

Sock Testing Hosiery Consortium

Sock Sizing Procedures for HIFOMACO LCS 4800

The procedures only apply to the HIFOMACO LCS 4800 model tested.

Calibration of the LCS 4800 should be maintained on an annual basis. Use the supplied spring to verify that the machine is reading the same on a daily basis.

Calibration Procedure

Calibration of the LCS 4800 is accomplished by the following procedure:

- Check the distance across the cross stretch arm fingers (Figure 1).
- Check the distance between the length stretch pins (Figure 2).
- If necessary loosen the set screws and adjust the pin distance to match the cross stretch arm fingers distance (Figure 3).
- Adjust the reading on the display to match the distance read on both the cross stretch arm fingers and length stretch pins (Figure 4).
- It may be necessary to zero the scale to match the arm setting (Figure 4a)

Daily Check of Machine

- Release the bottom carriage to travel the complete distance down (Figure 5)
- Raise the bottom carriage taking care not to allow the cable to catch between the cross-stretch arms (Figure 6). If the cable becomes crimped (Figure 6a), have it replaced.
- Each day confirm calibration of the machine by running 10 stretches with the test spring supplied (Figure 7, 7a).
- If the readings are within the specified tolerance, begin your sock measurements (Figure 7b).
- If adjustment is needed, call HIFOMACO @828-322-4292 for instructions.

Figure 1

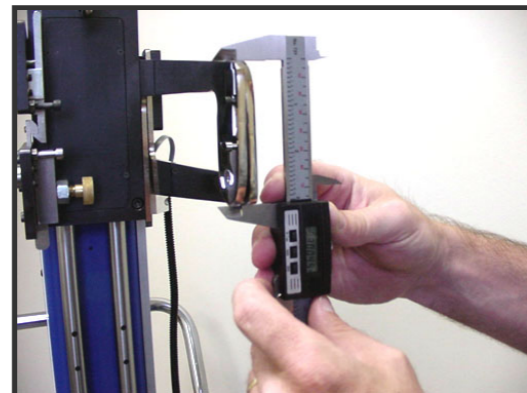


Figure 2

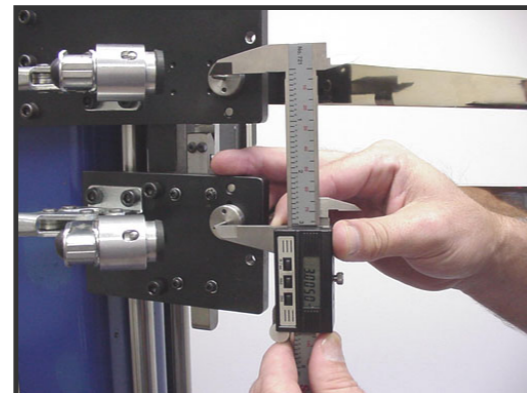


Figure 3

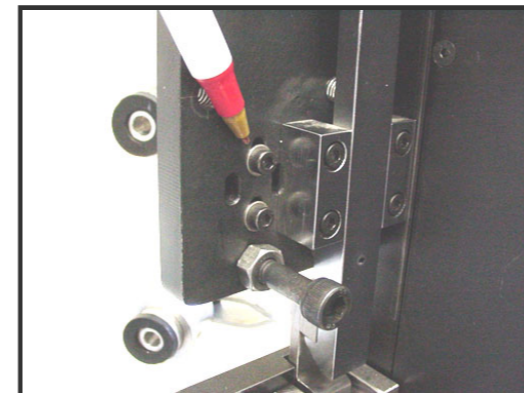


Figure 4



Figure 4a

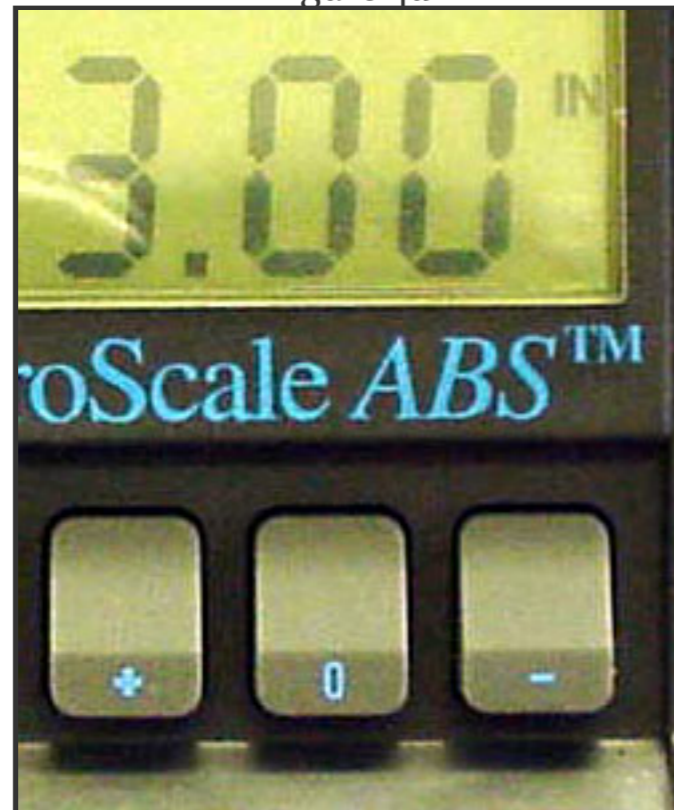


Figure 5



Figure 6

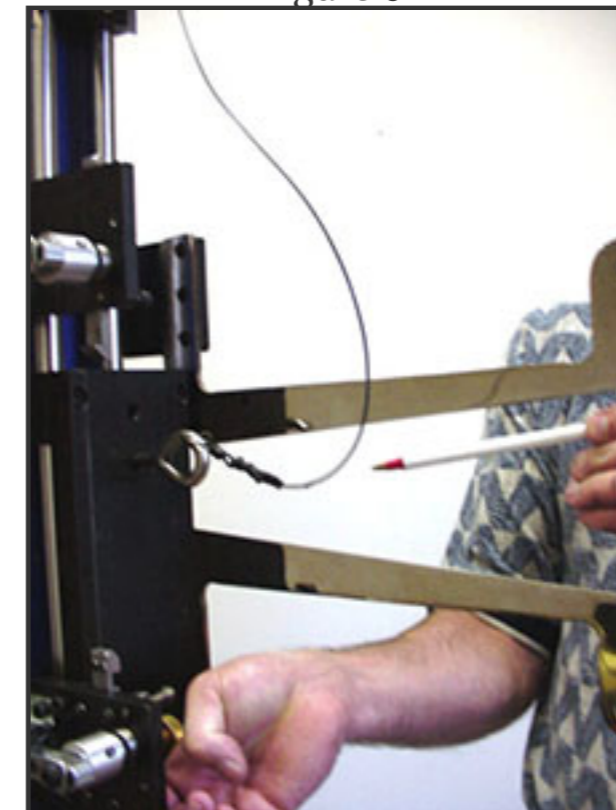


Figure 6a

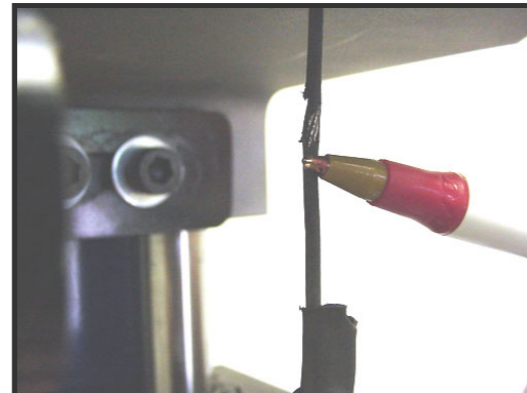


Figure 7

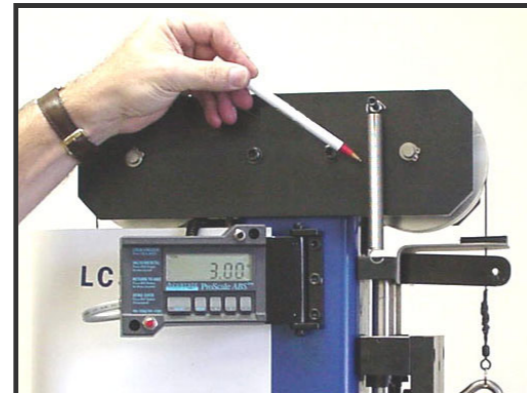


Figure 7a

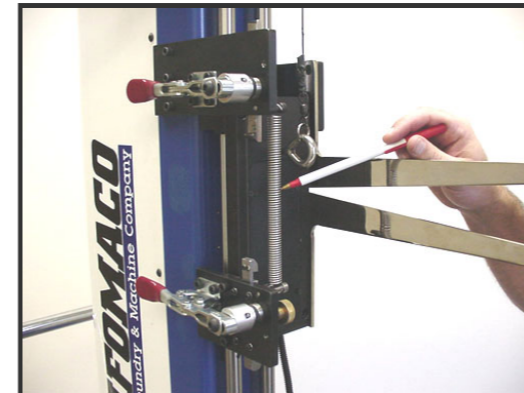


Figure 7b



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General Setup Information

- The machine has three starting position for both cross-stretch and length stretch to accommodate different sock sizes.
- The positions are changed using the reposition release pin (Figure 8a).
- The three positions are: 2 inches cross and length stretch (Figure 8b, 8c), 3 inches cross and length stretch (Figure 8d, 8e), and 4 inches cross and length stretch (Figure 8f, 8g).
- It may be necessary to zero the scale to match the arm setting (Figure 4a).

Figure 8a

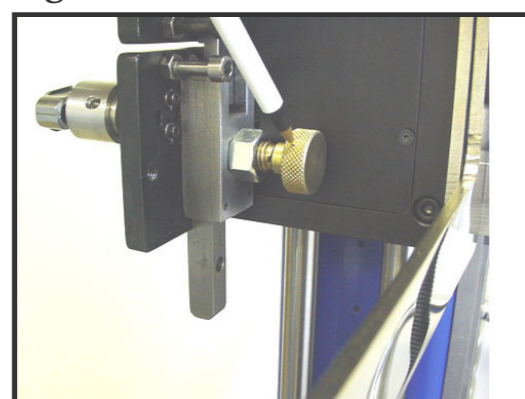


Figure 8b

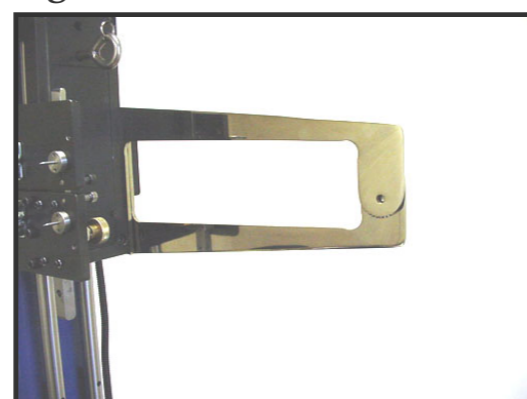


Figure 8c

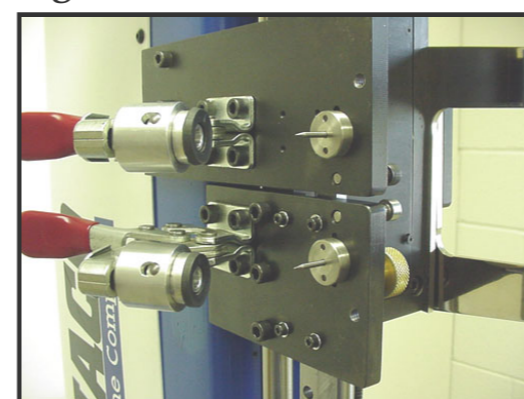


Figure 8d

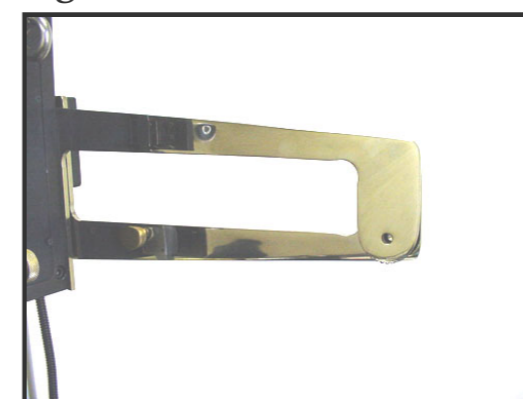


Figure 8e

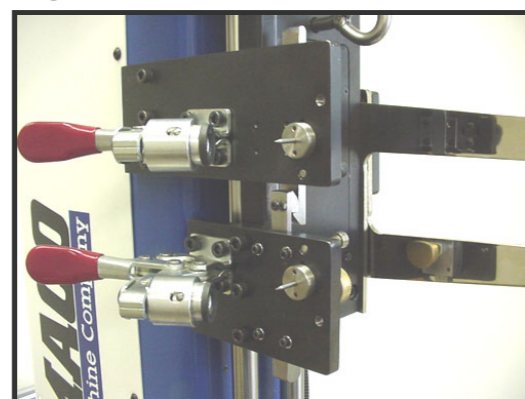


Figure 8f

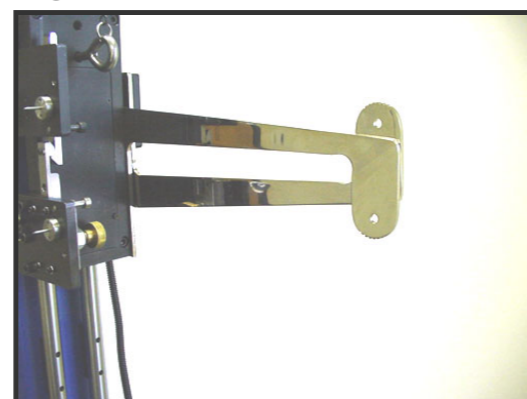


Figure 8g

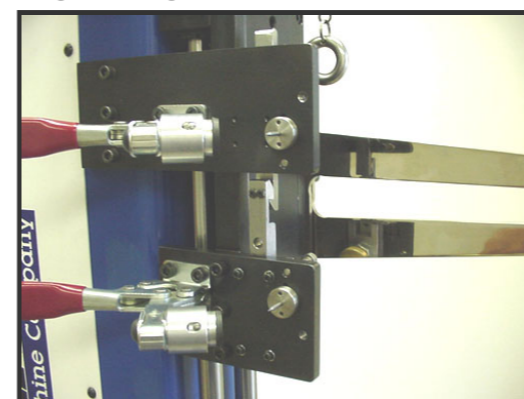


Figure 4a



- Each sock can be measured only once. All measurements on different sock profiles should always be taken at the same place.
- Begin with length stretch and then measure cross stretch on each sock.
- Have the sock fabric for each measurement as straight as possible.

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Procedure for Measuring Length Stretch

Leg: Place the outside heel gore (Figure 9) at the center of the top clamp pin (Figure 10). Place the sock top on the bottom clamp pin. Locate the pin at the midpoint of the sock top (Figure 11). Release the trip lever. (Figure 12). Record the reading from the display when the weight travel has stopped (Figure 13, 13a). Lift the bottom weight carriage until it locks back in place at the top position (Figure 14).

Figure 9



Figure 10

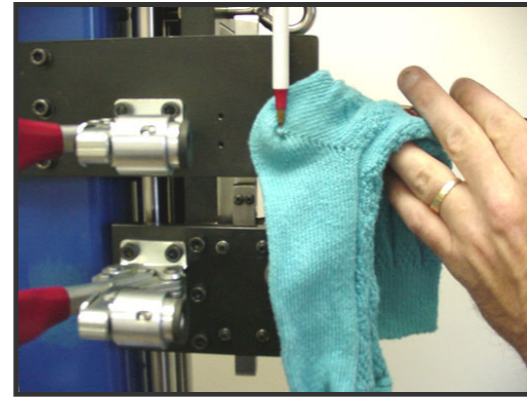


Figure 11

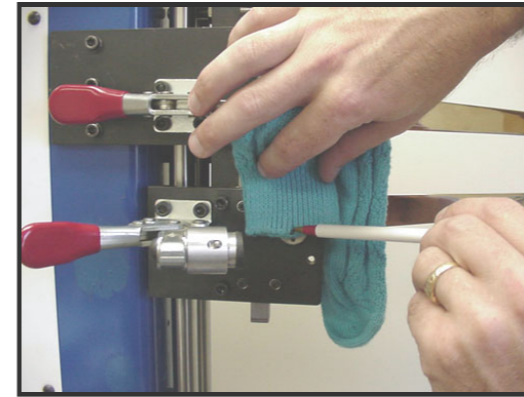


Figure 12

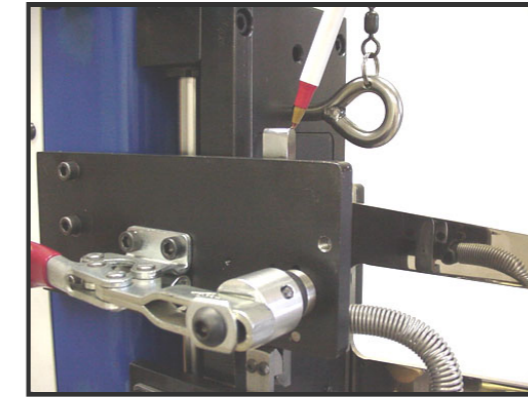


Figure 13



Figure 13a

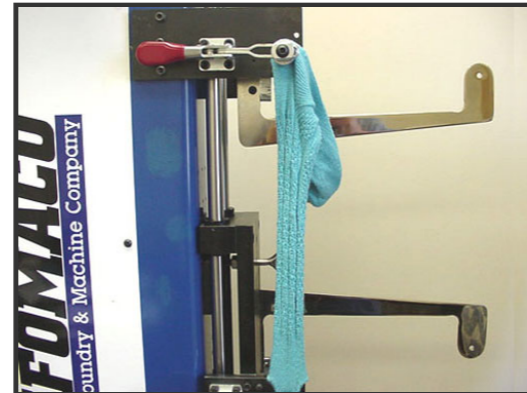
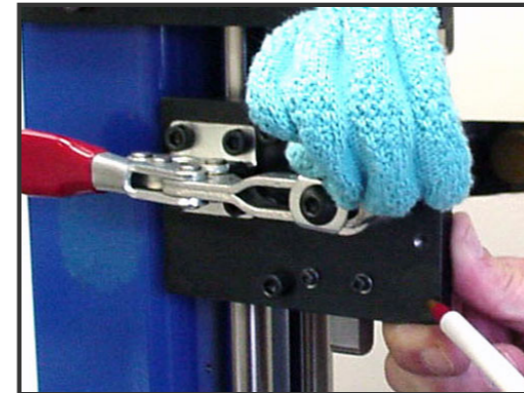


Figure 14



Loosen the top clamp (taking care not to remove the heel gore from the pin), and spin the sock 180 degrees until the toe is pointed downward toward the center of the bottom clamp pin (Figure 15). Relock the top clamp on the sock. Place the outside toe gore (Figure 16) at the center of the bottom clamp pin (Figure 17). Lock the clamp. Release the trip lever (Figure 12). Record the reading from the display when the weight travel has stopped (Figure 13,18). Lift the bottom weight carriage until it locks back in place at the top position (Figure 14).

Figure 15

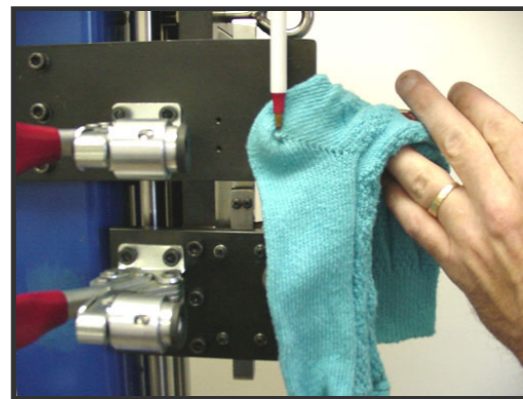


Figure 16



Figure 17

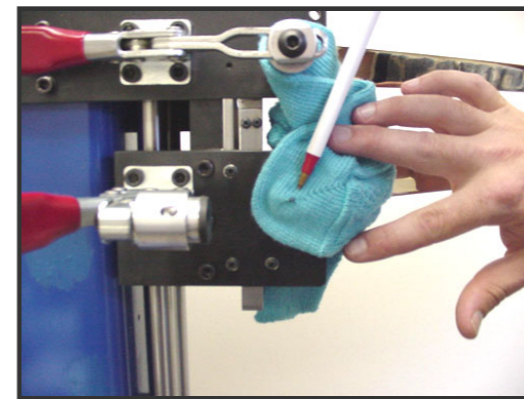
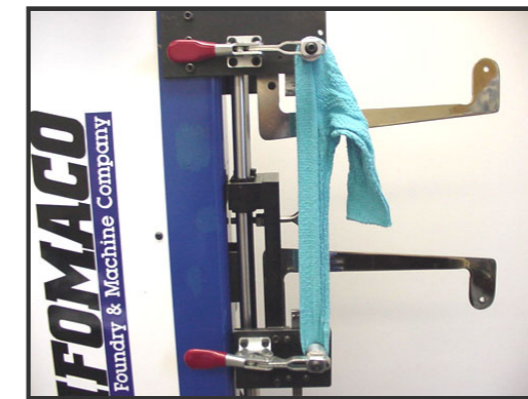


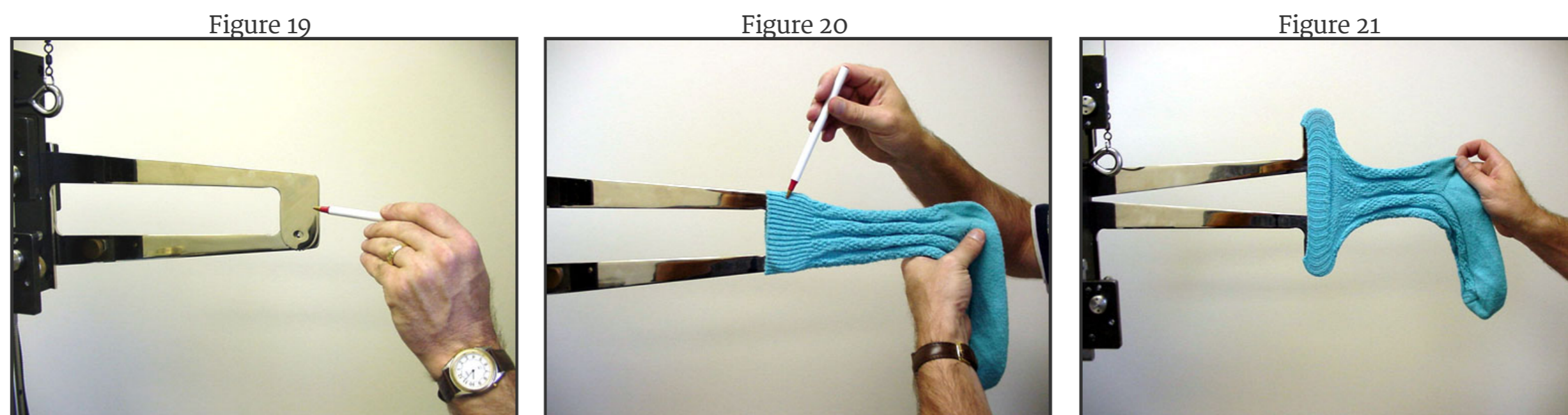
Figure 18



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Procedure for Measuring Cross Stretch

Top: Place the sock top on the cross stretch arms centering the fabric across the arm fingers (Figure 19). Hold the remaining fabric so it does not produce any drag on the measured fabric (Figure 20). Release the trip lever (Figure 12). Record the reading from the display when the weight travel has stopped (Figure 13, 21). Lift the bottom weight carriage until it locks back in place at the top position (Figure 14).



Leg: Place the sock on the cross stretch arms going through the top until the middle of the leg is across the arm fingers (Figure 22). Hold the remaining fabric so it does not produce any drag on the measured fabric (Figure 23). Release the trip lever (Figure 12). Record the reading from the display when the weight travel has stopped (Figure 13). Lift the bottom weight carriage until it locks back in place at the top position (Figure 14).



Foot: For a finished sock or a machine closed toe greige sock, cut the toe out of the sock (Figure 24). Place the sock on the cross stretch arms going through the toe until the middle of the foot is across the arm fingers (Figure 25). Hold the remaining fabric so it does not produce any drag on the measured fabric (Figure 26). Release the trip lever (Figure 12). Record the reading from the display when the weight travel has stopped (Figure 13). Lift the bottom weight carriage until it locks back in place at the top position (Figure 14).

