

INSTRUCTION

JJ **SERIES**

Industrial Sewing Machines

JJ50

First edition : July 2016

No.KX16017

KANSAI
SPECIAL®

INTRODUCTION

Thank you for purchasing Kansai Special's JJ series machine.

Please study this instruction manual carefully before operating the machine.

1. This instruction manual describes adjustments and maintenance on this machine.
2. Before operating the machine, check the pulley cover and safety cover, etc.
3. Before adjusting, cleaning, threading the machine or replacing the needles, be sure to turn off the power.
4. Never operate the machine with no oil in the reservoir.
5. Refer to the parts list as well as this instruction manual before the preventive maintenance.
6. The contents described in this instruction manual are subject to change without notice.

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【1】 INTRODUCTION

1-1 Needles

Standard needles are Schumetz B-27 and Organ DC×27.
 Needle numbers vary in each model, so standard needles are highly recommended.

< Needle maker & needle number >

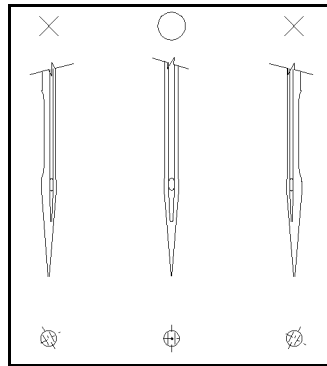
	Schumetz B-27	Organ DC×27
JJ5004GS-01M	Nm65	#9
JJ5005GS-10M	Nm65	#9
JJ5014GH-01M	Nm65	#9
JJ5004GE-01H	Nm75	#11
JJ5014GE-01H	Nm75	#11
JJ5014GS-90M	Nm65	#9

1-2 Needle replacement

When replacing needles, make sure that needle scarf faces backward from the operator's view point. Refer to the illustration on the right.

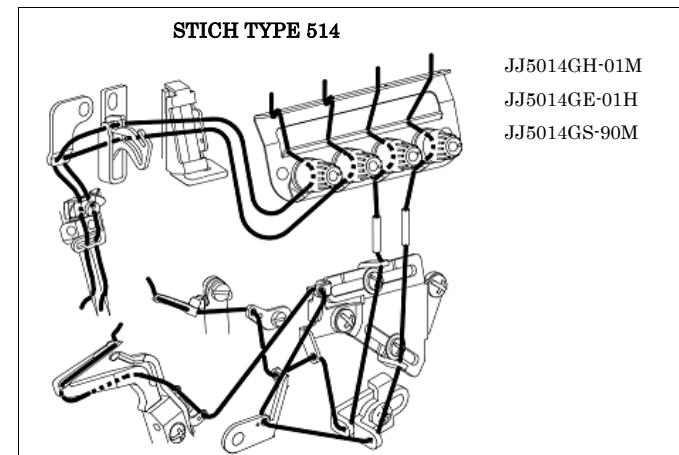
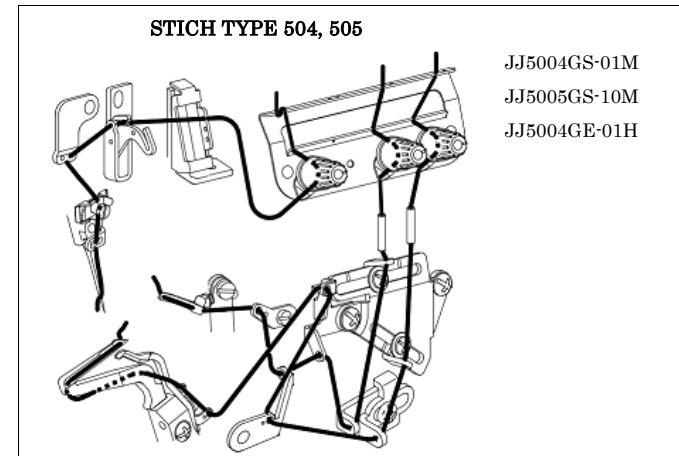
< Note >

When replacing needles, be sure to turn off the machine. Regarding clutch motors, keep stepping on the pedal until the machine comes to a halt completely.



1-3 Correct threading the machine

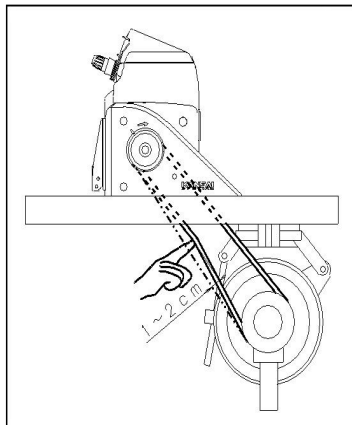
Thread the machine correctly by referring to the illustrations below.
 Incorrect threading causes skipped stitch, thread breakage, and uneven stitch formation.
 Correct threading is dependant upon the number of threads, thread material and so on.
 Turn to the page 10 for further information.



【2】 MACHINE SPEED

2-1 Machine speed & operating direction

Refer to maximum and average speed of the machine at the table below. If your machine is new, you have to operate the machine at 15~20% lesser than maximum speed for the first 200 hours (about one month) so that you can break it in. The machine pulley (hand-wheel) rotates clockwise as seen from the hand-wheel end of the machine.



2-2 Motor & belt

Motor: 3 phase, 2 pole 400W clutch motor
Belt: M type V belt

Select the proper motor pulley according to the machine speed (refer to the motor pulley outer diameter on the table below).

Adjust the position of the motor by pressing the middle of the belt with the index finger until the belt can bent 1~2cm inward. (See the illustration above)

< Machine speed >

Model	Maximum speed	Average speed
JJ5004GS JJ5005GS	7500rpm	6500rpm
JJ5014GH JJ5014GS	7500rpm	6500rpm
JJ5004GE JJ5014GE	7000rpm	6000rpm

< Motor pulley >

Motor pulley Outer diameter (mm)	Machine speed (RPM)	
	50Hz	60Hz
80	4200	5000
90	4700	5700
100	5200	6300
110	5800	6900
120	6300	7500

【3】 LUBRICATION

3-1 Oil specification

Kansai Special's genuine oil is highly recommended.
(Parts number 54-045 : 700cc)

3-2 Oiling

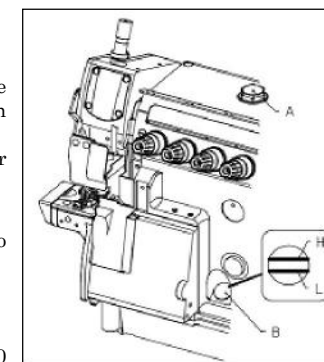
■ Lubrication

Take the Oil Pot A and fill the machine with the genuine oil until the indicator reaches the line H in the oil gauge B.

Most of the time, fill up the oil until the indicator appears between the line H and L.

■ Lubrication check

When the lubrication is over, run the machine to check for oil splashing in the window A.



3-3 Oil & Filter replacement

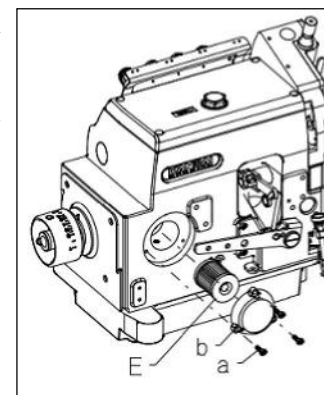
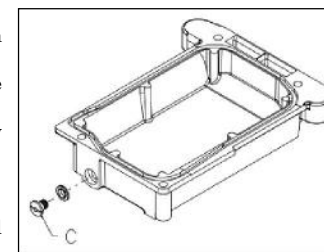
To prolong machines' lifespan, replace the oil in 250 hour use. Follow the procedure below.

1. Take the V belt off the motor pulley and then take the machine off the table.
2. Loosen the screw C and drain all the oil from the machine.
3. After the oil has been drained, tighten the screw C without fail.
4. Fill up the oil as instructed above.

If filter E is dirty, the machine is not lubricated properly. Normally, it has to replace every 6 month. Check for proper function of the lubrication system and maintain the proper amount and type of oil periodically.

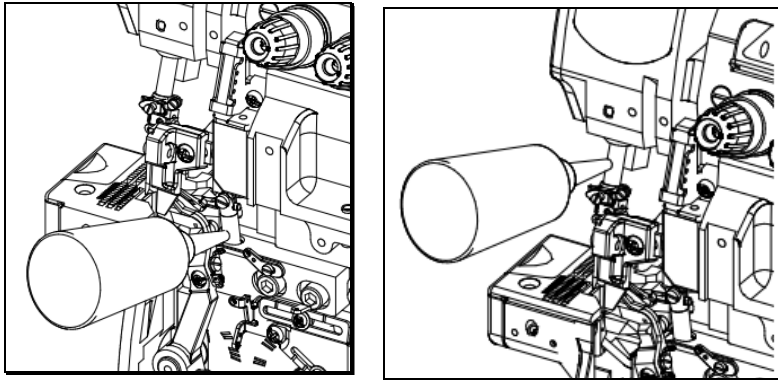
In order to replace the filter E, loosen all the necessary parts (a,b).

In case the filter is clogged, replace it with a new one.



3-4 Oiling respective parts

Oiling respective parts is necessary when the machine runs either for the first time or for the first time in a long while.



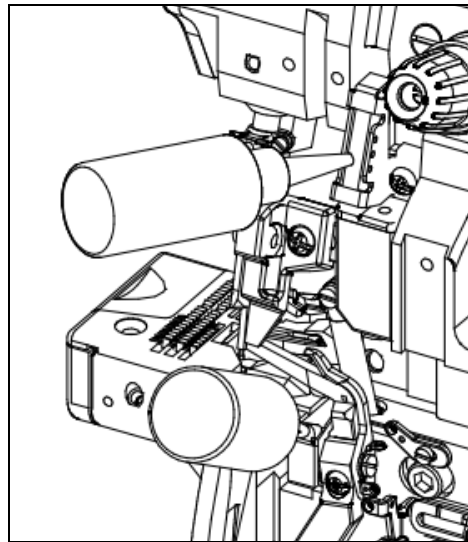
3-5 Oiling HR device

■ Oil in use

Kansai Special's genuine silicon oil is highly recommended
(Parts number 28-612: 20cc)

■ Oiling process

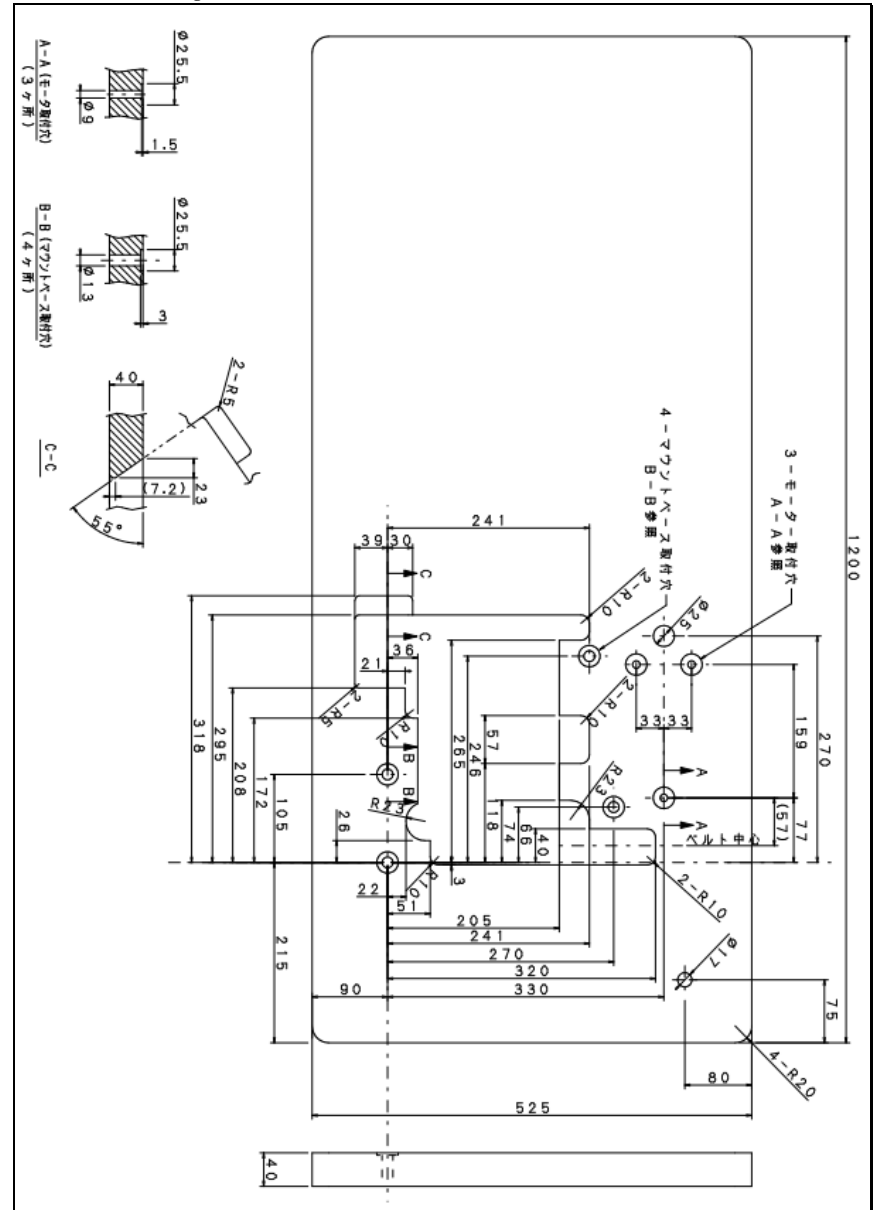
Fill the silicon oil reservoir with Kansai Special's genuine oil.
Periodical oil reservoir check is essential to prevent needle thread breakage and fabric damage.



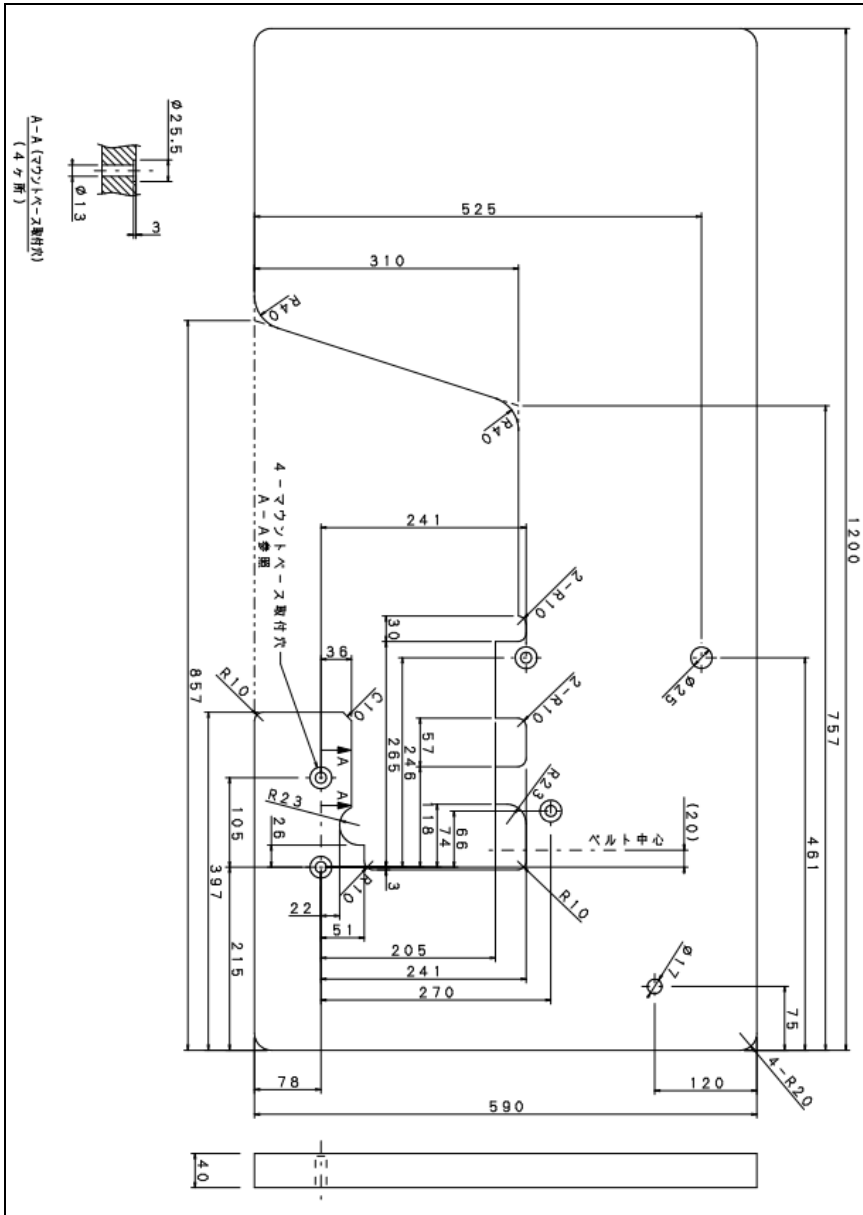
【4】 INSTSLATION

4-1 Table diagram

Semi-submerged table (Standard)



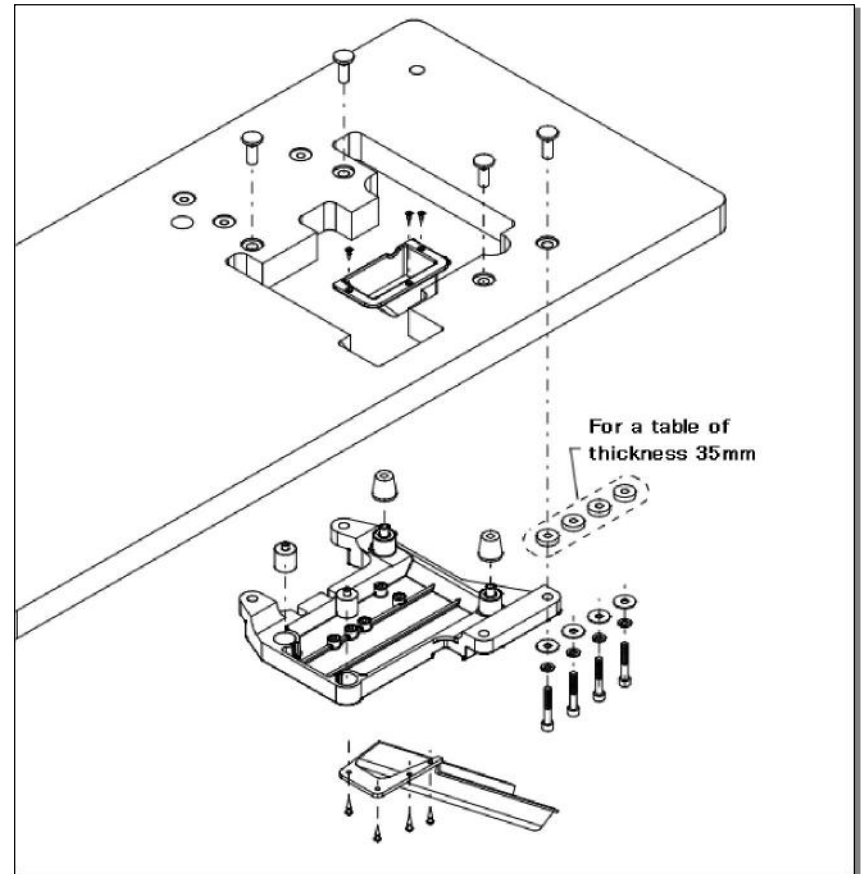
Semi-submerged table (For Cloth Tension Roller set)



4-2 Installation process

Refer to the illustration below.

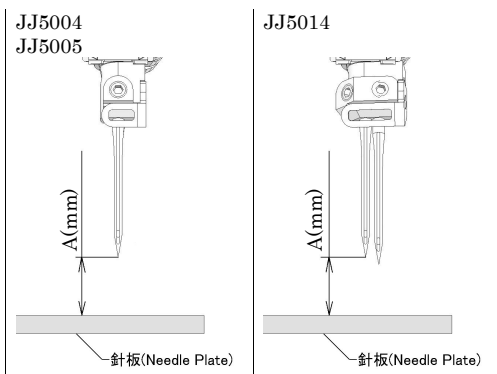
Install the frame support plate underneath the table. Fit the rubber cushions onto the frame support plate. Mount the machine head on the rubber cushions correctly.



【5】 NEEDLE BAR HEIGHT ADJUSTMENT

5-1 Initial needle bar height

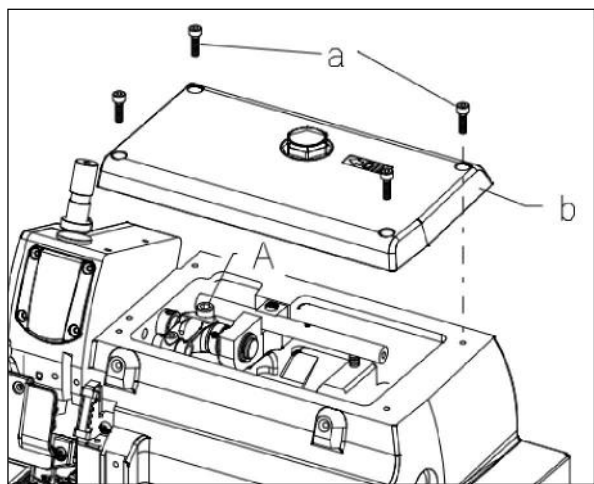
Initial needle bar height is set by the height between the needle plate and the tip of the center needle when the needle bar is at its highest position of travel. Refer to the illustration below.



Model	A(mm)
JJ5004GS-01M	10.5
JJ5005GS-10M	10.5
JJ5004GE-01H	11.9
JJ5014GH-01M	10.5
JJ5014GE-01H	11.9
JJ5014GS-90M	10.5

5-2 Needle bar height adjustment

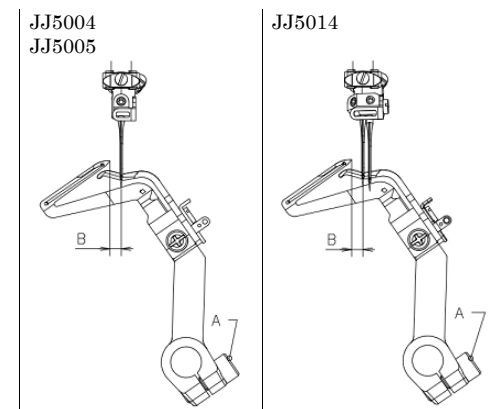
To make this adjustment, loosen screw "a" and take out top cover "b". Loosen screw A and move needle bar up or down as required.



【6】 LOWER LOOPER AND NEEDLE TIMING

6-1 Distance between lower looper and needle

The distance is relation between the looper and the needle when the lower looper is at the extreme left of its travel. Distance varies according to models. Refer to the illustration below. Before adjustment, loosen the screw A.



Model	B(mm)
JJ5004GS-01M	3.8
JJ5005GS-10M	3.8
JJ5004GE-01H	4.2
JJ5014GH-01M	3.8
JJ5014GE-01H	4.2
JJ5014GS-90M	3.8

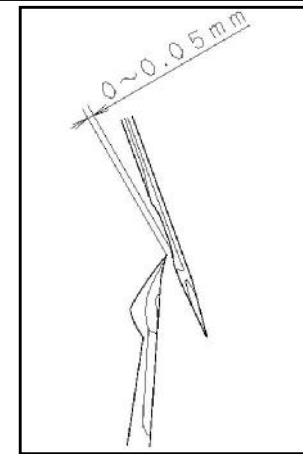
6-2 Clearance between the point of the lower looper and the center of the needle

Bring the point of the lower looper to the center of the needle to have them allow clearance of 0~0.05mm.

To make this adjustment, loosen screw A in the above illustration.

< Note >

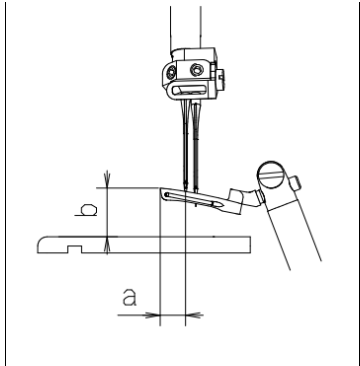
Care should be taken not to disturb the distance between the lower looper and the needle when the lower looper holder is moving.



[7] UPPER LOOPER ADJUSTMENT

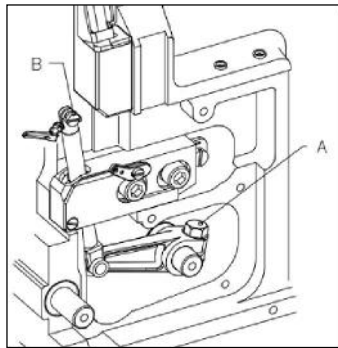
7-1 Gauge of upper looper and needle

■ The gauge of the upper looper and the needle is the distance between the point of the looper and the center needle when the upper looper is at the extreme left of its travel. Gauge varies according to models. Refer to the illustration below.



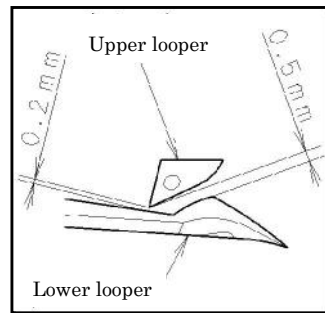
Model	a(mm)	b(mm)
JJ5004GS-01M	4.4~4.7	10.9
JJ5005GS-10M	4.4~4.7	10.9
JJ5004GE-01H	4.4~4.7	11.5
JJ5014GH-01M	5.4~5.7	10.6
JJ5014GE-01H	5.4~5.7	11.1
JJ5014GS-90M	4.9~5.2	10.7

■ The gauge adjustment is made by loosening the clamp screw A and looper setting is made by loosening the clamp screw B.



7-2 Looper relation (upper to lower)

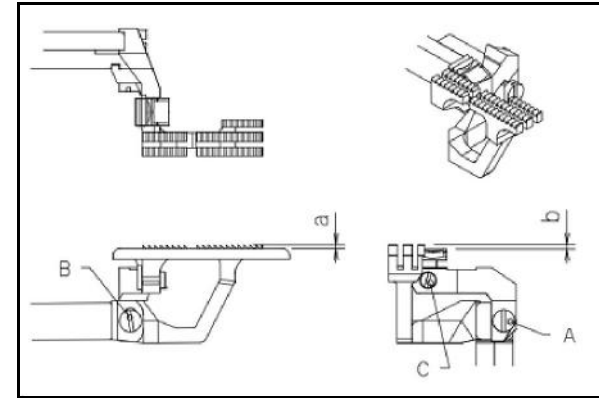
When upper looper crosses lower looper, certain amount of clearance is needed. Refer to the illustration on the right. To make this adjustment, loosen clamp screw B.



[8] FEED DOG & STITCH LENGTH ADJUSTMENT

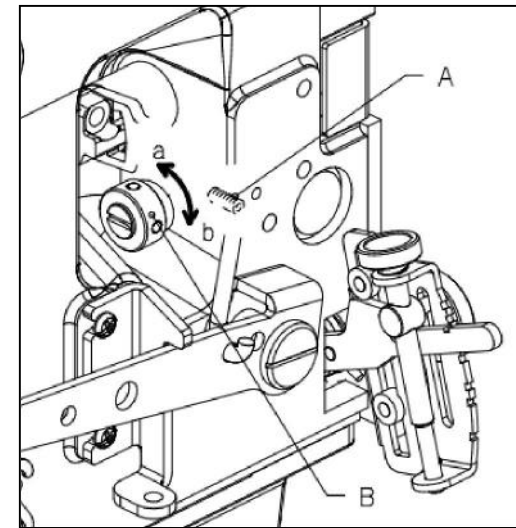
8-1 Feed dog height adjustment

When the feed dogs are at the highest point of travel, 2 or 3 teeth from the back of the main feed dog have to rise 0.8~1.0mm(a) above the top surface of the needle plate. The height of the differential feed dog is as same as that of the main feed dog. The support feed dog should be set to rise 0.5mm(b) lower than the main feed dog. Adjustment is made by loosening clamp screw A,B,C.



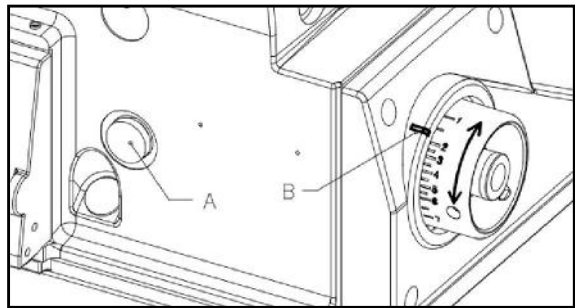
8-2 Feed dog inclination adjustment

To make the feed dog tilt adjustment loosen screw A and turn collar B as required.
Turn to "a" : To tilt down the front side of the feed dog
Turn to "b" : To tilt up the front side of the feed dog



8-3 Stitch length adjustment

1. Press the push-button A softly with your left hand on the front of the machine.
2. Rotate the pulley with your right hand while pressing the button A softly, the push-button A will stop at the notch inside making a click sound.
3. At that time, press the push-button A hard once again with rotating the pulley and set the stitch length referring to the starting mark B.
4. For longer stitch, rotate the pulley clockwise and the other way around.



< Note >

Check if the motor stops completely before you change the stitch length.

8-4 Differential feed dog adjustment

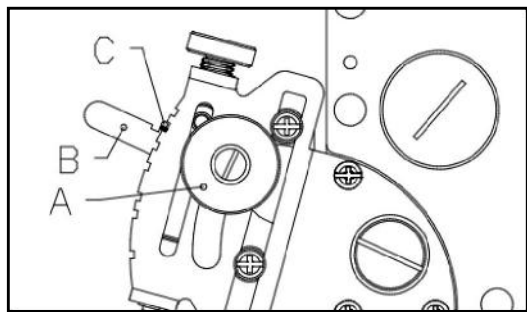
■ Stretching ratio (for gathering)

Loosen nut A and adjust with lever B then tighten nut A at desired spot. Bring the lever B at spot C makes the ratio of the main feed dog and the differential feed dog 1 to 1.

Bring it at lower than spot C makes a stretching ratio.

■ Gathering ratio (for stretching)

Bring the lever B at higher than spot C makes a gathering ratio.



< Note >

When applying a stretching ratio, be sure that the differential feed dog is in the right position.

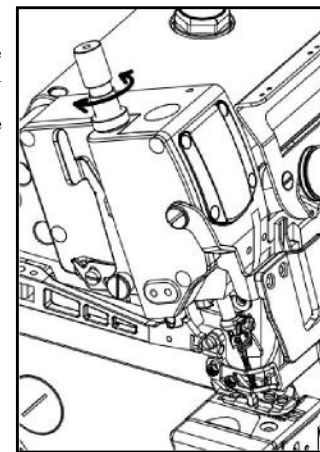
[9] PRESSER FOOT ADJUSTMENT

9-1 Presser foot pressure adjustment

Maintain the presser foot pressure as light as possible on the condition that the machine feeds the fabric well and produces stable stitch.

Turn the knob clockwise to increase pressure of the presser foot.

Refer to the illustration on the right.

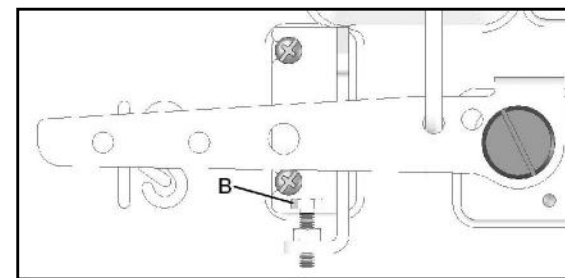
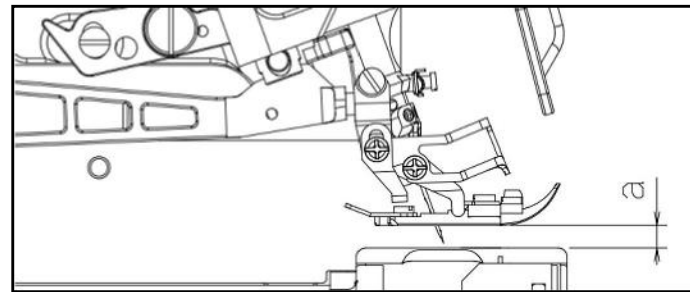


9-2 Position and maximum lift height

Set the presser foot onto the presser bar properly so that the needle can drop to the center of the needle hole.

■ Foot lift

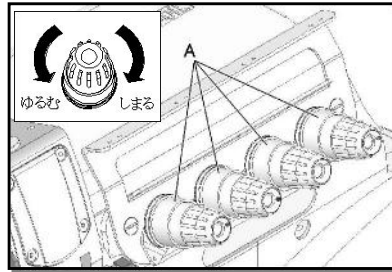
The initial height of the foot lift "a" is about 6mm from the surface of the needle plate. Set the proper height of the foot lift stopper B to hold the presser foot.



【10】 STITCH FORMATION ADJUSTMENT

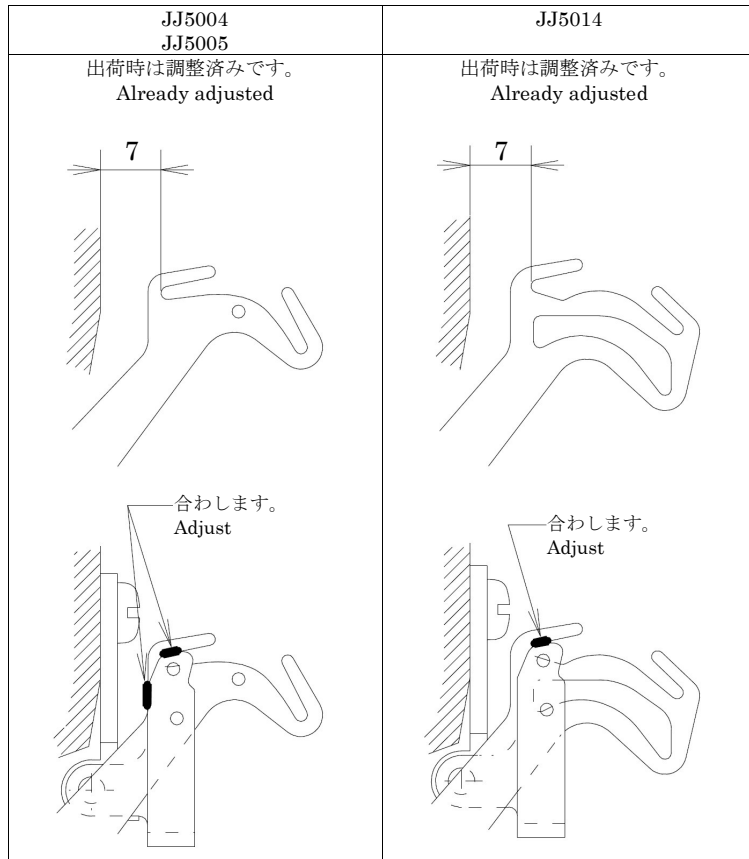
10-1 Thread tension adjustment

Thread tension varies according to sewing conditions such as kinds of fabrics, threads, sewing width, and stitch length.
Adjust by knob A.
Rotate them clockwise to tighten the threads and vice versa.



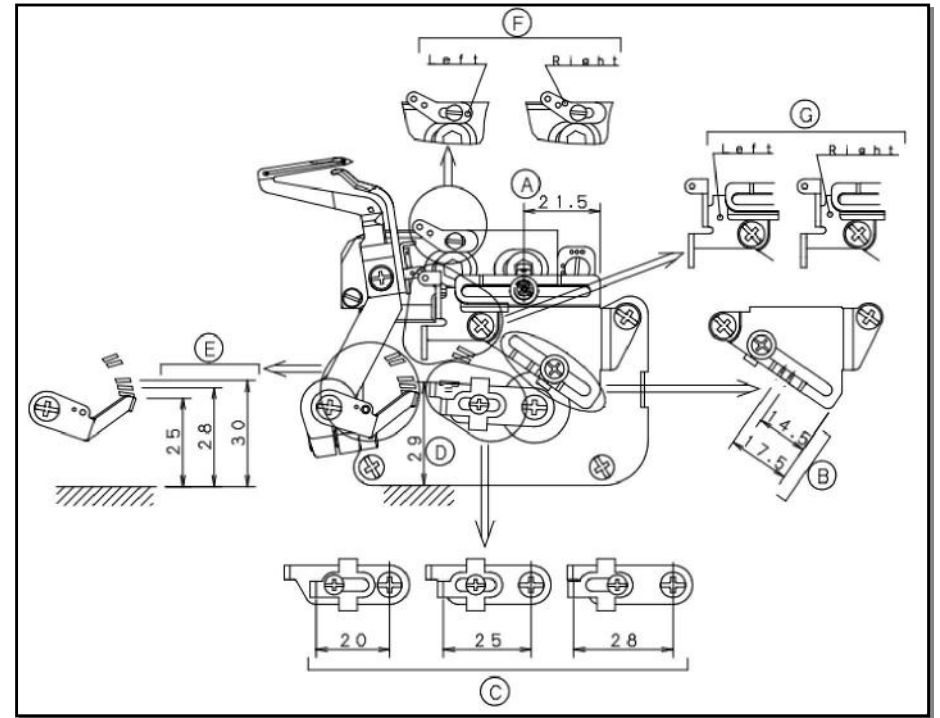
10-2 Position of the needle thread take-up & thread eyelet

*Adjust by referring to below illustration when the needle take-up is at its extreme position to the bottom.



10-3 Loper thread take-up adjustment

The below table is the dimension when the lower looper is at the right position.



	504 505 514	504	514	504 514	Stitch type
	S	H	H	E	Looper capacity
A	21.5	21.5	21.5	21.5	
B	14.5	14.5	17.5	17.5	
C	20	28	28	25	
D	29	29	29	29	
E	28	28	25	30	
F	Left	Left	Left	Right	
G	Left	Left	Left	Right	

【11】 UPPER & LOWER KNIFE ADJUSTMENT

11-1 Upper and lower knife

■ Upper knife height

Upper knife height should be 0.5~1.0mm lower from the top surface of the needle plate when the upper knife is at the bottom of its travel.

Adjust by loosen screw B.

■ Lower knife height

Set the edge of the lower knife E is at the same level of needle plate top surface.

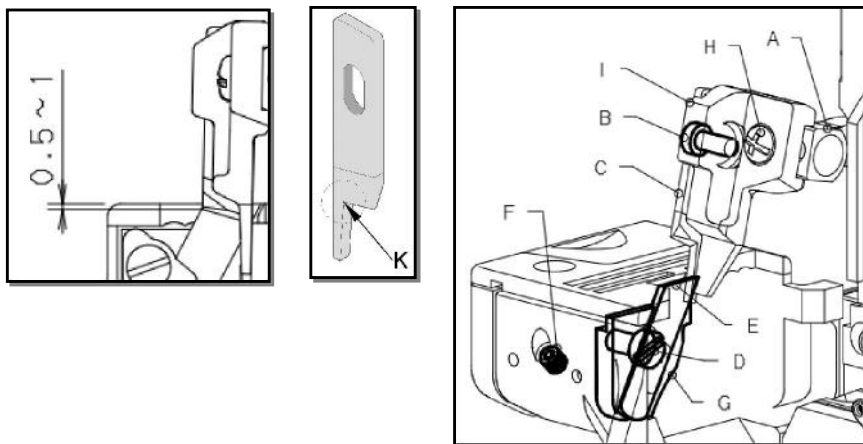
Adjust by loosen screw D.

■ Sewing width adjustment

1. Loosen screw F and move lower knife holder to the extreme left position. Then tighten screw F temporarily.
2. After loosening the screw H, adjust the sewing width by moving the upper knife holder to the desired position. Do not forget to re-tighten the screw H securely after adjustment is made.
3. Move the upper knife point K to the top surface of needle plate by turn the handwheel.

Loosen the screw F, Lower knife E is cross with upper knife C by a spring.

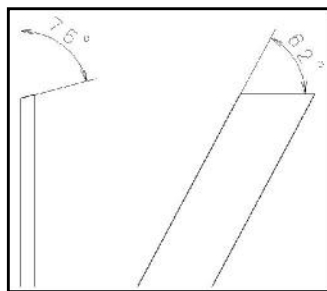
After all tighten screw F securely.



11-2 Lower knife sharpening

The upper knife is made of super hard compound metals. When the knife gets blunt and cannot cut clean, it needs to be sharpened like the illustration on the right.

When sharpening doesn't work anymore, replace the knife with a genuine Kansai Special's upper knife.

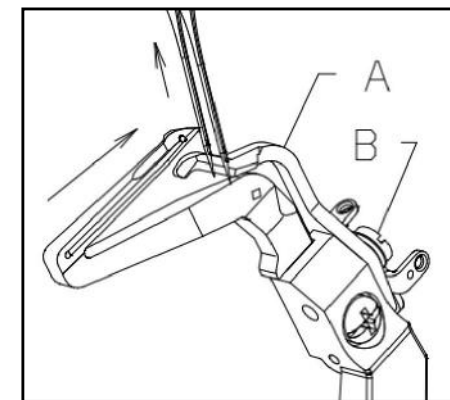
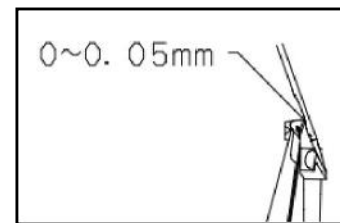


【12】 NEEDLE GUARD ADJUSTMENT

■ Needle guard (rear)

When the point of lower looper is aligned with the center of the needle. The needle should be deflected forward by needle guard (rear) A so that there will be 0~0.05mm clearance between the point of the lower looper and center of the needle.

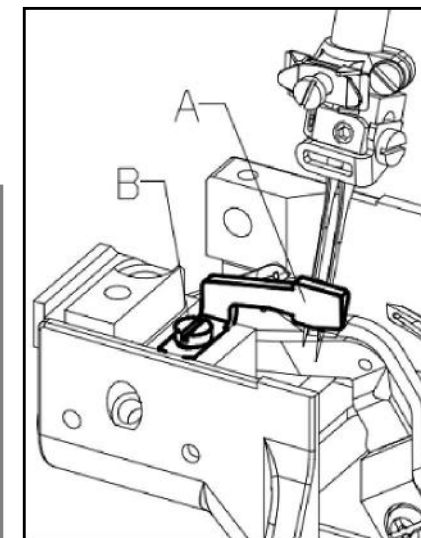
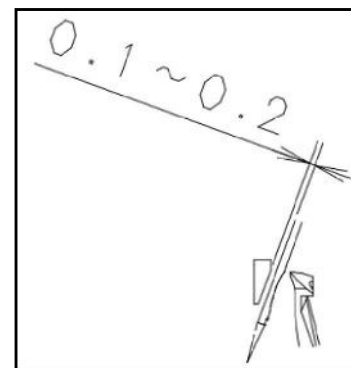
Adjust by screw B.



■ Needle guard (front)

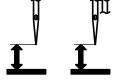
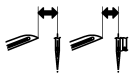
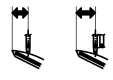
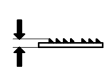

Obtain 0.1~0.2mm of clearance between the needle and needle guard (front) A when the needle is at the bottom of its stroke.

Adjust by screw B.



【13】 SPECIFICATION

< JJ50 >

型式 MODEL					
JJ5004GS-01M	10.5	3.8	4.4~4.7	0.8	5.0
JJ5005GS-10M					5.5
JJ5004GE-01H	11.9	4.2	5.4~5.7	1.0	7.0
JJ5014GH-01M	10.5	3.8		0.8	5.5
JJ5014GE-01H	11.9	4.2	4.9~5.2	1.0	7.0
JJ5014GS-90M	10.5	3.8		0.8	5.5

株式会社 森本製作所

本社 〒575-0001 大阪府四条畷市砂 一丁目 4 番 17 号 TEL: 072-877-1221 FAX: 072-878-9649

MORIMOTO MFG. CO., LTD.



1-4-17, SUNA, SHIJONAWATE-CITY, OSAKA 575-0001, JAPAN

TEL: +81-72-877-1221 FAX: +81-72-878-9649 E-MAIL: hqeigyo@kansai-special.com URL: www.kansai-special.com

FOREIGN AFFILIATED COMPANIES

KANSAI SPECIAL AMERICAN MACHINE CORP.

476 HAMPSHIRE DR., GAFFNEY, SC 29340. USA

E-MAIL: ksam@kansaispecial.net

KANSAI SPECIAL EUROPE GMBH

QUIRINSTR. 19, 40545 DUSSELDORF, GERMANY

TEL: +49-211-577-9090 FAX: +49-211-558-1477 E-MAIL: contact@kansai-special.de

MORIMOTO SINGAPORE PTE LTD.

NO.51 PENJURU ROAD #02-02 SINGAPORE 609143

TEL: +65-6334-1305 FAX: +65-6334-1365 E-MAIL: info@kansaispecial.com.sg

MORIMOTO INDIA LIAISON OFFICE

NO.11 SENTHILL NAGAR, PERRIYAR COLONY, AVINASHI ROAD. TIRUPUR, INDIA 641601

TEL: +91-421-4248229 FAX: +91-421-4286600 Tech Support TEL: +91-770-8300100

E-MAIL: india@kansaispecial.com.sg

MORIMOTO BANGLADESH LIAISON OFFICE

FLAT #2/B.HOUSE #16, ROAD#13, SECTOR#04 UTTARA, DHAKA-1230 BANGLADESH

TEL: +88-02-8931702 FAX: +88-02-8931704 E-MAIL: bangladesh@kansaispecial.com.sg

KANSAI (SHANG HAI) INDUSTRIAL SEWING MACHINE CO., LTD

NO.55 LANE835, JIAXIN ROAD, MALU TOWN, JIADING DISTRICT, SHANGHAI 201818, CHINA

TEL: +86-21-5990-1798 FAX: +86-21-5990-1538 E-MAIL: kansaish@spe.sina.net