

FOR ALL YOUR CARPET
BINDING NEEDS
SINCE 1947



PBL-TXB MANUAL

All New Bond PBL-TXB Zig-Zag Tapestry Portable Binder

Features Include:

- Built for heavy duty jobs
- Runs various tape widths
- Straight or zig-zag stitch
- Adjustable stitch length
- High lift needle for thick rugs
- Binds over 10 ft per min.
- Walking foot top & feed dog bottom for consistent pulling power
- 110 volt or 220 volt



Left image shows the machine set up as a Tapestry Binder.

To the right the machine is set up as a portable Binder with a Serge Tape Folder.



IMAGINE....

GOING FROM A **STRAIGHT** STITCH TO A **ZIG ZAG** STITCH ON THE SAME MACHINE THAT WILL BIND TAPESTRY WIDTHS ALONG WITH NARROW BINDING TAPES.



PBL-TXB Straight & Zig Zag Tapestry Portable Binder

Why buy three different machines when one can do the job?

Now available with a zig-zag lockstitch that binds 13/16" to 3" widths of tape in a single pass or tapestry blind stitch up to 6-1/2" wide. Bind any size carpet on-site. Backed by Bond Products' 90-day limited warranty.

PREFACE

This semi industrial sewing machine makes a single needle lock, straight, or zigzag stitch and is equipped with a high lifting, independent upper and lower feed mechanism. It is intended for stitching medium, heavy, and extra heavy cloth, canvas, upholstery materials, light leather & carpets.

The Bond Products Ultrafeed Walking Foot sewing machine's feeding mechanism is composed of upper and lower feed dogs that are synchronized to feed the material either forward or reverse. Both lifting and feeding feet alternatively press the material tightly together, permitting even stitching.

BOND

PBL-TX WIDE TAPISTRY PORTABLE BINDER

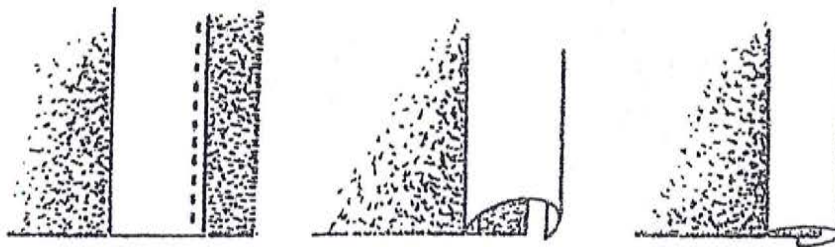
Straight stitchadjustable guide feeds any weight selected tapestry, sisal, or berber in conjunction with tapestry binding.

The tapestry binding has its own adjustable guide so that both carpet and tapestry binding are fed together.

It is top stitched then folded over and under , hiding the stitch ,then glued underneath

Apply up to 7" tapestry border.

See illustration



① TOP STITCH ② FOLD OVER ③ GLUE UNDERNEATH

Specifications

POWER	1/10thHp,110VUS/220VEU,ACMotor, 1.5 Amp US/0.7 Amp EU, 50/60 Hz
MAX. SEWING SPEED	600 US/500 EU (Stitches/Minute)
SHUTTLE	Oscillating (Cam/Rocker Arm Driven)
MAX. STRAIGHT STITCH LENGTH	1/4"
NEEDLE BAR STROKE	1-5/16" ●
NEEDLE SYSTEM	123-14LGPT SIZE 24 DP
BED SIZE	14.5" x 7"
UNDERARM SPACE	7" x 4.5"
PRESSER FOOT LIFT	3/8"
BOBBIN SIZE	Class 15 / Style A (20.5 mm Dia. x 10.8 mm H) #10-
NEEDLE SIZE RANGE	#24
THREAD RANGE	#63 Cleartone or #69 Bonded Nylon
HEAD WEIGHT	40 lbs.

● Applies to LSZ-1 Model Only ● Applies to LS-1 Model Only

Welcome to Your Ultrafeed® Sewing Machine!

You are now the proud owner of one of the toughest, most versatile portable sewing machines around.

With the Ultrafeed® you can go from your home to the dock and sew up projects from sails and boat covers to upholstery. This guidebook will give you an in-depth look at your machine, all its power and features, as well as teach you proper use and maintenance and give helpful troubleshooting advice.

Table of Contents

Ultrafeed® Safety	1	Welting & Cording Application	19
Ultrafeed® Set-Up	2	Ultrafeed® Maintenance	21
Thread	2	Lubrication	21
Needles	3	Marine Use & Potential for Rust	21
Prewound Bobbins	5	Points	22
Threading the Machine	7	Points	25
Removing & Installing Bobbin Case	9	Troubleshooting the Ultrafeed®	28
Installing Bobbin in Bobbin Case	10	Thread Tension Doesn't Release	28
Picking Up Bobbin Thread	11	Inconsistent Stitch Tension	29
Using the Ultrafeed®	12	Clutch Will Not Disengage	30
Starting to Sew	12	Removing the Hook to Clean the Shuttle	
Regulating Stitch Length	13	Race Guide and Free Thread Jams	30
Sewing in Reverse	13	Skipped Stitches	31
Turning Corners	13	Thread Issues	33
Switching from Straight to Zigzag Stitch		Needle Issues	37
(Txb all machines)	14	Bobbin Winding Issues	38
Straight Stitch Needle Positioning		Belt Issues	39
(TXB all machines)	14	Ultrafeed® Timing	40
Tension Adjustment	15	Schematics	49
Removing Material from Under		Specifications	63
the Presser Foot	17	Warranty	64
Additional Presser Foot Lift	17		
Home Sewing	18		

Ultrafeed® Safety

Please observe the following when using your Sailrite sewing machine:

1. Do not operate if you or the machine are wet or may become wet.

2. Operate the machine on a firm, level surface with adequate room for safe operation.

3. Observe caution when placing your hands, other body parts, or clothing near any moving parts including but not limited to the walking foot, needle, balance wheel, and belts.

4. Do not run the machine without its covers in place.

5. Do not stop the movement of the balance wheel with your hands.
6. Always use the proper voltage required for the motor.

7. Do not drop the machine.

8. Wear protective eye wear when sewing.

9. Wear shoes when operating the foot pedal.

10. Provide supervision when allowing children or those unfamiliar with the Ultrafeed® operations to use the machine.

11. Do not use the machine around flammable materials.

12. Do not use a plug adapter or extension cord that bypasses the ground pin.

WARNING: Some products may be fabricated from materials which may contain chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

Ultrafeed® Set-Up

Thread

Ultrafeed® sewing machines can handle any polyester, nylon, cotton, Tenara®, Helios, or monofilament thread in size #63.

Recommended needle sizes are roughly one size larger than those recommended for household machines.

THREAD SIZE	TEXTILE SIZE	TENSILE STRENGTH
Bonded nylon 69	70	10.6 lb.
#63 Cleartone	90	14.2 lb.

Needles

Ultrafeed® sewing machines require 123-14LG PT needles size #24 needles, all available at Bond Products, Inc.

Needle Types

Diamond Point (DP) needles are ideal for working with hard leathers and most materials.



Needle Installation

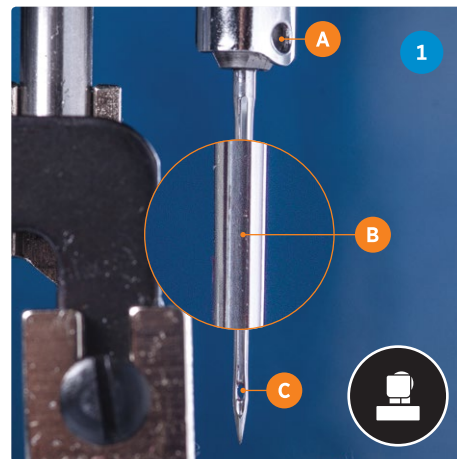
Ultrafeed® needles are round on top, unlike home sewing machine needles. As a result, proper installation must be exercised carefully. **Improperly installed needles are the main reason users call for help.** Please be sure that the needle eye is not twisted.

The needles have two distinct sides (**1** & **2**). One side has a long channel or groove (**B**) (locate this groove with your fingernail if you cannot see it), and the other side has a scarf (**D**) i.e., a carved out area, just above the needle eye (**C**).

When installed, the side with the needle eye and groove should be facing outward i.e. to the left as you face the machine.

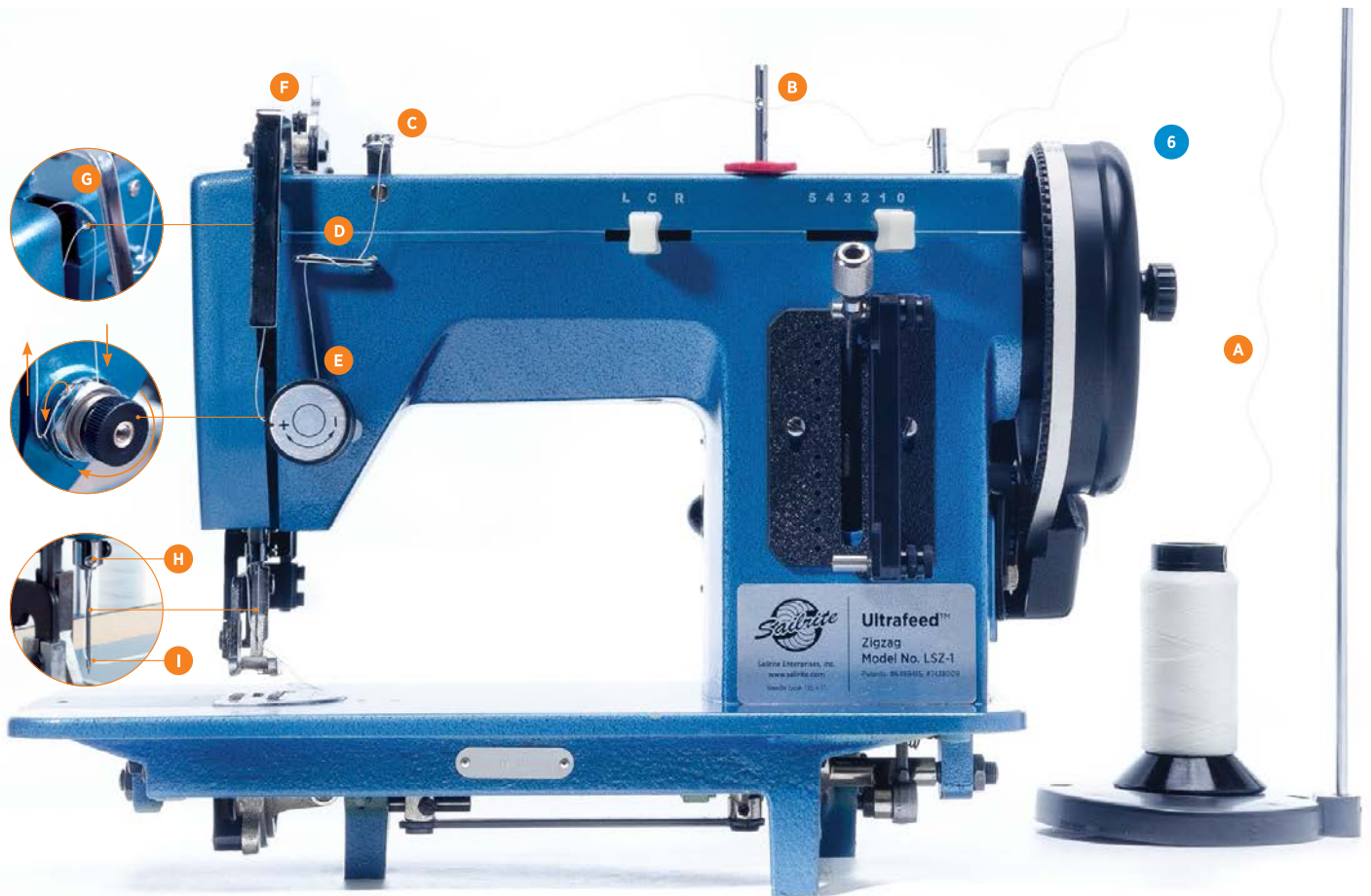
CAUTION: If the needle is inserted the wrong way, the machine will skip stitches and break thread.

- A** Needle bar thread guide hole
- B** Needle groove
- C** Needle eye
- D** 3/16 inch (5mm) ~ height of scarf



Threading the Machine

1. Thread comes off top of cone to thread stand arm (A).
2. Pass the thread through one hole in the thread post (most direct route to bobbin tensioner) (B). For home sewing, use the post to hold the thread spool.
3. Pass through pig tail of bobbin tensioner (C).
4. Loop through ear holes (D).
5. Thread through upper tension (shown without cover knob) (E). Make sure lift lever (F) is raised up to release tension plates so thread can pass through.
6. Pass through take-up arm (right to left) (G) and then under end cover.
7. Pass through the needle bar thread guide hole (H) and then down through the needle eye from left to right (I).





Removing & Installing Bobbin Case

The bobbin case (B) is located on the underside of the machine beneath the presser foot (7).

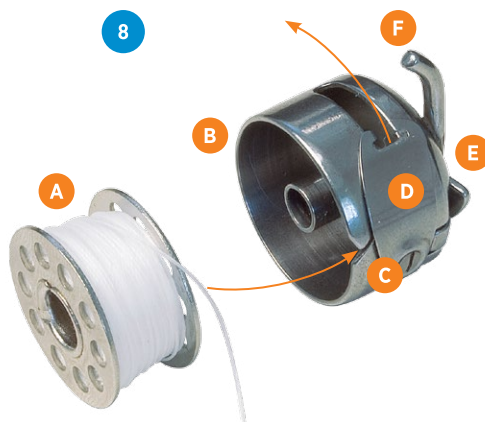
Removing — Lift the spring loaded lever (E) and pull the bobbin case out. With the lever held open the bobbin is captive in the bobbin case. Release the lever and the bobbin will fall out.

Installing — Pull and hold the spring-loaded lever outward (to keep the bobbin from falling out) and push the case onto the axle of the gib hook. The finger of the bobbin case (F) should point upward.

If the lever (E) is held up until the bobbin case is completely installed, the lever, when released, will lock onto the axle and there will be no clicking sound. If the lever is released before the bobbin case is pushed completely in place, there is a clicking sound when the case is pushed all the way on. The finger of the bobbin case will drop into the notch in the hook's retaining ring (G).

Installing Bobbin in Bobbin Case

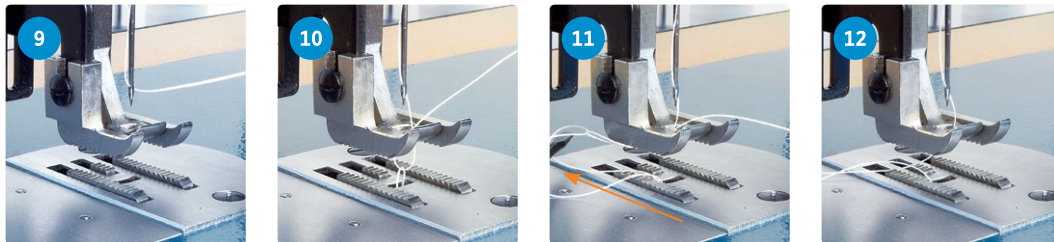
1. Insert a threaded bobbin (A) into the bobbin case (B) with thread coming off the left side in a clockwise rotation.
2. Hold the tail of the thread while pushing the bobbin into the bobbin case
3. Pull the thread through the slit (C) in the edge of the bobbin case.
4. Continue pulling the thread under the tension plate (D).
5. Snap thread into position under tension plate and pull out about a 6 inch tail of thread.



- A Bobbin
- B Bobbin Case
- C Slit
- D Tension Plate
- E Spring-loaded Lever
- F Finger
- G Retaining Ring

Picking Up Bobbin Thread

After the machine is threaded and the bobbin case (with bobbin) is installed, pick up the bobbin thread as follows:



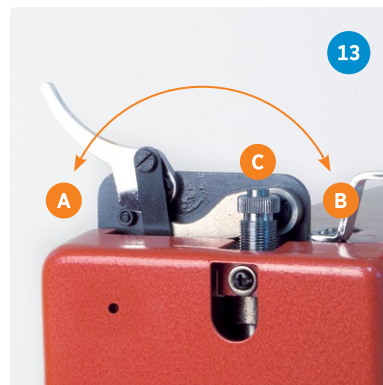
1. Hold the needle thread loosely to the side (9) and rotate the balance wheel toward you until the needle moves down and then back up.
 2. As the needle nears its highest point, pull the needle thread gently. The bobbin thread should come up through the needle hole, with the needle thread, in the form of a loop (10).
 3. Pass a screwdriver under the presser foot from right to left to pull the thread out away from the machine (11).
- NOTE:** If the bobbin thread does not appear when the needle is lowered and raised, check to make sure 5 to 6 inches of bobbin thread is hanging loosely from the bobbin case and repeat steps 1-3 again.
4. Completed set-up should look similar to (12). Now you're ready to sew!

Using the Ultrafeed®

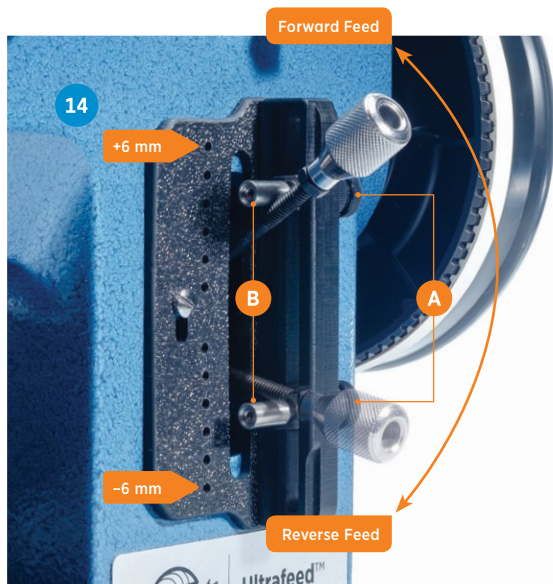
Ultrafeed® Sewing Machines arrive tuned and optimized for sewing heavy materials like sailcloth and marine canvas. If you want to sew lighter, home fabrics you will need to make adjustments to the machine, which are outlined in the Home Sewing section (p. 18).

Starting to Sew

1. Plug the machine into an outlet.
2. Use the lift lever (13) to raise and lower the presser foot onto the material.
3. The thread from the needle and the bobbin should be behind the foot as you start to sew. Hold them down with your finger.
4. To mark your starting position, you may want to rotate the balance wheel towards you until the needle is buried in the fabric.
5. Press the foot control pedal to begin sewing and release the trapped threads after the first few stitches. If the thread ends are not held down for the first few stitches, a rats nest at the beginning of sewing may occur.



- A Raise
B Lower
C Pressure Regulating Thumb Screw



Regulating Stitch Length

The EZ Set Stitch Length Plate (14) is used to set both your forward and reverse stitch length. To adjust the stitch length, loosen the two thumb screws (A) and slide the posts (B) to your desired length in forward and reverse. Tighten the screws to secure.

Switching from Straight to Zigzag Stitch ●

The stitch width adjustment lever controls the stitch type as well as the width of your zigzag stitch (15). When the lever is on "0" the machine is in straight stitch. Moving the lever to "1" produces a 1mm zigzag stitch and so on through "5".

DO NOT change the position of the stitch width lever when the needle is in the fabric or the needle may bend.



Straight Stitch Needle Positioning ●

In straight stitch mode (stitch width adjustment lever at "0"), the needle can be moved left, right, or center (16). This is very helpful when installing zippers where it is best to have the needle as close to the zipper teeth as possible. Gently push down on the lever before moving it left, right or center. It may also be helpful to move the balance wheel a little while moving the lever.

DO NOT change the needle positioning when the needle is in the fabric or the needle may bend.



Sewing in Reverse

Position the needle fully up or fully down and push the stitch length lever all the way down. Hold the lever down until the reverse sewing is completed. The lever is spring loaded and will return to its forward position when you release it. When the machine is operating at 1/4 speed or faster, reverse can be engaged on the fly.

DO NOT rotate the balance wheel in the wrong direction. Always turn it towards you (from the top) to avoid thread jams in the lower mechanism.

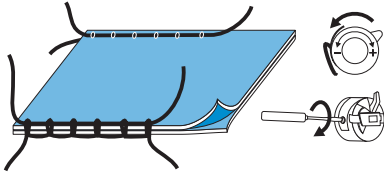
Turning Corners

First turn the balance wheel toward you until the needle is at its lowest point. Then lift the presser foot, turn the material to the new direction (the needle acts as an axis), drop the foot and start sewing in the new direction.

DO NOT attempt to change sewing directions when the machine is at rest with the needle positioned mid-stroke. This will cause a skipped stitch or needle deflection.

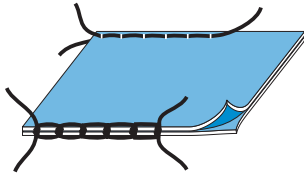
Rotating the fabric while the machine is at rest with the presser foot down will bend the needle.

17

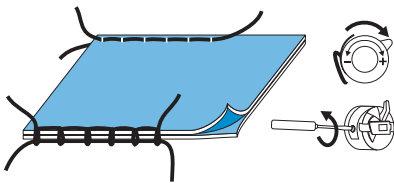


Knots pulled to top:

1. Decrease upper tension
2. Increase bobbin case tension



Knots centered — PERFECT STITCH



Knots visible on bottom:

1. Increase upper tension
2. Decrease bobbin case tension

Tension Adjustment

Tension adjustment refers to the combination of tension on both the upper thread and the bobbin thread.

The correct combination of thread tension (17) results in a stitch that looks identical on both sides of the material (i.e., the knots of the stitches are pulled into the fabric and are no more visible on the top than on the bottom).

The primary problem when using a heavy thread is incorrect upper thread tension. When stitch tension is a problem, it is usually a consequence of too much or too little tension on the upper thread.

Tension changes to the bobbin thread should only be made when upper tension changes alone do not solve stitch tension. In general, bobbin tension requires just about a two ounce drag on the thread (similar to what you feel when pulling dental floss off a spool).

The Ultrafeed® has a thread tensioning knob on the front that the upper thread runs through (18).

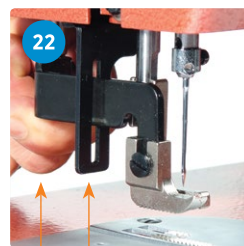
The upper tension knob can be turned up to five revolutions to compress a spring that squeezes two disks together.

When the presser foot is lifted the upper tension disks are pushed apart. This releases the top thread tension so fabric can be removed from under the machine foot without fighting thread tension.

DO NOT lift the presser foot when the upper tension knob is less than a 1/2 turn from maximum (turned snugly clockwise).

If upper tension is tightened all the way down, raising the presser foot may bend the lever inside the machine that separates the disks, preventing the disks from opening correctly.





Removing Material from Under the Presser Foot

1. Stop the machine with the needle at its upward most position (19).
2. Raise the lift lever.
3. Pull the material straight back to remove it from under the foot (20). It may be helpful to rock the balance wheel forward and back to free the thread from the tension assembly.
4. Cut the two threads to free the material, leaving at least a three inch length of thread coming out of the machine.

Additional Presser Foot Lift

Maneuvering unusually thick assemblies may temporarily require additional foot height. Raise the foot and rotate the balance wheel until the inside and outside presser feet of the walking foot are even with one another (21). You can also manually lift the black, spring loaded bar that holds the presser foot in place (22).

DO NOT use these tips as an excuse to attempt to sew more than the machine can handle. The presser feet must be able to rise to feed the fabric, and too much fabric will inhibit this. Your assembly should compress to no more than a maximum of 5/16" for the machine to be able to function properly.

Home Sewing

The Ultrafeed® is a great sewing machine for those who enjoy crafting; quilting; home, auto & RV upholstery; and general sewing.

Several of the same characteristics that make this machine great for sail and canvas work also make the machine suitable for upholstery fabrics and most home fabrics. However, as a heavy-duty machine, the Ultrafeed® is not ideal for sewing very light and delicate fabrics like silk, light sheers or chiffon.

Use this simple checklist before sewing light to moderate weight fabrics:

1. **Use an appropriate thread.**
Home sewing machine thread should be used in clothing or general home sewing. Nylon thread is often preferred for interior upholstery.
2. **Select an appropriately sized needle.**
Match the fabric and thread weight to the needle size (p. 2).
3. **Decrease pressure on the foot.**
Too much pressure, if sewing lighter fabrics, can scuff the material.

Adjust the foot pressure by loosening the pressure regulating thumb screw (p. 12, 13). If it comes out, just screw it back in a few turns.
4. **Decrease the upper thread tension and, if necessary, increase the bobbin tension (p. 15, 17).**
Too much upper thread tension will cause the fabric to pucker. When using light weight thread it may also be necessary to increase the bobbin tension if the spring is not clamping down like it does on heavier thread.
5. **Check for clockwise rotation of the thread spool.**
When placing home sewing machine spools on the thread post, be sure the thread spool is turning in a clockwise manner to ensure the post it rides on is tightened, not loosened.

Welting & Cording Application

The standard presser foot on Ultrafeed® sewing machines includes a 1/4" welting tunnel that makes installing welting, cording and piping quick, easy, and more accurate.

If looking from the back at the upper presser foot, there is a groove (tunnel) under the foot just to the right of the needle (23 & 24).

- If using the LSZ-1, first put the machine in straight stitch and center the needle bar.



> LS-1 welting tunnel in presser foot (back view)



> LSZ-1 welting tunnel in presser foot (back view)



Put the welting assembly under the groove so the cord is accommodated by the groove (25). The groove under the foot works to keep the bulk of the material outside the arm of the machine.

When sewing welting on an assembly, work clockwise to ensure the bulk of the assembly stays clear of the machine, i.e. out from under the sewing machine arm (26).



Make Your Own Welting, Cording and Piping

For how-to instructions, tips and advice on making and sewing with welting, cording and piping visit www.sailrite.com

Ultrafeed® Maintenance

Lubrication

The machine was thoroughly oiled prior to shipment.
Oil all metal to metal working parts frequently!

Use only sewing machine oil.

After oiling, briefly sew with scrap material to prevent soiling your work.

For good maintenance of your machine, you should oil it at least: twice yearly, before it is put in storage, or anytime the machine sounds like it is running roughly.


Marine Use & Potential for Rust

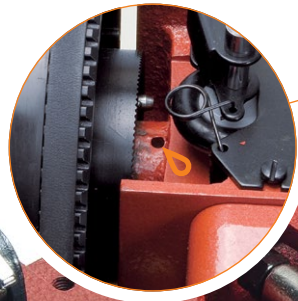
If the machine will be used or stored in a harsh environment, lubricate the working parts of the machine with regular sewing machine oil prior to storage and before each use.

We also recommend using Boeshield's T-9, a paraffin based protectant, to protect metal surfaces and control knobs. Use even on the painted surfaces, metal parts, needle plates, and presser feet.

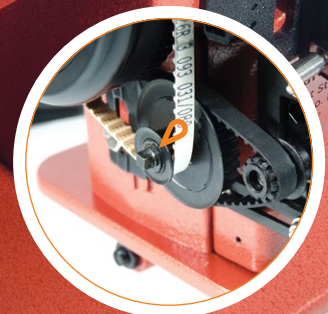
T-9 leaves a thin protective layer of wax. Use sparingly as a lubricant as wax buildup can create gumming friction over time.

LS-1 Lubrication Points

27 Top side lubrication points 



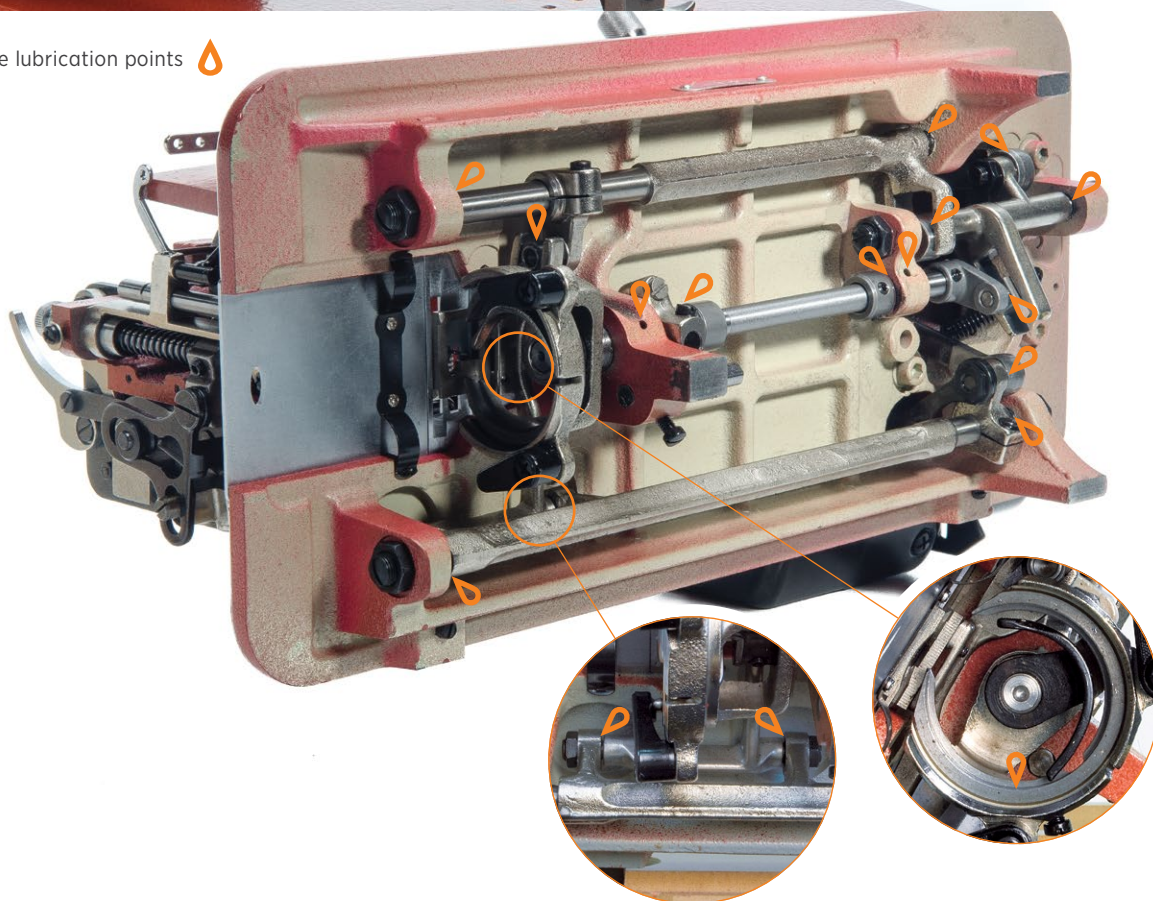
28 Right end lubrication points >



29 Left end and back side lubrication points



30 Underside lubrication points

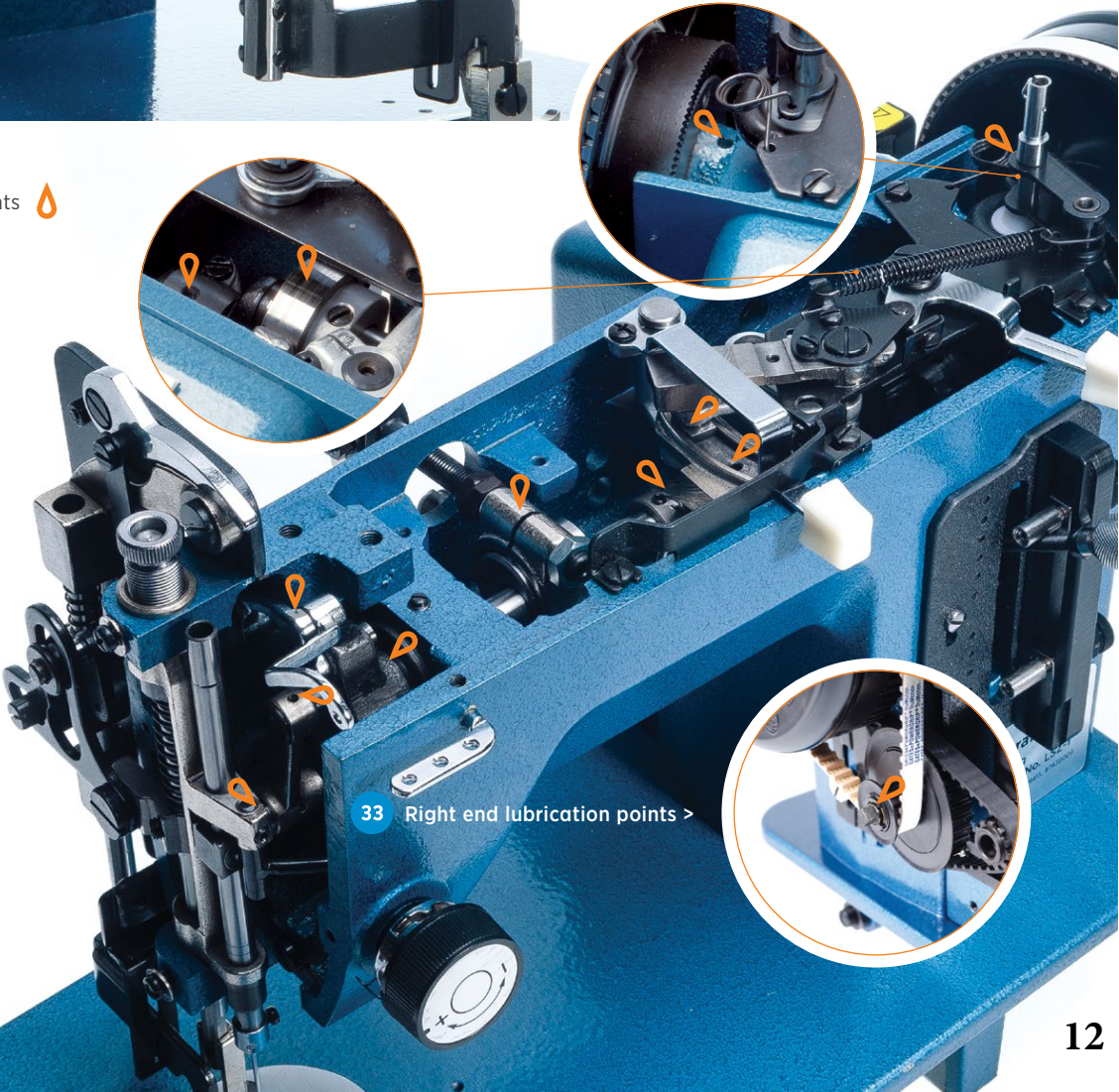


LSZ-1 Lubrication Points

31 Left end and back side lubrication points

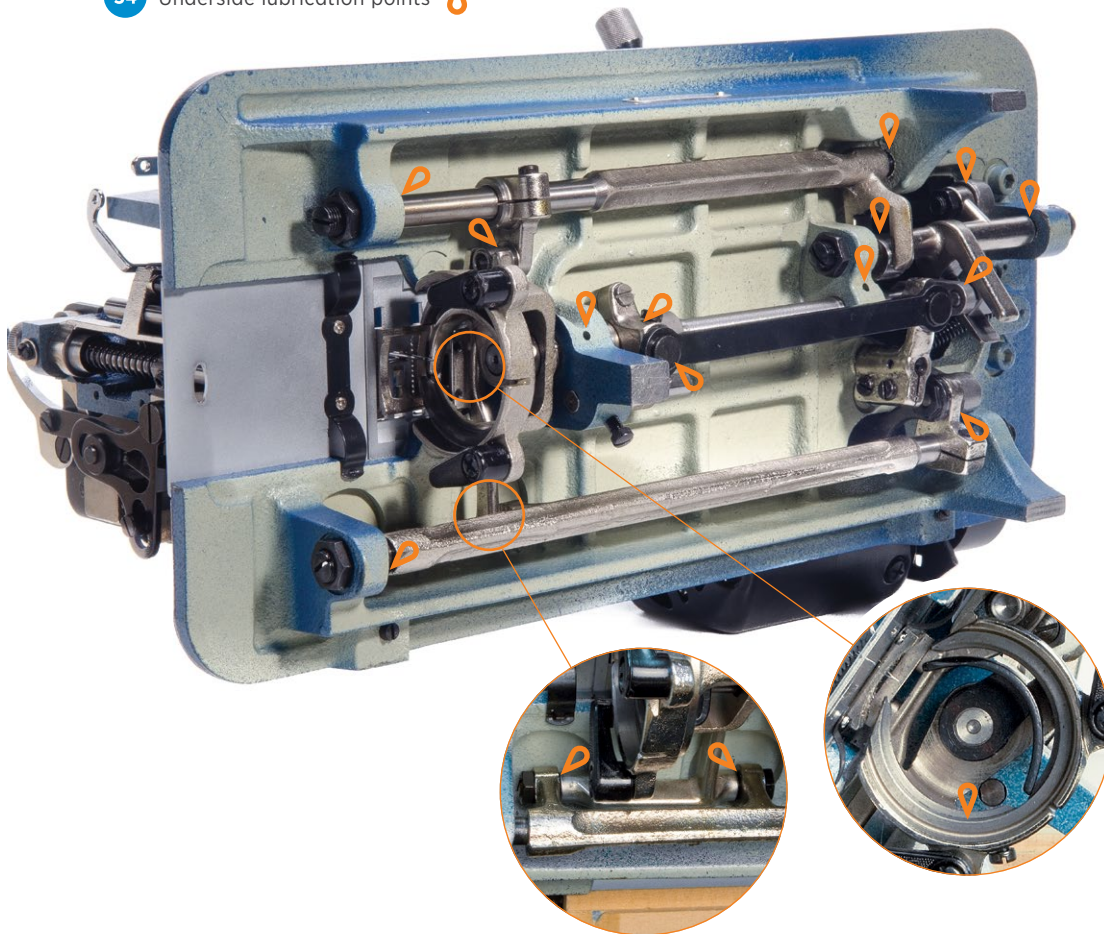


32 Top side lubrication points



33 Right end lubrication points >

34 Underside lubrication points



Troubleshooting the Ultrafeed®

The more we understand our machines, the better they work for us. Ultrafeed® Sewing machines are actually rather simple, and adjustments can be easy if you take a little time to get to know your machine. Use this next section as a guide to better understand your Ultrafeed® and to help fine tune and resolve common sewing machine problems.

35



Thread Tension Doesn't Release

If your thread won't pull out of the top of the machine, even after you've raised the presser foot, the core (I) of your upper tension assembly (35) might have pulled away from the machine. To fix the tension, you will need to move the core closer to the machine.

1. Remove the left end cover (p. 49, 13) of the machine, exposing the internal parts.
2. Using an Allen wrench, loosen the set screw located directly behind the tension assembly (p. 49, 12).
3. With the presser foot up, push the upper tension assembly in until you feel the first signs of resistance.
4. Check to make sure the tension disks (E & F) are open and that the thread moves smoothly.
5. Tighten the set screw.
6. Put the presser foot down to check that the tension disks properly tighten. The thread should not easily pull through.
7. Replace the cover.

Inconsistent Stitch Tension

If you notice that you are getting inconsistent stitch tension or if your thread looks loose and sloppy near the tension assembly under operation, check your take up spring (p. 28, **35 H**). If the wire hook has broken off, you'll need to replace the take-up spring. To do this, you'll need to disassemble the upper tension assembly. Keep track of how the parts are removed as they will be replaced in the same manner (p. 28, **35**).

1. Pull the cover knob (**A**) straight off (wiggle a bit if needed).
2. Unscrew and remove the threaded knob (**B**).
3. Remove the big spring (**C**), the spring holder (**D**), the two tension disks (**E & F**), and the keyway washer with pip (**G**).
4. Remove the old take-up spring (**H**) by pulling it straight out.
5. Slide the new take-up spring over the core post (**I**) so that the pip on the back faces in towards the machine and the straight arm of the spring faces down (approximately at a 6 o'clock position). Push the spring in all the way.
6. Spin the arm of the spring clockwise past the slot in the core.
7. While holding the spring arm in place, slide the keyway washer (**G**) back onto the core with the pip facing in, so the take-up spring arm rests on the metal pip of the washer.
8. Replace the first tension disk (**F**) with the convex side facing out. Add the second tension disk (**E**) with the concave side facing out.
9. Replace the spring holder (**D**) with the concave side facing out and the spring (**C**). Screw the threaded knob (**B**) back on the post and add the cover knob (**A**).

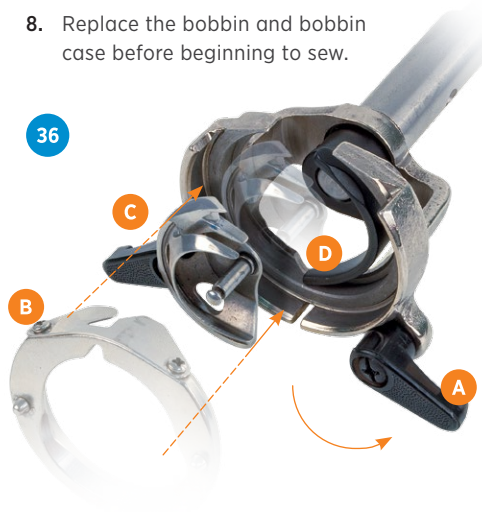
Clutch Will Not Disengage

If the clutch will not disengage, first remove the reverse threaded Posi-Pin nut (p. 61, **2**) from the balance wheel (**6**). Remove the balance wheel. Polish and lubricate the Posi-Pin bushing shaft (**4**). Slide the balance wheel back on and screw the Posi-Pin nut (**2**) down.

Removing the Hook to Clean the Shuttle Race Guide Shaft and Free Thread Jams

Perform these steps with care:

1. Move the needle to its highest point by turning the balance wheel toward you.
2. Remove the bobbin case/bobbin.
3. Turn each lever (**36 A**) one half turn away from the retaining ring (**B**).
4. Pull the axle of the hook to remove retaining ring (**B**) and hook (**C**).
5. Gently remove the accumulated lint and thread from the retaining ring (**B**), hook (**C**), and driver (**D**). Use a small brush to clean the parts or blow out the debris.
6. Replace hook (**C**) opposite driver (**D**). The hook just rests in place. Be sure the axle is facing out.
7. Replace retaining ring (**B**) so that both pins are under the black levers (**A**) when turned. The polished side of the retaining ring should be facing out.
8. Replace the bobbin and bobbin case before beginning to sew.



30

Skipped Stitches

If your machine is skipping stitches, zigzag stitches will look like a straight stitch on either the right or left side with proper zigzag stitches being formed only occasionally. Straight stitches will have stitch lengths that look exceptionally long at times. A skipped stitch means the gib hook is not catching the thread consistently.

There are a number of causes for skipped stitches. Start with Step 1 and stop as soon as the problem is resolved.

1. Incorrectly Installed, Bent, or Dirty Needle

A bent needle will cause skipped stitches because the loop is not where the gib hook (p. 55, 16) “expects” it to be. Adhesive residue on the needle will cause the thread to stick to the needle instead of moving through the eye to form a loop.

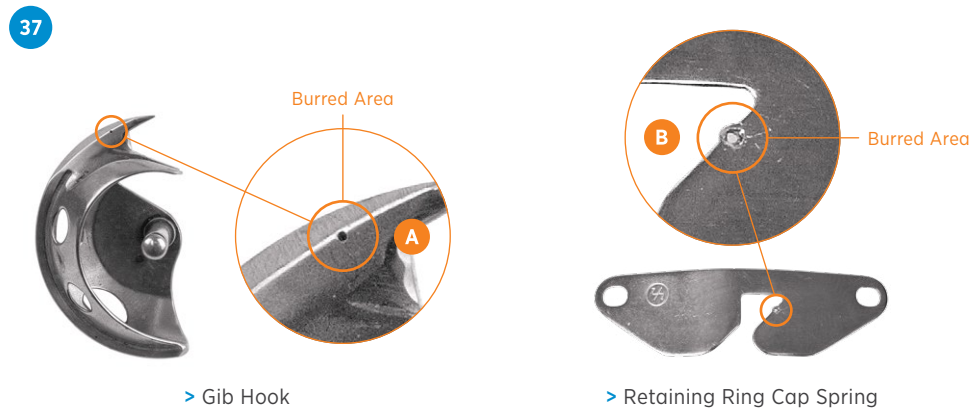
Make sure your needle is installed correctly (p. 4), is not bent or damaged, and is free of any residue from sewing adhesive material. Fouled needles may be cleaned with rubbing alcohol. Bent or damaged needles must be replaced.

2. Not Enough Foot Pressure

Heavy, closely-woven materials like sailcloth and canvas can make the withdrawal of the needle from the fabric difficult.

If the presser foot is being lifted as the needle comes out of the cloth the loop that the needle forms will be too small.

Increase the downward pressure on the presser foot by tightening the pressure regulating thumb screw (p. 12, 13).



3. Burred Gib Hook or Retaining Ring Cap Spring (37)

A needle strike to the gib hook (A) or the edge of the retaining ring cap spring’s “triangular” opening (B) may result in a burr which can cause the thread to snag as it pulls through.

Remove any burrs by polishing them with emery paper or a fine file. If badly damaged, replace with a new retaining ring cap spring (#1603).

4. Machine Has Gone Out of Timing

If skipped stitches continue, the machine has probably gone out of timing. The timing is checked by determining the relationship of the needle to the gib hook point.

To reset the timing on your Ultrafeed®, follow the steps outlined on p. 40 “Ultrafeed® Timing”.

Thread Issues

Thread is shredding, balling or breaking:

There are a number of causes for breaking thread. Start with Step 1 and stop as soon as the problem is resolved.

1. Incorrectly Installed or Damaged Needle

Make sure your needle is installed correctly (p. 4, **1** & **2**). Carefully inspect the needle for burrs, warping or damage to the point that may be causing needle deflection and shredding the thread. Bent or damaged needles must be replaced.

2. Burred Gib Hook or Retaining Ring Cap Spring

A needle strike to the gib hook or the edge of the retaining ring cap spring's "triangular" opening may result in a burr which can cause the thread to snag as it pulls through (p. 32, **37 A** & **B**). Remove any burrs by polishing them with emery paper or a fine file. If badly damaged, replace with a new retaining ring cap spring (#1603).

3. Incompatible Needle Size & Thread Weight

If the thread is too thick for the needle it will not pass through the needle eye and form a loop and will instead ball at the needle. Check the compatibility of the needle size and thread weight (p. 2).

4. Machine Has Gone Out of Timing

If the machine is out of timing it may cause the gib hook point to cut or shred the thread. To reset the timing on your Ultrafeed®, follow the steps outlined on p. 40 "Ultrafeed® Timing".

There are thread loops on the underside of the fabric:

A tangle on the bottom side of the fabric means there is not enough upper tension. More than likely, the thread is not being pulled snugly between the tension disks (p. 28, **35 E** & **F**) on the upper tension assembly or is not between them at all.

1. Lift the presser foot (to push the two tension disks apart) (p. 12, **13**)
2. Firmly pull the thread against the center shaft between the disks.
3. Drop the presser foot. The disks should close on the thread creating plenty of tension. Gently pull on the thread to feel the tension.
4. If this did not solve the problem, pull the cover knob off the upper tension assembly and turn the knob found underneath to the point where its outer surface is flush with the end of the tension post. Then repeat steps 1–3.

Thread loops could also be caused by a bur on the retaining ring cap spring (p. 32, **37 B**). Remove any burrs by polishing them with emery paper or a fine file. If badly damaged, replace with a new retaining ring cap spring (#1603).

Thread pulls out of the needle eye when starting to sew:

Confirm that the needle eye is threaded from left to right (p. 7, **6 H** & **I**). Then pull out a longer thread tail and trap it with your finger. Release the thread tail after the first few stitches.

A rat's nest forms in the first few inches of sewing and then clears up:

Eliminate this formation by trapping the thread tails from the needle and the bobbin as you start to sew.

When stopping to turn a corner, the machine skips a stitch even with the needle buried:

Bury only the needle tip in the cloth. This allows the machine to create the appropriately sized loop for the gib hook to pickup. See p. 13 for helpful advice on turning corners.

When removing fabric from under the machine it pulls hard and three strands of thread come up through the throat plate:

Typically this happens when fabric is being removed during the middle of a stitch. The hook under the machine still has a loop of thread around it.

Before removing fabric from under the machine, manually turn the machine forward until the take-up arm has just passed the top of its travel. This allows the hook to release the thread loop and proper upper tension to be applied to finish the stitch (see p. 17).

Using Thread

Sewing with a lifetime (PFTE) thread can be difficult and frustrating at times. Try making a few easy adjustments to your Ultrafeed® to improve the stitch quality when using Tenara or Helios. These are general guidelines, feel free to experiment with these adjustments to fine tune your Ultrafeed®.

Stitches are skipped in straight or zigzag operation:

1. **Mount the thread spool horizontally.** Every time the thread pulls off the top of the cone, a twist is put in the thread. Eventually, these twists add up and an erratic loop forms at the hook. When the hook misses catching the thread loop, the machine skips a stitch. Make a roller out of a dowel rod or an old coat hanger that will support the spool horizontally and mount the spool on it. Pulling the thread off this way will reduce twists and kinks.
2. **Further reduce the chance of twists and kinks** in your thread by running it through all three holes in the three hole thread guide (p. 50, **21**) when threading the machine.
3. **Lower the needle bar slightly.** Lowering the needle bar has a tendency to increase the size of the thread loop. Adjust the needle bar only if a smaller needle does not help.
4. **Rotate the needle clockwise** to roughly the 10 o'clock position. The long vertical groove in the needle should still be facing the left (as normal) but should now be angled more towards the back of the machine.

If the material puckers, stitch knots are pulled to the upper side of the material, or thread is breaking:

Increase bobbin case tension by approximately a ½ turn and
decrease upper tension by approximately a ½ turn.

Needle Issues

The needle is breaking:

Needles often break if left in the fabric while toggling the stitch width or alternating between left, center, and right positions (LSZ-1 only). Raise the needle out of the fabric before making these changes.

Needles will also snap if there are jams or tangles in the bobbin. Before installing your bobbin make sure it is wound correctly and unwinds smoothly.

The needle hits the needle throat plate when reversing sewing directions:

This is most likely caused by a bent needle. To avoid bending needles when changing sewing direction, stop the machine with the needle positioned either at the top or bottom of its stroke. When the needle is completely up, the foot can move the material but cannot bend the needle. When the needle is completely down, the outer portion of the walking presser foot is up and cannot move the fabric which also would bend the needle.

The balance wheel rotates, but the needle does not penetrate the fabric: The Posi-Pin clutch may slip if the pin is not pushed all the way into the bushing hole that locks the bushing to the balance wheel or if the bushing itself is loose.

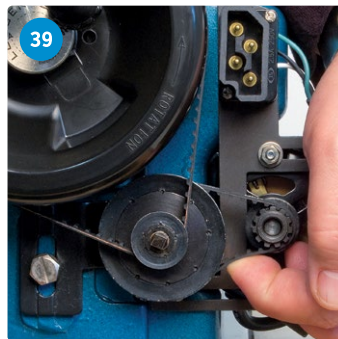
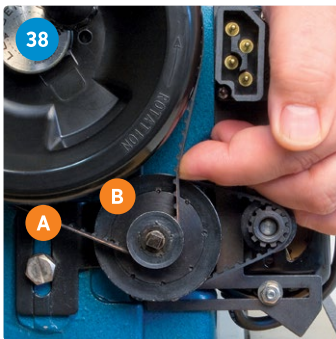
1. Make sure the spring-pin is properly inserted.
2. If slipping still occurs, remove the Posi-Pin nut (p. 61, **2**), pull out the spring-pin (**1, 3 & 5**), and slide the balance wheel off the bushing.
3. Use a 2.5 mm Allen wrench to tighten the two set screws (**33**) that fasten the bushing to the machine's upper shaft, then reinstall the balance wheel and check for proper operation.

Belt Issues

The belts slip or come off the pulleys:

The sewing machine belts may require tension adjustment. The longer belt should be tensioned to deflect 1/4" when pressed down using a little pressure by your finger (38). Tension on the belt can be adjusted by loosening the bolt (A) located directly below the balance wheel. This bolt attaches the idler pulley (B) to the machine. Move the idler pulley up or down to properly tension the belt and, then, tighten the bolt.

The short belt should appear to be much looser, but its deflection should also be about 1/4" (39). This belt should not require adjustment unless an adjustment to the longer belt has been made. If adjustment is ever required, slide the idler pulley forward and backward in its slotted bracket. The pulley shaft (p. 61, 10) of the idler pulley is pressed flat at its outer end so that it can be rotated (loosened) with a small wrench. After loosening the shaft, the pulley may be moved to re-tension the belt. Tighten the shaft to complete the adjustment.



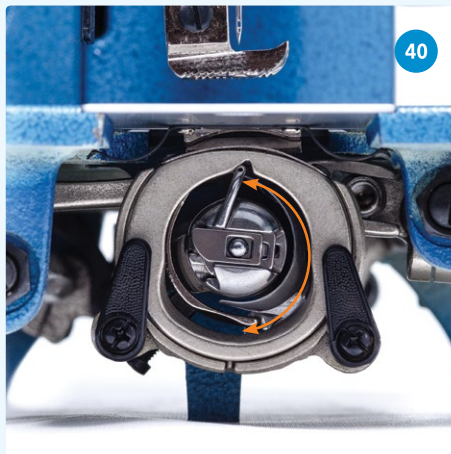
Ultrafeed® Timing

The timing of your machine is determined by the relationship of the needle to the gib hook. The gib hook picks up the upper thread at the needle and carries it down around the bottom of the bobbin case where the upper thread loop is pulled tight by the take up arm above the needle bar.

Starting on p. 41, follow these steps to adjust the timing on your Ultrafeed®:

About the Class 15 Shuttle Hook System

The Ultrafeed® has a class 15 shuttle hook system. In this system the gib hook oscillates back and forth around the bobbin case in half turns (40) carrying the upper thread around the bottom of the bobbin case. Once this is completed, the hook reverses direction and returns to its original location. This movement is geared by a simple yoke and cam arrangement on the top shaft of the machine. It is a relatively simple design but is both reliable and satisfactory for canvas work.



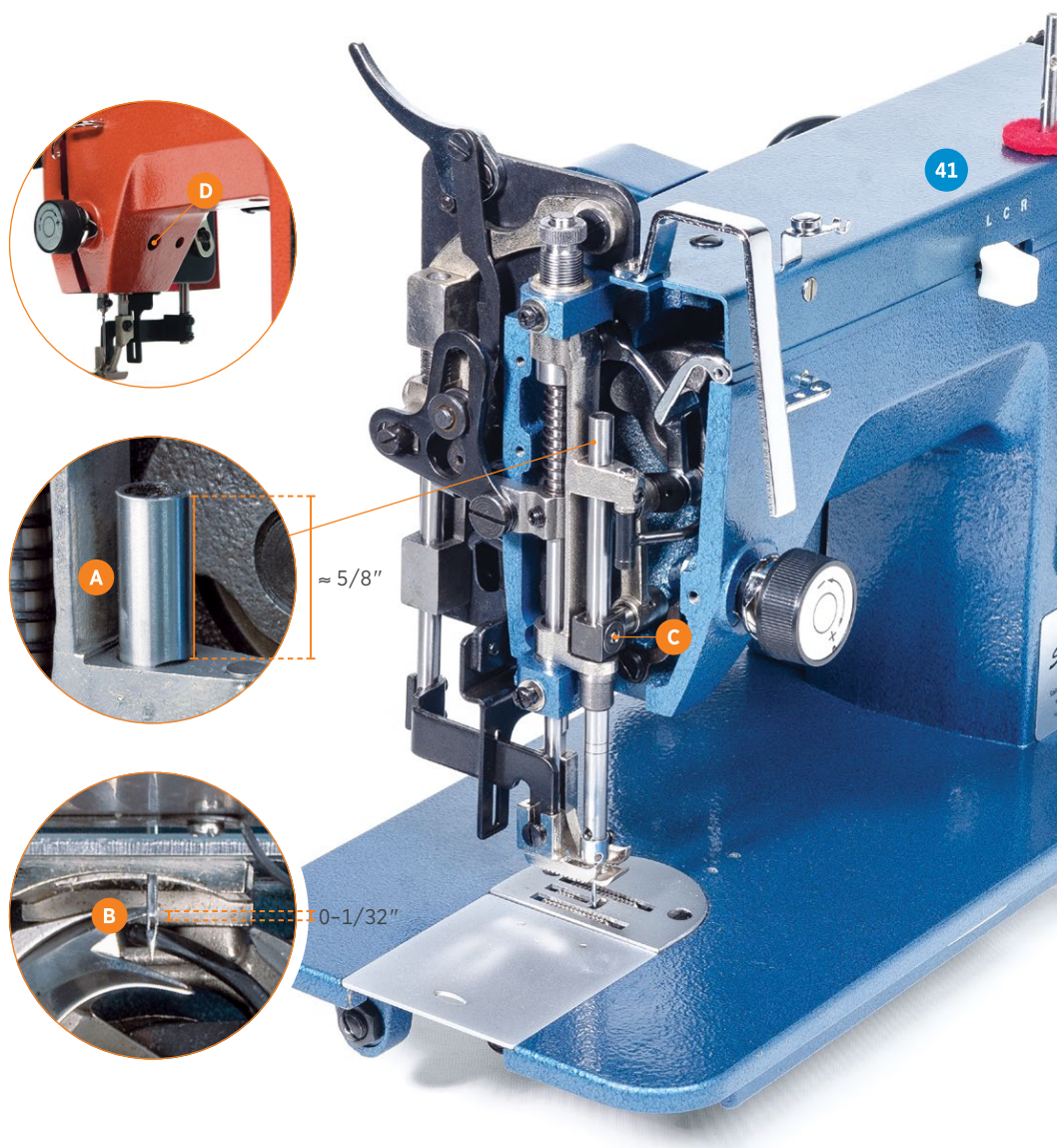
Check the Needle Bar Height

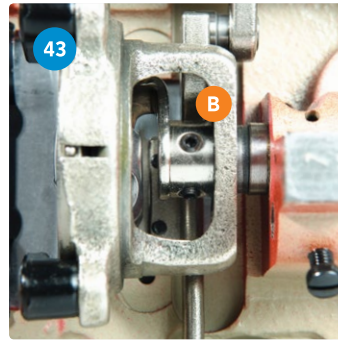
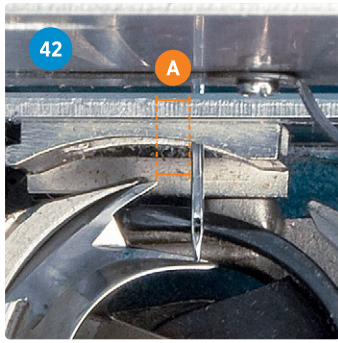
1. Remove the left end cover of the sewing machine as shown (41).
2. Manually lower the needle bar to its lowest position by turning the balance wheel toward you.
3. We mark the proper height of the needle bar for your machine by putting a small scratch on the needle bar (A). Check to see if the mark is level with the top surface of the upper needle bar guide.

You can also determine the proper height by measuring the distance between the top of the needle eye and the gib hook when the gib hook is directly behind the needle and the needle is on its way up. The distance should measure between 0 and 1/32" (B).
4. Manually operate the machine to move the needle bar to the bottom of its stroke (all the way down). Unlock the needle bar from the drive collar by loosening the set screw located either in the front or the side of the pillow block (C). If the screw is in the side of the pillow block, it can be accessed through a hole in the machine casting (D). Use a 1/8" flat blade screwdriver to loosen. Do not use the screwdriver that comes with the machine, it is not a proper fit.
5. With the needle bar at the bottom of its stroke, reposition the needle bar so the mark lines up with the top surface of the upper needle bar guide. Gently twist the needle bar up or down to position the mark making sure the screw that secures the needle is facing the inside of the sewing machine arm. Tighten the drive collar set screw.

If aligned properly, the needle bar is set correctly. If not, continue on to adjust the needle bar height.

If your Ultrafeed® is still not performing properly after adjusting the needle bar height, proceed to check the rotational timing.





Check the Rotational Timing of the Shuttle Gib Hook

The shuttle gib hook (p. 55, **16**) is driven by the shuttle driver (**15**). To change the rotation of the hook, the driver must be repositioned on the lower shaft (**14**).

1. Turn the balance wheel so the gib hook point is at its furthest position counterclockwise (**42**).
2. Measure the distance between the gib hook point and the needle. The driver is correctly positioned when the point is between 1/8" and 3/16" counterclockwise of the needle (**A**).
3. The driver is secured to the lower shaft with two set screws (**43**). Loosen the screws (**B**) and gently twist the shuttle driver. Keep the driver from sliding left or right on the shaft. If the fit is tight, carefully use a screwdriver as leverage.

If spaced properly, the driver is set correctly. If not, continue on to adjust the driver.

After adjusting the rotational timing of the gib hook, you may need to adjust the rotational positioning of the shuttle race guide shaft or the left-right positioning of the shuttle gib hook.

Check the Rotational Positioning of the Shuttle Race Guide Shaft

Before making any adjustments to the left-right positioning of the shuttle assembly, check the rotational positioning of the shuttle race guide shaft.

1. Remove the needle plate (p. 49, **18**) and feed dog (p. 57, **17**).
2. Remove the bobbin case and hook, re-install the retaining ring.
3. Rotate the balance wheel until the needle enters the shuttle (**44**).

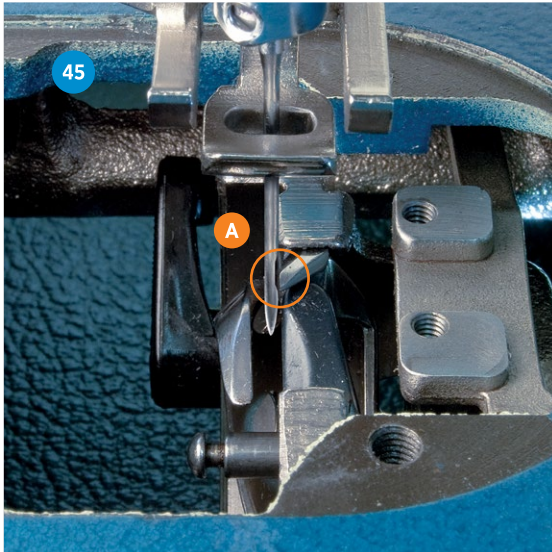
If positioned properly, the needle is centered in the "triangular" opening of the retaining ring cap spring from front to back (C**).**

If not, you'll need to adjust the rotational positioning of the shuttle race guide shaft.

4. Loosen the compressible timing clamp screw (p. 46, **46 D**) just a little.
5. Twist the shuttle race guide shaft carefully without moving it left or right. If it will not move, loosen the compressible timing clamp screw a little more.



6. Verify that the needle is now positioned correctly within the retaining ring cap spring.
7. Tighten the compressible timing clamp screw.



> For the sake of clarity (45) shows the machine without the retaining ring installed. While this makes it easier to see the timing, the hook must be held in place with light finger pressure to keep it from falling out of the shuttle assembly when rotating the balance wheel.

Check the Left-Right Positioning of the Shuttle Gib Hook

If the shuttle assembly and lower shaft have slipped left or right of the factory setting, the gib hook will not be in position to catch the loop.

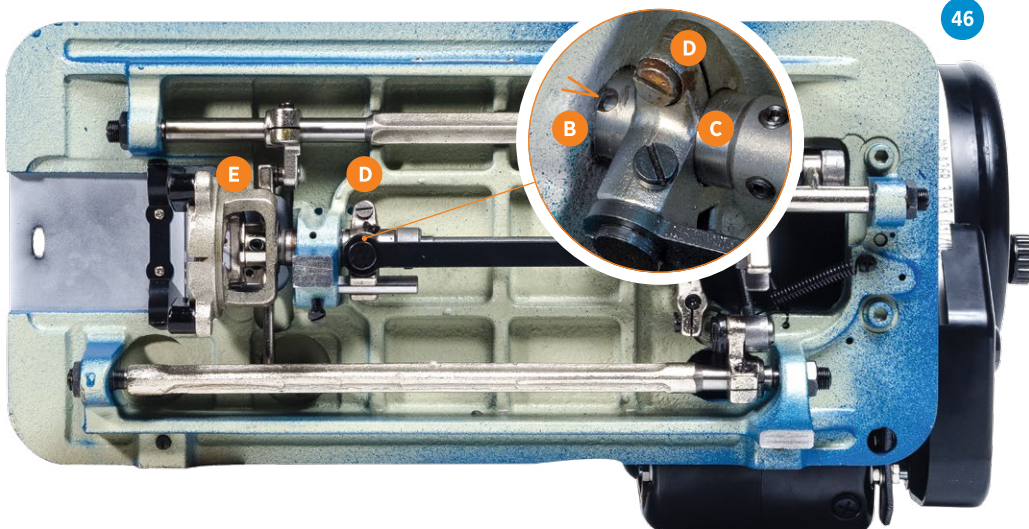
1. Re-install the gib hook (p. 30)
2. Make sure you have a #20 needle installed.
3. Set the machine in straight stitch, center the needle (LSZ-1 only), and grab a flashlight.
4. Remove the presser foot, needle plate and feed dog.
5. Looking from the top down in to the machine (45), slowly rotate the balance wheel. As the gib hook swings past the needle, the hook should be as close as possible to the right side of the needle without deflecting it (A).

If the gap between the needle and the hook is too large, the hook must be moved to the left to close the gap.

If the needle is being deflected by the hook, then the hook must be moved to the right.

Adjusting the Left-Right Positioning of the Shuttle Gib Hook ●

1. Set the machine to straight stitch.
2. Make a mark on the cast iron bearing surface next to the large oil hole (46 B) in the shuttle race guide shaft (C). If the shaft should accidentally rotate, realign the mark with the oil hole.
3. Loosen slightly the compressible timing clamp screw (D) on the compressible timing clamp that drives the entire assembly back and forth with the zigzag movement of the needle. Incrementally loosen the screw until light taps will move the shuttle assembly (E) in either direction.
4. Carefully move the assembly to position the hook as close to the needle as possible without deflecting (p. 45, 45).
5. With the mark on the bearing surface and oil hole aligned, tighten the compressible timing clamp screw (D).



● Applies to LSZ-1 Model Only

Adjusting the Left-Right Positioning of the Shuttle Gib Hook ●

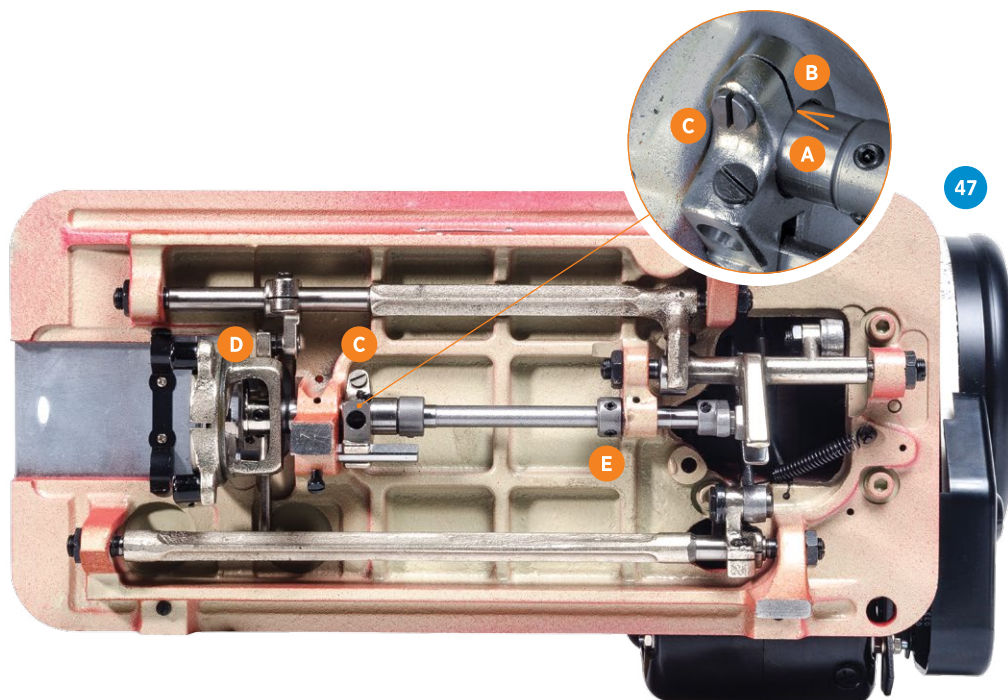
1. Make a mark on the shuttle race guide shaft (p. 48, 47 A) where the halves of the compressible clamp meet (B). If the shaft should accidentally rotate, realign the mark with the clamp gap.

To move the hook to the left —

2. Incrementally loosen the compressible timing clamp screw (C) on the compressible timing clamp until light taps will move the shuttle assembly. Carefully move the shuttle assembly (D) to the left.
3. Move the assembly to position the hook as close to the needle as possible without deflecting (p. 45, 45).
4. With the clamp gap (B) and reference mark (A) aligned, hold the clamp to the far left firmly against the cast iron foot and tighten its screw (C).
5. Holding the gib hook in place, loosen the right collar (E) and move it as far right as possible without touching the frame.
6. Tighten the two collar screws. There should be practically no side-to-side play in the center shaft.

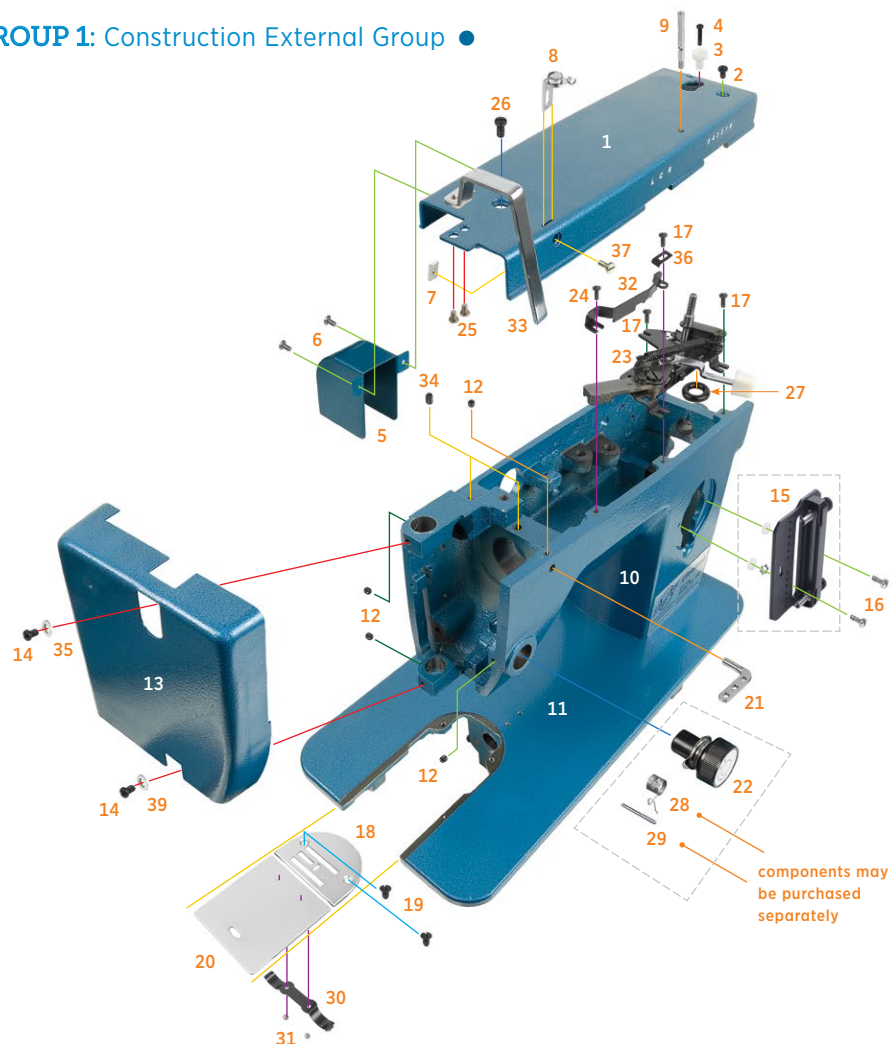
To move the hook to the right —

7. Loosen the two screws in the right collar (E) and move it to the left on its shaft and move the shuttle assembly (D) to the right.
8. Move the assembly to position the hook as close to the needle as possible without deflecting (p. 45, 45).
9. Holding the correct position of the shaft move the right collar (E) as far right as possible without touching the frame and tighten its screws.
10. Holding the gib hook in place, loosen the compressible timing clamp screw and move the timing clamp all the way to the left.
11. With the clamp gap (B) and reference mark (A) aligned, tighten the clamp screw (C). There should be practically no side-to-side play in the shaft.



● Applies to LS-1 Model Only

GROUP 1: Construction External Group ●



KEY PART NAME

TXB PART #:

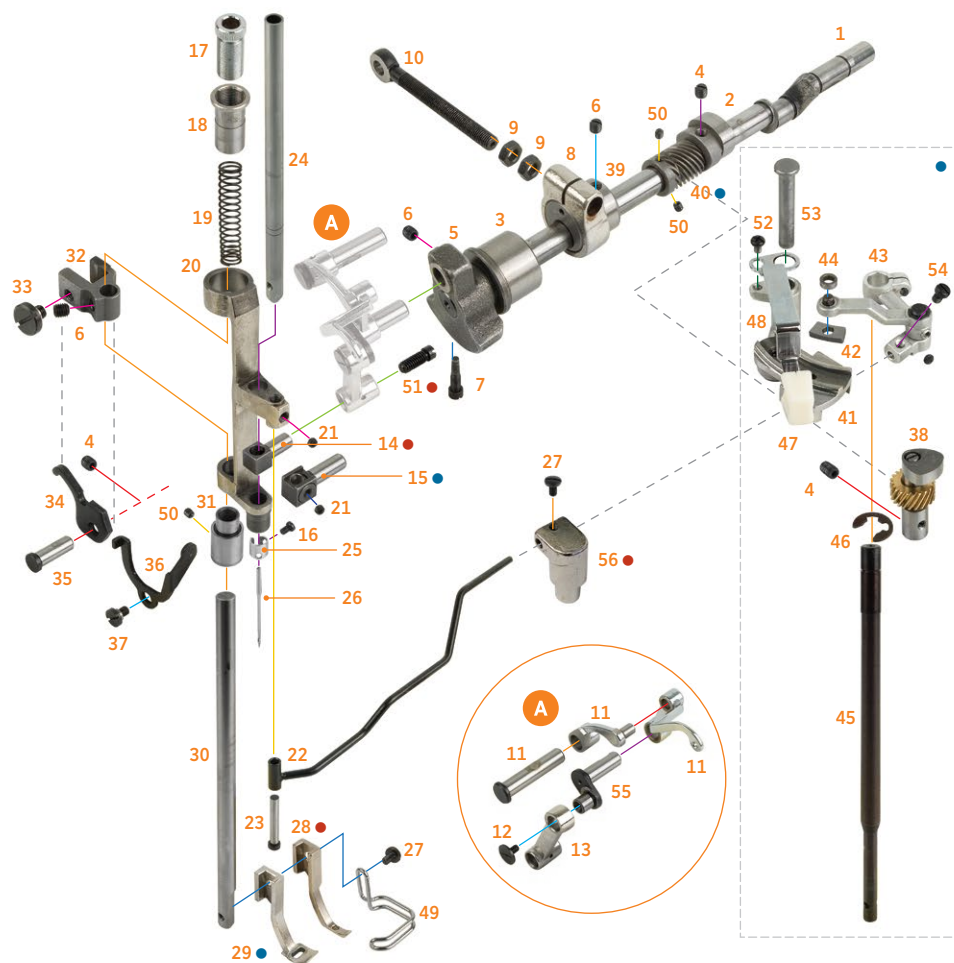
1	Top Plate _____	W047Z
2	Top Plate Screw _____	B071
3	Bobbin Winder Stopper _____	E066
4	Bobbin Winder Stopper Screw _____	E066-2
5	Small Plate Cover _____	W047-1Z
6	Screw _____	100577
7	Bobbin Winder Assembly Nut _____	E070-1
8	Bobbin Winder Assembly _____	E070
9	Spool Pin _____	149
10	Arm Body _____	N/A
11	Bed _____	N/A
12	Set Screw _____	103640
13	Left End Plate _____	W048Z
14	Screw _____	C097
15	EZ Set Stitch Length Plate _____	105511
16	Stitch Length Plate Screw _____	103263
17	Bobbin Winder Set Screw _____	B010
18	Needle Plate (5mm) _____	W032Z
19	Needle Plate Screw _____	A052
20	Shuttle Race Slide _____	A048-B
21	Three Hole Thread Guide _____	W029
22	Upper Tension Assembly (includes 28 & 29) _____	8511
23	Bobbin Winder _____	W030Z
24	Screw _____	100576 or A036

KEY PART NAME

TXB PART #:

25	Thread Guard Screw _____	103253
26	Top Plate Set Screw _____	E072
27	Bobbin Winder Ring _____	120181
28	Thread Take-Up Spring (included in 22) _____	5332
29	Tension Release Pin (included in 22) _____	W184-2
30	Shuttle Race Slide Spring _____	A049
31	Shuttle Race Slide Spring Screw _____	A050
32	Straight Stitch Position Guide _____	W001Z
33	Take Up Arm Guard _____	102626
34	Set Screw _____	A012
35	Left End Plate Washer _____	103252
36	L, R, C Lever Stop _____	103254
37	Bobbin Winder Assembly Screw _____	103255

● Applies to LSZ-1 Model Only



KEY PART NAME

TXB PART #:

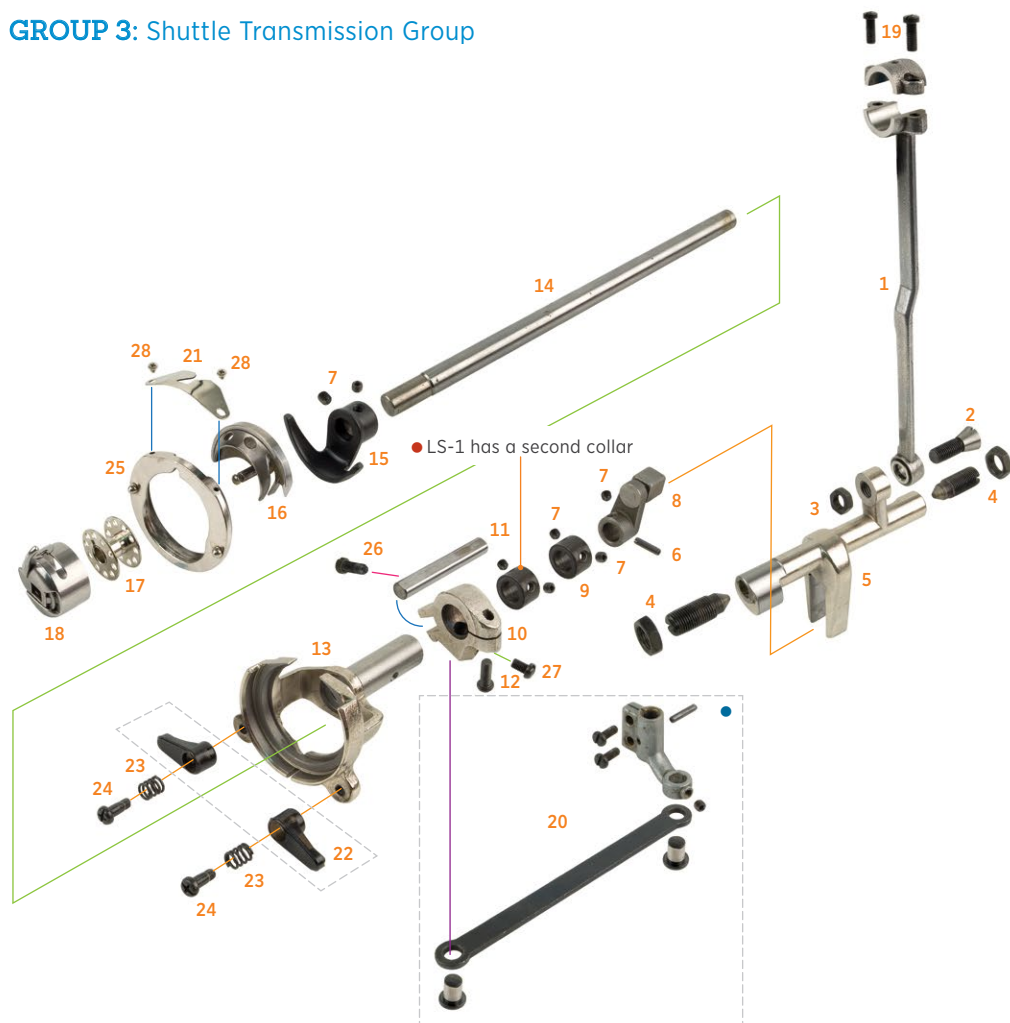
1	Arm Shaft	E053
2	Feed Cam	B007
3	Arm Shaft Bushing	B051
4	Set Screw	A012
5	Thread Take-Up Lever Cam	B048
6	Thread Take-Up Assembly Set Screw	A029
7	Thread Take-Up Lever Cam Screw	103256
8	Crank Rod Lever Cam Follower	W028-4
9	Crank Rod Lever Cam Follower Adjust Nut	W028-2
10	Crank Rod Lever Cam Follower Bolt	W028-1
11	Thread Take-Up Assembly	E020
12	Needle Bar Connecting Rod Set Screw - Reverse Thread	E020-2
13	Needle Bar Connecting Rod	B018
14	Needle Bar Connecting Stud	A042S
15	Needle Bar Connecting Stud	A042
16	Needle Screw	A092
17	Presser Regulating Thumb Screw	A031
18	Presser Regulating Thumb Screw Socket	W010
19	Presser Bar Spring	A032
20	Needle Bar Support	B016
21	Needle Bar Set Screw	D097
22	Zigzag Connecting Rod	W015
23	Needle Bar Connecting Joint Pin	B099
24	Needle Bar	W066
25	Needle Thread Guide	W067
26	Needle #20 (135X17)	7010
27	Presser Foot Screw	A036
28	Inside Presser Foot	W012

KEY PART NAME

TXB PART #:

29	Inside Presser Foot	W012Z
30	Presser Bar	A035-1
31	Presser Bar Lower Bushing	B028
32	Presser Bar Bracket	W039
33	Presser Bar Feed Actuator Pivot Screw	103257
34	Tension Release Lever Drag Link	W043
35	Tension Release Lever Drag Link Set Pin	D020
36	Tension Release Lever	W045
37	Tension Release Lever Set Screw	B046
38	Zigzag Drive Gear Cam	W016Z
39	Presser Bar Actuator Cam	W065
40	Helical Gear	W000Z
41	Needle Displacement Regulator Assembly	W003Z
42	Block Slide	W004Z
43	Zigzag Connecting Link and Screws	W005Z
44	Collar For Zigzag Connecting Link	W006Z
45	Zigzag Vertical Shaft	W007Z
46	Snap Ring For Zigzag Vertical Shaft	W008Z
47	L, R, C Lever Cap	W003ZC
48	L, R, C Lever	W003ZL
49	Needle Guard (220 Volt Ultrafeed® Only)	102627
50	Set Screw	W052-1
51	Pillow Block Screw	103258
52	Screw	B103US
53	L, R, C Lever Pin	103270
54	Screw	103264
55	Needle Crank Arm	103269
56	Connecting Rod Set Base	W016

GROUP 3: Shuttle Transmission Group

[illegible]

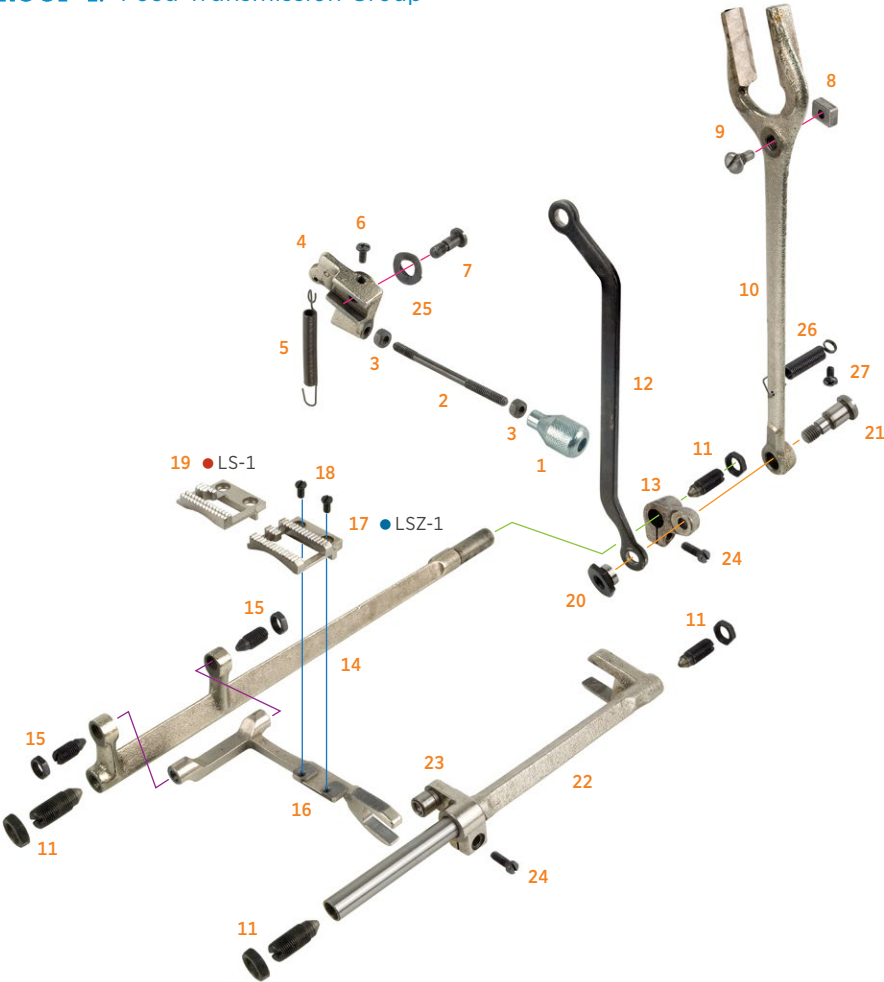
1	Crank Connecting Rod _____	B139
2	Crank Connecting Rod Set Screw _____	A027A
3	Crank Connecting Rod Set Nut _____	A027B
4	Oscillating Shaft Set Screw & Nut _____	A023
5	Oscillating Shaft _____	A024
6	Oscillating Shaft Crank Set Pin _____	A018
7	Set Screw _____	103640
8	Oscillating Shaft Crank With Slide Block _____	B179
9	Lower Shaft Collar _____	B177
10	Compressible Timing Clamp _____	B155
11	Compressible Timing Clamp Pin _____	A084
12	Compressible Timing Clamp Screw _____	B153
13	Shuttle Race Guide Shaft _____	B170
14	Lower Shaft _____	B172
15	Shuttle Driver _____	W172
16	Shuttle Gib Hook _____	9601
17	Bobbin _____	123100
18	Bobbin Case Assembly _____	1232
19	Screw _____	B139-2
20	Zigzag Shuttle Drive Assembly ● _____	W002Z

KEY	PART NAME	TXB PART #:
-----	-----------	-------------

21	Retaining Ring Cap Spring	1603
22	Retaining Ring Clip Set	123011
23	Retaining Ring Clip Spring	103273
24	Retaining Ring Clip Screw	103274
25	Retaining Ring for Ultrafeed®	102241
26	Timing Clamp Pin Screw	103259
27	Screw 	103264
28	Retaining Ring Screw	102496

● Applies to LSZ-1 Model Only ● Applies to LS-1 Model Only

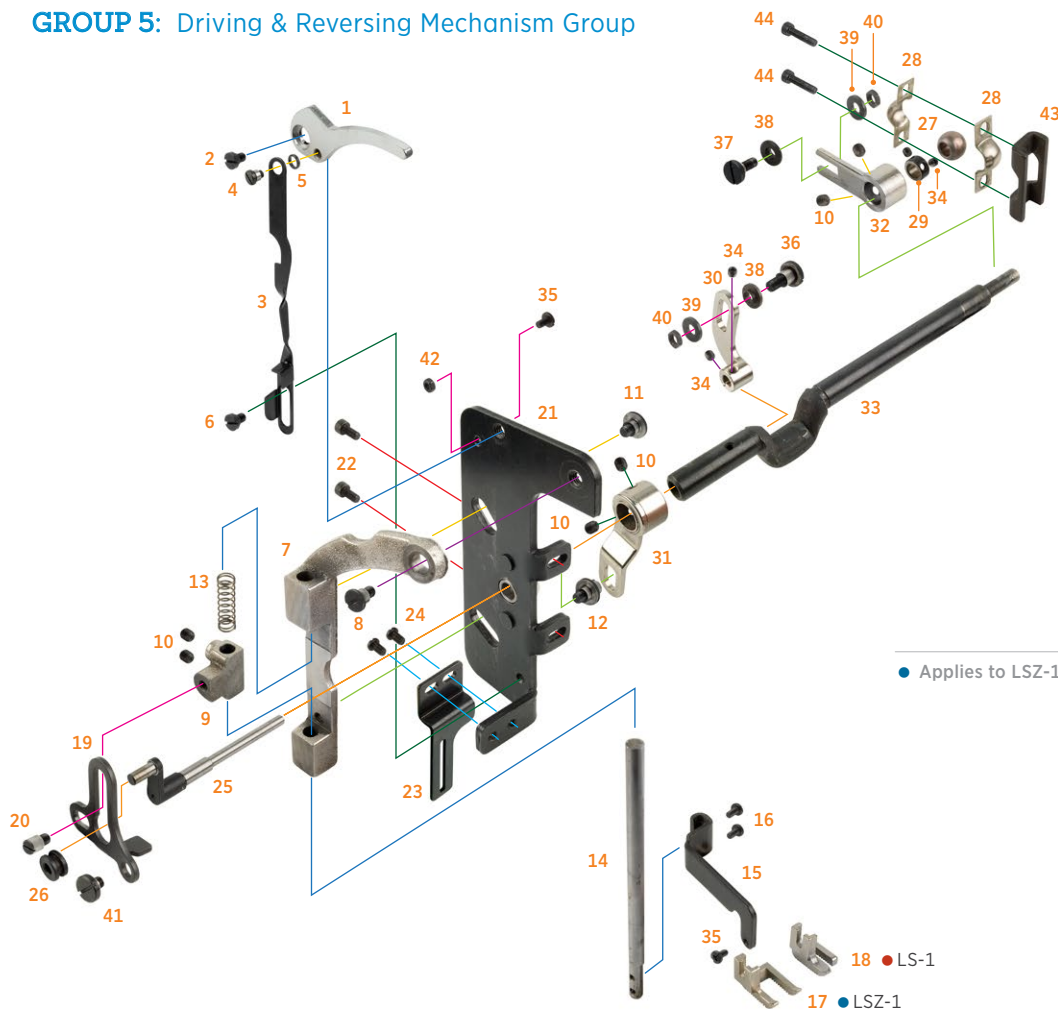
GROUP 4: Feed Transmission Group



KEY	PART NAME	TXB PART #:	KEY	PART NAME	TXB PART #:
1	Feed Regulator Thumb Nut _____	W109	24	Screw _____	B139-2
2	Feed Regulator Lever _____	W105	25	Feed Regulator Wavy Washer _____	A067
3	Feed Regulator Lever Nut _____	A053B-2	26	Forked Rod Support Spring _____	B103U
4	Feed Regulator _____	W107	27	Forked Rod Support Spring Screw _____	B103US
5	Feed Regulator Spring _____	W106			
6	Feed Regulator Screw _____	B010			
7	Feed Regulator Pivot Screw _____	W108			
8	Feed Connection Slide Block _____	A069B			
9	Feed Connection Slide Block Stud _____	A069A			
10	Forked Rod _____	B103			
11	Oscillating Shaft Set Screw and Nut _____	A023			
12	Driving Crank _____	W046			
13	Feed Rock Shaft Crank _____	A071B			
14	Feed Rock Shaft _____	A071A			
15	Feed Bar Center Screw & Nut _____	A076			
16	Feed Bar _____	A075			
17	Feed Dog ● _____	W011Z			
18	Feed Dog Screw _____	A078			
19	Feed Dog ● _____	W011			
20	Driving Crank Guide Nut _____	W046-1			
21	Driving Crank Guide Screw _____	A061			
22	Feed Lifting Rock Shaft _____	A072			
23	Feed Lifting Rock Shaft Crank _____	A073			

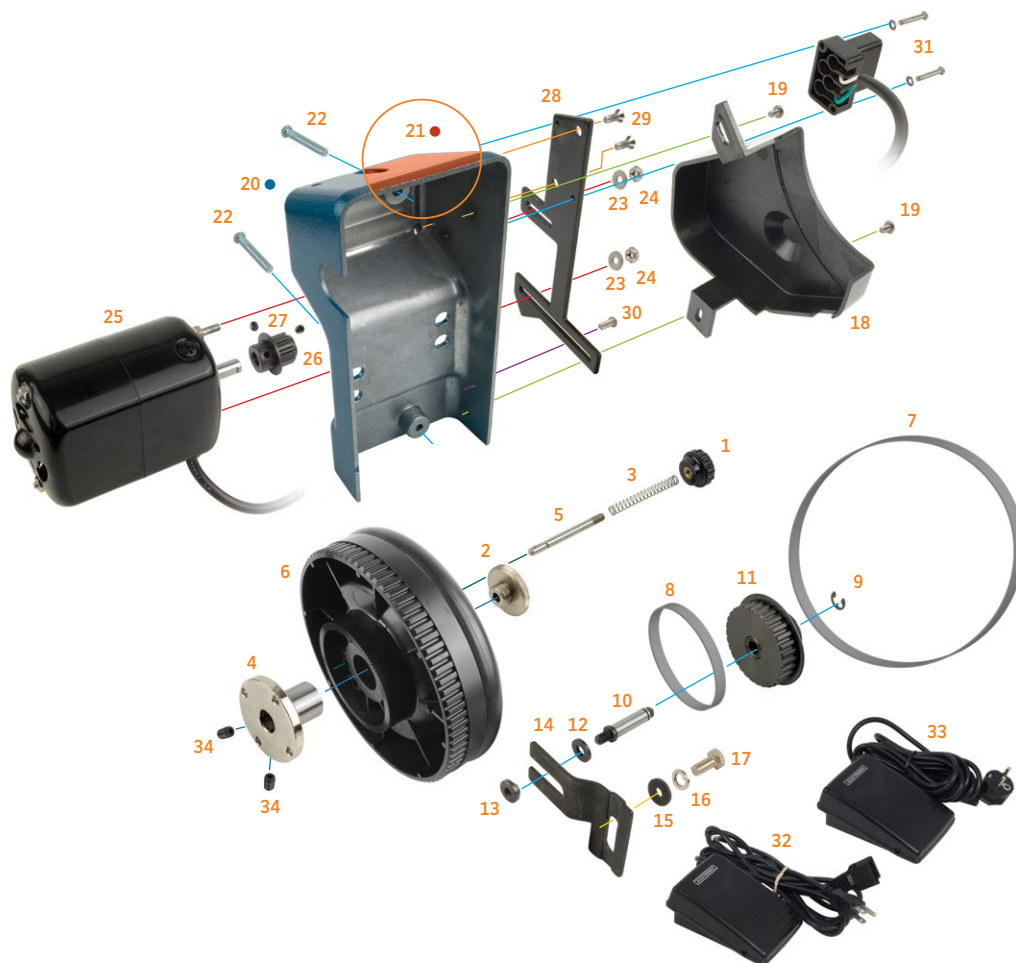
● Applies to LSZ-1 Model Only ● Applies to LS-1 Model Only

GROUP 5: Driving & Reversing Mechanism Group



KEY	PART NAME	TXB PART #:	KEY	PART NAME	TXB PART #:
1	Presser Foot Lift Lever	W042	24	Screw	C097
2	Presser Foot Lift Lever Hinge Screw	W042-3	25	Presser Bar Feed Rod	W036
3	Lift Bar	W026	26	Presser Bar Actuator Spacer	W024-1
4	Upper Lift Bar Screw	W042-2	27	Bearing Bracket Bushing	W021
5	Spacer	W042-1	28	Lift Crank Rod Bearing Plate	W023
6	Lift Bar Guide Screw	W026-1	29	Rocker End Set Ring	W052
7	Presser Bar Track	W018	30	Presser Bar Actuator Rocker	W033
8	Presser Bar Track Hinge Screw	W018-1	31	Presser Bar Actuator Feed Rocker	W034
9	Rear Presser Bar Bracket	W020	32	Crank Rod Rocker	W035
10	Set Screw	A029	33	Crank Rod	W053
11	Presser Bar Track Guide Screw	W018-2	34	Set Screw	103640
12	Presser Bar Track Feed Stud	W018-3	35	Screw	A036 or 100576
13	Presser Bar Load Spring (Rear)	W019-1	36	Presser Bar Actuator Rocker Screw	103272
14	Rear Presser Bar	W019	37	Guide Screw	W046-2
15	Outside Presser Foot Bracket	W017	38	Lock Spacer	W046-3
16	Screw	B010	39	Washer	W046-4
17	Outside Presser Foot ●	W013Z	40	Lock Nut	A061-B
18	Outside Presser Foot ●	W013	41	Presser Bar Actuator Pivot Screw	103257
19	Presser Bar Actuator	W024	42	Presser Foot Lift Lever Stop Nut	103267
20	Presser Bar Actuator Feed Screw	W020-1	43	Crank Rod Bearing Set Base	W025
21	End Plate	W041	44	Crank Rod Bearing Set Base Screw	W025-1
22	End Plate Set Screw	W041-1			
23	Presser Foot Bracket Limiter	W014			

GROUP 6: Electric Power & Dynamic Transmission



KEY	PART NAME	TXB PART #:	KEY	PART NAME	TXB PART #:
1	Posi-Pin Knob For Shaft	100540	23	Motor Bracket Washer	103266
2	Posi-Pin Nut - Reverse Thread	100536	24	Motor Bracket Nut	103268
3	Posi-Pin Spring	100539	25	Motor 102630 (110V), 102731 (220V)	
4	Posi-Pin Wheel Bushing	100537	26	Motor Pulley	W062-1
5	Posi-Pin Quick Release Shaft 3/16"	100538	27	Set Screw	W052-1
6	Power Plus Flywheel	100181	28	Bracket	102712
7	Cogged Sewing Machine Timing Belt 18.6"	56535	29	Top Bracket Mount Screw	103260
8	Cogged Sewing Machine Timing Belt 8"	56539	30	Bottom Bracket Mount Screw	103261
9	E5 Ring	D116	31	Motor Plug Screw & Washer	103262
10	Idler Pulley Shaft	W061-1	32	Foot Control 110V with Grounded Wiring	102594
11	Idler Pulley	W061-A	32	Foot Control 220V with Grounded Wiring	102730
12	Idler Pulley Washer	W061-6	34	Set Screw	713100
13	Idler Pulley Set Nut	W061-2			
14	Pulley Bracket	W059			
15	Motor Bracket Washer	LT-2M-4			
16	Motor Bracket Lock Washer	LT-2M-3			
17	Motor Bracket Bolt	LT-2M-2			
18	Belt Cover	W050BL			
19	Belt Cover Screw	100576 or A036			
20	Motor Base ●	W049Z			
21	Motor Base ●	W049			
22	Motor Base Screw	W049-1			

● Applies to LSZ-1 Model Only ● Applies to LS-1 Model Only

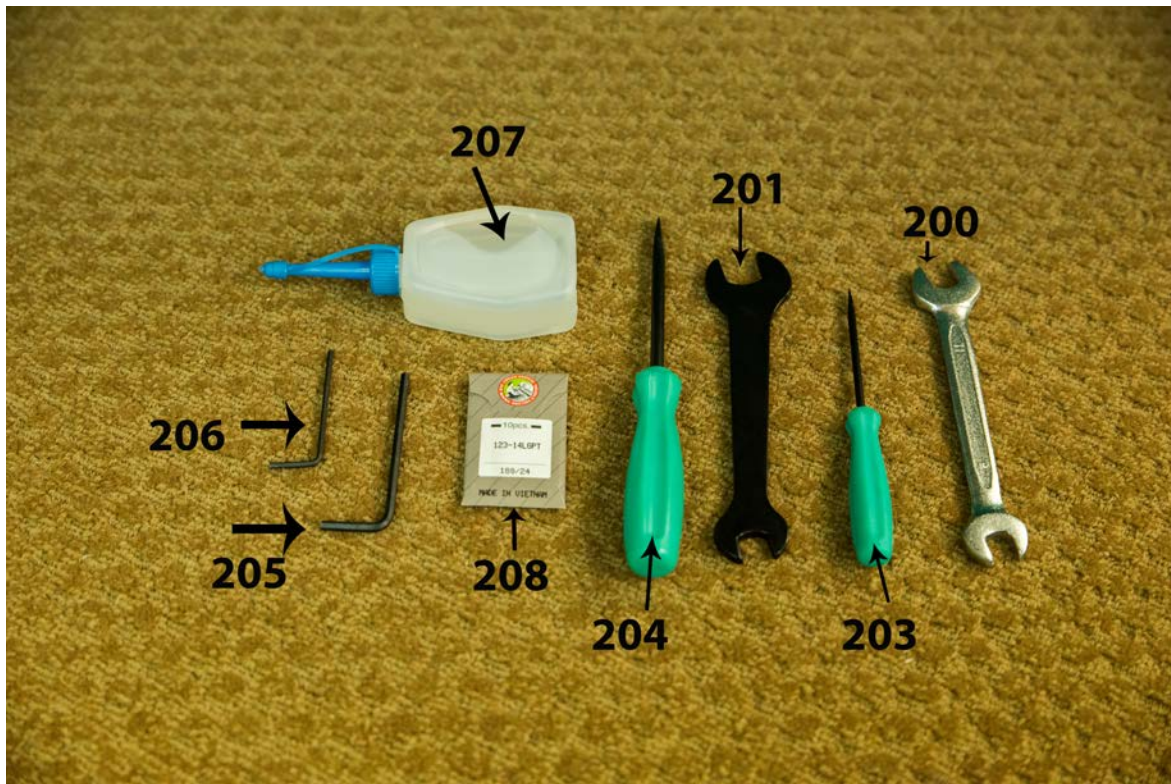


PLATE 2- TOOLS & ACCESSORIES

TXB-200	WRENCH
TXB-201	WRENCH
TXB-203	SMALL SCREW DRIVER
TXB-204	LARGE SCREW DRIVER
TXB-205	LARGE ALLEN WRENCH
TXB-206	SMALL ALLEN WRENCH
TXB-207	OILER
TXB-208	123-14LGPT NEEDLES 10/PK, 100/BOX

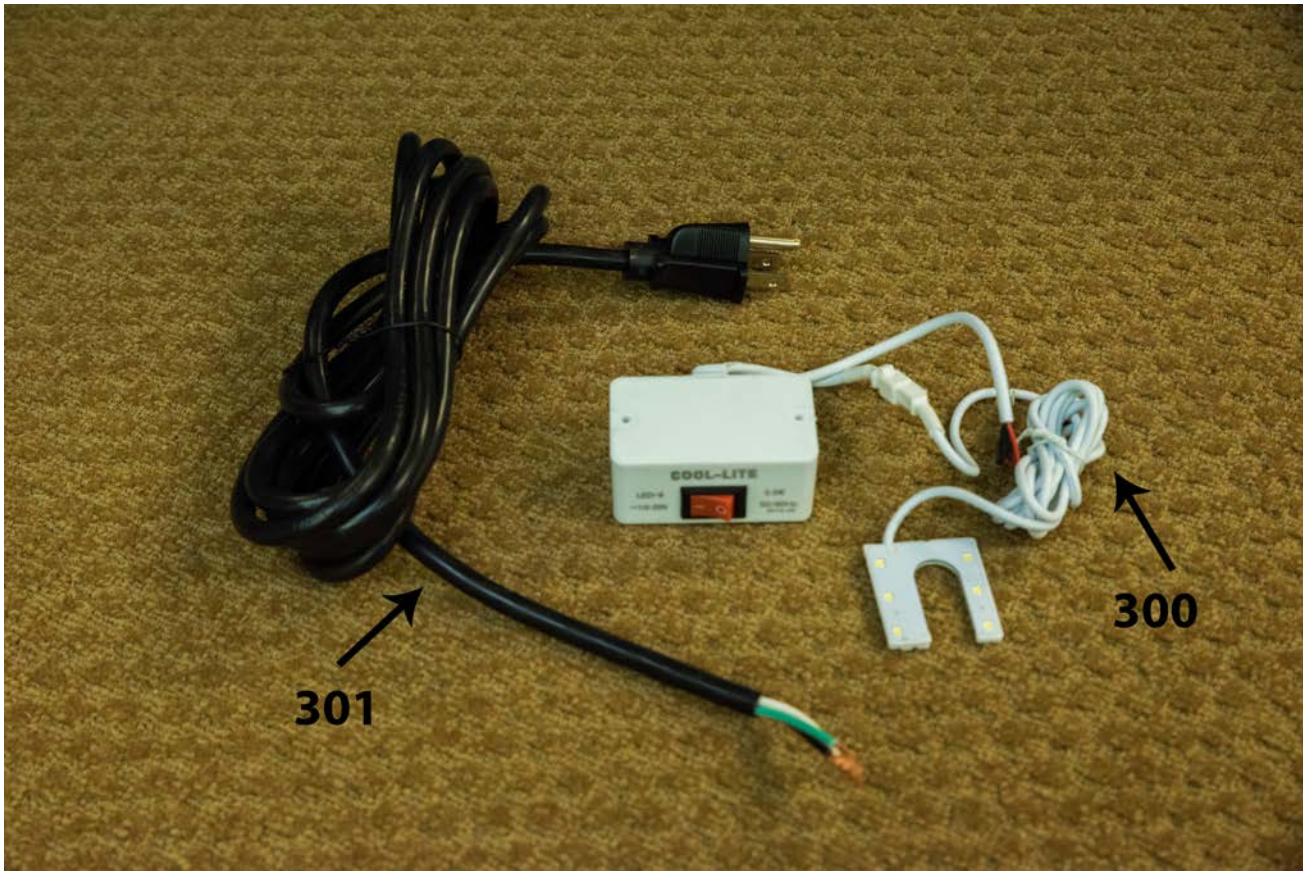


PLATE 3- LED LIGHT & CORD

TXB-300	LED LIGHT UNIT
TXB-301	ELECTRIC CORD

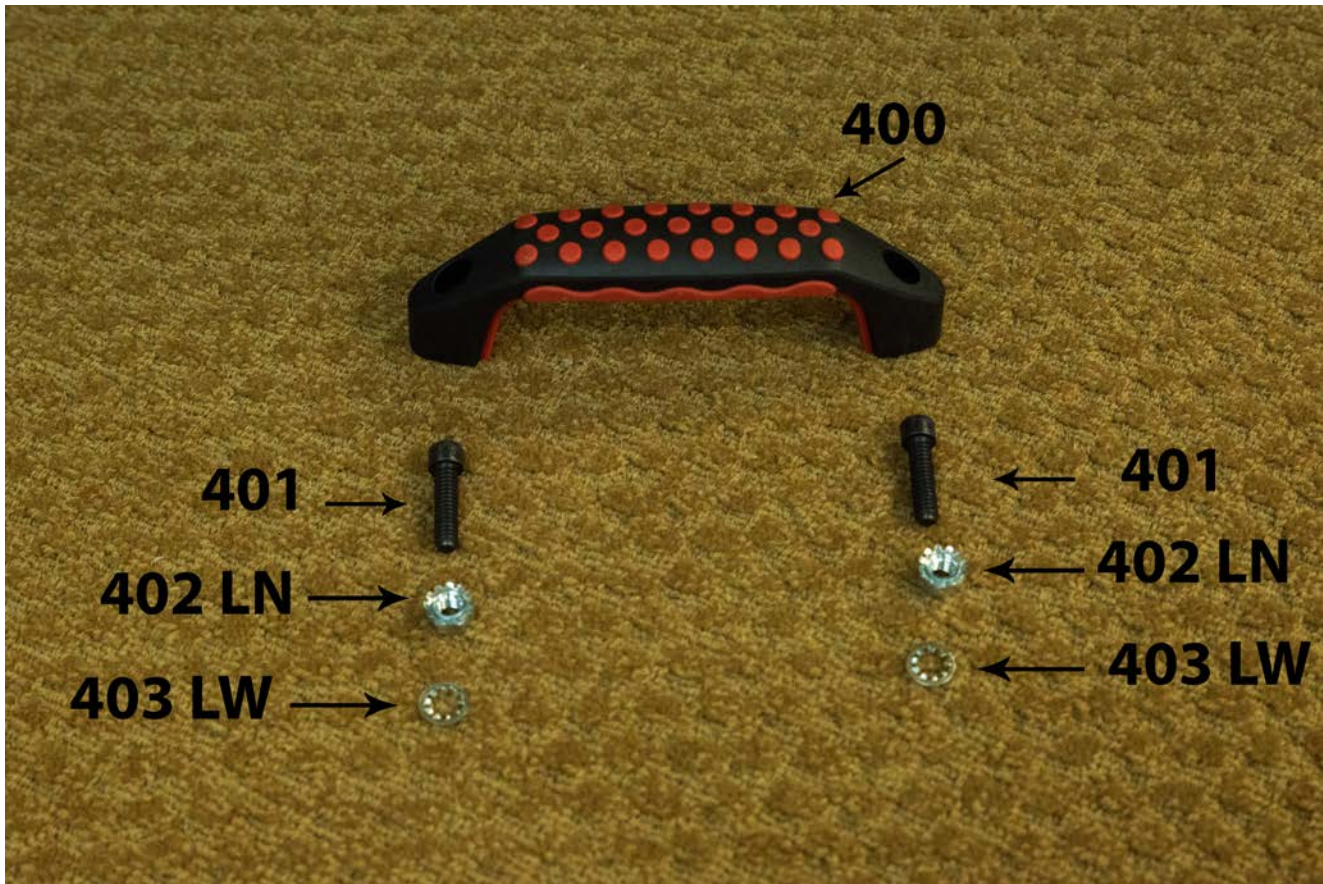


PLATE 4- CARRY HANDLE ASSEMBLY

TXB-400 HANDLE
TXB-401 BOLT (2)
TXB-402LN LOCK NUT (2)
TXB-403LW LOCK WASHER (2)

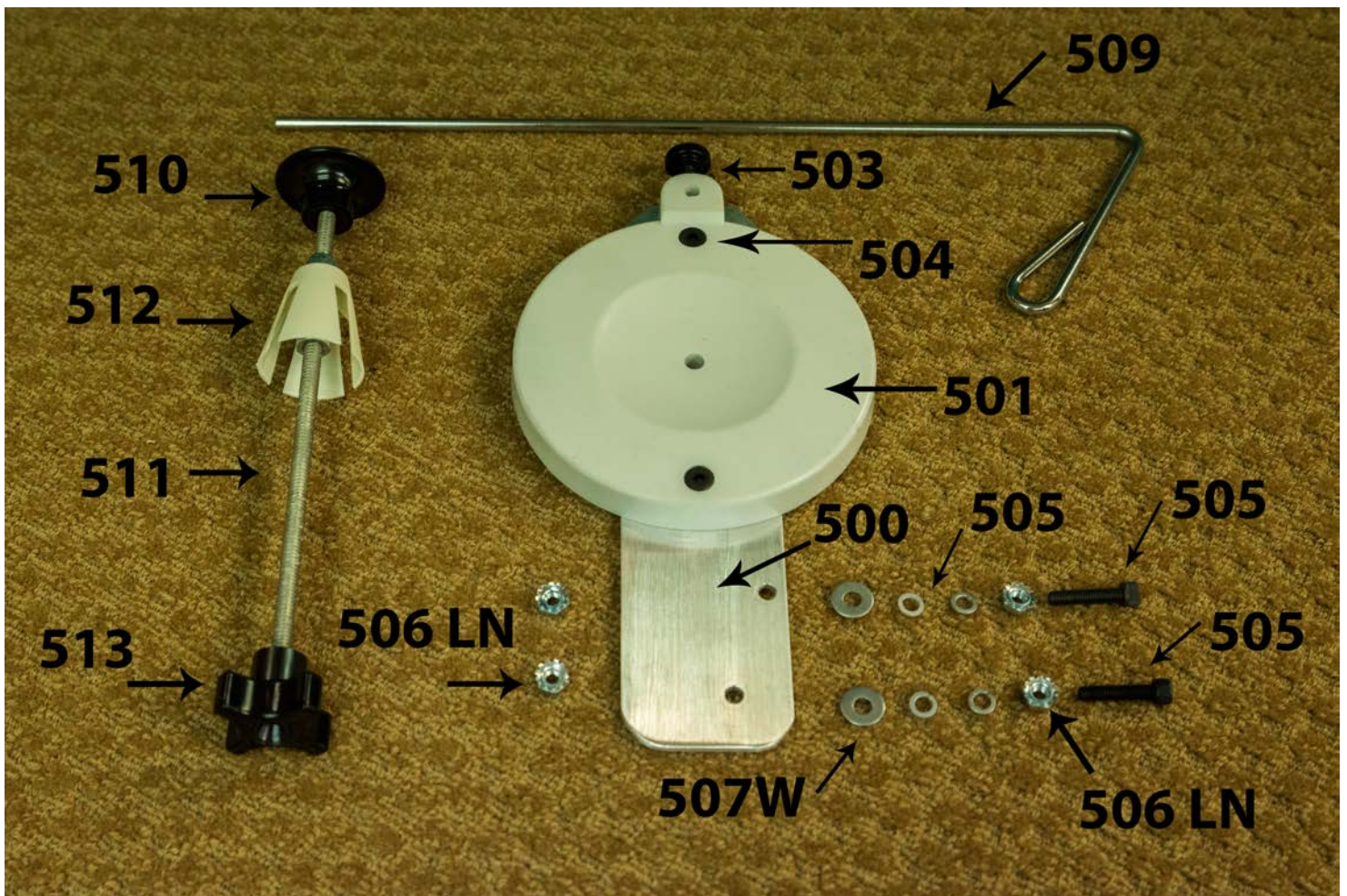


PLATE 5- THREAD HOLDER ASSEMBLY

TXB-500	UPRIGHT BRACKET
TXB-501	THREAD SPOOL BACK PLATE
TXB-503	THREAD ROD THUMB SCREW
TXB-504	BACK PLATE SCREW (2)
TXB-505	SCREW FOR UPRIGHT BRACKET (2)
TXB-506LN	HEX NUT (4)
TXB-507W	FLAT WASHER (2)
TXB-508LW	LOCK WASHER
TXB-509	THREAD ROD
TXB-510	SPOOL KNOB, FRONT
TXB-511	THREAD HOLDER ROD
TXB-512	THREAD SPOOL RETAINER CONE
TXB-513	SPOOL KNOB, REAR

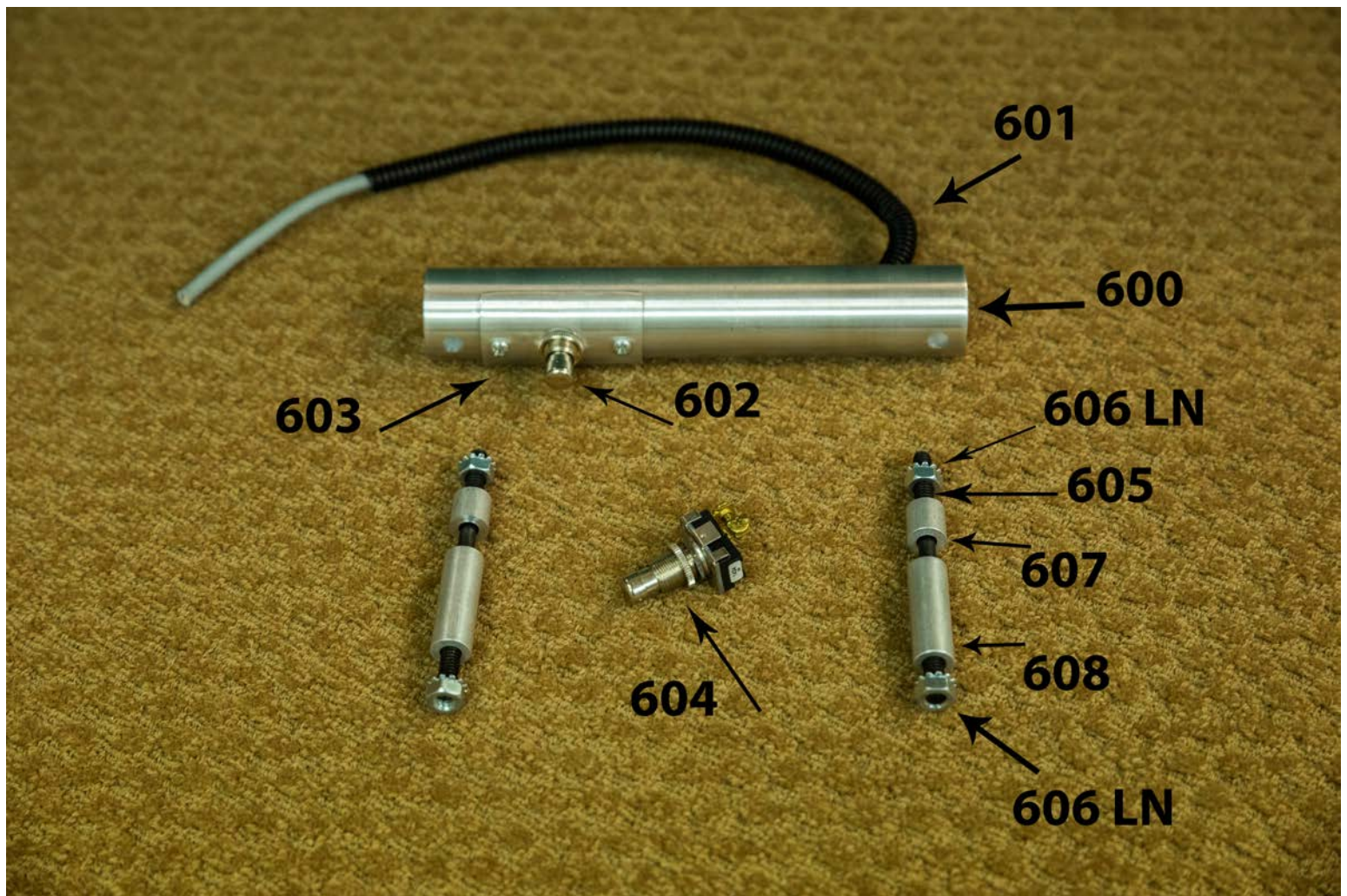


PLATE 6- SWITCH, GRIP ASSEMBLY

TXB-600	SWITCH, GRIP HOUSING
TXB-601	SWITCH CORD
TXB-602	SWITCH COVER
TXB-603	COVER SCREW (2)
TXB-604	PUSH BUTTON SWITCH
TXB-605	THREADED ROD (2)
TXB-606LN	LOCK NUT (4)
TXB-607	SHORT SPACER (2)
TXB-608	LONG SPACER (2)

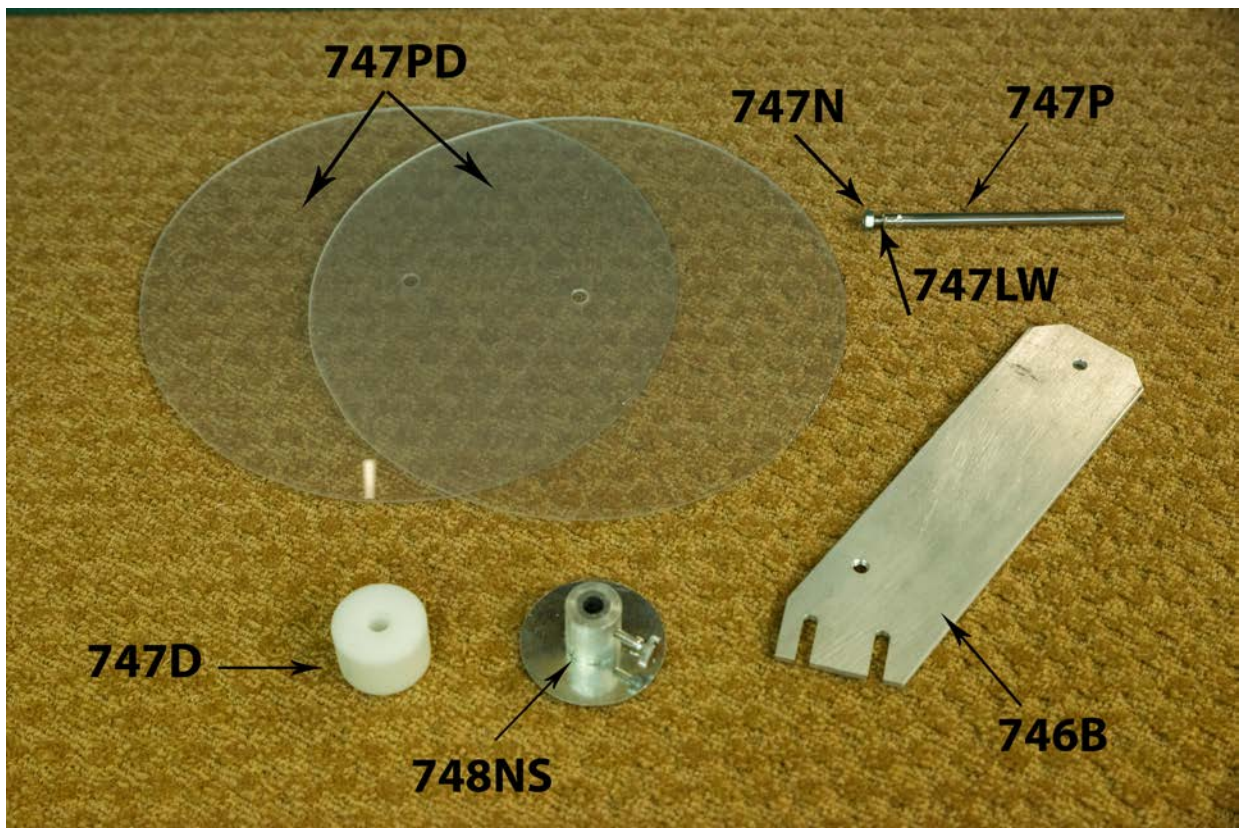
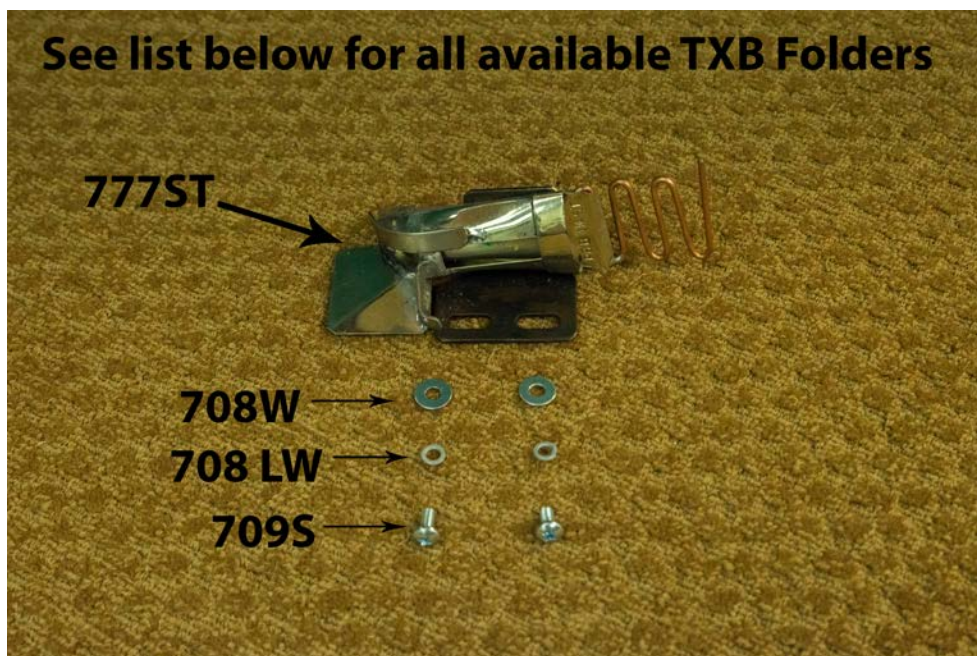


PLATE 7- TAPE FOLDERS (ASSORTED)

TXB-707WM	13/16" BINDING FOLDER	TXB-747LW	POST LOCK WASHER
TXB-707KP	7/8" POLY BINDING FOLDER	TXB-747N	POST HEX NUT
TXB-707SB	7/8" SERGE TAPE FOLDER	TXB-747PD	BINDING DISC (2)
TXB-708LW	LOCK WASHER (2)	TXB-748NS	BINDING HOLD DOWN CLAMP
TXB-708W	FLAT WASHER (2)	TXB-777CT	1-1/4" CLEAN TOP FOLDER
TXB-709S	ADJUSTING SCREW (2)	TXB-777ST	1-1/4" SINGLE TURN FOLDER
TXB-746B	UPRIGHT BINDING BRACKET	TXB-777STS	1-1/4" SERGE TAPE FOLDER
TXB-747D	BINDING CORE	TXB-778CT	3" CLEAN TOP FOLDER
TXB-747P	BINDING POST	TXB-778SF	3" SINGLE TURN FOLDER



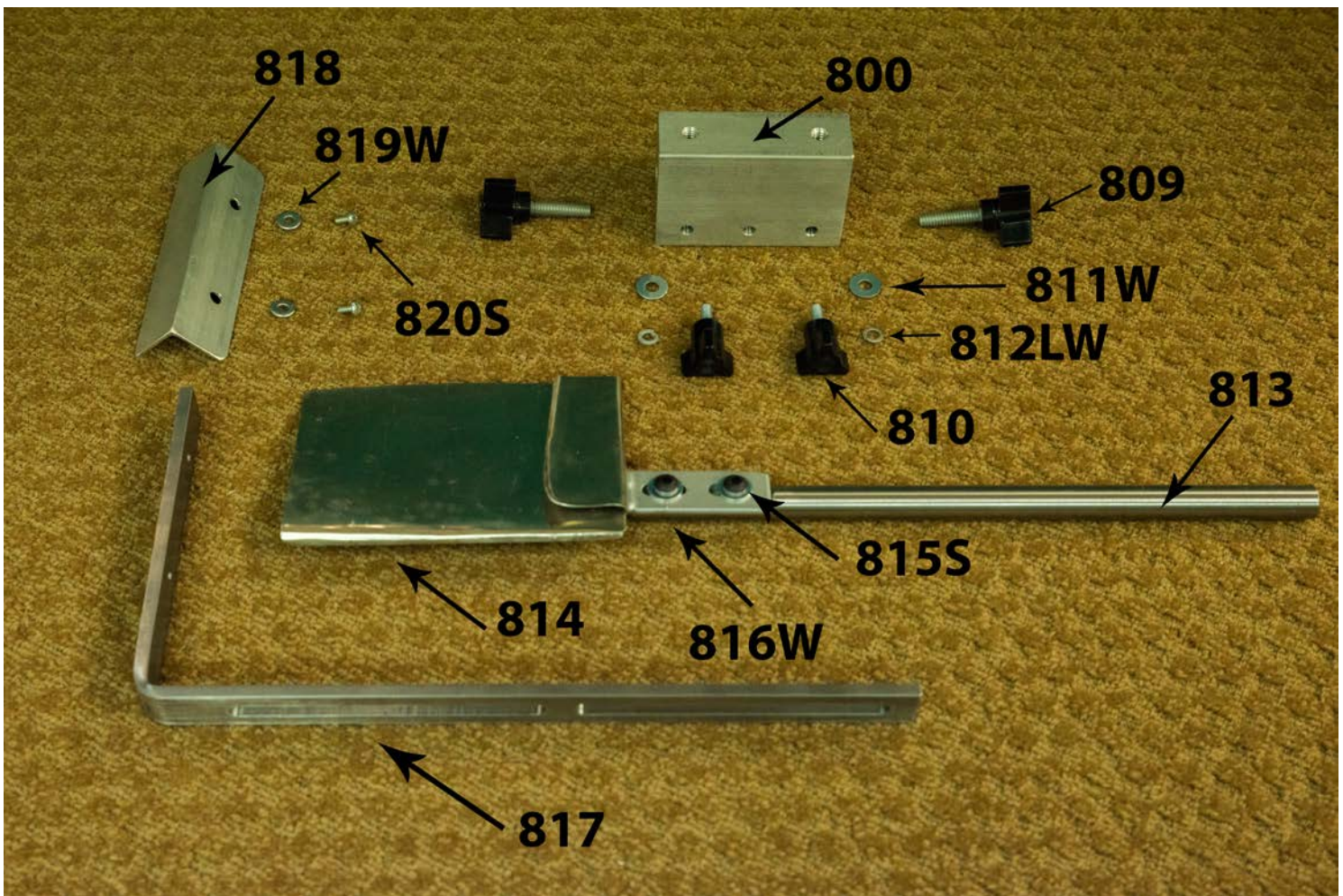


PLATE 8- TAPESTRY GUIDE ATTACHMENT

TXB-800	GUIDE BLOCK
TXB-801	GUIDE BLOCK SCREW (2) <i>NOT SHOWN</i>
TXB-802	GUIDE BLOCK LOCK WASHER (2) <i>NOT SHOWN</i>
TXB-809	SCREW KNOB FOR TXB-813 ROD (2)
TXB-810	SCREW KNOB FOR TXB-817 GUIDE (2)
TXB-811W	FLAT WASHER (2)
TXB-812LW	LOCK WASHER (2)
TXB-813	TAPE GUIDE ROD
TXB-814	TAPE GUIDE
TXB-815S	SCREW (2)
TXB-816W	WASHER
TXB-817	ADJUSTABLE STOP GUIDE
TXB-818	GUIDE HOOD
TXB-819W	FLAT WASHER (2)
TXB-820S	HOOD SCREW (2)

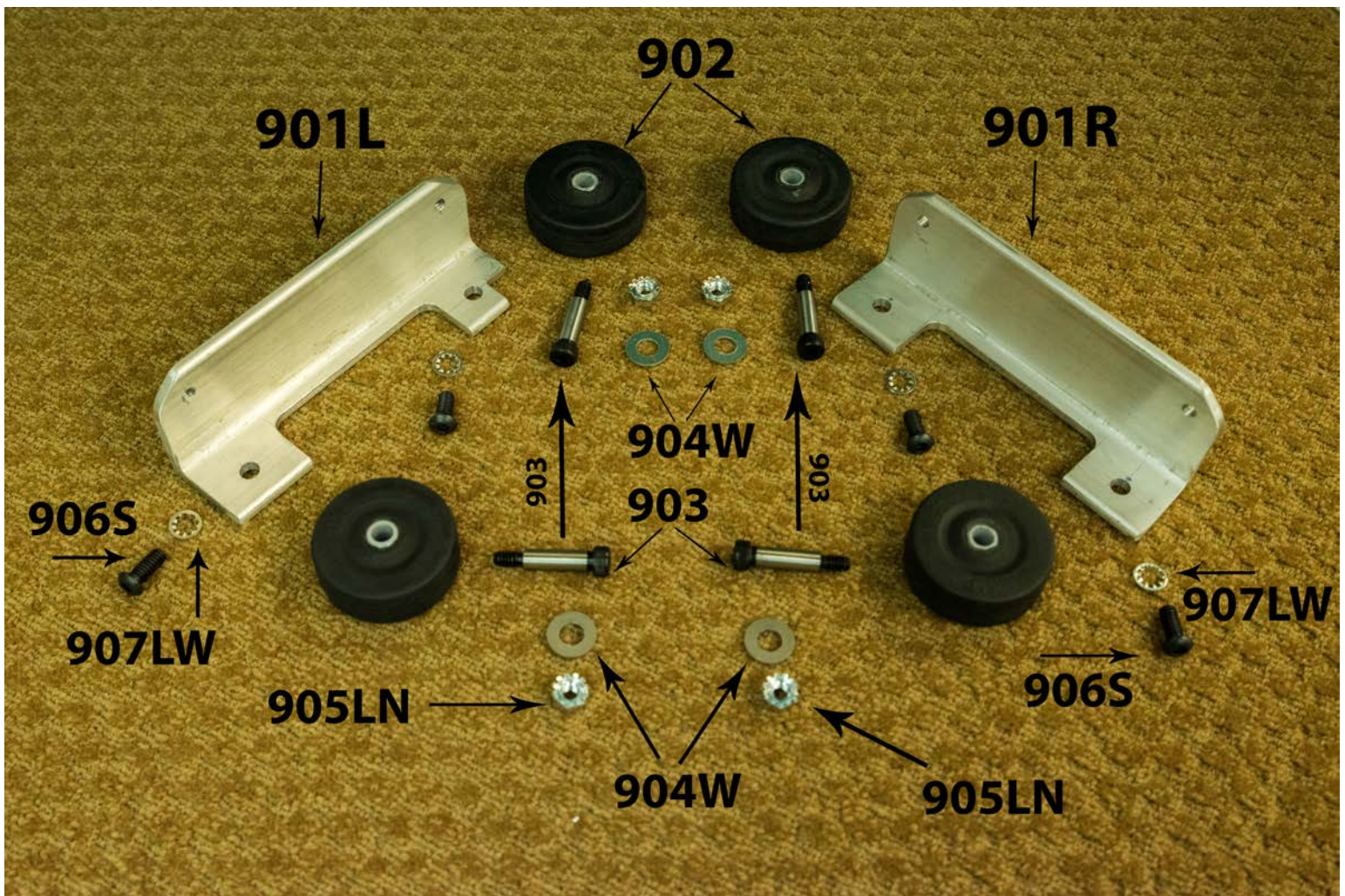


PLATE 9- WHEEL ASSEMBLY

TXB-901L	WHEEL BRACKET, LEFT SIDE
TXB-901R	WHEEL BRACKET, RIGHT SIDE
TXB-902	2" WHEELS (4)
TXB-903	WHEEL AXLE (4)
TXB-904W	FLAT WASHER (4)
TXB-905LN	LOCK NUT (4)
TXB-906S	WHEEL BRACKET SCREW (4)
TXB-907LW	LOCK WASHER (4)

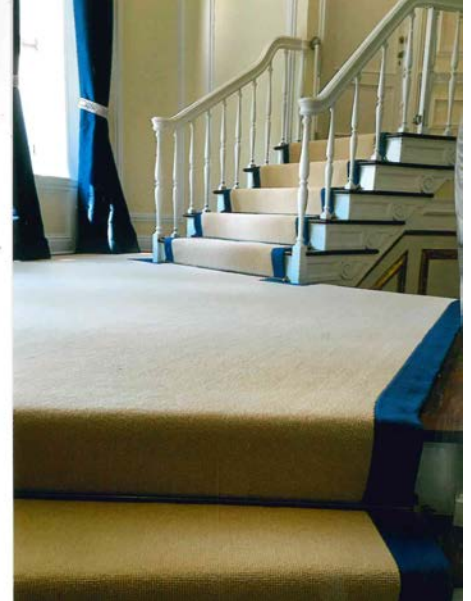


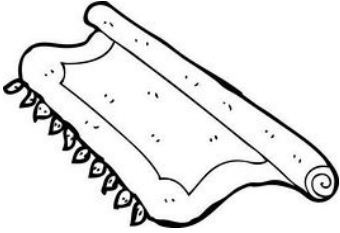
PLATE 10- THREAD, BOBBINS & NEEDLES

08056 #63 8 OZ CLEAR THREAD
 08078 #69 BONDED NYLON THREAD WHT | BLK
 08052HD STYLE A BOBBINS, HEAVY DUTY
 21024 #24 DIAMOND POINT NEEDLES 123-LGPT

High-End Finished Work done with Bond PBL-TX

Wide binding job completed with our tapestry machine, as you can see from the pictures was loved by the home owner, consisted of over 25 mitred corners and 300 plus feet of 5" blind stitching. Visit us on the web to view videos of how the machine works, pricing of equipment & supplies.





4511 Wayne Ave | Philadelphia PA 19144

Toll free: 888-800-BOND (2663)

Local phone: 215-842-0200

Fax: 800-582-9643



Our head mechanic & machine designer, Gene Garner, has been working on machines for over 50 years.