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MODEL 9000EH

BUTT-SEAMER

9000EH Butt-seamer

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BUTT-SEAMERS

Our butt-seamer heads are heavy duty overedge or serging type lock stitch machines made by Juki or Union Special. These heads are modified into five different models. Each of the five models makes a different length overedge stitch.

Model 812B for butt-seaming backed carpet for printing or shearing out of line is a two thread lock stitch machine which makes a seam about 5/8 inch when flat. On the 812B a clutch feed roller replaces the presser foot to provide a feed on the top layer of material timed with the feed dog feeding the bottom layer of material.

The 812M is a one thread machine for butt-seaming industrial and light weight fabrics and carpet backing. The seam, when flat, measures approximately 1 3/8 inches.

The 812U is normally used on light to medium weight unbacked carpet at latex, foam, or shearing lines. When flat the seam measures about one inch long. The clutch feed roller is the same as on the 812B. The top, or right hand, looper #K73295 is longer than standard. The 81255 spreader rocker shaft bearing is moved forward to provide a longer overedge. The two screw mounts in the 81255 are also relocated.

Our model 900FH is designed to butt-seam heavy weight unbacked carpet at latex or coating lines, printers, Kusters, and steamers where carpet is usually not tentered. The seam sewn with the 900FH is over 1 1/2 inches long when flat.

Model 815 is modified for butt-seaming finished carpet and belting. The two thread seam, when flat, measures approximately 1 5/16 inches.

Maintenance cost and purchasing of parts can be reduced considerably by operating the butt-seamer at slower speeds. This can be achieved by using an 1140 rpm motor. Slowing the machine down prevents the needle from over-heating.

Since all butt-seamers involve a looper picking up thread from another looper or needle it is important for the loopers and needle to almost touch at certain places in the cycle. The loopers and needle should be free from burrs which cause skips in butt-seaming.

Butt-seamers use considerably more thread than other machines. With the use of more thread very little tension is required. Excessive tension causes a tight seam which will not lay flat.

INSTRUCTIONS FOR BUTT-SEAMING CARPET WITH RAILWAY BUTT-SEAMERS

A minimum amount of carpet should be trimmed before butt-seaming. A table on the railway helps support the carpet, therefore it is easier to line up the edges for a straight seam and pin the carpet so that a minimum amount is trimmed.

It is possible to butt-seam carpet without trimming, especially with the model 900 machine. Stock dyed carpet and light or medium weights of Kuster dyed carpet can be butt-seamed without trimming when the edges to be butt-seamed are straight. It is important to pin the carpet so the edge fits back into the carpet guide when carpet is not trimmed.

The following applies when carpet is trimmed before butt-seaming. The butt-seamer trimmer is adjustable and may be moved toward or away from the T-bar and pin brackets. Normally it is best to line the blades up with the back of the carpet guide. This will provide the most over-edge with the carpet back in the guide as much as possible.

The selvedge edge of both layers of carpet should be pinned together. If only the first layer is pinned and stretched, the second layer does not line up properly and can cause creases or wrinkles. When the selvedges are pinned at the starting point, the next step is to pin the selvedges of both layers at the stretcher side. It is best to have carpet as straight, or square, as possible when pinning at the stretcher. The two layers should overhang in the railway to trim away a minimum of carpet. Stretch the carpet just snug. Overstretching causes wrinkles and results in poor trimming and butt-seaming. After carpet is stretched, pin on center pins and trim.

Pull the trimmer over to the selvedge edge, hold both layers at selvedge, turn on trimmer and pull trimmer into the selvedge and edge of carpet. Normally when blades are sharp and set correctly and wheels are clean and free of thread, the trimmer will almost travel without pulling down railway.

Trimmers are equipped with stainless bevelers which bevel the yarn back so the butt-seam is made in the carpet backing. It is helpful to support the two layers of carpet by placing the left hand, with palm up, under the carpet and slide along so as to guide the carpet into the trimmer. Pulling the carpet at intervals along the railway can cause uneven edges and poor butt-seaming.

A good straight trimmed edge makes butt-seaming easy.

Pull butt-seamer so selvedge edge of carpet is just in the carpet guide. The needle of machine should be 1/2 inch to 1 inch away from selvedge edge. This will provide a chain on the thread and butt-seam the selvedge edge. With machine in proper starting position, engage clutch by tightening aluminum clutch knob. Hold the two selvedge edges with left thumb and left index finger. Turn on switch with right hand. Move right hand to guide both layers of carpet into guide. Carpet selvedge should be held with left hand as long as possible or until machine is 8 to 12 inches down the carpet. This will prevent puckers or wrinkles in front of the carpet guide. It is important to hold the opposite selvedge edge as machine sews over it and one inch or so past the selvedge. Cut the thread, remove carpet and return machine and trimmer to start. Pulling the carpet while sewing or pulling the machine manually can damage loopers, or break needles.

9000EH Trouble Shooting Guide

The Model 9000EH butt-seamer uses two loopers: the 9 A (Plate 8) and the 9 2AE (Plate 7).

These loopers and the needle (9-1 Plate 4) working together form the overedge stitch required for butt-seaming.

If either the loopers or the needle become damaged or out of adjustment, and/or incorrect thread tension is present skipping may occur.

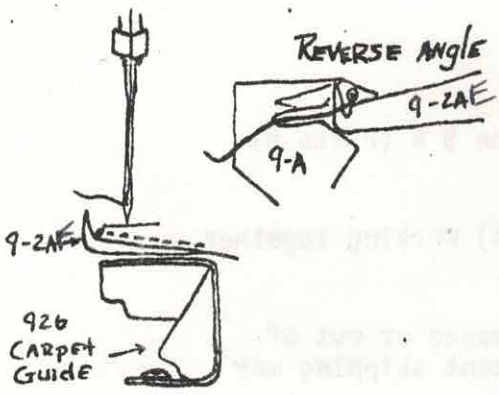
If the machine begins to skip or stops sewing completely, the following steps should be taken in order to resume sewing:

Step 1. Check tension assemblies. Very little if any tension is required for butt-seamers. Proper threading of machine is shown on page 28.

Step 2. Check the points of the loopers and the needle. If any of the points are dull, broken or bent that part must be repaired or replaced. (Detailed instructions for replacing each looper and needle may be found in Steps 5, 6 and 7. If the point is only slightly burred light grit sandpaper will remove the burr.

Step 3. Check the three exchange points of the thread.

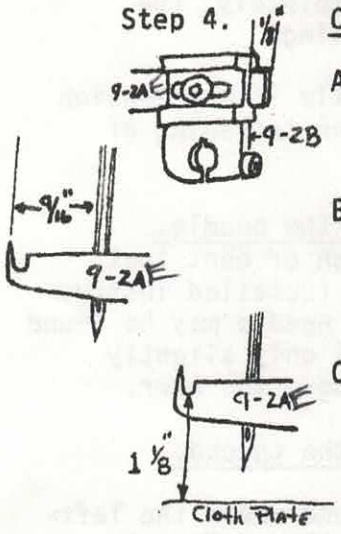
A.) The first exchange point is found where the left-hand looper, 9 A, picks up the thread from the 9-1 needle. The point of the 9 A looper should touch and not deflect the needle in passing. If extremely heavy weight carpet is being sewn a gap of approximately 1/64" between looper and needle may be necessary to allow for needle deflection.



B.) The second point of exchange takes place as the 9-2 A looper crosses the 9 A looper. The 9-2 A loopers point should cross in the deepest portion of the recessed area of the 9 A looper. The loopers should lightly touch in passing.

C.) The third point of exchange occurs as the 9-2 A looper completes its left-hand travel and the threaded needle passes down through the (V). The (V) is formed as the 9-2 A looper pulls the thread up over the 926 carpet guide.

Step 4. Check the three measurements.



A.) 1/8" is usually necessary where the rear-end of the 9-2 A looper protrudes the rear edge of the 9-2 B looper block (Plate 7)

B.) 9/16" should be present from the left edge of the needle to the point of the 9-2 A looper when the 9-2 A looper is at its furtherest left hand point of travel set as described in Step 2, page 4.

C.) Approximately 1 1/8" from the cloth plate to the cut out portion of the 9-2 A looper, or sufficient height to clear the 926 carpet guide. This adjustment is made with the SU42 screw in the rear of the 9-2 B looper block (Plate 7).

Important:

If all three of these measurements are correct, but any one or more of the three exchange points can not be achieved. The machine is probably out of time. Re set timing according to Steps 1 thru 11 on pages 5.

Step 5. Replacement of the 9 A Looper. Using a 3/32" allen wrench, loosen both #SU45 in the 9 B looper arm (plate 8) and rotate handwheel until the looper travels as far left as possible. Remove and replace looper. The flat area on the looper's stem is wider than the points of the SU45 set screws; therefore a fine right or left-hand adjustment is available.

This adjustment is usually enough to attain proper looper point-needle clearance as mentioned in Step 3-A. If not, perhaps more right or left-hand adjustment is necessary, loosen the #SU10 and SU45 in the base of the 9 B looper arm (Plate 8) and move entire arm. If this procedure fails to provide enough clearance, the needle, needle bar or looper point may be bent. That part must be replaced.

Step 6. Replacement of the 9 2 A Looper. Loosen and remove the SU46 screw (Plate 7) and remove looper. Remove same screw from new looper. Check the fit of the new looper in the slot in the 9 2 B looper block (Plate 7). The looper should fit snug but not bind. A very small amount of filing to the looper may be necessary. Once the looper is in place and the SU46 screw has been started. Slide looper back until 1/8" is protruding the rear edge of the 9 2 B looper block. Tighten the SU46 screw very tight.

Step 7. To change the 9-1 needle. Simply loosen the HA56 needle clamp nut (Plate 4), remove and replace needle. It is important that the needle is pushed as deep up into needle bar as it can go. Needle nose pliers are sometimes helpful. The ribbed side of the needle should face you. re-tighten HA56 nut. (Do not over tighten) damage to needle bar will occur.

Other Adjustments:

1. Setting the height of the needle bar. First insure the correct needle (.. 9-1) (Plate 4) is in the machine. Next, lower needle bar by rotating handwheel to its lowest point. Now viewing through the upper RH hole in the lower front section of machine casting. You will see the needle and 9 A looper. When the corner indicated by the arrow is aligned with the center of the eye of the needle the corner should be in the center of the needles eye . If not, loosen the BP108 screw (Plate 4) and raise or lower needle bar as necessary. Now rotate needle bar up to the top of its travel and check clearance between needle clamp nut HA 56 (Plate 4) bottom of the 80673A (Plate 4) needle bar bushing. It can be close to touching but should never hit the bushing. In some cases where the clamp nut has been repeatedly overtightened this clearance may be impossible to achieve and replacement of the needle bar will be necessary.

2. Setting the 9 2CEA (Plate 7) looper drive lever.
First insure the 1/8" setting of the 9 2AE looper described in Step 6 is correct. Next rotate handwheel until the 9 2CEM looper drive lever has moved as far left as possible. At this point the 9 2AE looper point should be 9/16" past the left edge of the needle. If not, loosen the two SU55 screws (Plate 7) and move the 9 2CEM drive lever until slightly more than 9/16" is present and tighten SU55 screws by placing the looper point slightly past 9/16" will allow for the drawing action when the SU55 screws are tightened. If the gap at the screws closes completely when tight, the 9-2CEM looper drive lever should be replaced.

3. Setting feed dogs. The feed dogs are correct when the full length of the teeth are visible above the top surface of the throat plate when at their highest position. If not, remove the throat plate and the feed dogs. Raise or lower as needed the 97X supporting screw. The feed dogs should rest on the head of this screw when replaced.

4. Setting the height of the roller cam feed assembly.
The height is correct when there is a space of at least 1/8" to 3/16" between the feed dog teeth and the SU003 feed roller, when the feed dogs are at their highest position, and the 80267 (Plate 5) hand lifter is down. To re-set, remove face plate, loosen the two #95 set screws in the 80632 presser bar lifter (Plate 5) and the two 22894L set screws in the lower 482C presser bar collar (Plate 5) on the rear presser bar. Adjust height and re-tighten screws.

To Reset Timing

If a thread or material jam has occured and machine appears out of time the following steps should be taken.

Step 1. Using a 5/32 allen wrench, remove the EH9 slide bracket (Plate 7) by removing the two SU14 screws. Lay EH9 slide bracket aside.

Step 2. Using a 3/16 allen wrench, remove the 9-2C FM looper drive lever and lay aside.

Step 3. At this point the 80638A shaft rocker (Plate 7) should be visible. First, loosen the #136 clamp screw nearest to you (the other is inaccessible at this point). Next, remove and inspect the #96 spot screw. If this screw is deformed in the slightest, proper timing has been lost. In extreme cases the screw point may be sheared off completely. If not re-tighten the #136 clamp screw and then the #96 spot screw. If so it will be necessary to obtain access to the remaining #136 clamp screw in the 80638A shaft rocker. This will require the following steps.

Step 4. Using the 80627 hand lifter (Plate 5) lift the top feed system for easier access.

Step 5. Using a 1/8" allen wrench remove and lay aside the 900 EH carpet guide.

Step 6. Using a 5/32" allen wrench remove the SU88 screw (Plate 6) attaching the feed connection rod end bearing to the SU12 clutch lever (Plate 6) lay aside this screw.