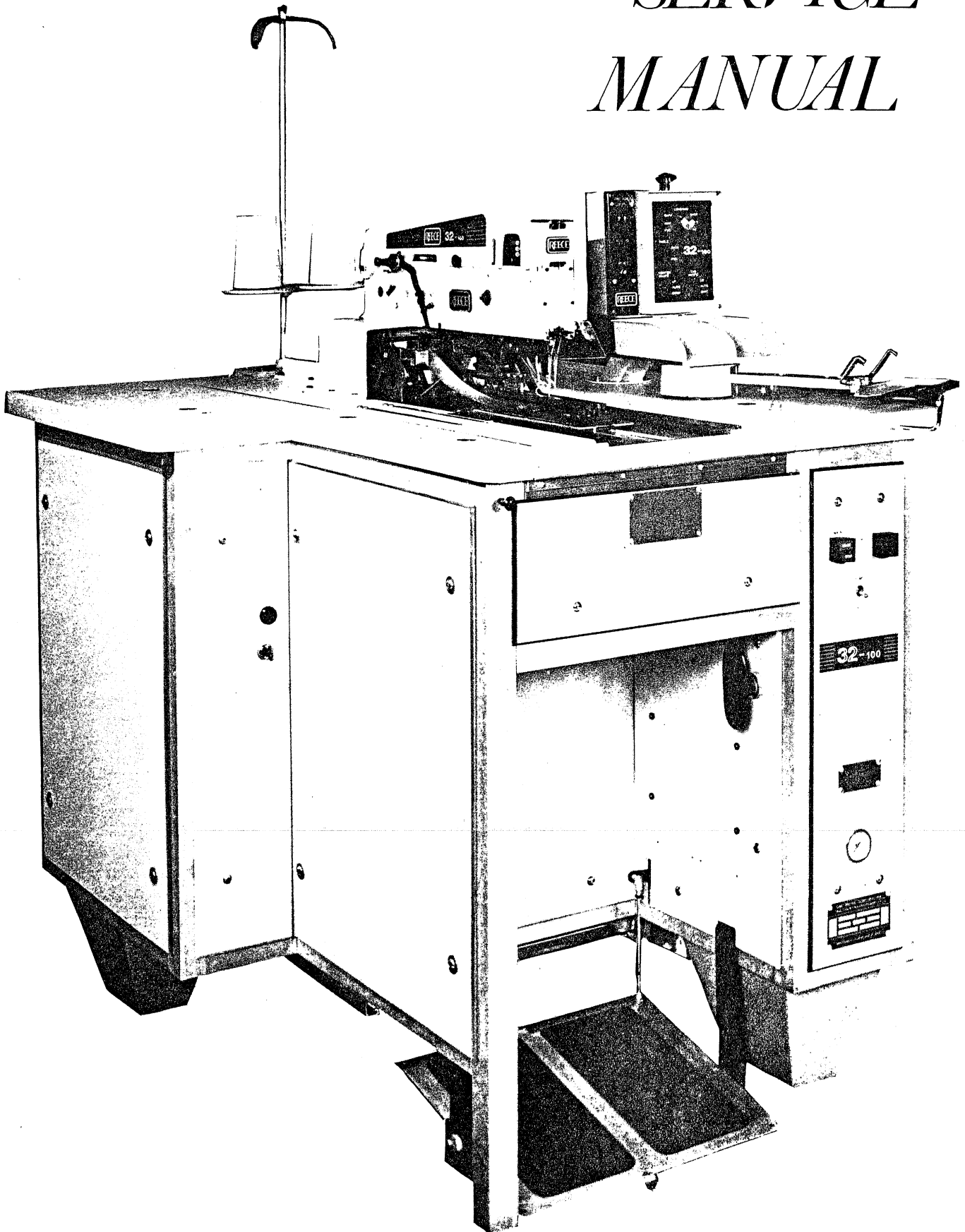


32-100
SERVICE
MANUAL





RECOMMENDED PREVENTATIVE MAINTENANCE

FOR

32-100 POCKETWELT MACHINES

At AMF Reece we believe there is no substitute for a timely and consistant preventative maintenance program. In keeping with that policy, we recommend the items listed below.

Daily:

1. Brush away lint from looper at least twice daily.
2. Lubricate all pivot points identified with an arrow with 2-3 drops of oil.
3. Fill oil cups to brim as required. This may require less than daily frequency dependant upon machine utilization.

WEEKLY:

1. Grease clutch bearing at least once weekly or more frequently if squeal develops.
2. Check for excessive play in needle bar and rocking levers. Correct as required.
3. Check for excessive play in turning finger assemblies. Correct as required.

MONTHLY:

1. Check hardware for tightness.
2. Visually check for damage to patch. Correct if damaged.

AMF REECE, INC.

LIMITED WARRANTY ON NEW AND RECONDITIONED EQUIPMENT

What is covered

90 day limited warranty on service labor due to defects in workmanship or materials.

1 year on major component parts due to defects in materials. Any new or reconditioned part which a customer feels is defective, must be returned freight prepaid to AMF Reece, Inc. for inspection. If, upon inspection the part is determined to be defective, AMF Reece, Inc. will replace it at no charge to the customer.

Warranty period shall begin on completed installation date.

What is not covered

Consumable parts which would be considered normally replaceable in day to day operations.

Normal adjustments and routine maintenance will not be covered. This is the sole responsibility of the customer.

Cleaning and lubrication of equipment.

Parts found to be altered, broken or damaged due to neglect or improper installation or application.

Shipping or delivery charges.

C O N T E N T S

FRONT CONTROL PANEL	1
TABLE TOP CONSOLE	2
PROXIMITY SENSORS	3- 4
A.C. SWITCHES	5
VOLTAGE ADJUSTMENTS	6
SELF-TEST PROCEDURES	7-10
LUBRICATION	11
WELTING MATERIAL	12-13
WORK LOCATING & DRILL HOLE LIGHTS	14
OPERATING PROCEDURES	15-16
SEWING	17-25
SETTINGS & ADJUSTMENTS	26
CENTER KNIFE	27-29
TAB CUTTING	30-31
CLAMPING	32
CLAMP TABLE TRAVEL	33
PATCH FOLDING	34-35
AUTOMATIC PATCH LOADER	36-38
WORK UNLOADER	39
REPAIRING A WELT	40
II-POSITION ASSEMBLY	41-42
ERROR TROUBLESHOOTING CHART	43
ELECTRICAL SCHEMATIC	BACK POCKET

P/N 97-0032-1-002
09/91
Made in U.S.A.

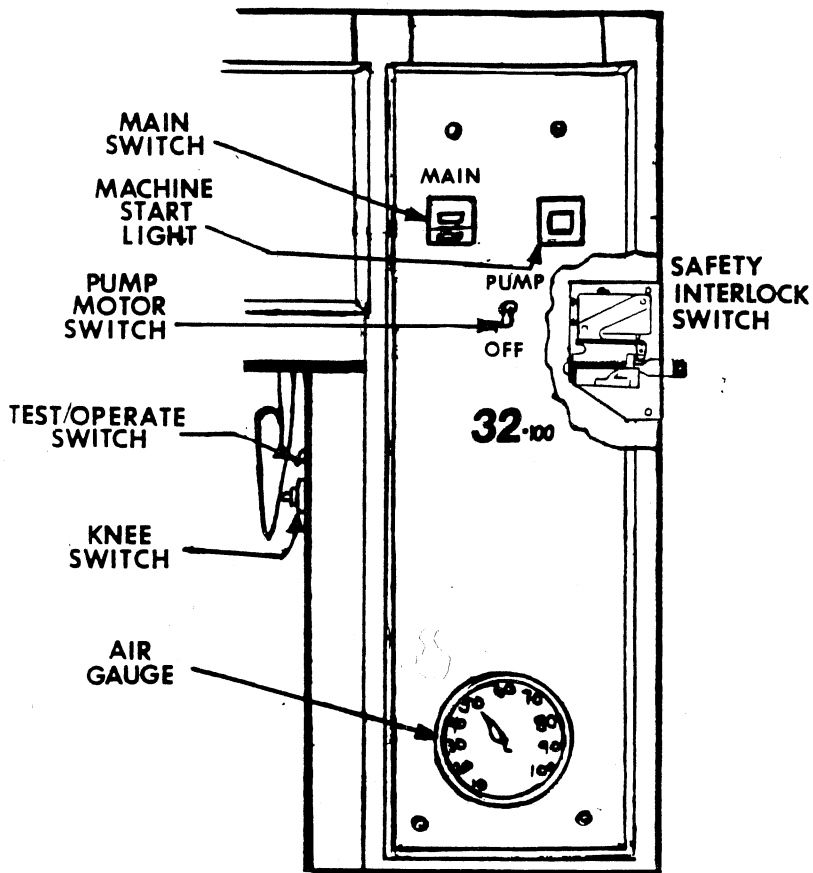
I M P O R T A N T

IT IS ADVISABLE TO READ THIS MANUAL CAREFULLY
BEFORE ATTEMPTING ANY ELECTRICAL OR MECHANICAL
ADJUSTMENTS.

THE MAIN ADJUSTABLE TRANSFORMER AND 24V TAPPED
TRANSFORMER MUST BE SET PRIOR TO CONNECTING THE
MACHINE TO MAIN POWER.

FRONT CONTROL PANEL

1



Main Switch (Start/Stop)

To start and stop machine

Light Indicator

Machine started when lit

Pump Motor Switch

To start and stop the pump, independent of the main start switch

Test/Operate Switch

To select Test or Operate Mode

Knee Switch

To manually activate the sewing with the loading switch in Man Back or FWD.

To manually interrupt the cycle during sewing and enter into Repair Mode

Air Gauge

To monitor air pressure

Safety Interlock Switch

This switch will turn the machine off if the side panel covering the electrical cabinet is removed

LOADING SWITCH

- MAN BACK POSITION : Used when loading material in the back position; also for manual operation of clamping, patch folding and sewing.
- MAN FRONT POSITION : Used when loading material in the front position; also for manual operation of clamping, patch folding and sewing.
- AUTO BACK POSITION : Used in this position for automatic back loading.
- AUTO FRONT POSITION: Used in this position for automatic front loading.

TABLE SWITCH

- F.W.D. : Clamp table moves to the forward position.
- BACK : Clamp table moves to the back position.

CENTER KNIFE

- UP POSITION : Center knife will immediately fire up and remain up; used for servicing.
- AUTO POSITION : Knife will only fire up during sewing.
- DOWN POSITION : Knife will stay inoperative.

TAB KNIVES

- UP POSITION : To send tab knives up manually.
- AUTO POSITION : Tab knives will rise and retract at the end of the sew cycle.
- SEMI POSITION : Tab knives will rise when knee switch is pressed.

THUMB WHEEL

- : In test mode, used for selecting input/output functions.
- : In operation mode, used for adjusting air delay for work ejects in A.P.L. models. - left for left work eject and right for right work eject.

STATUS

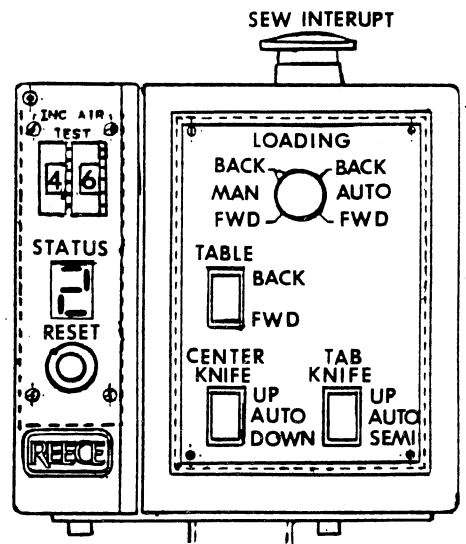
- : When in test mode, displays status of switches.
- : When in operation mode, displays error codes.

RESET

- : Used to reset the machine to start of cycle.

SEW INTERRUPT

- : When depressed, will manually initiate stop sew during sewing and enter the repair mode.
- : To manually prevent continuation of a cycle when the table is in the front or back position.



PEDAL TABLE HOME

Senses the home position of the foot pedal.

When in Manual Back operation with the table in its front position, coming off this sensor will raise the clamps.

With the table in its back position, coming off this sensor raise the patch guide and open the brushes.

When in Manual Front operation with the table in its front position, coming off this sensor will lower the clamps.

PEDAL TABLE BACK

When in the Manual Back operation with the table in its front position, actuating this sensor will send the table to its back position.

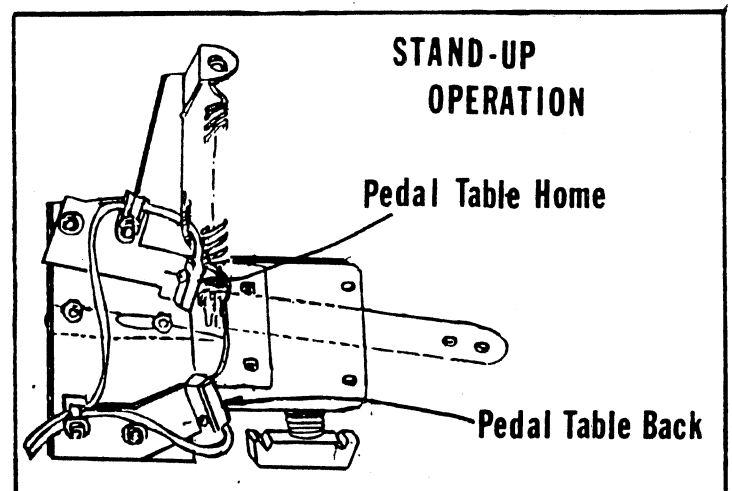
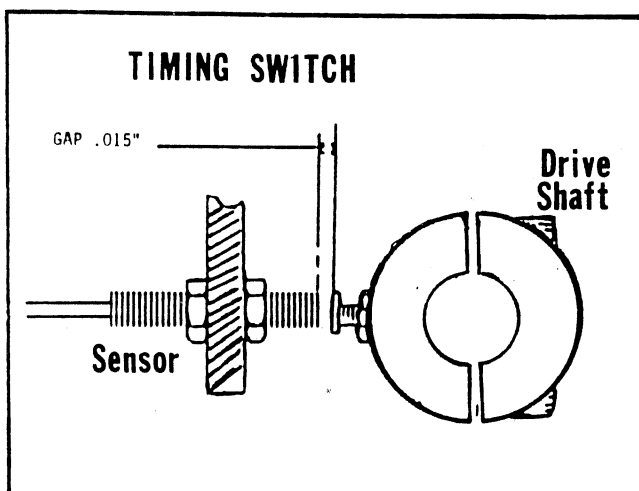
With the table in its back position, actuating this sensor will raise the clamps.

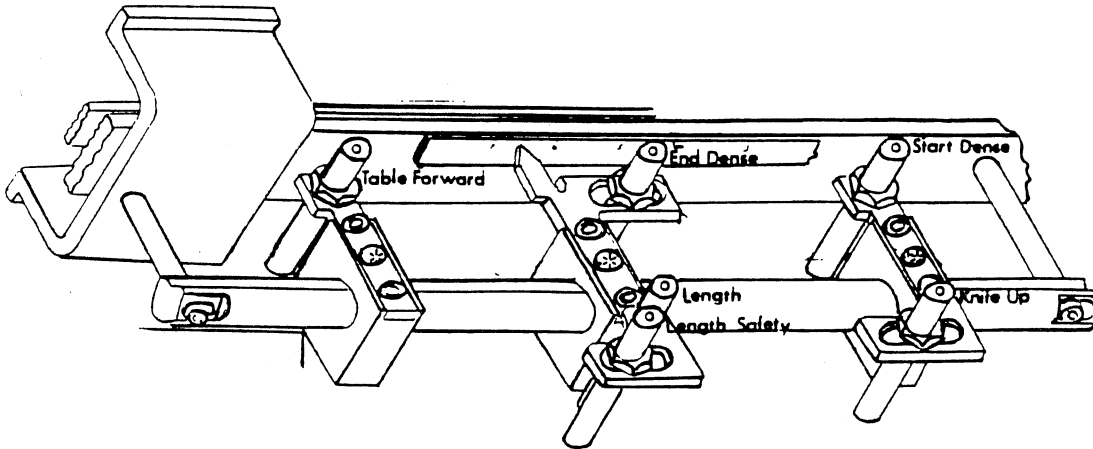
When in the Manual Front operation with the table in its front position, actuating this sensor will send the table to its back position.

With the table in its back position, actuating this sensor will open the brushes and raise the patch guide.

TIMING PROXIMITY SENSOR

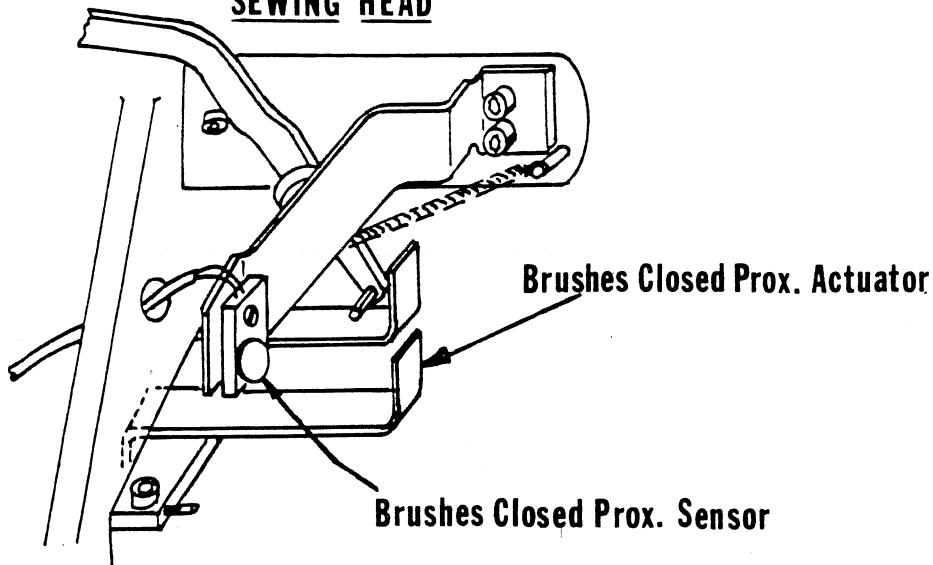
Senses needle up position and activates the thread pick-ups.



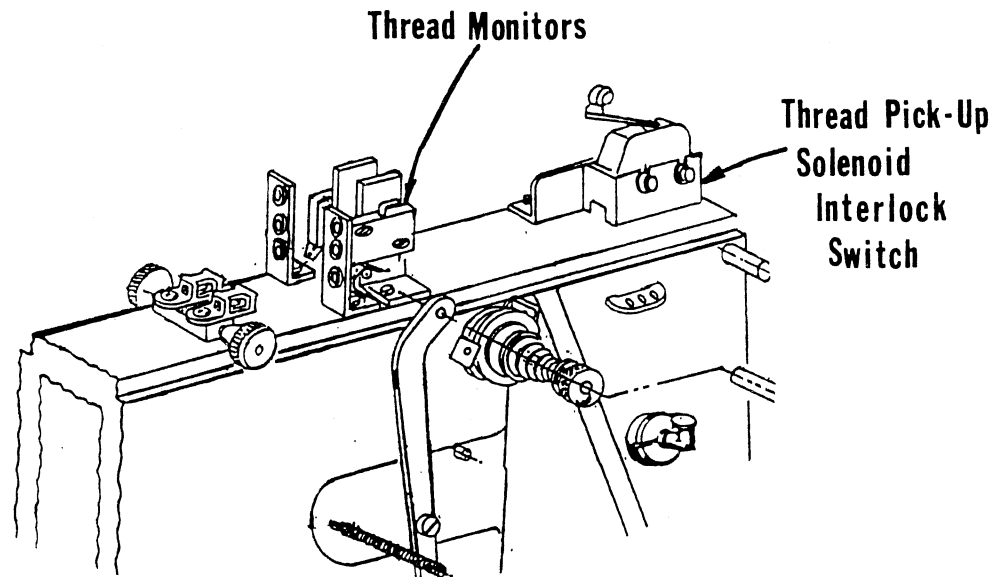


- Table Forward - senses forward position of the table
- Length Safety - prevents oversewing (comes on during sewing only)
- Length - activates stop sew and governs length of pocket
- End Dense - changes table speed from center dense speed to end dense speed and sends the centerknife down
- Knife Up - sends the centerknife up
- Start Dense - changes table speed from start dense speed to center dense speed

SEWING HEAD



- Brushes Closed - senses rear position of the table, patch guide down and folder brushes closed



THREAD MONITOR SWITCH

These switches will detect a slack or broken thread after completion of sewing and initiate the repair mode.

THREAD PICK-UP INTERLOCK SWITCH

This switch will prevent 120V A.C. to the thread pick-up solenoid when the cover is raised.

VOLTAGE ADJUSTMENTS

MAIN ADJUSTABLE TRANSFORMER

Before connecting the machine to an available outlet, accurately check incoming line voltage with a voltmeter and set dial of adjustable transformer to the closest setting corresponding to the incoming line voltage (Fig. 1).

24V TAPPED TRANSFORMER (TX-3) VOLTAGE ADJUSTMENT

Before connecting the machine to an available outlet, the appropriate tap must be installed to CR1-3. The tap to use can be determined by the Chart in Fig. 1.

SAFETY INTERLOCK SWITCH - ELECTRICAL CABINET

This switch will turn the machine off when the side panel is removed. Push in and turn to lock.

NOTE: This switch must be locked to continue.

SECONDARY VOLTAGE

The following voltage measurements are made with the main power ON and the pump OFF.

Check 115V AC test point in Fig. 1.

If reading is below 115V AC or above 125V AC, re-adjust the main adjustable transformer to obtain a reading between 115V and 125V AC.

NOTE: Turn OFF main power before re-adjusting main adjustable transformer.

D.C. VOLTAGE LEVEL

Check for 5.0V DC at P3 of the C.P.U. board (Fig. 1).

If measurement is NOT 5.0V DC, adjust the 5 volt DC power supply (Fig. 1) to obtain this reading.

WARNING: Do not run machine in operate mode until Self-Test has been completed.

TAPPED TRANSFORMER ADJUSTMENT	
TX-1 SETTING	TX-3 TAP
110-115	H1
200-260	H2
350-400	H3
460	H4

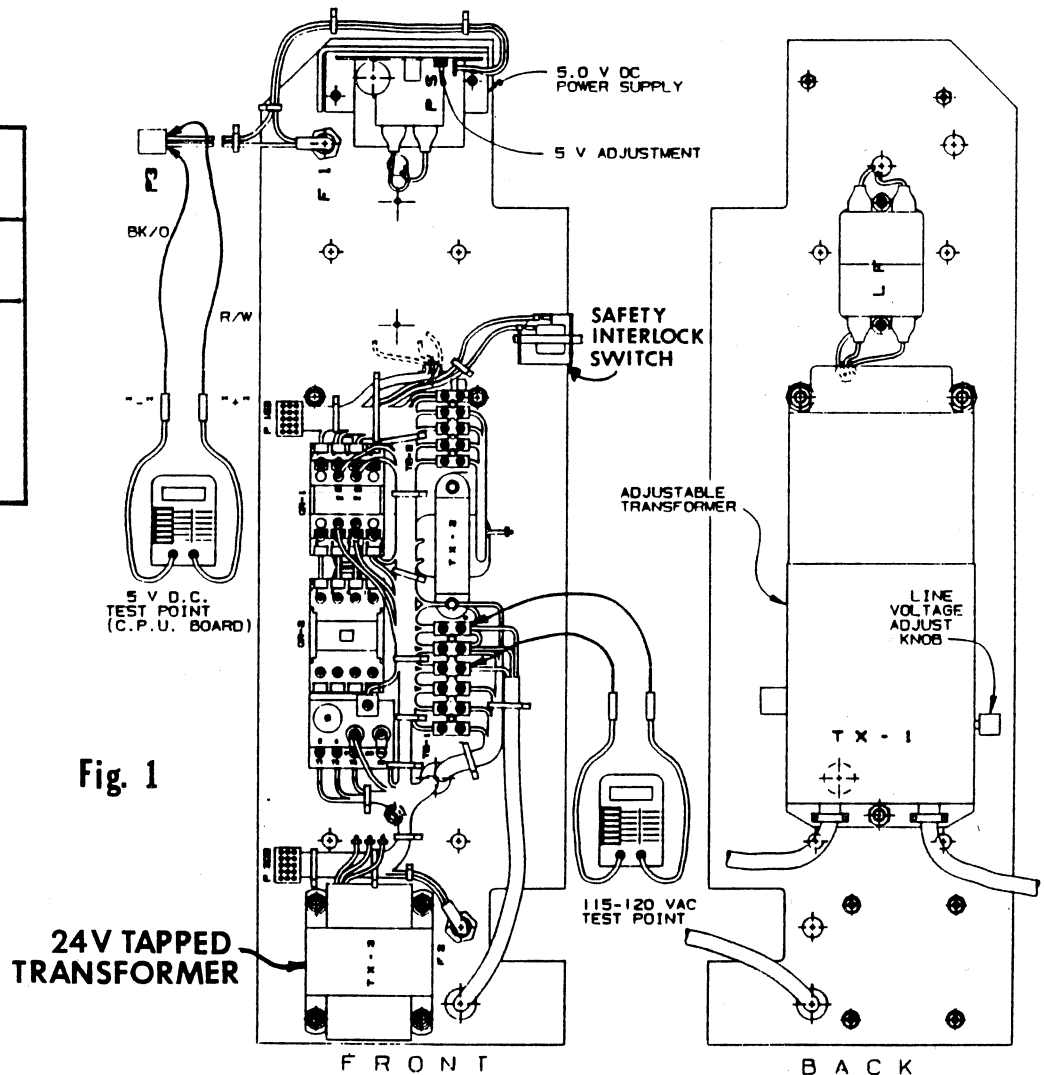


Fig. 1

Set the Test/Operate switch to Test (UP), press the Main switch ON; do NOT turn pump on at this time. Follow the instructions below to perform these tests.

Thumbwheel Test

This test will check the Thumbwheel switches to verify that they are working correctly.

Set Thumbwheel switches to "99", then press the Table switch to back to initiate the test. The ten's digit number will be displayed first and then the one's digit number. Test each of the ten's digit numbers, and then the one's digit numbers by rotating the thumbwheel through its settings respectively.

To exit this test, set the thumbwheel switches to "99" and press the table switch to back. Hold until display clears.

SELF-TEST PROCEDURES

CHECKING PROXIMITY SENSOR AND SWITCH INPUTS

The Status Display on the console will show a (0) for an open sensor or switch and a (1) for a closed sensor or switch. All proximity sensors and switches should be tested for "off" (0) and "on" (1) conditions. Proximity sensors can be actuated by placing a screwdriver against the red end of the sensor or against the target.

Thumbwheel	Switch
01	A.P.L. OPTION SWITCH ON P.C. BOARD
02	A.P.L. ARM AT HOME
03	A.P.L. ARM AT BRUSHES
04	FOOT PEDAL AT HOME
05	FOOT PEDAL AT TABLE BACK (PRESSED)
06	TABLE SWITCH ON CONSOLE, FWD
07	TABLE SWITCH ON CONSOLE, BACK
08	KNEE SWITCH
09	TAB KNIFE POS. PROX. SENSOR, DOWN
10	TAB KNIFE POS. PROX. SENSOR, UP
11	TABLE FORWARD PROX. SENSOR
12	BRUSHES CLOSED PROX. SENSOR
13	AIR EJECT OPTION SWITCH ON P.C. BOARD
14	START DENSE PROX. SENSOR
15	END DENSE PROX. SENSOR
16	LENGTH PROX. SENSOR
17	CENTER KNIFE UP PROX. SENSOR
18	TIMING PROX. SENSOR
19	TAB KNIFE SWITCH ON CONSOLE, UP
20	TAB KNIFE SWITCH ON CONSOLE, SEMI
21	LOADING SWITCH ON CONSOLE, AUTO FWD
22	LOADING SWITCH ON CONSOLE, MAN. FWD
23	LOADING SWITCH ON CONSOLE, MAN. BACK
24	LOADING SWITCH ON CONSOLE, AUTO BACK
25	SEW INTERRUPT SWITCH ON CONSOLE
26	CENTER KNIFE SWITCH ON CONSOLE, DOWN
27	CENTER KNIFE SWITCH ON CONSOLE, UP
28	THREAD MONITOR SWITCH

FOR TWO POSITION MODELS ONLY

31	TWO POSITION SWITCH ON CONSOLE, SHORT
32	TWO POSITION SWITCH ON CONSOLE, LONG
33	SHORT SEW LENGTH PROX. SENSOR
34	SHORT LENGTH SAFETY PROX. SENSOR
35	SHORT END DENSE PROX. SENSOR

SELF-TEST PROCEDURES

9

SEQUENCE TEST - PROXIMITY SENSORS ON BEDPLATE RAIL SYSTEM

Thumbwheel set to 30.

This test will display the proximity sensors in the order in which they are coming on. These positions can be seen by manually pulling the table forward. If the sensors are set up properly, they will follow the sequence below:

Status Display	Proximity Sensor
No Display	None, table is in its most rear position
0	Start Dense
1	Center Knife Up
2	End Dense
3	Length

FOR TWO-POSITION MODELS ONLY

4	Short End Dense
5	Short Length
6	Short Length Safety

NOTE: Numbers 4, 5 and 6 will be displayed before Numbers 2 and 3.

CHECKING SOLENOID OUTPUTS

To initiate these tests, press the Table switch on the console to its 'UP' position.

Thumbwheel	Solenoid
41	CLAMPS
42	A.P.L. FINGERS (OPTION)
43	PATCH FOLDING
44	TAB KNIFE
45	END DENSITY
46	CENTER DENSITY
47	TABLE DRIVE
48	START SEW
49	STOP SEW
50	AIR WORK EJECT, RIGHT (OPTION)
51	AIR WORK EJECT, LEFT (OPTION)
52	CENTER KNIFE
53	STOP TRAVEL
54	THREAD PICK-UP
55	THREAD WIPE (OPTION)
56	PATCH GUIDE PRESSURE (OPTION)

FOR TWO-POSITION MODELS ONLY

59

TAB KNIFE POSITION

EXITING SELF-TESTING PROCEDURE

Turn OFF the machine, set Test/Operate switch to Operate (DOWN).

NOTE: Motor rotation must be checked before operating machine.

MOTOR ROTATION

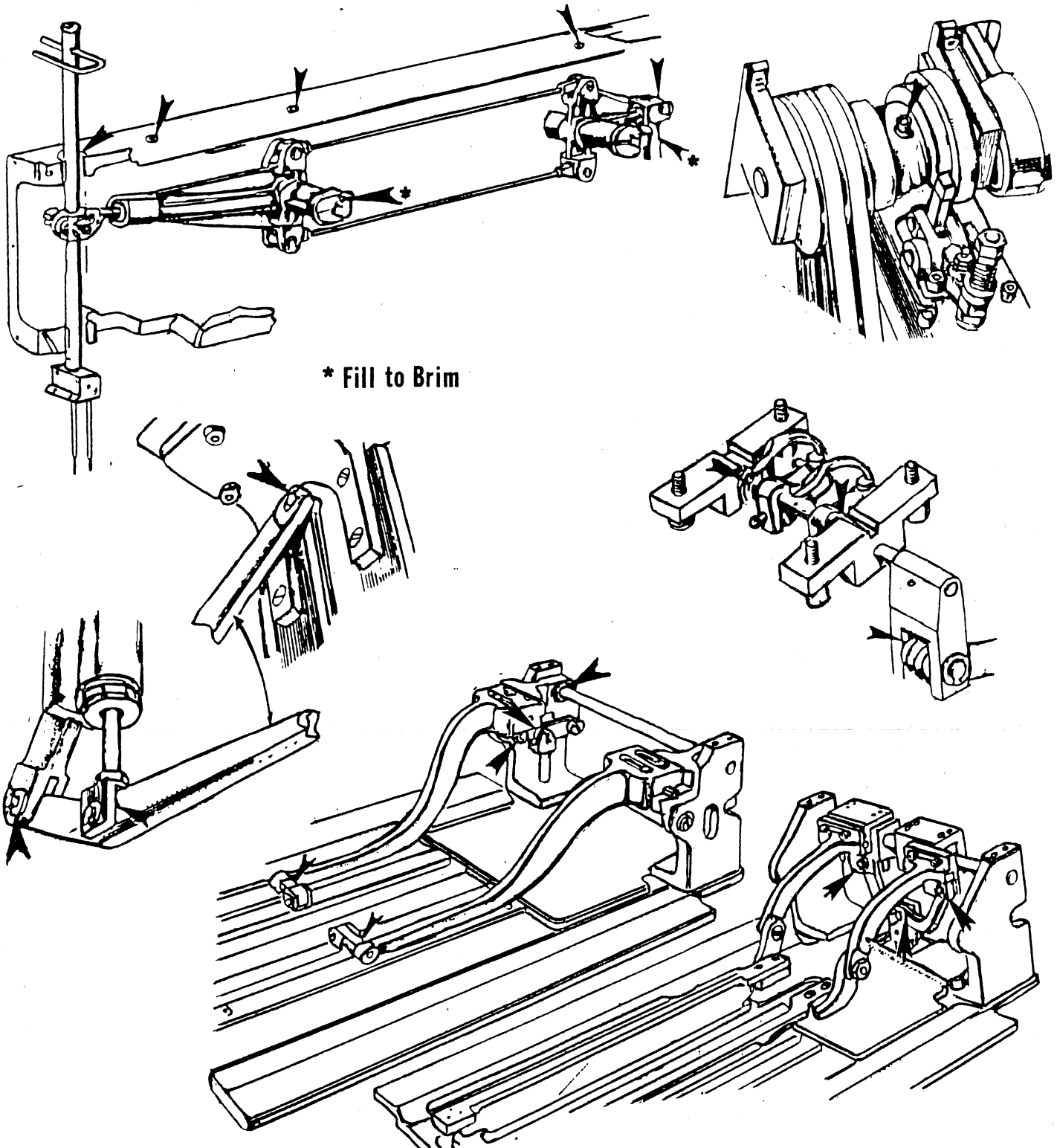
To check motor rotation, toggle the pump switch to the "OFF" position. Press the Main Start switch to turn on the machine. Toggle the pump switch on and then off quickly. The motor rotation should be clockwise. Change if necessary.

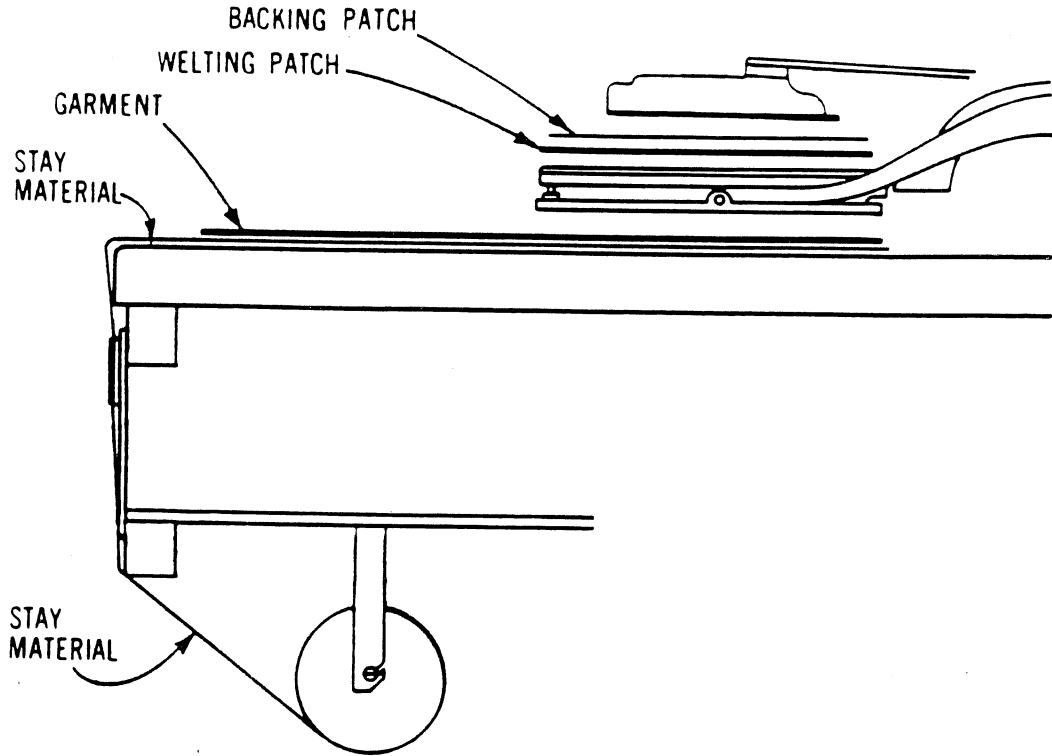
LUBRICATION

To maintain the machine in good working order, it is important that the machine be cleaned and oiled daily and lint brushed away from loopers at least twice daily.

Also, apply grease to the clutch weekly or when a squeal develops.

NOTE: To reach grease fitting, bring the table forward.
OIL all points indicated (below) with an arrow.

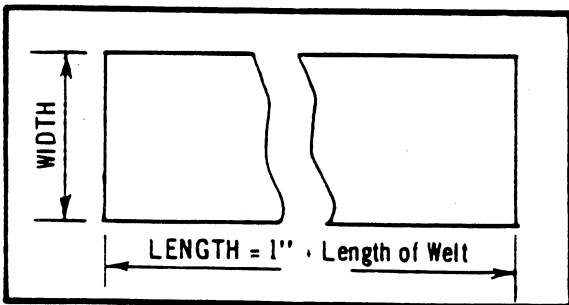




Welting material consists of Welting Patch (garment material), Backing Patch (Pellon L-35) and Stay Material (cotton Silesia). For widths of welting material, refer to chart on Page 13.

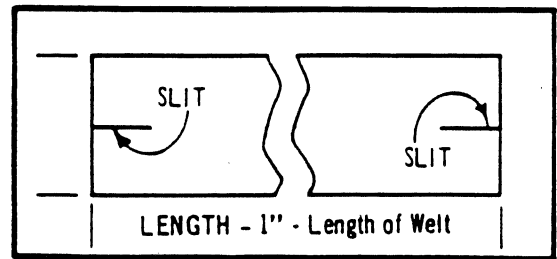
WELTING PATCH (Garment Material)

Welting patch length is one inch longer than actual welt. To produce the best effect, patches for horizontal welts should be cut crosswise to selvage except where stripes in the material are over 1/4 of an inch in width. For vertical or diagonal welts, patches should be cut parallel to the selvage.



BACKING PATCH (Pellon)*

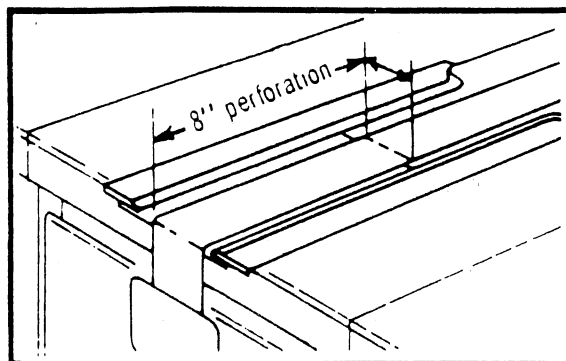
Backing Patch length is the same as Welting Patch, one inch longer than the welt. For double welting, use patches with 1/4 of an inch end slits. For single welting and knits, use patches without end slits.



*Pellon L-35 backing material is recommended. This material may be cut in your own plant or may be obtained pre-cut from the Pellon Corp., N.Y., N.Y. Specify Reece Welting, black or white, length, width and with or without end slits.

STAY MATERIAL

Stay Material is used for pockets on coats and coat linings. The pocket bag is used in place of the stay material in making trouser pockets. Stay material should be (cotton Silesia) with sizing. This material is available in rolls of various widths (refer to chart) with perforations every eight inches. The perforations aid in allowing the operator to separate the stay material while the machine is sewing. Ask your Reece Representative for name and address of suppliers.



WELTING MATERIAL WIDTHS

SIZE	WELTING PATCH	BACKING PATCH	STAY MATERIAL
7/16"	2-1/2" to 2-3/4"	2-1/2" 2" for Trouser Application	2"
1/2"	2-3/4" to 3"	2-1/2" 2" for Trouser Application	2"
5/8"	3-1/4" to 3-1/2"	3-1/4"	3"
3/4"	4" to 4-1/4"	3-1/2"	2" - 3"
Overlapping Welt	5-1/4" to 5-1/2"	5"	2" - 3-1/2"
7/8"	4-1/4" to 4-1/2"	3-3/4"	3"
Single Welt		4"	3-1/2"

APPLICATIONS

These lanterns were specifically designed to facilitate work location and increase positioning accuracy. They project light slots on the garment which accurately fix the location for positioning work-locating marks, such as drilled holes, which can be applied to garment on the cutting table.

Other types of work-locating marks can, of course, also be utilized, such as darts, seams, slits, chalk marks, etc.

In the production of double-welt sack coat pockets, for example, utilizing drilled holes for locating marks, the forward lantern should be positioned so that when the forward hole is located in the hairline cross-point, it will accurately establish the starting point on every garment. The rear hole will provide accurate pocket alignment as long as it falls anywhere along the vertical light slots of the rear lantern. Thus, the same hole-drilling pattern may be used on double-welt work for all sizes since pocket length is controlled by the Series 32/100 machine.

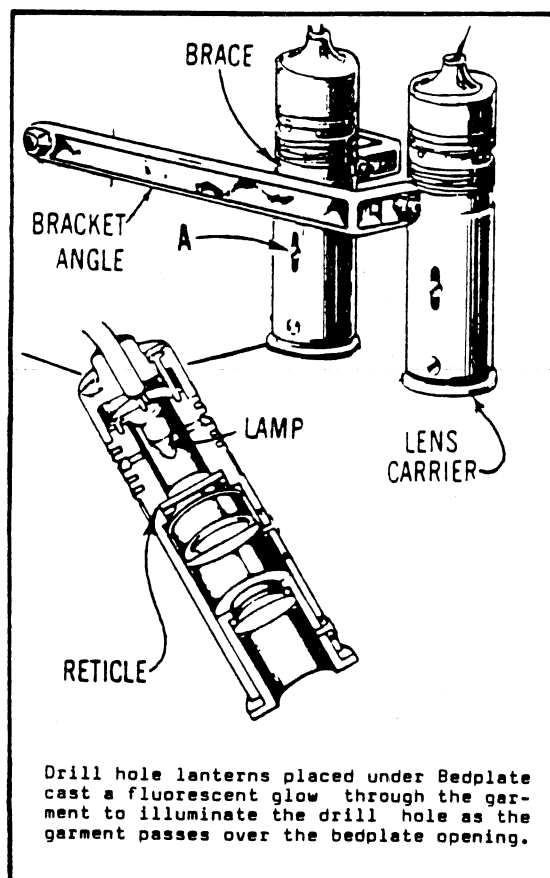
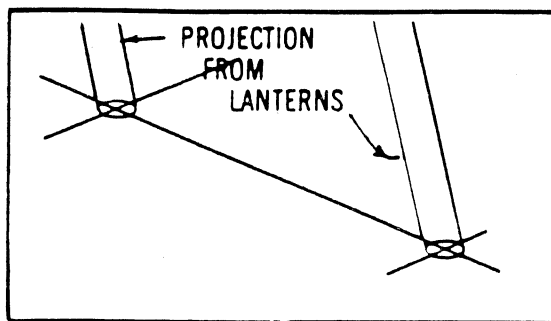
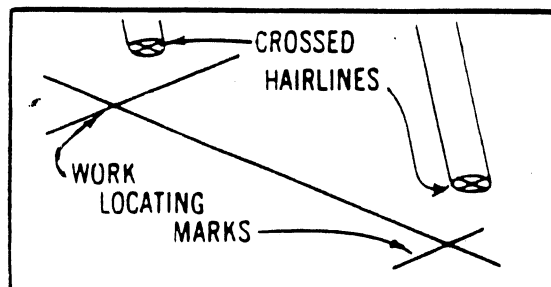
Caution should be exercised to avoid drilling holes in the tab areas of the welt as drilling may shred or so reduce a tab area that no effective tab can be formed.

In single-welt work, the rear hole should be accurately located also since it becomes the starting point on alternate pocket operations.

MAINTENANCE & ADJUSTMENTS

1. To focus light slots, move lens carriers secured by screws (A).
2. Vary lantern bracket angle and bend if necessary so that folding brushes do not obstruct lantern projection when clamp foot is raised.
3. To square light slots with the work, loosen brace and rotate light as necessary.
4. Lamp should be centered over the reticle to centralize reticle in projection, and to obtain maximum intensity.

NOTE: Observe that on some materials, the light slots are clearer as the garment is being moved into position than when the garment rests in position. Therefore, while setting lanterns, use a material on which the light slots are clearly visible in rest position. The materials used in production need not be used when setting lanterns.



Pre-Production Start-Up Procedure

1. Push main switch on and toggle pump switch to on ten minutes before starting regular operation.
2. Actuate table switch alternately from 'forward' to 'back' position several times to clear air from hydraulic lines.
3. Sew and examine a welt on scrap material before starting regular work.

Manual Back Operation

1. Fully depress pedal and hold. This will raise the clamp foot and send the clamp table to its back (sewing) position.
2. Position stay or pocketing material.
3. Position garment over stay material.
4. Raise pedal slightly until clamp drops, but folding brushes remain open and patch guide is in up position.
5. Place welt and welt backing material on brush folders and under patch guide.
6. Raise pedal all the way to fold weltting material.
7. If threads are not retrieved by thread pick-up fingers, draw the thread forward with tweezers; hold with light tension - release as machine starts to sew.
8. Press knee switch to start sewing.
9. Set tab knife switch to semi position and press knee switch again for cutting tabs.

NOTE: To set machine for automatic tab cutting, switch to automatic position.

10. To extract material, depress pedal until clamp foot rises.

Manual Front Operation

1. Clamp foot is automatically held in raised position and clamp table will remain in its forward position.
2. Position stay or pocketing material.
3. Position garment over stay material.
4. Depressing and holding pedal all the way down will cause clamp foot to drop and clamp table to travel to its back (sewing) position.
5. With pedal depressed, folding brushes remaining opened and patch guide remaining in its up position, place welt and welt backing material on brush folders and under patch guide.
6. Raise pedal all the way to fold weltting material.
7. If threads are not retrieved by thread pick-up fingers, with tweezers or similar device, draw them forward and hold with light tension release as machine starts to sew.
8. Press knee switch to sew.
9. Set tab knife switch to semi position and press knee switch again for cutting tabs.

NOTE: To set machine for automatic tab cutting, switch to automatic position.

10. Upon descent of turning fingers, clamp foot will automatically rise, allowing material to be removed.

Automatic Front Operation

With the machine in the normal stop position (clamp table forward, clamp foot raised, the welt and welt backing material placed in the patch tray).

1. Trouser pocketing is placed under clamp foot.
2. Trouser leg is placed under clamp foot.
3. Pedal is momentarily depressed, lowering the clamp foot, sending the clamp table to its back position, and activating the automatic cycle.

Upon actuation of the automatic circuit, the operator should pick up the welt patch and patch backing to insert in patch tray for the next sewing cycle. The operator should also have sufficient time to pick up the trouser pocket for the next sewing cycle and as soon as the trouser is ejected, be ready to position the pocketing.

4. When the clamp table reaches its back position, the patch loader will load the welt and welt backing onto the folding brushes.
5. As the automatic patch loader is returning to its rest position, the machine will automatically start sewing.

If the welt patch is not properly loaded into the folding brushes, pressing the pedal will prevent the machine from starting to sew.

If the machine does not start sewing, the patch loader arm will continue to oscillate. CAUTION - Do not shut machine power off by pushing in main switch. Doing so will cause clamp table to move to its forward position and may cause damage to the patch loader.

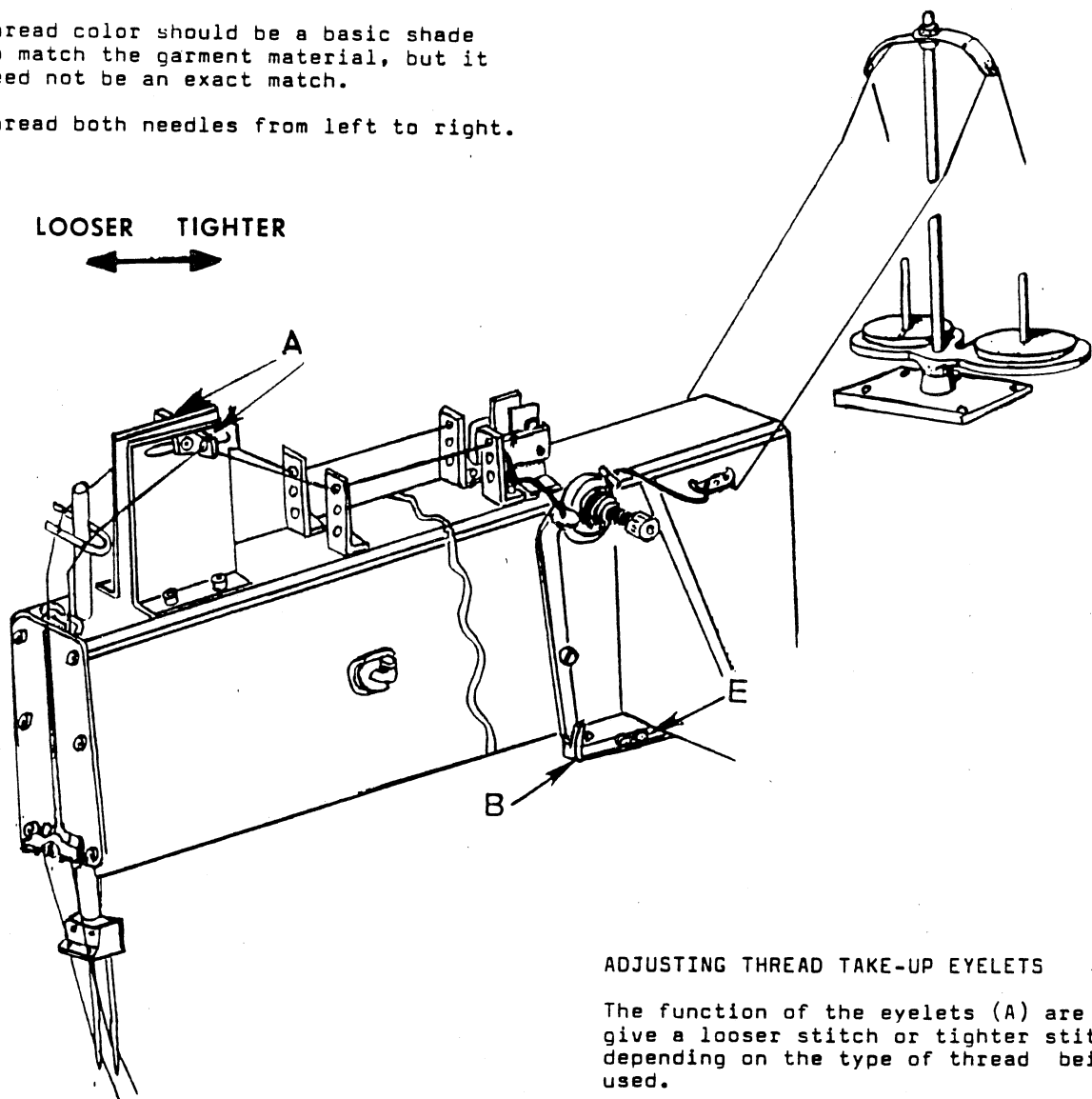
If the machine does not start sewing, depressing pedal will stop the patch loader arm from oscillating. Then turn loading switch to its manual-front position. Turn machine off.

6. The automatic patch loader will stop when the patch loading arm reaches its rest position.
7. Upon the automatic completion of the sewing and turning fingers cycles, the clamp foot will rise and the actuation of the air ejectors will remove the trousers from the machine.
8. The trouser pocket for the next cycle should be held and readied for positioning as soon as the work is ejected.

After Step #3, the machine functions are completely automatic, providing for increased production by allowing the operator to prepare for the next cycle while the machine is producing the welt.

Thread color should be a basic shade to match the garment material, but it need not be an exact match.

Thread both needles from left to right.



ADJUSTING THREAD TAKE-UP EYELETS

The function of the eyelets (A) are to give a looser stitch or tighter stitch depending on the type of thread being used.

To Adjust:

Loosen nut and move eyelet to the rear of the machine for a tighter stitch and forward for a looser stitch.

NOTE: It is recommended to set the thread tensions as loose as possible.

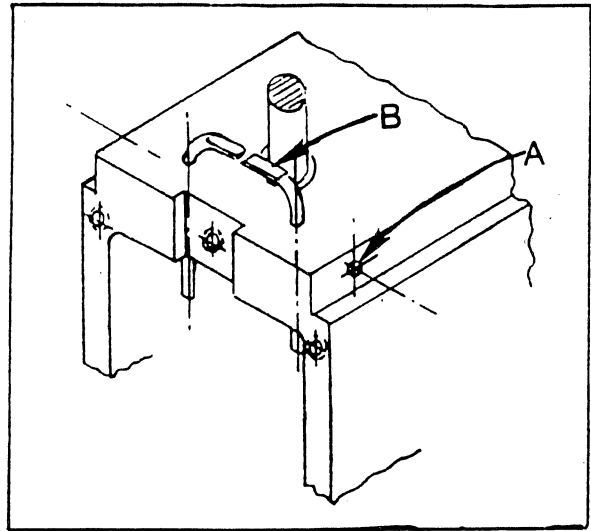
STARTING THREAD

For more starting thread, loosen screws (E) and move actuator (B) backward; for less starting thread, move the actuator forward.

THREAD LOOP SIZE

The proper size of the thread loop for average sewing conditions is just big enough for the looper to go into. Too large a loop may result in the loop turning over towards the front and the looper missing the loop, causing skipping.

To Adjust: Loosen set screw (A) and raise or lower looper wire (B) as required. Raising the looper wire increases loop size; lowering the looper wire decreases loop size.

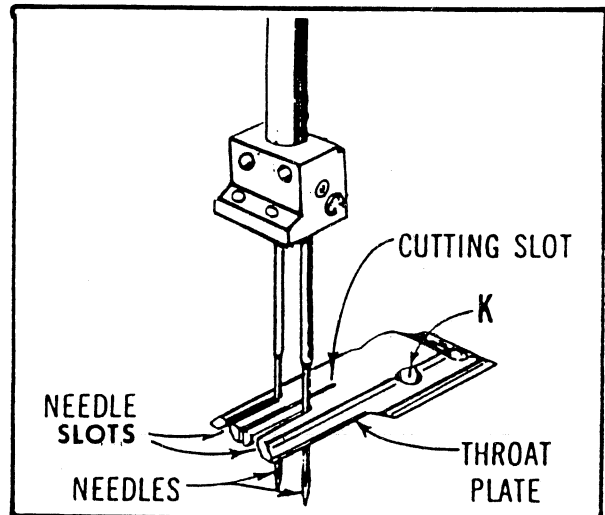


NEEDLES TO THROAT PLATE

Throat plate should be positioned so that the needles enter the needle holes with clearance on both sides of the hold and a slight clearance at the rear.

With the clamp table in its rear position, depress the pedal halfway to open the brushes and lift the patch guide, depress the stop sew interrupt button on top of the console and switch pump power OFF. Remove patch guide; now by depressing the knee switch, the drive shaft will be released, permitting manual sewing operation. By turning handwheel, bring the needles down into the throat plate and observe needles in the throat plate holes.

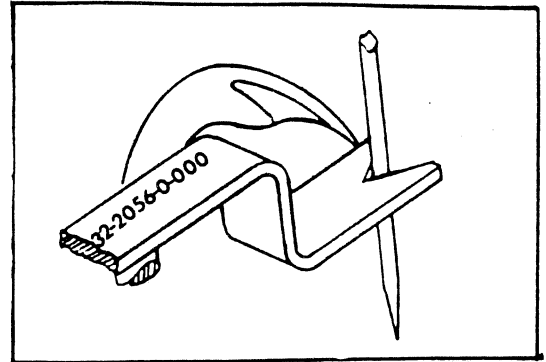
If adjustment is required, loosen screws (K) and tap the throat plate into the required position. Tighten all screws and replace patch guide. Now depress the stop sew interrupt button again and switch main power OFF, rotate handwheel till the drive shaft locks up.



LOOPER HOLDER SETTING TO NEEDLE

With the needle bar at the bottom of its stroke and the loopers in their rearward position, the looper points should be .100" from the centerline of the needles.

To Adjust: Use looper gage (32-2056-0-000) to check clearance. Note: needle goes in center of V on gage. While maintaining this position and without disturbing the sidewise location of the looper holders, loosen screw (L) and position looper points to the edge of the looper gage by moving the looper holders.



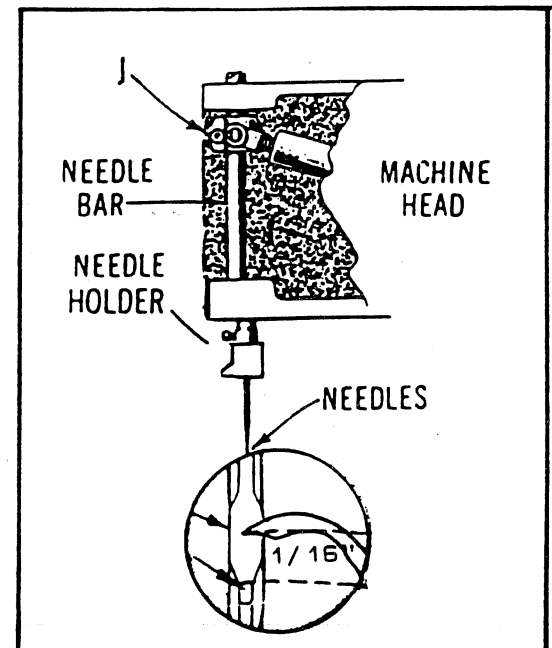
NEEDLE BAR HEIGHT SETTING

Turn handwheel in operating direction until looper point is in line with the center line of the needle. Setting is $1/16$ " from the top of the needle's eye and the bottom surface of looper (see insert). If adjustment is required, loosen screw (J) and move needle bar carefully up or down. Check to see if the needle centers in the needle hole or throat plate; retighten screw (J).

LOOPER HEEL TO NEEDLE SETTING

As the needle passes by the heel of the looper on the up stroke and down stroke, it should pass as closely as possible to the heel without deflecting.

To Adjust: Repeat eccentric setting procedure and looper holder setting to needle procedure.

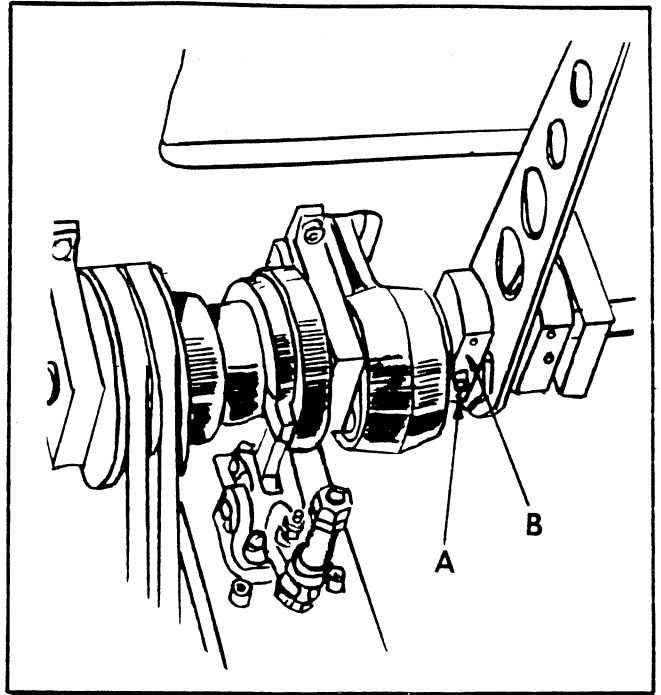


NEEDLE AND LOOPER SYNCHRONIZATION

Eccentric Setting -

The eccentric should be set such that when the needle bar is at the bottom of its stroke, the looper assembly (loopers and holders) are at the maximum rearward position.

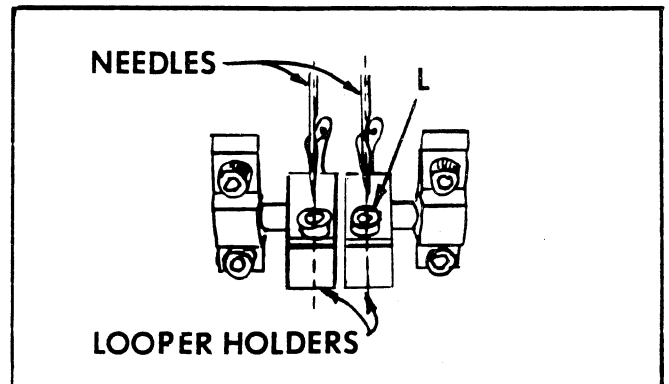
To Adjust: Position needle bar at the bottom of its stroke. Loosen socket head cap screw (A) on the looper crank assembly (B). While preventing the stop motion v-belt drive from rotating, turn the looper crank assembly in a direction that will place the looper assembly at its maximum rearward position. Tighten screw.



LOOPER HOLDER ALIGNMENT

Looper holders should be positioned with the center of screws (L) in line with the needles.

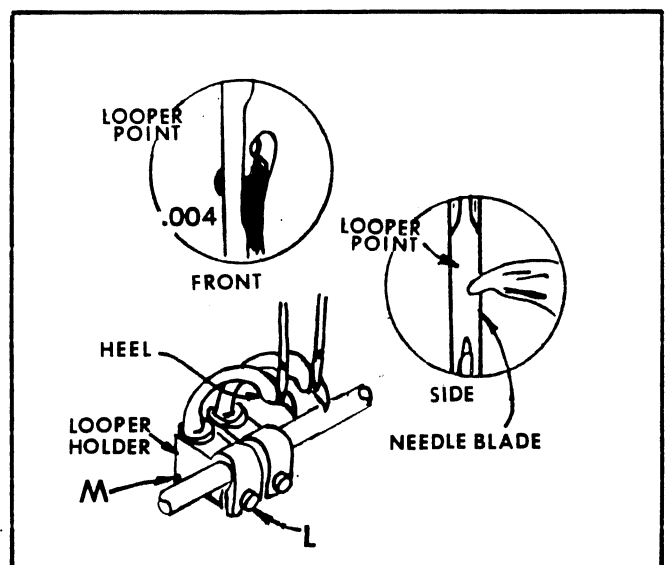
To Adjust: Loosen screws (L) and position as required. See sketch.



LOOPER SETTING TO NEEDLE BLADE

When the needle bar has risen from the bottom of its stroke, the looper points should be central with the needle blades and just clearing their sides, max. .004.

To Adjust: Rotate handwheel until the looper points are central with the needle blades. Loosen screws (M) and adjust loopers to just clear the inner sides of the needles. Needles should pass as close as possible to the heel of loopers without deflection.



ROCKER ROD TAKE-UP

Take-up on rocker rods is accomplished by rotating the front shaft (eccentric). Tighten rods by turning front shaft so that arrow moves toward the front of machine. Loosen rods by turning front shaft so that arrow points to rear.

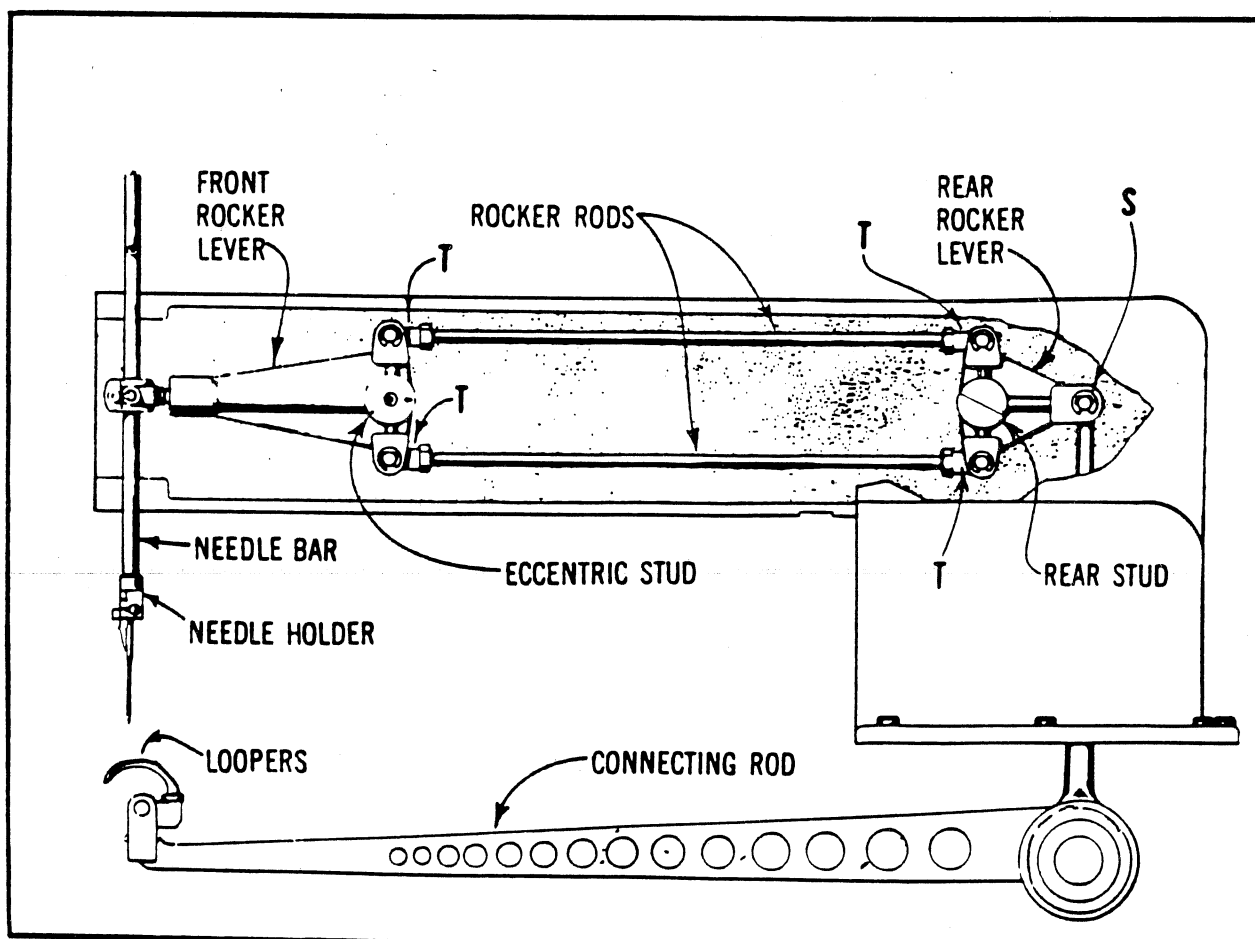
To Adjust: First remove the needle holder, pin (S) and loosen nut on front shaft. Turn shaft toward rear of machine until needle bar moves up and down freely. Now move arrow toward the front until a slight dragging effect is obtained in the movement of the needle bar. Secure front shaft in this position. If arrow is turned entirely to its forward position, and this setting can not be obtained, rocker rods will have to be readjusted or replaced.

ROCKER ROD REPLACEMENT

While in most cases, only one of the rocker rods will actually require replacement, change both rocker rods, accompanying connectors and nuts at the same time.

To Adjust: Turn arrow on front shaft to point toward rear of machine. Remove needle bar, front shaft, rear shaft and pin (S). Be careful not to lose the small key in the front shaft. Withdraw the rocker rod assembly. Before disassembling, set new rods to exactly match old rod setting. Remove old rods from front and rear rocker levers and reassemble with the new rocker rods.

Re-install rocker rod assembly with arrow of front shaft pointing to the rear of machine. Adjust for rocker rod take-up as previously described.

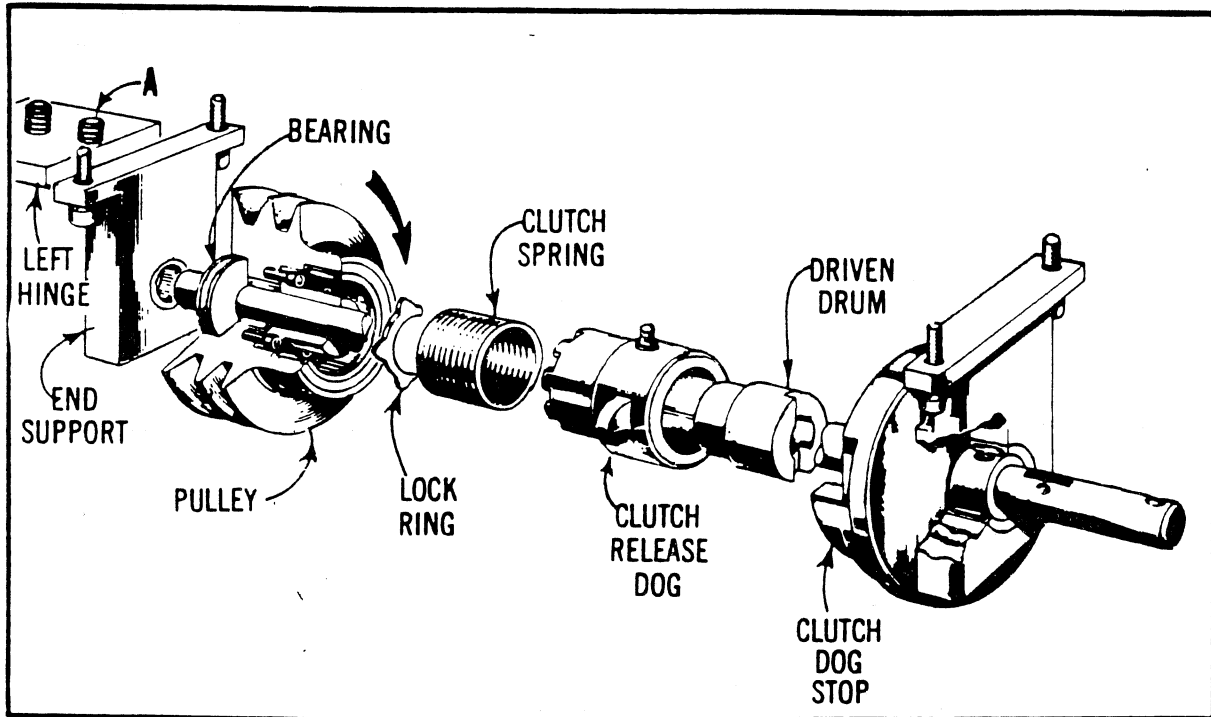


REMOVAL OF CLUTCH SPRING

1. With machine in stop position, remove needle holder and upper belts from motor pulley.
2. Remove screw (A) from left hinge; also remove end support and bearing. Then remove pulley by turning it in direction of arrow while withdrawing pulley.

3. Unlatch stop motion.

4. Remove lock ring, clutch spring, clutch release dog, and driven drum. To remove clutch spring, it may be necessary to pry the clutch dog outward with a screwdriver inserted between the clutch release dog and clutch dog stop.

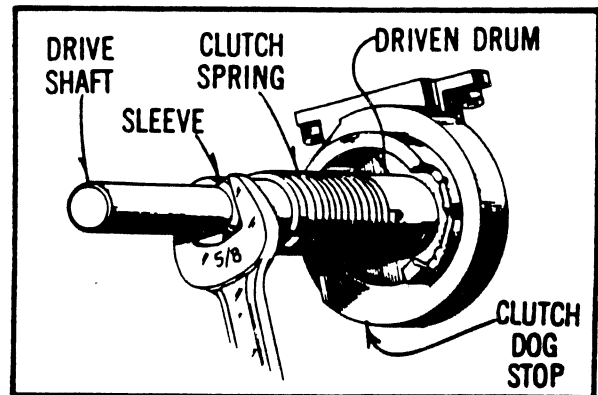
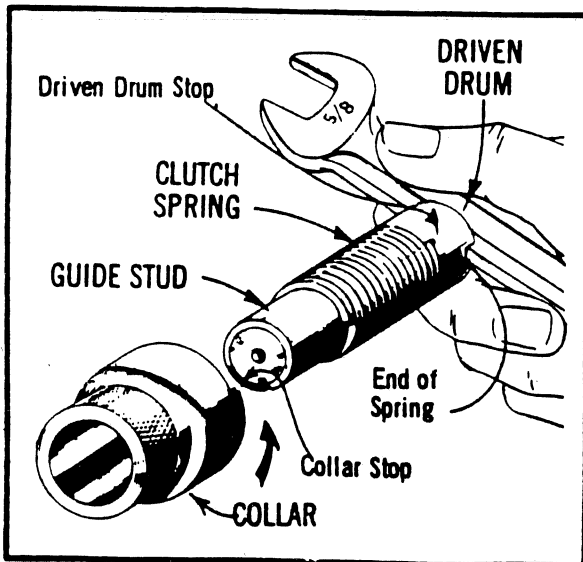


INSTALLATION OF CLUTCH SPRING

1. Start spring on guide stud of loading tool. Then position spring and guide stud in collar of loading tool with end of spring engaged in the collar stop.

2. Start spring on driven drum, using the handle of a 5/8 inch wrench. Turn collar in direction of arrow and press spring toward driven drum until other end of spring engages driven drum stop.

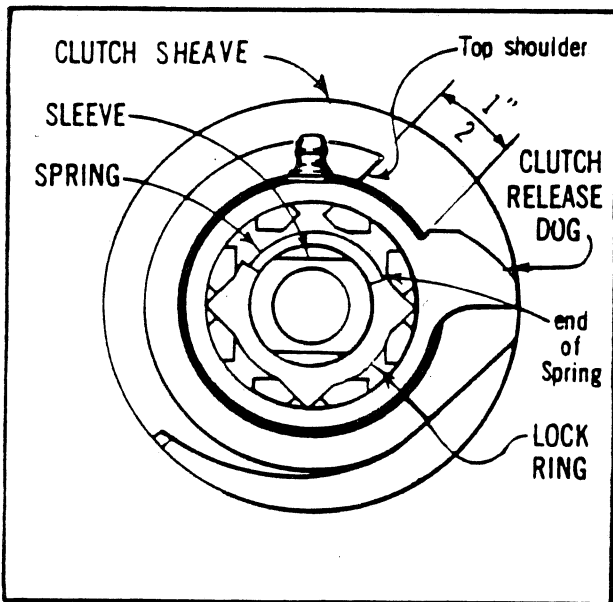
3. Remove the guide stud and place the spring and driven drum on the drive shaft. Engage the driven drum in the clutch sheave. Insert the sleeve of loading tool on drive shaft and start into spring. Once started, hold sleeve with 5/8 inch wrench while turning drive shaft by means of handwheel until the sleeve is fully engaged in the spring.



4. Remove the assembled unit (sleeve, spring and driven drum) and install the clutch release dog. Reinstall the assembled unit so that the driven drum is engaged in the clutch sheave and the end of the spring faces toward you. Then position the clutch release dog with the top of the dog approximately 1/2 inch from the top shoulder of the clutch sheave. Seat the spring by tapping it lightly with the small end of the loading tool collar. Install the lock ring against the spring so that it engages the splines of the clutch release dog. Thick end of ring is up against the end of spring.

5. Holding the lock ring in place (use a 3/4 inch wrench so that it bears against the two ends of lock ring), lock up machine and remove sleeve of loading tool by turning it counterclockwise.

6. Replace pulley slowly until contact is made, then snap it into place with pressure.

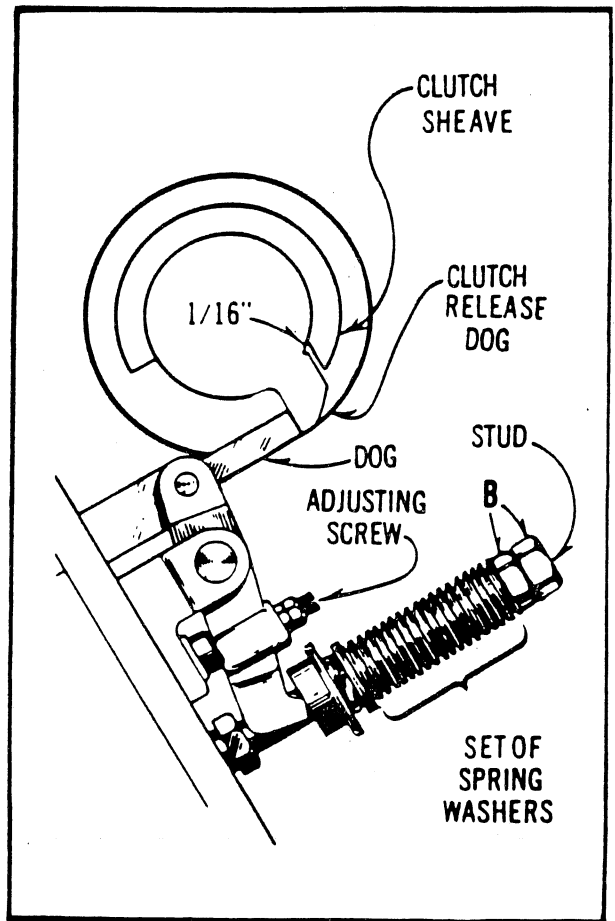


STOP MOTION

CLUTCH DOG ADJUSTMENTS

There should be approximately 1/16 inch clearance between the clutch release dog and clutch dog sheave.

To Adjust: With machine in stop position, turn adjusting screw until this 1/16 inch clearance is established. Tighten nuts (B) together until the surface of the outer nut is flush with the end of stud. This establishes the correct pressure on the set of spring washers.



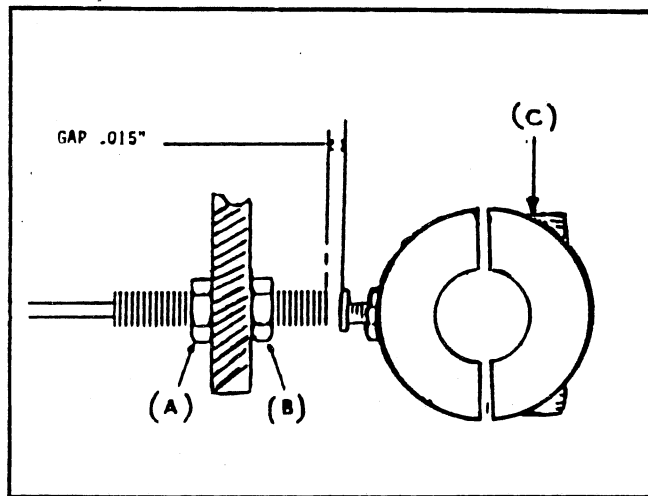
TIMING SENSOR ADJUSTMENT

When the machine is in its stop position and locked up, the actuator on the collar should be aligned with the proximity sensor and positioned centrally.

By loosening screws (C) on the collar, rotate collar as required.

SETTING THE GAP

Loosen nuts (A) and (B) on proximity sensor, and move in or out as required till a .015 gap is obtained. Tighten nuts.

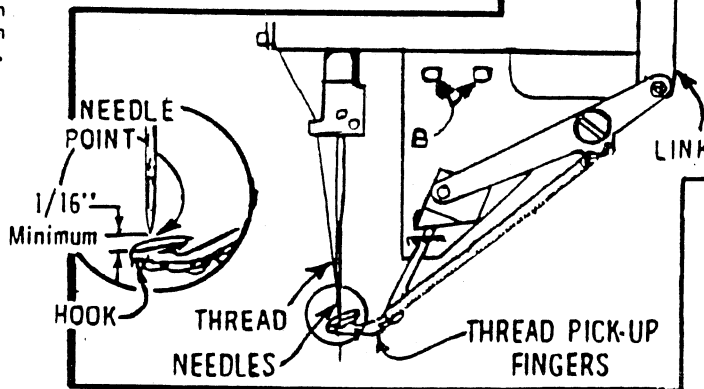
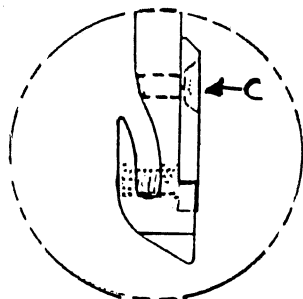
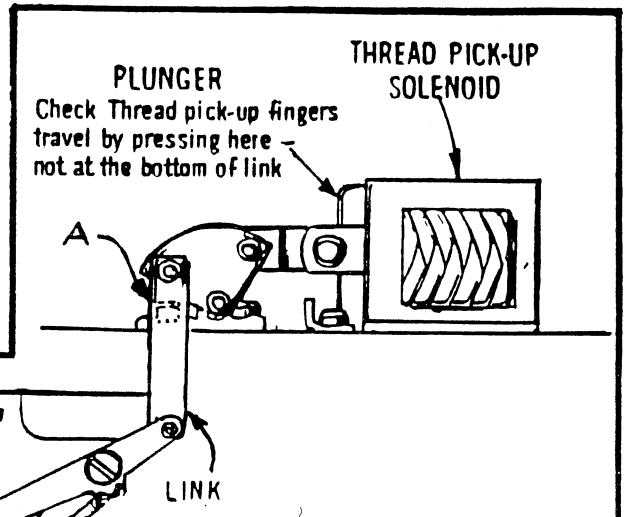


THREAD PICK-UP FINGERS

The Thread Pick-up Fingers are designed to pass just beneath and beyond the needles, grasping the thread taut before trimming.

TO ADJUST:

Press thread pick-up solenoid plunger by finger pressure until it bottoms. The pick-up fingers should be in a position as shown (see insert); if fingers do not pass needle thread when plunger is pushed in, loosen screws (A) and move as required. Set screws (B) are provided to align the fingers with the needle thread.



To replace the spring, which is located inside the pick-up finger, loosen screw (C) and turn retaining plate. Be careful that the spring inside does not hit your eyes. Replace spring; pushing down on spring, turn retaining plate to its locking position; tighten set screw.

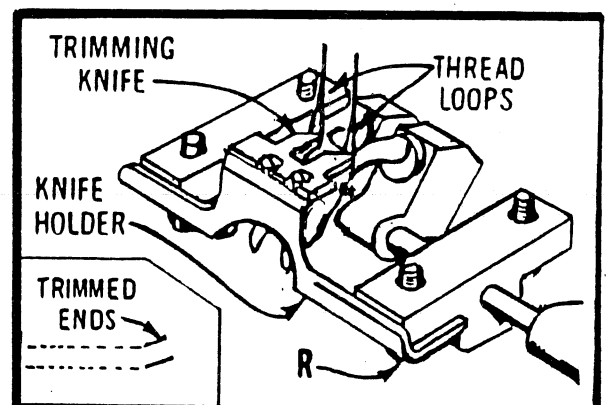
THREAD TRIMMING

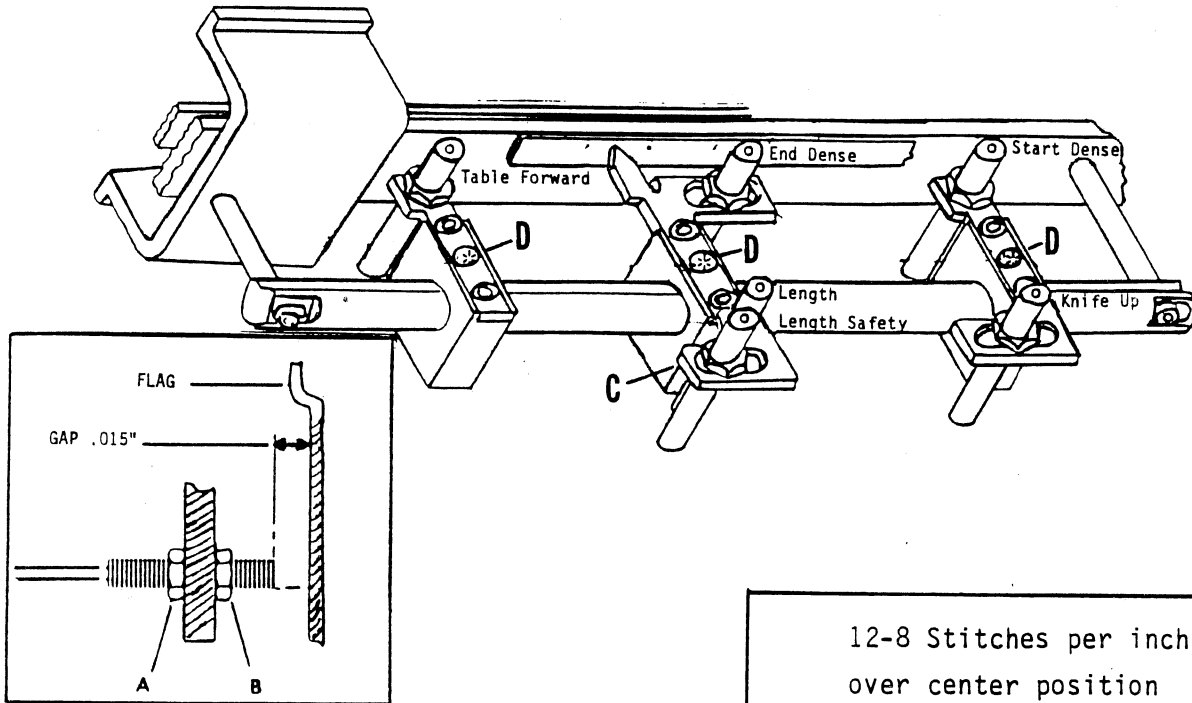
Thread trimming takes place as the clamp table moves forward at the end of the sewing cycle. This movement brings the inside legs of the thread loops into contact with the trimming knife, cutting the thread as shown. The trimmed ends should be approximately 1/2" long as shown in insert.

IMPORTANT: Never operate with a dull knife that breaks the thread close to the last stitch as this may result in a raveling back of the stitching.

SHARPENING TRIMMING KNIFE

Loosen screws (R) and remove knife holder and stone trimming knife to a keen edge, maintaining the bevel on the underside of the edge. (It is not necessary to remove knife from the holder.) Reset the knife holder, keeping the knife as close as possible to the loopers without touching them, and tighten screws (R) securely.





12-8 Stitches per inch
over center position

.....

.....

5-6 evenly spaced at
end for stitch density

START DENSE

The start dense stitches are controlled by the distance from the flag when the table is in its back position to the start dense proximity sensor.

As soon as the knee switch is depressed, the start/end dense and center dense solenoids are on and will stay on until the flag reaches the start dense proximity sensor.

Adjustment: For less dense stitches, loosen screw (D) and move bracket back, and forward for more.

CENTER KNIFE

The center knife will go up when the flag reaches the center knife up proximity sensor.

Adjustment: By loosening nuts (A) and (B), the sensor can be moved back or forward to bring the knife up sooner or later.

LENGTH

The length of sew is controlled by the length proximity sensor.

Adjustment: By loosening screw (D), the bracket (C) can be moved back or forward to give a shorter or longer pocket.

END DENSE

The length of end dense stitching is determined by the distance between the end dense proximity sensor and the length proximity sensor.

Adjustment: By loosening nuts (A) and (B), the sensor can be moved back or forward to increase or decrease the length of end dense.

LENGTH SAFETY

The length safety proximity sensor will prevent the table travelling forward if any of the previous sensors fail.

Adjustment: The distance between the length and length safety sensor should be set to a minimum distance such that the length proximity sensor comes on first.

TABLE FORWARD SENSOR

Should be set all the way forward.

NOTE: All gaps between sensors and flag should be .015".

Normally, a center knife should be replaced approximately every 5000 pockets, depending upon the material being cut. Within that period, the knife may require resharpening. This can be done using a fine grade of oil stone. As the knife begins to dull, a pounding noise will be heard or a ragged center cut will be made. A supply of sharpened or new knives should be available for replacement.

TO REPLACE

To replace a center knife, first set the machine to Man Back position. Depressing the pedal will raise the clamps and send the table back. While keeping the pedal depressed, bring the knife up by switching the Knife Toggle switch to the UP position. At this time, clamps, patch guide and knife will remain up, and your foot can be taken off the pedal.

Loosen the two clamp screws (A) on the knife holder. At this time, the knife can be raised through the throat plate.

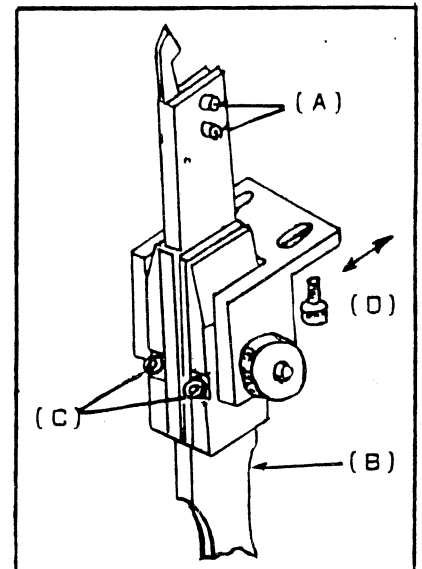
To replace the center knife, place the knife down through the throat plate and between the knife clamp plate, all the way down to the stop screw. Tighten screws (A).

SIDE PRESSURE

While the clamps and patch guide are still in their raised position, disconnect the air from the machine. At this point, pull down the knife holder (B) and up again. Observe the center knife - it must not deflect more than .002" and must pass flush with the throat plate cutting edge.

TO ADJUST

Loosen set screws (C) and adjust center knife sideways until the knife contacts the throat plate cutting edge. If a gap exists between the knife and the throat plate, loosen set screws (D) and rotate slightly; tighten set screws. At this point, the center knife should be able to cut a single strand of thread. By switching the knife toggle switch to AUTO position, the knife, patch guide and clamps will lower to their rest position. Reconnect air supply.



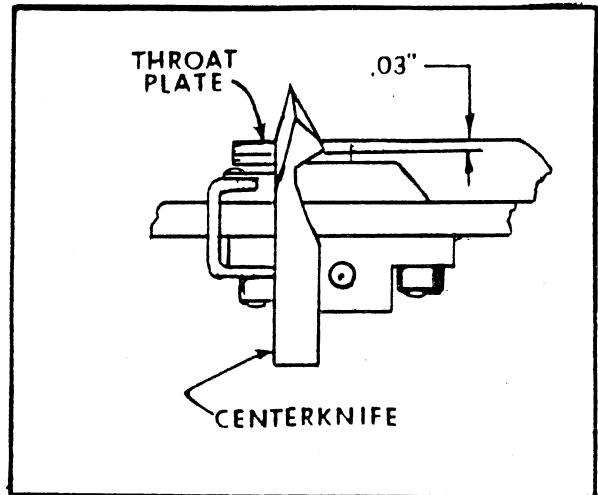
CENTER KNIFE HEIGHT ADJUSTMENT

When the center knife is in the cutting position, it should be adjusted so the knife point at the leading edge is $1/32"$ (.03") below the top surface of the throat plate at the bottom of its stroke.

TO ADJUST

With the clamp table in the rear position and the power and air off, manually push the knife holder up into the cutting position. At this time, push the start stop solenoid link up to engage the machine. Now rotate the handwheel until the center knife is at the bottom of its stroke.

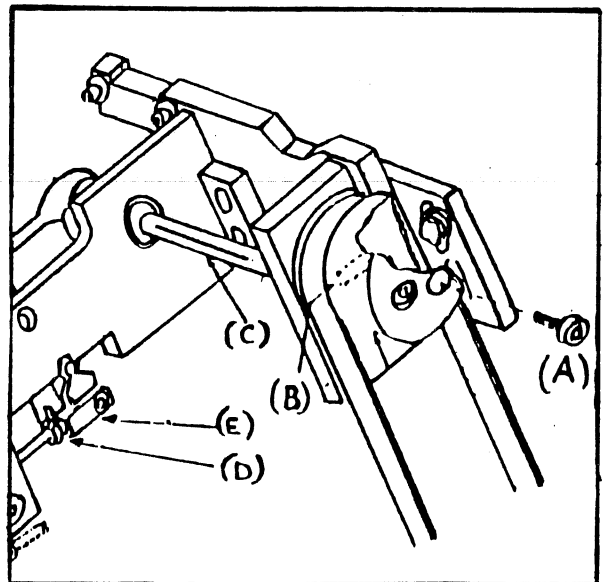
If adjustment is required, loosen nut (D) on air cylinder rod clevis and screw rod in or out of clevis (E).

CENTER KNIFE TIMING

The knife should be timed with the needle bar such that when the needle bar is coming down, the center knife is also coming down.

TO ADJUST

If a timing belt has to be replaced, have the clamp table in the rear position with the pump OFF and the air supply disconnected; remove the three screws (A) on the handwheel. Loosen the two screws on the timing belt drive pulley (B). You now can pull the drive shaft and timing belt off. Rotate the drive shaft so that the center knife is all the way up and ready to descend into the throat plate. Carefully replace the pulley and timing belt, tighten the two screws (B) and replace handwheel and three screws.

CENTER KNIFE FINISH CUT

This adjustment should be made prior to setting the center knife start cut. The center cut should stop cutting approximately $1/4"$ before the end of sew. The End Dense sensor sends the center knife down.

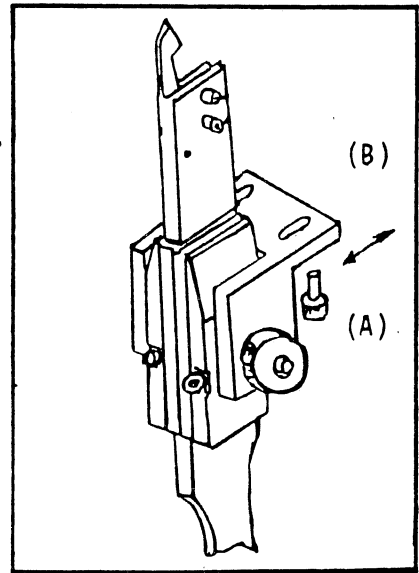
CENTER KNIFE FINISH CUT (Cont'd)

As soon as the End Dense sensor comes on, the solenoid valve sends air to the cylinder, and this pulls the center knife down from its cutting position. Once this adjustment is made, it will not require re-adjustment when changing welt lengths.

TO ADJUST:

Loosen the socket head cap screws (A) holding the center knife pivot block (B) and slide it forward to decrease center cut length, and back to increase center cut length.

"CAUTION": Positioning the pivot block too far forward may result in interference with the thread trim bracket. It may become necessary to readjust the center knife to the throat plate if the above adjustment is made.



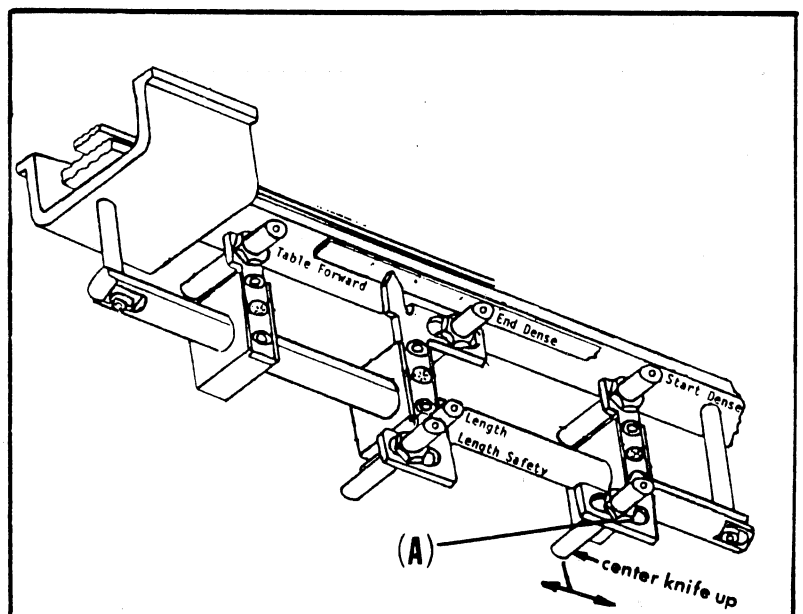
CENTER KNIFE START CUT

This adjustment is made after setting the finish cut position. The center cut should start approximately 1/4" after sew. The Knife Up proximity sensor turns on the solenoid valve which drives the knife up through the material into the cutting position.

TO ADJUST:

Loosen nut (A) on proximity sensor and move switch down towards the rear of the machine to increase the length and towards the front to decrease the length of cut.

NOTE: When adjusting the proximity sensor, check the gap of .015" between the flag and proximity sensor.



Tab cutting should be accurately centered with respect to the two rows of stitches and center cut. To establish and maintain this position, adjustments should be made in the following manner.

Check that there is no side play in the tab knife assembly. If adjustments are required: loosen screws (A) and back off screws (B) about 1/8" turn, then retighten screws (A) and check for play between cam plate and end of guides (C). Repeat this adjustment until play is eliminated without binding of the cam plate.

CENTERING OF TAB KNIFE ASSEMBLY

The lower ends of the tab knives should be centrally located between the clamping mats when tab knives are at their maximum up stroke.

TO ADJUST:

Loosen screws (F) and position tab knife assembly as required.

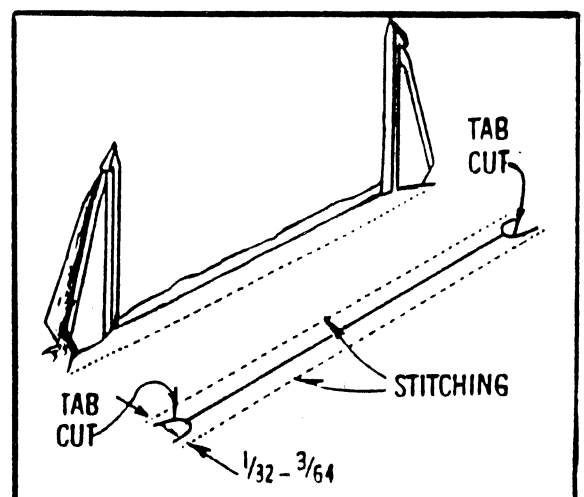
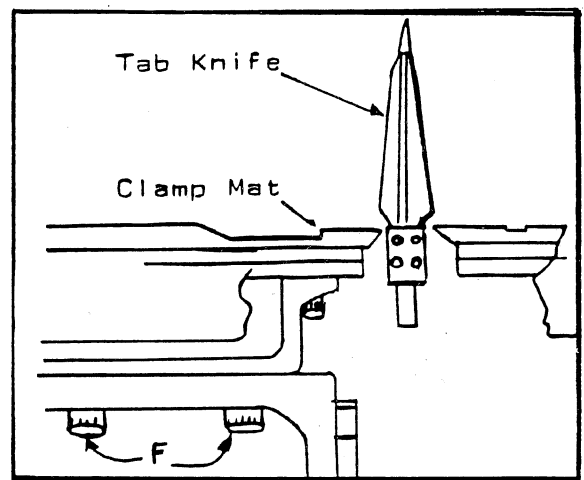
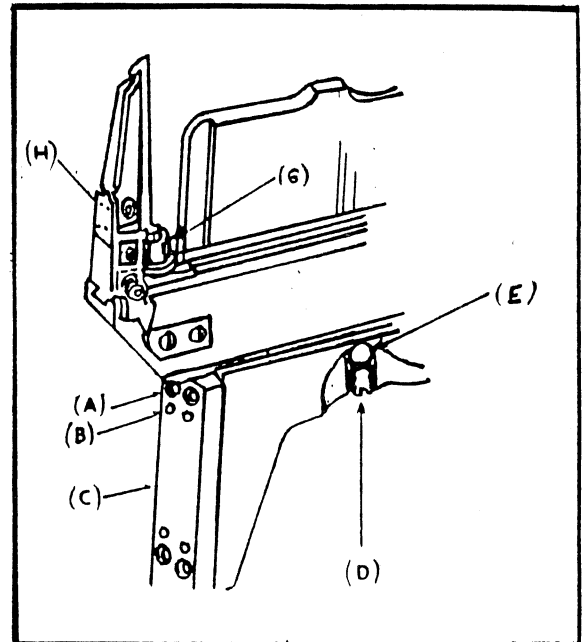
HORIZONTAL ADJUSTMENTS

Front and rear tab knives should be positioned so that the tab cuts are even with the ends of the stitching and also equidistant from the sides of stitching. Side clearance between the tab knives and stitching must be $1/32"$ to $3/64"$.

TO ADJUST:

Endwise adjustment of tab knives are made by means of screws (G).

Sidewise adjustments are made by means of screws (H).



SETTING PROXIMITY SENSORS

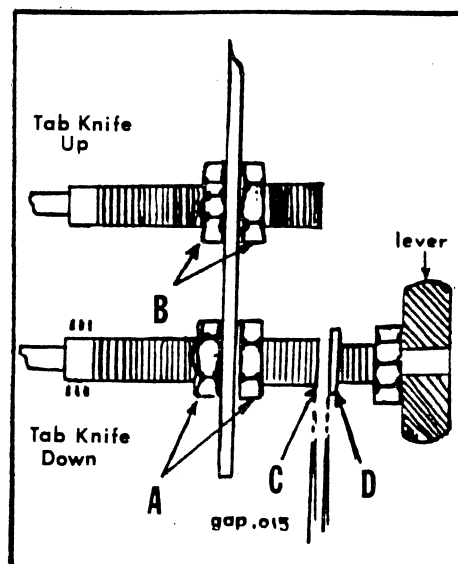
Tab Knife Down Sensor

With the power and pump ON, bring the table forward. The LED on the proximity sensor should be on; if not, loosen nut (A) and move proximity sensor up or down as required.

Also, a gap of .015" should be maintained between the sensor (C) and the actuator (D) on the tab knife lever.

Tab Knife Up

Press tab knife toggle switch to the UP position; observe the position of the proximity sensor to the actuator on the tab knife lever. If adjustment is required, loosen nut (B) and move switch up or down in its bracket till the LED lights up. The gap should also be .015" to the actuator.

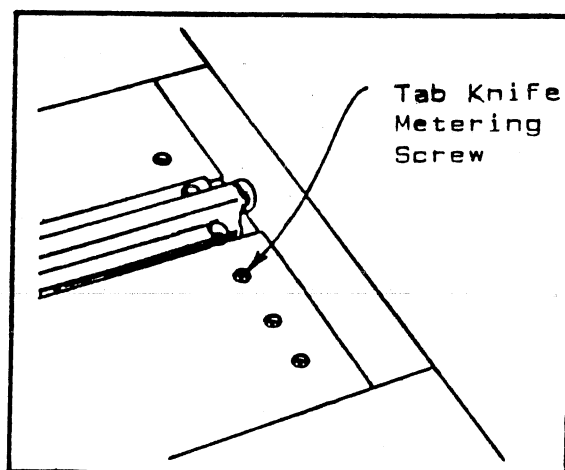


TAB KNIFE SPEED ADJUSTMENT

The tab knives should operate at a reasonable speed that does not jar or strain the mechanism.

TO ADJUST:

Turn tab knife metering screw at the back of the bed plate outward for a faster speed or inward for a slower speed.



CLAMPING SPEED - UP AND DOWN

Clamp speed is adjusted by varying the flow of oil to the clamping cylinders by means of clamping metering screw (I).

To Adjust: Turning metering screw clockwise will slow the clamps down, and counter-clockwise will speed them up.

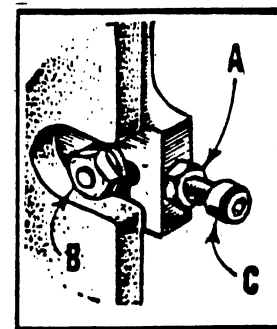
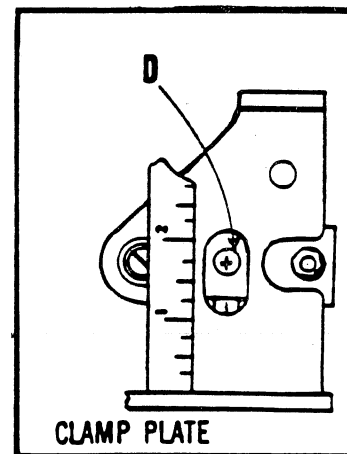
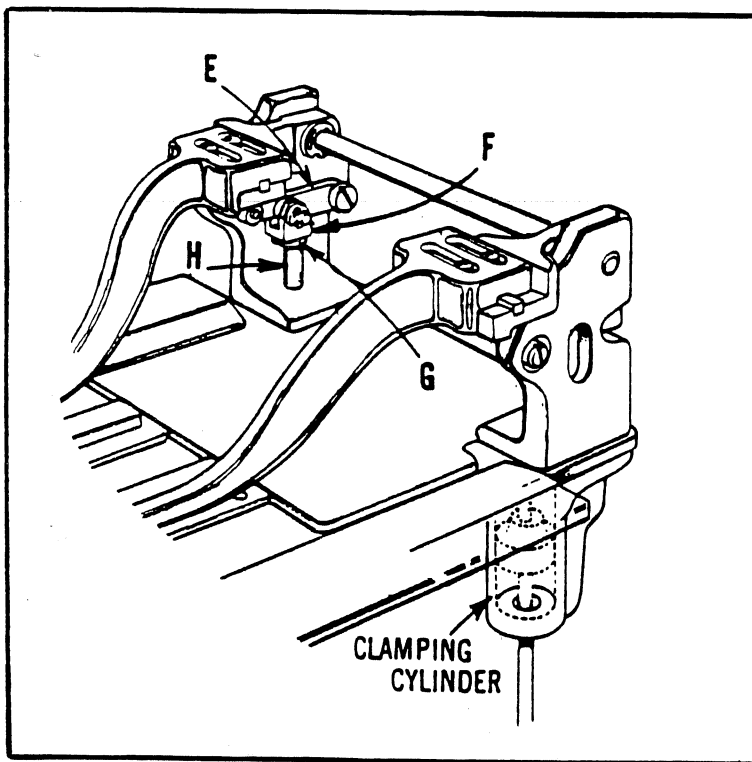
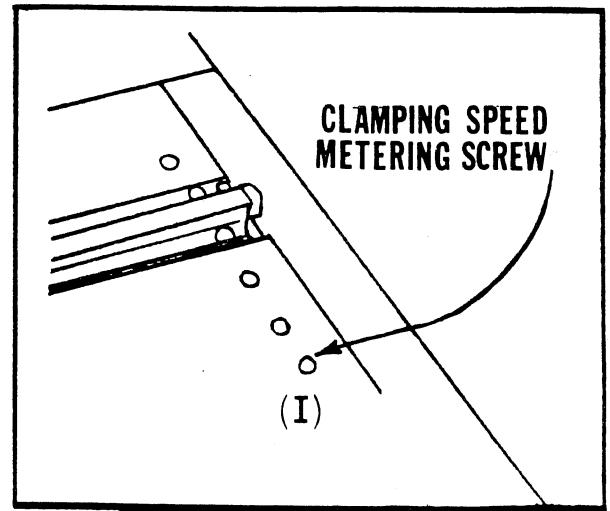
ADJUSTMENT OF PRESSURE

With the machine power OFF, release all the clamping pressure by loosening nuts (A) and (B), then backing of screw (C). Switch main power and pump ON, then tighten nut (B).

Operating clamp with the power ON, check that levers (E) are close to alignment when clamps are in their down position. This alignment is correct when the center of pin (D) is approximately 1-3/4" above the clamp plate.

If adjustment is required, loosen nut (G) and turn piston rod (H) in or out of clevis (F) until alignment is correct. For minor adjustment, turn piston rod (H) with small pliers. For greater adjustment, remove fitting under clamp cylinder, and turn piston rod from the bottom with a screwdriver, pressing upwards while making this adjustment.

To apply a greater amount of pressure to the clamps, turning screw (C) in 1/2 turn at a time on either side will give the clamps a greater amount of pressure.



Stitch Density and Clamp Table Travel Speed

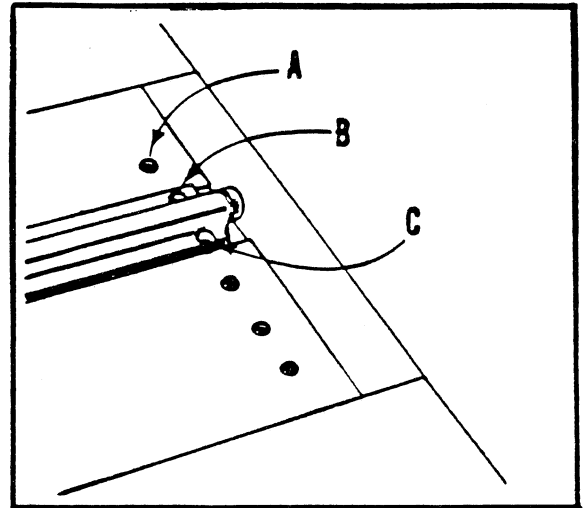
CAUTION: A very small amount of turning of metering screws (B) and (C) is required to alter the center and dense stitches.

Clamp Table Speed should operate at a moderate speed; turning screw (A) counterclockwise will speed the table up, and clockwise will slow it down.

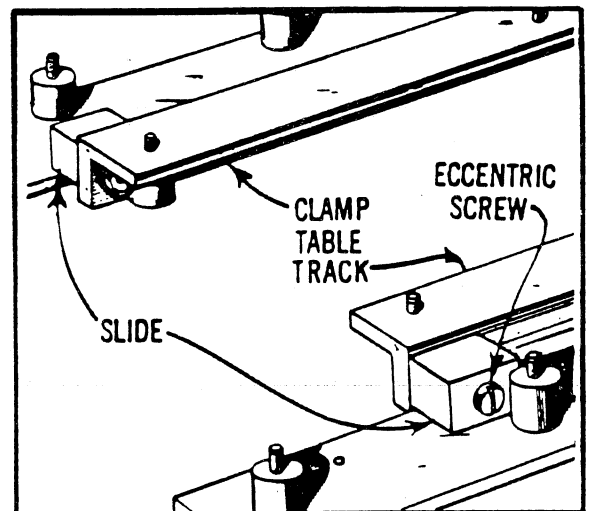
End Density: Recommended density is 22 to 24 stitches per inch. Turn meter screw (C) clockwise for more stitches and counterclockwise for less stitches.

Center Density: Recommended density is 12 to 8 stitches per inch. Turn screw (B) clockwise for more and counterclockwise for less stitches.

Clamp Table Slides: Slides which ride on clamp table tracks should be adjusted so that the clamp plate does not rub the bedplate.



To Adjust: Set slides by turning eccentric screws to set the clamp table to obtain the proper clearance.



PATCH FOLDING SPEED

Speed of Patch Guide and Patch Folders is adjusted by varying the flow of hydraulic oil to the Patch Folding Cylinder by means of the Patch Folding Metering Screw.

TO ADJUST: Turning Patch Folding Metering Screw in (clockwise) slows movement. Turning this meter screw out (counterclockwise) produces a faster patch folding action.

VERTICAL ADJUSTMENTS

Adjust the front edge of the Brush Blades to the lowest level that will fold the Welting and Backing Material snugly into the corners of the Patch Guide.

TO ADJUST: Obtain this setting by means of screws (E). Rear end of Brush Blades must then be set 1/32" higher than the front edge of Brush Blades.

TO ADJUST: Combination of loosening and tightening screws (F) and (G) will vary height of rear end of Brush Blades. To raise rear end, loosen screw (G) and tighten (F). To lower, loosen screw (F) and tighten (G).

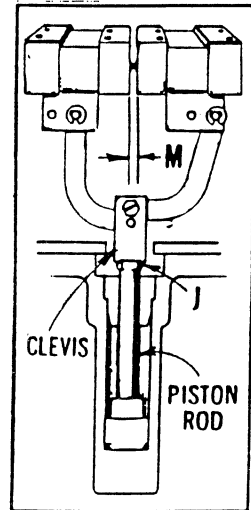
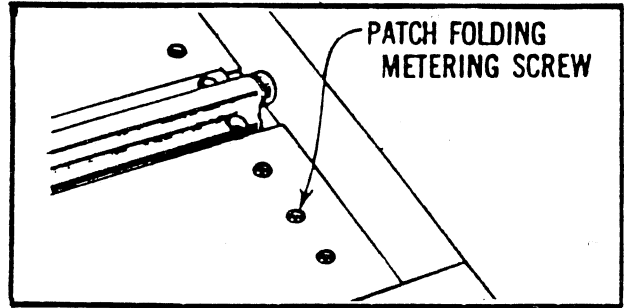
HORIZONTAL ADJUSTMENTS

The Brush Blades must close parallel to the Patch Guide and with clearance on each side of the Patch Guide equal to the thickness of Welting and Backing Material. To assure accurate performance, it is essential that the correct relationship exists between the Patch Folding Arms, Slide Blocks, Slide Bracket and Clevis.

TO ADJUST: After proper settings are obtained, it may still be necessary to re-establish parallel relationship between Brush Blades and Patch Guide by means of screws (F). Further adjust for more or less clearance between Patch Guide and Brush Blades can be obtained by turning Piston Rod in or out of Clevis.

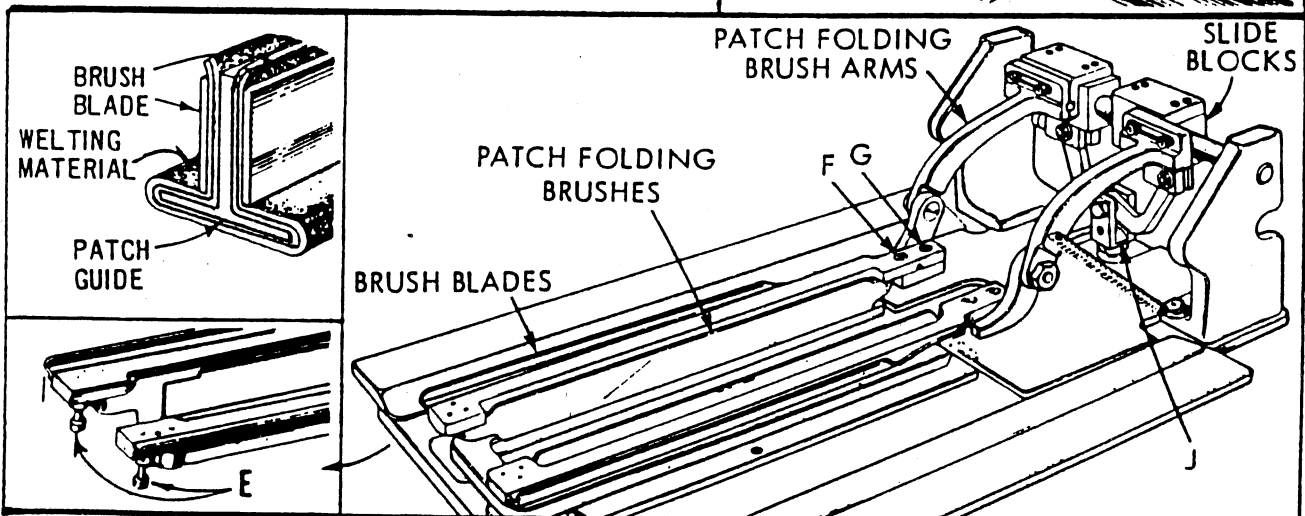
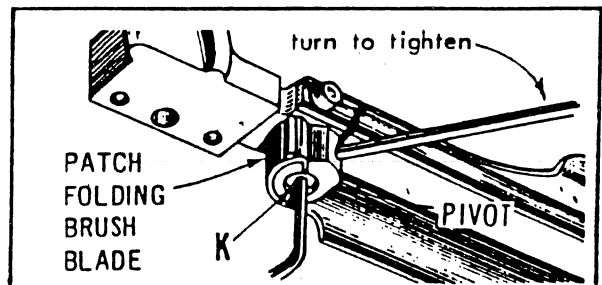
TO ADJUST: Loosen Nut (J) and using a pair of pliers (03-0123 ignition pliers), turn Piston Rod in or out of Clevis. Keep pliers close to Nut (J) when making adjustment. Clearance (M) varies with Patch Guide setting used when Patch Folding Brush Arms are in the closed position.

IMPORTANT: Patch Folding Brushes must not deflect Patch Guide when Welting and Backing material is being folded. If this occurs, uneven welting or needle breakage may result.



INSTALLATION OF PATCH FOLDING BRUSH BLADES

Install Patch Folding Brush Blades by loosening screws (K) at both ends of Patch Folding Brush. Install Brush Blade to full depth of slot in Pivot. Tighten screw (K) at one end of Brush. Then, placing hex wrench in Pivot at the other end of Brush, turn to draw the Brush Blade taut. Finally, tighten remaining screw (K).



PATCH GUIDES

IMPORTANT: THE PATCH GUIDE IS FACTORY POSITIONED FOR EXACT CENTRALIZATION. DO NOT CHANGE LOCATION OF THE HINGE BRACKETS

ELIMINATION OF SIDE PLAY

If play exists between the Patch Guide and the Patch Guide Arm, tighten screws (A) sufficiently for slight restraining of the Patch Guide. If play exists between the Patch Guide Arm and Hinge Brackets, loosen only one Hinge Bracket and, while pressing brackets together, retighten screws (B). As long as one Hinge Bracket remains fixed, Patch Guide Arm will remain centralized.

LEVELING OF PATCH GUIDE

The bottom surface of the Patch Guide should rest flat on the top surface of the Throat Plate. For front to back alignment, adjust by screw (C).

PATCH GUIDE/THROAT PLATE ALIGNMENT

Align Patch Guide by screws (D) so that needle slots are in line with needle slots of Throat Plate. If Patch Guide can not be aligned by screws (D), then re-position entire Patch Guide Arms by means of screws (L), then adjust Patch Guide by means of screws (D).

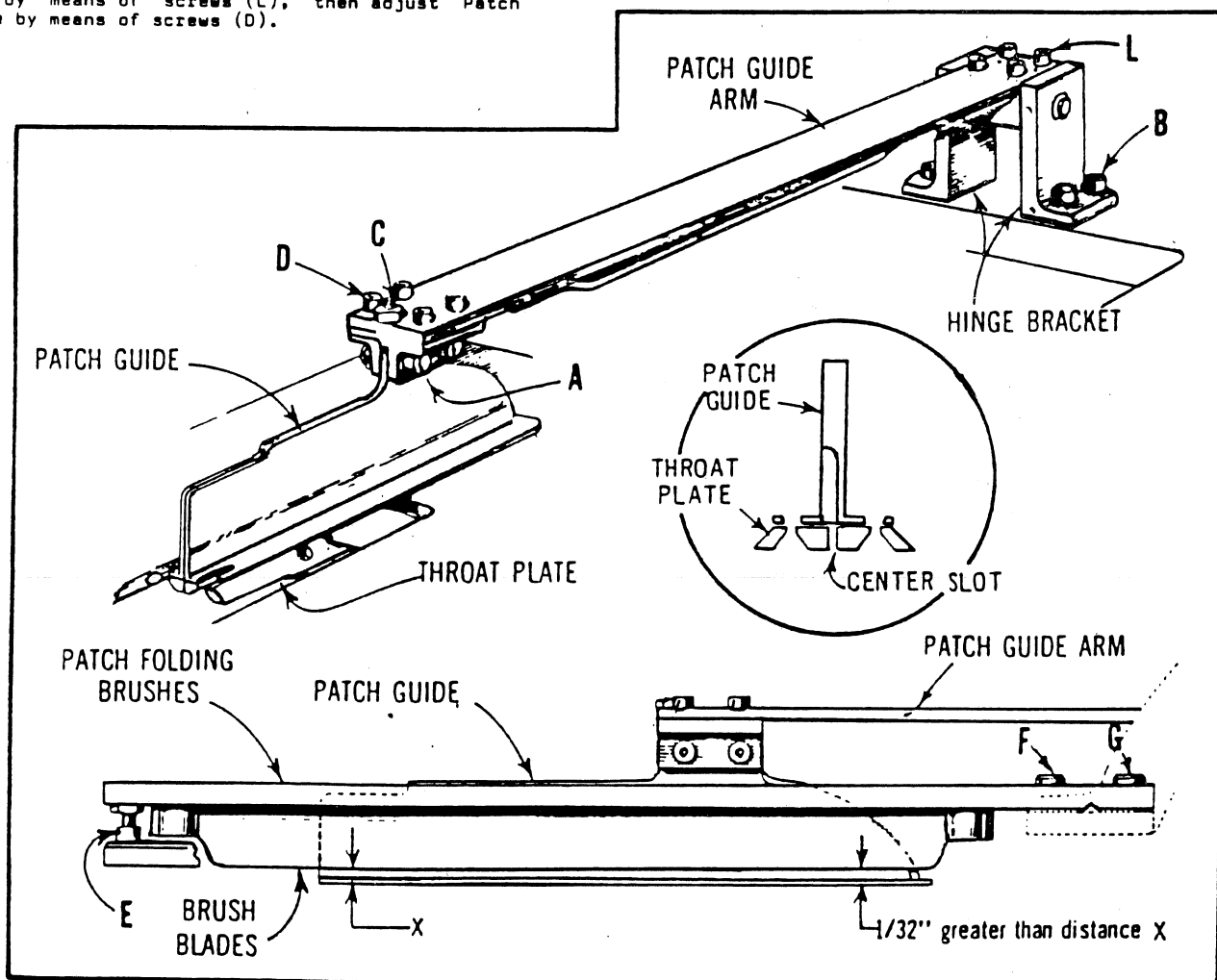
PATCH FOLDING BRUSHES

The Patch Folding Brushes must be adjusted to fold the Welting and Backing Material snugly into the corners of Patch Guide.

The material must also fit evenly against entire length of Patch Guide.

PRELIMINARY CHECKPOINTS

Check Patch Guide adjustment. Patch Folding Brush Blades must be correct for the weight of welting material.



For proper loading and folding of wetting, the following conditions must be met:

1. Smooth and uninterrupted movement of the A.P.L. arm.
2. The arm should not be deflected or bind as it contacts the stop.
3. Sides of the patch tray should be parallel with sides of the patch guide.
4. A 1/2" clearance between the needles and the inside edge of back block when patch tray is in the loading position.
5. Patch guide must be centered in the opening of the patch tray.

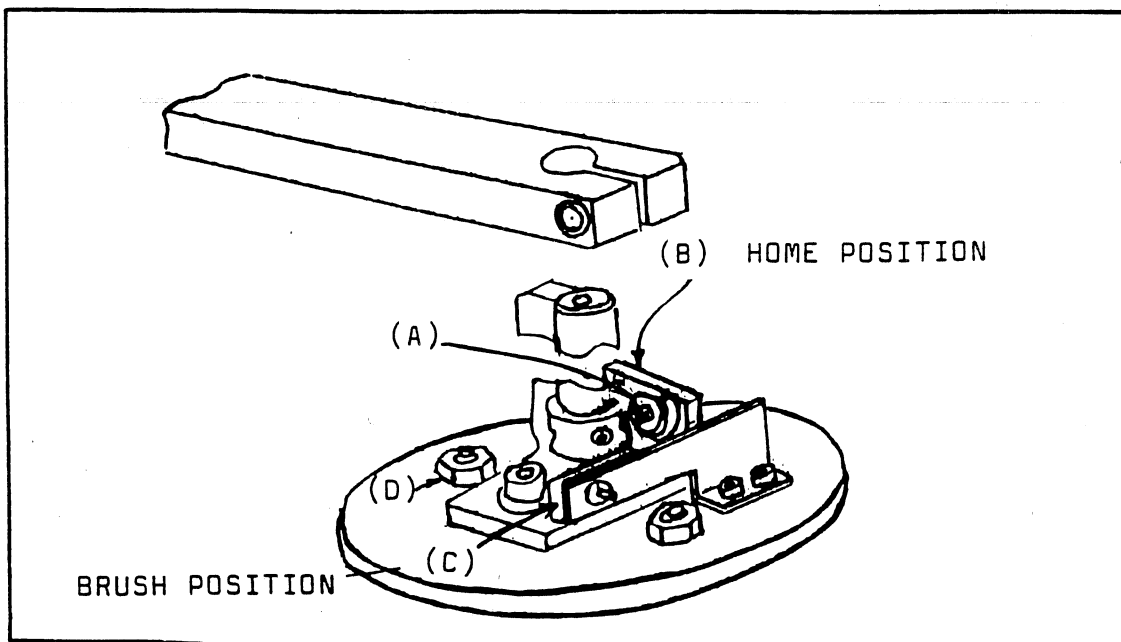
In order to make any adjustments, the A.P.L. should be set to operate manually.

1. Turn off main power and pump switch.
2. Set test/operate toggle switch to test.
3. Set thumbwheel switches to number 72.

A.P.L option switch on I/O board should be on "1".

4. Press main switch on.
5. Turn pump on.

As soon as the pump is switched on, the table will come forward. By depressing the pedal, the table will be sent back, the brushes will open and the patch guide will raise. By pressing the table switch to "back", the A.P.L. arm will start its forward movement; when actuator (A) reaches sensor (C), a "2" will show in the status window indicating the arm is in its brush position. When, on its return stroke, actuator (A) reaches sensor (B), a "1" will show in the status window indicating the back position. By releasing the table switch, the A.P.L. arm will stop at any point.

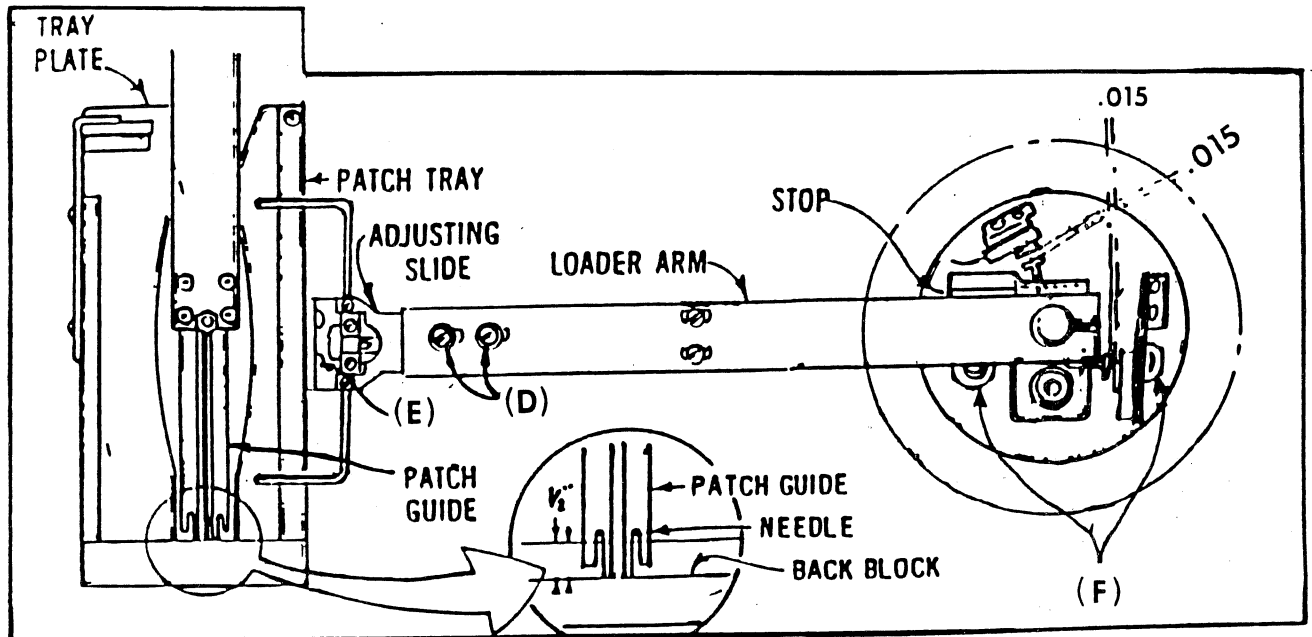


6. Operate the table switch several times to determine when the arm is at its furthest point beneath the patch guide. Momentarily actuating the table switch to its back position will allow intermittent operation of the A.P.L. arm. Bring the patch tray in to its furthest point beneath the patch guide. At this point, the patch guide must be centered in the opening of the patch tray.

To adjust: loosen screws (D) and centralize the patch tray to the patch guide.

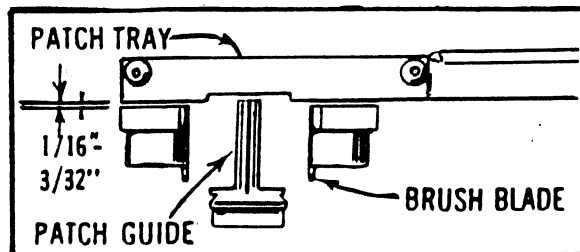
7. Set the stop to lightly contact the loader arm in its loading position and check the distance between the needles and patch tray back block. A distance of $1/2''$ should exist.

To adjust: loosen screws (E) to obtain this setting. This setting can also be obtained by loosening nuts (F) and repositioning entire patch loader motor assembly. While making these adjustments, maintain the parallel relationship between the patch guide and the sides of the patch tray. After obtaining the adjustments, operate the A.P.L. several times to check that no binding exists.



8. Patch tray height adjustment - the clearance between underside of the patch tray and top of brushes should be approximately $1/16''$ to $3/32''$.

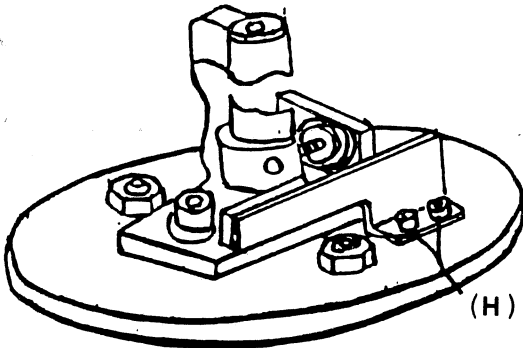
To adjust: loosen screw (G) to raise or lower loader arm. Take care not to lose previous loader arm stop adjustment.



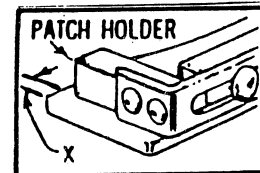
9. Gap setting between actuator and sensors - a gap of .015" should exist between the sensor and the actuator. Loosen screws (H), adjust sensor bracket in or out as required.

10. Setting the home position sensor - operate the table switch several times to determine when the arm is at its home position. Loosen sensor bracket set screws and move bracket in the direction so that the number "1" in the status window will just come on, a gap of .015" should be maintained between the actuator and the sensor.

11. Setting the brush position sensor - operate the table switch several times to determine when the arm is at its furthest point beneath the patch guide. Momentarily actuating the table switch to its back position will allow intermittent operation of the patch loader arm. Loosen sensor bracket set screws and move bracket in the direction so that number "2" in the status window will just come on, a gap of .015" should be maintained between the actuator and the sensor.



Patch holder is used to keep the wetting and back patches in place as they are being carried to the loading position. The distance (X) from the patch holder and front edge of left tray plate should be slightly more than the thickness of the wetting and backing patches. This is to allow easy insertion of wetting and backing material and also to prevent interference with patch folding.



To exit the test program, push down on the table toggle switch to forward; this will make the A.P.L. arm move to the home position, and the A.P.L. arm will come to a rest.

Set the test toggle switch to operate.

Set the machine in either auto front or back; make a test pocket. If the patch material is not centered beneath the patch guide, adjust patch material position.

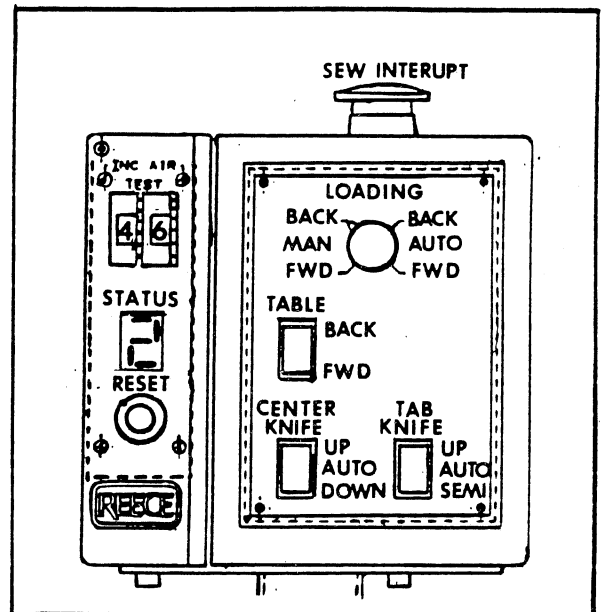
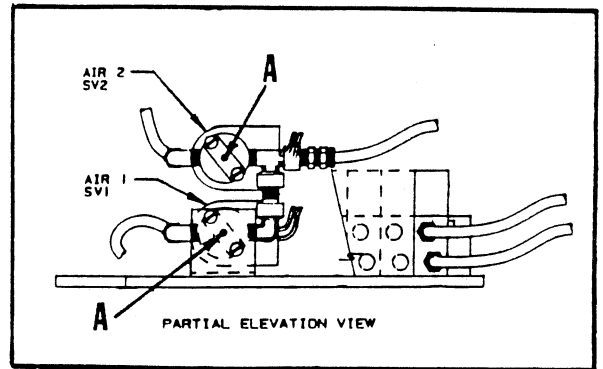
TO ADJUST PATCH MATERIAL POSITION

Loosen screws C & D and move the brush proximity sensor back or forward to place patch material further out or in to the patch guide.

The Work Unloader consists of two air jets, one built into the right hand table top and the other built under the pocket tray assembly. The Unloader requires an air supply of 80-100 PSI, and the solenoids must be set for maximum air flow. Located on the I/O Board is a dip switch; the second switch must be placed in the up position to activate the air supply. Also, screws (A) should be adjusted for maximum air flow. The ideal condition for air jets is to have them set for the shortest possible duration needed to carry the work away from the machine. The jet to the right should be set for a shorter time than the left.

ADJUSTMENT

Duration of the Air Jets is set by changing the number on the corresponding thumbwheel switch located on the control panel. The number to the right is for the right air jet and the number to the left is for the left air jet. Each time a number has been dialed, the reset button must be pressed to initiate the timer.



1: For Standing Operation

If, for any reason, you wish to interrupt the sew eye, depress the sew interrupt button on top of the control console. This will halt the sewing and prevent the tab knives coming up. Also, it will enter into a repair mode. Unpick the unfinished welt, press the pedal, sending the table back to its start position; replace a new patch and pellon and depress the interrupt again; you can now depress the knee switch, thus restarting the cycle.

2: For Sitting Operation

Pressing the knee switch again will halt the machine during sewing, sending the machine into a repair mode. A steady 2 will appear in the status window. Unpick the unfinished welt; pressing the foot pedal will send the table back to its starting position.

The 32-100 II-Position differs from a standard 32-100 machine by the addition of a special tab knife assembly which provides for automatic selection of two different pocket lengths.

The 32-100 II-Position machine has a low range of sewing of 2-3/8" to 5". The high range of sewing is 4-3/8" to 7-3/8"

There is a toggle switch on the console labelled Short and Long; at the side of this switch are two LEDs, which light up when the switch is moved to the desired position. Fig. 1.

SEW LENGTH ADJUSTMENT

First, set the tab knife toggle switch to Semi, Fig. 1. Lift the bedplate and adjust the Long and Short actuator blocks, A and B, Fig. 2, to the desired lengths.

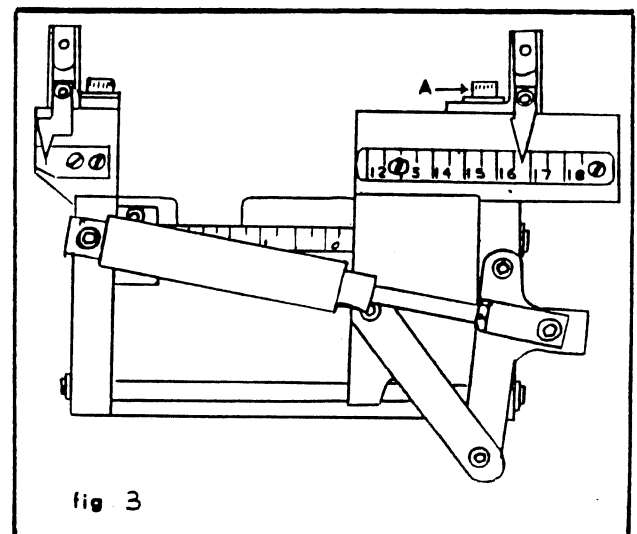
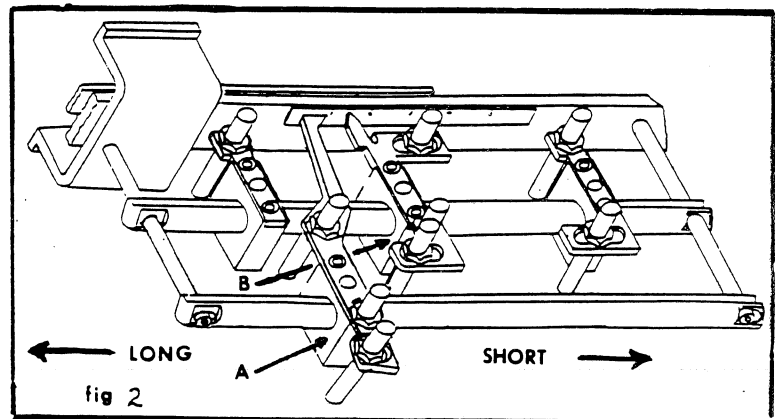
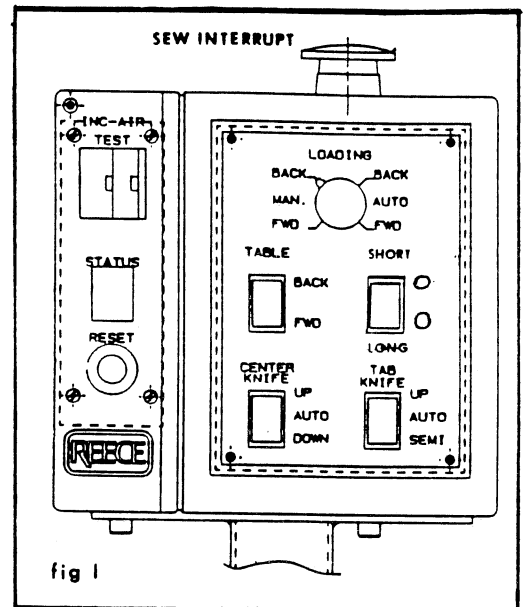
Sew on a piece of paper to check for proper sew length; if not correct, re-adjust either A or B blocks until you obtain the desired lengths.

HORIZONTAL ADJUSTMENTS

Front and rear tab knives should be positioned so that tab cuts are exactly even with ends of stitching and also equidistant from sides of stitching. Side clearance between tab knives and stitching must be 1/3 inch to 3/64 inch. Refer to Page 20 of this Service Manual.

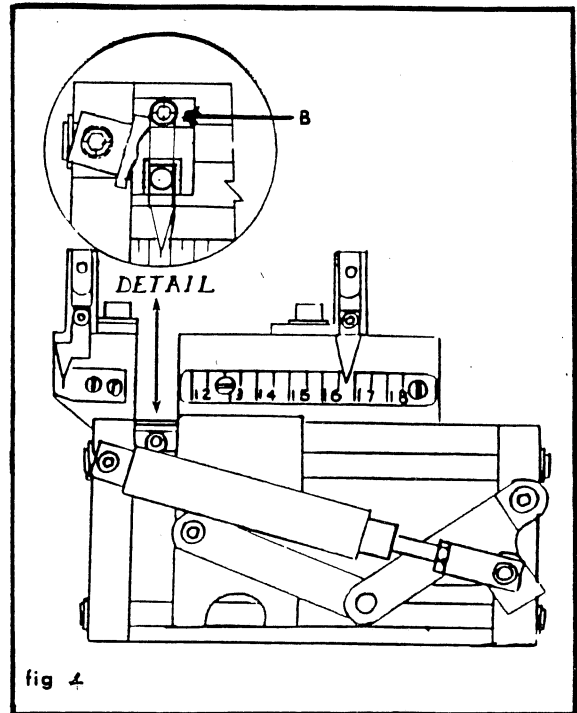
TAB CUTTING LONG

Set the back tab knife to the desired long position. Loosen screw A, Fig. 3, and move in direction required; tighten screw A. Sew on a piece of paper. Depress the knee switch to raise the tab knives; when completed, remove the paper and check position of tab cut; if further adjustment is required, repeat adjustment above.



TAB CUTTING SHORT

To adjust clamp stop B, Fig. 4, position stop on shaft to the approximate position, change the position of toggle switch on console to Short. On paper, run a cycle; depress the knee switch to raise the tab knives, and check the position of tab cut. If further adjustment is required, press reset on console. This will send the tab knife shuttle assembly back to the long position so that you can make additional adjustments to stop B, Fig. 4; repeat sew test and tab cut as above.

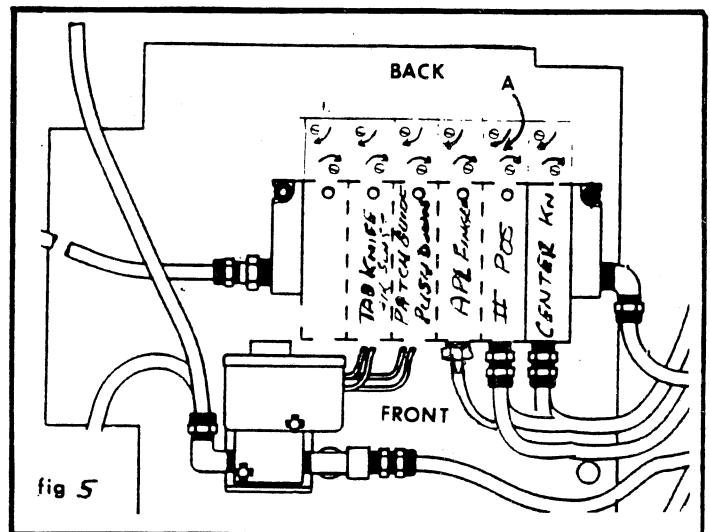


ADJUSTMENT OF AIR SOLENOID VALVE

Remove front right electrical panel.

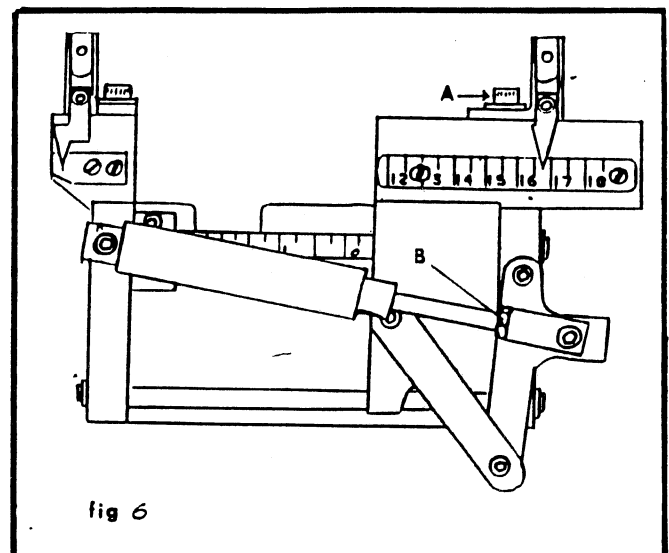
The speed of the tab knife assembly is adjustable by slowly turning the two screws (A) clockwise. With the assembly down, turning the screw counterclockwise speeds the assembly up.

NOTE: Do not have the slide block hitting the stop clamp assembly and the end of the tab knife frame too hard as this may cause damage to the unit.



TAB KNIFE END PLAY

If too much end play exists in the shuttle assembly, this will cause irregular tab cuts; adjustments can be made by loosening nut B, Fig. 6, and turning cylinder rod out of the clevis.



SOLID ERROR NUMBERS



RAM/ROM FAILURE (Start Up)

- A.P.L. option switch on when no A.P.L. is present
- Bad C.P.U. Board
- Bad I/O Board (dip switch failed)



TABLE DID NOT GO BACK IN ALLOTTED TIME

- Something obstructing bedplate, slowing down or halting travel
- Start Dense proximity sensor failed
- Table Drive solenoid failed

NOTE: Pressing the reset button will clear the error and bring the table forward



MACHINE HAS ENTERED REPAIR MODE

- Thread monitor detected loose or broken thread
- Knee switch was depressed during sewing
- Sew Interrupt switch was depressed during sewing



TABLE DID NOT COME FORWARD IN ALLOTTED TIME

- Something obstructing bedplate, slowing down or halting travel
- Table Forward proximity sensor failed
- Table Drive solenoid held on

NOTE: Press reset to clear



NO A.P.L. OPTION PRESENT

- Loading switch on Control Console set to Auto position when there is no A.P.L. present



FOLDER BRUSHES NOT CLOSED

- Material holding Brush Blades open
- Brushes Closed proximity sensor has failed or is not adjusted

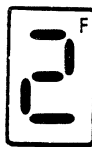


SEW INTERRUPT SWITCH DEPRESSED

- Sew Interrupt switch has been depressed at Table Back or Forward position

FLASHING ERROR NUMBERS

(Requires reset to clear errors)



TAB KNIVES NOT DOWN

- Tab Knives Down proximity sensor not adjusted or has failed at power up or after sewing has been completed
- Obstruction in cam plate guides



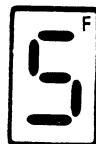
ABORTED AUTO CYCLE

- Loading switch was turned from an auto position to a manual position after initiating an auto cycle and before sewing



TABLE FORWARD FAILURE

- Table Forward proximity sensor has moved out of adjustment or failed after initiating the sew cycle.



TAB KNIVES DID NOT COME DOWN IN ALLOTTED TIME

- Tab Knives Down proximity sensor not adjusted or has failed
- Obstruction in cam plate guides



TAB KNIVES DID NOT GO UP IN ALLOTTED TIME

- Tab Knives Up proximity sensor not adjusted or has failed
- Obstruction in cam plate guides
- Dull tab knives
- Incorrect center cut length



MAIN DRIVE SHAFT STOPPED OUT OF POSITION

- Timing proximity sensor not adjusted or has failed
- Stop Sew solenoid failed
- Mechanical stop motion failed



AUTO PATCH TRAY DID NOT REACH "A.P.L. AT BRUSH" PROXIMITY SENSOR IN ALLOTTED TIME

- A.P.L. At Brush proximity sensor not adjusted or has failed
- A.P.L. arm travel is obstructed

