

STANLEY BOSTITCH

Models **RSCA** Box Stitchers
equipped with Wrap Spring Electric Clutch
and
BHOL Series Wire Stitcher Head

Model RSCA48-AW with motor - 115V and 60HZ service
Model RSCA58-AW with motor - 115V and 60HZ service

WARNING:

STITCHER OPERATORS AND OTHERS IN THE WORK AREA SHOULD ALWAYS WEAR SAFETY GLASSES TO PREVENT SERIOUS EYE INJURY FROM WIRE AND FLYING DEBRIS WHEN LOADING, OPERATING, OR UNLOADING THIS STITCHER.
DO NOT OPERATE THIS STITCHER UNTIL ALL GUARDS ARE IN PLACE.
ALWAYS TURN OFF THE POWER SUPPLY BEFORE MAKING ADJUSTMENTS OR SERVICING THIS STITCHER.
NEVER OPERATE THIS STITCHER WITH WIRE FEEDING AND NO STOCK ABOVE THE CLINCHERS.
WHEN OPERATING THIS STITCHER DO NOT DRIVE ONE STITCH ON TOP OF ANOTHER.

OPERATION and MAINTENANCE MANUAL

WARNING:

BEFORE OPERATING THIS STITCHER, STUDY THE MANUAL AND UNDERSTAND THE SAFETY WARNINGS AND INSTRUCTIONS. IF YOU HAVE ANY QUESTIONS, CONTACT YOUR STANLEY-BOSTITCH REPRESENTATIVE OR DISTRIBUTOR. SAVE THESE INSTRUCTIONS FOR FUTURE REFERENCE.

INTRODUCTION

The Stanley-Bostitch RSCA Box Stitchers are precision built machines designed for high speed, high volume carton closing. These stitchers will deliver efficient, dependable service when used correctly and with care. As with any fine machine, for best performance the manufacturer's instructions must be followed. Please study this manual before operating the stitcher and understand the safety warnings and cautions. The instructions on installation, operation and maintenance should be read carefully and the manual kept for reference. **NOTE:** Additional safety measures may be required because of your particular application. Contact your Stanley-Bostitch representative or distributor with any questions concerning the stitcher and its use. For stitcher head problems, refer to BSA1140S. Operation and Maintenance manual for model BHOL Series wire stitcher heads.

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INSTALLATION

The machine may be seriously damaged during installation if not properly set up; therefore, comply with the following procedure.

After uncrating machine, examine for any breakage in transit. If any, do not attempt to run machine but report at once to the carrier and selling agent.

Examine name plate on motor and see that specifications are the same as those of the power supply. IF NOT, DO NOT ATTEMPT TO OPERATE THE MACHINE.

Place machine on a level floor. Shim under base to prevent any movement or rocking.

Be sure that the machine is oiled thoroughly before operating (refer to Lubrication Instructions, page 4).

Connect motor cord to power outlet and start motor. See that it runs freely, without undue noise, and that the large pulley rotates counter-clockwise as viewed from the rear of the machine. If it rotates clockwise, motor wiring should be re-connected by an electrician in order to reverse direction of rotation.

BELT GUARD REMOVAL AND REPLACEMENT

WARNING: Always turn off the power supply before making adjustments or servicing these stitchers.

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.

OPERATION AND ADJUSTMENTS

WARNING: Always turn off the power supply before making adjustments or servicing these stitchers.

Press foot switch to start machine operation. Start and stop several times.

Place a spool of proper size wire on spoolholder above the stitching head. Refer to Bliss Head Instruction Manual BSA1140S 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 1, 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.

The openhead must be assembled on the front of the Bliss Wire Stitching Head using the two socket screws provided.

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

1. Rotate the drive pulley at the rear end of the machine slowly in a counterclockwise direction until a staple extends from the stitching head (see Turning Machine Manually, page 4).
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 (see Turning Machine Manually, page 4). Readjust if necessary.

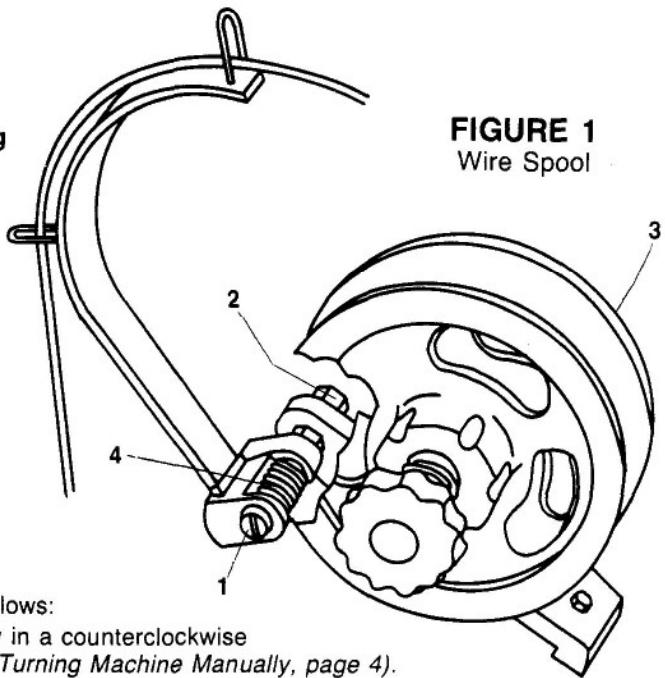
WARNING: Never operate this stitcher with wire feeding and no stock above the clinchers.

Start motor and drive a few stitches into material and, if necessary, adjust the openhead to get desired tightness of clinching. See preceding instructions for adjusting clincher.

Adjust for proper length of wire by loosening lock screw and moving wire feed guard casting to right or left along gauge marks on upper part of head casting. Moving to left reduces wire draw while moving to right increases it. When proper length of wire is drawn, tighten lock screw.

Drive several rows of stitches into material to be used, examine crown and legs. If not satisfactory adjust machine in accordance with directions given hereafter.

NOTE: When changing length of wire draw, the first stitch driven, or the second, will be of the previous length as it is formed from a piece of wire already cut in the anvil. The third stitch, however, will be of the new length.



TURNING MACHINE MANUALLY

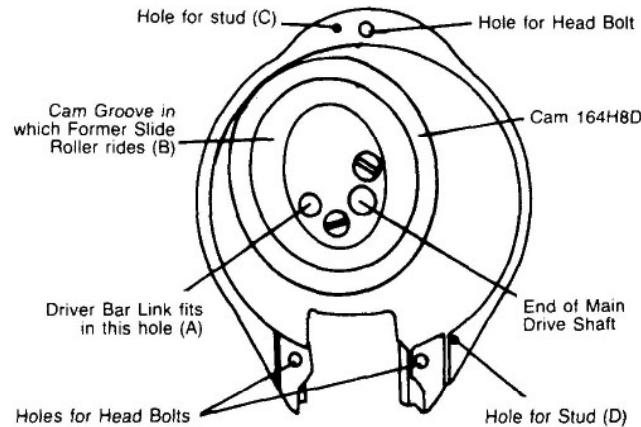
WARNING: Always turn off the power supply before making adjustments or servicing these stitchers.

To turn the machine manually, it is necessary to remove the belt guard (see *Belt Guard Removal*, page 3). 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 now rotate one revolution when the drive pulley is turned manually in the direction of the arrow on the pulley.

HEAD REMOVAL AND REPLACEMENT

WARNING: Always turn off the power supply before making adjustments or servicing these stitchers.

Loosen and remove the three hex head screws that retain the head to the body and remove the head. To replace the head, insert the pin on the drive bar link into the (A) hole in the cam. Move the drive cam to the left so that the former slide roller engages the cam groove at (B). Rotate the head as required until the dowels in the head engage the holes (C) and (D) in the body. Replace and tighten the three hex head screws.



STITCHING WIRE

It is essential that suitable stitching wire be employed for the work. If wire is too light, it will buckle and not penetrate stock. Wire must be of good quality and proper hardness or it will bend or buckle. Wire must not be over-size or it will stick in the formers and driver. Wire must be clean and smooth. Rough wire will wear the wire tubes and former grooves. Some coated wire flakes and clogs wire tubes, in which case it should be removed and cleaned with a piece of round wire.

LUBRICATION

The stitcher should be oiled daily, and if in constant use, twice daily. The oil holes and cups are found on stitcher head and body. A heavier type of oil should be used for the former and drive bar. A light machine oil should be used for remainder of head.

REFER TO HEAD INSTRUCTION MANUAL FOR COMPLETE HEAD LUBRICATING INSTRUCTIONS.

Cam lubricating instructions:

Turn machine manually (*instructions above*) and rotate drive pulley manually in direction indicated by arrow on pulley until grease fitting on cam is aligned with hole in lubricating cover unit located in body or head casing.

When fitting is visible through hole in lubricating cover unit, lubricant can be applied with a grease gun to fit alemite hydraulic fitting (straight type).

It is recommended that the cam be greased once monthly with Harris Moly-Lube #2 (high temperature) lubricant or equivalent.

WARNING: EXCESSIVE AMOUNT OF LUBRICANT MAY BLEED CAUSING DAMAGE TO WORK BEING STITCHED.

CLUTCH - BRAKE UNIT MAINTENANCE

WARNING: Always turn off the power supply before making adjustments or servicing these stitchers.

This stitcher is equipped with a solenoid actuated 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 troubleshooting guide for maintenance of this unit.

1. 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 and 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 cross-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 output 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.

2. Actuator

The actuator is a simple straightforward mechanical linkage. When the actuator does not trip the following checks should be made.

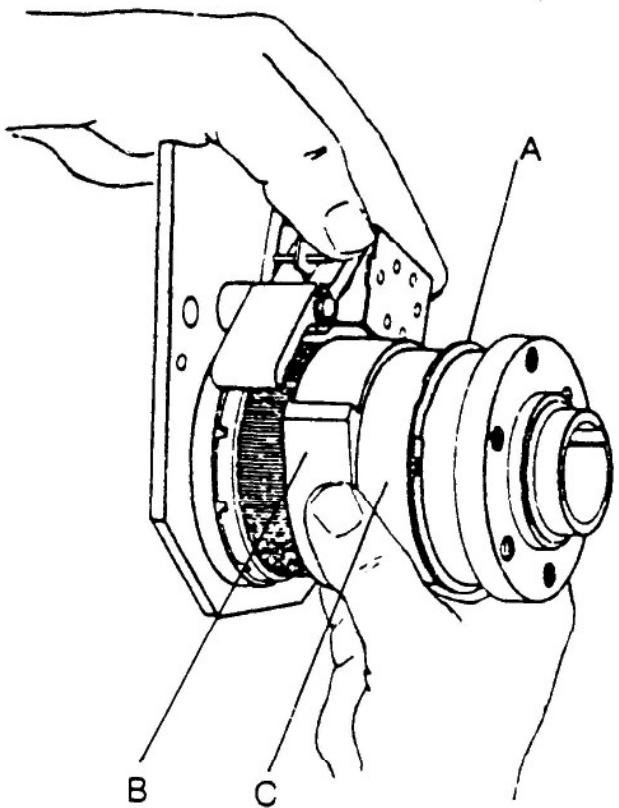
Problem	Cause and Remedy
1. No power to the coil.	A. If no power to the coil, check all wiring and switching in the system that actuates the clutch.
2. Lack of continuity of the coil windings.	A. If no continuity, replace the coil.
3. Mechanical binding of the plunger.	A. Plunger binding may be caused 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. Readjust to provide .010 to .030 clearance between the actuator and the cam high point.
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 or misadjustment of the coil. 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 of setting on Assembly and Disassembly instructions.)

3. 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 (see *Turning Machine Manually*, page 4) and rotate drive pulley until driver is in desired stopping position then proceed as follows:

- Work retaining ring "A" out of groove and slide forward on sleeve "C" (see illustration below).
- 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.
- Slide retaining ring back into groove.

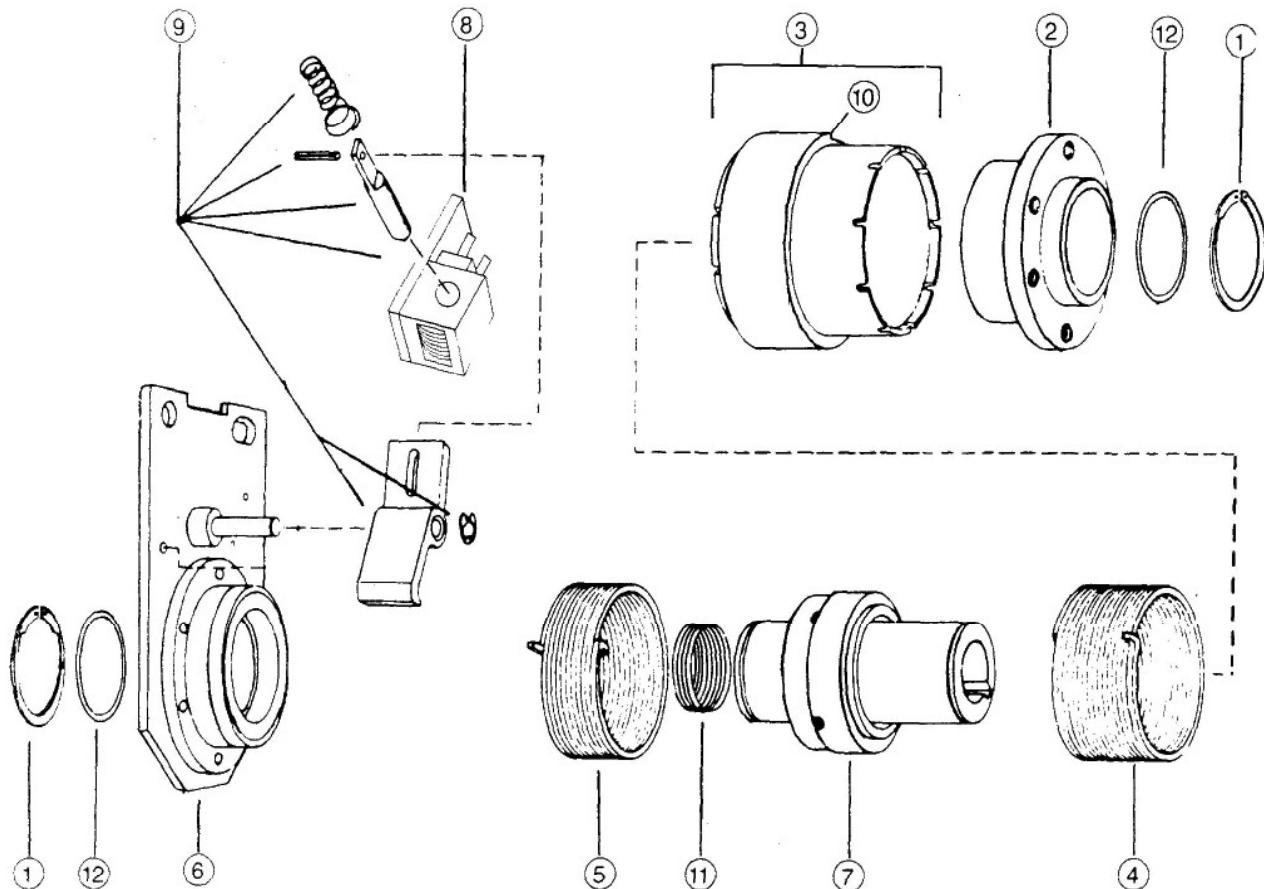
NOTE: Make sure brake is locked up before proceeding to insure getting proper stop point.



4. Lubrication

The clutch-brake unit is designed with the bearing parts made from sintered metal that has been impregnated with oil and normally does not need to be relubricated. In cases where there is severe duty or the 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 is used in manufacture (psi Part 608-1-0001.) 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 relubrication. 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 by submerging in cool oil.

CLUTCH AND BRAKE UNIT



ITEM	DESCRIPTION	PART NO.
1	Retaining Ring	850801
2	Input Hub	850802
3	Control Collar - CW	850803
4	Spring - Drive - CW (Clutch)	850804
5	Spring - Brake - CW	850805
6	Plate Assembly - CW	851854
7	Output Assembly	850965

ITEM	DESCRIPTION	PART NO.
8	Coil Assembly (For 115V Service)	851855
	Coil Assembly (For 240V Service)	851793
9	Actuator Assembly	851856
10	Control Collar Cam	851767
11	Anti Back Up Spring	850964
12	Shim Washers	851127

5. 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 V-belt, pulley washer and anchor bracket.

Disconnect wires from solenoid, swing anchor bracket up out of the 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 mounting plate 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, spring and control collar assembly by rotating output shaft in the drive direction. (DO NOT DIS-ASSEMBLE BRAKE HUB FROM MOUNTING PLATE.)
- (f) Remove control collar from the output shaft and spring assembly by extracting towards the brake spring end.

6. Assembly

- (a) Replace clutch, brake and anti-backup 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 feeler gauge. There should be .004" to .011" end play. 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 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 .50" to .75" 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 level, 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 next slot).

- (i) Repeat step (h) until the .50" to .75" 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 only .002" to .006" end play on input hub.
- (k) Reassemble unit to machine.

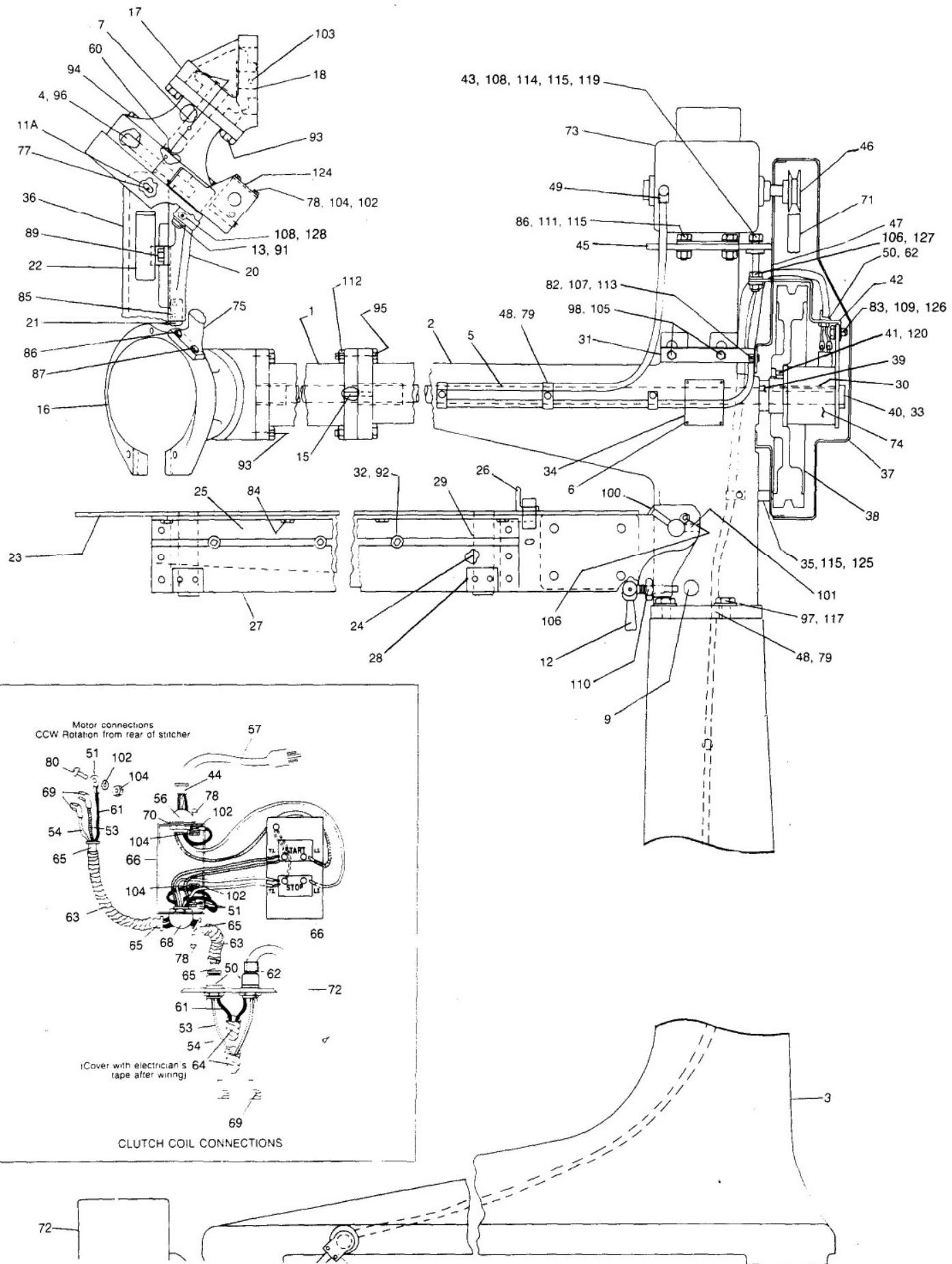
IMPORTANT: When reassembling clutch to machine, after anchor bracket is secure, there should be no binding between the pin of anchor bracket and hole of clutch plate. Plate must be free to float on pin to prevent any binding or thrust load on rear clutch bearing. If this occurs, loosen anchor bracket screw and adjust bracket until pin is free in hole. Pin is only to prevent plate rotation.

7. Instructions for Coil Replacement

WARNING: Always turn off the power supply before making adjustments or servicing these stitchers.

1. Place the spring onto the plunger with the narrow end towards the actuator. Slide the solenoid and spacer plate onto the actuator/plunger assembly. Secure the solenoid 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 to .010" to .040" by sliding the solenoid assembly. (Note: push the collar towards the actuator to allow for collar movement). Tighten the cap screws.

Models RSCA48-AW and RSCA58-AW Stitchers



Models RSCA48-AW and RSCA58-AW Stitchers

ITEM	PART NO.	DESCRIPTION	MODELS		ITEM	PART NO.	DESCRIPTION	MODELS	
			RSC48-AW	RSC58-AW				RSC48-AW	RSC58-AW
1	150RX	Body extension	x	x	61	86035	#14 Green wire, 11'-6"	x	x
2	150R5	Body assembled	x	x	62	F94165	Grommet	x	x
3	151R43	Base	x	x	63	85416	Flex conduit, 13'-0"	x	x
4	164H8D	Drive cam assembly	x	x	64	850603	Wire terminal	x	x
5	165R16	Drive shaft	x	—	65	851277	Anti short bushing	x	x
	165R20	Drive shaft	—	x	66	851738	Motor starter	x	x
6	172	Drive screw	x	x	68	851741	Duplex conn. 90° circuit breaker	x	x
7	165L3	Head cam shaft assembly	x	x	69	851742	Wire terminal	x	x
8	182R4	Clincher arm pivot	x	x	70	851743	Spacer	x	x
9	183H	Locking pin	x	x	71	851744	Drive belt	x	x
10	187RS48	Clincher arm	x	—	72	851745	Foot switch	x	x
	187RS58	Clincher arm	—	x	73	851746	Motor - 1/2 hp	x	x
11A	185H3C	Clincher openhead	x	x	74	856590	Clutch brake assembly	x	x
	185H85	Clincher openhead	x	x	75	BSA-636	#25 Spool holder	x	x
11B	188H3	Clincher arm	x	x	76	251409	Oiler plate	x	x
	188HC3	Clincher arm	x	x	77	UA1406.3	6-32 x 3/8 FHMS	x	x
12	189J2	Clincher arm adj. screw	x	x	78	UA3306.2	10-32 x 3/8 RHMS	x	x
13	228-13	Openhead bracket washer	x	x	79	UA3308.2	10-32 x 1/2 RHMS	x	x
14	347	Plug (for 183H)	x	x	80	UA3308.3	10-32 x 1/2 RHMS	x	x
15	BD454	Dowel (elbow)	x	x	81	UA3806.2	10-32 x 3/8 Plastite	x	x
16	500L	Head cast, assembly	x	x	82	UA4110.1	1/4-20 x 5/8 HHCS	x	x
17	501L	Elbow assembly	x	x	83	36794	Clutch anchor screw	x	x
18	541L3	Gear	x	x	84	UA5108.1	5/16-18 x 1/2 HHCS	x	x
19	SB604	Clincher screw	x	x	85	UA5112.1	5/16-18 x 3/4 HHCS	x	x
20	740H5	Openhead bracket	x	x	86	UA5116.1	5/16-18 x 1 HHCS	x	x
21	742H2	Plow	x	x	87	UA5120.1	5/16-18 x 1-1/4 HHCS	x	x
22	743H3	Plow assembly	x	x	88	UA6110.1	3/8-16 x 5/8 HHCS	x	x
23	760R48	Table top	x	x	89	UA6112.1	3/8-16 x 3/4 HHCS	x	x
24	761R2	Table bracket	x	x	91	UA6820.3	3/8-16 x 1-1/4 SHCS	x	x
25	763R2	Long angle	x	x	92	UA7120.1	7/16-14 x 1-1/4 HHCS	x	x
26	764R42	Back gauge assembly	x	x	93	UA7124.1	7/16-14 x 1-1/2 HHCS	x	x
27	767R2	Long bar	x	x	94	UA7136.1	7/16-14 x 2-1/4 HHCS	x	x
29	770J4	Tie bar	x	x	95	UA7140.1	7/16-14 x 2-1/2 HHCS	x	x
30	840H2	Drive shaft key	x	x	96	UA7816.1	7/16-14 x 1 HHCS	x	x
31	1502H	Mounting plate bracket	x	x	97	UA8132.1	1/2-13 x 2 HHCS	x	x
32	BG114	Washer (arm and table)	x	x	98	UA8156.1	1/2-13 x 3-1/2 HHCS	x	x
33	2349	Drive pulley washer screw	x	x	99	UA8532.1	1/2-13 x 2 SHSS	x	x
34	2580S	Name plate	x	x	100	UA8810.2	1/2-13 x 5/8 SHSS	x	x
35	36792	Spacer	x	x	101	UA8824.4	1/2-13 x 1-1/2 SHSS	x	x
36	25185	Openhead device	x	x	102	SW10	#10 Shakeproof washer	x	x
37	36671	Belt guard	x	x	103	UB5636.1	#5 x 2-1/4 Taper pin	x	x
38	36677	Drive pulley	x	x	104	HN1032	10-32 Hex nut	x	x
39	36678	Spacer	x	x	105	HN1213	1/2-13 Hex nut	x	x
40	36679A	Pulley washer	x	x	106	HN1213.2	1/2-13 Jam nut	x	x
41	36680	5/16-18 x 13/16 Hex hd. cp scr.	x	x	107	HN1420.2	1/4-20 Hex nut	x	x
42	36774	Clutch bracket	x	x	108	HN3816.2	3/8-16 Hex nut	x	x
43	36775	Bracket post	x	x	109	HN51618.7	3/8-16 Nylon lock nut	x	x
44	851196	Antishort bushing	x	x	110	HN5818	5/8-18 Hex nut	x	x
45	36786	Motor plate	x	x	111	HN51618	5/16-18 Hex nut	x	x
46	36787	Motor pulley	x	x	112	HN71614	7/16-14 Hex nut	x	x
47	36788	Belt guard mount plate	x	x	113	PW14	1/4 Plain washer	x	x
48	85198	Cable clamp	x	x	114	PW38	3/8 Plain washer	x	x
49	85126	Cable connector - 90°	x	x	115	PW516	5/16 Plain washer	x	x
50	85128	Cable connector	x	x	117	LW12	1/2 Lock washer	x	x
51	85199	Wire terminal	x	x	118	LW14	1/4 Lock washer	x	x
52	85202	Gits oiler	x	x	119	LW38	3/8 Lock washer	x	x
53	85417	#14 Black wire, 10'-10"	x	x	120	LW516	5/16 Lock washer	x	x
54	85419	#14 White wire, 14'-0"	x	x	124	36785	Switch bracket	x	x
56	86198	Cable connector	x	x	125	UA5124.1	5/16-18 x 1-1/2 HHCS	x	x
57	86243	Power cord	x	x	126	BG925	Spacer	x	x
58	86749	Female reducer	x	x	127	PW12.1	1/2 Plainwasher	x	x
59	88293	Grease fitting	x	x	128	UA6824.4	3/8-16 x 1-1/2 SHSS	x	x
60	88537	Oil hole cover	x	x					

LIMITED WARRANTY

Stanley-Bostitch, Inc., warrants to the original retail purchaser that this product is free from defects in material and workmanship, and agrees to repair or replace, at Stanley-Bostitch's option, any defective product within 90 days from the date of purchase. This warranty is not transferable. It only covers damage resulting from defects in material or workmanship, and it 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. STANLEY-BOSTITCH 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 a Stanley-Bostitch Regional warranty repair center listed below or you may call us at 1-800-556-6696 or 1-800-832-3080 for the location of additional authorized warranty service locations in your area.