



DELUXE STITCHER

COMPANY INC.

OPERATION and MAINTENANCE MANUAL MODELS: 19-AW, 19-CW & 19EW WIRE STITCHERS WITH NUMBER 19001EHD HEAD

CAPACITY: 9/16" (14.3mm)

CROWN OR STAPLE WIDTH: 1/2" (12.7mm) (STANDARD)

SIZE OF WIRE: NUMBER 20 X 24 FLAT AND NUMBERS: 20, 23, & 25 THRU 30 ROUND

SPEED: UP TO 300 STITCHERS PER MINUTE (STANDARD 195)

NOTE: This book does not include head instructions. It should be used in conjunction with "Stanley-Bostitch Model 19001EHD Wire Stitcher Head Operation and Maintenance Manual" BSA949S.

WARNING:

DO NOT OPERATE THIS STITCHER UNTIL ALL GUARDS ARE IN PLACE.

NEVER OPERATE MACHINE WITH WIRE FEEDING AND NO STOCK ABOVE CLINCHERS. SERIOUS DAMAGE MAY RESULT IF THIS PRACTICE IS FOLLOWED.

ALWAYS DISCONNECT STITCHER MACHINE POWER CORD FROM POWER OUTLET BEFORE ANY DISASSEMBLY WORK.

1. INTRODUCTION:

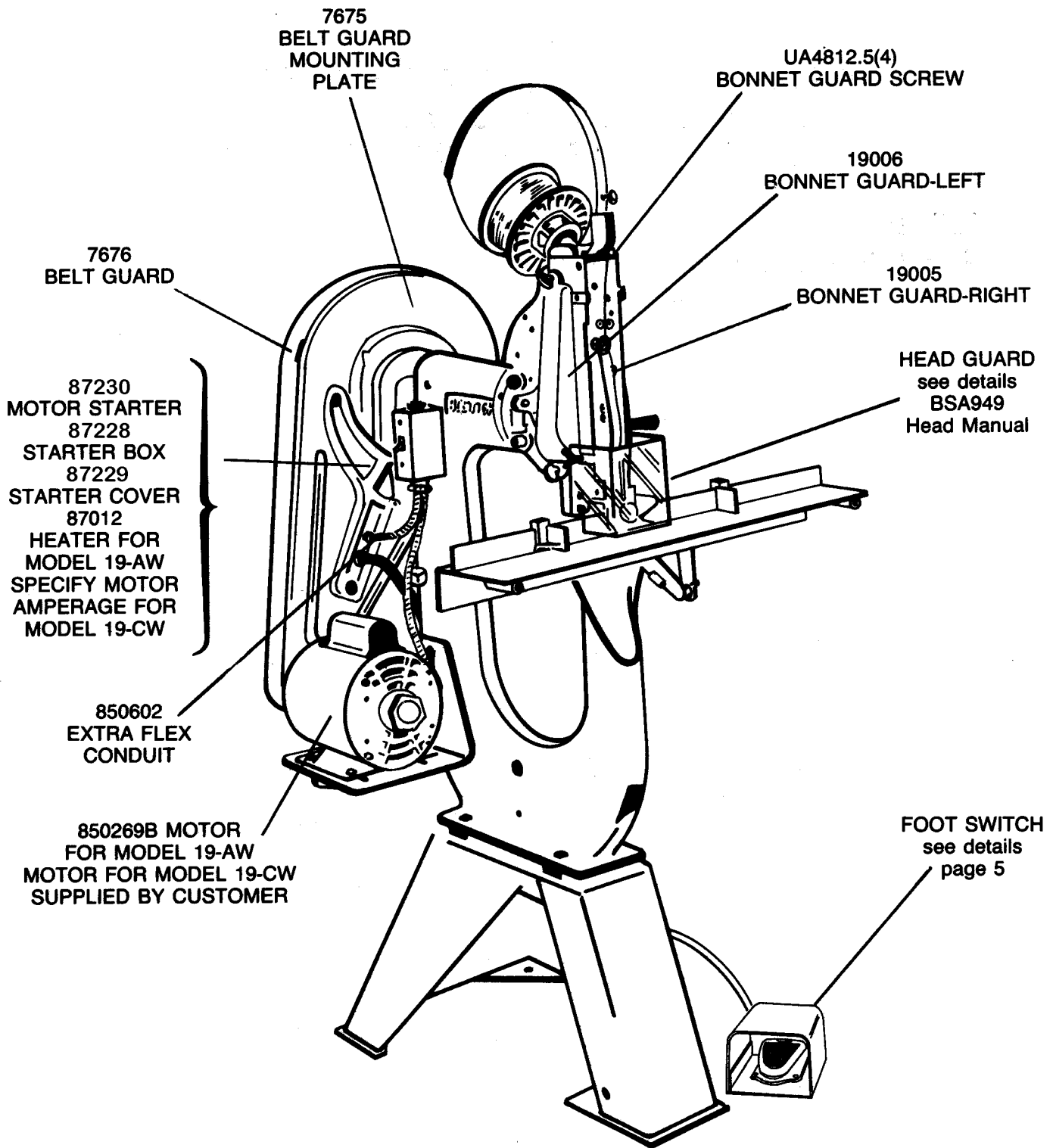
To obtain satisfactory results from a wire stitcher, it is necessary that it be properly installed and adjusted, regularly lubricated and maintained.

In case of any trouble, you should notify the nearest sales office. Send samples of the defective work and describe the trouble in detail. Report the serial number and model of the machine when corresponding in regard to it.

2. INSTALLATION:

To prevent damage during its installation, the following procedure should be closely followed:

- a) After uncrating machine, examine for any breakage in transit. If such is found, do not attempt to run machine but report at once to the selling agent. If service man is present, let him examine machine and then report to manufacturer.
- b) Remove Belt Guard (See Belt Guard Instructions, page 4). See that motor is free to revolve when large pulley or flywheel is turned by hand.
- c) Examine name plate on motor and see that its specifications are the same as those of the power to be used. If not, do not attempt to use.
- d) Attach wire guide spring, table and work guide. Make sure that V-belt is only tight enough to run machine without slippage. Belt tension may be adjusted by moving motor bracket up or down.
- e) Place machine on level floor, using shims under base to prevent any movement or rocking.
- f) Lubricate machine thoroughly as described in Head Instructions and Stitcher Maintenance.
- g) With power off, depress solenoid actuator on clutch by hand and turn machine over a few times to be sure everything is clear. Do not turn electric switch on until pulley rotates freely.
- h) Connect motor cord to power outlet and start motor. See that large pulley or flywheel turns in direction of arrow cast on pulley, or clockwise as viewed from the front of the machine. Should it rotate counterclockwise, motor wiring should be reconnected by electrician to reverse direction of rotation.
- i) If rotation is correct, press on foot switch and start machine. Remove foot from switch and machine will stop. A little practice will enable operator to know exactly how to stop and start machine exactly when desired.



MODEL 19-AW, 19-CW & 19-EW STITCHERS

WARNING: DO NOT OPERATE THIS STITCHER UNTIL ALL GUARDS ARE IN PLACE.

3. OPERATION:

- a) Place a spool of proper size wire on the spool holder.

When loading with wire wound on paper cores: Remove detachable flange from spool and insert coil of wire, replacing flange and turning coil till binding wires are aligned with slots in flanges. Tighten nut till coil is snugly held. Cut binding wires, **except the one holding the end of the coil.** (They may be pulled out through the slots.) Then grasp, end of coil and cut and remove the binding wire. Thread the machine as described in Head Instructions.

- b) Refer to Head Operating Instructions, follow procedure for remainder of operations required, such as wire straightening and adjustment for length of wire.
- b) Gauge for thickness by placing work under gauge at left of head and adjust crank at right of head until work is tightly pinched under gauge. After turning pulley by hand once to be sure that machine is properly set for thickness to be stitched, power can be applied.

Clinchers can be adjusted for tight or loose clinch by means of screw at back of clincher operating lever, release the binder screw first. A slight turn will make considerable difference in the operation of the clinchers.

- c) Machine is now ready to do stitching. With directions as outlined above satisfactory results should be obtained. Make several rows of stitches in stock to be used; examine crown and legs for proper appearance. If not satisfactory, adjust machine in accordance with directions given below. See Section 4 "Appearance of Stitches" and "Trouble Shooting Chart" in Head Instructions.

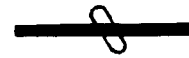
WARNING: NEVER OPERATE MACHINE WITH WIRE FEEDING AND NO STOCK ABOVE CLINCHERS. SERIOUS DAMAGE MAY RESULT IF THIS PRACTICE IS FOLLOWED.

4. APPEARANCE OF STITCHES:

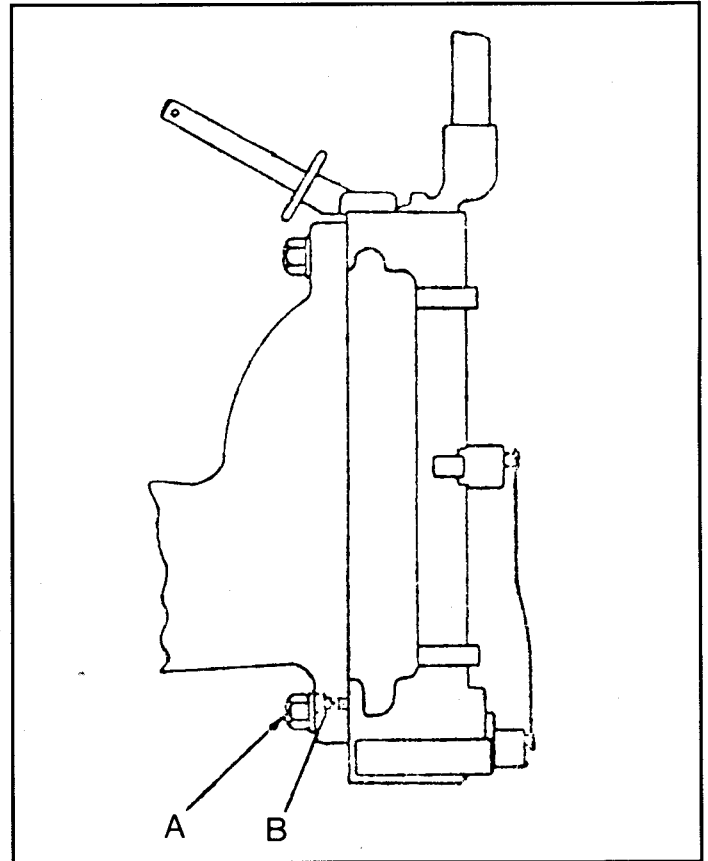
If stitching is defective, compare stitch produced with illustrations in Head Instruction Manual. To eliminate defect, follow instructions given with illustration. If it is necessary to correspond about any defective stitches or other difficulties with the machine, refer by letter to the illustration in Head Instruction Book, which shows the type of stitch defect and, if possible, send a sample of the work actually being done on the machine.

To align clincher with wire grooves: If stitch is rolled (in thin work), clincher is out of line with wire grooves. Remedy: Realign same. This is normally a factory adjustment and should never be disturbed unless it must be done to rectify trouble as itemized. This adjustment can be made by means of adjusting screws "B" located in frame near

bottom of head as shown below. Loosening bonnet binder screw "A" and turning screws "B", head can be moved forward or back as desired. Be sure to lock screw "A" after readjustment.



ROLLED SWITCH



5. THE ESSENTIAL POINTS OF STITCHING:

To obtain satisfactory stitches, the following essentials must be observed:

- a) The legs of the staple must be of the same length.
- b) Wire must enter cutters as nearly straight as possible.
- c) The cutters must be sharp and properly set so that there are no burrs on end of wire and wire is cut with a square end.
- d) The clinchers must work freely and be in good condition mechanically with no pitted or badly worn grooves. Head must be adjusted for proper compression.
- e) The machine must be kept clean and properly oiled.
- f) The wire must be of the correct size for stock to be stitched and must be used only in the proper bender bar. Wire fitting the bender bar grooves too loosely will cause buckling, and too large a wire will also cause buckling

in addition to excess wear on the bender bars. Follow the Operating Instructions for the proper size wire.

- g) The wire spool must be free to turn and the wire must not be allowed to become crossed. Short staples and even entire failure to produce staples may result from crossed or tangled wires.
- h) Stitcher must be equipped with proper clincher points on either round or flat wire depending on wire being used.

The necessary adjustments, replacements, etc. required to meet conditions as listed above, are described in detail in the Head and Stitcher Instructions.

6. BELT GUARD REMOVAL:

To remove the plastic belt guard, press in on one side tab while prying out locking face. This will release the first tab. Next, pull down slightly on top of guard to release 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.

7. STITCHER MAINTENANCE:

- a) Every stitcher should be oiled daily, and if machine is in constant use, twice daily. Oil drive shaft through oil cups (2) at top of frame and oil universal joints in drive shaft through large holes (2) in the left side of frame. Oil cam roll at upper end of clincher cam slide at rear of machine. Refer to Stitcher Head Manual for head lubrication.
- b) Do not oil any parts of the clutch-brake unit. See Lubrication Instructions under Clutch-Brake Unit Maintenance Section for details.

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

- c) **Removal and replacement of clinchers:** To remove clinchers, release clincher slide 19184B from slide bar 19186 by removing screw 9044B.

Hold slide when releasing screw, to prevent slide from dropping into base of machine. Lower slide enough to disengage clinchers, which can then be raised to vertical position and removed through upper opening in clincher plate.

To replace clinchers, push down as far as they will go into clincher plate, so that lip on slide will enter notch in clincher. Align hole in slide with that in slide bar and replace screw.

To assure good stitching, clinchers should be kept free from dirt and particles of wire.

8. CLUTCH — BRAKE UNIT MAINTENANCE:

This stitcher is equipped with a solenoid actuated,

continuous trip, wrap spring, clutch-brake unit. It is a dependable device that seldom needs service, but should a malfunction occur, the following information will serve as a service and trouble shooting guide for maintenance of this unit.

A) 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, or an environment is such that it may "wick-out" oil, wash off oil, or fill the clutch with foreign matter, 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), 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 from the oil, it may be heated while cleaning the components, but bring the parts back to ambient temperature submerged in cool oil.

B) ACTUATOR

The actuator is a simple straight-forward mechanical linkage controlled through a solenoid by the foot switch. When the actuator does not trip the following, checks should be made:

PROBLEM	CAUSE AND REMEDY
1) No power to the coil.	A) If no power to the coil, check all wiring and switching in the system that actuates the clutch.
2) Lack of continuity of the coil windings.	A) If no continuity, replace the coil.
3) Mechanical binding of the plunger.	A) Plunger binding may be caused by the shifting of the coil, or mushrooming of plunger end due to striking the back stop. In the latter case the plunger may be turned or filed to its true diameter.
4) Insufficient clearance of the actuator over the stop collar.	A) No clearance over the stop collar detent would be caused by lack of continuity of the linkage. Repair or adjust as needed.
5) Actuator loaded by the stop collar, in which case the collar pushes so hard on the actuator that it cannot be pulled by the coil.	A) Actuator loading can be caused by the braking force exceeding the limits of the brake or the differential setting of the unit being too close, i.e. — CLUTCH ON BRAKE ON. (See instructions on setting of Assembly and Disassembly Instructions.

C) CLUTCH AND BRAKE SPRINGS

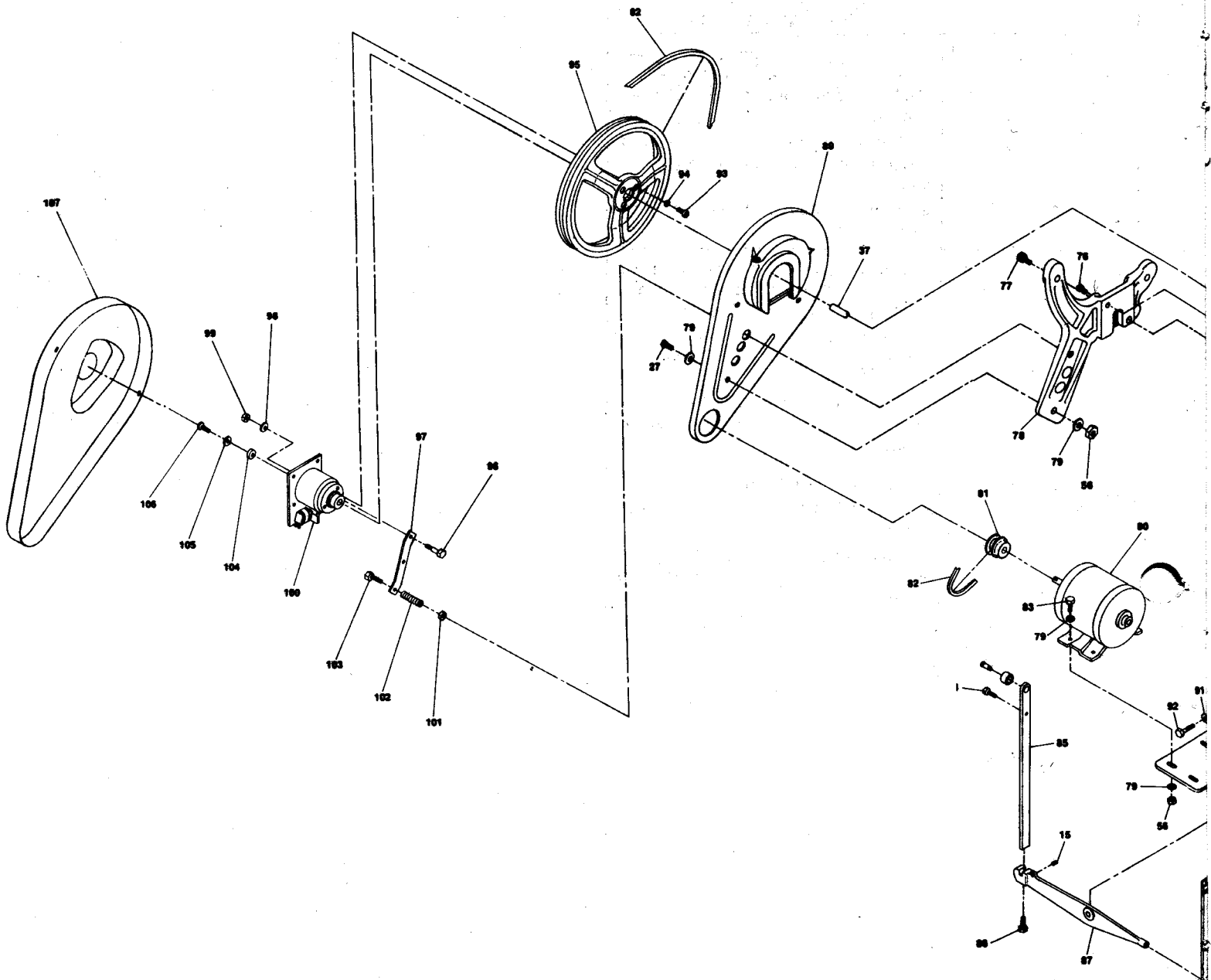
With the brake engaged (full limit of output), the input hub should be free to rotate by hand. With the clutch engaged, the input and output should rotate together. If the unit does not rotate in either of these modes, the clearance between the hubs of the unit on the shaft may have been disturbed by dropping or hammering the unit on the shaft

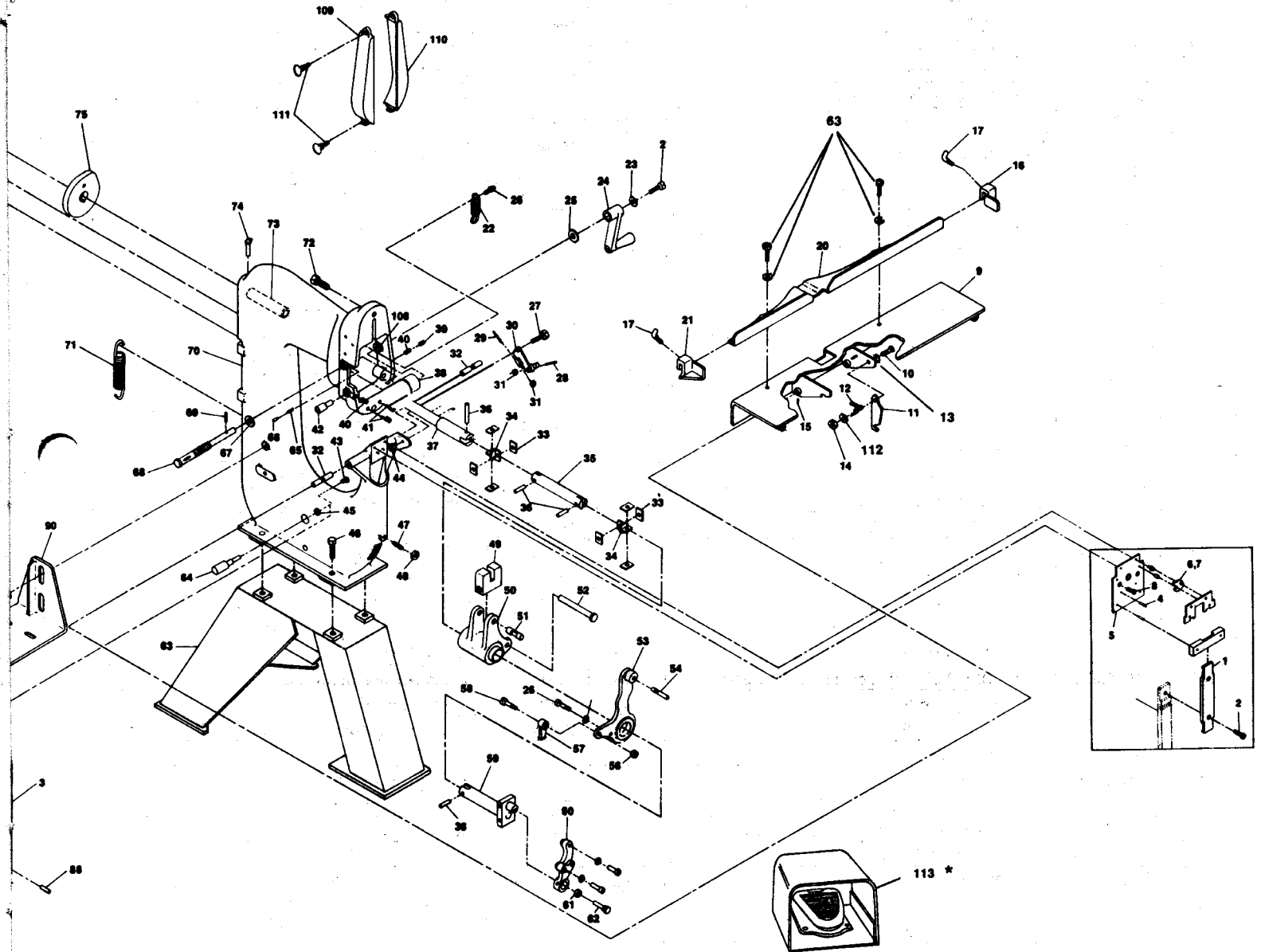
at assembly.

See Assembly and Disassembly Instructions for readjusting.

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

PROBLEM	CAUSE AND REMEDY
1) Clutch Brake does not drive but input turns.	A) Drive spring may be broken at crossover point from an overload caused by a jam. Replace spring and check hubs for damage. B) Collar may not snap forward because of foreign matter restricting movement. Clean unit. C) Actuator does not pull in. (See "Actuator".)
2) Clutch-Brake jams and stalls input motor.	A) Spring tang broken off drive spring, not allowing clutch to disengage while brake is engaged. Replace drive spring. B) Clutch output bound up. Check clearance between out-put hub and brake hub. C) Completely out of adjustment caused by losing an internal spring tang. Replace spring.
3) Output does not repeat stopping point.	A) Not enough inertia to actuate brake. B) Tang broken off brake spring. Replace spring. C) If unit has an adjustable collar, locking screw may be loose allowing adjusting screw to rotate.

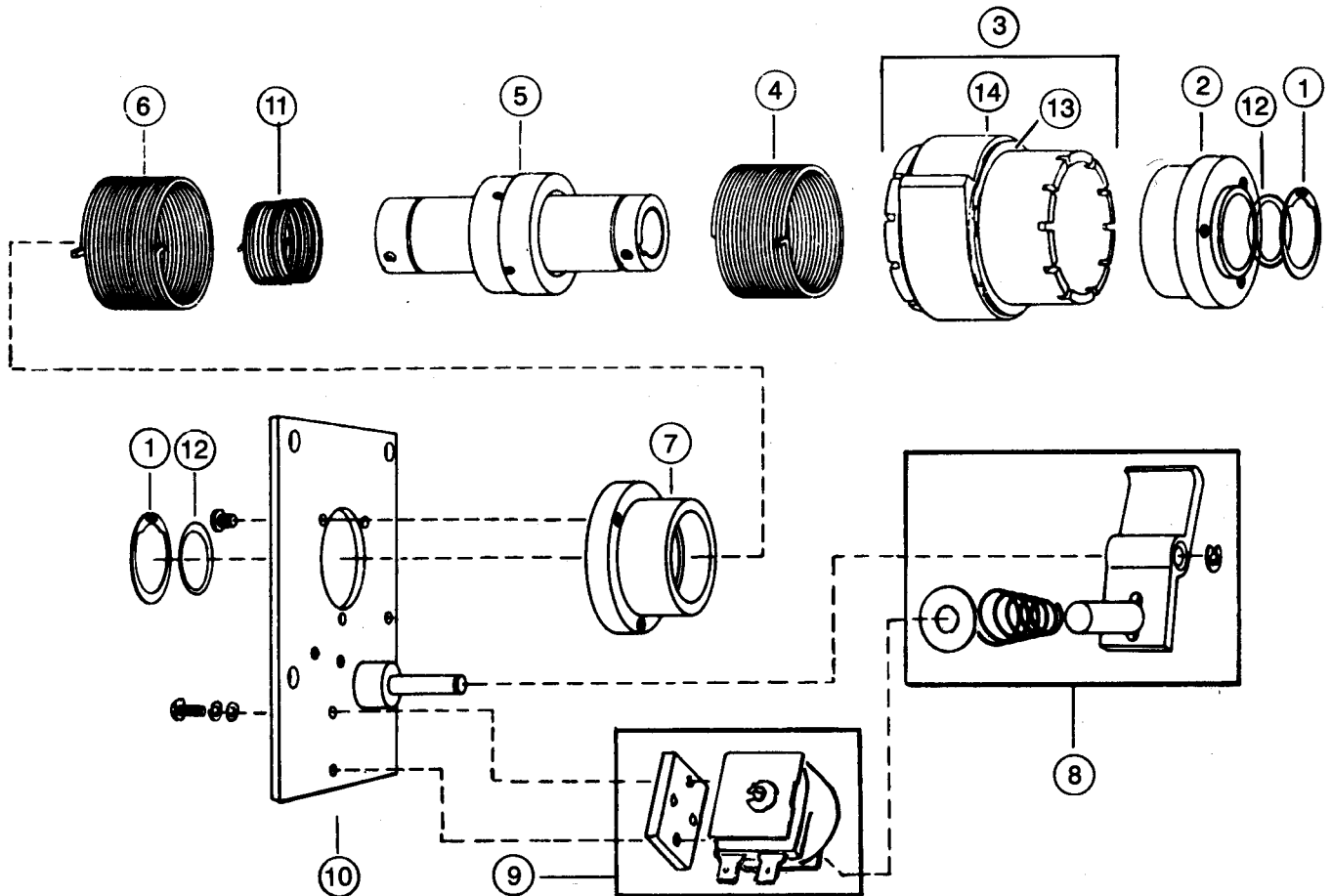




* PART 851702 IS REPLACEABLE INTERIOR FOR FOOTSWITCH.

ITEM #	PART #	DESCRIPTION	ITEM #	PART #	DESCRIPTION
1	19184B	Clincher Slide	59	19301A	Crank Shaft Assembly
2	9044B	Adj. Screw Crank Retaining Screw	60	19283A	Bender Link Assembly
3	19186	Clincher Slide Bar	61	19306	Crank Pin Roll
4	29	Clincher Plate Dowel	62	19307	Crank Pin Roll Stud
5	7253EA	Clincher Plate Assembly	63	1C	Base
6	7257C	Clincher Point-Flat-Roundwire	64	19254	Clincher Oper. Lever Pivot
7	7024D	Clincher Point-Curved-Flatwire	65	461	Adjusting Screw Catch Spring
8	341	Clincher Plate Screw	66	19274	Adjusting Screw Catch
9	7656A	Work Table	67	19275	Adjusting Screw Washer — Large
10	UA3810.10	Table Support Stud	68	19273	Adjusting Screw
11	7648	Table Support	69	19277	Adjusting Screw Pin
12	B554	Table Support Spring	70	19201B	Frame
13	PW10	#10 Plain Washer	71	E183B	Clincher Oper. Lever Spring
14	HN1024	#10-24 Machine Screw Nut	72	15002	Bonnet Screw
15	38	Work Table Swivel Pin Screw	73	148H	Bushing
16	7423	Work Stop — Right	74	85202	Oil Cup
17	425	Work Stop Screw	75	19245	Clincher Cam
20	7201	Work Guide	76	UA3808.1	#10-32 x 1/2" Hex Socket Hd. Cap Screw
21	7424	Work Stop — Left	77	UA7816.1	7/16"-14 x 1-1/4" Hex Socket Hd. Cap Screw
22	14280	Adjusting Link Spring	78	7682	Belt Guard Bracket
23	19280	Adjusting Screw Crank Retaining Washer	79	PW516	5/16" Plain Washer
24	19278A	Adjusting Screw Crank Arm	80	850269B	Motor
25	19276	Adjusting Screw Washer — Small	81	850696	Motor Pulley
26	406	Adjusting Link Spring Pin	82	850730	V-Belt
27	UA5116.1	5/16"-14 x 1" Hex Hd. Cap Screw	83	UA5112.1	5/16"-18 x 3/4" Hex Hd. Cap Screw
28	UA4828.3	1/4"-20 x 1-3/4" Hex Socket Set Screw	84	UA6805	Hex Socket Hd. Cap Screw
29	UA4820.3	1/4"-20 x 1-1/4" Hex Socket Set Screw	85	19246A	Clincher Cam Slide
30	7645A	Table Support Bracket	86	UA5820.2	5/16"-18 x 1-1/4" Hex Socket Hd. Set Screw
31	HN1420.2	1/4"-20 Hex Jam Nut	87	19251	Clincher Oper. Lever
32	203B	Work Table Swivel Pin	88	2293	Clincher Oper. Lever Pin
33	19312	Intermediate Shaft Joint Shim	89	7675	Belt Guard Mounting Plate
34	19310	Intermediate Shaft Joint	90	16010D	Motor Bracket
35	19309	Intermediate Shaft	91	PW38	3/8" Plain Washer
36	19311	Intermediate Shaft Joint Pin	92	UA6116.1	3/8"-16 x 1" Hex Hd. Cap Screw
37	19314A	Clutch Shaft Assembly	93	UA4812.7	1/4"-20 x 3/4" Hex Socket Flat Hd. Cap Screw
38	14284	Adjusting Nut Stop	94	SW14.1	1/4" Countersunk Ext. Tooth Washer
39	UA5804.1	5/16"-18 x 1/4" Hex Socket Hd. Set Screw	95	7678	Driving Pulley
40	UA5806.1	5/16"-18 x 3/8" Hex Socket Hd. Set Screw	96	7681	Clutch Anchor Screw-top
41	2287	Bonnet Aligning Screw	97	7680	Clutch Anchor
42	19296	Thickness Gage Seat	98	SW14	1/4" Internal Tooth Lock Washer
43	0053	Clincher Oper. Lever Pivot Screw	99	HN1420.5	1/4"-20 Hex Nut
44	HN51618.2	5/16"-18 Hex Jam Nut	100 (1)	850671	Wrap Spring Clutch Ass'y (for 115V service)
45	2238	Clincher Oper. Lever Pivot Collar	100 (2)	850672	Wrap Spring Clutch Ass'y (for 230V service)
46	UA7120.1	7/16"-14 x 1-1/4" Hex Hd. Cap Screw	101	HN3816	3/8"-16 Hex Nut
47	UA4824.3	1/4"-20 x 1-1/2" Hex Socket Set Screw	102	141H3	Clutch Anchor Bolt Spring
48	HN1420	1/4"-20 Hex Nut	103	UA6140.1	3/8"-16 x 2-1/2" Hex Hd. Cap Screw
49	14282	Adjusting Nut	104	7679	Driving Pulley Washer
50	14276A	Adjusting Bearing	105	SW516.3	5/15" C'sunk Ext. Lock Washer
51	14283	Adjusting Nut Conn. Pin	106	UA5820.8	5/16"-18 x 1-1/4" Hex Soc. Flat Hd. Cap Screw
52	14277	Adjusting Bearing Pivot	107	7676	Belt Guard
53	14278	Adjusting Link	108	14272	Adjusting Screw Bushing
54	14279	Adjusting Link Pin	109	19006	Bonnet Guard — Left
55	BG810	Adjusting Link Spring Pin Spacer	110	19005	Bonnet Guard — Right
56	HN51618	5/16"-18 Hex Nut	111	UA4812.5	1/4"-20 x 3/4" Thumb Screw
57	19292	Thickness Gage	112	PW10.3	#10 Plain Washer
58	19293	Thickness Gage Stud	* 113	851701	Footswitch

CLUTCH AND BRAKE UNIT



ITEM #	DESCRIPTION	PART #
1	Retaining Ring	850886
2	Input Hub	851321
3	Control Collar Assembly — CW	850888
4	Spring — Drive — CW	850889
5	Output Assembly	850891
6	Spring — Brake — CW	850889
7	Brake Hub	850892
8	Actuator Assembly (6 pieces)	850809
9	Coil Assembly (For 115V Service 50/60 Hz)	850893
	Coil Assembly (For 230V Service 50/60 Hz)	850894
10	Plate Assembly	850890
11	Anti-Back Up Spring	850962
12	Shim Washer	851126
13	Retaining Ring	851243
14	Control Collar Cam	851766

D) DISASSEMBLY

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 in reassembly.

WARNING: ALWAYS DISCONNECT STITCHER MACHINE POWER CORD FROM POWER OUTLET BEFORE ANY DISASSEMBLY WORK.

To disassemble the clutch-brake unit, it will first be necessary to remove the drive pulley from the stitcher by removing the V-belt, pulley washer (7679) and disconnecting anchor strap (7680) from clutch plate.

Disconnect wires from solenoid, swing Anchor Bracket down out of way and carefully slide pulley and clutch off as a unit. Remove drive pulley from input hub then:

- a) Release Actuator Lever so that clutch is engaged and brake released.
- b) Remove Retaining Ring and Shim Washer, if any, from the Input Hub end.
- c) Remove Input Hub, by rotating opposite to the drive direction.
- d) Remove Retaining Ring and Shim Washer, if any, from the Mounting Plate end.
- e) Remove Output Shaft, Springs, and Control Collar assembly, by rotating Output Shaft in the drive direction. **(DO NOT DISASSEMBLE BRAKE HUB FROM MOUNTING PLATE.)**
- f) Remove Control Collar from the Output Shaft and Spring assembly, by extracting towards the Brake Spring end.

E) ASSEMBLY

- a) Replace Clutch Brake and anti back up Springs as required. (Assemble springs concentric and square to the Output Shaft.)
- b) 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.)
- c) Place the Brake Spring tang in any one of the nine (9) Control Collar slots at *random*.
- d) Assemble Output Shaft, Springs, and Control Collar assembly to the Mounting Plate assembly by rotating Output Shaft in the drive direction.
- e) 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 feelers gauge. There should be .004 to .010 end. Use shim washers to adjust.
- f) Rotate Output Shaft in the drive direction, until it reaches a full brake position.
- g) With the *Clutch Spring Tang not* in slot, insert the Input Hub by rotating opposite to the drive direction.
- h) Select the one of ten (10) Control Collar slots for the Clutch Spring Tang that will provide a .38 to .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 towards the Input Hub end and rotate it opposite to the drive direction to pick up next slot.)
- i) Repeat Step (h) until the .38" to .50" specification is achieved.
- j) 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 .002 to .003 end play on Input Hub.
- k) 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 to prevent Plate rotation.

F) CONTROL COLLAR ADJUSTMENT

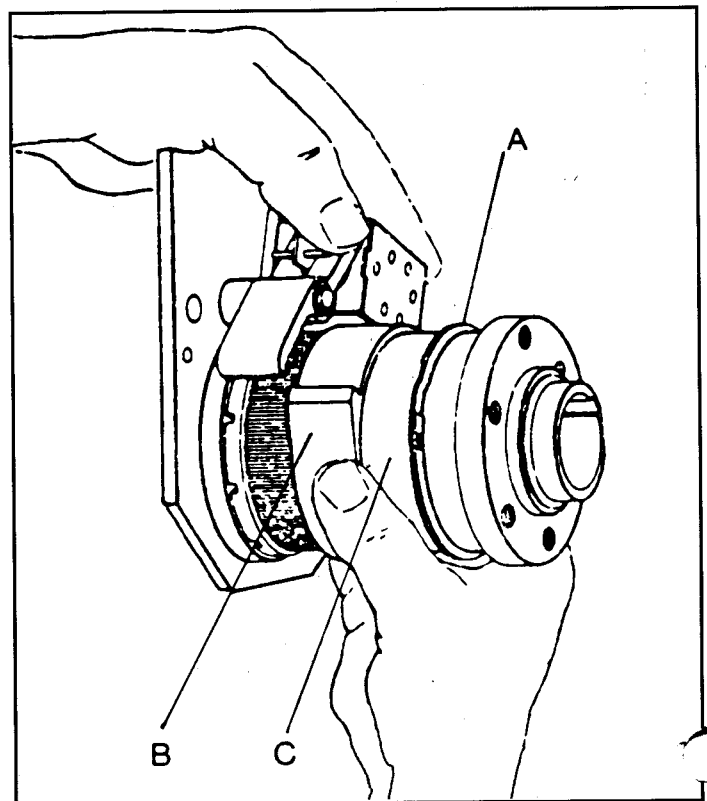
The stopping position of the head can be changed if necessary by adjusting the position of the stop cam on the control collar sleeve. Turn power off, trip clutch by hand and rotate drive pulley until driver is in desired stopping position then proceed as follows:

- a) Work Retaining Ring "A" out of groove and slide forward on Sleeve "C" (see illustration below).
- b) Slide Cam "B" off splines, rotate to desired relationship of stop to shaft keyway, and slide back on splines. The actuator pawl will have to be held clear during this operation.
- c) Slide Retaining Ring back into groove.

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

Instructions For Coil Replacement:

- 1) Place the spring onto the plunger with the narrow end towards the actuator then slide the nylon washer onto the plunger. Slide the solenoid and spacer plate onto the actuator/plunger assembly. Secure the solenoid and spacer plate with the cap screws and washers. **DO NOT** tighten more than finger tight.
- 2) Energize the coil and adjust the gap between the actuator and the top of the collar stop .015 to .030 inches by sliding the solenoid assembly. (**NOTE:** push the collar towards the actuator to allow for collar movement) Tighten the cap screws.



**THE FOLLOWING ITEMS ARE PART OF #19 STITCHERS
BUT FOR CLARITY HAVE NOT BEEN ILLUSTRATED**

UA4206.1..... 1/4"-20 x 3/8" Slotted Fillister Hd. Cap Screw (Circuit Breaker Screw)
 19001EHD2024 1/2.....#19 Head Assembly 20 x 24 Wire 1/2 Crown
 UA3306.2.....#10-32 x 3/8" Slotted Rd. Hd. Machine Screw (Circuit Breaker)
 UA3308.3.....#10-32 x 1/2" Slotted Rd. Hd. Machine Screw (Motor Ground)
 0-99-995-521.....#5 Coil 20 x 24 Flat Bookbinder Wire
 HN1032.....#10-32 Hex Nut (Cable Clamp/Anchor + Circuit Breaker)
 SW10.....#10 Internal Washer (Motor Ground) (Motor Start Ground) (Cable Clamp Anchor)
 UA3306.1.....#10-32 x 3/8" Rd. Hd. Screw (Cable Clamps)
 85098.....Duplex Conn. (Motor Starter — Bottom)
 85125.....Cable Clamp
 85126.....Cable Connector (Motor)
 85128.....Cable Connector (Belt Guard Bracket)
 85416.....Flexible Conduit (Motor Starter to Motor)
 85199.....Wire Terminals (Start Switch to Motor)
 85417.....#14 Wire Black
 85419.....#14 Wire White
 86035.....#14 Wire Green
 85777.....Anti-short Bushing
 85797.....Insulated Wire Conn.
 86198.....90° Angle Conn. (Belt Guard Bracket and Motor Start)
 87228.....Motor Starter Box
 87229.....Motor Starter Cover
 87230.....Motor Starter
 87234.....Heater, 5.44-5.90 Amp
 850602.....Extra Flex Conduit
 850603.....Wire Terminal (WHT Wire at Sol. Coil)
 86243.....Power Cord for 115V
 2581S.....Name Plate (CSA)

