

DELUXE STITCHER

C O M P A N Y I N C .

Machine Serial Number : _____

Head Serial Number : _____

Date Purchased : _____

Model M17 Stitchers

OPERATION AND MAINTENANCE MANUAL

M17-AST Stitcher...with 26D Head...115V and 60HZ

M17-BST Stitcher...with 26D Head...230V and 50HZ

M17G8-AST Stitcher...with G8 Head...115V and 60HZ

M17G8-BST Stitcher...with G8 Head...230V and 50HZ

Before using this Stitcher Head, all operators must study this manual and follow the safety warnings and instructions. Keep these instructions with the M17 Stitcher Head for future reference. If you have any questions, contact your local DeLuxe Stitcher Graphic Arts Representative or Distributor.

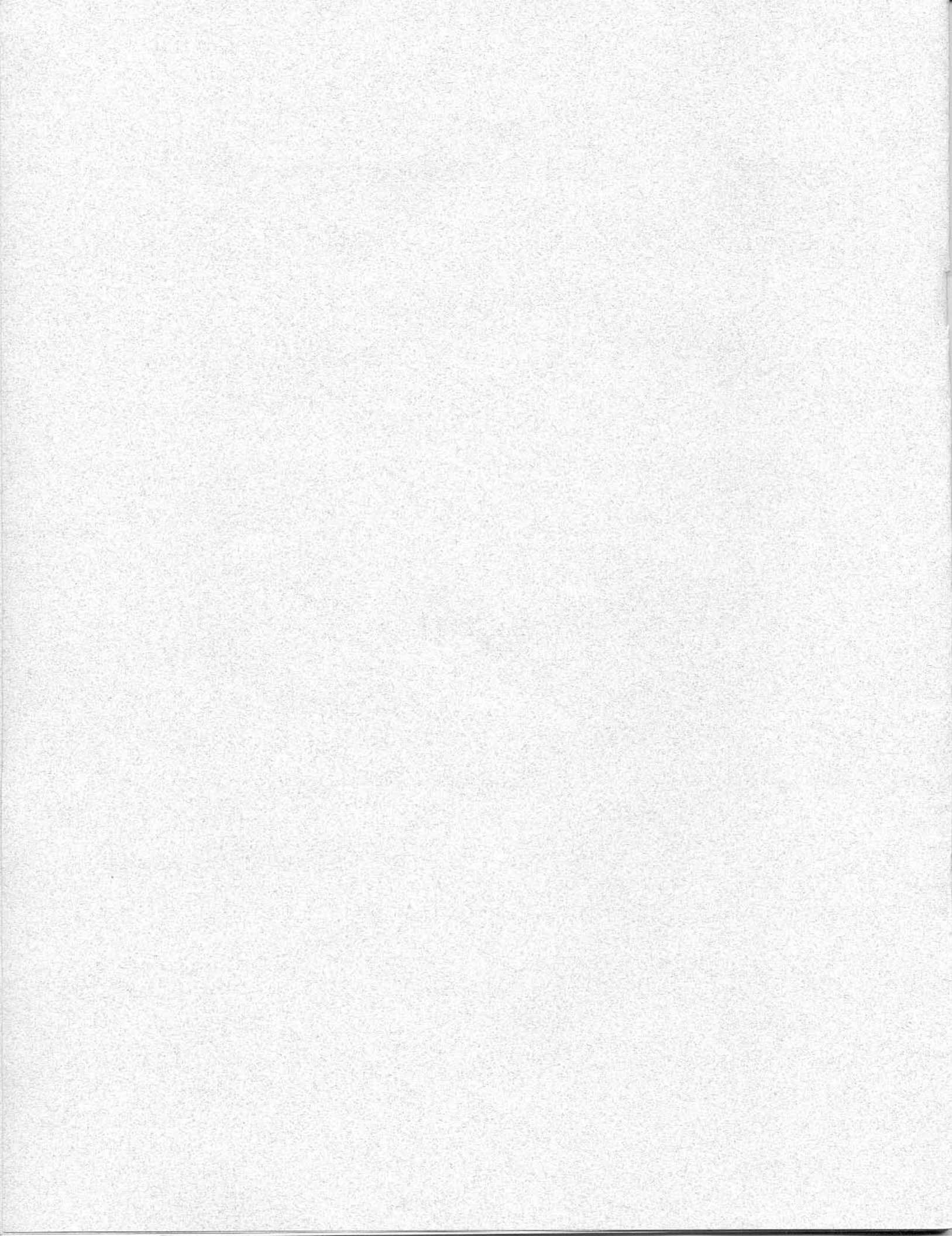


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1.0 INTRODUCTION

The BOSTITCH M17 Book Stitcher is a combination light & heavy duty stitcher designed to staple both flat and saddle work ranging in thickness from a few sheets to 5/16 (8mm). The stitcher is equipped with two heads standard, but can be operated with as many as ten 2600 heads or eight G8 heads installed at one time. Maximum center to center distance is 18" (45cm), minimum is approximately 1-7/8" (48mm).

The recommended wire sizes to be used on the M17 are as follows: Round wire - 25 to 30 for the 2600 head, 24 to 28 for the G8 head. Either head can be equipped with optional 21 x 25 wire parts.

The M17 is easily adjusted from saddle work to flat work by means of tilting the 6 1/2" (16.5cm) x 33" (83.8cm) work table. An adjustable work guide and adjustable work stops are easily attached to the work table and provide for accurate registering of flat work for uniform spacing of staples.

The M17 is footswitch operated and is belt driven by a 3/4 HP motor, making possible operating speeds up to 200 stitches per minute. The motor is mounted on an adjustable bracket which can be raised or lowered for adjusting the driving belt tension. The machine driving mechanism is thoroughly shielded thus preventing the possibility of personal injury.

The M17 has a 14" (35.6cm) throat depth for both flat and saddle stitching. The work table is approximately 34" (86.4cm) above the floor, and there is approximately 17/32" (13.5mm) clearance between the top of the work table and the stitching head.

The M17 weighs approximately 445 lbs. (202 kgs) net, shipping weight is approximately 500 lbs. (227 kgs). With the table installed, the M17 requires about 33" (83.8cm) x 30" (76.2cm) of floor space.

Because of the length of the work table, the M17 must be secured to the floor to meet CE stability requirements. Sound level readings at the normal operator position are approximately 70 dBC.

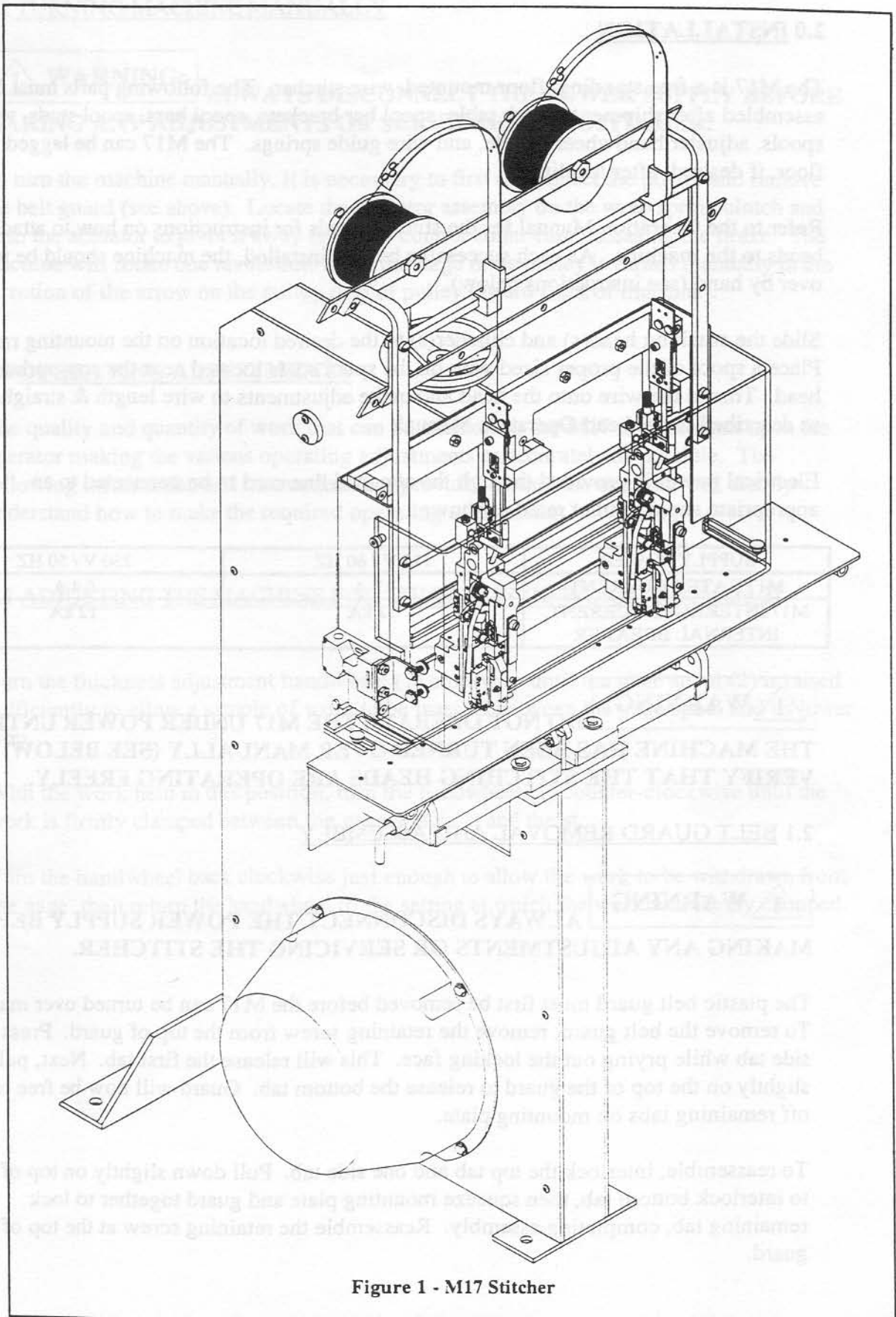


Figure 1 - M17 Sticher

2.0 INSTALLATION


The M17 is a free standing, floor mounted, wire stitcher. The following parts must be assembled after shipment: work table, spool bar brackets, spool bars, spool studs, wire spools, adjuster handwheel handle, and wire guide springs. The M17 can be lagged to the floor, if desired, after leveling.

Refer to the Operation Manual for the stitcher heads for instructions on how to attach the heads to the machine. As each successive head is installed, the machine should be turned over by hand (see instructions below).


Slide the stitching head(s) and clincher(s) to the desired location on the mounting rail. Place a spool of the proper sized wire on the spool studs located near the appropriate head. Thread the wire onto the head and make adjustments to wire length & straightness as described in the head Operation Manual.

Electrical power is provided through the attached line cord to be connected to an appropriate supply outlet rated as shown:

| | | |
|--|---------------|---------------|
| SUPPLY POWER | 115 V / 60 HZ | 230 V / 50 HZ |
| M17 RATED CURRENT | 12 A | 6.4 A |
| M17 INTERRUPT CURRENT, INTERNAL BREAKER | 12 kA | 12 kA |

 **WARNING:** DO NOT OPERATE THE M17 UNDER POWER UNTIL THE MACHINE HAS BEEN TURNED OVER MANUALLY (SEE BELOW) TO VERIFY THAT THE STITCHING HEADS ARE OPERATING FREELY.

2.1 BELT GUARD REMOVAL AND ASSEMBLY

 **WARNING:** ALWAYS DISCONNECT THE POWER SUPPLY BEFORE MAKING ANY ADJUSTMENTS OR SERVICING THE STITCHER.

The plastic belt guard must first be removed before the M17 can be turned over manually. To remove the belt guard, remove the retaining screw from the top of guard. Press on one side tab while prying out the locking face. This will release the first tab. Next, pull down slightly on the top of the guard to release the bottom tab. Guard will now be free to lift off remaining tabs on mounting plate.

To reassemble, interlock the top tab and one side tab. Pull down slightly on top of guard to interlock bottom tab, then squeeze mounting plate and guard together to lock remaining tab, completing assembly. Reassemble the retaining screw at the top of the guard.

2.2 TURNING MACHINE MANUALLY



WARNING:

ALWAYS DISCONNECT THE POWER SUPPLY BEFORE MAKING ANY ADJUSTMENTS OR SERVICING THE STITCHER.

To turn the machine manually, it is necessary to first disconnect the power and remove the belt guard (see above). Locate the actuator assembly on the wrap spring clutch and push the actuator to pivot it away from the control collar cam, releasing the brake. The machine will rotate one revolution when the large drive pulley is turned manually in the direction of the arrow on the pulley (top of pulley toward front of machine).

3.0 OPERATING ADJUSTMENTS

The quality and quantity of work that can be stitched on the M17 is dependent upon the operator making the various operating adjustments as accurately as possible. The following information and instructions are provided so that the operator will clearly understand how to make the required operating adjustments.

3.1 ADJUSTING THE MACHINE FOR THICKNESS OF WORK (See Figure 2)

Turn the thickness adjustment handwheel (1) clockwise until the gage spool (2) is raised sufficiently to allow a sample of work to be inserted between the gage spool and its lower stop.

With the work held in this position, turn the handwheel (1) counter-clockwise until the work is firmly clamped between the gage spool (2) and the stop.

Turn the handwheel back clockwise just enough to allow the work to be withdrawn from the gage, then return the handwheel to the setting at which the work was firmly clamped.

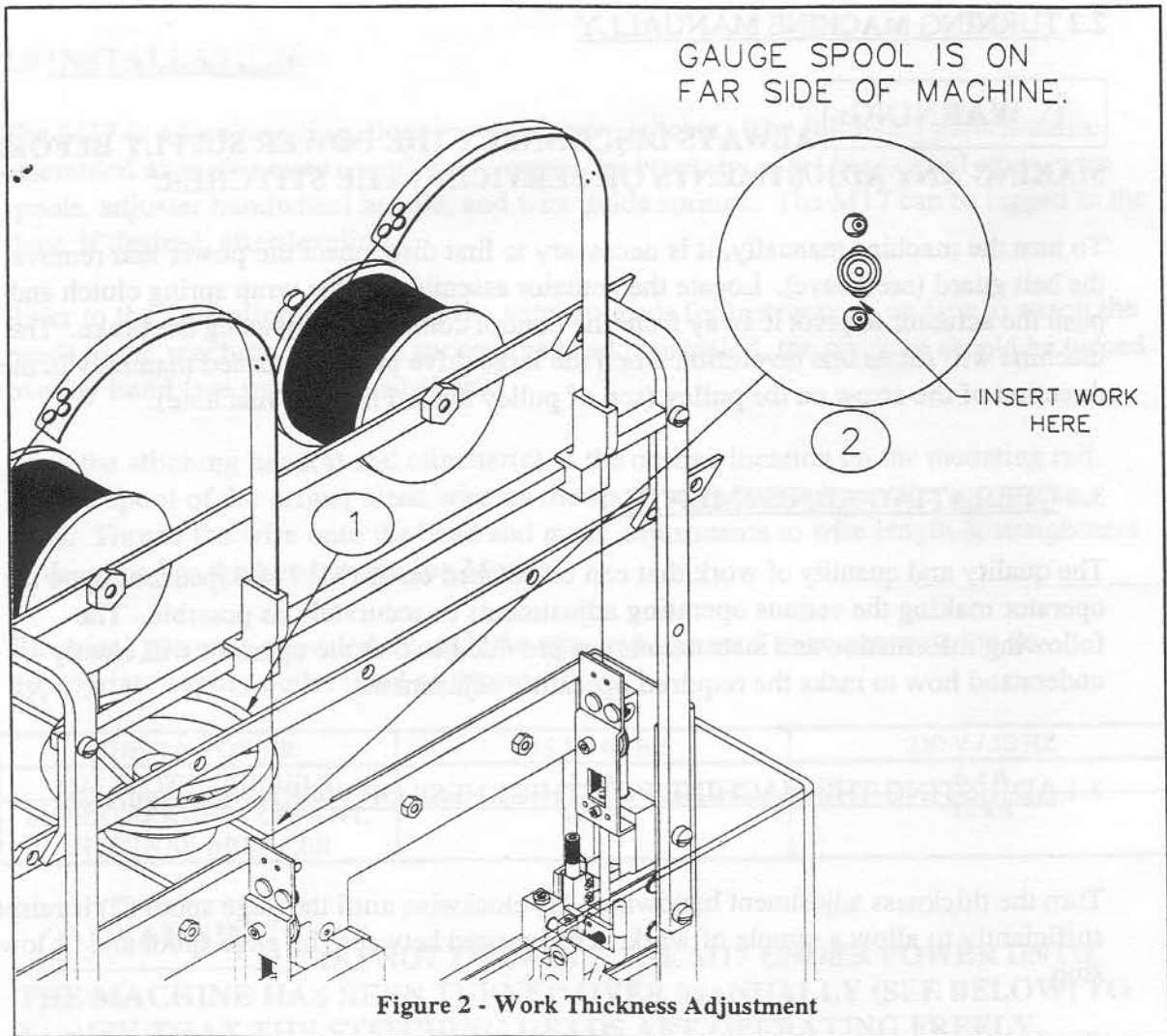


Figure 2 - Work Thickness Adjustment

CAUTION: IF THE MACHINE IS OPERATED ON WORK THICKER THAN IT IS SET TO HANDLE, DAMAGE WILL RESULT AND THE STITCHER WILL NOT OPERATE PROPERLY.

The plastic belt guard must first be removed before the M17 can be turned over manually. To remove the belt guard, remove the remaining screw from the top of guard. Press on one side tab while prying up the locking face. This will release the first tab. Next, pull down slightly on the top of the guard to release the bottom tab. Guard will now be free to lift off remaining tabs on mounting plate.

To reassemble, interlock the top tab and one side tab. Push down slightly on top of guard to interlock bottom tab, then snap the mounting plate and guard together to lock remaining tabs, completing assembly. Reassemble the remaining screw at the top of the guard.

3.2 RAISING OR LOWERING THE CLINCHERS (See Figure 3)

! WARNING: ALWAYS DISCONNECT THE POWER SUPPLY BEFORE MAKING ANY ADJUSTMENTS OR SERVICING THE STITCHER.

If staples are being loosely clinched, requiring that the clinchers be raised or lowered, proceed as follows:

Loosen the clincher adjustment binder screw (1). Rotate the clincher adjustment screw (2) to raise or lower the clincher points as needed.

Retighten the binder screw (1). Turn the machine over manually a few revolutions and ensure that the machine is operating freely before running under power.

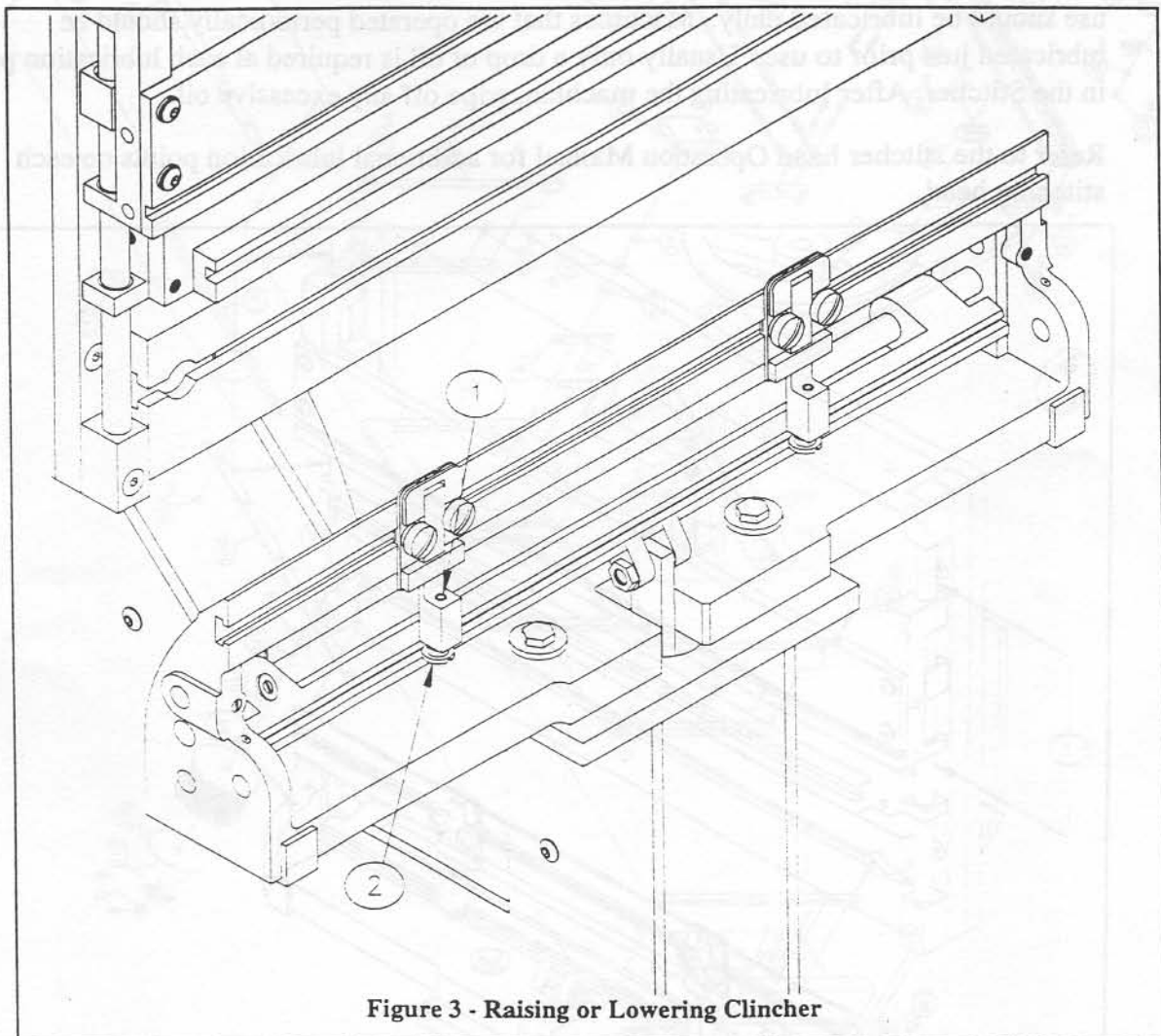


Figure 3 - Raising or Lowering Clincher

4.0 MAINTENANCE

To insure continuous operation of the M17 Stitcher, the operator should be sure that the machine is regularly lubricated and carefully maintained. The operator should periodically inspect all moving parts for signs of wear and, when required, replace the worn parts.

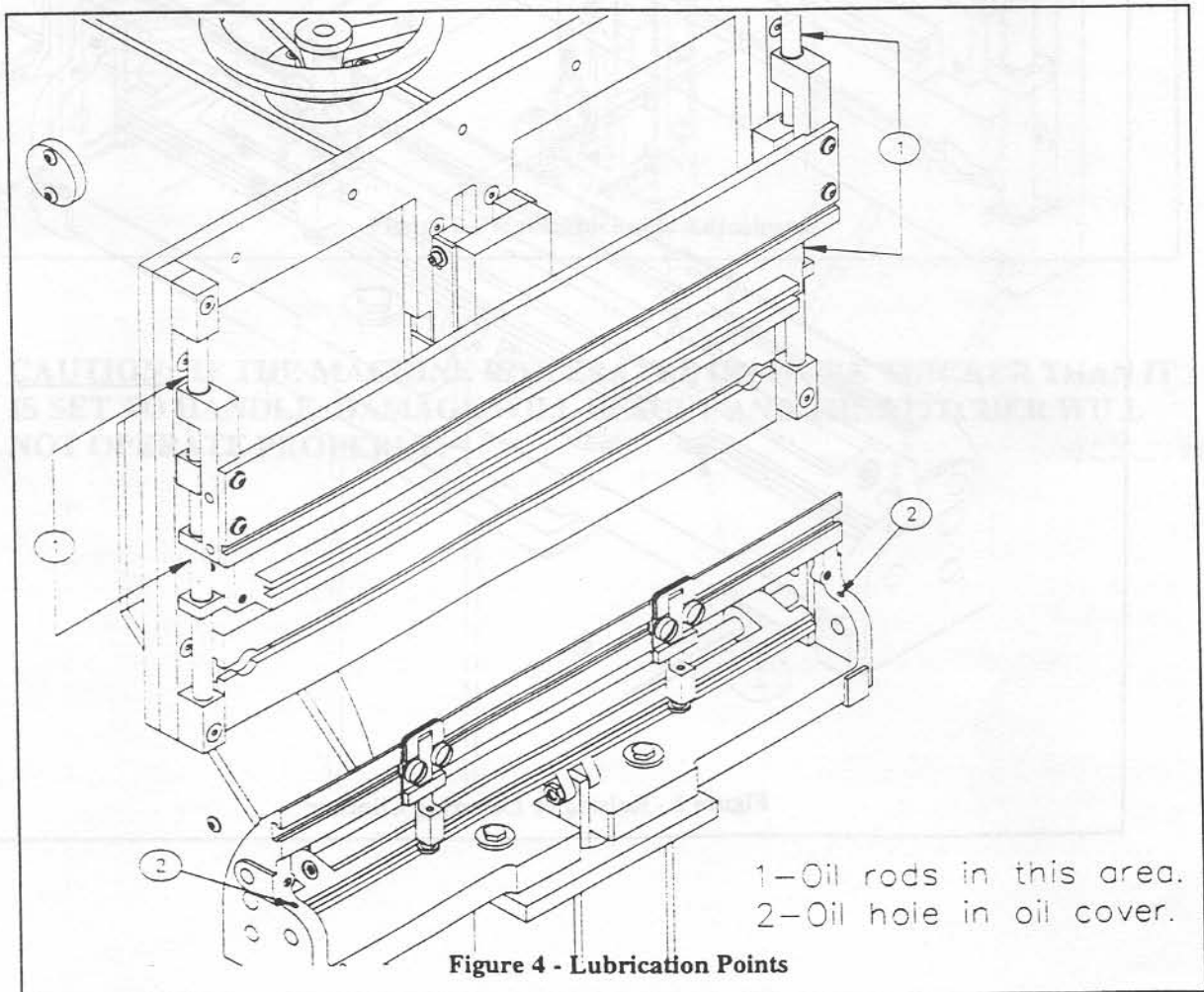
The following instructions are provided so that the operator will understand how to lubricate the machine, and how to adjust the clutch.

4.1 LUBRICATION (See Figure 4)

! WARNING: ALWAYS DISCONNECT THE POWER SUPPLY BEFORE MAKING ANY ADJUSTMENTS OR SERVICING THE STITCHER.

Use an S.A.E. No. 10 oil for lubricating the M17 Stitcher. Machines that are in constant use should be lubricated daily. Machines that are operated periodically should be lubricated just prior to use. Usually only a drop of oil is required at each lubrication point in the Stitcher. After lubricating the machine, wipe off any excessive oil.

Refer to the stitcher head Operation Manual for additional lubrication points on each stitching head.



5.0 M17 DIAGRAMS & PARTS LIST

The following diagrams show exploded views of the M17 Stitcher. The Stanley-Bostitch Item Number and description can be found by using the Item number table that follows.

Figure A - Face Plate and Guard Assemblies

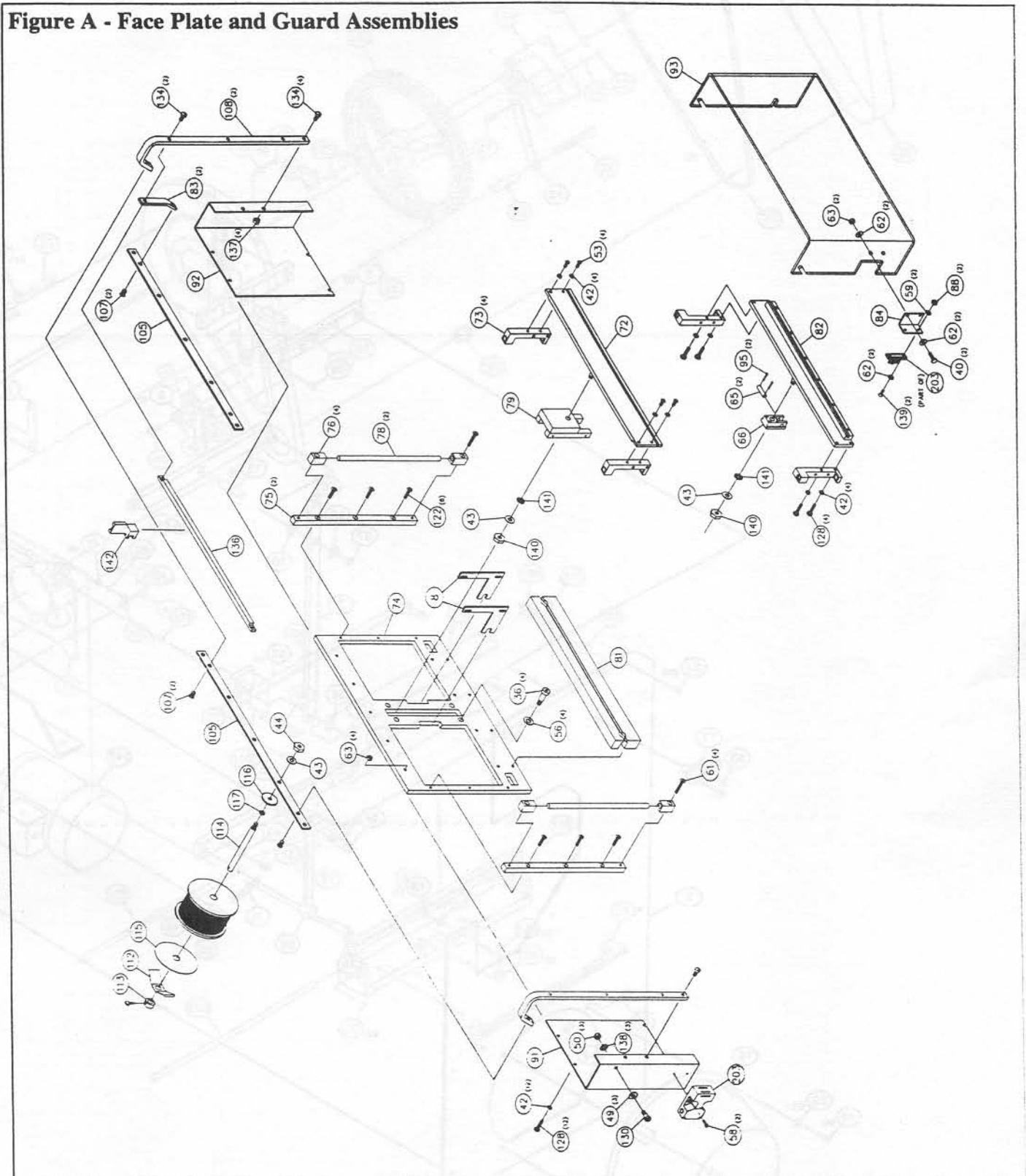
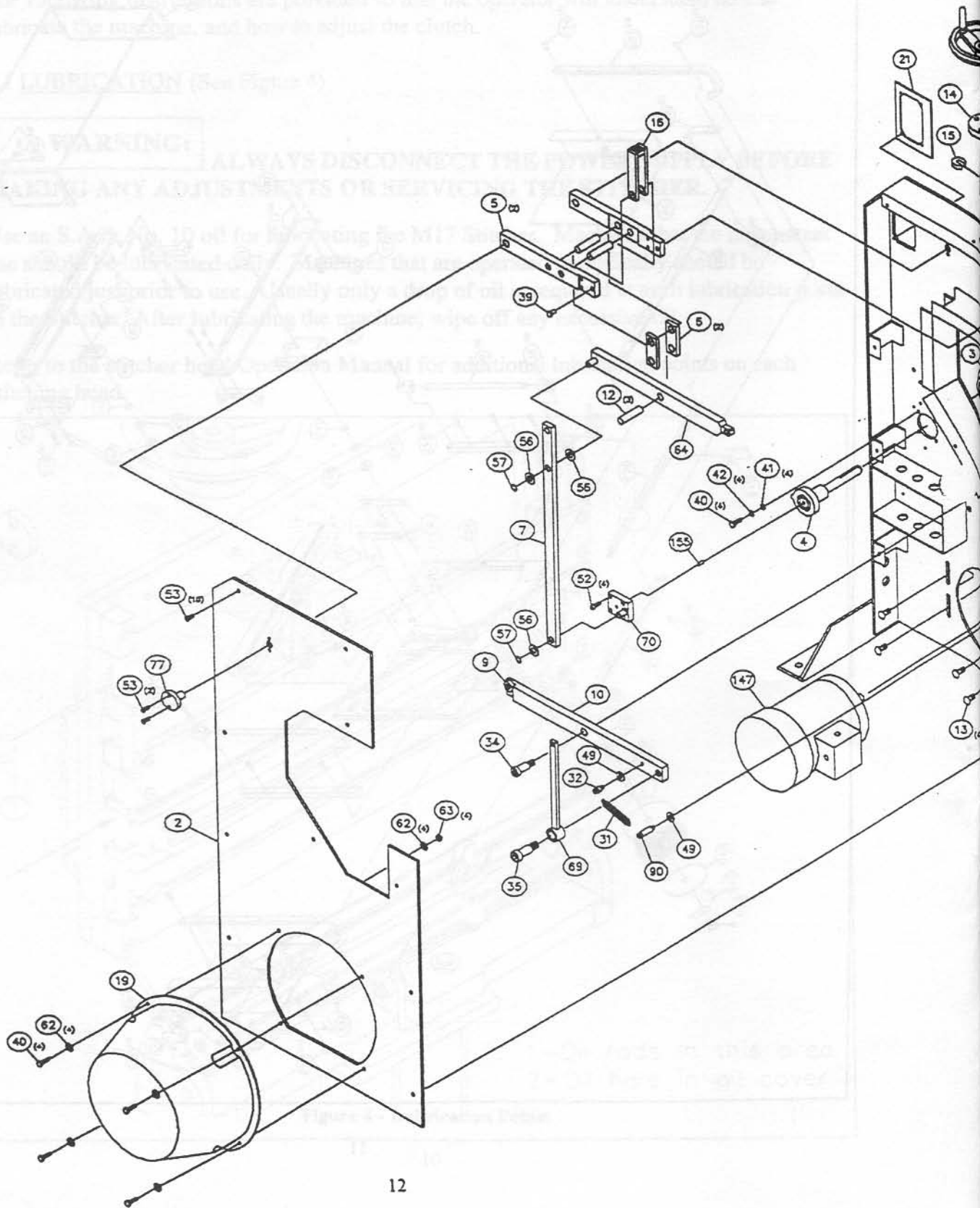
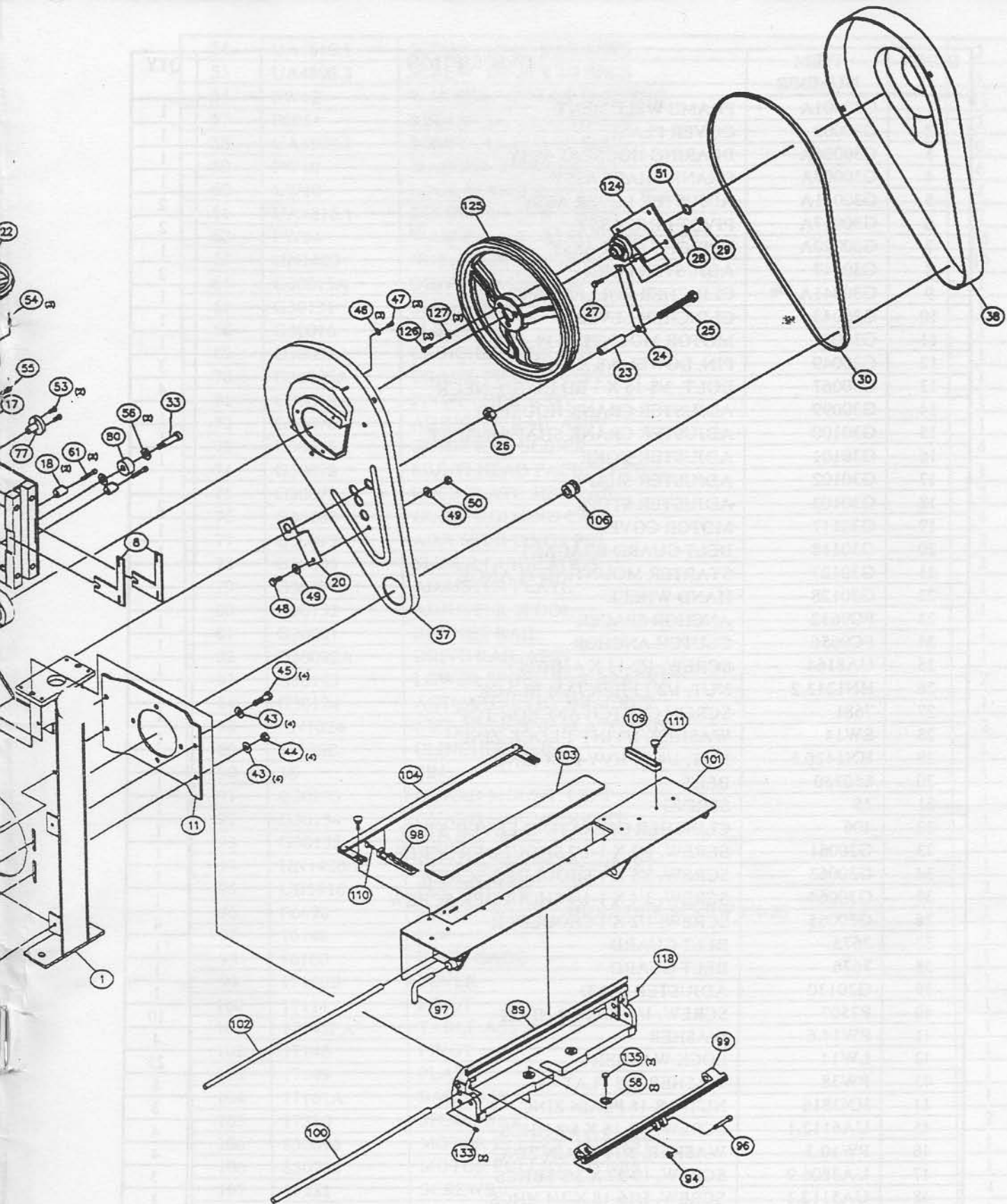


Figure B - Machine Assembly





| INDEX | ITEM NUMBER | DESCRIPTION | QTY |
|-------|-------------|-----------------------------------|-----|
| 1 | G30001A | FRAME WELDMENT | 1 |
| 2 | G30002 | COVER PLATE | 1 |
| 3 | G30006A | BEARING HOUSING ASSY | 1 |
| 4 | G30007A | CRANK SHAFT ASSY | 1 |
| 5 | G30011A | ADJUSTER LEVER ASSY | 2 |
| 6 | G30017A | PIVOT LINK ASSY | 2 |
| 7 | G30020A | UPRIGHT LINK ASSY | 1 |
| 8 | G30147 | ADJUSTER FORK | 2 |
| 9 | G30041A | CLINCHER ROLLER ASSY | 1 |
| 10 | G30043 | CLINCHER LEVER | 1 |
| 11 | G30048 | MOTOR MOUNTING PLATE | 1 |
| 12 | G30049 | PIN, DOWEL 5/8 X 2-1/2 | 3 |
| 13 | G30067 | BOLT, 3/8-16 X 1 RD HD SQ. NECK | 4 |
| 14 | G30099 | ADJUSTER CRANK HOUSING | 1 |
| 15 | G30100 | ADJUSTER CRANK SHAFT INSERT | 1 |
| 16 | G30101 | ADJUSTER YOKE | 1 |
| 17 | G30102 | ADJUSTER SHAFT | 1 |
| 18 | G30103 | ADJUSTER STOPS | 2 |
| 19 | G30117 | MOTOR COVER | 1 |
| 20 | G30118 | BELT GUARD BRACKET | 1 |
| 21 | G30127 | STARTER MOUNTING FLANGE | 1 |
| 22 | G30128 | HAND WHEEL | 1 |
| 23 | FC9632 | ANCHOR SPACER | 1 |
| 24 | FC9656 | CLUTCH ANCHOR | 1 |
| 25 | UA8164 | SCREW, 1/2-13 X 4 HHCS | 1 |
| 26 | HN1213.2 | NUT, 1/2-13 HEX JAM BLACK | 1 |
| 27 | 7681 | SCREW CLUTCH ANCHOR TOP | 1 |
| 28 | SW14 | WASHER, 1/4 INT T LOCK ZINC | 1 |
| 29 | HN1420.5 | NUT, 1/4-20 HVY HEX ZINC | 1 |
| 30 | 850730 | BELT | 1 |
| 31 | 35 | SPRING | 1 |
| 32 | 406 | CLINCHER OPERATING LEVER STUD | 1 |
| 33 | G30061 | SCREW, 1/2 X 1-1/2 SHOULDER SCREW | 1 |
| 34 | G30063 | SCREW, 5/8 X 1 SHOULDER SCREW | 1 |
| 35 | G30064 | SCREW, 3/4 X 1-1/4 SHOULDER SCREW | 1 |
| 36 | G30065 | SCREW, 1/2 X 1 SHOULDER | 4 |
| 37 | 7675 | BELT GUARD | 1 |
| 38 | 7676 | BELT GUARD | 1 |
| 39 | G30130 | ADJUSTER STUD | 1 |
| 40 | P7507 | SCREW, 1/4-20 X 3/4 HHCS | 10 |
| 41 | PW14.6 | WASHER | 4 |
| 42 | LW14 | LOCK WASHER | 25 |
| 43 | PW38 | WASHER, 3/8 FLAT | 8 |
| 44 | HN3816 | NUT, 3/8-16 PLAIN ZINC | 3 |
| 45 | UA6112.1 | SCREW, 3/8-16 X 5/8 HHCS | 4 |
| 46 | PW10.3 | WASHER, 3/16 PLAIN ZINC | 4 |
| 47 | UA3806.9 | SCREW, 10-32 X 3/8 SBHCS | 3 |
| 48 | UA5112.1 | SCREW, 5/16-18 X 3/4 HHCS | 1 |
| 49 | PW516 | WASHER, 5/16 SAE FLAT | 7 |
| 50 | HN51618 | NUT, 5/16-18 HEX BLACK | 4 |
| 51 | P7863 | RETAINING RING 5100-75 | 1 |
| 52 | UA4812.1 | SCREW, 1/4-20 X 3/4 SHCS | 4 |
| 53 | UA4810.5 | SCREW, 1/4-20 X 5/8 BHCS | 18 |

| | | | |
|-----|-----------|---------------------------------------|----|
| 54 | UA4810.1 | SCREW, 1/4-20 X 5/8 SHCS | 3 |
| 55 | UA4808.3 | SCREW, 1/4-20 X 1/2 SHCS | 1 |
| 56 | PW12 | WASHER, 1/2 FLAT BLK ZINC | 11 |
| 57 | P8054 | RETAINING RING 5100-50 | 2 |
| 58 | UA3808.1 | SCREW, 10-32 X 1/2 SHCS | 6 |
| 59 | PW10 | WASHER, #10 SAE FLAT | 6 |
| 60 | LW10 | LOCK WASHER, #10 | 4 |
| 61 | UA4816.1 | SCREW, 1/4-20 X 1 SHCS | 2 |
| 62 | PW14 | WASHER, 1/4 USS FLAT BLK ZINC | 18 |
| 63 | HN1420 | NUT, 1/4-20 HEX ZINC | 10 |
| 64 | G30013A | DRIVE LEVER ASSY | 1 |
| 65 | G30131 | SLIDER PIN | 1 |
| 66 | G30016 | SLIDER | 1 |
| 69 | G30039A | CLINCHER LINK ASSY | 1 |
| 70 | G30005A | CRANK THROW ASSY | 1 |
| 71 | G30018A | PIVOT FORK ASSY | 1 |
| 72 | G30076A | ADJUSTER RAIL ASSY | 1 |
| 73 | G30075A | GUIDE ROD SLIDER | 4 |
| 74 | G30078 | MULTI HEAD FACE PLATE | 1 |
| 75 | G30079 | FACE PLATE SIDE RAIL | 2 |
| 76 | G30080 | GUIDE ROD END CAPS | 4 |
| 77 | G30097 | ADJUSTER PIVOT PIN | 2 |
| 78 | G30085 | SLIDER GUIDE RODS | 2 |
| 79 | G30077 | ADJUSTER PLATE | 1 |
| 80 | G30152 | ADJUSTER SPOOL | 1 |
| 81 | G30081 | BONNET RAIL | 1 |
| 82 | G30082A | DRIVE RAIL ASSY | 1 |
| 83 | G30149 | LOWER SPOOL BAR BRACKET | 2 |
| 84 | G30124 | ACTUATOR KEY BRACKET | 1 |
| 88 | HN1024 | NUT, 10-24 ZINC PLATED HEX | 2 |
| 89 | 17106D | CLINCHER RAIL | 1 |
| 90 | 36 | PIN | 1 |
| 91 | G30133 | GUARD MOUNT, LEFT | 1 |
| 92 | G30134 | GUARD MOUNT, RIGHT | 1 |
| 93 | G30135 | GUARD | 1 |
| 94 | HN1420.13 | NUT, 1/4-20 NYLON INSERT | 1 |
| 95 | UB3916.1 | PIN, COTTER | 2 |
| 96 | P6698 | SCREW, 5/16 X 1 SHOULDER SCREW 1/4-20 | 1 |
| 97 | 16148 | PIN | 2 |
| 98 | 16160 | BACK GAGE | 1 |
| 99 | 17110B | LEVER | 1 |
| 100 | 17111 | PIVOT | 1 |
| 101 | 17145FA | TABLE ASSY | 1 |
| 102 | 17146 | PIVOT | 1 |
| 103 | 17149 | PLATE | 1 |
| 104 | 17161A | BAR ASSY | 1 |
| 105 | 17280 | SPOOL BAR | 2 |
| 106 | 850696 | MOTOR PULLEY, M17-AST | 1 |
| 106 | 850738 | MOTOR PULLEY, M17-BST | 1 |
| 107 | 17281 | SCREWS | 4 |
| 108 | 17282 | BRACKET | 2 |
| 109 | 18572A | WORK STOP WELDMENT | 2 |
| 110 | 425 | SCREW, THUMB | 3 |
| 111 | 63 | SCREW | 4 |
| 112 | 7690 | TENSION SPRING | 10 |
| 113 | 7691 | SET COLLAR, REAMED | 10 |

| | | | |
|-----|------------|---|----|
| 114 | 7693 | SPOOL STUD | 10 |
| 115 | M11009 | PLASTIC WASHER | 10 |
| 116 | 2245 | SPOOL STUD WASHER, LARGE | 10 |
| 117 | PG10271 | WASHER, 9/16 SAE FLAT | 10 |
| 118 | 87922 | OIL HOLE COVER | 2 |
| 122 | P2811 | SCREW, 1/4-20 X 1 SFHCS | 6 |
| 124 | 850673 | CLUTCH, M17-AST | 1 |
| 124 | 850674 | CLUTCH, M17-BST | 1 |
| 125 | 7678 | DRIVE PULLEY | 1 |
| 126 | UA4812.7 | SCREW, 1/4-20 X 3/4 FHCS | 3 |
| 127 | SW14.1 | WASHER, 1/4 EXT T LOCK CUP | 3 |
| 128 | UA4116.4 | SCREW, 1/4-20 X 1 HHCS | 16 |
| 130 | SU-0308853 | SCRW, 3/8 X 3/8 SHOULDER | 3 |
| 132 | UA6812.1 | SCREW, 3/8-16 X 3/4 SHCS | 4 |
| 133 | 38 | SCREW, 1/4-28 X 3/8 SLOTTED SET | 3 |
| 134 | UA5210.1 | SCREW, 5/16-18 X 5/8 SLOTTED FILLISTER HD | 4 |
| 135 | PG10512 | SCREW, 1/20-20 X 1HHCS | 2 |
| 136 | 17289 | GUIDE SPRING BRACKET BAR | 1 |
| 137 | HN51618.2 | NUT, 5/16-18 HEX JAM | 4 |
| 138 | SW516.2 | WASHER, 5/16 INTERNAL TOOTH | 3 |
| 139 | UA3410.4 | SCREW, 10-32 X 5/8 SFHCS | 2 |
| 140 | HN3816.2 | NUT, 3/8-16 HEX JAM | 1 |
| 141 | SU-3309006 | WASHER, 3/8 EXT TOOTH | 1 |
| 142 | 17288 | WIRE GUIDE SPRING BRACKET - M17 | 2 |
| 142 | G20369 | WIRE GUIDE SPRING BRACKET - M17G8 | 2 |
| 147 | 850310 | MOTOR | 1 |
| 155 | G20243 | DOWEL PIN, 1/4 X 9/16 | 1 |
| | | | |
| 200 | 850302 | STARTER ENCLOSURE | 1 |
| 201 | 850303 | TERMINAL STRIP | 1 |
| 202 | 850304 | FOOTSWITCH | 1 |
| 203 | 850308 | SAFETY INTERLOCK SWITCH | 1 |
| 204 | 851005 | STRAIN RELIEF | 2 |
| 205 | 86243 | POWER CORD, DOMESTIC | 1 |
| 205 | 850307 | POWER CORD, CONTINENTAL EUROPE | 1 |
| 206 | 850314 | STRAIN RELIEF | 3 |
| 207 | 850315 | STRAIN RELIEF NUT | 2 |
| 208 | 850305 | UNDERVOLTAGE TRIP, 115V | 1 |
| 208 | 850306 | UNDERVOLTAGE TRIP, 230V | 1 |
| 209 | 850311 | MANUAL MOTOR STARTER | 1 |

6.0 CLUTCH-BRAKE MAINTENANCE



WARNING:

ALWAYS DISCONNECT THE POWER SUPPLY BEFORE MAKING ANY ADJUSTMENTS OR SERVICING THE STITCHER.

This stitcher is equipped with a solenoid actuated, continuous trip, wrap spring clutch-brake unit. It is a dependable device and seldom needs service. But should a malfunction occur, the following information is a service and troubleshooting guide for maintenance of this unit.

6.1 ACTUATOR

The actuator is a simple, straight-forward mechanical linkage. When the actuator does not trip, the following checks should be made:

| PROBLEM | CAUSE AND REMEDY |
|---|--|
| NO POWER TO THE COIL | CHECK ALL WIRING AND SWITCHING IN THE CLUTCH ACTUATION SYSTEM |
| LACK OF CONTINUITY IN THE COIL WINDINGS | REPLACE THE COIL |
| MECHANICAL BINDING OF THE PLUNGER | THE COIL MAY HAVE SHIFTED, OR THE PLUNGER END MAY HAVE MUSHROOMED DUE TO STRIKING THE BACKSTOP. IN THE LATTER, THE PLUNGER MAY BE FILED OR TURNED TO ITS TRUE DIAMETER |
| INSUFFICIENT CLEARANCE OF THE ACTUATOR OVER THE STOP COLLAR | ADJUST THE LINKAGE AS NEEDED |
| ACTUATOR LOADED BY THE STOP COLLAR SO HARD THAT THE ACTUATOR CANNOT BE PULLED BY THE COIL | BRAKING FORCE IS EXCEEDING THE LIMITS OF THE BRAKE, OR THE DIFFERENTIAL SETTING OF THE UNIT IS TOO CLOSE (SEE ASSEMBLY/DISASSEMBLY INSTRUCTIONS) |


6.2 CLUTCH AND BRAKE SPRINGS

With the brake engaged (full limit of output), the input hub should be free to rotate by hand. With the clutch engaged, the input and output hubs should rotate together. If the unit does not rotate in either of these modes, the clearance between the hubs of the unit on the shaft may have been disturbed or damaged. See Assembly/Disassembly instructions for re-adjusting.

Listed below are additional checks to be made if the clutch does not function correctly:

| PROBLEM | CAUSE AND REMEDY |
|---|---|
| CLUTCH BRAKE DOES NOT DRIVE BUT INPUT TURNS | <p><u>A.</u> DRIVE SPRING MAY BE BROKEN AT CROSSOVER POINT FROM AN OVERLOAD CAUSED BY A JAM. REPLACE SPRING AND CHECK HUBS FOR DAMAGE.</p> <p><u>B.</u> COLLAR MAY NOT SNAP FORWARD BECAUSE OF FOREIGN MATTER RESTRICTING MOVEMENT. CLEAN UNIT.</p> <p><u>C.</u> ACTUATOR DOES NOT PULL IN. SEE <u>ACTUATOR</u> ABOVE.</p> |
| CLUTCH-BRAKE JAMS AND STALLS INPUT MOTOR | <p><u>A.</u> SPRING TANG BROKEN OFF DRIVE SPRING, NOT ALLOWING CLUTCH TO DISENGAGE WHILE BRAKE IS ENGAGED. REPLACE DRIVE SPRING.</p> <p><u>B.</u> CLUTCH OUTPUT BOUND UP. CHECK CLEARANCE BETWEEN OUTPUT HUB AND BRAKE HUB.</p> <p><u>C.</u> COMPLETELY OUT OF ADJUSTMENT CAUSED BY LOSING AN INTERNAL SPRING TANG. REPLACE SPRING.</p> |
| OUTPUT DOES NOT REPEAT STOPPING POINT | <p><u>A.</u> NOT ENOUGH INERTIA TO ACTUATE BRAKE.</p> <p><u>B.</u> TANG BROKEN OFF BRAKE SPRING. REPLACE SPRING.</p> <p><u>C.</u> ADJUSTABLE COLLAR LOCKING SCREW MAY BE LOOSE ALLOWING ADJUSTING SCREW TO ROTATE</p> |

6.3 DISASSEMBLY (See Figure 5)

 **WARNING:** **ALWAYS DISCONNECT THE POWER SUPPLY CORD FROM THE POWER OUTLET BEFORE DOING ANY DISASSEMBLY WORK.**

To disassemble the clutch-brake unit (124) it will first be necessary to remove the drive pulley (125) from the stitcher by removing the V-belt (30), retaining ring (51), and clutch anchor screw (27). Disconnect the ground and solenoid wires, and swing the anchor strap (24) clear of the drive pulley assembly and slide it off of the drive shaft. Remove the three screws (126) connecting the drive pulley to the clutch-brake unit.

When disassembling the clutch-brake unit, always mark the spring tang locations with reference to which slots they go in if the same springs are to be used for reassembly. To disassemble the clutch-brake unit, proceed as follows:

Release Actuator Lever so that clutch is engaged and brake released. Remove Retaining Ring and Shim Washer, if any, from the input Hub end. Remove input Hub by rotating opposite to the drive direction. Remove Retaining Ring and Shim Washer, if any, from the Mounting Plate end.

Remove Output Shaft Springs and Control Collar assembly by rotating Output Shaft in the drive direction (**DO NOT DISASSEMBLE BRAKE HUB FROM MOUNTING PLATE**). Remove Control Collar from the Output Shaft and Spring assembly by extracting toward the Brake Spring end.

6.4 ASSEMBLY (See Figure 5)

Replace Clutch, Brake and Anti-Backup Springs as required. Assemble Springs concentric and square to the Output Shaft. Assemble Control Collar over the Output Shaft and Spring assembly by inserting from the Brake Spring end (it will be necessary to extend Brake Spring using long nose pliers). Place the Brake Spring tang in any one (1) of the nine (9) Control Collar slots at *random*.

Assemble Output Shaft, Springs, and Control Collar assembly to the Mounting Plate assembly by rotating Output Shaft in the drive direction. Assemble Retaining Ring to Output Shaft at the Mounting Plate end (smooth surface facing Brake Hub). Check end play between Hub and Retaining Ring with feeler gauge. There should be 0.004" to 0.010" end play. Use Shim Washer to adjust.

Rotate Output Shaft in the drive direction until it reaches a full brake position. With the *Clutch Spring Tang* *not* in slot, insert the Input Hub by rotating opposite to the drive direction. Select the one (1) of ten (10) Control Collar slots for the Clutch Spring Tang that will provide a 0.38" to 0.50" circumferential overtravel of the Control Collar when released.

Note: At this point it may be necessary to reselect one (1) of the nine (9) Control Collar slots for the Brake Spring Tang (release Actuator Lever, remove Clutch Spring Tang from slot, then move Control Collar axially toward the Input Hub end and rotate it opposite to the drive direction to pick up the next slot). Continue to select Control Collar slots until the 0.38" to 0.50" specification is achieved.

Assemble Retaining Ring to Output Shaft at the Input Hub end (smooth surface facing Input Hub). Check end play between Input Hub and Retaining Ring with feeler gauge. There should be 0.002" to 0.003" end play on the Input Hub.

Reassemble unit to machine.

IMPORTANT: After Clutch is assembled to machine, the Clutch Plate should be free to float on bearing - the anchor strap is only there to prevent rotation of the plate.

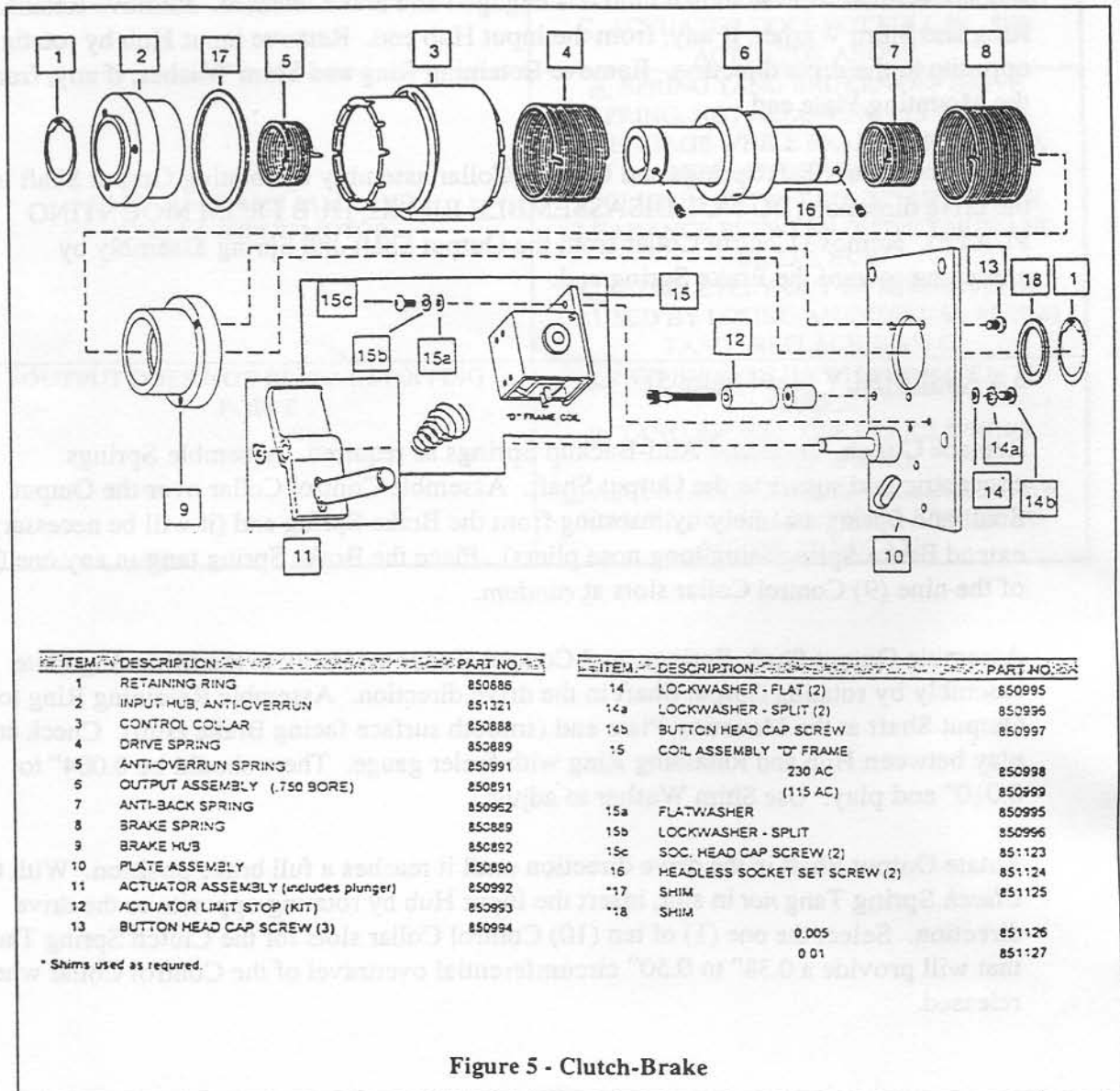


Figure 5 - Clutch-Brake

6.5 LUBRICATION

The clutch-brake unit is designed with the bearing parts made from sintered metal that has been impregnated with oil and normally do not need to be re-lubricated. In cases where there is severe duty, the unit may be re-oiled or flushed out with minimal or no disassembly by using a light bearing oil as used in manufacture (Shell Bearing Infusion Oil #33). If disassembly of the unit for cleaning and oiling is necessary, follow the detailed disassembly instructions to the point needed, flush and wipe parts in the oil to be used for re-lubrication. **DO NOT USE SOLVENT** to clean the parts. To get more cleaning action for the oil, it may be heated while cleaning the components, but bring the parts back to ambient temperature submerged in cool oil.

6.6 COIL REPLACEMENT

Place the Spring onto the Plunger with the narrow end towards the Actuator. Slide the Solenoid onto the Actuator and Plate Assembly. Assemble the Solenoid to the Plate Assembly with the cap screws and washers. **DO NOT** tighten more than finger tight.

Energize the Coil and adjust the gap between the Actuator and the top of the Collar Stop to 0.015" to 0.030" by sliding the Solenoid assembly. Note: push the Collar toward the Actuator to allow for Collar movement. Tighten the cap screws.

6.7 CONTROL COLLAR ADJUSTMENT (See Figure 6)

The stopping position of the head can be changed if necessary by adjusting the position of the stop cam on the control collar sleeve. Turn the machine manually until the driver is in the desired stopping position, then proceed as follows:

Work Retaining Ring "A" out of its groove and slide it forward on Sleeve "C". Slide Cam "B" off Splines, rotate to align Collar Stop with Actuator and slide the Cam back on the Splines. The Actuator Pawl will have to be held clear during this operation. Slide the Retaining Ring back into its groove.

Note: Make sure brake is locked up before proceeding to insure getting the proper stop point.

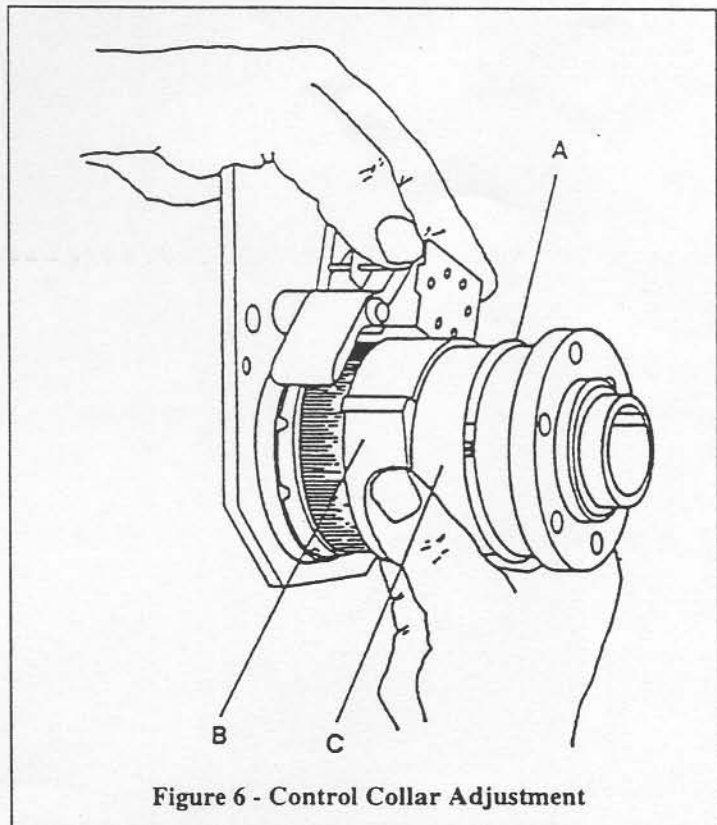


Figure 6 - Control Collar Adjustment

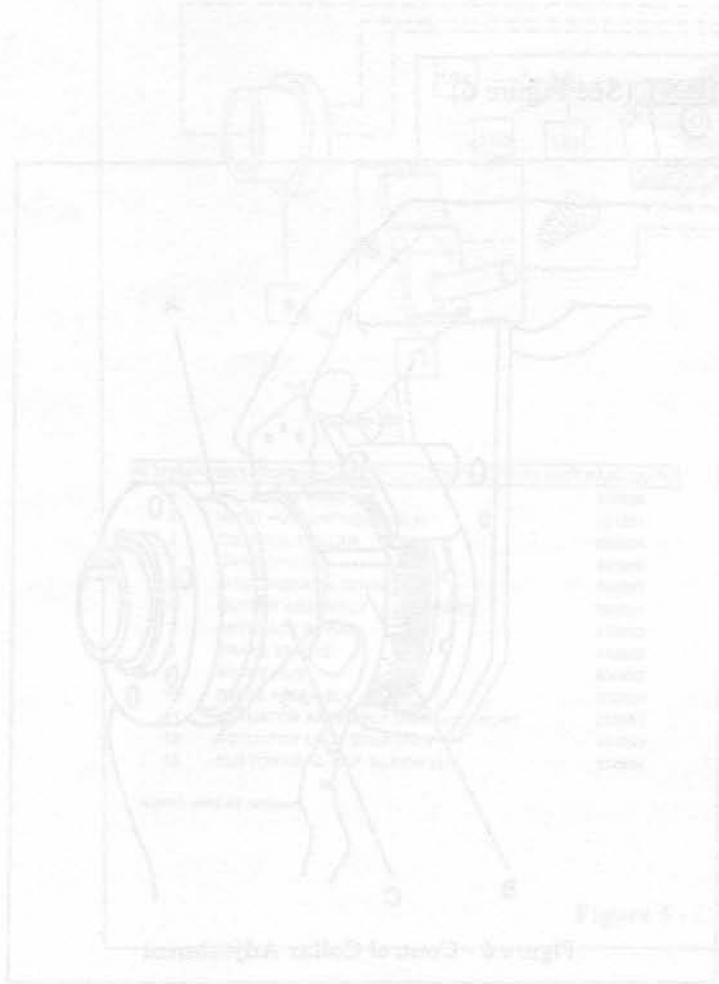
NOTES

Note: At this point you may wish to check the Oil Level of the engine. The oil level should be checked before starting the engine. If the oil level is low, it should be topped up to the correct level. The oil should be checked regularly during the life of the engine. The oil should be changed at regular intervals. The oil should be changed when the engine has run for 100 hours or when the oil is dirty or has become thin. The oil should be changed when the engine has run for 100 hours or when the oil is dirty or has become thin. The oil should be changed when the engine has run for 100 hours or when the oil is dirty or has become thin.

IMPORTANT: After each assembly is checked, the engine should be run for a short time to ensure that it is working correctly. The engine should be run for a short time to ensure that it is working correctly. The engine should be run for a short time to ensure that it is working correctly.

Place the Spring into the Flange with the narrow end towards the Actuator. Slide the Spring into the Flange with the narrow end towards the Actuator. Slide the Spring into the Flange with the narrow end towards the Actuator. Slide the Spring into the Flange with the narrow end towards the Actuator.

Remove the Cap from the Actuator and insert the Spring into the Flange. DO NOT tighten the Cap until the Spring is in place. DO NOT tighten the Cap until the Spring is in place. DO NOT tighten the Cap until the Spring is in place.

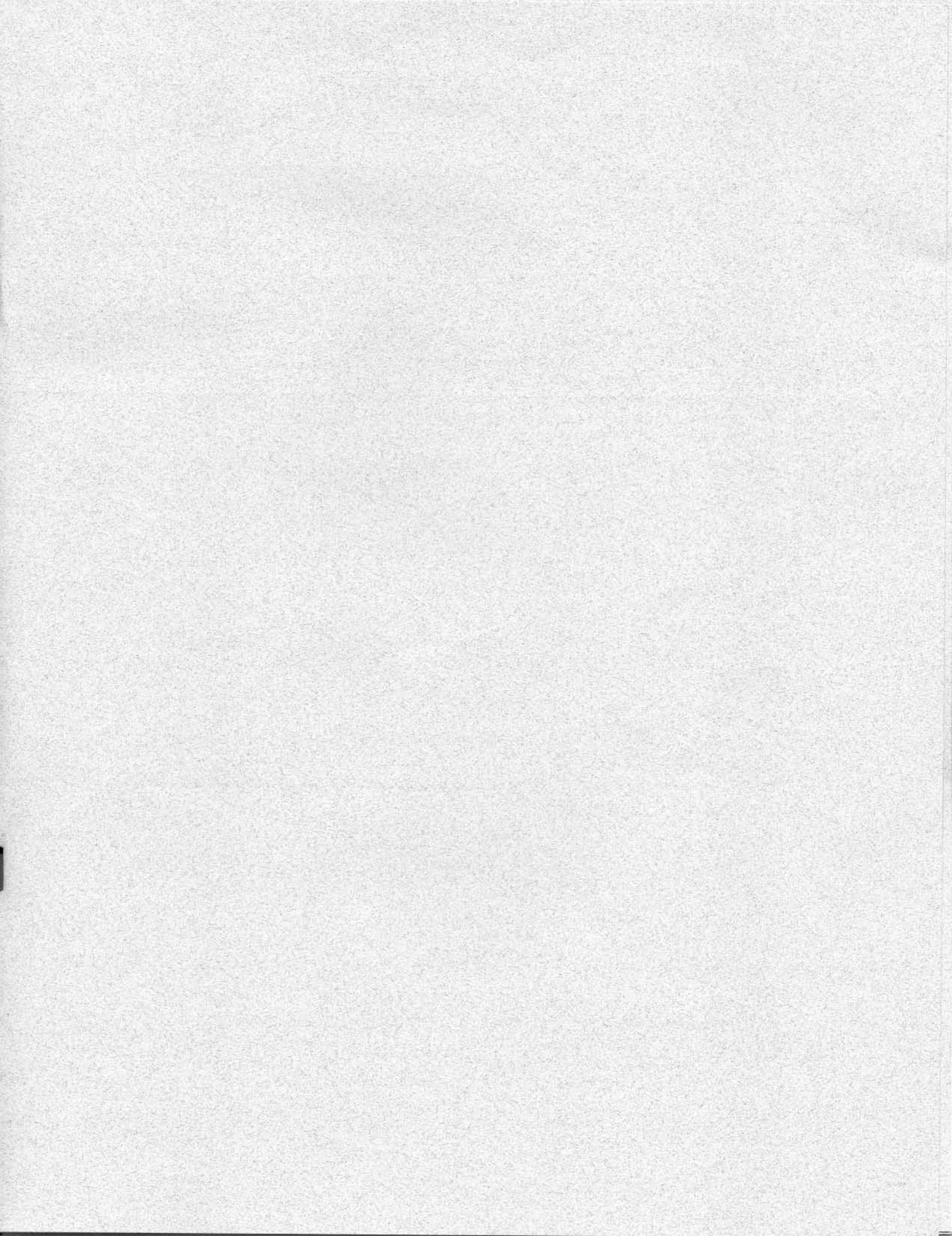


CONTROL COLLAR ADJUSTMENT (See Figure 7)

The control collar is adjusted by turning the collar clockwise or counter-clockwise. The collar should be adjusted so that it is in the correct position. The collar should be adjusted so that it is in the correct position. The collar should be adjusted so that it is in the correct position.

When the collar is adjusted, the control collar should be in the correct position. The control collar should be in the correct position. The control collar should be in the correct position. The control collar should be in the correct position.

Figure 7 - Control Collar Adjustment



LIMITED WARRANTY

DeLuxe Stitcher Company warrants to the original retail purchaser that this product is free from defects in material and workmanship and agrees to repair or replace, at DeLuxe Stitcher's option, any defective product within 90 days from the date of purchase. This warranty is not transferable. It covers damage resulting only from defects in material or workmanship and does not cover conditions or malfunctions resulting from normal wear, neglect, abuse or accident.

This warranty is in lieu of all other express warranties. Any warranty of merchantability or fitness for a particular purpose is limited to the duration of this warranty. DeLuxe Stitcher shall not be liable for any incidental or consequential damages.

Some states do not allow limitations on how long an implied warranty lasts, or the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you. This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

To obtain warranty service you must return the product, at your expense, together with proof of purchase to an authorized DeLuxe Stitcher Graphic Arts Dealer.

Always use genuine DeLuxe Stitcher parts. When ordering parts, please identify the part number, the part name, the wire size and crown size of your Stitcher.

DeLuxe Stitcher Company, Inc.
Chicago, Illinois 60634-2410
Phone: 773-777-6500 800-634-0810
Fax: 773-777-0156 800-417-9251
E-mail: DeluxeStitcher@aol.com
Web Site: <http://www.deluxestitcher.com>

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