Threaded the machine

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Find more Information under www.bernina.com

Threaded preparation
- Raise the needles by turning the handwell counter-clockwise, until the red mark is aligned in the handwell position indicator window.

Needle Threader
- A Metal rod in Y-shaped threader
- B Hold the needle threader with the triangle shaped mark upwards and guide the thread horizontally through the Y-shaped slot.
- C While gently pulling the thread end, push the nose of the needle threader onto the needle shaft and start sliding down. Please Note: Push the Threader only gently towards the needle in order not to damage the metal rod.
- D When having reached the needle eye, push, so that the metal rod slides through the eye, taking along the thread.
- E By slowly retracting the needle threader, a thread loop will be left behind the needle.
- F Pull the thread end completely through the eye and place the thread end under the presser foot.
### Differential Feed adjustment

The differential feed dial (A) is infinitely variable. The adjustment can be made in the range of 0.7 (stretching effect) to 2 (gathering effect).

Start with dial set to neutral (=1). Adjustments can be made while sewing.

#### Differential feed at default setting

- Set the differential feed at 1–2 to prevent loose knitware from stretching out and distorting.
- Required gathering can be achieved easily by setting the differential feed dial at 1–2. You will get more volume with a longer stitch length.

#### Differential feed 0.7–1

- Set differential feed at 0.7–1 to avoid puckering of woven fabrics.

### Adjusting thread tensions

1. Balanced thread tension.
2. Upper looper thread is pulled to the wrong side.
   - Increase the thread tension of the upper looper thread or decrease the thread tension of the lower looper thread.
3. Upper looper thread is pulled to the wrong side.
   - Increase the thread tension of the lower looper thread or decrease the thread tension of the upper looper thread.
4. Left needle thread is loose and visible on the under side of the fabric.
   - Increase the thread tension of the left needle thread and/or decrease the thread tension of either one or both looper threads.
5. Right needle thread is loose and visible on the under side of the fabric.
   - Increase the thread tension of the right needle thread.

The thread tension for each thread can be altered by turning the thread tension adjustment dial.

- Turning the dial upwards increases the tension.
- Turning the dial downwards decreases the thread tension.
- Test the thread tension on a spare piece of fabric.

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<tr>
<th>Increasing the thread tension</th>
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<td>Decreasing the thread tension</td>
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### Test sewing

After threading is completed, use a spare piece of the same fabric to be used to sew and do a test sewing:

- Preset the basic thread tension, position of the Rolled Hem Selection lever, the Cutting Width, Stitch Length, Differential Feed and the Upper Looper Converter as required. „Stichübersicht“ see page 23
- Pull all the threads behind the Presser Foot, to the left.
- Lower the presser foot.
- Turn the handwheel several times counter-clockwise to see if a chain is formed.
- Position the test fabric under the front of the presser foot (with most fabric this can be done when the presser foot is lowered) and sew slowly.
- Guide the fabric gently as the machine feeds the material automatically.
- Check the stitch formation and optimize if necessary. Depending on the result adjust following settings:
  - “Adjusting thread tensions” see page 32
  - „mtc Thread control (Micro Thread Control)“ see page 21
  - „Presser foot pressure“ see page 21
  - „Differential Feed adjustment“ see page 22
  - „Cutting width“ see page 20
  - „Stitch length“ see page 20
- At the fabric end, carry on running machine at low speed, gently pulling the fabric towards the back, until an extra chain of stitches is produced without fabric.
- Pull the threads from the back over the thread cutter (1) or cut with scissors (2).

### Replacing thread spools

- Cut off the existing threads near the spools and replace the cones.
- Tie ends to new spools.
- Raise the presser foot to release the tensions.
- Cut the needle threads above the needle eyes and pull the needle threads carefully through.
- Pull the thread chain carefully so that the looper threads are pulled until the new colour has passed through the looper eyes.
- At the end, re-thread the needle eyes and lower the presser foot.

#### Make sure all covers are closed.

Maximum Material passage for your project is 6 mm.