

Putting a Quilt on a Longarm Quilting Machine

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There are several different ways to put a quilt on a longarm / shortarm / home table top quilting machine. Each way has its own pros and cons and you have to find out which way works best for YOU and your machine.

As a longarm quilter for over 10 years, I am showing you the method I use to put my quilts on my longarm machine. This method is called "floating" a quilt (the quilt top and batting is stitched to the backing fabric, not pinned to the canvas leader of the take up roller).

In my opinion there are advantages to floating the quilt - once the quilt top and batting are stitched to the backing fabric, the straight pins in the quilt top are removed. You can quilt off the raw edges of the quilt if desired and the chances of hitting a pin are greatly reduced. We don't want to "hit" pins because this may throw off the timing of your quilting machine and break your needle.

This is the sequence that I use when putting a quilt on a quilting machine. Each one of these steps will be described in detail on the following pages.

- Pin the lower edge of the backing fabric to the canvas leader of the Backing Roller and roll up the fabric onto this roller
- Pin the upper edge of the backing fabric to the canvas leader of the Take Up Roller and adjust the backing fabric.
- Measure and pin the lower edge of the quilt top to the canvas leader of the Quilt Top Roller and roll up the quilt top onto this roller.
- Insert the batting between the quilt top and the backing fabric.
- Measure, pin and stitch the upper edge of the quilt top through all layers of fabric near the top edge of the Take Up Roller.
- Begin quilting the quilt top.

Please read through the following instructions before putting a quilt on the quilting machine.

If you have any problems or questions, please feel free to contact me.

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Materials needed:

Quilt top
Quilt backing fabric
 6–12 inches larger than the quilt top
Batting of choice
 6–12 inches larger than the quilt top
Straight pins
Safety pins
Measuring tape
 120 inch tape measure works best
Quilt “spray baste” temporary adhesive

Note: Follow the directions in the “Piecing Your Quilt Back” to make the quilt backing fabric(s) lie flat and smooth on the quilting machine.

For this article we are going to make some assumptions. We are assuming that the backing fabric is 6–12 inches larger than the quilt top (this will give you an extra 3–6 inches on all sides of the quilt); the quilt is being put on the machine lengthwise (the shorter edges of the quilt are the top and bottom edges) and that the borders are square and flat.

Mark the center of the backing fabric. A center back seam can be used or fold the quilt back in half lengthwise and place a safety pin on this fold line. For best results put the safety pin on the **wrong** side of the backing fabric at both the top and bottom edges of the quilt back.

QUILT BACKING FABRIC

Standing at the front (needle side) of the machine, have the **WRONG** side of the backing fabric facing **UP** and draped over the take up roller on the back (laser) side of the machine. I like to have the fabric laying fairly flat. It is not necessary to have the backing fabric pressed. Nearly all of the small wrinkles and folds will disappear when the fabric is stretched during the quilting process.

Find the center mark of the **BACKING** canvas leader. Match the center of the lower edge of the quilt backing to the center mark of the backing canvas leader. Place a straight pin horizontally through both layers of fabric about 1/4 inch from the raw edge of the backing fabric. See photo above. The pin has been enhanced for better viewing.





Tip: Sometimes the canvas leaders can be hard to handle at this time. Use your side clamps to hold the leaders in place. See photo at the left.

Tip: At this point, especially with a larger quilt back, the quilt back can become quite heavy and unmanageable. Fold the backing fabric on itself in a "V". The weight of the unpinned backing fabric will be on the pinned fabric. See photo at the right.



Continue pinning from the center of the quilt back towards the left edge. Place pins close to each other, but not overlapping. Do not have too much space between the pins. See photo at the left. The pins have been enhanced for better viewing.



When you have finished pinning from the center to the left edge, pin from the center to the right edge of the quilt. Keep the straight pins horizontal, all pointing in the same direction. Remove safety pin from the center of the backing fabric if used.

Gently roll the backing fabric onto the backing roller keeping the fabric smooth. As you roll the fabric onto the backing roller, it will "drag" across the take up bar and this will help keep the fabric slightly taught and smooth.

When there is about 6 inches of backing fabric hanging over the take up roller to the back (laser) side of the machine, stop rolling the fabric, secure the latches and move to the back of the machine.

Standing at the back of the machine, match the center of the upper edge of the quilt backing to the center of the take up roller and place a horizontal straight pin. If desired, fold the unpinned fabric into a "V" as shown above. Begin pinning from the center out to each edge of the backing fabric.

After the top edge of the backing fabric is pinned to the take up roller, remove center safety pin (if used) and roll the take up roller to make fabric slightly taught. I know that this doesn't make sense at this time, but trust me, it does work. The fabric on the take up roller may be slightly wrinkled and look "nasty". Don't worry, this will work!

The photo at the right shows the backing fabric rolled onto the take up roller.

Stand at the side of the machine and release the latch on the take up roller. I like to keep my right hand on this roller and with my left hand I begin to roll the backing roller (on the front of the machine) and move the fabric from the take up roller to the backing roller.



As the fabric is being moved, you will notice that the “fullness” and the slight folds will disappear and the fabric should be laying somewhat taught and straight between the take up roller and the backing roller.

If there is a center back seam (or any seams) on the backing fabric, the fabric on either side of the seam should be laying flat with no “sagging” or wrinkles. If there is any sagging or wrinkles, move the fabric back and forth between the take up roller and the backing roller until the backing fabric lays flat. In some instances, you may have to roll most (or all) of the backing fabric to the take up roller and then roll it back to the backing roller to have some of the stubborn sagginess or wrinkles disappear. If you have some slight wrinkling or sagging, put the side clamps on the backing fabric. The backing should now lie flat and smooth.

Cindy’s Thoughts – If you have rolled the fabric back and forth a few times, put the side clamps on and the sagginess and wrinkles have NOT been removed, this may indicate several things. These are what I have found to be the most likely problems:

- Sagging – This is caused by the seam not being properly sewn and is usually indicated by the following – the center seam of the backing will match on one edge and there will be about 1 inch +/- difference on the other end of the seam. This indicates that one side of the backing fabric has been “gathered” into the center seam. Usually rolling the fabric back and forth will “even” the fullness out. If not, you may have to remove the backing from the machine and re-piece the seam. Another option is to leave the seam as it is. If you do this, there is the possibility of pleats and puckers in the backing after the quilting. This is a choice you have to make and you may want to talk to your customer about this problem before proceeding.
- Wrinkling – If there is a large wrinkle across the backing fabric on most of the quilts you quilt, the center marks of the canvas leaders may not be matching. To solve this problem, re-measure the leaders and re-mark the centers. I recommend measuring from something on the frame of the machine (not the leaders or the rollers). When all the center marks are lined up correctly, there should be no more wrinkling.

When the backing fabric lies flat and smooth, have a few inches of the take up roller canvas in the workspace. See photo at right.

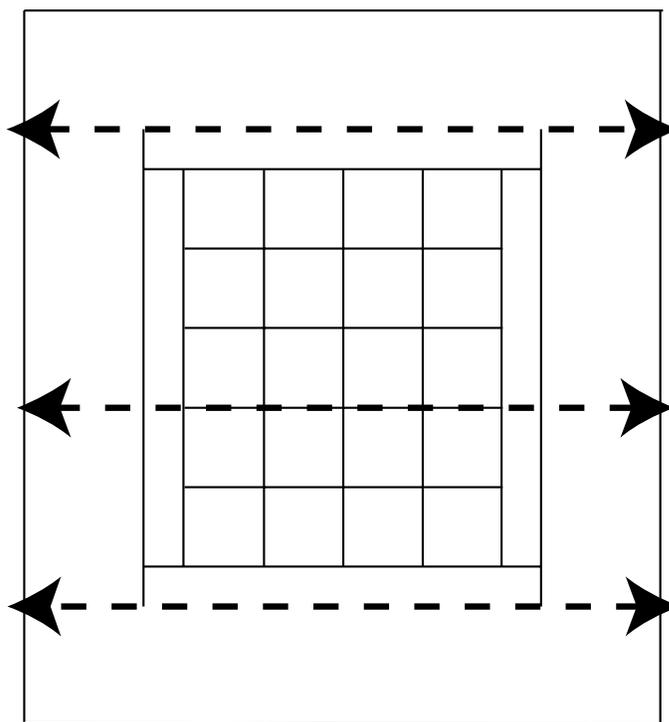


THE QUILT TOP

Using the (pinned) quilt back as a table, lay the quilt top out flat on the backing fabric, having the upper edge of the quilt on the workspace. Take the measuring tape and measure from left raw edge of the quilt top to the right raw edge of the quilt. **Measure along the line where the quilt border meets the body of the quilt.** DO NOT measure along the upper raw edge of the quilt. (This is the most unstable part of the quilt and this measurement is NOT accurate!) Make a note of this measurement.

We are going to assume that there are no problems with the borders. Border “issues” such as fullness and “darts” will be discussed in a different article.

Move the middle of the quilt into the workspace and measure across, or near, the middle of the quilt, from left raw edge to right raw edge, preferably along a seam line. (I feel that the seam lines are the most stable and most accurate lines in the quilt). Make a note of this measurement. (Note that the “center” measurement on the drawing at the right is not in the true center, but along a seam line)



Move the quilt so that the bottom of the quilt is in the workspace. Measure across the lower edge of the quilt from left raw edge to the right raw edge of the quilt along the line where the quilt border meets the body of the quilt, (in the same position as the top of the quilt). Make a note of this measurement.

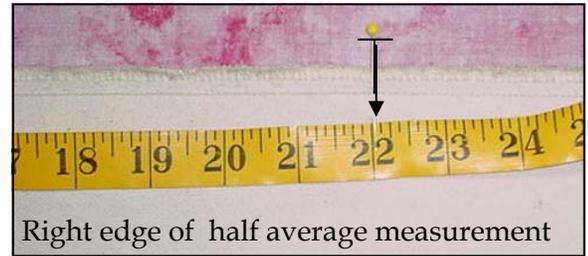
Tip: If the quilt is large you may want to take some extra measurements between the bottom and top measurements and the center.

Take all of the measurements from the quilt top and find the average of them. Example: Across the upper quilt measures 44 inches, across the center measures 44¼ inches and across the lower edge measures 44 inches. The average measurement for this quilt is 44 inches. When you pin this quilt onto the canvas leader, we will pin the quilt to the average measurement.

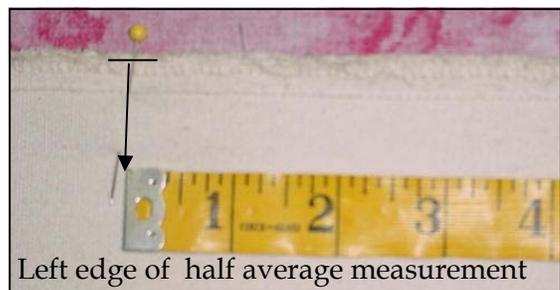
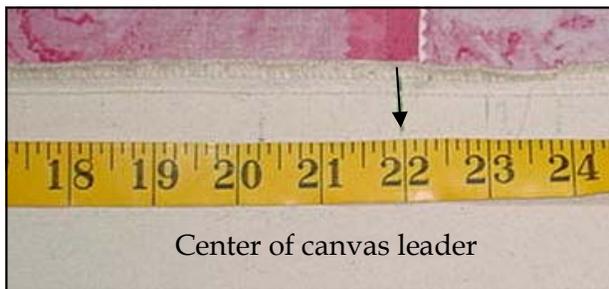
Cindy's Thoughts: As a professional quilter, you may have to make some choices about how “exact” you want to be in keeping the quilt “square”. In one instance I had a Queen size customer quilt to work on. This was the customer's first quilt and it was a Double Irish Chain with no outer border. The quilt measured 92 inches across the upper edge, 94 inches across the middle and 96 inches across the lower edge of the quilt. After much measuring, fussing and frustration, I felt that if I tried to keep the quilt “square” it would ruin the look of the quilt. I also felt that as a first quilt, the piecer was not expecting “perfection”. The quilt was also 100 inches in length and was going to be used on a bed. The “extra” inches in the width would not be noticeable along the long edges when finished. I pinned the quilt to the machine to the quilt measurements (not the average measurement) and began quilting. The customer loved the quilt and didn't notice that the quilt wasn't “square”.

Take the average measurement and now divide it in half. For our example, 44 inches divided by 2 = 22 inches.

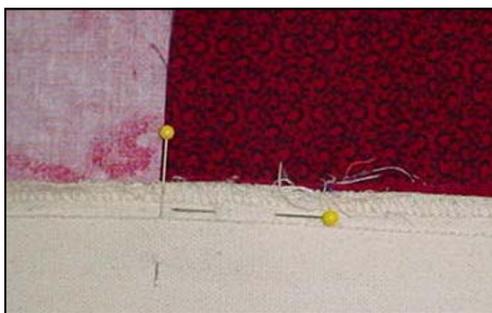
Place the edge of your measuring tape on the center mark of the quilt top canvas leader and measure from the center to the right edge the distance of the half, average measurement for your quilt. Place a straight pin vertically in the canvas at this point. See photo at the right. Notice that the pin is at the 22 inch mark.



Move the measuring tape so that the half average measurement is at the center of the leader and measure to the edge of the tape measure at the left edge. Place another straight pin vertically at this point. See photos below.



Place the right raw edge of the lower edge of the quilt top along the edge of the right vertical straight pin. See photo at the right. Place a straight pin horizontally through the quilt top and the canvas leader. Do not pin across the quilt yet.



Place the left raw edge of the quilt top along the edge of the left vertical straight pin. See photo at the right. Place a straight pin horizontally through the quilt top and the canvas leader. Do not pin across the quilt yet.



Match the center of the lower edge of the quilt top and the center of the canvas leader and place another horizontal straight pin. You now have three horizontal pins in your quilt top/canvas leader. One at each half average measurement and at the center.

Begin placing horizontal pins through the lower edge of the quilt top and the canvas leader easing or stretching in any fullness to get the quilt to fit between the pins. If the quilt is large, you may want to divide the lower edge of the quilt/canvas leader into quarters and pin each quarter. Continue pinning, placing the pins the same way you did when you pinned the backing fabric to the machine.

When the lower edge of the quilt is completely pinned to the canvas leader, remove the vertical (marking) pins and begin to roll the quilt top onto the roller bar. Continue rolling up the quilt top until there is about 1 inch +/- of the backing fabric showing ABOVE the top raw edge of the quilt top. See photo at the right. The center of the quilt top should be on (or near) the center line of the take up canvas leader.



You have probably noticed that the batting has not yet been inserted. I feel that if the batting is put on the machine BEFORE the quilt top, when rolling up the quilt top, there is too much "friction" between the batting and the quilt top and the batting will be stretched and the quilt top can become distorted. For these reasons I put the batting in last.

BATTING

No matter if you use pre cut batting from a bag or cut your own batting from a roll, the batting should be at least 10 inches or more larger than the quilt top. (this will give you 5 or more extra inches of batting on all four sides of the quilt.) If necessary, you could get by with less batting on the sides, but don't scrimp on the batting for the length of the quilt. Ask me how I know this!

If you are using pre cut batting and it is wrinkled from the packaging, place the batting in a very low heat or no heat dryer for about 5-10 minutes before using it. This will remove a lot of the wrinkles. If desired, you can add a dryer fabric softener sheet to the batting. Make sure to remove the sheet before putting the batting in the quilt. Once more, ask me how I know this!

Move the quilt top off of the quilt backing fabric. Gammill machine owners, see the photo at the right.



Gammill machines: Place the batting on top of the quilt backing fabric matching the approximate center of the batting and the center mark on the take up roller canvas and smooth batting flat. Do not stretch the batting.

All other machines: Place the batting over the top of the quilt top roller and place batting in position on top of the backing fabric. Gently fan fold the batting back towards the quilt top roller. Take the fold of the batting and gently insert them between the quilt top roller and the backing fabric roller. Reach under the quilt top roller and grab the batting and bring the batting under the quilt top roller. For larger quilts you may have to do this several times across the width of the quilt. When the batting has been inserted between the rollers, position and smooth the batting flat over the backing fabric. Do not stretch the batting.

All machines: If the batting covers the center mark on the take up roller canvas, place a straight pin on the center mark.

Cindy's Note: At this point, many quilters will baste (or stitch) the batting to the backing fabric. I don't usually do this. In the next few steps we will be stitching all the layers together before beginning the quilting.



Bring the quilt top up and over the batting, matching the center of the quilt top with the center mark on the take up roller canvas leader. The quilt top should be lying flat and relatively smooth. Don't do a lot of "adjusting and fussing" to the quilt top yet.

From the center pin, measure towards the right edge of the quilt top to the half average quilt measurement and place a pin. (I like to "jab" the pin through all layers) From the center pin, measure towards the left edge of the quilt top to the half average quilt measurement and place a pin.

If necessary, adjust, reposition, or fuss with the quilt top to get it to fit between the side (marker) pins. See photos below. The pins have been enhanced for better viewing.



Left edge of the quilt top

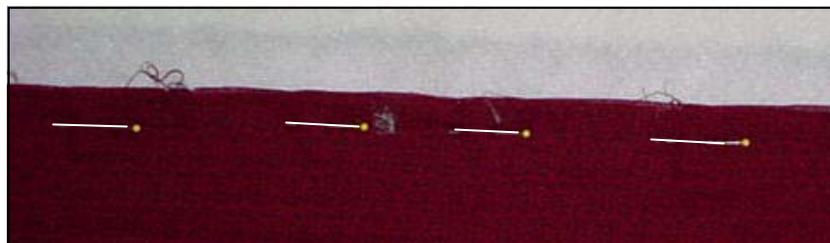


Quilt top center



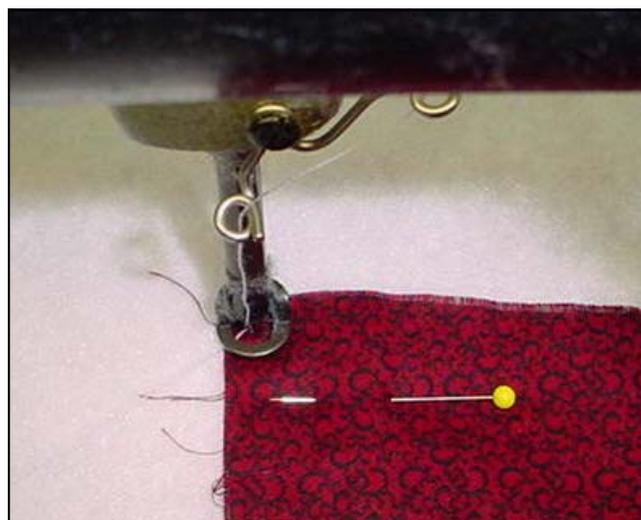
Right edge of the quilt top

Now begin pinning the quilt top to the backing fabric. Pin through all layers, the quilt top, batting and backing fabric. Place the pins horizontally, about half as many as on the bottom and have the pins about **3/4 inch away** from the upper raw edge of the quilt top. Photo at the right shows the pins. The pins are enhanced for better viewing.



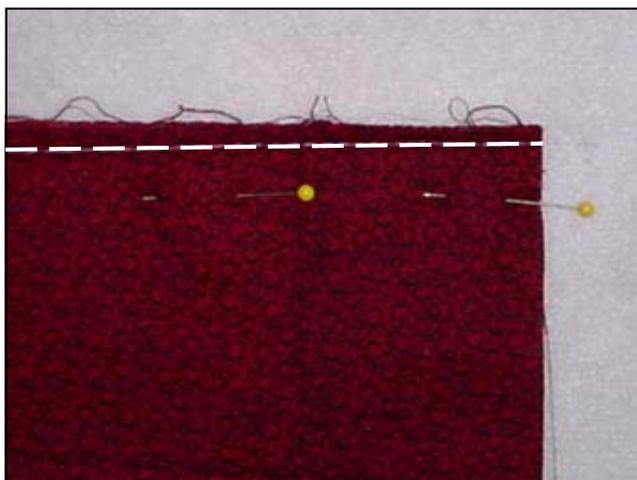
STITCHING EVERYTHING TOGETHER

Bring the hopping foot of your machine to the upper left corner of the quilt and bring up the bobbin thread. I use my hopping foot as a measuring device (on most machines, from the center of the needle to the outer edges of the hopping foot is 1/4 inch) and place the BACK edge of the hopping foot along the RAW edge of the quilt. This will put the needle about 1/4 inch from the raw edge of the quilt. See photo at the right.



Begin stitching across the quilt top, through all layers, in your regular stitch length and speed – all that matters is that all the layers are stitched together. This stitching line will eventually be covered by the binding. You should be able to do this free hand.

If you have placed the straight pins away from the raw edge, you will be able to stitch this line without having to stop and remove the pins.



The photo at the left shows the stitching line and the pins. (The stitching line has been enhanced). Remove the straight pins from the upper edge of the quilt top.

If your machine has a “pivot access” or a way to “open up” the quilt top to expose the batting – use it at this time to make sure all layers are smooth and flat.

Attach your side clamps and your quilt top is now ready to begin quilting.

Cindy’s Tip: To keep the side / border edges flat and smooth during quilting, lift up the side edge of the quilt

top and put a “shot” of temporary quilt basting spray (any kind) between the quilt top and the batting. Smooth the quilt top side in place. You can now quilt this area without shifting. This eliminates machine basting down the sides of the quilt top.

THE BOTTOM EDGE OF THE QUILT

You have been quilting diligently on the quilt top and you are now near the bottom border of the quilt. When the bottom canvas leaders and most of the quilts lower border are showing in the workspace, it is now time to detach the quilt top from the canvas leaders.

Cindy's Tip: Many quilters like to keep the lower edge quilt top straight pins in place until the quilt is finished. I prefer to take the pins out of the quilt bottom for several reasons. With the pins removed I can "roll" the quilt back and forth with no problem if needed; I can easily quilt off the lower edges of the quilt (if there is enough backing fabric and batting); I don't have to worry about catching my clothing or fingers in a straight pin. (No blood on a quilt!)

Have the bottom quilt top leader / lower edge of quilt top in the workspace. Begin removing every other pin from the canvas quilt top leader and placing this pin horizontally through ALL layers (quilt top, batting and backing) about $\frac{3}{4}$ to 1 inch away from the lower raw edge of the quilt. (If it is hard to get the straight pain though all the layers, slightly loosen the quilt at the take up roller.) Continue removing every other pin and replacing it through all layers across the lower edge of the quilt. It is important to keep the pins in the quilt top canvas leader at this time. This will keep tension on the quilt top and keep the lower border area smooth.

After every other pin has been placed through all layers, then remove the pins from the quilt top canvas leader. Your quilt is now attached to the backing canvas leader. See photo at the right. The pins have been enhanced to show better.



Move the hopping foot of your machine to the lower left corner of the quilt. Position the hopping foot so that the FRONT of the hopping foot is along the raw edge of the quilt bottom edge. Begin to stitch along the lower edge of the quilt top, thorough all layers. Use your regular stitch length and regular stitching speed and stitch across the bottom of the quilt top. If you put the straight pins away from the raw edge, you will be able to stitch across the lower edge of the quilt top without stopping. Stitch this line free hand – it is NOT necessary to use rulers, etc., to stitch this seam. After the quilt is completed, this stitching line will be covered by the binding.

Many times the lower edge of the quilt top likes to "stand up" from being pinned to the leader. If this happens, simply put your left hand on the quilt top to the left of the hopping foot and GENLTY press down on the quilt top. This will "stretch" the fabric slightly and the bottom of the quilt top will lie flat when you stitch over it.

The lower edge of your quilt is now ready for quilting.

After all the quilting is completed, remove the quilt from the remaining canvas leaders.