



HIGH Shank Ruler Foot Directions

Congratulations and thank you for purchasing this quality ruler foot. It is designed for high and 'special' high shank machines. The ruler foot diameter measures a standard 1/2", as well as generous clearance on the back. With the ample clearance on all sides, a wide assortment of standard 1/4" long arm rulers are available and can be paired with this foot. There is no need to look for special rulers that are slightly thinner. The design of this ruler foot provides excellent visibility of your needle while quilting with any thickness of ruler. There are also two visibility notches that allow you to rotate your sewing machine so it can be positioned like a long arm.



Getting Ready

- Make sure your machine is in good working order. Thoroughly clean and oil as directed in the user's manual.
- This product is designed to fit high shank and 'special high' shank machines. To confirm fit: (1) make sure your machine is OFF, (2) remove both current presser foot and set-screw from the presser bar, then set aside in a safe place (magnetic pin catch), (3) place the presser foot lifting lever into the down position, (4) lower the feed dogs by bringing the needle into its lowest position with the hand wheel, and then (5) measure from the surface of the needle plate to the center of the set-screw hole. This product will fit if this measurement is 7/8" to 1".
- Use your phone and snap a photo of your current presser foot and top thread tension settings. This will make returning your machine back to its original settings easy.
- Make one or more quilt sandwiches (fabric-batting-fabric) using temporary fabric adhesive spray. For initial learning and practice, muslin and scrap quilt batting will work well. Make practice sandwiches between 12"x12" and 18"x22" (fat quarter) size.



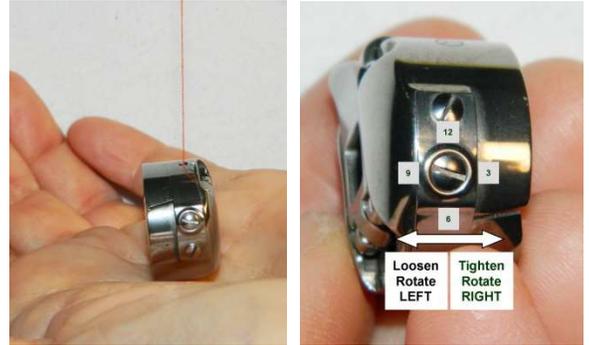
Needle Choice and Thread

- Choose a fresh needle that has a sharp rather than rounded point (quilting, topstitch, or Microtex/sharps). These needles pierce the fabric threads resulting in a more even pleasing stitch. Needles with rounded tips such as universal, self-threading or ball point tend to push the threads aside and produce slightly uneven stitches. If your machine recommends a different type of needle, still install a new needle, but as recommended by your user manual. Change your needle if there is a change in the quality of stitches, thread shredding, or thread breakage.
- Choose good quality smooth thread that is the same as will be used in the final project. This will reduce lint that accumulates in your machine and around the bobbin. For setting up your machine, use two contrasting thread colors that are easy to distinguish against the muslin quilt sandwich. This small detail will make fine tuning the thread tension easier. Use thread of the same quality and weight as will be used when quilting with rulers. Many quilters use 50 wt threads for piecing and dense quilting (to avoid thickness within the seam or stiffness in dense quilting projects). 40 wt is used for standard quilting in both domestic machines and long arm quilting.
- Match your needle size, thread weight, and project (weight of fabrics and batting), with 80/12 and 90/14 the most commonly used sizes for quilting. The larger the number, the larger the needle and eye, but also the larger the hole punched through the quilt sandwich. Thread weight is a general guideline to actual thread thickness. You may see 40/2 (40 wt/2 ply) or 40/3 (40 wt/3 ply) printed on a thread label. Even though both threads are technically the same weight, a 2 ply is created by using 2 filaments/ twisted while 3 ply uses 3 filaments resulting in a noticeably thicker/heavier thread. Most projects do well using an 80/12 or 90/14 needles matched with a good quality 40 wt thread.

<u>Needle Sizes</u>	<u>Fabrics Used In Project</u>	<u>Thread Weight and Uses</u>
70/10	Light and medium	60 and 50 wt bobbin and appliqué
80/12	Medium	50 wt bobbin, accurate piecing, appliqué
90/14	Medium	40 wt mid weight all-purpose bobbin, piecing, quilting
100/16	Heavy	30 wt gives definition to quilting stitches, topstitching

Bobbin and Bobbin Tension

- Locate a bobbin and wind with test thread that contrasts with your top thread.
- Thread tension for quilting with rulers is significantly different than that used for piecing. The processes for fine tuning to achieve a well formed stitch are the same for both domestic and long arm machines. There are numerous videos online to assist you after this print tutorial. Just type in “thread tension using ruler foot on domestic machine” or “how to adjust thread tension on a long arm”.
- Many quilters keep a second bobbin case set up for free motion/ruler quilting on their domestic machine.
- Bobbin will be adjusted first. Insert the bobbin with the ‘test color’ into the bobbin case, as if getting ready to sew. Hold the thread in one hand while cupping your other hand under the bobbin case...then lift. If the case is lifted out of your hand then the thread tension is too tight.
- There are two screws on the side of the bobbin case. Orient the case so the small screw is on top and will be at 12:00/noon as on the face of a clock. Take the small screw driver from your machine tools and rotate the larger screw to the LEFT (5-minute increments). Repeat using 5-minute increments until the bobbin case stands upright. For the final adjustment, loosen a bit more (probably increments of 1-minute) until the bobbin stands upright without leaving your hand and the thread slowly unwinds without binding or sticking. This should allow most of the remaining tension adjustments to be made using the thread tension dial located on the front of your machine.
- Install bobbin into the bobbin case in the machine.
NOTE: Some quilters insert a Teflon disc before inserting their bobbin to reduce backlash and thread breaking issues.



Install Ruler Foot

- NOTE: The presser foot must be in the DOWN position when using the needle up/down function on your machine! There is not enough clearance for your machine to have the needle down and the presser foot up.
- Locate the set screw from the ‘Getting Ready’ step and your new ruler foot. Place the ruler foot next to the presser bar, insert the set screw, align, and tighten just enough to hold in place.
- Lift using the presser foot lifting lever. Slide a ‘quilt sandwich’ under the presser foot. Lower the presser foot into the down position. Adjust the ruler foot up or down until it glides across the surface when moved. Tighten with screw driver from your sewing machine tool kit. Remove and set the quilt sandwich aside until later.
- When doing the final testing and adjusting, the height may need to be raised if you notice drag or lowered if you see the quilt sandwich lifting slightly on each stitch when testing.

Machine Adjustments for FMQ/Ruler Work

- Review directions for free-motion quilting (aka FMQ) in your user manual. Settings will be the same for both FMQ and using rulers.
- Typically your manual will recommend the following settings: (1) lower feed dogs, (NOTE: Some quilters prefer to FMQ with the feed dogs up allowing for momentary contact between the presser foot and feed dogs. Some machines will form a high quality stitch using this technique while others provide excellent results with feed dogs lowered.), (2) set stitch length to “0”, and (3) with your needle UP, set presser foot pressure indicator to “0”/no pressure. (When returning to original settings, presser foot pressure should also be made with the needle up.)

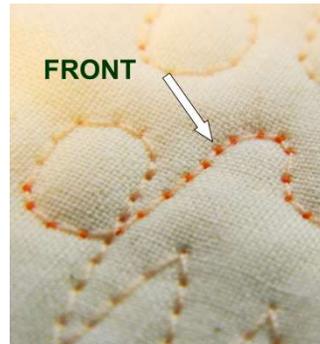
Test Ruler Foot Center

- With the machine off install a new needle (if not already done).
- The following is especially important if you have a machine with the ability to change needle position but it is good to know on any machine. With the machine off test ruler foot center: (1) install ruler foot allowing it to lightly rest on needle plate, (2) finger tighten presser foot set screw, (3) place a standard lined 3”x5” index card under the presser foot, (lines on an index card are spaced ¼”), (4) pierce the center of one line on the card, (5) using the needle plate as a reference, rotate until the card is perfectly square, and (6) note the position of the ruler foot. It should be centered with both sides touching the adjoining index card lines. If it is not...then you will need to make adjustments so the needle is centered.

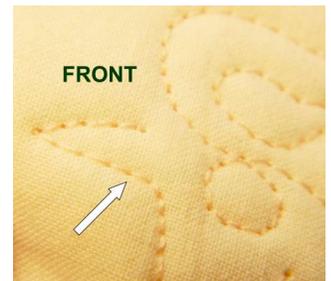


Ruler Foot Test and Adjust

- Now it's time to slide the quilt sandwich under the ruler foot and begin refining the bobbin tension, upper thread tension, and ruler foot height.
- Each time you test: (1) bring your bobbin thread up to the top and gently hold when starting, (2) make gentle curvy lines, one or more circles, and several zigzags, (3) use a consistent speed on your machine, and (4) move your fabric at a consistent speed, trying not to speed up or slow down on circles and zigzags.
- Begin by watching where the needle pierces the fabric. If it lifts a bit on each stitch, slightly lower the ruler foot, and check if the ruler foot still glides over the quilt sandwich. Repeat this process until the fabric remains flat on the sewing machine bed yet still moves smoothly and without drag.
- Next, it's time to refine the tension. Do not be surprised if small adjustments (1-minute +/-) need to be made to the bobbin tension to refine as well as single +/- tension dial adjustments. Be patient...finding the sweet spot takes some time. The sweet spot is when you see only the holes made by the needle on both the front and back. You do not see the bobbin thread on the front and you do not see the top thread on the bottom. Carefully check your zigzags, as well. An 'eyelash' (pulled thread at the tip of a zigzag) is a telltale sign as to which thread needs adjustment.

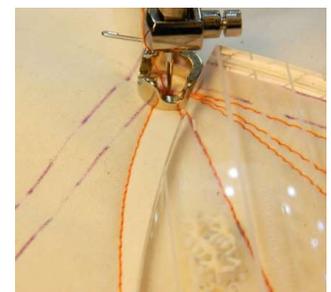


- Again, be patient. You will find the 'spot' that gives you a well formed stitch. Notice if the points on your zigzags are sharp without eyelashes. Check if you see only the holes on the curves and circles. Remember, the consistency of your speed makes a difference. After this process, you will see why many quilters who do ruler work on domestic machines own a second bobbin case that they leave setup up. Some long arm quilters will even own and label a bobbin for each type of bobbin thread they use.



Start Quilting

- Use an erasable pen or marker to place a square onto a practice quilt sandwich. Mark it at regular intervals along each side.
- Locate one or more quilting rulers you would like to try. Remember that your stitch line will be 1/4" from the edge of the ruler. So locate any tool from your stash that will help you measure and align the ruler before you stitch each line.



Tips

- If you don't own rulers yet, start by FMQ. It will give you an opportunity to practice. Then go to the Internet and type in "favorite long arm rulers". Many quilters have posted their favorites and given reasons why they like or dislike a certain ruler. No one likes wasting money on a ruler they will never use.
- Your fingers need to grip the fabric. Buy some quilting gloves or buy some light weight gardening gloves.
- The surface of your machine needs to be smooth and slick. Use a quilting product made for this purpose. Or cover your feed-dogs and needle hole with painters tape and polish the surface of your sewing bed. Some quilters will use a Teflon oven liner by cutting a small hole where the needle passes through and use painter's tape to secure to the surface of their sewing machine. Painter's tape will not leave residue.
- It helps if your surface does not have spaces or gaps that will cause friction. Painter's tape can be used to cover gaps where fabric may get stuck.
- If you do not own an extension table for your machine or the extension table seems to be too small, there are inexpensive ways to enlarge your working surface. Look around at your local hardware store and consider using taped-together layers of hard foam insulation to make a more level/even surface.



- For more tips and help, YouTube is a great resource for videos.