# Making your own Detachable,
# Non-Slip Wading Soles

### by Barre Normann

If you have some slippery-bottomed boots (e.g., hip-waders, boot-foot waders, wet-wading boots, or even hiking boots that you use for wading), or if you want to cover the metal studs on your wading boots so you can wear them on boats, I can show you how to make your own pair of detachable, non-slip wading soles that fit your boots.  Since the wading soles are detachable, you can use 1 pair for different sets of boots, as long as the boots are close enough in size.  I use the same pair of wading soles on 3 sets of boots.



Features of the wading soles:
- Grip slippery rocks (similar to felt)
- Attach and detach easily (if sized and adjusted properly)
- Durable (if you use good-quality indoor/outdoor carpet material)
- Light-weight (~2.5 oz per sole)
- Easy to make
- Inexpensive (~$10 for materials for 1 pair of wading soles)
- Easy to wash, dry, clean, & sanitize.

If you're interested in making your own detachable, non-slip wading soles:
1) you can make them yourself by following the attached instructions
2) or you can attend a 2-hour clinic that I can put on if at least 4 people sign up

What you'll get from the clinic:
- 1 pair of detachable, non-slip wading soles, made by you to fit your boots
- Instructions and guidance to make the wading soles
- A template to make more wading soles for your boots in the future

If you're interested in attending a clinic, you can sign up at the general meetings or send me an e-mail at B1Normann@att.net.


### *Instructions to Make Your Own Detachable, Non-Slip Wading Soles*

**Materials needed for 2 wading soles** (left & right):
[dimensions are based on men's size 10 wading boots (~ men's size 11 rubber boots)]
- 20" x 10" piece of card-stock or thin cardboard
- paper print-out of the 8 tabs (A, B-in, B-out, C-in, C-out, D-in, D-out, E)
- 20" x 20" indoor/outdoor carpet (use a carpet with fibers that stick together and do not pull apart so the grommets do not pull out)
- 32 brass grommets (size 0, 0.25" inside diameter)
- 2 rubber O-rings (2" outside diameter, 7/32" thick)
- 17' braided nylon rope, 1/8" diameter

**Tools needed:**
- wading boots
- felt-tip marker
- pencil
- white or yellow colored pencil
- small ruler (6" or 12")
- flexible tape measure (> 3' long)
- double-stick tape
- single-hole paper punch (0.25" dia)
- heavy-duty scissors (heavy enough to cut carpet)
- grommet kit for size 0 brass grommets (kit consists of a hole punch & grommet press with base); a quicker and quieter alternative to the hole punch in the kit is a hand-held Crop-a-dile power punch (0.25" dia)
- hardwood block (~ 6" x 6" x 1")
- hammer (1 to 2 lbs)
- lighter to melt the ends of the nylon rope

**The 6 basic steps to make the wading soles:** (total time = 30 minutes for template + 35-70 min/sole)
- A) Make a cardboard template based on your wading boots. (~30 minutes)
- B) Use the template to trace the outline and hole pattern onto the carpet material. (5-10 min/sole)
- C) Cut out the wading sole and punch the 16 holes. (10-20 min/sole)
- D) Install the 16 grommets. (10-20 min/sole)
- E) Install the boot laces and large rubber O-ring. (5-10 min/sole)
- F) Adjust the laces to fit your boot snugly when cinched tight, and allow for easy on/off when loosened. (5-10 min/sole)

**Step A:  Instructions to make the cardboard template**
1. Center the left or right wading boot on the cardboard or card-stock, leaving at least 3" of cardboard sticking out on all sides of the boot.
2. Use a felt-tip marker to draw an outline of the boot on the cardboard.
3. Use a tape measure to measure the circumference of your wading boot sole.
   ◦ If less than 28", use the narrow tabs (~2" wide)

- ◦ If more than 28", use the wide tabs (~2.5" wide)
[You can find the tab print-outs on the last 2 pages of these instructions.]
4. Cut out the 8 tabs (+ 1 spare) from the appropriate paper print-out.
5. Put double-stick tape on the back of each tab and stick them on the cardboard at the positions indicated in the photo below fairly equally spaced between toe tab & heel tab.
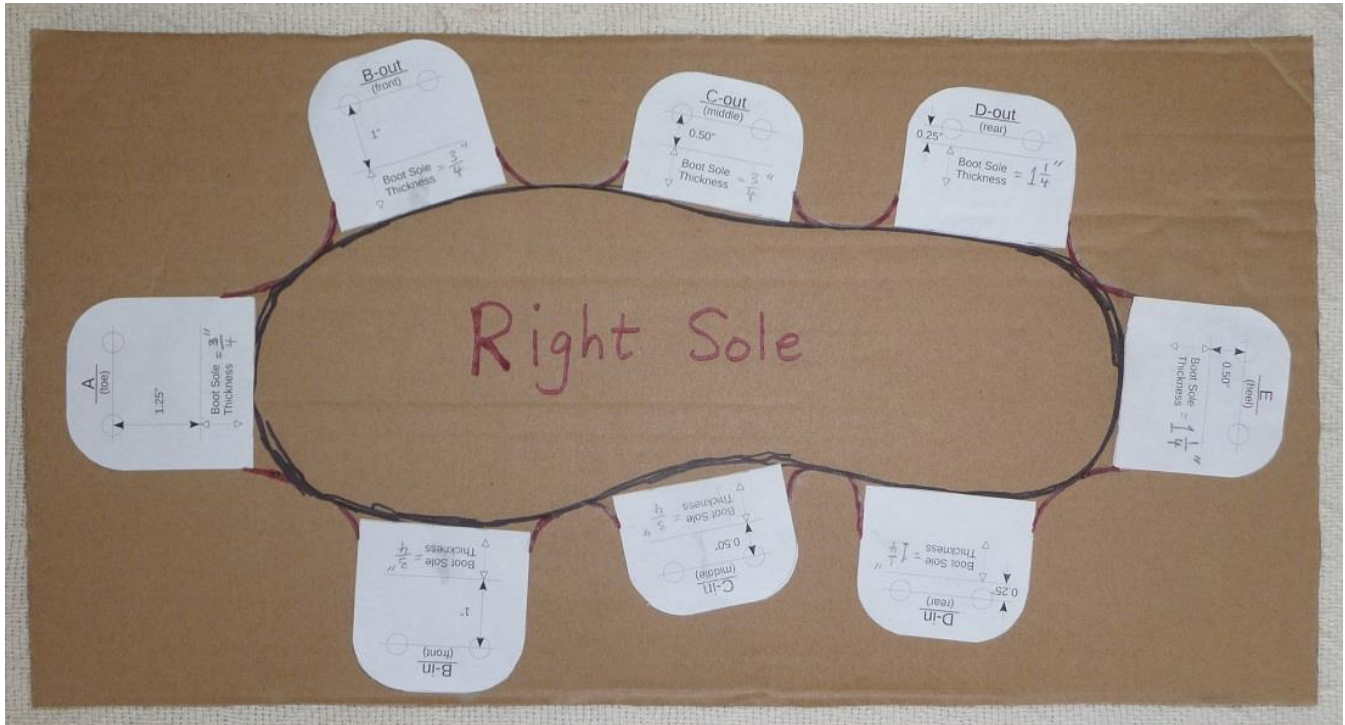


6. Round all sharp corners in the resulting outline (e.g., between tabs) using a pencil or felt pen.
7. Place your boot on the cardboard surrounded by the tabs. At each tab location, measure the thickness of your wading boot sole. Write this thickness on the tab where it says "Boot Sole Thickness."
8. Cut off the bottom of each tab to allow for the "Boot Sole Thickness" at that tab's location, then stick the tab back on the cardboard.
9. Cut out the cardboard template around the boot outline and tabs.
10. Use a hole-punch to punch holes at the two hole locations in each tab.
11. Label one side of the cardboard template "right sole" and the flip-side of the cardboard template "left sole."

**Steps B thru D:  Instructions to make the left & right wading soles**
1. Place the cardboard template on the 20" x 20" piece of indoor/outdoor carpet near one of its edges, with the backside of the carpet facing up.
2. Use a light-colored pencil to draw the outline of the template and the locations of the grommet holes onto the backside of the carpet.
3. Flip the cardboard template over and position it on the carpet so it does not touch the outline just drawn.
4. Use a light-colored pencil to draw the outline of the template and the locations of the grommets onto the backside of the carpet. This should give you one outline for the left sole and one outline for the right sole.

5. Put your boots on the outlines.  Verify that the outlines touch the boot soles between all the tabs.
6. Use heavy-duty scissors to cut out the left & right soles (cut just inside the outlines so the soles are the same size as the template).
7. Use a hand-held Crop-a-dile power punch OR the hole punch from the grommet kit with a hammer and wood block to punch holes for 2 grommets in each tab of the soles.
8. Use the grommet press & base from the grommet kit and a hammer to install a grommet in each grommet hole.

## Step E:  Installing the O-ring and laces in the wading soles
1. Cut the 17' nylon rope into two 80" lengths and two 22" lengths.
2. Mark the middles of both 80" lengths with a felt-tip pen.  Fold one 80" rope at the mark and attach it to the O-ring with a loop-to-loop connection.
3. Place the appropriate boot on the wading sole to be laced, with the toe pointing away from you.
4. Start at the toe and thread the rope thru the grommets as shown in the photos below. You might find it helpful to curl the tabs up around the boot as you thread the rope thru the grommets.

5. After threading the rope thru all the grommets, tie the two ends in a half-knot at the heel.
6. Thread a 22" length of rope thru the O-ring, around the section of rope between the grommets in Tab C-in, back thru the O-ring, around the section of rope between the grommets in Tab C-out, and back to the O-ring (see photos above). Leave the rope as long as possible and tie the two ends in a square knot.
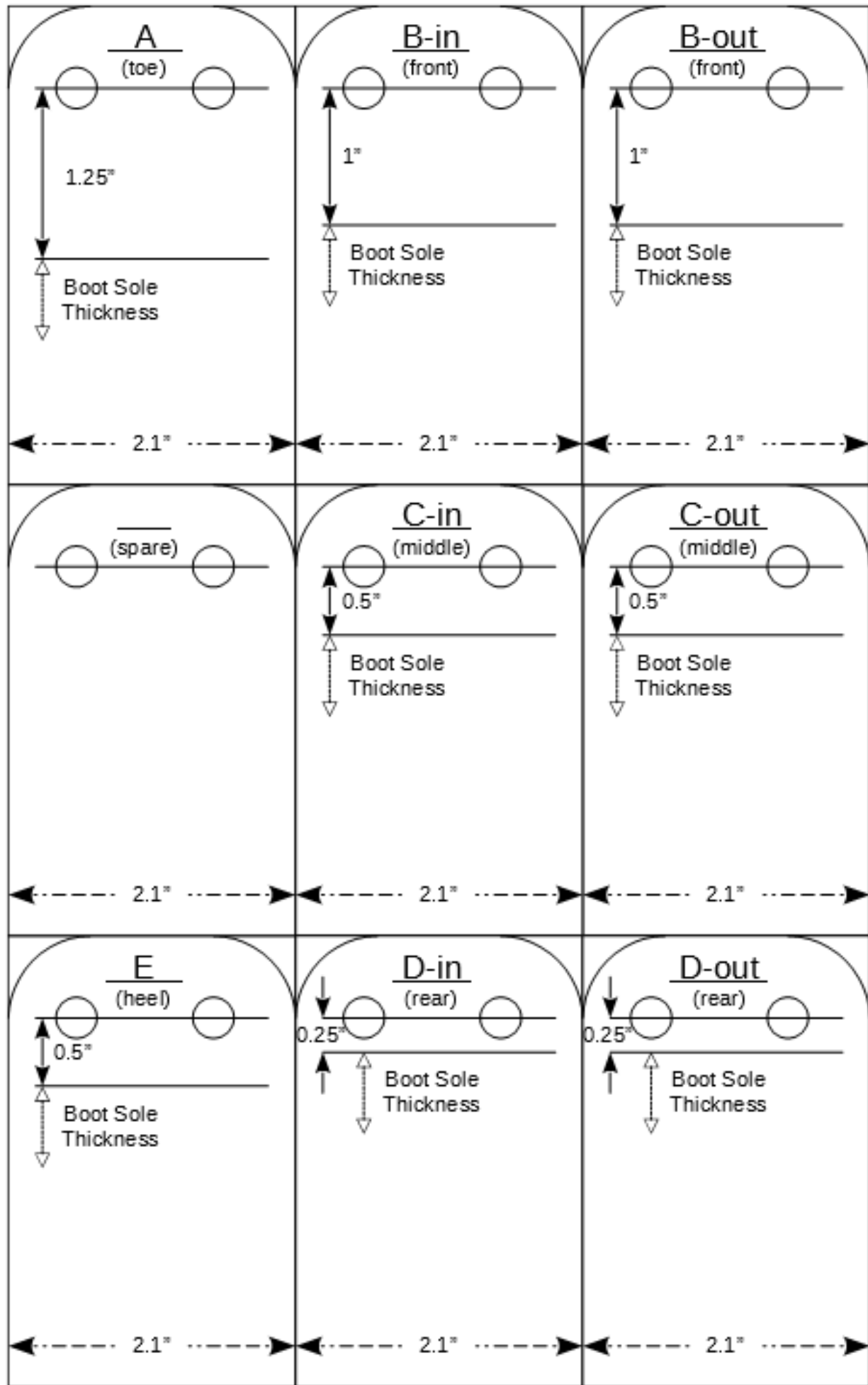
**Step F:  Adjust the laces to fit your boot snugly when cinched tight, and allow for easy on/off when loosened**

The 3 adjustment points that affect the fit of the wading sole are:
◦ the 2 loop-to-loop connections on each side of the O-ring (from Tabs B-in & B-out)
◦ the square knot in the 22" length of rope thru the O-ring (from Tabs C-in & C-out)

1. Loosen the laces at the heel and sides and put the boot in the wading sole.
2. Adjust the tightness of the wading sole around the toe of the boot by adjusting the 2 loop-to-loop connections on both sides of the O-ring (from Tabs B-in & B-out). Tighten the fit by shortening the ropes between the middle loop-to-loop connection and the side loop-to-loop connections. Loosen the fit by lengthening those sections of rope. With the proper fit, the boot should slide into the wading sole easily, and the toe of the boot should have minimal side-to-side movement.
3. Tighten the laces by pulling on the rope ends near the heel until the O-ring just starts to stretch. Secure the rope ends by tying them in a bow around the boot.
4. Adjust the length of the 22" rope thru the O-ring to slightly stretch the O-ring towards the heel of the boot. This will pull up slightly on the laces between the grommets in Tabs C-in & C-out.

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**To remove the wading sole from the boot:**
1. Untie the bow around the boot
2. Loosen the half-knot at the heel
3. Loosen the sections of rope between Tabs B & C and between the grommets in Tabs C-in & C-out.

## A
### (toe)

1.25"

Boot Sole
Thickness

2.1"

## B-in
### (front)

1"

Boot Sole
Thickness

2.1"

## B-out
### (front)

1"

Boot Sole
Thickness

2.1"

### (spare)

2.1"

## C-in
### (middle)

0.5"

Boot Sole
Thickness

2.1"

## C-out
### (middle)

0.5"

Boot Sole
Thickness

2.1"

## E
### (heel)

0.5"

Boot Sole
Thickness

2.1"

## D-in
### (rear)

0.25"

Boot Sole
Thickness

2.1"

## D-out
### (rear)

0.25"

Boot Sole
Thickness

2.1"

## Narrow Tabs
### (for boot sole circumference < 28")

## A
### (toe)

1.25"

Boot Sole
Thickness

2.5"

## B-in
### (front)

1"

Boot Sole
Thickness

2.5"

## B-out
### (front)

1"

Boot Sole
Thickness

2.5"

### (spare)

2.5"

## C-in
### (middle)

0.50"

Boot Sole
Thickness

2.5"

## C-out
### (middle)

0.50"

Boot Sole
Thickness

2.5"

## E
### (heel)

0.50"

Boot Sole
Thickness

2.5"

## D-in
### (rear)

0.25"

Boot Sole
Thickness

2.5"

## D-out
### (rear)

0.25"

Boot Sole
Thickness

2.5"