
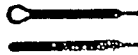

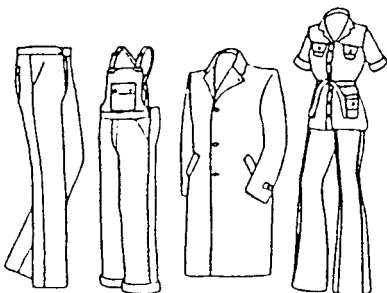
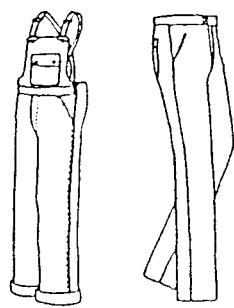


SINGER
299U-Srvc Manual
Part One

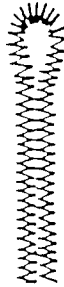

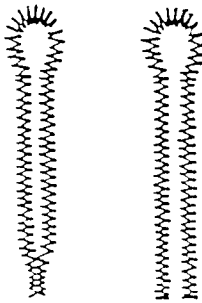



SINGER
299U MACHINE
SERVICE MANUAL
PART-I

SINGER NIKKO

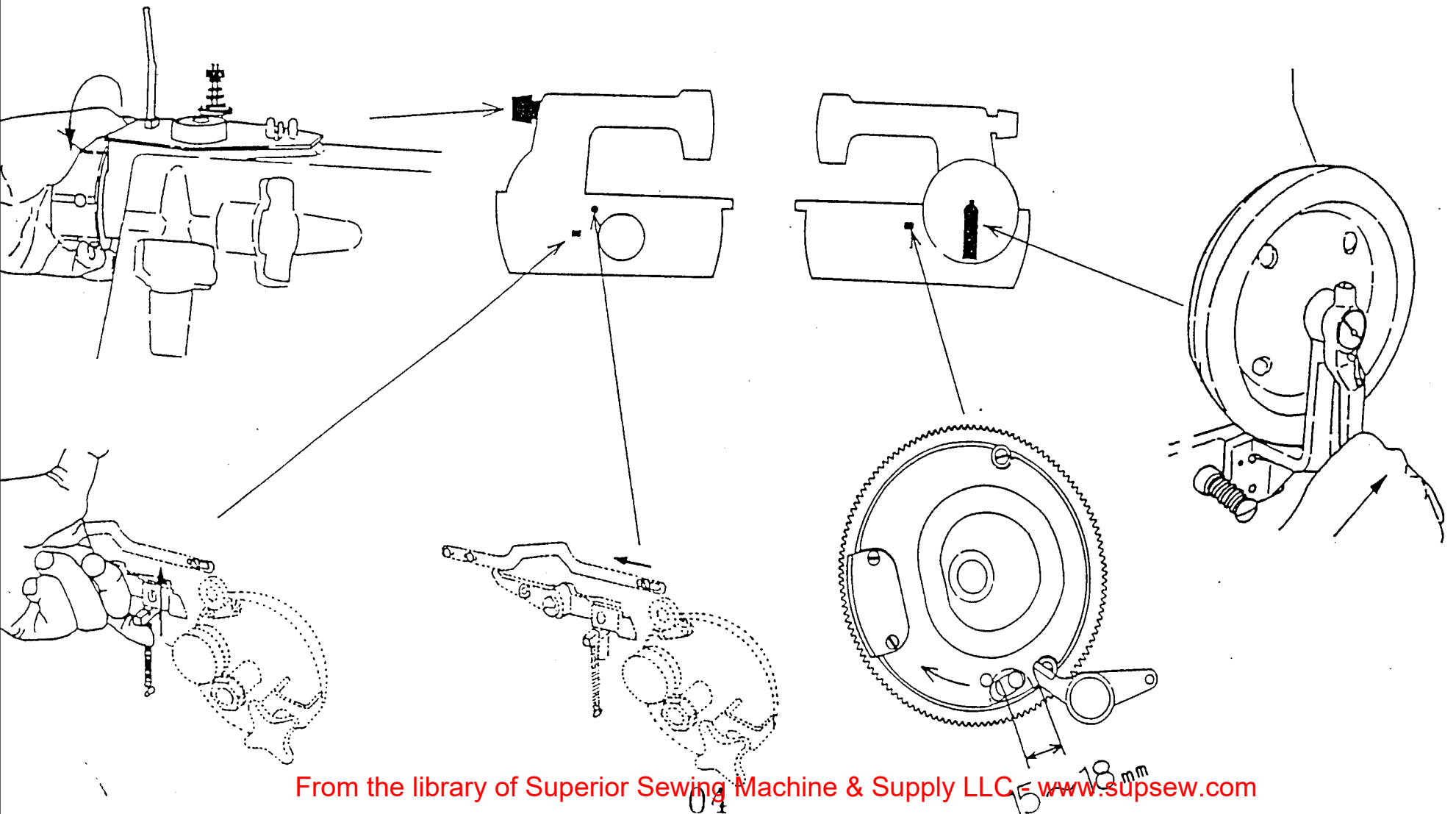
299U: MODEL & VARIETY

MODEL NUMBER				TAPER BAR	APPLICATION	
		MIN.	MAX.	MIN. MAX.		
C U T B E F O R E	299U231W	16(3/8) - 35(13/8)	13(1/2) - 32(1 1/4)	9.5(3/8) - 35(13/8) 6.5(1/4) - 35(13/8) 3 (1/8)	(A)	
	299U232W	16(3/8) - 35(13/8)	13(1/2) - 32(1 1/4)	9.5(3/8) - 35(13/8) 6.5(1/4) - 35(13/8) 3 (1/8)	(A)	
	299U233LW	32(1 1/4) - 38(1 1/2)	22(7/8) - 29(1 1/8)	9.5(3/8) - 32(1 1/4) 6.5(1/4) - 35(13/8) 3 (1/8)	(A)	
	299U233MW	25(1) - 32(1 1/4)	16(3/8) - 22(7/8)	9.5(3/8) - 25(1) 6.5(1/4) - 29(1 1/8) 3 (1/8)	(A)	
	299U233SW	19(3/4) - 25(1)	13(1/2) - 19(3/4)	6.5(1/4) - 22(7/8) 3 (1/8)	(A)	
	299U237MW	25(1) - 32(1 1/4)	16(3/8) - 22(7/8)	9.5(3/8) - 25(1) 6.5(1/4) - 29(1 1/8) 3 (1/8)	(B)(C)	
C U T A F T E R	299U211W	16(3/8) - 35(13/8)	13(1/2) - 32(1 1/4)	9.5(3/8) - 35(13/8) 6.5(1/4) - 35(13/8) 3 (1/8)	(B)	
	299U123W		13(1/2) - 19(3/4)	6.5(1/4) - 22(7/8) 3 (1/8)	(C)	
	299U127W		13(1/2) - 19(3/4)	6.5(1/4) - 22(7/8) 3 (1/8)	(C)	
C / A & C / B	299U251W	16(3/8) - 35(13/8)	13(1/2) - 32(1 1/4)	9.5(3/8) - 35(13/8) 6.5(1/4) - 35(13/8) 3 (1/8)	(A)(B)	
	299U253LW	32(1 1/4) - 38(1 1/2)	22(7/8) - 29(1 1/8)	9.5(3/8) - 32(1 1/4) 6.5(1/4) - 35(13/8) 3 (1/8)	(A)(B)	
	299U253MW	25(1) - 32(1 1/4)	16(3/8) - 22(7/8)	9.5(3/8) - 25(1) 6.5(1/4) - 29(1 1/8) 3 (1/8)	(A)(B)	
	299U253SW	19(3/4) - 25(1)	13(1/2) - 19(3/4)	6.5(1/4) - 22(7/8) 3 (1/8)	(A)(B)	

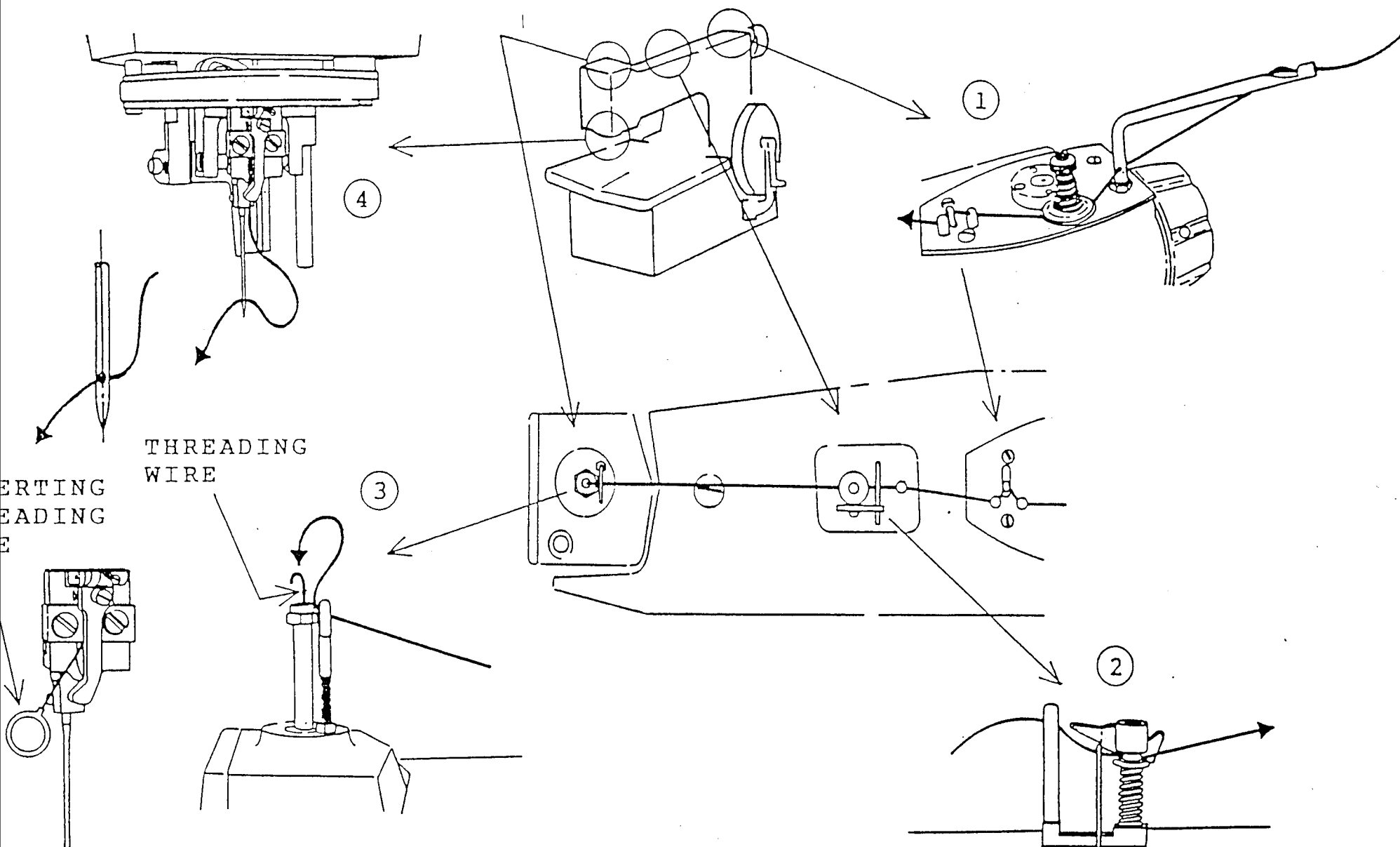
APPLICATION

		APPLICATION & VARIETY		
CUT BEFORE		MEN'S OR LADY'S JACKET  299U230W/231W 299U233MW/233LW		
CUT AFTER		JEANS  299U123W/127W	KNITTED  299U210W	TROUSERS  299U213MW

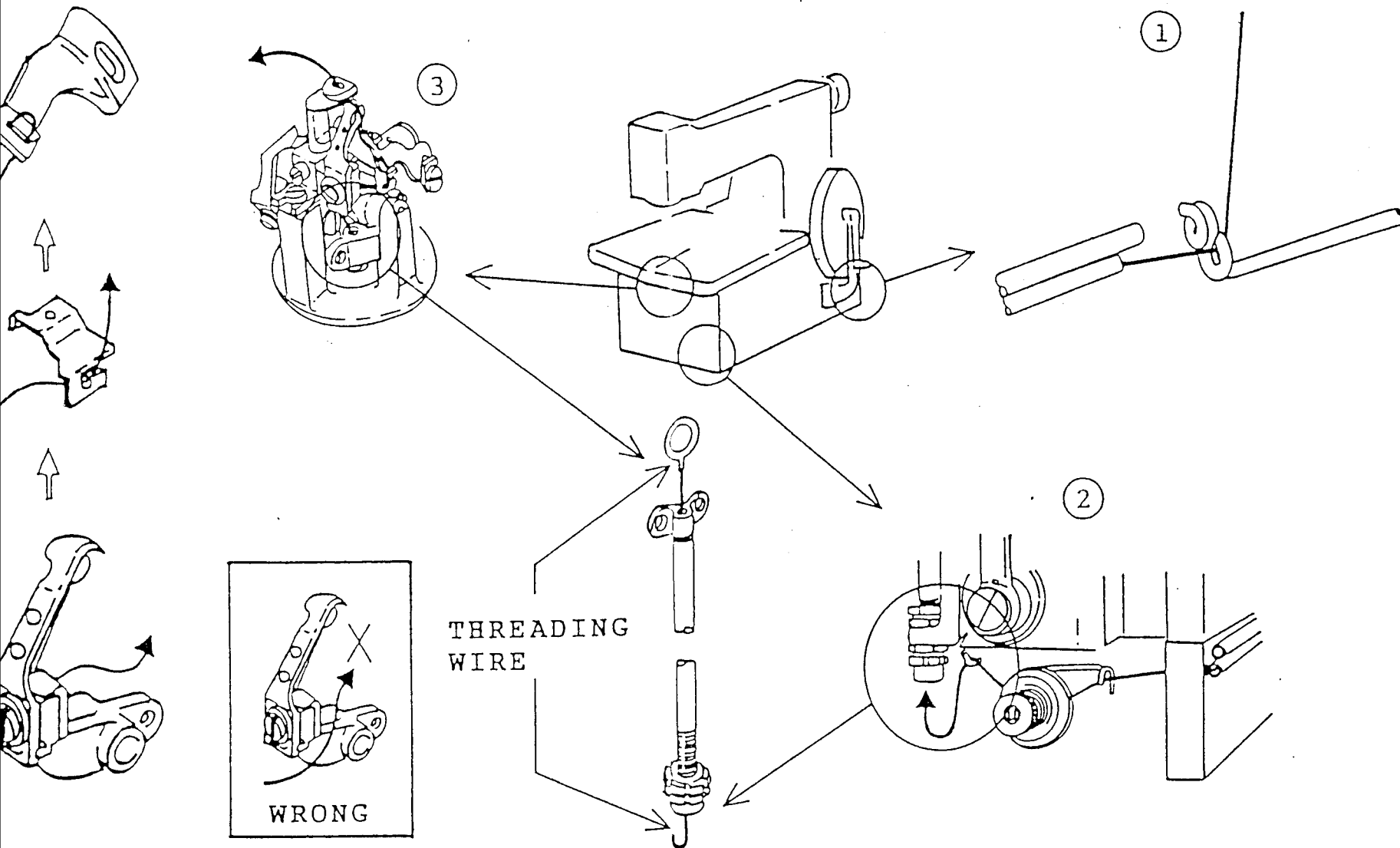
5-CHECK POINTS
BEFORE SEWING (BEFORE POWER ON)



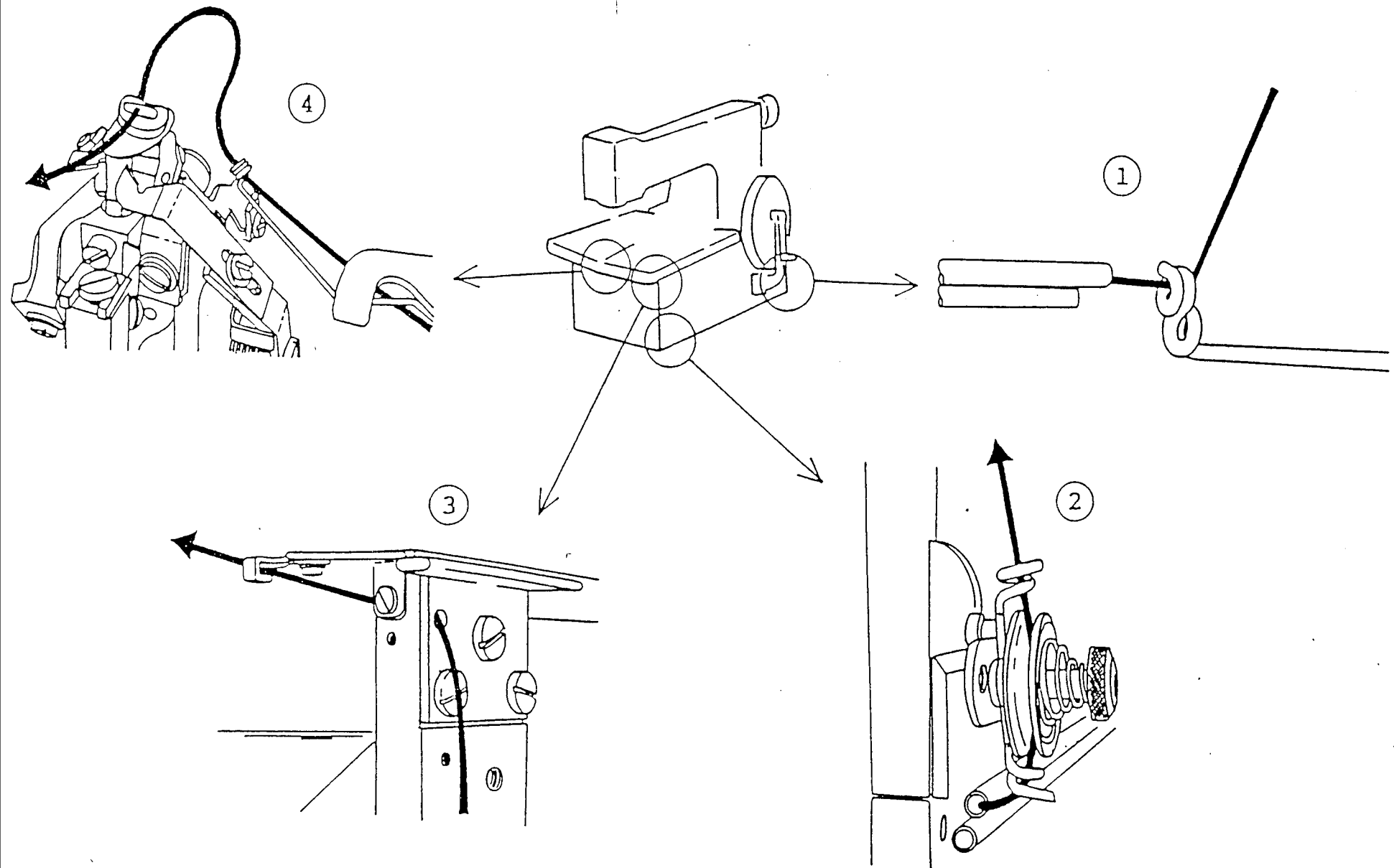
THREADING (NEEDLE THREAD)



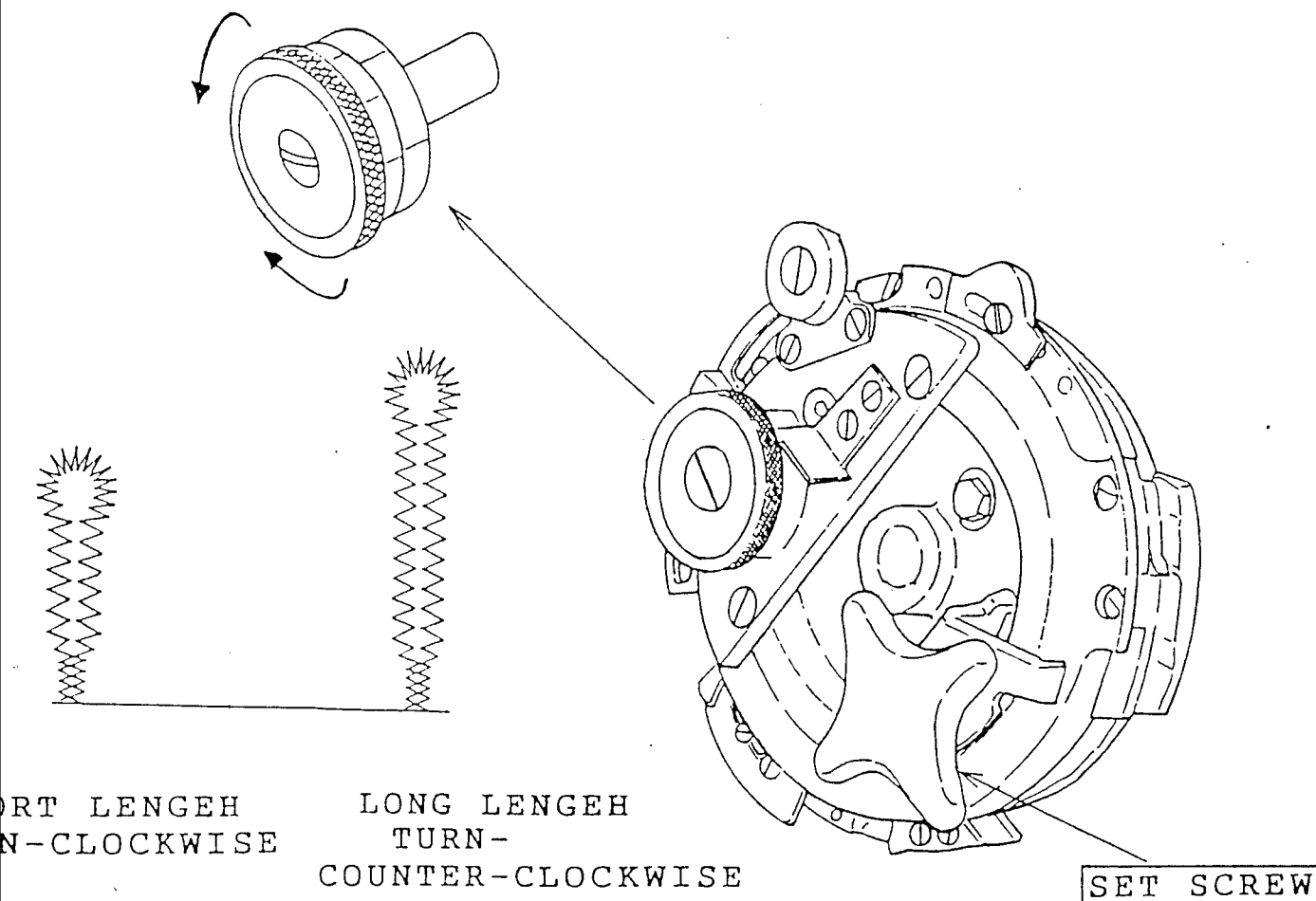
THREADING (LOOPER)



THREADING (GIMP)

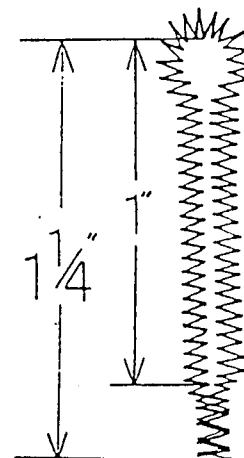


ADJUSTMENT OF BUTTONHOLE LENGTHS

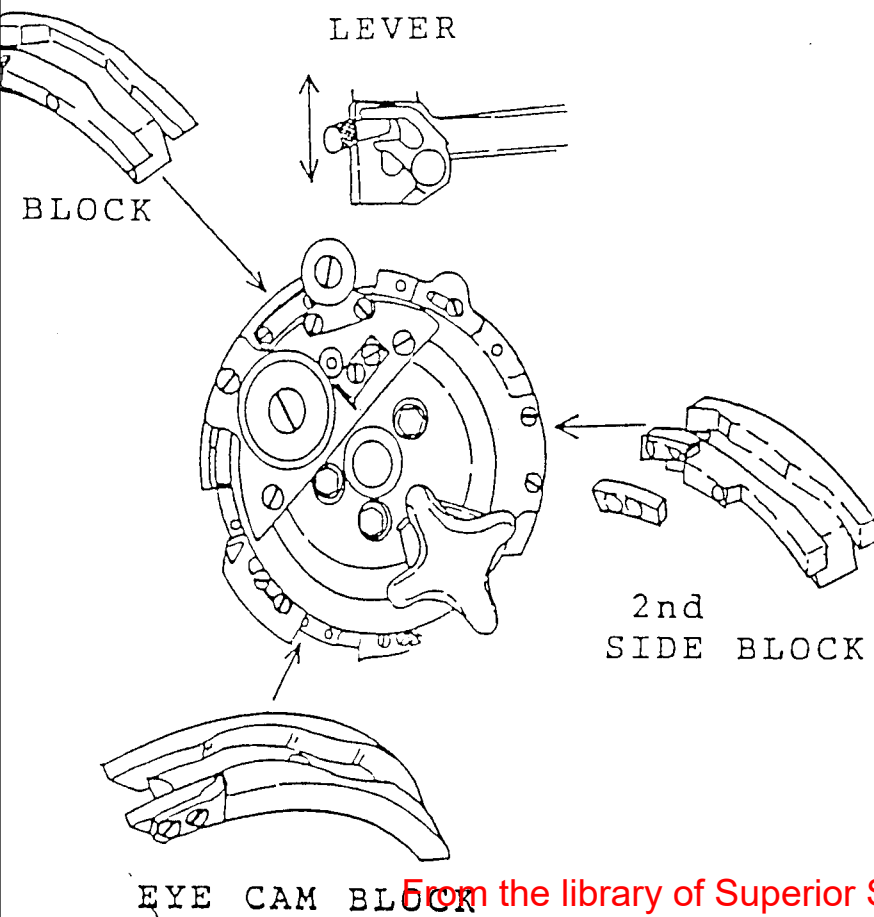


FOR EXAMPLE

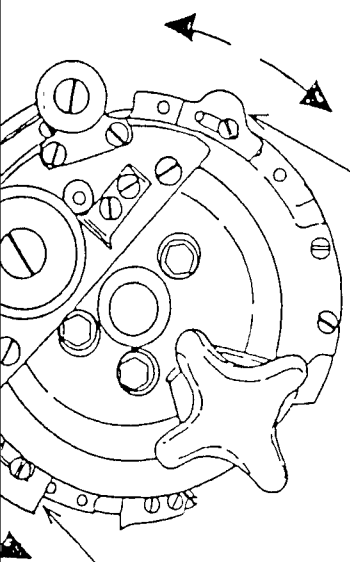
$1\frac{1}{8}$	$\frac{7}{8}$
$1\frac{1}{4}$	1
EYE B	AND A
ST. R	



ELECTION OF BUTTONHOLE PATTERN



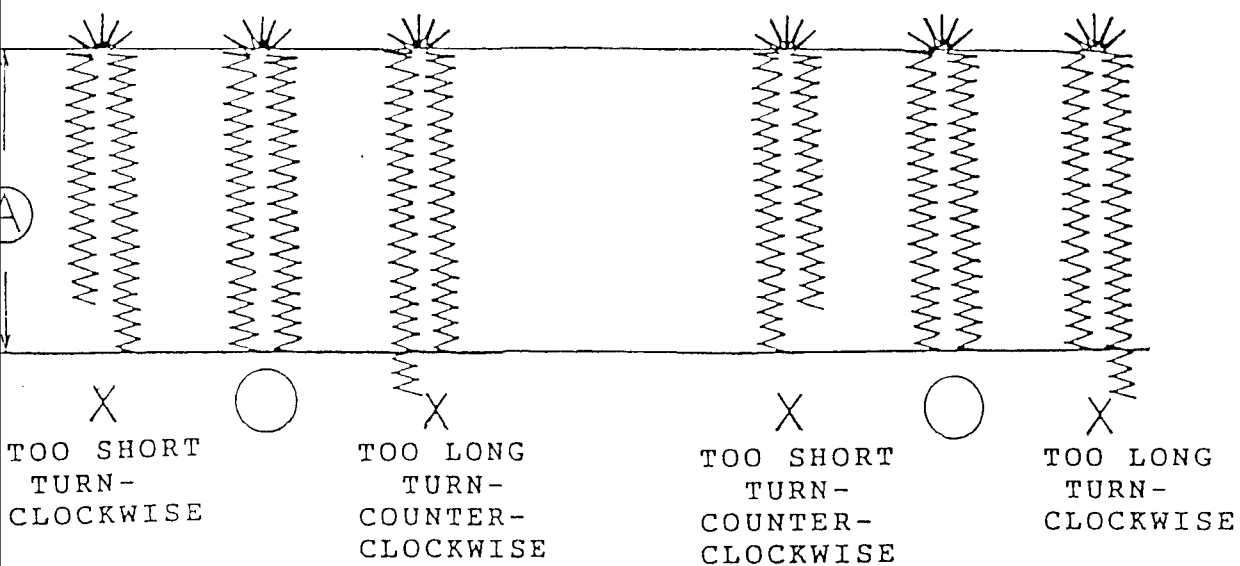
	PATTERN WHEEL CAM BLOCK			LEVER
	EYE	1st	2nd	
				DOWN
				UP
		—	—	DOWN
	—			DOWN



ADJUSTMENT OF SEWING START & STOP

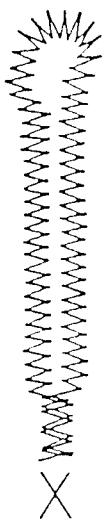
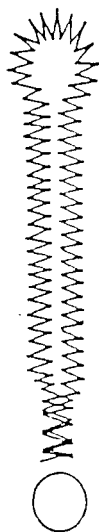
1st CAM

2nd CAM

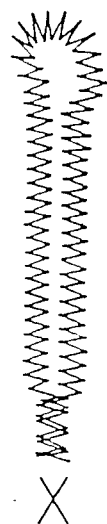


MODEL	PATTERN WHEEL INDEX DISC (EYE AND ST.) (A)
210W 211W 230W 231W 250W 251W	1" 1/4 (31.8mm)
123W 233SW 253SW	1" (25.4mm)
213MW 217MW 233MW 237MW 253MW 257MW	1" 1/4 (31.8mm)
213LW 233LW 253LW	1" 1/2 (38.1mm)

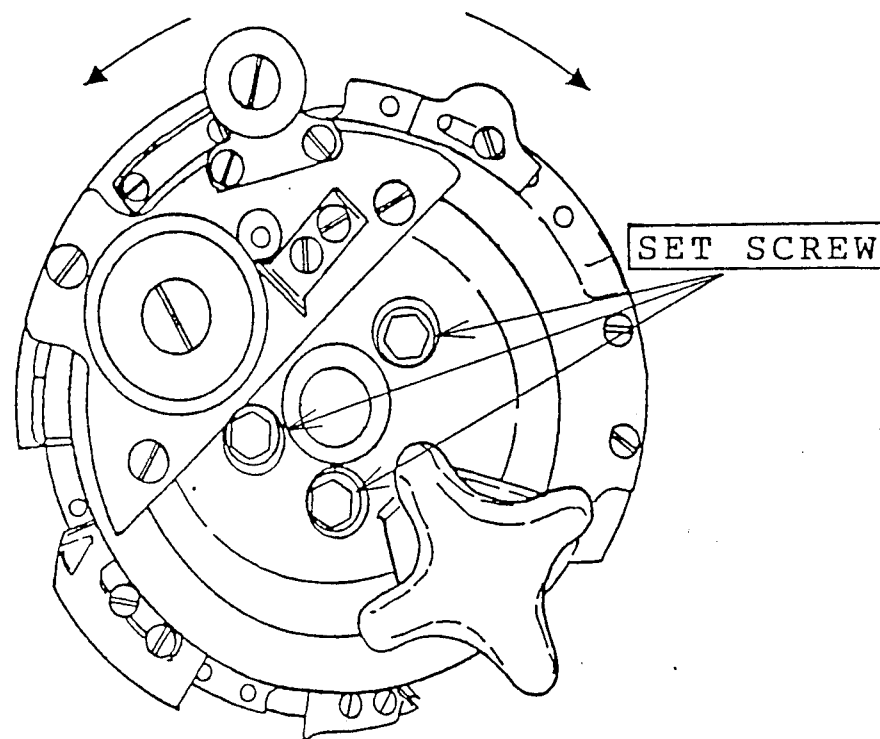
ADJUSTMENT OF PATTERN WHEEL CAM BLOCK (eye)



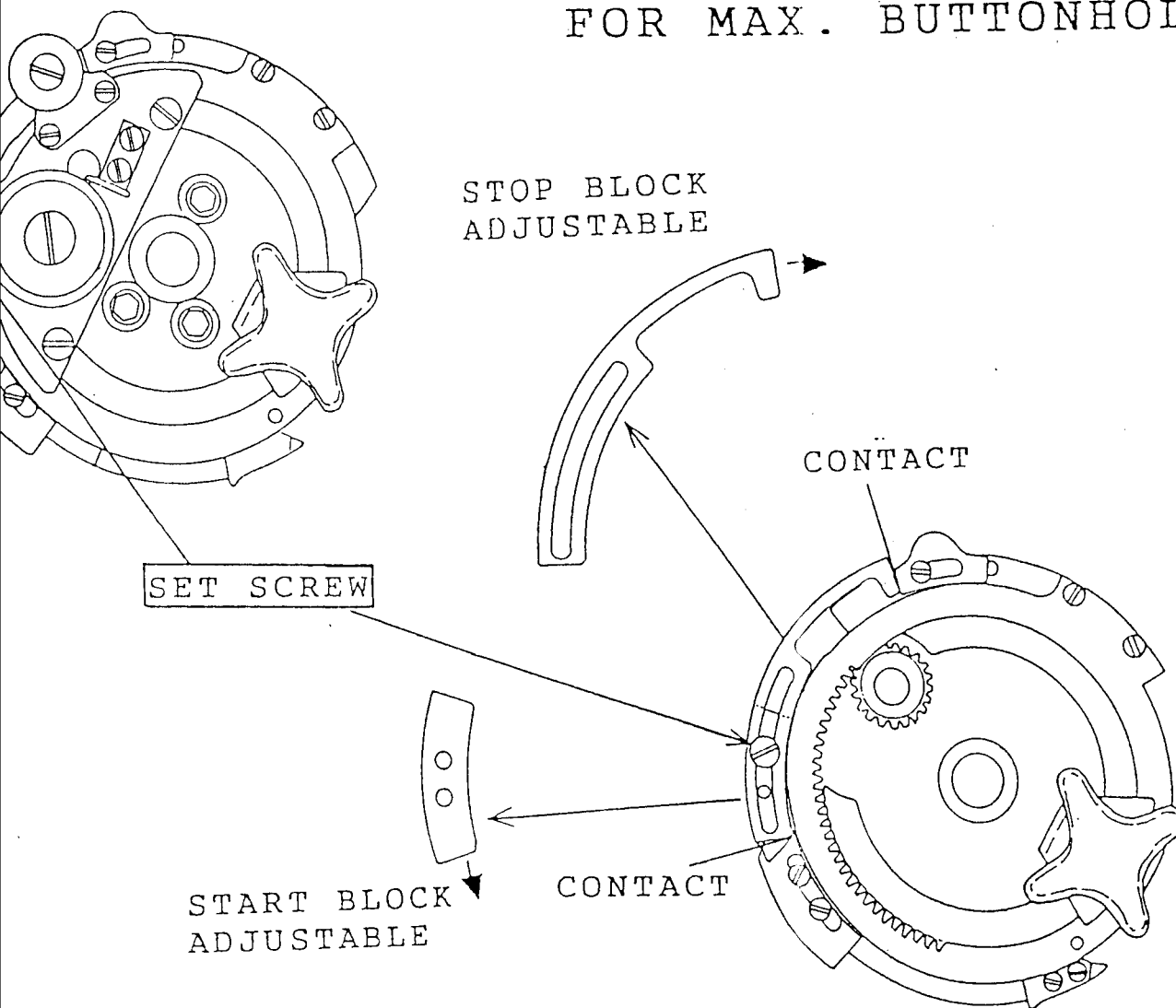
TURN
COUNTER-CLOCKWISE



TURN CLOCKWISE

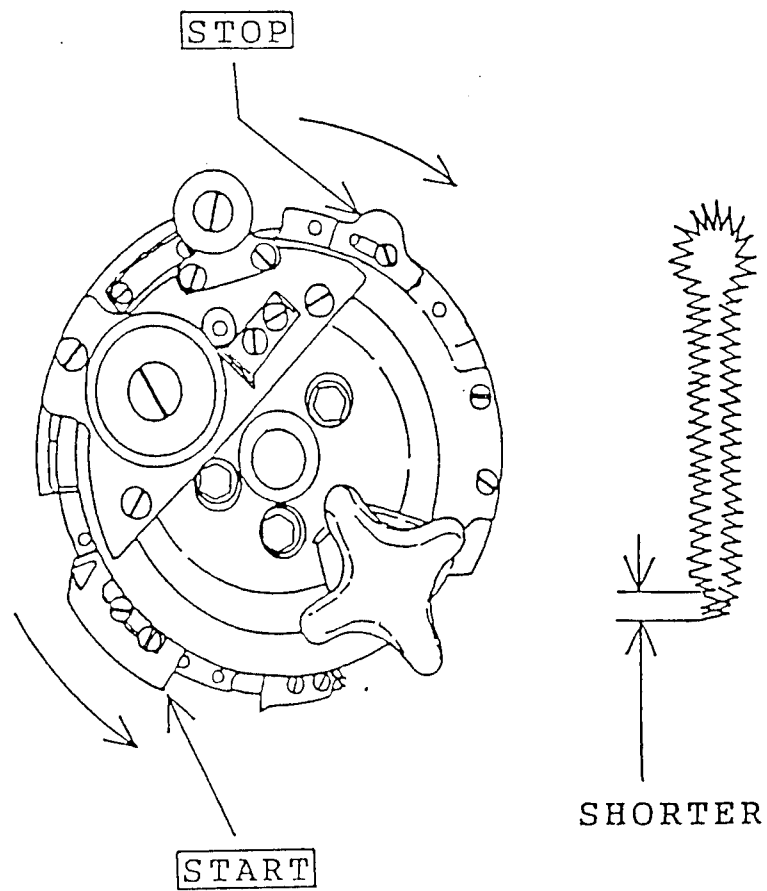
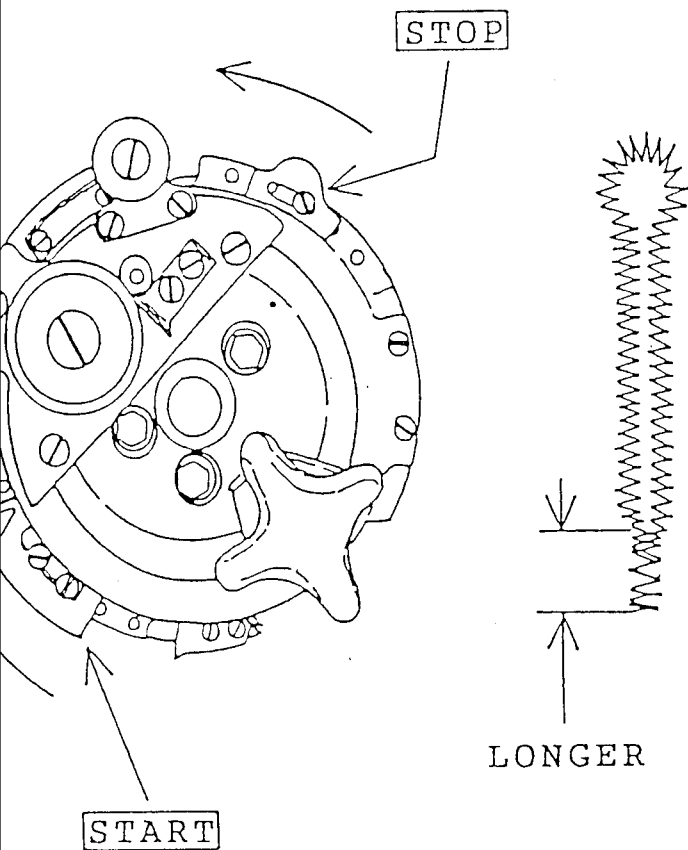


TO SET RESTRICTION PLATES FOR MAX. BUTTONHOLE LENGTH

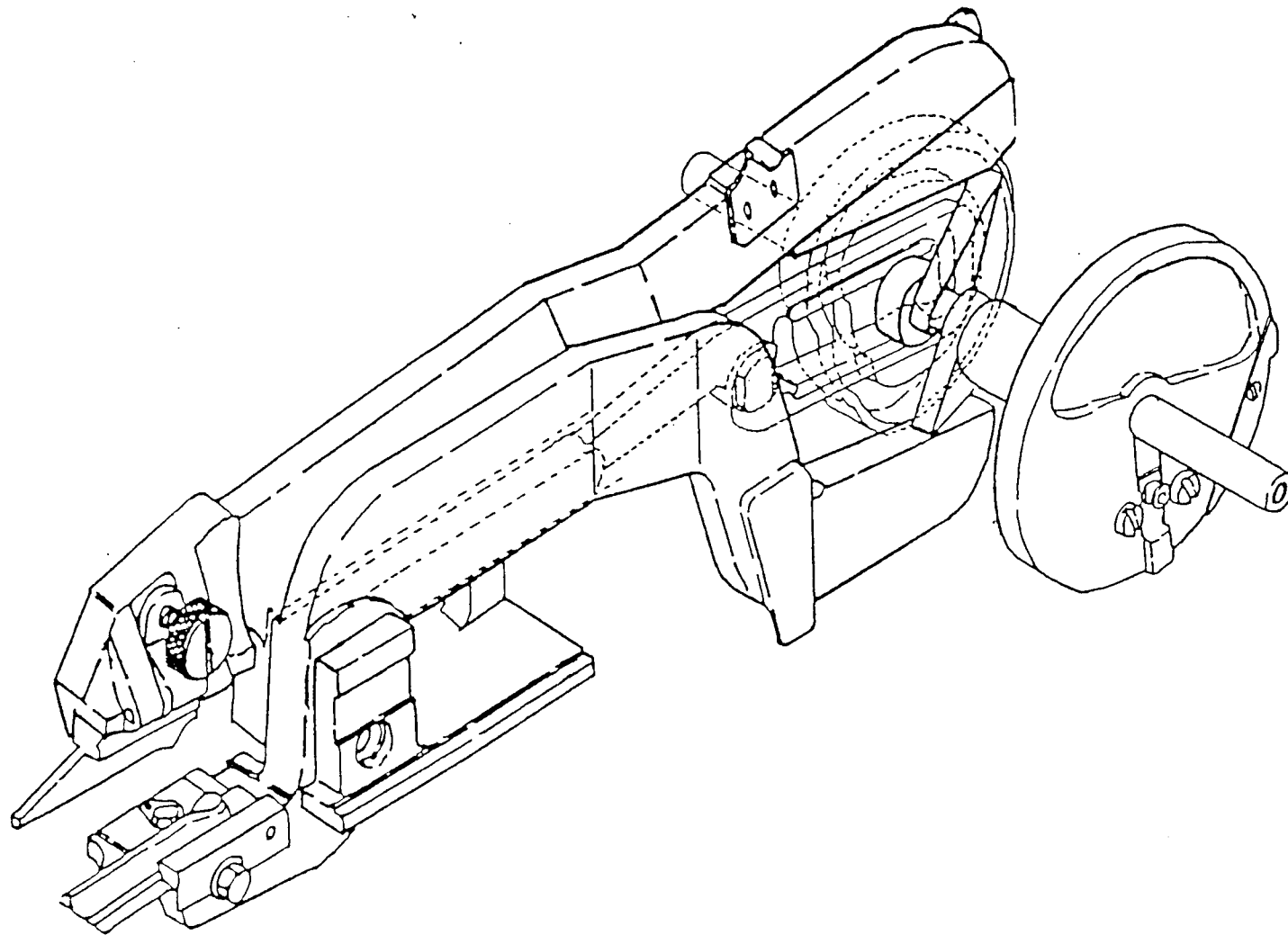


MODEL	PATTERN WHEEL INDEX DISC (EYE AND ST.)
210W 230W 250W	1" 5/8 (41.3mm)
211W 231W 251W	1" 3/8 (35.0mm)
123W 233SW 253SW	1" (25.4mm)
213MW 217MW 233MW 237MW 253MW 257MW	1" 1/4 (31.8mm)
213LW 233LW 253LW	1" 1/2 (38.1mm)

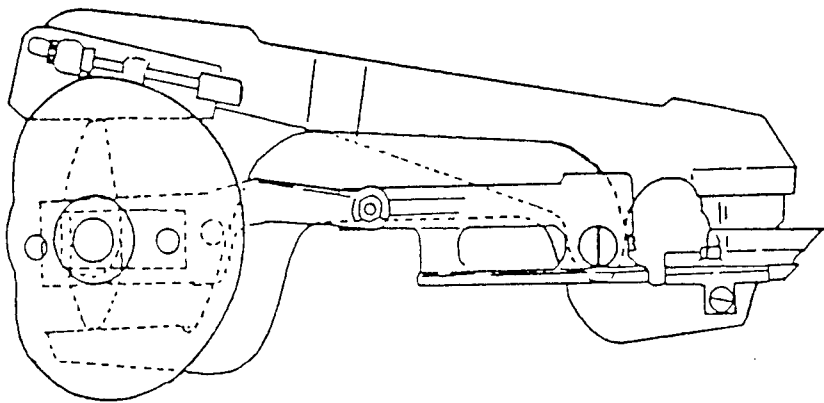
ADJUSTMENT OF TAPER BAR LENGTHS



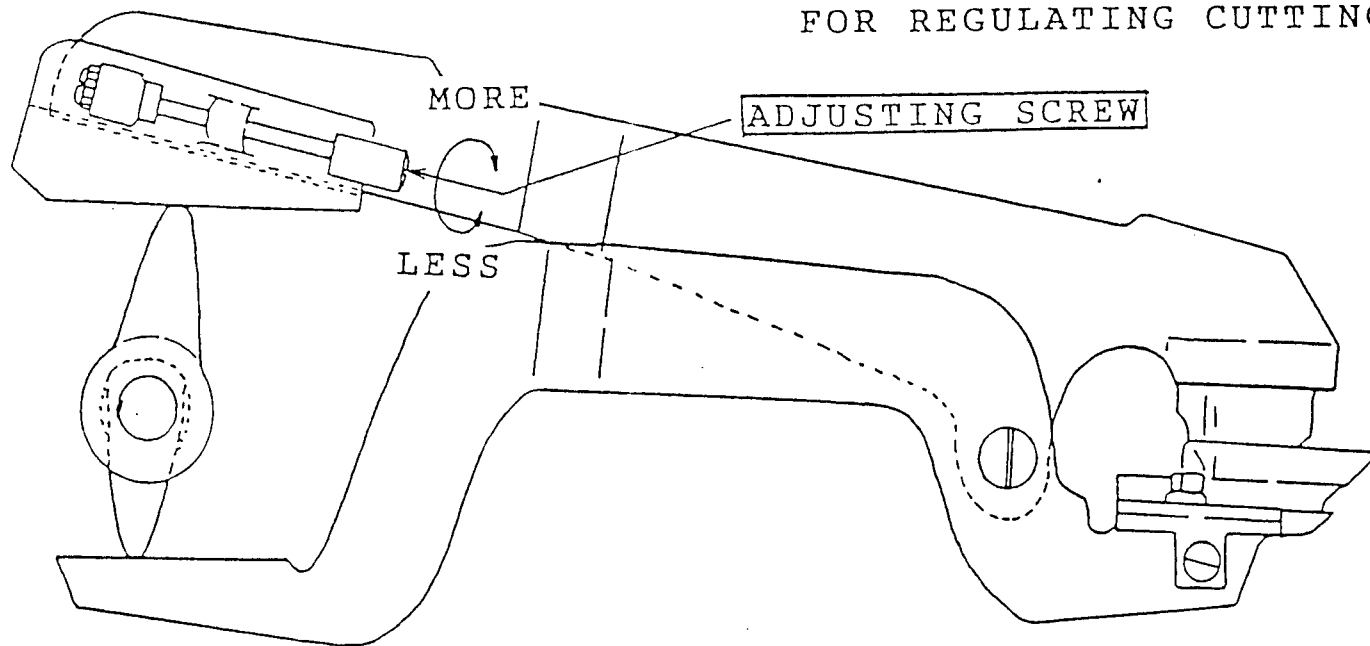
CUTTING MECHANISM

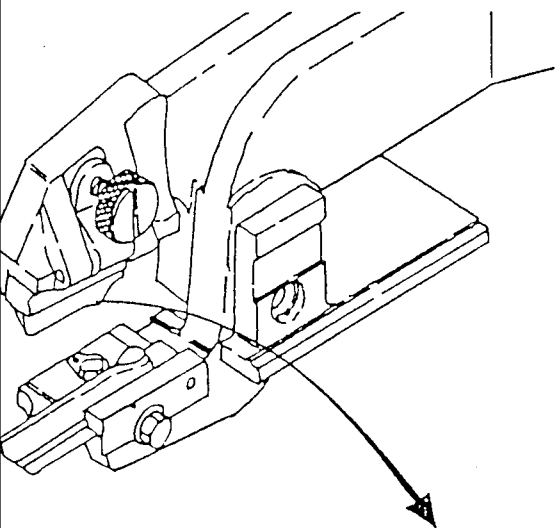


ADJUSTMENT OF CUTTING KNIFE PRESSURE

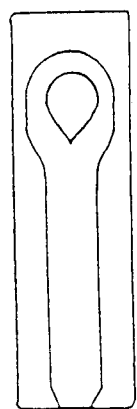


MAKE TRIAL CUTTING WITH A SHEET OF PAPER
FOR REGULATING CUTTING PRESSURE

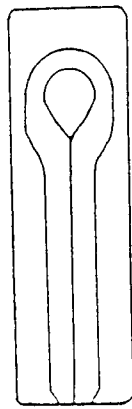




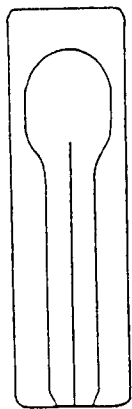
REFACING CUTTING BLOCK



X

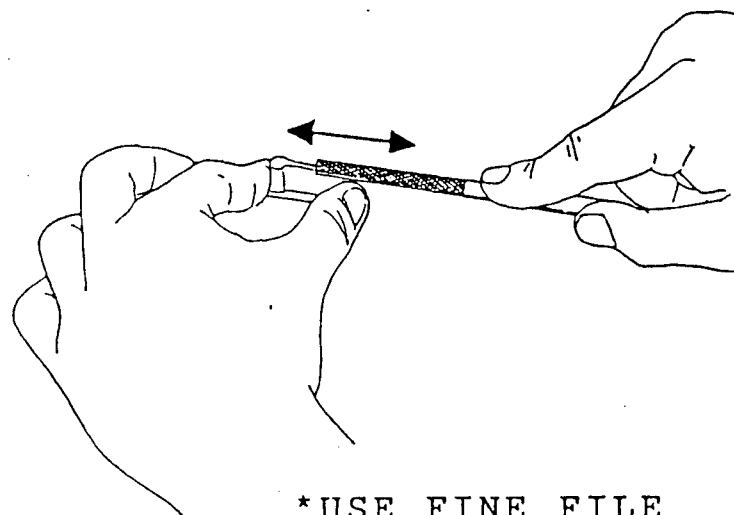


O



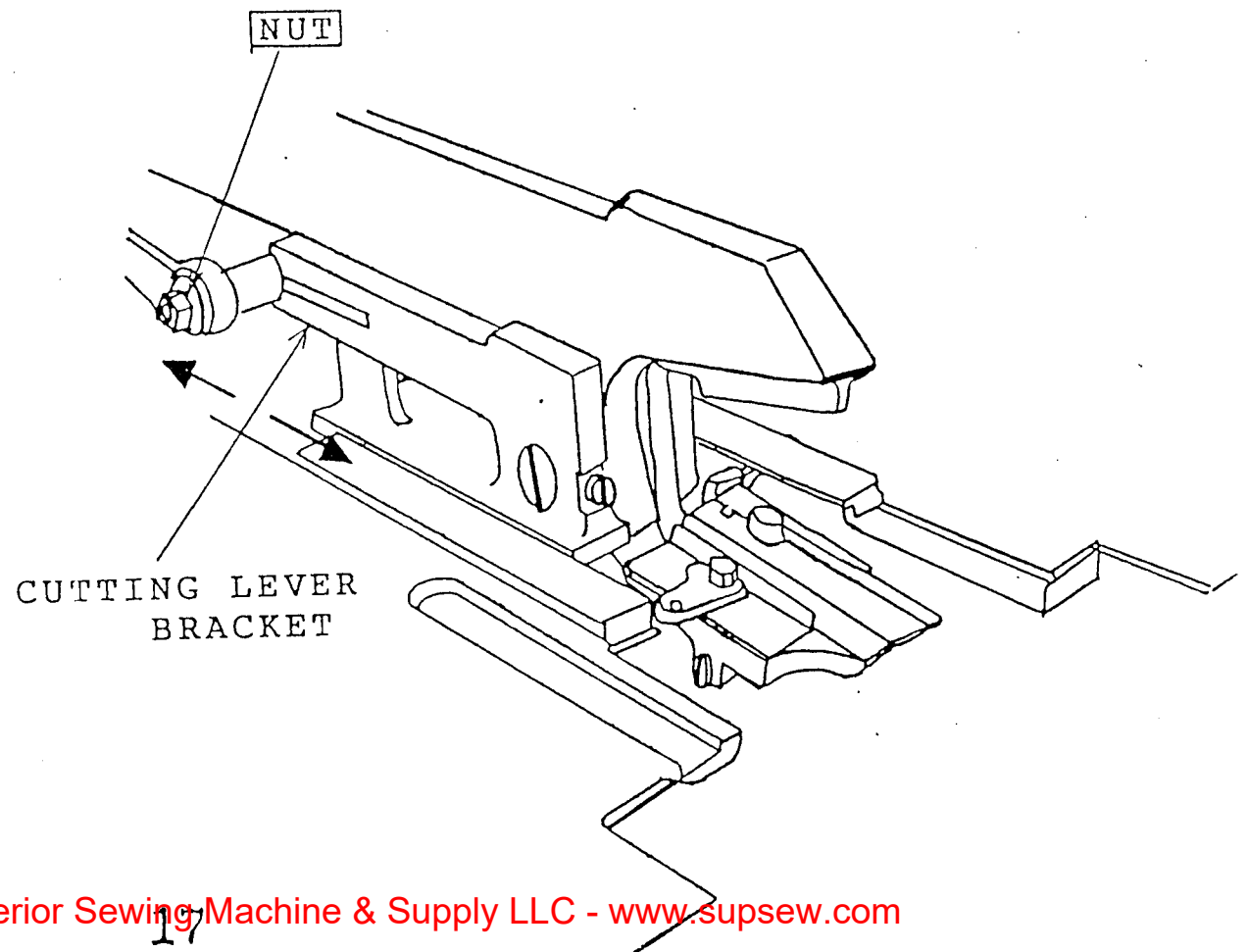
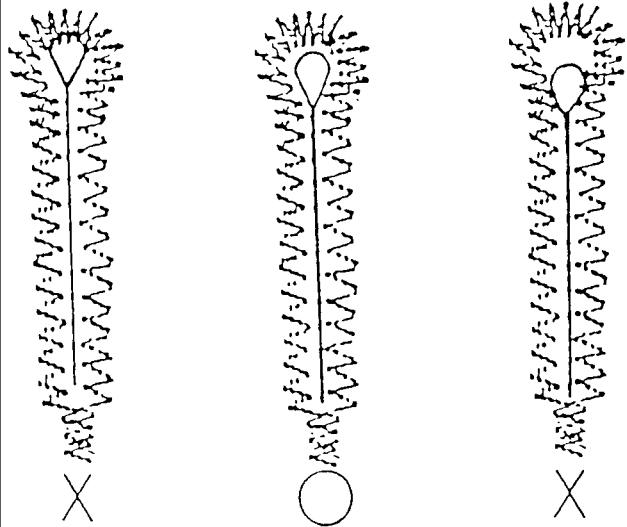
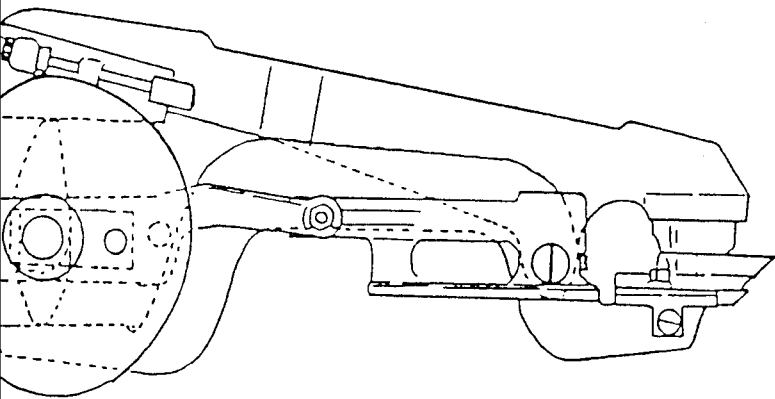
X

CUTTING BLOCK

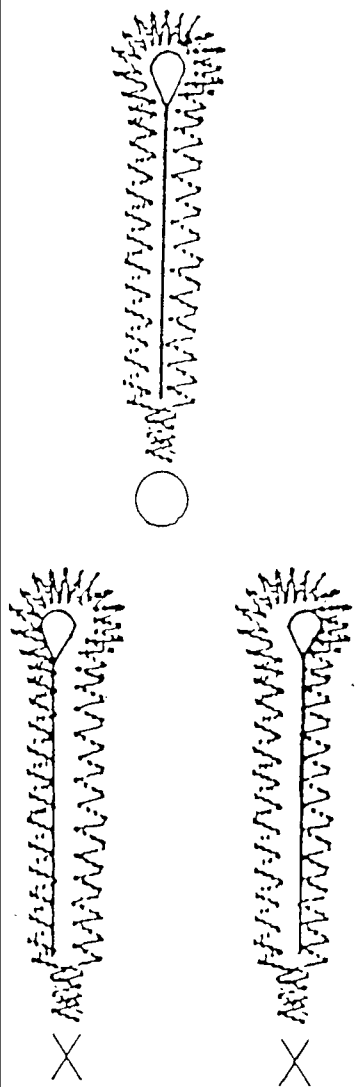


*USE FINE FILE

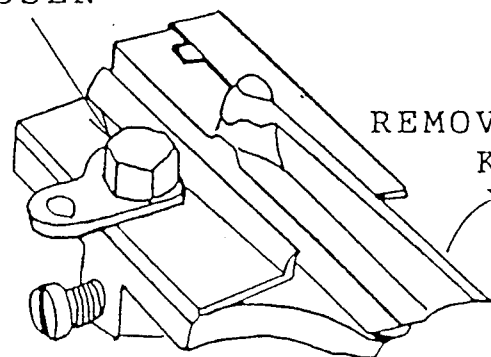
POSITION OF CUTTING KNIFE (1)



POSITION OF CUTTING KNIFE (2)



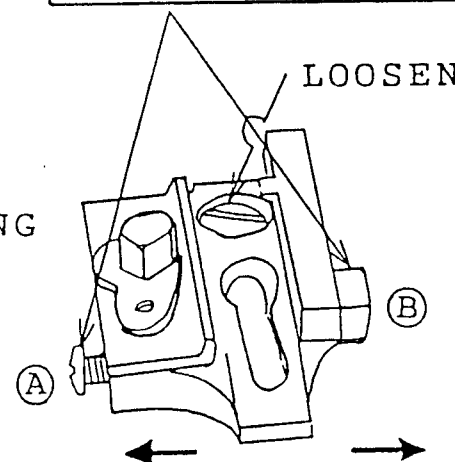
LOOSEN



REMOVE CUTTING
KNIFE

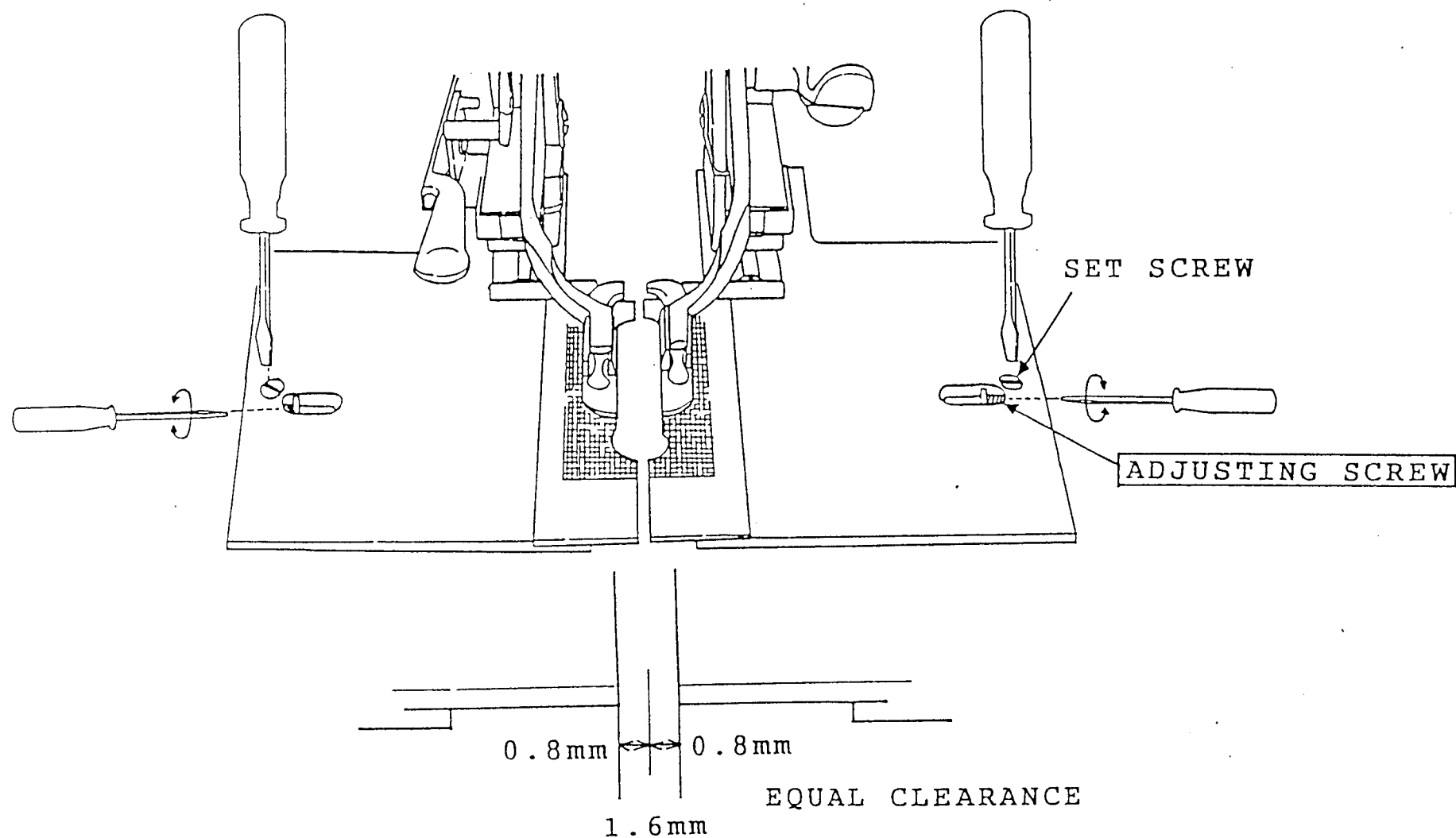
ADJUSTING SCREW

LOOSEN

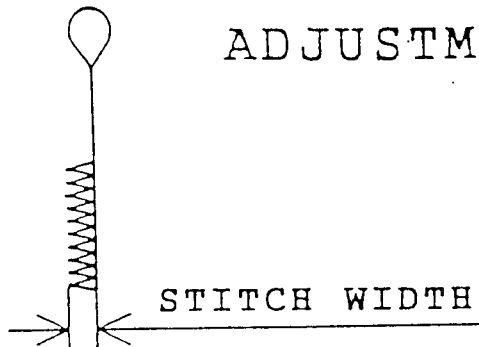


TO MOVE KNIFE TO RIGHT
LOOSEN SCREW (A)
TIGHTEN SCREW (B)
TO MOVE KNIFE TO LEFT
TIGHTEN SCREW (A)
LOOSEN SCREW (B)

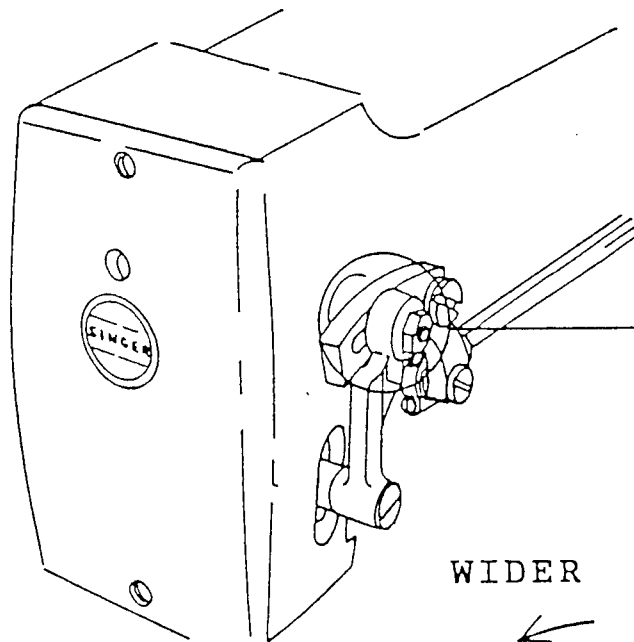
ADJUSTMENT OF WORK SPREAD AMOUNT



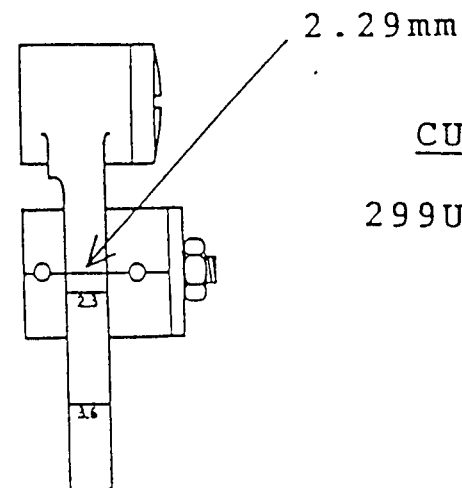
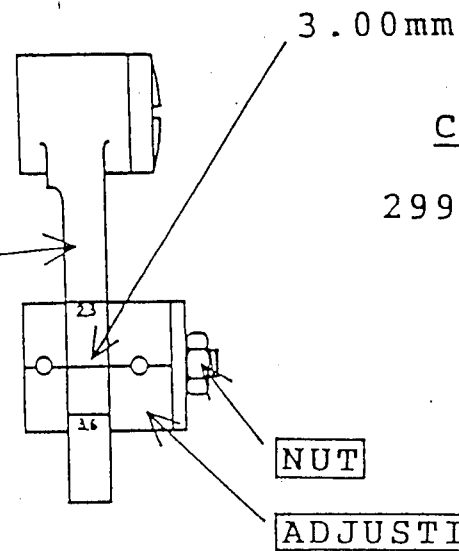
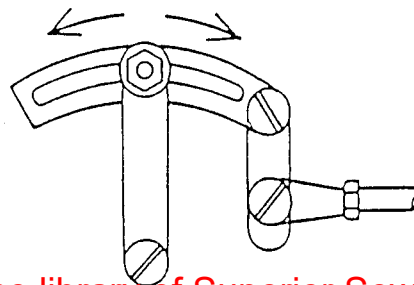
ADJUSTMENT OF STITCHING WIDTH



BELL CRANK

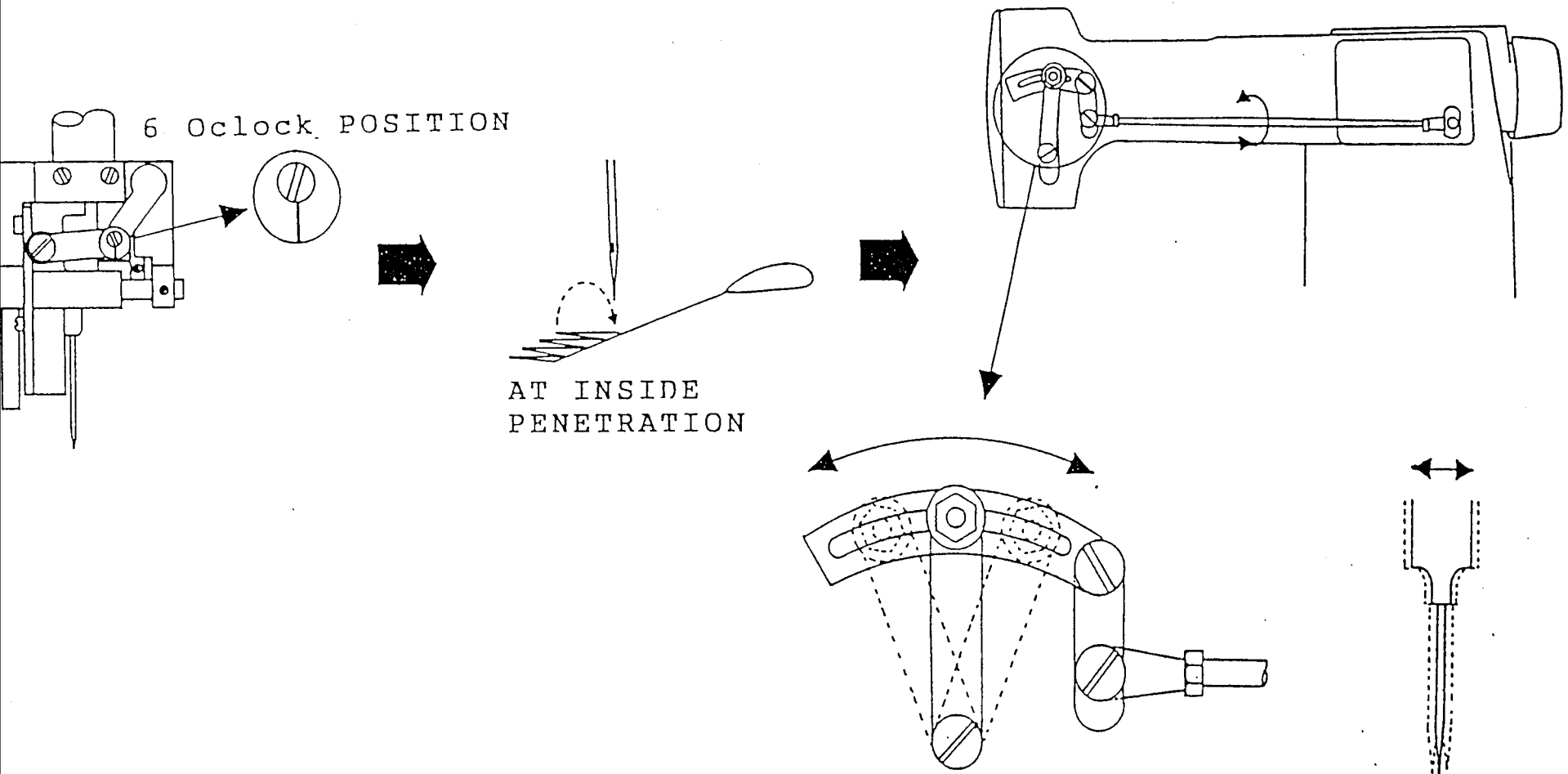


WIDER ← → NARROWER



TO STOP NEEDLE VIBRATION WHILE PENETRATING (1)

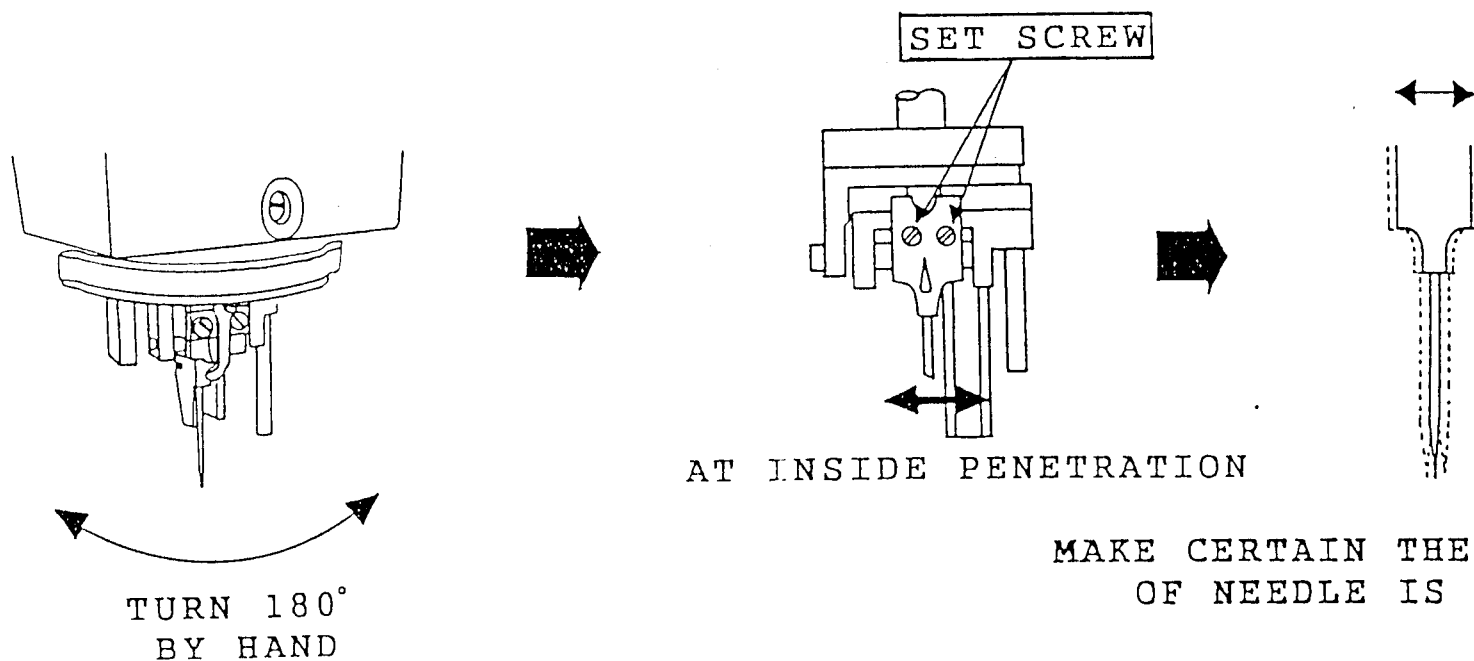
(ADJUSTING LENGTH OF NEEDLE VIBRATING BELL CRANK CONNECTION ROD)



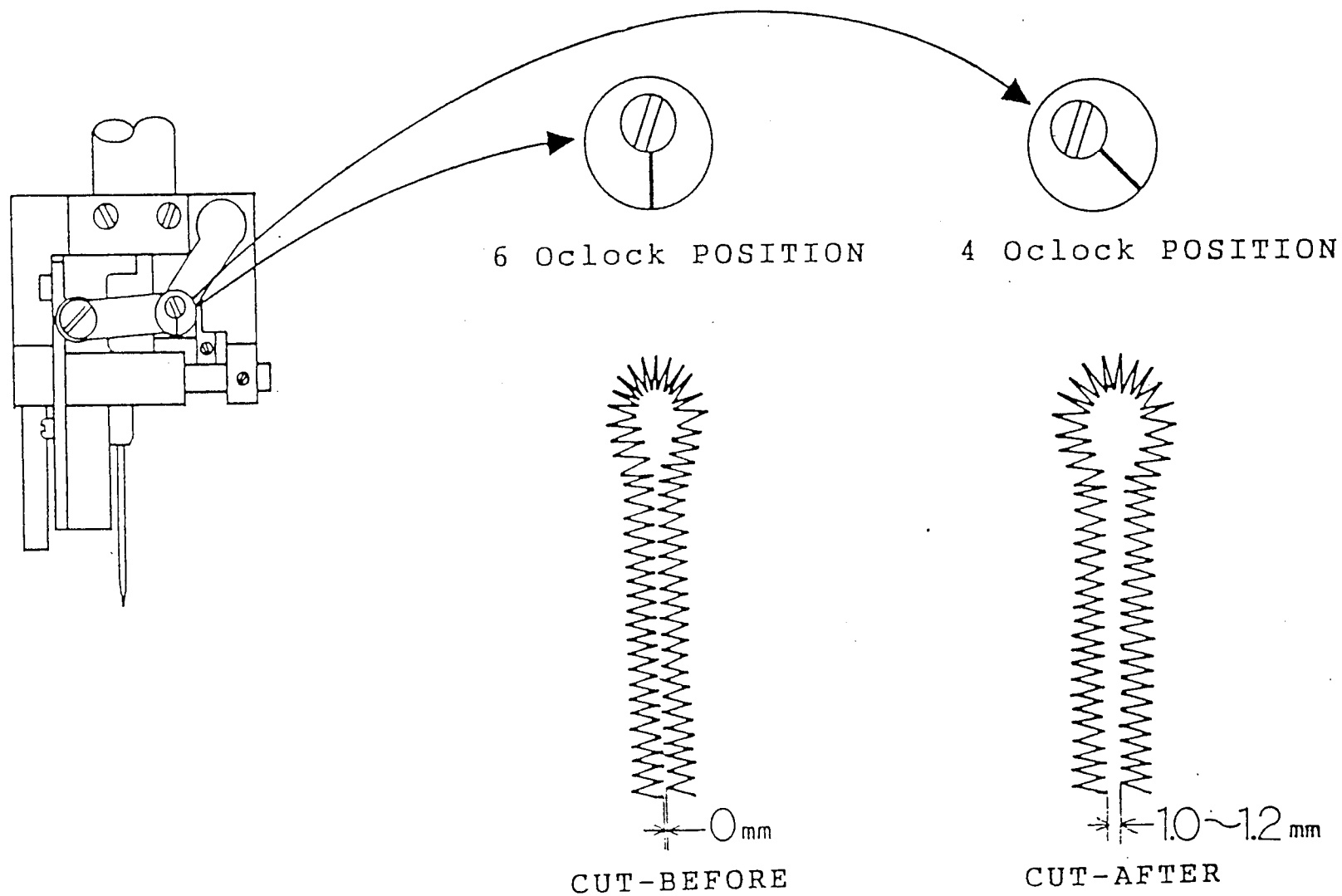
MAKE CERTAIN THE SIDEWISE MOVEMENT
OF NEEDLE IS LESS THAN 0.1mm

TO STOP NEEDLE VIBRATION WHILE PENETRATING (2)

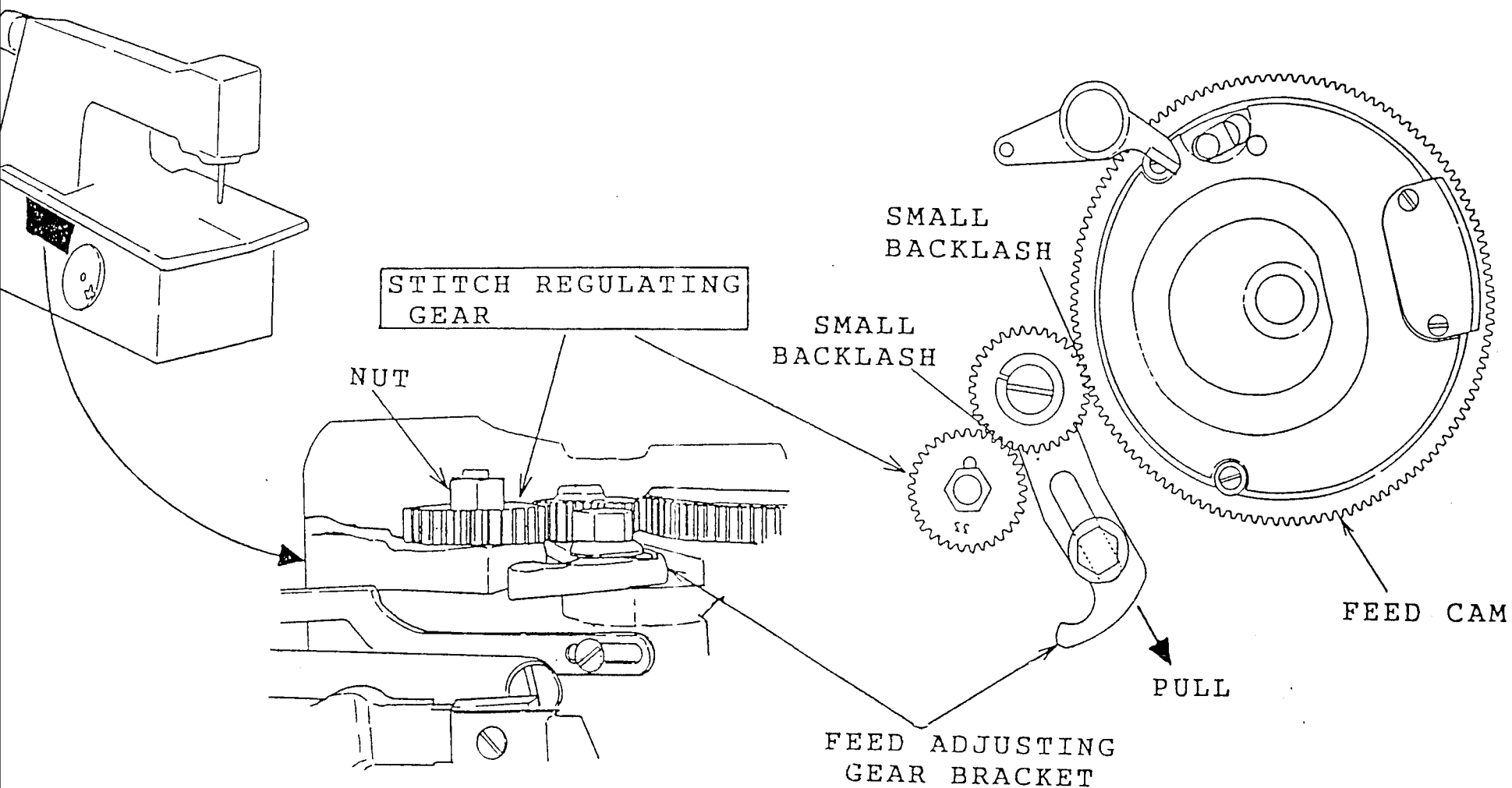
(ADJUSTMENT OF NEEDLE HOLDER)



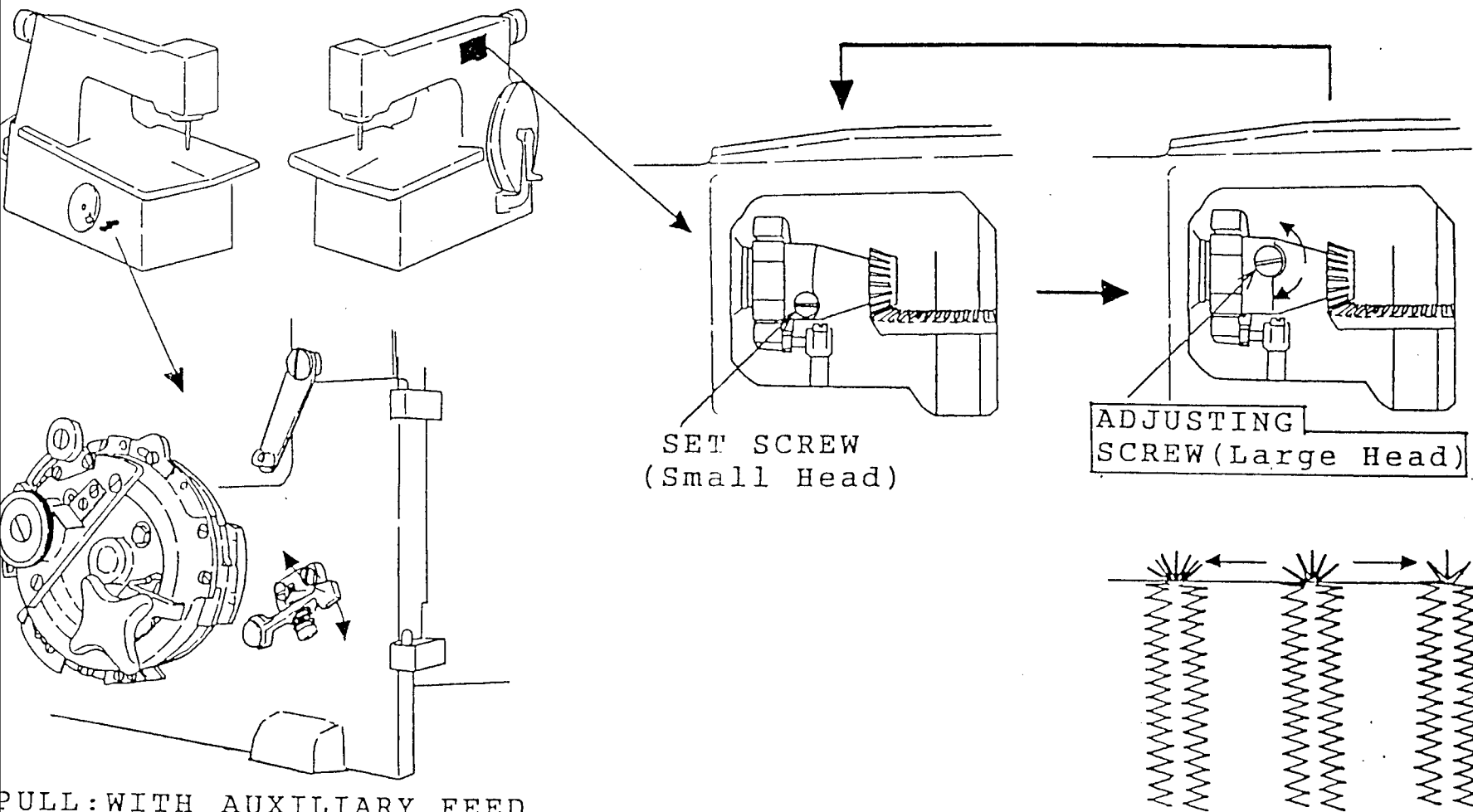
ADJUSTMENT OF CUTTING SPACE (ECCENTRIC SCREW)



TO CHANGE STITCH REGULATING GEAR



ADJUSTMENT OF AUXILIARY FEED

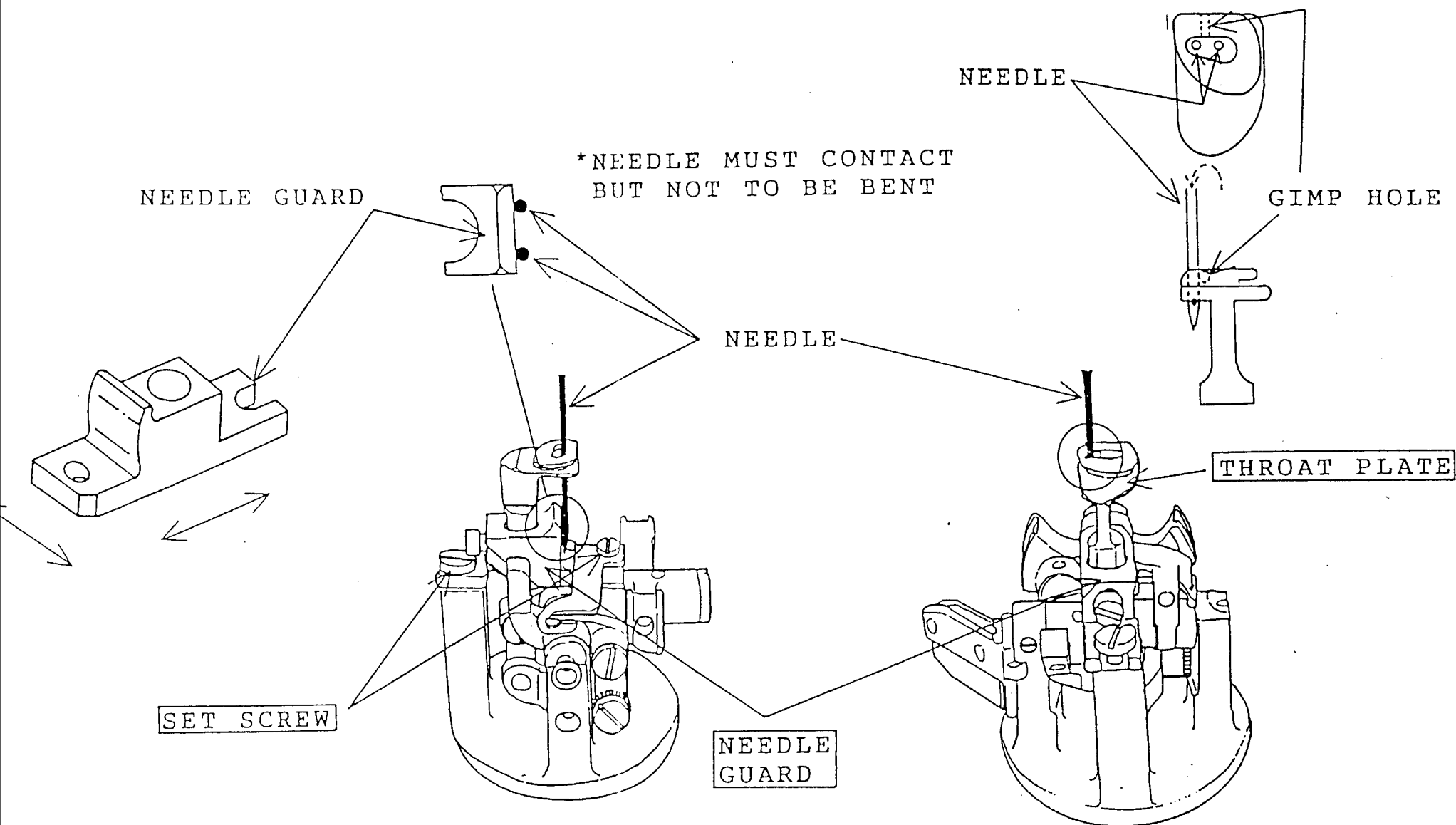


PULL: WITH AUXILIARY FEED

PUSH: W/OUT AUXILIARY FEED

FINE
TURN-CLOCKWISE
COARSE
TURN-CLOCKWISE
CENTER-CLOCKWISE

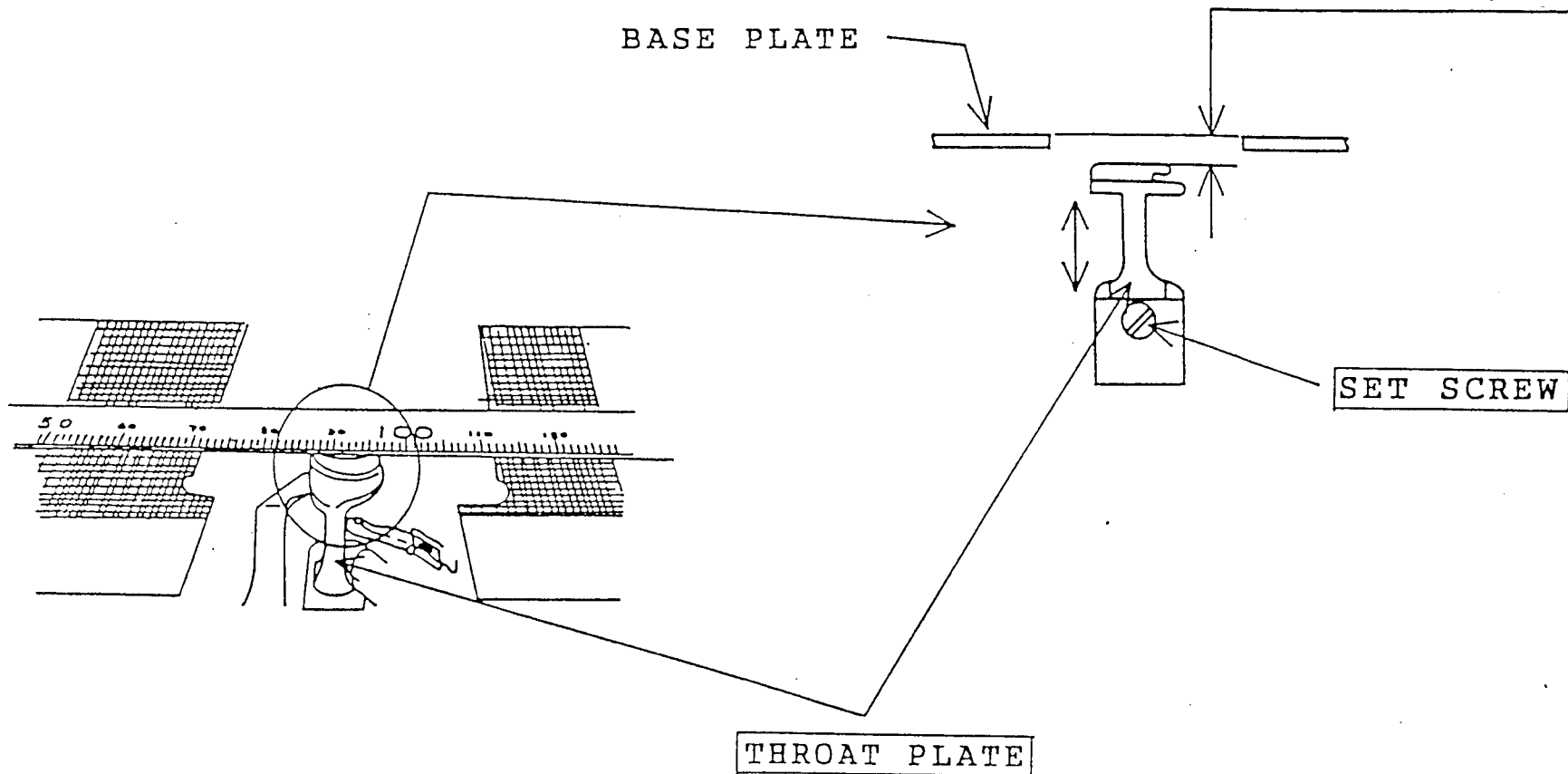
POSITION OF NEEDLE GUARD & THROAT PLATE



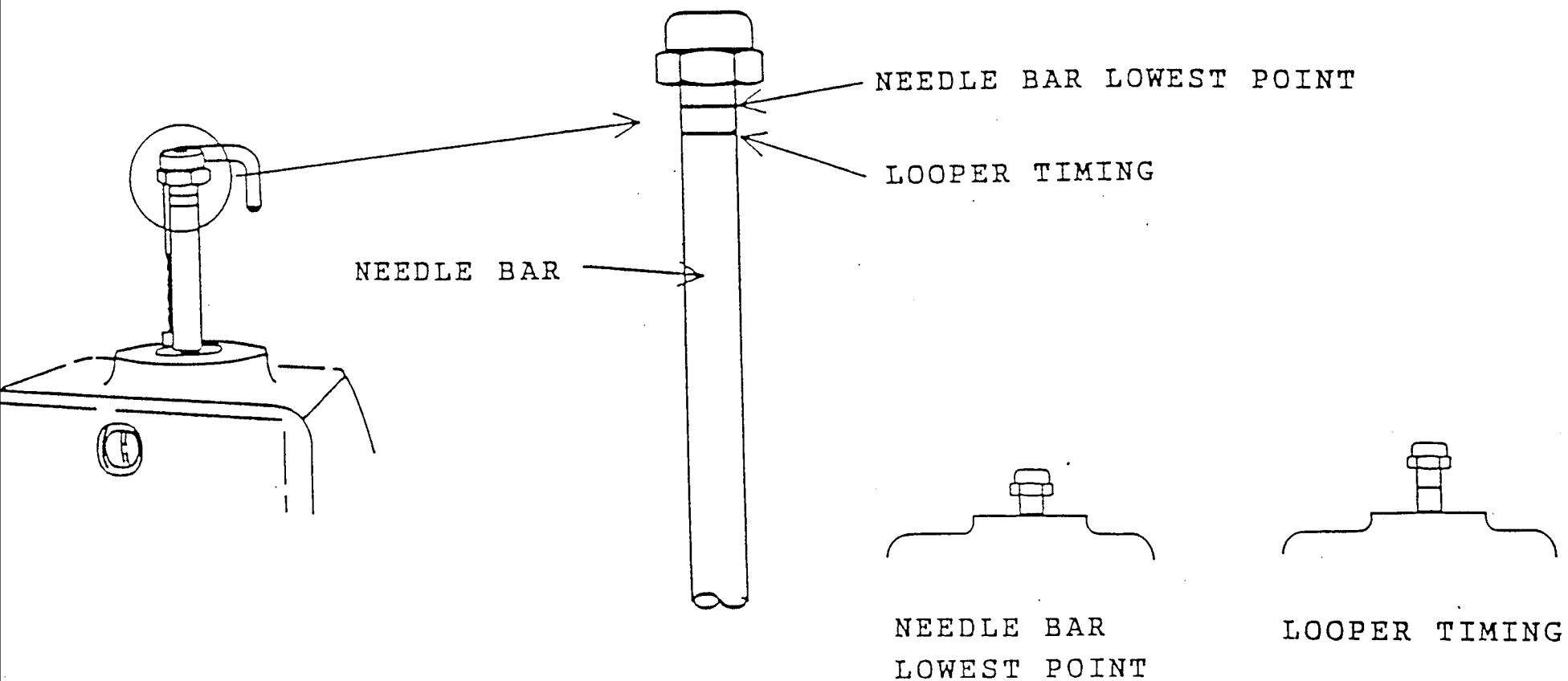
HEIGHT OF THROAT PLATE

0.2mm 299U 123W/127W/213W
233W/253W/257W

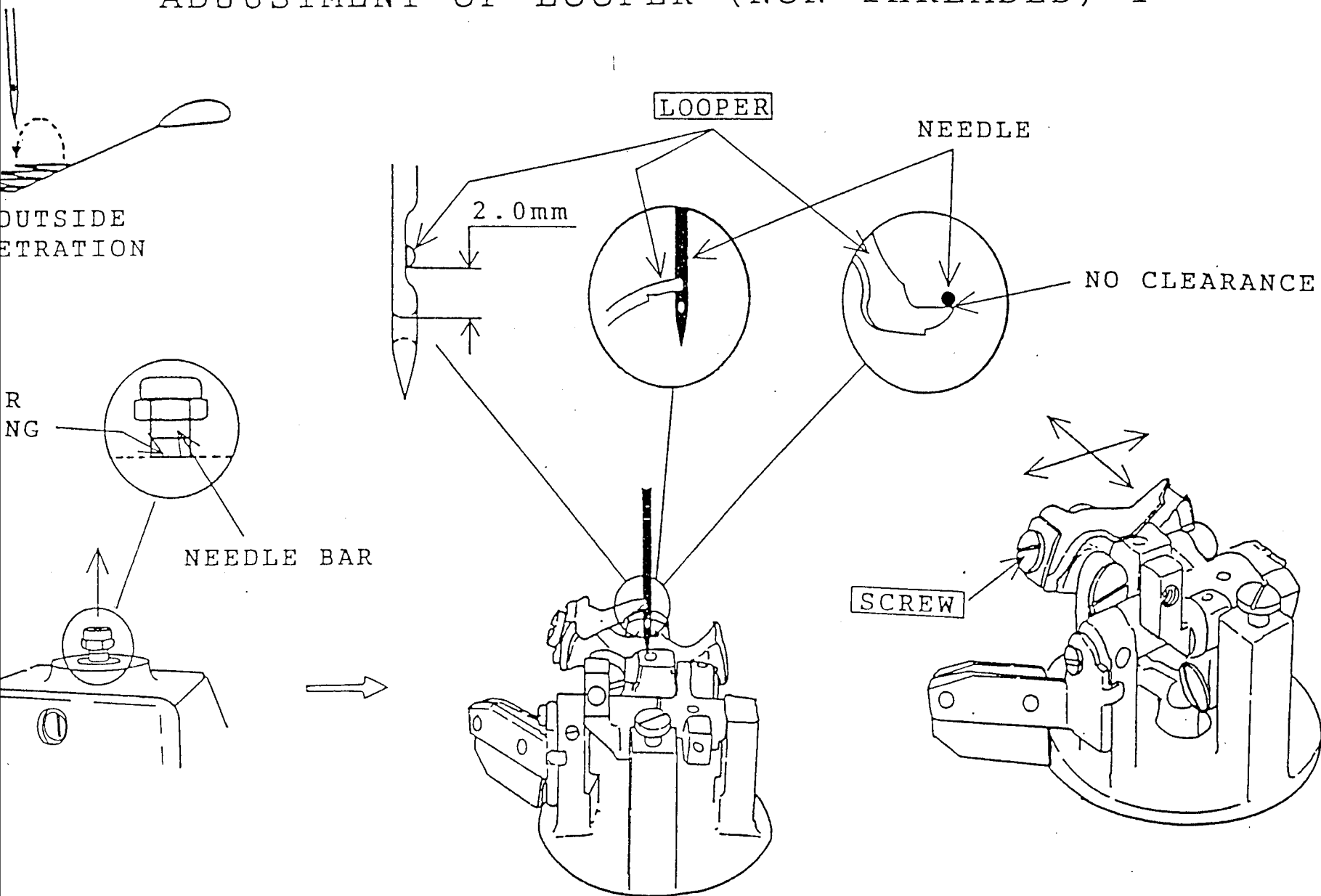
0.8mm 299U 210W/211W/230W
231W/250W/251W



TIMING MARKS ON NEEDLE BAR



ADJUSTMENT OF LOOPER (NON THREADED) 1



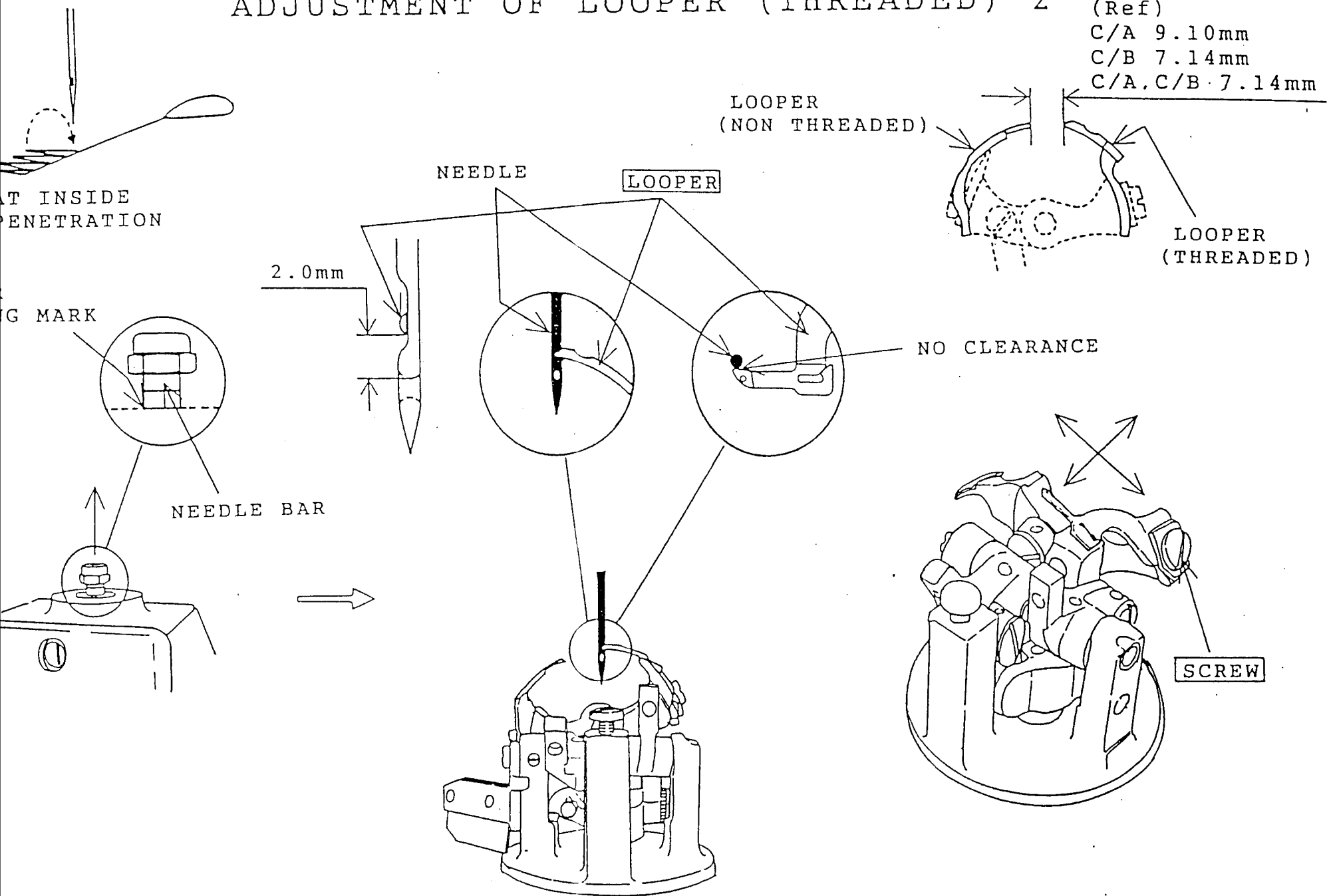
ADJUSTMENT OF LOOPER (THREADED) 2

(Ref)

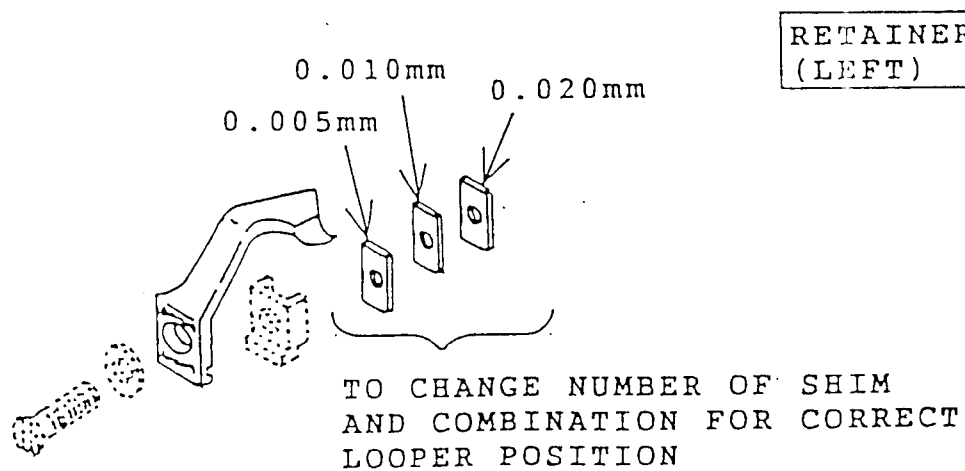
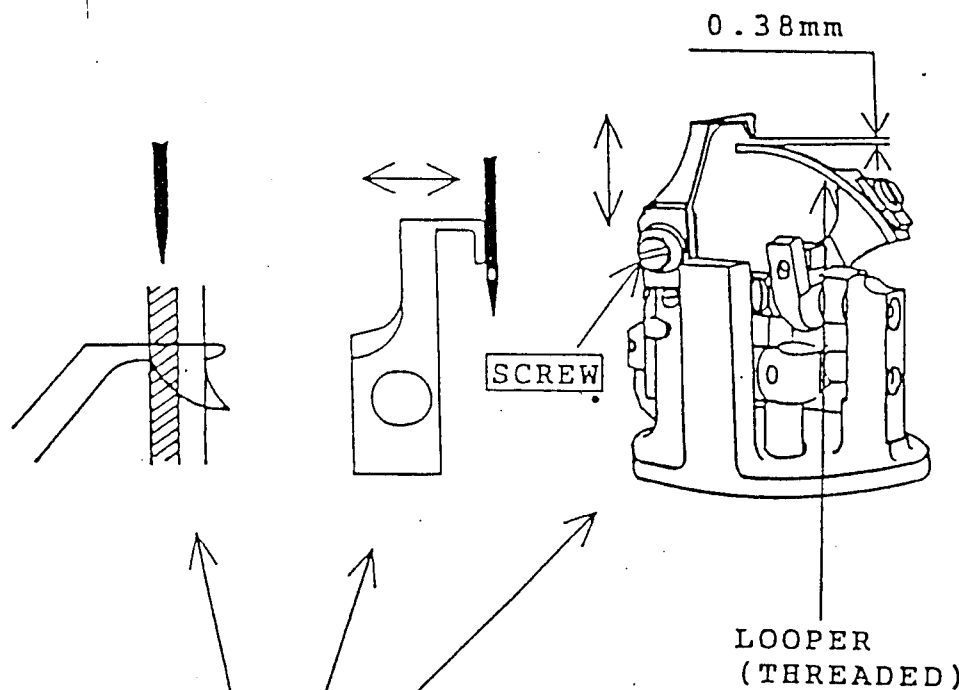
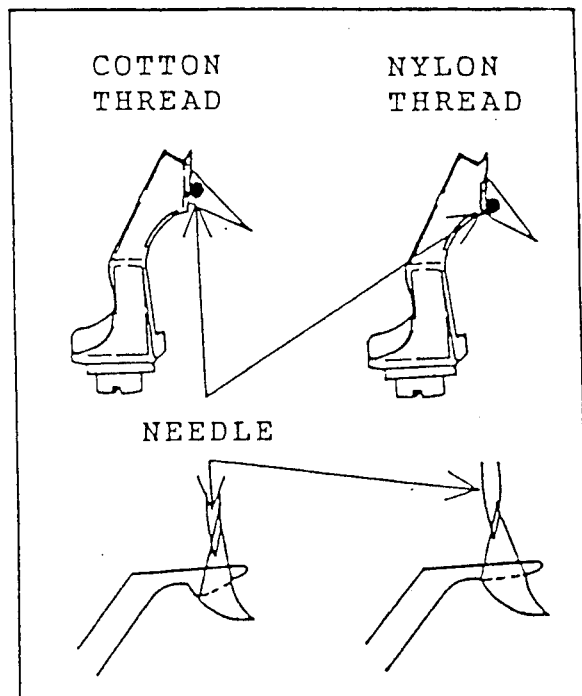
C/A 9.10mm

C/B 7.14mm

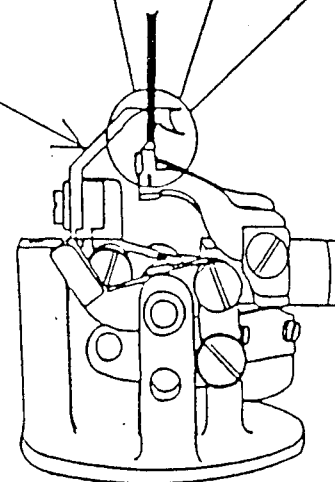
C/A.C/B 7.14mm



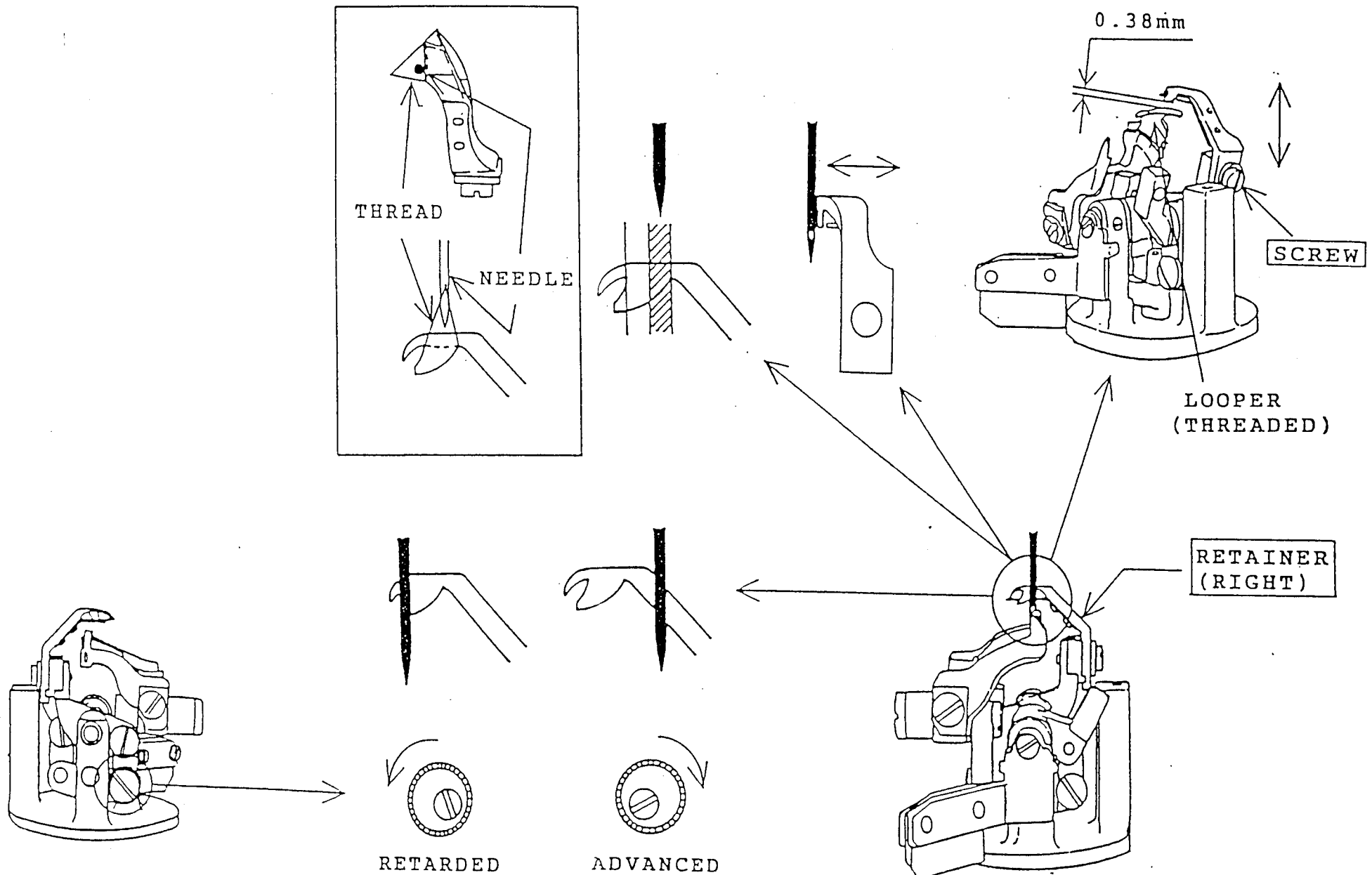
ADJUSTMENT OF LOOP RETAINER (LEFT) 1



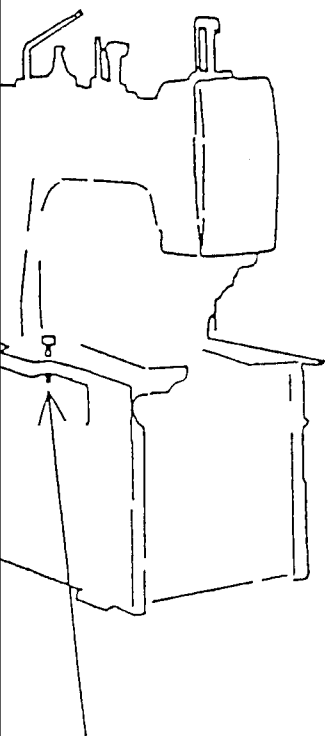
RETAINER
(LEFT)



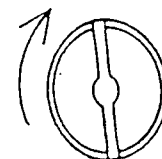
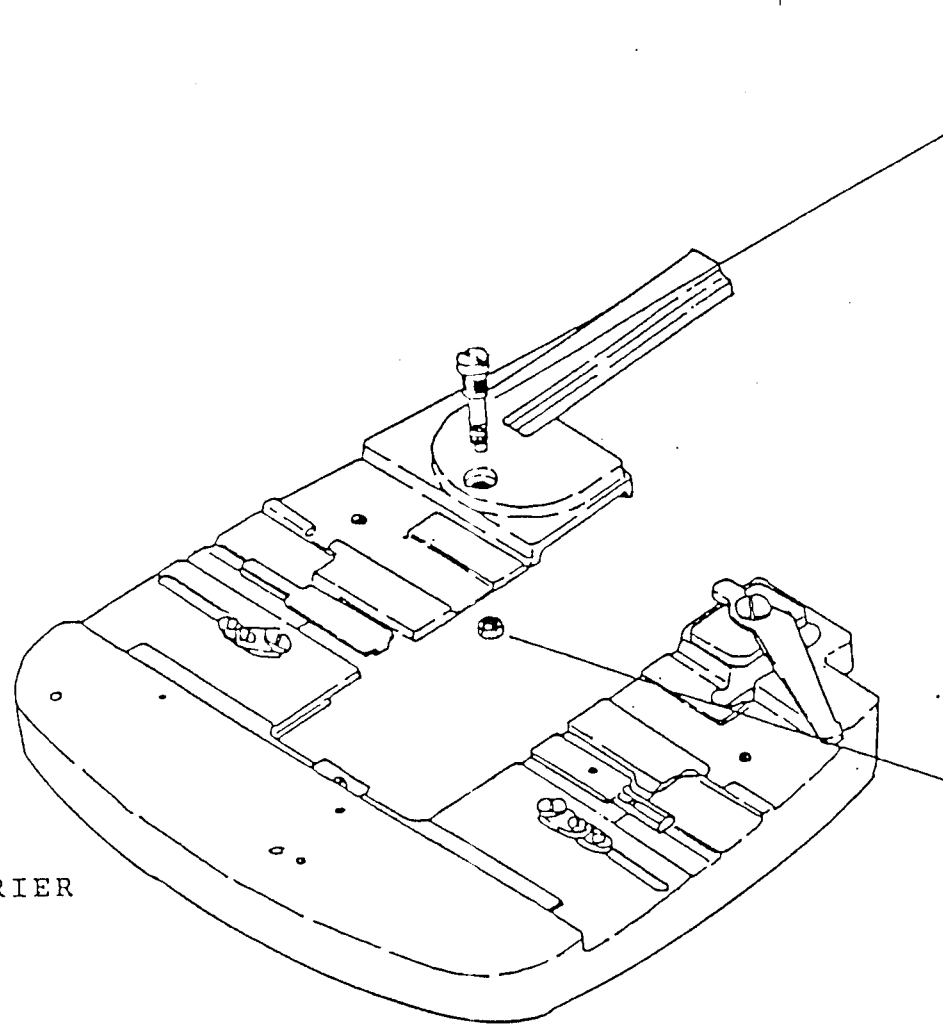
ADJUSTMENT OF LOOP RETAINER (RIGHT) 2



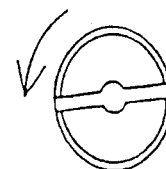
TO SET THE WORK CLAMP CARRIER



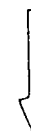
RT SCREW STUD
EED LEVER LINK
E WORK CLAMP CARRIER
ISMOUNTED



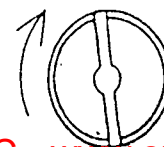
1, TIGHTEN THE SCREW
ALL THE WAY



2, LOOSEN
THE SCREW 90°

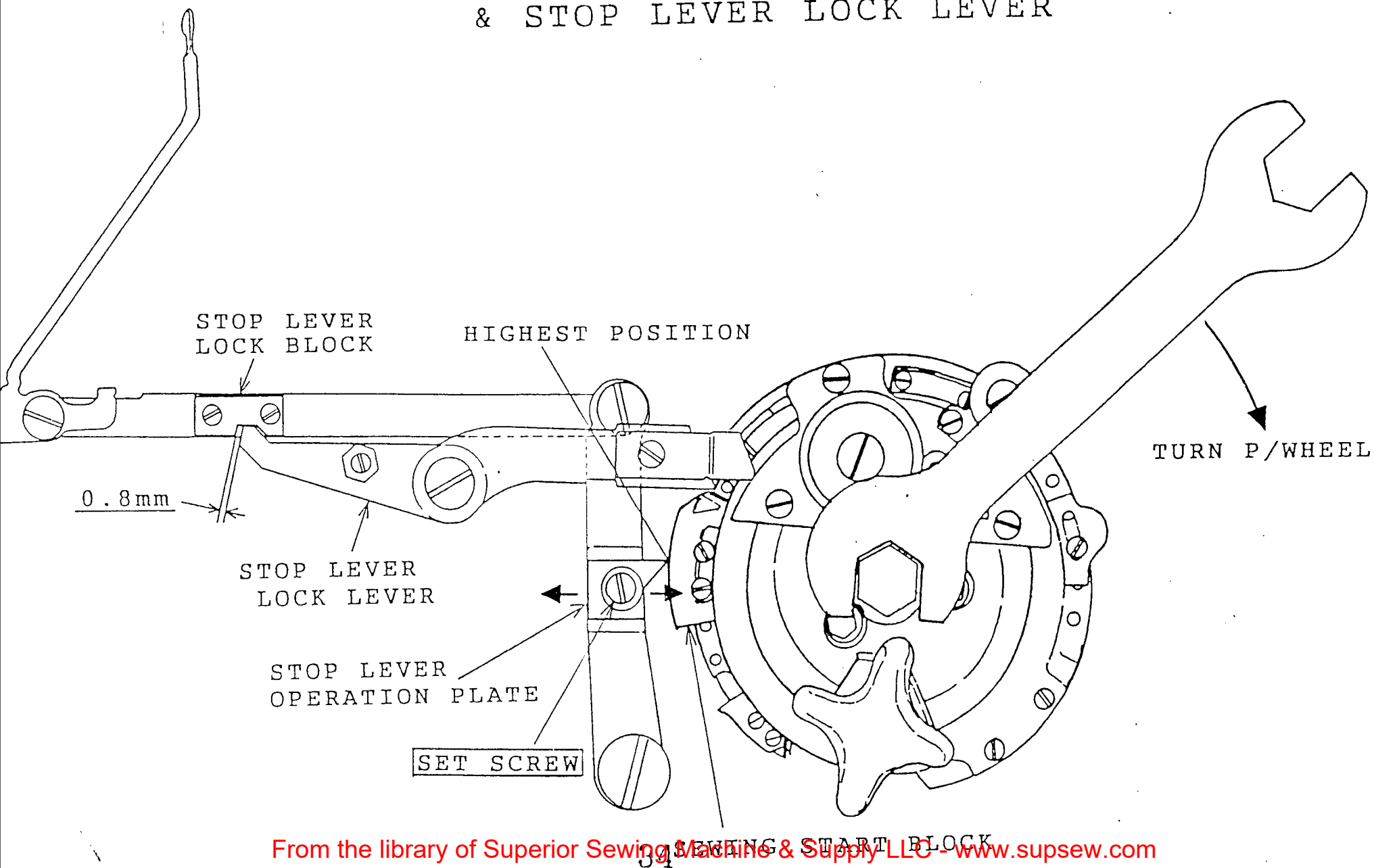


3, TIGHTEN THE NUT
SECURELY

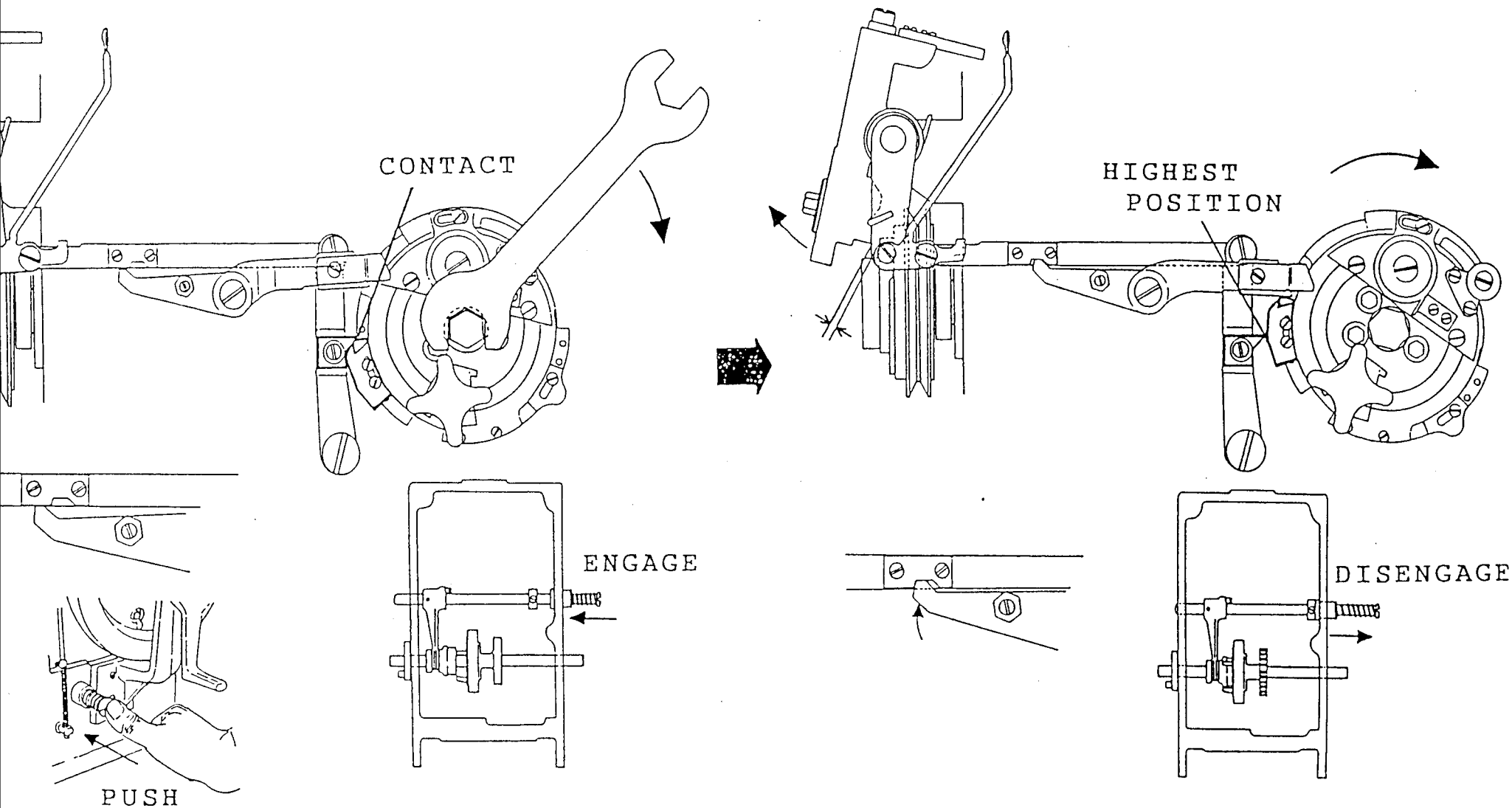


4, TIGHTEN THE SCREW
SECURELY

ADJUSTMENT OF CLEARANCE BETWEEN STOP LEVER LOCK BLOCK & STOP LEVER LOCK LEVER



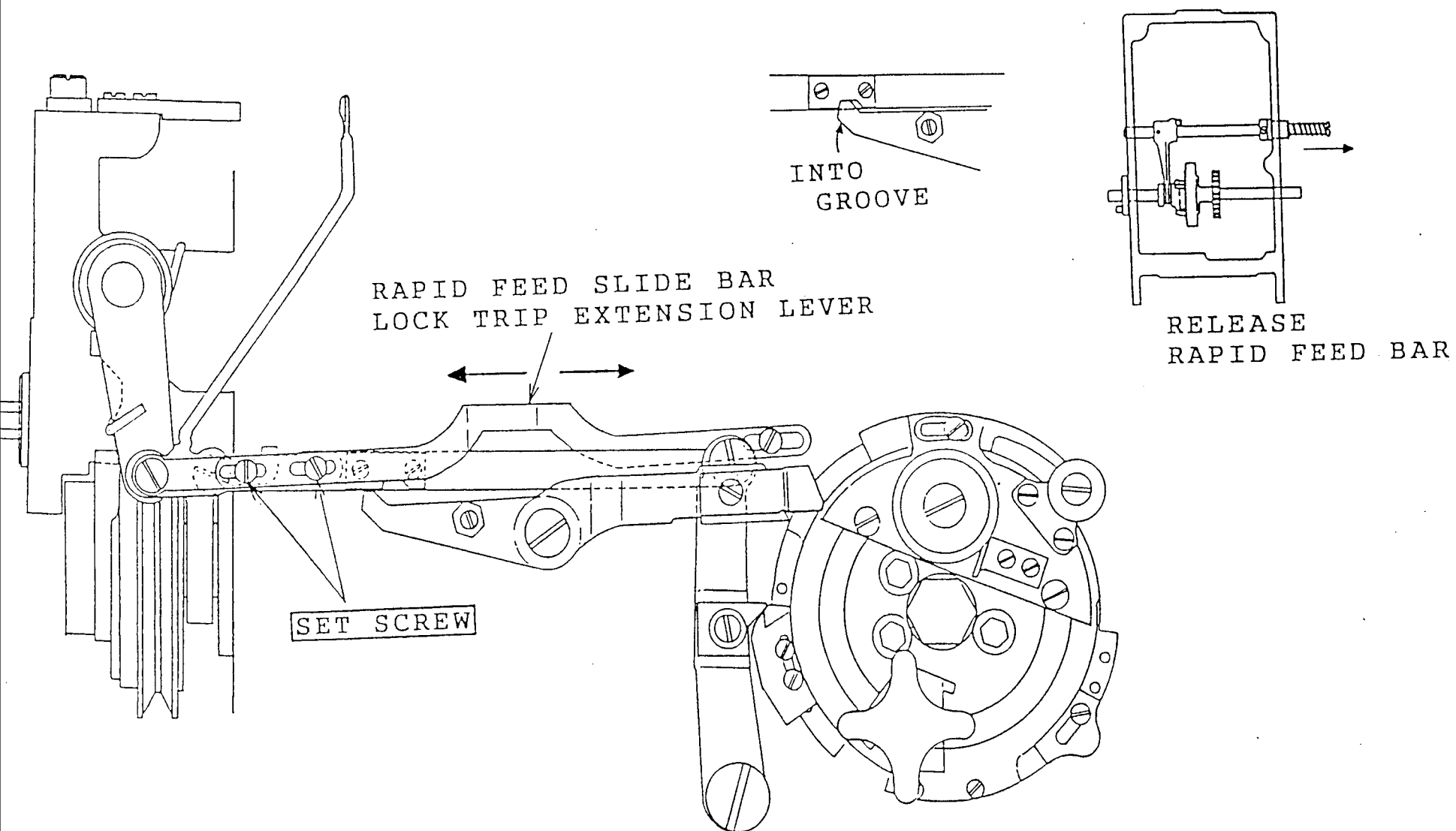
DISENGAGE TIMING OF RAPID FEED (1) (RAPID FEED TO SEWING)



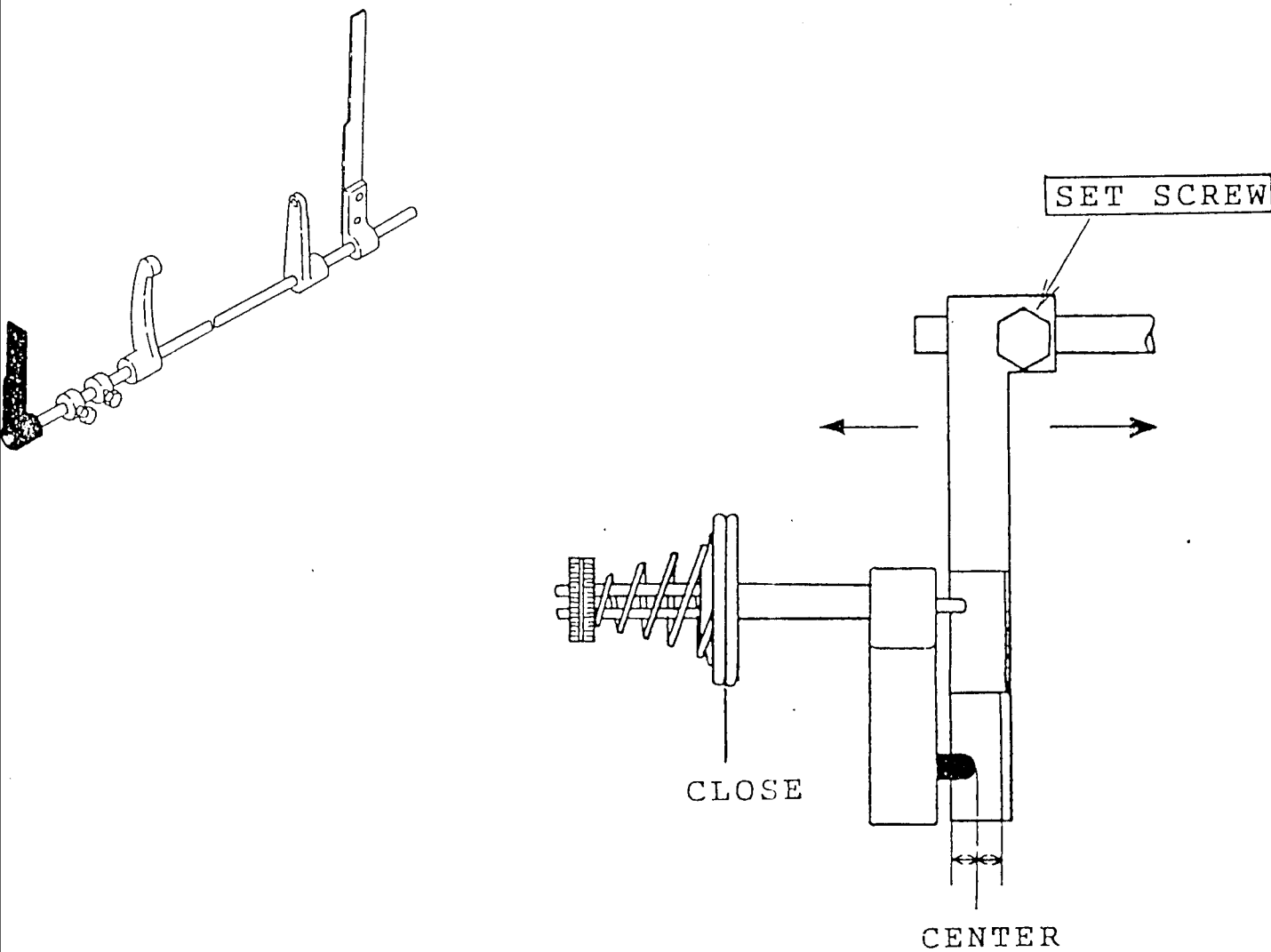
ENGAGING RAPID FEED

DISENGAGING RAPID FEED

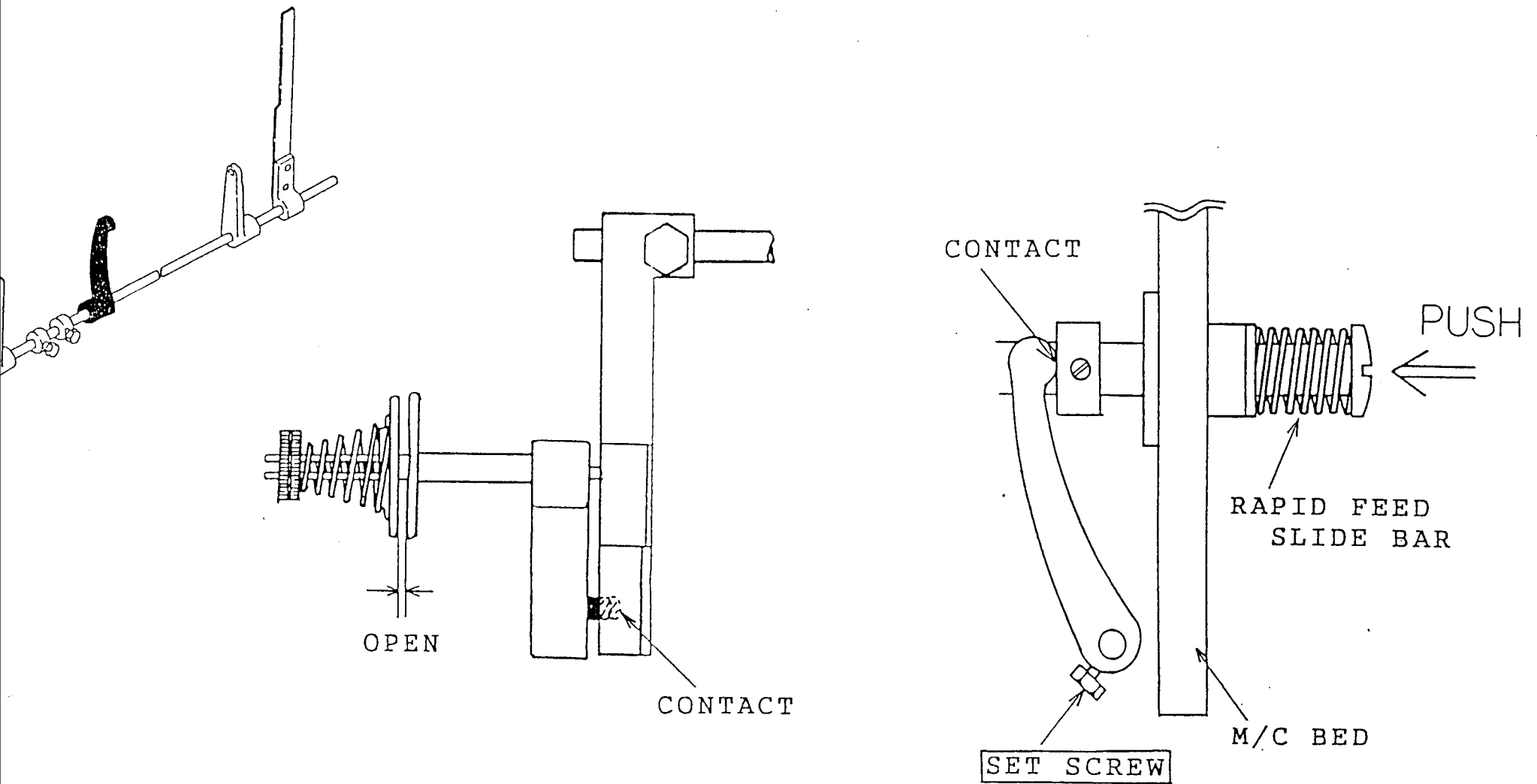
DISENGAGE TIMING OF RAPID FEED (2) (RAPID FEED TO SEWING)



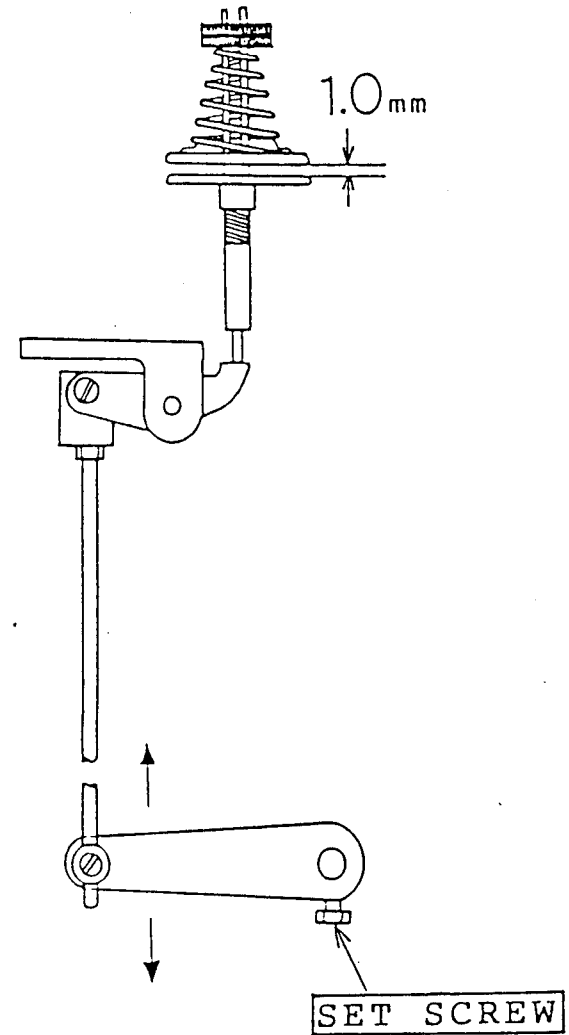
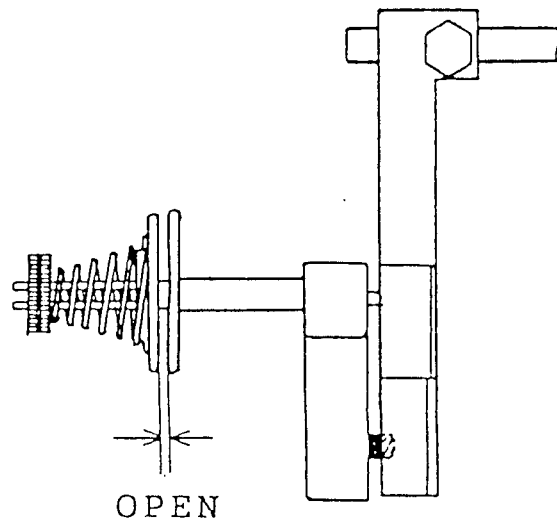
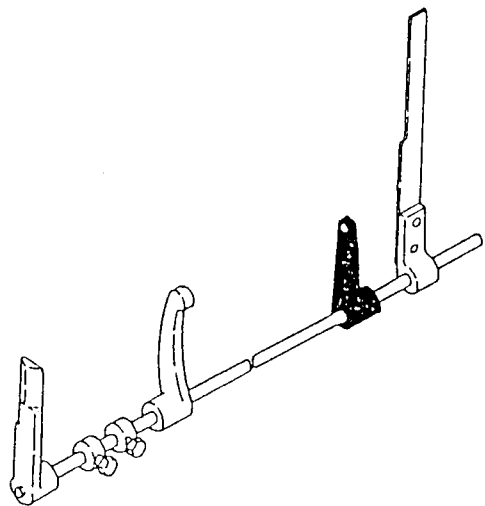
ADJUSTMENT OF TENSION RELEASE MECHANISM(1)



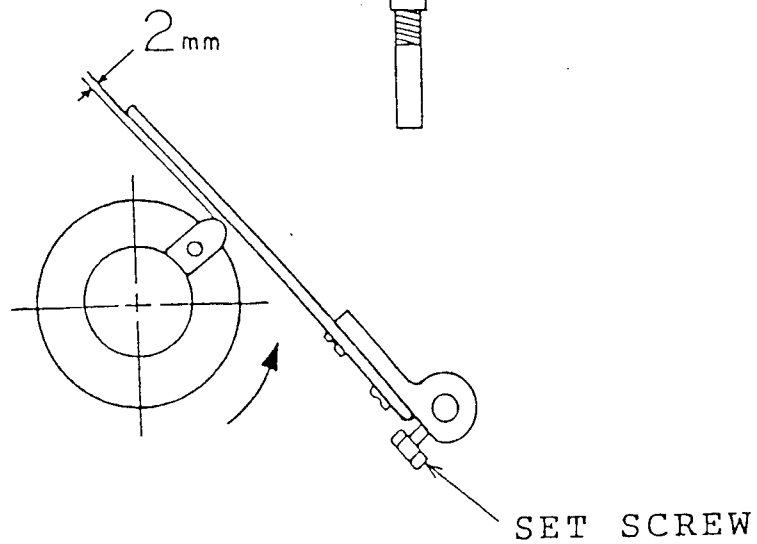
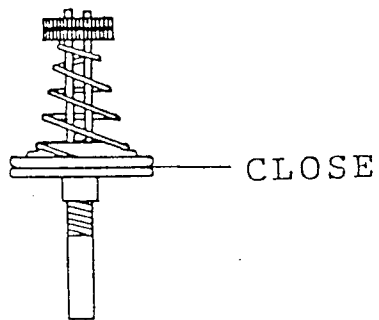
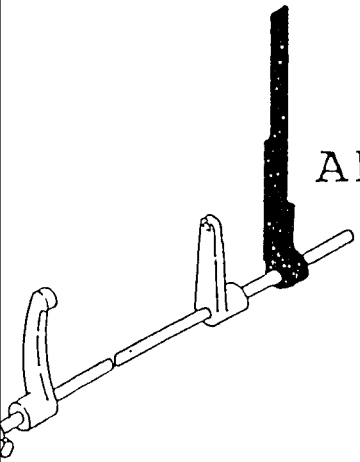
ADJUSTMENT OF TENSION RELEASE MECHANISM(2)



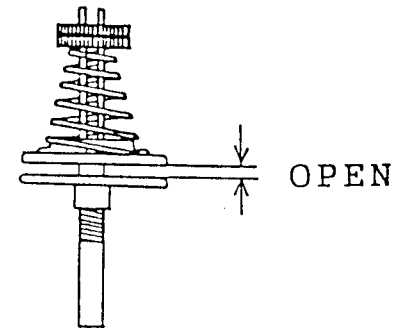
ADJUSTMENT OF TENSION RELEASE MECHANISM (3)



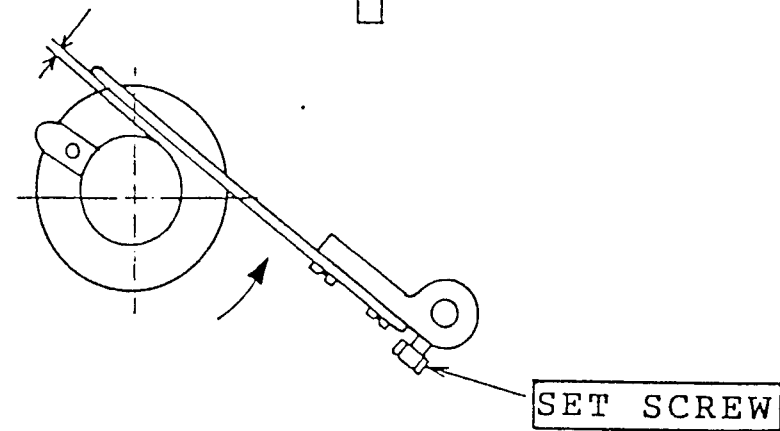
ADJUSTMENT OF TENSION RELEASE MECHANISM (4)



M/C ON SEWING

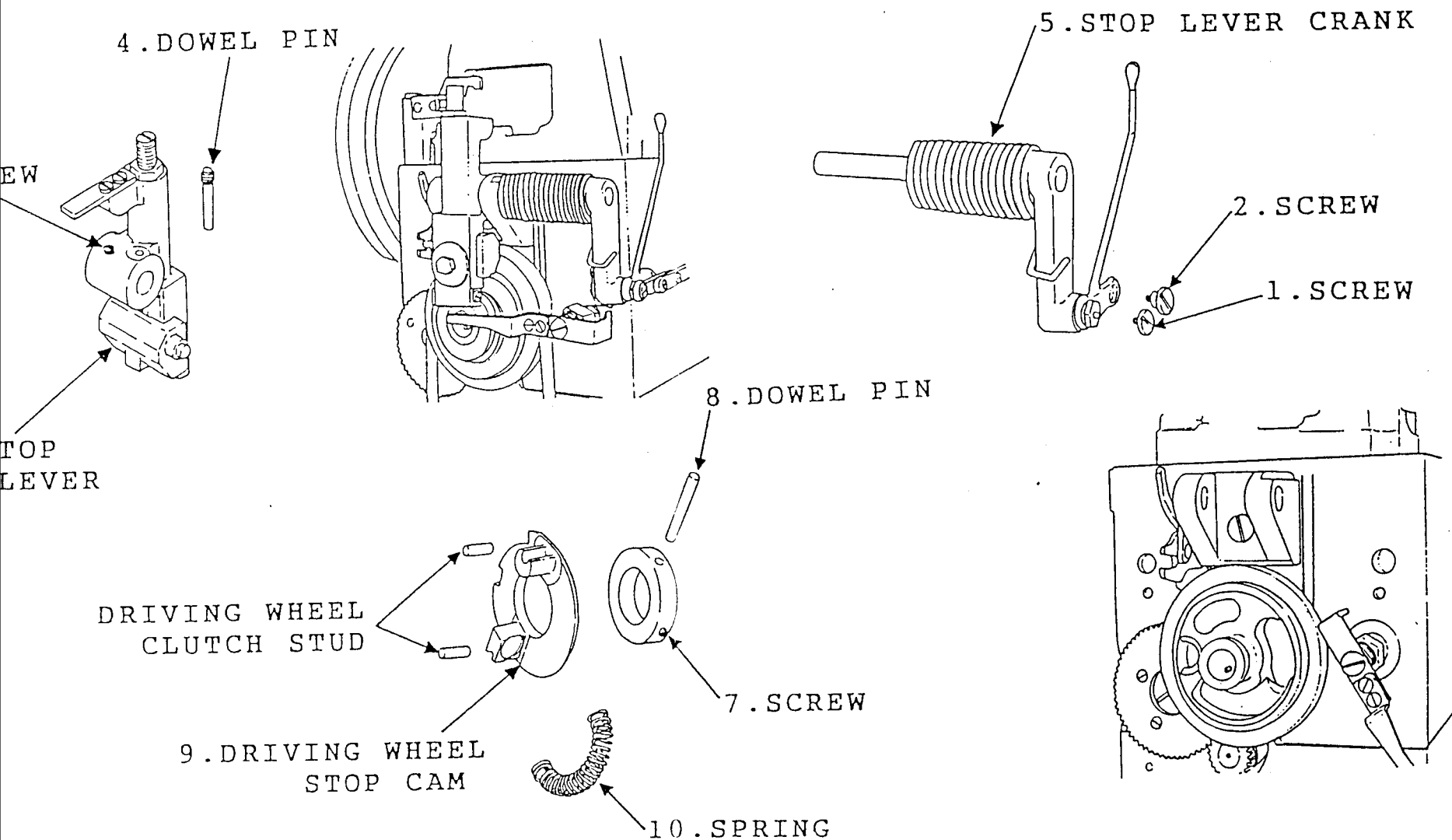


SMALL
CLEARANCE

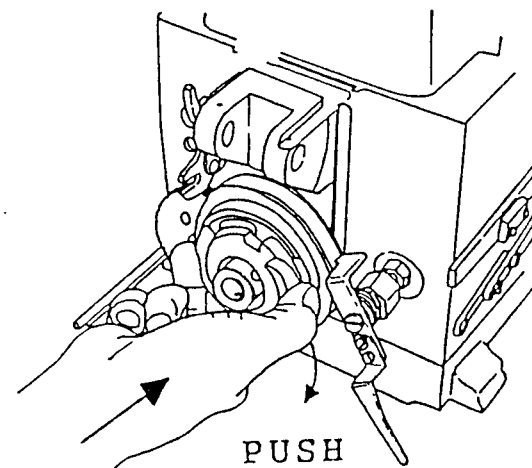
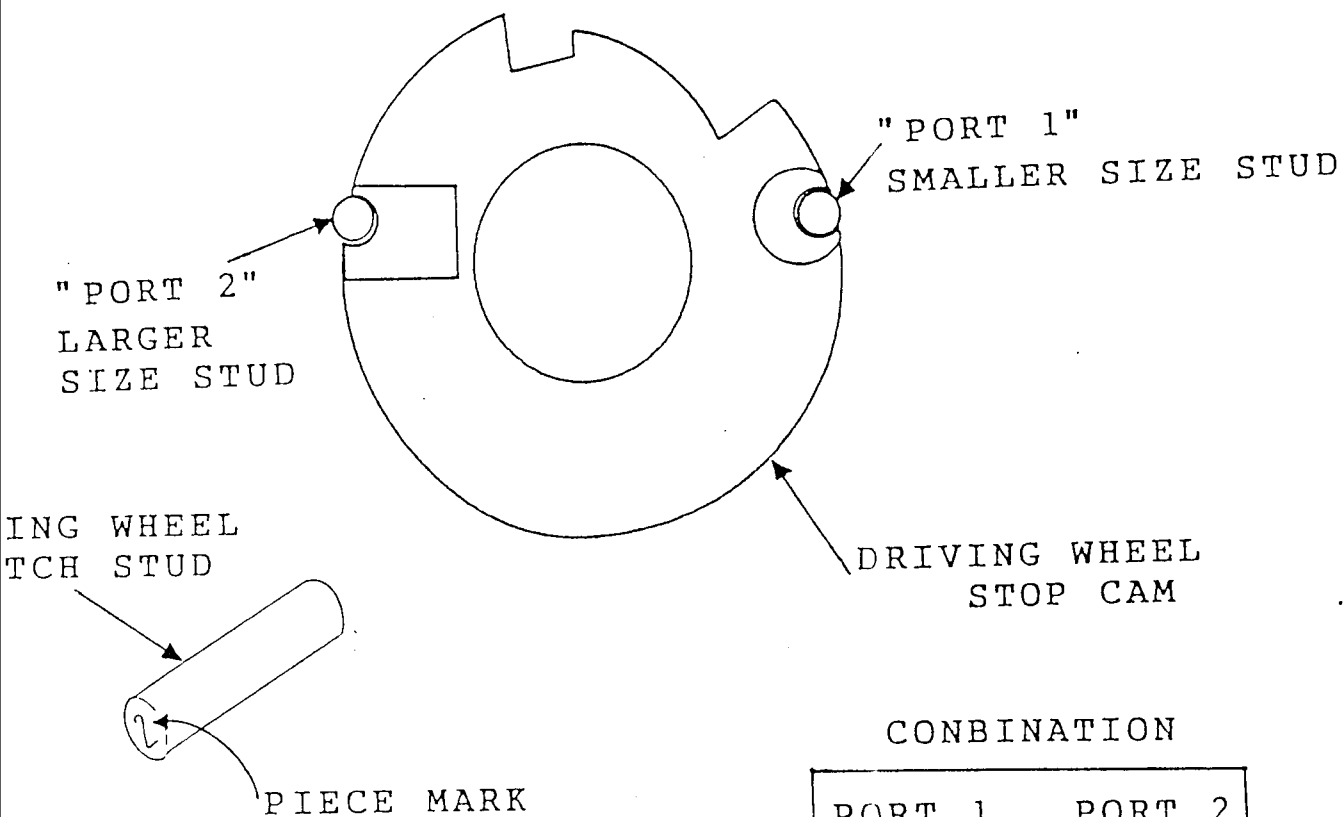


M/C AT STOP POSITION
OR M/C ON RAPID FEED

ADJUSTMENT OF DRIVING WHEEL CLUTCH (DISASSEMBLING)



ADJUSTMENT OF DRIVING WHEEL CLUTCH (ASSEMBLING)



0	SMALLER DIAMETER
1	↑
2	↑
3	↓
4	LARGER DIAMETER

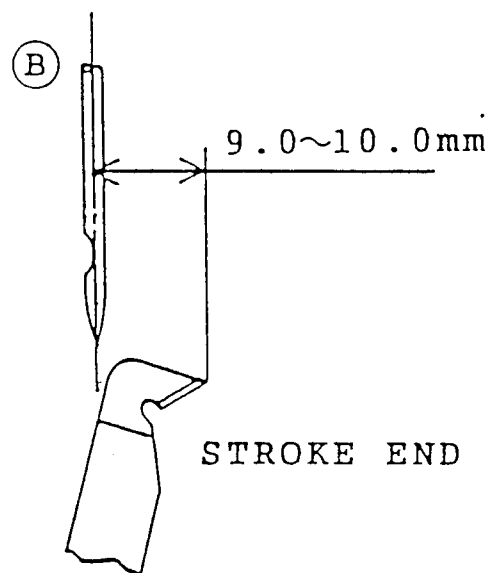
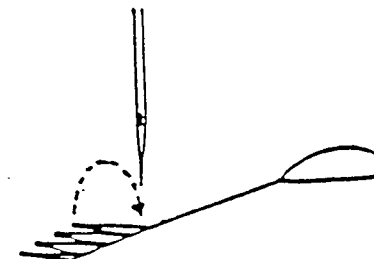
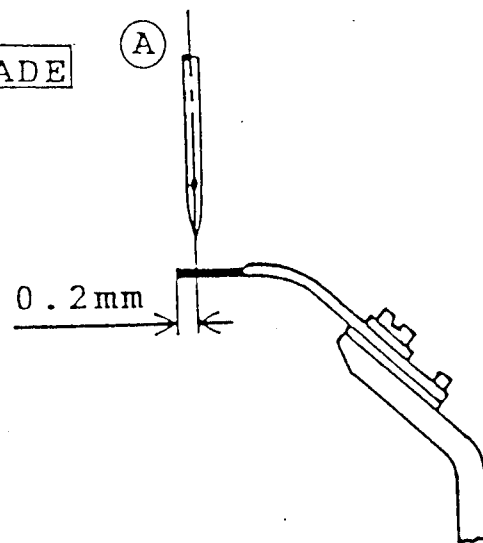
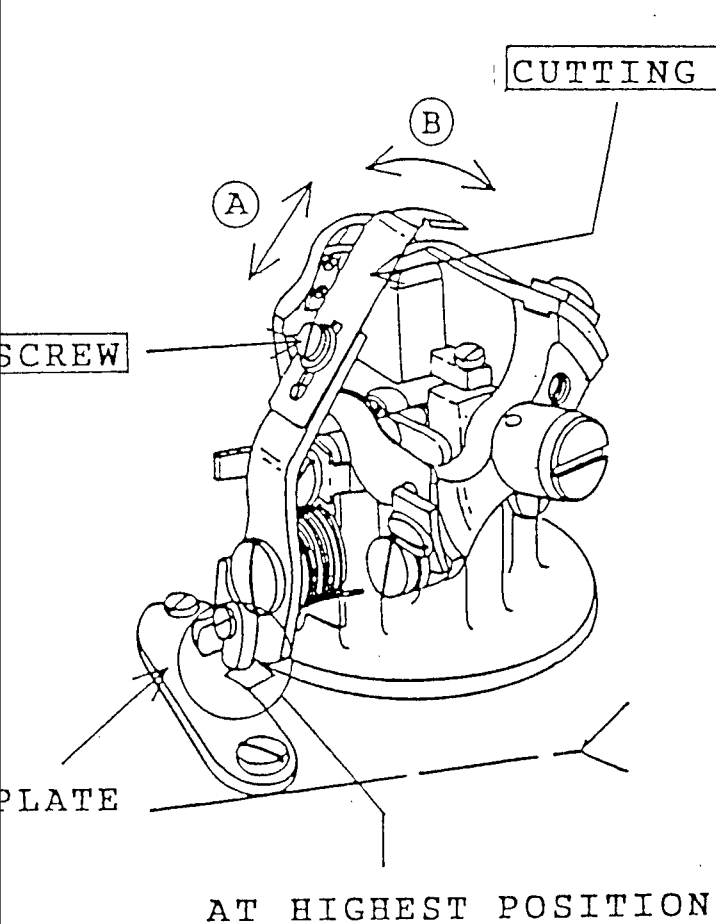
CONBINATION

PORT 1	PORT 2
0	3
0	4
1	3
1	4
2	3
2	4

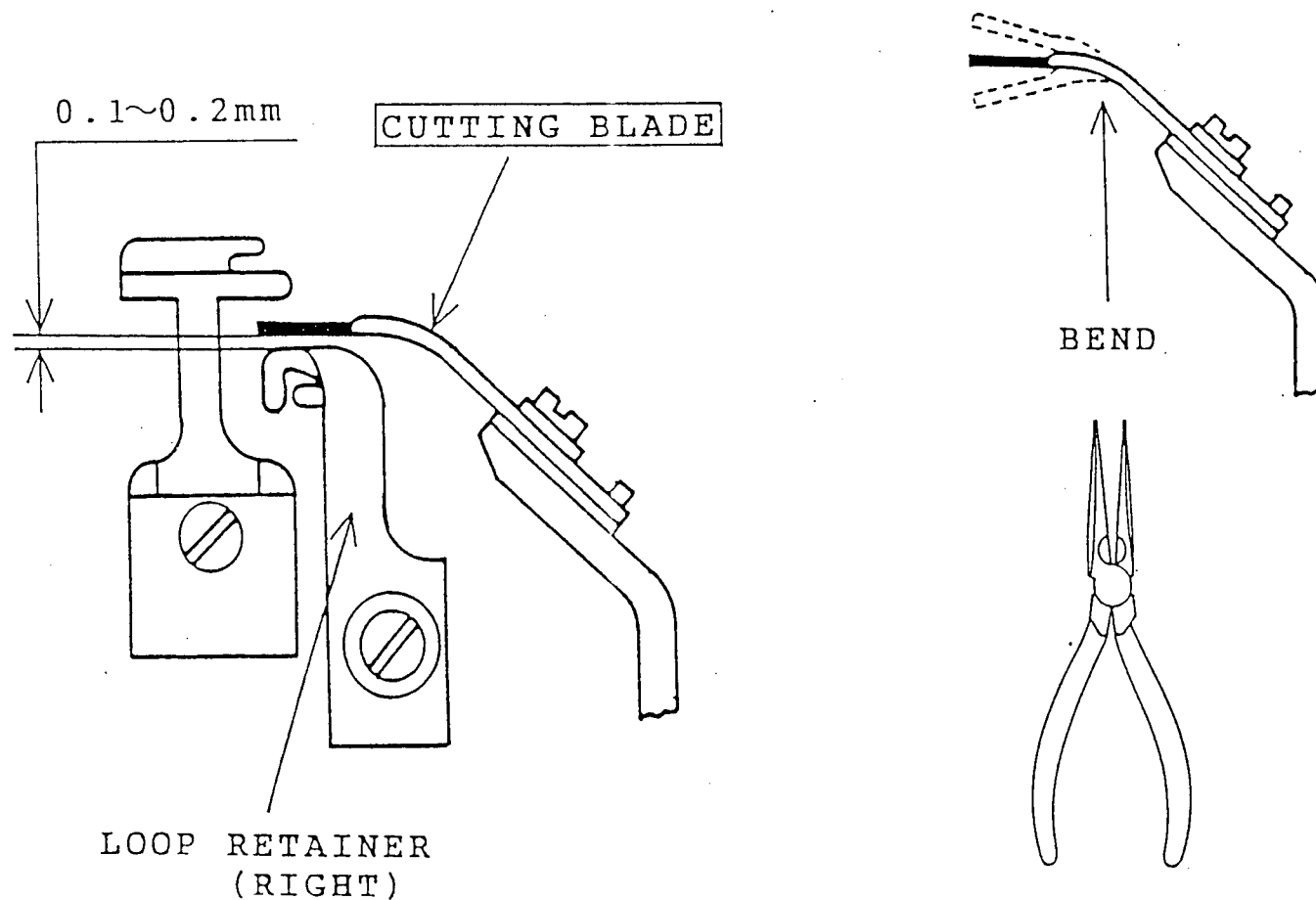
PHENOMENON RESULTS FROM
MISCOMBINATION OF STUDS

	LOOSE	TIGHT
CLUTCH	SLIP	NOIZE
MOTION OF NEEDLE	SLOW	-

ADJUSTMENT OF CUTTING BLADE (1)



ADJUSTMENT OF CUTTING BLADE (2)



ADJUSTMENT OF CUTTING BLADE (3)

