

Class: Fast Finished Seams

Lacey's 4-H club has a community service project that requires them to wear a costume. They will be greeters in the western village at a local park. Each of the girls will be making a long skirt with an elasticized waistline casing. They will use broadcloth, calico, or gingham in a color of their choice.

Help Lacey's club choose a quick and easy finished seam for their skirts. Which seam is fastest and best for the woven fabrics used in their skirts? Rank the samples from best to worst.



Picture from: <http://www.magiccitycostumes.com/images/products/epdirndl1.jpg>

Samples: (Construct samples as described)

1. Straight stitched seam, no finish, pressed open
2. Straight stitched seam, edges serger finished together, pressed to one side
3. 4-thread serger seam, pressed to one side
4. Straight stitched seam, each edge finished separately with the serger, pressed open

Class: Fast Finished Seams

Reasons: 3 2 4 1

Cuts: 4 4 7

Hornel scores, for online score calculations see:

<http://www.worldaccessnet.com/%7Enormans/hornel.html>)

3. The 4-thread serger seam is the fastest finished seam. It is appropriate for woven fabrics and stretch knits. The seam is sturdy enough for garments that are worn and washed regularly because the overcast edge prevents fraying and the fourth thread creates a safety stitch. If the left needle thread breaks under stress, the right needle thread will prevent the seam from falling apart. Since the skirt will be made from calico, broadcloth, or gingham and the skirt is a simple design, there is no need to be concerned about bulk created when seams are pressed to one side.

The 4-thread serger seam is faster to do than using a regular sewing machine to do a straight stitched seam, followed by a serger to finish both raw edges at once.

2. The seam sewn by regular machine and then finished with the serger offers a nice finished seam that is appropriate for the woven fabric. Since it needs to be sewn twice, it will take longer than the 4-thread serger seam that only requires one stitching but it will be faster to do than the next seam that has the raw edges finished separately.

4. The straight-stitched seam that has separate finished edges requires the most time but it is an appropriate finished seam for the fabric. It will take the girls at least three times longer to do than the 4-thread serged seam. They will need to use the serger twice and the regular sewing machine once to complete the seam.

1. The straight stitched seam with no finish is fast but seams should have an appropriate finish. Woven fabrics tend to fray when the garment is worn and washed making a

finished edge necessary. If no sergers were available, the girls could trim the seam with pinking shears. This would give the seam an appropriate finish but it would take longer to do than the other finished seams.

A regular sewing machine does not sew as fast as a serger. The 4-thread serger seam is the fastest seam to sew.

Fast Finished Seam for Shorts

Jessie is making a pair of shorts from woven fabric. He wants a fast and strong seam with a finished edge. Jessie has a 4 thread serger that he may use to construct his shorts. Help him select a seam that will be fast and strong. Rate the samples from best to worst for his project.

Seam samples to construct and mount for display as numbered. Displays may include written description.

- 1. Seam Sewn on Standard Sewing Machine with a 3 Thread Serged Edge Finish**
- 2. 2 Thread Serger Seam**
- 3. 4 Thread Serger Seam**
- 4. Seam Sewn on Standard Sewing Machine, Pinked Edge Finish**

Rationale: Fast Finished Seam for Shorts

Rank: 3 1 2 4

Cuts: 4 7 2

(Hornel scores, for online score calculations see:

<http://www.worldaccessnet.com/%7Enormans/hornel.html>)

3 Sample 3 is made with a 4 thread serger seam. This is the fastest and strongest seam because the serger seams and finishes in one fast step. The 4 thread finish has two threads that make a double-stitched seam plus additional 2 threads that over-edge the raw edge of the seam allowance for a clean finish. The seam has some give for the crotch area and the double needle will make it strong.

1 Sample 1 is made with the seam edge finished separately on the serger and seamed on a regular machine. It will take a little longer to serge the edge of the seam, but this will finish the seam. The straight stitch seam does not give so it may pop in the crotch

area. The serged edge finish will offer some extra protection if this happens. A three thread serger finished seam is stronger than a 2 thread serger finished seam. It has stretch and if the tension is balanced, the seam will not show excessively when stressed. A 2 thread overcast edge will easily show ladder-like stitching when pulled apart.

2 Sample 2 is made with the seam and edge finished with a 2 thread serger overlock stitch. This is a very fast seam and it has a finished edge. It is a weak seam as it will pull apart too easily to reveal ladder-like stitches from the right side. A two thread overlock stitch should not be used as a seam for most garments, especially shorts. The two thread overlock is best used for a seam finish with regular straight stitched seams on the conventional sewing machine in low stress areas. This seam was placed over sample 4 because it has a bit more stretch than a straight seam done on a conventional sewing machine and it takes very little time.

4 Sample 4 is made with a pinked seam finish and seamed on a regular machine. This seam may pop in the crotch area but there is no extra protection as in Sample 1 plus the pinked edge will take a little longer to do than the serged edge alone in sample 2. It is rank last because it is not quite as strong as sample 2 and it takes longer to do.

Class: Judge the Shorts

Pretend you are the judge at the fair. Think about fabric, thread, seam finishes, elastic choices, and everything it takes to have a nice pair of shorts that you would want to wear.

Look at the four pair of shorts. Rank them best to worst.

(Construct sample pull-on shorts that will match the descriptions in the rationale statements below or create errors in construction as desired. All samples were made with the same asymmetric stripe that ran with the lengthwise grain of the fabric and had a repeat of about 4 inches. Adjust the cuts accordingly if the construction errors are changed. Use Nancy Zieman's *Let's Sew* and *Measure Up, PNW0197* as guides for sewing techniques and quality construction methods.)

Official Placement: 3-1-4-2

Cuts: 3,5,7

Hormel scores, for online score calculations see:

<http://www.worldaccessnet.com/%7Enormans/hormel.html>)

#3 The stripes are symmetric and they match. The thread is a good match and the seams are finished. The stitching on the shorts is straight and even. The seam finish serves to trim the seam to reduce bulk and act as a second seam if the first rips out. The crotch seam is also reinforced with a sturdy stretch stitch. All raw edges are finished. The non-roll elastic is the proper size for the casing and the proper type for waistlines. The elastic is stabilized by the edge stitching on the casing and the stitching in the ditch in the front seam.

#1 The stripes are symmetric and they match. The thread is a good match and the seams have been finished. They have not been trimmed to reduce bulk. The crotch seam is reinforced by a sturdy stretch stitch but there is not a second row of stitching in case the first rips out. The elastic is the correct size and type. It could be stabilized by edge stitching the casing and stitching in the ditch of the front seam.

#4 The stripes do not match and they are not symmetric. The thread is a good match and the stitching is straight and even. Only the hem and casing are finished to prevent raveling. The seams have not been trimmed to reduce bulk. The elastic is the proper size and type but it could be stabilized. The crotch seam needs reinforcement.

#2 The stripes do not match and they are not symmetric. The thread is a good match and the stitching is straight and even. Only the hem and casing have seam finish. The seams have not been trimmed or finished. The crotch seam needs to be reinforced. The elastic is too small, it is twisted, and it is not the proper type for a waistline. The casing has not been stitched closed where the elastic was put in. There is no edge stitching or stitching in a ditch to stabilize the elastic.

Class: Judging Skirts

Mason's 4-H club is practicing their judging skills. The teen leaders have made some samples for them to judge.

Help him rank the elastic waist skirts from best to worst.

Samples: Construct skirts from the same fabric that would have similarities to the skirt samples described below. Adjust the cuts as needed for your samples. Use Nancy Zieman's *Let's Sew* and *Measure Up, PNW0197* as guides for sewing techniques and quality construction methods.

Official Placement: 2-3-1-4

Cuts: 4, 3, 8

(Hormel scores, for online score calculations see:

<http://www.worldaccessnet.com/%7Enormans/hormel.html>)

#2 is the best skirt because the stitching is straight, the raw edges have a finish to prevent raveling, the thread matches closely, and there are few or no threads hanging. The elastic is non-roll, it fits in the casing nicely and it is not twisted; the casing has been stitched closed, the elastic is stabilized in the casing to prevent shifting and twisting. The design on the fabric has been placed so the words "varsity and "team" are right side up.

#3 is not as good as #2 because the thread does not match, the seam has no finish, the elastic was caught when the casing was stitched closed, the elastic is not stabilized in the casing, and the words "varsity" and "team" are sideways.

#1 is worse than #3 because the casing has not been stitch closed, the elastic is black (white would have been better because it would not make the casing look dark and dirty). Also the elastic is a bit small for the casing and where it is sewn together, there is a lump. It would have been better to choose non-roll elastic as it is designed for waistline casings. Its construction prevents rolling and shifting in the casing.

#4 is the worst because there are threads hanging and the stitching is very crooked. The purple thread is used on the outside of the garment. It shows the crooked stitching more than the pale pink used on the inside of the skirt. The elastic is twisted and knit pajama elastic was used. It may roll and twist as it was designed to be stitched through (anchored to the fabric) when used. The words "varsity" and "team" are up-side down.

Class: Staystitching

Abby is making samples for a sewing notebook. She is working on staystitching for a neckline with a $\frac{5}{8}$ inch seam allowance. Help her select the best sample for her notebook.

Rank the samples from best to worst.

Samples: Construct samples as described in the reasons. Use arrows to show the direction of the staystitching. See information below reasons on staystitching.

Official Placement: 4-3-1-2

Cuts: 2, 5, 8

(Hormel scores, for online score calculations see:

<http://www.worldaccessnet.com/%7Enormans/hormel.html>)

#4 is the best sample. The stitching is regulation length (2.5 or 10-12 per inch) and it was done $\frac{1}{2}$ inch from the cut edge of the neckline and shoulders.

#3 is the next best sample. The stitch is the correct length but it was done only $\frac{1}{4}$ inch from the cut edge. To keep the seam area from stretching, staystitching should be done $\frac{1}{8}$ inch from the seam line.

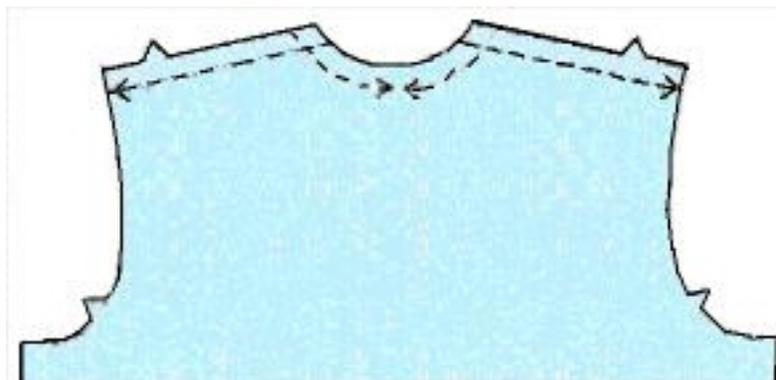
#1 is the next to the worst sample. The arrows indicate the stitching may have been done in the wrong direction. This may cause the neckline and shoulders to stretch while the staystitching is done. In addition, the stitching is too far from the seam line for a $\frac{5}{8}$ " seam (only $\frac{1}{4}$ " from the cut edge, not $\frac{1}{2}$ ").

#2 is the worst sample for staystitching. Abby should save this sample for a faced neckline with under stitching. Under stitching attaches a trimmed and clipped or notch seam allowance to the facing. It will prevent the facing from being visible and rolling to the outside of the garment.

Staystitching

This line of regulation-length stitching prevents curved or bias edges, such as necklines, shoulders and waistlines, from stretching out of shape as they are handled. If your garment section requires it, staystitching should be the very first type of stitching you do.

To staystitch, stitch with a regulation-length stitch $\frac{1}{2}$ " (1.3cm) from the cut edge of the fabric.



To keep the edge of the fabric from stretching as you staystitch, stitch in the same direction as the fabric grain. As a guideline, you may find arrows printed on the instruction sheet illustrations to indicate stitching direction, as shown below. If there are no arrows to direct you, you can determine which way to stitch by "stroking the cat." Run your finger along the cut edge of the fabric. The yarns will curl smoothly in one direction, just the way a cat's fur does. Stitch in that direction.

Information from:

http://www.simplicity.com/index.cfm?page=section/classroom/teachingTools_glossaryOfTerms.html

Zippers in Travel Gear

Sierra is making travel gear from heavy denim for her vacation this summer. Most of her zippers are put in with the exposed method. Help her choose the best way to do this method.

Rank the samples from best to worst.

Construct samples as describe:

1. This sample has a zipper inserted in denim that has no serged edges and the zipper has not been zigzagged to the edge of the fabric to prevent it from curling and catching in the zipper teeth. Also, it has not been topstitched from the right side.
2. The edges of the denim have been serged to prevent raveling. The zipper is topstitched but the outer edge of the zipper has not been zigzagged to the edge of the fabric.
3. This sample has no serged edges and the edge of zipper has not been zigzagged to the fabric. The only thing Sierra did was topstitch the zipper.
4. This sample has serged edges to prevent raveling. The zipper has been topstitched and the edge has been zigzagged to prevent it from curling and catching in the zipper teeth.

Rank: 4-2-3-1

Cuts: 2-5-8

(Hormel scores, for online score calculations see:

<http://www.worldaccessnet.com/%7Enormans/hormel.html>)

Reasons

4. This is the best way to put in the zippers. This zipper is put in fabric that has serged edges to prevent raveling and the edges of the zipper are zigzagged to the edge of the fabric to prevent the edges of the zipper from curling and catching in the zipper teeth from the under side. The outer fabric layer is topstitched to the zipper to prevent it from catching in the zipper teeth from the top side.

2. This is the next best way to put in the zippers. The fabric has serged edges but the edges of the zipper have NOT been zigzagged to the fabric. Everything else is like the previous sample.

3. This sample is better than the one in #1. The fabric has no serged edges and the zipper is not zig-zaged to the fabric but it has been top stitched down. Both the threads from the raveling fabric and the edge of the zipper may get caught in the zipper teeth.

1. This sample is the worst way to put in the zippers. The fabric has no serged edges and the outer fabric is not top stitched to the zipper. Sierra will have trouble with raveling fabric and the zipper teeth catching fabric and thread.