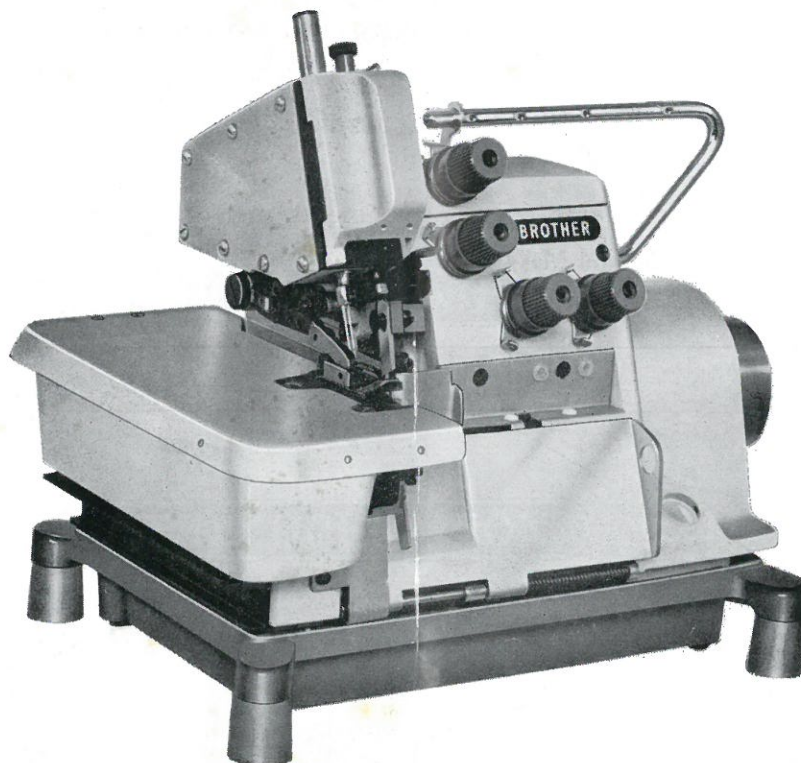


INSTRUCTION MANUAL
FOR
BROTHER MA4-B581

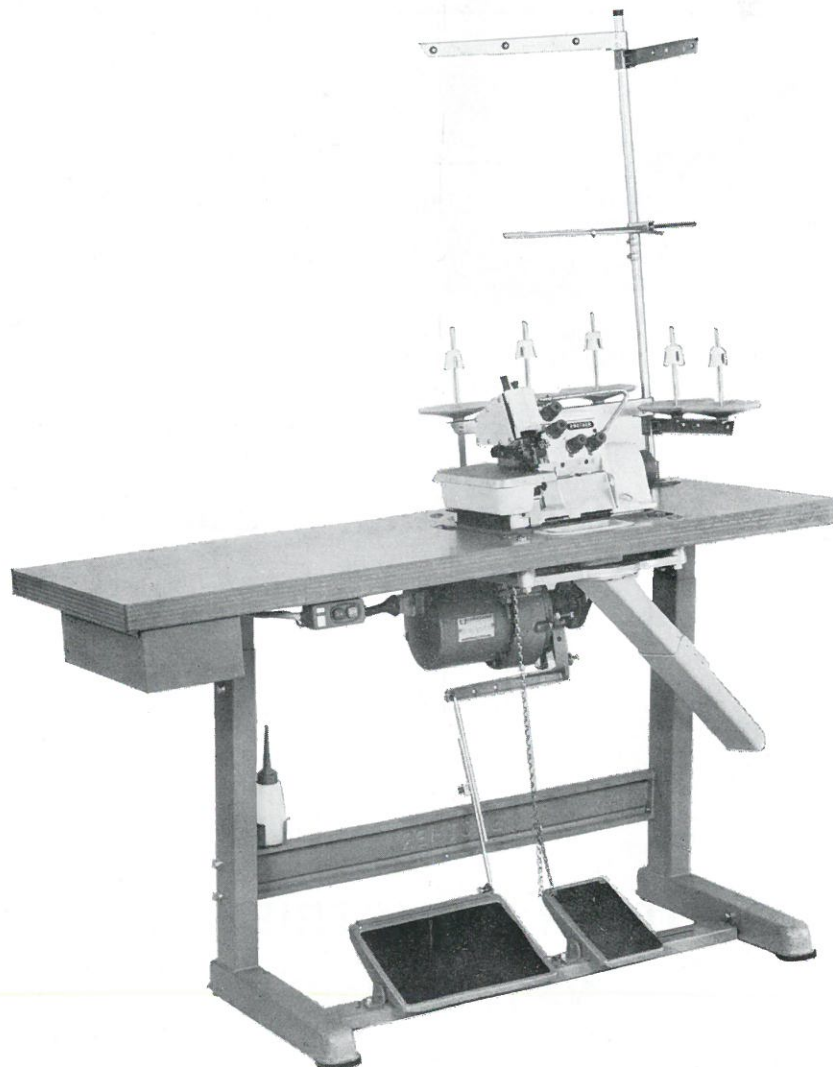


Safety Stitch Sewing Machine

BROTHER INDUSTRIES, LTD.
NAGOYA, JAPAN

FEATURES

- ☆ These models have the same sewing performance as the high-speed types (Model MA4-B551) so they can be used for run stitching, ruffling, bulky stitching and many other applications.
- ☆ Differential feed ratio can be changed by a "banana type" device which assures a wide differential range.
- ☆ Blade engaging angle can be easily adjusted for sharp cutting performance.
- ☆ Superb design and colour brighten working environment and ensure to lessen the operator's fatigue.
- ※ Most of the gauge parts, expendable parts, attachments and other devices of these models are interchangeable with those of Model MA4-B551.



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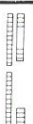














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KINDS OF SEWING MACHINES

 **BROTHER INDUSTRIES LTD.**

MA4-B581-


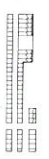


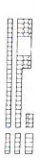


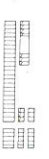


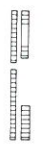








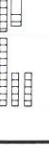

MADE IN JAPAN

Sub class No.	Stitch type	No. of Needles	No. of threads	Needle gauge	Sewing width (Bight)	Max. stitch length	Differential ratio	Presser foot lift	Feed dog		Needle size (DC x 1 / DM x 13)	Sewing speed (s.p.m)	Use	Devices
									Pitch	Main (Differential)				
061-3 -5		2	5	2	3	3.6	0.3~1.8	4	1.6		#11	5000	Thin materials	—
					5								Blouses Dress shirts	
062-3		2	4	2	3	3.6	0.3~1.8	4	1.6		#11	5000	Thin materials	—
													Blouses Dress shirts	
063-5		2	5	3	5	3.6	0.3~1.8	6	1.6		#14	5000	Thin & medium-thick materials	—
													Jumper Pajamas Ladie's & children's wear	
064-5		2	4	3	5	3.6	0.3~1.8	6	1.6		#14	5000	Thin & medium-thick materials	—
													Jumper Pajamas Ladie's & children's wear	
065-5		2	5	5	5	3.6	0.3~1.8	6	1.6		#16	5000	Medium-thick & thick materials	—
													Overalls Work pants Ladie's wear	
066-5		2	4	5	5	3.6	0.3~1.8	6	1.6		#16	5000	Medium-thick & thick materials	—
													Overalls Work pants Ladie's wear	
067-4		2	5	2	4	3.3	0.3~2.7	5	1.6		#14	5000	Ruffling thin & medium-thick materials	Ruffler
													Blouses Neglige	
069-5		2	5	3	5	3.3	0.3~2.7	5	1.6		#14	5000	Ruffling thin & medium-thick materials	Ruffler
													Ladie's & children's wear Blouses Neglige	
071-6		2	5	5	6	3.3	0.3~2.7	5	1.6		#14	5000	Ruffling thin & medium-thick materials	Ruffler
													Ladie's & children's wear	

 **BROTHER INDUSTRIES LTD.**

MA4-B581-

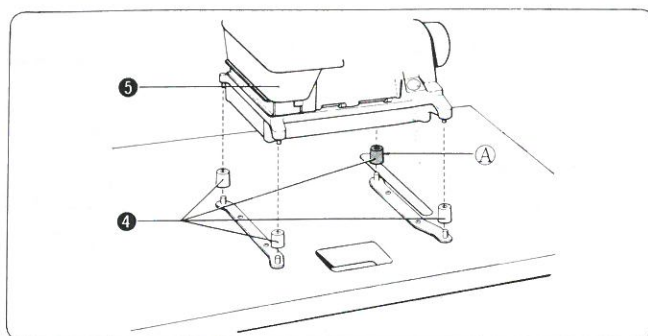
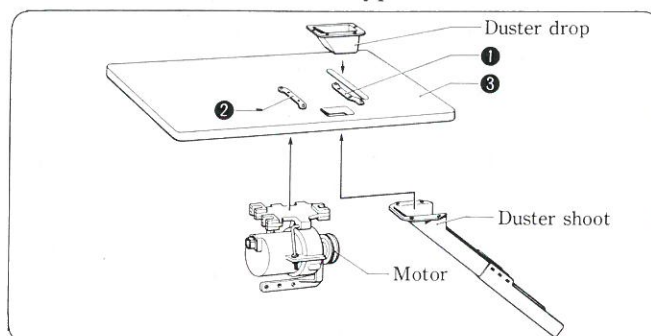
MADE IN JAPAN

Sub class No.	Stitch type	No. of Needles	No. of threads	Needle gauge	Sewing width (Bight)	Max. stitch length	Differential ratio	Presser foot lift	Feed dog		Needle size (DC x 1 / DM x 13)	Sewing speed (s.p.m)	Use	Devices
									Pitch	Main (Differential)				
073-4		2	5	2	4	3.3	0.3~2.7	5	1.6		# 14	5000	Ruffling thin & medium-thick materials (Piping)	Wrapper Ruffler Tape winder
													Blouses Neglige	
075-5		2	5	3	5	3.3	0.3~2.7	5	1.6		# 14	5000	Ruffling thin & medium-thick materials (Piping)	Wrapper Ruffler Tape winder
													Ladie's & children's wear	
077-6		2	5	5	6	3.3	0.3~2.7	5	1.6		# 14	5000	Ruffling thin & medium-thick materials (Piping)	Wrapper Ruffler Tape winder
													Ladie's & children's wear	
081-5		2	5	3	5	3.6	0.3~1.8	6	1.6		# 14	5000	Taping thin & medium-thick materials	Tape guide
													Ladies & children's wear Knitted underwear Pajamas	
087-6		2	5	5	6	3.6	0.3~1.8	6.5	2.5		# 21	5000	Heavy materials	Tractor foot
													Denim wear Curtains	
089-5		2	5	3	5	3.6	0.3~1.8	6	1.6		# 14	5000	Thin & medium-thick materials Binding	Binder Tape winder
													Coat Ladie's & children's wear Knit wear	
092-6		2	5	5	6	3.6	0.3~1.8	3.5	2.5		# 21	5000	Heavy materials	Tractor foot Angle knife
													Denim wear Curtains	

A. INSTALLING

1 Installing the machine head

1. The machine head is a flat type.



(1) Install table ③ on cushion base assembly right ① and left ②.

(2) Fit four rubber pads ④ on cushion base assembly right ① and left ②.

(Install the black rubber pad A into the right end pin as shown at figure.)

(3) Place machine head ⑤ on rubber pads ④.

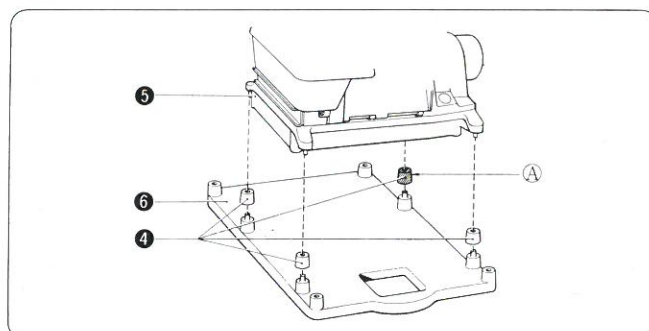
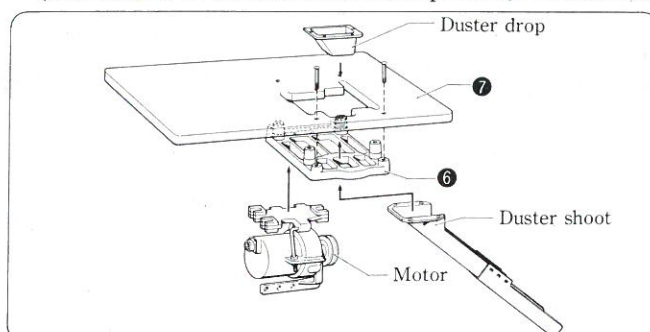
※ You have purchase this machine as head only, install it as mentioned below.

(a) Make table ③ top as shown in the attached table sheet.

(b) Follow the above-mentioned installing order (1) and (3) for installing the machine head ⑤.

2. In case of installing machine head on the semi submerged type.

(Extra cost of the machine head plate ⑥ will be required.)



(1) Make table ⑦ top as shown in the attached table sheet.

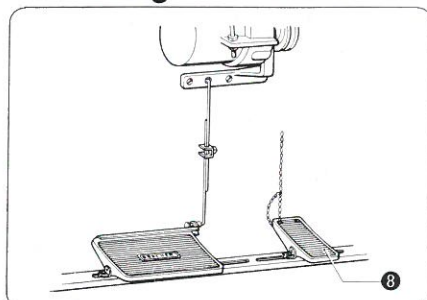
(2) Install machine head plate ⑥ on the table.

(3) Fit four rubber pads ④ on machine head plate ⑥.

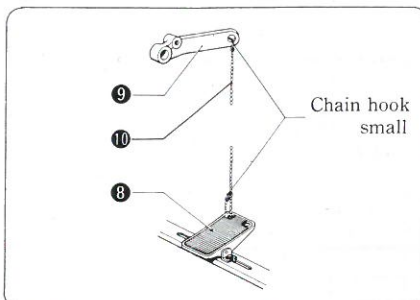
(Install the black rubber pad A into the right end pin as shown at figure.)

(4) Place machine head ⑤ on rubber pads ④.

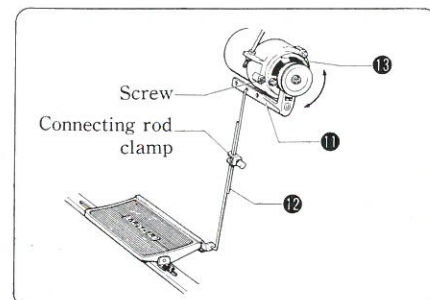
2 Installing the treadle



(1) Install presser bar lifter pedal ⑧ as shown at above.



(2) Install chain ⑩ to link presser bar lifter lever ⑨ to the presser bar lifter pedal ⑧.



(3) Turn motor bracket ⑬ until clutch lever ⑪ is in line with the connecting rod ⑫.

※ Make this adjustment after placing the belt at the correct tension.

3 Sewing speed

The sewing speed of these models is 5,000 stitches per minute.

When using your new machine for the first time, operate it at about 4,500 stitches per minute for the first 100 hours (or about 2 or 3 months).

This will ensure your sewing machine a long life.

4 Motor pulley and belt

The motor to be used with machine must be a 2-pole.

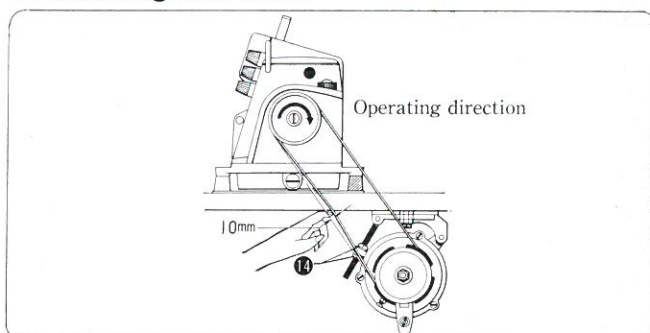
- Single-phase: MD-344
- Three-phase: MD-354

Use an M-type V-belt

☆ Select a motor pulley and a belt by referring to the table at below.

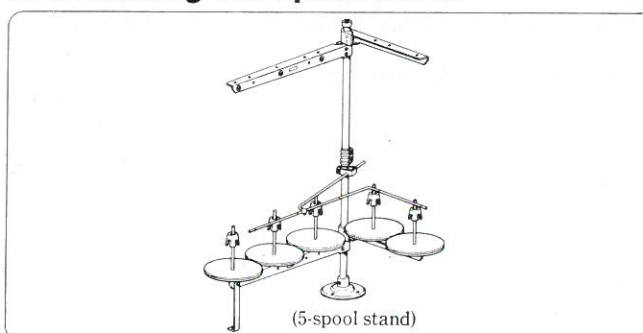
Pulley O.D(mm)	70	75	80	85	90	95	100	105	110
Belt size (inches)							(39)		
					(38)				
			(37)						
Sewing speed (spm)	50Hz	—	—	—	—	4000		4500	5000
	60Hz	4000		4500		5000	—	—	—

5 Installing the belt



- (1) Adjust the nut 14 so that the belt will give in about 10mm when depressed with your finger.
- (2) The correct operating direction of your sewing machine is clockwise as viewed from the pulley side.

6 Installing the spool stand



- (1) Install the spool stand in the right end corner of the table with screw, making sure that it will not interfere with machine operation.

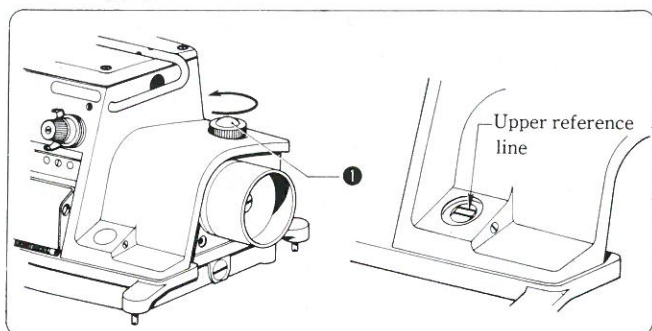
B. OILING AND OIL DRAINING

1 Oil to be used

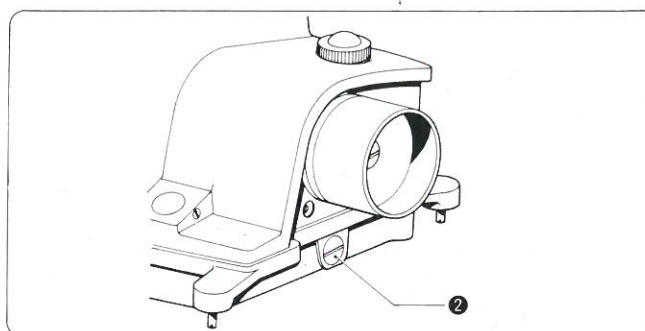
Use the BROTHER oil (turbine oil #90) supplied.

2 Oiling and oil change

1. Oil supply



All oil has been completely discharged from the machine prior to shipment. Before operating your machine, remove oil cap 1 by turning it counter clockwise, and pour oil in until oil level reaches the upper reference line, using the accessory funnel.

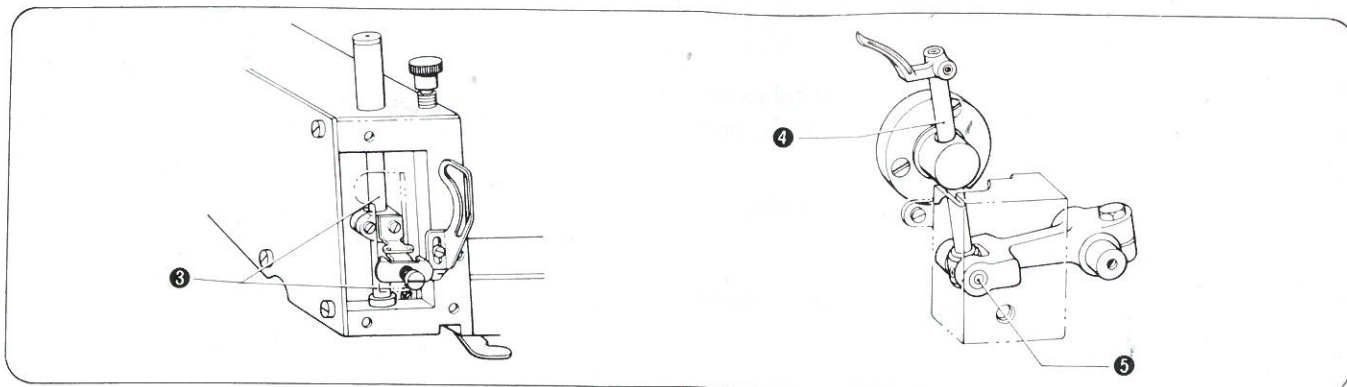


When draining the oil remove screw 2 shown at above.

Be sure to change the oil after running in.

After that period, change the oil once about every 3 months.

3. Oiling points



When operating the machine for the first time after unpacking it, or after a long period of non-use, be sure to pour a few drops of oil on needle bar ③ and over looper holder ④.

※ If the machine is used every day, it need not be oiled daily.

But few drops of oil on only over looper driving lever ⑤ once a week.

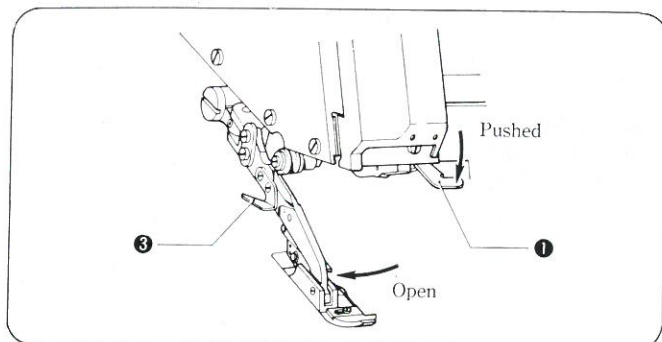
C. CORRECT WAY OF OPERATION

1 Needle and thread

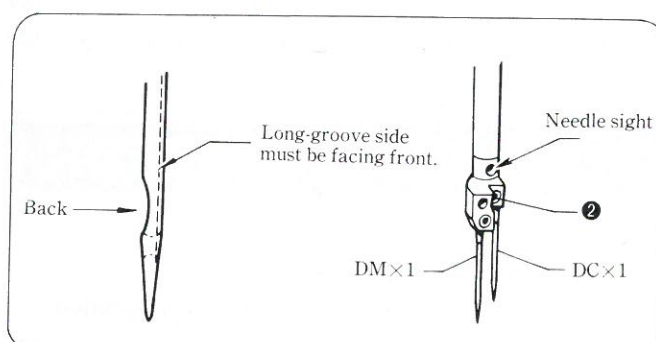
Select a needle and thread by referring to the tables below

Fabrics	Needle		Needle thread		Looper thread	
	Type	Size	Type	Count	Type	Count
Broad cloth	DC×1, DM×13	#11	Cotton	#80	Cotton	#80
	"	#11	Dacron	#80	Dacron	#80
Jersey	"	#14	Dacron	#50	Woolly Nylon	110/2 denier
Gabardine	"	#16	Cotton	#50	Cotton	#50
Denim	"	#21	Cotton	#30	Cotton	#30

2 Installing the needle



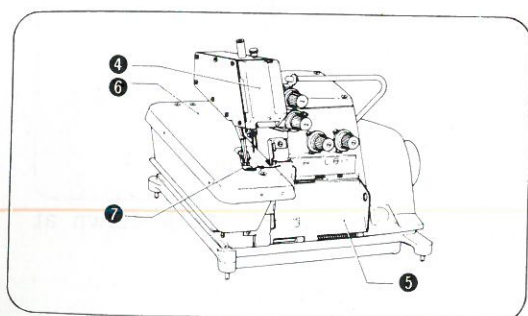
(1) Turn the pulley until the needle bar is raised close to the highest position, press down presser bar lifter ①, and open presser arm ② in the arrow direction.



(2) Loosen needle clamp screw ②, hold the needle with its long groove facing front insert the needle all the way into the needle clamp hole, and then tighten the needle clamp screw.

(3) Install trimming knife ③ on the main presser arm.

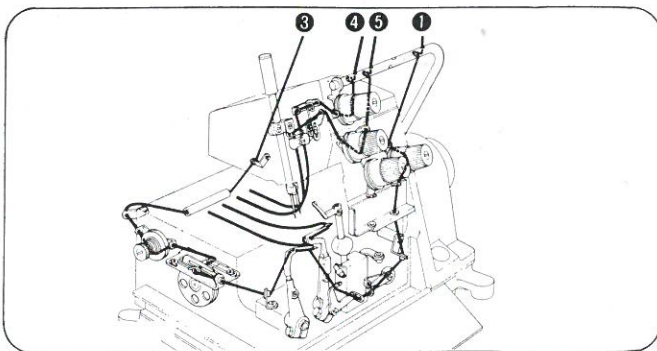
3 Threading



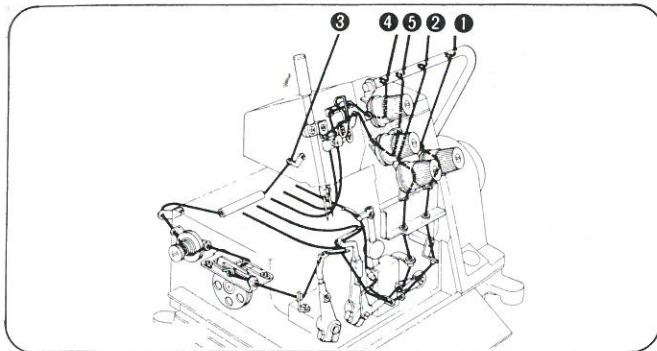
Before threading, open face plate cover ④, front cover ⑤ and cloth plate ⑥, turn the pulley until the needle is raised up highest, and then open presser arm ⑦.

Then, pass the thread in the order of the numbers shown.

In case of four threads



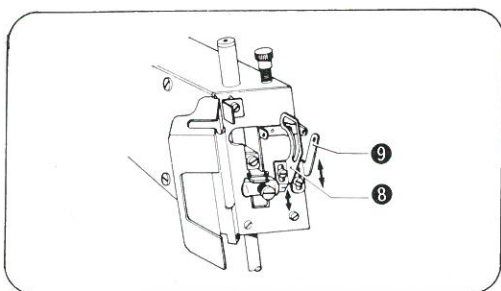
In case of five threads



4 Thread tension

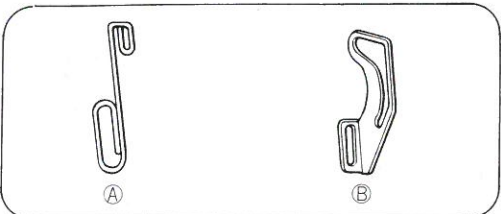
Thread tension may change depending on the kind of the cloth and thread used, stitch width, stitch length, the position of each thread take-up, and the position of the thread guides.

If it changes so much, adjust it as mentioned below.



1. Adjusting the overlock stitch needle thread take-up.

To increase the thread tension, lower needle thread take-up ⑧.
To decrease it, raise the thread take-up. The center position in the adjustable range is standard.



2. Adjusting the double-chain stitch needle thread guide.

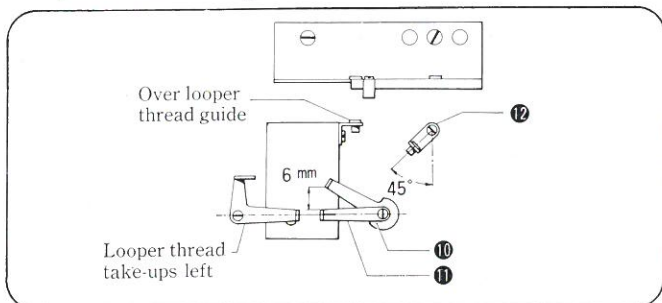
Raise double-chain stitch needle thread guide ⑨ to increase the needle thread tension.

Or lower it to decrease the tension.

The standard needle thread tension is obtained when the guide is in the center stitch position.

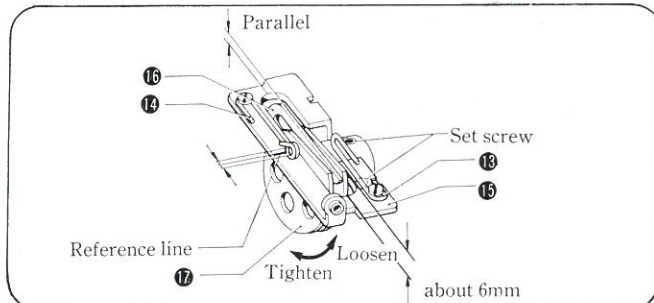
Use the thread take-up for two threads (A) or for three threads (B) as appropriate to your sewing purpose.

3. Adjusting the overlock stitch looper thread take-ups and thread guide.



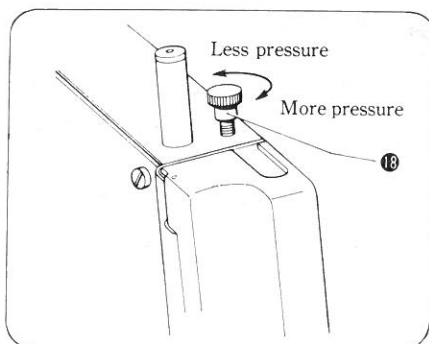
- (1) The above figure shows the standard positions of the looper thread take-ups and each thread guide when the needle bar is up highest.
- (2) More thread will be fed when looper thread take-ups right ⑩, ⑪ are raised; and less thread when they are lowered.
- (3) More thread will be fed when under looper thread guide ⑫ is moved to the left (more angle); and less thread when it is moved to the right (less angle).

4. Adjusting the double-chain stitch thread take-up and thread guide.



- (1) Thread take-up thread guides, right ⑬ and left ⑭, must be positioned symmetrically in the thread take-up thread guide hole with the reference line on thread take-up holder ⑮ in the center.
- (2) Thread handler ⑯ must be positioned parallel to the thread take-up holder.
- (3) Adjust the timing of double-chain stitch thread take-up assembly ⑰ to pull back the looper thread when the needle bar is in the highest position.
(The height of the double-chain stitch thread take-up assembly from the thread take-up holder is about 6mm.)
- (4) The looper thread loosens when the double-chain stitch thread take-up assembly is advanced (turned counterclockwise), and tightens when it is delayed (turned clockwise).

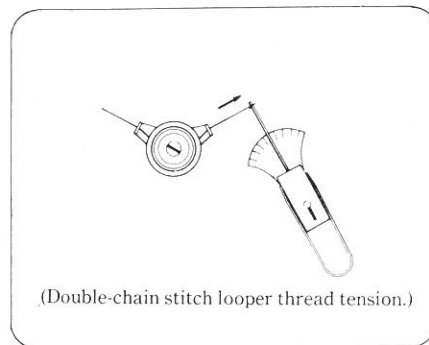
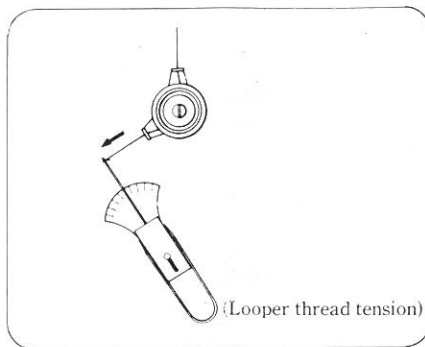
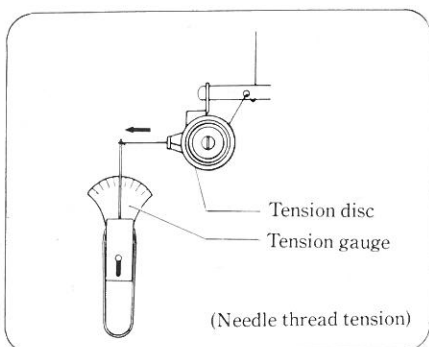
5. Presser foot pressure adjustment



(1) Adjust the presser foot pressure with presser foot adjusting screw 18.

6. Thread tension

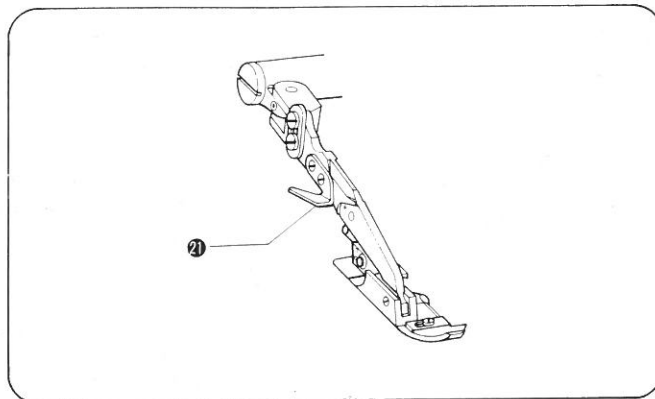
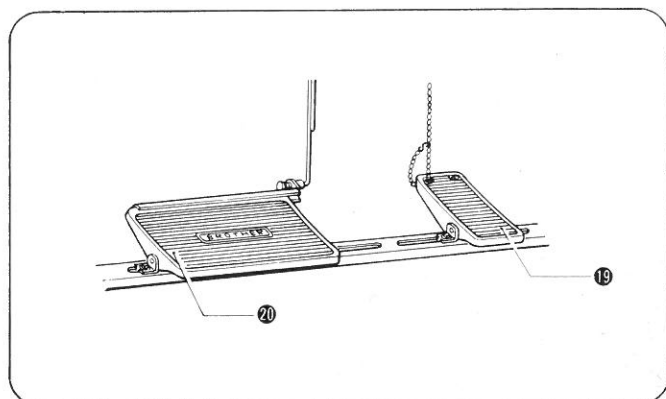
Measure the thread tension as shown below.



Adjust the tension of each thread by referring to the tables below. (In grams)

Fabrics	Thread		Double-chain stitch needle thread tension	Double-chain stitch looper thread tension	Over thread tension	Over looper thread tension	Under looper thread tension
	Kind	Count					
Broadcloth	Cotton	# 80	20 ~ 50	5 ~ 15	40 ~ 90	10 ~ 25	8 ~ 20
	Dacron	# 80	15 ~ 45	5 ~ 10	30 ~ 80	8 ~ 20	5 ~ 15
Jersey	Needle=Dacron looper=Woolly Nylon	# 50 110/2 denier	25 ~ 60	8 ~ 20	25 ~ 50	5 ~ 15	8 ~ 20
Gabardine	Cotton	# 50	35 ~ 60	6 ~ 15	50 ~ 100	7 ~ 20	10 ~ 30
Denim	Cotton	# 30	80 ~ 110	10 ~ 20	70 ~ 150	10 ~ 25	15 ~ 30

5 How to sew

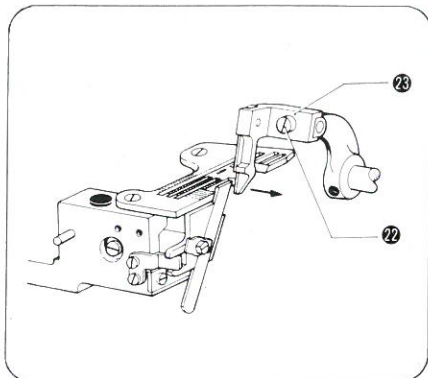


- (1) Press the push power switch ON.
- (2) Depress presser bar lifter pedal 19, place a small part of the work under the presser foot, and release the presser bar lifter pedal.
- (3) When treadle 20 is depressed, the work will be fed and sewn.
- (4) After sewing, run the machine without the work until about 5 or 6 cm of thread is out, and cut the thread with blade 21 by pulling the thread toward yourself.

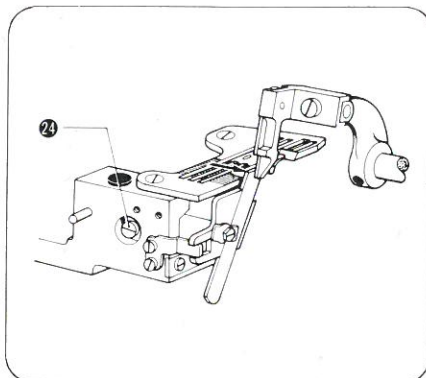
6 Adjusting stitch width

Since stitch width depends on cloth trimming width and the width of the needle plate's tongue, cloth trimming width must be changed at the same time in case of changing stitch width by more than 1mm.

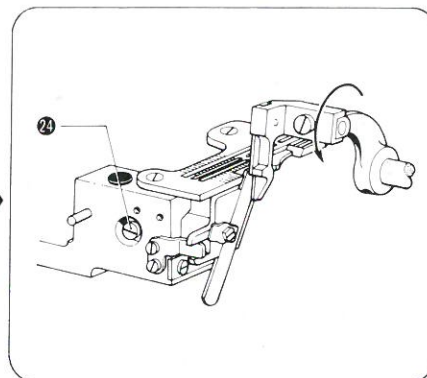
1. To increase stitch width



(1) Loosen upper knife holder set screw 22, move upper knife holder 23 rightward as much as necessary, and retighten the set screw 22 securely.

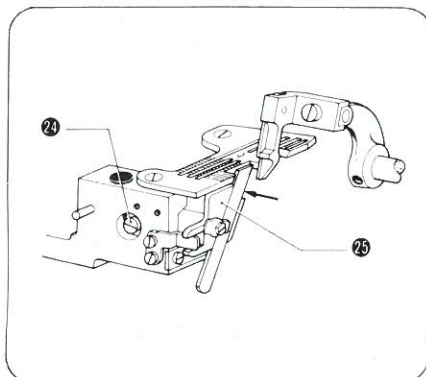


(2) Loosen lower knife holder set screw 24 and, make the lower knife pushed against the upper knife by the lower knife holder spring.

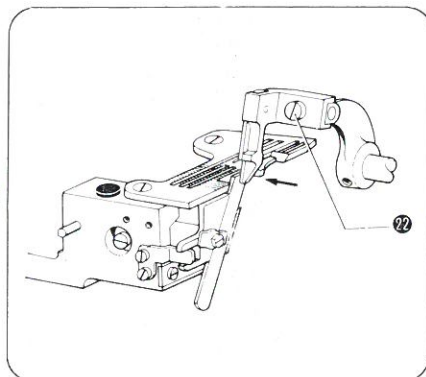


(3) Turn the pulley until the upper knife falls to the lowest position and retighten the lower knife holder set screw 24.

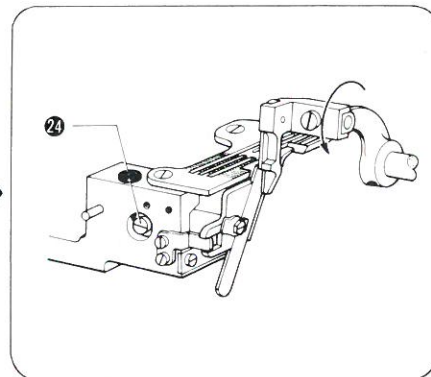
2. To decrease stitch width



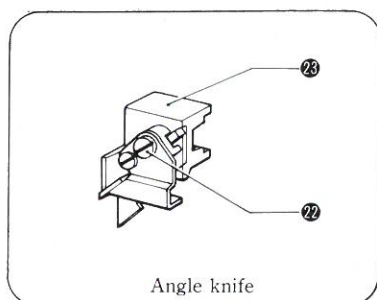
(1) Loosen the lower knife holder set screw 24, move lower knife holder 25 leftward as much as necessary, and temporarily tighten the set screw 24.



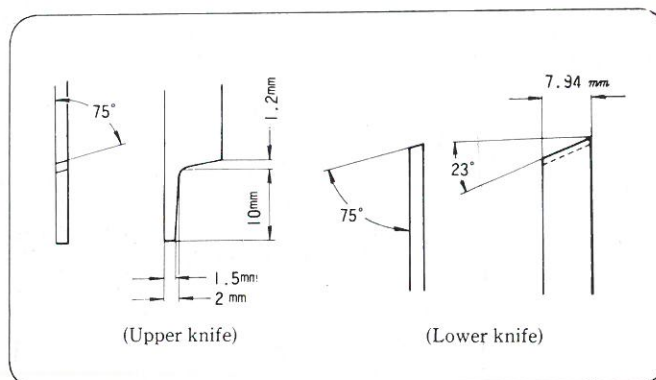
(2) Loosen the upper knife holder set screw 22, move the upper knife holder until the upper knife contacts the lower knife, and retighten the set screw 22 securely.



(3) Loosen temporarily tightened set screw 24, make sure that the lower knife is pushed against the upper knife, turn the pulley until the upper knife falls to the lowest position, and retighten set screw 24.



※In case of angle knife, please unfasten screw 22 and do same adjustment.



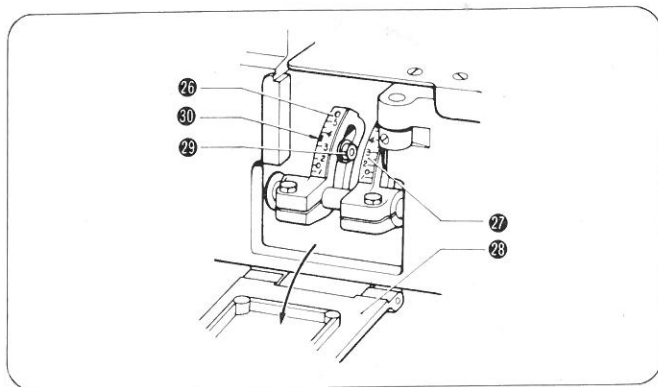
(Caution)

If the knife cutting performance has dropped, sharpen the upper knife or lower knife as shown at right.

7 Adjusting stitch length and the differential feed

The numerals on the scales of main feed arm 26 and differential feed arm 27 indicate stitch length in millimeters, but actual stitch length varies with the kind and thickness of the material and the differential feed.

1. Adjusting stitch length



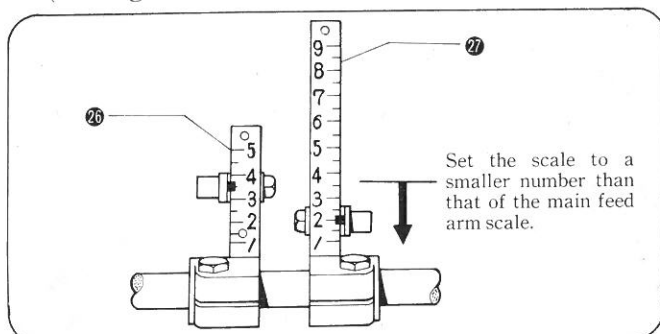
Caution: If the main feed arm 26 and differential feed arm 27 are set to any scale value greater than those shown at right, the feed dogs will hit the edges of the slots in the needle plate.

Specifi- cations	Feed arm	Main feed arm	Differential feed arm
Run stitching			
Denim		3.6mm	6.5mm
Ruffler		3.3mm	9.0mm
		2.5mm	9.0mm

- (1) A desired stitch length can be selected by means of the scale on main feed arm 26, which can be adjusted as follows:
 - (a) Pull and open feed mechanism cover B 28 on the back of the machine.
 - (b) Loosen nut 29.
 - (c) Move feed link indicator plate 30 until its red mark is in line with that number on the scale which represents your desired stitch length.
 - (d) Retighten nut 29 securely.
- (2) Adjust the scale on differential feed arm 27 in the same way as the scale on main feed arm 26.

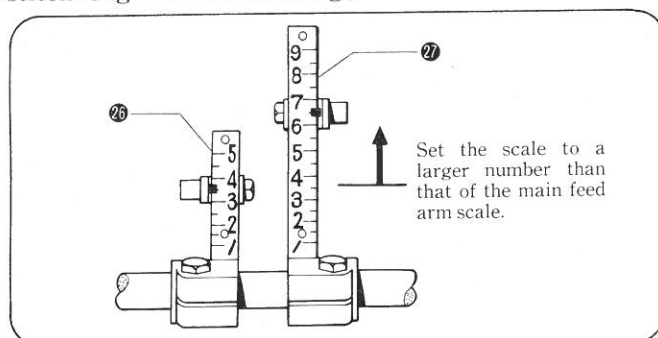
2. Adjusting the differential feed

(The figures below apply to the case of the maximum stitch length in run stitching.)



- (1) In the case of lengthen stitch

Set the scale on differential feed arm 27 to a smaller number than that of the scale on main feed arm 26.

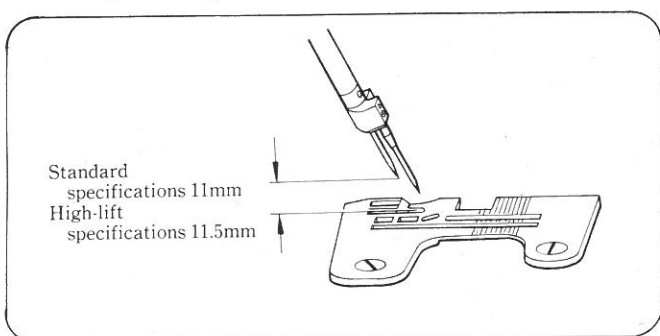


- (2) In the case of wrinkle stitch

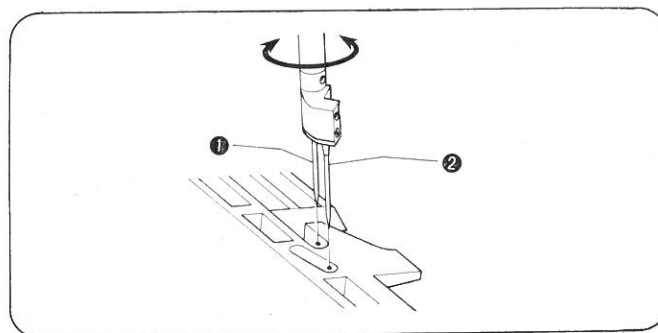
Set the scale on differential feed arm 27 to a larger number than that of the scale on main feed arm 26.

D. STANDARD ADJUSTMENTS

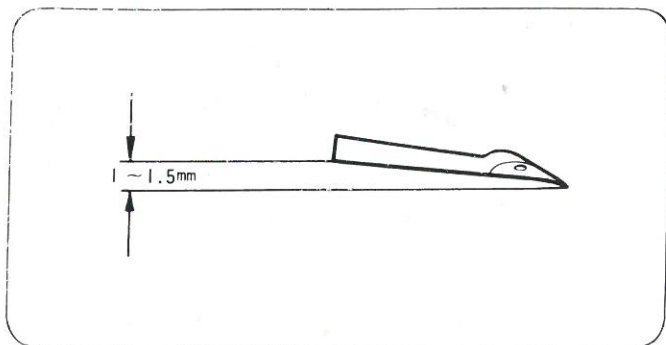
1 Adjusting the under looper and needle bar



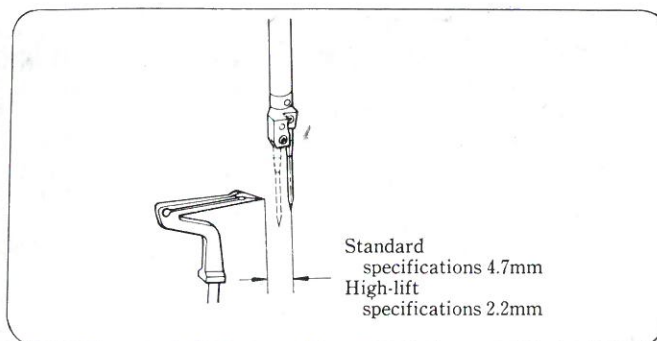
- (1) In case of sewing machines made to the standard specifications, adjust the distance between the needle point and the top of the needle plate to 11mm when the needle is up highest.
The sewing machines of the high-lift specifications must be adjusted to a distance of 11.5mm between them.



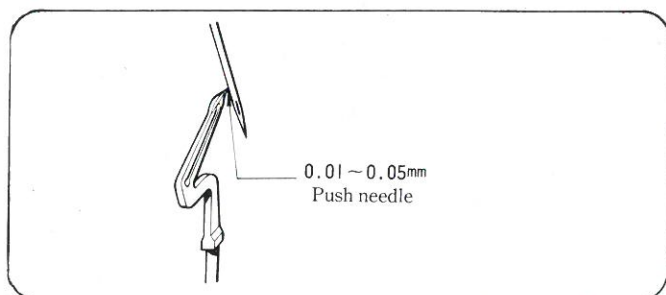
- ※ Turn the needle bar about over-needle 1 until double-chain stitch needle 2 is in line with the center of the hole in the needle plate.



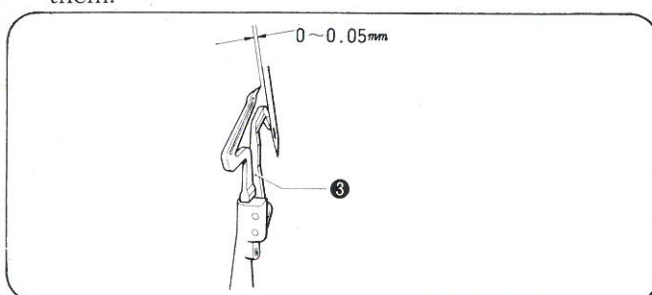
(2) Tilt the under looper by 1~1.5mm, insert it all the way into the under looper holder, and install it.



(3) In case of sewing machine made to the standard specifications, adjust the distance between the under looper point and the needle center to 4.7mm when the under looper is at the leftmost position. The sewing machine of the high-lift specifications must be adjusted to a distance of 2.2mm between them.

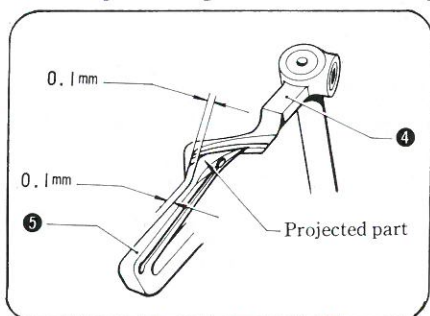


(4) With the point of the under looper in line with the center of the needle, make an adjustment so that the point of the under looper will push the needle 0.01~0.05mm (i.e., slightly contact the needle) in the upward travel of the needle.

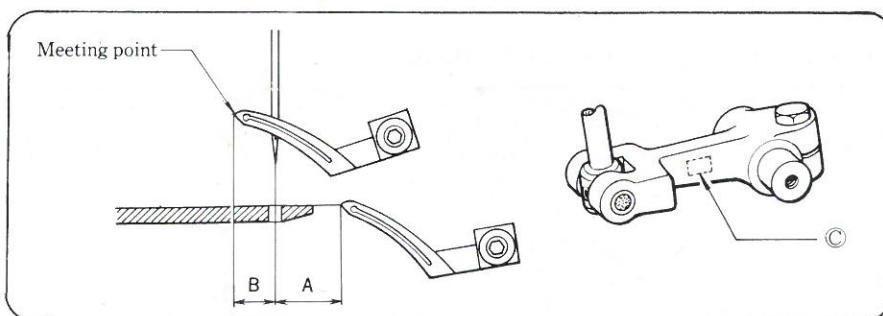


(5) Foregoing the condition of (4), push the needle with movable needle guard ③ until there is a clearance of 0~0.05mm between the needle and the point of the under looper.

2 Adjusting the over looper



(1) Make an adjustment so that, when over looper ④ meets under looper ⑤, the point of the over looper will pass clear of the under looper about 0.1mm below its projected part.

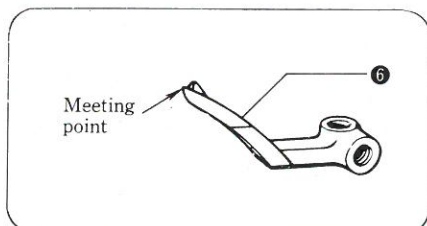


(2) Select meeting measurements from the table below.

There are over loopers: Standard type, high-lift type.

(In millimeters)

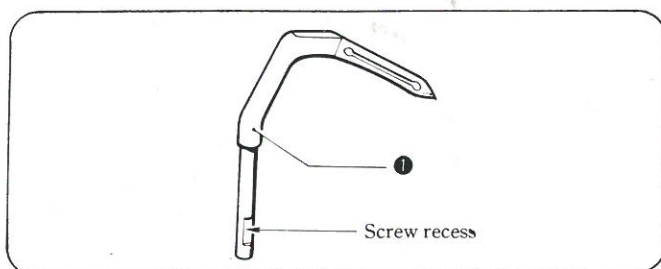
Spec.	Standard	High-lift
A	7.2	8.2
B	5.0	5.0



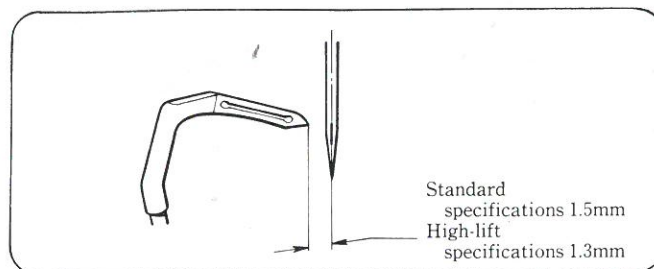
(3) The meeting measurements of hook looper (for two threads) ⑥ are the same as those of the over looper.

※ Check part ③ on the over looper arm and see whether the machine is for standard use (S) or high-lift use (H).

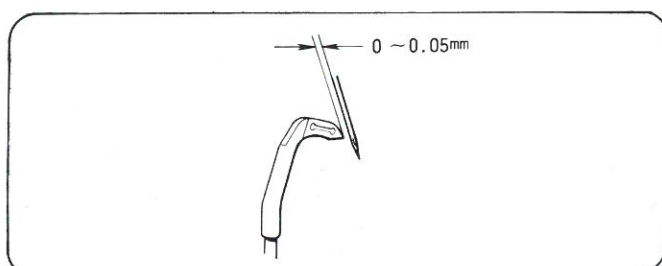
3 Adjusting the double-chain stitch looper



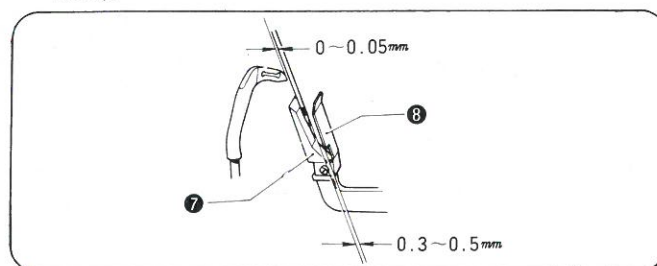
- (1) Install the double-chain stitch looper ① by inserting it all the way into the double-chain stitch looper holder.
The inclination of the looper depends on the screw recess.



- (2) In case of sewing machines made to the standard specifications, adjust the distance from the looper point to the center of the needle to 1.5mm when the double-chain stitch looper is at the leftmost position. The sewing machine of the high-lift specifications must be adjusted to a distance of 1.3mm between them.

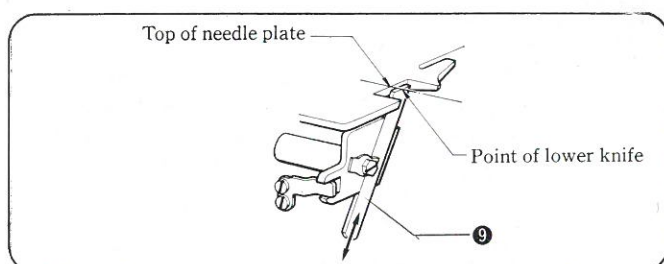


- (3) Adjust the clearance between the point of the double-chain stitch looper and the needle to somewhere from 0 ~ 0.05mm when the double-chain stitch looper point comes to the center of the needle during the needle's rising process.
(If stitches skip, the double-chain stitch looper point must be so adjusted as to contact the needle 0.05 ~ 0.1mm deep.)



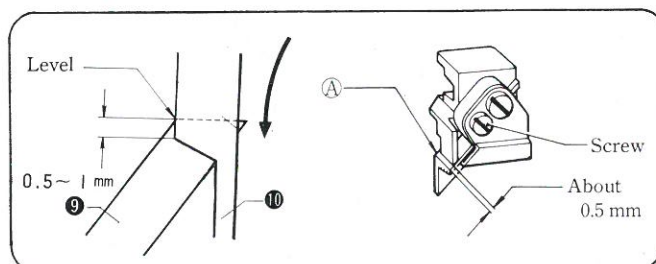
- (4) Foregoing the condition of (3), push the needle with chain stitch needle guard B ⑦ until there is a clearance of 0~0.05mm between the needle and the point of the double-chain stitch looper. Adjust the clearance between the needle and chain stitch needle guard F ⑧ to 0.3~0.5mm.

4 Adjusting thread trimming

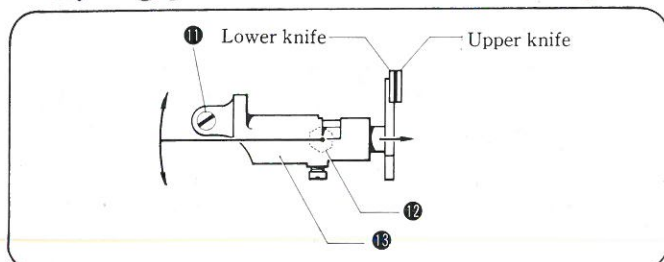


- (1) Adjusting the height of the lower knife ⑨ until the point of the lower knife is flush with the top of the needle plate.

☆ In case of angle knife, please unfasten screw and adjust A portion to be about 0.5 mm in length.



- (2) Adjust the height of upper knife ⑩ so that, when the upper knife is lowered to its lowest position, it will engage lower knife ⑨ 0.5~1mm deep. Also align the lower knife corner with the end face of the upper knife.

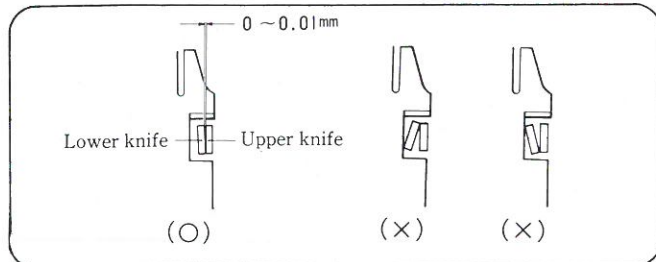


- (3) Adjust the lower knife angle in the following order.

(a) Loosen set screw ⑪ and bolt ⑫.

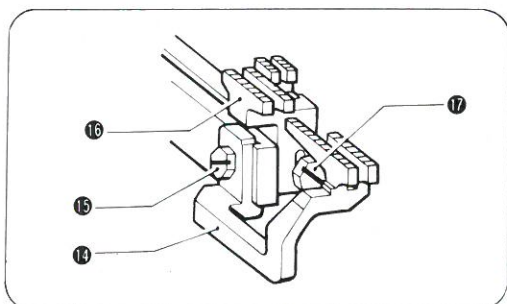
(b) Turn lower knife holder support ⑬ about bolt ⑫ until there is a clearance of about 0 ~ 0.01mm in the forward direction.

(c) Retighten set screw ⑪ and bolt ⑫ securely.



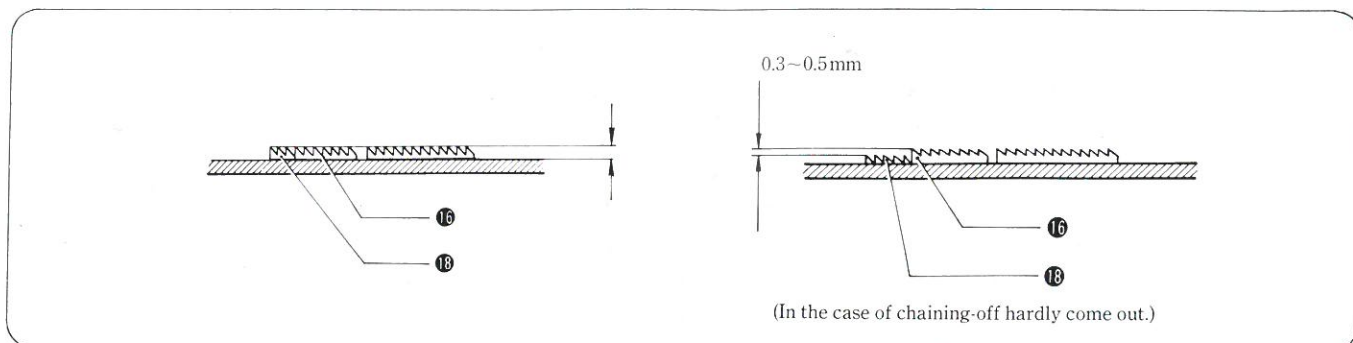
Caution: The above-mentioned adjustment is not necessary because your machine has already been adjusted on the assembly line. If a readjustment should become necessary, exercise great care not to damage the knives due to excessive engagement of the upper and lower knives.

5 Adjusting the feed dogs



(1) Loosen bolt 15, and raise or lower differential feed dog 14 to the correct height.

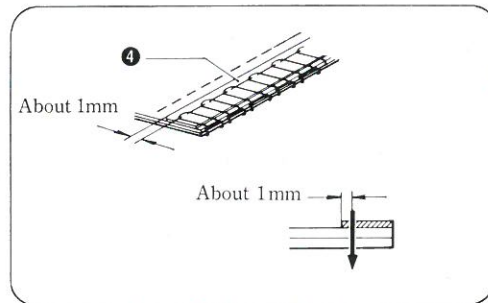
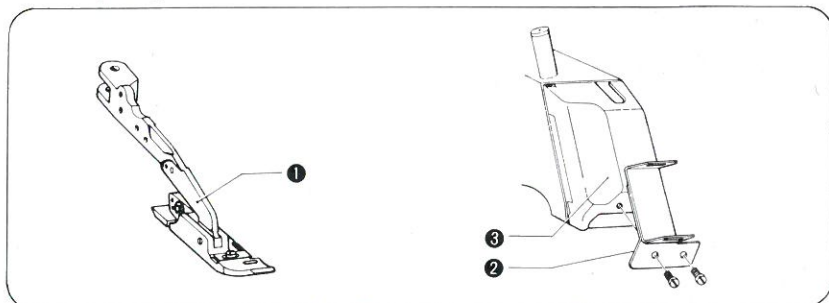
Loosen bolt 17 and adjust main feed dog 16.



- (2) Turn the pulley until the feed dogs are raised to the highest position, and adjust them to the following height above the top of the needle plate.
- 1.0mm for thin materials.
 - 1.3mm for medium-thick materials.
 - 1.5mm for thick materials.
- (3) Install chaining-off feed dog 18 at the same height as main feed dog 16. If free chain stitches hardly come out, lower it as shown at upper right.

E. INSTALLING AND ADJUSTING VARIOUS ATTACHMENTS

1 Taping



- (1) Replace the presser foot assembly with presser foot for taping 1.
(2) Install tape guide 2 on face plate cover 3.

(3) Sewn stitches will be as shown above. (Sew tape on only in case of serging.)

Caution: Select a stitch width so the right edge of tape will not be cut by the knives. Otherwise, tape may not be sewn on in a satisfactory way.

TROUBLE SHOOTING GUIDE

Trouble	Cause	Inspection	Remedy	Page
Thread break	Wrong threading	Threading	See paragraph on threading.	6
	Excessive tension disc pressure.	Tension disc pressure.	Adjust to proper pressure.	7
	Poor-quality thread.	Thread quality	Use thread of good quality.	5
	Thread is too thick for needle eyelet.	Needle size	Use needle of correct size or thread of correct count.	5
	Needle installed incorrectly.	Direction and height of needle	See paragraph on needle installing.	5
	Needle groove and needle eyelet finished poorly.	Needle groove and needle eyelet.	Replace with good needle.	5
	Needle, loopers and thread takeups not positioned properly to one another.	Clearance between needle and looper; position of thread takeups.	See paragraphs on adjustment of under looper VS. needle bar and thread tension.	9 6
	Needle, loopers, needle plate, thread passage have flaws.	Flaws of needle, loopers, needle plate, thread passage.	Smooth with oil stone or buff.	
Stitches skip	Wrong threading.	Threading	See paragraph on threading.	6
	Excessive tension disc pressure.	Tension disc pressure.	Adjust to proper pressure.	7
	Needle installed incorrectly.	Direction and height of needle.	See paragraph on needle installing.	5
	Needle point blunt or bent.	Needle point and bend.	Replace with new needle.	5
	Needle loopers and thread takeups not positioned properly to one another, or have incorrect clearance.	Clearance between needle and loopers. Timing. Thread takeup position.	See paragraphs on adjustment of under looper VS. needle bar and thread tension.	9 6
	Needle and needle guard not positioned properly to one another.	Clearance between needle and needle guard.	See paragraph on adjustment of under looper VS. needle bar.	9
	Looper point hangs down.	Looper point.	Correct with oil stone, or replace with new looper.	

Trouble	Cause	Inspection	Remedy	Page
Needle break	Needle installed incorrectly.	Direction and height of needle	See paragraph on needle installing.	5
	Needle bent.	Needle bend.	Replace with new needle.	5
	Needle and loopers positioned improperly to one another.	Clearance between needle and loopers, their timing.	See paragraphs on adjustment of under looper VS. needle bar and adjustment of over looper.	9 10
	Needle and needle guard positioned improperly to one another	Clearance between needle and needle guard.	See paragraph on adjustment of under looper VS. needle bar.	9
Doesn't work well without cloth. (Over lock sewing)	Wrong threading.	Threading	See paragraph on threading.	6
	Excessive thread tension.	Tension disc pressure.	Adjust to correct thread tension.	7
	Loopers, thread takeups, and thread guide not positioned properly to one another.	Positions of loopers, thread takeups, thread guide.	See paragraph on thread tension.	6
	Main and differential feed dogs not uniform in height.	Feed dog height.	See paragraph on feed dog adjustment.	12
	Needle plate's tongue has flaws.	Flaws of needle plate's tongue.	Smooth with sandpaper and polish with buff.	
Doesn't work well without cloth. (Double-chain stitch sewing)	Wrong threading.	Threading	See paragraph on threading.	6
	Tensions of needle and looper threads are too great or too small.	Tension disc pressure.	Adjust to correct tensions.	7
	Needle thread guide positioned incorrectly.	Thread guide position.	See paragraph on adjustment of double-chain stitch needle thread guide.	6
	Wrong timing of double-chain stitch thread takeup assembly.	Thread takeup timing.	See paragraph on adjustment of double-chain stitch thread takeup and thread guide.	6
	Main and differential feed dogs are not level with one another.	Feed dog height.	See paragraph on feed adjustment.	12
Poor trimming performance	Upper knife and lower knife worn.	Edge of upper knife and lower knife.	Sharpen lower knife: see paragraph on stitch width adjustment.	8
	Upper and lower knives installed incorrectly.	Positions of upper and lower knives.	See paragraph on knife adjustment.	11

Trouble	Cause	Inspection	Remedy	Page
Needle makes too large holes in cloth	Needle point blunt.	Crush of needle point.	Replace with new needle.	5
	Needle too thick for cloth.	Needle size.	Replace with thinner needle.	5
Improper thread nipping	Wrong threading.	Threading.	See paragraph on threading.	6
	Thread is too thick for needle eylet.	Thread count	Replace with correct needle or thread.	5
	Tension discs don't work right.	Operation of tension discs.	Remove dust from between tension discs to let them work smoothly.	/
	Needle, loopers and thread takeups positioned improperly to one another.	Timing of needle and loopers; positions of thread takeups.	See paragraphs on adjustment of under looper VS. needle bar and thread tension.	9 6
Irregular stitches	Wrong threading.	Threading	See paragraph on threading.	6
	Thread not uniform in thickness.	Thread quality	Use thread of good quality.	5
	Thread passage defective.	Flaws of thread passage.	Smooth thread passage.	/
	Thread takeups and thread guides not positioned properly to one another.	Positions of thread takeups and thread guides.	See paragraph on thread tension.	6
	Upper and lower knives don't cut well.	Edge of upper and lower knives.	See paragraph on stitch width adjustment (Caution).	8
	Lower knife installed incorrectly.	Position of lower knife.	See paragraph on knife adjustment.	11

Trouble	Cause	Inspection	Remedy	Page
Excessive wrinkles by sewing	Needle too thick.	Needle size.	Select needle suitable to cloth and threads.	5
	Differential feed not adjusted right.	Differential feed scale.	See paragraph on stitch length and differential feed adjustment.	8
	Presser foot pressure incorrect.	How far presser foot adjusting screw is turned in.	Adjust pressure correctly.	7
	Excessive thread tension.	Tension disc pressure.	Adjust to correct pressure.	7
	Upper and lower knives don't cut well.	Edges of upper and lower knives.	See paragraph on stitch width adjustment (Caution).	8
	Trimming width and needle plate's tongue not balanced.	Trimming width and needle plate's tongue.	Adjust trimming width to needle plate, or replace needle plate.	8
	Feed dogs installed incorrectly.	Feed dog height.	See paragraphs on presser foot pressure adjustment and feed adjustment.	7 12



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☐ **Assemble as shown in the figure below.**

❑ Wie in der nachstehenden Abbildung gezeigt zusammenbauen.

◆ Monter comme indiqué dans la figure ci-dessous.

◆ Armar tal como se muestra en la figura a continuación.



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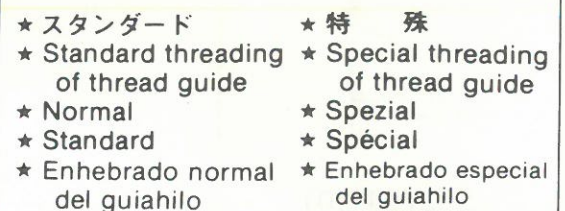
2	4THF
2THF2	5THF
3	6
3THF	6THF
4	

2D
3D

2DR
3DRTHF

3THFD

- ◆ 糸の通し方
- ◆ Threading
- ◆ Fadenführung



- ★ スタンダード
- ★ Standard threading
of thread guide
- ★ Normal
- ★ Standard
- ★ Enhebrado normal
del quiahilo

- ★ 特 殊
- ★ Special threading
of thread guide
- ★ Spezial
- ★ Spécial
- ★ Enhebrado especial
del guiahilo

工業ミシン糸立台

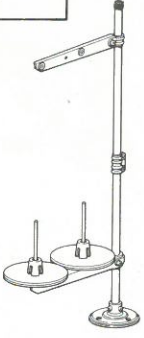
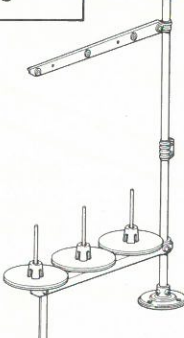
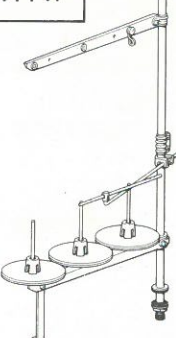
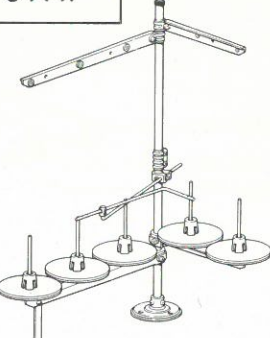
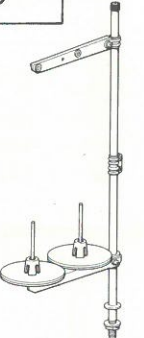
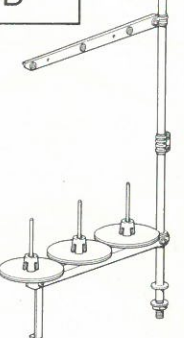
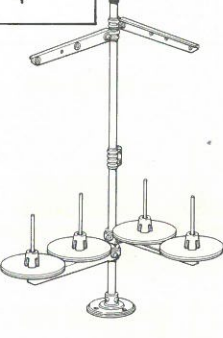
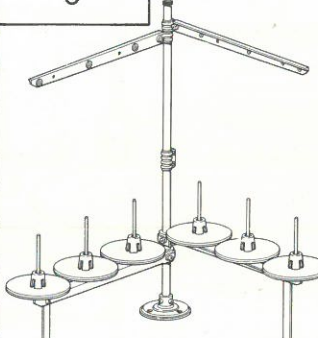
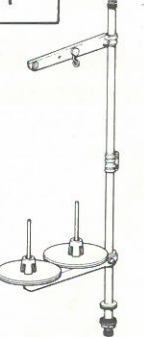
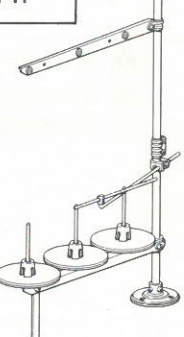
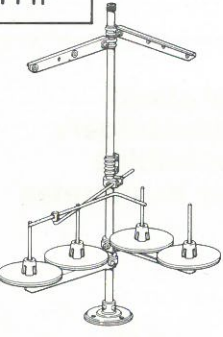
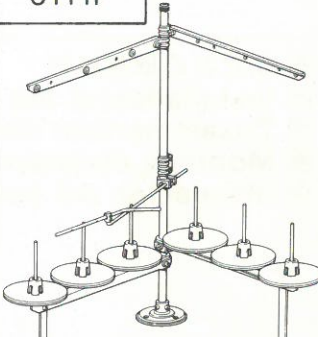
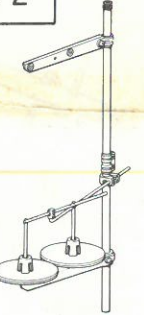
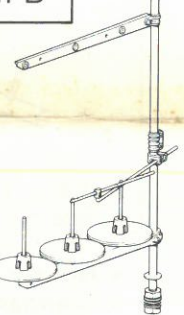
Spool stand for industrial sewing machines

Spulenträger für Industrie-Nähmaschinen

Bobine pour machines à coudre industrielles

Portador de carretes para máquinas de coser industriales

◆ 種類 / Type / Typ / Type / Tipo

2  S02761-001	3  S02765-001	3DRTHF  S07558-001	5THF  S02770-101
2D  S02762-001	3D  S02766-001	4  S02768-001	6  S02771-001
2DR  S02763-201	3THF  S02767-101	4THF  S02769-101	6THF  S02772-101
2THF2  S02764-101	3THFD  S06932-101		

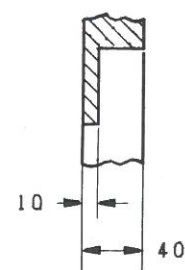
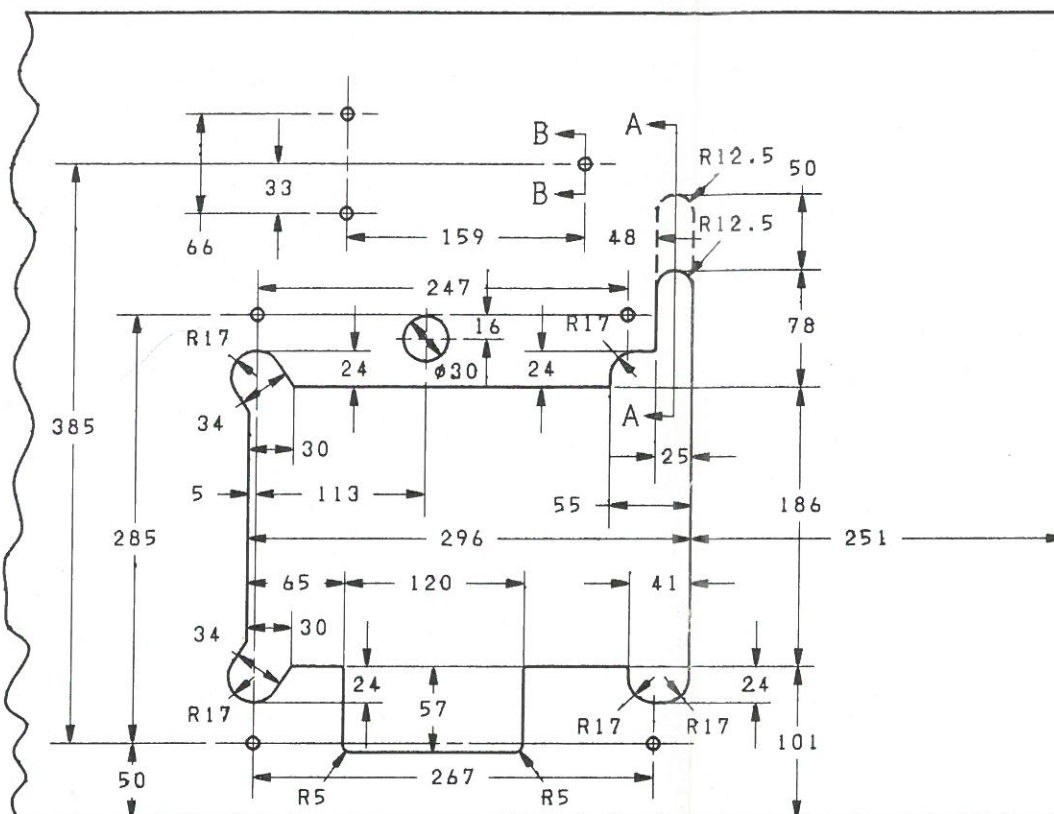
半沈式テーブル加工図

Table cut-out drawing for semi-submerged installation

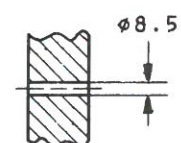
Vorlage zum Ausschneiden des Tisches für die halbversenkte Aufstellung

Schéma de découpe de table pour installation semi-submergée

Diagrama de cortes en la mesa para instalación semisumergida



A - A



B - B

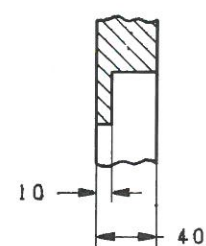
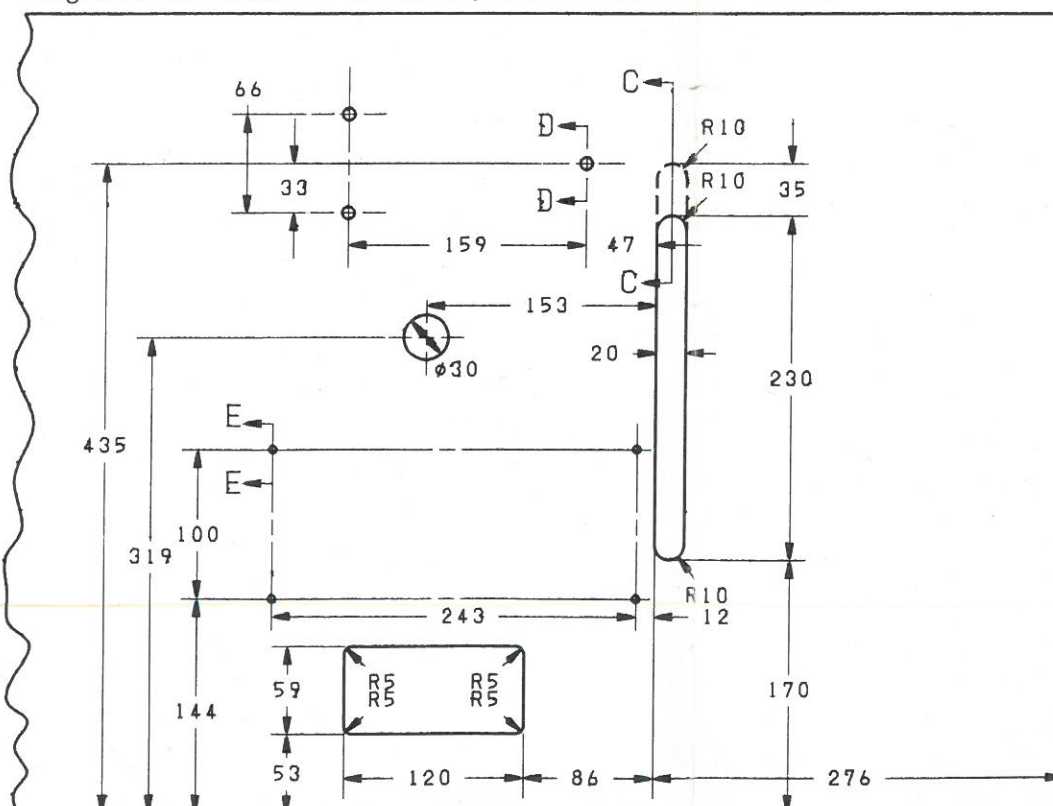
フラット式テーブル加工図

Table cut-out drawing for flat table installation

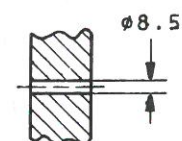
Vorlage zum Ausschneiden des Tisches für die nichtversenkte Aufstellung

Schéma de découpe de table pour installation a plat sur la table

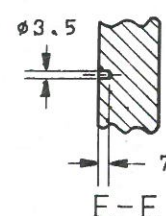
Diagrama de cortes en la mesa para instalación de mesa plana



C - C



D - D



E - E

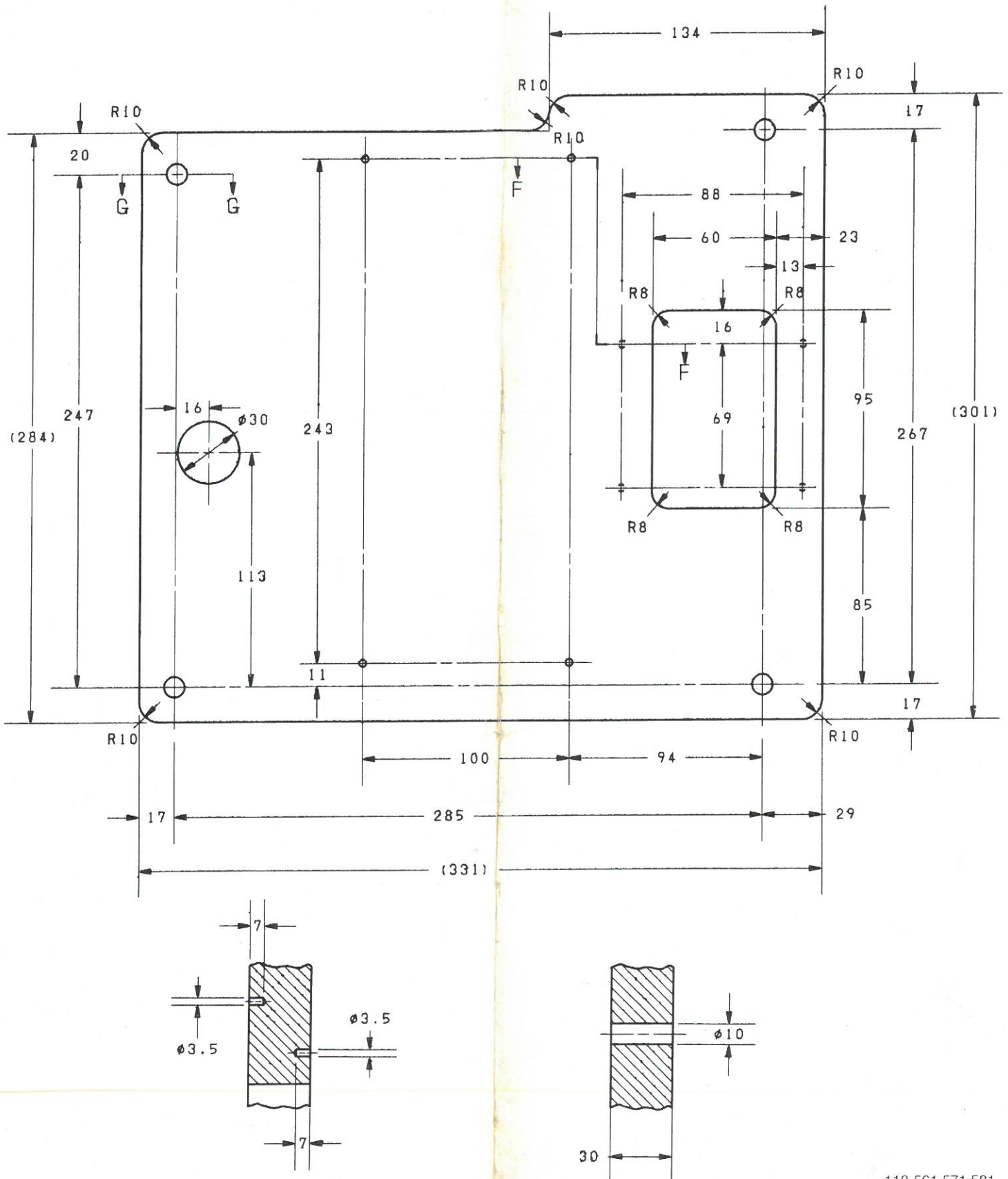
半沈式頭部受用加工図 (アルミ製頭部受の場合は不要)

Machine base plate cut-out drawing for semi-submerged installation (No need with aluminum machine base plate)

Vorlage zum Ausschneiden der Grundplatte für die halbversenkte Aufstellung (nicht nötig für Aluminium-Grundplatte)

Schéma en coupe du berceau de la machine pour installation semi-scellée (Inutile pour le berceau de machine en aluminium)

Diagrama de cortes para la instalación semi-sumergida de la placa base de la máquina (no es necesario si la placa base de la máquina es de aluminio)



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