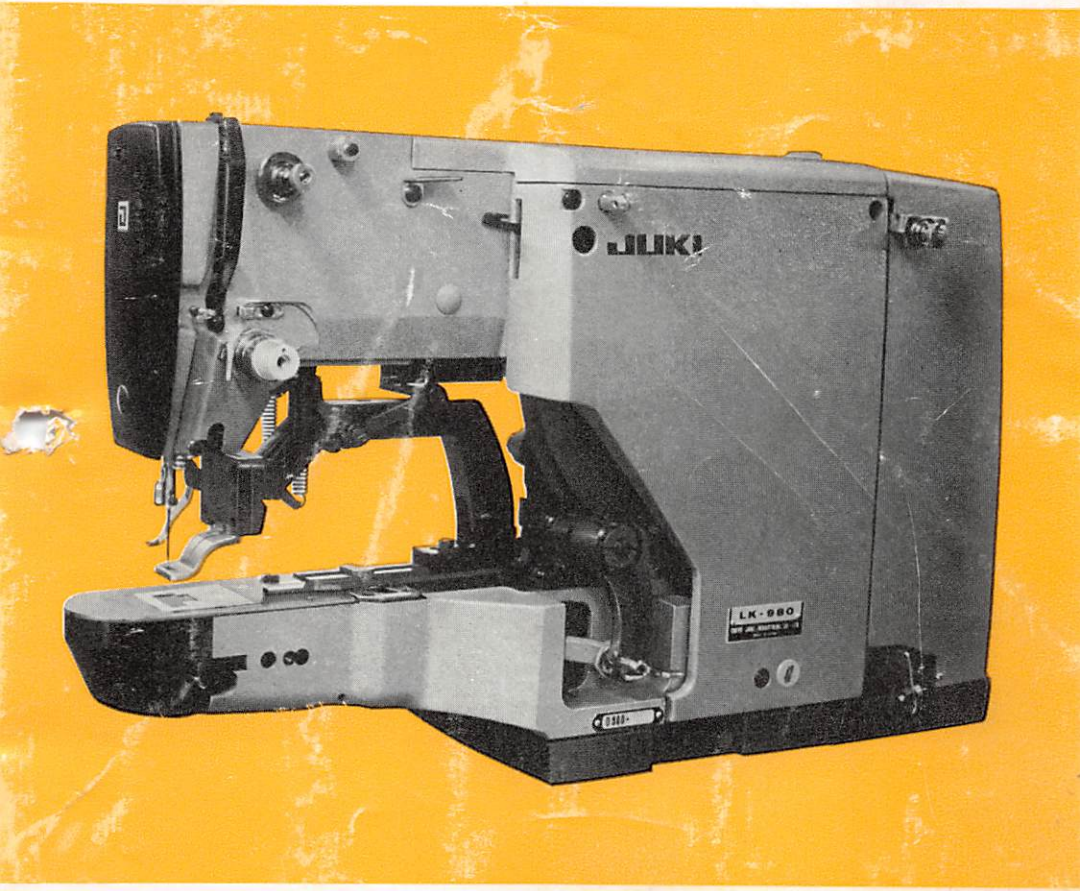
BE9800T0B0A No. 00

Model **LK-980** SERIES

HIGH SPEED, 1-NEEDLE
CYLINDER BED
LOCKSTITCH BARTACKING
INDUSTRIAL SEWING MACHINE

INSTRUCTION BOOK



TOKYO JUKI INDUSTRIAL CO., LTD.

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SPECIFICATIONS

Sewing type	: High speed, single needle, lockstitch bartacking, cylinder bed industrial sewing machine.
Sewing speed (Max.)	: 2,200 s.p.m. (1,700 s.p.m. with synthetic fiber thread.)
Needle bar stroke	: 41.4mm (1-5/8")
Thread take-up	: Link type thread take-up
Needle	: DP x 5 #16 (standard)
Feed mechanism	: Feed cam control system
Shuttle race	: Exclusive shuttle race which is solidly associated with the front bushing of the shuttle driver shaft. (Finely adjustable type in the axial direction).
Stitch length	: Standard : Longitudinal feed – 1.5 to 3.0mm (1/16 to 1/8") Lateral feed – 8 to 18mm (5/16 to 5/8") Maximum feed (Subclasses) : Longitudinal feed – 60mm (2-3/8") Lateral feed – 90mm (3-35/64")
Presser lifting amount	: 6 to 15mm (15/64" to 19/32") – adjustable
Speed reducing system	: Planetary ball system (V-belt used)
Safety device	: Double safety device
Thread trimmer	: Fully automatic thread trimmer. (Both needle and bobbin threads are trimmed under the needle plate)
Pedal system	: Single pedal
Bobbin thread winder	: Driven by V-belt, and can be used at any time
Silicon lubricant	: Built-in silicon lubricant tank
Lubrication	: Double oil reservoir and centralized lubrication system
Number of stitches	: 42 stitches (standard) With 18 different subclasses : 14 to 128 stitches
Driving motor	: 200W (single or 2-phase)

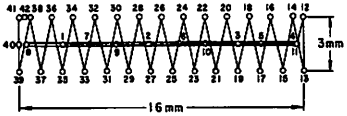
GENERAL

Model LK-980 is a high speed (2,200 s.p.m.) Lockstitch bartacking sewing machine consisting of a cylinder bed. It is used to form bartacking on men's suits, trousers, casual wears, worker's uniforms, overcoats and many other garments. Other subclasses are also available for special purposes like, bartacking on knitted fabrics, button hole bartacking, attaching belt-loops and sewing various shapes of bartacking. The maximum sewing size is 60mm(2-3/8") lengthwise and 90mm(3-35/64") crosswise, and 18 types of stitch formation consisting of 14 to 128 stitches per cycle are also available. If you wish to produce some other special shapes of bartacking, please contact with us with your detailed information.

* 2 different machines for large size bartacking

  2 different models for large size bartacking are available depending on the number of stitches as illustrated below;

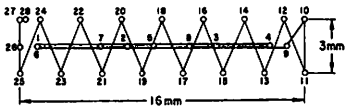
LK-980 (Standard)
42-stitch bartacking



Max. sewing size : 3x16mm(1/8x5/8")
Min. sewing size : 1.5x8mm(1/16x5/16")
Sewing time per piece : 1.2 sec.

Crosswise and lengthwise stitches produce a smooth, attractive and tight bartacking.

LK-982-5
28-stitch bartacking



Max. sewing size : 3x16mm(1/8x5/8")
Min. sewing size : 1.5x8mm(1/16x5/16")
Sewing time per piece : 0.8 sec.

Coarse crosswise and lengthwise stitches produce a practical bartacking efficiently within 2/3 of the sewing time needed for LK-980 without affecting the material.

SEWING SPEED

The maximum sewing speed of this machine is 2,200 s.p.m. for normal sewing, but is 1,700 s.p.m. for either sewing a synthetic fiber material or with a synthetic thread. Considering that the sewing works of today are made in most cases with synthetic fiber materials or thread, our standard built-in motor pulley is for the speed of 1,700 s.p.m. If you operate the machine at such speeds as 2,200 or 2,000 s.p.m., we are ready to supply a motor pulley and a belt upon your separate order. When ordering, please indicate the desired part Nos. as per the table given below. When you use synthetic threads or materials for your sewing works, we advise you to make use of the silicon oil tank which is installed in the machine head for efficient and stable sewing works.
The following table shows you the sewing speeds attained by the different combinations of the motor pulleys and the driving belts. This machine employs 2 pieces of V-belts, one is for driving the machine and the other is for decreasing the pedal pressure. (Those pulleys and belts having (*) marks in the table are optional parts.)

Frequency	Sewing speed (s.p.m.)	Motor pulley part No.	Engraved Symbol	Driving belt	Pedal pressure decreasing belt
50Hz.	2,200	*B7101980000	50 2200	*48" MTJVM004800	*35" MTJVM003500
	2,000	*B710198000B	50 2000	*47" MTJVM004700	*34" MTJVM003400
	1,700	B710198000C	50 1700	46" MTJVM004600	34" MTJVM003400
60Hz.	2,200	*B7102980000	60 2200	*47" MTJVM004700	*34" MTJVM003400
	2,000	*B710298000B	60 2000	*46" MTJVM004600	*34" MTJVM003400
	1,700	B710298000C	60 1700	46" MTJVM004600	35" MTJVM003500

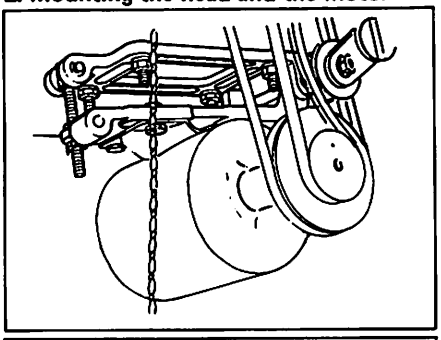
INSTALLATION AND PREPARATION

1. Assembling the machine table

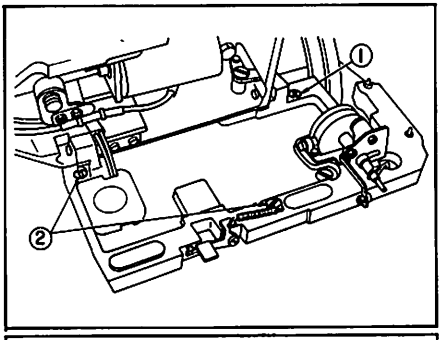
Paste the attached pattern paper on the surface of table top to determined the positions of the installation holes.

Make the installation holes with spot facing first, and then attach the legs, drawers, motor installing base, spool holder base, head support and tension pulley.

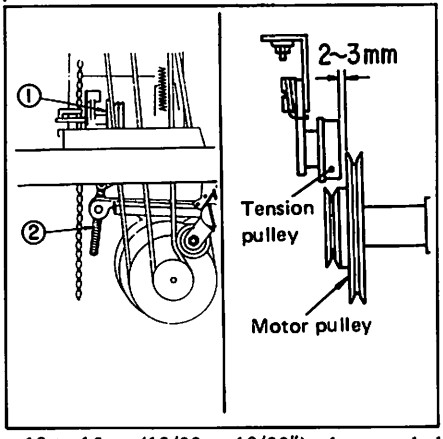
2. Mounting the head and the motor



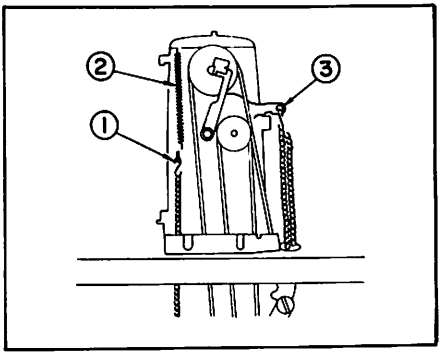
* Attach the motor installing base to the bottom surface of the table as per the dimensional drawing.



* Install the machine base on the table top. For making your work easier, we recommend you to screw the bolt ① first and then tighten the screw ②.

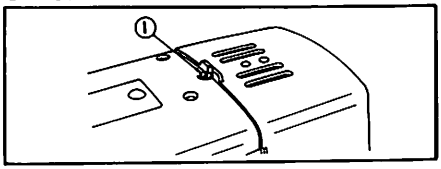


* Attach the motor pulley to the motor shaft by pressing it fully until the far side thereof contacts with the end of the shaft.
* Adjust the lateral position of the motor so that the right edge of the driving belt comes in contact with the bobbin thread winder ①. But, in the case of 2,200 s.p.m. with the source of 50Hz., bring it to the left as far as possible to the extent that the bobbin thread winder is actuated. Otherwise the right edge of the driving belt will touch the belt cover.
* Adjust the vertical position of the motor with the height adjusting screw ② so that the driving belt sags in the center for about 10 to 15mm(13/32 to 19/32") when you hold it with your two fingers. (Approx. 1Kg.)
* Adjust the longitudinal position of the motor so that the distance between the tension and motor pulleys becomes 2 to 3mm(5/64 to 1/8")



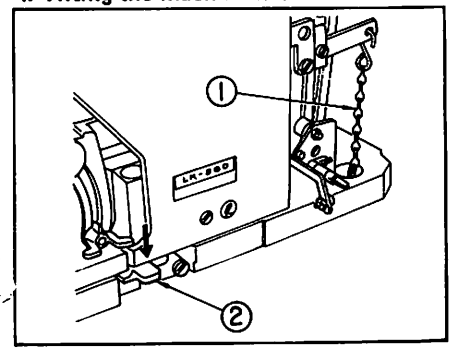
* Put on the pressure decreasing belt and adjust the lateral position of the tension pulley and also the tension of the spring so as to allow the tension pulley to work in the proper manner.
* In case of the standard machine which has a single pedal, you can simply connect the chain to the starting lever ①. However, when you want to operate the machine with 2-pedal system, you must remove the tension spring ② from the starting lever and apply another spring to the pressure decreasing lever ③.

3. How to remove the belt cover



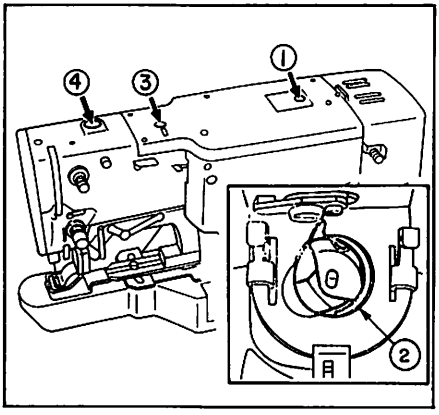
* Loosen the set screw ① on top of the belt cover, tilt the cover slightly backwards and push it up backwards to disengage.

4. Tilting the machine head



(1) Remove the belt cover.
(2) Disengage the starting chain ①.
(3) Tilt the machine head to the left over the table by pressing down the hook ②.

5. Lubrication



For lubricating this machine, use JUKI New Defrix Oil No. 2 or Spindle Oil No. 2.

(1) Before starting a machine which has been newly set up or has not been used for a long period of time, apply the lubricating oil through the hole after removing the rubber plug ① , saturate the oil felt located in the machine bed fully with the lubricating oil after tilting the machine head and also apply a drop of oil to the race surface of the shuttle race ② .
Apply 10 to 15 drips of lubricating oil (about 20cc) through each oiling hole ③ and leave it for about one hour.

(2) Apply the over flowing amount of lubricating oil to the oiling hole ③ and a drop of oil to the race surface of the shuttle race every day.
However, when the machine is operated at the maximum speed of 2,200 s.p.m. or with the thick threads, you must increase the amount of oil to be applied to the shuttle.

(3) Take out the shuttle from it's position and clean it up every day.

(4) Apply the silicon oik through the oiling hole ④ and verify if the thread passing through the guide thereof is applied with silicon oil on it's way.

6. Driving the machine

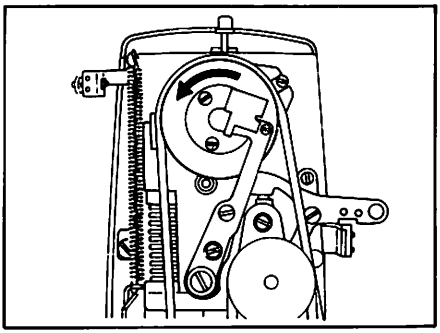
(1) Turn the motor switch on.

(2) The standard model which is operated with a single pedal system will bring up and hold the work clamp foot at the upper position when the machine stops.

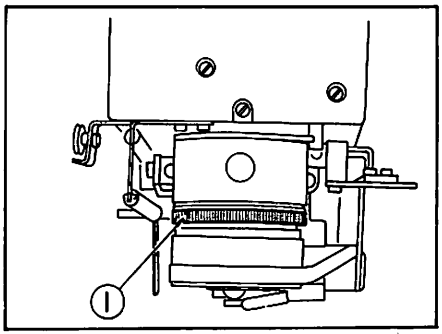
(3) Tread on the pedal slightly, and the work clamp foot will come down to press the material. If you want to raise it at this stage, you can simply release the pedal.

(4) Tread on the pedal fully, and the machine will start to form a bartacking seam with a given number of stitches. When a seam was completed, the work clamp foot is automatically brought up, threads are trimmed and then the machine stops.
You must release the pedal immediately after the machine has started to seam, otherwise it's automatical process will be hindered and will not stop at the expected position. If the machine stops during the first stitch, although it would not happen so often, tread on the starting pedal strongly. If you try to start the machine by mistake before the work clamp foot is ready to work on it's position, the safety device will actuate immediately to hold the machine. In such a case, you must repeat the procedure from the beginning.

* Machines may start to run heavily in the morning of a cold season due to the viscousness of grease with which each bearing is filled up. If it is happened in your machine, provide it with several idling runs before starting to stitch.



* Verify if the motor rotates in a counter-clockwise direction which is shown by the arrow mark on the driving pulley.
A reverse rotation will cause troubles with your machine.

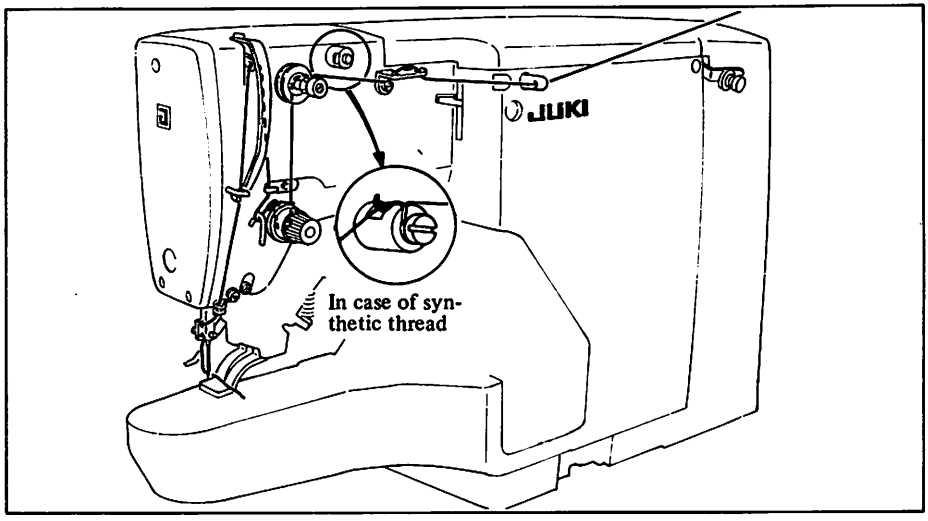


* If the machine does not start to operate even after the pedal has fully been trod, turn off the main switch, remove the belt cover, and rotate the knurled shaft ① neighbouring with the driving shaft fully in a direction shown in the illustration as far as it goes.

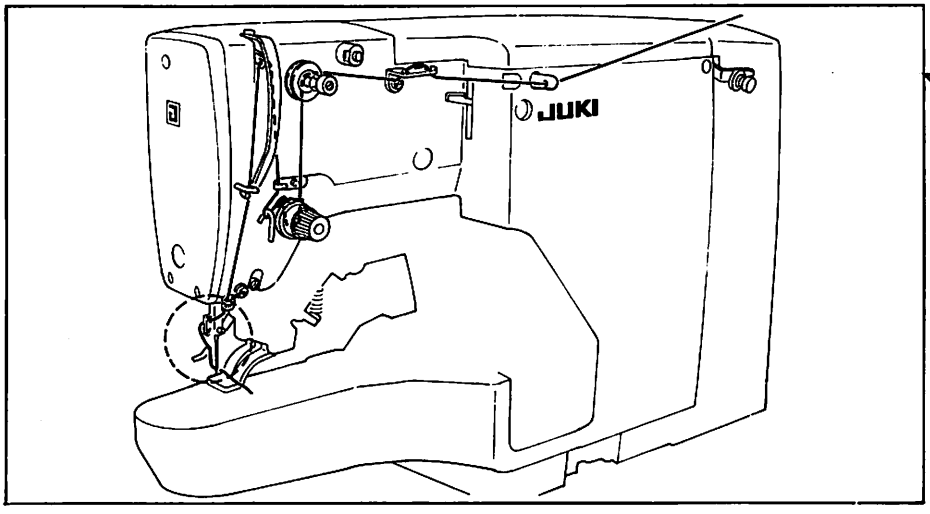
(Note)
When you manually rotate the handwheel, turn off the main switch first, disengage the upper end of the spring ② and rotate the driving pulley twice in the direction shown by arrow, and you will be able to turn the handwheel with your hand.

THREADING THE MACHINE

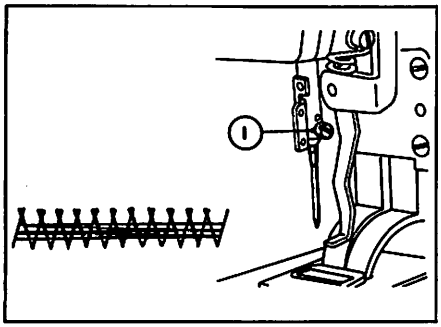
* Cotton thread
  Pass the needle thread in the order as shown in the illustration. After it is finally passed through the needle hole, pull it out for about 4cm(1-1/2") therefrom.
* Synthetic fiber thread
  Pass it additionally through the silicon lubricant thread guide.



* Thicker thread
  If a thicker thread is used, pass it through one of the thread holes of the needle bar thread guide.



NEEDLE



* How to attach the needle

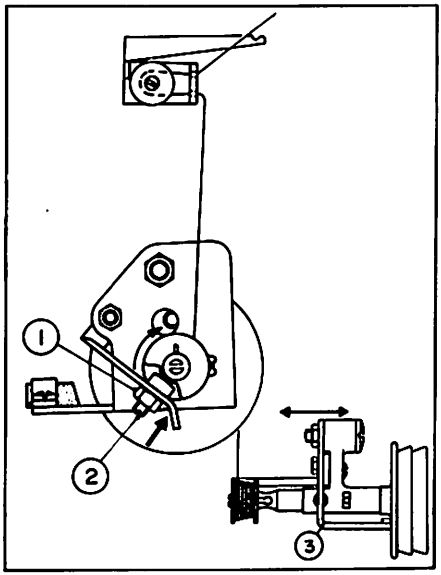
- DP x 5, No.16 is the standard needle for this machine. Insert the needle fully into the needle clamping hole on the needle bar by facing the long groove thereof towards you and clamp the needle with a screw.
- If the needle thread forms such faulty stitches as shown in the above illustration, it may be effective to solve them to turn the needle slightly to the left.
- When you are going to sew a synthetic fiber material with a synthetic fiber thread, attach a SUPER needle.

* Needles and material

Sewing-cloth	Needle	Needle hole guide	Made-up goods
Very light weight material	#11 (DP x 5)	D2426-282-C00	Knitted or tricot wears
Synthetic fiber material	#14 (DP x 5 SUPER needle)	B2426-280-000 (standard)	Men's and ladies' suits
Medium heavy weight material	#16 (DP x 5)	B2426-280-000 (standard)	Men's and ladies' suits
Heavy weight material	#18 (DP x 5)	B2426-280-000 (standard)	Working wears and overcoats

(Note) For sewing a very thick material like denim, a subclass machine LK-984-50 is available.

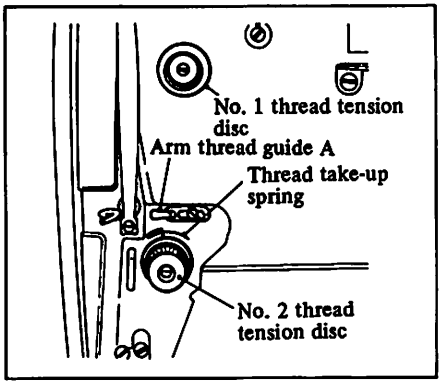
* Winding the bobbin thread

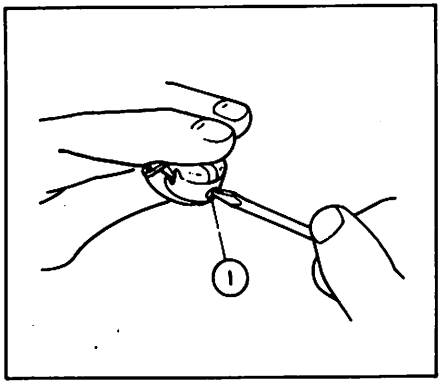


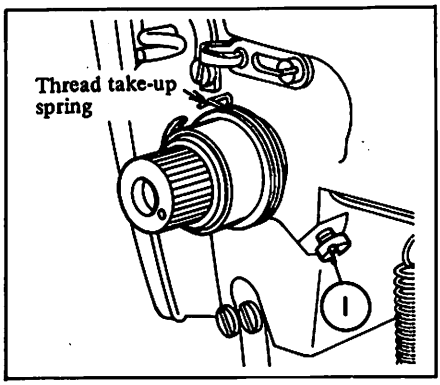
(1) Attach a bobbin to the bobbin winder spindle.
(2) Pass the thread as illustrated and wind it around the bobbin several turns in the direction shown by the arrow mark.
(3) Push the bobbin winder trip latch towards the bobbin, and the bobbin thread will start to wind. As soon as the bobbin is wound up, it will automatically stop.
(4) Normally the bobbin is wound about 80% of it's capacity.
(5) If the bobbin is wound too much, loosen the nut ① and turn the bobbin adjusting screw ② clockwise.
(6) If the thread is not wound evenly around the bobbin, adjust the position of the bobbin winder base ③.
(7) Do not forget to attach the belt cover to the machine before driving it. If you do not attach the belt cover, the belt will not be guided properly to the bobbin winder wheel and the mechanism may fail to wind the bobbin.

* Use genuine JUKI bobbin case and bobbin, or bobbin may idle or slip out of bobbin case.

THREAD TENSION







1. Needle thread tension

(1) Thread tension disc No. 1

- This is mainly used for adjusting the length of the thread left on the needle after trimming.
- The needle thread tension varies depending on its quality. Adjust the length of needle thread which is left on the needle after it is trimmed by turning the tension disc No. 1 so that the thread becomes as short as possible but does not slip out of the needle. (If you can not get a satisfactory result from this adjustment, try to adjust it with the tension disc No. 2 as described later.)

(2) Thread tension disc No. 2

- This disc No. 2 is used for adjusting the needle thread tension. Clockwise turn increases the tension.

2. Bobbin thread tension

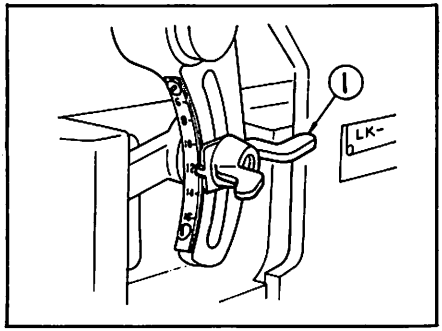
- Pull the bobbin thread through the hole on the bobbin case for about 2.5cm(1") and put the bobbin case into the shuttle race ring.
- The bobbin thread tension can be adjusted by turning the thread tension screw ①. Clockwise turn will increase the tension and counterclockwise turn will decrease it.

3. Thread take-up spring

The normal stroke of the thread take-up spring is 6 to 8mm(15/64 to 5/16") and the tension at the starting point is 30 to 50g.

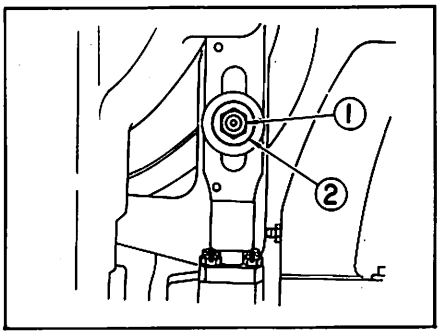
- To adjust the stroke, loosen the set screw ① and rotate the tension controller assembly to left or right.
- To adjust the tension, insert the blade of a small screw driver into the groove on the tension post and turn it clockwise to increase or counterclockwise to decrease the tension.
- Synthetic fiber thread may slip out of the needle, if the thread take-up spring has large stroke and high tension. In this case, you must lessen the tension of the spring.

ADJUSTING THE LENGTH OF BARTACKING



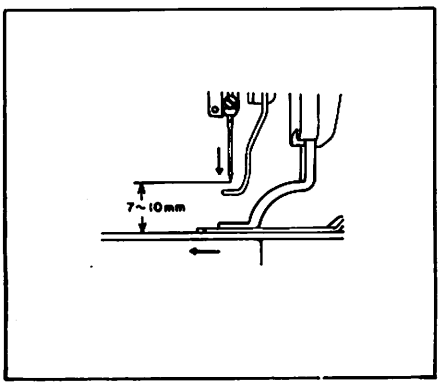
Loosen the wing nut ① to clamp the crosswise feed regulator and move it downwards for producing longer bartackings or upwards for shorter bartackings. Tighten the wing nut after adjustment.

ADJUSTING THE WIDTH OF BARTACKING



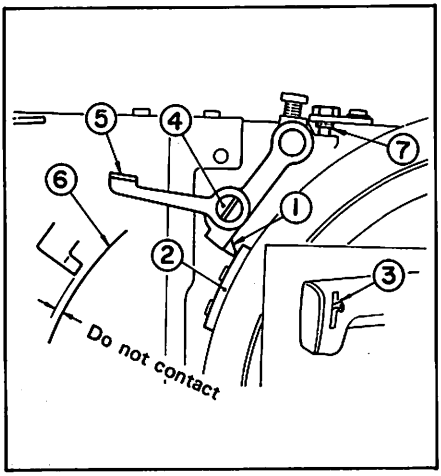
Loosen the lock nut ① on the feed regulator and turn the adjusting knob ② counterclockwise for producing wider bartackings or clockwise for narrow bartackings. Tighten the lock nut ① securely after adjustment.

ADJUSTING THE FEED TIMING



- A cloth feed motion must be completed when the needle has come down to the height of 7 to 10mm(9/32 to 25/64") above the top surface of the throat plate.
- Better thread tension is obtained as the said height is closer to 7mm(9/32").
- If loose stitch is formed with synthetic fiber thread, it is effective to solve this trouble by changing the said height closer to 10mm (25/64").

ADJUSTING THE TENSION RELEASE TIMING OF THE TENSION DISC No.2



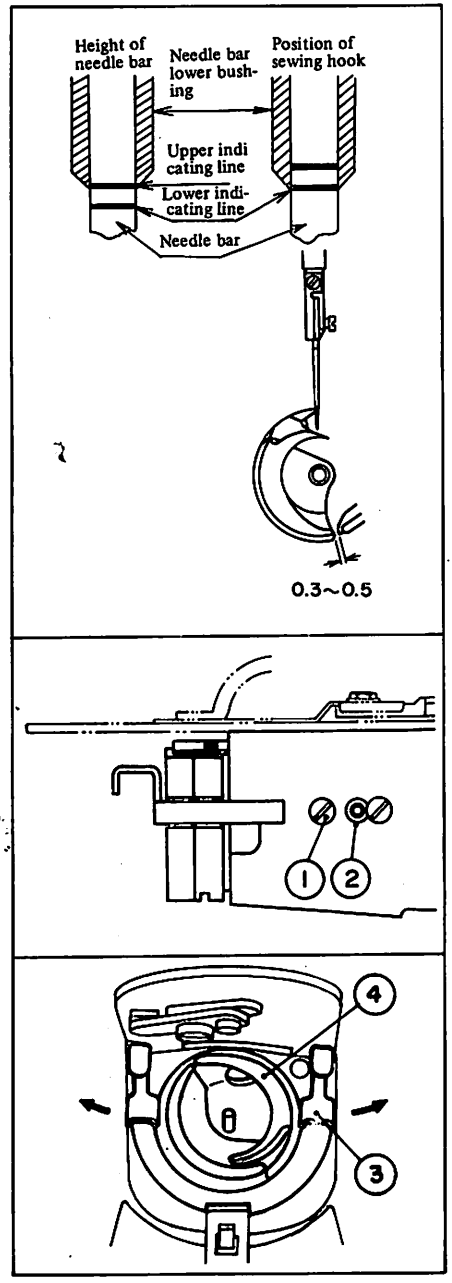
Needle thread	Tension release lever
Too long	Push it up
Length is not uniform	Push it up
Too short	Push it down
Thread is snapped on the way and jumps up	Push it down

(1) Position of the tension release latch tripping segment.
Adjust the position of the tension release latch tripping segment ② so that the pointed end of the tension release latch stays on top of ② at the time of stop motion.

(2) If the tension release timing at the tension disc No.2 is incorrect, the length of thread left on the needle after trimming may be too short or the thread may slip out of the needle at the start of bartacking. The vertical position of the tension release lever ⑤ must be properly adjusted by loosening the hinge screw ④ so that the tension disc No.2 is released at the moment when the top end of the thread take-up lever has gone up to coincide with the engraved mark ③ after completion of the last stitch of a bartacking.
Adjust the height of the tension release lever in the following way in order to obtain an ideal length of remaining thread at the needle after trimming;

* Adjust the position of the pointed end of the tension release latch ① by means of the adjusting screw ⑦ so that the said pointed end of ① is brought closer to but not into contact with the surface of feed cam ⑥ during running.

RELATION BETWEEN THE NEEDLE AND THE SHUTTLE



Adjust the positions of the needle and the shuttle in the following way; Switch off the machine, tread on the starting pedal and rotate the driving pulley manually until the needle bar comes down to its bottom dead point.

*** How to adjust the height of the needle bar**

(1) Loosen the needle bar clamp screw.
(2) Bring the upper marking line on the needle bar to the same level as that of the bottom surface of the needle bar lower bushing.
(3) Tighten the needle bar clamp screw.

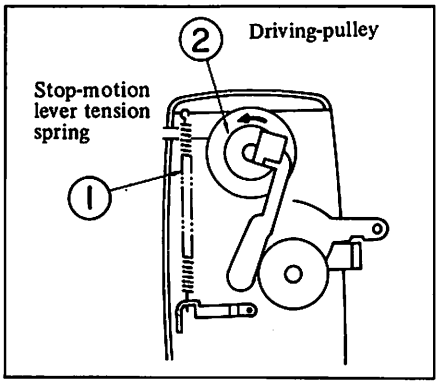
*** How to adjust the position of the shuttle**

(1) Rotate the driving pulley further until the lower marking line on the needle bar agrees to the bottom surface of the lower bushing.
(2) At this stage, loosen the shuttle driver clamp screw, adjust the position of the shuttle point so as to meet with the center line of the needle and tighten the clamp screw. No clearance must be left between the needle and the front edge of the said driver, because the front edge of the driver actuates to receive the needle and to prevent it from being bent.
(3) Loosen the shuttle race clamp screw ①.
(4) Adjust the longitudinal position of the shuttle race by turning the shuttle race adjusting shaft ② so that the clearance between the needle and the shuttle point becomes 0.05 to 0.1mm (0.00197 to 0.00394").
(5) Tighten the clamp screw ①.

*** How to take out the shuttle**

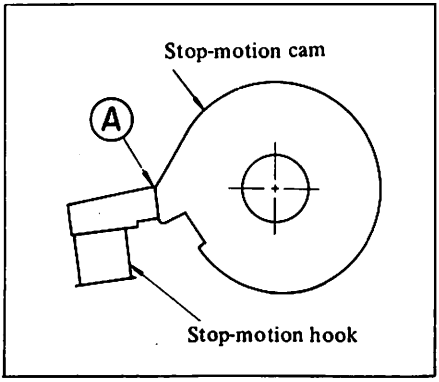
Disengage a pair of shuttle race latches ③ towards left and right respectively by pulling them towards you, and the shuttle race ring and shuttle are taken out from the positions. Do it carefully not to drop the shuttle on the floor.

ADJUSTING THE STOP-MOTION MECHANISM

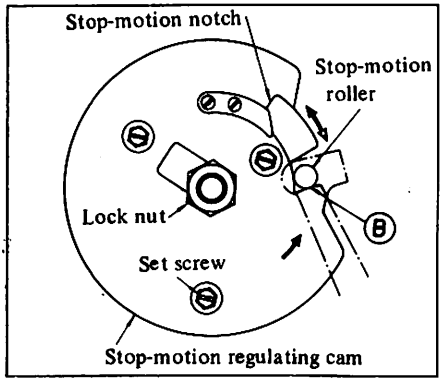


1. Stop-motion regulating cam

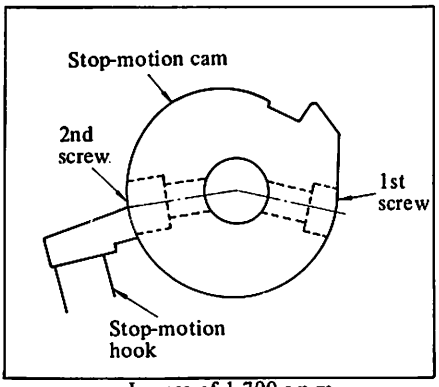
While the machine is operated by the hand-wheel, the safety device works to lock up the starting pedal. Disconnect the stop-motion lever tension spring ① from its anchor and lower the work clamp foot by rotating the driving pulley ② 2 to 3 turns in the normal direction.



Tread on the pedal for starting the machine so as to let "A" point of the stop-motion cam coincide with the top edge of the stop-motion hook.



By keeping this condition, turn the stop-motion regulating cam idly in the direction shown by the arrow in figure until the point "B" of the cam comes into contact with the stop-motion roller and fix the cam at this position with the cam set screw.



In case of 1,700 s.p.m.

1-1. Stop-motion notch

The timing to let the roller drop and rest in the stop-motion cam after the last stitch is sewn is determined by the position of the stop-motion notch.

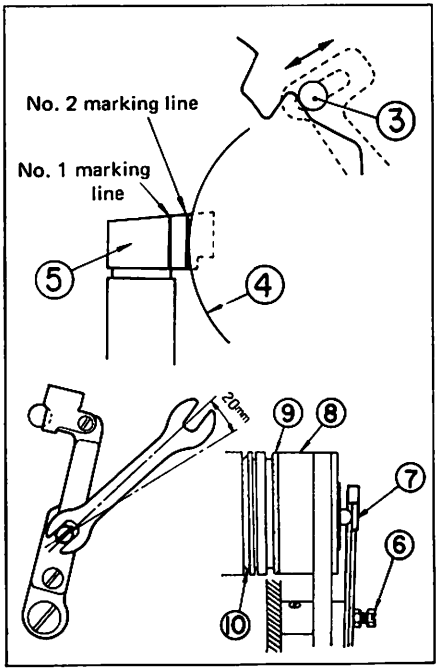
Provide the stop-motion notch with a proper position by moving it up or down, according to the sewing speeds as listed below, when the last stitch is sewn and the top edge of the stop-motion hook touches the stop-motion cam.

Position of the stop-motion hook

At 1,700 s.p.m.	Center of the 2nd screw.
At 2,000 s.p.m.	Between the 1st and the 2nd screws.
At 2,200 s.p.m.	Center of the 1st screw.

(Note)

The degree of stop-motion shock depends also on the position of the stop-motion notch. If the sewing machine carries an excessive rotational torque to reduce its sewing speed especially in a cold season, shift the notch position counterclockwise along the circumference to increase the counteraction.



2. Stop-motion frame

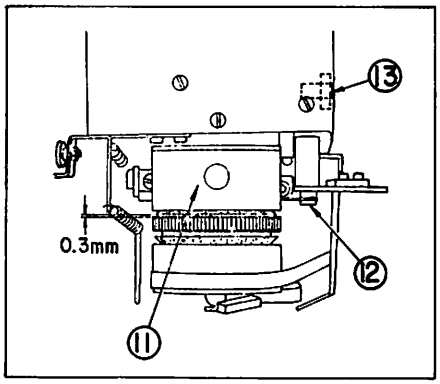
Adjust the position of the roller shaft ③ on the regulating cam so that the circumferential surface of the brake ring ④ and the 2nd marking line on the stop-motion hook ⑤ coincide with each other at the time of low-speed running.

3. Driving pulley pressing plate

At the moment when the 1st marking line on the stop-motion hook ⑤ coincides with the circumferential surface of the brake ring ④, the driving clutch must be engaged to drive the machine. Obtain such function by adjusting the position of the driving pulley pressing plate ⑦ by means of the adjusting screw ⑥. Use a spanner (9 x 10) in the accessory box for this adjustment. Tighten the nut in such a way as to turn the end of the spanner further 20 mm (25/32") after it has been properly tightened. Please note that, if the machine runs too fast, it will make much noise and if it runs too slow, it will make the starting pedal heavier.

(Note)

Ensure always that the slow speed cork ring ⑨ and brake cork ring ⑩ don't rotate during



operation of the driving pulley ⑧ while the machine is suspended. Readjust the screw ⑥ since it causes wearing accidents of the reduction gear if the slow speed cork ring ⑨ and brake cork ring ⑩ are rotating.

4. Brake ring stopper

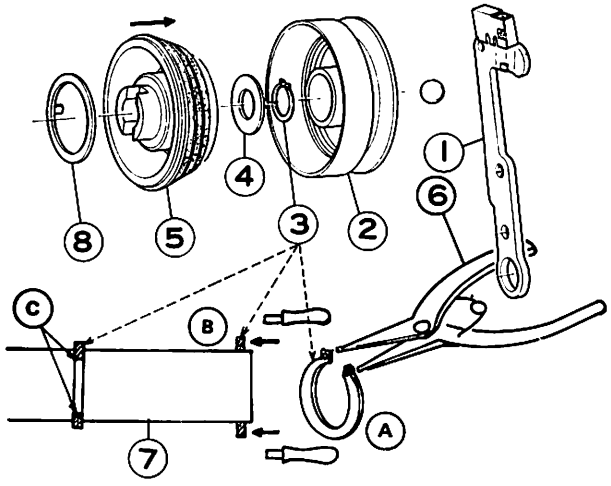
Adjust the brake ring stopper ⑬ so that the brake cylinder ⑪ moves in the arrow direction by 0.3mm when the machine starts to run.

Make sure that the screw ⑫ is firmly clamping the brake ring stopper ⑬.

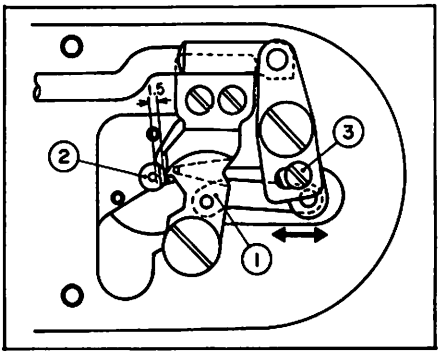
(Note)

For disassembly and assembly of the slow speed cork ring ⑤ to lubricate grease replace should be done in the following order:

1. Remove the driving pulley pressing plate ① and the driving pulley ② and remove the C ring ③ with the tool ⑥ and the slow speed cork ring ⑤ is removed.
2. Reinstall the previously used clutch spring bracket (small) ⑧ to the new slow speed cork ring after applying grease, give grease to the end surface of the main shaft thrust washer ④ and couple the slow speed cork ring and main shaft thrust washer with the main shaft.
3. Replace always the C ring ③ with new one and install it in the following way:
   1) Widen the C ring open enough to be inserted in the main shaft by means of a tool and place if from the position Ⓐ to Ⓑ. (If the C ring is widened too large be careful to avoid off-position of the C ring during operation of the machine).
   2) Push the C ring from position Ⓑ to the groove Ⓒ of the main shaft in the direction of arrow (←) by using 2 screw drivers.
   3) Asertain whether the C ring fits into the groove Ⓒ by pulling hard the slow speed cork ring ⑤ by hand towards the direction of arrow (→).

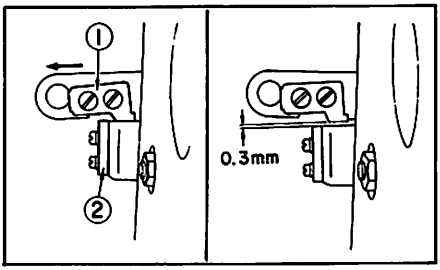


ADJUSTING THE THREAD TRIMMER



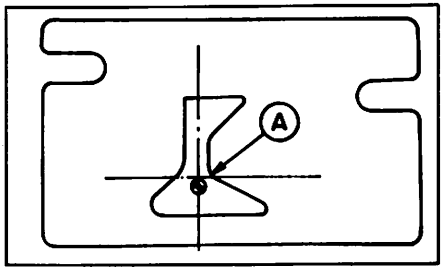
At the time of stop-motion, the clearance between the rear end of the moving knife ① and the edge of the needle hole located on the needle hole guide must be 1.5mm(1/16").
Loosen the screw ③ and adjust it by positioning the moving knife.

ADJUSTING THE SAFETY ADJUSTING PLATE



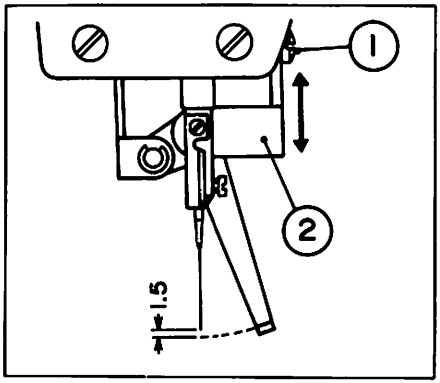
While the presser foot is raised at the time of stop motion, move the safety adjusting plate ① in the arrow direction until it comes in contact with the safety plate ② and also the clearance between them becomes 0.3mm (1/64") when the presser foot is brought down. Fix the safety adjusting plate at such a position.

POSITIONING THE SHUTTLE RACE SPRING



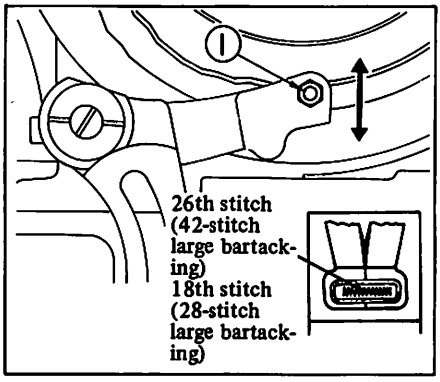
Lateral position:
The center line of the groove must coincide with the needle center.
Longitudinal position:
The corner Ⓐ must coincide with the rear end of the needle.

ADJUSTING THE POSITION OF THE WIPER



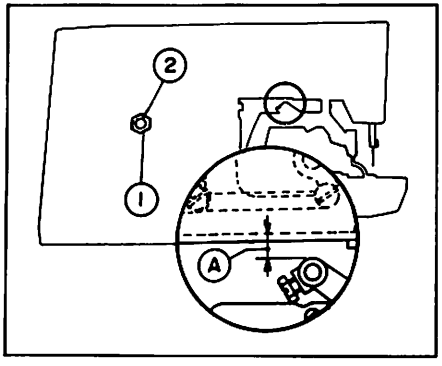
* When you adjust the height of the wiper, loosen the screw ① on the wiper installing plate and adjust the height of the wiper installing plate vertically along the adjustable screw hole.
* The clearance between the tip of wiper and that of the needle must be 1.5mm(1/16") when the wiper has swung down to the center of the needle.
  To check this clearance, rotate the knurled shaft (page.13) in the normal direction until the needle has come down to the bottom dead point at the time of stop-motion.
* During this adjustment, you must be careful not to allow it to hit either the work clamp foot or the needle.

ADJUSTING THE WORK CLAMP FOOT



* In case of the 42-stitch bartacking: the 26th stitch must be located on the center of the work clamp foot (on the joining line of left and right wings).
* In case of the 28-stitch bartacking; the 18th stitch must be located on the center of the work clamp foot (on the joining line of left and right wings)
* Adjust it by moving the roller shaft ① in the direction shown by arrow mark on the illustration.

ADJUSTING THE HEIGHT OF THE WORK CLAMP FOOT



The adjustment in the height of work clamp foot ranges from 6mm(15/64") to 15mm (19/32") depending on the thickness of materials.

ADDITIONAL LUBRICATION NEEDED FOR THE USE OF THICK COTTON THREADS

When a thicker thread than No.30 or No.20 are used, the lubrication to the shuttle race may be not enough to form well tightened stitches.
In such a case, we recommend you to lubricate the shuttle race manually 3 or 4 times a day in order to lessen the rotational load from the shuttle and to produce a better sewing condition.

WHEN USING SYNTHETIC THREADS OR SEWING THE SYNTHETIC MATERIALS

We advise you to operate the machine in the following way when you use synthetic threads or sew chemical or synthetic materials;

1) Replace the motor pulley with a special pulley for sewing synthetic materials. (Maximum sewing speed is 1,700 s.p.m.)
2) Use the silicon lubricant tank additionally.
   Refer to the paragraph under the "Threading the machine".
3) Use a SUPER needle for synthetic fiber thread.
4) Lessen the stroke from the thread take-up spring.

WORK CLAMP FOOT FOR THE KNITTED FABRICS

The following optional work clamp feet are available for bartacking on the very light weight materials, light weight materials or knitted fabrics;

Work clamp foot for the knitted fabrics (Right)	B2551-280-00B
Work clamp foot for the knitted fabrics (Left)	B2552-280-00B
Feed plate for the knitted fabrics	B2519-280-00B

TROUBLES AND THEIR CORRECTIONS

No. Troubles	Causes	Corrections
1. Needle thread slips out at the start of sewing.	1. Some stitches are skipped at the start of stitching.	Adjust the clearance between the needle and the shuttle to 0.05mm to 0.1mm (0.00197" to 0.039").
	2. Needle thread is left too short on the needle after a thread trimming.	Refer to "Needle thread tension" and "Adjusting the tension release timing of the tension disc No.2".
	3. Bobbin thread is too short.	Lessen the bobbin thread tension. Increase the clearance between the counter knife and the needle hole guide.
	4. Material is rippled.	Refer to "Work clamp foot for the knitted fabrics".
	5. Tension disc No.1 has too high tension.	Increase the stroke of the thread take-up spring or decrease the tension from the tension disc No.1.
2. Thread is snapped very often or synthetic thread is ravelling.	1. Shuttle or shuttle driver spring has scratched on it's surface.	Polish those surfaces by means of oil stones or buffs.
	2. Shuttle race spring has a scratch on the surface.	Remove such scratch by buffing or replace it.
	3. Needle hole guide is bruised.	Polish it up with buffs, or replace it.
	4. Needle hits the work clamp foot.	Refer to "Adjusting the work clamp foot".
	5. Fibrous dust stays in the groove of shuttle race.	Take out the shuttle and remove any dust from the shuttle race.
	6. Clearance between the shuttle driver and the shuttle is too small.	Bend the shuttle driver so as to make the clearance to 0.3 to 0.5mm(1/64" to 1/32")
	7. Thread take-up stroke is too small.	Move the arm thread guide A to the left. Refer to "Needle thread tension."
	8. Stroke of the thread take-up spring is too big.	Lessen the stroke.
3. Synthetic thread is broken or forms loose stitches at the start of sewing.	1. Due to the heat of friction.	Refer to "when sewing synthetic materials or using synthetic threads."
	2. Timing of feed is not correct.	Refer to "Adjusting the feed timing."

No. Troubles	Causes	Corrections
4. Needle is broken frequently.	1. Needle is not straight.	Replace the needle.
	2. Needle hits the work clamp foot.	Refer to "Adjusting the work clamp foot.
	3. Timing of feed is not correct.	Refer to "Adjusting the feed timing".
	4. Wiper hooks the needle.	Adjust the height of wiper.
	5. Needle is too fine.	Select a suitable needle according to the type of material.
	6. Position of the shuttle driver is not correct.	Refer to "Motions of the needle and the shuttle".
5. Threads are not trimmed.	1. Height of the counter knife is not correct.	Raise the blade edge of counter knife by 0.5mm(0.0197") from the installation level.
	2. Blade of counter knife is not sharp.	Sharpen the knife.
	3. Difference of level between the needle hole guide and the counter knife is not enough.	Adjust it to 0.1 to 0.15mm(0.0039" to 0.0059")
	4. Position of the moving knife is not correct.	Refer to "Adjusting the thread trimmer."
	5. Position of the shuttle race spring is not correct.	Refer to "positioning the shuttle race spring".
	6. The last stitch skips.	Refer to "motions of the needle and the shuttle race."
Thread trimming length is not adequate.	1. Tension release timing of tension disc No.2 is not correct.	Refer to "Adjusting the tension release timing of the tension disc No.2".
6. Stitches skip very often.	1. Motions of the needle and the shuttle are not properly synchronized.	Refer to "Relation between of the needle and the shuttle race."
	2. Clearance between the needle and the shuttle is too much.	Refer to the above.
	3. Timing of feed is not correct.	Refer to "Adjusting the feed timing."

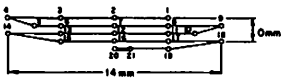
No. Troubles	Causes	Correction
	4. Needle is not straight.	Replace the needle.
	5. Material is rippled.	Refer to "Work clamp foot for the knitted fabric."
	6. Bobbin thread is too tight.	Lessen the bobbin thread tension. Keep the counter knife away from the mating surface of the needle hole guide.
7. Needle thread comes out of the bottom surface of the material.	1. Needle thread tension is not enough.	Adjust the tension of the needle thread.
	2. Tension release mechanism is out of function.	Verify if the tension release mechanism is working during operation.
	3. Thread length after trimming is too long.	Refer to "Adjusting the tension release timing of the tension disc No.2".
8. Work clamp foot does not go up.	1. Position of the stop-motion is not correct.	Try to idle it once.
	2. The force of inertia is not enough.	Move the stop-motion regulating cam slightly to it's rotational direction.
	3. Safety adjusting plate is positioned incorrectly.	Refer to "Adjusting the safety adjusting plate".
	4. Motor is running in the reverse direction.	Correct it. (normal direction is shown by arrow mark on the pulley.)
	5. Motor does not run.	Motor must keep running continuously.
9. Machine does not start.	1. The force of inertia is not enough.	Move the stop-motion regulating cam slightly to it's rotational direction.
	2. Clutch slips at the high speed operation.	Refer to "Driving pulley pressing plate".
	3. Starting pedal is trod too early.	Starting pedal must be trod after the work clamp foot has come down to it's position.
	4. Position of the safety adjusting plate is not correct.	Refer to "Adjusting the safety adjusting plate".
	5. Position of the stop-motion hook is not correct.	Refer to "Adjusting the stop-motion mechanism."
	6. Push down slide plate does not return smoothly.	Correct it.

No. Troubles	Causes	Correction
10. Stop-motion makes too much noise.	1. The force of inertia is too great.	Move the stop-motion regulating cam slightly in it's reverse direction of rotation.
	2. Driving belt is too tight.	Adjust the position of the motor so that the driving belt has proper tightness. (The belt sags at the center for about 10mm(13/32") when you hold them with your two fingers.)

BAND-LOOP ATTACHING MACHINES

These machines are specially designed for attaching band-loops to men's trousers, working trousers, jean pants etc. but it can be practically used also for attaching various cords, labels and for producing seams similar to bartacking.

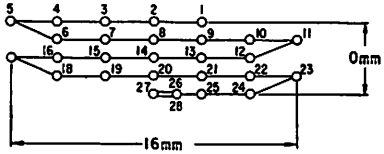
LK-984-10 (21 stitches)



Max. sewing size : 14mm(35/64")
Standard sewing size : 14mm(35/64")
Min. sewing size : 6mm(15/64")

In order to attach the band-loops firmly, this model is designed to form more stitches on the both ends of a loop than the central part thereof.

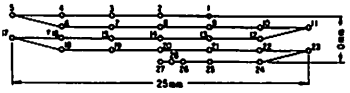
LK-982-20 (28 stitches)



Max. sewing size : 16mm(5/8")
Standard sewing size : 14mm(35/64")
Min. sewing size : 7mm(9/32")

To reinforce the band-loops, this model forms more stitches evenly than that of other model and also is capable of attaching wider loops for jean pants ski'ing pants etc.
The following parts are to be used for sewing a size of 14 to 16mm(35/64 to 5/8").
D2519-L2A-F00 Feed plate
D2551-L2A-F00 Work clamp foot

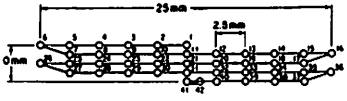
LK-982-30 (28 stitches)



Max. sewing size : 25mm(63/64")
Standard sewing size : 25mm(63/64")
Min. sewing size : 13mm(33/64")

This model is used for sewing longer stitches than that of model LK-982-20.

LK-984-40 (42 stitches)



Max. sewing size : 35mm(1-3/8")
Standard sewing size : 25mm(63/64")
Min. sewing size : 18mm(45/64")

This model is used for attaching larger band-loops securely.
The following parts are to be used for sewing a size of 25 to 35mm(63/64 to 1-3/8")

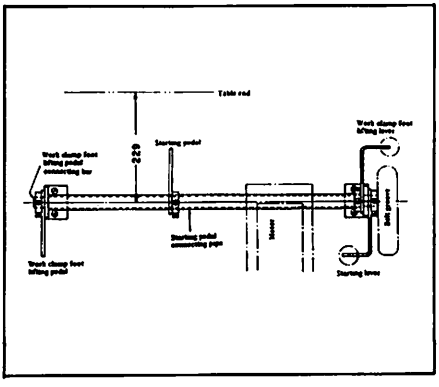
D2519-L4A-R00	Feed plate
D2551-L4A-R00	Work clamp foot

* In addition to the above 4 models for band-loop attaching machines, the following models, of which the work clamp foot is operated with the pedal system, are also available;

LK-984P-10	LK-982P-30
LK-982P-20	LK-984P-40

* Needles
Use DP x 5 No.14 to No.16 needles for such soft materials as men's trousers and knitted fabrics and DP x 5 No.18 to No.21 needles for jean pants and working wears etc. For sewing synthetic materials with synthetic threads, we recommend you to make use of the SUPER needles and also silicon lubricant for efficient sewing works.

* Dimensions of the table
Refer to the separate demensional drawing of table for setting up the machine head thereon.

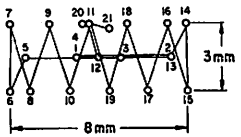


* Notes for installation
The band-loop attaching machine is operated from the side of the machine head. Apply the attached pedal connecting rod, and you will operate the machine more easily.

KNIT GOODS BARTACKING MACHINES

These machines are designed to be used for forming bartackings on the knitted materials, but they are also capable of producing fine and stable bartacking on light weight materials.

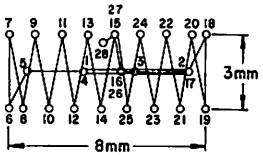
LK-984-6 (21 stitches)



Max. sewing size : 3 x 8mm(1/8 x 5/16")
Standard sewing size : 2 x 6.5mm(5/64 x 1/4")
Min. sewing size : 1.3 x 4mm(3/64 x 5/32")

Time saving bartacking with coarse stitches.

LK-982-3 (28 stitches)



Max. sewing size : 3 x 8mm(1/8 x 5/16")
Standard sewing size : 2 x 6.5mm(5/64 x 1/4")
Min. sewing size : 1.3 x 4mm(3/64 x 5/32")

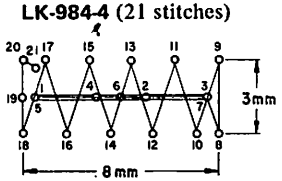
Fine and smooth bartacking is formed with lengthwise stitches.

* Needles
Use DP x 5, No.11 needles.

BUTTONHOLE BARTACKING MACHINES

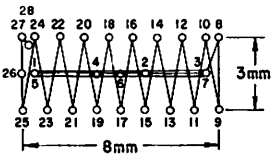
These machines are designed for bartacking the tail of eyelet buttonholes of men's suits, overcoats, raincoats, etc. In order not only to reinforce the physical strength of the buttonholes but to increase visual effect, these models employ a special system to start to bartack either from the gathered end or the side of the buttonhole automatically so that the buttonhole is steadily kept closed. The gathered width can be adjusted between the range of 0 to 4mm(0 to 5/32").

LK-984-4 (21 stitches)



Max. sewing size : 3 x 8mm(1/8 x 5/16")
Standard sewing size : 2.5 x 8mm(3/32 x 5/16")
Min. sewing size : 1.3 x 4mm(3/64 x 5/32")
Stitch is coarse, but bartacking is efficiently formed within a short time.

LK-982-1 (28 stitches)



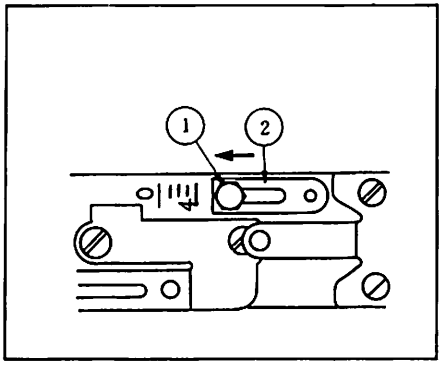
Max. sewing size : 3 x 8mm(1/8 x 9/32")
Standard sewing size : 2.5 x 8mm(3/32 x 5/16")
Min. sewing size : 1.3 x 4mm(3/64 x 5/32")
This bartacking consists of many lengthwise stitches and forms smooth and fine seams.

In addition to the standard buttonhole bartacking machines equipped with the single pedal system, the following models which has 2 pedals to control the work clamp foot, are also available;

LK-984P-4 **LK-982P-1**

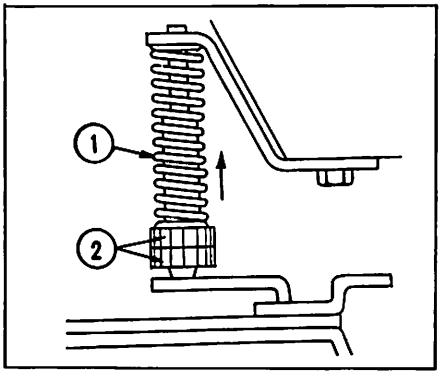
1. Procedure for operation

1) Place the eyelet buttonhole part under the work clamp foot, bring the work clamp foot down and match the buttonhole exactly with the center part of the work clamp foot.
2) After the position of the first stitch was determined, tread on the starting pedal. Then, the work clamp foot will be automatically closed together the slit of the buttonhole and the machine will start to run.
3) The machine will be automatically stopped after a sewing cycle has been performed.



2. Adjusting the opening of work clamp foot

When you want to lessen the gathering width of the work clamp foot depending on the size of buttonholes, loosen the hinge screw ① and move the work clamp foot regulator ② to the direction shown by the arrow mark.
On the other hand, if you want to increase the gathering width, move the work clamp foot regulator ② to the reverse direction.
As this regulator assembly is repeatedly exposed to the operating vibration, you must securely tighten the hinge screw.

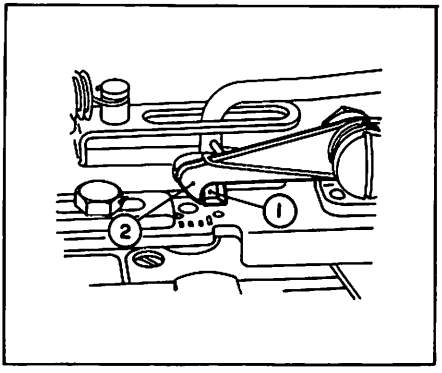


3. Adjusting the pressing force of the work clamp foot

If the pressing force of the work clamp foot is not enough to prevent the material from slipping out of the position, take out the pressure spring ① regulating shaft from it's position by pushing upwards and move ② regulating nuts ② slightly upwards as shown by the arrow mark.

4. Detaching the work clamp foot

When you take out the work clamp foot remove the pressure spring by pushing upward, pull out the block shaft which is fixed by a snap ring, remove the cotter pin of the work clamp foot connecting rod, and you can detach the work clamp foot assembly.



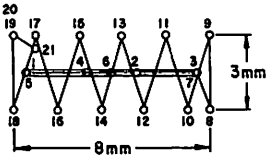
5. Adjusting the work clamp foot connecting rod

When the work clamp foot has come to the nearest position to you, loosen the screw which sets the stop-motion frame connecting plate and adjust the said plate so that the work clamp foot driver lever stationing latch ② and the hook of the work clamp foot bearing backet ① are engaged with each other.

SMALL BARTACKING MACHINES

This machine is suitable to produce bartackings on mens' suits, overcoats etc. where fine appearance is required.

LK-984-11 (21 stitches)

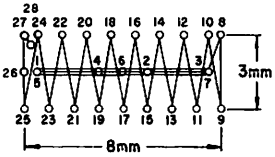


Max. sewing size : 3 x 8mm(1/8 x 5/16")
Standard sewing size : 2.5 x 8mm(3/32 x 5/16")
Min. sewing size : 1.5 x 4mm(1/16 x 5/32")

For making small bartacking on various goods.

* Needles : DP x 5, No.16

LK-982-2 (28 stitches)



Max. sewing size : 3 x 8mm(1/8 x 5/16")
Standard sewing size : 2.5 x 8mm(3/32 x 5/16")
Min. sewing size : 1.5 x 4mm(1/16 x 5/32")

For making smooth and fine bartacking.

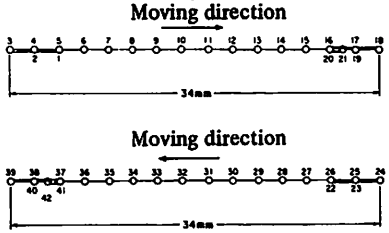
* Needles : DP x 1 or 5, No.16

OTHER SUBCLASSES

Many other subclass machines are involved in LK-980 series depending on their sewing shapes and have been practically used by our customers for labour saving purposes. We are not in a position to introduce all those models in this instruction book. Therefore, please do not hesitate to inquire us about your specific applications which you can not find herein.

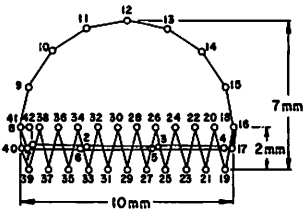
Two examples are shown below;

LK-984-8 (21 stitches)
Label sewing machine



Max. sewing size : 0 x 34mm
(0 x 1-11/32")
Standard sewing size : 0 x 34mm
(0 x 1-11/32")
Min. sewing size : 0 x 24mm(0 x 15/16")
Needles : DP x 5, No.14
Applications : sewing various kinds of labels, etc.

LK-984-12 (42 stitches)
Crescent shape sewing machine



Standard sewing size : 7 x 10mm
(9/32 x 25/64")
Needles : DP x 5, No.11
Applications : attaching cords and straps to ladies' under garment.

M E M O

TOKYO JUKI

TOKYO JUKI INDUSTRIAL CO., LTD.
Head Office & Plant: 2-1, 8-chome, Kokuryo-cho, Chofu-shi, Tokyo, Japan
Business Office: 23-3, Kabuki-cho 1-chome, Shinjuku-ku, Tokyo 160, Japan

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