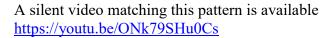
THIS PATTERN FEATURES THE NEWLY CREATED TRINE TOE UP SOCK METHOD THAT I CREATED

PLAN

- -Cast-on with sock weight scrap yarn
- -Pre-Toe (+3 integrated wraps)
- -Toe
- -Post-Toe(+3 integrated wraps)
- -HANG TOE (work one row)
- -Foot 45 Rows
- -DEEP HEEL +4 needles* (finished one L/R row less than started)
- -Pre-Heel 10 rows
- -Lifeline row placement/Mock Rib pattern upgrade
- -CUFF 30 rows
- -Scrap yarn



GENERAL INFO:

- *For best success, take each step one at a time however work each step clearly knowing where to be for the next part.
- -This method is the same regardless to what CSM is used, higher or lower slot count cylinders might need more or less additional needles for the DEEPER HEEL/Toe Hang depending on fiber and machine settings.
- -This pattern uses a PRE and POST Toe series of rows to add the fabric needed to nicely hang the toe once knitted.
- -A Deeper Heel creates more of a cupping effect allowing shorter socks to stay put.
- -In my opinion and testing, adding a PRE-HEEL (segment between cuff and heel on cuff down socks) tends to better fit the heel and therefore stay in place.
- -When we use the word "crank" we mean turn the handle of the machine (usually to the other side of the machine).
- -I highly recommend using the Heel Spring throughout for a better fit.
- -In my opinion one can make this sock without Mock Rib, however I feel a plain knitted sock without any Mock (or real Ribbing) doesn't fit as nicely.
- -Scrap sock weight yarn is defined here as any fiber (acrylic or not) which is the same weight/diameter as your sock yarn.
- -The Heel and the Toe are both worked on the side of the machine closest to me (between the 9-6-3 o'clock positions).
- -ANY cuff can be worked on this pattern however for this pattern I chose a OFF MACHINE HUNG HEM which will be demonstrated in the video on how to make and finish.







- -The No-Wrap Heel and Toe method were used with slight differences on where to work final Heel row and where to decrease the Toe to.
- -How deep or narrow you choose to work the heel/toe and how close to average heel marks you work during the decrease can be adapted for unique Heel anatomy.
- -If for whatever reason this pattern does not work for you to hang your toe CERTAINLY ADJUST WITH AN ADDITIONAL WRAP ROW using the same extra WRAP ROWS on the PRE-TOE as the POST. This was successfully tested multiple times on a 54 and 72 slot cylinder.

THE BEST THING TO CONSIDER WHEN WORKING ANY SOCK RECIPE IS THAT YOU CAN EASILY PLUG YOUR OWN PREFERRED CUFF, HEEL METHODS - IF THAT'S YOUR PREFERENCE - so if you love the Toe Up approach but want a different Cuff you CAN!

This VIDEO REVIEWS:

- -The sock as it comes off the machine, the finished sock with detailed view, how to make and how to finish.
- -The sock diagram and Cast On Bonnet review of a cuff down versus toe up sock.
- -Casting on with a Universal Cast On Bonnet.
- -Clock point references.
- -Easy to identify sock section labels so that one can fast forward or rewind to any one part as needed.
- -Recommendation and use of the Chambord CSM SweetSpot Heel Fork & Weight and the Chambord CSM Tip Toe Tool Set.
- -Adding one cylinder needle at 3pm & 9pm for DEEP HEEL SETUP.
- -Hanging specific nearby bar stitch on each newly added cylinder needle for the DEEP HEEL.
- -A Heel/Toe using the No Wrap method.
- -Ensuring the final Heel Left and Right rows are one row less than heel start to reduce heel intersection holes.
- -One demonstrated way to fix an unknitted (but not dropped) cylinder stitch 1 by lifting lower stitch over top.
- -How I separate the scrap from two points on the finished sock.
- -How I finish this Mock Rib Toe Up sock with a manual OFF MACHINE HUNG HEM CUFF.







HOW TO CREATE SOCKS THAT FIT DEPENDS ON THE GAUGE!

I've made this pair of socks using my tension setting 2.5 dial turns from the tightest setting. This is something I determined beforehand. I generally work at 11-13 rows per inch however the resulting gauge differs by fiber and machine settings and cannot be truly known by anyone until they create a gauge swatch, have left it to rest, then washed and dried it.

When wishing to create a specific sized sock it is important to know what your stitch gauge is in relation to your CSM settings, machine and the yarn attributes. Simply following the same row numbers without having the same gauge will not give you a same sized sock like the one shown here. For tension setting info see https://ravel.me/karenramel/cgs

Looking for something specific and not finding it? Look it up by category at https://www.csmlove.com/index

Toe Up Mock Rib Hung Hem Shortie Socks featuring the TRINE TOE UP METOD:

Load cylinder needles into each of all the cylinder slots on your machine. (I successfully worked this pattern multiple times on a 54 and a 72 slot cylinder.)

- Using your Cast-On of choice (I use my Universal Bonnet) with sock weight scrap yarn, add your buckle and stem weights (I use a stem weight with three total weight pucks), work 10 rows of scrap yarn.
- Stop yarn carrier at 6 o'clock this allows us to easily raise the back half of the needles to put them out of work while we work the toe).
- Raise the back needles from 9-12-3. Turn the crank to place the yarn carrier at 12 o'clock. (This finishes the worked row of scrap yarn).
- Cut scrap yarn and load sock yarn into machine at 3pm. I like to use a hemostat clip to clip yarn tail to inside of
 my Universal Cast On Bonnet. Add the Heel Spring now (I use it for the whole sock) and the Heel weights (I
 prefer to use the Chambord CSM SweetSpot Heel Fork & Weight but use what works for you). Having already
 established machine gauge, I usually choose to work with the dial two full turns from its tightest. Today I used
 2.5 turns.

Note EACH numbered step matches the rows knitted up until the mid-section of the regular toe. When referring to specific needles, ahead refers to needles from 3pm or 9pm closer to you and behind refers to those needles on the other/far side of those two points.

PRE-TOE:

1) Lift the right needle (1st ahead of 3pm) and crank 3pm - 6pm - 9pm (always go past until 12 o'clock)

First row now done this row is most important as this will be the row hung to complete the toe up later.

2) Lift the left needle (1st ahead of 9pm) and crank 9pm - 6pm - 3pm (always go past until 12 o'clock).

At this point add the Heel weights - I use the Chambord CSM SweetSpot Heel Fork & Weight which consists of a modified vintage CSM Heel Fork and 2.79lb weight but any style Heel Forks work.

EXPLANATION of WRAPPING: We will be redirecting the yarn from the inside of the cylinder and around the first raised needle on the left. From now we will call this wrapping.

After each pass we always stop at 12 o'clock

- 3) Wrap the right raised needle (1st ahead of 3pm) and crank 3-6-9 (12).
- 4) Wrap the left raised needle (1st ahead of 9pm) and crank 9-6-3 (12).
- 5) Lift the right needle (2nd needle ahead of 3pm) and crank 3-6-9 (12).
- 6) Lift the left needle (2nd needle ahead of 9pm) and crank 9-6-3 (12).
- 7) Wrap the right raised needle (2nd needle ahead of 3pm) and crank 3-6-9 (12).
- 8) Wrap the left raised needle (2^{nd} ahead of 9pm) and crank 9-6-3 (12).
- 9) Lift right needle (3rd ahead of 3pm) and crank 3-6-9 (12).

- 10) Lift left needle (3rd ahead of 9pm) and crank 9-6-3 (12).
- 11) Wrap the right raised needle (3rd ahead of 3pm) and crank 3-6-9 (12).
- 12) Wrap the left raised needle (3rd ahead of 9pm) and crank 9-6-3 (12).

NOTE: You've done this section - check to ensure you didn't miss any steps by confirming that each of the THREE needles ahead of 3 & 9 have THREE stitches on each.

The PRE-TOE section is now complete - we will work the toe in the usual way until a certain point. I prefer the No Wrap Heel/Toe method.

TOE (DECREASE):

- 13) Lift 1 needle on right. Crank 3-6-9 (12).
- 14) Lift 1 needle on left. Crank 9-6-3 (12).
- 15) Repeat Steps #13 & #14 until you are at ONE needle before heel hash marks with the Yarn Carrier on the RIGHT.

TOE (INCREASE):

- 16) Lower 2 needles ONE on the left and ONE on the right, crank 3-6-9 (12).
- 17) Lower the left raised needle (2nd from the Heel mark). Crank 9-6-3 (12).
- 18) Lower the right raised needle (2nd from the Heel mark). Crank 3-6-9 (12).

But WAIT before we get too far into finishing the Toe, let's place stitch markers on our next step target needles. You'll thank me later. ©

- 19) Place a stitch marker on the 4th needle ahead of 9pm and one on the 5th needle ahead of 3pm. Now you are less likely to miss the next point.
- 20) Continue working the Toe by lowering 1 needle per side and cranking the row until you have just lowered the FIFTH left raised needle ahead of 9pm. The next raised needle is the FOURTH and it has your stitch marker on it. You can confirm that all is as planned by ensuring that at this point there should also be FIVE raised needles on the RIGHT ahead of 3pm. STOP. Confirm you are at the correct point. The next segment is different, it's the Post-Toe, worked to balance out the toe.

POST-TOE:

Why we work a PRE and a POST Toe is to add an even increase to the toe in order to hang the toe using the same sock stitch tension thorough. At this point your Yarn Carrier should be on the left near 9pm, have four needles raised on the left and five needles raised on the right.

- 21) Crank from 9-6-3 (12). Remove both stitch markers.
- 22) Instead of just lowering the next right raised needle (5th ahead of 3pm), Wrap it and crank 3-6-9 (12).

- 23) Instead of just lowering the next left raised needle (4th ahead of 9pm), Wrap it and crank 9-6-3 (12).
- 24) Lower the right raised needle (5th ahead of 3pm). Crank 3-6-9 (12).
- 25) Lower the left raised needle (4rd ahead of 9pm). Crank 9-6-3 (12).
- 26) Instead of just lowering the next right raised needle (4th ahead of 3pm), Wrap it and crank 3-6-9 (12).
- 27) Instead of just lowering the next left raised needle (3rd ahead of 9pm), Wrap it and crank 9-6-3 (12).
- 28) Lower the right raised needle (4th ahead of 3pm). Crank 3-6-9 (12).
- 29) Lower the left raised needle (3rd ahead of 9pm). Crank 9-6-3 (12).
- 30) Instead of just lowering the next right raised needle (3rd ahead of 3pm), Wrap it and crank 3-6-9 (12).
- 31) Instead of just lowering the next left raised needle (2nd ahead of 9pm), Wrap it and crank 9-6-3 (12).
- 32) Lower the right raised right needle (3rd ahead of 3pm). Crank 3-6-9 (12).
- 33) Lower the left raised needle (2nd ahead of 9pm). Crank 9-6-3 (12).
- 34) Instead of just lowering the next right raised needle (2nd ahead of 3pm), Wrap it and crank 3-6-9 (12).
- 35) Instead of just lowering the next left raised needle (1st ahead of 9pm), Wrap it and crank 9-6-3 (12).
- 36) Lower the right raised needle (2nd ahead of 3pm). Crank 3-6-9 (12).
- 37) Lower the left raised needle (1st ahead of 9pm). Crank 9-6. STOP Yarn Carrier at 6pm.

NOTE UPCOMING CHANGE

38) Remove all weights from the machine (including the Buckle if used). Lower all raised needles.

HANG THE TOE:

39) I like to start hanging from the needle after 9pm, carefully hang the bars of the knitted toe - try not to pull unnecessarily as it will tighten the next bars to find and hang. Because of how we started and where our alignment is, I find I always have more needles than stitches - two extra needles than stitches actually - which isn't a problem - we will just hang a total of two bars over the last segment of needles. Where we hang a bar will become obvious as you hang the stitches as the fabric will start slightly to be misaligned once you're 7-8 needles from being done. Ensure you don't miss any stitches.

IF YOU CANNOT HANG YOUR TOE - while during extensive testing on the two cylinders noted I had no problems with my tension used, if for some reason this doesn't work for you it could be because of your yarn, excessively tight setting or user error. Regardless you can rework the method by adding extra wrap rows in the PRE-TOE and then match them in your POST-Toe to ensure a balanced segment.

CSM: Toe Up Mock Rib Hung Hem Shortie Socks

Your sock now looks like a sock trampoline on the machine - you need to be able to apply weight to the knitting. There are a few options, some less restrictive, some more.

I prefer to use the Chambord Tip Toe Tool Set which I use for any Toe Up Socks. It consists of a thin disk with a modified V Fork. When added to the hung toe it evenly distributes the tension and allows your Stem Weights to be hung from it under the machine.

Other options to apply weight to the sock at this point are:

UNDER THE MACHINE:

- -vintage Start Up Device to add even downward weight on the knitting under the machine
- -one can use the SweetSpot V Hook if one carefully applies the hooks to the toe segment and then you add your Stem Weights.

ON TOP THE MACHINE:

- -an extra stem weight with a total of one or two pucks
- -a bean bag "soft weight" you can certainly add those to the inside middle area of the hung toe 2
- 40) Take the yarn tail and e-wrap it on the needles ahead of the 3pm position, clip yarn tail to sock to keep in place.

At this point choose whether you want to continue using the Heel Spring throughout the rest of the sock or not - I generally leave the Heel Spring on the whole time when working the Shortie Socks as I prefer a more snug knitted sock.

41) Carefully work ONE complete row (some needles will have multiple stitches and have a lot of tension on them). Stop the yarn carrier at 7pm to align the cylinder spring rest with 3pm. (This takes care of the more than one stitch on a needle and releases tension making stitch transfer easier).

ADDING MOCK RIB (to the top of the foot)

42) Starting from 3 o'clock remove the first cylinder needle directly after 3pm and transfer its stitch to its neighbor behind. (Moving these stitches should be easier as we worked a row after hanging the toe.) Thereafter remove every fourth cylinder needle (in the 1x3 pattern), transferring each removed needle's stitch - all the way to 9pm. This pattern from 3pm will look like one empty slot then three cylinder needles - repeated just for the top of the foot (3pm-9pm). Return cylinder spring to the cylinder (if was put on the rest during needle manipulation).

FOOT:

43) Crank 45 rows stop the Yarn Carrier at 6 o'clock.

NOTE ON MOCK RIB.

Whenever ADDING Cylinder needles to empty Mock Rib slots: After placing the cylinder needle we also need to hang that new needle's two nearby bar stitches onto the newly inserted cylinder needle. The exact stitch bar we transfer is the bar directly behind each neighbor needle. This is REPEATED each time any cylinder needle is added to an empty slot.

Whenever REMOVING a Cylinder needle to a Mock Rib pattern we hang the removed cylinder needle stitch on the next needle.

44) DEEP HEEL SETUP - With the yarn carrier still at 6 o'clock we will add new cylinder needles into any Mock Rib empty slots within the first four needles behind 3 and 9 o'clock*. Which needles are those? Those four are those on the side closest to 12 o'clock AT the 3 and 9 o'clock position not on the side closest to the 6 o'clock position (for clarity).

CSM: Toe Up Mock Rib Hung Hem Shortie Socks

Ensure to hang both neighbor stitches to each new cylinder needle as outlined above. Generally this means we add one cylinder needle on each side(and hang two bars on each) as noted for this pattern.

DEEP HEEL (DECREASE)- No Wrap Method

45) Now raise all the back needles from the 5th slot behind 3 & 9 - raising them puts them up and out of work (the non-heel needles at the opposite side of the machine). Turn the crank so the yarn carrier is at the 12 o'clock position. Now we are completely ready to start the Heel. Ensure your Heel Spring is still in use and add your preferred Heel Weights/Forks are on the machine - I use the SweetSpot Heel Fork & Weight.

To create a Heel that is DEEP we have planned to add FOUR needles more on both sides.

- 46) Lift 1 needle on the right. Crank 3-6-9 (12).
- 47) Lift 1 needle on the left. Crank 9-6-3 (12).
- 48) Repeat steps #46 and #47 until you've worked to the Heel hash marks (the borders of your heel decreases usually a heel is segmented in thirds 12 12 12) the yarn carrier should be on the RIGHT.
- *Always make sure your knitted work is firmly at the base of each needle to ensure the latches can function and make their stitches. Generally if the first couple needles behave then you should be good for that row although I've often found the first couple and last couple of each row to be naughty. Don't go fast and be sure to correct any not knitted stitches. When I make a mistake in a heel or toe increase or decrease I will undo the knitting to the beginning of that heel or toe just to ensure no permanent mistakes are done.

DEEP HEEL-INCREASE:

- 49) Lower 1 needle on the right. Crank towards 9pm. Stop at 12pm.
- 50) Lower 1 needle on the left. Crank towards 3pm. Stop at 12pm.
- 51) Repeat Step #49 and #50 until the 3rd needle past 3pm is down and you have just done the same with the same needle past 9pm. STOP. Advance the Yarn Carrier slowly to 6pm. Lower all raised needles (it puts them back into work). Ensure latches are open.
- Because we choose to work one complete left and right row short of where we started, this reduces the Heel holes at the Heel/Ankle intersections.
- It's ESSENTIAL that the yarn carrier should be coming from the LEFT after last left needle lowering. WHY should the yarn carrier be on the left? Because with the construction of this sock, it's important to be going in the right direction in order to prime the next step and also although we are not using the ribber here, if we were it doesn't rib in reverse which it would have to if we were going in the wrong direction. Learn good habits now and be all the better for it. ©

Because our sock is already ready to do a plain stitch Pre-Heel we can now work that segment without any needle changes.

PRE-HEEL

- 52) Work 10 rows and stop the Yarn Carrier at 3pm so that you've knitted the last needle before the 3 o'clock mark.
- Now we setup for the final segment THE CUFF: We will add a lifeline marker row from the 3rd needle behind 3pm while also adding the remaining Mock Rib pattern from 9pm to 3pm. It seems confusing don't worry. Try not to move the Yarn Carrier until advised.

- 53) Your cylinder spring rest should now be aligned near 9pm put the cylinder spring on the rest and transfer the needles continuing in the Mock Rib pattern. Try not to move the carrier while continuing to swap the cylinder needles to the same pattern. I found I could get to about 4pm in the three cylinder needles, one space.
- A Ravel Cord is a simple strong cord which can be used and later pulled out like a zip-cord. It can be made of anything from strong reinforced cotton to braided fishing line. In this case use WHATEVER is bright and thin so as to not change the yarn tension on this row too much. More info on this cord https://youtu.be/NNfaHIDP UY
- 54) ADD A RAVEL CORD LIFELINE: Taking a piece of cord at least 2-3 times the circumference of your cylinder (a good reference for a re-usable length), clip one end onto the knitting on the inside of the cylinder near the 3pm position. Thread the Lifeline Ravel cord so that it will start to be used on the THIRD needle behind 3pm. I hang the Lifeline Ravel Cord up through my circle light and lay it over the edge. It helps manage the cord tension and keeps the end from tangling on anything. (Note: We started the lifeline from the third needle because we will be working the Mock Rib pattern up until the 2nd needle behind but don't worry about that now). On a 54 slot cylinder you will ensure to add the lifeline on the FOURTH needle behind 3pm.
- 55) Now that you can move the Lifeline loaded Yarn Carrier, ensure to finish the remaining Mock Rib Pattern from 4pm til 3pm. ENSURE THE LIFELINE ROW IS ONE NOT-OVERLAPPED ROW remove from the Yarn Carrier and place on the inside of the machine when one complete row has been done. Adding this temporary lifeline will mark this target row which you will later complete an OFF MACHINE MANUAL HUNG HEM by connecting the live final row of stitches to this row. If marked its way easier to connect evenly.

CUFF:

- 56) Work 30 rows and stop the Yarn Carrier so that the last needle knitted is just before 3pm. Cut sock yarn at the yarn cone (being sure to leave enough to work the finishing of this sock later) and add scrap yarn to the machine. Work 10-15 rows. At this point if you intend on making a second sock you can simply add cylinder needles into any empty mock rib slot and crank a couple more scrap rows then stop and swap out the Tip Toe Tool Set from sock and instead add the Buckle and Stem Weights.
- There are a wide variety of ways of finishing a CUFF on a Toe Up Sock. I chose with this pattern to mirror the Cuff Down Mock Rib Shortie Sock in design so to achieve this we will now take the sock(s) off the machine and manually work a OFF MACHINE MANUAL HUNG HEM which is basically turning the sock inside out and folding over the cuff. We then use a darning needle to connect the very first row with the same pattern in the Lifeline row (which makes it easier).
- The video shows how I remove the scrap yarn from the machine and covers finishing however the method of capturing live stitches is what I use on my Universal Cast On Bonnets I use what I call the Single Pass Off Machine Bind Off Video: https://youtu.be/iPcoOI1Lriw Without over-tightening each pass with the darning needle, basically the live last row stitch is secured to the lifeline marked row. This forms a OFF MACHINE HUNG HEM
- Don't want to finish the cuff or heel like this? NO PROBLEM. Swap out any section and work your own that's the beauty to clearly written instructions laid out in plug and play segments. You could add the ribber to do the cuff and still work whatever preferred edge, even work the ribber, a row or two without the ribber, a row of picot stitches then a regular row to create the scalloped edge on your manually off machine finished hem.

New to CSM / want to know where to start? https://www.csmlove.com/csm-start
Feel free to follow me on https://www.instagram.com/karen_ramel
Check out all my YouTube Videos http://youtube.com/c/CSMLove
See me on Facebook https://www.facebook.com/karenramel.csmlove/

My first Ravelry project these instructions were made from is Socks #127 https://ravel.me/karenramel/s1ct7