

## INSTRUCTIONS FOR USING THE RENFRO DUROMETER

Purpose. The Durometer measures the tension in a fabric while stretched on a form. It is used with the NAHM sizing forms to test accurately the maximum size of a sock.

Sizing forms. Two holes must be drilled through the NAHM forms at prescribed locations in the heel area. Blueprints showing this modification for the various sizes of forms are available from the NAHM.

Procedures. There are two procedures, depending on the question being asked. Procedure A answers the question of whether or not a sock will fit a given size form. This is a relatively simple "pass/fail" test and is useful when a large number of socks are to be tested.

Procedure B is used to find the largest form that a sock will fit, without reference to its specified size.

**Procedure A.** Testing a sock for the upper end of a given size range (or for the single size of a non-stretch sock):

Step 1. Pull the sock on a form of the specified size with enough force to stretch the sock to its maximum without causing damage.

Step 2. Locate the top of the sock where it is intended to be worn on the leg. If the sock has a heel, center it with respect to the two holes in the form. If there is a heel gore, locate it on a line that goes through the center of the two holes. Be sure that the alignment is the same on both sides of the form. This step can be facilitated by holding the form up to a light.

Step 3. With the sock being held in place on the form, and the form horizontal, place the Durometer on the sock over the 1" diameter hole. Slide the Durometer from side to side to center it with respect to the hole. Release the Durometer and record its reading.

Step 4. Repeat step 3 on the other side of the form.

Result of Procedure A: The sock passes if the average of the two readings is 150 or more, and it may be said to fit the size of the form. The sock is too tight if the average of the readings is less than 150.



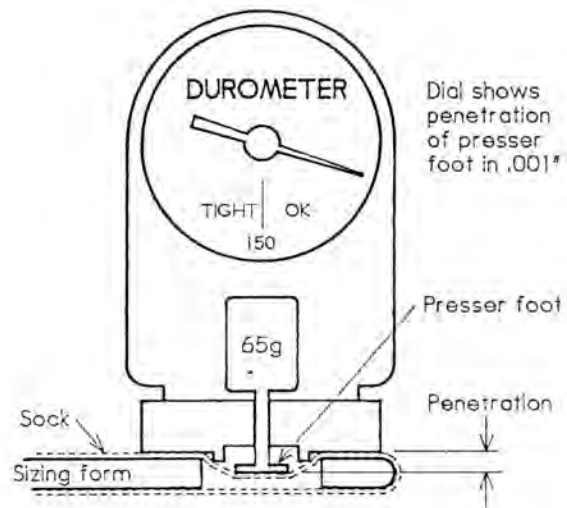
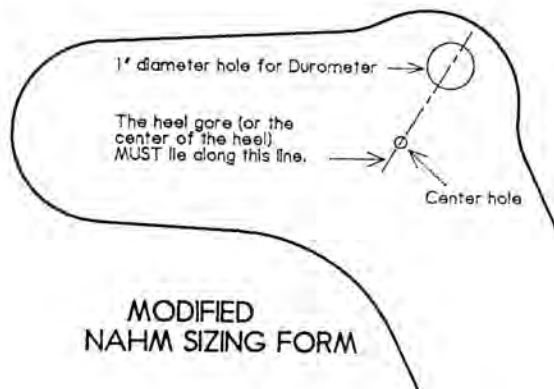
**Procedure B.** Finding the largest size a sock will fit:

Start with the largest form that the sock can be pulled on without damage, and follow steps 2, 3, and 4 of Procedure A.

If the sock is too tight, use the next smaller form and repeat steps 2, 3, and 4 of Procedure A.

Continue trying smaller forms until one is found that yields an average Durometer reading of 150 or more.

Result of Procedure B: The largest size the sock will fit is the largest form that yields an average Durometer reading of 150 or more.



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