

SERVICE MANUAL

MODEL:15822

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WHAT TO DO WHEN

CONDITION	CAUSE	HOW TO FIX	REFERENCE
1. SKIPPING STITCHES	1. NEEDLE IS NOT INSERTED PROPERLY.	INSERT THE NEEDLE PROPERLY.	P.16 P.17 P.13,14
	2. NEEDLE IS BENT OR WORN.	CHANGE THE NEEDLE.	
	3. INCORRECTLY THREADED	RETHREAD.	
	4. NEEDLE OR THREAD ARE INAPPROPRIATE FOR THE FABRIC BEING SEWN.	USE THE RECOMMENDED SEWING NEEDLE AND THREAD.	
	5. SEWING ON STRETCH FABRIC	USE A #11 BLUE TIP NEEDLE.	
	6. INAPPROPRIATE NEEDLE BAR HEIGHT	SEE MECHANICAL ADJUSTMENT "NEEDLE BAR HEIGHT."	
	7. INAPPROPRIATE NEEDLE TO HOOK TIMING	SEE MECHANICAL ADJUSTMENT "NEEDLE TIMING TO SHUTTLE."	
	8. INAPPROPRIATE NEEDLE TO SHUTTLE CLEARANCE	SEE MECHANICAL ADJUSTMENT "CLEARANCE BETWEEN NEEDLE AND SHUTTLE."	
2. FABRIC NOT MOVING	1. INCORRECT FEED DOG HEIGHT	SEE MECHANICAL ADJUSTMENT "FEED DOG HEIGHT."	P.15
	2. THREAD ON BOTTOM SIDE OF FABRIC IS JAMMED UP.	MAKE SURE TO BRING BOTH NEEDLE AND BOBBIN THREADS UNDER THE FOOT WHEN START SEWING.	
	3. FEED DOG TEETH ARE WORN.	CHANGE THE FEED DOG.	

WHAT TO DO WHEN

CONDITION	CAUSE	HOW TO FIX	REFERENCE
3. BREAKING UPPER THREAD	1. INITIAL SEWING SPEED IS TOO FAST. 2. THREAD PATH IS INCORRECT. 3. NEEDLE IS BENT OR DULL. 4. UPPER THREAD TENSION IS TOO STRONG. 5. NEEDLE SIZE IS INAPPROPRIATE FOR FABRIC. 6. NEEDLE EYE IS WORN. 7. NEEDLE HOLE IN NEEDLE PLATE IS WORN OR BURRED.	START WITH MEDIUM SPEED. USE THE PROPER THREAD PATH. REPLACE WITH A NEW NEEDLE. ADJUST UPPER THREAD TENSION CORRECTLY. USE APPROPRIATE NEEDLE AND THREAD FOR FABRIC IN USE. CHANGE THE NEEDLE. REPAIR THE HOLE OR REPLACE THE NEEDLE PLATE.	P.8
4. BREAKING BOBBIN THREAD	1. INCORRECTLY THREADED BOBBIN CASE. 2. TOO MUCH THREAD IS WOUND ON THE BOBBIN. 3. LINT IS STUCK INSIDE THE HOOK RACE. 4. THREAD QUALITY IS TOO LOW. 5. THREAD IS JAMMING AROUND THE BOBBIN. 6. BOBBIN THREAD TENSION IS TOO STRONG.	THREAD BOBBIN CASE CORRECTLY. ADJUST THE POSITION OF STOPPER. CLEAN THE HOOK RACE. CHANGE TO A HIGH QUALITY SEWING THREAD. CLEAR OUT THE JAMMING THREAD. ADJUST BOBBIN THREAD TENSION CORRECTLY.	P.9
5. NEEDLE BREAKS	1. NEEDLE IS HITTING THE NEEDLE PLATE. 2. NEEDLE IS BENT OR WORN. 3. NEEDLE IS HITTING THE SHUTTLE RACE. 4. THE FABRIC MOVES WHILE THE NEEDLE IS PIERCING IT, OR THE NEEDLE ZIGZAGS WHILE IN FABRIC. 5. FABRIC IS BEING PULLED TOO STRONGLY WHILE SEWING.	SEE MECHANICAL ADJUSTMENT "NEEDLE DROP." CHANGE THE NEEDLE. SEE MECHANICAL ADJUSTMENT "CLEARANCE BETWEEN NEEDLE AND SHUTTLE". SEE MECHANICAL ADJUSTMENT "NEEDLE SWING". GUIDE THE FABRIC GENTLY WHILE SEWING.	P.12 P.13, 14 P.11

WHAT TO DO WHEN

CONDITION	CAUSE	HOW TO FIX	REFERENCE
6. NOISY OPERATION	1. BACKLASH BETWEEN SEE SHUTTLE HOOK GEAR AND LOWER SHAFT GEAR IS TOO GREAT.	MECHANICAL ADJUSTMENT "CLEARANCE BETWEEN NEEDLE AND SHUTTLE (NO.2)".	P.14
	2. LOWER SHAFT GEAR IS LOOSE.	ELIMINATE THE LOOSENESS.	
	3. INAPPROPRIATE BELT TENSION.	SEE MECHANICAL ADJUSTMENT "MOTOR BELT TENSION".	P.22
	4. UPPER SHAFT GEAR IS LOOSE.	ELIMINATE THE LOOSENESS.	
	5. NOT ENOUGH OIL.	OIL ALL MOVING PARTS.	
7. DEFORMATION PATTERN	1. INAPPROPRIATE ZIGZAG SYNCHRONIZATION.	SEE MECHANICAL ADJUSTMENT "NEEDLE SWING".	P.11
	2. INAPPROPRIATE DISENGAGEMENT OF CAM FOLLOWER.	SEE MECHANICAL ADJUSTMENT "DISENGAGEMENT OF CAM FOLLOWER".	P.21
	3. UPPER THREAD TENSION IS TOO STRONG.	ADJUST UPPER THREAD TENSION CORRECTLY.	P.8

SERVICE ACCESS

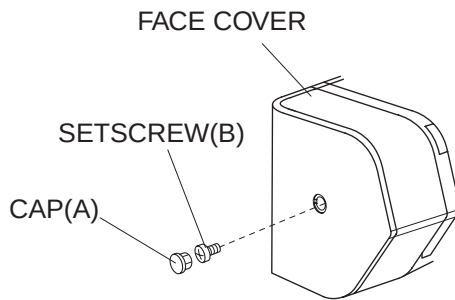
FACE COVER

TO REMOVE:

1. REMOVE THE FACE COVER BY REMOVING THE CAP (A) AND SETSCREW (B).

TO ATTACH:

2. FOLLOW THE ABOVE PROCEDURE IN REVERSE.



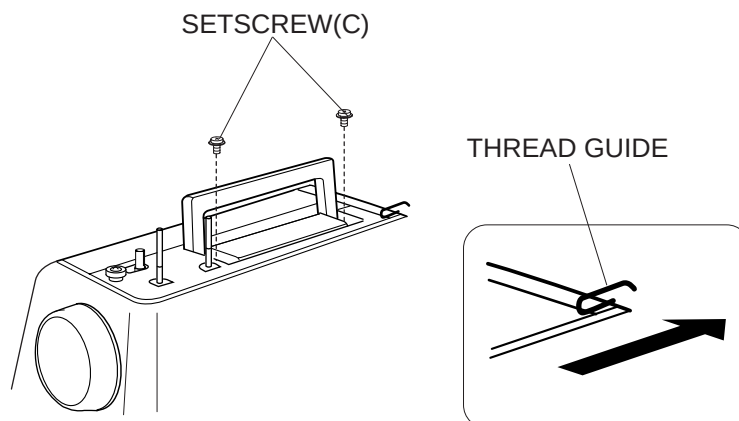
TOP COVER

TO REMOVE:

1. REMOVE THE SETSCREWS (C).
2. SLIDE THE CORNER OF THE TOP COVER SLIGHTLY IN THE DIRECTION OF ARROW. BE CAREFUL THAT THE THREAD GUIDE SHOULD NOT INTERFERE WITH THE TOP COVER WHEN REMOVING.
3. TAKE THE TOP COVER OUT.

TO ATTACH:

4. FOLLOW THE ABOVE PROCEDURE IN REVERSE.



SERVICE ACCESS

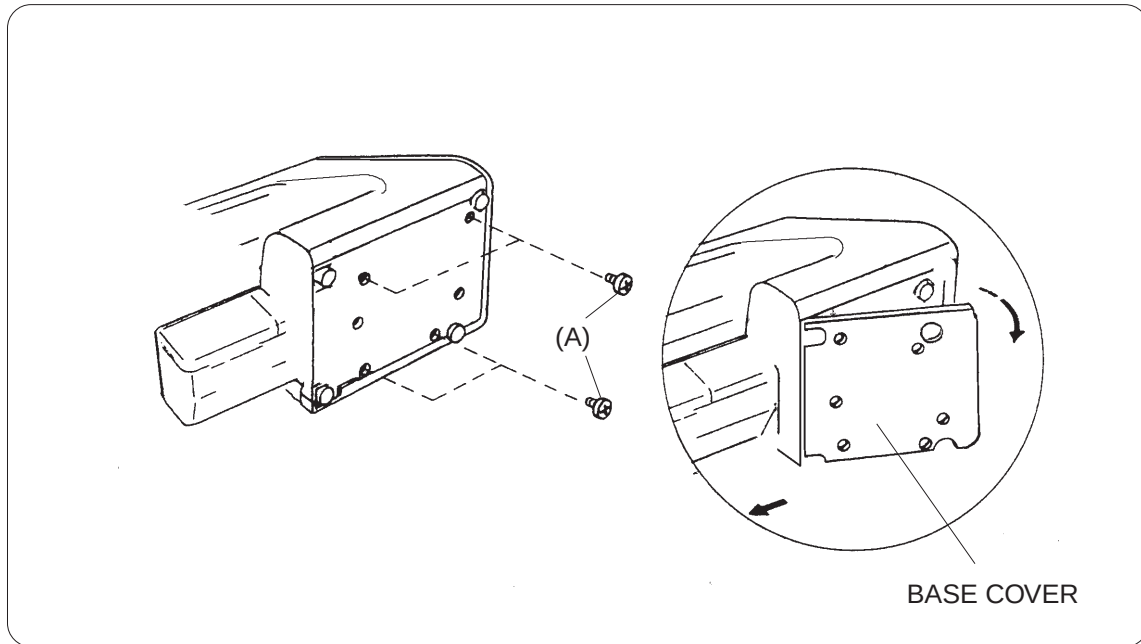
BASE COVER

TO REMOVE:

1. LOOSEN THE SETSCREWS (A).
2. REMOVE THE BASE PLATE.

TO ATTACH:

3. MOUNT THE BASE PLATE AND SECURE IT WITH SETSCREWS.



SERVICE ACCESS

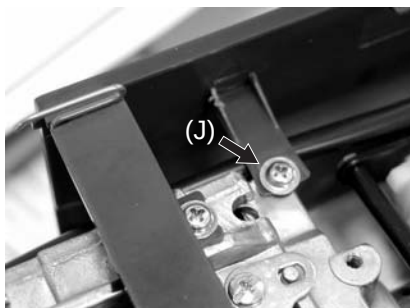
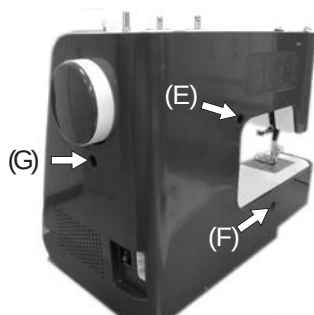
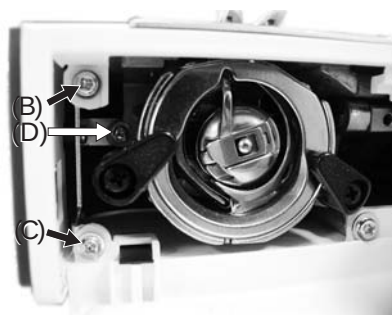
REAR COVER

TO REMOVE:

1. REMOVE THE FACE COVER AND SETSCREW (A) (SEE PAGE 4).
2. OPEN THE SHUTTLE COVER AND REMOVE THE SETSCREWS (B), (C) AND (D).
3. REMOVE THE CAPS AND SETSCREWS (E), (F), (G),
4. REMOVE THE SETSCREWS (H) AND (I).
5. OPEN THE TOP COVER (SEE PAGE 5). LOOSEN THE SETSCREW (J).
6. REMOVE THE REAR COVER.

TO ATTACH:

7. MOUNT THE REAR COVER IN REVERSE PROCEDURE OF THE REMOVING.



SERVICE ACCESS

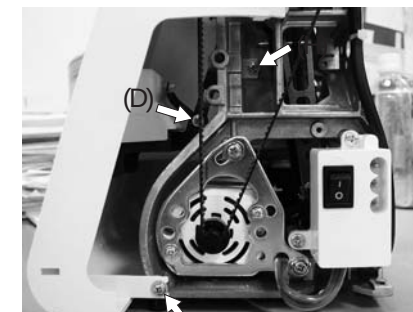
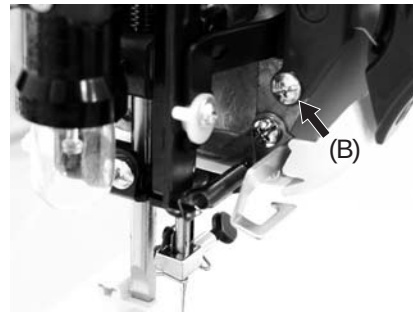
FRONT COVER

TO REMOVE:

1. REMOVE THE FACE COVER AND TOP COVER (SEE PAGE 4 AND 5).
2. LOOSEN THE SETSCREW (A).
3. REMOVE THE SETSCREW (B),
REMOVE THE REAR COVER (SEE PAGE 6).
LOOSEN THE SETSCREW (C), (E) AND (H). REMOVE THE SETSCREW (D).
4. OPEN THE SHUTTLE COVER. REMOVE THE SETSCREW (F).
5. REMOVE THE BASE COVER AND THE SETSCREW (G) (SEE PAGE 5).

TO ATTACH:

6. MOUNT THE FRONT COVER IN REVERSE PROCEDURE OF THE REMOVING.



MECHANICAL ADJUSTMENT

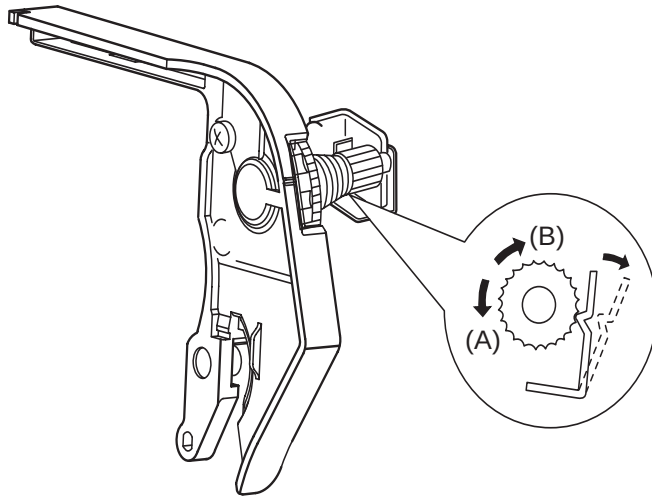
TOP TENSION

THE TOP TENSION SHOULD BE BETWEEN 65 AND 80G WHEN PULLING THE THREAD UP IN THE DIRECTION OF C.

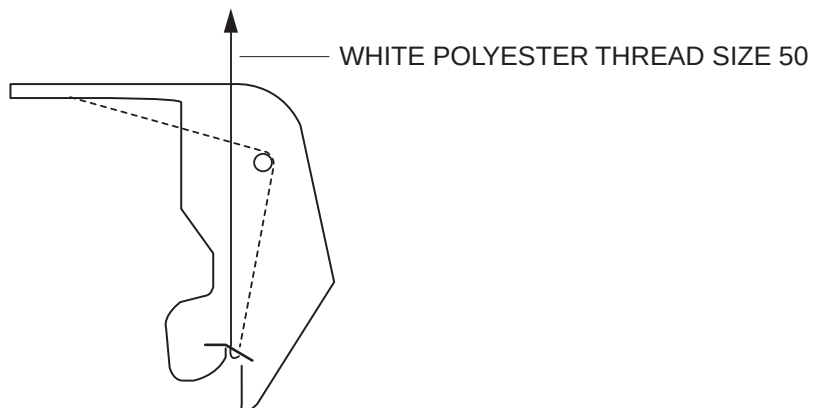
* USE POLYESTER SEWING THREAD #50 (WHITE).

* IF IT IS NOT WITHIN THE ABOVE LIMIT, ADJUST AS FOLLOWS.

1. SET THE TENSION DIAL "4".
2. REMOVE THE COVER.
3. LOWER THE PRESSER FOOT.
 - IF THE TOP TENSION IS TOO LOOSE, TURN THE LEAD SCREW IN THE DIRECTION (A).
 - IF THE TOP TENSION IS TOO TIGHT, TURN THE LEAD SCREW IN THE DIRECTION (B).
4. CHECK THE TOP TENSION AND ATTACH THE COVER.



PULL THE THREAD AT THE SPEED OF 110 MM/
SEC IN THE DIRECTION OF ARROW



MECHANICAL ADJUSTMENT

BOBBIN TENSION

TO CHECK:

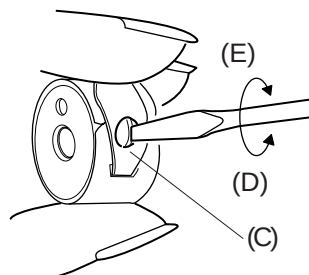
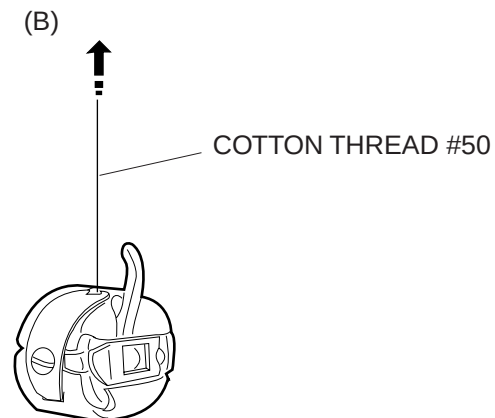
SET THE BOBBIN IN THE BOBBIN CASE AND PASS THE THREAD (COTTON #50) THROUGH THE TENSION SPRING.

THE BOBBIN THREAD TENSION SHOULD BE 45–55g WHEN PULLING THE THREAD IN THE DIRECTION OF (B).

IF THE TENSION IS OUT OF THE RANGE, ADJUST IT AS FOLLOWS:

ADJUSTMENT PROCEDURE:

1. TURN THE ADJUSTING SCREW (C) IN THE DIRECTION OF (D) WHEN THE BOBBIN THREAD TENSION IS TOO TIGHT.
2. TURN THE ADJUSTING SCREW (C) IN THE DIRECTION OF (E) WHEN THE BOBBIN THREAD TENSION IS TOO LOOSE.



MECHANICAL ADJUSTMENT

PRESSER BAR HEIGHT AND ALIGNMENT

TO CHECK:

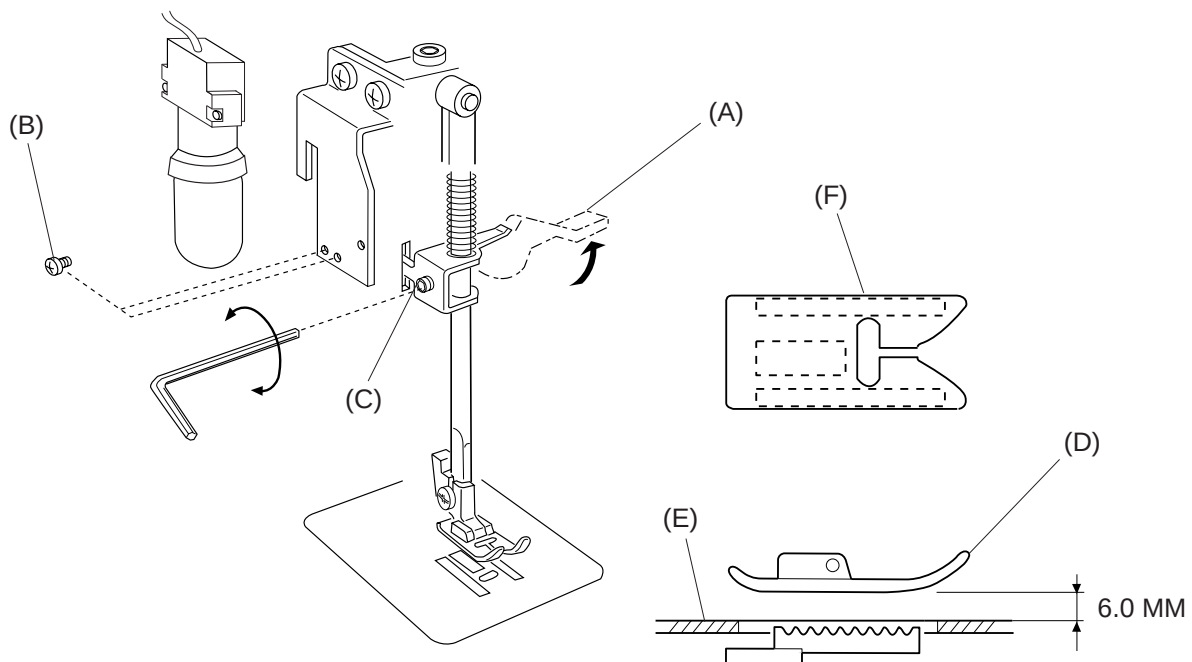
1. RAISE THE PRESSER FOOT LIFTER (A).
2. THE DISTANCE BETWEEN THE PRESSER FOOT (D) AND THE NEEDLE PLATE (E) SHOULD BE 6.0 MM (0.24").

ADJUSTMENT PROCEDURE:

1. REMOVE THE FACE COVER (SEE PAGE 7).
2. REMOVE THE SETSCREWS (B) AND THE LAMP SOCKET, THEN LOOSEN THE SCREW (C) ON THE PRESSER BAR HOLDER.
ADJUST THE DISTANCE BETWEEN THE PRESSER FOOT (D) AND THE NEEDLE PLATE (D) TO 6.0 MM (0.24").
3. TIGHTEN THE SCREW (C) SECURELY.
4. TIGHTEN THE SETSCREW (B) TO SECURE THE LAMP SOCKET.
5. ATTACH THE FACE COVER.

NOTE:

WHEN YOU TIGHTEN THE SCREW (C), MAKE SURE THAT BOTH SIDES OF THE PRESSER FOOT ARE PARALLEL TO THE FEED DOG SLOTS (F) IN THE NEEDLE PLATE (E).



MECHANICAL ADJUSTMENT

NEEDLE SWING

TO CHECK:

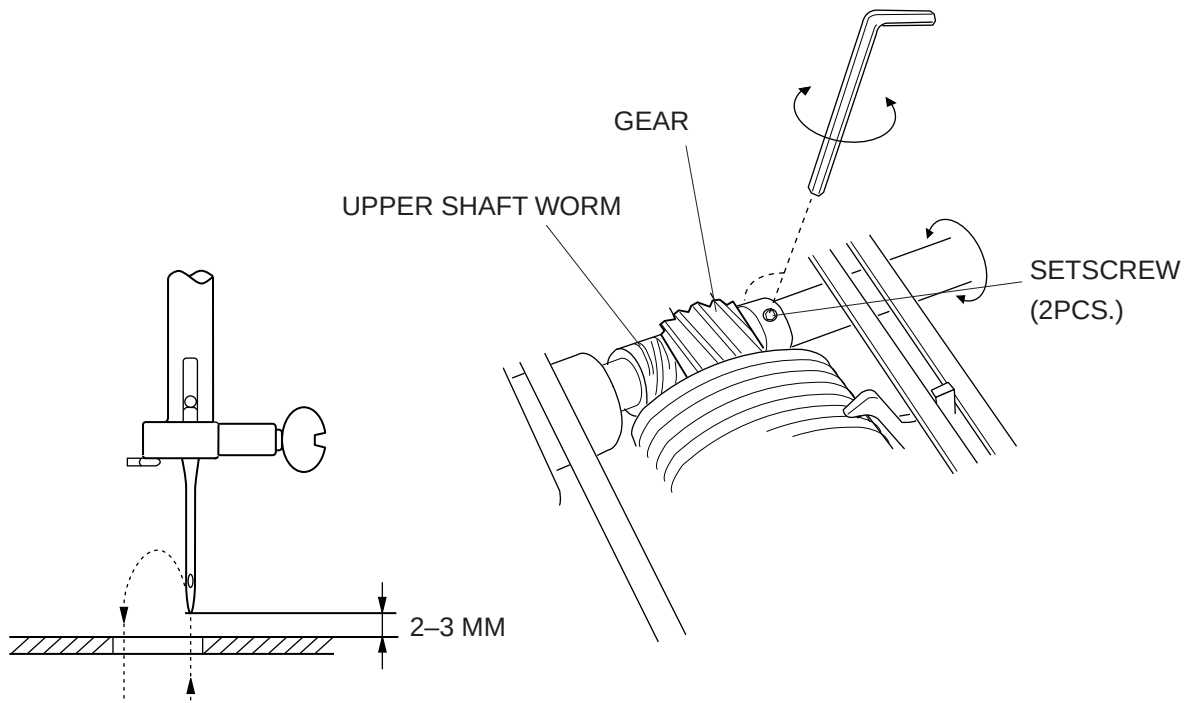
ADJUST THE NEEDLE SWING ACCORDING TO THE FOLLOWING PROCEDURE, IF THE NEEDLE BAR STARTS MOVING SIDWAYS WHILE THE NEEDLE IS IN THE FABRIC AT SEWING THE ZIGZAG PATTERN (WITH MAXIMUM ZIGZAG WIDTH).

ADJUSTMENT PROCEDURE:

1. SET THE PATTERN SELECTOR DIAL WITH MAXIMUM ZIGZAG WIDTH, AND REMOVE THE TOP COVER (SEE PAGE 4).
2. LOOSEN TWO SETSCREWS.
3. ADJUST THE NEEDLE SWING BY TURNING THE HANDWHEEL, WHILE HOLDING THE WORM SO AS NOT TO ROTATE IT, UNTIL THE NEEDLE SWING STARTS 2–3 MM ABOVE THE NEEDLE PLATE AFTER THE NEEDLE HAS COME OUT OF THE RIGHT SIDE OF THE NEEDLE HOLE.
4. TIGHTEN TWO SETSCREWS.
5. MOUNT THE FRONT COVER.

NOTE:

AFTER ADJUSTING THE NEEDLE SWING, CHECK THAT THE UPPER SHAFT WORM AND GEAR ROTATE SMOOTHLY WITHOUT ANY BACKLASH BETWEEN THEM.



MECHANICAL ADJUSTMENT

NEEDLE DROP POSITION

TO CHECK:

WHEN THE NEEDLE SWINGS IN MAXIMUM ZIGZAG WIDTH, THE DISTANCE BETWEEN BOTH ENDS OF THE NEEDLE HOLE IN THE NEEDLE PLATE AND THE NEEDLE DROP POSITIONS SHOULD BE EQUAL.

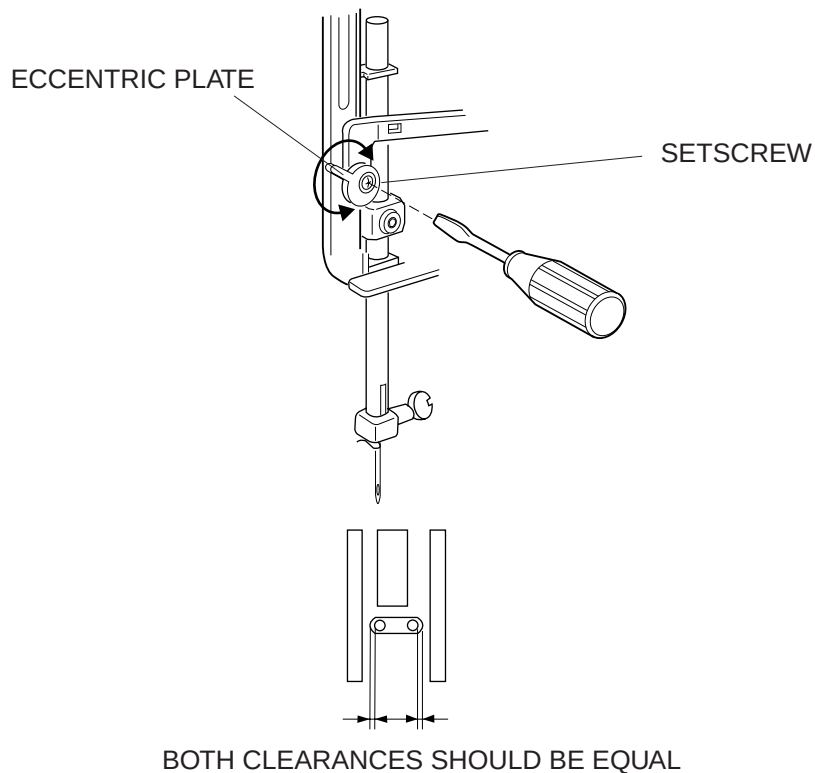
IF NOT, ADJUST AS FOLLOWS:

ADJUSTMENT PROCEDURE:

1. REMOVE THE FACE COVER (SEE PAGE 4).
2. SET THE PATTERN SELECTOR DIAL AT MAXIMUM ZIGZAG WIDTH.
3. LOOSEN THE SETSCREW.
4. TURN THE ECCENTRIC PLATE TO ADJUST THE NEEDLE DROP.
5. TIGHTEN THE SETSCREW.
6. ATTACH THE FACE COVER.

NOTE:

CHECK THE HOOK TIMING AFTER THIS ADJUSTMENT.



MECHANICAL ADJUSTMENT

CLEARANCE BETWEEN NEEDLE AND SHUTTLE (ADJUSTMENT METHOD NO. 1)

TO CHECK:

THE CLEARANCE BETWEEN THE NEEDLE AND SHUTTLE RACE SHOULD BE -0.05 TO $+0.10$ MM.

IF NOT, ADJUST AS FOLLOWS:

ADJUSTMENT PROCEDURE:

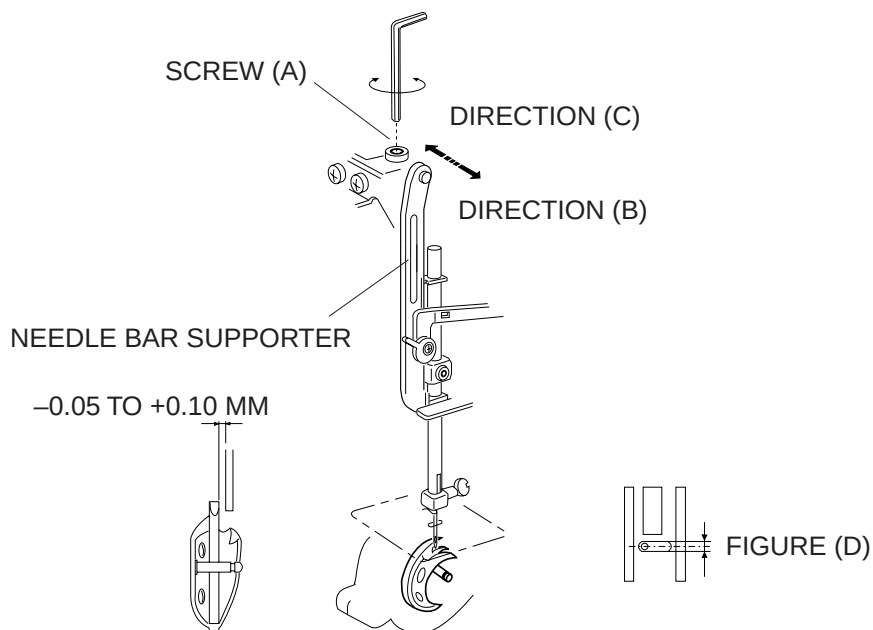
1. REMOVE THE FACE COVER (SEE PAGE 4).
2. SET THE PATTERN SELECTOR DIAL AT "  ".
3. LOOSEN SCREW (A), AND MOVE THE NEEDLE BAR SUPPORTER IN THE DIRECTION OF THE ARROWS TO GET A CLEARANCE BETWEEN -0.05 TO $+0.10$ MM.
- * IF CLEARANCE IS TOO WIDE, MOVE THE NEEDLE BAR SUPPORTER IN THE DIRECTION (B).
- * IF CLEARANCE IS TOO NARROW, MOVE THE NEEDLE BAR SUPPORTER IN THE DIRECTION (C).

NOTE:

AFTER THIS ADJUSTMENT, CHECK THAT THE CLEARANCE BETWEEN THE NEEDLE AND NEEDLE PLATE IS 0.15 MM OR MORE AS SHOWN IN FIGURE (D).

IF NOT, ADJUST THE CLEARANCE BETWEEN NEEDLE AND SHUTTLE RACE BY USING ADJUSTMENT METHOD NO. 2 (SEE PAGE 14).

4. ATTACH THE FACE COVER.



CLEARANCE BETWEEN NEEDLE AND
NEEDLE PLATE SHOULD BE 0.15 MM OR
MORE.

MECHANICAL ADJUSTMENT

CLEARANCE BETWEEN NEEDLE AND SHUTTLE (ADJUSTMENT METHOD NO.2)

TO CHECK:

USE THIS ADJUSTMENT METHOD NO. 2 IF THE CLEARANCE CANNOT BE ADJUSTED BY METHOD NO.1.

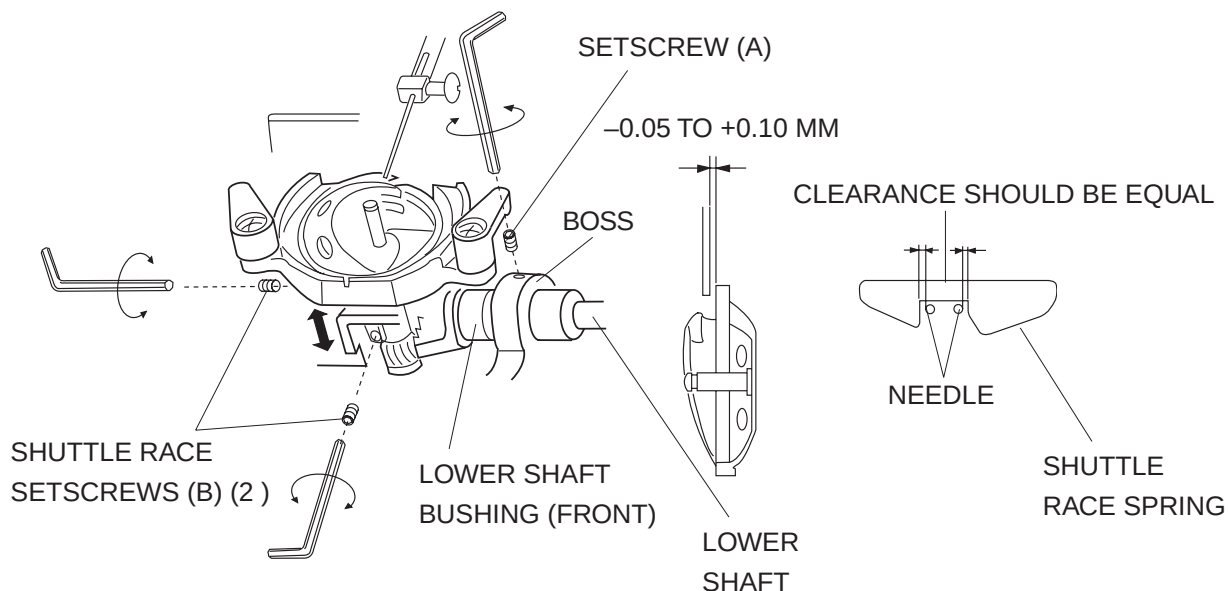
THE CLEARANCE BETWEEN THE NEEDLE AND SHUTTLE RACE SHOULD BE -0.05 TO $+0.10$ MM.

ADJUSTMENT PROCEDURE:

1. SET THE PATTERN SELECTOR DIAL AT "".
2. REMOVE THE REAR COVER (SEE PAGE 6).
3. LOOSEN THE SCREW (A) ON THE LOWER SHAFT BUSHING AND SLIDE THE GEAR ABOUT 0.5 MM TO THE RIGHT TO CREATE SOME BACKLASH BETWEEN THE GEARS.
4. LOWER THE NEEDLE AND LOOSEN THE TWO SHUTTLE RACE SETSCREWS (B).
PULL UP OR PUSH DOWN THE SHUTTLE RACE TO ADJUST THE CLEARANCE BETWEEN THE NEEDLE AND THE SHUTTLE RACE IN THE RANGE OF -0.05 TO $+0.10$ MM.
5. SET THE PATTERN SELECTOR DIAL AT "", TURN THE HANDWHEEL TO CHECK IF THE CLEARANCE BETWEEN THE NEEDLE AND INNER EDGES OF THE SHUTTLE RACE SPRING AT THE LEFT AND RIGHT NEEDLE DROPS ARE EQUAL. IF NOT, ADJUST BY TURNING THE SHUTTLE RACE UNIT.
6. TIGHTEN THE TWO SHUTTLE RACE SETSCREWS (B).
7. SLIDE THE GEAR BACK TO THE ORIGINAL POSITION WHILE ADJUSTING THE BACKLASH.
8. TIGHTEN SCREW (A) FIRMLY.
9. ATTACH THE REAR COVER.

NOTE:

THE ROTARY PLAY OF THE TIP OF THE SHUTTLE DRIVER SHOULD BE 0.3 MM OR LESS AND THE LOWER SHAFT SHOULD TURN SMOOTHLY. AFTER THE ADJUSTMENT, CHECK THE HOOK TIMING.



MECHANICAL ADJUSTMENT

FEED DOG HEIGHT

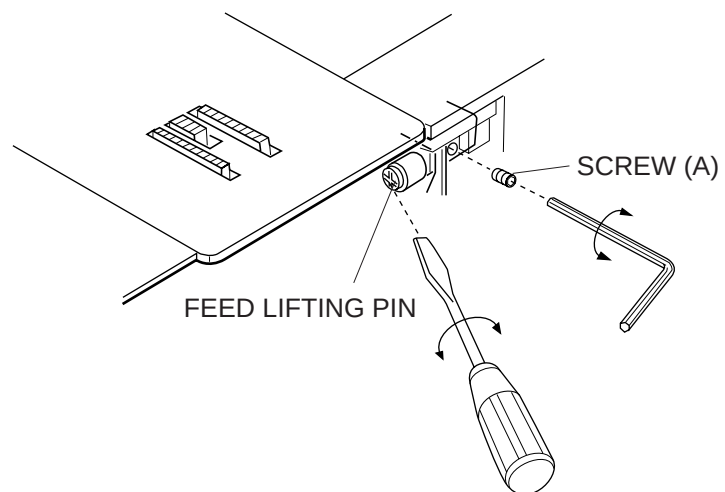
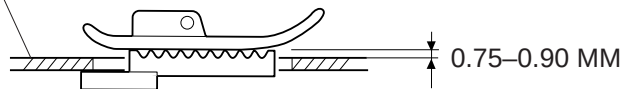
TO CHECK:

1. LOWER THE PRESSER FOOT.
2. TURN THE HANDWHEEL TOWARD YOU UNTIL THE NEEDLE BAR COMES TO THE FEED DOG ABOVE THE NEEDLE PLATE SHOULD BE 0.75–0.90 MM.
IF IT IS NOT IN THE RANGE, ADJUST AS FOLLOWS.

ADJUSTMENT PROCEDURE:

1. OPEN THE SHUTTLE COVER.
2. LOWER THE PRESSER FOOT AND TURN THE HANDWHEEL TOWARD YOU UNTIL THE FEED DOG COMES TO ITS HIGHEST POINT.
3. LOOSEN THE SCREW (A) .
4. TURN THE FEED LIFTING PIN TO ADJUST THE HEIGHT OF FEED DOG (0.75–0.90 MM).
5. TIGHTEN THE SCREW (A).
6. TURN THE HANDWHEEL TOWARD YOU TO RECHECK THE HEIGHT OF FEED DOG.

NEEDLE PLATE



MECHANICAL ADJUSTMENT

NEEDLE BAR HEIGHT

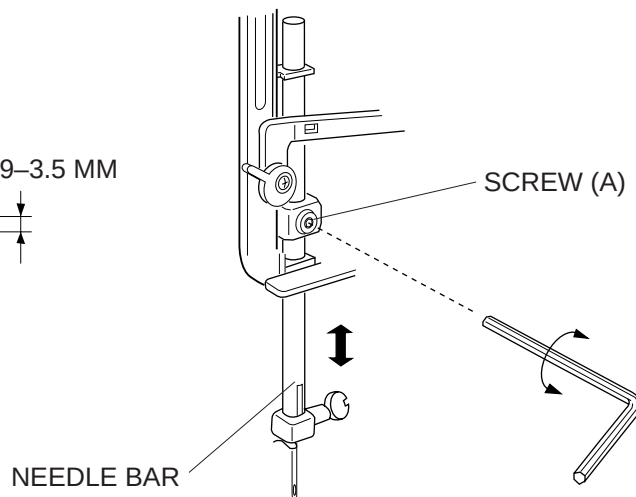
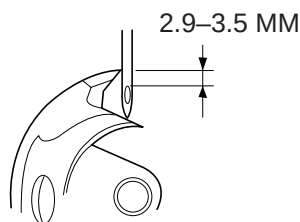
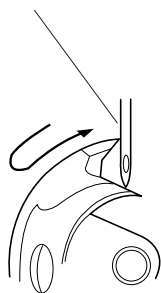
TO CHECK:

WHEN THE TIP OF SHUTTLE HOOK MEETS THE LEFT SIDE OF THE NEEDLE IN ASCENDING TRAVEL OF THE NEEDLE FROM ITS LEFT AND LOWEST POSITION, THE DISTANCE BETWEEN THE TOP OF THE NEEDLE EYE AND THE TIP OF THE SHUTTLE HOOK SHOULD BE IN THE RANGE OF 2.9-3.5 MM.

ADJUSTMENT PROCEDURE:

1. OPEN THE FACE COVER.
2. SET THE PATTERN SELECTOR DIAL AT "  ".
MODEL NEXT40 PATTERN SELECT DIAL AT "  ", WIDTH SELECTOR DIAL AT " 0 ".
3. OPEN THE SHUTTLE COVER.
4. REMOVE THE SHUTTLE RACE RING.
5. TURN THE HANDWHEEL TOWARD YOU UNTIL THE TIP OF THE SHUTTLE HOOK MEETS THE LEFT SIDE OF THE NEEDLE.
6. LOOSEN THE LOWER SHAFT CRANK ARM SCREW (A).
7. ADJUST THE HEIGHT OF THE NEEDLE BAR BY MOVING THE NEEDLE BAR UPWARD OR DOWNWARD WITHOUT TURNING IT.
8. TIGHTEN THE SCREW (A).
9. ATTACH THE SHUTTLE RACE RING.

TIP OF SHUTTLE HOOK MEETS
LEFT SIDE OF NEEDLE



MECHANICAL ADJUSTMENT

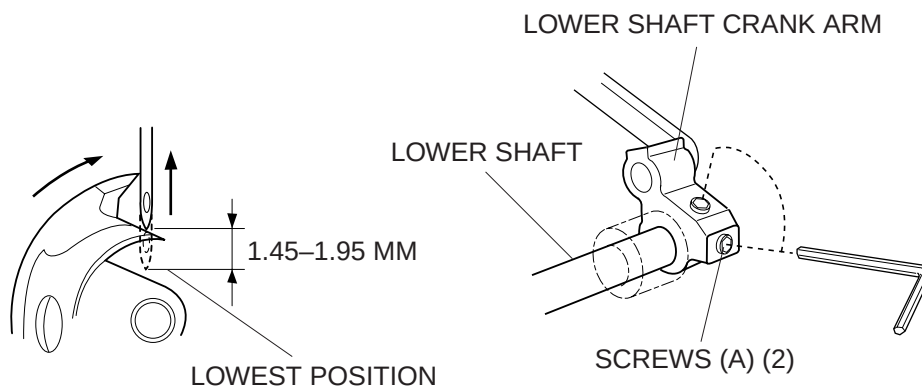
NEEDLE TIMING TO SHUTTLE

TO CHECK:

THE HEIGHT OF THE NEEDLE POINT FROM ITS LOWEST POINT OF TRAVEL SHOULD BE IN THE RANGE OF 1.45-1.95 MM WHEN THE TIP OF THE SHUTTLE HOOK JUST MEETS THE LEFT SIDE OF THE NEEDLE AT THE LEFT NEEDLE POSITION.

ADJUSTMENT PROCEDURE:

1. SET THE PATTERN SELECTOR DIAL AT "  ".
FOR MODEL NEXT 40, SELECT DIAL AT "  ", WIDTH SELECTOR DIAL AT " 0 ".
2. REMOVE THE BASE (SEE PAGE 5).
3. OPEN THE SHUTTLE COVER.
4. REMOVE THE SHUTTLE RACE RING.
5. TURN THE HANDWHEEL TOWARD YOU UNTIL THE TIP OF THE SHUTTLE HOOK MEETS THE LEFT SIDE OF THE NEEDLE.
6. LOOSEN THE LOWER SHAFT CRANK ARM SCREWS (A).
7. WHILE HOLDING THE SHUTTLE HOOK SO IT DOESN'T TURN, TURN THE HANDWHEEL TOWARD YOU UNTIL THE NEEDLE COMES TO ITS LOWEST POSITION.
THEN, FURTHER TURN THE HANDWHEEL TO RAISE THE NEEDLE ABOUT 1.7 MM FROM ITS LOWEST POSITION.
8. TIGHTEN THE SCREWS (A).
9. TURN THE HANDWHEEL TOWARD YOU TO CHECK IF THE HEIGHT IS IN THE RANGE OF 1.45-1.95 MM.
IF IT IS NOT IN THIS RANGE, REPEAT THE ABOVE PROCEDURE.
10. ATTACH THE SHUTTLE RACE RING.
11. ATTACH THE BASE.



MECHANICAL ADJUSTMENT

BUTTONHOLE FEED BALANCE

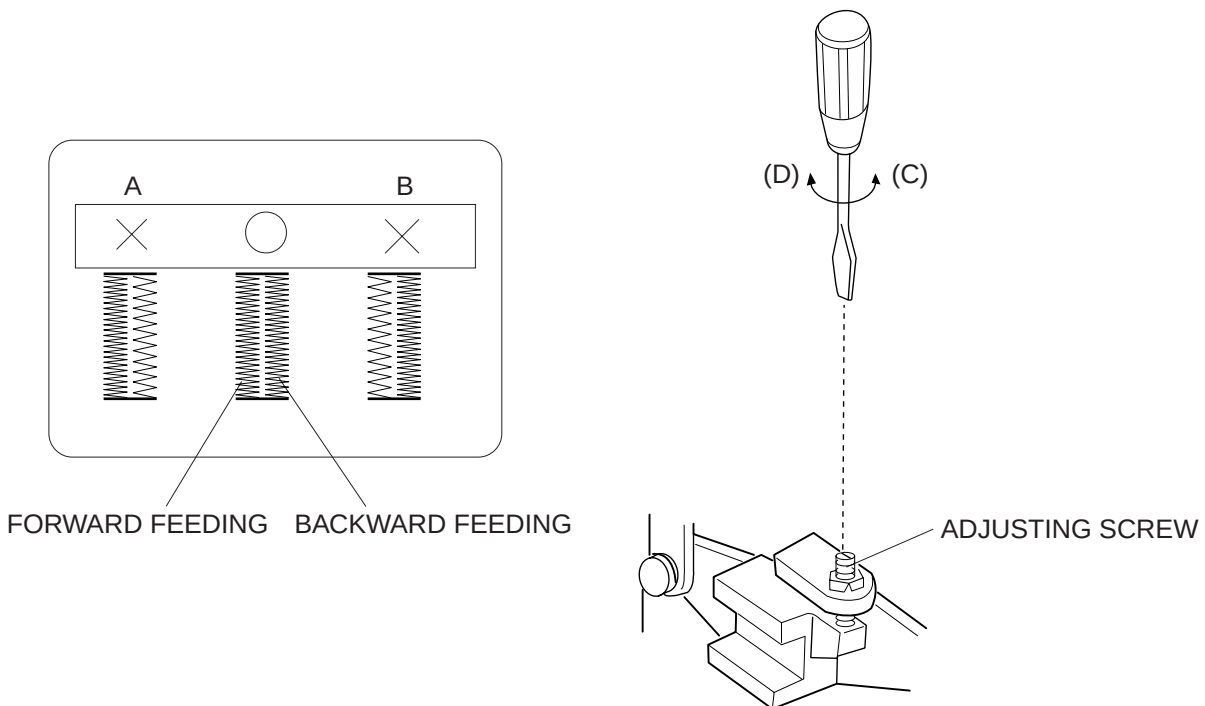
TO CHECK:

WHEN SEWING BUTTONHOLE, THE STITCHES ON EACH SIDE OF BUTTONHOLE SHOULD BE THE SAME STITCH DENSITY.

THE RANGE OF 9-12 STITCHES IN THE RIGHT SIDE ROW (BACKWARD FEEDING) AGAINST 10 STITCHES IN THE LEFT SIDE ROW (FORWARD FEEDING) IS CONSIDERED ACCEPTABLE.

ADJUSTMENT PROCEDURE:

1. CHECK THE FEED BALANCE BY SEWING BUTTONHOLES.
2. REMOVE THE CAP ON THE FRONT COVER.
3. TURN THE ADJUSTING SCREW IN THE DIRECTION OF (C) IN CASE OF (A) (RIGHT STITCHES ARE COARSE), OR IN THE DIRECTION OF (D) IN CASE OF (B) (LEFT STITCHES ARE COARSE).
4. MOUNT THE CAP.



MECHANICAL ADJUSTMENT

DISTORTED PATTERN (MODEL NEXT 40, 30 ONLY)

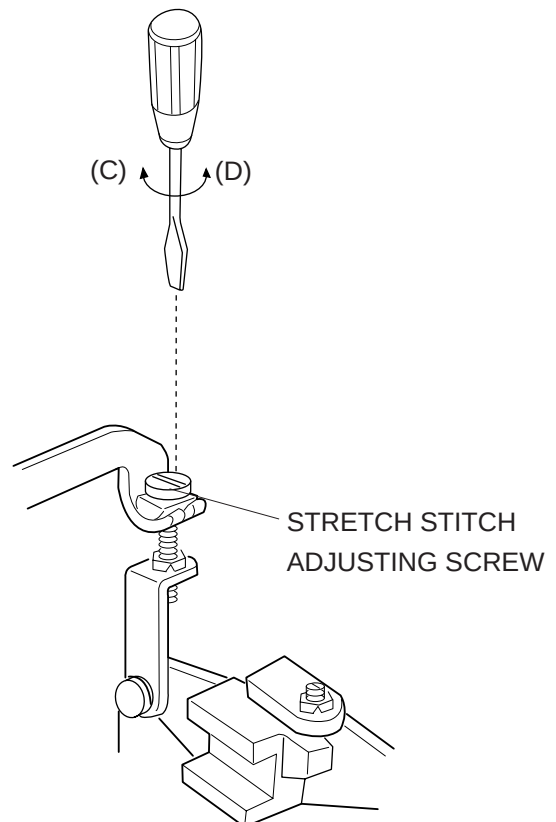
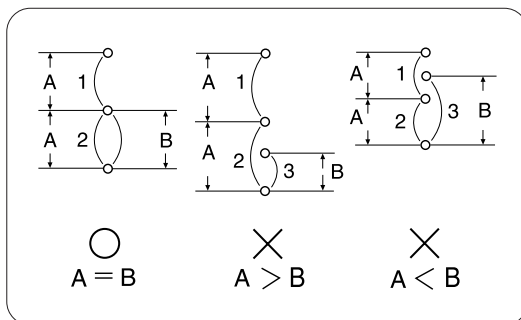
TO CHECK:

IF THE STRETCH STITCH PATTERNS ARE DISTORTED WITH SETTING THE STITCH LENGTH DIAL AT "S.S."

(IN CASE OF BEING A DIFFERENCE BETWEEN FORWARD FEEDING AND BACKWARD FEEDING DURING STRETCH STITCH PATTERNS), MAKE AN ADJUSTMENT AS FOLLOWS:

ADJUSTMENT PROCEDURE:

1. REMOVE THE CAP.
2. SET THE PATTERN SELECTOR DIAL AT "  "AND THE STITCH LENGTH DIAL AT "S.S."
3. TURN THE STRETCH STITCH ADJUSTING SCREW IN THE DIRECTION OF (C) WHEN $A > B$, OR IN THE DIRECTION OF (D) WHEN $A < B$.
4. MOUNT THE CAP.



MECHANICAL ADJUSTMENT

ADJUSTING BUTTONHOLE LEVER POSITION

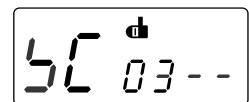
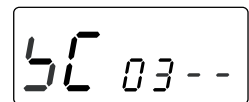
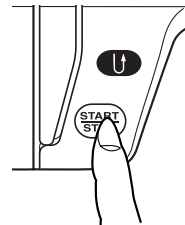
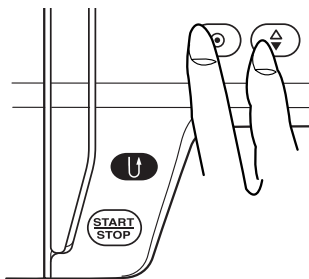
TO ADJUST THE BUTTONHOLE LEVER GUIDE:

1. ENTER THE BUTTONHOLE SENSOR ADJUSTING MODE. (SEE BELOW. THE LCD SHOULD DISPLAY BH SYMBOL.)
2. REMOVE THE FACE COVER (SEE PAGE 8) AND LOOSEN THE SETSCREW (A).
3. MOVE THE BUTTONHOLE LEVER GUIDE SO THE BH SYMBOL DISAPPEARS WHEN THE BUTTON HOLE LEVER IS LOWERED. TIGHTEN THE SETSCREW (A). TO ADJUST THE BUTTONHOLE SENSOR POSITION.
4. ATTACH THE BUTTONHOLE FOOT (R).
5. LOWER THE BUTTONHOLE LEVER TO ITS LOWEST POSITION AND OPEN A 1.6 MM GAP BETWEEN THE SLIDER AND THE BUTTONHOLE FOOT.
6. TURN THE ADJUSTING SCREW TO THE LEFT UNTIL THE LCD DISPLAY BH SYMBOL.
7. NEXT, TURN THE ADJUSTING SCREW TO THE RIGHT UNTIL THE BH SYMBOL DISAPPEARS.
8. TURN OFF THE POWER SWITCH.
9. ATTACH THE FACE COVER.

NOTE:

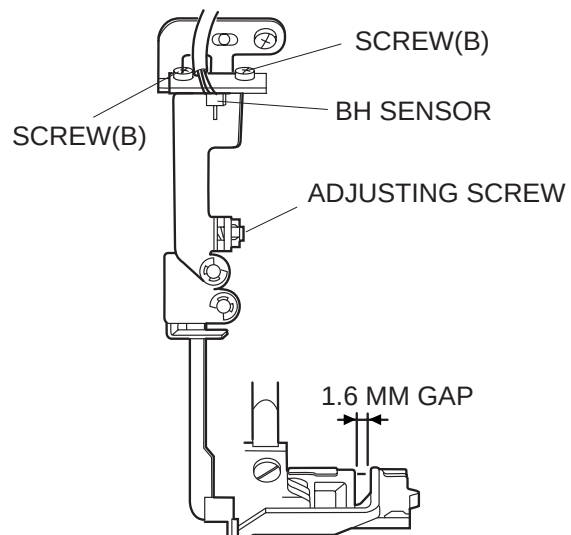
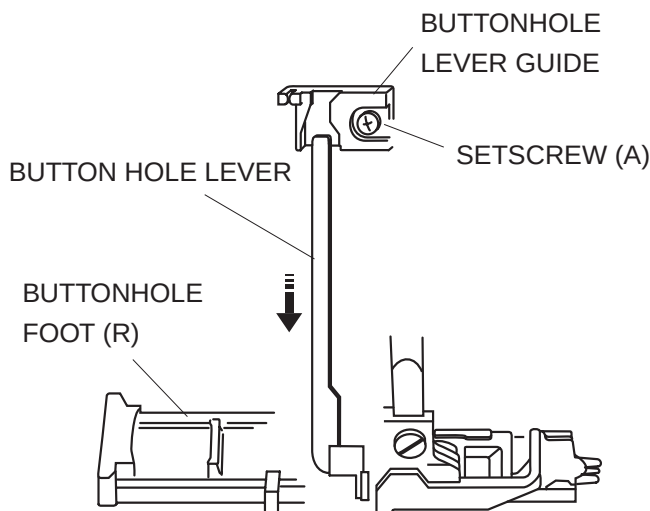
IF THERE IS ANY LINT OR DUST IN THE BUTTONHOLE SENSOR SLIT, LOOSEN THE 2 SCREWS (B) AND CLEAN IT OUT WITH A SWAB.

TO ENTER ADJUSTING
MODE



TURN THE POWER SWITCH ON WHILE PRESSING
THE NEEDLE UP/DOWN BUTTON AND LOCKING
STITCH BUTTON SIMULTANEOUSLY.

PRESS THE START/STOP BUTTON TO
SELECT THE STEP "SC 03".



MECHANICAL ADJUSTMENT

DISENGAGEMENT OF CAM FOLLOWER

TO CHECK:

IF THE CLEARANCE BETWEEN THE CAM FOLLOWER AND THE TOP CONVEX OF THE ZIGZAG CAM IS NOT ENOUGH, THE PATTERN SELECTOR DIAL IS BLOCKED OR WILL NOT SELECT THE CORRECT PATTERN.

ADJUSTMENT PROCEDURE:

1. REMOVE THE FRONT COVER (SEE PAGE 7).
2. SET THE PATTERN SELECTOR DIAL AT PATTERN "  '.
3. PUT THE CAM FOLLOWER TO THE ZIGZAG CAM AND PUT THE CAM FOLLOWER RELEASING ARM TO THE PATTERN SELECTOR CAM.
4. LOOSEN THE SET SCREW.
5. PUSH THE CONVEX PART OF THE CAM FOLLOWER RELEASING ARM IN THE DIRECTION OF ARROW UNTIL THE CAM FOLLOWER RELEASING ARM TOUCHES POSITION (A) OF THE PATTERN SELECTOR CAM, AND THEN, TIGHTEN THE SETSCREW.

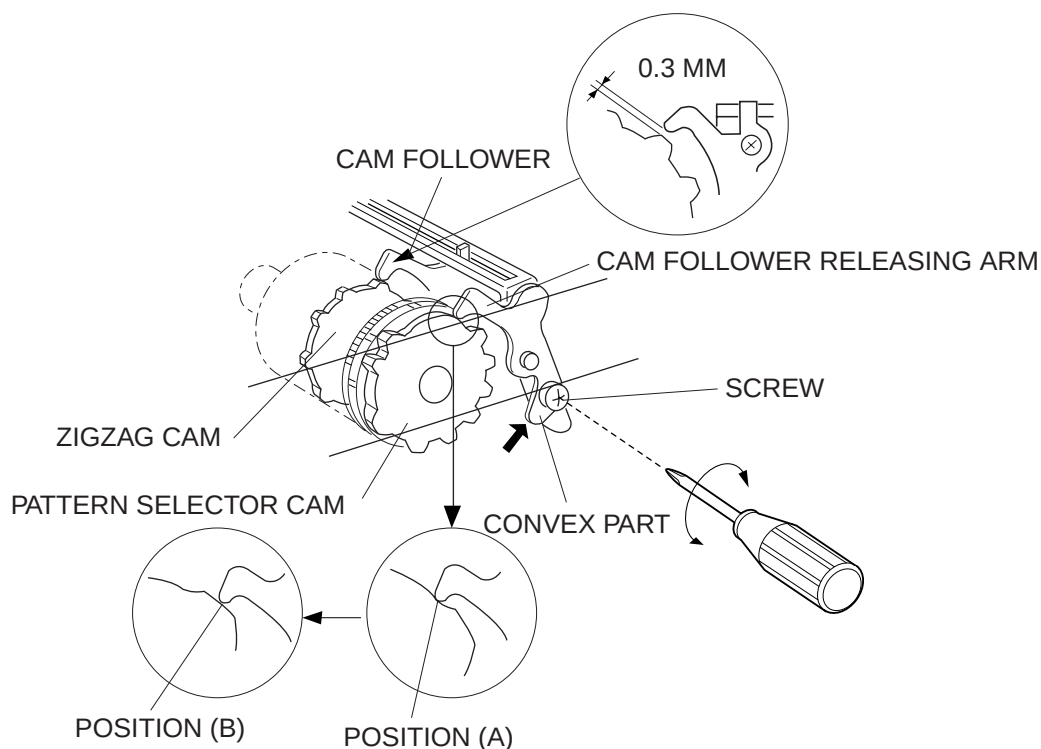
NOTE:

AFTER THIS ADJUSTMENT, CHECK THAT THE CLEARANCE BETWEEN THE ZIGZAG CAM AND THE CAM FOLLOWER IS ABOUT 0.3 MM WHEN SETTING THE CAM FOLLOWER RELEASING ARM ONTO POSITION (B) OF PATTERN SELECTOR CAM.

6. MOUNT THE FRONT COVER.

NOTE:

CHECK THE NEEDLE MOVEMENT FOR STRAIGHT STITCH.



MECHANICAL ADJUSTMENT

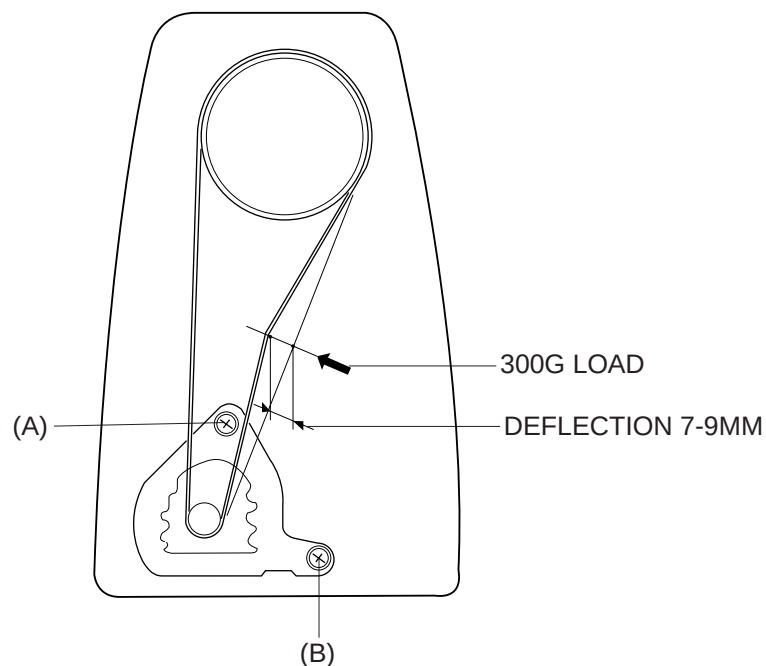
MOTOR BELT TENSION

TO CHECK:

1. IMPROPER BELT TENSION MAY CAUSE NOISE, OVERLOAD OF MOTOR, SLOW RUNNING OR MOTOR BELT JUMPING.
2. THE BELT DEFLECTION SHOULD BE 7 MM - 9 MM WHEN PRESSING THE MIDDLE OF THE MOTOR BELT WITH APPROXIMATELY 300 GRAMS OF PRESSURE.

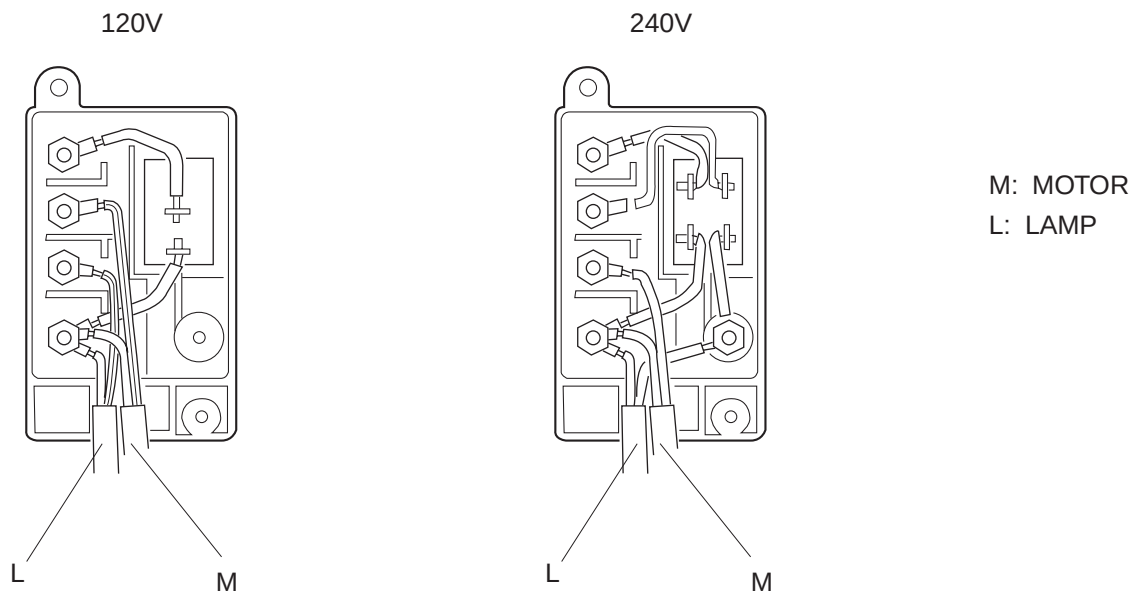
ADJUSTMENT PROCEDURE:

1. REMOVE THE FRONT AND REAR COVER (SEE PAGE 6, 7).
2. LOOSEN THE SCREWS (A) AND (B).
3. MOVE THE MOTOR UP OR DOWN TO ADJUST THE DEFLECTION ABOUT 7 MM -9 MM.
4. TIGHTEN THE SCREWS (A) AND (B).
5. ATTACH THE FRONT AND REAR COVER.



WIRING

1. WIRING FOR MACHINE SOCKET UNIT



2. WIRING DIAGRAM

