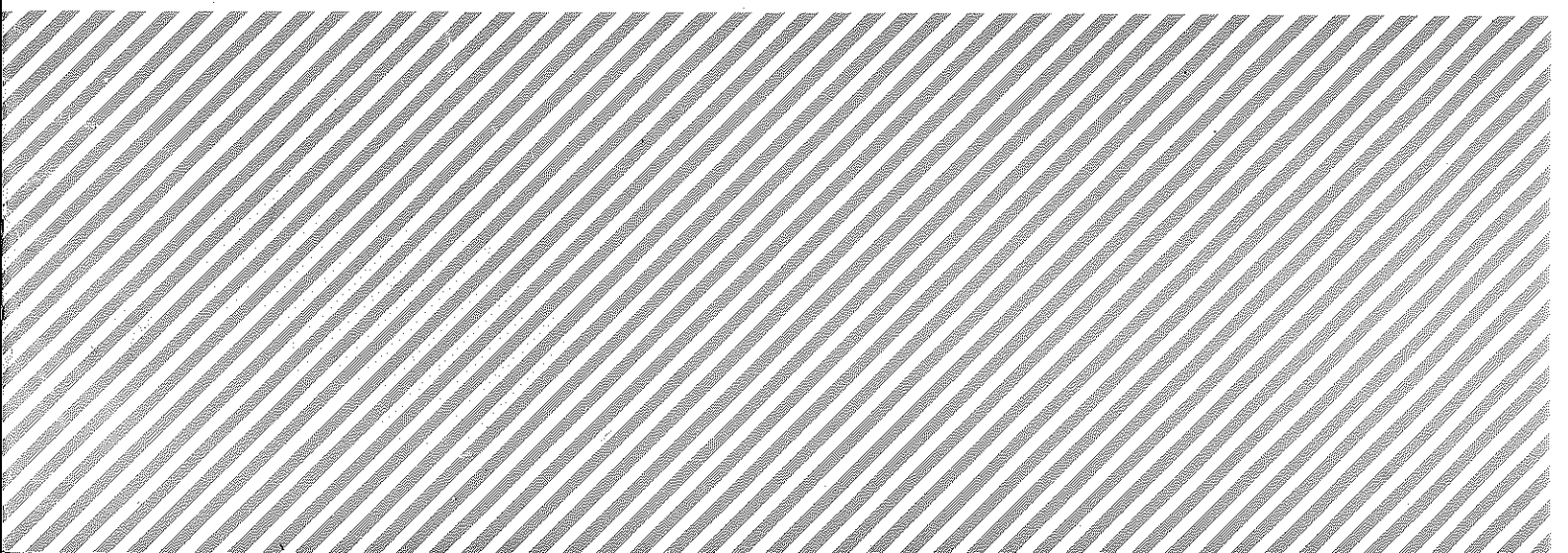


INSTRUCTION MANUAL

TOYOTA

KNIT TRACER

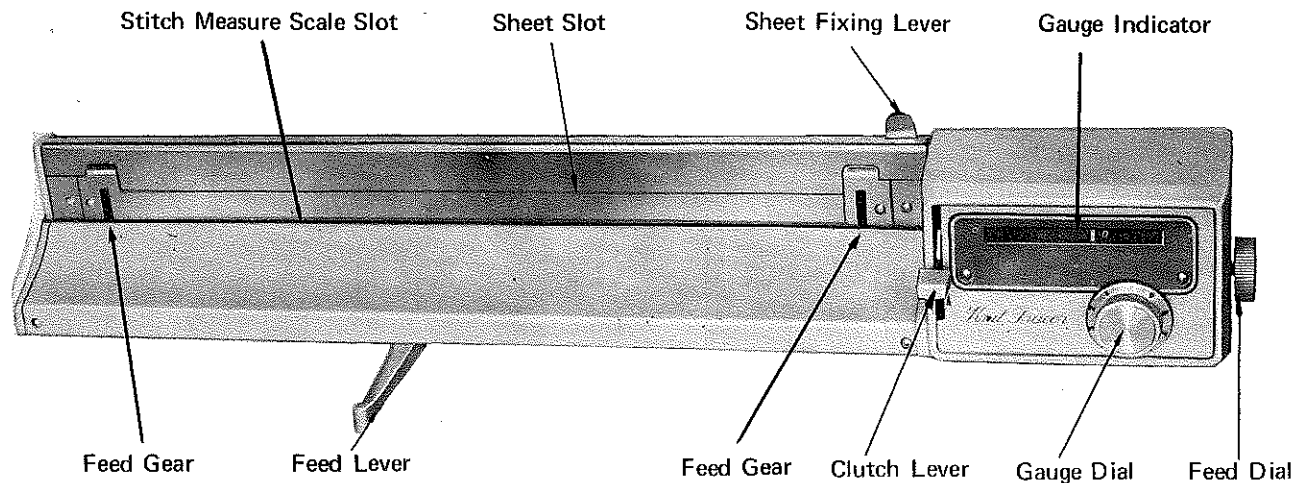
MODEL **K20**

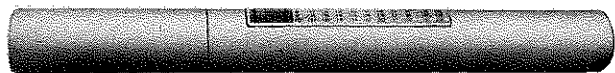


NAME AND FUNCTIONS OF KNIT TRACER PARTS

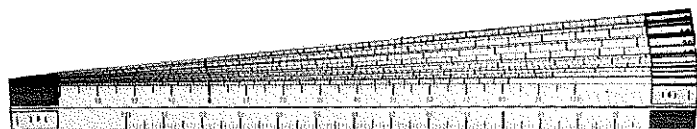
Feed Lever Works by Feed Tripper fixed on knitting Carriage and feeds Sheet row by row.
 Gauge Dial Indicates length of 60 rows in millimeters.
 Feed Gear Feeds Sheet.
 Gauge Indicator Indicates length of 60 rows in centimeters.
 Feed Dial Can be turned in either direction for feeding or feeding back Sheet.

Clutch Lever Pushed up when adjust Gauge Dial.
 Sheet Fixing
 Lever Used when set Sheet in level.
 Sheet Slot Used when insert Sheet.
 Stitch Measure
 Scale Slot Holds Stitch Measure Scale.





Sheet Case



Stitch Measure Scale



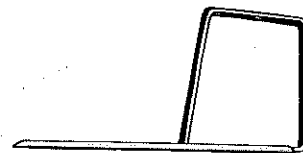
Tracer Sheet



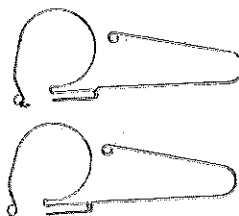
Felt Pen
(Water Soluble)



Stitch Memory



Bracket

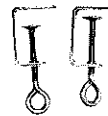


Special Screw

Sheet Guide



Feed Tripper



Clamp

HOW TO SET

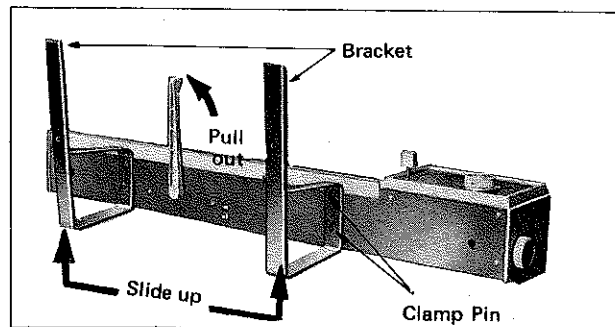
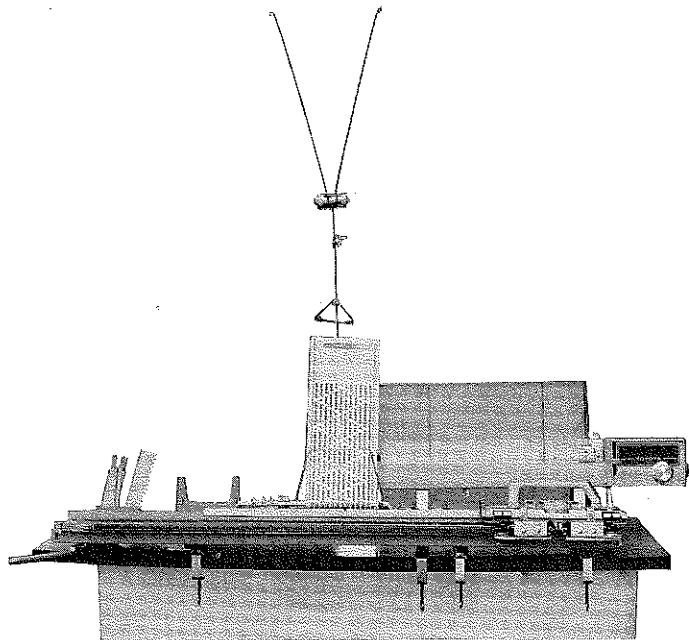


Fig. 1

- (1) Lay Knit Tracer on its back. Insert head of Clamp Pin mounted on the bottom of Knit Tracer into Clamp Pin Receiving Hole of Bracket. And fix the Bracket firmly by sliding upward in Fig. 1.

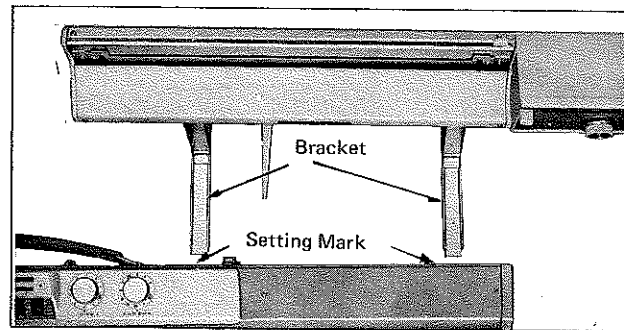


Fig. 2

- (2) Have Bracket close to Setting Mark.

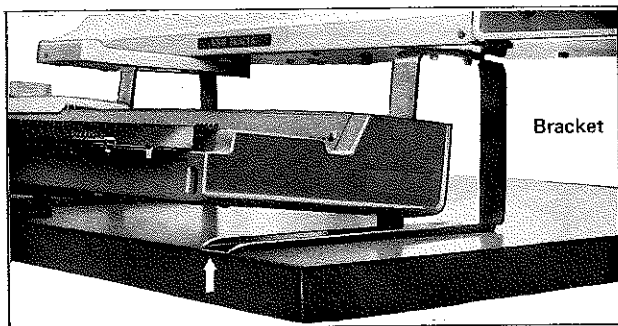


Fig. 3

- (3) Set Bracket between Machine Case and Knitting Table. Fit end of the Bracket to arrow-indicated edge of the Knitting Table as shown in Fig. 3.

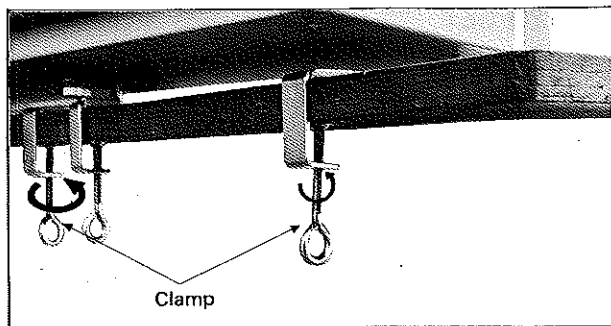


Fig. 4

- (4) Secure Bracket to Knitting Table with Clamp.

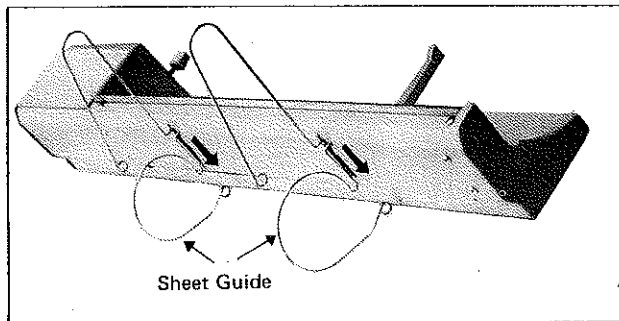


Fig. 5

- (5) Insert Sheet Guide into Slot Provided on back of Knit Tracer.

HOW TO FIX FEED TRIPPER

Attach Feed Tripper to back side of Carriage as shown in the right figure.

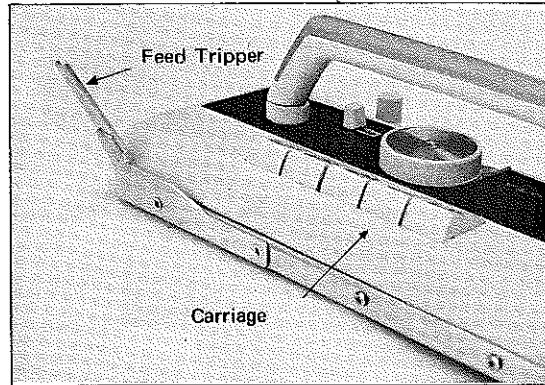


Fig. 1

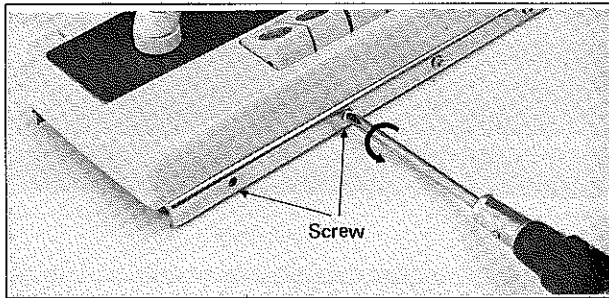


Fig. 2

(1) Release two Screws fixed on back of Carriage using right-sized Philips Screw Driver.

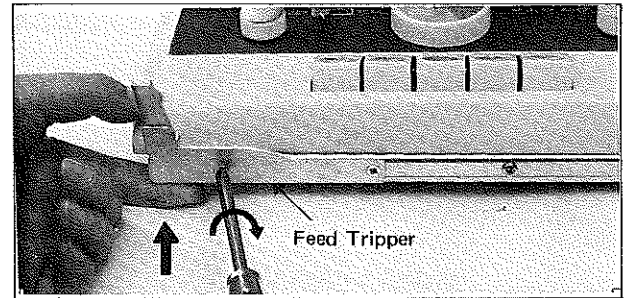
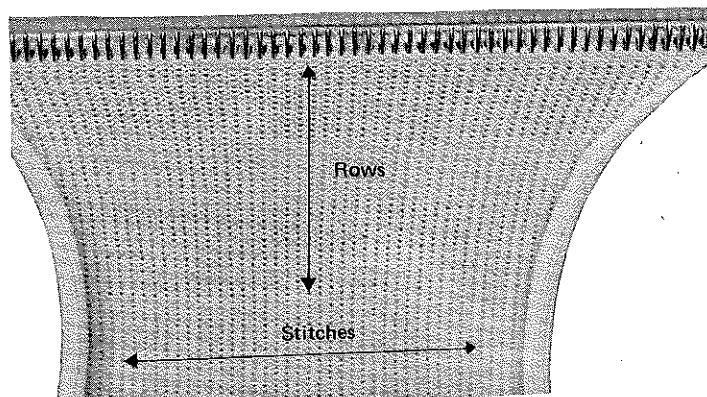


Fig. 3

(2) Fix Feed Tripper to Carriage with Special Screws pushing White Plastic Rail as shown in Fig. 3.

GAUGING



Knitting gauge presents number of stitches and number of rows per certain size of tension swatch knitted under proper adjustment of Stitch Tension Dial on Carriage. But when Knit Tracer is used, knitting gauge is to represent width over 40 Stitches and length over 60 rows.

HOW TO MAKE TENSION SWATCH

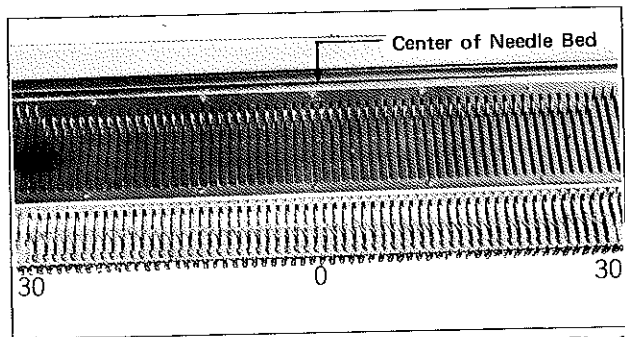


Fig. 1

- (1) Bring forward 60 needles to "B" position centering "0" marked on Bed.

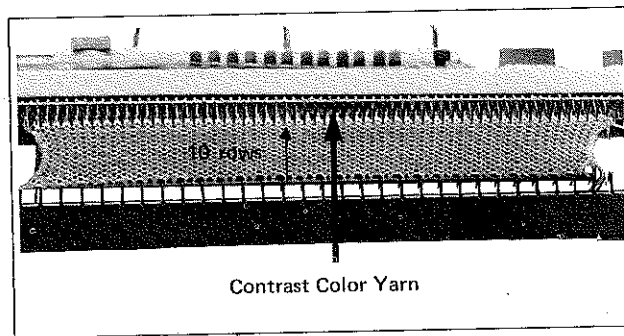


Fig. 2

- (2) a) Knit about 10 rows.
b) Then knit two rows with contrast color yarn.



Fig. 3

- (3) Pull out Row Counter Rod to arrow-indicated direction.

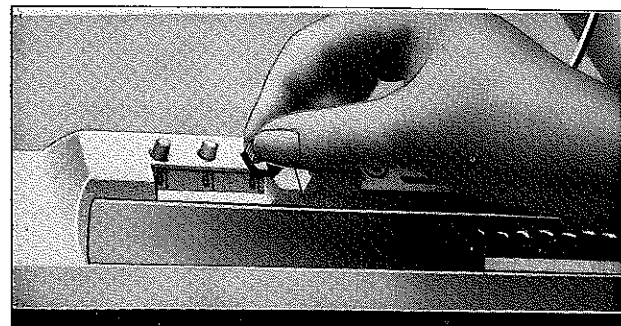


Fig. 4

- (4) Set back number of Row Counter to "0".

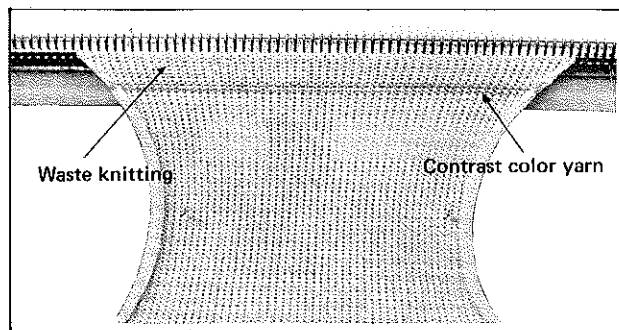


Fig. 5

- (5) a) Knit 30 rows with the yarn and the stitch pattern with which you are going to knit garment.
 b) Mark on each 21st stitch counting from the center "0" --- Use Safety Pin or any available means.
 c) Knit 30 rows as you knitted first half.
 d) Then knit two rows with contrast color yarn.
 e) Knit again about 10 rows for waste knitting.
 f) Remove swatch from Machine.

- (6) This swatch is in stretched condition right after it has been knitted and must be restored to its natural state in the following way.
- Pat lightly with your hand to restore the natural state.
 - Apply steam from a steam iron to the swatch for 2 or 3 minutes. (do not press it with the iron)

- (7) When swatch restores its natural state, measure the length over 60 rows between vertically separated rows of contrast color yarn in centi and millimeters with Ruler. Then measure the width over 40 stitches between two marked Stitches as Shown in Fig. 6.

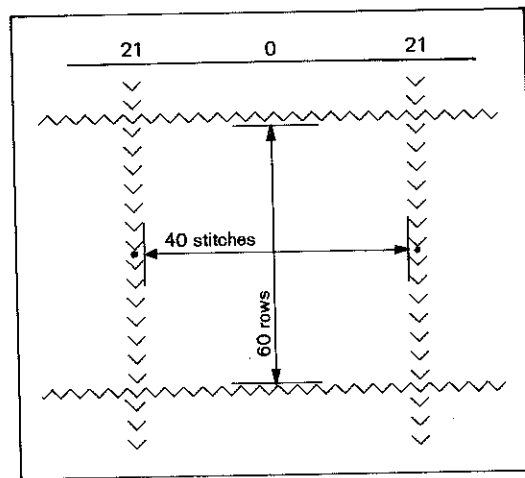


Fig. 6

HOW TO SET GAUGE DIAL AND INDICATOR

* Suppose swatch measures 143mm (14.3cm) for 60 rows and 129mm (12.9cm) for 40 stitches.

A. How to set for 60 rows measuring 143mm (14.3cm).

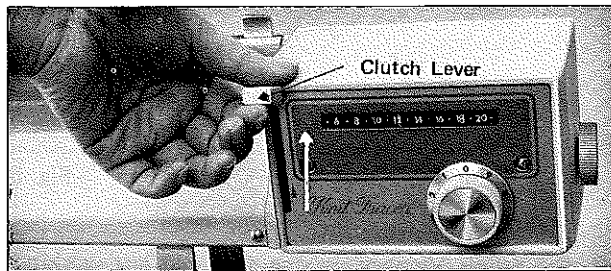


Fig. 1

(1) Push Clutch Lever all the way up and keep it there.

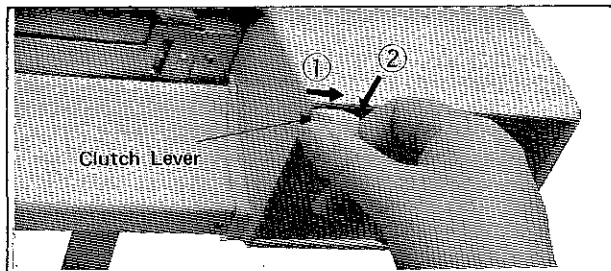


Fig. 3

(3) Push the Clutch Lever to the right and get it down to original position.

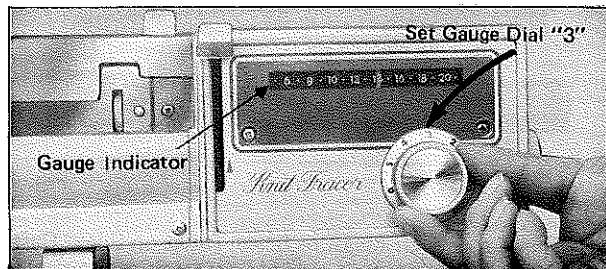


Fig. 2

(2) Set Gauge Indicator between "14" and "15" by turning Gauge Dial and also set the Gauge Dial to number "3".

* Gauge Dial indicates length of rows in millimeters and it feeds one graduation (one centimeter) of Gauge Indicator by turning one cycle.

B. How to set for 40 stitches measureing 129mm (12.9cm).

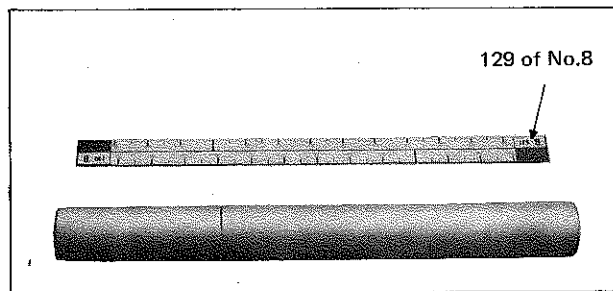


Fig. 4

- (1) Refer to Stitch Measure Scale Table on Sheet Case.
- (2) For 129mm (12.9cm), see column which covers the figure 129: and you will find that 129mm (12.9cm) is represented by "No. 8".

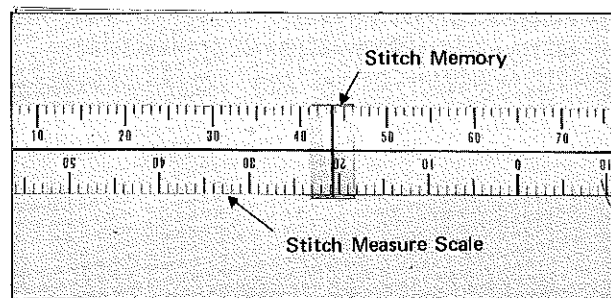


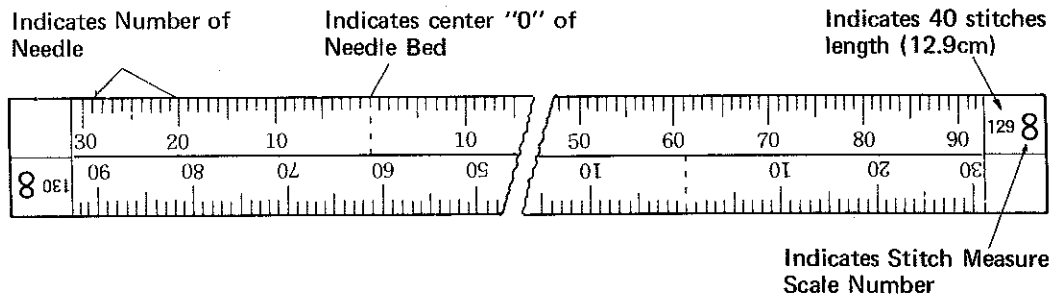
Fig. 5

- (3) Take out scale strip "No. 8".
Set Stitch Memory on the first and last working needles as a reminder.

(4) Stitch Measure Scale Table

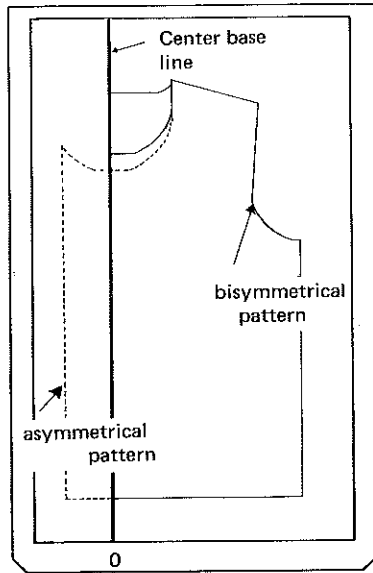
No.	40 stitches length	No.	40 stitches length	No.	40 stitches length	No.	40 stitches length	
	(mm)		(mm)		(mm)		(mm)	
1	101 – 104	6	121 – 124	11	141 – 144	16	81 – 84	162 – 168
2	105 – 108	7	125 – 128	12	145 – 148	17	85 – 88	170 – 176
3	109 – 112	8	129 – 132	13	149 – 152	18	89 – 92	178 – 184
4	113 – 116	9	133 – 136	14	153 – 156	19	93 – 96	186 – 192
5	117 – 120	10	137 – 140	15	157 – 160	20	97 – 100	194 – 200

(5) How to read Stitch Measure Scale



HOW TO DRAW PATTERN ON SHEET

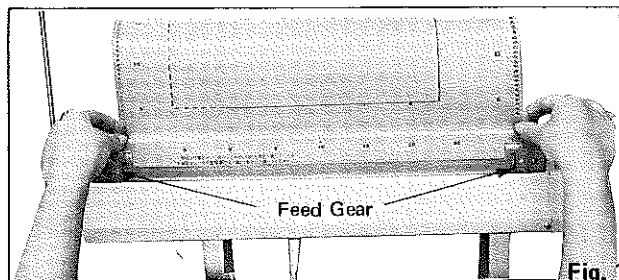
- (1) Take out Sheet from Sheet Case.
- (2) Pattern is to be drawn on face of Sheet (dim side) in actual size using Special Felt Pen supplied in the Sheet Case.
- (3) When pattern you want to draw is bisymmetrical, the right side on center base line is used for drawing in actual size. When the pattern is asymmetrical, both sides are to be used.
- (4) 5cm horizontal line should be placed directly over hemline of pattern.



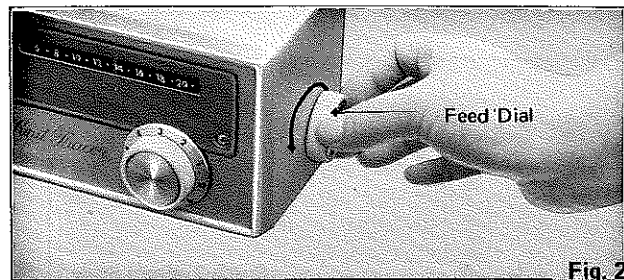
REFERENCE:

- (1) Sheet is divided into 5mm x 5mm squares and by thick lines every 5cm for your easy drawing and has enough space for pattern up to 30cm x 60cm.
- (2) If pattern be redrawn, wipe Sheet gently with damp cloth.
Wait until the Sheet will dry before redrawing pattern.
- (3) Any pattern correction must be done before tracing pattern onto Tracer Sheet.

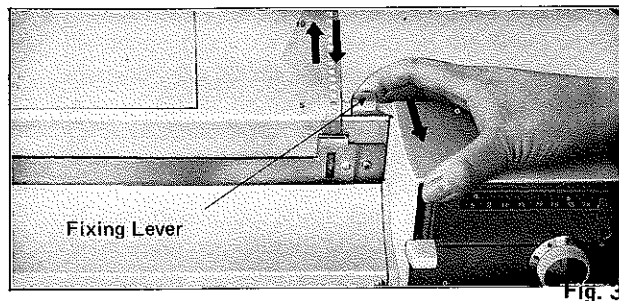
HOW TO INSERT SHEET



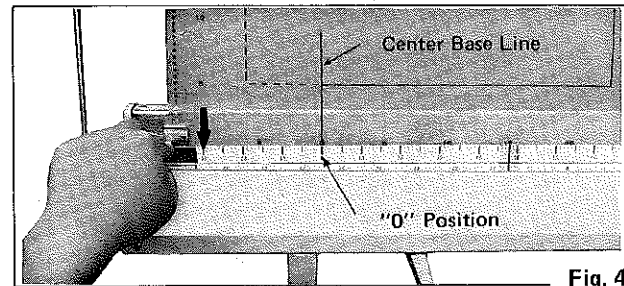
- (1) Insert Sheet into Sheet Slot and fit Sheet's perforations over teeth of right and left Feed Gears.



- (2) Turn Feed Dial counter clockwise (direction of arrow) so Sheet will be fed.

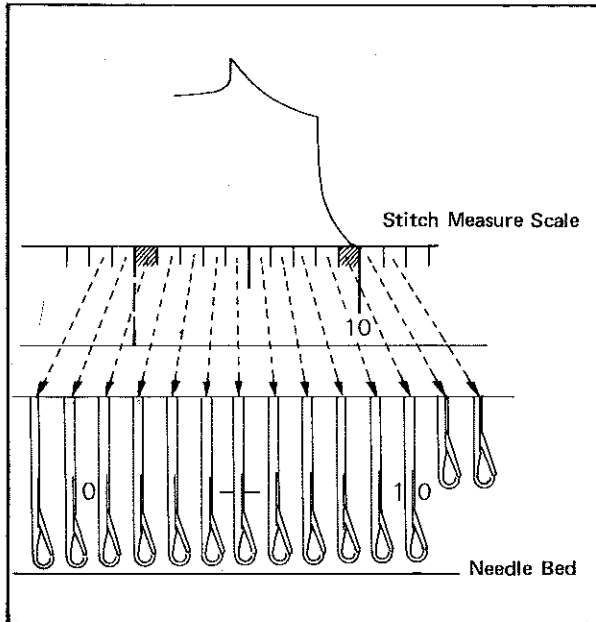


- (3) Turn the Feed Dial counter clockwise 2 or 3 pitches. Then check whether Sheet is parallel. If the Sheet is not parallel, release the Sheet from Feed Gears by pulling Sheet Lever forward. Hold right side of the Sheet and move it up and down until the Sheet will be parallel.



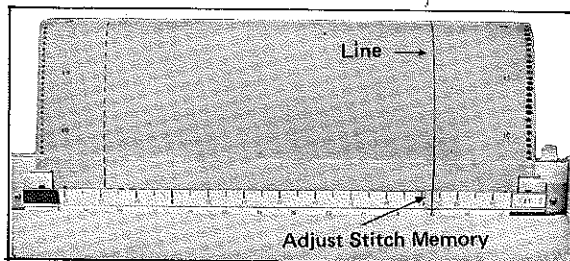
- (4) Insert Stitch Measure Scale in Stitch Measure Scale Slot so as to align center base line of Sheet with position "0" of the Stitch Measure Scale by moving the Stitch Measure Scale from side to side. Then make sure that Sheet's horizontal base line is parallel with the Stitch Measure Scale.

HOW TO READ STITCH MEASURE SCALE



- * Graduation of stitch Measure Scale correspond to Needles on Needle Bed.
Number on Stitch Measure Scale represents number of stitches on the Needle Bed.

GUIDE FOR KNITTING

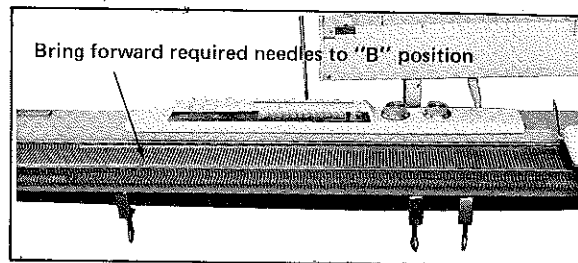


- (1) Align horizontal line drawn on Sheet with Stitch Measure Scale. Determine number of stitches to be casted on from the line drawn on the Sheet which intersects the Stitch Measure Scale.

Adjust Stitch Memory according to the outline of Pattern.

NOTE:

If line drawn on Sheet falls somewhere between graduation on Stitch Measure Scale take higher graduation.



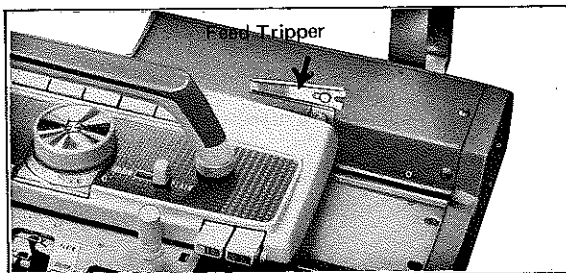
- (2) Bring forward required number of needles determined by Stitch Measure Scale to "B" position.

EXAMPLE:

When line drawn on Sheet intersects Stitch Measure Scale at "73".

Bring forward 73 needles each side of center "0" to "B" position (total 146 needles).

This is the number of stitches to be casted on.

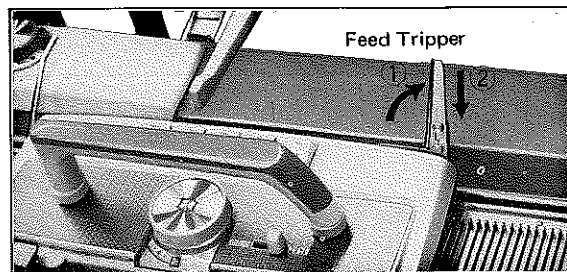


- (3) Casting on
When casting on or waste knitting fold Feed Tripper toward left.

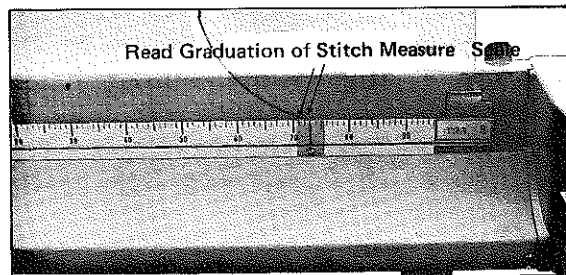
* Sheet will not be fed with Feed Tripper down.

- (5) Stitch Memory is to be moved following outline of pattern drawn on Sheet. Suppose Stitch Memory is placed on figure "73" on Stitch Measure Scale. (Total 146 stitches are on machine.) Then outline of pattern drawn on Sheet come across to figure "70" on Stitch Measure Scale by knitting next one row. So decrease 3 stitches on both sides of garment.

* Do decreasing several stitches at yarn end side first. Otherside of decreasing stitches will be done on the following row.



- (4) After waste knitting, raise Feed Tripper up and change yarn which you are going to knit garment.



HOW TO CORRECT MISTAKES

- (1) In case of excess knitting or errors, these rows should be undone.
Keep in mind the number of rows undone.
- (2) Return Sheet more five rows than the rows undone by turning Feed Dual clockwise.
- (3) Do not forget to advance the Sheet five rows to compensate for the over-return.

*NOTE

If extra five rows are not returned after unraveling, occasionally Sheet will not be fed correctly.

HOW TO KNIT WITH SPECIAL GAUGE

- A. In case that measurement for 60 rows is shorter than 5cm.
- (1) Set Gauge Indicator and/or Gauge Dial for doubling the measured length.
- * If measurement for 60 rows is 4.5cm, set the Gauge Indicator at 9cm.
- (2) Draw pattern double in length.
- B. In case that measurement for 60 rows is longer than 21cm.
- (1) Set Gauge Indicator and/or Gauge Dial for half the measured length.
- * If measurement for 60 rows is 24cm, set the Gauge Indicator at 12cm.
- (2) Draw the pattern half in length.
- C. In case that measurement for 40 stitches is less than 8cm.
- (1) Use Stitch Measure Scale which covers double measurement for it.
 - (2) Draw pattern double in width or draw pattern in actual size and read one graduation of the Stitch Measure Scale as two graduations.
- * If measurement for 40 stitches is 7cm (70mm).
- (1) Use Stitch Measure Scale which covers 14cm (140mm).
 - (2) Draw pattern on Sheet double in width and one graduation of the Stitch Measure Scale which covers 14cm (140mm) as one graduation. Or draw pattern on Sheet in actual size and read one graduation of the Stitch Measure Scale which covers 14cm (140mm) as two graduations.
- D. In case measurement for 40 stitches is wider than 20cm.
- (1) Use Stitch Measure Scale which covers half measurement for it.
 - (2) Draw pattern half width or draw pattern in actual size and read two graduations of the Stitch Measure Scale as one graduation.
- * If the measurement for 40 stitches is 21cm (210mm).
- (1) Use Stitch Measure Scale which covers 10.5cm (105mm).
 - (2) Draw pattern on Sheet half width and read one graduation of the Stitch Measure Scale which covers 10.5cm (105mm) as one graduation. Or draw pattern on Sheet in actual size and read two graduations of the Stitch Measure Scale which covers 10.5cm (105mm) as one graduation.

NOTICE ON USING KNIT TRACER

1. Do not bend Sheets and Stitch Measure Scales.
2. Do not use any pen except Specil Felt Pen supplied in Sheet Case.
3. Push Clutch Lever all the way up before operating Gauge Dial and Gauge Indicator.
4. Push Clutch Lever all the way down before feeding Sheet.
5. Set Sheet so the horizontal line of the Sheet is in parallel with Stitch Measure Scale.
6. Move Carriage until Feed Tripper of the Carriage Pushes Feed Lever of Knit Tracer.
7. In case of excess knitting or errors, rows should be undone. Return Sheet five more rows than corresponding rows undone by turning Feed Dial clockwise.
Advance Sheet five rows to compensate for extra rows returned.
8. If Sheet gets stuck on Feed Gear, turn Feed Dial backward to release the Sheet.
9. To redraw pattern, wipe Sheet with a damp cloth. If Sheet gets dirty, clean it with neutral detergent.

