

# INSTRUCTION MANUAL

FOR

# SINGER

MACHINE

1591D

200A

240A

300A

308A

200B (WITH U.T.T.)

210B (WITH U.T.T.)

240B (WITH U.T.T.)

300B (WITH U.T.T.)

310B (WITH U.T.T.)

318B (WITH U.T.T.)

200G (WITH U.T.T. AND A.B.T.)

210G (WITH U.T.T. AND A.B.T.)

240G (WITH U.T.T. AND A.B.T.)

300G (WITH U.T.T. AND A.B.T.)

310G (WITH U.T.T. AND A.B.T.)

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\* To ensure that you are always provided with the most modern sewing capabilities, the manufacturer reserves the right to change the appearance, design or accessories of this sewing machine when considered necessary without notification or obligation.

## APPLICATION

Single needle high speed lockstitch machine.  
Single needle high speed lockstitch machine with automatic thread trimmer.

## NOTES ON SAFETY

The machine must only be commissioned in full knowledge of the instruction manual and operated by persons with appropriate training.

Before putting into service also read the safety notes and the instruction manual of the motor supplier.

The machine must be used only for the purpose intended. Use of the machine without the safety devices belonging to it is not permitted.

When gauge parts are exchanged (e.g. needle, presser foot, needle plate, feed dog and bobbin), during threading, when the workplace is left, and during service work, the machine must be isolated from the mains by switching off the main switch or disconnecting the mains plug.

On mechanically operated clutch motors without start inhibitor it is necessary to wait until the motor has stopped.

General servicing work must be carried out only by appropriately trained persons.

Repairs, conversion and special maintenance work must only be carried out by technicians or persons with appropriate training.

For service or repair work on pneumatic systems the machine must be isolated from the compressed air supply system. Exceptions to this are only adjustments and function checks made by appropriately trained technicians.

Work on the electrical equipment must be carried out only by electricians or appropriately trained persons.

Work on parts and systems under electric current is not permitted, except as specified in regulations EN50110.

Conversions or changes to the machine must be made only on adherence to all safety regulations.

For repairs, only replacement parts approved by us must be used.

Commissioning of the sewing head is prohibited until such time as the entire sewing unit is found to comply with EC regulations.

Meaning of the symbols:



Danger spot!  
Items requiring special attention



Danger of injury to operative or service staff  
Be sure to observe and adhere to these safety notes!

## COMMISSIONING



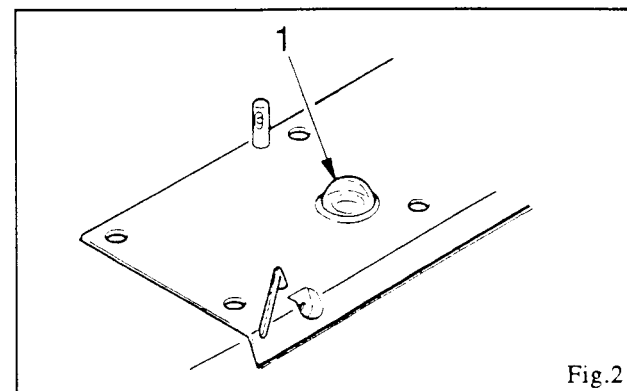
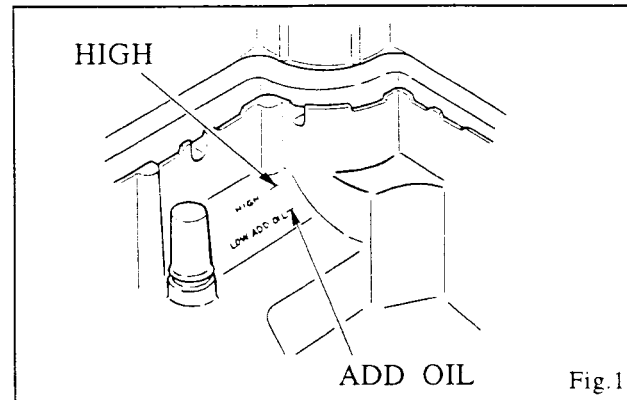
To avoid disturbances or damages it is absolutely necessary to observe the following instructions:

Before you put the machine into operation for the first time clean it thoroughly, and oil it well (see page 3).

Have the mechanic check whether the motor can be used with existing mains voltage or not, and that junction box is correctly connected. Do not start the machine if the voltage is not correct!

When the machine runs, the balance wheel must rotate toward the operator. If it does not, have the electrician change the wires on the motor.

## OILING



Switch off the machine.  
Set sewing head upright again using both hands.  
Danger of crushing between sewing head and table top.

Tip machine back on its hinges and fill the oil reservoir to HIGH mark as illustrated in Fig. 1.

Correct lubrication is indicated by a continuous stream of oil passing the oil flow window (1) while machine is running, as shown in Fig. 2.

Should this oil flow become erratic, STOP the machine and check the reservoir oil level, fill if needed.

At least twice each month, check the oil level in the reservoir. Never allow the oil level to drop below add oil mark, shown in Fig. 1.

Only use oil with a viscosity of 20.0 mm<sup>2</sup>/sec. at 38° C and a density of 0.888 g/cm<sup>3</sup> at 15° C. We recommend SINGER C-oil.

## NEEDLE AND THREAD

Size of needle should be determined in accordance with the size of thread used and type of material being sewn. A correct size needle will permit the thread to pass freely through the eye of the needle and avoid strain and breaking. A bent needle will cause your machine to skip stitches. A hook or burr on the needle point will result in a finish that looks blurred and when short stitches are used some materials may be cut. Therefore, to obtain best sewing results, use SINGER needles.

Application of class		For light-weight materials	For medium-weight materials	For heavy-weight materials
Max. thread ▲ size-synthetic	Metric No.	120-100	100-60	50-30
	Cotton No.	80-60	60-30	30-12
Needle size	JIS(SINGER)	#8-#10	#12-#16	#18-#21
	Metric	60-70	80-100	110-130
Catalog No. (Needle system)		1955-01 (135 × 65)		
▲ or an equivalent size of other type of thread.				

## INSERTING THE NEEDLE (See Fig. 3)

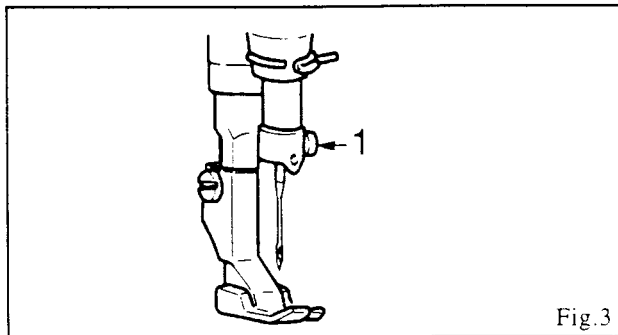
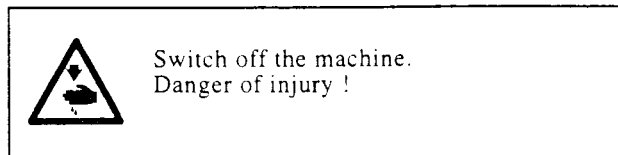


Fig.3



Switch off the machine.  
Danger of injury !

Use Cat. No. 1955-01 (135 X 65) needle only. (See table page 8)

Turn machine pulley over toward you until the needle bar moves to its highest position. Loosen needle set screw (1) as shown in Fig. 3. Insert needle up into needle bar as far as it will go with the long groove facing the left. Firmly tighten the needle set screw (1).

## WINDING THE BOBBIN (See Fig. 4)

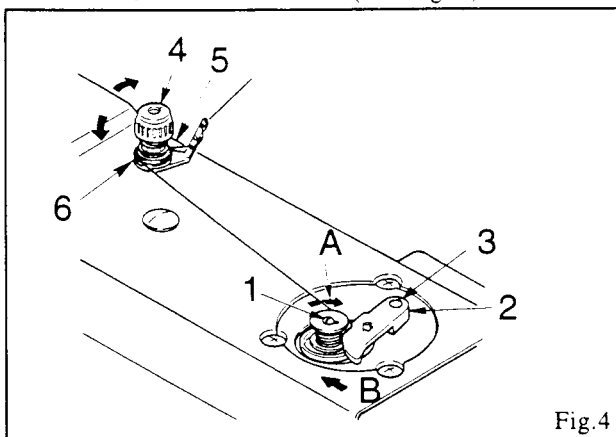


Fig.4

Bobbin winder spindle (1) rotates in the direction of arrow (A).

Push lever (2) in the direction of arrow (B) to wind the bobbin. To adjust amount of thread on bobbin, loosen set screw (3) in lever (2) and move lever 2, as required. Securely tighten set screw (3).

Adjust the thumb nut (4) to regulate the tension for bobbin winding.

If thread winds unevenly on bobbin, loosen screw (5) and move bobbin winder pretension (6) up or down, as required, and tighten screw (5).

## THREADING THE BOBBIN CASE

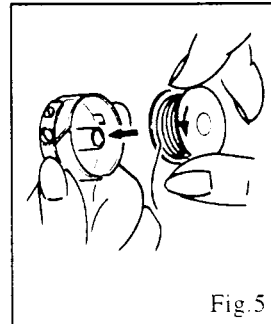


Fig.5

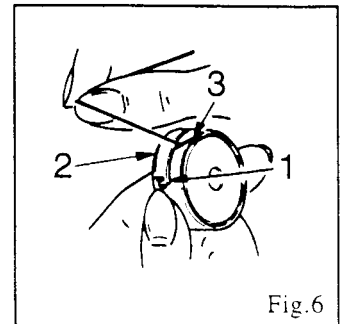


Fig.6

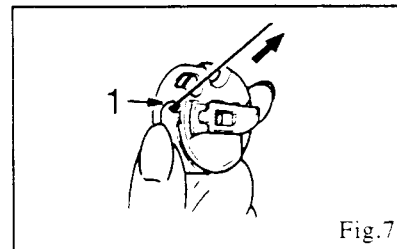
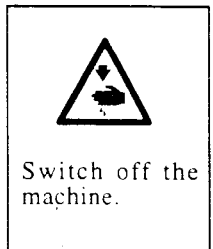


Fig.7



Switch off the machine.

Hold bobbin so that thread will unwind in the direction shown in Fig. 5 and insert bobbin in bobbin case.

Pull the thread into slot (1), under the tension spring (2) and into slot (3) as shown in Fig. 6.

Draw thread into delivery eye (1) at end of tension spring as shown in Fig. 7.

## REMOVING THE BOBBIN CASE

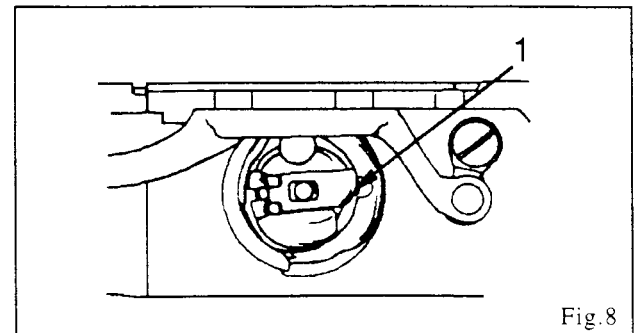
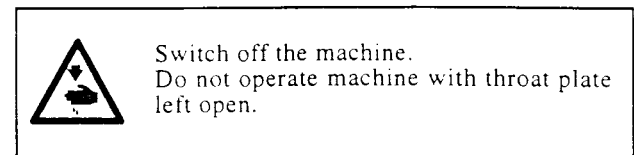


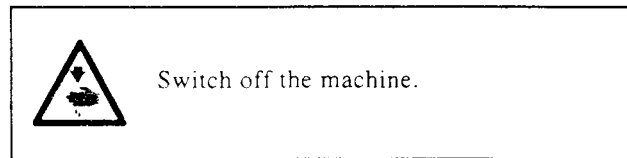
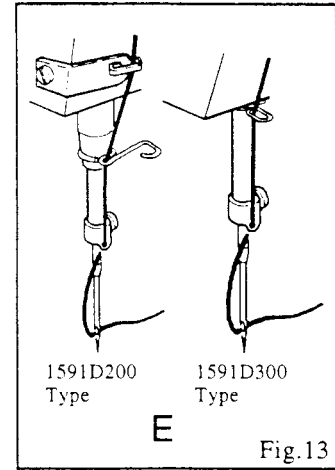
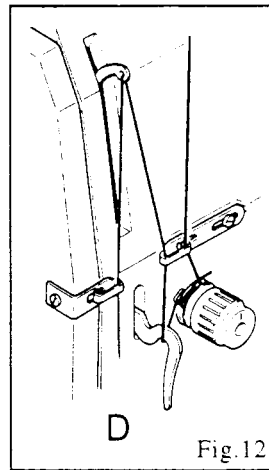
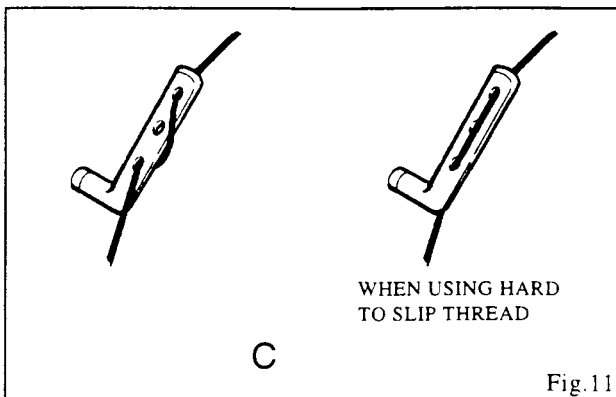
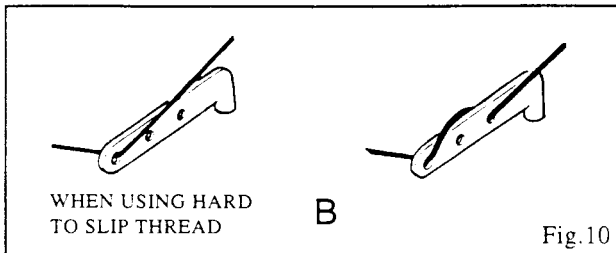
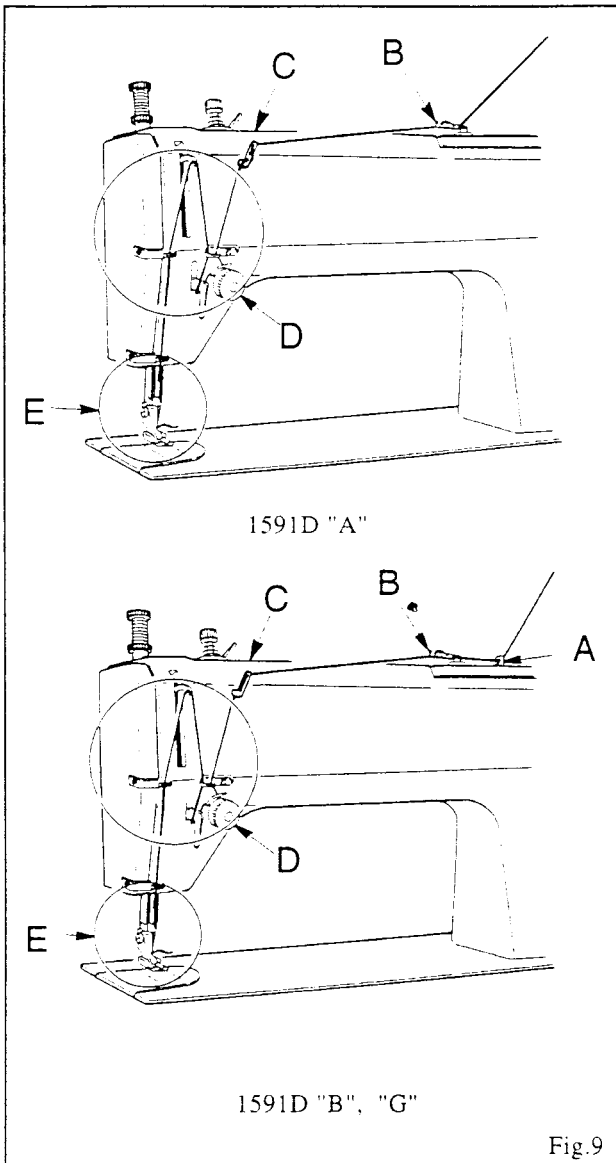
Fig.8



Switch off the machine.  
Do not operate machine with throat plate left open.

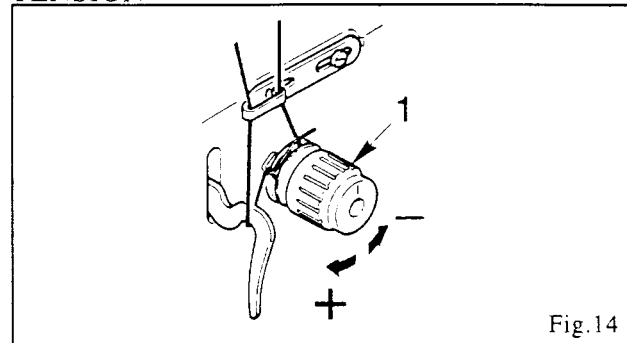
Open latch (1) and remove bobbin case from sewing hook. (Fig.8)

# THREADING THE MACHINE



Turn machine pulley over toward you until needle is at its highest point, then pass the needle thread from the right spool on the unwinder through the threading point in the order shown in Figs. 9 through 13. Thread the needle from left to right. Draw about 50mm of thread through eye of needle with which to commence sewing.

## REGULATING THE NEEDLE THREAD TENSION



unRegulate needle thread tension with tension regulating thumb nut (1) as shown in Fig. 14.

## REGULATING THE BOBBIN THREAD TENSION

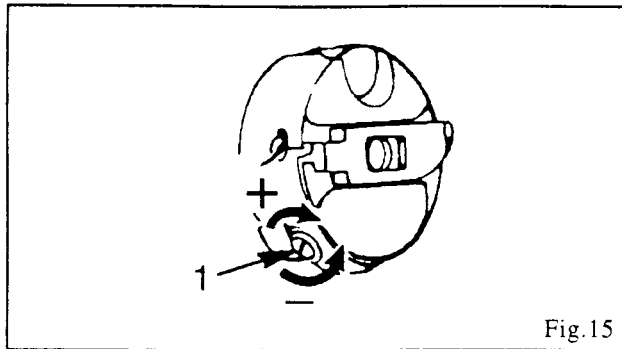


Fig.15

Regulate bobbin thread tension with tension regulating screw (1) as shown in Fig. 15.

## REGULATING THE PRESSER FOOT PRESSURE

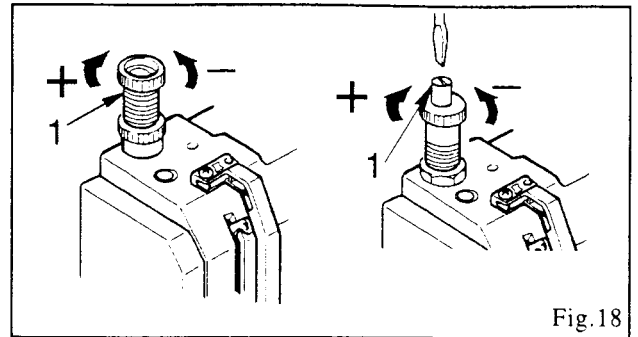


Fig.18

To regulate the presser foot pressure, turn thumb nut (1), Fig. 18, toward left or right as required.

## REGULATING THE TAKE-UP SPRING

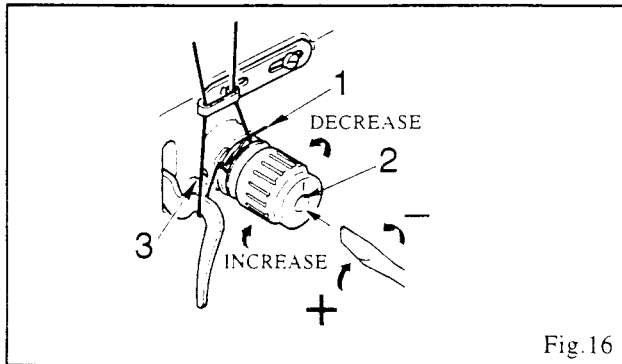


Fig.16

The tension and the range of movement of the take-up spring (1) may require different settings depending upon the size of thread and material used. Heavier thread or material require more tension; delicate materials require less tension. Also the movement of take-up spring should be increased to ensure correct thread control.

Using a large screw driver in slot of tension stud (2), turn stud either over toward left to decrease tension, or over to right to increase tension as shown in Fig. 16.

To set the take-up spring height, loosen screw (3), Fig. 16, and turn entire tension assembly either over toward left to lower take-up spring and decrease its movement, or over toward right to raise take-up spring and increase its movement.

Firmly tighten screw (3).

## ADJUSTING THE THREAD GUARD

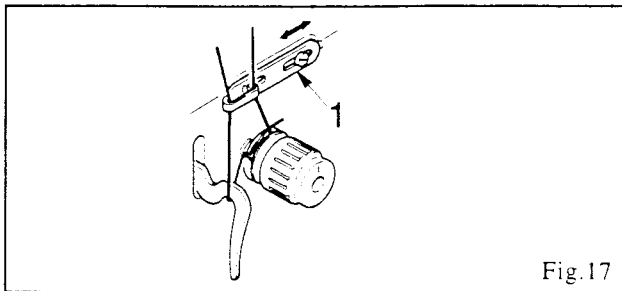


Fig.17

To obtain perfectly locked stitches depending upon the thickness of material or the length of stitch, it may be necessary to adjust the thread guard (1) either to the left or to the right as shown in Fig. 17.

For heavy weight material or long stitches, move thread guard to the right.

For light weight material or short stitches, move thread guard to the left.

## REGULATING THE STITCH LENGTH

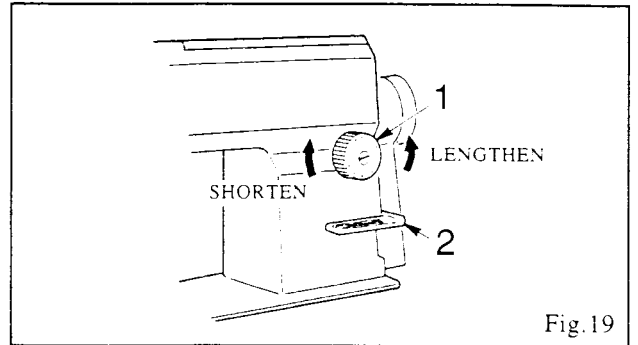


Fig.19

To regulate the length of stitch, turn feed regulating dial (1) to left or right, as shown in Fig. 19.

To change the direction of feed for manual back-tacking, depress feed reverse lever (2) quickly to lowest position until back-tack is completed.

Note: Although it may vary a little depending on the type of work being done, the numbers on the feed regulating dial indicate stitch length in millimeters.

## REGULATING THE AMOUNT OF OIL FLOW TO SEWING HOOK

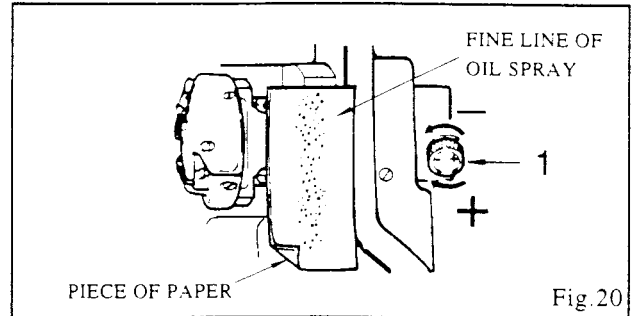
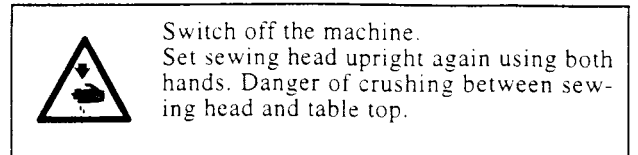


Fig.20



Switch off the machine.  
Set sewing head upright again using both hands. Danger of crushing between sewing head and table top.

Run machine for one minute to eliminate accumulated oil in the rotating hook. Then hold a piece of paper under the hook and run machine approximately 10 seconds to check oil flow.

A fine line of oil spray should show on the paper. Depending on the oil spray pattern on the paper, increase or decrease oil flow by turning the oil flow regulating thumb screw (1) as shown in Fig. 20.

WIPER (1591D 200B/240B/300B, 200G/240G/300G)

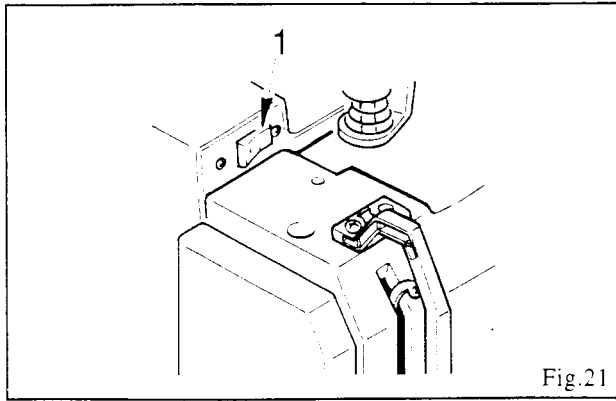


Fig.21

The wiper is very convenient for sewing operation such as sewing the needle thread end into the stitches on the underside of the fabric. Turn switch (1) off when wiper is not required for sewing operation. (Fig. 21)

BACK TACK SWITCH  
(1591D 200G/210G/240G/300G/310G)

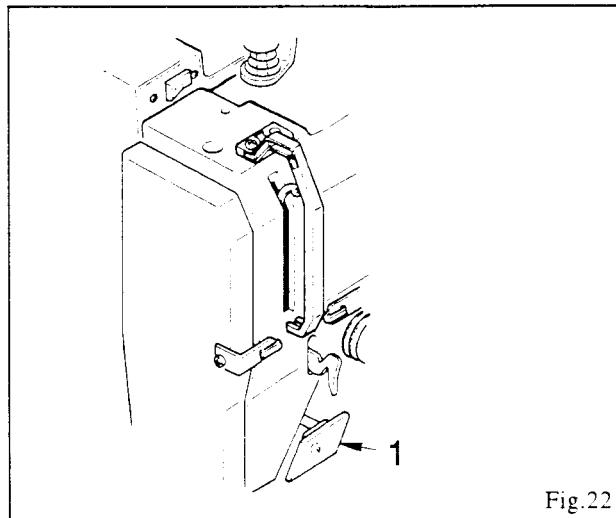


Fig.22

Push back tack switch (1), Fig. 22, for back tacking. The machine will continue to sew in reverse while the back tack switch is pushed.

INSTALLING THE BELT GUARD (Option)

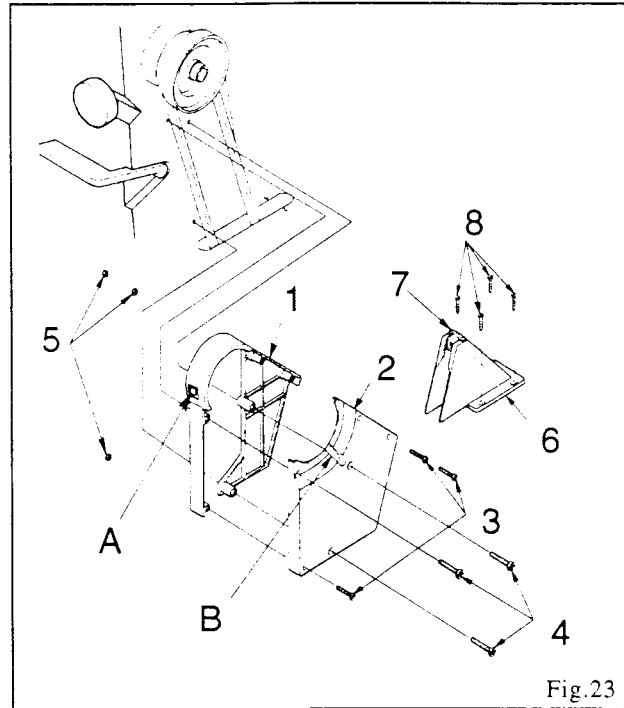


Fig.23



Switch off the machine.  
Set sewing head upright again using both hands. Danger of crushing between sewing head and table top.  
Do not run machine without belt guard!  
Danger of injury!

**Above table surface**  
Fasten belt guards (1) and (2) to machine head with belt guard screws (3) and (4) and also with nuts (5) as shown in Fig. 23.  
Then fasten belt guard (6) to table with wood screws (8) making sure it will not interfere with belt guard (1) and (2), and so that the V-belt will rest against the belt guard slide (7) when machine is tipped back on its hinges.

When installing belt guard for machines with thread trimmer, remove portion "A" from belt guard (1) and "B" from belt guard (2).

**Below table surface**  
Install belt guard so that motor pulley and V-belt will rotate freely without interference.

MACHINE CARE



Switch off the machine.  
Set sewing head upright again using both hands. Danger of crushing between sewing head and table top.

When the machine is in regular use, remove the lint and dust from around sewing hook area once a day. A machine in frequent use should be cleaned and oiled more frequently.

# SPECIFICATIONS

Variety	200A	240A	300A	308A	200B 200G 210B 210G	240B 240G	300B 310B	300G 310G	318B
Stitch type	301(Locksitch)								
Type of feed	Drop feed								
Equipped with	—	Low inertia presser foot	—			Low inertia presser foot	—		
For sewing	Light to medium		Medium to medium heavy	Heavy	Light to medium		Medium to medium heavy		Heavy
Needle bar stroke	30.5 mm		36.5 mm		30.5 mm		36.5 mm		
Maximum speed *	5,500 s.p.m.		5,000 s.p.m.	3,000 s.p.m.	5,500 s.p.m.		5,000 s.p.m.		3,000 s.p.m.
Max. stitch length	4.2 mm		5.0 mm	8.0 mm	4.2 mm		5.0 mm	4.2 mm	8.0 mm
Fabric clearance (When raised with lifting lever)	6.0 mm	5.5 mm	6.0 mm			5.5 mm	6.0 mm		
Presser bar lift (by knee)	12.7 mm	12.2 mm	12.7 mm			12.2 mm	12.7 mm		
Needle	Cat.No.1955-01 #14		Cat.No. 1955-01 #16	Cat.No. 1955-01 #21	Cat.No.1955-01 #14		Cat.No.1955-01 #16		Cat.No. 1955-01 #21
Sewing hook	#414126			#543381	#544784				
Bobbin case	#544745				#540735 with antispill spring				
Bobbin	#55623(steel bobbin)				#272152(Aluminum) must be used				
Thread trimmer	—				Scissor type, capable of cutting up to #8 cotton				
Trimmer driving system	—				Solenoid and cam controlled				
Machine pulley	74 mm effective diameter for V-belt.								
Lubrication system	Fully automatic lubrication system								
Oil return system	Plunger type oil return system								
Oil	SINGER type "C" oil								
Workspace width	279 mm								
Workspace height	130 mm								
Bed size	476 × 178 mm								

Note : \* The machine should be operated at a speed slower than the maximum recommended speed depending on the material being sewn and the type of work being done.

Subject to alterations in design and dimension.