

**LEWIS**



**PARTS and INSTRUCTIONS**

FOR

**PLAIN PINKING MACHINES**

Models

102-40

102-41

102-47

ON SINGER CLASS 400-W MACHINES

**LEWIS INVISIBLE STITCH MACHINE COMPANY**

FACTORY  
ST. LOUIS MO., U. S. A.

MAIN OFFICE  
129-131 West 22nd Street  
NEW YORK 11, N. Y., U. S. A.

PRINTED IN U. S. A.

41751



INSTRUCTIONS FOR OPERATING AND  
ADJUSTING THE LEWIS CLASS 102  
PLAIN PINKING MACHINE

THE CATALOGUE:

To order the correct part for a given Model Number refer to drawing. If the number has a letter following the dash, thus (50-E), this means there are several different parts that might be used. Refer to parts list for the correct part for the particular Pinking Model for which the part is required.

GENERAL:

The Lewis Class 102 Pinker is a "V" Knife pinker with a male and female cutting knife.

The parts are arranged for the various standard makes of sewing machines, with a base for holding the upper and lower knives in cutting relation to each other, an upper shaft bracket, presser foot and other stitching mechanisms are arranged to fit on the standard sewing machine heads.

OIL:

Oil all moving parts once a day, oil knife lever shaft front and rear, also two oil holes for lubricating both sides of lever bearings and knife holder shaft. Oil sewing machine hook as indicated by arrow marked "OIL" on top of pinker base, under the lower knife.

SHAFT BRACKET:

The pinking mechanism driving shaft is gear driven by gear fastened on to the main shaft by two set screws.

The shaft bracket is adjustable in order to take up back lash and wear between the driving and driven gears.

## BASE:

The base is fastened firmly to the sewing machine bed by a screw #18-501 on 95 Class, and #18-351 on 400W Class machines through an elongated slot which allows the base to be set for various widths from the line of stitching to the bottom of the pink.

## UPPER KNIFE:

To adjust the top knife lever, a new upper knife must be placed in the knife holder and set the knife 1/8" below the lower end of knife holder.

Adjust the connecting rod by loosening the two locknuts, turn the machine in sewing direction until the top knife has assumed the extreme downward position, now turn the connecting rod until the point of the upper knife is 1/32" below the top edge of the lower knife; then tighten the two locknuts firmly.

## TIMING KNIVES:

When the cutting edge of the top knife is about 1/16" above the cutting edge of the lower knife, the machine must be just starting to feed; the timing is accomplished by loosening the set screws #1025 that hold the driven gear on the top pinker shaft; now rotate the hand wheel of the sewing machine until the feed is in the position as described above. No cutting action is to take place with the sewing machine feeding.

## TO REMOVE THE PINKING BASE FROM THE SEWING MACHINE:

Rotate the sewing machine hand wheel until the set screws #18-500, appearing in the upper shaft holding the ball joint, faces the operator; loosen these set screws, pull connecting rod forward towards the head of the machine, then the ball joint can be removed from the shaft (the ball is not threaded). Remove the pinking base screw #18-351, and lift the cutting mechanism from the machine.

In replacing the cutting mechanism, reverse the procedure outlined above. Be sure, however, to see that

the bed of the sewing machine as well as the bottom of the base of the cutting device has been wiped clean of all lint and chips.

## TO REMOVE THE TOP KNIFE:

Move handle #476-11 so that knife is in the non-cutting position. Remove screw #18-544, and top knife can be removed. To replace the top knife, reverse the above proceedings.

## TO REMOVE THE LOWER KNIFE:

Remove the pinking device from the bed of the sewing machine as described above; remove the hexagon screws #18-558 that hold the lower knife on to the base and remove knife.

To replace the lower knife, reverse the above proceedings.

## ADJUSTING KNIVES:

If, for any reason, it is desired to remove both knives, when the knives are replaced, the lower knife must be assembled to the pinking device first, but do not tighten the #18-558 screws firmly. Then attach the top knife so that the holding screw #18-544 is at the top of the slot; now, bring the cutting edges into contact so that the point of the upper knife is just below the top surface of the lower knife. Now gently press on the lower knife to move it to the right or left until an equal space appears between the cutting edges of the top knife and the inside edges of the opening in the lower knife. Tighten both #18-558 screws of the lower knife.

## RETURNING THE PINKING DEVICE TO THE MACHINE:

When the pinking device is returned to the sewing machine, do not forget to see that the set screw #18-500 for the top ball joint is fastened securely, also, that the throw out lever #476-11 has been released so that the spring is acting upon the knife.



Turn the hand wheel in sewing direction until the top knife is in its uppermost position; now, by pressing down on the knife so that the point of the top knife is the same distance from the top surface of the lower knife that existed when the device was taken from the bed of the sewing machine. Tighten the upper knife firmly.

If it is necessary to remove the pinking base from the machine, measure the distance from the bottom point of the upper knife to the top surface of the lower knife when the upper knife is in the extreme upward position.

Now, when the pinking device is returned to the machine and the above measurement has been overlooked, the proper setting then would be to turn the hand wheel in sewing direction until the knife stroke is at its extreme lower position; then, the cutting point of the knife in this position must be about 1/32" below the top cutting edge of the lower knife. When the upper knife is permitted to enter into the lower knife too deeply, the life of the knives will be greatly lessened and the top knife may strike the hook. To avoid damaging the hook when the top knife is set, turn the hand wheel very slowly and see that the top knife clears the hook.

#### RESHARPENING KNIVES:

It will be noted that the top knife has two cutting edges, and that it may be reversed.

When re-sharpening the top knife, do not destroy the "V" shape of the knife, which is accurately made - re-sharpen the end of the knife only and do not grind the sides. After grinding, the edges must be stoned keen and smooth, free from all burrs. This is important inasmuch as a burred and rough edge will not last long and will damage the cutting edges of the lower knife.

It should be noted that the ends of the knife are on an angle with the back of the knife. Do not change the cutting angle of the ends.

#### TO SHARPEN THE LOWER KNIFE:

The lower knife as a rule, will out last the top knife and does not have to be resharpened whenever the top knife

is resharpened. The top of the lower knife is re-sharpened on the side of a grinding wheel and should be touched very lightly, and the minimum amount of metal should be removed. The inside of the "V" of the lower knife must not be touched in any way - grind the top surface of the knife only.

#### SPRING PRESSURE ON TOP KNIFE:

The pressure applied on the top knife is controlled by the knurled head screw #18-844. If the knives are not cutting clean, a slight increase in pressure will generally remedy the fault. It is to be noted that to insure the long life of the knife, the minimum amount of spring pressure must be applied.

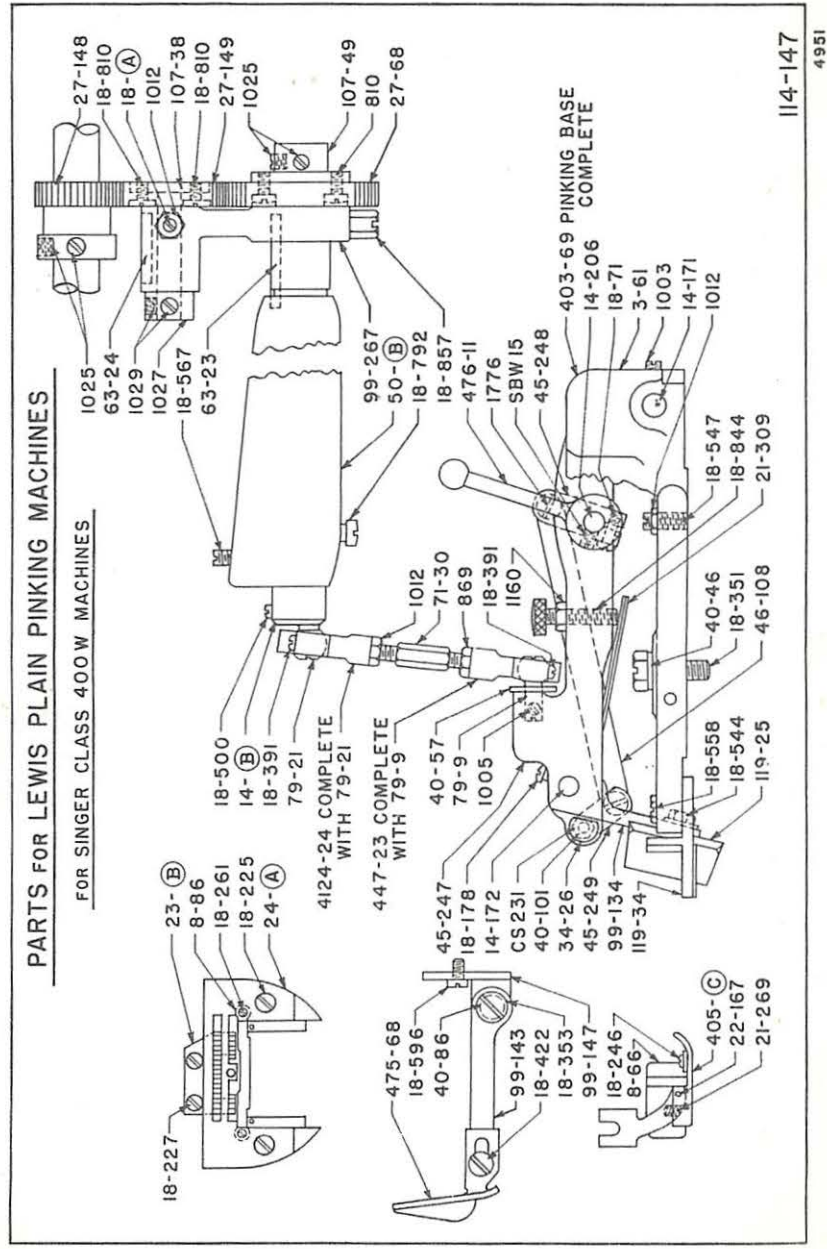
#### NEEDLE PLATE:

To remove the needle plate from the sewing machine, remove the pinking base as described above, and then remove the needle plate as usual.

LEWIS INVISIBLE STITCH MACHINE CO.

- ARM PARTS -

PARTS FOR LEWIS PLAIN PINKING MACHINES  
 Mounted on:  
 SINGER CLASS 400W MACHINES



Lewis Model Numbers	Singer Class
102-40	400W
102-41	400W101
102-47	400W30

- 8-66 Guard on Presser Foot.
- 8-86 Guard on Feed Plate.
- 14-425(B) Shaft on Bracket 50-219, Model 102-41.
- 14-427(B) Shaft in Bracket 50-220, Models 102-40 and 102-47.
- 18-246 Screws for Guard on Presser Foot.
- 18-261 Screws for Guard, 8-86.
- 18-391 Screws for Ball Joint Caps.
- 18-500 Set Screw in Shaft, 14-178 for 79-21 Ball Stud.
- 18-566(A) Screw for adjusting Idler Gear Holder, 99-267, Models 102-40 and 102-47.
- 18-567 Screws for adjusting Gear Bracket.
- 18-792 Screws for holding Bracket under Arm.
- 18-810 Screws for holding Gears to Flange.
- 18-857 Screws for Clamping holder, 99-267.
- 18-858(A) Stop Screw in Arm to locate holder 99-267, Model 102-41.
- 26-164 Plunger for adjusting Front Feed, 102-47.
- 27-68 Driven Gear on Bracket Shaft, for Models, 102-40, 102-41 and 102-47.
- 27-148 Driving Gear on Main Shaft for Models, 102-40, 102-41 and 102-47.
- 27-149 Idler Gear for Models, 102-40, 102-41 and 102-47.
- 40-86 Spring Washer for Edge Guide.
- 50-219(B) Bracket under Arm for Model 102-41.
- 50-220(B) Bracket under Arm for Models 102-40 and 102-47.
- 59-6 Hex Box Wrench.
- 63-22 Felt Oil Wick, for Bracket under Arm.
- 63-24 Felt Oil Wick, for 99-267 Holder.
- 67-10 Drip Pan, Models 102-40, 41 and 47.
- 71-30 Connecting Rod for Knife Lever, all Singer Class Machines.
- 79-21 Ball Stud in Ball Joint, for all Upper Ball Joints.



## - ARM PARTS CON'T -

99-267	Holder for Idler Gear, Singer 400W Machines.
107-38	Flange for Idler Gear 27-149.
107-49	Flange for Driven Gear, 27-68.
405-429(C)	Presser Foot Complete, for all Singer Class 95, 241-11 and 400W machines, except 400W30 Machines.
405-523(C)	Presser Foot Complete, for Model 102-47 on Singer 400W30 Machine.
810	Screws for holding Driven Gear to Flange, 107-16.
1005	Set Screw for Ball 79-9.
1012	Nut for adjusting Screw 18-556 and 18-858, 18-547 and 71-30.
1025	Set Screws for Driven Gears.
1027	Collar for Idler Gear Flange Shaft, 107-38.
1029	Set Screws for Collar 1027.
4124-24	Upper Ball Joint complete, for all Singer Machines.

SPECIAL AND THREE ROW FEED PARTS  
FOR ALL PLAIN PINKING MACHINES

Singer 400W Machines

<u>PRESSER FOOT</u>	<u>FEED</u>	<u>FEED PLATE*</u>
405-430	23-132	24-110

\* 424-282 Special Feed Plate. 1/2" from Seam to outside of Pink.

## - BASE PARTS -

3-61	Pinker Base Only, 400W.
14-171	Shaft for 45-247 Lever for Upper Knife.
14-172	Shaft for 99-134 Holder for Upper Knife.
14-206	Shaft for throw out Handle.
18-71	Screw for 45-248 Lever for operating Cam.
18-178	Screw for 99-134 Holder for Upper Knife.
18-225	Screws for Feed Plate.
18-227	Screws for Feed.
18-351	Screw for Holding Pinker Base to Machine 400W.
18-353	Screw for 99-143, for Edge Guide.
18-391	Screws for Ball Casing, 447-23.
18-422	Screw for holding 475-68 Edge Guide.
18-544	Screw for Clamping 119-25 Upper Knife.
18-547	Screw for leveling Pinker Base.
18-558	Screws for holding Lower Knife to Pinker Base.
18-596	Screw for holding Edge Guide Holder to Pinker Base.
18-844	Screw for adjusting tension of Springs, 21-309.
21-269	Spring for Presser Foot.
21-309	Springs for Knife Holder, 99-134.
21-367	Spring for Front Feed adjusting pin in base, 102-47.
22-167	Hinge Pin for Presser Foot.
23-124(B)	Feed, two rows, all Singer Class 400W machines, except 400W30.
23-307(B)	Front Feed for 1/4" to 1/2" Pink, Model 102-47.
23-308(B)	Rear Feed 1/4" to 1/2" Pink, Model 102-47.
24-152(A)	Feed Plate for two row feed. Singer Class 400W Machine.
24-164(A)	Feed Plate for Model 102-47, on Singer Class 400W30 Machine.
264164	Plunger for adjusting Left Hand Feed, Model 102-47.
34-26	Cam for throwing out Upper Knife.
40-46	Washer for Screw 18-351.
40-57	Washer for Ball Joint 447-23.
40-101	Spring Washer for Tension Cam, 34-26.
45-247	Lever for operating Upper Knife.
45-248	Lever for operating throw out Cam.
45-249	Lever for Knife throw out Cam, 34-26.
46-108	Link for operating throw out Cam.
79-9	Ball Stud for all Lower Ball Joints.
99-134	Holder for Upper Knife, 119-25.

## - BASE PARTS CON'T -

99-143 Holder, swinging for Edge Guide.  
99-147 Holder on Pinker Base for Edge Guide.  
119-24 Lower Knife for 1/4" from bottom of Pink to  
Seam.  
119-25 Upper Knife.  
119-34 Lower Knife for Pinking over 1/4" from Seam.  
191-1 Button on top of Base for adjusting left hand  
feed, Model 102-47.  
SBW 15 Set Screws for Handle 476-11.  
CS 231 Nut for Cam, 34-24.  
869 Nut, left hand thread for Knife Lever connec-  
ting rod, numbers 71-30 and 71-52.  
1003 Set Screw for Shaft 14-171.  
1005 Set Screw for Ball Joint Stud, 79-9.  
1012 Nut for locking adjusting screw, 18-547 and  
connecting Rod 71-30.  
1160 Nut for locking adjusting screw, 18-844.  
1776 Bearing Screws for Link 46-108.  
403-69 Pinking Base complete, for class 400W  
Machines.  
447-23 Lower Ball Joint complete, for all Singer  
Machines.  
475-68 Edge Guide.  
476-11 Handle for operating throw out Cam.