

Industrial Straight Stitch Juki DDL 8700

5500 stitches per minute • Application: General fabrics, light weight and medium weight materials, accomodates zipper foot, rolled hem and other presser foot variations.
Requirements: Basic sewing clearance and Industrial Sewing Machine Clearance is required before use.

COMMON SETTINGS The machine is set for average types of fabric. The presser feet can be changed out with a zipper foot, felling foot, quilt foot, edge guide, roller foot/teflon foot, rolled hem foot. *The user is responsible for re-setting the machine completely after use.*



Juki DDL-8700 Tool Overview

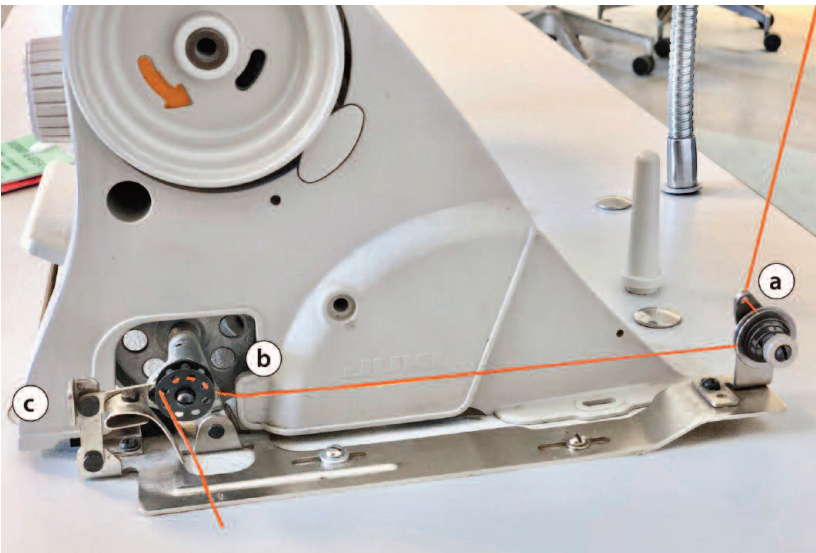
1. Thread holders
2. Oil Level Indicator
3. Hand Wheel and Direction
4. Stitch Length Knob
5. Reverse Lever
6. Bobbin Winder (around side)
7. On/Off Switch
8. Knee Control for Presser Foot
9. Foot Pedal
10. Bobbin Housing
11. Needle
12. Thread Tension and Guides
13. Thread Guide
14. Manual Presser Foot Lifter
15. Presser Foot Height Adjustment



WIND THE BOBBIN

(Available in the Protohaven store)

Caution: Be sure all object are off the table! The needle *does not dis-engage* like a consumer machine. It is preferable to remove the needle to avoid injury.



Please Note: If the thread in the bobbin is lop-sided, it can be used with caution, although it can affect tension.

1. Unthread the machine back to the tensioner
2. Lift the manual presser foot lever to raise the presser foot.

1. Pass the thread through the hole (a) and between the tensioner disks.
3. Run the thread through a hole in the side of the bobbin, and place the bobbin on the spindle (b), and push lever "c". Gently hold the thread (don't pull) until there are several passes on the bobbin, then cut.
4. Gently push the foot pedal until the bobbin is full—it shuts off automatically.

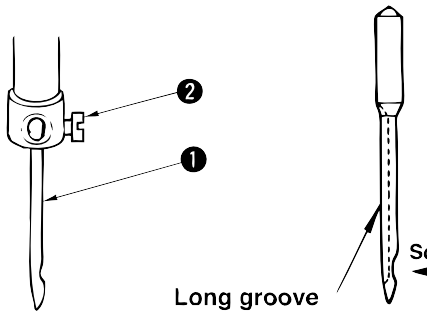
Winding the bobbin while sewing

For large projects, a second bobbin can be wound while sewing.

- An identical second spool of thread is required.
- The needle and presser foot remain in place
- Follow all other instructions in "Bobbin Winding" above

INSERT NEEDLE

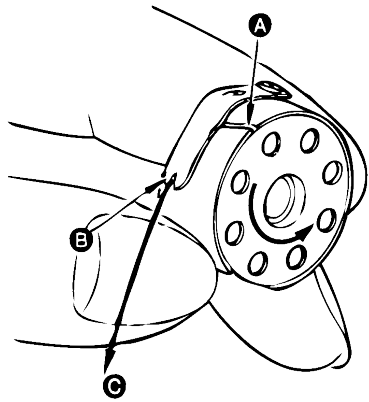
Turn the handwheel (down) until the needle bar is at the highest position



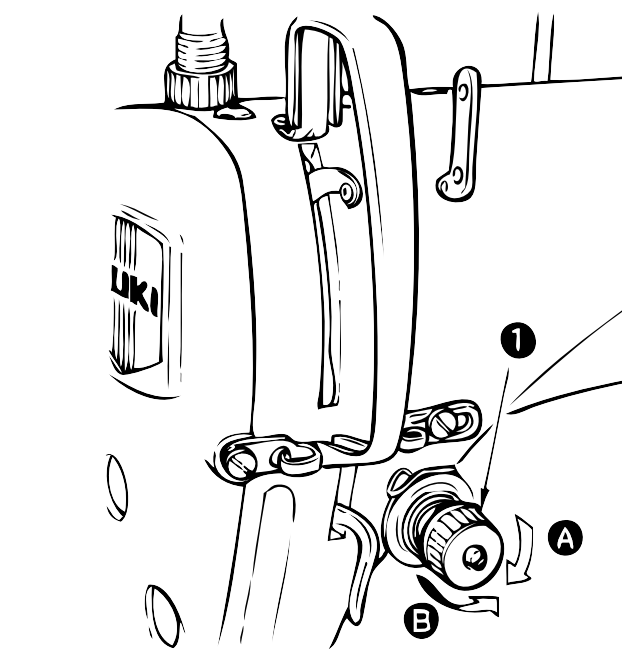
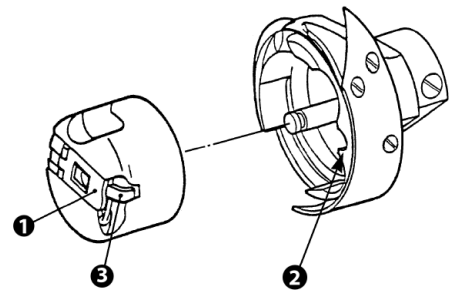
- 1.Loosen the needle clamp screw and hold the needle so that scarf is to the right and the long groove in the needle is exactly to the left.
- 2.Insert the needle (1) into the clamp hole until it will go no further.
- 3.Tighten the needle clamp screw firmly but not excessively tight

ATTACH BOBBIN CASE

Check the bobbin housing for lint, brush it out if necessary.



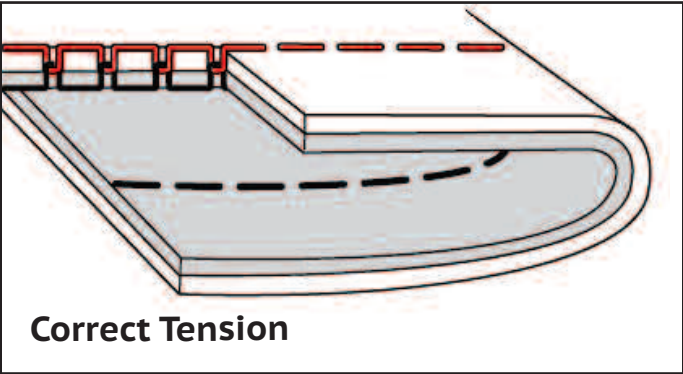
- Set the bobbin into the bobbin case, the thread running clockwise. (looks like a "q")
- Pass the thread around the thread slit (1), and pass it under the ten-sion spring (2)
- The bobbin rotates in direction B when thread is pulled in direction A
- Orient the lower knob (1) of the bobbin case to the indented part (2) of the bobbin housing's inner hook.
- Push the bobbin into the case until it clicks.



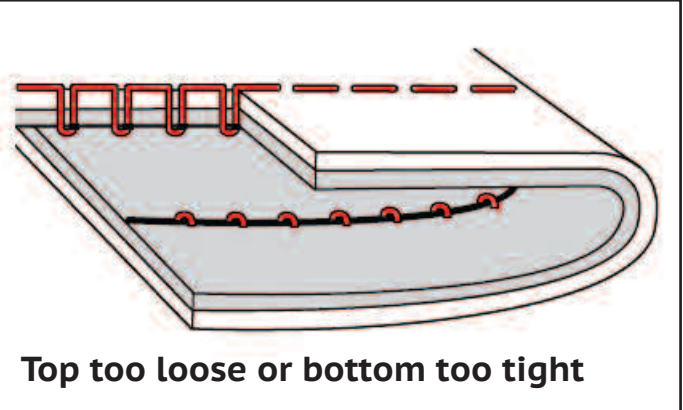
Basic Tension Adjustments:

To adjust tension of the needle thread, (1) Direc-tion A - increases tension, direction B Decreases tension

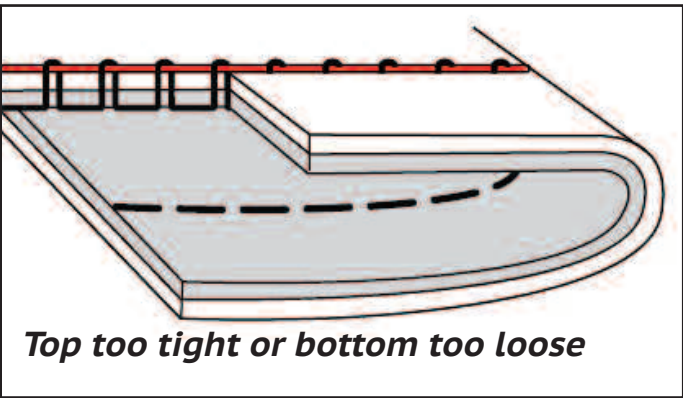
Please Note!
Adjusting the bobbin is rarely needed or advisable. Look elsewhere for the problem!



Correct Tension



Top too loose or bottom too tight

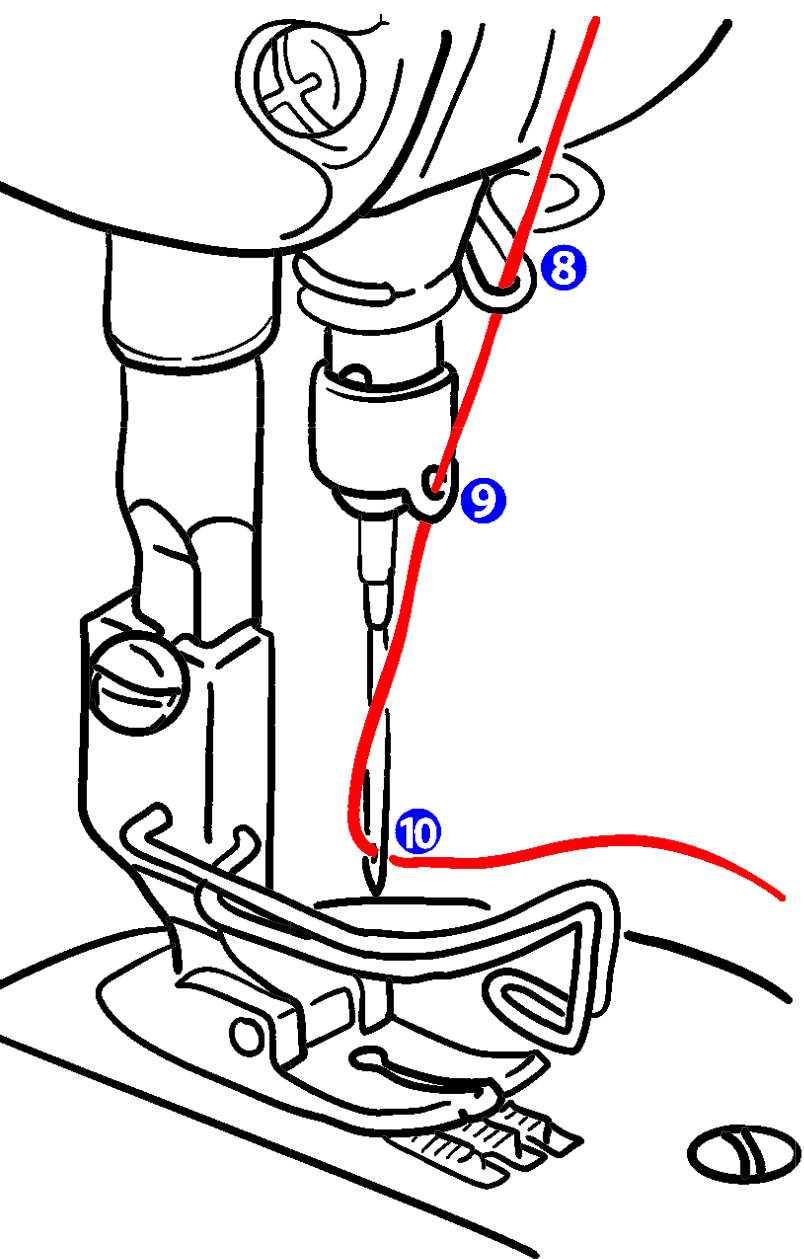


Top too tight or bottom too loose

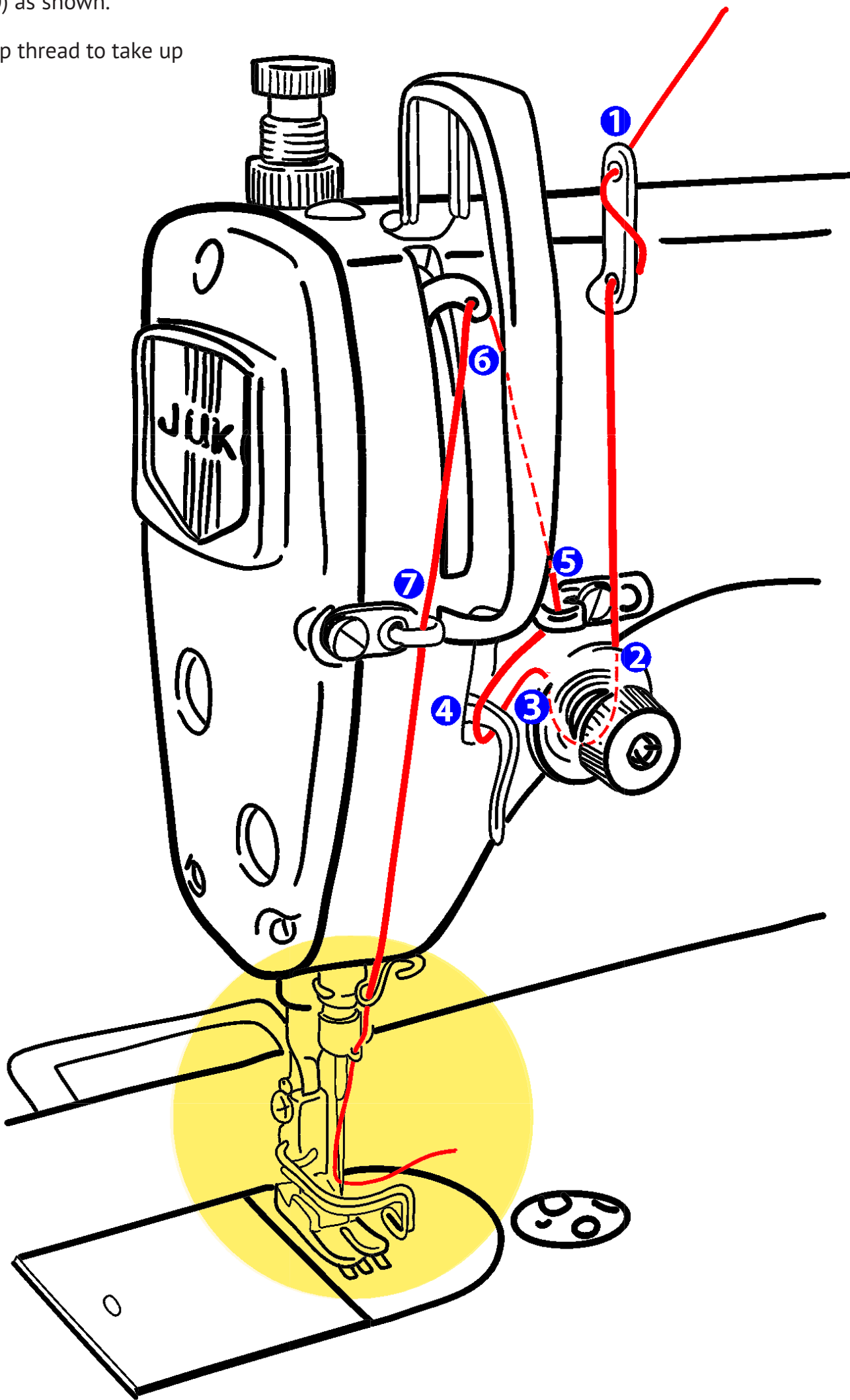
THREAD THE MACHINE

Thread the machine following the order of (1) through (10) as shown.

Move the handwheel towards you, *never away* to get the top thread to take up the bobbin thread.



The needle threads left to right



SETUP CHECKLIST

- ☐ Fabric, needle, thread, bobbin, notions, hem gauge, chalk
- ☐ It is recommended to bring your own scissors.
- ☐ Check oil level, report if low
- ☐ Wind the bobbin
- ☐ Thread the machine
- ☐ Use scraps of fabric to test tension and stitch length, adjust as necessary.

SIGNIFICANT and COMMON HAZARDS

The most *significant* hazard is injury.

- ⚠ Sewing machines have exposed moving parts that can catch loose hair. Tie back long hair and remove scarves
- ⚠ Tuck sleeves behind elbows
- ⚠ Keep fingers 3" away from the needle and avoid pulling/pushing fabric. Use hands to guide, never push the fabric into the needle
- Power off the motor before:** Threading • Replacing needles • Removing jams The motor retains power even after it is turned off! Run the machine till power is drained or wait 15 minutes before replacing the needle or bobbin.
- ⚠ Ensure the needle and thread are removed before winding a bobbin, unless winding a 2nd bobbin while sewing.
- ⚠ Broken needles, although rare, can fly. Safety glasses are recommended.

The most *common* hazards to the machine are thread jams and broken needles.

Watch for binds and jams –stop immediately if they occur.

PROHIBITED MATERIALS

- ⚠ **Pins in the fabric** - Industrial machines will *not* "step over" pins in the fabric. Hitting one will break the needle and send broken parts into the hook below.
- ⚠ Crumbly or abrasive materials, fiberglass, wood, metal
- ⚠ Rigid Material (non-fabric, metallic)

CONSUMABLES

Members are responsible for bringing their own thread and fabric

Bobbins: Juki #229-32909

Thread: • Must be in a Cone or Vicone to accommodate high speed
• Always use the same thread in the upper tension and in the bobbin

Fabric: light to medium weight fabrics

Needle: • **DBx1** #9 to #18 (134 #65 to #110) (DBx1 is the needle system, not to be confused with needle point sizes or types)
• Point Type: appropriate to fabric
• Weight: appropriate to the thread and fabric
• Eye: must be 40% larger than the thickness of the thread
• Needles are **NOT interchangeable** with other machines at Protohaven!

Checking needle size:

1. Take a needle and about 12 inches of the intended thread.
2. Thread the needle, then hold both ends of the thread, creating a 60 degree slope with one end to see if the needle is able to slide along the slope.
3. Reverse the process to see if the needle slides back.

If the needle does not freely slide down the thread, the size may be too small. As a general rule, you'll want the smallest size needle that will slide freely down the thread.

Common Issues	
Thread comes out of the needle on the first few stitches	<ul style="list-style-type: none">• Pull the bobbin thread up through the needle plate and firmly hold threads away from you when starting the seam• Begin with the needle and take-up lever in the highest position
Thread clumps up and fabric won't feed through	<ul style="list-style-type: none">• Jam under the plate and around the bobbin. Turn off the machine and remove jam near the hook and bobbin casing, then re-thread the machine and replace bobbin• Be sure the bobbin is seated properly
Skipped stitches	Possible causes – bent needle, needle inserted incorrectly, machine threaded incorrectly, including the needle <ul style="list-style-type: none">• be sure the needle is threaded left to right.• Is the needle right for the fabric?
Bobbin thread won't pull through, or is very tight	The bobbin housing may be damaged. Pull it out and check for any dents or an oval shape that could be pinching the bobbin. A new housing will need to be installed.

CLEANUP CHECKLIST

- ☐ Power off the Machine.
- ☐ Reset any modified stitch sizes to default. (average).
- ☐ Use a brush and tweezers to remove lint around the bobbin housing.
- ☐ Note any maintenance needs or concerns on the tag and at protohaven.org/maintenance.
- ☐ Discard all scrap fabric, broken or bent needles put away shared pins, scissors, etc..
- ☐ **Sweep the floor** around the table and machine.

MAINTENANCE REQUESTS

Update the physical Maintenance Tag at the machine and submit a Tool Report at protohaven.org/equipment. (scroll down to "Details") This notifies our staff and volunteer maintenance crew of any issues. The volunteer on duty can aid in reporting the issue.

- Yellow can be used with caution
- Red cannot be used without hazard to either the user or the equipment