

# Forever In Stitches, LLC

*Your Full Service Quilt Shop™*

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## Understanding the Gammill™ Statler Stitcher™

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### Purpose

This document is to explain the capabilities, design considerations, and pricing implications of Forever In Stitches' long-arm quilting services.

### Capabilities

We have two long-arm machines. Both are Statler Stitcher™ built on a Gammill Optimum™. They are in a special area that facilitate customer viewing.



The machines have a 14 and 12 foot frames. We can handle quilts up to 147" wide [12' 3"] and between 7 to 15 yards long depending on the fabric and batting. We quilt about 500 items a year. We can satisfy your stitching needs from a runner to a cushioned California King bedspread, drapes, valences, and other decorator items.

Our equipment gives us the ability to produce the maximum flexibility for your quilting needs with either manual, regulated, or automated stitching, as well as free-hand stitching.



### *Distinguishing Characteristics*

During the following discussion we will divide quilting into the following divisions. There are many more division that individual companies and tools have created, but these are the main dividing lines.

1. Hand Quilting
2. Machine Quilting
3. Long-Arm Quilting
4. Automated Quilting

### **Hand Quilting**

Some consider that the only real quilting is hand quilting. However, if you talk to enough people, you will find that what is “real quilting” varies by person. There are some who like hand quilting more than any other part of making a quilt. Hand quilting has a several beneficial characteristics:

- Needles are smaller and the holes they make in the fabric are smaller.
- Patterns do not have to be continuous. Stopping and re-starting is much easier. Thus, outlining things, such as windows on houses, can be easily done.
- Threads can vary more as they do not have to withstand the dynamics of machines.
- The stitching is interrupted so that the quilting is less marked by the thread.
- It is easy to change thread color.
- Very puffy or high-low batting is easier to work with.

Being the first type listed, we will also list the problems with hand quilting:

- Quilters today do not have the time to quilt 18 stitches per inch. Today’s quilting stitches that are much longer.
- Often quilters have problems with uniform stitch length. Using Tiger Tape or other mechanisms to maintain stitch uniformity slows down the process.
- Repetitive designs vary and are not uniform.

### **Automated Quilting**

Automated quilting comes in two flavors: machine quilting and long-arm quilting.

- All automated quilting distinguishes itself from hand stitching in the following ways:
- Automated stitching has thread between each of the needle wholes on the top and the backing whereas hand stitching alternates the thread between the needle wholes.
- Automated stitching has a need for a balance between the needle and bobbin thread.
- Automated stitching with improper tension can lead to bunching, spider-webs, and the like on the bottom of the quilt.
- Automated stitching has the possibility of having different threads on the top as opposed to the backing.
- Automated stitching does not lend itself to having the quilt marked with the pattern with the subsequent cleaning of the finished quilt
- Automated stitching can be done relatively quickly.
- Automated stitching requires a single line design in order to take advantage of its speed.

### **Machine Quilting**

Is done with a sewing machine. Often there are accessories to improve the quilter’s ability given the limitations of the machine design. Basically, the machine stays still, and the fabric moves.

The benefits of doing machine quilting are:

- It is much faster than hand quilting.
- It is well oriented to doing block sized work with detail such as micro-stippling.
- The stitch does not appear as a broken line, as it does with hand quilting.



Problems with this are:

- Uniformity is difficult.
- There is a long learning curve.
- Working with large quilts is problematic.
- If the blocks are quilted before the quilt is assembled, it take a lot of work to make the entire quilt look good, especially the back.

### **Free-Hand Long-Arm Quilting**

Long-Arm quilting is characterized by holding the quilt stationary and move the sewing machine over the fabric. Long-arm quilting comes in basically two types: free-hand and automated. Free-hand quilting can be done on free-hand as well as most automated long-arms by disconnecting the pulleys. Additionally, free-hand quilting can be stitch-regulated or not [manual mode].



Long-Arm quilting machines, such as the Gammill Optimum, above, are characterized by the large throat, and thus the “long arm”. The throat size allows the take-up reel to increase the amount of fabric [quilted top, batting, and

backing]. The machine above is capable of quilting fabric that is 15 yards in length.

### **Manual Mode**

This is also referred to as constant speed mode. In this quilting mode the motor goes at a constant speed. Thus, the stitch length varies according to the speed that the sewing head is passed over the quilt This is distinguished by uneven stitching where stitching becomes smaller when the stitching pattern comes to a point.

This mode is particularly useful with micro-stippling.

### **Regulated Mode**

Regulated stitching produces a constant length stitch, regardless of the design. As the quilter moves the sewing head, you can hear the motors change speed to allow for that constant stitch length. This allows the quilter to produce a quality backing without the bunching of thread. The stitch length is usually set to 12 stitches per inch, but can be varied from 4 to 16.

This mode is excellent for echoing, stitch-in-a-ditch on curves, as well as many other techniques that highlight the quilt pattern.

### **Automated**

Automated stitching is done with the Statler Stitcher™. Suffice it to say that this is so exact that one of the design techniques is for the sewing to backtrack on itself without it being noticeable that there are two different lines of stitching!

This mode is excellent for pantographs, boarder-to-boarder designs, individually stitched objects, stitch-in-a-ditch, whole quilt designs needing approval, and situations where the quilter wants a say in the top stitching of their quilt.

### **Repeatable Quality**

The automated mode also excels in its ability to produce constant quality products. The end result is more dependant upon the planning and choices of the designs and not on the individual artistic talent of the person operating the long-arm at any given moment.

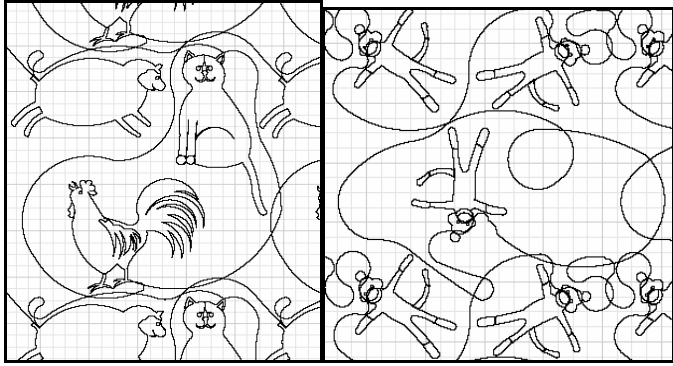
### **Availability of Designs**

We have over 500 different patterns ready for your quilt. We have designing tools to make special patterns that you may require.



We also design our own patterns to fit individual needs. Reasons for this have been:

- A desire to have the same stitching design as the theme of the material led us to design stitching for Moda's Funky Monkey and At Home themes.



- The theme of a quilt lends itself to a specific design such as Amish wagons.



- A customer desires a particular design as in this Celtic pretzel or knot.
- There are also times when we must modify another design to fit the quilt in question as with a half snow design.



There are also hundreds of additional patterns available from other designers that we can get for you ranging from the simple to the theme as in this patriotic pattern.



### Summary

Long-arm automated stitching allows us to put different designs on different places to accent the design of your quilt. When combined with our large choice of thread, from invisible, solid, variegated, or metallic, we can achieve many different effects, including incredible stitching that does not detract from your quilt, while adding another dimension to it.

Talk to one of our Associates about how you can take advantage of this service. We work with you in choosing design, stitching, thread, and accent. Ask for a tri-fold brochure to explain the pricing of this service in detail.

### Explanation Of The Sampler

The following pictures are part of a stitching sampler quilt that we have hanging in our shop. It was made to demonstrate the capabilities of the Statler Stitcher™. The following is demonstrated:

- Size of pattern
- Stitch length
- Effect of color of thread
- Angles [not shown]
- “Chained” patterns
- Individual Patterns



### Size of pattern

Most patterns come in a 12” size. However, they can be scaled to the size needed on a given quilt. This is shown using the eagle at the top left corner. It starts as a 12 inch pattern and goes down to a 2 inch pattern.



This can be done in two ways:

- Measuring the space and then putting the parameters into the program, or
- “Marking” the four corners of the area in which the pattern is to fit and the computer will “automatically” fit it in.

Most of the stitching is done on the sampler in a reduced size, usually ½. This means that the pictures shown here have the equivalent of twice the stitch length.

### Stitch length

Manually stitched quilt tops vary in the stitches per inch. Classical quilters strive for 18 stitches per inch. Modern zebra tape and other stitching aids tend to be 10 stitches per inch. Since they are hand stitched, every stitch is a different

length, and, every other stitch is visible on the top and bottom, alternating.

Automated quilt top stitching is usually 12 inches per inch. Because of the bobbin, each stitch [or half stitch, depending upon your view of stitching] is visible both on the top and the bottom of the quilt.



Smaller designs or design elements call for smaller stitching. For example, a small bear's eyes will be triangles if the stitch is too large. However, small stitching can almost cut a fabric if that fabric is thin or otherwise weak.

Large stitching looks a bit more old-fashioned. However, since many patterns are made using "back-tracking", the stitches will not appear as one. For an example of this look at the children at the top. The first set is at 12 stitches, the middle at 20 and the end at 4 [shown here].

### *Effect of color of thread*

Picking the thread color is important: on the top, bottom, and on different areas of the quilt. Generally speaking the quilt stitching and design can either augment, compliments, accents, contrasts the quilt. It can have a similar theme as the quilt piecing, no theme [as in random stippling]. Unfortunately, it can also diminish or detract from the quilt.

The quilt piecing design may be very plain or even blank to be filled in by the decorative stitching. This can be effected by the type of batting [puffiness of the design] and the color of the thread to highlight the design.

The design of the quilt may be very detailed and rich. In this case one can have a thread that blends into the quilt fabrics and still have a very detailed stitching design without detracting from the quilt. This is like adding another dimension to the quilt.

Accents can also be achieved with stitch design or thread, such as variegated.



We even do custom stitching where there are different thread colors used on different areas of the quilt

## *Design Presentation*

### *Stitching Direction*

Both the designs and the automated equipment are designed to be stitched from top left to bottom right. This is opposed to starting at the center and working out, or going right to left. These other "techniques" will work, but will be slower and take more time.

Almost all designs require some modification from the desired approach. Bear05, to the left, is a good example in that the starting point is the line on the lower left leg. Stitching then goes up the left side, across the left cheek, counter-clockwise around the nose, counter-clockwise around the head, and so on. When the stitching returns to the bottom of the left foot, there is still the ending stitching that go out to the right from the bottom of the right foot. This requires the stitching to double back over the inside of the legs and the bottom of the bear to the bottom of the right foot, where it continues out to the right and ends.

### *Reverse & Inverse*

The software can automatically reverse designs. This may seem useless for a vertically symmetrical bear, but if the bear is chained across the top border, it usually will be reversed on the bottom.

Some designs, however are not symmetrical in this respect and thus you can end up with unexpected results. This will be discussed later with Snow04.



### *Angles*

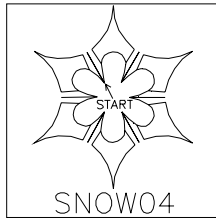
Our equipment can allow us to do patterns at an angle or on quilts that are not square, within reason. This can be helpful for side borders and sashing.

### *Corners: Quarters*

Designs are often assumed to be able to be cut into quarters on corners. This is often not possible for two reasons:

1. Automatic stitch directions do not support a starting and stopping of the stitching for a quarter of the design. For example the bear starts on the bottom left corner and continues in a clock-wise direction, rendering the completion of the quarter until almost the end with similar problems with any other quarter.

- The design is not symmetrical. With the case of the bear [excluding the wording, description, or instructions] the design is asymmetrical horizontally.

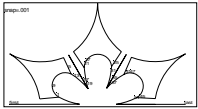


In these cases the redesign the will stitch is easier with purchased with the the files that were used in creating the design are present. But with purchased designs, not all of the design files are available and will require the original designer to program the quarters or have a new designer create the corner from scratch.

only method is to quarter so that it appropriately. This designs that were equipment as all of

### *Sides: Halfs*

Individual designs often are put into quilt elements that are cut in half along the edge. This presents problems similar to the quarters where redesigning is necessary, or other designs must be put into the object or reduced in size. An example is snow04, above. At first it appears symmetrical. The top and bottom halves are the same if rotated 180°. The same is true of the right and left halves. However, the vertical halves do not resemble the horizontal halves.



Sometimes this is so deceiving that the only way to make sure is to count something obvious, such as the points of



the snow flake. The horizontal half has three points with the high point in the center. The vertical half has two points with a concave center.

On the other hand, the quarters are identical in that they only have to be rotated.

### *Chained" patterns*

Many patterns are able to be linked together to make a long design

### *Individual Patterns*

Other patterns are “stand alone” designs that are not linked, but highlight a given quilt area. These designs have the end of one repetition and the beginning of the next line up.

Many individual designs would seem to be chains in terms of symmetry or name. However, the sewing of those designs require multiple stopping, cutting and restarting. Using these as “pantographs” or end-to-end stitching is not proper since it is custom quilting.

## *Pricing Implications*

The Long-Arm Quilting Services tri-fold brochure lists the prices for the various services. After the descriptions, above, there are several implications:

- Multiple thread colors requires changing and managing multiple colors of thread and bobbins. This requires moving the sewing head from the quilting area and, thus, the interruption any work flow.
- The pricing for pantograph is only for edge-to-edge sewing. Anything less requires measuring and interfacing with other pattern elements.
- Designs for quilt elements [e.g. squares] will require some additional consideration for halves and quarters. This may mean a design of a half or quarter or simply scaling down the pattern for that element. Note that scaling may result in larger areas without sewing, which may require additional consideration.

## *Designs We have*

### *Individual Designs*

All individual patterns can be sewn in a “chain” but with the need to cut and tie between the patterns. Some are even titled “chain” but a closer look will reveal that the start and end are in the middle of the pattern or some other unacceptable situation.

### *Created Designs*

We have created almost 200 different designs for our customers. These usually fit the theme of the quilt, such as OSU, Funky Monkey, etc. Our designs strive to improve the speed of sewing when compared to the detail of the design.

### *Purchased Designs*

There are many designers who sell their products, which we have many in stock and can use on your quilt.

### *Purchasable Designs*

Those same designers have a vast number of designs that can be purchased by us for use on your quilt.