MACHINE QUILTING

Introduction
Free-motion quilting will open up a new world to any sewer. It requires quite a bit of practice to master the technique, but when you are producing quilting designs in minutes, the time will have been well spent. What freedom is allowed when the presser foot is removed. You can go forward, backward, side to side, in circles—anywhere you want to go—without ever turning the quilt.

Free-motion quilting gives the machine quilter the maneuverability needed to reproduce intricate designs used by hand quilters. Almost any hand quilting design can be done using free-motion methods. It gives you access to small designs, sharp curves, and intricate patterns often very difficult to achieve by hand. After practicing and experimenting, you will also find yourself ditch quilting shorter lines with your darning foot.

Setting Up the Machine
Put the darning foot on your machine, and drop or cover your feed dogs, whichever your machine requires. Check your owner's manual if you are unsure how to do this. Because the feed dogs are dropped, no stitch length adjustment is necessary. The stitch length is controlled by the speed in which you move the fabric under the foot, and the speed of the machine.

Get in the habit of always bringing the bobbin thread to the surface of the fabric before beginning to stitch. Be sure both threads are under the darning foot, not coming up through it. Having both threads on top prevents them from jamming and snarling on the underside. Then lower the needle into the hole where the bobbin thread is, and lower the presser bar.

Since no feeding is being done by the feed dogs, you will need to learn to move the fabric manually as you run the machine. This is where the concept "hand quilting with an electric needle" comes into play.

Quilting By Machine
Your goal is to run the machine fairly fast. The faster you run the machine, the easier it is to develop accurate lines in your quilting. Practice on sample plain blocks. Find a comfortable speed and then keep it constant. Develop a rhythm with the motor speed of the machine. However, DO NOT GUN THE MACHINE. Also, do not go fast, then slow, then fast again. Erratic speed keeps your hands from developing a constant rhythm with the machine, and the quilting stitches will be ragged and uneven.
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Start practicing by scribbling a design on a plain block. Pay attention to the speed of the machine, how your hands are moving the fabric under the needle, and the direction in which you need to move the fabric. Take a breath and relax. Think of it as drawing with the needle. You want a steady, flowing motion with the fabric while the machine is running at a constant speed. If your machine has two motor speeds, try the slower one. This allows you to push the foot control all the way to the floor without going too fast and getting out of control.

Once you get a feel for the motion needed to move the fabric, start to move the fabric very slowly, side to side, and see what the stitch length looks like. Again, keep the machine at a constant speed. Begin to speed up the motion of your hands, but always keep the machine at the same speed. You should start to see the stitch length get longer and longer until eventually you are creating a basting stitch. This demonstrates how the stitch length is due to the motion of your hands, their consistency, and the speed of your machine. Refine the stitch length to the exact length you like when using the walking foot. Eventually you will want all of your stitches to be the same length, regardless of the technique used.

Things to remember:

- Never turn the fabric, just glide it where you want it.
- Your hands need to be relaxed and your wrists kept up.
- Quilt with your fingertips, not your whole hand. This allows your fingers to gently walk the fabric where you want it.
- Use a gentle gliding motion. Too much pressure will cause the fabric to drag, making jerky, uneven movements.
- Don't look at the needle or the hole inside the darning foot; keep your eyes slightly ahead of the needle.
- Quilt like you drive; know where you are going before you get there. Your eyes need to check on what you're doing, but only glance back and forth. Keep your eyes on where you're going.
- If you're working on a design where you have to move from one area to another, do not cut the thread as you move. Lock the threads at the end of the area, pull them across to the next area, lock them again at the beginning of the new line, and start stitching. After you finish with the design, clip all the extra threads.
- If you need to reposition your hands as you work through a design, stop with the needle in the down position. This will prevent the quilt from sliding and causing a loop of excess thread on the bottom of the quilt.
- Try resting your forearms or elbows on the edge of the table. Then you can lean into the work, removing the tension from your shoulders and back.
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When stitching forward and backward, don't worry if the lines are not straight. To begin, you are only concerned with the stitch length quality. Keep going up and down until you are able to keep the stitches fairly accurate.

Next, stitch side to side, left to right, back to the left, back to the right, etc. This will be foreign to you, since one generally does not sew sideways. Practice this until the stitches even out and become consistent.

Now try to do some large zigzags. Zigzag across your block, locking off the stitches at the beginning and end of each line. This is done by slowing the speed of the fabric, not the machine. You want to have 1/4 inch of very tiny stitches at the beginning and end of every line as in ditch quilting. It may take practice to become accustomed to using different hand speeds while the machine is running at a constant speed.

Next try drawing "e" and "i" shapes as though practicing penmanship. Keep practicing until the curves are smooth and free of points and ragged edges. Also try loops, circles, and anything else you can think of.

Continue practicing by drawing stars, hearts, your name, pictures, or anything else that comes to mind. Don't draw these images on the fabric; rather, visualize them and reproduce what you see in your head. The freedom you experience is like soaring.

Once you feel you have control of the fabric and the stitch length, move on to a sample block. Draw a variety of continuous curve patterns on the block. Free drawing like you've been doing is fairly easy, but it becomes more difficult when you are restricted to a given line. Don't get too involved with the stitch length quality at first. It is very difficult to train yourself to stay on the line, let alone be able to keep the stitches accurate. All this will develop with time and practice. For now, concentrate on the lines and your eye placement.

Making machine quilting lines takes a lot of concentration. While practicing, give yourself plenty of uninterrupted quiet time, and don't expect to quilt perfectly at first.