

SINGER
569U1100

Aug. '92

SINGER*
INDUSTRIAL PRODUCTS

569U

1100SERIES

Operator's Guide

High Speed Single Needle Lockstitch Bar Tacking Machine

* A trademark of THE SINGER COMPANY

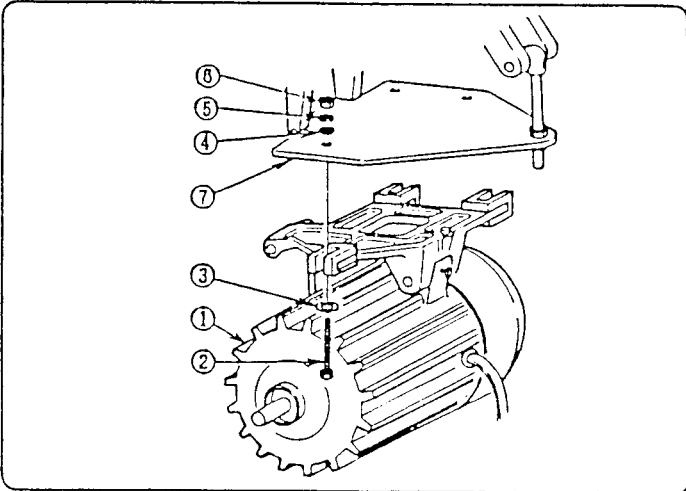
The SINGER* 569U class machine is a high speed, single needle, lockstitch, bar tacking machine and designed for pleasant sewing with stable high quality.

For best sewing results, it is suggested a few moments be taken to read through this operator's guide as you sit at your new machine.

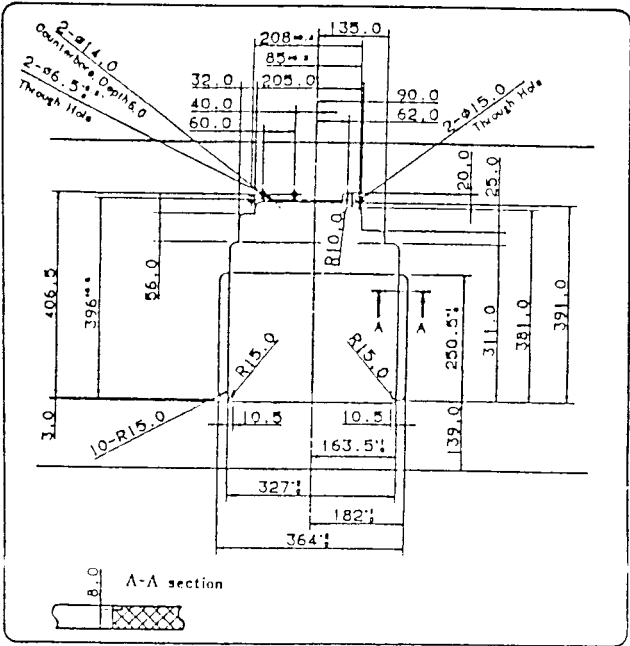
TABLE, STAND AND MOTOR

1. Table: Part No. 505986-002 or equivalent
2. Stand: Part No. 601001-1102 or equivalent
3. To Mount Motor

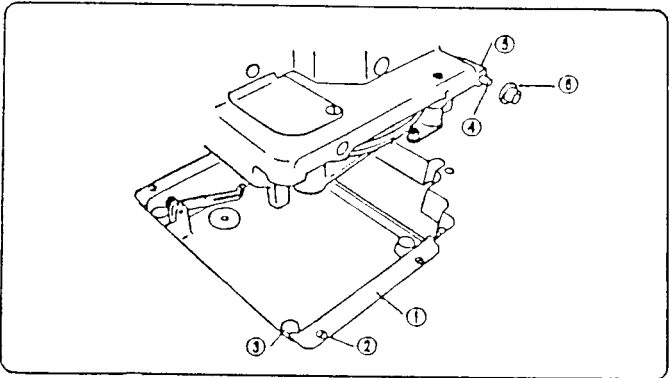
When using a commercial table, prepare in accordance with following chart.



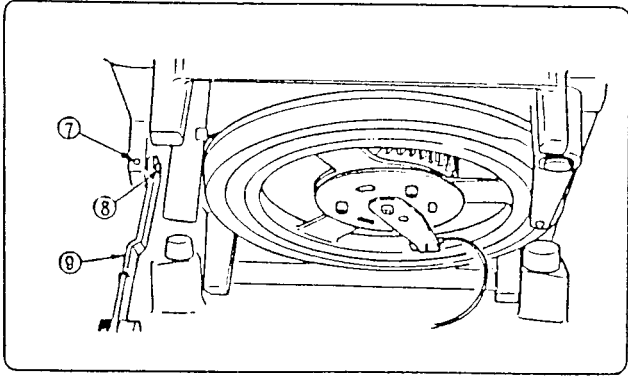
Mount Motor (1) to Belt Tightener Hinge Plate (7) with Motor Mounting Bolts (2), Washers (3), Washers (4), Spring Washer (5), and Nuts (6).



MACHINE HEAD INSTALLATION

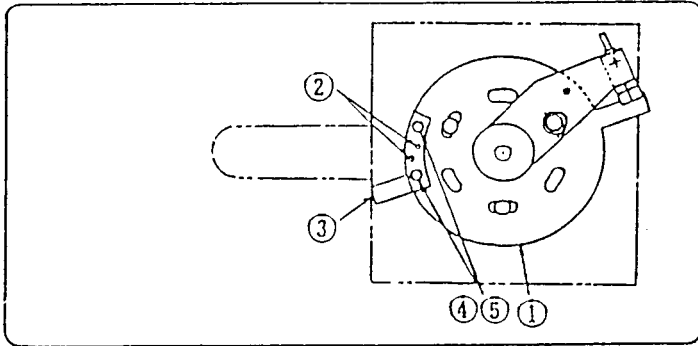


1. Assemble Oil Drip Pan (1) to table with four Flat Head Wood Screws (2).
2. Assemble Cushions (3) to four corners of Oil Drip Pan (1).
3. Insert Machine Hinges (4) into two places on the side of cylinder, tighten with Set Screws (5), assemble Machine Hinge Collars (6) to Machine Hinges, and quietly place machine head on Oil Drip Pan.



4. Tip machine back, loosen Set Screw (7), insert Machine Tilting Latch Lever Hinge Stud (8) into the long groove on Latch Lever (9) and tighten Set Screw (7).
5. To return machine in place, pull Machine Tilting Latch Lever (9) towards operator and raise machine quietly.

ASSEMBLY OF STOP SENSOR DETECTING BLADE



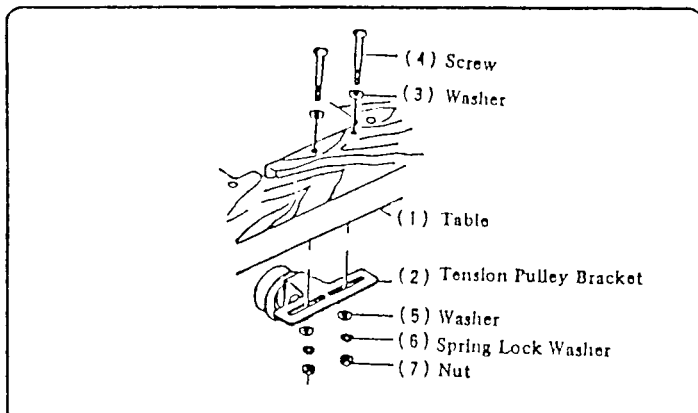
<569U1109-21L·569U1138-21L>
Align Position Pin (2) on Stop Sensor Detecting Plate (1) to hole in Stop Sensor Detecting Blade (3) and fasten Stop Sensor Detecting Blade (3) to Stop Sensor Detecting Plate (1) with Screw (4) and Washer (5).

MOTOR PULLEY AND BELT

Motor Pulley
Belt

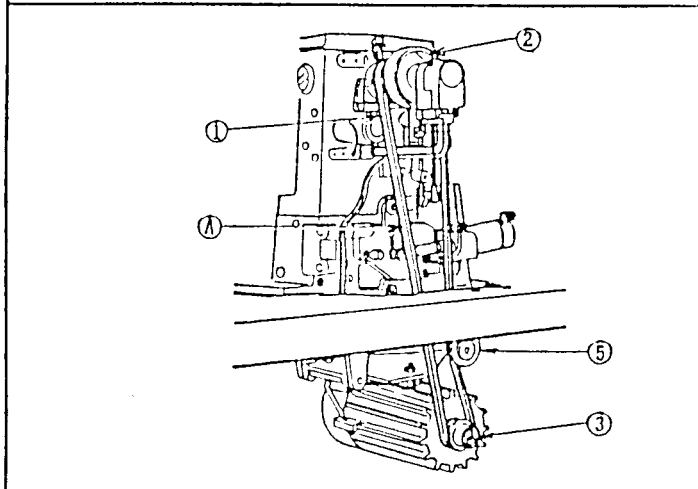
DIA 60 mm
M type V-Belt

P/N 373031-001
P/N 418487



1. To install the Tension Pulley

Fasten Tension Pulley to underside of Table as shown in the sketch.

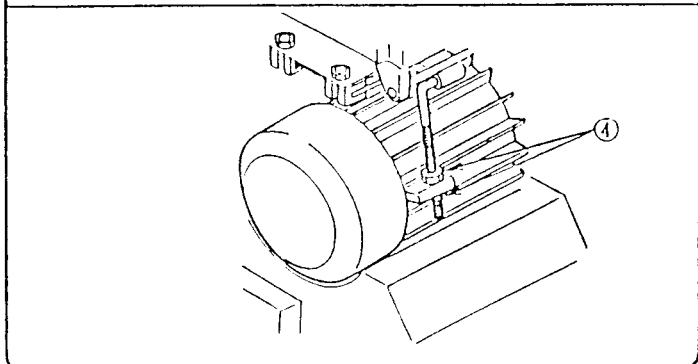


2. To install the Motor Belt

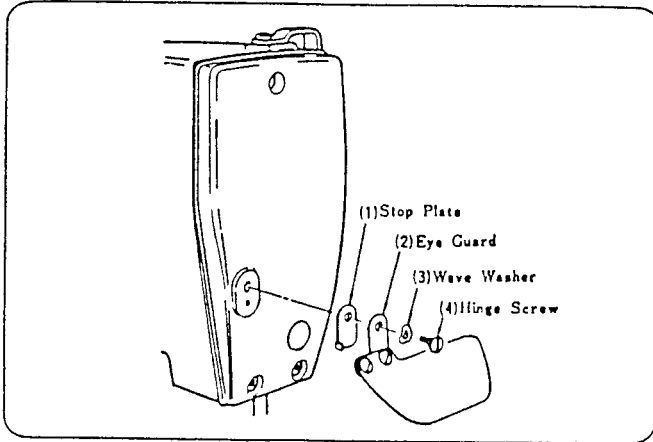
Slip V-Belt (1) onto Pulley (2) and Motor Pulley (3).

The Belt tension should be adjusted so that the Belt would deflect approximately 10 mm when pressed midway between the two Pulleys at point (A).

To adjust, loosen two Nuts (4) and move Motor up or down as required. When correct tension has been obtained, tighten the two Nuts (4) and press Tension Pulley (5) lightly against the Belt.

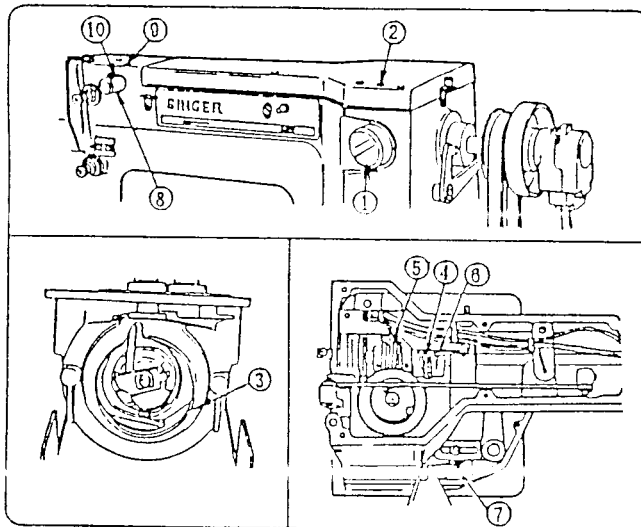


ASSEMBLY OF EYE GUARD



Assemble Eye Guard to Face Plate according to sequence shown in the sketch.

LUBRICATION



Use SINGER Oil "TYPE C"

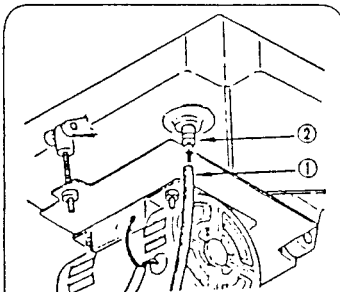
When oil in Oil Window ① is low, fill from Oil Hole ②.

When machine is new or has been idle for a long period, apply one drop of oil to Shuttle Race surface ③ and also to Crank Connecting Rod Oil Felt ④, Vertical Drive Shaft Worm Oil Felt ⑤, Oscillating Rock Shaft Oil Felt ⑥ and Cylinder Oil Felt ⑦ until the felt is soaked.

When Thread Lubricating Reservoir ⑧ is used, fill with silicone oil from Oil Hole ⑨.

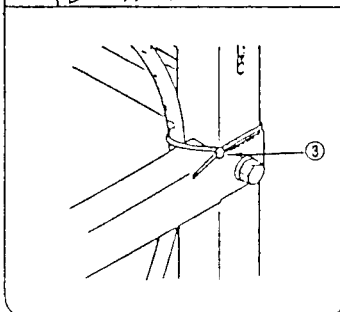
In this case, check to see silicone oil sticks to needle thread passed through Thread Guide ⑩.

ATTACHING THE OIL TUBE



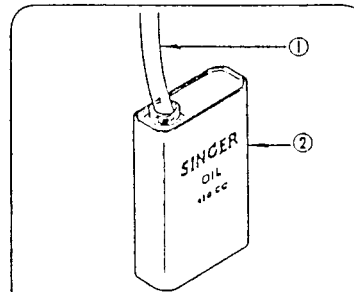
1. Fit Oil Drain Tube ① to Oil Drain Tube Screw Sleeve ② on underside of Drip Pan and push it on as far as it will go.

2. Fasten Oil Drain Tube ① to Stand lightly with Tube Retainer ③.

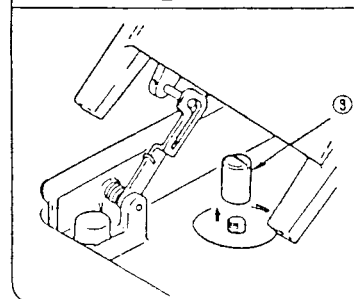


Note: Be sure the Drain Tube is not compressed by fastening it too tightly.

USED OIL

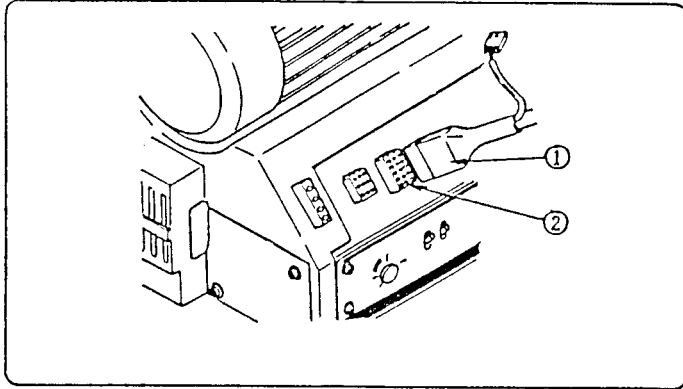


1. Insert end of Oil Drain Tube ① into empty Oil Can ②



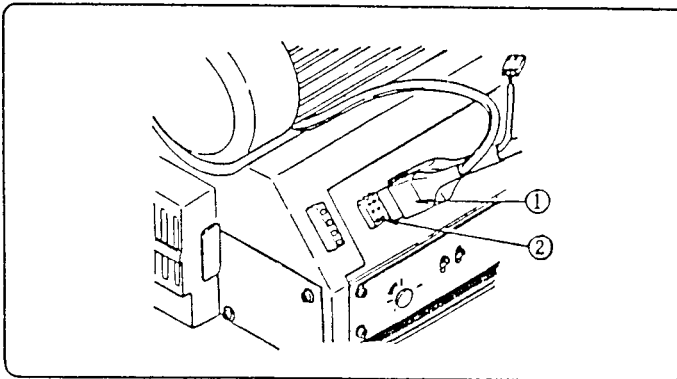
2. Tip machine back and hold it in this position with Machine Tilting Latch Lever ④ and remove Drip Pan Cap Screw ③

TO CONNECT THE FOOT SWITCH CABLE



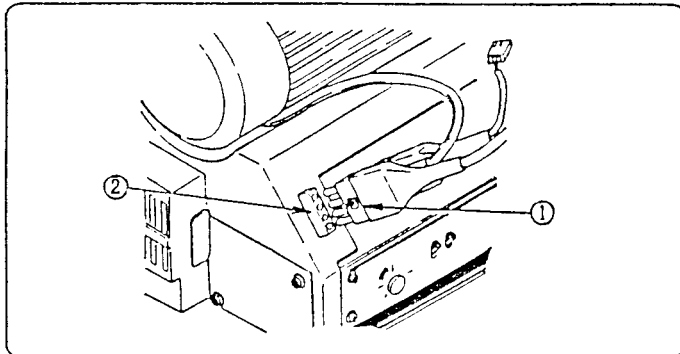
Connect Plug (15P) ① on Foot Switch Cable to Receptacle (15P) ② on Motor Control Box as shown in the sketch.

TO CONNECT THE MOTOR ENCODER CABLE



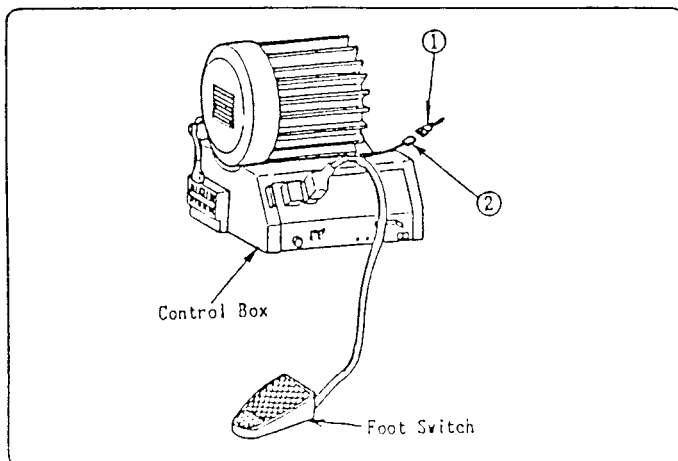
Connect Plug (9P) ① on Encoder Cable leading out from rear of Motor to Receptacle (9P) ② on Motor Control Box as shown in the sketch.

TO CONNECT THE POWER SUPPLY CABLE



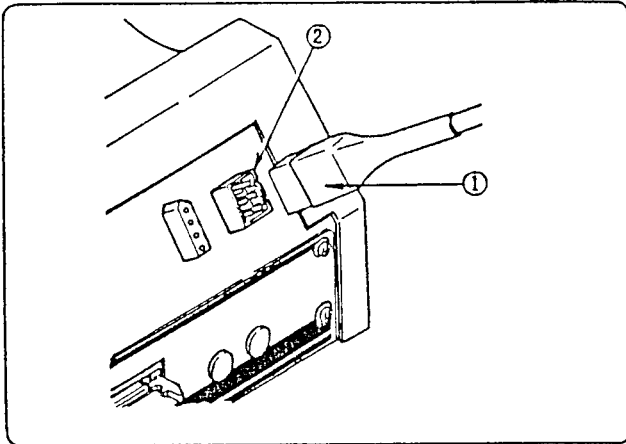
Connect Plug (4P, blue) ① on Power Supply Cable to Receptacle (4P, blue) ② on Control Box as shown in the sketch.

TO CONNECT THE SENSOR CABLE



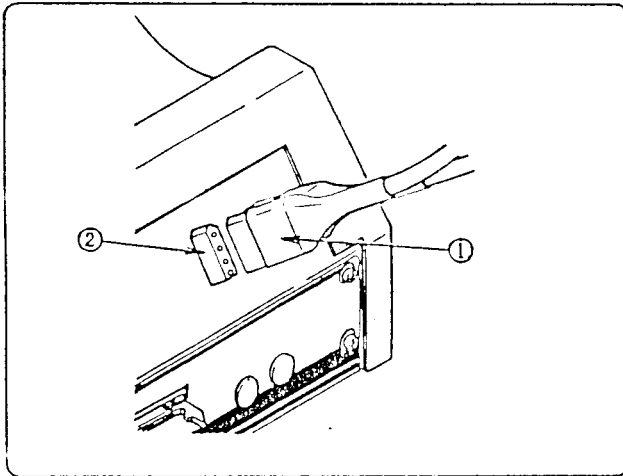
Connect Sensor Plug (3P) ① to Receptacle (3P) ② on Cable branched off from Foot Switch Cable as shown in the sketch.

TO CONNECT THE SYNCHRONIZER CABLE



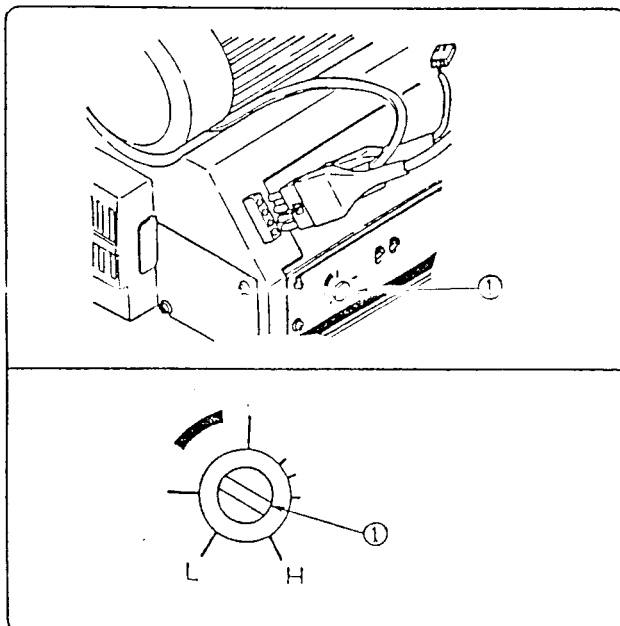
Connect Receptacle (6P) ① on Synchronizer Cable to Plug (6P) ② on Motor Control Box as shown in the sketch.

TO CONNECT THE FILTER REGULATOR SOLENOID VALVE CABLE



Connect Plug (4P) ① on Filter Regulator Solenoid Valve Cable to Receptacle (4P) ② on Motor Control Box as shown in the sketch.

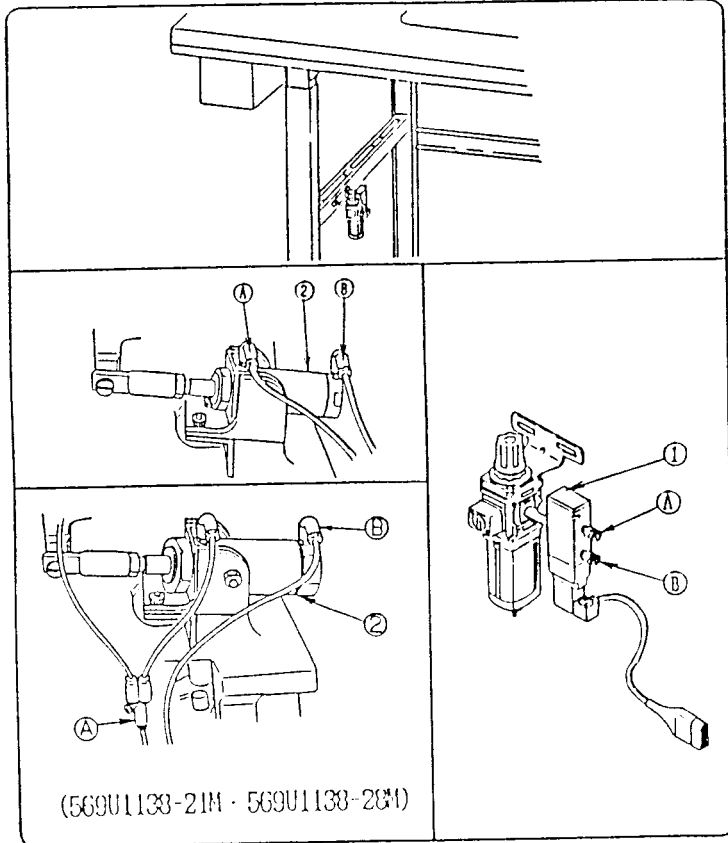
TO ADJUST THE MACHINE SPEED



Machine speed can be varied up to 2300 s.p.m. (max) by adjusting the Speed Control Volume (covered with rubber cap) ① on the Control Box. Machine speed should be adjusted in accordance with the type of work being done.

Machine speed is set at 2000 s.p.m. when the machine leaves the factory.

PIPING FOR PNEUMATIC SYSTEM



1. To install the Filter Regulator

Drill two holes in the stay on the left Stand and fasten Filter Regulator with Bolts and Nuts.

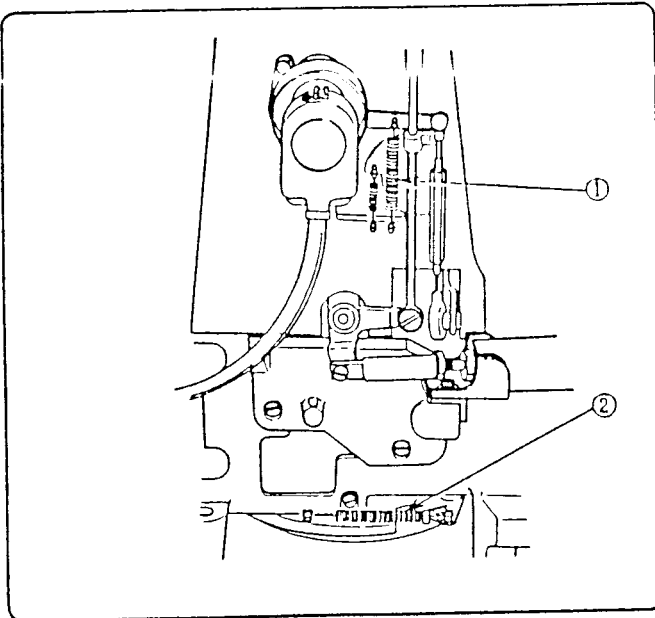
2. To install the Air Tube

Connect Port (A) of Filter Regulator Solenoid Valve (1) with Port (A) on the shaft side of the Air Cylinder (2) with an Air Tube.

Connect Port (B) of Filter Regulator Solenoid Valve (1) with Port (B) on the underside of the Air Cylinder (2) with an Air Tube.

The air pressure should be adjusted within 6 Kg/cm (max).

OPERATION OF THE MACHINE



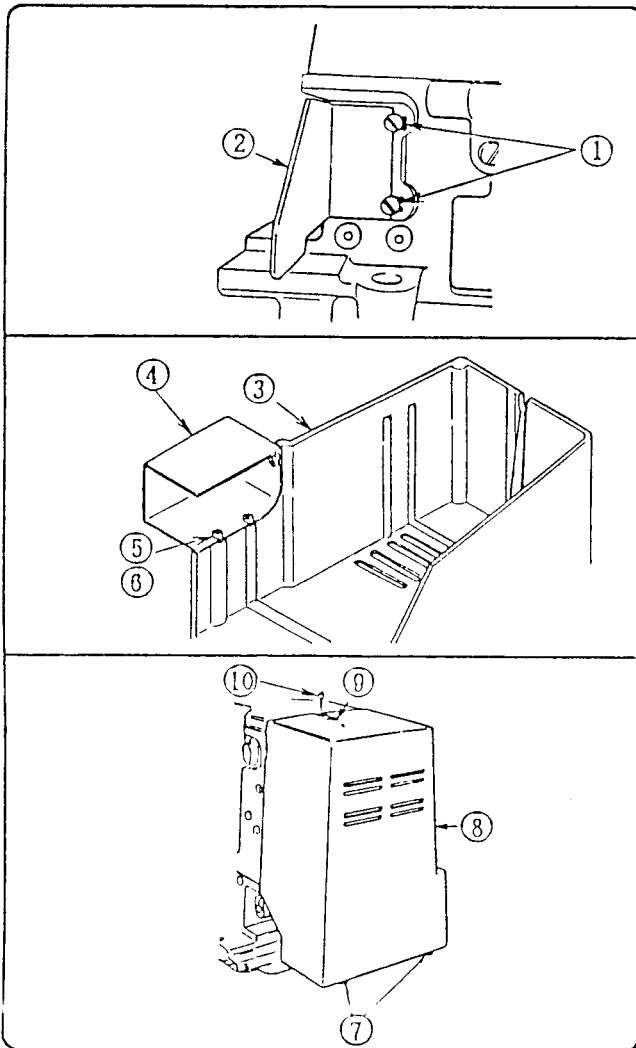
1. Clamp Foot will rise when Power Switch is turned on.
2. Clamp Foot will descend when Foot Switch is depressed.
To raise the Clamp Foot, release the Foot Switch.
3. Depress the Foot Switch and machine will start to run.
Release Foot Switch immediately when machine starts to run.
4. After sewing the specified number of stitches and trimming the thread, the Clamp Foot will rise and the machine will stop.

Note: To rotate the machine with hand, turn off Power Switch and unhook Knife Bar Operating Cam Connecting Crank Spring (1) and Knife Bar Operating Cam Releasing Arm (lower) Spring (2).

Be sure the Stop Sensor Detecting Blade attached to the inspection tag is fastened to the Stop Sensor Detecting Plate before operating the 569U1109-21L·569U1138-21L machines. (See page 2)

Caution: Do not turn machine in reverse direction as this may result in malfunction of the machine.

TO ASSEMBLE THE COVERS



1. Cylinder Cover (back)

Place Cylinder Cover (back) ② in position as shown in sketch and tighten Screw ①.

2. Clamp Lifting Cylinder Cover

Fasten Clamp Lifting Cylinder Cover ④ to Belt Guard ③ with Screw 5 and Washer ⑥ as shown.

3. Belt Guard

Place Belt Guard ⑧ in position by inserting the two Cushions ⑦ on the Belt Guard into the holes in the table and hold in position by fastening Belt Guard Lock Plate ⑨ to arm with Lock Plate Screw ⑩.

Caution : When assembling or removing Belt Guard, be sure to turn power switch off.

NEEDLES

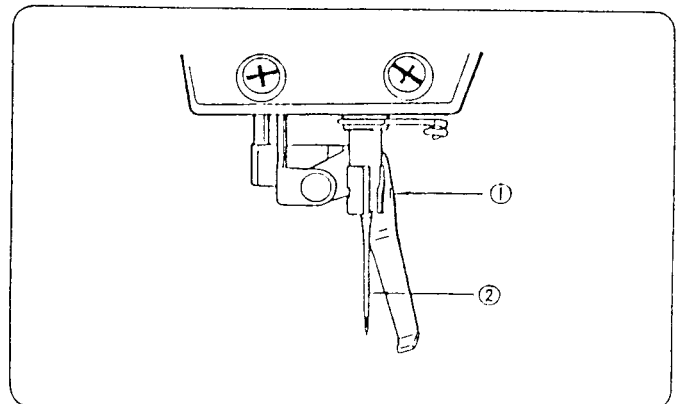
Needle used has a direct affect on the quality of the stitches produced. Correct needle usage is very important for complete function of the machine and so always use Singer Needles indicated in chart to obtain best sewing finish.

Needles	
Catalog No.	Size
1955-01	8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24 and 25

Needle size differs according to thread thickness and type of material, and so select a needle best suited for this. When proper needles are used, thread can be threaded freely through the needle eye and thread will not break during sewing.

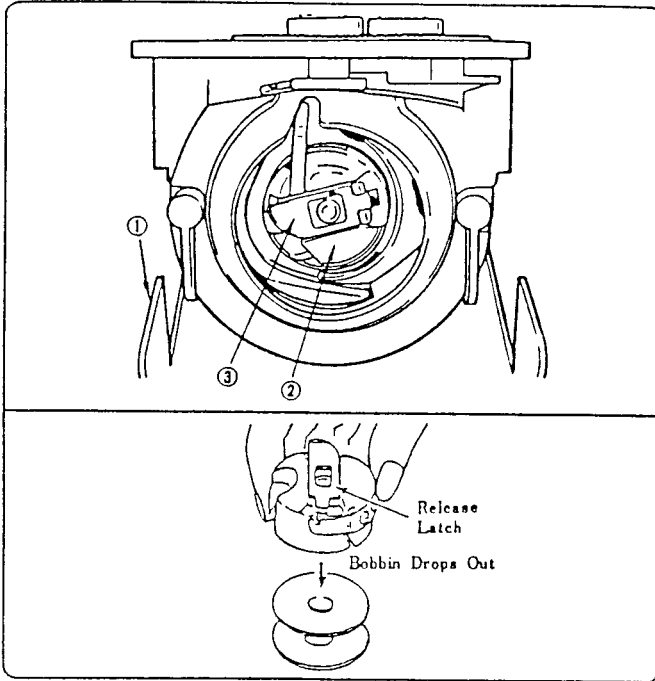
A bent needle can be cause of skip stitches. Also blunt or burred needle points may cause skip stitches and material damage.

INSERTING OF NEEDLE



Loosen Needle Clamping Screw ① and insert Needle ② fully into Needle Bar with long groove of Needle ② facing operator. Securely tighten Needle Clamping Screw ①.

REMOVING AND REPLACING OF BOBBIN CASE



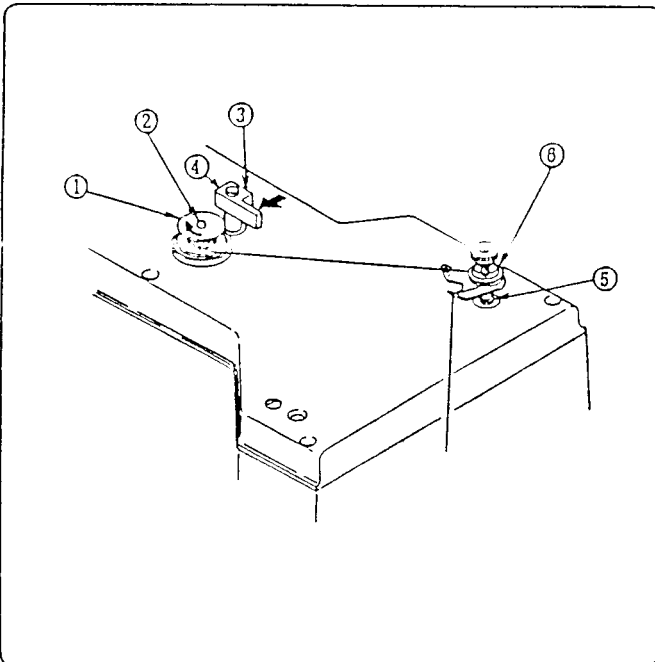
Pull Cylinder Cover ① toward operator and open, raise Latch ③ on Bobbin Case ②, and remove Bobbin Case.

While Latch is raised, Bobbin will not drop out of Bobbin Case.

To replace, insert Bobbin Case fully into Stud on Shuttle and release Latch.

To remove Bobbin from Bobbin Case, release Latch, face opening of Bobbin Case downwards and Bobbin will drop out as shown.

WINDING OF BOBBIN



Insert Bobbin ① fully into Bobbin Winder Spindle ②.

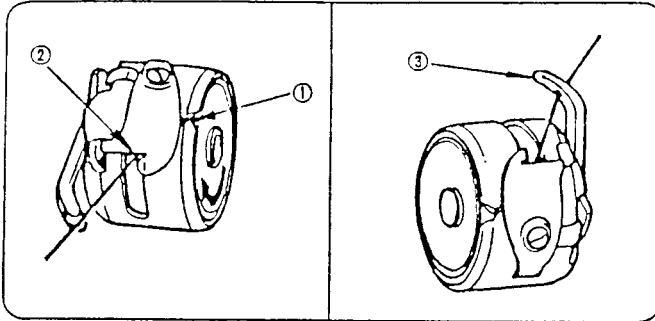
Pass thread as illustrated and wind thread end a few times in the arrow direction.

Pressing Bobbin Winder Stop Latch Thumb Lever ③ in the arrow direction, thread will automatically wind and automatically stop when specific amount of thread is wound. To decrease thread amount on Bobbin, loosen Screw ④ and move Lever ③ in the arrow direction.

When thread winds unevenly on the Bobbin, loosen Nut ⑤ and move Bobbin Winder Tension ⑥ up or down as required.

Then tighten Nut ⑤.

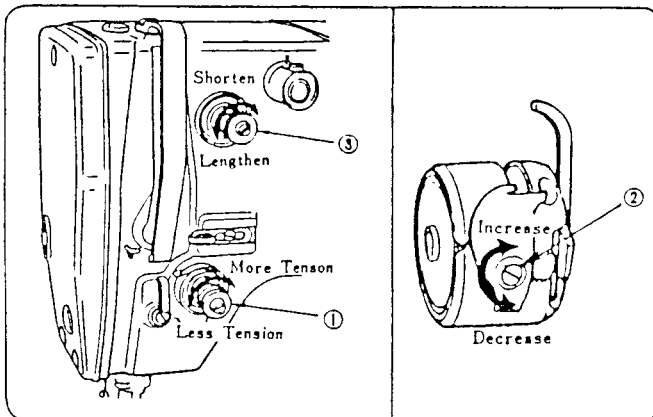
THREADING OF BOBBIN CASE



Place Bobbin into Bobbin Case, pass thread through slot ① and draw from hole ②. At this time, check to see Bobbin rotates in the arrow direction.

Pass thread through hole ③ on tip of finger and draw about 4 cm of thread from the hole.

ADJUSTMENT OF THREAD TENSION



Needle Thread Tension

To increase needle thread tension, turn Tension Regulating Thumb Nut ① to the right, and to decrease, turn to the left.

Bobbin Thread Tention

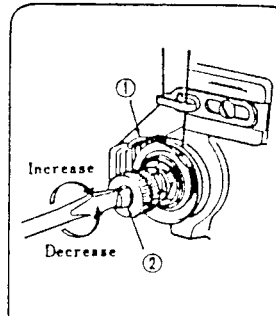
To increase bobbin thread tension, turn Fulcrum Tension Regulating Screw ② to the right, and to decrease, turn to the left.

Needle Thread End Length After Trimming

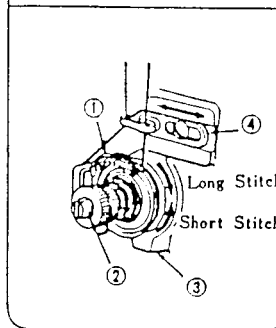
To shorten needle thread end after trimming, turn Pre-Tension Regulating Thumb Nut ③ to the right, and to lengthen, turn to the left.

Thread end length should be as short as possible but should not pull out of needle eye.

ADJUSTMENT OF THREAD TAKE-UP SPRING & THREAD RETAINER



Tension and operating range of Thread Take-Up Spring ① may require different settings depending upon the size of thread and material used. Heavier thread or material requires stronger tension, thin material requires less tension and longer operating range.

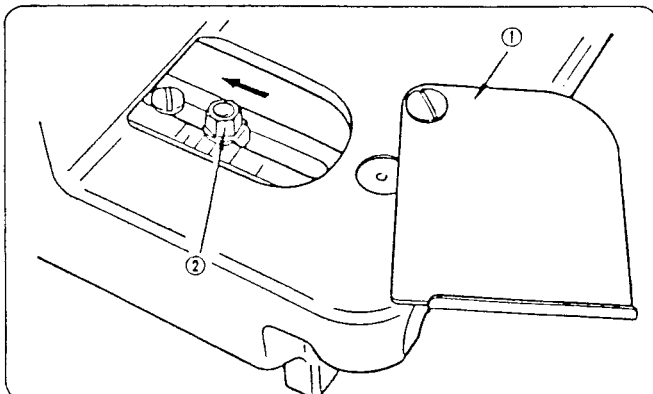


To adjust spring tension, insert a large screwdriver into slot of Stud ② and turn left to decrease or right to increase.

To adjust spring operating range, loosen Screw ③ and turn entire assembly to left to decrease or right to increase.

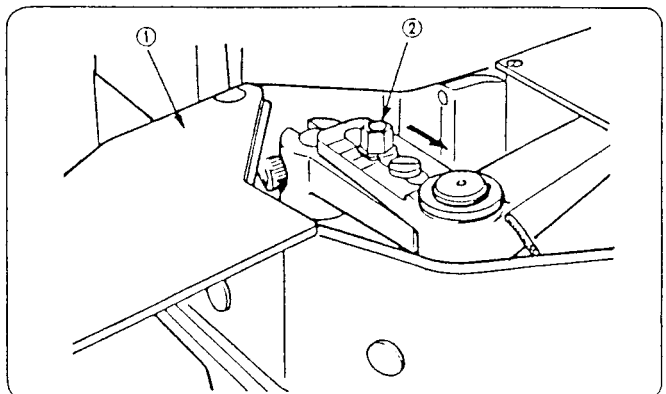
To obtain good stitch tightness depending on the thickness of material or length of stitch, it may be necessary to adjust the Thread Guard ④ to the left or right. For heavy material or long stitches, move Thread Guard to the right and for light material or short stitches, move Thread Guard to left.

ADJUSTMENT OF BAR TACKING LENGTH



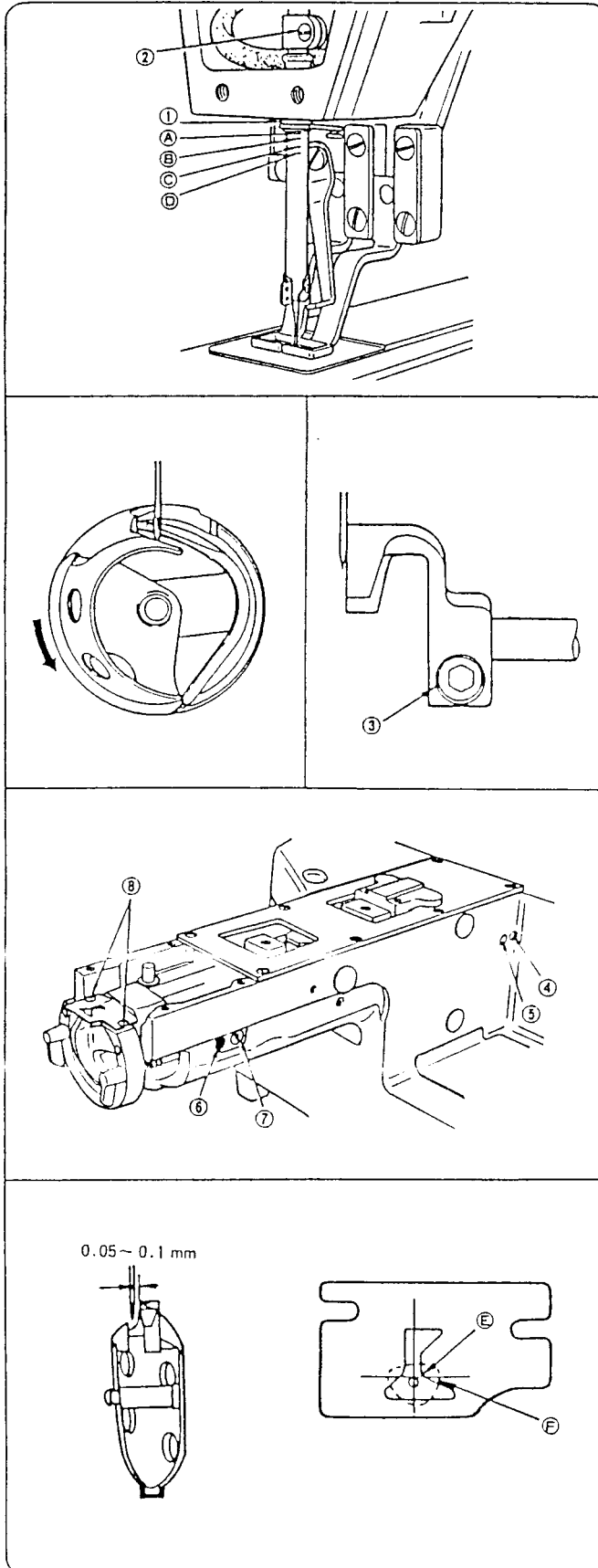
Open Cover ① and loosen Nut ②. To lengthen bar tacking length, move Nut ② in the arrow direction, and to shorten, move in the opposite direction.

ADJUSTMENT OF BAR TACKING WIDTH



Open Cover ① and loosen Nut ②. To widen bar tacking width, move Nut ② in the arrow direction, and to reduce, move in opposite direction.

ADJUSTMENT OF NEEDLE AND SHUTTLE



1. To Adjust Needle Bar Height

Turn Driving Wheel by hand (See page 6) until Needle Bar is at its lowest point. Loosen Needle Bar Connecting Link Screw ② and move Needle Bar up or down until the highest mark ① on Needle Bar aligns with lower end of Needle Bar Lower Bushing ①. If Catalog No. 3355-01 needle is used, align lower end of Needle Bar Lower Bushing with the third mark ③.

2. To Adjust Timing of Needle and Shuttle

Raise Needle Bar from its lowest point by turning Driving Wheel with hand and align the second mark ② on Needle Bar with end of Needle Bar Lower Bushing ①. Loosen Screw ③ and turn Shuttle Body in the arrow direction so that the center of needle aligns with shuttle point. If Catalog No. 3355-01 needle is used, align lower end of Needle Bar Lower Bushing with mark ④.

3. To Adjust Needle and Shuttle Driver

Turn Driving Wheel by hand and align shuttle point with the center of needle. Loosen Screw ④ and turn Oscillating Shaft Bushing Adjusting Stud ⑤ so that Needle contacts with Shuttle Driver. If Shuttle Driver does not properly contact needle, needle and shuttle point will interfere causing damage to the parts. If the contact is too heavy, it will cause skip stitching.

4. To Adjust Clearance Between Needle and Shuttle Point

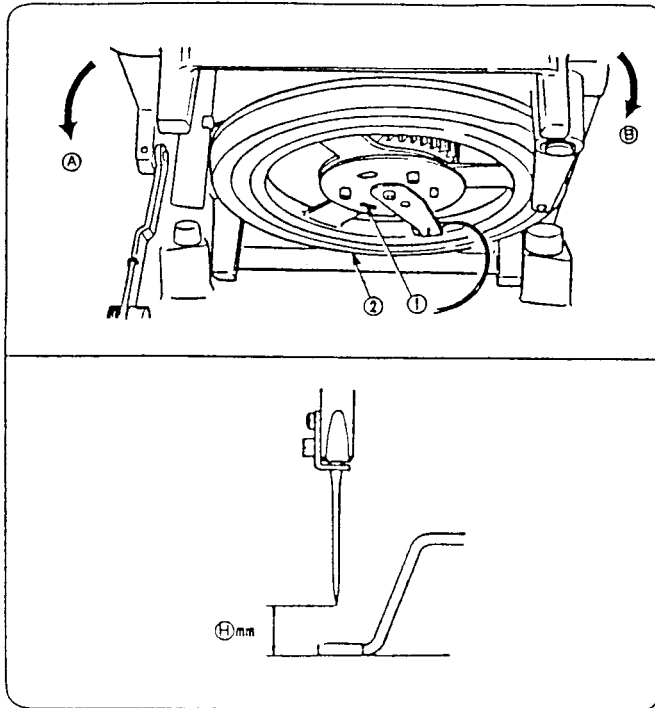
Turn Driving Wheel by hand and align shuttle point with the center of needle. Loosen Set Screw ⑥ and turn Shuttle Race Body Adjusting Stud ⑦ so that clearance between Needle and Shuttle point is 0.05 to 0.1mm.

5. To Adjust Shuttle Bobbin Cap Location

Loosen two Screws ⑧, move and adjust Shuttle Bobbin Cap so that needle location at penetration is equal in the left and right direction, and back of needle is even with corner ⑤ in the back and forth direction. Care must be taken as when Shuttle Bobbin Cap is out of position either in left and right or back and forth direction, needle thread will be caught in Shuttle.

If there should be any bruises at location ⑥, this will be causes for bobbin thread breakage and so remove bruises with emery cloth and polish with green rouge.

ADJUSTMENT OF FEED TIMING

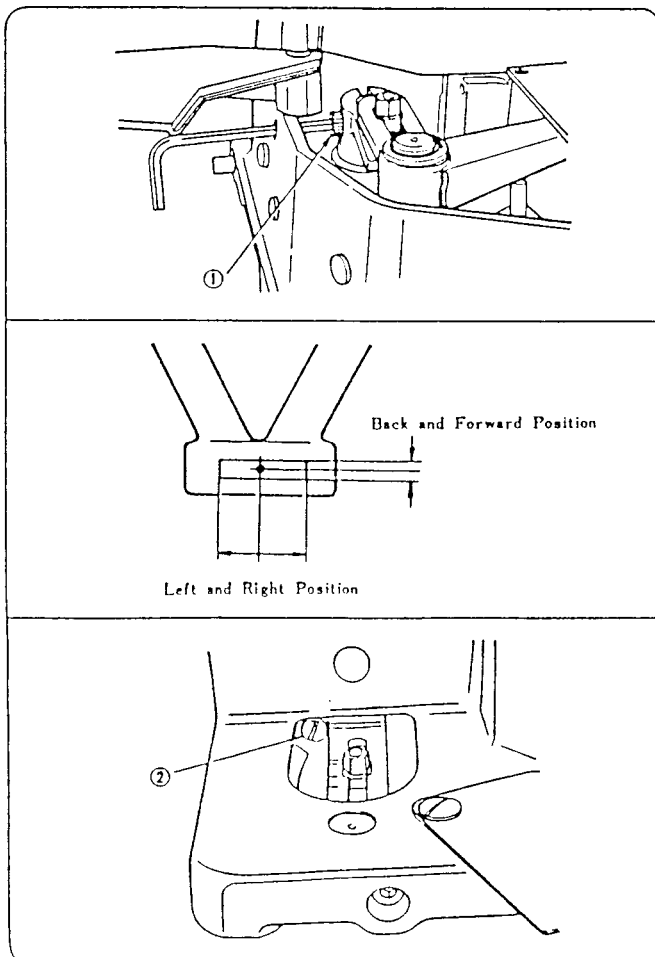


Loosen three Socket Head Bolts ① and adjust timing by turning Feed Cam ② so that when needle point is lowered to the height of H mm from throat plate upper surface, Feed Dog stops.

For earlier feeding, turn Feed Cam to direction A, and for later feeding, turn to direction B. Height H differs according to models as shown in the following chart.

Model	1108-42H 1111-42L 1108-42H 1138-21H 1109-21L	1109-28L 1141-28H 1138-28H 1149-28H 1139-28H 1105-22 1141-28H 1117-10	1142-30H 1142-30H
Height H (mm)	6	10	7

ADJUSTMENT OF PRESSER FOOT POSITION



1. To Adjust Back and Forward Position of Presser Foot

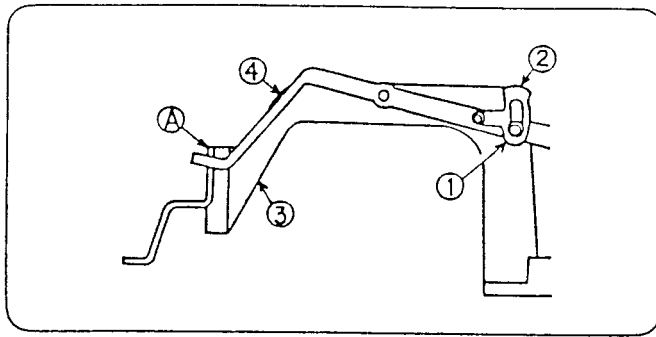
Turning Driving Wheel by hand, lower needle into needle hole the specified times shown in the chart below and with needle in the hole, loosen Socket Head Bolt ① and move Presser Foot back or forward.

2. To Adjust Left and Right Position of Presser Foot

Lower needle into needle hole in the same way as item 1. With needle in hole, loosen Screw ② and move Presser Foot left or right so that clearance between needle and Presser Foot is even left and right.

Model	1108-42H 1108-42H	1109-21H 1109-28L	1138-21H 1138-28H
Stitch	6	4	
Model	1139-28H	1142-30H 1142-30H	1140-28H 1111-42L 1141-28H 1141-28H
Stitch	1	7	2 5

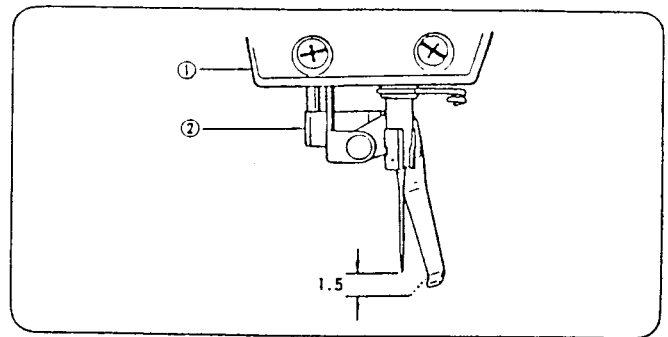
ADJUSTMENT OF CLAMP FOOT HEIGHT



Loosen Socket Head Bolt ① and adjust Presser Foot height by moving Arch Clamp Foot Lifting Lever Adjusting Plate ② up or down. Maximum Presser Foot lift amount is 17mm from Throat Plate upper surface. Check and make sure there is no interference between Arch Clamp Frame ③ and Arch Clamp Foot Lifting Lever ④ at point A.

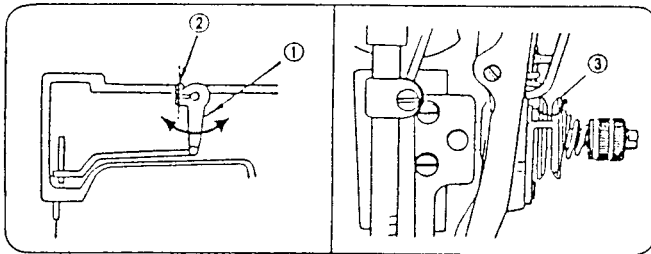
NOTE: When clamp foot height is set higher than 17mm, there is a possibility that interference may occur between Arch Clamp Frame ③ and Arch Clamp Foot Lifting Lever ④.

ADJUSTMENT OF WIPER HEIGHT



Loosen Screw ① and adjust Wiper height by moving Wiper Bracket ② up or down so that when Wiper passes needle point, clearance between Wiper and needle point is 1.5mm.

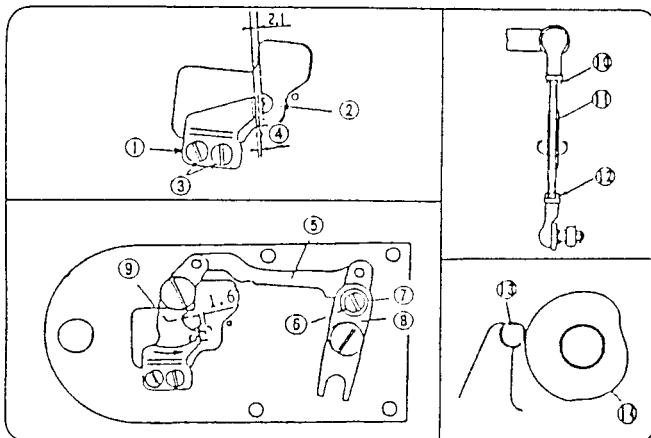
ADJUSTMENT OF TENSION RELEASING BAR



Loosen Tension Releasing Bar Operating Arm Screw ② and adjust Tension Releasing Bar Operating Arm ① so that the Tension Discs ③ will begin to release when Movable Knife starts to move as the Clamp Foot is raised.

Note: Be sure the Tension Discs are not open when Clamp Foot is in its down position.

ADJUSTMENT OF KNIVES



1. To Adjust Stationary Knife Position

Loosen Stationary Knife Screw ③ and move Stationary Knife ① so that clearance between the knife and the center of needle hole ② in Throat Plate is 2.1 mm.

Size of needle hole	Clearance between stationary knife and center of needle hole	(for reference) Clearance ④ between stationary knife and edge of needle hole
φ 1.6	2.1mm	0.6mm
φ 2.0	2.1mm	0.6mm
φ 2.5	2.1mm	0.3mm

2. To Adjust Movable Knife Position

Loosen Upper and Lower Connection Bearing Nuts ⑬ and ⑭ and adjust the position of Movable Knife by rotating Knife Bar Operating Crank Connection ⑪ so that the distance between the point of Movable Knife and the center of needle hole is approximately 1.6mm when Upper Knife Bar Operating Cam Connecting Crank Roller ⑬ touches Knife Bar Operating Cam ⑫ at the last stitch. After the above adjustment, check that the point of Movable Knife ⑨ is in the position as shown above by pressing the knife in the direction of arrow as far as it will go. Further, make sure that the screw holding the Movable Knife Lower Lever ⑧ is located in the center of its elongated hole ⑦.

SPECIFICATION

Model	569U1108-42H	569U1141-28H	569U1142-36H	569U1108-42H	569U1141-28H
Application	General Clothing	General Clothing	General Clothing	Denim	Denim
Stitch Pattern					
No. of Stitches	42	28	36	42	28
Bar Tack Length (mm)	3.2 ~ 16.0	3.2 ~ 16.0	3.2 ~ 16.0	3.2 ~ 16.0	3.2 ~ 16.0
Bar Tack Width (mm)	1.0 ~ 3.0	1.0 ~ 3.0	1.0 ~ 3.0	1.0 ~ 3.0	1.0 ~ 3.0
Needle (Catalog No.)	1955-01	1955-01	1955-01	1955-01	1955-01
Max. Presser Foot Lift (mm)	17	17	17	17	17
Max. Speed (s.p.m.)	2,300	2,300	2,300	2,300	2,300

Model	569U1142-36H	569U1109-21L	569U1109-28L	569U1111-42L	569U1138-21H
Application	Denim	Knitting	Knitting	Knitting	Buttonholing
Stitch Pattern					
No. of Stitches	36	21	28	42	21
Bar Tack Length (mm)	3.2 ~ 16.0	3.2 ~ 8.0	3.2 ~ 8.0	9.6 ~ 22.2	3.2 ~ 6.4
Bar Tack Width (mm)	1.0 ~ 3.0	1.0 ~ 3.0	1.0 ~ 3.0	1.0 ~ 3.0	1.0 ~ 3.0
Needle (Catalog No.)	1955-01	1955-01	1955-01	1955-01	1955-01
Max. Presser Foot Lift (mm)	17	17	17	17	17
Max. Speed (s.p.m.)	2,300	2,300	2,300	2,300	2,000

Model	569U1138-28H	569U1139-28H	569U1140-28H		
Application	Buttonholing	Belt Loops	Belt Loops		
Stitch Pattern					
No. of Stitches	28	28	28		
Bar Tack Length (mm)	3.2 ~ 6.4	3.2 ~ 12.7	4.8 ~ 25.4		
Bar Tack Width (mm)	1.0 ~ 3.0	-	-		
Needle (Catalog No.)	1955-01	1955-01	1955-01		
Max. Presser Foot Lift (mm)	17	17	17		
Max. Speed (s.p.m.)	2,000	2,000	2,000		

Model	569U1105-22			569U1117-16		
Application	Button Sewing			Button Sewing		
Stitch Pattern						
No. of Stitches	22	11+11	11	16	8+8	8
Across Arm Length (mm)	2.5 ~ 6.5			2.5 ~ 6.5		
Up Arm Length (mm)	0 ~ 6.5			0 ~ 6.5		
Diameter of Button (mm)	8 ~ 32			8 ~ 32		
Needle (Catalog No.)	3355-01			3355-01		
Max. Button Clamp Lift (mm)	13			13		
Max. Speed (s.p.m.)	2,000			2,000		

TROUBLESHOOTING GUIDE

Trouble	Cause	Remedy	Ref. Page
1. Skipped stitches	Needle and shuttle body timing improper	Adjust to proper timing	10
	Clearance between needle and shuttle body too big	Adjust to proper clearance.	10
	Needle bent	Replace needle.	7
	Needle setting improper	Set needle with long groove facing operator.	7
	Feed timing improper	Adjust to proper timing.	11
	Shuttle driver interferes with needle	Adjust shuttle driver position.	10
2. Needle breakage	Shuttle body interferes with needle	Adjust clearance between needle and shuttle body.	10
	Needle bent	Replace needle.	7
	Needle size too small	Replace with needle size suited to sewing material.	7
	Presser foot interferes with needle	Adjust presser foot position.	11
	Shuttle driver interferes with needle	Adjust shuttle driver position.	10
	Feed timing improper	Adjust to proper timing.	11
3. Thread breakage and frays	Bruises on throat plate needle hole	Remove and buff, or replace.	
	Bruises on shuttle body or shuttle driver	Remove and buff, or replace.	
	Presser foot interferes with needle	Adjust presser foot position.	11
	Needle thread tension too tight	Decrease tension.	9
	Thread take-up spring too strong	Decrease spring tension.	9
	Thread fuses by heat	Use silicone oil.	3, 7
4. Thread pulling out of needle eye at start of sewing	Stitches skip at start of sewing	See "Skipped stitches".	
	Needle thread end after trimming too short	Adjust tension releasing bar timing.	9
	Bobbin thread end too short	Decrease bobbin thread tension, or widen clearance between needle hole and stationary knife.	9 12
	Feed timing improper	Adjust to proper timing.	11

Form UG093 (Rev. 1291)
Part No. 379335-002 (Rev. 1)

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