



www.quiltingcorners.org

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Next meeting is Tuesday, November 1st, 7 PM

On the November agenda....

Cathedral Windows - *THREE* ways



Have you ever admired those intricate cathedral windows quilts and wonder how they were made, or thought they were just too challenging? We'll have three demonstrations (both hand and machine) to take the mystery out of these beautiful blocks.

Do you own a project showcasing cathedral windows? Please bring it along to share.

Block of the Month: the Wait is Over !



We all love a quilt show, and what could be better than our very own private show? Bring your completed block(s), quilt top, or finished quilt for our in-house Quilt Show. We've been working on our quilts for over a year now, let's see what everyone has put together.

Don't Forget Your Name Tag !





~ Refreshments ~

Refreshment volunteers for the November meeting are:

Doreen P., Shirley F., and Julia D.

Refreshment volunteers are asked to help with clean up.

(The recipe for Tortilla Roll Ups is at the end of the newsletter).

~ March Madness - The Sequel ! ~

By popular demand, March Madness continues ! Clear out those cupboards and keep stitching – we'll draw again for the **\$ 100 CASH PRIZE** in March, 2012 from all the completed UFOs.

~ Thank you, thank you, thank you...~

This month, a few shout outs to some members we may take for granted:

We may take it for granted when we find our chairs arranged and our meeting room in order every month when we arrive, but a big thank you goes out to Eleanor and Brenda who look after this task. Thanks, too, to those members who are able to help with clean up.

And, having filled in for Judy W. *ONCE* in the kitchen, many thanks to her for keeping our coffee hot, our refreshments coming, and for her thoughtful table decorations. Thanks, too, to the members who helped me find my way around the kitchen in October.

Special thanks to Liz S. and Lilac Lane Quilts for generously supplying display space for our raffle quilt and offering tickets for sale.

Thanks also go out to Ann V. for another donation of batting for our comfort quilt initiative.

~ Matthew's House Update ~

There are several quilts "on the go" in support of the raffle quilt effort for Matthew's House Hospice. Our deadline in December. If you're involved in this outreach initiative, don't let the time slip away.

Cheryl D. is still looking for a few good quilters (and sponsors) to form another raffle quilt group. She has several ideas for a traditional quilt, but needs both sewers and/or anyone interested in helping with the costs of fabric, etc. If you're interested, get in touch with her. An organizational meeting will be followed by a day of sewing. Cheryl has graciously volunteered to do the quilting.

~ From Anita Zobens ~

Hello all!

It was wonderful getting to meet everyone at Quilting Corners and talk thread! I am looking forward to returning in June to present the Open Thread Bar™ workshop where we can play with all the threads and see what they do.

Attached is the 9-page handout "Thread Facts and Fiction". I hope you find this to be a helpful reference that you can either keep on your computer or print out as a hard copy.

If you have any questions or concerns about thread please do not hesitate to contact me. I am always happy to help.

Best regards,

Anita Zobens
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(Anita's handout follows at the end of the newsletter).



Looking Ahead... *What's happening at upcoming meetings*

- * **December** – We'll draw the lucky winner of our raffle quilt, it's our holiday pot luck supper, Bingo for the Food Bank, Presentations to My Sister's Place and Matthew's House and the Stockings Challenge.
- * **January** – Happy New Year ! No meeting. See you in February !
- * **February** – Applique by hand and machine
- * **March** – Year in Review, Elections, Idiom Challenge

~ Comfort Quilt News ~

Another batch of comfort quilts will be presented to My Sister's Place at our December meeting. If you have a kit under construction, keep the December deadline in mind and pass the top along for quilting and binding, if needed.

We'll also present our completed Christmas stockings to My Sister's Place at the December meeting – after we have a chance to admire them !

Every completed stocking will receive a ticket into our

"Thanks for Participating" Prize Draw.

The more stockings you are able to donate, the better your chances to win !



~ Raffle Quilt ~

Tickets for the 2011 Guild Raffle Quilt went on sale at the Quilt Show. Packs of tickets to sell will be available at our meetings. Be sure to pick up your pack, and don't forget to buy a ticket or two for yourself. Tickets will be distributed for sale in packs of 10. The ticket price is \$2 each or 3/\$5. The draw will take place at our December meeting – **only 1000 tickets will be sold.**

We'll be selling tickets at Zehr's on October 29-30th. If you can help staff the sales table, please contact Maxine.



~ Items Wanted/For Sale ~

Ann V. has a wooden quilt frame free for the taking. If you're interested, you can reach her at 705-435-5315 or email at gbogaart@sympatico.ca.

~ Tips ~

A few things on the web.....

Are you familiar with Sue Hausman and her Public Television Series ? Printable copies of her program are available to download from her website – www.AmericaSews.com.

See the Des Moines Quilt Flash Mob in action: <http://www.quiltviews.com/aqs-quilters-flash-mob-video>.

www.connectingthreads.com has several free patterns available to download.

Enjoy a good mystery ? Visit www.quiltviews.com to take part in their on-line 6-part mystery quilt, starting October 17th.

Or, how about something from Eleanor Burns ? Based on Kansas City Star blocks, new block patterns will be released every 4-6 weeks. "Like" Quilt in a Day on Facebook.

~ Call for Entries ~

The guild has received an invitation from Garnet Smalley and the London International Quilt Festival for members to enter a quilt in the 2012 exhibit (August 6 – 11) that will feature the quilters of Canada. Entry forms are to be sent to the guilds in September. If you are interested, the contact information is liqf@execulink.com, or 519-639-9473. As the guild is not involved in this production, any agreement to ship, handle, store or display any entry is strictly between the quilter and LIQF, and the guild bears no responsibility for lost or damaged quilts, copyright issues, etc.



~ Out and About ~

November 11 - 13 York Heritage Quilt Guild – Art for Body and Soul Quilt Show, Japanese Canadian Cultural Centre. Merchant Mall, Challenge Winners, Café, Gift shop. www.yhgg.org

2012

April 26 – 28 Piecemakers Quilt Show, Pyramid Rec Centre, St Marys. Quilts, Merchant Mall, Boutique, Demos, Tea Room. For speaker's list, events, directions, etc: www.huronperthquiltersguild.com

August 10 – 11 Quilt and Garden Show in conjunction with the International Plowing Match. New Dundee Community Centre, \$ 7.00. 100 Judged Quilts on display, vendor marketplace, tea room, garden displays, quilt block challenge, door prizes. www.ipm2012.ca, dianeburkhart@ipm2012.ca.

~ Don't Forget ~



Things to bring to the November Meeting

Cathedral Window Project
BoM Quilt
Coffee cup, name tag
Tips, newsletter submissions
Program ideas
Show 'n Tell
Comfort Quilts, Bags, Spare fabric

Tortilla Roll Ups

3 – Packages Cream Cheese, softened
1 – Pkg. (35 gm.) Taco Seasoning
2 – T dried onion
1 – 127 ml can chopped green chilies

2 T Salsa, mild or hot
Small Can, chopped Black Olives (optional)
1 – Pkg. Large Tortilla Shells

Combine softened cream cheese with all other ingredients except shells.

Divide mixture evenly and spread on shells. Roll up. Trim ends and slice rolls $\frac{1}{2}$ to 1" thick.

Thread Facts and Fiction

© by Bob Purcell, President, Superior Threads

Have you ever said,

“My machine won’t do that.”

“I could never do that!”

“That fancy thread never works.”

“Decorative threads break, jam, and shred.”

If you have experienced frustrations when working with specialty and decorative threads, this guide will help you solve the problem.

Problems with specialty threads can usually be traced to five causes.

1. **Quality** If you use a budget, low quality thread, you cannot expect your expensive machine to compensate. It cannot make a poor quality thread better. Start with quality thread that is worthy of your machine and your project. It does not make sense to spend thousands of dollars on a machine and then try to save a couple dollars on budget thread.
2. **Needles** Select the right type and start with a new needle every time you start a new project.
3. **Tension** Running your machine always at the same tension setting is like buying a new TV and never changing the channel. Quick and easy adjustments can make it perform as it should. Even if your machine has an auto tensioner, learn how to override it. Most machines are factory preset for sewing (not for quilting or embroidering) with a thin 50 or 60 wt. sewing thread.
4. **Delivery system** Some threads have a straight-wind pattern on a symmetrical machine spool. Others are a cross-wind pattern on a cone. Either type is OK but the intended use is different.
5. **Condition of machine** Machines require maintenance to stay in the best condition. A gradual decrease in performance is not readily noticed. Keep your machine clean and in good condition.

Thread

The higher the quality of the thread, the less special handling will be required. Poor quality thread breaks easily and can make any sewing project frustrating. Look for a guarantee. If you are not satisfied with the thread, can you return it for a refund? The best brands are not afraid to guarantee their products. Be willing to try new threads. Make sure the thread you select is intended for your application. New threads are exciting and provide new capabilities. Ask some basic questions for each project. What fabric am I using? What is the content and weight of the thread? What needle type and size? Do I need to change the tension? What would be the best thread to use for the effect I want?

Each type of thread has specific characteristics and behave differently on machines. Threads are either made of a natural fiber (cotton, wool, silk, linen) or synthetic fibers (rayon, polyester, nylon).

Thread construction methods

Spun thread Cotton or polyester staple fibers are spun into strands and then twisted together.

Core thread Spun cotton or polyester fibers wrapped around a polyester core.

Texturized thread Polyester or nylon that has been mechanically texturized to make the thread fuzzy and stretchy and “woollie-like.” Texturing is a procedure used to increase the volume and the elasticity of a filament yarn. Filament Round, shiny thread made of polyester, nylon, or rayon. Virtually lint free. Multiple strands are twisted together to make the thread. Monofilament Single strand of nylon or polyester filament. Avoid nylon. Polyester is preferred.

Thread types

Rayon Produced by pressing cellulose acetate through small holes and solidifying it in the form of

filaments. The most common size for embroidery is 120d x 2 (40 wt.).

Characteristics of rayon

- high sheen
- soft, and works well in detail
- relatively heat resistant
- may not be colorfast
- not as strong as polyester
- less durable than polyester

Polyester Synthetically produced from polymer resins. There are three types of polyester thread:

spun poly: short staples (non-discontinuous fiber) spun together. Looks like cotton. Has less lint than cotton.

filament poly: continuous fiber.

trilobal poly: high-sheen continuous fiber. Looks like rayon or silk.

Characteristics of polyester:

- durable and designed for heavy duty use
- stronger than rayon
- colorfast
- retains shape
- recovers stretch
- can be made with a matte finish to look like cotton, or with a high sheen finish to look like rayon or silk
- trilobal poly has a sheen equal to rayon or silk and is lint free.

Nylon Nylon should exist in your sewing supplies only as a fusible (melting) thread.

There is no other good reason to use a nylon thread. It melts, it goes brittle over time, and it ‘yellows.’ Most monofilament threads are nylon. Some are labeled *polyamide* which is the chemical name for nylon.

Cotton The only 100% natural fiber thread made for high speed machines. Cotton has various finishes, each providing specific results.

Mercerized The thread is treated in a solution, causing the fibers to swell. This allows the dye to better penetrate the fibers and increases the luster of the thread. It also increases the strength of the thread.

Gassed Also called “silk finish” or “polished” cotton. The thread is passed through a flame at high speed to reduce the fuzz.

Glazed The thread is treated with wax, starches, or other chemicals. Although the result is a glossy, hard finish which protects the thread, the glaze does rub off and can gum up the needle and machine. OK for hand sewing. Not recommended for machines. If a cotton thread appears wiry and has no fuzz, it is glazed.

Cotton-wrapped poly. Not necessary. The outer wrapping is very thin and easily unravels. If cotton is too weak, use poly. If you don't like poly, use cotton. Most are 65% poly and 35% cotton and will be more similar to poly than cotton.

Characteristics of cotton thread:

- soft
- strong and durable if a high quality cotton
- easily adjusts to changes in the fabric because it is a natural fiber
- available in various thread weights
- easy care
- most cotton is colorfast. Some hand-dyed cottons are not.
- heat resistant

Metallics The quality of metallic thread ranges from very high to very low. A good metallic thread does not require additional lubricant. Always use a size 90/14 Topstitch or Metallic needle and loosen the upper tension when sewing with metallic thread. Most stores sell the 80/12 size and that is too small.

Quality metallic thread has the following components:

- strong nylon inner core. Polyester and rayon cores are weaker.
- rice paper construction. This adds strength and cohesiveness and makes the thread more soft and supple, reducing the wiry feel. It also reduces tangling.
- protective surface. Inexpensive metallics have no outer protective surface. This means the metal foil rubs against the needle, creating friction, resulting in discoloring and shredding. A good metallic has an outer protective surface which reduces friction and acts as a protective layer.

Hologram or Flat thread. Produced by bonding layers of metallized polyester together and then precision cutting to a desired width. Available in either 2 ply or 4 ply. Always use a size 90/14 Topstitch or Metallic needle when sewing with hologram thread.

- colorfast
- brilliant, reflective, colors. Can be produced in a hologram effect.
- heat resistant. can be ironed on low or medium heat.
- 4 ply brands are much stronger than 2 ply brands.

Thread size measurement

There are many standards of thread measurement. Some companies use the Tex standard. Others use the weight standard. Others use the Number standard. Some mix up the standards resulting in misleading information. One spool of thread may be stamped No. 50, another spool may be stamped Tex 50, another spool may be stamped 50 wt., and yet another spool of thread may be stamped 50/3. All four of these are measured using different standards and we must not assume they are similar in size. When comparing threads, make sure you use a consistent standard of measurement. The top five standards for thread measurement are

1. Weight
2. Tex
3. Denier
4. Number
5. Composition

1. Weight This is the most commonly understood method and is intended for natural fibers such as cotton and silk although synthetic fibers such as polyester and rayon have arbitrarily adopted this method. The weight of a thread is actually a length measurement. A thread is labeled 40 weight because 40 kilometers weighs 1 kilogram. If it takes only 30 kilometers of a heavier thread to weigh 1 kg., it would be a 30-weight thread. Smaller numbers indicate heavier threads.

2. Tex Weight in grams of 1,000 meters of thread. If 1,000 meters weighs 25 grams, it is a Tex 25. Larger numbers indicate heavier thread.

3. Denier This method is intended for synthetic fibers. Denier is the weight in grams of 9,000 meters of thread. If 9,000 meters weighs 120 grams, it is a 120-denier thread. Most embroidery threads are 120d/2, which means two strands of 120-denier thread twisted together making 240 denier total. Larger numbers indicate heavier thread.

4. The Number standard is used on many thinner threads and is written as No. 50 (or #50) or No. 100 (or #100). Some confuse this with a Weight measurement and incorrectly suppose a No. 100 thread is a 100 weight thread. The Number standard was developed in Japan and is known as the Gunze Count system. The smaller the number, the heavier the thread.

5. Composition Standard. This standard was developed for cotton thread but has also been adopted for polyester threads. A cotton thread and a polyester thread with identical Composition numbers will be similar, but not exactly the same size. For exactness, it is always necessary to compare cotton to cotton and poly to poly. The Composition standard uses numbers like 30/3 and 50/3. For heavier threads, the first number represents the same number used in the Number Standard. The second number represents the number of plies of thread twisted together. For example, a 30/3 means the thread is a 3-ply No. 30 thread.

Thread Measurement Cross Reference Chart

Weight Tex No. (#) Composition Denier Example

11 88 no. 20 20/3 750

17 59 no. 30 30/3 530 Brytes, Perfect Quilter,
Poly Quilter

24 44 no. 40 40/3 400 King Tut

28 35 no. 50 50/3 (if spun poly) 320 NiteLite ExtraGlow

40 25 no. 75 50/3 (if fil. poly) 225 Rainbows, Highlights, Metallic,
NiteLite, So Fine

50 20 no. 90 50/2 180 MasterPiece, Vanish-Extra

60 17 no. 100 150 The Bottom Line

100 10

Myths, Rumors, and Truths

The type and weight of the thread relates to several aspects of the project, including needle type and size, tension settings, and final result. Quilters and embroiderers often ask the following questions:

Q. How accurate are thread labels?

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A. If you place three different brands of 50 wt. thread side by side, you'll notice that they are not identical in size. Because there are many different and confusing standards of measure, labels are not always accurate. Thread measurements have become arbitrary in today's world.

Synthetic

threads such as polyester and rayon often use the wt. standard when this standard is meant only for natural fibers such as cotton, silk, and wool. This isn't likely to improve. The important point is to rely more upon your sight and touch than the printed label.

Q. Should I use a 20, 30, 40, or 50 wt. thread for quilting?

A. It depends whether you want the thread to blend or stand out.

"Heavy to show, thin to blend."

If you use a decorative thread, most likely you want to add dimension to the project and highlight the thread. Therefore a medium to heavy weight thread is better. A lighter weight variegated thread will not be nearly as visible as a medium or heavier variegated thread. Therefore, most lighter weight threads are not variegated.

Q. Should I only use cotton thread in my quilts?

A. Many quilters are traditional quilters, using only cotton fabric, cotton batting, and cotton thread. Back in Grandma's time, most of the available thread was cotton and the quilting was usually done along the pieced seams. Recent trends show a growing percentage of quilters seek an effect that cotton thread cannot provide. Many of the winning quilts at shows are done in metallics, highsheen variegated polyester, and other decorative threads. Times have changed and machine quilting has opened up a new world. No longer is quilting done only along the seams. Machine stitching can enhance

the beauty of the quilt by adding intricate and complementary designs throughout the entire quilt. Machine quilting does not add stress to the quilt. Everywhere the thread goes, it strengthens the overall piece. The stress points remain in the piecing. Some say that polyester thread is too strong and will tear the fabric. If the fabric ever tears as a result of heavy use, most likely it will tear at the seams. The seams are the true stress points of a quilt, not the machine quilted areas. One solution is to piece with cotton thread, thereby matching the nature of the fabric fibers with the thread fibers. This equalizes the stress points of the quilt. Then, use other threads such as metallics, polyester, and medium and heavier cotton threads to decorate and enhance the quilt by creative quilting.

Q. Will polyester thread tear the fabric?

A. No. Thread will not tear through a fabric solely due to its fiber content. If a thread ever tears through a fabric, it is because it won the strength contest. In a battle of heavy use and high stress placed on a quilt, the strongest component will always win. It is not accurate to say that a polyester thread is stronger than cotton. One major brand of thread is labeled 100% cotton quilting thread. It is 50% stronger than a comparable polyester thread. Although it isn't labeled as such, it is coated with a glaze which strengthens the cotton fibers and makes the thread rather wiry. In a strength test, it beats a comparable size poly, rayon, and metallic every time. In a heavily used quilt, this stiff, wiry cotton thread could do more damage than a soft polyester thread. And it is cotton. The point is this: The traditions, myths, and rumors that polyester thread will tear the quilt are not true. Under extreme use, a strong polyester thread might. But so will a strong, glazed cotton thread. Under normal use, softer non-glazed threads will not tear through the fabric and it is perfectly fine to use any type of quality thread, except nylon. Nylon will go brittle and discolor over time. Choose your threads based on quality, feel, and appearance, avoiding wiry glazed threads. Although they are rarely labeled as such, if a cotton thread is extremely strong and wiry, it has a glaze coating. Whether you are creating a showpiece or a daily-use quilt that will be put to the ultimate tests, it is perfectly fine to use quality polyester or non-glazed cotton threads.

Bobbin Thread

Q. Does the bobbin thread need to match the top thread in type and size?

A. No. The bobbin thread can be a lighter weight than the top thread and still provide sufficient strength without adding bulk. Using a cotton top thread with a poly bobbin thread is fine. Using a 50 wt. cotton bobbin thread with a 30 wt. cotton top thread will also work. If you want a reversible look to show off decorative thread on both sides, of course it is fine to use the same thread on top and in the bobbin.

Q. What type of bobbin thread is best?

A. Because the bobbin thread does not go through a needle, there are fewer problems with bobbin threads than with top threads. Most common bobbin threads are cotton, spun poly, and filament poly. Choose a smooth, low-lint bobbin thread for best results.

Cotton Quilters love it. It keeps the fiber content consistent with the fabric, batting, and top thread. For embroidery, it is OK, but on dense fill designs, cotton bobbin thread will

result in a stiff design. Beware that lower quality cottons produce more lint which in turn requires more frequent machine cleaning. Choose a good quality extra-long staple bobbin thread.

Spun poly Stronger than cotton. Like cotton, it does not have a slick surface and sometimes tends to grab the top thread too tightly creating uneven stitches and top thread breakage. Choose a type with very low lint.

Filament poly (not monofilament) This thread has a shiny appearance and is virtually lint free. It can be thin and lightweight, yet strong. Embroiderers love this thread since it creates a soft backing, even on dense designs. Many machine quilters like using a filament poly thread in the bobbin. Due to its slick surface, it works well with metallic threads and heavy cotton threads because it does not snag or grab the top thread. If you've had trouble using metallics or heavy cotton threads, a slick bobbin thread may solve some problems.

Sewing machines are factory preset to have the top and bottom thread form even stitches. If the top and bottom threads are identical in fiber and weight, adjustments should 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 thin thread underneath, it is necessary to adjust the tension settings. It is fine to use different thread types and weights on the top and bottom.

Think of the top and bottom thread as having a tug of war. 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 use decorative threads on top. We often use different fibers for the top and bottom threads. We also add stabilizer or batting. Sometimes we might 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 tighter or looser, we are able to add or take away strength on the top thread team to equalize the tug of war battle.

Following is a list 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 stronger than either cotton or rayon.
4. Bobbin thread type. Cotton bobbin thread tends to grab more than a silk-like filament poly. Sometimes grabbing is preferred and sometimes it causes problems. A silk-like filament poly thread (not spun poly) in the bobbin will work better with metallic or a

heavier cotton and spun poly thread because it's silk-like finish acts almost like a lubricant, sliding nicely with the thread.

Prewound bobbins

Approximately 70% of the machines on the market are compatible with the standard L size prewound bobbin. The debate continues but the prewound users are winning. Although some people may warn against using prewound bobbins, most machine manufacturers recommend and sell them. The only risk of prewounds is in the thread quality. Make sure you use a good quality thread and clean the bobbin area regularly. A lot of lint in the bobbin area means you've been using a linty thread. The advantage of prewound bobbins is in saving time and not having to wind your own bobbins. Prewound bobbins hold up to three times more thread than self-wound bobbins. Most prewound bobbins have cardboard sides, of which either none, one or both sides can be removed.

Needles

One of the most important parts of sewing machines is often the least appreciated and often ignored – the needle. We spend thousands of dollars on the most advanced machines, use the most beautiful threads and fabrics to produce our projects, but all too often this is all for naught because we either use an old, worn, damaged, or wrong needle. Needles can be damaged by normal use. You don't have to hit a pin while sewing to damage it. They can become dull or bent through normal sewing. Even some new needles have defects. Any of these conditions will contribute to frustrating thread breaks and a frayed look on your finished projects. The best advice is this: When you start a new project, start with a new needle. It's the least expensive part of the entire project. Overall, a clean, well functioning needle will result in sharp, well-shaped stitches. Keeping a good needle in your sewing machine is one of the easiest, least expensive ways to improve your embroidery and quilting projects. If you have a problem with a particular thread, first change the needle, even if it is new. This may solve the problem.

Needle type and size A 75/11 or 80/12 needle may be just right for some 40 wt. threads but will not work well with a heavier thread. If you are using a 30 wt. or 20 wt. thread, a larger needle (90/14 or 100/16) is essential. A Topstitch needle (made by Schmetz) works best because it has a larger eye to accommodate heavier or sensitive threads. If you are having problems running good quality specialty threads, try a Topstitch needle size 90/14 or 100/16 and reduce the upper tension. The trouble will likely disappear.

Needle sizes Needles range in size from a very fine 60/8 to a heavy duty 120/19. Most needles use two number measuring systems. The higher number relates to the metric system and defines the needle shaft diameter in hundredths of a millimeter. The lower number relates to the system in the U.S. and is an arbitrary number used to indicate relative needle shaft diameter. The Schmetz Topstitch needle is a favourite 8 of many professional embroiderers and quilters. It has an extra large rectangular-shaped eye which allows for smoother movement of thread. It also has a much deeper

groove which works wonders with heavier threads. The deeper groove allows a heavier thread to lie in it, thereby reducing friction on the thread as it moves. The most popular sizes for medium and heavier threads are 90/14 and 100/16.

Tension

Tension is the term we give to the process of balancing the top and bottom threads so the machine will sew a good stitch with as few problems as possible. Not adjusting the tension is like buying a new TV and never changing the channel. You will get so much more use out of your machine when you learn to adjust the tension.

Thread tension is a combination of the thread passing through thread guides and the pressure applied to the tension disks via the tension spring. Tension is applied to the thread as it passes between a pair of tension disks. Increased pressure on the tension spring increases tension on the thread. Most machines are factory preset to sew with 50 wt. or 60 wt. sewing threads and require tension adjusting for heavier embroidery and quilting threads. If you run a heavier thread without adjusting the tension, you will have problems. The tension can be adjusted in all machines. Don't be afraid to change the upper tension. This will not hurt your machine. You can always change it back. If the tension is too high, the thread will break or will be damaged as it is pressed between the tension disks. If the tension is too low, the thread will loop on the back of the fabric. When instructions recommend lowering the top tension, the purpose is to make the upper thread more loose, which then is pulled by the lower bobbin thread, snugly through your project.

This makes the stitch look formed and definite, which adds to the beauty of the project.

Lowering the top tension also prevents the bobbin thread from showing on top.

When a 40 wt. thread is replaced by a heavier thread, the larger thread diameter pushes the tension disks apart, increasing pressure on the tension spring, resulting in more tension, and most likely, problems.

Therefore, it is essential to adjust the tension by loosening the tension disks and/or reducing the number of thread guides through which the threads flow. Bypassing the first and/or last thread guide is sometimes the key to making a heavier thread work better because each thread guide adds to the overall tension.

Whenever you change threads, remember to take the diameter of the new thread into consideration and make adjustments as necessary.

Problem: The top thread frays.

Probable Cause: The needle is too small or the top tension is too tight. Burr in eye of the needle.

Problem: The bobbin thread shows through on the top.

Probable Cause: The bobbin is too loose, dirt under the tension spring, or the top tension is set too high.

Problem: The top thread snaps.

Probable Cause: The top thread is too tight or the needle type and size is incorrect.

Problem: The thread gathers under the needle plate.

Probable Cause: Either the top tension is too low or the machine is threaded incorrectly, bypassing the take-up lever.

Thread delivery system

The trend of the future is larger thread spool sizes. Traditional machine spools cannot hold as much thread as the cone-shaped king spools or mini-king spools. Much of the cost of a spool of thread is in the winding process so the larger the spool, the greater the savings. If you use a cone shaped spool with a large opening in the base, it won't fit on the standard spool pin holders on most machines. Since machine manufacturers have not yet caught up with thread manufacturers, you will need either an adapter or a thread stand. The thread stand is advantageous over other home remedies such as a mason jar or coffee cup because it stabilizes the thread and elevates it higher than the machine. The vertical arm of the thread stand lifts the thread higher than the machine which then facilitates an even feed without added tension. Thread stands can accommodate any type of thread which is wound on a king spool or mini king spool. The thread on these spools is cross-wound, and is meant to pull off over the top as the spool sits flat on the thread stand. For small mini king spools, there are adapters available which fit onto the vertical pin spool holder. These are fine as long as the spool of thread is not too heavy. A heavy thread or a heavy spool placed on the vertical pin holder puts too much drag on the thread and prevents smooth rotation. If in doubt, choose a thread stand over a pin adapter. Some thread stands are all plastic, which sell for about \$5.00 and are so light that they tip over during use. Avoid those. For an additional three or four dollars, you can buy a heavy duty metal base thread stand.

The machine

Success is achieved by synchronizing quality threads, proper operator techniques, and maintaining the condition of the sewing machine. Settings and tolerances can be off, needles bent, moving parts become dirty or worn with use. All of this can affect the performance of the machine. Keep the machine clean and well adjusted. There are differences among the many machine types, but any machine should be able to run any quality thread.

If you have gone through all the above steps and still have trouble running a quality thread, it may not be thread's fault. Many factors can cause thread breaks, but not all are obvious. The tension setting, timing mechanism, lint buildup, and type of fabric and batting all contribute to the outcome. Adhesive sprays and glazed or coated threads can clog the eye of the needle, leaving less space for the thread to flow through freely.

Summary To successfully use specialty threads, the operator must be aware of the abilities and special requirements of both the thread and the machine.

- use a high quality thread on both top and bottom
- make sure the machine is threaded correctly
- make sure the entire machine is free of scratches and grooves along the thread path
- properly adjust tensions for the desired application
- use the correct type and size of needle and check that it is inserted correctly
- make sure the bobbin case is in good condition
- adjust sewing speed to compensate for other limitations

Instead of relying on the preset tension setting and a whatever-is-already-in-there needle, discover what works for you and your machine. Make necessary adjustments until you are getting the perfect stitch.