-16	1530 後盖板油垫	1		35	P13	橡皮塞 (D=12)	1
	17	P18.5	橡皮塞 (D=18)	1		36	P8	橡皮塞 (D=7)	1
	18	810-263	螺丝 11/64-40X7	2		37	P20X4	橡皮塞	1
	19	1530A-19	推板	1					

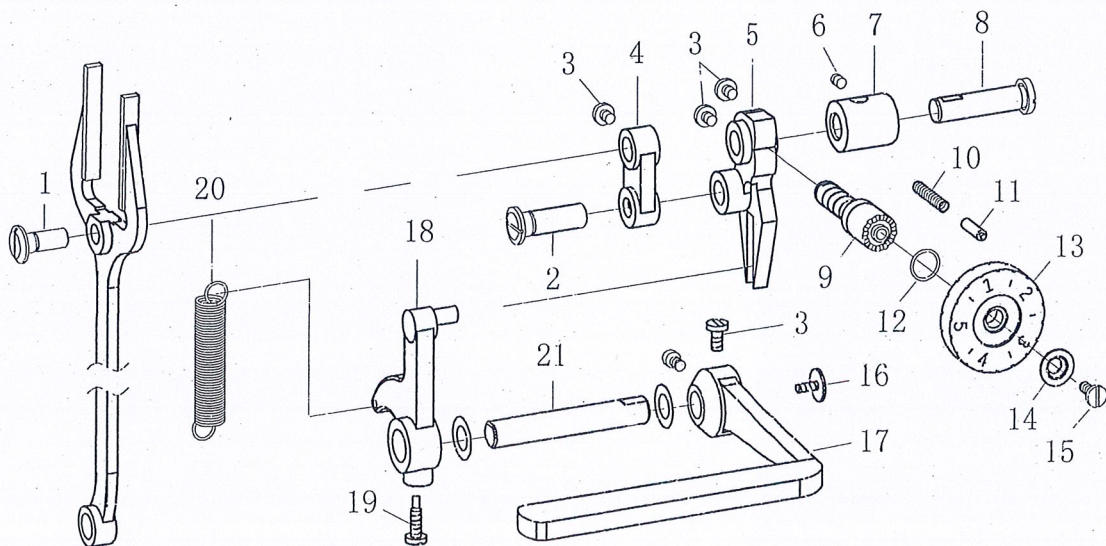
B. 上轴. 竖轴. 挑线机构/Upper shaft mechanism

注	序	仓 储 号	名 称	量	注	序	仓 储 号	名 称	量
	01	1530B-1	螺丝 11/64-40X3.5	1	23	1530B-23	摆针传动齿(上)		1
	02	1530B-2	垫片	1	24	Y43-SD0X4	螺丝 11/64-40X4		2
	03	1530B-3	针杆接头组件	1	25	Y63-SD0X6	螺丝 1/4-40X6		10
	04	1530B-4	针杆接头组件	1	26	810-116	上轴齿轮		1
	05	1530B-5	针杆接头组	(1	27	S26	C 型挡环		1
	06	Y43-D8X6	螺丝 11/64-40X6	3	28	810-129	牙叉滑块		1
	07	1530B-7	反牙螺丝	1	29	1530B-29	送布偏心轮 DY4-904B		1
	08	1530B-8	针杆连杆	1	30	1530B-30	送布偏心轮组 DY4-904	(1	
	09	08X12X08	滚针轴承	2	31	Y59-D0X7	螺丝 15/64-28X7		1
	10	1530B-10	挑线曲柄	1	32	810-133	上轴右套管		1
	11	1530B-11	挑线连杆	1	33	1530B-33	手轮 33B-69		1
	12	1530B-12	挑线曲柄悬吊轴	1	34	Y59-D0X15	螺丝 15/64-28X15		2
	13	1530B-13	挑线杆	1	35	810-136	螺丝 11/32-28X13		1
	14	1530B-14	挑线杆组	(1	36	1530B-36	送布传动牙叉		1
	15	Y59-D0X15	螺丝 15/64-28X15	1	37	810-117	竖轴上齿轮		1
	16	1530B-16	针杆连杆导位块	1	38	Y59-D0X11	螺丝 15/64-28X11		2
	17	1530B-17	针杆曲柄	1	39	810-119	竖轴上套管		1
	18	810-105	螺丝 9/32-28X10	1	40	1530B-40	竖轴		1
	19	810-103	上轴左套管	1	41	810-120A	竖轴下套管 D=17.5		1
	20	Y63-D0X5	螺丝 1/4-40X5	1	42	810-124	竖轴下齿轮		1
	21	810-102	上轴挡圈	1	43	810-125	下轴右齿轮		1
	22	1530B-22	上轴	1	44	1530B-44	抬牙连杆 33B-74		1

C. 摆针. 下轴. 梭轴机构 \ Lower shaft mechanism



D. 缝目调节机构 \ Loper mechanism



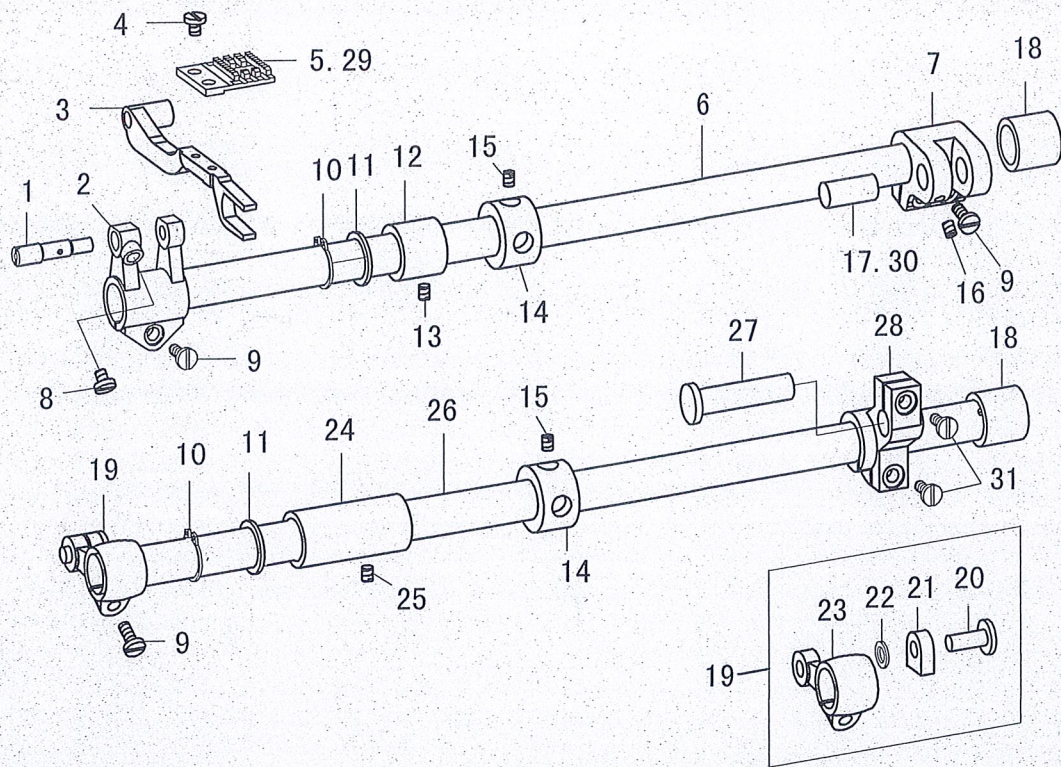
C. 摆针. 下轴. 梭轴机构/Lower shaft mechanism

注序	仓储号	名	称量	注序	仓储号	名	称量
01	1530C-1	摆针架悬吊轴套	1	32	1530C-32	段螺丝 15/64-28	4
02	1530C-2	摆针架悬吊轴	1	33	Y43-LM7X3	螺母 11/64-40X3	2
03	LW-M4X4	螺絲 M4-0.75X4	6	34	1530C-34	垫片 DY8-201	2
04	1530C-4	摆针架	1	35	1530C-35	摆幅指示板	1
05	Y43-D8X6	螺丝 11/64-40X6	1	36	1530C-36	螺丝 11/64-40X10	2
06	W5X10X1	垫片 W5X10X1	1	37	1530C-37	押花螺丝 11/64-40	2
07	1530C-7	摆针架下挡套	2	38	Y35-D6X6	螺丝 9/64-40X6	3
08	1530C-8	针杆	1	39	696ZZ	696 轴承	1
09	91C-38	针杆过线环	1	40	1530C-40	梭轴挡圈	1
10	DPX5	车针	1	41	1530C-41	梭轴	1
11	Y3144-D4X4.5	螺丝 1/8-44X4.5	1	42	1530C-42	梭轴座	1
12	1530C-12	偏心销	1	43	LT-M4X10	螺丝 M4-0.7X10	2
13	1530C-13	摆针传动二叉	1	44	08X12X08	滚针轴承	1
14	Y71-LM11X4	螺母 9/32-28X4	1	45	W8X16X1	W8 垫片	(1)
15	1530C-15	传动二叉滑块轴	1	46	Y63-SD0X6	螺丝 1/4-40X6	2
16	1530C-16	传动二叉滑块	1	47	1530C-47	下轴齿轮	1
17	1530C-17	传动二叉滑块座	1	48	810-119	下轴左套 D=17	1
18	1530C-18	二叉滑块座套 DY8-155	1	49	1530C-49	下轴	1
19	1530C-19	摆幅指针	1	50	Y59-D0X5	螺丝 15/64-28X5	2
20	Y59-D0X7	螺丝 15/64-28X7	4	51	810-122	下轴挡圈	1
21	1530C-21	摆幅手转轮	1	52	1530C-52	下轴右套 D=17.5	1
22	Y4728-D14X8	螺丝 3/16-28X8	1	53	1530C-53	下轴右套油管	1
23	1530C-23	摆针传动二叉拉簧	1	54	1530C-54	柱塞	1
24	Y59-D0X11	螺丝 15/64-28X11	1	55	810-160	柱塞弹簧	1
25	810-263	螺丝 11/64-40X7	1	56	1530C-56	挡板	1
26	1530C-26	摆针传动轴挡圈	1	57	Y59-D8X10	螺丝 15/64-28X10	1
27	1530C-27	摆针传动轴套	2	58	1530C-58	旋梭定位勾 DY4-241	1
28	1530C-28	摆针传动齿轮下	1	59	Y43-D9X9	螺丝 11/64-40X9	1
29	1530C-29	摆针传动偏心轮	1	62	1530C-62	旋梭	1
30	1530C-30	摆针传动轴	1	63	1530C-63	梭轴齿轮	1
31	Y43-SD0X4	螺丝 11/64-40X4	4	64	1530C-64	黄油盒	1

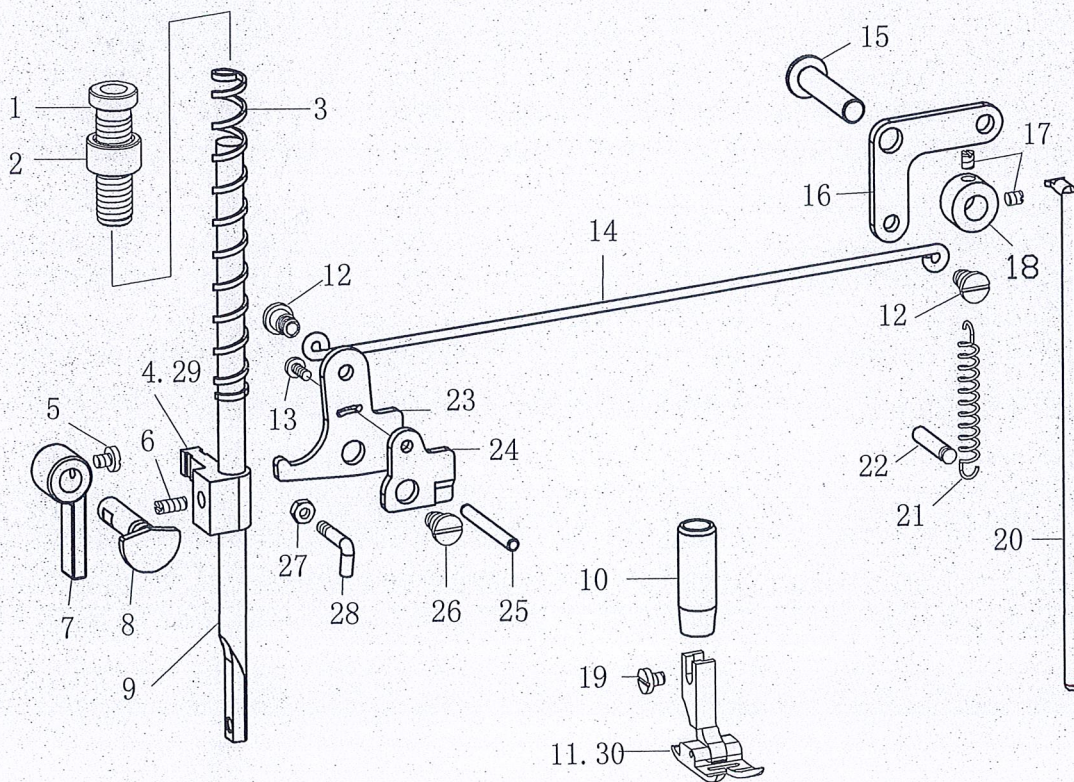
D. 缝目调节机构 Looper mechanism

注序	仓储号	名	称量	注序	仓储号	名	称量
01	1530D-1	牙叉铰链轴	1	12	OR-14	O 型圈	1
02	810-152	针距连杆铰链轴	1	13	1530D-13	针距标盘 (0-5)	1
03	Y59-D8X10	螺丝 15/64-28X10	5	14	1530D-14	针距标盘垫片	1
04	1530D-4	针距连杆	1	15	Y4728-D8X15	螺丝 3/16-28X15	5
05	1530D-5	针距调节摆杆	1	16	Y4728-D14X8	螺丝 3/16-28X8	5
06	Y59-D0X11	螺丝 15/64-28X11	1	17	810-167	倒缝操纵杆	1
07	810-158S	针距调节摆杆轴套	1	18	810-906	倒缝操纵曲柄	1
08	810-159	针距调节摆杆轴	1	19	810-171	螺丝 15/64-28X10	1
09	1530D-9	针距调节螺杆 15D-24	1	20	810-172	复原簧	1
10	810-160	止动销弹簧	1	21	810-169	倒缝操纵杆轴	1
11	810-162	止动销 DY6-96	1				

E. 下送布机构\Feed mechanism



F. 抬押机构\Presser foot mechanism



E. 下送布机构/Feed mechanism

注	序	仓 储 号	名	称 量	注	序	仓 储 号	名	称 量
	01	1530E-1	牙架偏心轴	1	01	17	810-226	送布轴曲柄铰链轴	1
	02	1530E-2	牙架曲柄	1		18	1530E-18	送布轴右套	2
	03	1530E-3	牙架	1		19	1530E-19	抬牙轴左曲柄组	(1
	04	Y3144-D5X6	螺丝 1/8-44X6	2		20	1530E-20	抬牙叉滑块轴	1
01	05	1530E-5	送布牙	1		21	1530E-21	抬牙叉滑块	1
	06	1530E-6	送布轴	1		22	W6X10	W6 垫片	1
	07	810-222	送布轴曲柄(右)	1		23	1530E-23	抬牙轴左曲柄	1
	08	Y43-D7X7	螺丝 11/64-40X7	1		24	1530E-24	抬牙轴左套	1
	09	Y43-D8X13	螺丝 11/64-40X13	3		25	Y59-D0X11	螺丝 15/64-28X11	1
	10	S-15	S 扣环	2		26	1530E-26	抬牙轴	1
	11	W15X20	W15 垫片	2		27	1530E-27	抬牙轴曲柄铰链轴	1
	12	1530E-12	送布轴左套	1		28	1530E-28	抬牙右曲柄 33C-241	1
	13	Y59-D0X7	螺丝 15/64-28X7	1	02	29	2530E-29	送布牙	1
	14	810-211	送布轴挡圈	2	02	30	2530E-30	送布曲柄铰链轴	1
	15	Y63-SD0X6	螺丝 1/4-40X6	4		31	Y4728-D8X15	螺丝 3/16-28X15	2
	16	Y43-D0X6	螺丝 11/64-40X6	1					

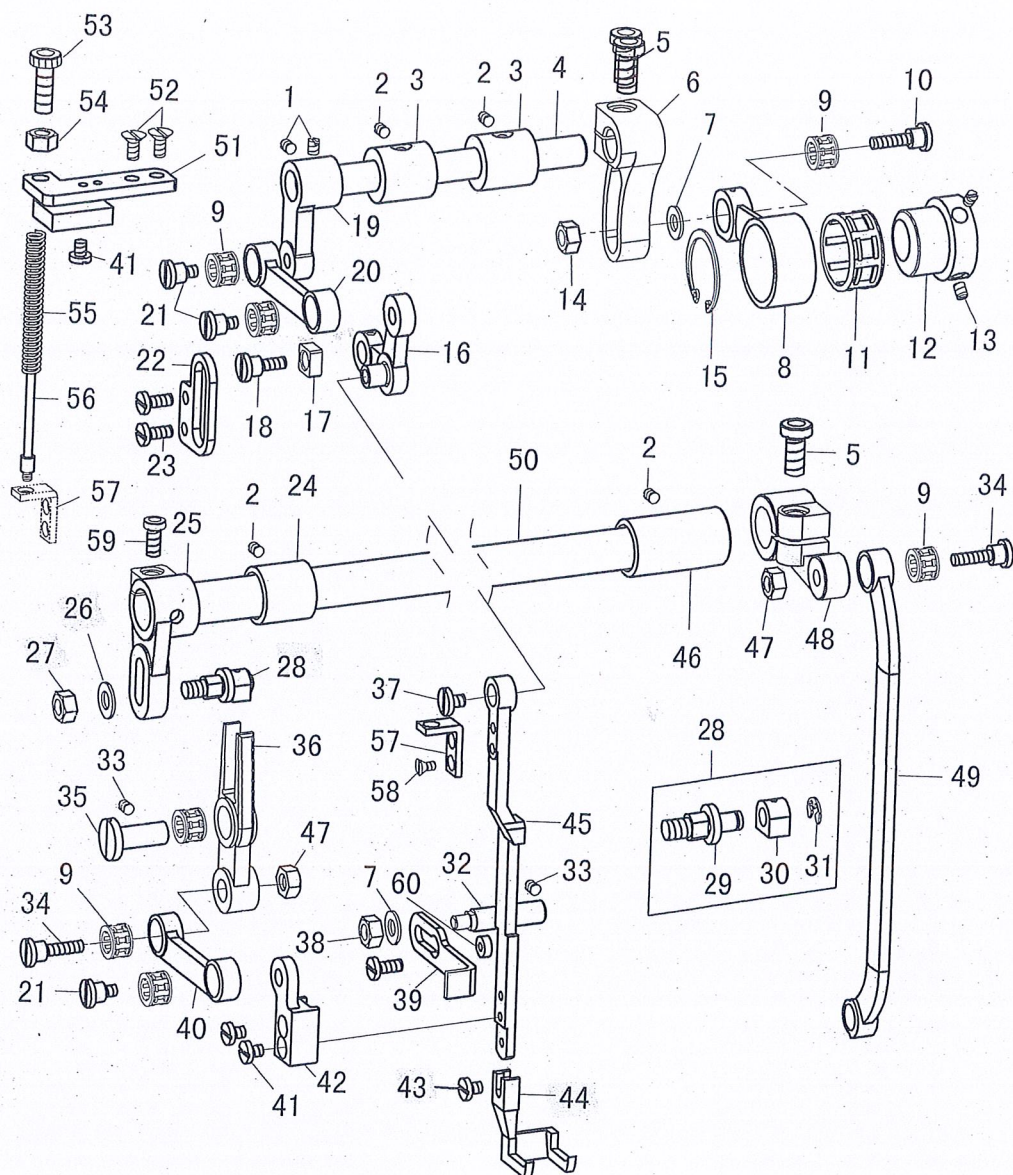
F. 抬押机构/Presser foot mechanism

注	序	仓 储 号	名	称 量	注	序	仓 储 号	名	称 量
	01	810-184	调压螺套	1		16	1530F-16	膝控起押提升块右	1
	02	42C-4	调压螺套螺母 10-143	1		17	Y59-D0X5	螺丝 15/64-28X5	2
	03	810-187	压簧	1		18	810-122	挡圈	1
01	04	1530F-4	押杆导位块	1		19	Y35-D7X7	螺丝 9/64-40X7	1
	05	Y43-D7X7	螺丝 11/64-40X7	1		20	1530F-20	膝控起押顶杆 L=200	1
	06	Y59-D0X7	螺丝 15/64-28X7	1		21	1530F-21	复原拉簧	1
	07	1530F-7	抬押扳手	1		22	1530F-22	拉簧销	1
	08	1530F-8	起押偏心器	1		23	1530F-23	膝控起押提升块左	1
	09	1530F-9	押杆 DY10-137	1		24	1530F-24	夹线松线片	1
	10	810-202	押杆下套	1		25	1530F-25	夹线松线杆 DY10-125	1
01	11	1530F-11	押脚	1		26	1530F-26 (S)	段 15/64-28 37D-25	1
	12	1530F-12	段 3/16-28X5 341F-25	2		27	Y35-LM6X3	螺母 9/64-40X3	1
	13	Y43-D9X7	螺丝 11/64-40X7	1		28	1530F-28	沙拉过线	1
	14	1530F-14	膝控起押引杆	1	02	29	2530F-29	2530 押杆导位块	1
	15	1530F-15	膝控起押提升块轴	1	02	30	2530F-30	2530 内押脚	1

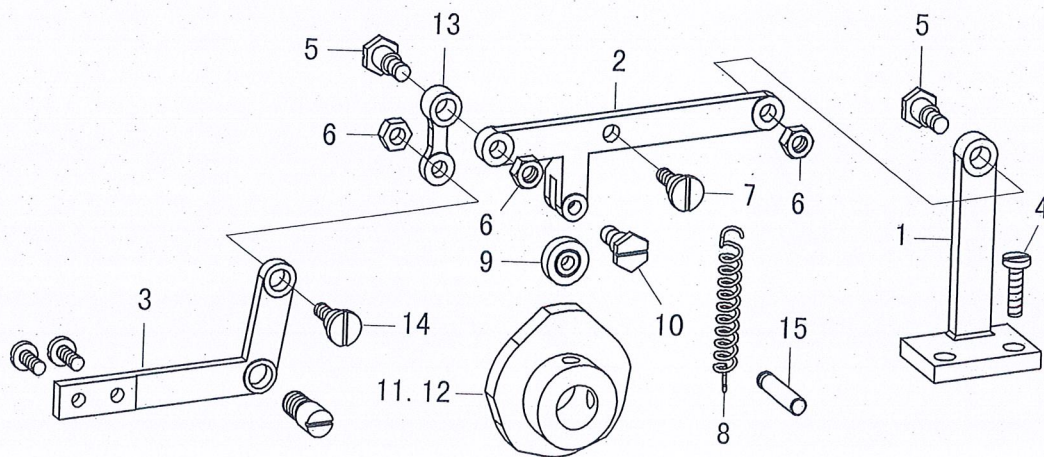
1530F-26 段螺丝 SM1/4-40X7.5

1530F-26 (S) 段螺丝 SM15/64-28X7.5

G. 上送布机构\Upper feed mechanism



H. 多点摆针机构\3&4points mechanism



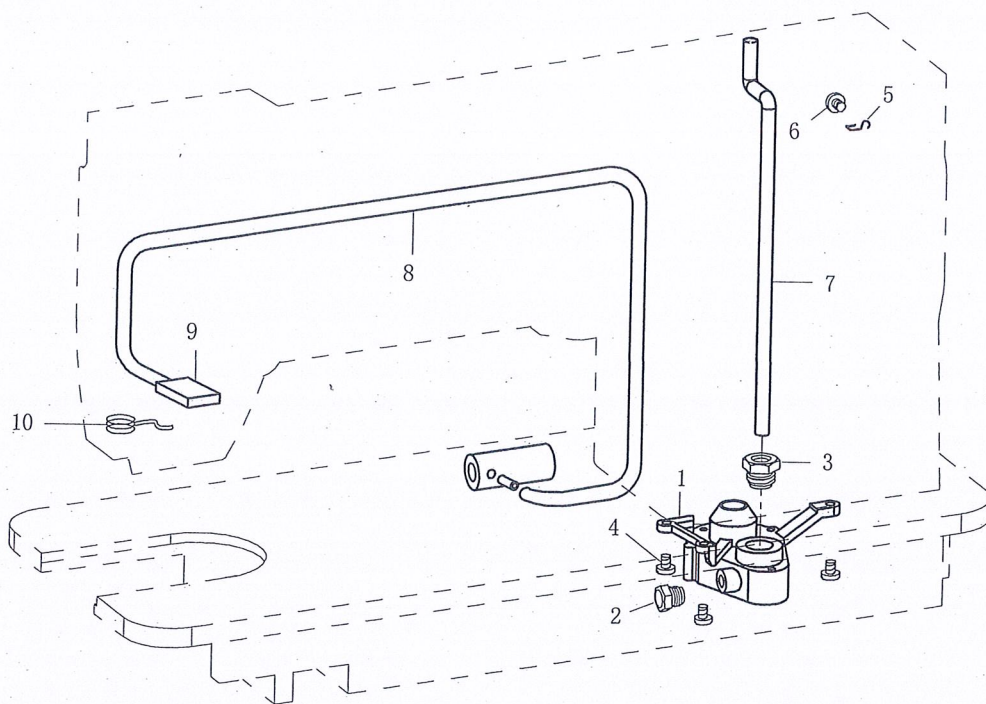
G. 上送布机构/Upper feed mechanism

注	序	仓 储 号	名 称	量	注	序	仓 储 号	名 称	量
	01	LW-M6X5	螺丝 M6X5	2	31	E-4	E-4 扣环		1
	02	Y43-D0X6	螺丝 11/64-40X6	4	32	2530G-32	外押板压板轴		1
	03	2530G-3	提押轴套 DY8-155	2	33	Y59-D0X7	螺丝 15/64-28X7		2
	04	2530G-4	提押轴 37E-4	1	34	2530G-34	段 1/4-40X16 37E-34		2
	05	LT-M6X20	螺丝 M6X20	2	35	2530G-35	变动曲柄导柱 DY8-208		1
	06	2530G-6	提押调节曲柄 37E-6	1	36	640E-63	送料变动曲柄 37E-36		1
	07	W6X12	W6 垫片	2	37	Y4728-D12X7	3/16-28X7 810-165		1
	08	2530G-8	偏心轮连杆	1	38	Y59-LM9X3	螺母 15/64-28X3		1
	09	8X12X8	滚针轴承	6	39	2530G-39	外押板压板		1
	10	2530G-10	螺丝 M6	1	40	2530G-40	外押送料连杆		1
	11	24X28X13	滚针轴承	1	41	Y35-D6X6	螺丝 9/64-40X6		2
	12	2530G-12	提押偏心轮	1	42	2530G-42	外押送料连杆座		1
	13	Y63-SD0X6	螺丝 1/4-40X6	2	43	Y35-D7X7	螺丝 9/64-40X7		1
	14	LM10X6-M6	螺母 M6	1	44	2530G-44	外押脚		1
	15	S-24	S-24 扣环 (R28 顶环)	1	45	2530G-45	外押板		1
	16	2530G-16	外押板悬吊座	1	46	640E-46	外边轴右套		1
	17	2530G-17	滑块	1	47	Y63-LM10X5	螺母 1/4-40X5		2
	18	2530G-18	螺丝 3/16-28X7	1	48	2530G-48	外押摆动曲柄右		1
	19	2530G-19	提押曲柄	1	49	2530G-49	外押摆动曲柄连杆		1
	20	2530G-20	提押连杆 37E-20	1	50	640E-43	外边轴 L=360		1
	21	2530G-21	段 1/4-40X6 37E-21	3	51	2530G-51	调压螺丝座		1
	22	2530G-22	提押导位板	1	52	810-263	螺丝 11/64-40X7		2
	23	Y43-D7X7	螺丝 11/64-40X7	2	53	2530G-53	外押调压螺丝 DY8-151		1
	24	2530G-24	外边轴左套 DY8-193	1	54	Y71-LM11X4	螺母 9/32-28X4L		1
	25	640E-57	摆动曲柄左 DY8-212	1	55	2530G-55	外押簧 DY8-170		1
	26	W6.5X13	W6.5 垫片	1	56	2530G-56	外押簧导柱 DY8-171		1
	27	Y6324-LM10X5	螺母 1/4-24X5	1	57	2530G-57	外押簧导柱定位板		1
	28	2530G-28	同步调节器 DY8-194	(1	58	810-255	螺丝 9/64-40		2
	29	2530G-29	调节器轴 DY8-194B	1	59	YT-M6X14	螺丝 M6X14(一字)		1
	30	2530G-30	调节器滑块 DY8-194A	1					

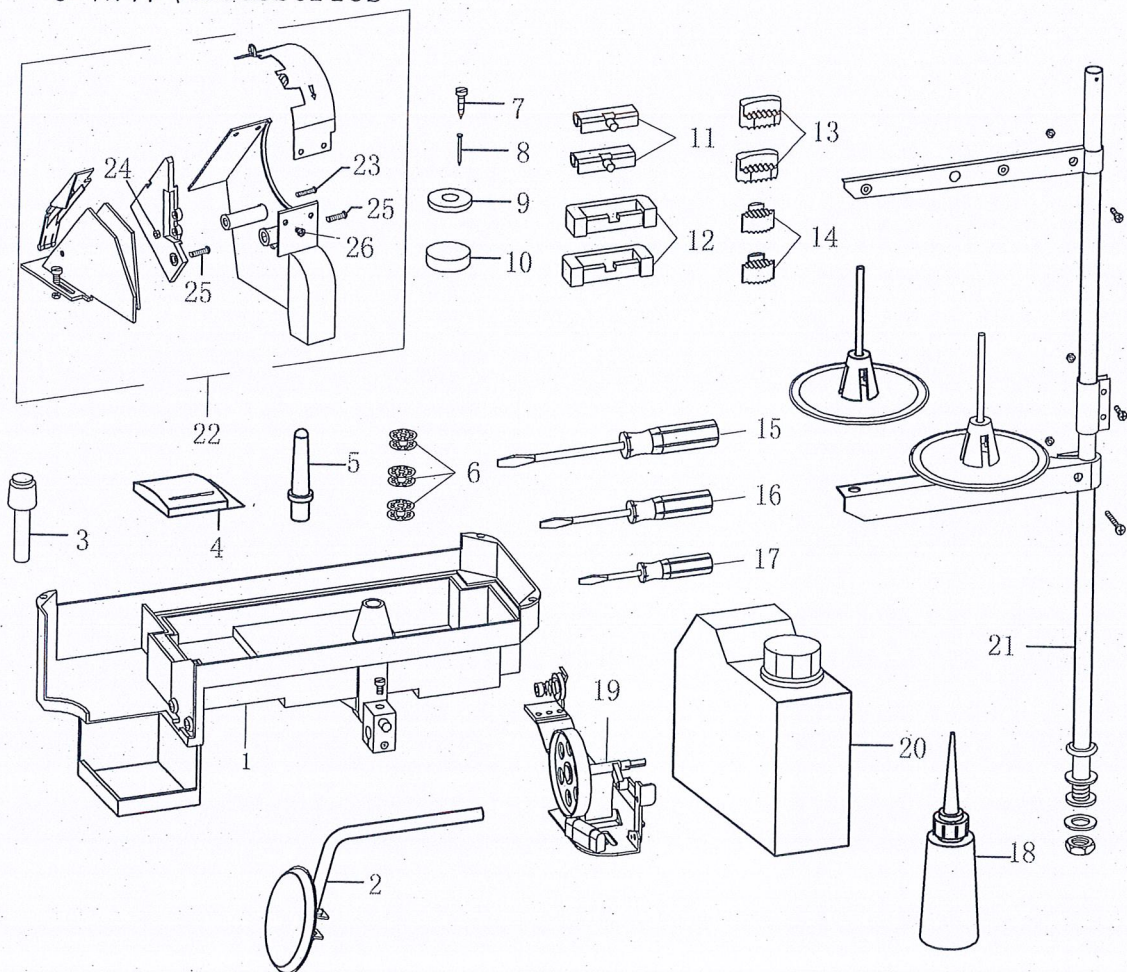
H. 多点摆针机构/3&4points mechanism

注	序	仓 储 号	名 称	量	注	序	仓 储 号	名 称	量
	01	1534H-1	靠轮杆座 1534C-1	1	08	1533H-8	拉簧		1
	02	1534H-2	靠轮杆 1534C-2	1	09	624ZZ	轴承		1
	03	1534H-3	摆针连杆 1534C-3	1	10	91C-9	段螺丝 M4		1
	04	LT-M6X12	螺丝 M6X12	2	03 11	1533H-11	3 点摆针凸轮		1
	05	1534H-5	段 3/16-32 78L2-21-4	2	04 12	1534H-12	4 点摆针凸轮		1
	06	Y4732-LM8X4	螺母 3/16-32X4	3	13	1530H-13	活动连杆 78L2-21-3		1
	07	810-188-1	段螺丝 3/16-28	1	14	810-267	段螺丝 3/16-32		1

I. 供油机构 \ Lubrication



J. 附件 \ Accessories



I. 供油机构/Lubricatom

注序	仓储号	名	称量	注序	仓储号	名	称量
01	1530J-1	油泵组 1530G-51	1	06	1530J-6	Y43-D8X6	1
02	1530J-2	侧螺塞 11/32-28 G-52	1	07	1530J-7	竖铝油管 1530G-57	1
03	1530J-3	竖螺丝 11/32-28 G-53	1	08	1530J-8	回油塑管 1530G-58	1
04	Y43-D8X13	螺丝 11/64-40X13	3	09	1530J-9	油棉 1530G-59	1
05	1530J-5	油管压簧 1530G-55	1	10	1530J-10	油棉压簧 1530G-60	1

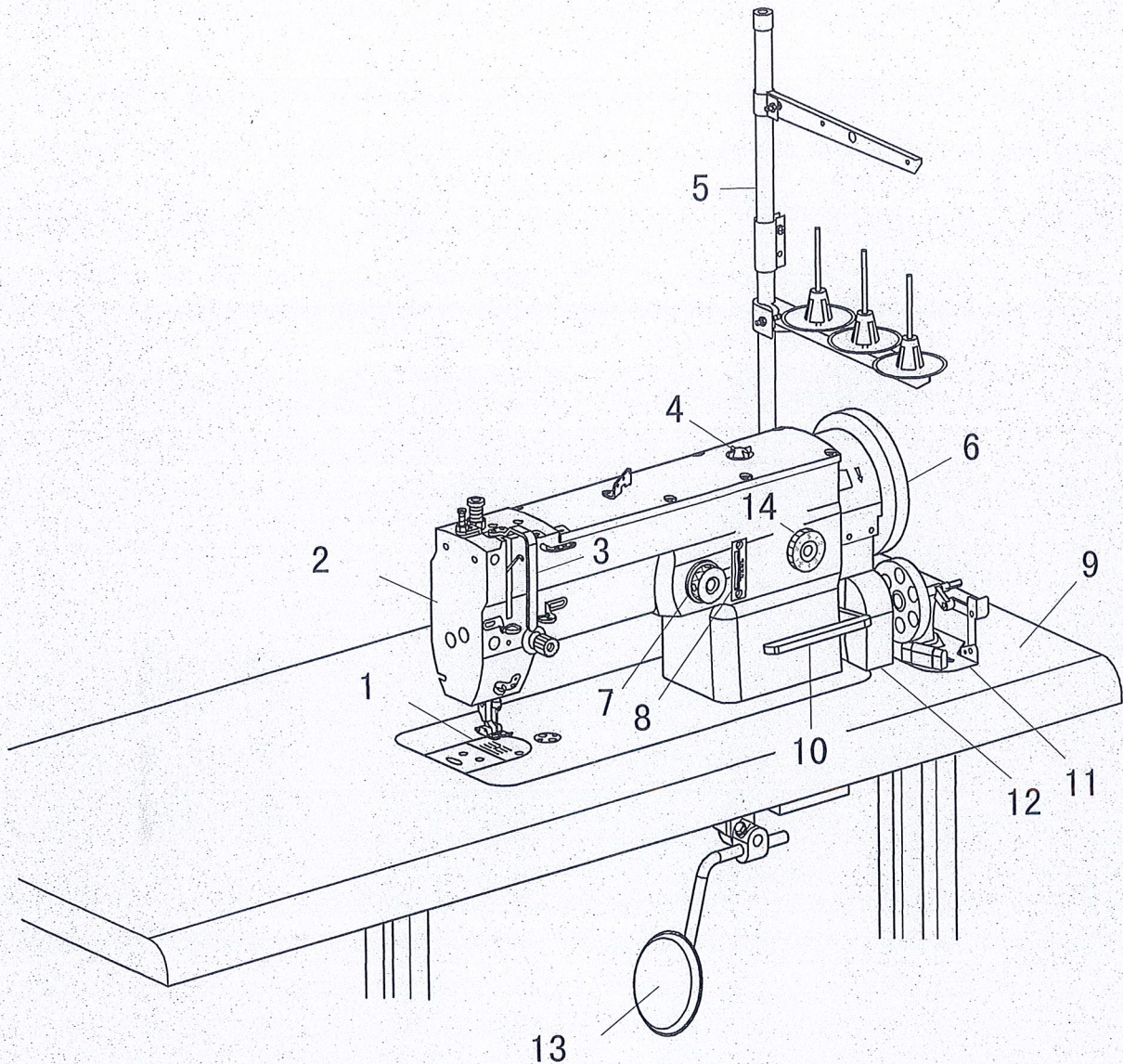
J. 附件/assessories

注序	仓储号	名	称量	注序	仓储号	名	称量
01	1530K-1	1530 油盘组件	1	14	1530K-14	三角胶	2
02	1530K-2	膝靠组	1	15	810-821	大起子	1
03	1530K-3	提押顶杆	1	16	810-807	中起子	1
04	DPX5	机针	4	17	810-806	小起子	1
05	810-811	机头支柱	1	18	810-804	注油壶	1
06	1530C-61	梭芯	3	19	810-816	绕线器	1
07	M5.5X25	自攻螺丝	4	20	1530K-20	油桶	1
08		铁钉	4	21	FP-2L	二线架	1
09	W6X12	W6X12 垫片	4	22	1530K-22	皮带护罩组 (5件套)	1
10	1530K-10	磁铁	1	23	YT-M4X18	螺丝 M4X18	1
11	1530K-11	铁後钮	2	24	LM7X3-M4	螺母 M4	1
12	1530K-12	後钮胶	2	25	Y59-D8X10	螺丝 15/64-28X10	2
13	1530K-13	耳型胶	2	26	Y43-D8X6	螺丝 11/64-40X6	6

J-1: 油盘组件/Knee lifting pad ass'y

注序	仓储号	名	称量	注序	仓储号	名	称量
01	1530K-1-1	膝控接头	1	09	E-9	E9 扣环	1
02	LT-M6X12	螺丝 M6X12	2	10	1530K-1-10	油盘垫	1
03	1530K-1-3	膝控横轴	1	11	1530K-1-11	8X15 油垫	1
04	1530K-1-4	膝控限位架弹簧	1	12	1530K-1-12	排油螺丝 SM5/16-28	1
05	1530K-1-5	膝控限位架	1	13	1530K-1-13	接油盆	1
06	Y59-LM10X4	螺母 15/64-28X4	2	14	YT-M5X12	螺丝 M5X12	2
07	Y59-DOX25	螺丝 15/64-28X25	2	15	LM8X3-M5	螺母 M5X3	2
08	810-171	15/64-28X15 边 9	1	16	W5X10	垫片 W5X10	2

L. Name of major parts \ 各部件名称



- | | |
|-----------------------------|------------------------------------|
| 1. Need plate \ 针板 | 10. Reverse lever \ 抬押扳手 |
| 2. Face plate \ 面板 | 11. Bobbin winder assy \ 绕线器 |
| 3. Thred take-up \ 挑线杆防护罩 | 12. Belt coverassy \ 皮带罩 |
| 4. Oil window \ 油窗 | 13. Cover .K-Lifter plate \ 膝控碰块 |
| 5. Cottonstand assy \ 线架 | 14. Stitch length dial assy \ 针距标盘 |
| 6. Pully \ 手轮 | |
| 7. Hand trun wheel \ 摆幅手转轮 | |
| 8. Indicating board \ 摆幅指示板 | |
| 9. Rubber hinge assy \ 台板 | |

M. Machine specifications \ 规格

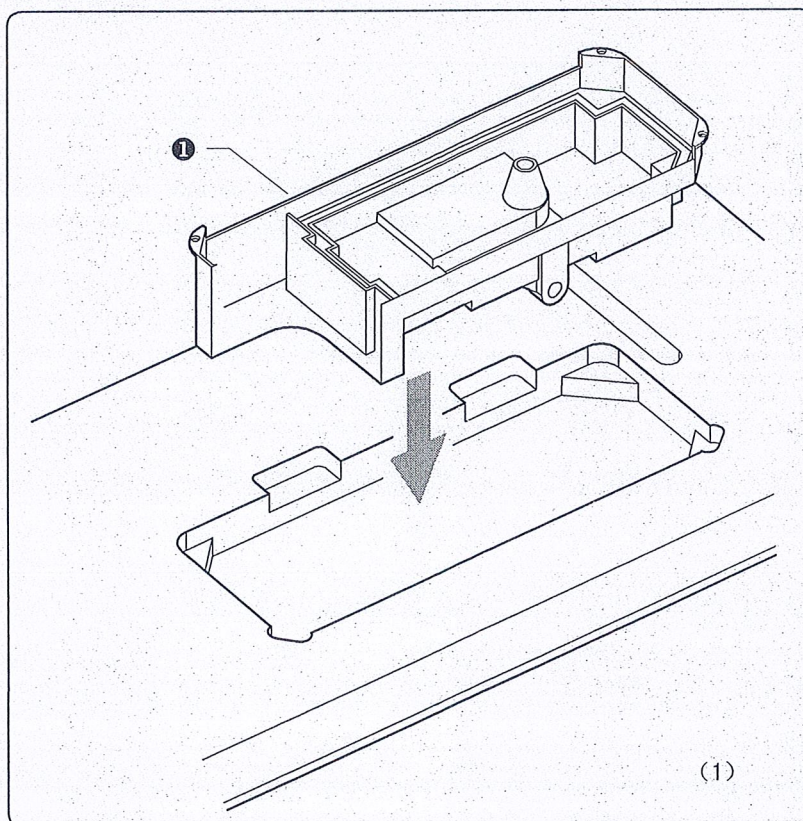
Item	Model	TC-1530/TC-1533/TC-1534	TC-2530/TC-2533/TC-2534
Speed 速度		1800spm	1450spm
Zigzag width 摆幅		2点	2点
Needle size 机针		DPx5	DPx17
Thead take-up capacity 挑线杆活动量		73mm	73mm
Needle bar capacity 针杆活动量		34mm	34mm
Presser foot operating 压脚差动量			3-7mm
Presser foot rising rate 压脚上升量		7mm	7mm
Shuttle 旋梭		Big shuttle 卧式大旋梭	Big shuttle 卧式大旋梭
Usage 用途		Light-weight materials to medium-weight materials 薄料-中料	Medium-weight materials to heavy-weight materials 中料-厚料

N. Installation \ 安装

Oil Pan 油盘

As figure (1) shown:
Push ① in table.

如图(1)所示, 将油盘①放入台板。



As figure (2) shown:

Fix the hinge seats ① and the support rubbers ⑤ ⑤ suplien whit the machine on table using nails ②
Then push ⑦ in the oil pan

如图 (2) 所示:

机壳铰链套

将两个个机壳铰链套 ① 嵌入台板的止动销, 并用两个铁钉 ② 将其固定。

三角型防震垫块

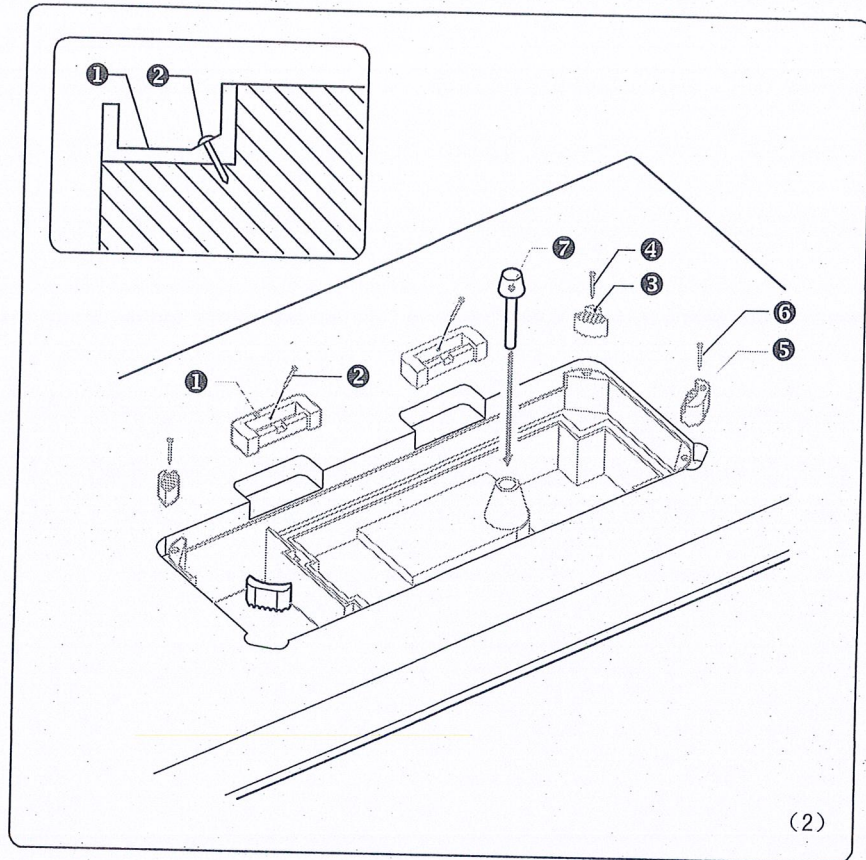
将两个三角型防震垫块 ⑤ 放入油盘的两角, 然后用两个铁钉 ④ 将其固定。

耳型防震垫块

两个耳型防震垫块 ⑤ 放入油盘的另外两角, 并用两个铁钉 ⑥ 将其固定。

膝控提升顶杆

膝控提升顶杆 ⑦ 插入油盘。



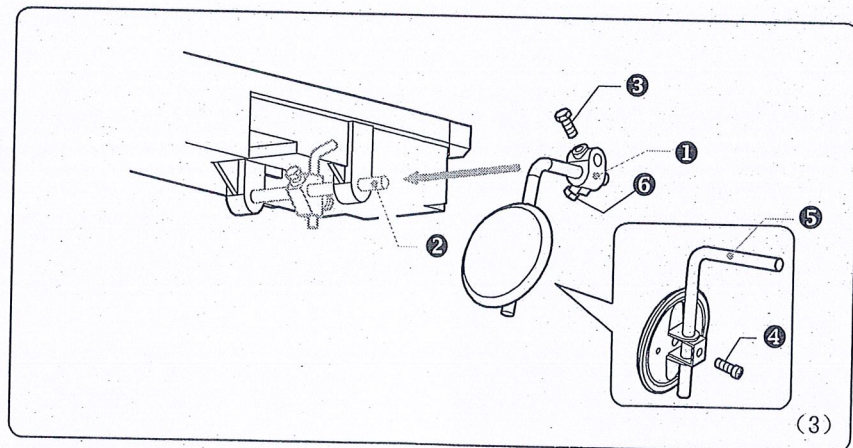
As figure (3) shown:

Cover .K-Lifter plate

Adjust knee pan joint ②. kenn lifter vertical shaft installing am ① and knee pad lever ⑤ to the direction of knee lifter lever shaft ② and assemble these components.
Adjust the direction of the pad with setscrews ③ ④ and ⑥.

膝控碰块

如图 (3) 所示, 将膝控碰块 ① 插入油盘上的膝控提升连杆 ②。松开螺钉 ③ 和螺钉 ④, 将膝控碰块 ① 移至易于使用的位置。



As figure (4) shown:

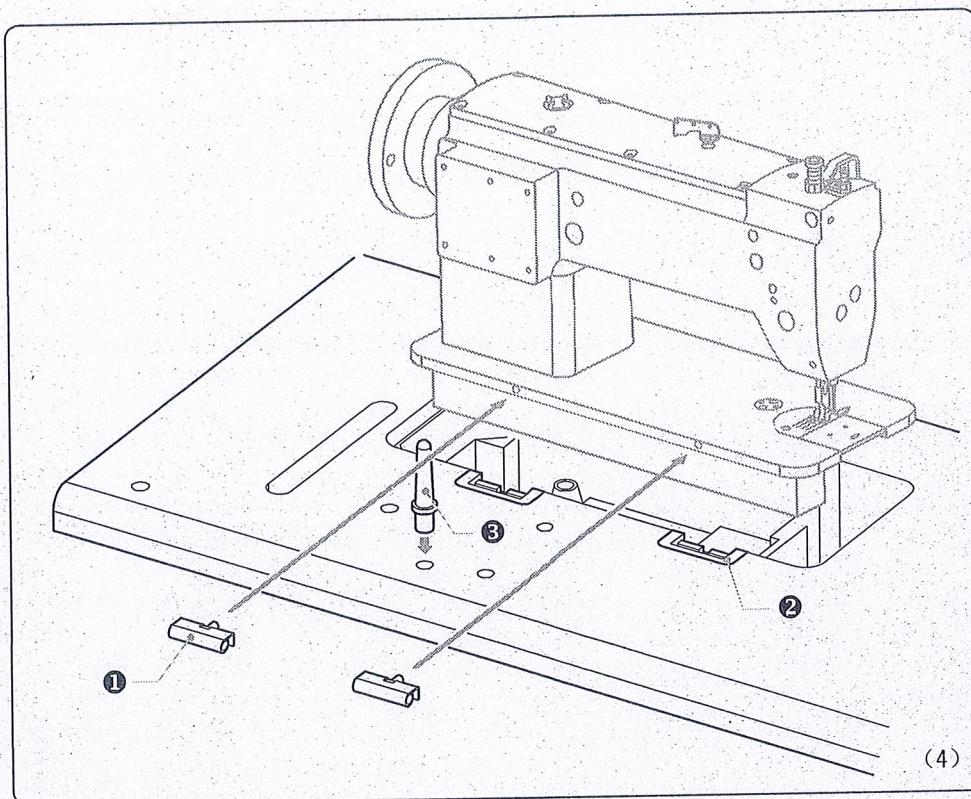
Head hinge ① push in the machine.
Tap the head rest ② securely into the table hole.

如图(4)所示:
缝纫机头部

将铰链①插入机壳, 然后放入机壳铰链套②。

机头撑杆

将机头撑杆③敲入台板中。



As figure (5) shown:

Apply screw ② to tighten belt cover U ① to machine cover.
Apply screw ④ to tighten belt cover C ③ to machine cover.
Apply screw ⑤ to tighten belt cover C ③ and cover U ①.
Apply screw ⑦ ③ to tighten ⑥.

如图(5)所示:

U型皮带罩

用螺钉②将U型皮带罩①锁入机壳。

C型皮带罩

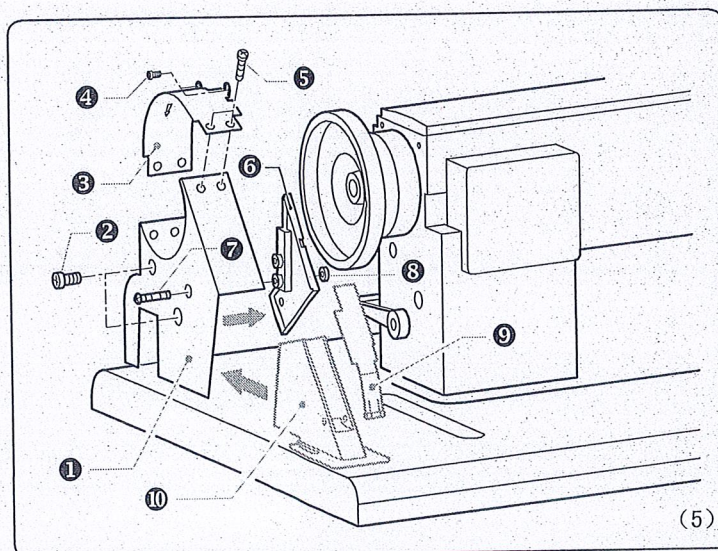
用螺钉④将C型皮带罩③锁入机壳。
用螺钉⑤将C型皮带罩③与U型皮带罩①锁紧。

三角型皮带罩

用螺钉⑦和螺母③将U型皮带罩与三角型皮带罩⑥锁紧。

D型皮带罩

将D型皮带罩盖⑨扣入D型皮带罩⑩。

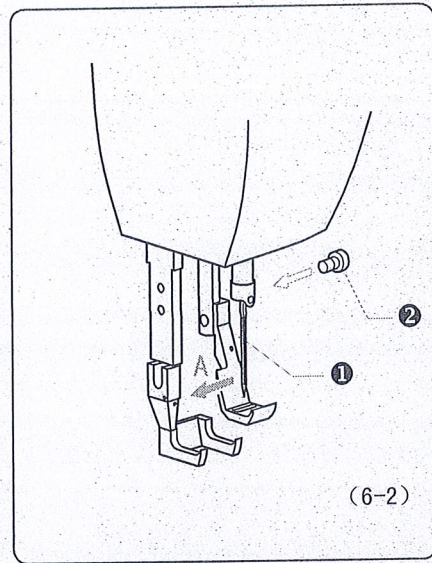
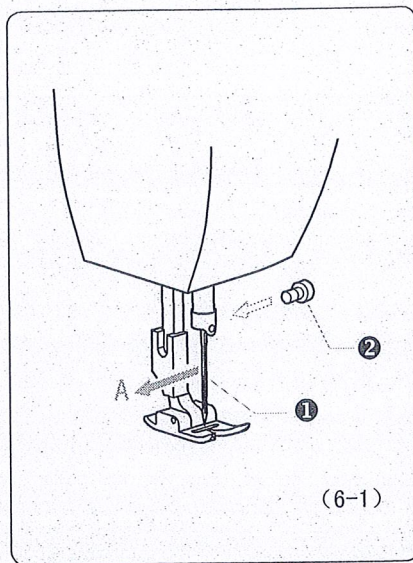


0. Adjustment / 缝纫机的调整

Installing the needle

As figure (6-1 6-2) shown:
 Rotate handwheel to make
 needle bar rise to the
 maximum high, loosen tighten
 screw ② plug needle ① to the
 top needle's groove side face
 to A then fasten screw ②.

如图(6-1) (6-2) 所示, 转动
 手轮使针杆上升到最高位置,
 松开机针紧固螺钉 ②, 将机针 ①
 插到顶, 长槽面向A方向, 然
 后拧紧螺钉 ②。

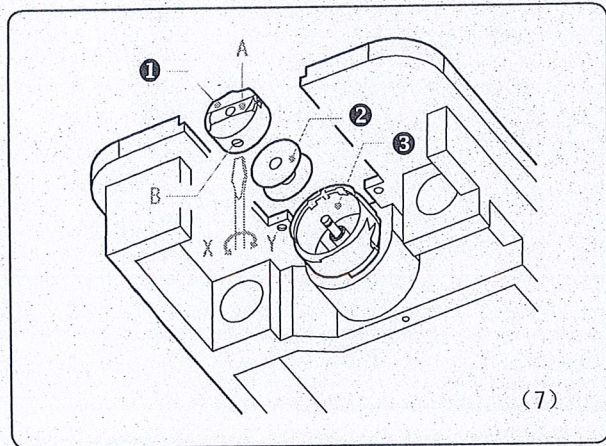


As figure (7) shown:

- <1> Open the case cover, then take out the bobbin case ①. Install bobbin ② into bobbin case ①, open the case cover, snap bobbin case ① into shuttle ③ then assemble together.
- <2> Turn tension adjustment screw (B) clockwise Y to increase the bobbin thread tension, or counterclockwise X to decrease it.

梭壳拆装及张力调整 如图(7)所示:

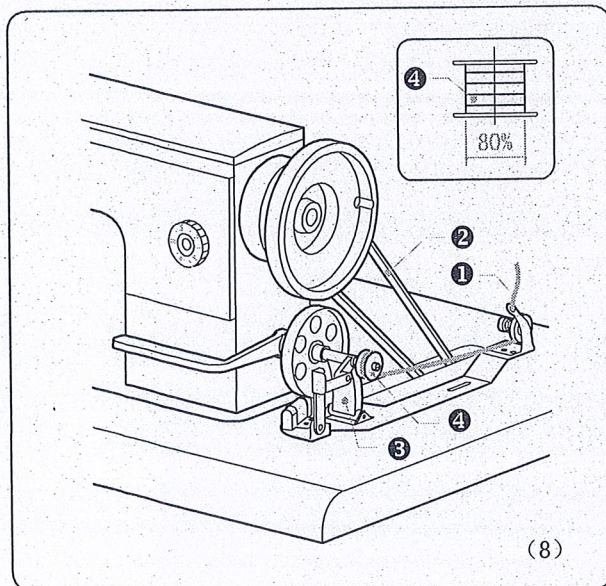
- <1> 梭壳的拆装 掰开梭壳盖A, 即可取出梭壳 ①。将梭芯 ② 装入梭壳 ① 后, 掰开梭壳盖A, 将梭壳扣入旋梭 ③, 并与之结合即可。
- <2> 张力的调节 如图, 用螺丝刀转动螺钉B, X方向底线张力变小, Y方向张力变大。



As figure (8) show connect lower thread ① move handle of the winding shaft ⑤ to snap the wheel to belt ② and rotate it 80% of the winding amount in bobbin ④ will be best.

绕底线

底线 ① 按图(8)所示连接好之后, 推动绕线器 ⑤ 的扳手使转轮贴到皮带轮 ② 上, 并随之转动。
 梭芯 ④ 上的绕线量约80%时为最好。



As figure (9) shown:

<1> Threading the upper thread

Insert the upper thread ① as figure shown.

<2> Face line tension adjustment

Rotate clipper ②, the upperline tension in direction X increase and Y direction decrease.

4. 穿面线及调整

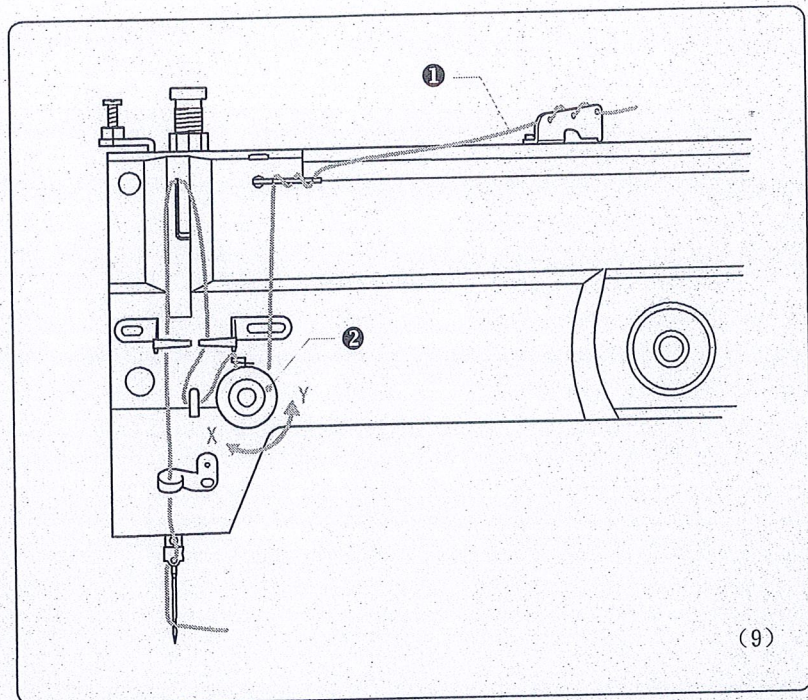
如图(9)所示

<1> 穿面线

面线①按图依次穿过。

<2> 面线的调整

转动夹线器②, X方向面线张力变大, Y方向张力变小。



(9)

Presser foot pressure adjustment

As figure (10) shown:

Rotate screw ①, the outer pressure in A direction increase B direction decrease adjustment fix the nut ②.

Rotate screw ③, the inner pressure in C direction increase D direction decrease after adjustment fix the nut ④.

5. 压脚压力调整

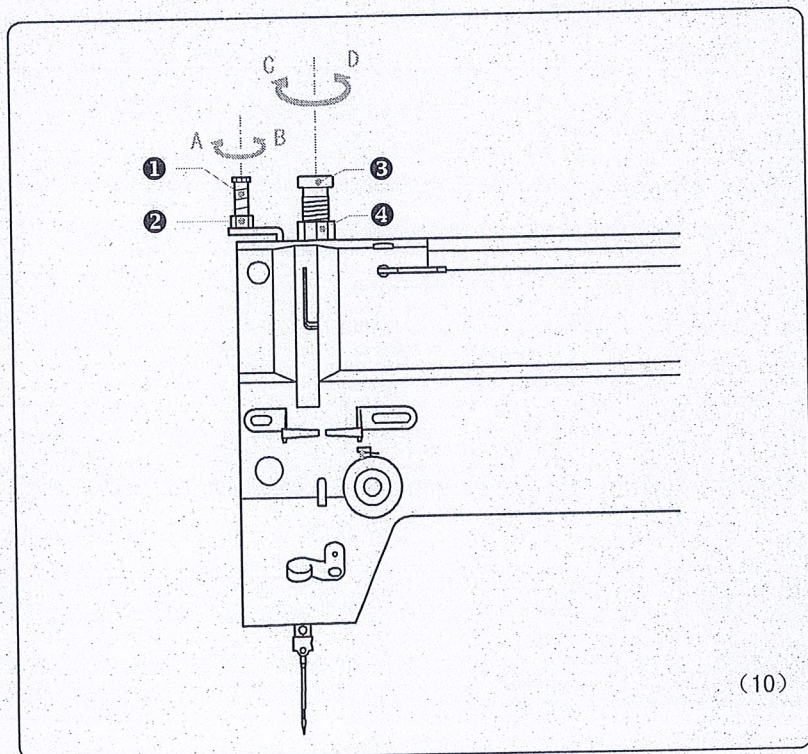
如图(10)所示

<1> 外压脚压力调整

旋转螺丝①, A方向外压脚压力变大, B方向压力变小。调整后必须固好螺母②。

<2> 内压脚压力调整

旋转螺丝③, C方向内压脚压力变大, D方向压力变小。调整后必须固好螺母④。



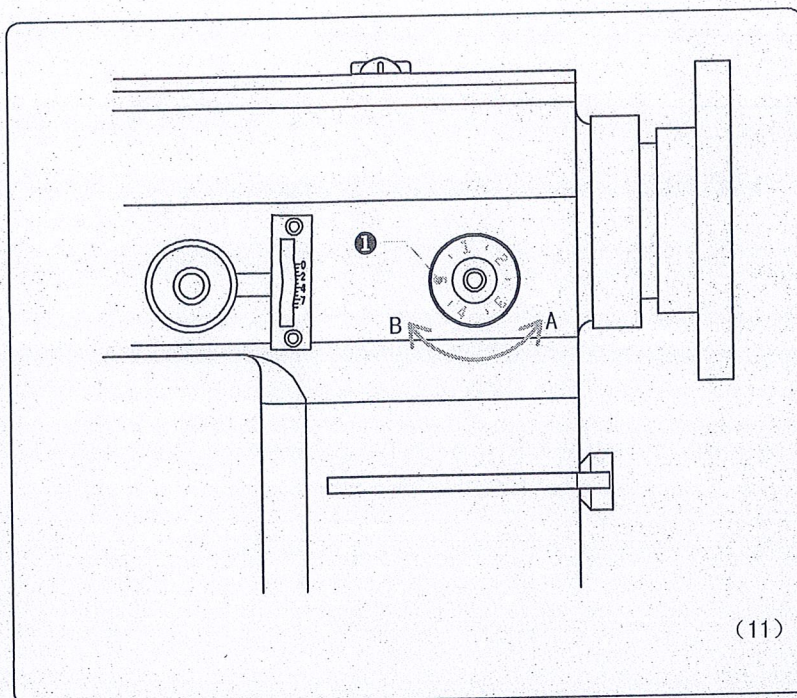
(10)

As figure (11) shown:

Rotate the stitch length dial assy ① to adjust the swing span in A direction decrease and B direction increase.

针距调整

如图 (11) 所示, 针距调节盘①上表示的是针距mm的数值, 左右转动调整到自己需要的数值上。



(11)

Feel dog hight adjustment

As figure (12) shown:

Apply screwdriver to rotate eccentric shaft ⑥ in order to adjust the height. Rotate the handwheel. When feed dog rise to the maximum high the distance between needle plate face and the top of feed dog need to be 1.0-1.2mm.

送布牙高度及倾斜度调整

如图 (12) 所示:

<1> 送布牙高度调整

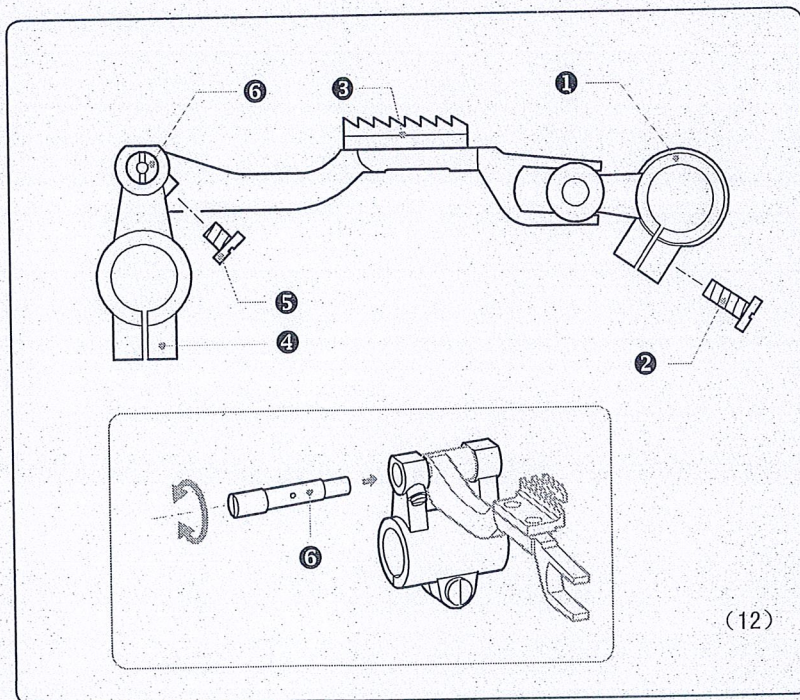
松开抬牙曲柄①上的螺钉②, 上下运动抬牙曲柄①, 即可调整送布牙③的高度。

转动手轮, 当送布齿上升最高时, 针板表面与送布牙尖距离为1.0~1.2mm时最标准。

<2> 送布牙倾斜度调整

松开牙架曲柄④上的螺钉⑤后, 用螺丝刀旋转牙架偏心轴⑥, 对送布牙③的倾斜度进行调整。

调整送布牙③的倾斜度后, 送布牙③的高度也会有所变化, 所以请再进行送布牙高度的调整。



(12)

Span adjustment

As figure (13) shown:

Macro adjustment

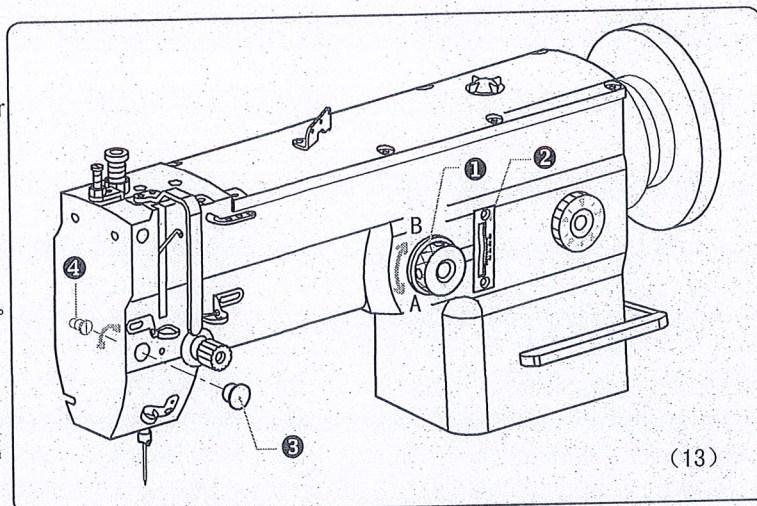
The swing indicator ② indicate the span number in mm rotate the swing handwheel ①, to adjust the swing span in A direction decrease and B direction increase.

Micro adjustment

Open the rubber cork ③ apply screwdriver to rotate eccentric bar ④ to adjust the swing span.

摆幅调整

如图(13)所示, 摆幅指示板②上表示的是摆幅mm的数值, 转动摆幅手转轮①, A方向摆幅减小, B方向摆幅增大。



五、故障原因及对策

NO	故障状态	查看事项	故障原因	处理方法
1	断针	针的方向、高度	上针方向不对	正确方向上到最上
		针	弯针	换针
		送布牙行程	针杆运行与送布行程不对	调整送布牙行程
		针杆上升量	针和旋梭的行程不良	调整针和旋梭的行程
		针杆高度	针和旋梭的行程不良	调整针和旋梭的行程
		针和旋梭主距离	针和旋梭的行程不良	调整针和旋梭的行程
2	断线	穿线方法	穿线出错	正确方法穿线
		缝纫针	针已弯或针尖已坏	换针
		针的方向、高度	上针位置不良	正确方向上针
		面线张力	面线张力太强	调整面线张力
		底线张力	底线张力太强	调整底线张力
		挑线弹簧运动量	运动量太大	调整弹簧的运动量
3	线路不良	挑线弹簧张力	挑线簧张力太弱	调整挑线簧张力
		线张力	底、面线张力不良	调整底、面线张力
		挑线弹簧张力	挑线弹簧张力不良	调整挑线弹簧张力
		压脚	压脚太高	调整压脚高度
4	线缝零乱	压脚压力	压脚压力太小	调整压脚压力
		送布牙高度	送布牙高度太低	调整送布牙高度
		梭芯	梭芯有划痕	打磨光滑或更换
		V型皮带张力	皮带张力太小	调整皮带张力
5	缝料皱褶	面线张力	面线张力太强	调整面线张力
		底线张力	底线张力太强	调整底线张力
		挑线弹簧张力	挑线簧张力不良	调整挑线簧张力
		挑线弹簧运动量	运动量太大	调整弹簧的运动量
6	底线纠结	压脚压力	压脚压力太小	调整压脚压力
		梭芯	拉出底线时, 梭芯反转	反向安装梭芯
		梭芯	梭芯转动不流畅	更换梭芯
		梭芯绕线量	绕线量过多	绕线量不超过80%

P. TROUBLESHOOT

NO	Trouble	What to do when	Trouble parse	Corrective measures
1	Breaking needle	Direction and height of needle	Wrong direction of upper needle	Correct direction from high to maximum high
		needle	Bend needle	Change needle
		Feed dog travel	Mismatch of needle bar movement feed dog travel	Adjust travel of needle and shuttle
		Needle bar rising	Wrong travel of needle and shuttle	Adjust travel of needle and shuttle
		Needle bar height	Wrong travel of needle and shuttle	Adjust travel of needle and shuttle
		Maim distance between needle and shuttl	Wrong traveled needle and shuttle	Correct threading
2	Breaking thread	Ways of threading	Improper threading	Correct threading
		needle	Bent needle or broken needle tip	Change needle
		Direction and height of needle	Upper needle problem	Correct upper needle
		Upper thread tension	Upper thread tension too strong	Adjust upper thread tension
		Lower thread tension	Lower thread tension too strong	Adjust lower thread tension
		Thread take-up spring rate	Rate too big	Adjust spring rate
3	Wire problem	Thread tension	Shuttle upper thread tension problem	Adjust shuttle and upper thread tension
		Thread take up spring tension	Thread take-up spring tension problem	Adjust thread take-up spring tension
		Presser foot	Presser foot too high	Adjust presser foot height
		Presser foot pressure	Presser foot presser too small	Adjust presser foot pressure
4	Wrinkly of fabric	Feed dog height	Feed dog height too low	Adjust feed dog height
		Presser foot pressure	Presser foot pressure too small	Adjust presser foot pressure
		bobbin	Scratch bobbin	Polish or change
		V belt tension	Belt tension too small	Adjust belt tension
5	Tangled thread	Upper thread tension	Upper thread tension too strong	Adjust upper thread tension
		Lower upper thread tension	Lower thread tension too strong	Adjust lower and upper thread tension
		Thread take-up spring tension	Thread take-up spring tension too problem	Adjust thread take-up spring tension
		Thread take-up spring rate	Rate too big	Adjust thread take-up spring rate
		Presser foot pressure	Presser foot pressure too small	Adjust presser foot pressure
6	Tangled thread	bobbin	When pulling lower thread bobbin reverse	Reverse bobbin
		bobbin	Bobbin does not rotate smoothly	Chang bobbin
		Bobbin winding amount	Too much winding amount	Winding amount should not be more than 80%