

IDEAL STITCHER COMPANY

Division of W.R. Pabich Mfg.

2323 North Knox Avenue

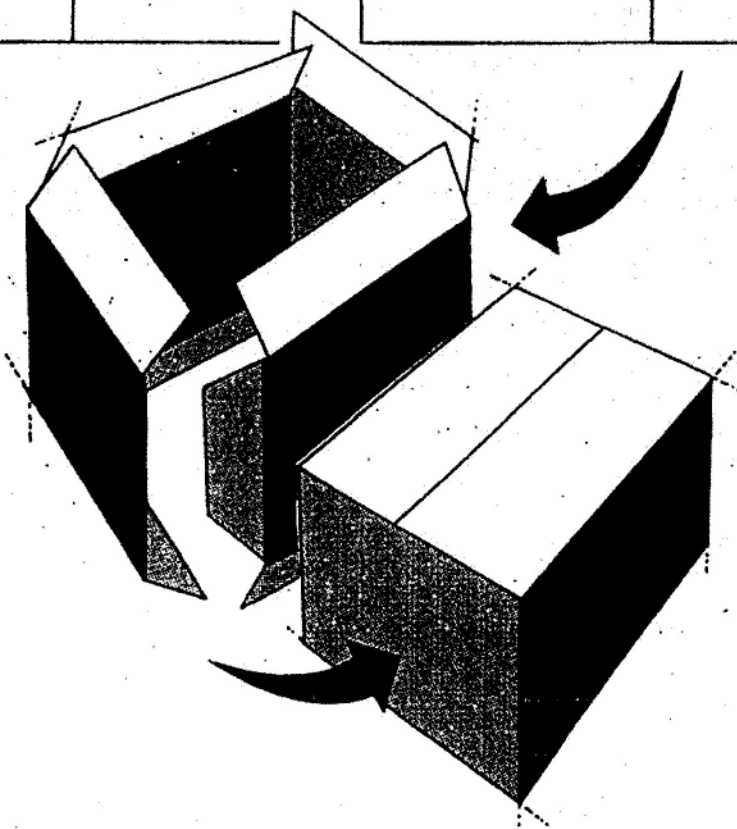
Chicago, IL 60639

Phone: 773-486-4141 Fax: 773-486-4812

Email: wrpabich@sbcglobal.net

INSTALLATION, OPERATION AND MAINTENANCE MANUAL

RSCA 900HX & 950HX STITCHERS



SAFETY PROVISIONS

Bostitch machines are designed and built to ensure maximum safety for the operator, as well as to provide high production with minimum maintenance.

To this end, guards, covers and safety devices are used whenever possible, to protect the operators from moving parts and still provide easy access to controls and adjustments which require attention from time to time. Electrical components and wiring meet all applicable requirements of the National Electrical Code, National Electrical Manufacturer's Association and Underwriters Laboratories, Inc.

Further responsibility for the safety of operators and servicemen working on Bostitch machines must be assumed by the user company through plant personnel safety programs.

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MODEL 900 HX and 950 HX SPECIFICATIONS

TYPES OF BOARD: Will handle blanks made of single wall A, B, or C flute corrugated board; double wall AB, AC, BB, BC, or CC flute and triple wall up to 5/8" total thickness and solid fibre from .060 to .120 inclusive.

TYPES OF CONTAINERS: Regular slotted, regular slotted with overlap, half slotted, and certain die-cut and special slotted containers. Containers without end flap (tube type) with standard minimum size panels, optional.

MINIMUM SIZE BOX: Single wall board, 6" long x 6" wide x 3" deep. Double wall board 10" long x 6" wide x 6" deep. (Swivel openheads are available for stitching tubes and boxes with smaller width panels, and non-test board.)*

MINIMUM AND MAXIMUM FROM FRONT EDGE OF BOX TO FIRST STITCH: 5/8" minimum on both Models to 18" maximum on Model 900 and 24" maximum on Model 950.

DISTANCE FROM FRONT EDGE OF TABLE TO FEED ROLLERS: 16-3/4" on standard boxes, and 12" on tube boxes.

STITCH SPACING: From 7/8" to 2-5/8". (Can vary somewhat.)

NUMBER OF STITCHES: Minimum - 2; Maximum - Unlimited. (Depth of box and spacing determines number of stitches.)

RATED SPEED: 445 stitches per minute.

WIDTH OF STAPLES: 7/16" crown.

WIRE SIZES: .103 x .017; .103 x .020; or .103 x .023.

TABLE HEIGHT: 54" for manual feed from elevator.

STITCH TAB CONTROL: Starting and stopping of stitching cycle is controlled at fixed distance from each end of stitch tab by a contact finger riding the full length of the tab, which directly activates a switch.

OPTIONAL EQUIPMENT:

*Swivel Openhead and Support Unit: for stitching small panel boxes without breaking. Obtainable in either Right Hand or Left Hand openheads with stitch tab control fingers and plug-in cord.

Arc'd wire parts for above wire sizes, and .088 x .037 wire x 3/4 crown.

MODEL DIFFERENCES

	950 HX	900 HX
Maximum Size Blank	254" x unlimited Depth	164" x unlimited Depth
Maximum Panel-Throat Side	49" or 50 1/2" with side gauge omitted	34" or 35 1/2" with side gauge omitted
Maximum Panel-Left Hand Side	78"	72"
Set-Up Time	2 - 5 minutes	1 1/2 - 2 minutes
*Slow Speed Feed Rolls	Standard	Optional at extra cost-Part #252470
Conveyor (70" wide x 75" long)	Standard	Optional at extra cost-Part #252450
Last Staple Register Unit	Standard	Optional at extra cost-Part #252610

*Does not affect stitching speed.

INTRODUCTION

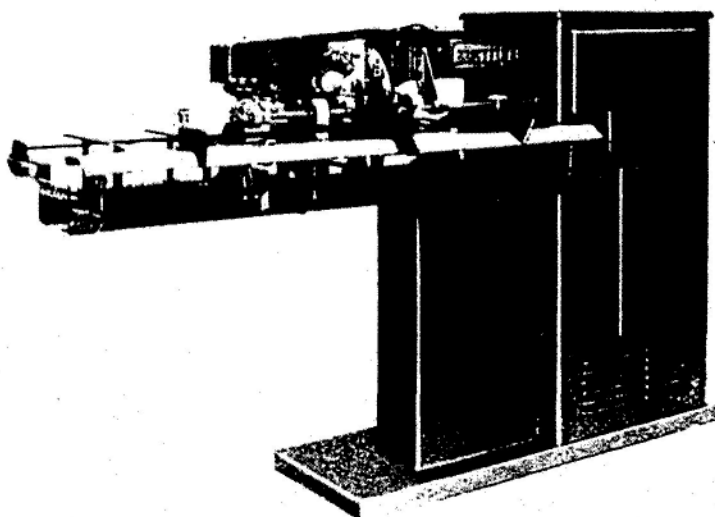


Figure 1 - Model 900 HX

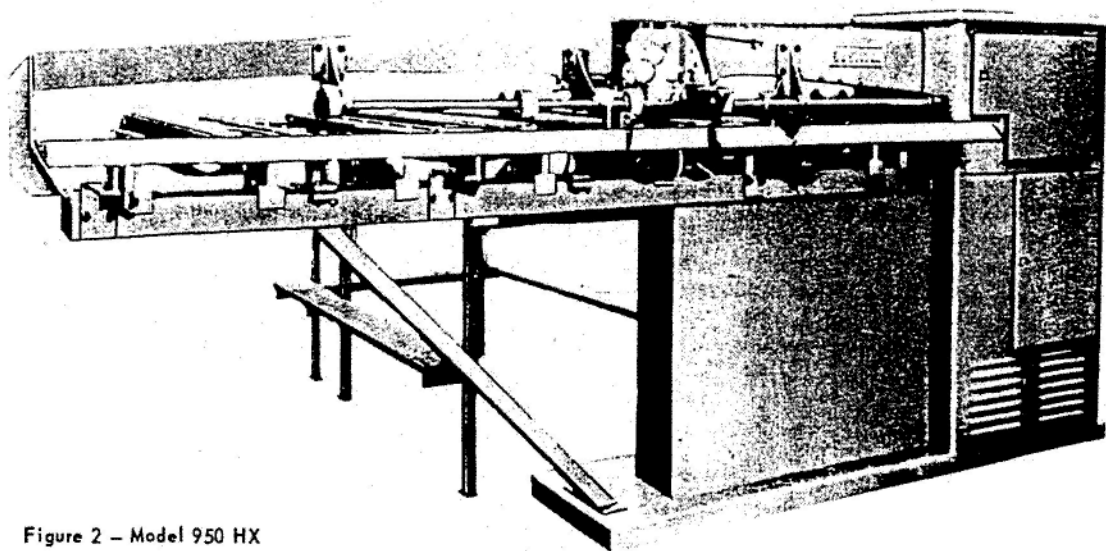


Figure 2 - Model 950 HX

Introduction

These machines are designed to stitch boxes up to a combined thickness of 5/8-inch (two thicknesses) with rates up to 445 stitches per minute and at table height for hand feed operation with or without elevators.

Stitchers, like any other machines, will give satisfactory results only if properly installed, regularly lubricated, intelligently adjusted, and carefully maintained. This instruction manual has been prepared to

provide operators and servicemen the knowledge necessary to operate and maintain these machines at maximum production levels. The "Warner Electric Clutch and Brake Service Manual" and the "Instructions and Parts List for Bliss Heads" BSA 486 are included and should be used in conjunction with this manual.

The Model 950 Stitcher includes a "take off" conveyor, will stitch larger size boxes than the Model 900, and has a second drive for a low speed feed (actual stitching speed remains the same). The specifications listed on Page 4 describe the basic differences.

Uncrating

It is usually the best procedure not to uncrate the machine until it has arrived at its final site. After uncrating the machine, examine it carefully for any breakage or damage that could have occurred in transit. If any damage or breakage is found, do not attempt to run the machine, but report at once to the selling agent. If a serviceman is present, let him examine the machine and then report to the manufacturer.

If the examination of the machine reveals no breakage or damage, clean off the protective grease coating from the machine.

Mounting

The site selected for mounting the machine should be level or the machine should be leveled using shims. Arrange both the stitcher and the conveyor parts of the machine in their relative positions before bolting either unit to the floor. In this manner, you can determine ahead of time whether enough room has been allotted to the machine.

When assured that the machine is in the proper position, bolt stitcher and conveyor to the floor.

Power Connections

Examine the nameplate on the motor to be sure that the power supply meets, but does not exceed, the requirements listed on the nameplate. When assured that the power supply is compatible with the motor, refer to the schematic illustrations of power supply connections, and wire the power supply to your machine in a like manner. Follow the illustration applicable to your particular requirements. Connect the power to the disconnect switch. Place the START - STOP SWITCH BOX in a convenient location on or nearby the machine.

Check the rotation of the motor. Important: Before starting motor, be sure that the main clutch is not engaged. This can be checked by rotating the engraved flywheel on the rear end of the machine by hand. The flywheel should turn freely without turning over the stitcher head. When assured that the clutch is not engaged, turn on the power and start the motor. The motor should run freely without undue noise. The large pulley, as viewed from the end of the machine, should rotate in a counterclockwise direction. If it should rotate clockwise, the motor wiring should be reconnected by an electrician in a manner to reverse the direction of rotation.

Mounting the Last Staple Register Unit

Assemble the Last Staple Register Unit on the vertically attached flat bar between the conveyor belts, and on the center line of the staples.

This unit is placed on the bar so that the pivoting action of the gate is away from the stitching head.

Refer to paragraph on page 15 relating to mounting and adjustment of the Last Staple Register Unit.

Wire Threading and Feed

Place a spool of wire of the proper size on the spool holder above the stitching head. Refer to Bliss Head Instruction Manual BSA486 for the proper method for inserting the wire into the stitching head. Saturate Oiler Felt in stitching head with oil. Adjust the brake on the wire spool (3), Figure 4, by increasing or decreasing the tension of the spring (4). To adjust, loosen nut (2) and turn slotted screw (1) in or out. Retighten the nut (2) after adjustment. Use the least tension possible. Tension must be great enough to prevent spool from unwinding but not enough to cause binding and uneven stapling.

NOTE: It is essential that a suitable size of stitching wire be employed for the work at hand. The wire used must be of good quality and of proper hardness, otherwise it may bend or buckle and may not penetrate the stock. It must be clean and without rough edges to avoid unwarranted wear on the wire tubes and the former grooves in the stitcher head. The wire must also not be oversize or it will stick in the formers.

Mounting and Adjustment of Openhead

The openhead must be mounted on the front of the Bliss Wire Stitching Head using the two socket screws provided. Connect the openhead electrically to the stitcher with cable and plug. The socket is on the front, to the right of the openhead.

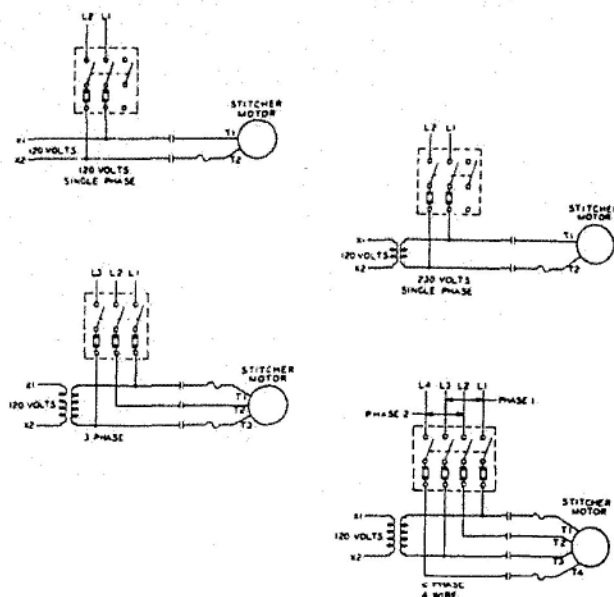


Figure 3 - Power Connections

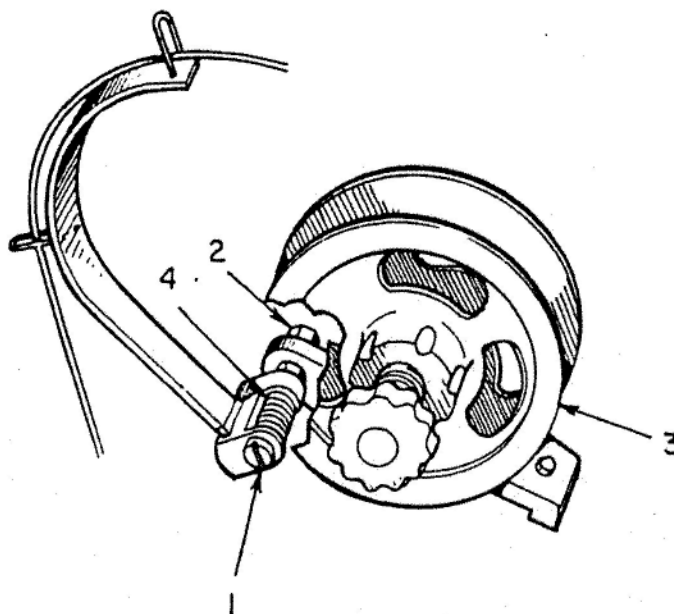


Figure 4 - Wire Threading

When this is done, then the adjustment may be accomplished as follows:

1. Rotate the handwheel at the rear end of the machine slowly in a counterclockwise direction until a staple extends from the stitching head.
2. Check to see that the staple is in alignment with the clinching grooves in the bottom plate of the openhead.
3. Make any necessary vertical adjustments by raising the openhead (mounting screws located in slots).
4. Make any necessary horizontal adjustments by changing the position of the bottom plate of the openhead (bottom plate slotted for holding screws).
5. Check stapling in a sample material, turning machine over by hand. Readjust if necessary.

LUBRICATION

Before putting this machine into operation, it must be thoroughly lubricated. Oil holes, oil reservoirs, and grease fittings are shown on Figures 5 - 11. Use a good grade of oil S.A.E. #20 or equivalent in all oil holes and oil reservoirs except in the angle gear housing and the stitcher head. In the angle gear housing, use S.A.E. #90 oil and fill to the overflow port (approximately 1/4 full). Consult stitcher head instruction manual BSA486 for grade of oil, lubrication points, and frequency of lubrication. Use a good quality industrial grease in all grease fittings.

It is recommended that this machine be lubricated after each 8 hours of use.

Cam Lubricating Instructions

Note the large oil hole cover "A", Figure 6, on top of the head casing. This is not an oil hole but is a cover only for a grease fitting on the head cam.

Rotate the handwheel at the end of the machine, in direction indicated by the arrow on the handwheel, until the grease fitting on the cam is aligned with the hinged cover "A". It will now be possible to apply grease through the straight type hydraulic fitting with a grease gun.

The cam should be greased once monthly with Harris Moly-Lube #2, high temperature lubricant or equivalent, or, if the head is disassembled for cleaning more frequently, apply grease after each reassembly.

CAUTION: Excessive amount of lubricant may bleed, causing damage to the work being stitched.

NOTE - Alemite Lubrication Systems are available for 900 and 950 stitchers.

They are special to order only, and for any replacement parts needed, contact the nearest Alemite office or distributor.

For machines equipped with the Alemite System, the following oils are recommended:

OILS: Any oil from 300 SSU @ 100° F to 2500 SSU @ 100° F is acceptable. Vent time must be less than the minimum system cycle time.

For oils from 50 - 300 SSU, consult Alemite.
NOTE: Lubricant supplier should be consulted concerning lubricating properties.

LUBRICATION

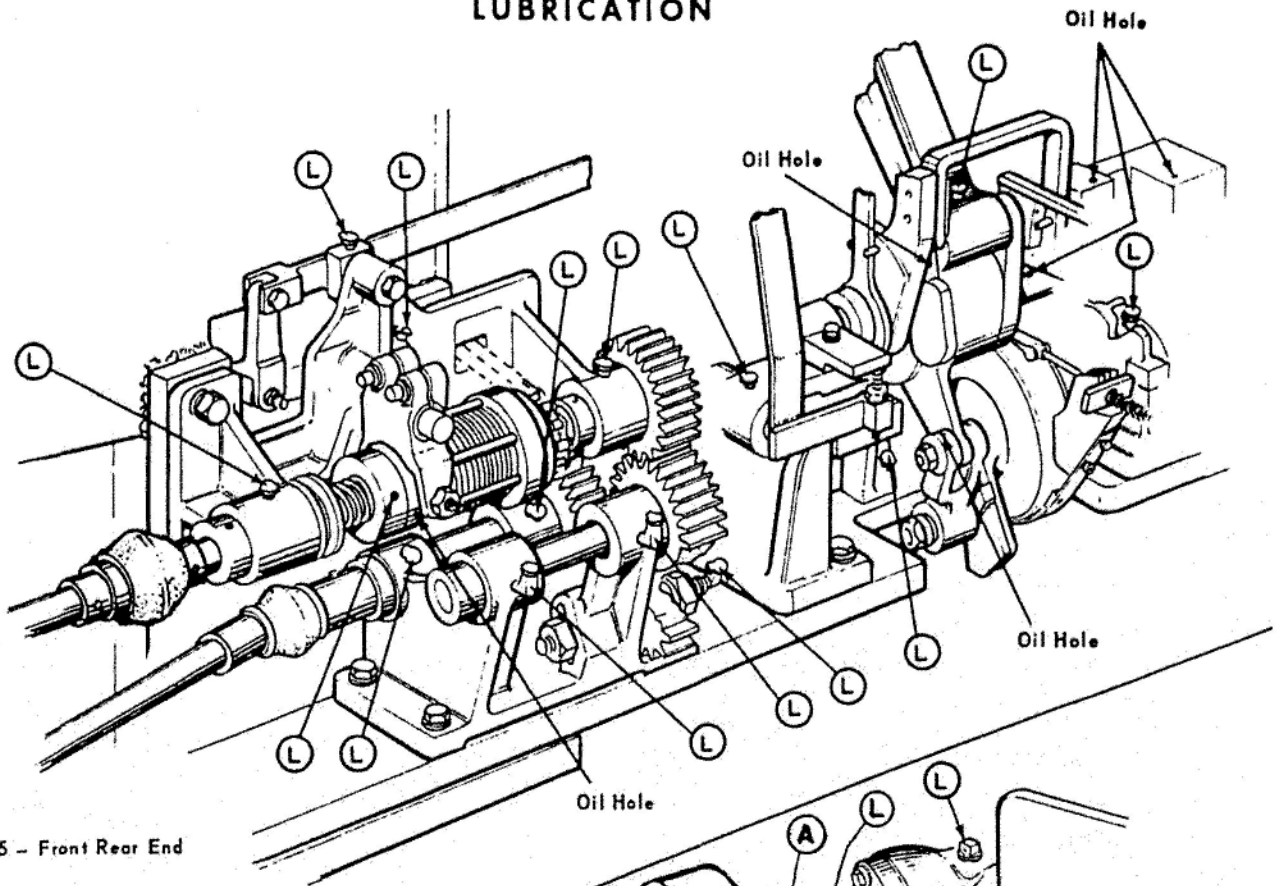


Figure 5 - Front Rear End

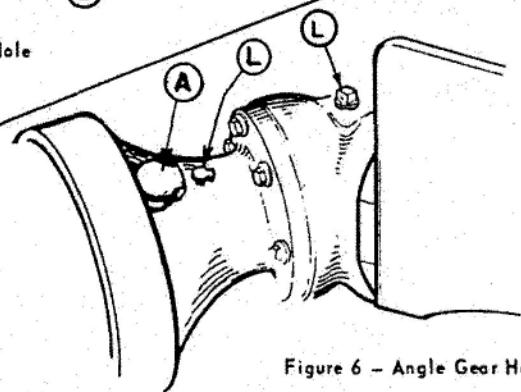


Figure 6 - Angle Gear Housing

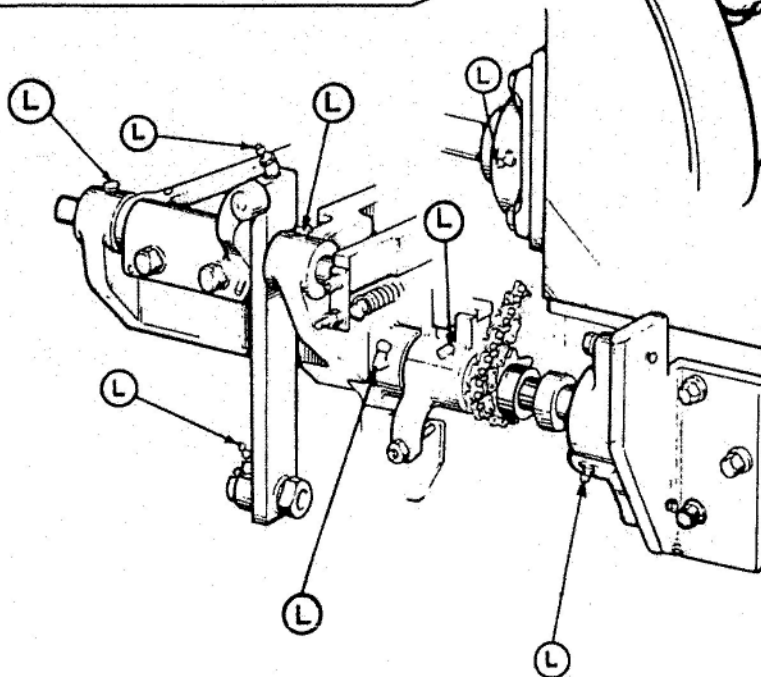


Figure 7 - Roller Shafts, Rear End

LUBRICATION

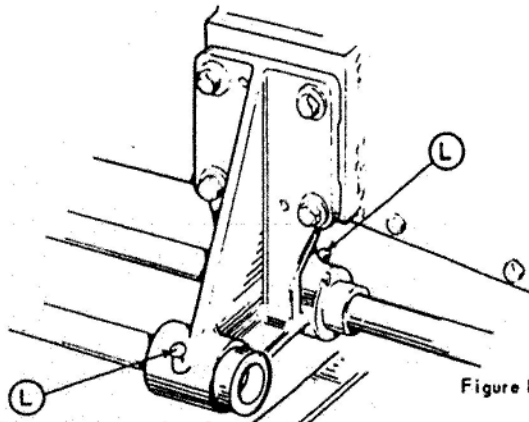


Figure 8 - Roller Shafts

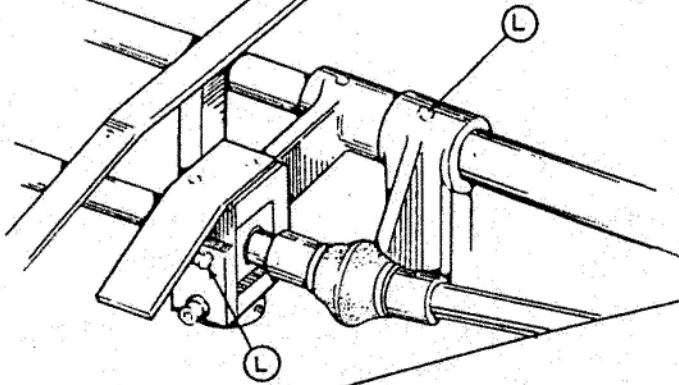


Figure 10 - Shaft Lubrication

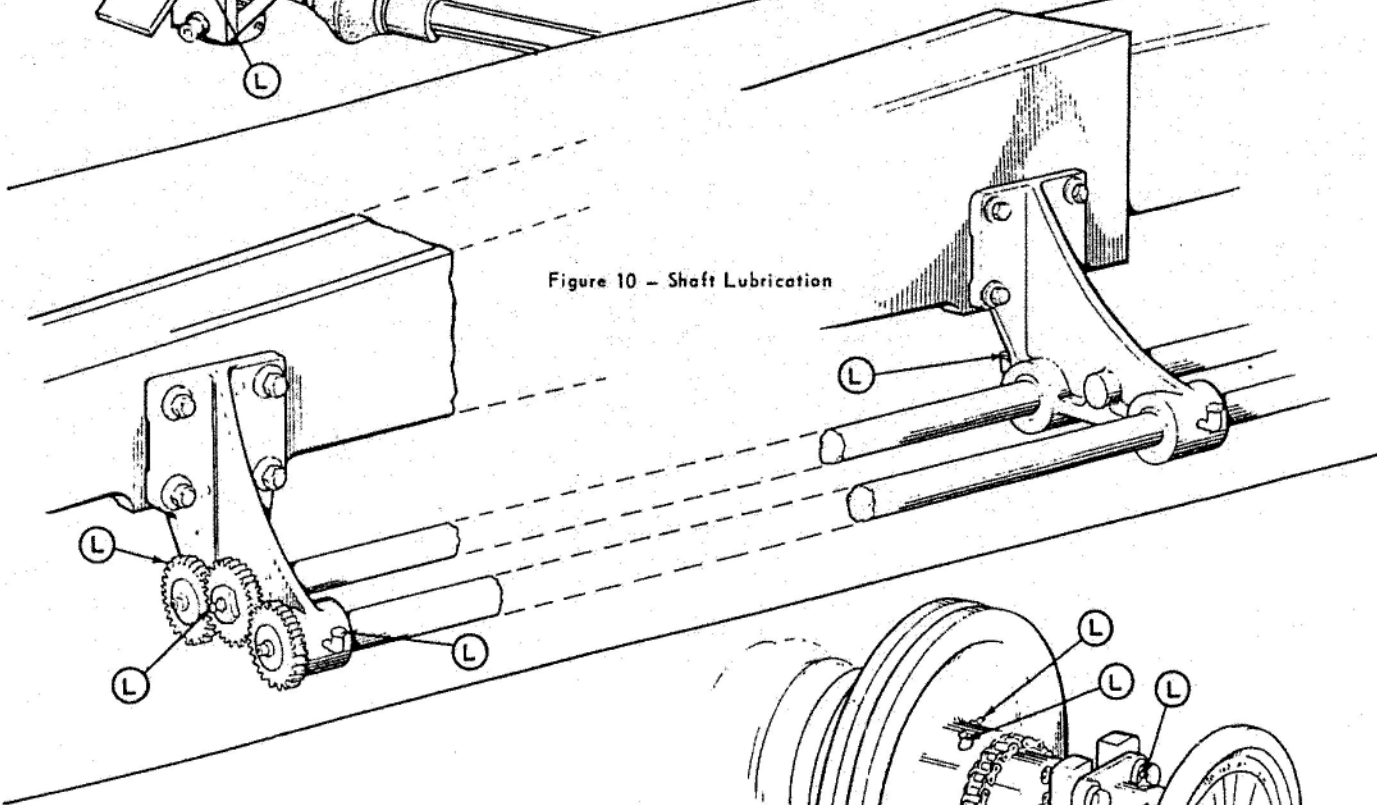


Figure 11 - Rear End Lubrication

OPERATION

1. Position Switch "A" for STD, TIE, or CLOSE stitching as desired. See Figure 12.
2. Position Switch "B" for either INSIDE or OUTSIDE LAP (tab) stitching.
3. Place Switch "C" in the AUTO position.
4. Adjust the target plate (1) Figure 13 to the length of the stitch tab (lap). This is accomplished by loosening locking knobs (2) and turning adjustment knob (3) until indicator (4) indicates the stitch tab length on scale (5).
5. When stitching regular boxes with end flaps, the front shaft feed rolls "A", (this is the shaft in front of the stitching head) are not to be used. Loosen collar, Item 46, Plate 5, and pull the shaft "B", Figure 13-A, with the gear on the outboard end out of the bearings, and store until needed.

Screw out hand knob "C", Figure 13-A, so that the lower front roll "D" is at its lowest position and cannot contact a box being fed into the stitcher. Regular boxes are fed into pull rolls "E" and "F" only. Set the pull roll pressure as outlined in Step 6.

When stitching tube boxes or boxes with less than 3" end flaps, the front feed rolls must be used. Insert shaft "B" with rolls and hold in place with clamping collar. The hardened steel washer should be placed between the bearing and the collar. Allow .010 to .015" end play on this shaft. Bring up the lower rolls "D", by means of hand knob "C" to correct feeding pressure as well as adjusting pressure of rolls "E" and "F" as outlined in Step 6.

Roll arm "G" is adjustable by means of re-strainer "H". These rolls should be moved out as far as possible toward the edges of the box, to minimize breakage of panels folded over the openhead.

6. Set the feed rollers for the thickness of the box. The average opening of the feed rollers should be approximately the amount of two thicknesses of the box board. Adjustments can be made as follows:

- a. Loosen locknut (1) Figure 14 and back out screw (2) 1/4" to 3/8".

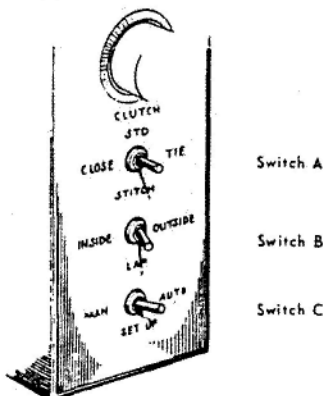


Figure 12 - Switches

- b. Turn hand screw (3) to raise or lower rollers as necessary.
- c. When the rollers are set as desired, turn screw (2) until it just makes contact with lever (4), then lock screw in this position with locknut (1).

CAUTION: Rollers should not be set to give more pressure than is required to satisfactorily step feed the box.

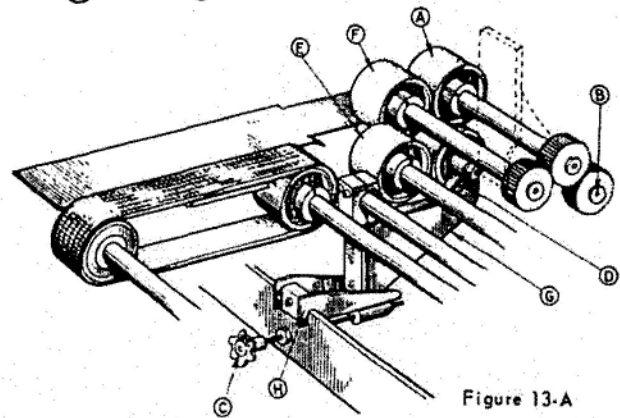
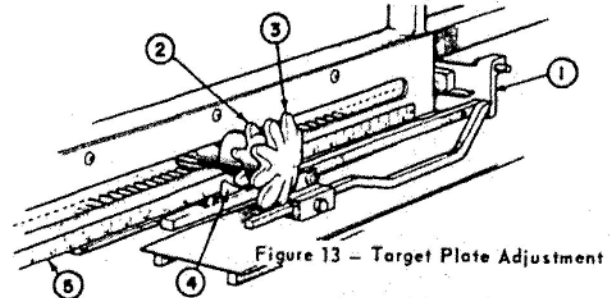


Figure 13-A

7. Fold a sample box and position box in proper relation to the openhead for the type of stitching required on the box. Positions of the box in relation to the openhead are shown in Figures 15, 16, 17, and 18. After determining the box position suited to your particular requirements, loosen the locking knobs (1) on the side gauges (2) and bring the side gauges up to the edges of the box. Lock side gauges in place with locking knobs (1). Make sure gauges are not so tight as to cause the box to bind when passing through.

The long side gauges should be used for all boxes, if possible. In the case of small panel boxes or tube boxes, when it is not possible to move the long side gauges in close enough to the edge of the box, the short side gauges are to be

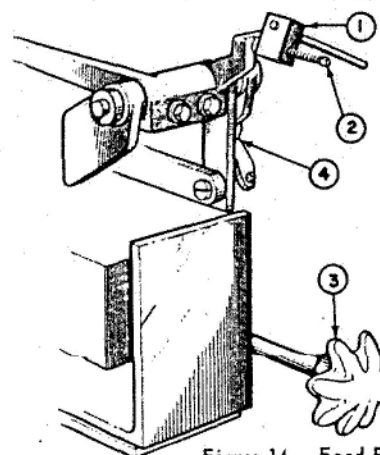


Figure 14 - Feed Roller Adjustment

used, or one long and one short gauge can be used if panels so warrant. The same locking knobs and clamp blocks are used for both long or short side gauges.

8. Check the setting of the end flap deflectors. These are the flat pieces of steel attached on either side of the openhead extending toward the target plate which are used to guide the leading end of the box under the target plate unit. To adjust these end flap deflectors, loosen the screws holding them to the openhead, reposition the deflectors and retighten the screws.

NOTE: Care must be taken not to put too much pressure on the box.

CAUTION: Be sure that deflectors do not rub on feed roll shaft since damage to shaft will result.

9. Turn the power ON at the disconnect switch and press the START button. Feed a couple of boxes through and check to see if the above mentioned adjustments have been made properly and that the boxes are being stitched satisfactorily. If the boxes are not stitched satisfactorily, readjust. If faults still persist, refer to the maintenance section of this book. When assured that the machine is functioning satisfactorily, the machine may be put into operation.

IMPORTANT

- A. If a jam should occur with the box still in the openhead, under no circumstances should the box be pulled backward without extreme caution. If this is done, the contact finger (particularly the inside flap finger) could be bent badly or even broken if the tip of the finger should cut into the box liner. Cut away as much of the box as possible around the openhead fingers and remove the box carefully.
- B. The master or safety switch should be shut off:
 1. Whenever doing any electrical work on the machine or when working around the solenoids, etc. since shutting off of the motor by the stitcher start and stop switch does not cut off all the current.
 2. Whenever the stitcher is to be idle for an extended period of time.

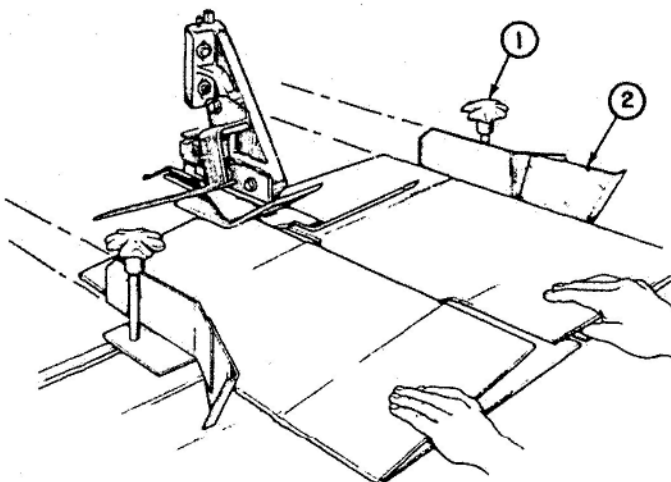


Figure 15 - Right-Hand Openhead Inside Stitch Tab

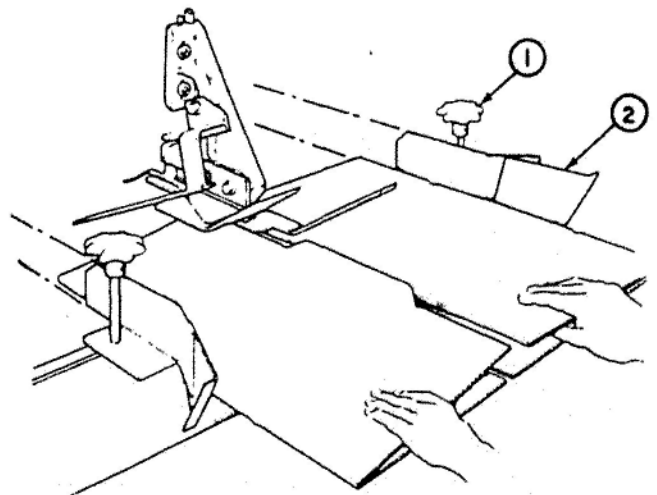


Figure 16 - Right-Hand Openhead Outside Stitch Tab

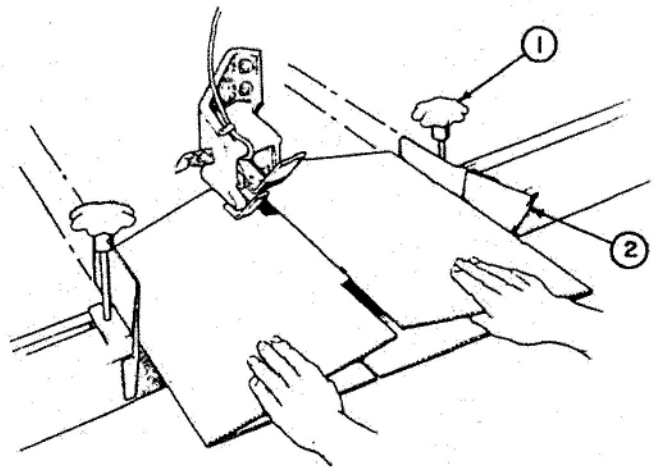


Figure 17 - Left-Hand Openhead Inside Stitch Tab

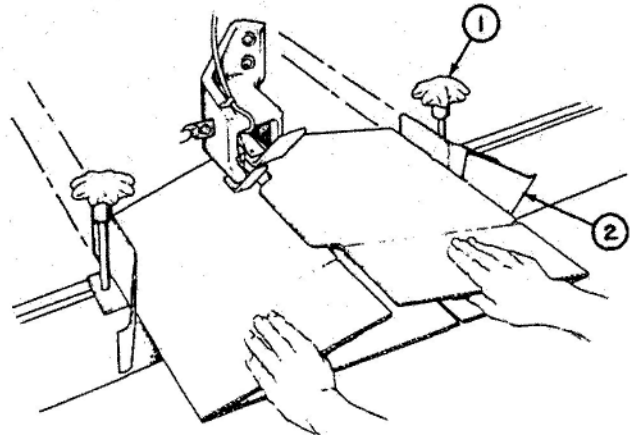


Figure 18 - Left-Hand Openhead Outside Stitch Tab

CAUTION: Remove the solid target plate from the front of the trip gauge target before stitching tube boxes and boxes up to a 2 inch end flap, otherwise the stitcher head formers and driver will strike the target plate causing damage to the trip gauge. The solid plate should be used with all other boxes.

OPERATING ADJUSTMENTS

Staple Spacing Adjustment

To obtain more or less staples for any particular box, the spacing between staples must be changed.

It may also be necessary to adjust the spacing slightly if the last staple is located off the stitch tab or if the spacing from the last staple to the end of the tab is too great.

Refer to Figure 19.

Loosen nut (1) and turn adjusting screw knob (2), which moves indicator (3) to spacing desired.

Moving indicator towards the inner end of arm (4) will increase the distance between staples, and moving indicator towards the outer end of the arm will shorten the distance between staples. Retighten nut (1).

Several settings may be required to obtain the spacing desired, and spacing should be checked with the machine running boxes.

The maximum and minimum spacing that can be obtained is 2-5/8" and 7/8" respectively.

NOTE: Above maximum and minimum dimensions may vary due to box thickness, liner surface or feed roll pressure.

Brake band (5), Figure 19, is to prevent overtravel of step feed rollers. Adjustment can be made by the brake band adjusting nut. However, it is seldom necessary to adjust brake and CARE SHOULD BE USED NOT TO HAVE BRAKE SET TOO TIGHT, since it will put undue load on motor and parts.

Tie Stitch Adjustment

If the tie stitch spacing is not as desired, loosen nut (6) on Tie Stitch Latch Block (7), Figure 19, and turn screw (8) to increase or decrease the spacing. Turning screw in increases space, and turning screw out decreases space. Tighten nut (6) when adjustment is finished.

There will probably be a slight difference in the spacing of the first and last tie stitches, the first tie stitch being spaced slightly closer than the last tie stitch. This should cause no concern as it is the normal operation of the machine.

Screw (9) Figure 19, located in bracket (10), is used for making the spacing of the staples in the last tie stitch on the box more nearly the same as in the first tie stitch. This adjustment is seldom needed and should

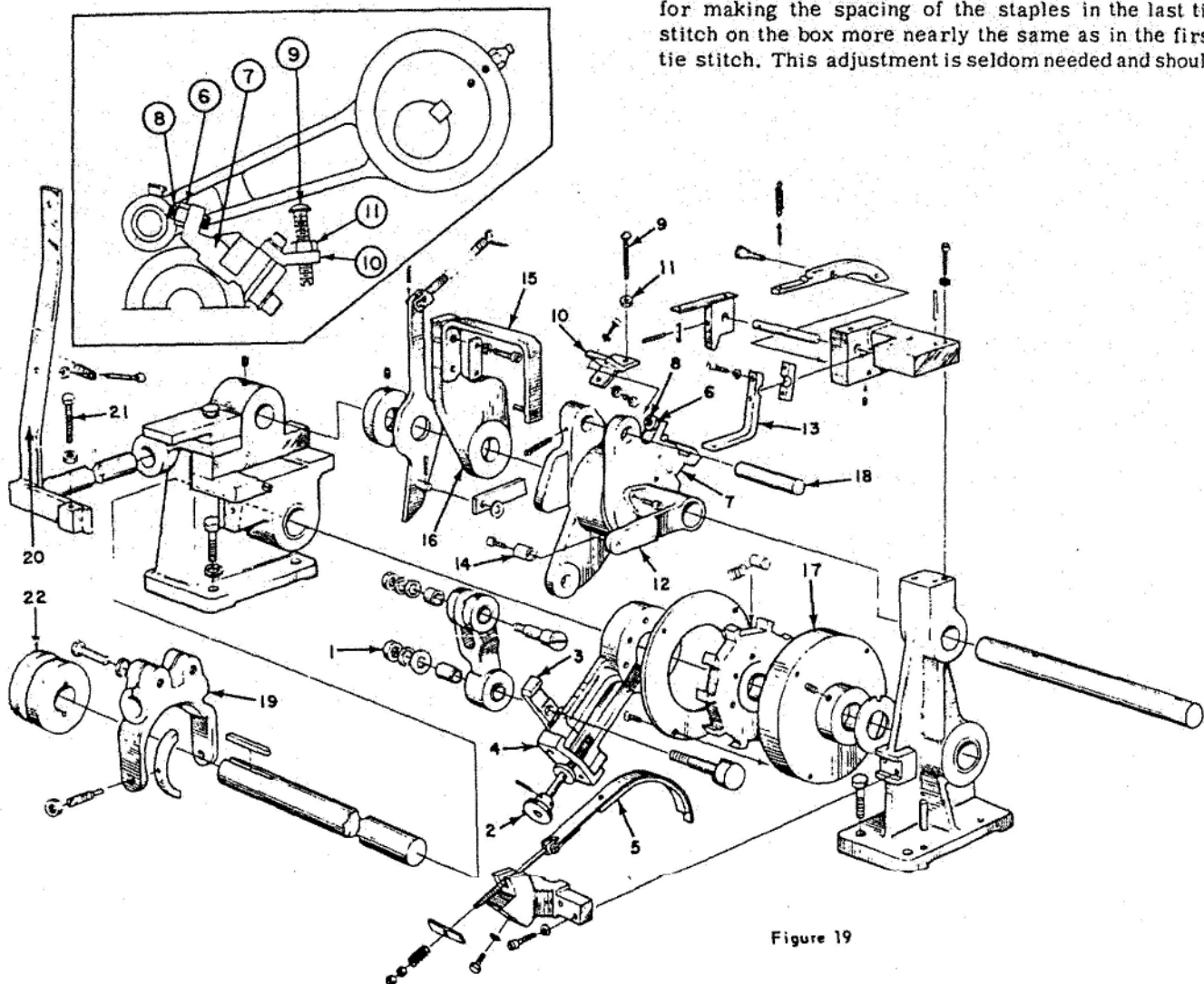


Figure 19

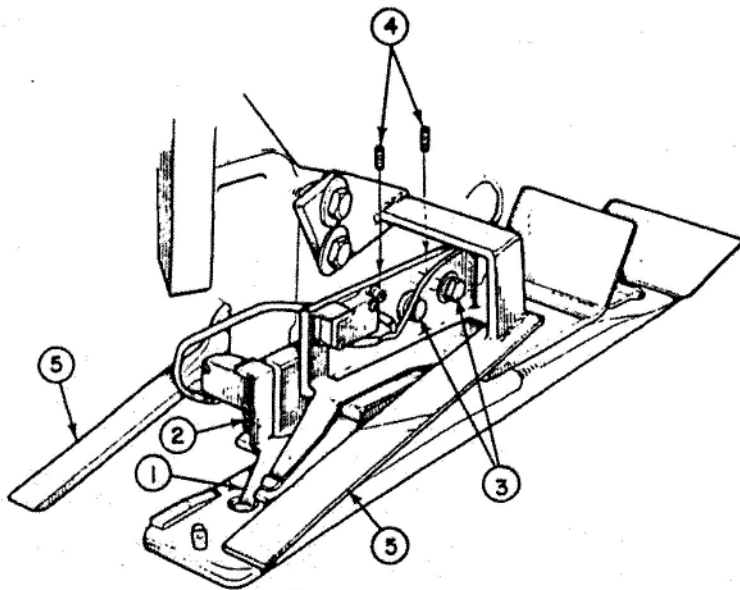


Figure 20 - Right-Hand Openhead

ONLY BE MADE when the DIFFERENCE between the spacings of the first and last tie stitch are radically different.

If an adjustment is necessary, loosen lock nut (11) and then turn machine over by hand until the associated connecting rod is at the very end of its down stroke extreme bottom center. Turn screw (9) up until it just contacts the connecting rod. Tighten lock nut (11) firmly and re-check setting by turning machine over by hand to see that there is no binding action with the connecting rod and screw.

NOTE: If this adjustment is not made correctly, it will cause the connecting rod or other members to break when machine is run by power.

Setting of Tooth Clutch Step Feed Mechanism

Refer to Figure 19.

1. With the machine stopped and in the neutral position, loosen clutch fork (19) on the shaft.
2. Position the clutch fork so that it firmly presses the sliding member of the tooth clutch (22) into full engagement with the stationary member of the clutch.
3. At the same time, push on the solenoid plunger attached to arm (20) so that it is firmly seated. When this is accomplished, lock the clutch fork (19) tightly on the shaft.
4. Adjust the stop screw (21) so that when the clutch is disengaged, there is an opening of approximately .035" to .040" between the teeth of the tooth clutch (22).
5. The spring in the spring link assembly between the arm (20) and the solenoid plunger must be adjusted to be strong enough to hold the tooth clutch (22) firmly engaged even when doing long and heavy boxes. This adjustment is made by means of the nut in the spring link assembly.

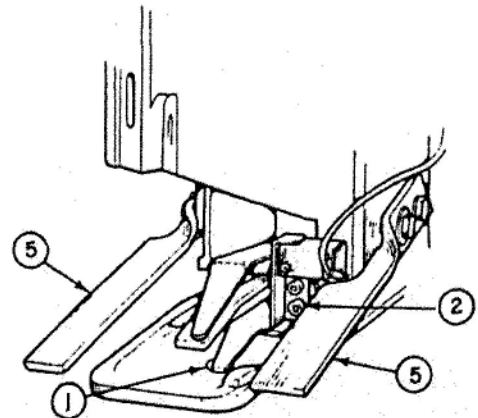


Figure 21 - Left-Hand Openhead

Be careful, however, that the spring is not so strong that the solenoid plunger cannot fully seat itself at the end of the stroke. This applies when the tooth clutch is being engaged and also when it happens that the teeth come on top of each other. In this case, the solenoid plunger must also seat itself, thus the spring must yield accordingly.

Adjustment of Contact Fingers

- a. The lower contact fingers (1), Figures 20 and 21, in both the right-hand openhead or left-hand openhead if used, should be adjusted to extend into the drilled hole of the openhead $\frac{1}{32}$ to $\frac{1}{16}$ of an inch. This can be accomplished by bending the finger when required. The switch is adjusted vertically by screws (2) to permit the contact finger tab to actuate the switch plunger to its full stroke in and out freely. Retighten holding screws (2) after adjustment.
- b. To adjust for clearance on a right-hand openhead upper contact finger, loosen the main attaching screws (3) in the associated bracket. Adjust the clearance by means of the two set screws (4) located close to and at right angles with the main attaching screws. A slight turn "in" or "out" on these screws will raise or lower the position of the upper contact finger. The contact finger should just be in contact with the contact plate. After adjustment, retighten main attaching screws securely, and make sure the set screws are tight to eliminate any chance of the bracket moving due to machine vibration.
- c. No set screws are provided on the left-hand openhead upper deflector and contact bracket for adjusting the upper finger. The adjustment for this finger must be made by loosening the main attaching screws and setting the finger to the contact plate and retightening the main attaching screws.

Slow or High Speed Drive (see illustration at right)

The feed roll speed is changed by sliding a drive pin in the drive hub (2) into a matching hole in either the high speed sprocket or the low speed sprocket. The sprocket and chain drive nearest the handwheel on the main drive shaft is the low speed drive. To change the feed roll speed from high to low, or from low to high, proceed as follows:

1. Raise spring (1) and using a sharp pointed instrument, slide the drive pin out of the sprocket which is being used.
2. Using the drive shaft handwheel, align the hole in the sprocket which is to be used with the matching hole in the drive pin hub (2).
3. Slide the drive pin into the hole of the sprocket which is to be used and release the spring, so that the drive pin is held in place in the new drive position.

Adjustment of Tie Stitch Release Lever Link

The tie stitch release lever link (1), Figure 22, has only a horizontal adjustment. This link is adjusted by loosening the two bolts at the base of the solenoid bracket and moving the bracket either forward or backward. Proper adjustment is attained when the tie stitch solenoid plunger bottoms properly, and also when the "throw" or movement of the link is such, that the tie stitch lever travels far enough to lock the tie stitch latch lifter. The tie stitch lever and the tie stitch link are part of a single linkage.

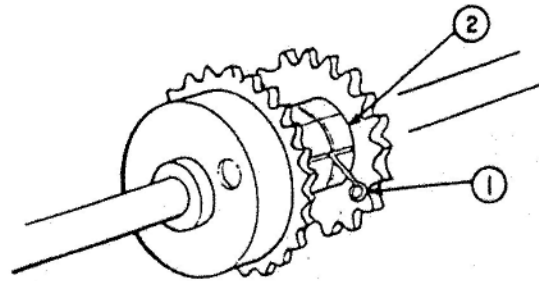
Adjustment of the Tie Stitch Release Arm

The release arm (13), Figure 19, can be positioned by loosening both socket cap screws that fasten it to the small shaft. Position the release arm so that, when the machine is turned over by hand in the counterclockwise direction, the release arm actuating lever (12) will release the tie stitch latch lifter once it has been locked in position. This adjustment is rather critical. If the release arm is positioned so that it is kicked out too soon, there is a possibility that the release arm nylon button (14) will bear on the release arm and the tie stitch lever will not lock the tie stitch in.

After the above the stitch adjustments have been completed, proceed as follows:

- a. Lock the tie stitch in by depressing the tie stitch lever by hand as far as it will go.
- b. Turn the machine over by hand until the release arm just kicks out the tie stitch.
- c. Without any further movement of the handwheel, re-energize the tie stitch by depressing the tie stitch lever all the way.

If the tie stitch remains "locked in," all of the above adjustments have been made properly, and no further adjustment should be necessary.



Adjustment of Tie Stitch Lever

The tie stitch lever (15) is slotted and is fastened to the tie stitch control arm (16). Refer to Figure 19. Adjust the vertical position of the lever so that when the tie stitch solenoid is activated, the rollpin forces the tie stitch latch lifter below it into a locked position.

If the complete range of adjustment has been made and you are unable to lock the tie stitch latch in place by hand, check the adjustment of the tie stitch release arm (12), Figure 19 and the adjustment of the tie stitch release lever link (1), Figure 22. These three parts must be adjusted relative to one another in order to function properly.

Target Adjustment

Target plate (1), Figure 23 should be in a vertical position when it is pushed toward rear of trip gauge as far as it will go. If the target plate is not in the position as described above, loosen screws (2) and slide stop block forward or backwards to achieve this setting.

Adjust the target plate (1) $1/8$ to $5/32$ of an inch from the vertical position toward the front of the machine. Use nut (11) to accomplish this. Obtain a minimum spring tension to hold the target plate in this operating position ($1/8$ to $5/32$ of an inch from the vertical) by adjusting collar (10). Set the target switch lever (3) by means of adjusting screw (4) with sufficient spring tension to insure switch plunger (5) is depressed approximately $1/8$ inch.

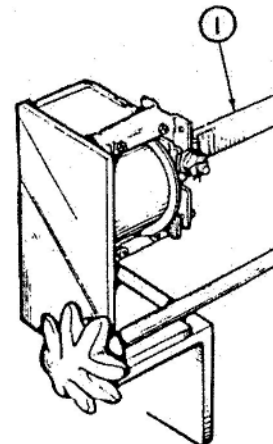


Figure 22 - Tie Stitch Release Solenoid

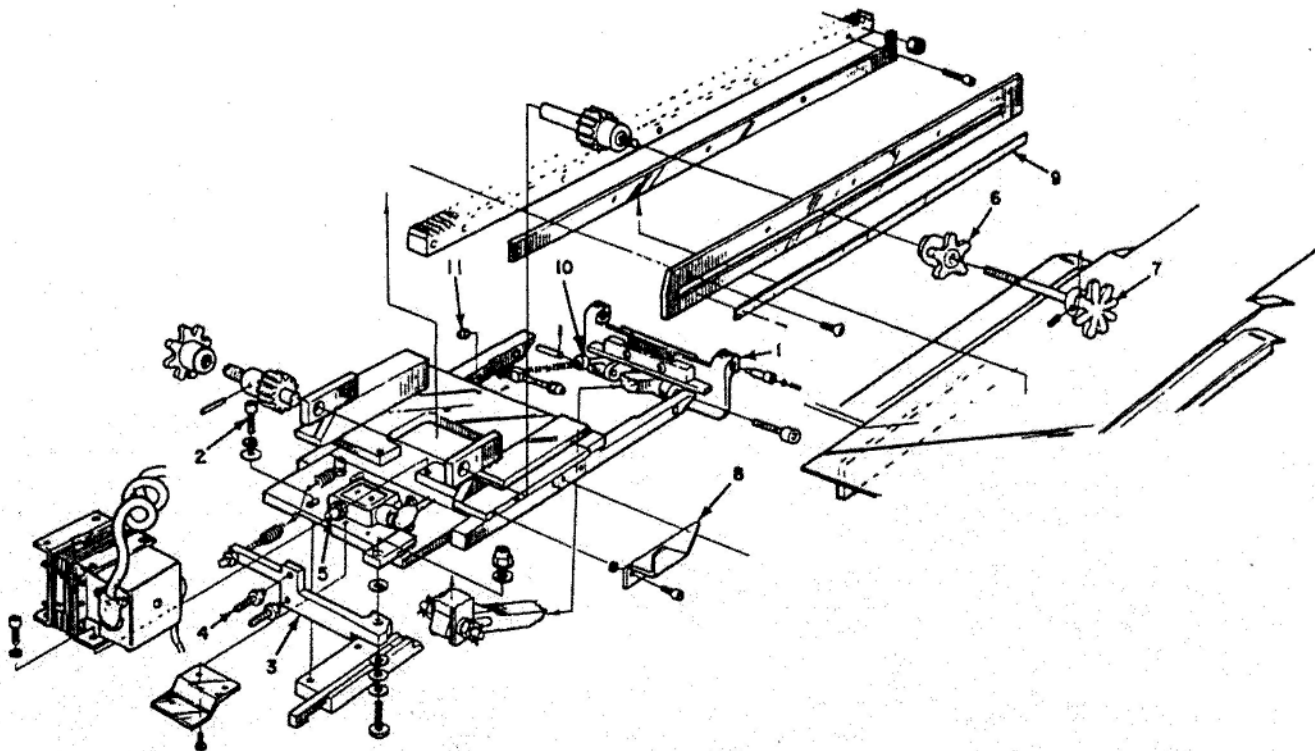


Figure 23 - Target Mechanism

Last Staple Register Unit, Mounting and Adjustment Refer to Figure 23A.

Completely remove the two screws "A". This will allow the clamping plate "C" to drop in the slot and turn 180°.

Mount on slide bar, turn and lift clamping plate "C" back to its original position, insert and tighten the two screws "A". Only these two screws are used for clamping the unit to the bar.

NOTE: These clamping screws must be tightened securely to prevent any slippage of the unit during operation.

The elastic stop nut "B" is adjusted at the factory and should not be disturbed, or used for clamping purposes. If nut "B" has to be removed for any purpose allow approx. .015" clearance between the clamping plate and slide bar when reassembling.

The coiled cord on the solenoid is plugged into the lower receptacle in the outlet box on the rear of the stitcher.

When stitching large panel boxes, use the eight (8) inch wide target plate. If the panels are small or if one panel is too small to span the space between the conveyor belts and there is the possibility that the box will fall thru the space between the belts, remove the eight (8) inch wide plate and move the conveyor belt frames in as close as possible to the last staple register unit.

The setting of the gate is the distance from the leading edge of the box end panel to the point where the last staple is required. After this distance has been de-

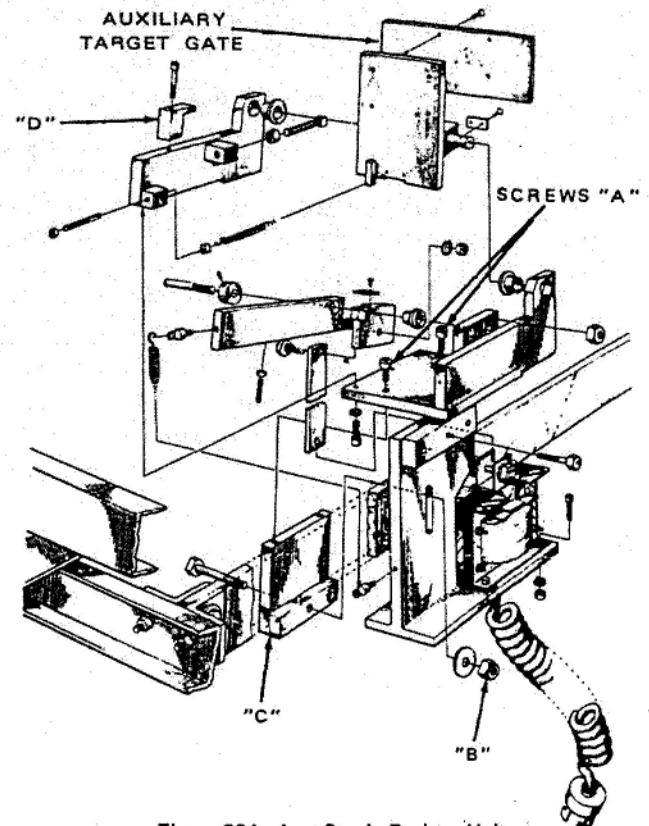


Figure 23A - Last Staple Register Unit,
Mounting And Adjustment

terminated, the position of the last staple should remain constant in relation to the end of the tab (providing boxes are accurately made) regardless of variations in the preceeding staples. Minimum distance from register gate to the last staple is approx. 32". To easily determine position of unit, feed the box to be stitched thru the stitcher by hand, stopping at the point where the last staple is required. The register unit is now moved up to the leading edge of the box, with the gate depressed to take up and play, and locked in this position. After running box thru machine under power, readjustment can be made if necessary.

When the last staple register unit is not required or used, lock the target gate down flat with lock "D", and remove solenoid cord plug from the receptacle on the stitcher.

High Speed Disc Clutch Adjustment

Refer to Figure 24.

1. Loosen the two screws in the clutch fork (1).
2. Raise clutch lever (2) by hand until a measurement of 3/4" to 7/8" is obtained between the bottom of the head on the solenoid plunger and the top of the solenoid frame. This cannot be done unless all backlash is taken out of the entire linkage.
3. Lock the clutch fork (1), when the above setting has been obtained. After locking, check to see that the 3/4" to 7/8" measurement is maintained.
4. To readjust for clutch wear, loosen screws in clutch fork and adjust per steps 1, 2 and 3 above.

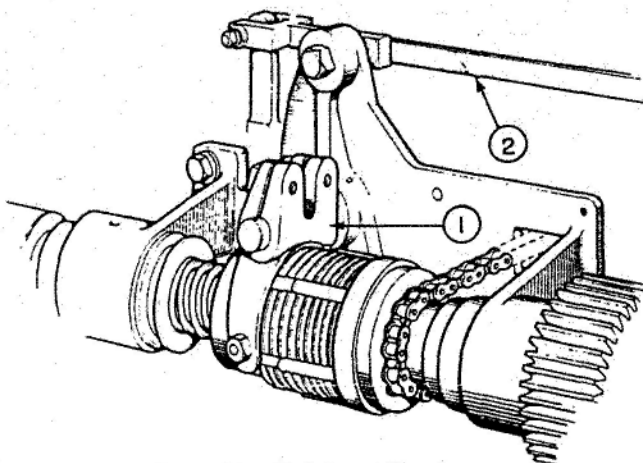


Figure 24 - High Speed Clutch

Clutch and Brake Adjustments

The control box contains the rheostats for adjusting the clutch and brake for proper operation.

The clutch rheostat (1), Figure 25 should be set only high enough to provide satisfactory starting.

The brake includes an over excitation unit to provide for maximum braking efficiency. It is recommended that the stitcher be used with this unit in operation except for certain conditions described below.

To put this unit into operation, simply move switch "D", Figure 25 to the "ON" position and set the brake rheostat (2) at approximately 50 on the graduated dial, or in a position to stop the formers in a non interfering position with a box being fed through the openhead.

If for any reason the stitcher is run at a slower speed, which would cause the over excitation unit to stop the stitcher too soon, change the brake rheostat to a lower setting. If, after adjusting the rheostat to a lower setting the stitcher still stops too soon, move switch "D", Figure 25, to the "OFF" position and increase adjustment of the brake rheostat (2).

Should the maximum adjustment of the rheostat then fail to stop the stitcher soon enough, the stitcher speed must be reduced until the over excitation unit is again operating satisfactorily.

NOTE: The brake and clutch rheostats should in all cases be set only high enough to obtain satisfactory starting and stopping of stitcher so as not to shorten the life of the brake and clutch.

Refer to the Warner Electric Brake and Clutch Service Manual for installation, maintenance, and replacement of the electric clutch and brake unit.

NOTE: On a new unit the spacing between the brake magnet and armature is 1/16 inch. If for any reason this electric brake and clutch unit is removed after being in operation, and is to be reassembled to the machine, record the spacing between the clutch magnet and armature before removing the unit. When reassembling, make sure the dimensions recorded above are used to position the brake magnet and armature and the clutch magnet and armature in the proper relation to each other. Note also that when reassembling parts, the drive pulley should be pushed tightly against the brake and clutch unit collar and secured with the outside eccentric collar.

Adjustment of Cycle Cam and Trip Gauge Cam

Position the cycle cam (1) and the trip gauge cam (6) on the shaft as shown in Figure 26. (Note - Both cams are identical.) Tighten the two socket head screws sufficiently so that the cam can be turned on the shaft for positioning. Check the neutral position as described in the "Timing and Alignment Procedure" on page 23. At this position, the 0° mark should be in a vertical position at the top of the handwheel. Turn the handwheel in a counterclockwise

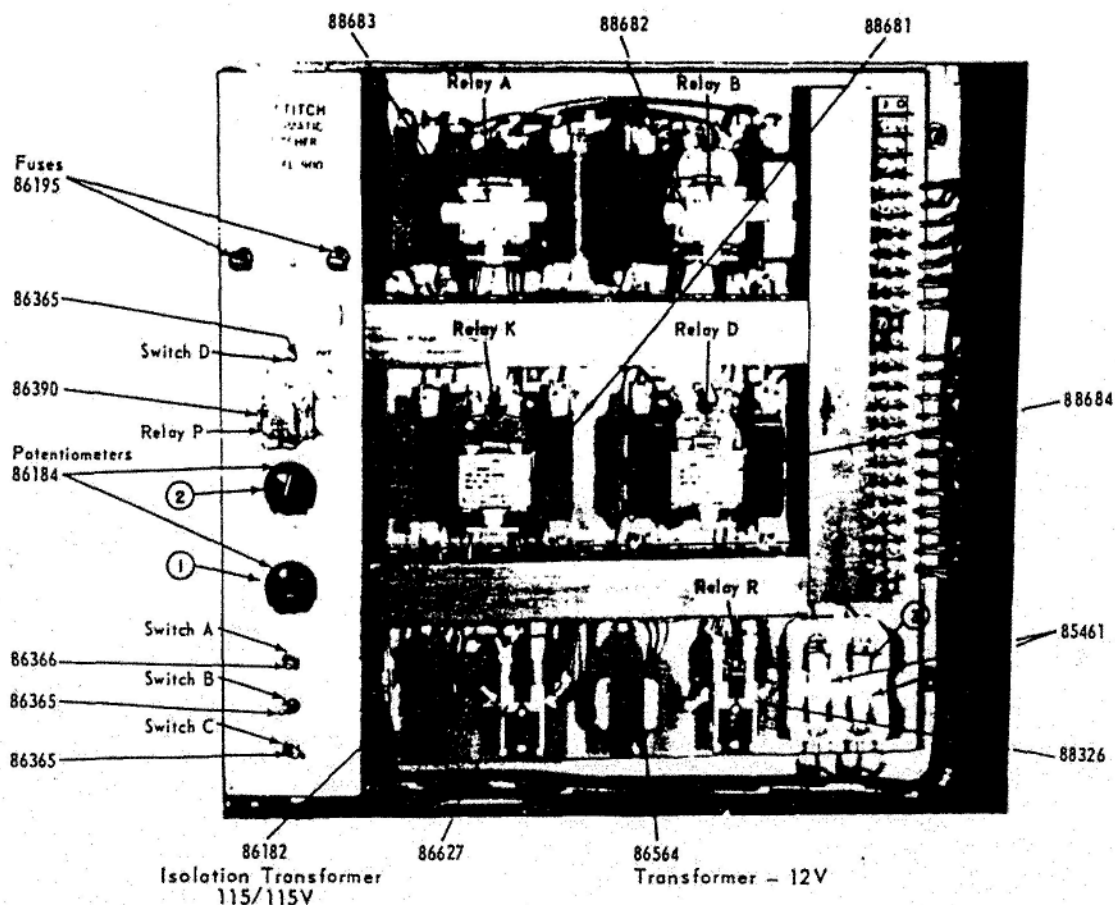


Figure 25 - Control Cabinet

direction and stop with the 30° mark in a vertical position. Rotate the cycle switch cam (1), (this is the cam nearest to the main clutch) in a counterclockwise direction to a position where the switch arm is coming on to the high point and the switch is actuated. Tighten the cycle cam securely with the two socket head screws.

Continue to turn the handwheel counterclockwise and stop with the 90° mark in a vertical position. Rotate the trip gauge cam (6) Figure 26, in a counterclockwise direction to a position where the switch arm is coming on

to the high point and the switch is actuated. Tighten the trip gauge cam securely with the two socket head screws.

Check to make sure that both switch actuating arm rollers are in contact with the cams for the full 360°, or complete revolution.

NOTE: If last staple tears or pulls, retard the cycle switch cam (1) slightly.

CORRECTION OF OPERATING PROBLEMS, DISASSEMBLY AND MAINTENANCE

Tie Stitch Missing At End Of Stitch Tab:

If the machine fails to place a tie stitch at the end of a box stitch flap, (even though the front tie stitch is attained) check to make certain that the tie stitch lever is being locked in place. Make certain that the tie stitch solenoid plunger is bottoming properly. Refer to the section of this manual titled "Adjustments." Readjust the following parts as outlined in this Section:

Tie Stitch Lever, Tie Stitch Release Lever Link, and Tie Stitch Release Arm.

Target Does Not Reset After Box Is Stitched

1. Check to insure target pivots freely.
2. Check to insure target plate (1), Figure 23, returns to its original feeding position. Be sure there are no foreign objects between the target and the table.

Box Does Not Feed Accurately, Thus Causing Poor Spacing of Staples.

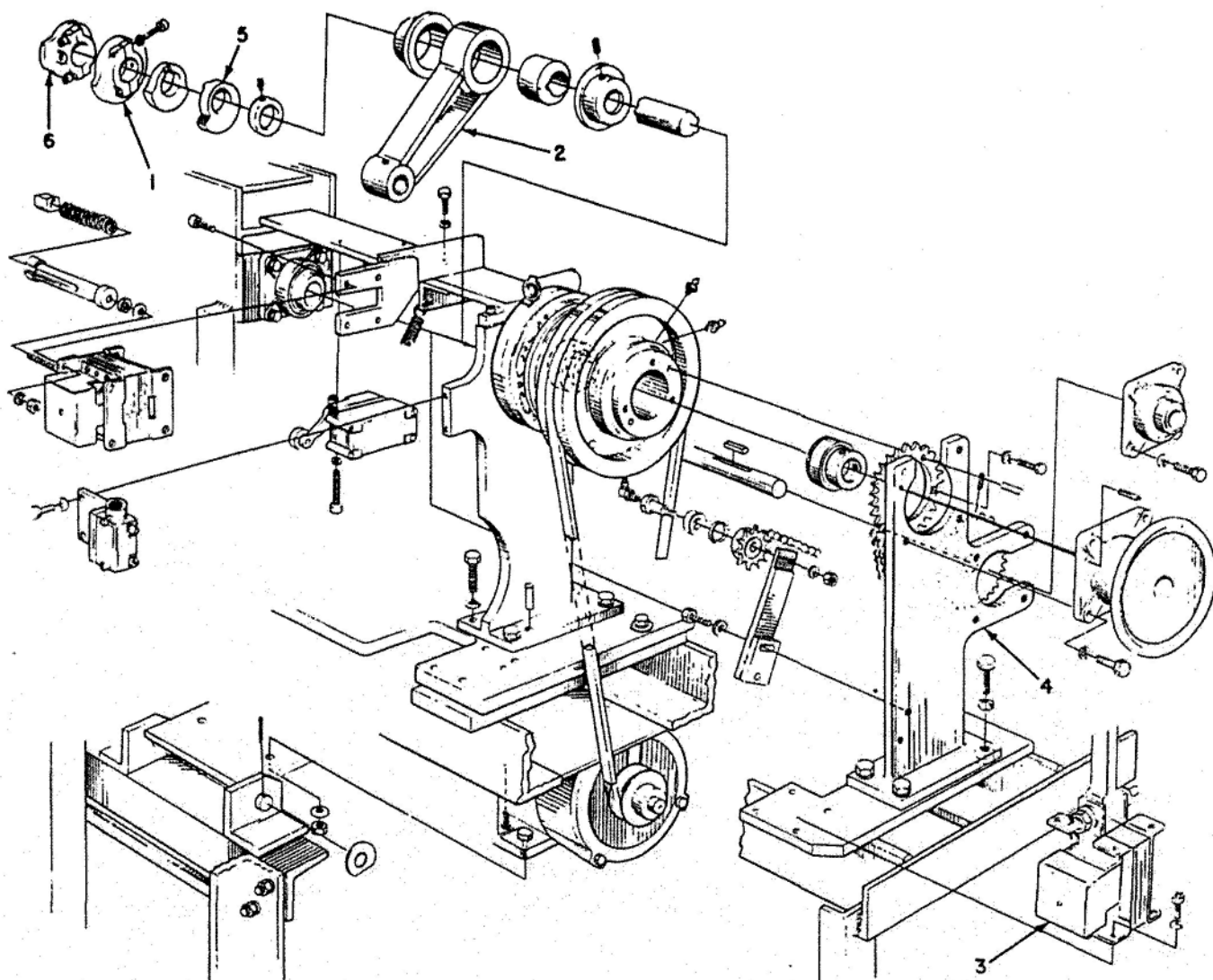


Figure 26 - Cams & Rear End Drive Assembly

Remedy:

Check to see if the lower feed rollers are loose on the shaft. If so, and if the boxes are being stitched square enough, then tighten these rollers.

Check for sufficient pressure of feed rollers. If pressure is not enough, make adjustment to bring rollers together. Refer to the Operating section of this book for instructions to set feed rollers for thickness of box.

Check to see that the brake controlling the overthrow of the ratchet feed clutch and feed rollers is set properly.

See that the feed rollers are clean and free from oil or other substances which could cause slippage. If feed rollers are badly worn down, they should be replaced. See that side gauges and deflectors are not set too tight and that the box is free to move through openhead, etc.

Stitcher Does Not Shut Off After Stitching Entire Box, Including Flap.

1. Check openhead finger switch plunger to determine if switch is operating properly.

2. Check to see that relay "R", (Figure 25) operates when contact finger tab and switch plunger are brought together.

Sometimes The 2nd Staple Is On Top, Or Almost On The 1st Staple. This could be caused:

1. By worn teeth or improper engagement of step feed tooth clutch (17), Figure 19.
2. The box feed roller ratchet clutch may contain dirt or too much oil inside.

Boxes Being Stitched Out of Square and/or Breakage of Small Panels Folding Over the Openhead.

One of the many causes for boxes being stitched out of square is that the stitching seams in some boxes are so short or weak as to make a box that can be easily racked or twisted out of shape.

Remedy:

This trouble may be eliminated by either loosening the lower left-hand feed roller, at the front of the machine, moving this feed roller nearer to the center, or both.

If this fails, try the same thing with the feed roller on the other side of the openhead.

NOTE: The collars on each side of the lower feed rollers are to be used to keep the rollers in place when they are set to run loose on the shaft.

CAUTION: Do not run the machine with loose rollers unless required to for the above reason, since poor spacing may result when running larger or harder-to-feed boxes. Also be sure that these rollers are well greased when running loose on the shaft.

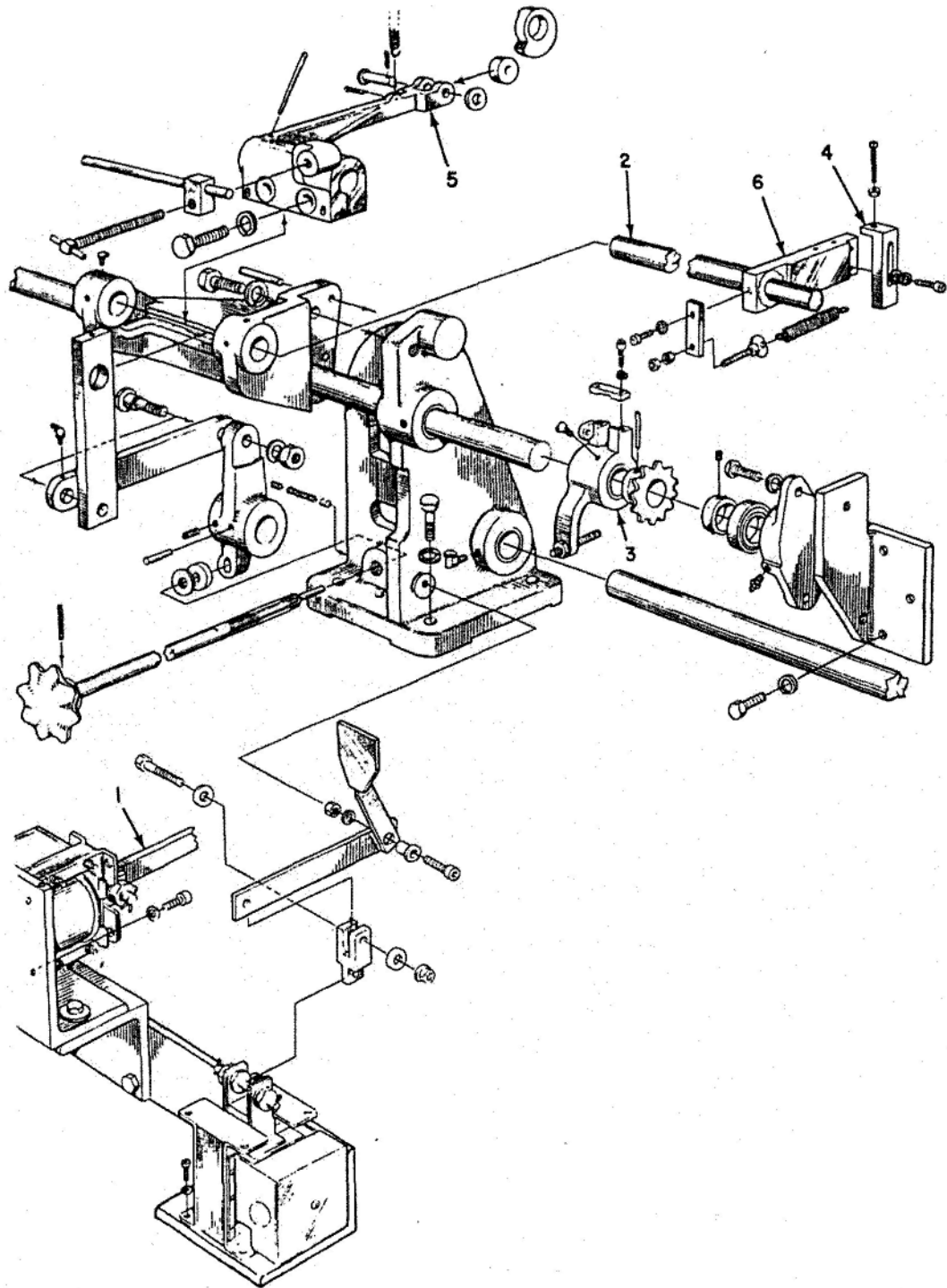


Figure 27 - Front End Drive Shaft

Decreasing the feed roll pressure may also help. Do not use any more roller pressure than what is required to feed boxes up to the target and space the staples properly.

For Panel Breakage, refer to Paragraph 6, on Page 10.

Boxes Come Through Machine With the 1st Staple O.K., But the 2nd Staple and Others Show Deformation or Box Tearing at Staple Positions.

The staple spacing may also be very erratic. These troubles are nearly always the result of faulty functioning of the mechanisms that are supposed to keep the box feed rollers from revolving at a high speed during the cycle of stapling.

Remedy:

1. Check high speed clutch solenoid, (3), Figure 26 to see if it operates when target switch lever is pulled back.
2. Check to see that the drop roller lock shaft (2), Figure 27, is properly locked during the stapling cycle. This lock consists of members (3) and (4). The function of this lock is to maintain the lower feed rollers in their upper position during the stapling cycle.

To determine if the lock is working properly, turn off the power, have the machine in neutral, and turn over the machine by hand with a box between the feed rollers. This will put pressure on the locking mechanism and take out the natural spring of parts, shaft, etc., so that the lock adjustment will be correct for working conditions.

When the machine has been turned over so that the lever (5) is on the high point of its associated cam, then lever (3) should slip over or lock on the lower section of part (4). At this point, there should be a little clearance on the locking members.

If an adjustment of this lock has to be made, loosen screws on side of member (4) and screws on top of same member. Move part (4) for the necessary clearance and positive lock and tighten screws on side. Turn the screw on top so that it contacts lever (6) and tighten nut firmly. When making this adjustment, try to keep the clearance between locking members at a minimum, but regardless, be sure that the lock takes place under actual working conditions.

If staple deformation or box tearing or former scuff marks still exist after remedies shown above have been applied, stitcher head may be out of time with step feed mechanism due to broken tooth on bevel gears, or the main drive shaft may be twisted or broken. If main drive shaft is broken, stitcher head will fail to operate. See "Instructions for removing main drive shaft, bevel gears, etc."

Box is Stitched Beyond Stitch Tab, Then Machine Stops Stitching.

1. This can be caused by the side gauges being

improperly set which allows the contact finger to ride along the end tab of the box.

Remedy:

Readjust side gauges to be sure that contact finger rides on the stitch tab only and cannot touch the end tab.

2. Check to see that Switch "B", Figure 25 operates when contact finger tab and switch plunger are brought together.

Machine Goes Into Neutral and Ejects Box Before Finger Gets to the End of the Stitch Tab.

1. Check adjustment to be sure the contact finger tab is fully released from the switch plunger.
2. If finger is properly adjusted per above instructions, it is possible that the box panel may be depressing the finger sufficiently to cause the switch plunger to close, stopping the stitcher. If this happens, readjust deflectors (5), Figures 20 and 21, to reduce the pressure on the top of the finger. (This trouble would occur only when running a box with inside stitch tab.)

Failure to Stitch Entire Tab When Running Boxes With Outside Stitch Tab.

Check to be sure upper finger is firmly in contact with contact plate - if not, refer to section titled "Adjustment of Contact Fingers".

Box Fails to Trip Machine for Stapling Cycle, etc.

1. Roll pressure may not be enough, in which case the feed rollers will not cause the box to move the trip gauge unit and engage the clutch switch.
2. Check to see that clutch rheostat, (1), Figure 25, is adjusted high enough to give clutch proper torque or pulling power. See section titled, "Clutch and Brake Adjustments."
3. See Figure 25 and Wiring Diagram. Check fuses (3). Check to see that relay "P" functions to release brake and engage clutch.
4. Check all wire connections from switch to relay, etc. Also check for brush condition on clutch collector ring.

Last Staple Register Gate Fails to Release

1. If the gate does not release after the last staple is driven to eject the box, the feed roll pressure is possibly too great. Reduce the roll pressure to the point where the register gate releases without hesitation.
2. Check to see that gate operates freely and also if solenoid is operating properly to release latch lever.

Box Does Not Throw-Out Satisfactorily

1. Check side gauges to see if they are too tight.
2. Check roll pressure to see if it is enough.

Front End of Boxes Being Excessively Broken Down Due to Impact with Trip Gauge Unit

On some types of boxes it will not be possible to eliminate all tendency of the front end of the boxes to be damaged or broken down. However, difficulties in this respect may be greatly helped or eliminated entirely on some boxes by reducing the pressure of the box feed rollers. Reduction of pressure, however, should not go beyond that which is required to obtain satisfactory spacing of staples. Refer to the "Operation" section for this adjustment. In some cases, offsetting the top feed rollers from the bottom feed rollers will help.

Boxes Come Out of Machine With No Staples

CHECK FOR FAULTY WIRE FEED: Wire may be tangled on spool, or wire feed clutch may be faulty.

If Stitcher Should Stop and Cannot Be Turned Over By Hand

Check the following:

1. Remove stitcher head and try to turn machine over by hand.
2. Remove feed ratchet arm pin (18), Figure 19, in connecting rod. If connecting rod is frozen, remove the grease fitting and two set screws in the eccentric.
3. Remove the pins in the side plates and push plates away from connecting rod (2), Figure 26.
4. Free connecting rod and eccentric; reassemble all parts, lubricate, and test by turning machine over by hand.

Last Staple Located off Stitch Tab of Box

The following adjustments may be necessary:

1. Advance the cycle switch cam slightly in the clockwise direction to advance the cycle switch cutoff to energize the brake quicker.
2. Check the feed roll adjustment to insure that proper box feeding is obtained.
3. Adjust the spacing of the staples. Reduce spacing, if machine is driving correct number of staples. Increase spacing, if too many staples are being driven.

Failure of Main Electric Clutch-Brake Unit

1. Check for loose or broken wire in control box, Figure 25.

2. Check fuses (3), Figure 25.
3. Check relay "P" for defective points.
4. Check electric clutch collector ring brushes and connections in brush holder box.
5. Check for broken or loose wires from collector rings to clutch magnet.

If Main Electric Brake Fails to Release

1. Check relay "P", Figure 25 for faulty or inoperative coil.
2. Check the other associated relays.
3. Check the switches.
4. Check for broken wires in the relay circuits.

Instructions for Removing Main Drive Shaft (Front Section), Bevel Gears, etc.

1. Remove the openhead from the stitcherhead.
2. Remove stitcher head by unscrewing the three head bolts in the rear of the head.
3. Before removing part (1), Figure 28, BE CAREFUL TO CATCH THE OIL, which is in the angle gear housing, in a container. BE SURE THAT OIL IS PUT BACK INTO ANGLE GEAR HOUSING WHEN PARTS ARE ASSEMBLED.
4. Remove head casing (1), Figure 28.
5. Remove angle gear housing (2). It will probably be necessary to use a thin chisel, screwdriver or like tool to break this housing loose at the joint. Pull this housing directly off the dowel pins. Check for possible shim or gasket and be sure to replace when reassembling.
6. Loosen main shaft coupling (3).
7. Pull gear and front section of main shaft out and make any necessary repairs or replacements.
8. To reassemble, insert main shaft and bevel gear through bearing (4) and oil seal (5) into coupling regardless of the position of the square on the end of the shaft or the teeth on the gear.

Be careful not to damage the oil seal when inserting the shaft.
9. Turn the machine over by hand in normal driving direction until the screw holes in eccentric and connecting rod, Figure 29 are in line. Now mesh the two bevel gears so that the driver bar link hole, (A) is to the right of vertical center line going through holes (E) and (F), as shown on Figure 30.

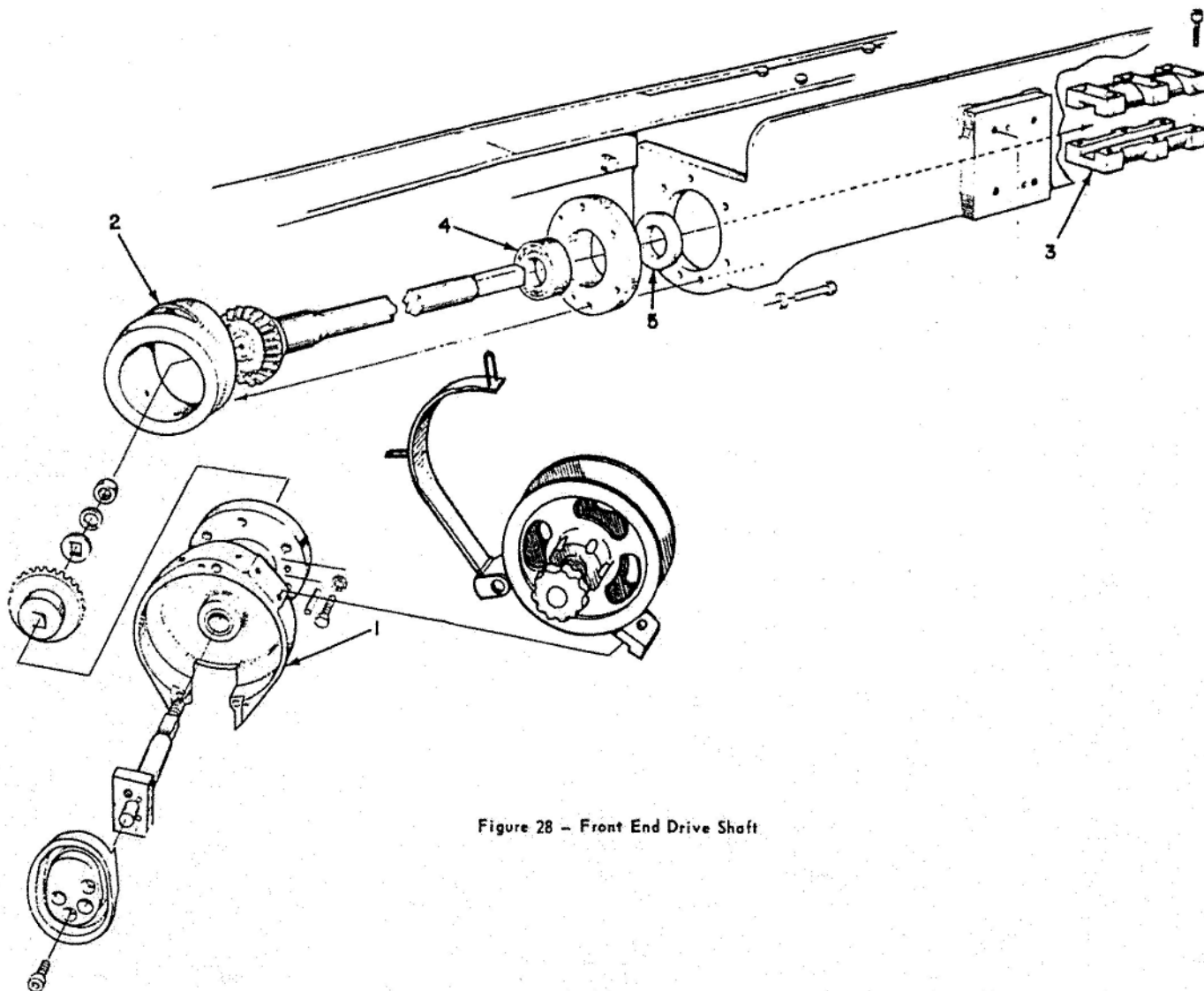


Figure 28 - Front End Drive Shaft

This location is very important, as this is the correct timing for the stitcher head in relation to the step feed clutches.

NOTE: Be sure foregoing condition is obtained with the backlash or play taken out of bevel gears; i.e., with gears fully meshed and head cam turned by hand counterclockwise until backlash is out. See that the hole (A) is to the right as described above.

10. When all parts are completely reassembled, connect power to the machine and turn over by hand for final check. See that the formers are just off the blank on their way up when feed rollers start to step feed the box.

Instructions for Removing Main Drive Shaft

(Rear Section)

If it is necessary to remove the rear section of the main drive shaft for the replacement of parts, use the

following procedure:

1. Loosen the screws in coupling (3) Figure 28.
2. Disconnect the connecting rod from the feed ratchet arms by removing the pivot pin. Remove electric brake and clutch brush holder and bracket.
3. Remove or free the shaft belts, chains, springs, etc.
4. Remove the four cap screws holding outboard bearing bracket (4), Figure 26, to the base and knock out dowel pins.
5. Mark the shaft in a suitable manner so that on reassembly, the square end of the shaft will be located in the same relationship to the square hole in the coupling (3), Figure 28, as it was before removal. This is necessary to maintain correct timing between the stitching head and the feed connecting rod.
6. The entire shaft and all the parts on the shaft, including the outboard bearing bracket, can now be pulled back out of the coupling.

WHEN MACHINE IS IN NEUTRAL,
ECCENTRIC KEYWAY TO BE
ON R.H. SIDE OF VERTICAL
CENTER LINE AND ABOVE
HORIZONTAL CENTER LINE AS SHOWN

ECCENTRIC MUST BE ASSEMBLED
SO THAT LOCATION MARKS (A)
ARE IN POSITION AS SHOWN ABOVE

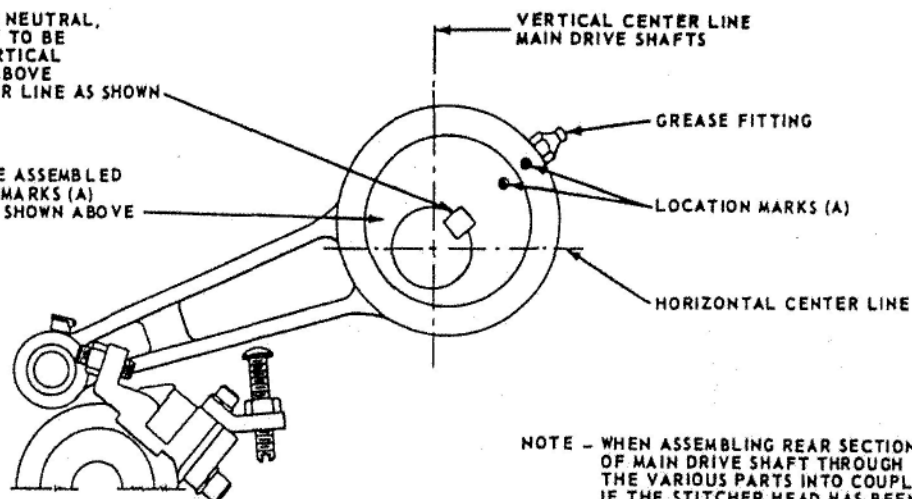


Figure 29 - View Looking From Rear of Stitcher

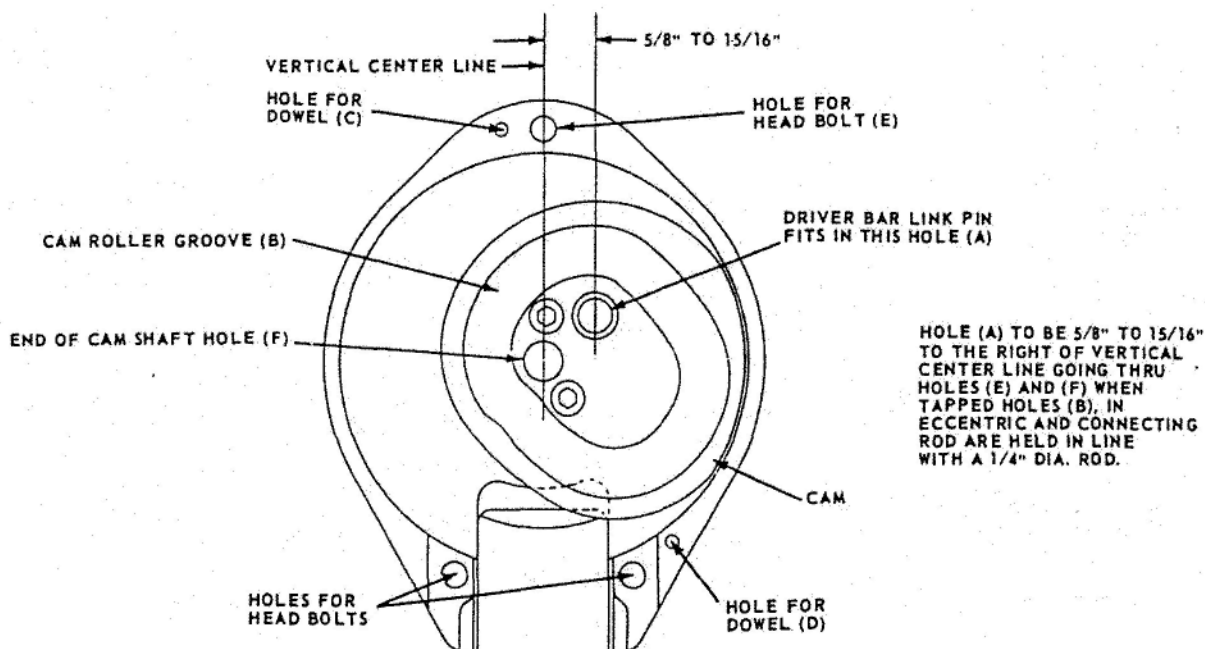


Figure 30

7. Refer to the Warner Electric Brake and Clutch Service Manual and the section titled "Adjustment and Maintenance of Electric Clutch and Brake Unit" for reassembly of the clutch and brake unit.
8. Install any new parts that are necessary, and reassemble, making certain that the shaft is inserted in the coupling in exactly the same position it was in before removal.
9. Tighten the screws in the shaft coupling and turn the machine over by hand to check the

timing. Make sure that the formers in the stitcher head are just off the box and on their way up when the feed rollers start to step feed the box.

NOTE: It is important, in reassembling the shaft, to be certain that the shaft and coupling are in the same relative position, one to the other, as before removal; otherwise it will be necessary to disassemble the shaft as described above, and turn the shaft to bring the square on the end of the shaft to its original relationship with the shaft coupling.

TIMING AND ALIGNMENT PROCEDURE

This procedure is a basic alignment procedure which also provides an excellent check to uncover the answers to inconsistencies and faulty operation of the stitcher.

1. Remove main drive motor belt from flywheel.
2. Neutral or 0° should be in a vertical position at top of handwheel when the tapped holes in the eccentric and the connecting rod are aligned with a 1/4" diameter rod. (See Figure 29).

NOTE: Be sure to remove rod before turning machine on.

3. Set machine up for standard stitching on box. Make sure to remove stitching wire from head.
4. Insert a box into the openhead until it strikes the first pull rolls.
5. Turn power on to machine. The "R" relay, Figure 25, will be immediately energized.
6. Push start button for Main Motor. The machine will now function electrically.
7. The box will move into the machine when you very slowly turn the FLYWHEEL by hand counterclockwise, which is in the direction that the machine runs.
8. As the stitch tab passes through the openhead, the contact finger will be lifted, causing the "R" relay to drop out, setting up the electrical system for starting the stitcher when the box contacts the trip gauge plate. A plunger from this plate activates a small switch causing the "A" relay to be energized. The tooth clutch solenoid, high-speed clutch solenoid, and the electric clutch are energized, and the electric brake released.

9. 0° - On the handwheel should still be in a vertical position. Slowly turn the handwheel counterclockwise. The main drive shaft will start to turn, bringing down the former to stitch.
10. 30° - The cycle cam, (1), Figure 26, engages the cycle cam switch. The drop roller cam (5), on the main drive shaft lifts the lower pull roll up. This lever is latched and remains latched until the step feeding is finished.
11. 90° - On the main shaft, trip gauge cam (6) Figure 26, operates its associated switch and energizes the target plate solenoid. (The delay allows the box to stop in the correct position for first staple.)
12. 100° - The formers are down on the box. The driver for the stitch starts to move.

13. 150° - The trip gauge cam (6), releases its associated switch.
14. 165° - The formers and driver start to lift away from driven staple.
15. 185° - The box starts to advance for the next staple. The formers and driver should be well away from the box to eliminate any possibility of dragging formers and tearing box liners.
16. 210° - The cam (5), Figure 26, is at the fall off point with its associated roller. The cycle cam (1), releases the cycle cam switch.
17. 225° - The drop roller cam (5), Figure 26, is now in a position for the roller to drop to the lowest part of cam. (Actually, the roll will not drop until the last staple has been driven and the roll latch release solenoid is energized.)
18. 280° - The driver and formers are at their highest position.
19. The timing, setting of cams, etc. is now complete. Replace drive motor belt. Feed a blank through the machine under power. The stitcher should normally stop in the stopping zone between 280° and 20°, according to brake adjustment.

NOTE: For double or triple wall board, it is possible that some interference with the formers may be encountered if the stopping point is up to the 20° position. If so, the stopping zone should be reduced to between 280° and 0° or less. Adjust brake to stop more quickly.

TIE STITCH

Use the same procedure as outlined above for Standard Stitch except first turn on the Tie Stitch. (Switch "A", Figure 25.)

1. Perform Step 5 as described under STANDARD STITCH. The "R" relay will immediately be energized. The tie stitch solenoid will energize.
2. Turn flywheel slowly counterclockwise and when the stitch tab lifts the contact finger, the "R" relay will fall out.
3. The box contacts the target plate. The tooth clutch and high speed solenoids are energized. The electric brake releases and the electric clutch is energized. Relays "A", "B", and "K" are energized in proper sequence.
4. The Sequence of operation from 0° to 225° is the same as for Standard Stitch described above.
5. 240° - The nylon button (14), Figure 19, pushes lever (13) to release tie stitch latch.
6. 280° - The tie stitch latch has been completely released.
7. Complete the box stitching by turning flywheel by hand until the contact finger falls off the

stitch tab. The tie stitch solenoid is again energized.

8. Turn the flywheel to complete the revolution to 210°. Relay "A" falls out, followed by "K", then Relay "B" falls out as Relay "D" energizes immediately for the last tie stitch.
9. The timing, setting of cams, etc. is now complete. Replace drive motor belt. Feed a blank through the machine under power. The stitcher should normally stop in the stopping zone between 280° and 20°, according to brake adjustment.

Preventive Maintenance Checks

NOTE: Refer to the various sections of this book for more detailed instructions of the items listed below.

In order to obtain maximum efficiency and productivity of these machines, and to help keep "down time" to a minimum, the following procedures are recommended:

Daily Check:

1. The machine, including the stitcher head, should be oiled after each 8 hours of use.
2. The wire feed clutch in the stitcher head should be checked daily and cleaned when necessary.
3. Check all brakes and clutches daily and clean if necessary.

Weekly:

1. Disassemble stitcher head, clean thoroughly. Check for and replace any badly worn parts; oil and reassemble. NOTE - See Cam lubricating instructions on Page 7.
2. Check diameter of upper and lower rubber feed rollers. New upper feed rollers are 4" in diameter and new lower feed rollers are 4-1/2" in diameter. When a maximum of 3/8" has worn off of the diameter of either set of rollers, replace with new rollers for efficient operation.
3. Check to see that feed roller rocker arm bearing springs are not broken and are properly adjusted for pressure.

4. Check high speed clutch plates to see that they are dry and free of oil.
5. Clean machine thoroughly, check all adjustments carefully, readjust if necessary and lock firmly.
6. Check all screws, nuts, etc., to see that they are tight.
7. If tie stitch unit is being used extensively, a check should be made of the tie stitch latch and tie stitch latch block to see that they are in good condition.

MISCELLANEOUS CHECK-UPS

1. The box feed clutch unit should be disassembled after approximately every 5 or 6 weeks of operation and thoroughly cleaned. Check for wear or small grooves on the ratchet where the rollers operate. If there is a decided mark it should be "stoned" or lapped until smooth. This may be done several times before a new ratchet need be put in. Oil clutch rollers with light oil and reassemble making sure that all the roller springs are in the unit.
2. When any unit has been taken apart for replacement of broken or worn parts, the rest of the unit should be carefully checked and any badly worn parts replaced then or as soon as possible.

STITCHING WIRE

It is essential that a suitable size of stitching wire be employed for the work at hand. If the wire is too light, it will buckle and will not penetrate the stock.

Wire must be of good quality and of the proper hardness, otherwise it will bend or buckle.

Wire must not be oversize or it will stick in the formers and driver and refuse to feed.

Wire must be clean, without rough edges or the wire tubes and former groove will be subject to excessive wear.

CONTACTS

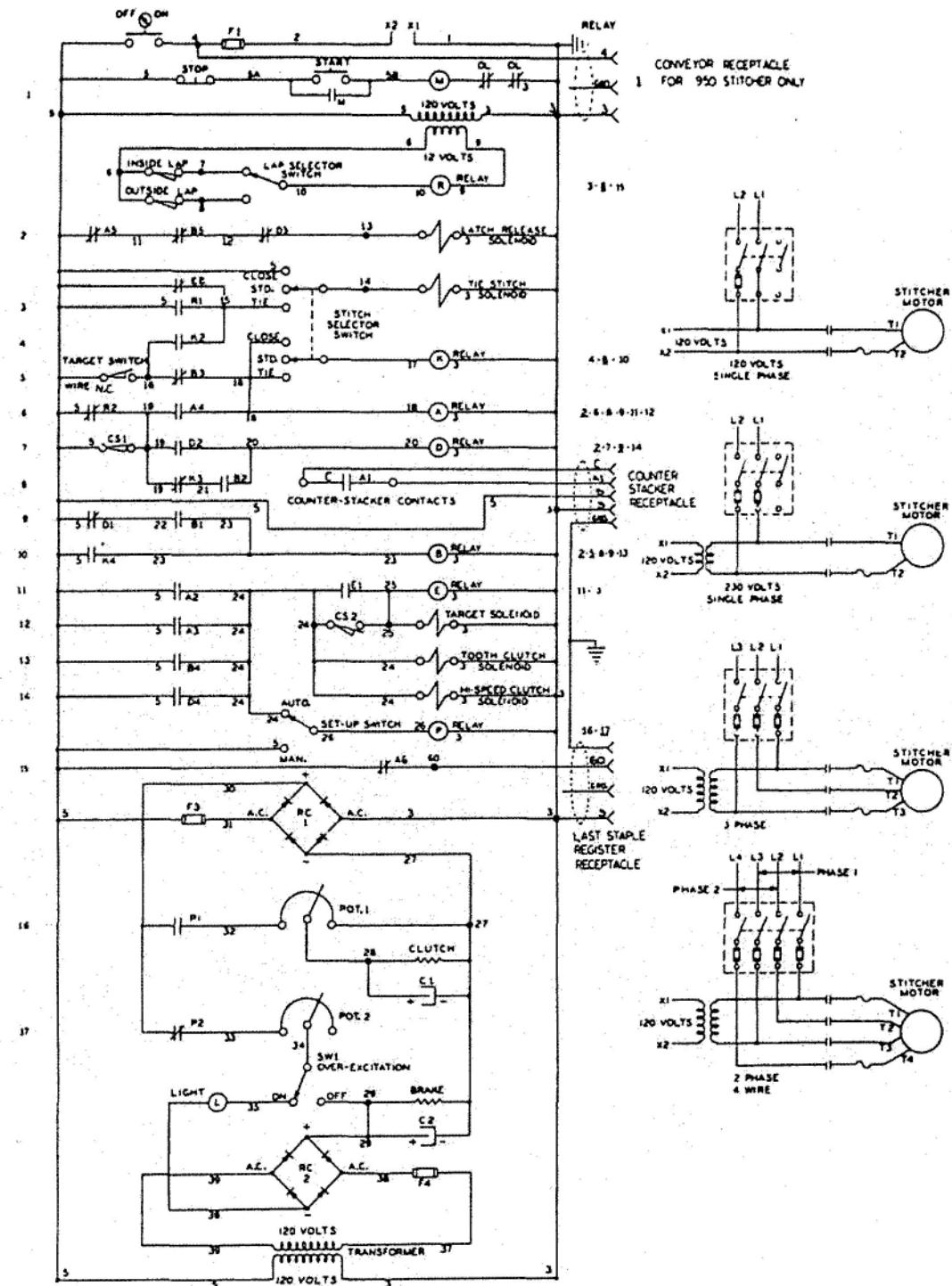


Figure 31 - Schematic Wiring Diagram

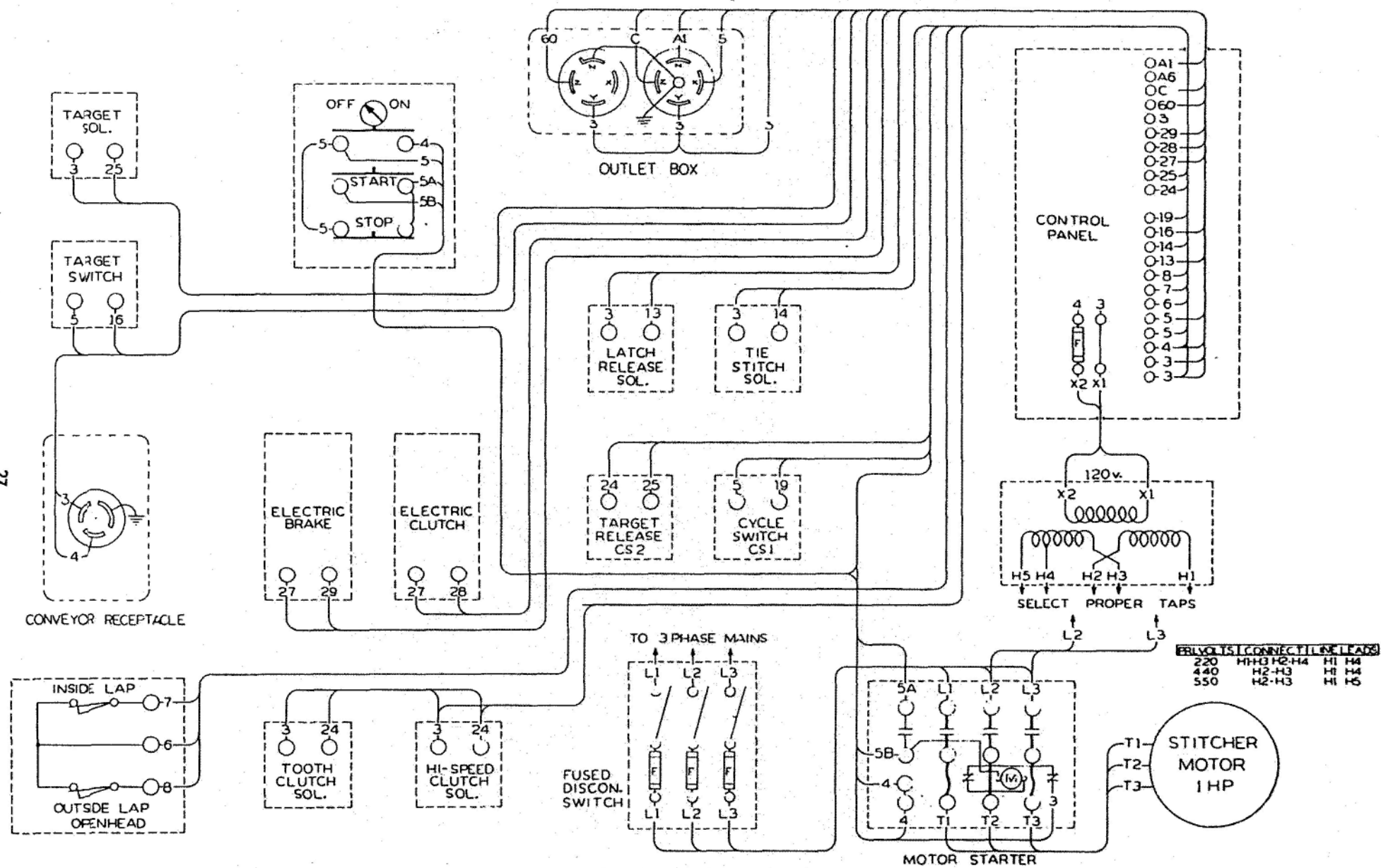


Figure 32 - Actual Wiring Diagram

Figure 33 – Control Box Wiring

PARTS SECTION

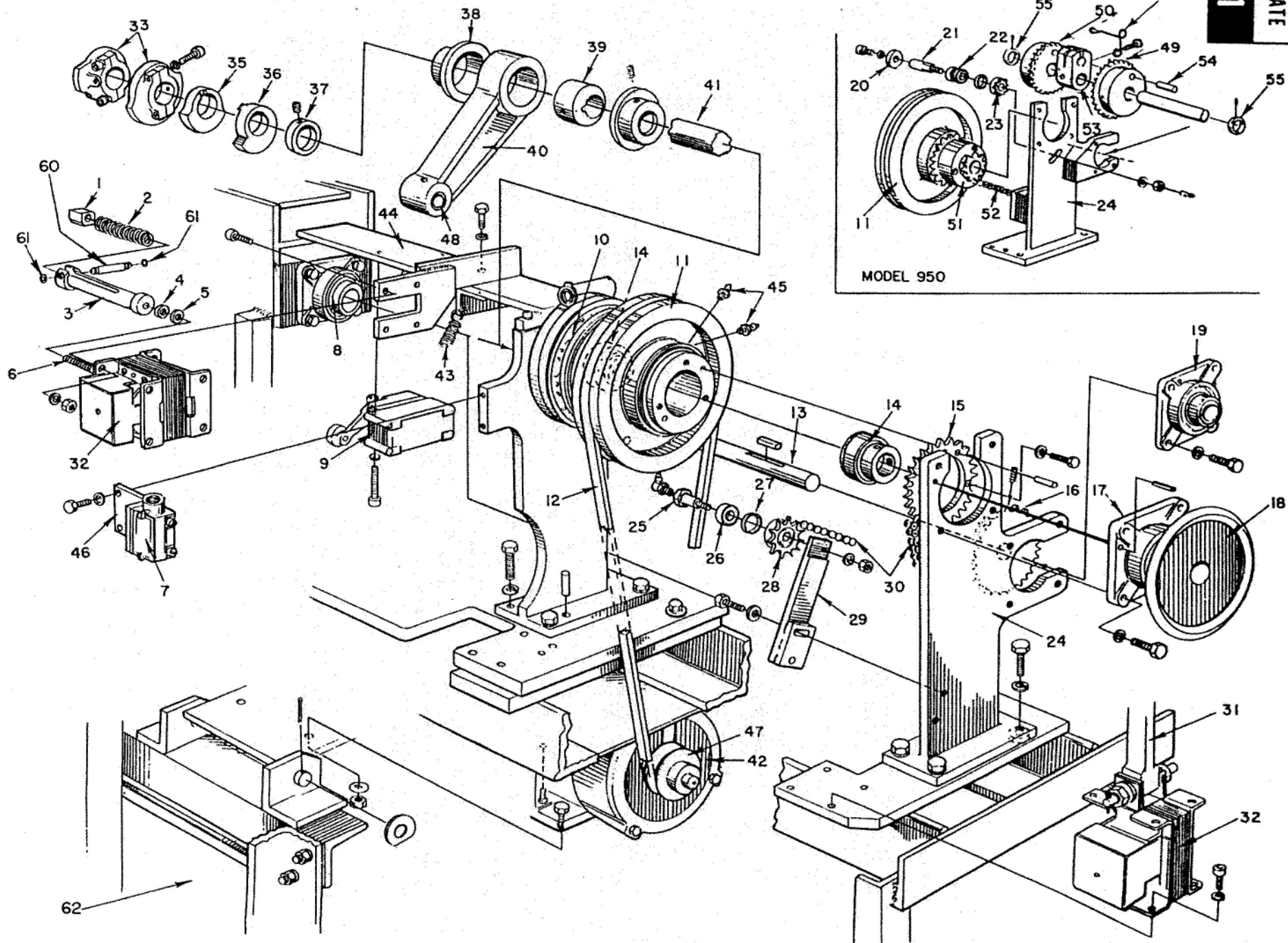


PLATE
1

PARTS LIST - PLATE 1

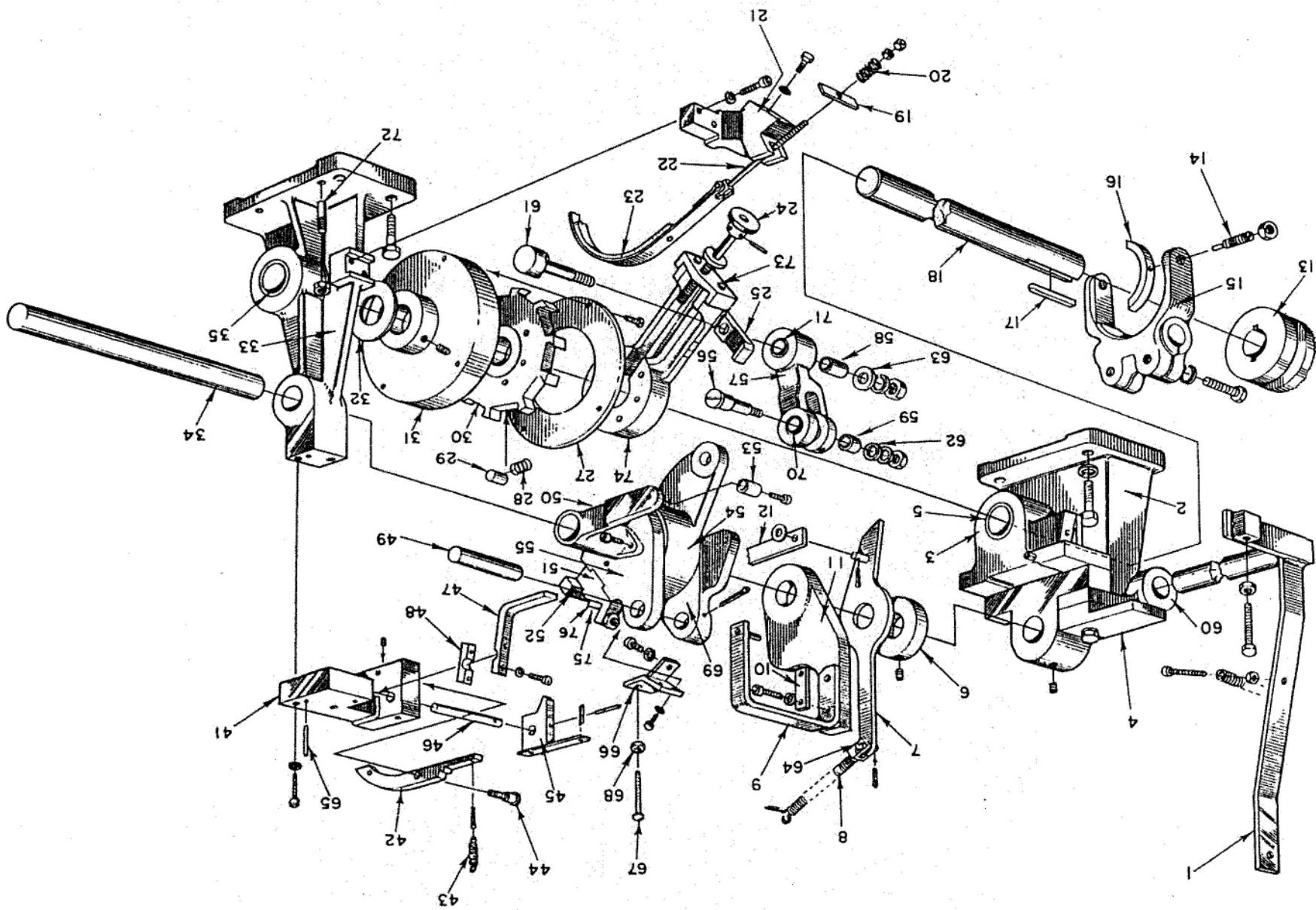
Key No.	Part No. 950 Stitcher	Part No. 900 Stitcher	Description
Items 1 Thru 6 Inclusive, Complete Unit - Part #585381A			
1	251359	251359	Solenoid Link Nut
2	251354	251354	Solenoid Spring
3	251348	251348	Spring Link Case
4	251352	251352	Leather Washer
5	251353	251353	Steel Washer
6	585382	585382	Solenoid Link
7	86221	86221	Brush Holder
8	85678	85678	Main Drive Shaft Bearing
9	89653	89653	Target Switch & Cycle Switch (Assembled complete with Actuating Arm)
10	86113	86113	Electric Clutch & Brake
11	585012	585012	Drive Pulley
12	86629	86629	V-Belt
13	252311	252027	High Speed Roller Drive Shaft
14	85677	85677	Main Drive Pulley Bearing (2 Req'd.)
15	585265	585265	Drive Pulley Sprocket
16		25741	High Speed Roller Drive Shaft Sprocket
17	85678	85678	Main Drive Shaft Bearing
18	585121	585121	Drive Shaft Handwheel
19	85679	85679	High Speed Shaft Bearing
20	251373		Washer
21	252415		Idler Mounting Stud
22	85675		Idler Sprocket Bearing
23	585144A		Idler Sprocket
24	252303A	251986A	Outboard Bearing Bracket
25	252144	252144	Idler Sprocket Stud
26	85675	85675	Idler Sprocket Bearing
27	252146	252146	Idler Sprocket Spacer
28	252145	252145	Idler Sprocket
29	252148A	252148A	Idler Sprocket Arm
30	85579	85579	High Speed Roller Drive Shaft Chain
31	251973A	251973A	High Speed Clutch Solenoid Link
32	86662	86662	Solenoid 110 Volt 60 Cycle
	86713	86713	Solenoid 110 Volt 50 Cycle
33	251587BA	251587BA	Trip Gauge and Cycle Switch Cam
35	585116	585116	Drop Roller Cam Hub
36	585124	585124	Drop Roller Cam
37	252070	252070	Locating Collar
38	585087	585087	Eccentric Collar
39	585111	585111	Eccentric
40	585006A	585006A	Eccentric Connecting Rod
41	252304A	251964A	Main Drive Shaft Rear Section
42	86103	86103	Motor - (Standard) 220/440V, 50/60 Cycle Furnish Specification if Other Than Standard
43	25593A	25593A	Tie Stitch Release Lever Spring
44	252102BA	252102BA	Micro Switch Mounting Bracket Assembly
45	85215	85215	Grease Fitting
46	585151	585151	Brush Holder Bracket
47	685108A	685108A	Motor Pulley - Standard 445 R.P.M. - 1725 R.P.M. Motor
	685107A	685107A	Motor Pulley - Standard 445 R.P.M. - 1425 R.P.M. Motor
48	85907	85907	Bushing
49	252486A		Slow Speed Drive Sprocket Assembly
50	252484A		High Speed Drive Sprocket Assembly
51	252408A		Slow Speed Drive Sprocket Assembly
52	86871		Slow Speed Roller Chain
53	252543		Drive Pin Hub
54	252482A		Drive Pin
55	252481		Collar
59	252545		Drive Pin Retaining Spring
60	25756	25756	Solenoid Pin
61	85006	85006	"O" Ring
62	88719	88719	Magnetic Starter

Individual Parts of Electric Clutch & Brake, 86113, Item #10, Which Are Available Separately.

Part No.	Title
86218	Brake Magnet
86219	Clutch Magnet
86220	Armature - Drive Pin Type
86221	Brush Holder Complete (Item 7)
86222	Magnet Hub Assembly (Collector Rings, etc.)
86223	Taperlock Bushing
86224	Autogap Mounting Assembly
*87630	Brush (For Collector Rings)

*One (1) Brush - 4 Req'd. Per Set

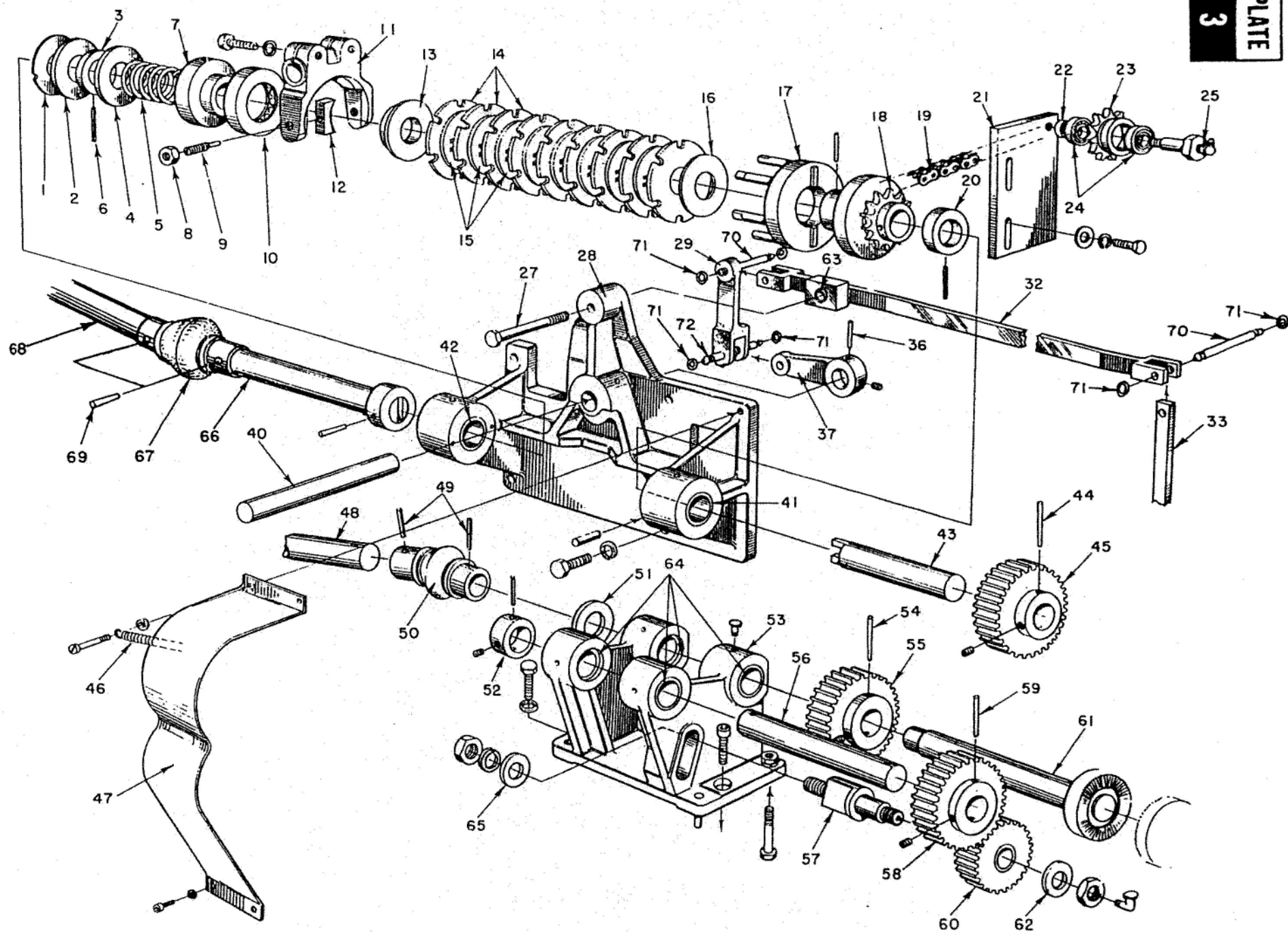
NOTE: When ordering replacement parts, be sure to specify Serial and Model Number of the machine, Part Number and Part Name.



PARTS LIST - PLATE 2

Key No.	Part No. 950 Stitcher	Part No. 900 Stitcher	Description
1	252345A	252345A	Step Feed Clutch Solenoid Lever
2	251692	251692	Ratchet Arm Bearing Bracket
3	252147A	252147A	Step Feed Clutch Bracket
4	251976	251976	Solenoid Lever Stop Screw Plate
5	85910	85910	Bushing
6	251773	251773	Collar
7	252140	252140	Tie Stitch Release Lever
8	25593A	25593A	Tie Stitch Release Lever Spring
9	251771A	251771A	Tie Stitch Actuating Lever
10	251775	251775	Actuating Lever Plate
11	251576A	251576A	Tie Stitch Control Arm
12	252155	252155	Tie Stitch Release Lever Solenoid Link
13	25435	25435	Step Feed Slide Clutch
14	25412	25412	Step Feed Clutch Fork Shoe Stud
15	25591	25591	High Speed Tooth Clutch Fork
16	585140	585140	Clutch Fork Shoe
17	25506	25506	Step Feed Clutch Key
18	25430	25430	Step Feed Clutch Shaft
19	25091	25091	Brake Take-Up Screw Bar
20	SF134	SF134	Brake Take-Up Spring
21	585103	585103	Brake Band Bracket
22	25071	25071	Brake Take-Up Screw
23	25089A	25089A	Brake Band (Box Feed Clutch)
24	585065A	585065A	Feed Adjusting Screw
25	585174	585174	Feed Adjusting Pointer
27	186-247	186-247	Ratchet Cover Plate
28	210-197	210-197	Ratchet Roll Spring
29	199-72	199-72	Ratchet Roll
30	251963	251963	Ratchet
31	138-19	138-19	Ratchet Cover
32	25585	25585	Washer
33	251972A	251972A	Roller Clutch Bearing Bracket
34	251565	251565	Tie Stitch Arm & Lever Shaft
35	85906	85906	Bushing
41	251682A	251682A	Tie Stitch Bracket
42	25217	25217	Tie Stitch Latch Lifter
43	25218	25218	Tie Stitch Latch Spring
44	25211	25211	Tie Stitch Latch Lifter Stud
45	25212A	25212A	Tie Stitch Lock
46	25208	25208	Tie Stitch Latch Shaft
47	251695	251695	Tie Stitch Release Arm
48	251696	251696	Clamp Block
49	25074	25074	Feed Ratchet Arm Pin
50	251694	251694	Release Arm Actuating Lever
51	585190	585190	Tie Stitch Latch Block
52	25070	25070	Tie Stitch Latch
53	251777	251777	Release Arm Spool
54	585133	585133	Tie Stitch Arm
55	25014	25014	Ratchet Auxiliary Arm
56	685041	685041	Roller Clutch Link Stud
57	585013A	585013A	Roller Clutch Drive Link
58	585094	585094	Feed Adjustment Clamping Screw Spacer
59	585168	585168	Roller Clutch Link Stud Spacer
60	25258	25258	High Speed Clutch Fork Bracket
61	585170	585170	Feed Adjustment Clamping Screw
62	15262	15262	Roller Clutch Link Stud Washer
63	585169	585169	Feed Adjustment Clamping Screw Washer
64	25304	25304	Tie Stitch Lever Spring Swivel Pin
65	E208	E208	Dowel
66	585368A	585368A	Tie Stitch Adjustment Screw Plate
67	25658B	25658B	Tie Stitch Adjustment Screw
68	HN51618	HN51618	Hex Nut
69	251684	251684	Feed Ratchet Arm
70	585126	585126	Bushing
71	85728	85728	Bushing
72	25664	25664	Threaded Dowel
73	252469	252469	Feed Clutch Arm Cap - (2 Screws, UA4816.9 and 2 Washers, LW14 Required to Attach Cap)
74	252463	252463	Feed Clutch Arm
75	76	76	Latch Pivot Pin
76	25196	25196	Latch Spring

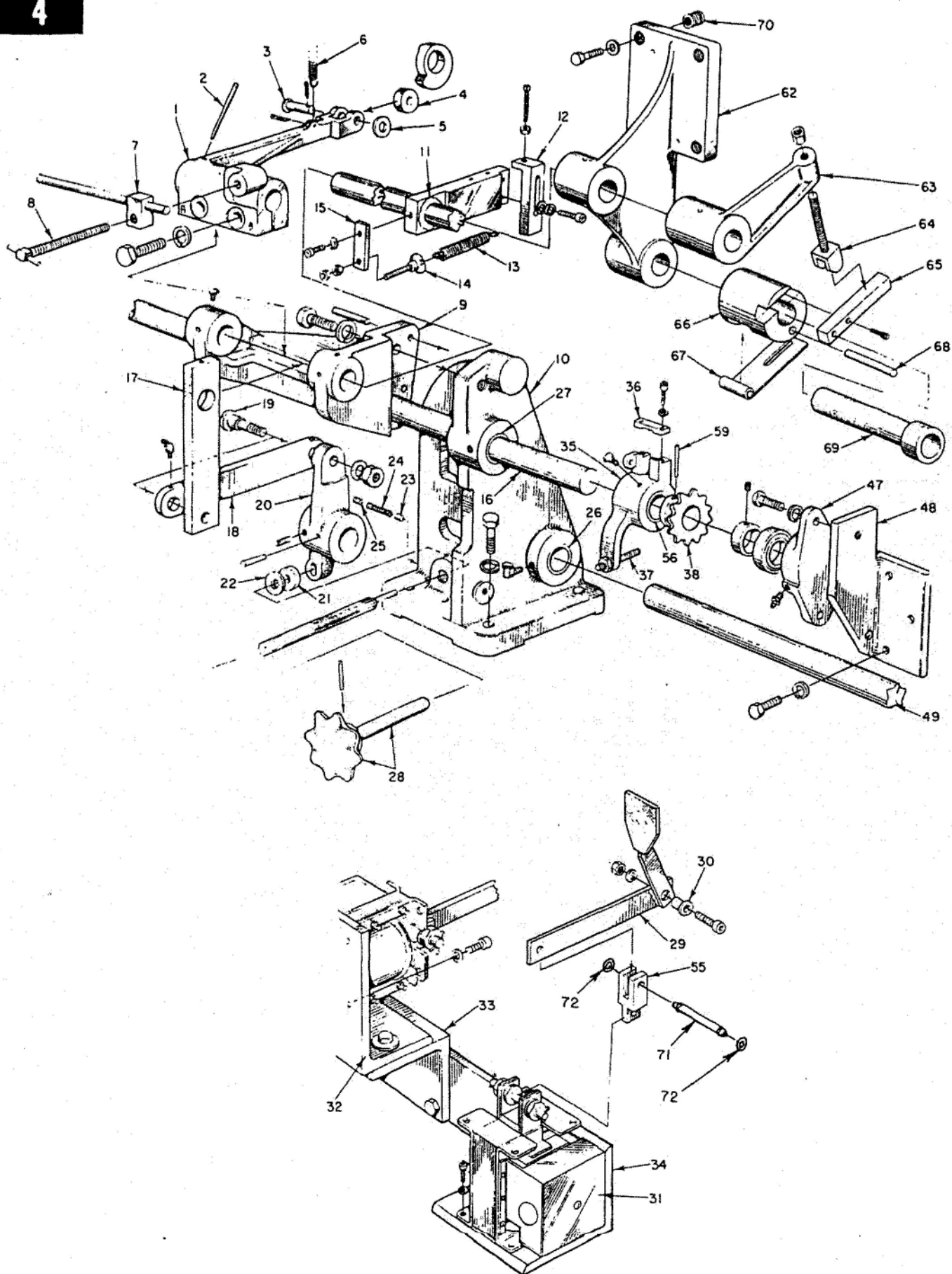
NOTE: When ordering replacement parts, be sure to specify Serial and Model Number of the machine,
Part Number and Part Name.



PARTS LIST - PLATE 3

Key No.	Part No. 950 Stitcher	Part No. 900 Stitcher	Description
1	25462	25462	High Speed Clutch Thrust Washer - Small
2	85607	85607	High Speed Clutch Sleeve Washer
3	25405	25405	High Speed Clutch Shaft Collar
4	85607	85607	High Speed Clutch Sleeve Washer
5	25492	25492	High Speed Clutch Spring
6	UB3126	UB3126	Roll Pin
7	585142	585142	High Speed Clutch Sleeve
8	HN3816	HN3816	3/4"-16 Hex Nut
9	25412	25412	High Speed Clutch Fork Shoe Stud
10	85656	85656	High Speed Clutch Sleeve Bearing
11	252092	252092	High Speed Disc Clutch Fork
12	25411	25411	High Speed Clutch Fork Shoe
13	585143	585143	Clutch Sleeve Bearing Plate
14	585200	585200	High Speed Clutch Plate
15	25464	25464	High Speed Clutch Steel Disc
16	25585	25585	High Speed Clutch Thrust Washer - Large
17	585199A	585199A	High Speed Clutch Drive Ring
18	585106A	585106A	High Speed Clutch Sprocket
19	86697	86697	High Speed Clutch Chain
20	252069	252069	High Speed Clutch Gear Shaft Spacer
21	252154	252154	Idler Sprocket Adjustment Plate
22	252142	252142	Idler Sprocket Spacer
23	585144A	585144A	Sprocket - 12 Tooth
24	85675	85675	Idler Sprocket Bearing
25	252143	252143	Idler Sprocket Stud
27	UA7148.1	UA7148.1	7/16"-14 x 3" Hex. Hd. Screw
28	251975A	251975A	High Speed Clutch Bracket
29	251971	251971	Clutch Fork Link
32	251970A	251970A	High Speed Clutch Lever
33	251973A	251973A	High Speed Clutch Solenoid Link
36	UB5624.1	UB5624.1	Taper Pin - #5 x 1 1/2"
37	252046	252046	Solenoid Operating Link Fulcrum
40	25428	25428	High Speed Disc Clutch Fork Shaft
41	85726	85726	Bushing - 2 Req'd.
42	85726	85726	Bushing - 2 Req'd.
43	252033	252033	High Speed Clutch Gear Shaft
44	UB4628.1	UB4628.1	Taper Pin - #4 x 1 1/4"
45	251966	251966	Step Feed Roll Drive Gear - Upper
46	252190	252190	Step Feed Solenoid Lever Spring
47	252261	252261	Gear Guard
48	252330	252035	Universal Shaft Lower Feed Roll
49	UB5620.1	UB5620.1	Taper Pin - #5 x 1 1/4"
50	252030	252030	Universal Joint Lower Feed Shaft
51	Q346L	Q346L	Washer
52	134-65	134-65	Collar
53	251968A	251968A	Reverse Gear Bearing Bracket
54	UB5640.1	UB5640.1	Taper Pin - #5 x 2 1/2"
55	251965	251965	Lower Feed Shaft Gear
56	252034	252034	Lower Feed Roll Gear Shaft
57	251969	251969	Idler Gear Stud
58	251965	251965	Lower Feed Shaft Gear
59	UB5640.1	UB5640.1	Taper Pin - #5 x 2 1/2"
60	251967A	251967A	Step Feed Idler Gear
61	251983A	251983A	Step Feed Gear Shaft
62	252068	252068	Idler Gear Stud Washer
63	25421	25421	High Speed Clutch Lever Bushing
64	85837	85837	Bushing
65	252068	252068	Idler Gear Stud Washer
66	252522A	252522A	High Speed Clutch Shaft
67	252523	252523	Universal Joint
68	252668	252634	Universal Shaft
69	UB6624.1	UB6624.1	Taper Pin - #6 x 1 1/2"
70	25756	25756	Solenoid Pin
71	85006	85006	"O" Ring
72	25755	25755	Operating Link Fulcrum Pin

NOTE: When ordering replacement parts, be sure to specify Serial and Model Number of the machine, Part Number and Part Name.



PARTS LIST - PLATE 4

Key No.	Part No. 950 Stitcher	Part No. 900 Stitcher	Description
1	25484B	25484B	Auxiliary Brake Lever
2	UB5640.1	UB5640.1	Taper Pin
3	25519	25519	Auxiliary Brake Lever Pin
4	25518	25518	Auxiliary Brake Cam Roller
5	BG1000	BG1000	Washer
6	FP	FP	Auxiliary Brake Lever Spring
7	25752A	25752A	Drop Roller Locknut Assembly
8	25499A	25499A	Drop Roll Adjustment Screw - Upper
9	25485B	25485B	Auxiliary Brake Shaft Bracket
10	252059A	252059A	Operating Mechanism Bearing Bracket
11	252473A	25247A	Drop Roller Lock Shaft
12	25535	25535	Auxiliary Brake Lock
13	25933	25933	Auxiliary Brake Lock Arm Spring
14	25080	25080	Spring Pin
15	252202	252202	Rocker Lock Arm Spring Plate
16	252311	252027	High Speed Roller Drive Shaft
17	25500	25500	Drop Roller Lever - Upper
18	25529	25529	Drop Roller Link
19	25513	25513	Drop Roller Lever Stud
20	25481	25481	Drop Roller Lever - Lower
21	25514	25514	Leather Washer
22	25516	25516	Steel Washer
23	2341	2341	Drop Roller Adjusting Screw Lock Pin
24	0087	0087	Drop Roller Adjusting Screw Lock Spring
25	UA5806.1	UA5806.1	Set Screw
26	598L	598L	Bushing
27	85835	85835	Bushing
28	252141A	252141A	Drop Roller Adjusting Screw - Lower
29	251765A	251765A	Lock Release Lever
30	25292	25292	Release Lever Bushing
31	86662	86662	Solenoid 110 Volt 60 Cycle
	86713	86713	Solenoid 110 Volt 50 Cycle
32	251769	251769	Solenoid Bracket
33	251770	251770	Solenoid Bracket Angle
34	685018	685018	Auxiliary Brake Lock Solenoid Bracket
35	25480A	25480A	Auxiliary Brake Lock Arm
36	25515	25515	Auxiliary Brake Lock Bar
37	UA5832.2	UA5832.2	Adjusting Screw
38	585278	585278	High Speed Clutch Driving Sprocket
47	86658	86658	Flange Bearing
48	252003	252003	High Speed Shaft Bearing Bracket
49	252667	252637	Drop Roller Shaft
55	25293	25293	Solenoid Link
56	85848	85848	Bushing
59	UB4624.1	UB4624.1	Taper Pin
62	252471	252471	Auxiliary Brake Shaft Bracket
63	25483	25483	Auxiliary Brake Operating Lever
64	25762A	25762A	Auxiliary Brake Hold Down Roll
65	25490	25490	Auxiliary Brake Operating Drum Arm
66	25537	25537	Operating Drum
67	25929	25929	Auxiliary Brake Band - Left End
68	25636	25636	Brake Band Anchor
69	25512A	25512A	Auxiliary Brake Stub Shaft
70	252004	252004	Leveling Bushing
71	25756	25756	Solenoid Pin
72	85006	85006	"O" Ring

NOTE: When ordering replacement parts, be sure to specify Serial and Model Number of the machine, Part Number and Part Name.

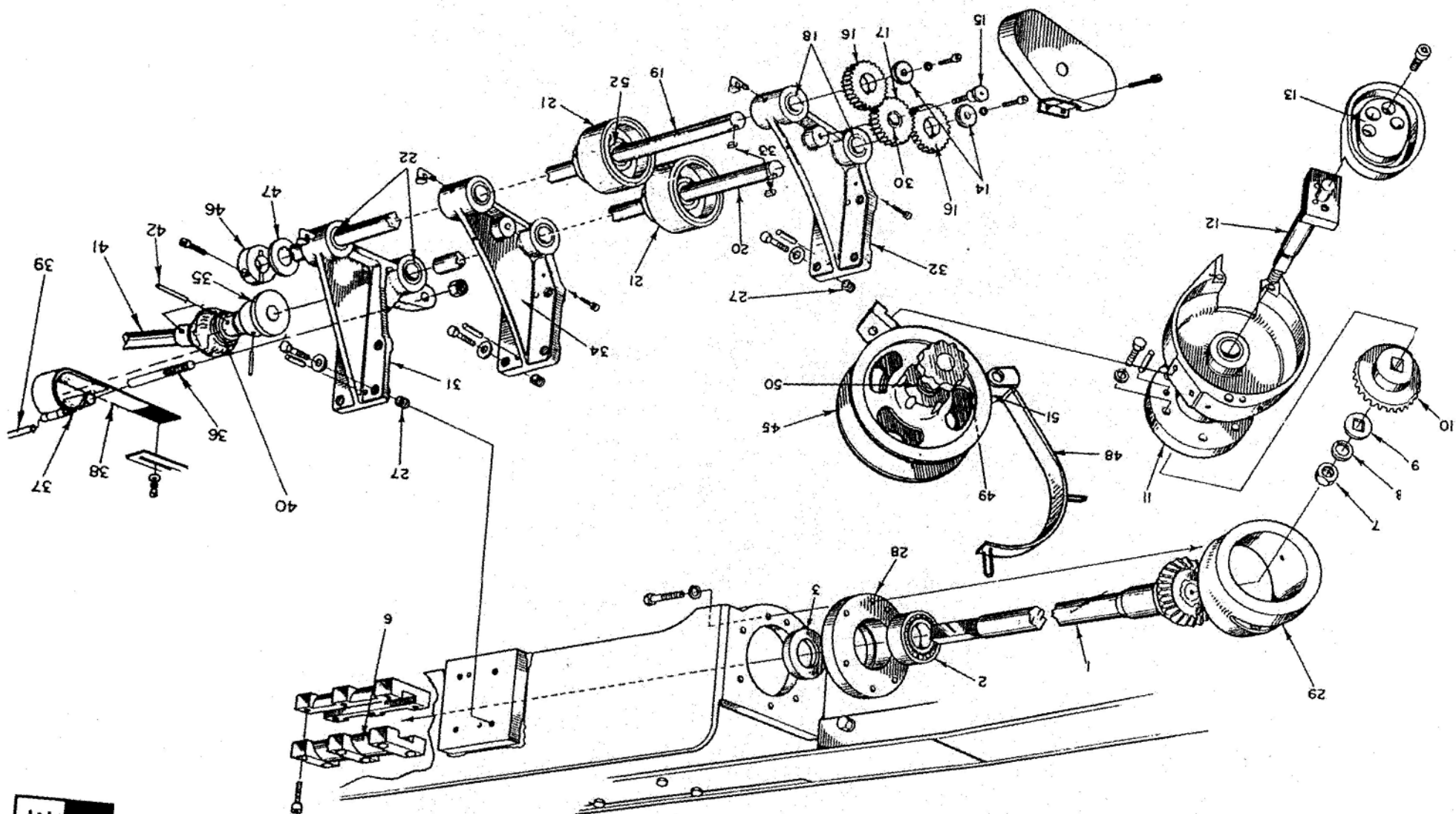
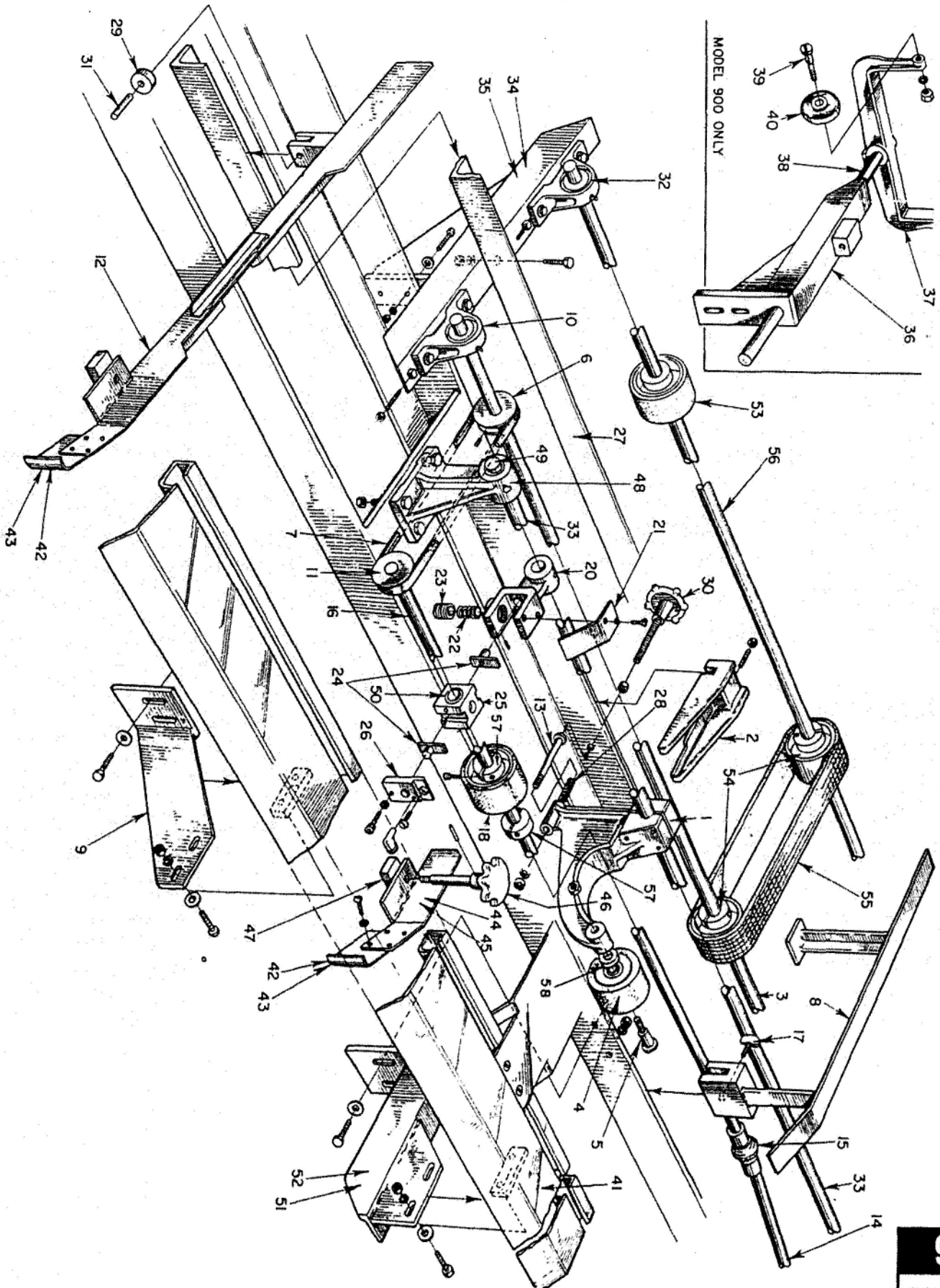


PLATE
5

PARTS LIST - PLATE 5

Key No.	Part No. 950 Stitcher	Part No. 900 Stitcher	Description
1	252299A	252011A	Main Drive Shaft Front Section
2	86603	86603	Roller Bearing
3	86604	86604	Oil Seal
6	585082A	585082A	Main Shaft Coupling Assembly
7	HN5818	HN5818	Hex. Nut
8	LW58	LW58	Lockwasher
9	25927	25927	Head Cam Shaft Washer
10	541L4	541L4	Head Drive Shaft Bevel Gear
11	500L	500L	Head Casing
12	25502A	25502A	Head Cam Shaft
13	164H8D	164H8D	Drive Cam
14	251373	251373	Washer
15	25834	25834	Idler Gear Stud
16	25861	25861	Auxiliary Feed Roll Shaft Gear
17	25860A	25860A	Auxiliary Feed Roll Shaft Idler Gear
18	85840	85840	Bushing
19	252307	252524	Auxiliary Feed Roll Shaft
20	252871	252635	Upper Step Feed Roll Shaft
21	252824	252824	Upper Feed Roller - 7 on 950; 4 on 900
22	85840	85840	Bushing
27	252004	252004	Leveling Bushing
28	251980	251980	Drive Shaft Bearing Plate
29	252103	252103	Elbow Assembly
30	85866	85866	Bushing - Auxiliary Feed Roll Shaft Idler Gear
31	252664A	252664A	Upper Roll Shaft Intermediate Bearing Bracket
32	252338	252338	Upper Roll Shaft Outboard Bearing Bracket
33	25845	25845	Key
34	252341A		Upper Roll Shaft Intermediate Bearing Bracket
35	25534	25534	Auxiliary Brake Drum
36	25661	25661	Auxiliary Brake Band Stud
37	25930A	25930A	Auxiliary Brake Band - Right End
38	25539A	25539A	Auxiliary Brake Band - Central
39	25932	25932	Auxiliary Brake Band Hinge Pin
40	252523	252523	Universal Joint
41	252668	252634	Universal Shaft
42	UB6624.1	UB6624.1	Taper Pin - #6 x 1½"
45	BSA636	BSA636	Spool Holder - Complete
46	25521A	25521A	Collar
47	25585	25585	Hardened Washer
48	251472	251472	Wire Guide Spring
49	251473	251473	Brake Material
50	251474	251474	Compression Spring
51	251475	251475	Torsion Spring
52	252884A	252884A	Roller Bushing - R.H.
	252821A	252821A	Roller Bushing - L.H.

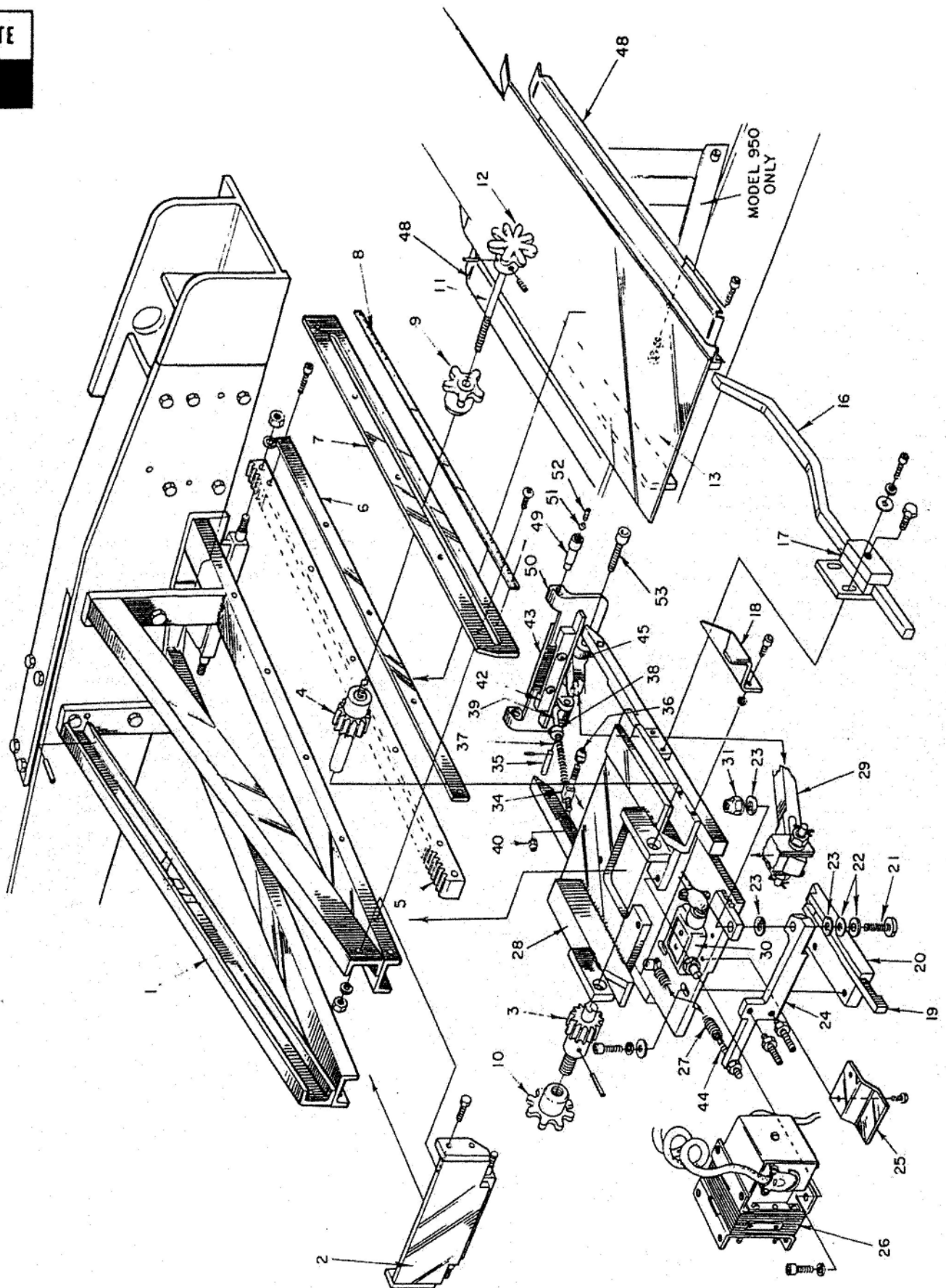
NOTE: When ordering replacement parts, be sure to specify Serial and Model Number of the machine, Part Number and Part Name.



PARTS LIST - PLATE 6

Key No.	Part No. 950 Stitcher	Part No. 900 Stitcher	Description
1	25788A	25788A	Tube Box Lower Roll Bracket
2	25790	25790	Lower Roll Bracket Restrainer
3	252521	252519	Intermediate Throw Out Roll Shaft
4	25793A	25793A	Auxiliary Feed Roll - (Lower)
5	252870	252870	Auxiliary Feed Roll Stud
6	25736	25736	Auxiliary Throw Out Pulley
7	850118	850118	Vee Belt
8	252182A	252182A	Box Support Bracket
9	252641A	252641A	Table Support Bracket - Center
10	86625	86625	Pillow Block
11	25736	25736	Auxiliary Throw Out Pulley
12	252652A	252652A	Side Gauge R.H. - (Long)
	252654A	252654A	Side Gauge L.H. - (Long) (L.H. Shown)
13	585067A	585067A	Thickness Compensating Plunger
14	252683	252035	Universal Shaft - (Lower)
15	252030	252030	Universal Joint - (Lower)
16	252669	252639	Lower Step Feed Roll Shaft
17	UA6820.2	UA6820.2	Thumb Screw
18	252825	252825	Lower Feed Roller - 2 on 950; 2 on 900
20	25298	25298	Drop Roller Arm
21	585063	585063	Drop Roller Arm Guard
22	25301	25301	Drop Roller Arm Bearing Spring
23	202-263	202-263	Drop Roller Arm Bearing Spring Adjustment Screw
24	207-56	207-56	Drop Roller Arm Bearing Slide
25	25633A	25633A	Drop Roller Arm Adjustment Bearing
26	25525	25525	Drop Roller Arm Bearing Cap Cover
27	252682	252659	Side Gauge Guide
28	E133	E133	Plunger Spring
29	252666	252666	Side Gauge Roller
30	25797A	25797A	Wear Compensating Hand Knob Screw
31	252665	252665	Side Gauge Roller Pin
32	86625	86625	Pillow Block
33	252667	252637	Drop Roller Shaft
34	252648A	252648A	Throw Out Roll Bracket - R.H.
35	252649A	252649A	Throw Out Roll Bracket - L.H.
36		252172A	Throw Out Roll Bracket - Center
37		25641	Long Box Support
38		25642	Long Box Support Arm Shaft
39		18354	Long Box Support Arm Roll Stud
40		25644	Long Box Support Arm Roll
41	252305	252012	Feed Table
42	25610	25610	Side Gauge Angle Plate - L.H. - (L.H. Shown)
43	25606	25606	Side Gauge Angle Plate - R.H.
44	252014A	252014A	Side Gauge - L.H. - (L.H. Shown) RH
45	252015A	252015A	Side Gauge - R.H. LH
46	252139A	252139A	Side Gauge Adjusting Knob
47	252021	252021	Clamp
48	25022A	25022A	Drop Roller Shaft Bearing
49	85841	85841	Bushing
50	85850	85850	Bushing
51	252151A	252151A	Table Support Bracket - R.H.
52	252150A	252150A	Table Support Bracket - L.H. - (L.H. Shown)
53	252240A	252240A	Throw Out Roller - R.H.
	252241A	252241A	Throw Out Roller - L.H.
54	252509A	252509A	Belt Idler Pulley
55	252638	252638	Transport Belt
56	252521	252519	Throw Out Roll Shaft
57	252884A	252884A	Roller Bushing - R.H.
	252821A	252821A	Roller Bushing - L.H.
58	252869	252869	Auxiliary Feed Roll Stud Spacer

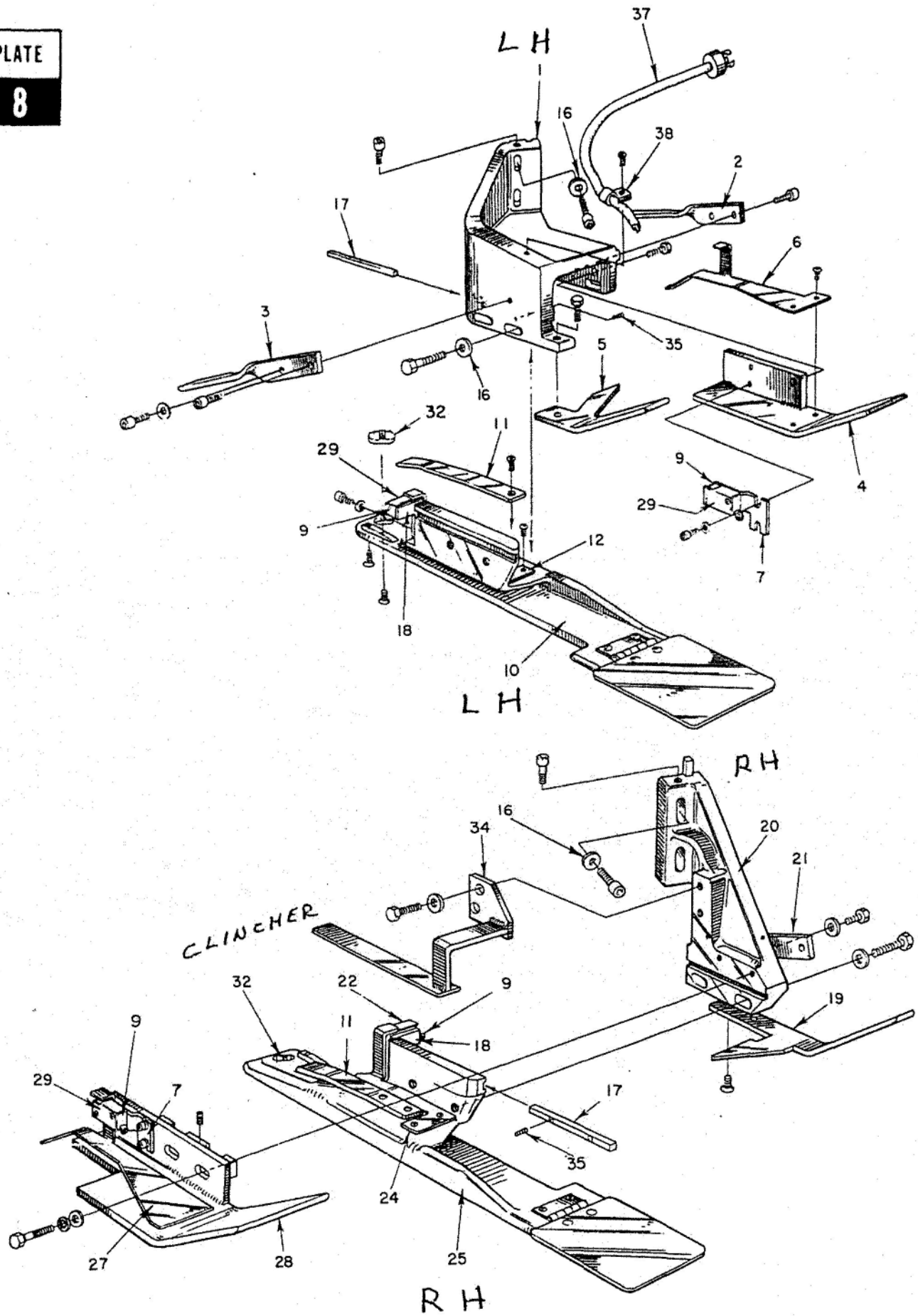
NOTE: When ordering replacement parts, be sure to specify Serial and Model Number of the machine, Part Number and Part Name.



PARTS LIST - PLATE 7

Key No.	Part No. 950 Stitcher	Part No. 900 Stitcher	Description
1	252314A	252219A	Trip Gauge Support Frame
2	252079A	252079A	Rear Rack Support
3	252170A	252170A	Target Rack Gear
4	252170A	252170A	Target Rack Gear
5	252315	252107	Rack
6	252316	252108	Rack Side Plate
7	252317	252187	Target Locking Plate
8	252318	252082	Inch Scale
	252332	252083	Metric Scale
9	252090	252090	Target Locking Nut - R.H.
10	252194	252194	Target Locking Nut - L.H.
11	252087	252087	Pinion Shaft
12	252201	252201	Trip Gauge Adjusting Screw Knob
13	252663A	252650A	Box Support Table
16	252226	252226	Deflector Bar
17	252227A	252227A	Deflector Bracket
18	252230	252230	Pointer
19	252094	252094	Switch Operating Bar
20	252086	252086	Stop Block
21	252222	252222	Switch Lever Stud
22	86736	86736	Disc Spring
23	252331	252331	Friction Washer
24	252203A	252203A	Switch Lever
25	252204	252204	Switch Lever Deflector
26	86662	86662	Solenoid 110 Volt, 60 Cycle; 50 Cycle - Part #86713
27	MR30	MR30	Switch Lever Spring
28	252188A	252188A	Target Slide Assembly
29	252060A	252060A	Target Latch Bar
30	85059	85059	Target Switch - N.C.
31	HN3824.6	HN3824.6	1/4"-24 Locknut
34	252115	252115	Spring Rod Swivel Block
35	252123	252123	Spring Rod Pin
36	HN1420.11	HN1420.11	1/4"-20 Locknut
37	252114	252114	Target Return Spring
38	252224	252224	Spring Adjustment Block
39	252116A	252116A	Return Spring Rod
40	HN1420.11	HN1420.11	1/4"-20 Locknut
42	252274	252274	Target Plate Clamp Piece
43	252272A	252272A	Target Plate
44	252221	252221	Switch Lever Spring Adjusting Screw
45	86679	86679	Bushing - Target Latch Bar (252060A)
48	252644A	252644A	Belt Guide Bracket
49	252552	252552	Target Pivot
50	252544	252544	Trip Gauge Target
51	25542	25542	Ball
52	UA5804.1	UA5804.1	Target Pivot Screw
53	252542	252542	Latch Bar Pivot Screw

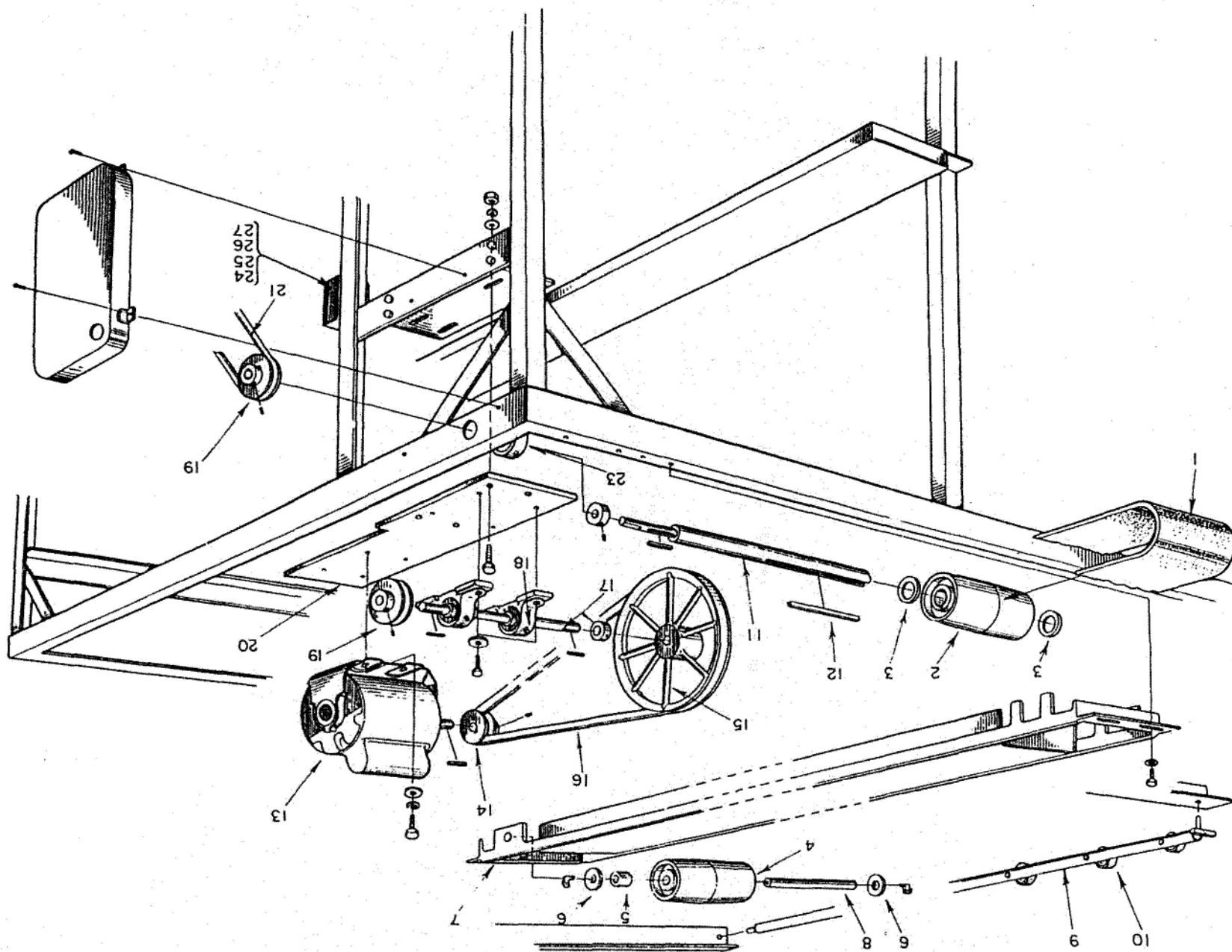
NOTE: When ordering replacement parts, be sure to specify Serial and Model Number of the machine, Part Number and Part Name.



PARTS LIST - PLATE 8

Key No.	Part No. 950 Stitcher	Part No. 900 Stitcher	Description
1	25678BA	25678BA	Openhead Bracket - L.H.
2	252286	252286	Box Deflector - R.H.
3	252285	252285	Box Deflector - L.H.
4	251959A	251959A	Top Deflector - L.H.
5	25681A	25681A	Guide
6	251927A	251927A	Upper Contact Finger - L.H.
7	251918	251918	Switch Mounting Plate - Upper
9	86597	86597	Finger Switch
10	251430A	251430A	L.H. Rigid Openhead
11	251596A	251596A	Contact Plate
12	251922A	251922A	Lower Contact Finger - L.H.
16	228-13	228-13	Washer
17	740X2H3	740X2H3	Key
18	251921	251921	Switch Mounting Plate - Lower
19	25602A	25602A	Openhead Front Deflector
20	25187	25187	Openhead Bracket - R.H.
21	252284	252284	Box Deflector - R.H.
22	251930	251930	Switch Cover Plate
24	251928A	251928A	Lower Contact Finger - R.H.
25	25578A	25578A	R.H. Rigid Openhead
27	251929A	251929A	Upper Contact Finger - R.H.
28	251931A	251931A	Top Deflector - R.H.
29	251919	251919	Switch Cover Plate
32	185H3C	185H3C	Clincher ($\frac{7}{16}$ " Crown) Deep Groove, For Double & Triple Wall Boards and Arc'd Wire Parts
	185H85	185H85	Clincher ($\frac{7}{16}$ " Crown) Standard, For Single Wall Board
34	251939A	251939A	Deflector - R.H.
35	SB105	SB105	Threaded Rivet
37	251944A	251944A	Cord Assembly
38	86369	86369	Cable Clamp

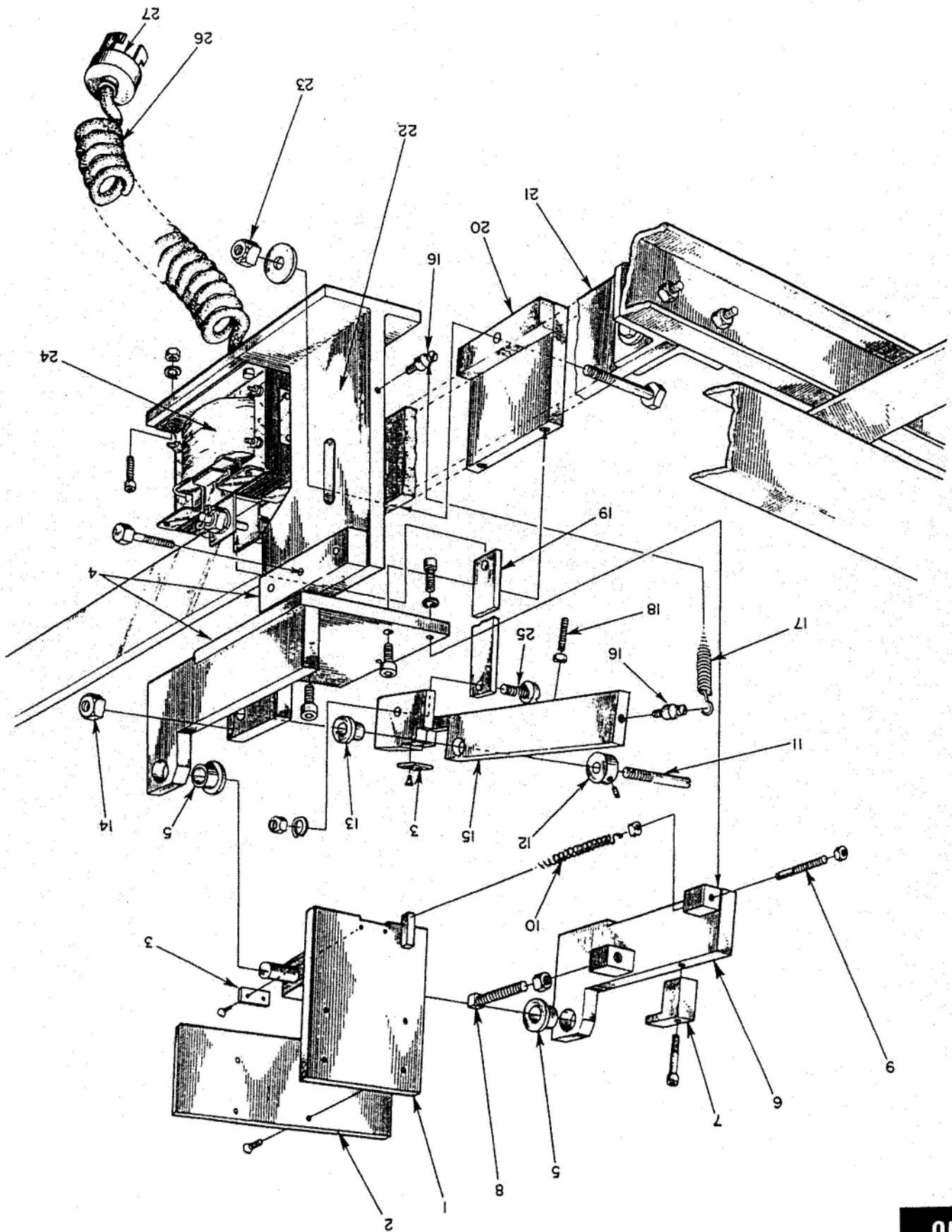
NOTE: When ordering replacement parts, be sure to specify Serial and Model Number of the machine, Part Number and Part Name.



PARTS LIST - PLATE 9

Key No.	Part No. 950 Stitcher Only	Description
1	85289	Conveyor Belt
2	585320	Conveyor Pulley (Driver)
3	585322	Conveyor Pulley Spacer (Driver)
4	585319A	Conveyor Pulley (Idler)
5	85731	Bushing
6	585321	Conveyor Pulley Spacer (Idler)
7	585318	Conveyor Belt Frame
8	585323	Conveyor Pulley Idler Shaft
9	585332A	Conveyor Auxiliary Roller Bar
10	85911	Auxiliary Roller
11	252445	Conveyor Pulley Drive Shaft
12	585337	Drive Pulley Key
13	86307	Motor
14	85295	Motor Pulley
15	85296	Jack Shaft Pulley
16	85297	"V" Belt
17	585508	Jack Shaft
18	85681	Jack Shaft Bearing
19	85291	Drive Shaft Pulley & Jack Shaft Pulley
20	585509	Jack Shaft & Motor Plate
21	85288	"V" Belt
23	85545	Drive Shaft Bearing
24	87002	Motor Starter
25	87014	Motor Starter Heater
26	87000	Starter Box
27	87001	Starter Box Cover

NOTE: When ordering replacement parts, be sure to specify Serial and Model Number of the machine, Part Number and Part Name.



PARTS LIST-PLATE 10

Key No.	Part No. 950 Stitcher Only	Description
1	252677A	Target Gate
2	252679	Auxiliary Target Gate
3	252591	Latch Plate
4	252676A	Base Plate
5	87743	Target Gate Shaft Bearing
6	252672A	Side Plate Assembly
7	252699	Gate Lock
8	UA6532.1	Adjusting Screw
9	252221	Spring Adjusting Screw
10	252702	Gate Spring
11	252598	Latch Stud
12	86575	Collar
13	87823	Flanged Bearing
14	HN1213	Stud Nut
15	252588A	Latch
16	406	Spring Stud
17	210 - 308A	Latch Spring
18	UA4820.8	Latch Adjusting Screw
19	252595	Solenoid Link
20	252586A	Clamp Plate
21	252592	Target Gate Slide Rail
22	252580A	Solenoid Plate Bracket
23	HN1213.5	Elastic Stop Nut
24	86662	Solenoid - 110 Volt-60 Cycle
	86713	Solenoid - 110 Volt-50 Cycle
25	252599	Solenoid Link Shoulder Screw
26	48645	Coiled Cord
27	87885	Twist Lock Plug Cap

NOTE: When ordering replacement parts, be sure to specify Serial and Model Number of the machine, Part Number and Part Name.

Parts Recommended For Customers Stock

252824	Upper Feed Rollers (4 For 900 Stitcher) (7 For 950 Stitcher)	86662	Solenoid 110 V - 60 Cycle (5 on 900 - 6 on 950)
252825	Lower Feed Roller (2 For 900 Stitcher) (2 For 950 Stitcher)	86713	Solenoid 110 Volt 50 Cycle (5 on 900 - 6 on 950)
252884A	Roller Bushing - R.H. (3 For 900 Stitcher) (4 For 950 Stitcher)	86629	Vee Belt - Main Drive
252821A	Roller Bushing - L.H. (3 For 900 Stitcher) (5 For 950 Stitcher)	25014	Ratchet Auxiliary Arm
UA1405.2	Clincher Screw	25593A	Tie Stitch Lever Spring
185H3C	Clincher - (Deep Groove)	585006A	Connecting Rod
185H85	Clincher - (Standard)	585133	Tie Stitch Arm
MR30	Trip Gauge Switch Lever Spring	25070	Tie Stitch Latch
252114	Target Return Spring	585190	Tie Stitch Latch Block
25411	High Speed Clutch Fork Shoe (2 Per Machine)	FP	Auxiliary Brake Lever Spring
585140	Step Feed Clutch Fork Shoe (2 Per Machine)	186-247	Ratchet Cover Plate
25492	High Speed Clutch Spring	251963	Ratchet Wheel
585200	High Speed Clutch Plate (9 Per Machine)	199-72	Step Feed Ratchet Rollers (9 Per Machine)
25301	Feed Roll Rocker Arm Bearing Spring	210-197	Step Feed Ratchet Roller Springs (9 Per Machine)
252190	Solenoid Lever Spring	251348	Spring Link Case
25658B	Tie Stitch Adjusting Screw	251354	Solenoid Spring
585013A	Roller Clutch Drive Link	251359	Solenoid Link Nut
685041	Roller Clutch Drive Link Stud	86390	Relay For Clutch - Brake Unit
585170	Feed Adjustment Clamping Screw	86184	Potentiometer For Clutch Brake Unit
585111	Eccentric	86195	"Buss" Glass Tube Fuse (2 Per Machine)
585065A	Feed Adjusting Screw	251928A	Contact Finger - Lower - R.H.
25089A	Brake Band	251929A	Contact Finger - Upper - R.H.
251777	Release Arm Spool	251922A	Contact Finger - Lower - L.H.
25539A	Auxiliary Brake Band - Central	251927A	Contact Finger - Upper - L.H.
25930A	Auxiliary Brake Band - Right End	251596A	Contact Plate (2 Per Machine)
87630	Clutch Collector Ring Brush (4 Per Machine)	85059	Trip Gauge Switch
		89653	Cycle and Target Solenoid Switch (2 Per Machine)
		252094	Target Switch Operating Bar
		252331	Friction Washer (3 Per Machine)
		86597	Finger Switch (4 Per Machine)
		25929	Auxiliary Brake Band - Left End
		UA2408.1	Feed Clutch Cover Screw (4 Per Machine)
		85006	"O" Ring (10 Per Machine)
		25932	Auxiliary Brake Band Hinge Pin

NOTE: Quantities Of Above Parts Required Per Machine Is One (1) Except as Noted.

BHL485 Stitcher Head Parts Recommended For Customers Stock

53H52	Wire Feed Crank Sector	115H34	R.H. Former	} For .103 x .017 Wire
64H	Supporter - 7/16" Crown	116H34	L.H. Former	
75H2	Wire Feed Clutch Assembly	117H150	Driver	} For .103 x .020 Wire
85H8	Lower Wire Tube	115H55	R.H. Former	
100H44	Cutter Block Assembled	116H55	L.H. Former	} For .103 x .023 Wire
105H44	Stationary Cutter	117H108	Driver	
104H25	Movable Cutter	119H	Gripper Assembly	
113H21B	Driver Bar	141H3	Supporter Spring	
129H3L	Gripper Spring - L.H.	SB403	Stationary Cutter Screw	
129H3R	Gripper Spring - R.H.	SB407	Cutter Block Holding Screw	
128H	Gripper Clamp Piece Friction Spring	UA3410.4	Former Screw	
123H10	Gripper Throwout Cam Block	UA3314.1	Gripper Spring Screw	

