

Models **S13 & S25** Series Metal Stitchers

3/8 CROWN NO. 18 WIRE

**Arm and Post Stitchers equipped with Wrap Spring Electric Clutch
and BHM Series Wire Stitcher Head**

Models S13-AW, S25-AW, S25-SAW with motor - 115V and 60Hz service

Models S13-CW, S25-CW without motor - 115V and 60Hz service

Models S13-EW, S25-EW without motor - 230V and 50Hz service

**BRACKET HEAD STITCHERS EQUIPPED WITH WRAP SPRING ELECTRIC CLUTCH
AND BHMB SERIES WIRE STITCHER HEAD**

MODELS S13B-AW, S25B-AW with motor - 115V and 60Hz service

MODELS S13B-EW, S25B-EW without 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 IDEAL STITCHER CO. REPRESENTATIVE OR DISTRIBUTOR. SAVE THESE INSTRUCTIONS FOR FUTURE REFERENCE.

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INTRODUCTION

The Ideal Stitcher S13 and S25 Stitchers are precision built machines designed for high speed metal stitching. 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 Ideal Stitcher representative or distributor with any questions concerning the stitcher and its use. For stitcher head problems, refer to SA486S, Operation and Maintenance manual for model BH 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.

Lower clincher to at least 2" (50.8mm) below the stitcher head (*see Clincher Adjustment instructions, this page*).

Be sure that the machine is oiled thoroughly before operating (*refer to Lubrication instructions*).

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 ASSEMBLY

▲ 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

▲ 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.

Stop motor and turn pulley by hand (*see Turning Machine Manually, page 4*) until driver is at lowest point.

With driver in lowest position and work to be stitched under it, raise clincher bracket or arm until work is held firmly. Then lock bracket or arm in position.

Place a spool of proper size wire on spoolholder, the wire leading to the left from top of spool, then tighten spoolholder spindle jam nut enough to give a slight drag to the rotation of spool to prevent wire uncoiling.

If too tight, the wire will bind and catch between coils thus causing uneven staple legs. If too loose, the spool may unwind, causing snags.

Cut binding wires on wire coil and bend back over edge of spool, holding free end of wire to prevent unwinding and tangling. Cut off bent and twisted end of wire, then straighten out about 6". The end of the wire to be inserted in machine must be as straight as possible.

Open wire feed gears by raising idler feed gear throwout handle and insert end of wire through eye on upper end of the spring wire guide. Enter the end of the wire into the upper wire tube, push down between the wire feed gears, then through the lower wire tube and between wire straightener rolls. Push it into hole in the stationary cutter, raising the end of the wire slightly if necessary for proper entrance, then turn down the idler feed gear throwout handle to engage the feed gears.

▲ 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 clincher height to get desired tightness of clinching. See 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.

ADJUSTMENTS

▲ WARNING: Always turn off the power supply before making adjustments or servicing this stitcher.

Wire spool tension:

This should be adjusted by means of adjusting nut (94H3) so that the spool just drags on the support. If too tight, the wire will bind and catch between coils to cause uneven staple legs. If too loose, the spool may unwind, causing snags in the wire.

Clincher:

The clincher must be lined up with the staple as closely as possible to insure maximum ease of penetration through work by the staple, as well as to clinch staple properly.

TO ADJUST CLINCHER VERTICALLY

- (a) **S13 Stitcher** - Loosen arm adjusting screw lock nut beneath arm. Turn arm adjusting screw 189J2 to obtain desired space between clincher and driver. Retighten lock nut.
- (b) **S25 Stitcher** - Loosen arm clamp screws UA9160 and lock nuts on arm elevating screw UA9076. Tighten arm clamp screws lightly. Turn arm elevating screw UA9076 to obtain desired space. Retighten clamp screws and arm elevating screw lock nuts securely.
- (c) **S13B & S25B Stitchers** - Loosen three bracket mounting bolts on face of bracket and adjusting screw lock nut at top of bracket. Adjust bracket up or down to desired position by turning adjusting screw UA6824.3. Retighten mounting bolts and lock nut.

TO ADJUST CLINCHER SCREWS

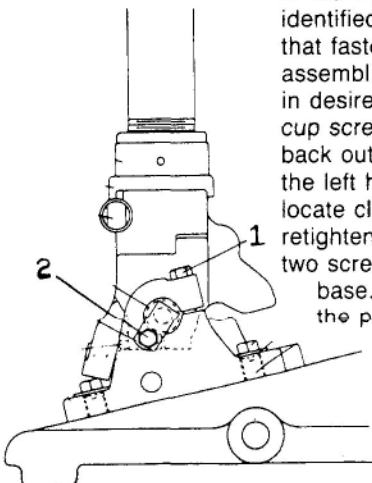
- (a) **S13 Stitcher** - Loosen lock nuts on clincher arm side adjusting screws. Adjust arm in direction desired by means of clincher arm side adjusting screws.

For example: If arm must be moved to the right, back out the right hand screw and turn in the left hand screw as much as necessary. Turn in right hand screw until arm is held solidly. Retighten lock nuts on clincher arm side adjusting screws.

- (b) **S25 Stitcher** - Loosen arm adjusting screw set screws UA5812.5 and arm clamp screws UA9160. Adjust arm by means of arm adjusting screw UA8840.3. Tighten rear clamp screw and check for correct position. Readjust if necessary, then retighten both clamp screws and arm adjusting set screw UA5812.5 securely.
- (c) **S13B & S25B Stitchers** - Not adjustable.

TO ADJUST CLINCHER FORWARD OR BACK

- (a) **S13 & S25** - Loosen clincher holder screws UA8120.1, push clincher forward or back to suit and retighten screws.
- (b) **S13B & S25B Stitchers** - No adjustment.
- (c) **S25-SAW Stitchers** - Loosen the two 5/8-11 nuts, item 87 (pages 14 and 15) located on the post brace, item 80. Loosen the two screws in the top of Stitcher the post base identified as 1. Loosen the two screws that fasten the pivot pin cup assemblies identified as 2. Adjust post in desired direction using the pivot pin cup screws. To move post to right, back out right hand screw and turn in the left hand screw as necessary to locate clincher correctly. Then retighten the right hand screw and the two screws in the top of the post base. Retighten the two 5/8-11 nuts on the post brace.



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.

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 on page 4) 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.

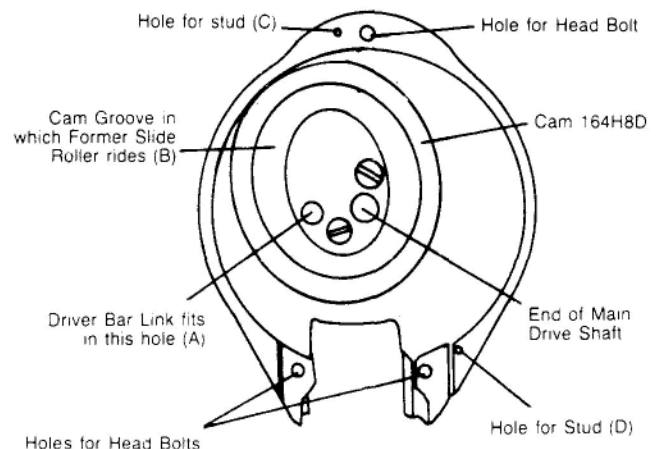
When fitting is visible through hole in lubricating cover unit, lubricant can be applied with a grease gun to fit alemite hydraulic fitting (straight type).

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

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

When stitching metal it has been found that #18 wire is best suited to the majority of work. This wire can be had in various degrees of hardness or temper, such as #18 Bookbinders wire, which is the softest, #18-230, #18-260, #18-290 and #18-330.

It is impossible to give the exact thickness of metal which a given temper of wire will penetrate. Roughly, Bookbinders wire will penetrate a single thickness of .020 soft steel; #18-230, two thicknesses of .020 (total .040); #18-260, two thicknesses of .040 (total .080); #18-290, one thickness of .060 plus .030 (total .090); #18-330, two thicknesses of .060 (total .120).

If the metal is too hard, there may be trouble in stitching so great a thickness; on the other hand, if the metal is soft, the thickness may be increased.

When stitching a soft material like fibre or rubber to metal, especially if this material is thick, there may be trouble in penetrating the metal due to lack of support for the wire in the soft material. For this purpose, the #18-290 wire may help.

It is best to use the softest wire that will penetrate the work safely, as the harder the wire will cause more wear on the machine.

STITCHER MAINTENANCE

▲ WARNING: To prevent serious injury always turn off the power supply before making adjustments or servicing this stitcher.

Every stitcher should be oiled daily and if machine is in constant use, twice daily. The oil holes and cups are easily found on stitcher body. Refer to Stitcher Head Manual for head lubrication.

To lubricate Head Operating Cam, first remove belt guard and trip clutch actuator by hand. 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.

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

Do not oil any parts of the clutch-brake unit. See lubrication instructions under Clutch-Brake Unit Maintenance section for details.

CLUTCH-BRAKE UNIT MAINTENANCE

▲ WARNING: To prevent serious injury always turn off the power supply before making adjustments or servicing this stitcher.

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

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 and 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 in 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. C. If unit has an adjustable collar, locking screw may be loose allowing adjusting screw to rotate.

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.	1. 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.	2. If no continuity, replace the coil.
3. Mechanical binding of the plunger.	3. 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.	4. No clearance over the stop collar dent 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.	5. 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, ie., CLUTCH ON, BRAKE ON. (See instructions or setting on Assembly and Disassembly instructions.)

SINGLE TRIP CONTROL

The single trip feature is electrically controlled by the "Power Pak" unit (850601) located in the body casting of the stitcher. When the foot switch is actuated it delivers a capacitor discharged pulse of D.C. current to the solenoid. Deactivating the foot switch allows the capacitor to recharge for the next cycle.

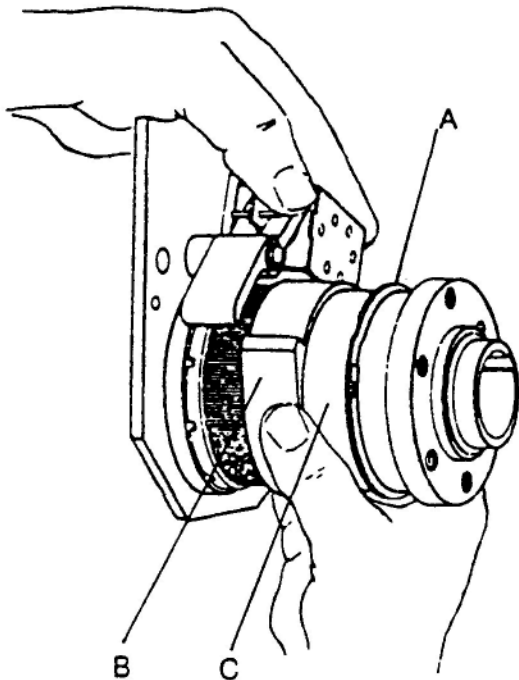
A microswitch (850631) in the foot switch assembly operates the clutch. An adjusting screw on the underside adjusts for treadle pretravel before activating clutch. Too little pretravel can cause double tripping.

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:

- (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.



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 re-lubricated. 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 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 from the oil, it may be heated while cleaning the components, but bring the parts back to ambient temperature by submerging in cool oil.

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 DISASSEMBLE BRAKE HUB FROM MOUNTING PLATE.)
- (f) Remove control collar from the output shaft and spring assembly by extracting towards the brake spring end.

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.

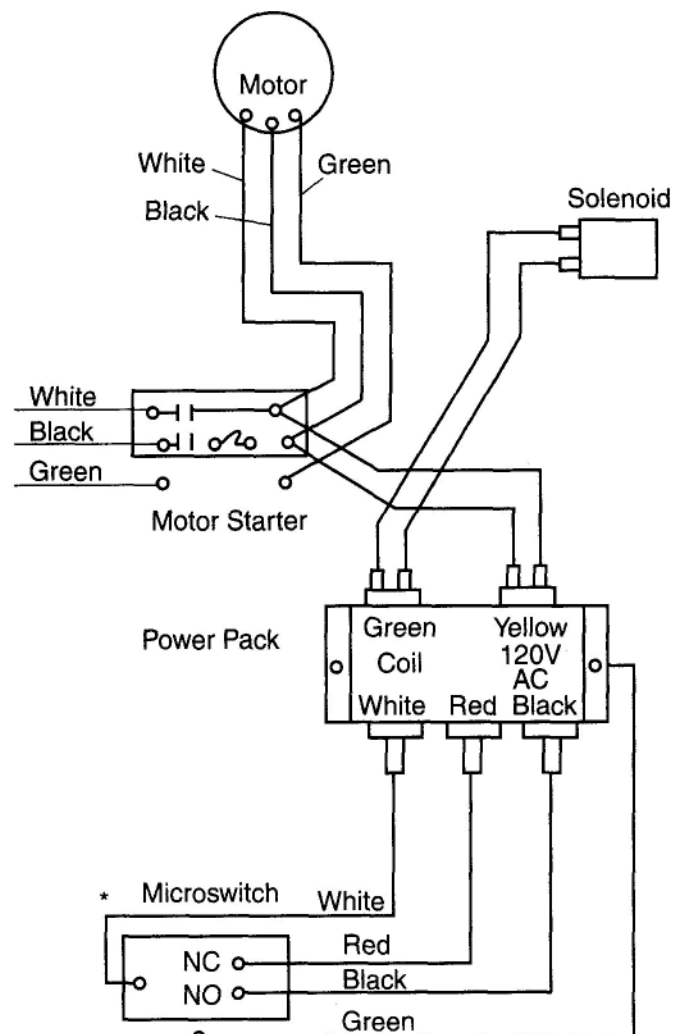
IMPORTANT: When reassembling clutch to machine, after anchor bracket is secure, there should be no binding between the pin of anchor bracket and hole of clutch plate. Plate must be free to float on pin to prevent any binding or thrust load on rear clutch bearing. If this occurs, loosen anchor bracket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

INSTRUCTIONS FOR COIL REPLACEMENT

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

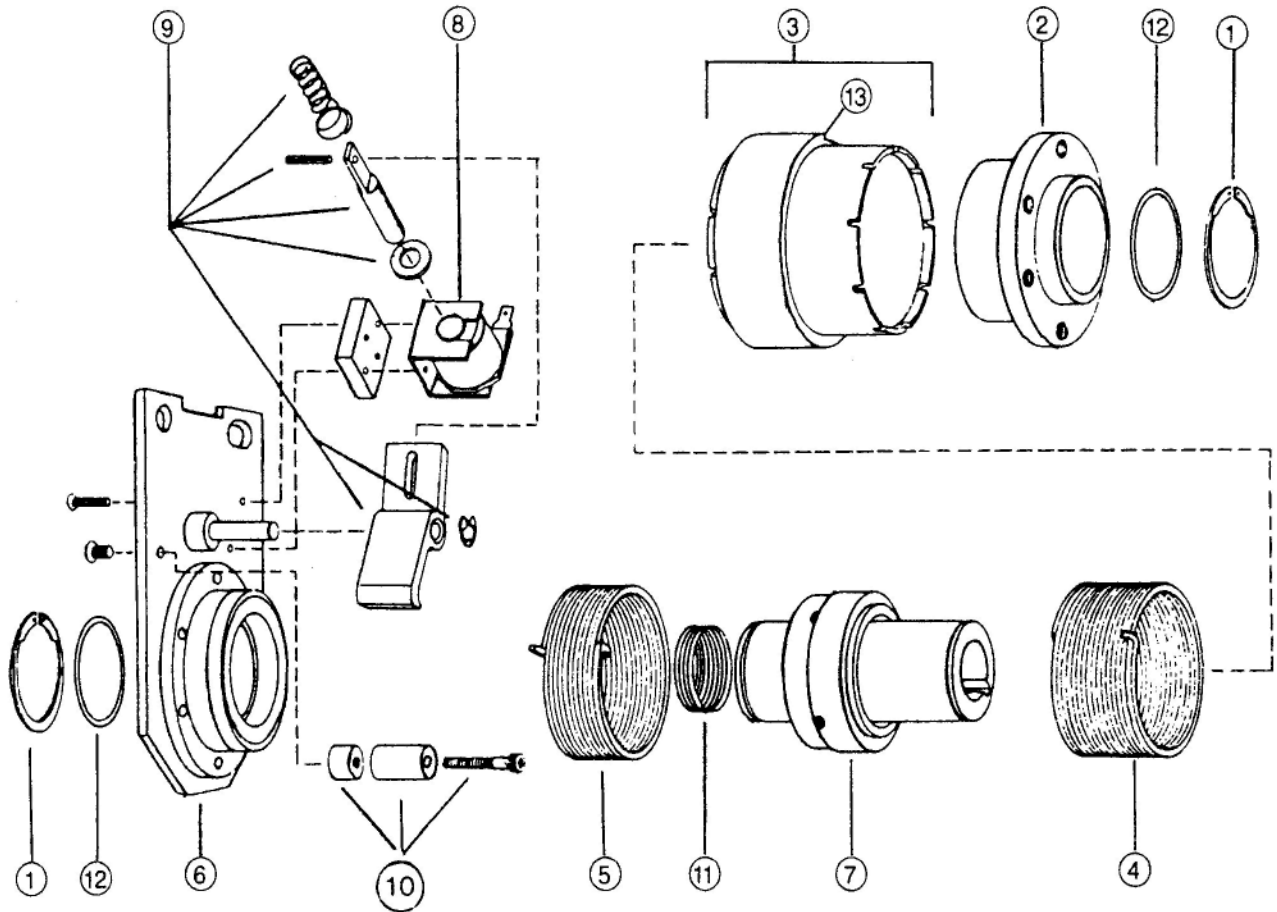
1. Place the spring onto the plunger with the narrow end towards the actuator then slide the nylon washer onto the plunger. Slide the solenoid and spacer plate onto the actuator/plunger assembly. Secure the solenoid with the cap screws and washers. DO NOT tighten more than finger tight.
2. Energize the 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.
3. Manually push plunger into the solenoid until it bottoms. Rotate the actuator Limit Stop until a gap of .015 to .020 is achieved. (Note: Push the collar towards the actuator to allow for collar movement). The solenoid should now actuate without bottoming and maintain the correct gap at the collar stop.

WIRING DIAGRAM



* Part 851702 is replaceable interior for footswitch.

CLUTCH AND BRAKE UNIT



ITEM	DESCRIPTION	PART NO.
1	Retaining Ring	850801
2	Input Hib	850802
3	Control Collar Assembly - CW	850803
4	Spring - Drive - CW (Clutch)	850804
5	Spring - Brake - CW	850805
6	Plate Assembly - CW	850966
7	Output Assembly	850965

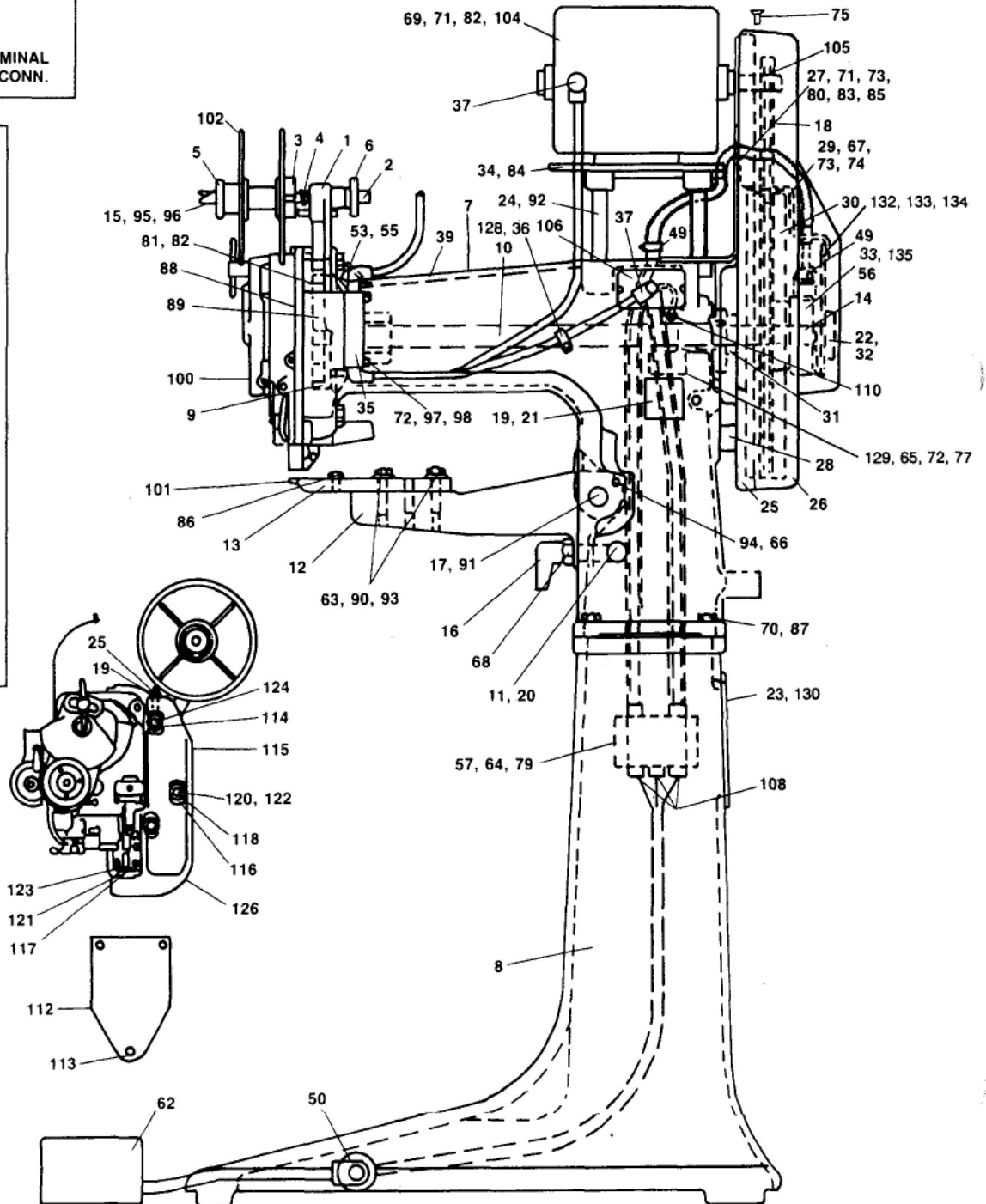
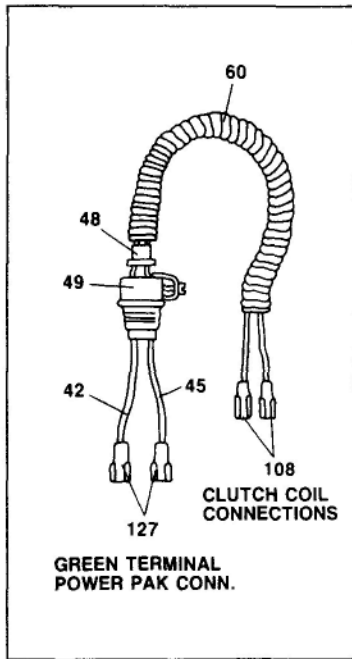
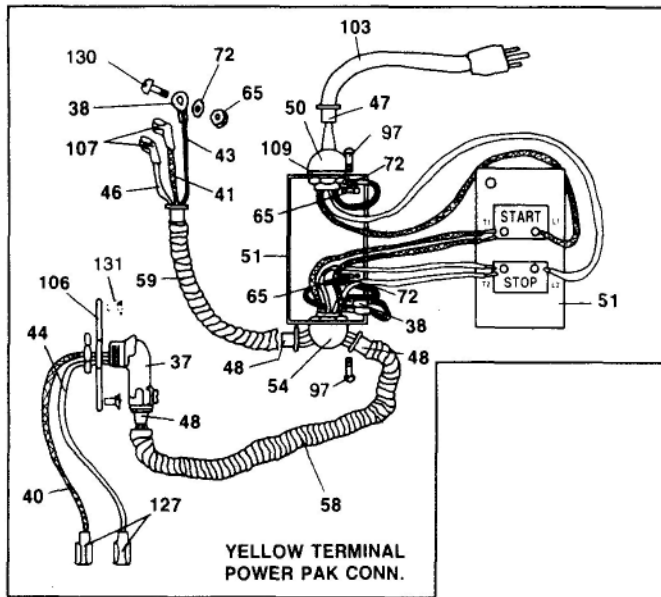
ITEM	DESCRIPTION	PART NO.
8	Coil Assembly (For 115V Service)	850808
	Coil Assembly (For 230V Service)	850709
9	Actuator Assembly	850809
10	Limit Stop Assembly	850810
11	Anti Back Up Spring	850964
12	Shim Washers	851127
13	Control Collar Cam	851767

NOTES & RECORDS

Lined writing area for notes and records.

**MOTOR CONNECTIONS
CCW ROTATION FROM REAR OF STITCHER**

Model S13-AW



MODEL S13-AW STITCHER

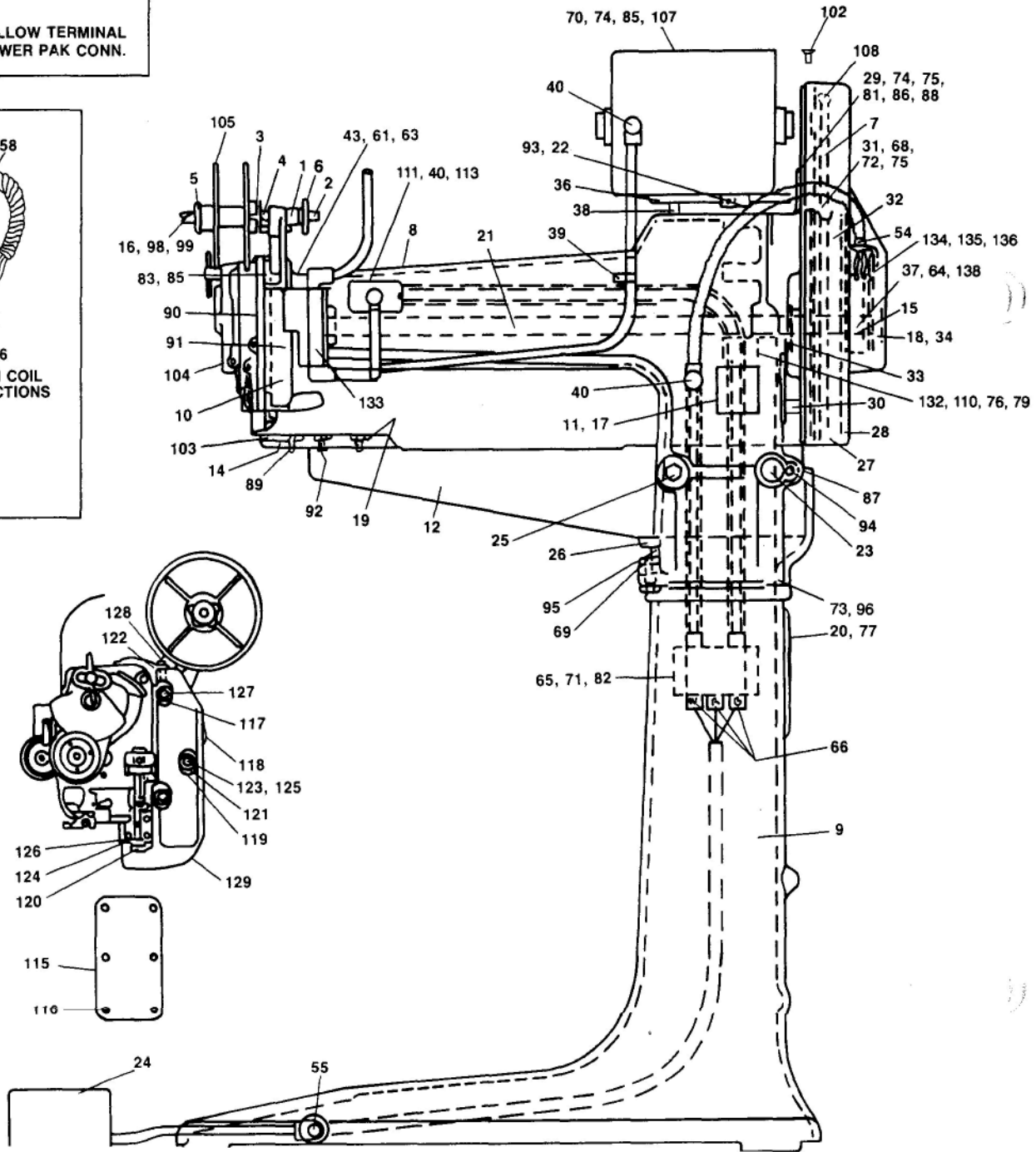
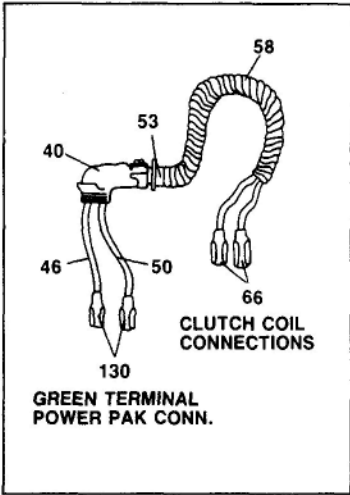
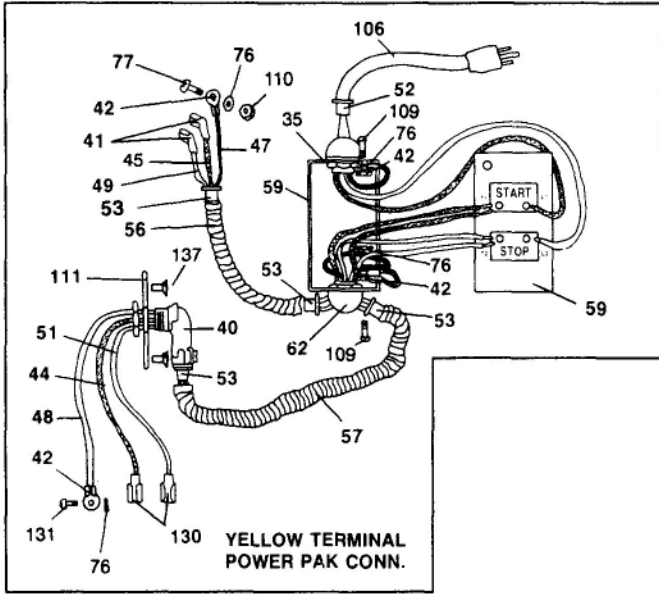
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S13-CW
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S13-AW
S13-CW
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S13B-EW

ITEM	PART NO.	DESCRIPTION						ITEM	PART NO.	DESCRIPTION					
1	90H3	Spoolholder bracket	x	x	x	x	x	66	HN1213.2	1/2-13 hex jam nut	x	x	x	-	-
2	91H2	Spoolholder spindle	x	x	x	x	x	67	HN1420.5	1/4-20 hex nut	x	x	x	x	x
3	92H	Spoolholder thrust washer	x	x	x	x	x	68	HN5818.2	5/8-18 hex nut	x	x	x	-	-
4	93H	Spring	x	x	x	x	x	69	HN51618	5/16-18 hex nut	x	x	x	x	x
5	94H2	Spoolholder lock nut	x	x	x	x	x	70	LW716	7/16 lockwasher	x	x	x	x	x
6	94H3	Spoolholder spindle nut	x	x	x	x	x	71	PW516	5/16 plainwasher	x	x	x	-	-
7	150H13	Body assembly	x	x	x	x	x	72	SW10	#10 shakeproof	x	x	x	x	x
8	151H351/2	Base	x	x	x	x	x	73	PW516.4	5/16 plainwasher	x	x	x	x	x
9	164H8D	Drive cam assembly	x	x	x	x	x	74	LW14	1/4" lockwasher	x	x	x	x	x
10	165H15	Drive shaft assembly						75	UA3806.21	#10-24 STPH	x	x	x	x	x
11	183H	Clincher arm lock pin	x	x	x	-	-	77	UA3316.1	#10-32 x 1" RHMS	x	x	x	x	x
12	187H27	Clincher arm	x	x	x	-	-	79	UA2320.2	#8-32 x 1-1/4" RHMS	x	x	x	x	x
13	831H11	Clincher holder	x	x	x	-	-	80	UA4814.1	1/4-20 x 7/8" SHCS	x	x	x	x	x
14	840H2	Clutch sleeve key	x	x	x	x	x	81	UA5114.1	5/16-18 x 7/8" HHCS	x	x	x	x	x
15	997H	Spoolholder lock	x	x	x	x	x	82	UA5116.1	5/16-18 x 1" HHCS	x	x	x	x	x
16	189J2	Clincher arm adjust. screw	x	x	x	-	-	83	UA5128.1	5/16-18 x 1-3/4" HHCS	x	x	x	x	x
17	183R2	Clincher arm pivot	x	x	x	-	-	84	UA5808.1	5/16-18 x 1/2" SHSS	x	x	x	x	x
18	109-17A	V-belt	x	x	x	x	x	85	UA6110.1	3/8-16 x 5/8" HHCS	x	x	x	x	x
19	172	Drive screw	x	x	x	x	x	86	UA7114.1	3/8-16 x 1" HHCS	x	x	x	-	-
20	2338	Clincher arm lock pin	x	x	x	-	-	87	UA7124.1	7/16-14 x 1-1/2" HHCS	x	x	x	x	x
21	2508S	Name plate, CSA	x	-	-	x	-	88	UA7140.1	7/16-14 x 2-1/2" HHCS	x	x	x	x	x
	2363DS	Name plate	-	x	x	-	x	89	UA7816.1	7/16-14 x 1" SHCS	x	x	x	x	x
22	2349	Pulley washer screw	x	x	x	x	x	90	UA8120.1	1/2-13 x 1-3/4" HHCS	x	x	x	-	-
23	36506	Cover plate	x	x	x	x	x	91	UA8824.4	1/2-13 x 1-1/2" SHSS	x	x	x	-	-
24	36508	Motor plate stud	x	x	x	x	x	92	UA8528.2	1/2-13 x 1-3/4" SHSS	x	x	x	x	x
25	36670	Belt guard mount plate	x	x	x	x	x	93	UA8810.2	1/2-13 x 5/8" SHSS	x	x	x	-	-
26	36671	Belt guard	x	x	x	x	x	94	UA8832.3	1/2-13 x 2" SHSS	x	x	x	-	-
27	36672	Mount plate bracket	x	x	x	x	x	95	UB2908.1	3/32 x 1/2" Cotter pin	x	x	x	x	x
28	36674	Spacer block	x	x	x	x	x	96	UB3108.2	.156 x 1/2 straight pin	x	x	x	x	x
29	36676	Clutch anchor bracket	x	x	x	x	x	97	UA3306.2	#10-32 x 3/8 RHMS	x	x	x	x	x
30	36677	Drive pulley	x	x	x	x	x	98	HN1032	#10-32 hex nut	x	x	x	x	x
31	36678	Spacer	x	x	x	x	x	100	BHM183/8	Stitcher head	x	x	x	-	-
32	36679A	Pulley washer	x	x	x	x	x	101	1059HA	Clincher	x	x	x	-	-
33	UA5814.3	Screw, 5/16-18x7/8 SHCS	x	x	x	x	x	102	BSA56	Spoolholder	x	x	x	x	x
34	36696	Motor plate	x	x	x	x	x	103	86243	Power cord - 115V	x	-	-	x	-
35	36785	Switch bracket	x	x	x	x	x		86244	Power cord - 230V	-	-	-	-	-
36	85198	Cable clamp	x	x	x	x	x	104	851746	Motor - 1/2HP-60 HZ-1725	x	-	-	x	-
37	85126	Cable connector	x	x	x	x	x	105	850754	Motor pulley	x	-	-	x	-
38	85199	Terminal	x	x	x	x	x	106	851832	Box cover	x	x	x	x	x
39	85202	Oiler	x	x	x	x	x	107	851742	Terminal, wire	x	x	x	x	x
40	85417	#14 black wire (2'-6")	x	x	x	x	x	108	850603	Wire terminal	x	x	x	x	x
41	85417	#14 black wire (2'-9")	x	x	x	x	x	109	851743	Spacer	x	x	x	x	x
42	85418	#14 blue wire (4'-0")	x	x	x	x	x	110	UA3414.3	#10-32 x 7/8" FHMS	x	x	x	x	x
43	86035	#14 green wire	x	x	x	x	x	112	186H2	Arm hole cover plate	-	-	-	x	x
44	85419	#14 black wire (2'-6")	x	x	x	x	x	113	UA4410.2	1/4-20 x 5/8" FHMS	-	-	-	x	x
45	85419	#14 black wire (4'-0")	x	x	x	x	x	114	228-13	Clincher bracket washer	-	-	-	x	x
46	85419	#14 black wire (2'-9")	x	x	x	x	x	115	821H2	Clincher bracket	-	-	-	x	x
47	851196	Antishort bushing	x	x	x	x	x	116	824H	Clincher bracket spacer	-	-	-	x	x
48	851277	Antishort bushing	x	x	x	x	x	117	1061HA	Clincher	-	-	-	x	x
49	85935	Cable insulet	x	x	x	x	x	118	BG1114	Clincher bracket washer	-	-	-	x	x
50	86198	Cable connector	x	x	x	x	x	119	HN3816.2	3/8-16 hex nut	-	-	-	x	x
51	851738	Motor starter	x	x	x	x	x	120	HN71614	7/16-14 hex nut	-	-	-	x	x
53	88293	Grease fitting	x	x	x	x	x	121	PW38	3/8 plainwasher	-	-	-	x	x
54	851741	Duplex connector 90°	x	x	x	x	x	122	SB825	7/16-14 x 4-3/4" HHCS	-	-	-	x	x
55	88537	Oil hole cover	x	x	x	x	x	123	UA6116.1	3/8-16 x 1" HHCS	-	-	-	x	x
56	850967	Clutch assembly-115V	x	x	-	x	-	124	UA6128.1	3/8-16 x 3/4" HHCS	-	-	-	x	x
	850968	Clutch assembly-230V	-	-	x	-	x	125	UA6824.3	3/8-16 x 1-1/2" SHSS	-	-	-	x	x
57	850601	Power pak	x	x	x	x	x	126	BHM8183/8	Stitcher head	-	-	-	x	x
58	85416	Flexible conduit (17")	x	x	x	x	x	127	851833	Wire terminal	x	x	x	x	x
59	85416	Flexible conduit (26")	x	x	x	x	x	128	UA3320.1	10-32 x 1-1/4" RHMS	x	x	x	x	x
60	85416	Flexible conduit (14")	x	x	x	x	x	129	88038	Nylon cable clamp, 3/8	x	x	x	x	x
62	851769	Foot switch	x	x	x	x	x	130	UA3308.2	10-32 x 1/2" RHMS	x	x	x	x	x
63	19276	Clincher holder washer	x	x	x	-	-	131	UA1405.2	Screw, 6-32 x 5/16 FHMS	x	x	x	x	x
64	850714	Tinnerman clip nut	x	x	x	x	x	132	36794	Clutch anchor screw	x	x	x	x	x
65	HN1032	#10-32 hex nut	x	x	x	x	x	133	BG925	Spacer washer	x	x	x	x	x
								134	HN51618.7	Nut, 5/16-18 NYL insert	x	x	x	x	x
								135	LW516.2	Washer, 5/16 HC lock	x	x	x	x	x

MOTOR CONNECTIONS
CCW ROTATION FROM REAR OF STITCHER

Model S25-AW



MODEL S25-AW STITCHER

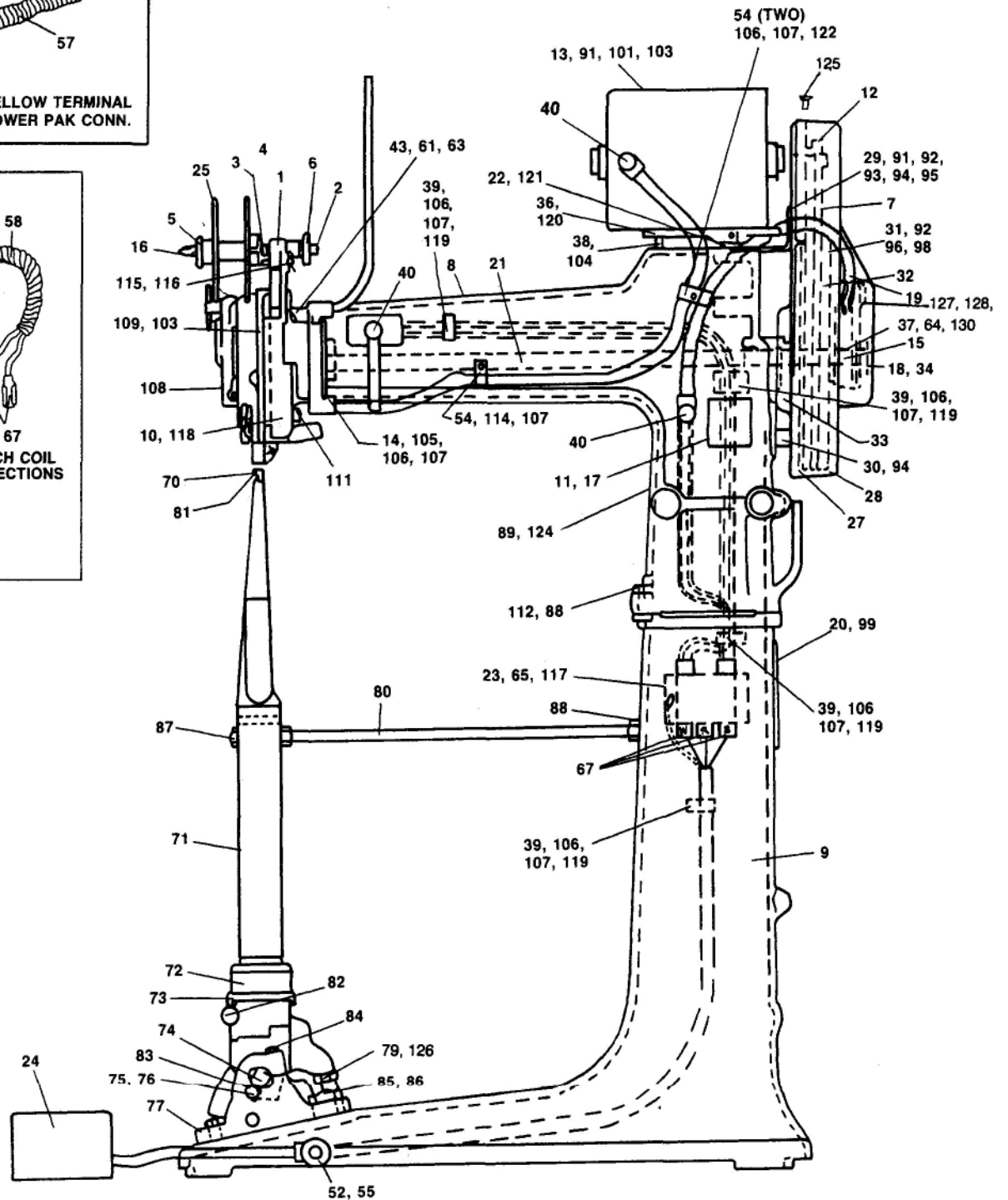
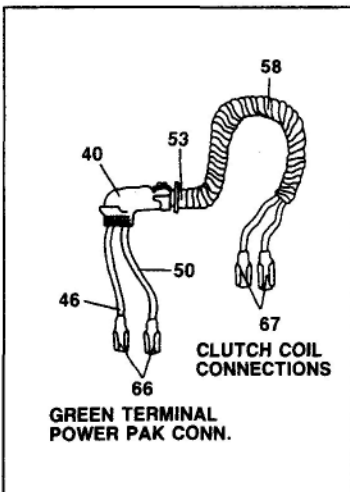
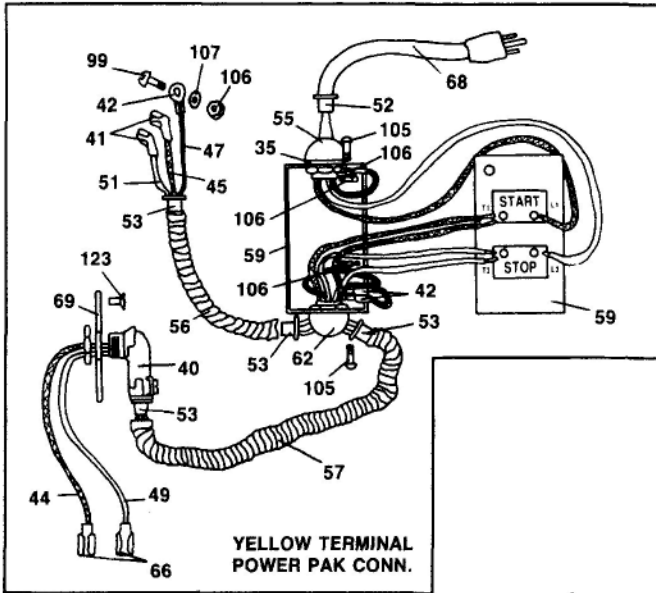
S25-AW
S25-CW
S25-EW
S25B-AW
S25B-EW

S25-AW
S25-CW
S25-EW
S25B-AW
S25B-EW

ITEM	PART NO.	DESCRIPTION						ITEM	PART NO.	DESCRIPTION					
	90H3	Spoolholder bracket	x	x	x	x	x	70	HN51618	5/16-18 hex nut	x	x	x	x	x
2	91H2	Spoolholder spindle	x	x	x	x	x	71	850714	Tinnerman clip nut	x	x	x	x	x
3	92H	Spoolholder thrust washer	x	x	x	x	x	72	LW14	1/4 Lockwasher	x	x	x	x	x
4	93H	Spring	x	x	x	x	x	73	LW58	5/8 Lockwasher	x	x	x	x	x
5	94H2	Spoolholder lock nut	x	x	x	x	x	74	PW516	5/16 Plainwasher	x	x	x	x	x
6	94H3	Spoolholder spindle nut	x	x	x	x	x	75	PW516.4	Washer	x	x	x	x	x
7	109-17A	V-belt	x	x	x	x	x	76	SW10	#10 Shakeproof	x	x	x	x	x
8	150J17	Body assembly	x	x	x	x	x	77	UA3308.2	#10-32 x 1/2" RHMS	x	x	x	x	x
9	Q151L7	Base	x	x	x	x	x	78	UA4812.1	1/4-20 x 3/4" SHCS	x	x	x	-	-
10	164H8D	Drive cam assembly	x	x	x	x	x	79	UA3316.1	#10-32 x 1" RHMS	x	x	x	x	x
11	172	Drive screw	x	x	x	x	x	80	UA3414.3	#10-32 x 7/8" FHMS	x	x	x	x	x
12	187J16	Clincher arm	x	x	x	-	-	81	UA4814.1	1/4-20 x 7/8" SHCS	x	x	x	x	x
14	831H11	Clincher holder	x	x	x	-	-	82	UA2316.1	8-32 x 1 RHMS	x	x	x	x	x
15	840H2	Clutch sleeve key	x	x	x	x	x	83	UA5114.1	5/16-18 x 7/8" HHCS	x	x	x	x	x
16	997H	Spoolholder lock	x	x	x	x	x	85	UA5116.1	5/16-18 x 1" HHCS	x	x	x	x	x
17	2580S	Nameplate CSA	x	-	-	x	-	86	UA5128.1	5/16-18 x 1-3/4" HHCS	x	x	x	x	x
	2363 DS	Nameplate	-	x	x	-	x	87	UA5812.5	5/16-18 x 3/4" HSSS	x	x	x	-	-
18	2349	Pulley washer screw	x	x	x	x	x	88	UA6110.1	3/8-16 x 5/8" HHCS	x	x	x	x	x
19	19276	Clincher holder washer	x	x	x	-	-	89	UA7114.1	7/16-14 x 7/8" HHCS	x	x	x	-	-
20	36506	Cover plate	x	x	x	x	x	90	UA7140.1	7/16-14 x 2-1/2" HHCS	x	x	x	x	x
21	36607A	Drive shaft assembly	x	x	x	x	x	91	UA7816.1	7/16-14 x 1" SHCS	x	x	x	x	x
22	36608	Motor plate post	x	x	x	x	x	92	UA8120.1	1/2-13 x 1-3/4" HHCS	x	x	x	-	-
23	36610	Arm binding screw washer R.	x	x	x	-	-	93	UA8532.1	1/2-13 x 2" SHSS	x	x	x	x	x
24	851769	Foot switch	x	x	x	x	x	94	UA8840.3	1/2-13 x 2-1/2" SHSS	x	x	x	-	-
25	36633	Arm binding screw washer F.	x	x	x	-	-	95	UA9076	5/8-11 x 4-3/4"	x	x	x	-	-
26	36648	Wear block	x	x	x	-	-	96	UA9132.1	5/8-11 x 2" HHCS	x	x	x	x	x
27	36670	Belt guard mounting plate	x	x	x	x	x	97	UA9160.1	5/8-11 x 3-3/4" HHCS	x	x	x	-	-
28	36671	Belt guard	x	x	x	x	x	98	UB2908.1	3/32" x 1/2" cotter pin	x	x	x	x	x
29	36673	Mounting plate bracket	x	x	x	x	x	99	UB3108.2	5/32" x 1/2" straight pin	x	x	x	x	x
30	36674	Spacer block	x	x	x	x	x	100	UB2812	3/32" x 3/4" roll pin	x	x	x	x	x
31	36676	Clutch anchor bracket	x	x	x	x	x	101	UA6808.1	3/8-16 x 1/2" SHSS	x	x	x	x	x
32	36677	Drive pulley	x	x	x	x	x	102	UA3806.21	#10-24 STPH	x	x	x	x	x
33	36678	Spacer	x	x	x	x	x	103	1059HA	Clincher	x	x	x	-	-
34	36679A	Pulley washer	x	x	x	x	x	104	BHM183/8	Stitcher head	x	x	x	-	-
35	851743	Spacer	x	x	x	x	x	105	BSA56	Spoolholder	x	x	x	x	x
36	36694	Motor plate	x	x	x	x	x	106	86243	Power cord - 115V	x	x	-	x	x
37	UA5814.3	Screw, 5/16-18x7/8 SHCS	x	x	x	x	x		86244	Power cord - 230V	-	-	x	-	-
38	36695	Guide pin	x	x	x	x	x	107	851746	Motor - 1/2Hp-60 Hz-1725	x	-	-	x	-
39	85198	Cable clamp	x	x	x	x	x	108	850754	Motor pulley	x	x	x	x	x
40	85126	90° cable connector	x	x	x	x	x	109	UA3306.2	10-32 x 3/8" RHMS	x	x	x	x	x
41	851742	Wire terminal	x	x	x	x	x	110	HN 1032	10-32 hex nut	x	x	x	x	x
42	85199	Terminal	x	x	x	x	x	111	851832	Box cover	x	x	x	x	x
43	85202	Oiler	x	x	x	x	x	112	851743	Spacer	x	x	x	x	x
44	85417	#14 Black wire (4'-8")	x	x	x	x	x	113	UA3414.3	#10-32 x 7/8" FHMS	x	x	x	x	x
45	85417	#14 Black wire (3'-6")	x	x	x	x	x	115	3665	Arm hole cover plate	-	-	-	x	x
46	85418	#14 Blue wire (4'-8")	x	x	x	x	x	116	UA4310.1	1/4-20 x 5/8" RHMS	-	-	-	x	x
47	86035	#14 Green wire (3'-6")	x	x	x	x	x	117	228-13	Clincher bracket washer	-	-	-	x	x
48	86035	#14 Green wire (4'-8")	x	x	x	x	x	118	821H2	Clincher bracket	-	-	-	x	x
49	85419	#14 White wire (3'-6")	x	x	x	x	x	119	824H	Clincher bracket spacer	-	-	-	x	x
50	85419	#14 White wire (4'-8")	x	x	x	x	x	120	1061HA	Clincher	-	-	-	x	x
51	85419	#14 White wire (4'-8")	x	x	x	x	x	121	BG1114	Clincher bracket washer	-	-	-	x	x
52	851196	Antishort bushing	x	x	x	x	x	122	HN3816.2	3/8-16 hex nut	-	-	-	x	x
53	851277	Antishort bushing	x	x	x	x	x	123	HN71614	7/16-14 hex nut	-	-	-	x	x
54	85935	Cable insulet	x	x	x	x	x	124	PW38	3/8 plainwasher	-	-	-	x	x
55	86198	90° cable connector	x	x	x	x	x	125	SB825	7/16-14 x 4-3/4" HHCS	-	-	-	x	x
56	85416	Flexible conduit (37")	x	x	x	x	x	126	UA6116.1	3/8-16 x 1" HHCS	-	-	-	x	x
57	85416	Flexible conduit (10")	x	x	x	x	x	127	UA6128.1	3/8-16 x 3/4" HHCS	-	-	-	x	x
58	85416	Flexible conduit (24")	x	x	x	x	x	128	UA6824.3	3/8-16 x 1-1/2" SHSS	-	-	-	x	x
59	851738	Motor starter	x	x	x	x	x	129	BHMB183/8	Stitcher head	-	-	-	x	x
61	88293	Grease fitting	x	x	x	x	x	130	851833	Wire terminal	x	x	x	x	x
62	851741	Duplex connector	x	x	x	x	x	131	UA3320.1	10-32 x 1-1/4" RHMS	x	x	x	x	x
63	88537	Oil hole cover	x	x	x	x	x	132	88038	Nylon cable clamp	x	x	x	x	x
64	850967	Clutch assembly-115V	x	x	x	x	x	133	36785	Switch bracket	x	x	x	x	x
	850968	Clutch assembly-230V	x	x	x	x	x	134	36794	Clutch anchor screw	x	x	x	x	x
65	850601	Power pak	x	x	x	x	x	135	BG925	Spacer washer	x	x	x	x	x
66	850603	Wire terminal	x	x	x	x	x	136	HN51618.7	Nut, 5/16-18 Nyl insert	x	x	x	x	x
67	HN1032	#10 hex nut	x	x	x	x	x	137	UA1405.2	Screw, 6-32 x 5/16 FHMS	x	x	x	x	x
68	HN1420.5	1/4-20 hex nut	x	x	x	x	x	138	LW516.2	Washer, 5/16 HC lock	x	x	x	x	x

**MOTOR CONNECTIONS
CCW ROTATION FROM REAR OF STITCHER**

Model S25-SAW



MODEL S25-SAW STITCHER

ITEM	PART NO.	DESCRIPTION	ITEM	PART NO.	DESCRIPTION
1	90H3	Spoolholder bracket	65	850601	Power pack
2	91H2	Spoolholder spindle	66	851833	Wire terminal
3	92H	Spoolholder washer	67	850603	Wire terminal
4	93H	Spring	68	86243	Power cord
5	94H2	Spoolholder lock nut	69	851832	Box cover
6	94H3	Spindle jam nut	70	280G11	Solid clincher
7	109-17A	V-belt	71	282G5A	Post assembly
8	150J17	Body assembly	72	283G	Nut
9	Q151L7	Base	73	201G7	Pivot head
10	164H8D	Drive cam assembly	74	204G2	Pin
11	172	Drive screw	75	205G2	Pin cup RH
12	850754	Motor pulley	76	206G2	Pin cup LH
13	851746	Motor-1/2HP-60-1725	77	202G7	Post base
14	36785	Switch bracket	78	SB1204	Sleeve
15	840H2	Clutch sleeve key	79	216G2	Stop screw assembly
16	997H	Spoolholder lock	80	284G3	Brace
17	2394S	Name plate	81	UA3806.3	Screw, #10-32 x 3/8 SHCS
18	2349	Pulley washer screw	82	UA9832.7	5/8-18 x 2 HHCS
19	85128	Connector	83	UA7120.1	7/16-14 x 1-1/4 HHCS
20	36506	Cover plate	84	UA7132.1	7/16-14 x 2 HHCS
21	36607A	Drive shaft assembly	85	UA8128.1	1/2-13 x 1-3/4 HHCS
22	36608	Motor plate post	86	PW12	1/2 Plainwasher
23	850714	Clip nut	87	HN5811	5/8-11 hex nut
24	851769	Foot switch	88	LW58	5/8 Lockwasher
25	BSA56	Spoolholder	89	36651	Plate
27	36670	Belt guard mounting plate	91	PW516	5/16 Plainwasher
28	36671	Belt guard	92	PW516.4	5/16 Plainwasher
29	36673	Mounting plate bracket	93	UA4814.1	1/4-20 x 7/8 SHCS
30	36674	Spacer block	94	UA5128.1	5/16-18 x 1-3/4 HHCS
31	36676	Clutch anchor bracket	95	UA6110.1	3/8-15 x 5/8 HHCS
32	36677	Drive pulley	96	HN1420.5	1/4-20 hex nut
33	36678	Spacer	98	LW14	1/4 Lockwasher
34	36679A	Pulley washer	99	UA3308.2	#10-32 x 1/2 RHMS
35	851743	Spacer	101	HN51618	5/16-18 Hex nut
36	36694	Motor plate	103	UA5116.1	5/16-18 x 1" HHCS
37	UA5814.3	Screw, 5/16-18 x 7/8 SHCS	104	UA8532.1	1/2-13 x 2" Sq. hd. ss
38	36695	Guide pin	105	UA3306.2	#10-32 x 3/8 RHMS
39	88038	Nylon cable clamp	106	HN1032	#10-32 Hex nut
40	85126	90° cable connector	107	SW10	#10 Shake proof
41	851742	Wire terminal	108	BHM183/8	Bliss stitcher head
42	85199	Terminal	109	UA5114.1	5/16-18 x 7/8" HHCS
43	85202	Oiler	111	UA7140.1	7/16-14 x 2-1/2 HHCS
44	85417	#14 Black wire	112	UA9132.1	5/8-11 x 2 HHCS
45	85417	#14 Black wire	114	UA3308.2	#10-32 x 1/2 RHMS
46	85418	#14 Blue wire	115	UB2908.1	Cotter
47	86035	#14 Green wire	116	UB3108.2	Pin
49	85419	#14 White wire	117	UA2316.1	8-32 x 1" RHMS
50	85419	#14 White wire	118	UA7816.1	7/16-14 x 1 SHCS
51	85419	#14 White wire	119	UA 3316.1	#10-32 x 1" RHMS
52	851196	Antishort bushing	120	UB2812	.093 x 3/4 Roll pin
53	851277	Antishort bushing	121	UA6808.1	3/8-16 x 1/2 SHSS
54	85198	Cable clamp	122	UA3320.1	10-32 x 1-1/4 RHMS
55	86198	90° cable connector	123	UA1405.2	6-32 x 5/16 FHMS
56	85416	Flexible conduit	124	UA3310.3	10-32 x 5/8 RHMS
57	85416	Flexible conduit	125	UA3806.21	#10-24 STPH
58	85416	Flexible conduit	126	HN789.2	Nut, 7/8-9 Hex jam zinc
59	851738	Motor starter	127	36794	Clutch anchor screw
61	88293	Grease fitting	128	BG925	Spacer washer
62	851741	Duplex connector	129	HN51618.7	Nut, 5/16-18 Nyl. insert
63	88537	Oil hole cover	130	LW516.2	Washer, 5/16 HC lock
64	850967	Clutch assembly - 115V			

Ideal **STITCHER COMPANY**

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