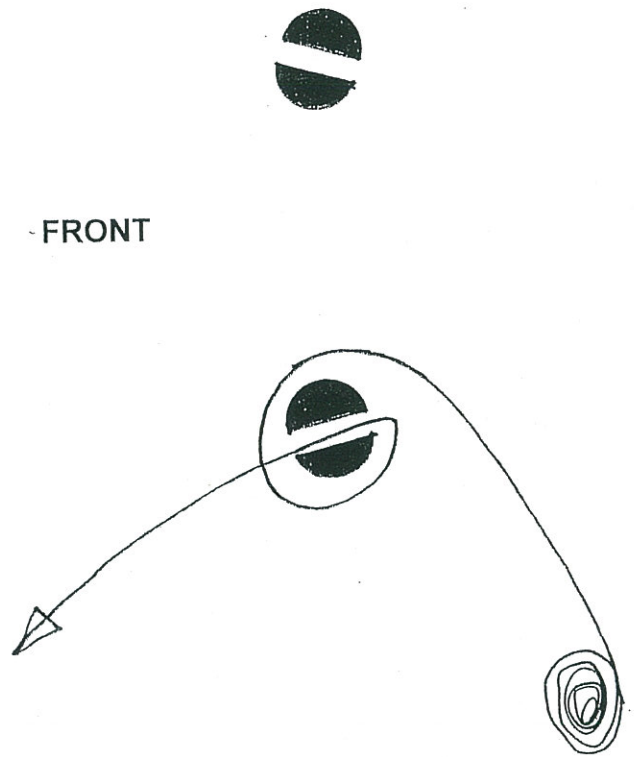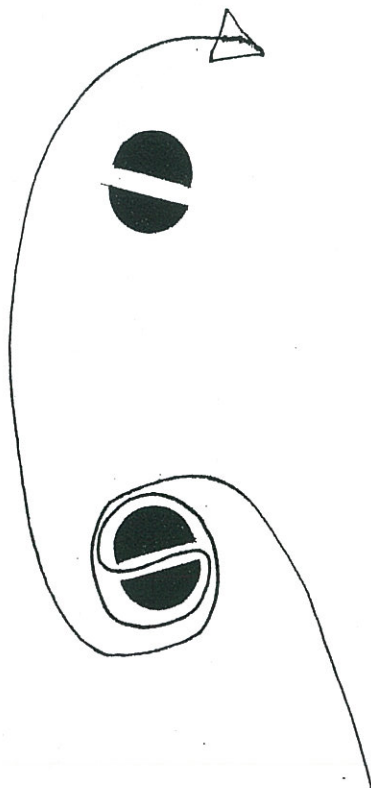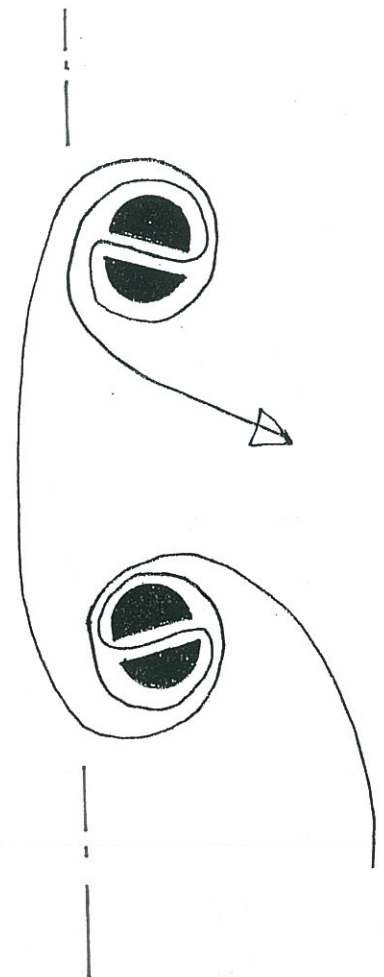FRONT OF
TESTER

FRONT

ROLL AT REAR OF TESTER

FRONT

FRONT

WEBBING GRIP LOADING

SELF-TIGHTENING WEBBING GRIPS, INSTRUCTIONS.

A: Grip Fitting.

1. Fit the grips onto the machine and set the knock-off block to prevent impact even it the top pivoted half-roller is hanging down.

2. The grips must be fitted with the fixed half-roller at the rear of the machine.

3. It is essential that the grips are loaded correctly with the line-of-pull on the centre line of the machine. Failure to do so can result in high off-centre loadings which can damage the machine.

4. Load the bottom grip first as the drawing with the roll of sample at the rear of the machine, after the initial loading the sample can be simply pulled through for each test.

5. The top grip is loaded as the drawing and the belt "wriggled" to tighten.

6. A pretension figure is necessary in order to eliminate the movement required to tighten the grips.

B: Obtaining Results.

Readout of correct strain is difficult when a wrapped specimen is used in self-tightening grips as the gauge length is impossible to accurately define. It is possible, however, to arrive at a corrected gauge length which will provide quite accurate strain measurement.

This can be achieved as follows:-

1. Set the grips 100mm apart.

2. Enter a sample length in the computer program of 100mm.

3. Mark two lines on the sample 100mm apart.

4. Start a test but stop the machine before the sample breaks and measure the distance between the two marks on the sample.

5. Continue the test to break and then produce a graph of the result.

6. Examine the graph and the point at which the machine was stopped will show on the curve; determine the strain at this reading.

7. Calculate the difference between the actual measured strain and the graphical strain.

    e.g.   Increase in gauge marks on sample = 8mm.

    Strain reading taken from the graph = 48%

    $$\frac{48}{8} = 6$$

    Multiply the original sample length by this figure and use this as the sample length in future. This will automatically correct the strain for the amount of movement around the self-tightening grips.

8. It will be necessary to do this for the various different types of sample tested but a list of corrected sample lengths can be kept for future use.

FRONT

100 mm

FRONT

N

0   48   %