

Table of Contents

Permission to Copy	3
Batting	
Beading	10-13
Begin-End Quilting Lines	14-15
Blocking Your Quilt	16-18
ESS~Stitchin in the Ditch!	
Hand Technique-Smaller Designs	23
Maneuvering a Large Quilt in a Small Machine	24
Working with your Top Tension	25-27
Working with your Bobbin Tension	
Balancing Decorative Stitches	
The Fabulous Four	32
My Favorite Pantry Threads	
These Are A Few Of My Favorite Things	

2020 Updates: No changes were made to this handbook.

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Cindy Needham January 1, 2020

Batting

Batting is the "never seen and always felt" part of your quilt. Some quilters will buy whatever is on sale or use whatever is on hand. They forget that the batting provides the drape, feel and cuddle factor to your quilt. I will share some tips to keep in mind when making your selection.

- If you have a quilt with lots of light or white fabric, use a bleached white batting. The white batt will make your white fabrics much sharper. A beige or natural colored batting will dull your white fabrics. If you have a quilt with black fabrics, try using a black batt. This will help avoid the appearance of bearding (batting popping through the needle holes).
- Avoid an organic batting that still has the cotton seed parts in it *(these look little brown specks in your batting)*. If your needle pierces one of the little seeds, a light brown oil may be emitted into your fabric and will **not** come out. Use this batting on darker quilts only.
- Always check your batting bag for their quilting density specs and any special laundering instructions.

In a nutshell, my favorite batting company is Hobbs. I have been very impressed with the quality of their batting and their great customer support. I use their Tuscany Wool batt in all of my class samples and have used it quite a bit in my linen quilts. I love the loft that the wool provides to my primary designs and the fact that it doesn't crease.

This past year I've started using the Tuscany Silk and WOW. This is quickly becoming a favorite. I'm very impressed with the amazing drape the silk provides. It also fills in my primary quilting designs beautifully. Yes, it's a bit more pricey but well worth it!!!

This photo shows a class sample that used the Hobbs Tuscany wool batting. See how the batting pops the feathers????



HOBBS BONDED FIBERS

PREMIUM BATTINGS MADE TO QUILTERS SPECIFICATIONS Listed in order as samples are collated

Heirloom Natural with scrim: Heirloom Natural is a high grade cotton combined with a thin scrim binder to add strength. This batting can be hand or machine quilted up to 10" apart and will shrink 3-5%. **Heirloom & Tuscany Bleached Cotton:** Both of these products utilize a fine bleached cotton that is needle punched for strength. These battings can be hand or machine quilted up to 4" apart and will shrink 3-5%. **Heirloom Natural and Tuscany Unbleached Cotton:** These battings are made with a high grade of American grown cotton. They can be hand or machine quilted up to 4" apart and will shrink 3-5%.

Heirloom Premium-Cotton Blend: Heirloom Premium 80/20 was the first blended batting on the market. Made with 80% cotton and 20% fine denier polyester, this batting is needle punched and resin bonded for added strength over traditional cotton batting. Can be hand or machine quilted up to 4" apart and will shrink 2-3%..

Heirloom 80/20 Black Cotton: Made for dark quilts, our Heirloom 80/20 Black is made the same as our Heirloom 80/20 Premium only with black cotton and black polyester. Can be hand or machine quilted up to 4" apart and will shrink 2-3%.

Heirloom 80/20 Bleached Cotton: Made for white or light colored quilts, Heirloom 80/20 Bleached is made the same as our Heirloom 80/20 Premium only with bleached cotton in place of natural cotton. Can be hand or machine quilted up to 4" apart and will shrink 2-3%.

Heirloom 80/20 Fusible Cotton: Heirloom 80/20 Fusible is an iron on batting that is fusible on both sides. It is made the same as our Heirloom 80/20 Premium only we add a fusible resin. You can iron both top and bottom at the same time and peel it loose and iron again if needed. Can be hand or machine quilted up to 4" apart and will shrink 2-3%.

<u>Heirloom & Tuscany Wool</u>: These wool battings are manufactured using the finest washable wool available. The wool is lightly resin bonded to help prevent fiber migration. Can be hand or machine quilted up to 4" apart and will shrink 0-3%.

Tuscany Silk: Tuscany Silk is arguable the finest batting we manufacture. It's made with 90% Tussah silk and 10% fine denier polyester. Tuscany Silk is lightweight and washable. Can be hand or machine quilted and will shrink 3-5%.

Thermore: Thermore is a very thin, drapeable, migration free batting developed for clothing, miniatures, and any other project were a thin, drapeable batting is needed. Can be hand or machine quilted up to 8" apart and will not shrink.

Polydown: Polydown is made with a very fine denier polyester that makes it soft and drapeable. It's resin bonded to help prevent bearding and migration. Can be hand or machine quilted up to 6" apart and will not shrink. **Tuscany Polyester:** Along with Polydown, Tuscany Polyester is in a class of its own. It also uses a small denier, siliconized polyester and is very easy to work with. Can be hand or machine quilted up to 6" apart and will not shrink.

Tuscany Cotton Wool: Blend batting is made with fine USA cotton blended with the very best superwash wool which eliminates most of the shrinkage. The blend is 80% cotton with 20% superwash wool. Can be Quilted 4" a-part with shrinkage of approximately 3%. Excellent for both hand and machine quilting. Wash finished project on gentle and flat dry. Pre-washing the batt is not recommended.

P.O.Box 2521 Waco, TX 76702-2521 Phone: 254-741-0040 Fax: 254-772-7238 Email:sales@hobbsbondedfibers.com Web: www.hobbsbondedfibers.com

		* Pre W	ashing of	* Pre Washing of Batting is NOT Recommended *	T Recomme		*	
HOBE	BONDED FIBERS	P.O. Box 2521 Waco, TX 76710	10	254-741-0040 Fax: 254-772-7238	8 ab 10		LOBBS QU QUALITY BATT	QUALITY BATTING SINCE 1978
PRODUCTS	PRODUCT TYPE	APPROXIMATE LOFT	SHRINKAGE	MAXIMUM DISTANCE BETWEEN STITCHES	FOR HAND QUILTING	FOR MACHINE QUILTING	FOR DARK FABRICS	FOR LIGHT FABRICS
POLYESTER Tuscany®	Resin Bonded Siliconized Poly	1/4"	None	٥ <u>ي</u>	Excellent	Excellent	Fair Pre-Test	Excellent
Cloudloft [®]	Resin Bonded Poly	1/2 - 5/8"	None	o,	Fair	Excellent	Fair Pre-Test	Excellent
Polydown®	Resin Bonded Poly Siliconized Fibers	1/4"	None	4ª	Excellent	Excellent	Fair Pre-Test	Excellent
Thermore®	Resin Bonded Poly Patented Fibers	1/16"	None	°.	Excellent	Excellent	Excellent	Excellent
cotton Heirloom® Premuim	80% Cotton, 20% Poly-Resin Bonded & needlepunched	1/8 +"	3%	4"	Excellent	Excellent	Excellent	Excellent
Heirloom [®] 80/20 Black	80% Cotton, 20% Poly-Resin Bonded & needlepunched	1/8"	3%	4"	Excellent	Excellent	Excellent	Not Recommended
Heirloom [®] 80/20 Bleached	80% Cotton, 20% Poly-Resin Bonded & needlepunched	1/8"	3%	4"	Excellent	Excellent	Fair Pre-Test	Excellent
Heirloom® 80/20 Fusible	80% Cotton, 20% Poly-Resin Bonded & needlepunched	1/8"	3%	4"	Excellent	Excellent	Excellent	Excellent
Heirloom [®] & Tuscany [®] Unbleached	Needlepunched	1/8"	3-5%	4ª	Excellent	Excellent	Excellent	Caution! Pre-Test
Heirloom® Natural	Needlepunched with scrim binder	1/8"	3-5%	8-10"	Caution! Pre-Test	Excellent	Excellent	Caution! Pre-Test
Heirloom [®] & Tuscany [®] Bleached	Needlepunched	1/8"	3-5%	4"	Excellent	Excellent	Fair Pre-Test	Excellent
WOOL Heirloom [®] & Tuscany [®] Wool	Washable Wool Resin Bonded	1/4-3/8"	None	4"	Excellent	Excellent	Caution! Pre-Test	Excellent
SILK Tuscany [®] Silk	90% Silk, 10% Poly-Resin Bonded & needlepunched	1/8 +"	5%	4"	Excellent	Excellent	Caution! Pre-Test	Excellent
Tuscany Cotton / Wool	80% Cotton, 20% Super Wash Wool Resin Bonded	1/4"	3%	4"	Excellent	Excellent	Caution! Pre-Test	Excellent

Splitting a Wool Batt

Wool has become one of my favorite battings. Wool has a memory, it won't hold creases and it also gives your quilted designs a beautiful trapunto-type of effect. My quilts and class samples are all packed tightly in suitcases when I travel. Because of the memory that wool possesses, my quilts arrive at my destination nearly crease free and because it is so lightweight, my quilts don't add a lot of weight to my suitcases.

I love the weight and drape of a nice cotton batting and love how a quilt feels when it is heavily quilted. A few years ago I decided I wanted the weight and drape of a cotton batting BUT I also wanted the puff of the wool. Why couldn't I have both?

I decided to split a wool batting in half. I call this my "gourmet batting". I place my cotton batting down first. Then I place a half-thickness wool batting on TOP of the cotton. You can place this half-thickness wool on top of any kind of batting you want...it's your "recipe" and your quilt.

A student recently asked me if I place the smooth side of the split batt up or down and I've done both...it didn't seem to make a difference. Wool is a very forgiving fiber. When you split it you will find that you have "hills and valleys" of batting...no worries. That's normal and it won't matter a bit when you place it in your quilt sandwich.

I advise against "butting up" other non-wool battings next to each other in a quilt sandwich in order to make them large enough for the quilt...you may end up with a ridge or an empty space that shows thru to the top. *(There is a fusible tape on the market for fusing two batts together...I have had good feedback on this so far)*. A wool batt is different. I NEVER throw wool parts away...I save everything. If I'm a little short on a batting I can grab another scrap of wool, slightly overlap, give them a bit of a massage, and they are linked together so to speak. The wool fibers will interconnect.

The following pictures will give you a step-by-step on how to split a wool batt and how to layer your parts.



A wool batting is yummy and soft but thick. When you start to quilt, the quilt sandwich is pretty full to begin with but as you start adding more and more quilting it settles in. It's always fascinating watching the batting "go down" and watching the quilting designs "come up".





If you are reasonably careful, you can easily separate the layers and split a wool batting in half. You will find that you have small "hills and valleys" but that is just the nature of wool...no worries.



I have found it easiest to start teasing it apart and then place a wide ruler up next to the split. Press down with your right hand while gently pulling with your left. (visa versa if you're left handed!)





Like I mentioned before, I never throw any of my wool batting parts away. I save everything! When it's time to layer a quilt for basting I go to my parts pile first before using a full sized, full thickness wool batting.



These photo show two half-thickness wool "parts". I nestle them up side by side and just very slightly overlap the edges. I may lightly rub them to make the fibers interlock.





Then I take another layer of half-thickness wool batting parts and lay them on top of the first layer. Note that I staggered my seams. The first layer went "horizontal" and the second layer went "vertical". I pat them together and you now have a full thickness wool batting made completely out of your scrap parts.

Again, don't worry about minor hills and valleys...it truly doesn't matter with wool.

Beadwork on Your Quilt

I love to add fine details to my quilts to make them come alive...I call these details "peek-a-boos".

Beading your quilt is an easy way to add fine beautiful details. If you are working on an heirloom or traditional quilt, your beadwork will be very subtle and will quietly complement your piece. If you are creating an art quilt your beadwork will pop and sparkle.





I have a beautiful stash of beads that includes an assortment of colors, neutrals, stones, freshwater pearls and shells. When I go to the quilt shows I keep my eyes open for the bead vendors or when I'm traveling I'm always hunting down the local bead store. There are also great on-line sources.

Most beads are fairly affordable so they're easy to buy and tuck away. It's almost like starting a good fabric stash. I tend to "overbuy". If I like something I will buy a few extra strands for good measure.

My favorite beads, and of course the most expensive, are the beautiful freshwater pearls. Because I am usually working with vintage linens, the pearls beautifully complement the linens and my heirloom style of quilting.

The one bead I always avoid in my quilts are the long bugle beads. These have very sharp edges that will cut your thread.

You can use almost any needle to do your beading with...it all depends upon the size of the bead you are using. Since I work with the smaller more delicate size, I've found the John James Bead Embroidery needles in sizes 10 and 12 work very well. It is very thin and works great even with the smallest freshwater rice pearls. (*Hint: Moisten the eye of the needle when threading...much easier!*) Good on-line source for these needles is: colonialneedle.com.

I use Superior Threads' Bottom Line thread to attach the beads to the quilt. This is a thin 60 wt. polyester and it blends beautifully with the fabric. You see the bead...not the thread. (www.superiorthreads.com)



I have a cool trick for you to use when attaching beads to your quilt. Since I travel so much I am often doing my beadwork in the airports and on airplanes. It would be impossible for me to travel with my beads and not spill them everywhere.

I take a wide piece of masking tape and wrap it around my hand sticky side out. I take the beads that I am working with and sprinkle them on the tape and lightly pat them down. I then stick the back side of the tape to a small piece of tissue. The tissue will protect the tape from sticking to your quilt and leaving possible residue. I place a safety pin thru the corner of the tape and then pin the beaded tape to my quilt.



You can tuck yourself in anywhere to do your beading...you simply pick the beads off the tape with your needle and attach them to your quilt. Wha la!



When I travel with multiple sets of beads I have a long strip of fabric and stick each set of taped beads to this strip of fabric. I place another long strip of fabric on top of this to seal it. I fold it up just like a wallet and I can travel with thousands of beads without fear of spilling. When I need a particular type of bead I



simply pull of the masking taped beads, add my safety pin in the corner and pin it to my quilt. Very cool trick. :)



ATTACHING BEADS TO YOUR QUILT

1. After threading your needle, knot the end of your thread. Take a stitch into the top of your quilt sandwich going thru the <u>top fabric only</u> and into the batting. Give your thread a tug and pull the knot into the inside of the quilt sandwich. (*It is much easier to do this if you take a stitch in an unquilted portion of your quilt top*).





2. Place a bead on your needle and take a small stitch into your quilt top right underneath the bead and pull tight.

3. Run the needle/thread thru the bead at least once more (more for larger beads) and take an additional stitch to secure it again. Once that bead has been securely attached, run your needle thru the middle of your quilt sandwich and bring it up to the next spot where the next bead will be attached. (*I usually don't go any further than an inch*). Repeat the process until you either run short of thread or you have completed that area to be beaded. If I am doing a long run of beads I am certain to do a knot



under every 4th-5th bead. If a thread should break I will only lose a couple of beads instead of a LOT of them!

4. Since the Bottom Line thread is so thin I am able to tie off and knot my thread on the top of my quilt sandwich. I take an additional stitch right underneath the bead and run my needle thru



 \bigstar











Photos of Beading Details





Beginning/Ending Quilting Lines

This is an easy way of starting and stopping your quilting lines ensuring a quilt back that looks as good as the front! It may take a bit to get your rhythm but once achieved it is easy as pie. I filmed a YouTube video with Craftsy so you may want to look that up.

My preferred tool is my curved tipped scissors.

1. With your darning foot in the <u>down position</u>, lightly hold the top thread with your left thumb and index finger. Drop the needle down and bring it back up. Lightly pull on your top thread...this pulls up your bobbin thread.





2. Use your scissors to snag the bobbin thread and pull both threads over to the left and lightly hold down with your left index finger.

3. Take very tiny microstitches stacked NEXT to each other to begin your quilting line. I usually take about 4-5. You want them to be so small you could never rip them out. This will ensure that they will never fall out. Now start quilting normally.





4. When you are ready to complete your quilting line, take the same <u>very tiny microstitches</u> that you did at the beginning of your line. Because your stitches are stacked so tight it will be almost impossible to bring up your bobbin thread here. <u>Lift up your presser foot.</u>

5. With your presser foot in the UP position, pull your quilt sandwich over about 6". This puts slack in the top/bottom threads.



7. Reposition your quilt sandwich so the needle is right on top of the hole where your last stitch was taken. Remember to *lightly* hold on to the loop of thread.







6. Grab the loose top thread with your left thumb and index finger and pull to the left.



8. With your presser foot either in the up or down position (differs with each machine), drop your needle and bring it back up again. Remember to very lightly hold on to the loop of thread.

9. Pull on the top threads and the bobbin thread should easily pull up.



10. With your small scissors clip the threads at both ends of your quilting line right next to the fabric.

Wha la! You are done!

Blocking Your Quilt

Once your quilt is completed you may want to block it. There are a number of techniques for doing this but I will explain the process that works best for me. Many quilters will block their quilts on the floor on top of their carpeting. That's just fine...there are absolutely no rules here. I usually do smaller quilts and working while standing up and blocking on my design wall works best for me. This is a "basic bread recipe" so you may take my suggestions and run with them and make them their own.

I find that it is easiest to block a quilt without the binding on. The binding strengthens the edges of the quilt and makes them less likely to move during the easing process of blocking.

1. Once my quilt has been completed, I soak and wash it. If I have used the blue quilt marking pen (the water soluble one), I soak the quilt first in <u>clear, cold water</u> for about 15-20 minutes...no soap added to this first soak! The clear water soak will remove the blue marking pen. Once this first soaking and rinsing is completed I refill my sink/wash tub with warm water and Orvus quilt soap. (*Since I usually do wholecloth quilts, I straight baste prior to quilting with Superior Threads' Vanish Lite thread. These basting lines will easily dissolve in a warm water soak*). Once the quilt is finished soaking I will squeeze out as much water as possible and it's now ready for blocking.

2. I block my quilts on a design wall. This was created from a $\frac{1}{2}$ " thick sheet of home foam insulation. I attached it to my wall and added a layer of Warm and Natural batting over the top. I added one additional layer of white flannel. The thickness of the foam combined with the batting and flannel provides for a stable foundation for blocking, and the batting and flannel absorb the moisture from my wet quilts.

3. Using a T-square and a level I drew a permanent black line horizontally across the top and vertically down the left side of my design wall.



4. I take my quilt and line up the left hand corner with the marked corner on my design wall and put two pins in the corner to hold it.





5. I always start working with the top edge first. I gently ease and pull the top edge and place pins about every inch. I always make sure that my raw edge is right next to that permanent marked black line

6. Once the top raw edge has been stretched & pinned, I start on the left edge and follow the same described process.

Once the left edge is done I start working on the right side. I take my ruler and line it up precisely with the marked horizontal black line and the right corner of the quilt top. I draw a blue line with the Mark-B-Gone water soluble pen. I line up the right raw edge of my quilt top with this blue line. Repeat this process for the bottom edge of the quilt.





7. Once all four sides have been eased, stretched and pinned, I put a fan in front of it and let it dry for several hours or up to a day or more.

Once dry I can remove the quilt off of my wall. I usually give it a light pressing with an iron to further set the block. I recheck once again for squareness and then add my binding.

For the wholecloth quilters...here's a couple tips for you!

I try to make a habit of extending my background filler beyond my border by at least 1/4" past where I want my actual cutting line. It is SO much easier to square up a quilt marking/cutting on "quilted" fabric.

I do a "rough draft" squaring up prior to blocking. I squared up and cut my wholecloth quilt 1/2" beyond the background filler.

This allows me to pin and block and not have to worry about pin holes or raggedy edges.







Once the blocking is completed and the quilt is dry, I then trim the quilt exactly where I want it. It is now ready for binding!

ESS-Ditching Every Stinkin Seam

I am a firm believer in taking the time to do things right when creating a quilt. It starts from buying quality fabrics, batting and threads; taking the time to properly baste the quilt to help eliminate puckers and tweaking during the quilting process; and stitching in the ditch every pieced seam.

When I am giving this lesson in the classroom I hear lots of moaning and groaning and whining...the eyes roll...there is sighing...and then students say REALLY???? Every seam??? Yes, "Every Stinkin Seam"...ESS.

You have spent a decent amount of money purchasing all the fabrics and such for your quilt and spent countless hours piecing it all together. Don't rush thru the quilting process. Take the time to do it right and make your quilt spectacular. When you stitch-in-the-ditch you are stabilizing that seam and keeping it straight and precise. You make yourself look good! If you don't ditch your seams and you free motion quilt, your seams become distorted and wiggly.

I prefer to use Superior Threads' Bottom Line thread for all of my ditching. This is a 60 wt. polyester that is thin and blends with nearly every fabric. There are about 55 different colors to choose from. I use this thread in my bobbin as well as the top. When auditioning for your ditching thread I recommend laying a light, a medium and a darker thread (in a color that complements the piecework) in the seam. Determine which thread will blend the best. I usually go with the medium to slightly darker thread. Your seam is a shadow and having a medium-to-dark thread blends better in a shadow line than a light colored thread.

I have several great photographs to illustrate why I recommend ditching in every seam.

This is a picture out of a magazine advertising a sewing machine. This is a beautifully pieced star. The quilter meandered in the middle only and heavily quilted the background. No ditching was done. Look at how awkward and wiggly the star looks. If she had stitched-in-the-ditch prior to doing the rest of the decorative quilting this piece would have looked spectacular.





The block to the left was ditched prior to doing the cathedral window free motion quilting.

Can you see how nicely the seams lay down? They're nice and flat.

The blocks below were NOT ditched prior to doing the cathedral windows. Can you see how the seams are raised up and a bit distorted?







Many quilters think when you ditch a seam the back will be ugly and the ditching lines will detract from the design.

This is the back of the sample on the previous page. I don't think the back is unattractive at all!



Remember, I am using Superior Threads' Bottom Line which is a 60 wt. polyester. This thread beautifully blends with your fabric and you don't see the thread...you just see the beautiful quilting details.



This class sample shows an orphan block that was ditched in every seam. I used a blending Bottom Line in the bobbin for my ditching.

Once the ditching was done, I quilted the feathers and the stars using a contrasting thread in the bobbin. Because the ditching was done in a blending thread you don't see it! The ditching does not detract from the beautiful quilting on the back.

Thread choices are very important here!!!

Hand Technique-Smaller Designs

Before we get started on the background designs I wanted to pass along a great tip to help you quilt these smaller details.

When you are free motion quilting you generally have both of your hands on the quilt, elbows out and parallel with the machine and you are applying tension to the quilt sandwich to keep it flat.



When you quilt this way you are using your "Big Girl" muscles in your shoulders and arms. This is just what you want to do when tensioning the quilt sandwich.

When you are quilting small details such as backgrounds, little feathers, etc., it is very difficult to do those using your Big Girl muscles. You need more flexibility.

I highly recommend that you drop your right elbow. This releases those larger muscles.

Once the right elbow is dropped lightly rest your left hand on the quilt sandwich and quilt with the fingertips of your right hand only. Now you are using your "Little Girl" muscles.

You will be amazed at the ease that you will be able to quilt those little details and designs!



Maneuvering a Large Quilt

Many of us have difficulty managing a large quilt in a small domestic machine. I have a great tip to help you out!

Once your pieced quilt is pin basted, stitch-in-the-ditch all your major, large seams. A great benefit to this is that your quilt is stabilized and is not going to move very much. Now visually "quarter off" your quilt and only quilt 1/4 of it at a time.

#1

Look at your quilt and *visually* divide it into four quarters.

The bottom right quarter is #1.

Place the quilt in your machine and place the bulk in back of the machine and beside you to the left. The only part of the quilt that you need to be concerned with is quarter #1. Finish up the stitching in the ditch, do your free motion quilting in the middle and in this section of border. You are only having to manipulate and move 1/4 of the quilt. Once this is done, turn your quilt counter clockwise until you get to quarter #2 and repeat the process. Keep repeating until all four quarters are done.

This not only makes it physically easier to move the quilt through your machine but makes it mentally easier to get through a very large quilt. It is difficult to look at a queen or king size quilt and see nothing but yards and yards and yards of quilting that needs to be done. It is easier to look at a small section and know that you can get through that area fairly quickly. You also get a feeling of satisfaction and accomplishment when you get that area done and it gives you the energy to get through the next area. You also have an opportunity to see how the quilt is going to look when it's done!



Working with your Top Tension

Quilters feel that machine tension is one of those sacred and revered areas that only the sewing machine repairman is allowed to venture into. In order to be a successful quilter you must take the initiative to learn how to change the tension in both the top and bottom of your machine. As long as you do it respectfully you shouldn't have trouble and you will have a whole new world opened up to you! You will learn how to achieve a perfectly balanced stitch and also be able to use any and all types of threads in your machine.



If you have a sewing machine that has a manual dial to control the tension you are able to change your top tension very easily without the aid of a computer.

If you have a computerized sewing machine, you may have been told that the sewing machine has already been calibrated for a perfect tension and you must <u>NOT</u> change the tension...period! It was more than likely set for a 50 wt. cotton thread.

If you leave your tension at the 50 wt. cotton setting you will never be able to successfully use specialty decorative threads or heavier threads in your machine. That tension setting is too strong and will shred or compromise those threads as they pass thru the tension disks. You must be able to drop your top tension to a lower setting.

Get out your sewing machine manual and learn how to override the automatic tension on your machine or you will forever be stuck on the 50 wt. cotton thread setting. There is no fear here! If you get into an area where you really shouldn't be, simply turn the machine off and back on and it will automatically recalibrate itself.

Superior

Sewing machines arrive from the factory preset to have the top and bottom thread form even stitches when sewing with a 50 or 60 wt. thread. If the top and bottom threads are identical in fiber and weight, adjustments may not be necessary. However, if we use cotton on top and poly underneath, or metallic on top and poly underneath, or a heavy thread on top and a fine thread underneath, it is necessary to adjust the tension settings. It is perfectly OK to use different thread types and weights on the top and bottom. Relying on a machine's automatic tension system is not enough.

Think of the top and bottom thread as having a tug of war. (see illustration on next page). If the threads are identical and you are sewing on a single layer of fabric, both sides have equal strength and the result will be a draw. The sewing should therefore produce perfectly even stitches with no top thread showing underneath and no bobbin thread showing on top.

However, in the real world, the teams are rarely equal. One team will be stronger or bigger or faster than the other. We sometimes use decorative or sensitive threads on top. We also add stabilizer or batting. Sometimes we use a cotton bobbin thread and other times we use a polyester bobbin thread. All these factors make it necessary to adjust the tension for each project. By adjusting the top tension either up or down, we are able to add or take away strength on the top thread team to equalize the tug of war battle. These are some of things that affect stitch results:

1. **Batting.** This adds drag on top thread. Cotton batting tends to grab the thread more than poly batting, adding more friction on the thread.

2. Fabric type. Dense fabric puts more stress on the thread.

3. **Top thread thickness and type**. Metallic is less flexible than cotton or poly. Poly is usually stronger than cotton or rayon.

4. **Bobbin thread type.** Cotton bobbin thread tends to grab more than smooth filament polyester. Sometimes grabbing is preferred and sometimes it causes problems. A smooth filament poly thread (not spun poly) in the bobbin will work better with metallic and other sensitive threads because its smooth finish acts almost like a lubricant, sliding nicely with the thread.

With each of these factors it may become necessary to either tighten or loosen your top/ bottom tension. I always fidget with my <u>top tension first</u> and my bobbin tension last. You may need to loosen the top tension a bit to eliminate the little dots of bobbin thread coming thru to the top...if that doesn't work you may need to go to the bobbin and tighten it just a bit. If you have the top thread being pudded thru to the back try tightening the top tension a little OR loosening the bottom tension a little. It's a 50/50 scenario and you may have to adjust top and/or bottom several times before obtaining a balanced stitch.



Working with your Bobbin Tension



This photo shows two standard bobbin cases on the left and two drop-in bobbin cases on the right. The arrows are pointing to the tension screws.



This bobbin case has only one screw. This is what you turn to tighten or loosen the bobbin tension.



This bobbin case has two screws. You would turn the larger screw to tighten or loosen the bobbin tension.

Do NOT touch the smaller screw! This is what holds your entire tension assembly together!



This is a drop in bobbin case. It also has two screws.

99% of the time the tension adjusting screw is on the LEFT. This is the one you touch to tighten or loosen the bobbin tension.



When I am having tension difficulties, i.e., bad stitches on the front and/or back of my quilt I will take out my bobbin case and do a "drop test".

I lay the bobbin case in my open hand and pull on the bobbin thread. If the tension is good I should be able to pick the bobbin case out of my hand. It should hold it's position and only drop down a bit if I drop my wrist.

If the tension is too TIGHT the bobbin case will not "drop and hold".

If the tension is too LOOSE you won't be able to pick the bobbin case out of your hand. You will just be pulling loose thread.

Now it's time to change the tension screw! Take a deep breath!



Think of the tension screw on your bobbin case as the face of a clock.

I always read the right side of the line. This particular screw is pointing to 5 o'clock.

If the bobbin tension is too LOOSE, turn the screw to the RIGHT to 6 o'clock. (*righty tighty*)

If the bobbin tension is too TIGHT, turn the screw to the LEFT to 4 o'clock. *(lefty loosey)*

Never ever change it more than one hour at a time. Each time you loosen or tighten do a drop test. As soon as you notice a change put the bobbin case back in your machine and do a test drive. You may have to make multiple adjustments until you get the tension where you want it. If you are apprehensive about changing the bobbin tension, draw a picture of where your tension started. You can always go back!



Some bobbin cases come with this finger attachment or a small wire pigtail. This is just another tool to help you adjust your bobbin tension.

If you find you need to **tighten** your bobbin tension just a little, try threading your bobbin thread though the hole in the end of finger or pigtail <u>before</u> changing the tension screw. Many times it will provide just enough traction so that you don't need to do any further adjustments.



While we are talking about bobbin tension, there is one often overlooked point that is critical and that is how well your bobbin is wound. Always make sure that you have a good, solid straight stacked wind to your bobbin. If the thread stacks like a cone or is loose and spongy, this will greatly impact your bobbin tension and stitch quality.

Be sure to check the bottom of your machine and make sure it is clean and free of dust, lint and stray threads. Check the inside of your bobbin case and make sure it is clean too. I always use a folded end of a pipe cleaner to remove the stray lint and fuzz out of my machine...it's a great, cheap and easy to use tool and works like a magnet pulling everything out. Never use canned air to clean your machine. This only blows everything back in and jams into your gears and electronics.

Balancing Your Decorative Stitches

When I am teaching my Open Thread Bar there is a lot of time spent working with machine tension...both top and bottom. Many of my students bring their computerized decorative stitch machines and spend the day playing with various threads using these stitches. Occasionally the stitches don't come out like the student expected. They are distorted, the shapes aren't as perfect as expected. **Anita Zobens** is the Superior Educator in Canada and she provided me with some great information she shares in her thread classes and I've included it here for you. You can visit her website at: www.cottonmillthreadworks.com. Thank you Anita!



When the stitches look totally distorted (student says "these don't look anything like the diagram!"), decorative stitches don't close at points (like that row of hearts for instance) - these are balance issues.

> Most decorative stitch machines, but not all, have a largish circle on the body of the machine, either at the side or the front. Sometimes you need to remove the accessory box to access.

This circle has a slot in the middle for a screwdriver or a coin, and a "plus" sign and a "minus" sign. To resolve the appearance of the stitch you simply turn to + or -, test sew, and if not correct try the other setting. When reverting back to another stitch change the setting

back to midpoint.

(photo of Janome Horizon balance dial).





The Fabulous Four

When you are sewing and you run into difficulties with thread breakage, shredding or general overall trouble, there are four main points to check. If you do this quick check, in this order, 95% of the time your difficulties will be solved!

- 1. Thread delivery
- Starting at your spool, follow the thread path through the entire machine. Is your machine threaded properly?
- □ Are you using a spool or cone? Cone threads should ALWAYS come off the top.
- Some straight wound spools may come off the side vs. pulled from the top. Try flipping the spool over so that it delivers from the opposite end OR from the front of the spool vs. the back of the spool.
- 2. Tension
- Follow the thread path down to the tension disk or check your computerized pre-set tension. Do you have the proper tension for the thread you are using? Remember that decorative threads require a very loose tension!.
- Remember to have your presser foot UP while threading the machine.



3. Needle

- □ Follow the thread path down to your needle. Do you have the correct needle for the type of thread you are using? Decorative threads usually perform best with a Topstitch or Metallic 90/14 needle.
- Do you have the correct needle for the type of fabric you are sewing on?
- □ Have you changed your needle recently? If not, do so.
- □ If you have changed the needle but the thread is shredding, change the needle again. You may have a burr in the eye of the needle.



4. Bobbin/Cleaning

- Pull out your bobbin and check to see if it is wound properly, i.e., a tight flat wind.
- If using a decorative thread on top, are you using a smooth polyester thread in the bobbin?
- □ Is the bobbin case area clean? If not, get rid of the dust bunnies, threads, and lint in and around the bobbin case.
- Last but not least, when was the last time you had your machine serviced? If it's been a while, make an appointment for its yearly check up.

My Favorite "Pantry Threads"

I'm always getting asked what my favorite threads and colors are and what do I always keep on hand. There are some colors that just seem to go with everything so I've listed some of my favorites.





SO FINE #50 POLY





A Few of My Favorite Things

Whether I'm teaching in the classroom or speaking for a guild, I am constantly asked about products that I recommend. I am fortunate to be exposed to new products and techniques as I travel across the country and am able to share what I find with everyone else.

I've decided it's time to make a list of what I enjoy using and recommend. This is something that I can constantly update and keep fresh. I am not affiliated with any certain product or company and have no financial gain or "kick backs" by recommending one product over another...this ensures that I am giving you a good honest opinion. My only affiliation is as a National Educator for Superior Threads and I would recommend their thread even if I wasn't teaching for them!

When purchasing products, I always encourage my readers and students to check with their local quilt store FIRST to see if it is available for purchase before going on the Internet. It is very important that we support our local quilt stores!

SEWING MACHINE. I use a Juki TL98Q for all of my quilting and piecing and have used this machine for 20+ years. I love the fact that it is all metal, has no computer, has a large arm space, knee lift, thread clipper and extension table. Even the feet are all metal. They have come out with the TL2010 model and many of my students have one and love it. This machine is available on-line (one resource is www.raichert.com) and it may be available at your local sewing machine dealer. It is easily repaired by any reputable sewing machine repair person.



ECOLUX LIGHT. You need two kinds of lighting for quilting. You need a good overall light that brightens up your workspace around your machine. You also need a good light in the arm space of your machine. I have found the 6-LED light from Ecolux to be superb and I don't think I could quilt without it. You may find them online at: www.ecoluxlighting.com They have various sizes from little all the way up to mid-arm and long-arm.



CLAMP ON LED LIGHT. I discovered this GREAT clamp on LED light at Lowe's. I like the model that has the clamp on bottom so I can clamp it anywhere. The flexible arm allows me to flex the neck to get the light exactly where I want it. These run about \$18-20. I have about 50 of these that I use at all my retreats and workshops too and my students love them.



CURVED TIP SCISSORS. A good pair of sharp little scissors are very important for machine quilting. My favorite is the *squeeze-side curved tip scissors from Tool Tron*.

(on-line source: http://www.tooltron.com/categories/ Crafts/Quilting/Scissors-and-Tweezers-and-Awls).

You can also find them in the notions department at most quilt stores.





CLOVER THREAD PIC. This cool tool has a thin flat handle with a long slender pic with a tiny hook at the end. Great for snagging and pulling up bobbin threads or fixing a snag in a sweater. Can be found at most quilt stores. (*One on-line source is: http://www.clover-usa.com*).



MACHINGERS QUILTING GLOVES. I have used these for many years and love them. The only down side is that the fingertips get gray and dirty looking as the rubber tips pick up the different colors in your quilt tops. This doesn't rub off on your quilt, just looks a bit ucky on your gloves. Found in most quilt stores...be sure to get a size that is comfortable...not too big or too small



GRAB-A-ROOS QUILTING GLOVES. A friend introduced me to these quilting gloves and I LOVE them! These fit more snugly than the Machingers and they have little dots on the fingertips...they also don't show the dirt. You can find them online at: grabaroos.com.

BASTING CLAMPS. In order to secure the quilt to the table I use basting clamps purchased from **Me Sew.** These areavailable in some quilt stores. I recommend purchasing two bags in order to have enough for large quilts.

They also have two great light tables too.

(on-line source is: mesew.com).



BASTING PINS. I like to use quilt basting pins Size One...these are small enough that they are easy to handle and don't leave a big hole in your quilt. You can use either the curved or straight. These are available in almost all quilt stores and there are several manufacturers.

Never buy or use the cheap safety pins found in some department stores...they will leave small rust spots in your quilt. Spend the







PIN CLOSERS. You should use a good tool to close your safety pins...using your fingers isn't an option as you will slice & dice your finger tips in short order. One of my favorite tools is a rug hooking tool available from Joan Moshimer. The website can be found at *www.wcushing.com* and you are looking for the rug hooks selling for \$6.00. You need to email them to purchase.

Another easily found tool is the Kwik Klip and this can be found in most fabric and quilt stores.

FRAY BLOCK. When working with ravelly fabrics such as vintage linens, silks, etc. I always seal my raw edges with Fray Block.

This dries clear and does not become hardened like Fray Check. It comes in a tube like this or you can sometimes find them in a small bottle with an applicator brush.





QUILT MARKING PEN. Mark-B-Gone aka Wonder Marker aka EZ International. These are the blue washout markers that have been around forever. They make a light blue mark on light colored fabric and comes out with a complete cold clear-water soak (no soap added). The down side to these markers is you have to be careful not to expose a marked quilt to high heat or a chemical such as soap or the mark will turn to a permanent brown stain. They are also not lasting as long as they used to and disappear within days or weeks of marking.



PILOT FRIXION PEN. This is a pen produced by Pilot. It was never intended to be used on quilts but a quilter discovered that you can mark a quilt and the color is removed with the steam heat of an iron. I use the blue and black the most. Be cautious with this though. Once the color is removed there is a faint white residue that is left in your quilt that may reappear with cold temperature. If you use this on a hand-dyed fabric, silk or Batik the ink will actually permanently bleach the fabric and you are left with a permanent white line.

CLOVER FINE WHITE MARKING PEN.

This is a pen I have used for years and use it to mark dark fabrics. It goes on invisible and will show up 8-10 seconds later. It can be removed by the heat of an iron. I've had very good success with this and can find it at most quilt stores.



CHERRYWOOD FABRICS. One of my utmost favorite fabrics are the hand-dyed cottons from Cherrywood. (*www.cherrywoodfabrics.com*). This is a suede-like cotton and they come in beautiful colors and fabulous NEW collections. Most of my class samples have been created using their fabrics and it was the featured fabric in my last Craftsy class. Highly recommended!





SYNTHRAPOL. I work with a lot of Cherrywood and other <u>hand dyed</u> fabrics and use Synthrapol to remove the excess dye. This will also remove sizing from fabric before the dyeing process.



RETAYNE. This is a great color fixative for <u>commercially</u> dyed cotton, linen and rayon fabrics that tend to bleed. Use this BEFORE you cut and piece your quilt.

RETROCLEAN. I LOVE this soap! I use a lot of this on my vintage linens. It's very safe and easy to use and is able to remove the old brown stains and discolorations from vintage quilts and linens.

Highly recommend!

Online source: www.retroclean.com



FAVORITE NEEDLES. I use Superior Threads' titanium coated Topstitch needles in the 70/10, 80/12 and 90/14 sizes. They also have a fabulous Microtex sharp needle.

The titanium coating on these needles preserves the needle point and makes them last much, much longer.



FAVORITE BATTING.

I've used Hobbs battings for many, many years and LOVE them. My favorite battings are the Tuscany wool, silk, bleached cotton and their cotton/wool blends.

