

Congratulations on your purchase of a JUKI sewing machine.

Please read this Instruction Manual carefully before using the unit in order to get the most out of it and to enjoy using it for a long time.

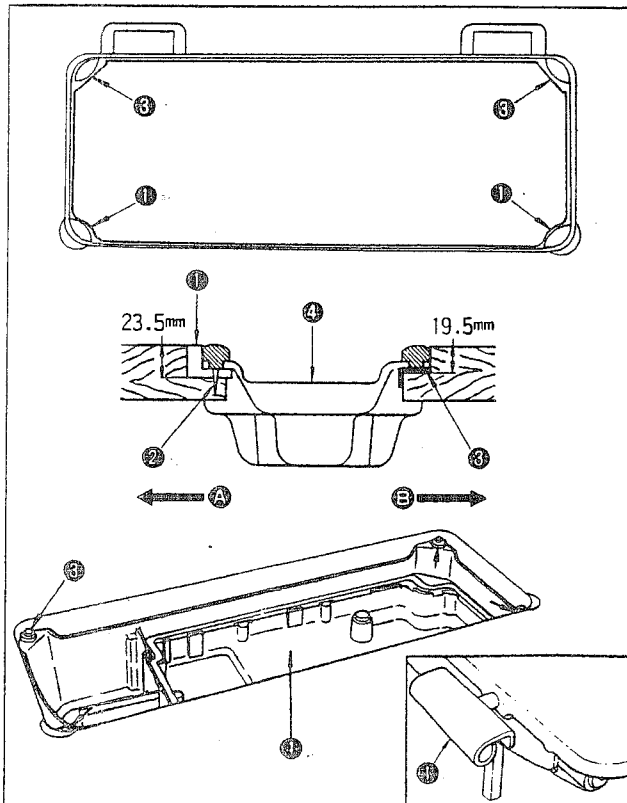
## BEFORE OPERATION

1. Never operate the machine unless its oil pan has been filled with oil.
2. After setting up the machine, check the direction of motor rotation. To check it, turn the handwheel by hand to bring the needle down, and turn the power switch ON while observing the handwheel. (The handwheel should turn counterclockwise as observed from the handwheel side.)
3. Do not use a larger motor pulley until one month has passed after the unit has been installed.
4. During the same one-month period, do not increase the sewing speed. Set the sewing speed of the DLM-5200 to 4,000 s.p.m. and that for the DLM-5210 to 3,500 s.p.m.
5. Confirm that the voltage and phase (single- or 3-phase) are correct by checking them against the ratings shown on the motor nameplate.

## OPERATION PRECAUTIONS

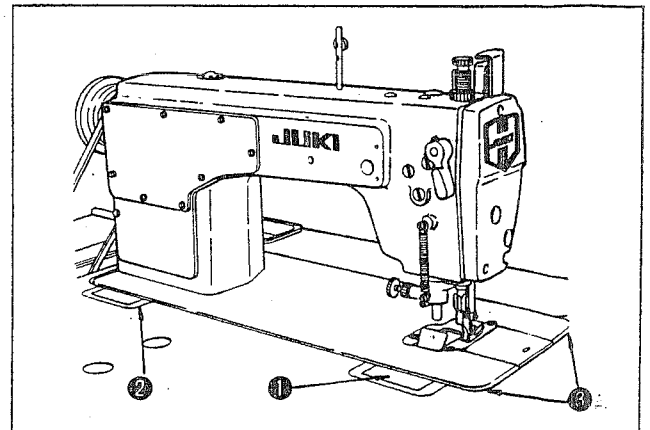
1. Keep your hands away from the needle when you turn the power switch ON or while the machine is operating.
2. Do not put your fingers into the thread take-up cover while the machine is operating.
3. Be sure to turn the power switch OFF before tilting the machine head or removing the V belt.
4. When an operator leaves from the machine, make sure to turn off the power.
5. During operation, be careful not to allow your or any other person's head or hands to come close to the handwheel, V belt, bobbin winder or motor. Also, do not place anything close to them. Doing so may be dangerous.
6. If your machine is provided with a belt cover, finger guard or any other protectors, do not operate your machine with any of them removed.
7. This incorporates the cloth cutting knife. Be sure not to place your fingers near the knife.
8. Before adjusting the cloth cutting knife, be sure to turn OFF the power switch first.

## 1. INSTALLATION

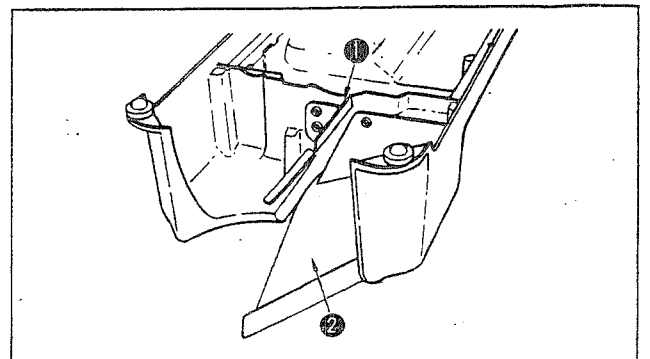


### 1. Installing the oil pan

- 1) The oil pan should rest on the four corners of the machine table groove.
- 2) Fix two rubber seats (2) on side (A) (operator's side) using nails (2) as illustrated above. Fix two cushion seats (3) on side (B) (hinged side) using a rubber-based adhesive. Then place oil pan (1) on the fixed seats.



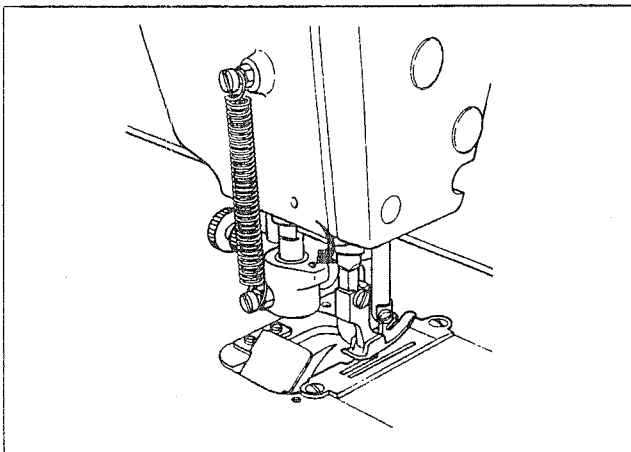
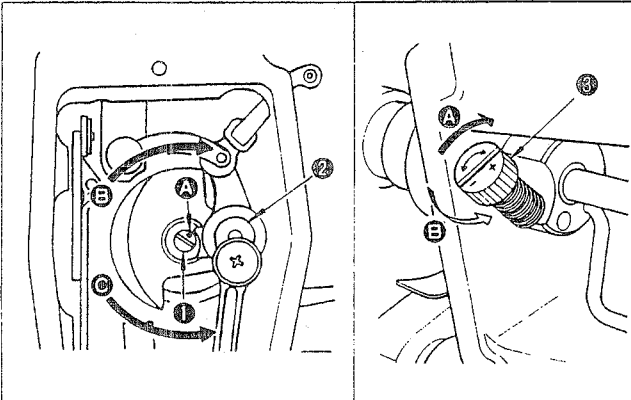
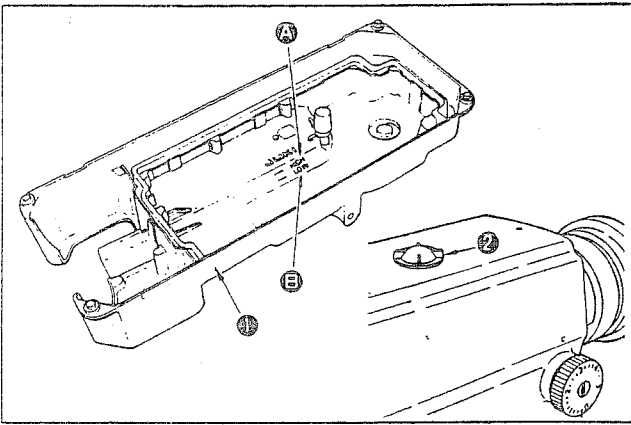
- 1) Fit hinge (1) into the opening in the machine bed, and fit the machine head to table rubber hinge (2) before placing the machine head on cushions (3) on the four corners.



### ● Drainage guide (only for the DLM-5210)

Install drainage guide (1) and waste cloth shoot (2) on the oil pan.

## 2. LUBRICATION



### 1. Information on lubrication

- 1) Fill oil pan ① with JUKI New Defrix Oil No. 1 up to HIGH mark ②.
- 2) When the oil level lowers below LOW mark ③, refill the oil pan with the specified oil.
- 3) When you operate the machine after lubrication, you will see splashing oil through oil sight window ④ if the lubrication is adequate.
- 4) Note that the amount of the splashing oil is unrelated to the amount of the lubricating oil.

(Precaution) When you first operate your machine after setup or after an extended period of disuse, run your machine at 3,000 s.p.m. to 3,500 s.p.m. for about 10 minutes for the purpose of break-in.

### 2. Adjusting the amount of oil supplied to the face plate parts

- 1) Adjust the amount of oil supplied to the thread take-up and needle bar crank ② by turning adjust pin ①.
- 2) The minimum amount of oil is reached when marker dot ④ is brought close to needle bar crank ② by turning the adjust pin in direction ⑤.
- 3) The maximum amount of oil is reached when marker dot ④ is brought to the position just opposite from the needle bar crank by turning the adjust pin in direction ⑥.

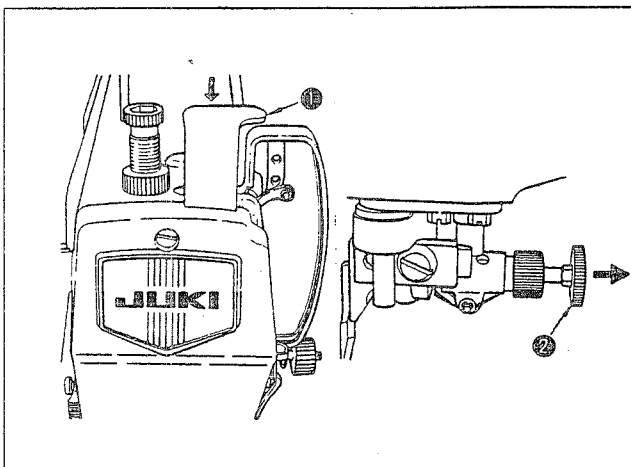
### 3. Adjusting the amount of oil supplied to the hook

- 1) More oil is supplied as oil amount adjust screw ③ mounted on the hook driving shaft is turned toward ④ in direction ⑤.
- 2) As the oil amount adjust screw ③ is turned toward ④ in direction ⑥, the amount of oil supplied will be decreased.

### 3. Lubricating the knife components

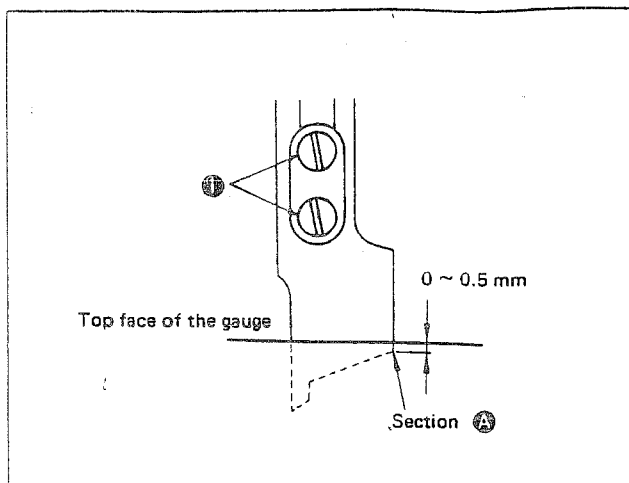
If the unit has not been used for a long period of time, be sure to lubricate the point marked by an arrow with one or two drops of oil.

## 3. CLOTH CUTTING KNIFE



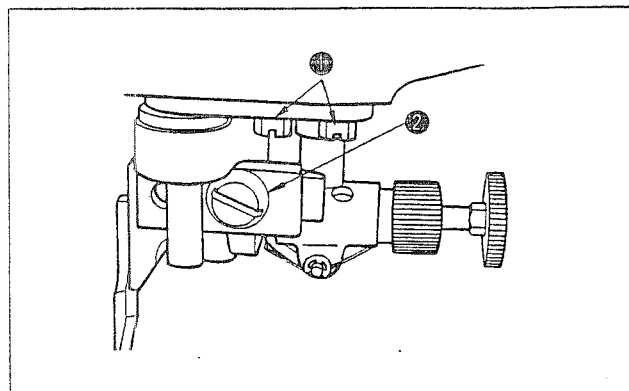
### 1. Operation of the cloth cutting knife

- 1) To actuate the cloth cutting knife, press down knife setting plate ①. The cloth cutting knife will be lowered, and will then be actuated while the machine is being driven.
- 2) To stop the cloth cutting knife and reset the machine to the normal lockstitching mode, pull knob ② in the direction of the arrow.
- 3) Before installing/removing the cloth cutting knife, be sure to stop the machine first.



## 2. Attaching the cloth cutting knife

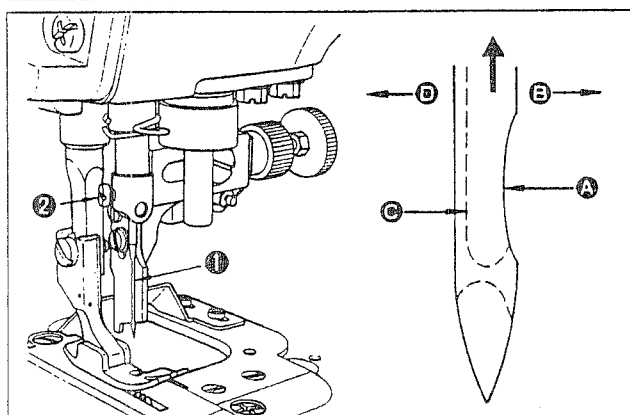
- 1) Raise or lower the cloth cutting knife so that section A-A of the cloth cutting knife is positioned 0 to 0.5 mm below the top face of the gauge when the knife is in its lowest position.
- 2) Loosen two knife setscrews (1), and replace the cloth cutting knife.



## 3. Changing the cutting width

- 1) The gauge decides the cutting width. When the gauge is replaced, loosen knife guiding shaft setscrew (1) so that proper parallelism is obtained and the sharpness of the knife blade is increased as shown in the figure.
- 2) When the position of the knife is changed in accordance with the change of the gauge size, loosen setscrew (2), and position the knife so that the blade of the lower gauge comes in contact with the knife blade. Then tighten setscrew (2).
- 3) For the standard machine, a 3.2 mm wide gauge is installed at the time of delivery. To change the gauge width, refer to the table ("19. Gauges" on page 8).

## 4. ATTACHING THE NEEDLE

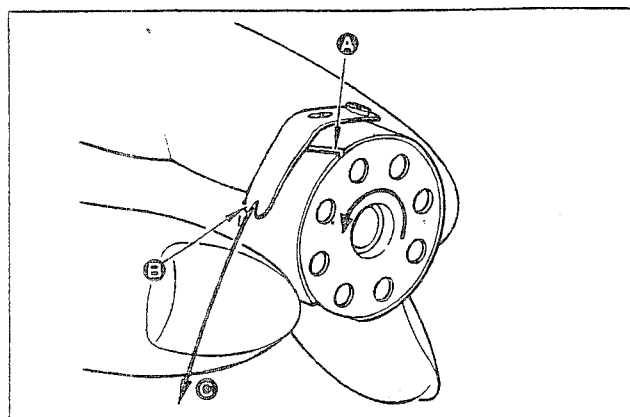


- Turn the motor power OFF before starting to attach the needle.

Follow the procedure described below to attach the needle, after confirming that the motor has come to a complete stop. A needle of DB x 1 should be used. Select a proper needle size according to the count of thread and the type of material used.

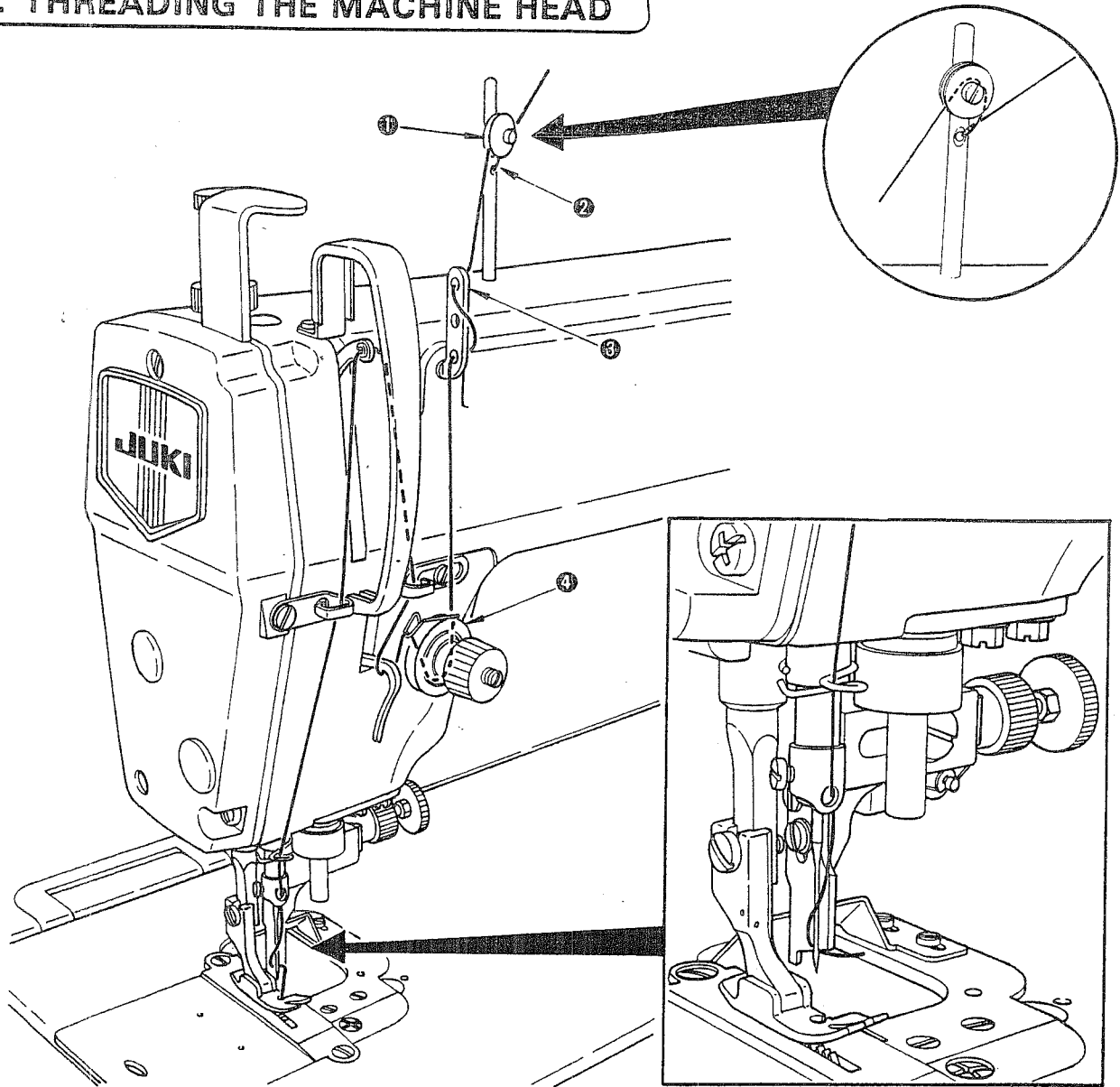
- 1) Turn the handwheel until the needle bar reaches the highest point of its stroke.
- 2) Loosen screw (2), and hold needle (1) with its indented part (A) facing exactly to the right in direction (E).
- 3) Insert the needle in the direction of the arrow until it will go no further.
- 4) Securely tighten screw (2).
- 5) Check that long groove (C) of the needle is facing exactly to the left in direction (D).

## 5. SETTING THE BOBBIN INTO THE BOBBIN CASE

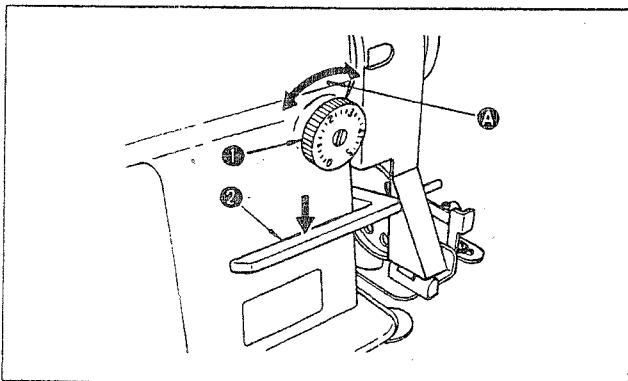


- 1) Hold the bobbin in a way that the thread open end is directed to the left as observed from you, and set the bobbin into the bobbin case.
- 2) Pass the thread through thread slit (A), and pull the thread in direction (E). By so doing, the thread will pass under the tension spring and come out from notch (C).
- 3) Check that the bobbin rotates in the direction of the arrow when thread (E) is pulled.

## 6. THREADING THE MACHINE HEAD

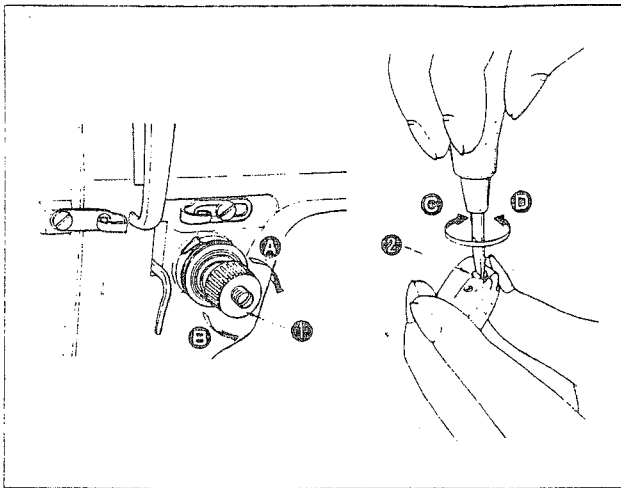


## 7. ADJUSTING THE STITCH LENGTH



- 1) Turn stitch length dial (1) in the direction of the arrow, and align the desired number to marker dot (A) on the machine arm.
- 2) The dial calibration is in millimeters.
- 3) When you want to decrease the stitch length, turn stitch length dial (1) while pressing feed lever (2) in the direction of the arrow.

## 8. THREAD TENSION



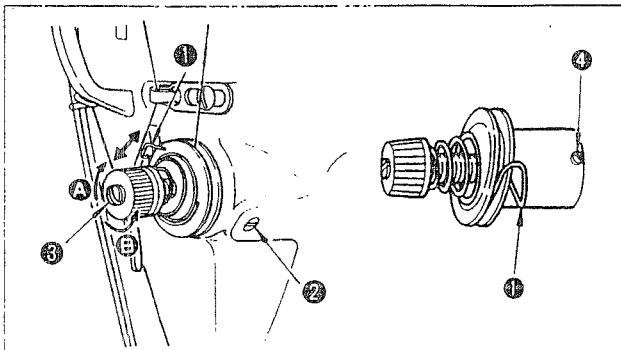
### 1. Adjusting the needle thread tension

- 1) Adjust the thread tension according to the sewing specifications using tension adjusting nut (A).
- 2) Turning the nut clockwise (A) will increase the thread tension.
- 3) Turning the nut counterclockwise (E) will decrease the thread tension.

### 2. Adjusting the bobbin thread tension

- 1) As you turn tension adjust screw (2) clockwise (in direction (C)), the bobbin thread tension will be increased.
- 2) As you turn screw (3) counterclockwise (in direction (D)), the bobbin thread tension will be decreased.

## 9. THREAD TAKE-UP SPRING



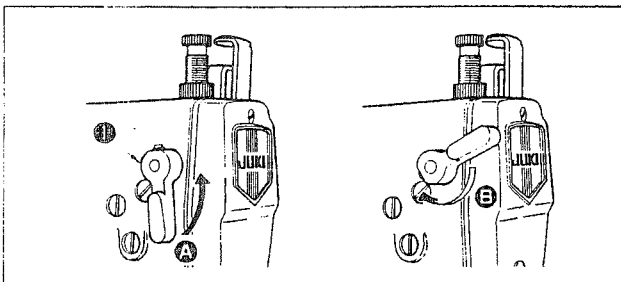
### 1. Changing the stroke of thread take-up spring (1)

- 1) Loosen setscrew (2).
- 2) As you turn tension post (3) clockwise (in direction (A)), the stroke of the thread take-up spring will be increased.
- 3) As you turn the knob counterclockwise (in direction (E)), the stroke will be decreased.

### 2. Changing the pressure of thread take-up spring (1)

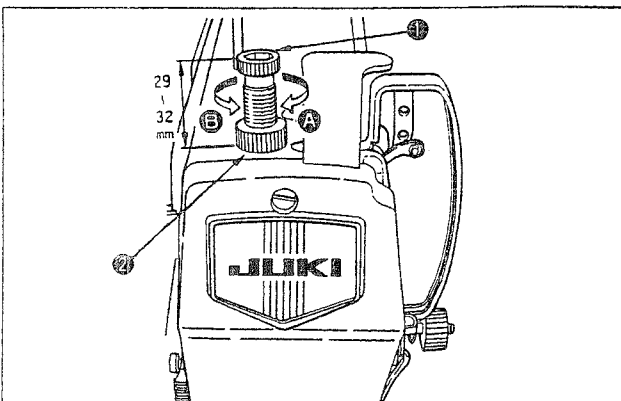
- 1) Loosen setscrew (2), and remove tension post (3).
- 2) Loosen setscrew (4).
- 3) As you turn tension post (3) clockwise (in direction (A)), the pressure will be increased.
- 4) As you turn the post counterclockwise (in direction (E)), the pressure will be decreased.

## 10. HAND LIFTER



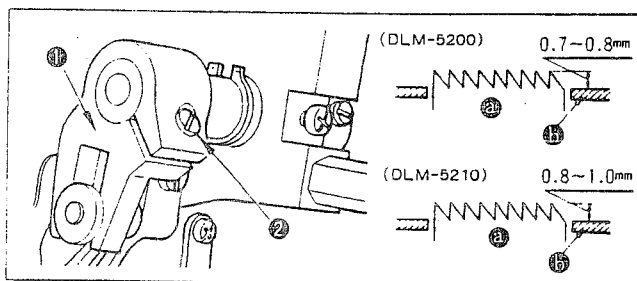
- 1) To stop the machine with its presser foot up, turn hand lifter (1) in direction (A).
- 2) The presser foot will go up about 4 mm and stop.
- 3) The presser foot will go back to its original position when hand lifter is turned down in direction (E).
- 4) Using the knee lifter, you can get the standard presser foot lift of about 10 mm and the maximum lift of about 13 mm.

## 11. PRESSER FOOT PRESSURE



- 1) Loosen nut (2). As you turn presser spring regulator (1) clockwise (in direction (A)), the presser foot pressure will be increased.
- 2) As you turn the presser spring regulator counterclockwise (in direction (E)), the pressure will be decreased.
- 3) After adjustment, tighten nut (2).
- 4) For general fabrics, the standard height of the presser spring regulator is 29 to 32 mm (5 kg).

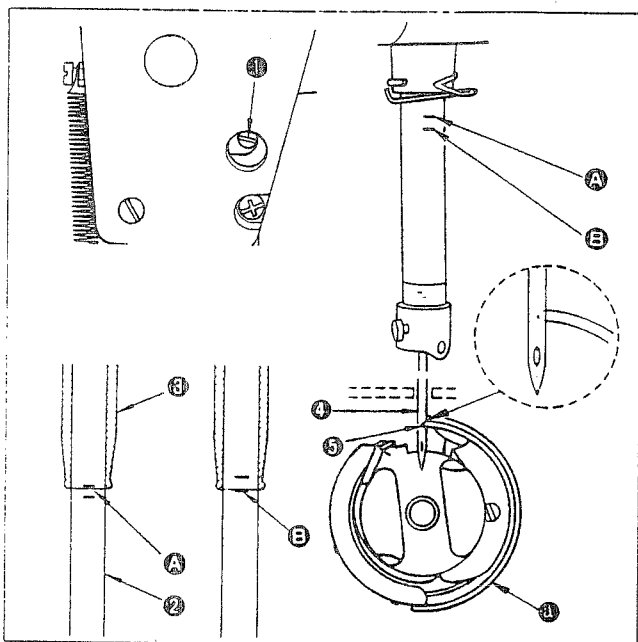
## 12. HEIGHT OF THE FEED DOG



- 1) The feed dog is factory-adjusted so that it juts out from the throat plate surface 0.7 mm to 0.8 mm. For the DLM-5210, the amount of protrusion of the feed dog from the gauge has been set to 0.8 to 1.0 mm.
- 2) If the feed dog juts out too much, puckering may result when sewing light-weight materials.
- 3) To adjust the height of the feed dog:
  - ① Loosen screw ② of crank ③.
  - ② Move the feed bar up or down to make adjustment.
  - ③ Securely tighten screw ②.

③ Feed dog ① Throat plate

## 13. NEEDLE-TO-HOOK RELATIONSHIP



### 1. Adjust the timing between the needle and the hook as follows:

- 1) Turn the handwheel to bring the needle bar down to the lowest point of its stroke, and loosen setscrew ①.

#### (Adjusting the needle bar height)

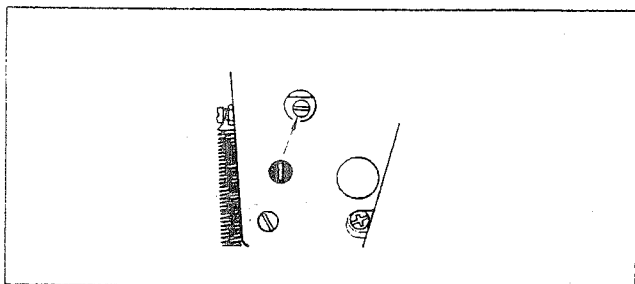
- 2) Align marker line ④ on needle bar ② with the bottom end of needle bar lower bushing ③, then tighten setscrew ①.

#### (Adjusting position ⑤ of the hook)

- 3) Loosen the two hook setscrews, turn the handwheel, and align marker line ⑤ on ascending needle bar ② with the bottom end of needle bar lower bushing ③.
- 4) After making the adjustments mentioned in the above steps, align hook blade point ④ with the center of needle ②. Provide a clearance of 0.04 mm to 0.1 mm between the needle and the hook, then securely tighten the hook setscrews.

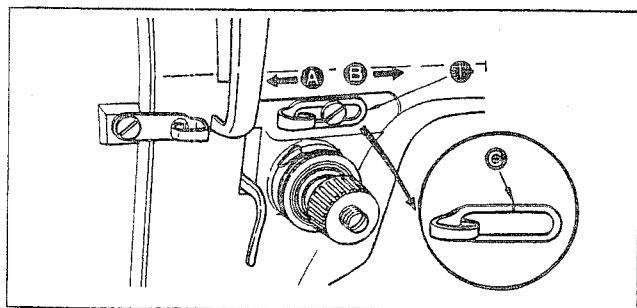
• When replacing the hook, specify its part No. B18301270A0.

## 14. ADJUSTING THE HEIGHT OF THE PRESSER BAR



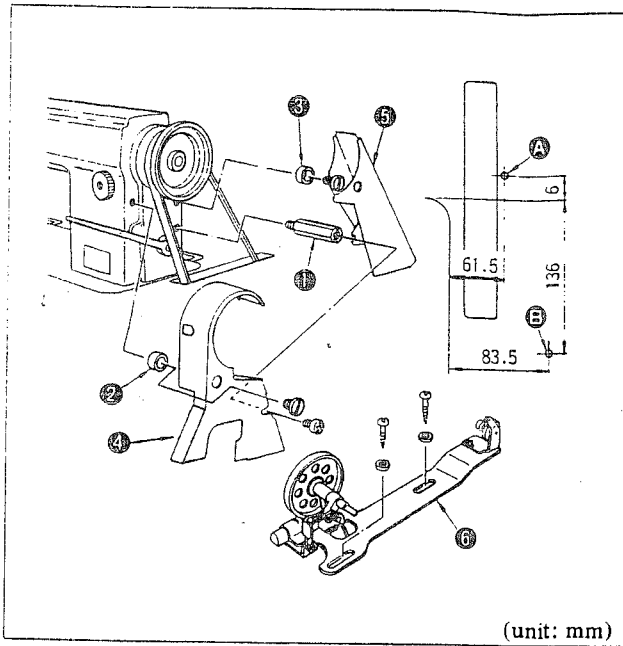
- 1) Loosen setscrew ①, and adjust the presser bar height or the angle of the presser foot.
- 2) After adjustment, securely tighten the setscrew.

## 15. ADJUSTING THE THREAD TAKE-UP STROKE



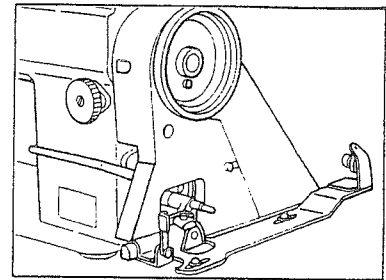
- 1) When sewing heavy-weight materials, move thread guide ① to the left (in direction ④) to increase the length of thread pulled out by the thread take-up.
- 2) When sewing light-weight materials, move thread guide ① to the right (in direction ⑤) to decrease the length of thread pulled out by the thread take-up.
- 3) Normally, thread guide ① is positioned in a way that marker line ③ is aligned with the center of the screw.

## 16. INSTALLING THE BELT COVER AND THE BOBBIN WINDER

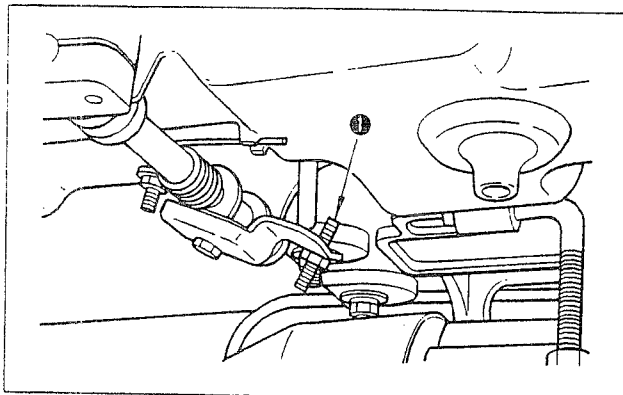


### 1. Installing procedure

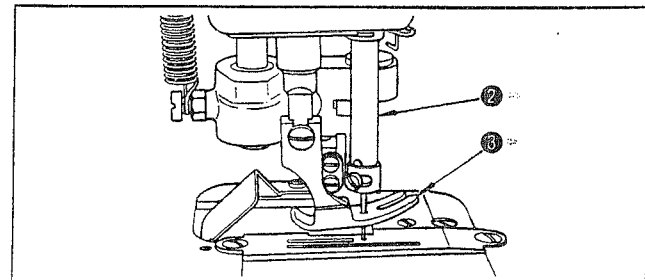
- 1) Drill two wooden screw guide holes (A) and (B) in the machine table.
- 2) Insert support (1) in the tapped hole in the arm.
- 3) Fix belt cover collars (2) and (3) using the belt cover setscrews for preliminary installation.
- 4) Accurately position belt cover B (4), then fix it on collar (2).
- 5) Fix belt cover A (5) on collar (3).
- 6) Securely fix belt cover B (4) and belt cover A (5) on the support using the belt cover setscrews.
- 7) Fix bobbin winder (6) at (A) and (B) using the wooden screws.



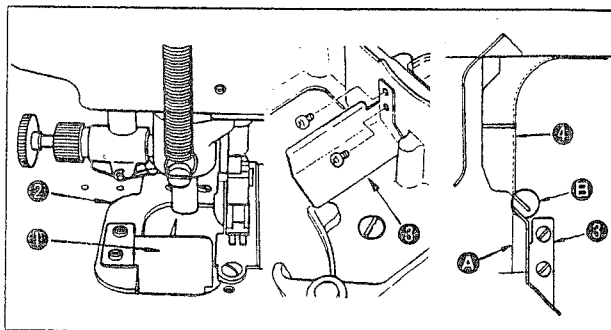
## 17. ADJUSTING THE HEIGHT OF THE KNEE LIFTER



- 1) The standard height of the presser foot lifted using the knee lifter is 10 mm.
- 2) You can adjust the presser foot lift up to 13 mm using knee lifter adjust screw (1).
- 3) When you have adjusted the presser foot lift to over 10 mm, be sure that the bottom end of needle bar (2) in its lowest position does not hit presser foot (3).



## 18. ATTACHING THE WASTE CLOTH GUIDE



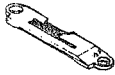
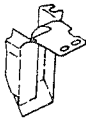


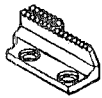


Attach waste cloth guide (1) to throat plate (2) so that all waste cloth drops along the waste cloth guide. Then install waste cloth guide (B) (3) on the oil pan, paying special attention to the following.

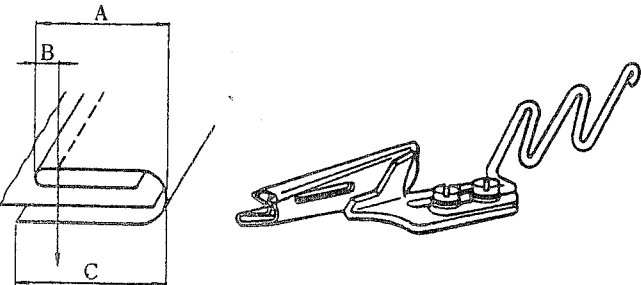
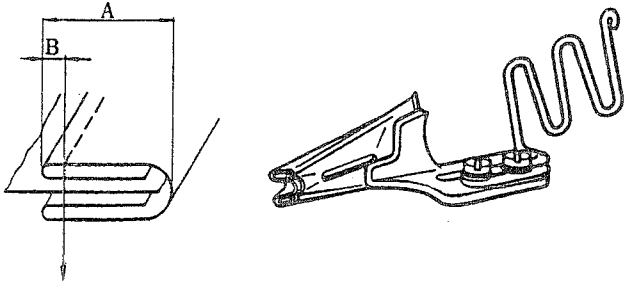
- 1) The top end of the waste cloth guide (B) should not protrude on the left side of the extended line from the level of face (A) on the waste cloth cover (4).
- 2) Section (E) of the waste cloth cover should not come in contact with the waste cloth guide (B) when the machine head is raised or tilted.

# 19. GAUGES

• Table of gauges for the DLM-5200

Type of gauge		C	D	E	F	H	M
Gauge width		2.4mm (3/32")	3.2mm (1/8")	4mm (5/32")	4.8mm (3/16")	6.4mm (1/4")	9.5mm (3/8")
Throat plate		11346004	11346004	11346004	11346004	11346004	11346103
Throat plate cover (asm.)		B11155300AD	B11155300AD	B11155300AF	B11155300AF	B11155300AF	B11155300AM
Gauge		B1190522X00	B1190522S00	B1190522Y00	B1190522T00	B1190522U00	B1190522V00
Waste cloth cover of the throat plate		11346905	11346905	11346905	11346905	11347101	11347309
Dust guide		11346400	11346400	11346400	11346400	11346509	11346509
Free presser foot (asm.)		B1524522NA0A	B1524522NA0A	B1524522NA0A	B1524522NA0A	B15240120A0	B15240120A0
Feed dog		B1613522N00A	B1613522N00A	B1613522N00A	B1613522N00A	B1613522W00A	B1613522W00A

• DLM-5210 Binder

NO11 (MAT-11801NA0)	NO15 (MAT-1190NA0)
Binder (Rolled hem)	Binder (Clean Finish Top and Bottom)
	
A..... 5 mm B..... 1 mm C..... 10mm	A..... 5 mm B..... 1 mm

## 20. SPECIFICATIONS

	DLM-5200	DLM-5210
Application	Light-weight materials and medium-heavy weight materials	Piping for light-weight material and medium-heavy weight material.
Sewing speed	Max. 4,500 s.p.m.	Max. 4,000 s.p.m.
Stitch length	5 mm	4 mm
Presser foot lift (by knee lifter)	10 mm	
Needle	DB x 1 #9 ~ #18	DB x 1 #11 ~ #16
Lubricating oil	Juki New Defrix Oil No. 1	

## 21. MOTOR PULLEY AND BELT

- (1) Normally, a 400W-output (1/2 HP) clutch motor should be used.
- (2) Use an M-type V-belt.
- (3) The relationships between the motor pulley, belt length and sewing speed are shown in the table below.

Outside diameter of the motor pulley (mm)	Part number of the motor pulley	Sewing speed (s.p.m.)		Belt length (inches)	Part number of the belt
		50Hz	60Hz		
100	MTKP0095000	4,000		42	MTJVM004200
95	MTKP0090000	3,820			
90	MTKP0085000	3,610			
85	MTKP0080000	3,390	4,000	41	MTJVM004100
80	MTKP0075000	3,160	3,790		
75	MTKP0070000	2,950	3,520		
70	MTKP0065000	2,740	3,260		

- The effective diameter of the motor pulley is 5 mm smaller than the outside diameter.
- The direction of motor rotation is counterclockwise as observed from the pulley side.  
Do not run the motor in the opposite direction.