



Instruction book

Pfaff 3516-1/24;
-1/25;

-1/24-928/01;

-1/25-928/01;

-1/28-928/01

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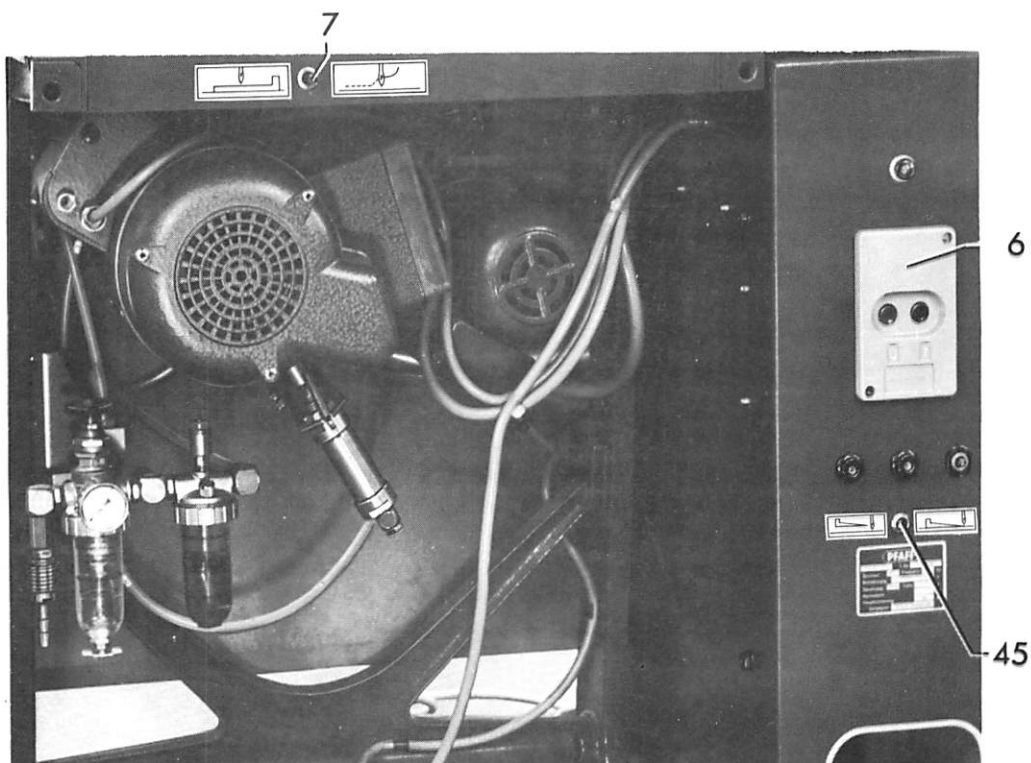
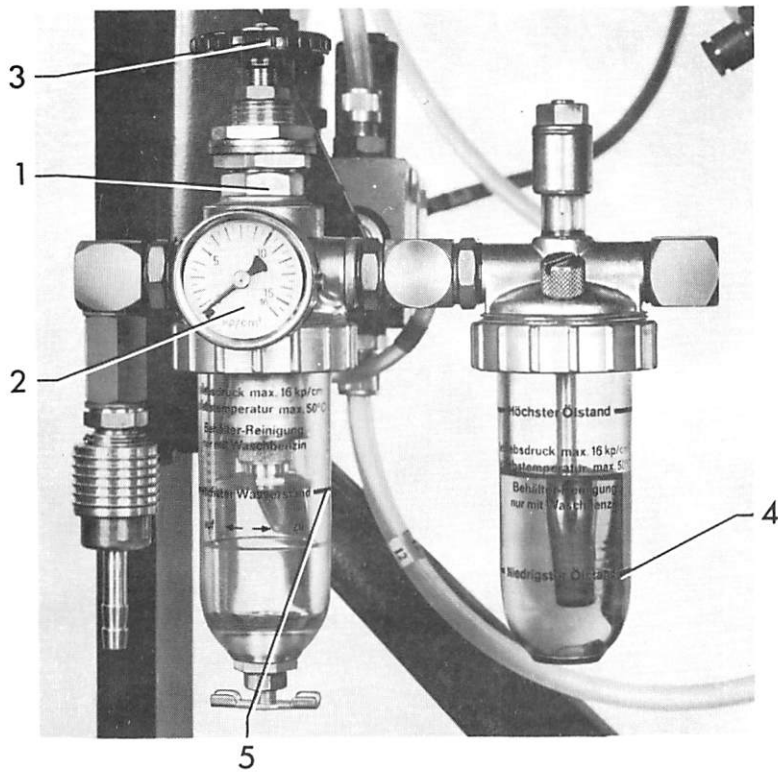
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General Instructions



1. Making the machine ready for operation (Figs. 1 and 2)

1.1. Compressed air (Fig. 1)

It is best to switch the air supply on and off at the main line rather than at the conditioning unit.

Open the valve at the main line and check at conditioning unit 1 whether pressure gauge 2 indicates a working pressure of 6 kg/cm². If necessary, adjust this pressure at pressure regulating valve 3.

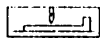
Whenever you switch on the machine, make sure to check the oil and water levels in conditioning unit 1. The oil level must not drop below mark 4, and the water level must not rise above mark 5.

For further details, please refer to Section 17 "Machine care".

1.2. Electric power (Fig. 2)

Press the black button of master switch 6. The machine is now ready for operation.

2. Inserting the needle

Switch toggle switch 7 (Fig. 2) to .

As a result, the work holder bar is lowered and the needle bar raised to its highest point.

If a needle has already been inserted, remove it as follows: Hold it between thumb and forefinger and loosen the needle set screw. Then pull the needle out of the needle holder.

The automatic dart sewer uses only System 134 kK needles in sizes 90, 100 and 110.

When inserting a new needle, push it up as far as it will go and turn it so that its long groove faces toward the front. Then tighten the needle set screw.

3. Winding the bobbin (Pfaff 463 sewing head)

In order to avoid unnecessary interruptions of the sewing operation it is advisable to have a full bobbin available at all times.

Important note

Pfaff 3516-1/24-928/01 and -1/25-928/01 machines are equipped with a different bobbin winder. Its operation is described in Section 19.

3.1. Threading the machine for bobbin winding (Figs. 3 and 4)

Pass the thread from spool (Fig. 3) through a hole of the upper thread 9, through guide 10 (Fig. 4), through both holes of thread guide 11 and clockwise around tension 12. Then wind a few turns of thread clockwise on bobbin 13.

3.2. Regulating the thread tension (Fig. 4)

The thread tension is regulated by turning knurled disc 14. Turn this disc clockwise to decrease the tension, or counter-clockwise, to increase it.

For sewing monofil and transparent threads reduce the tension to a minimum.

3.3. Adjusting and starting the bobbin winder (Fig. 4)

Tension 12 should be so adjusted that the thread runs onto the middle of the bobbin. This ensures an even distribution of the thread on the bobbin. If adjustment is required, this will be carried out by a mechanic.

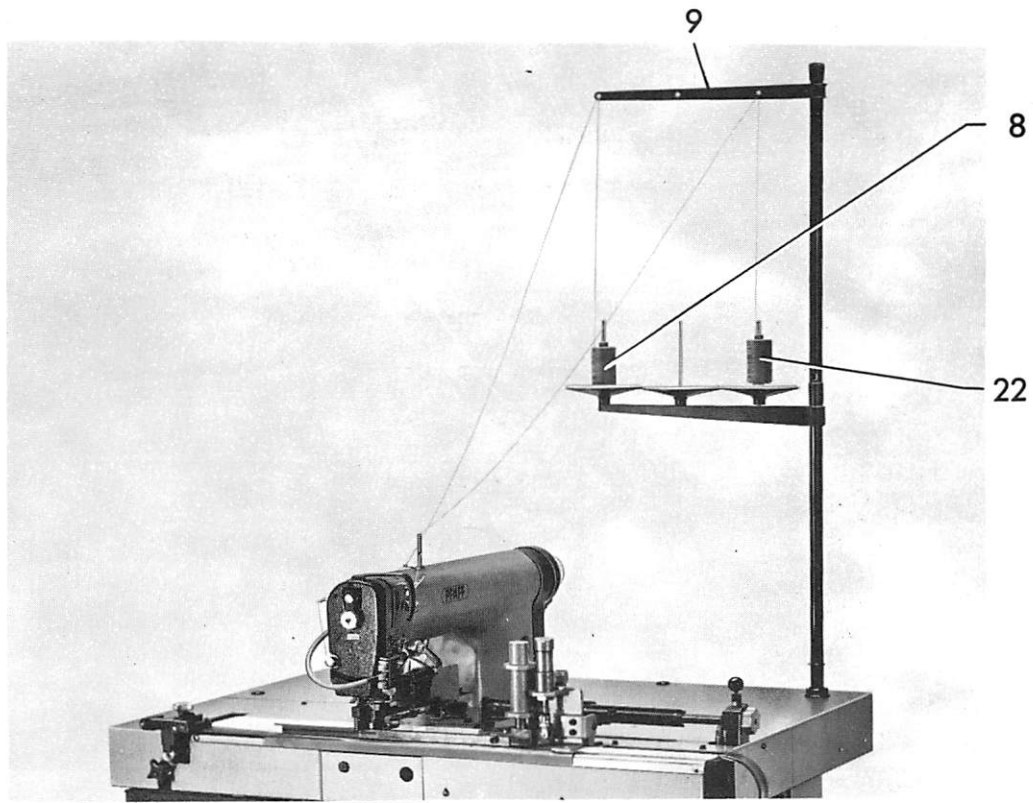
To adjust the amount of thread to be wound on the bobbin, loosen screw 15 and adjust stop dog 16 vertically.

Set the stop dog higher for more thread, or lower for less thread. After the adjustment, tighten screw 15.

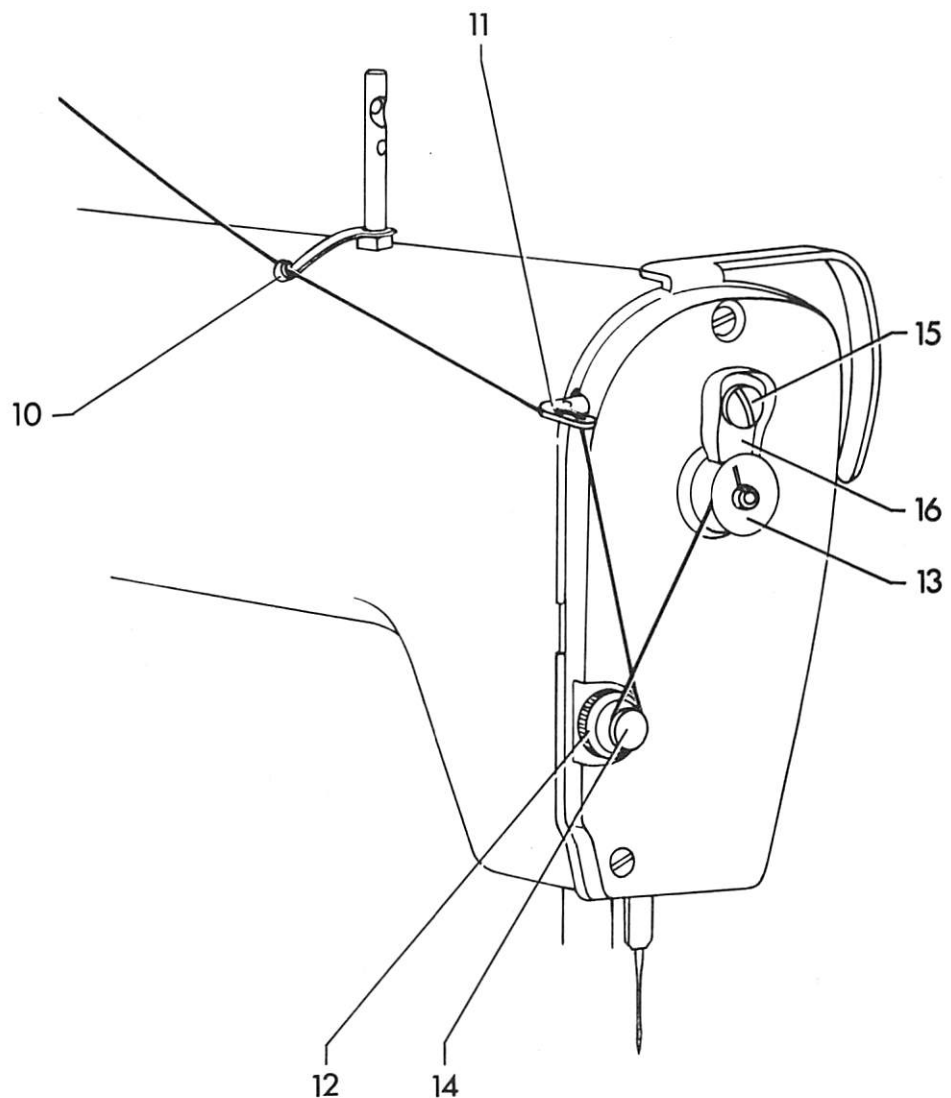
Push down stop dog 16 to start the bobbin winder.

If resistance is felt, turn the bobbin slightly.

The bobbin winder stops automatically when the desired amount of thread has been wound on the bobbin.

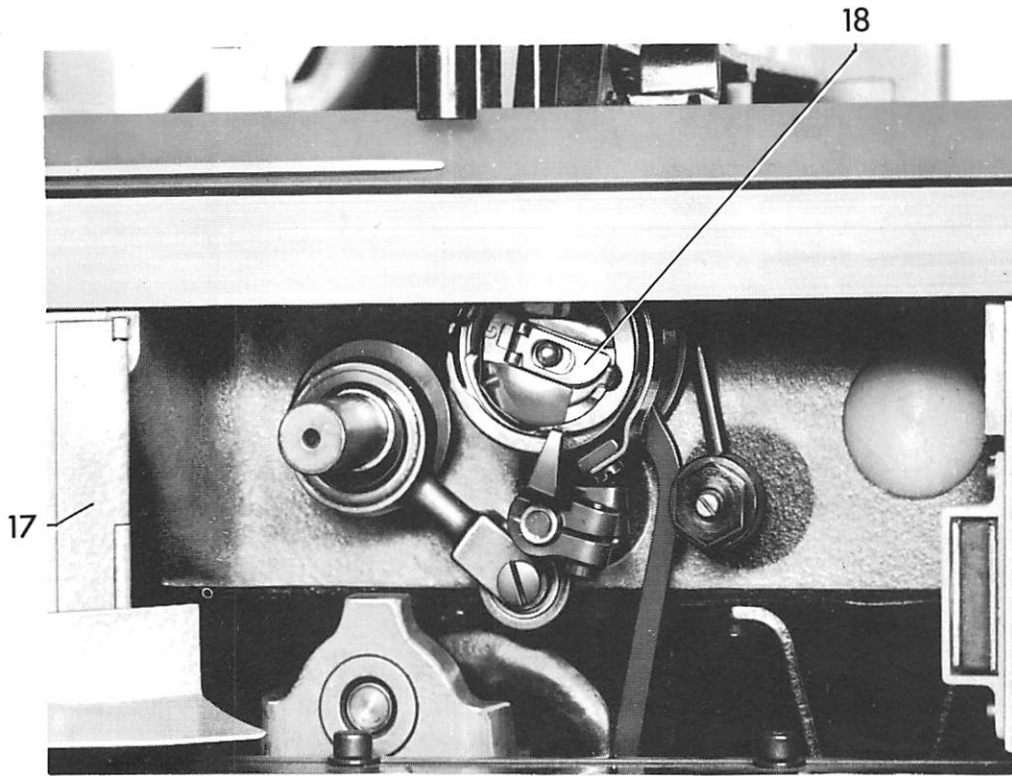


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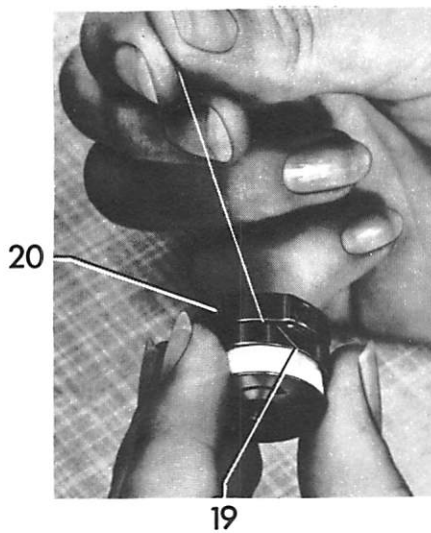


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4. Removing the bobbin case (Fig. 5)

Switch toggle switch 7 (Fig. 10) to  and open cover 17 at the front of the machine (Fig. 5).

Open latch 18 (Fig. 5) and pull the bobbin case out of the sewing hook with thumb and forefinger of your left hand. As long as you hold the bobbin case by its open latch, the bobbin cannot fall out.

5. Inserting the bobbin (Fig. 6)

Insert the full bobbin into the bobbin case so that the bobbin turns in the direction indicated by an arrow when you pull the thread.

Hold the bobbin fast and pull the thread into slot 19 and under the tension spring until it emerges at its rear end 20.

6. Regulating the bobbin thread tension (Fig. 7)


Turn screw 21 clockwise to increase the thread tension, or counter-clockwise, to decrease it.

The final tension regulation depends on the appearance of the finished seam. Both tensions should be balanced properly so that the needle and bobbin threads interlock in the center of the material (Fig. 8).

7. Inserting the bobbin case (Fig. 5)

Open the latch 18 of the bobbin case. This keeps the bobbin from falling out of the case. Hold the latch between thumb and forefinger, insert the bobbin case into the sewing hook and close the latch. Push lightly against the bobbin case until you hear it snap into place. Then close cover 17 at the front of the machine.

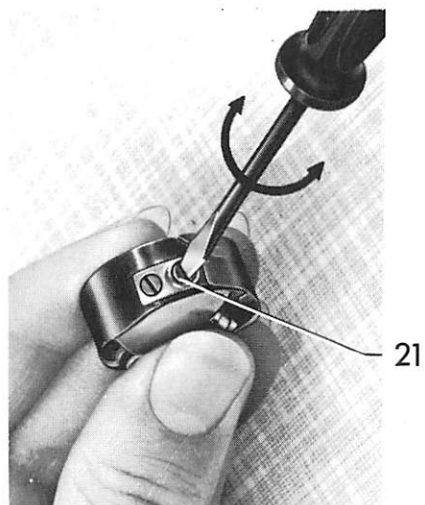
8. Threading the needle on machines equipped with Pfaff 463 sewing head (Fig. 9)

Switch toggle switch 7 (Fig. 10) to  . As a result, the needle is raised to its highest point for easy threading.

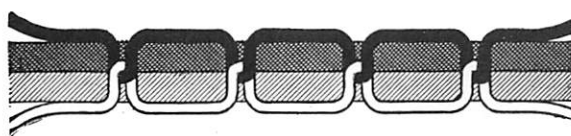
Important note

For threading machines fitted with a different thread monitor, please refer to the Additional Instructions at the end of this booklet.

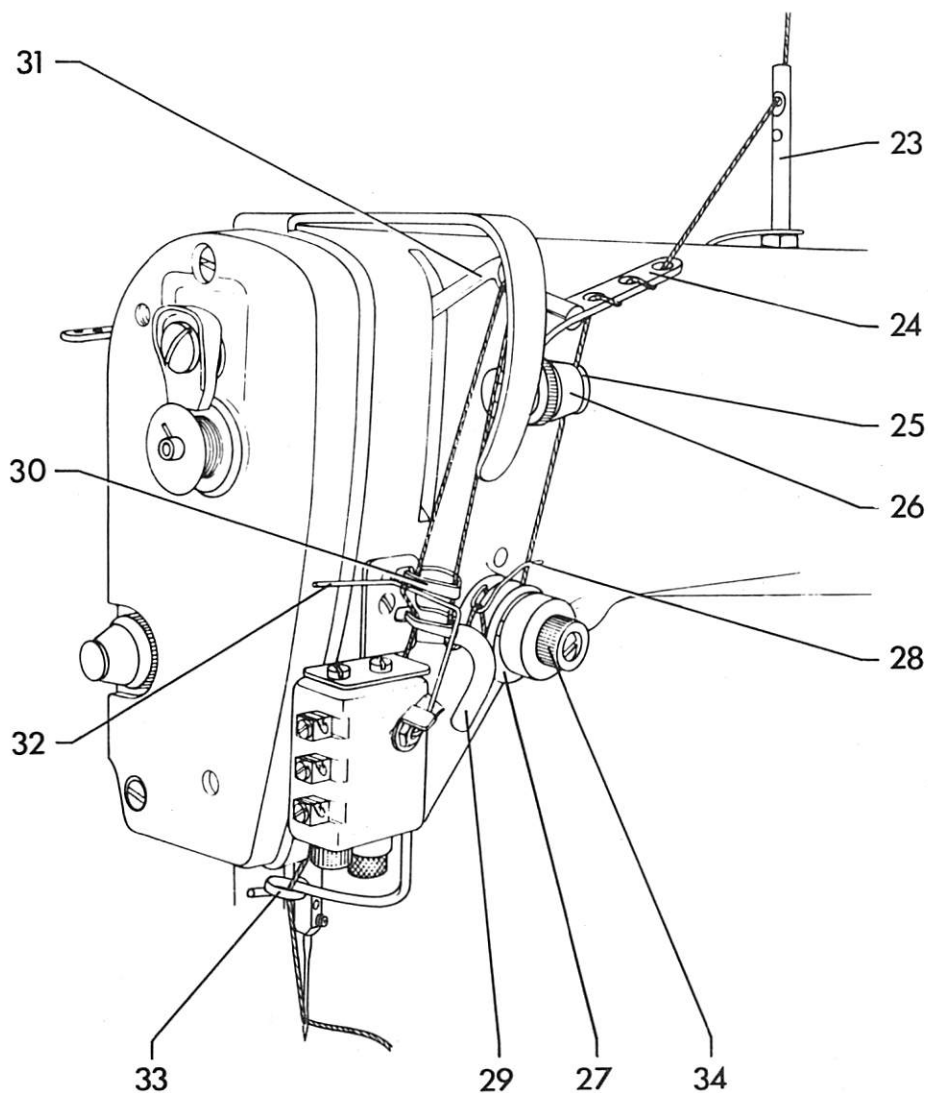
Pass the thread from spool 22 through a hole of the upper thread guide 9 (Fig. 3), through the hole of thread guide 23 and the three holes of thread guide 24. Then draw it into thread retainer 25 (to do this, push the spring-loaded sleeve 26



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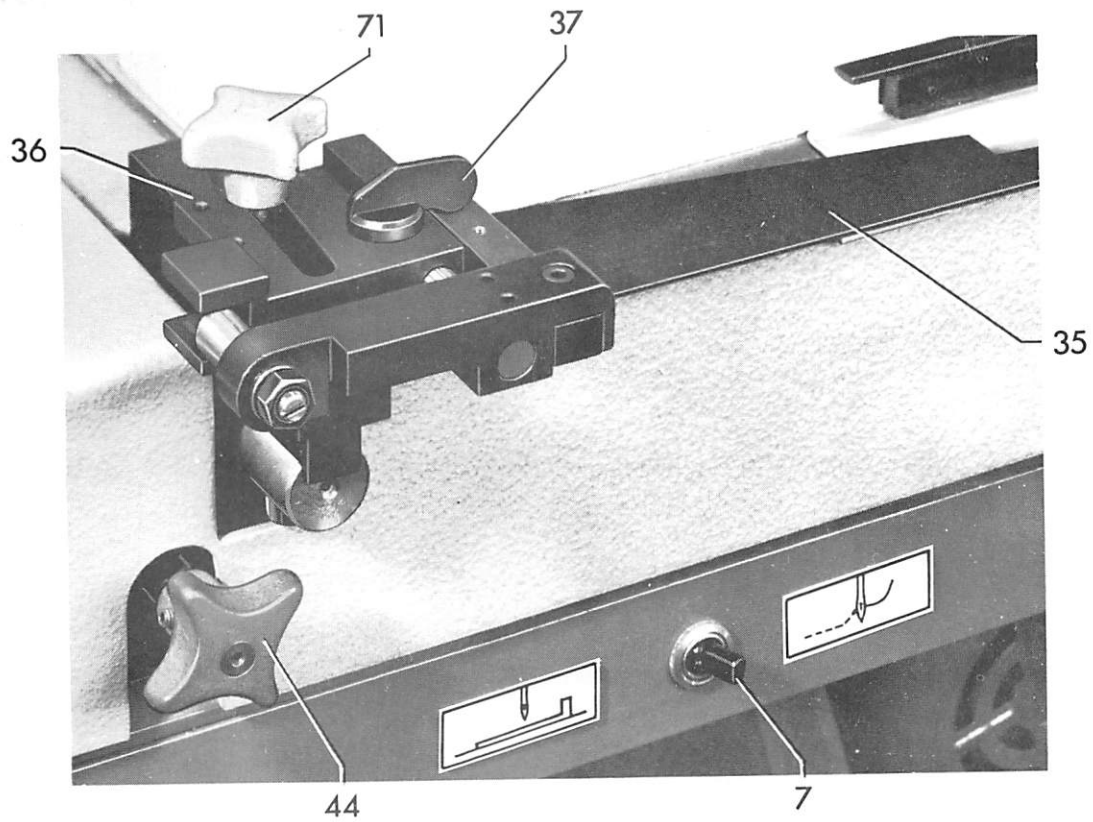


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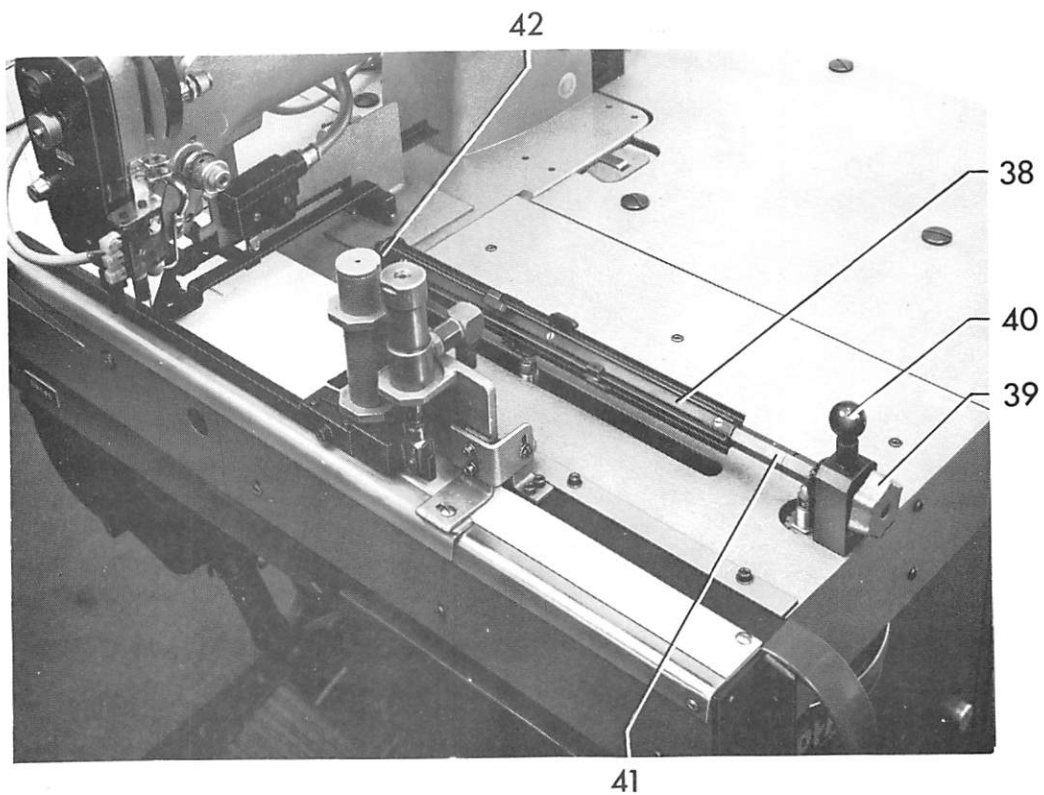


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to the left slightly), from below between tension discs 27, over thread check spring 28, under thread regulator 29, through thread eyelet 30 and from right to left through the hole of take-up lever 31. Lead the thread through thread eyelet 30 so that finger 32 of the thread monitor is held by the thread. Now pass it through thread eyelet 33 and thread the needle from left to right.

Draw abt. 2 inches of thread through the needle eye to prevent unthreading of the needle when sewing begins.

In order to keep the tension as low as possible when using monofil and transparent threads, pass these threads through one hole of thread guide 24 only.

9. Regulating the needle thread tension (Fig. 9)

The needle thread tension is regulated by turning nut 34. The amount of tension set is indicated on a scale.

The final tension regulation depends on the appearance of the finished seam (see Section 6).

10. Inserting and removing the dart blade (Fig. 10)

10.1. Insertion

10.1.1. Push dart blade 35 with its two guide studs into bracket 36 as far as it will go.

10.1.2. Loosen knob 71 and pull bracket 36 forward as far as it will go. Then tighten the knob again.

10.1.3. The machine will now sew the dart at the depth and length determined by the dart blade.

10.2. Removal

- 10.2.1. Push lever 37 backwards and pull dart blade 35 forward out of bracket 36.

11. Enlarging the dart depth (Fig. 10)

- 11.1. Dart blade 35 can be turned through 7° by moving bracket 36 to the rear. This makes it possible to enlarge the dart depth within certain limits with every dart blade used. However the dart length remains unchanged.

- 11.1.1. Loosen knob 71 and push bracket 36 back the required distance. Then tighten the knob again.

12. Setting and changing the dart length selector (Fig. 11)

12.1. Setting

The hexagonal dart length selector is marked with numbers 1 through 6 at its right end. Every number stands for a certain dart length. To make sure that the correct dart length is selected for every dart blade used, all dart blades are numbered accordingly.

To set dart length selector 38 at the correct dart length, turn knob 39 until the number indicated on the dart blade is at the top.

12.2. Changing

Switch the machine off by pushing the red button of master switch 6 (Fig. 13).

Lift ball stud 40 and pull knob 39 towards the right. Swing the rectangular end of the hexagonal bar out of support 41 and pull dart length selector 38 to the right out of bearing bracket 42.

Push the new dart length selector into the left bearing bracket 42, swing the rectangular end of the hexagonal bar back into support 41, and push knob 39 toward the left again.

Then switch on the machine and set the dart length selector as instructed in Section 12.1.

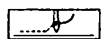
13. Adjusting the front position stop of the dart blade

In order to avoid that the dart blade has to travel the full length of its stroke, regardless of the depth of the dart being sewn, the front end of its stroke can be set at four different distances from the front edge of the table.

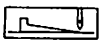
Press pedal 43 (Fig. 13) down to its first switch position. This causes the dart blade to move to its central position. Now turn knob 44 (Fig. 10) and engage the stop most suitable for the respective dart depth.

Care should be taken, however, that there is sufficient space between tabletop and dart blade in its foremost position to allow the workpiece to be slipped onto the blade without difficulty.

14. Sewing

Before you start sewing, check to make sure that toggle switch 7 (Fig. 13) is at  .


14.1. Sewing with dart blade at front position

14.1.1. Switch toggle switch 45 (Fig. 13) to  .

14.1.2. Slip the workpiece onto the dart blade as illustrated in Fig. 12, and press pedal 43 (Fig. 13) down to the first switch position. As a result, the dart blade moves to its central position. When the pedal is released, the dart blade again returns to its front position. This process can be repeated any number of times to reposition the workpiece.

- 14.1.3. Start the machine by pushing pedal 43 (Fig. 13) down as far as it will go. The workpiece is clamped between work holder bar 46 and carrier strip 47 and pulled toward the right off the dart blade.
- 14.1.4. Shortly before the work holder bar reaches the end of its travel, its speed is reduced, the sewing machine is started, and the bartack sewn.
- 14.1.5. At the extreme right of its travel, the work holder bar reverses its direction of feed, the dart blade returns to its front position and the dart is sewn.
- 14.1.6. Remove the sewn part from the machine, stack it, slip the next workpiece onto the dart blade and depress the pedal again.

14.2. Sewing with dart blade at rear position

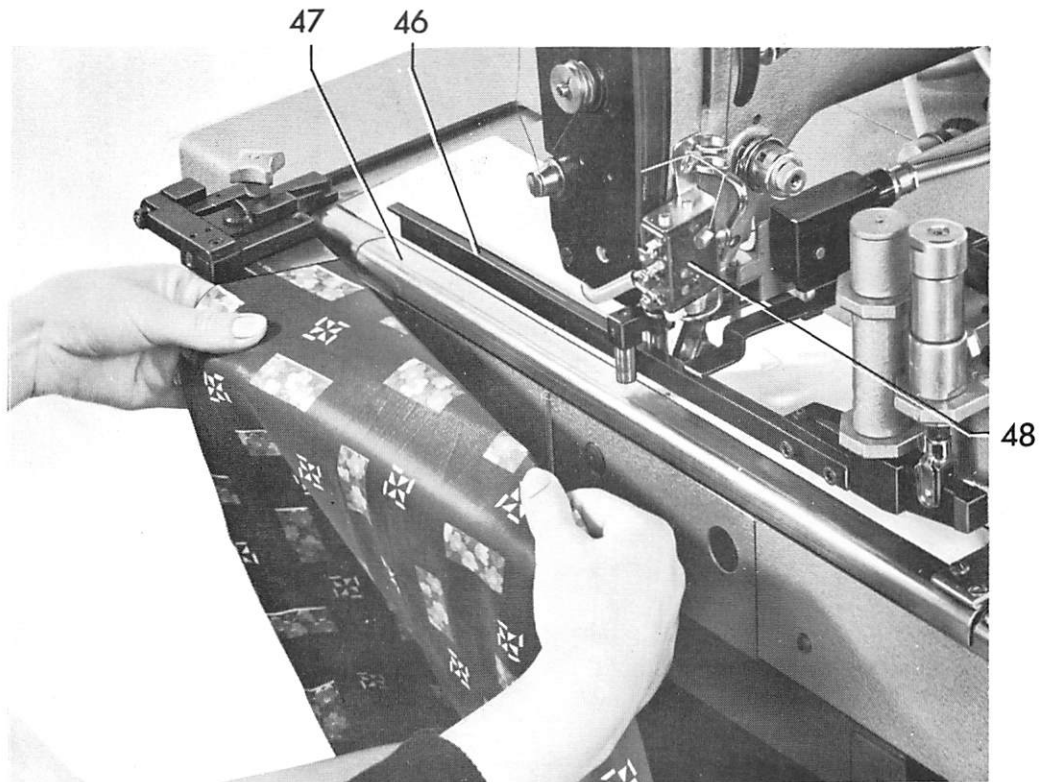
- 14.2.1. Switch toggle switch 45 (Fig. 13) to  .
- 14.2.2. With the toggle switch in this position, the work cycle up to par. 14.1.5. is the same as that described for sewing with dart blade at front position.

However the dart blade does not return to its front position right away, but first moves to its rear position.

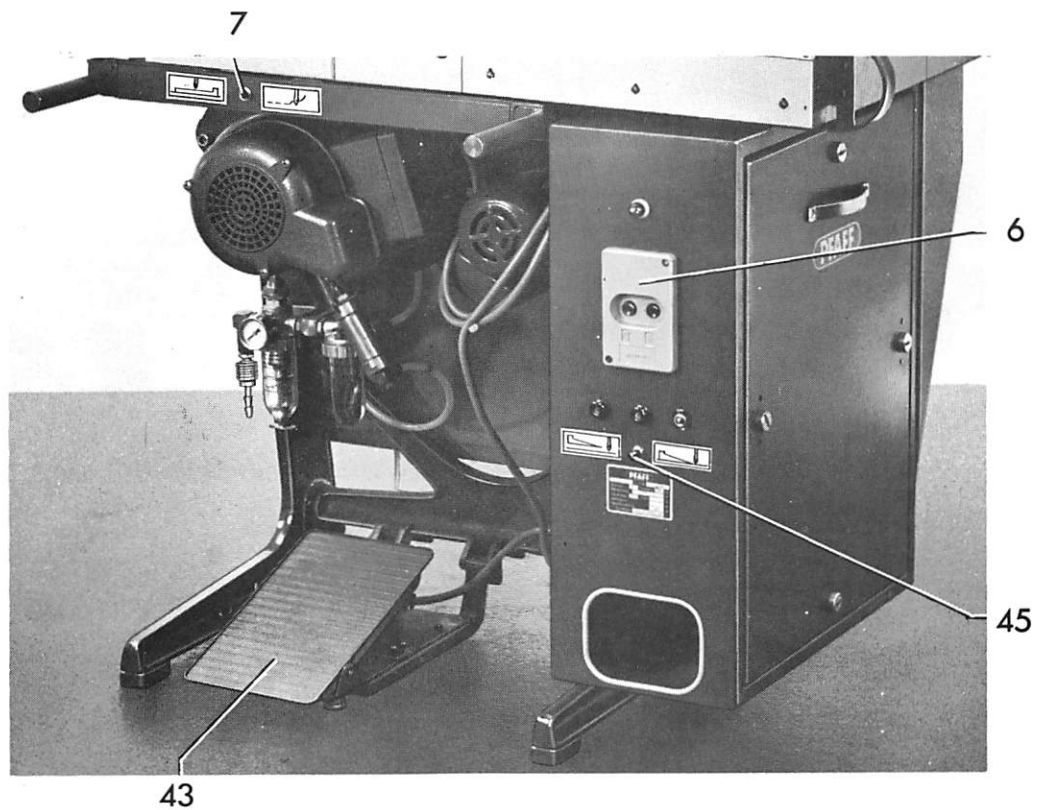
Only after the sewing cycle has been completed and the work holder bar has released the workpiece does the dart blade return to its starting position (front position).

15. Switching off the machine (Fig. 13)

When the red button of master switch 6 (Fig. 13) is pressed, the machine is switched off instantly.

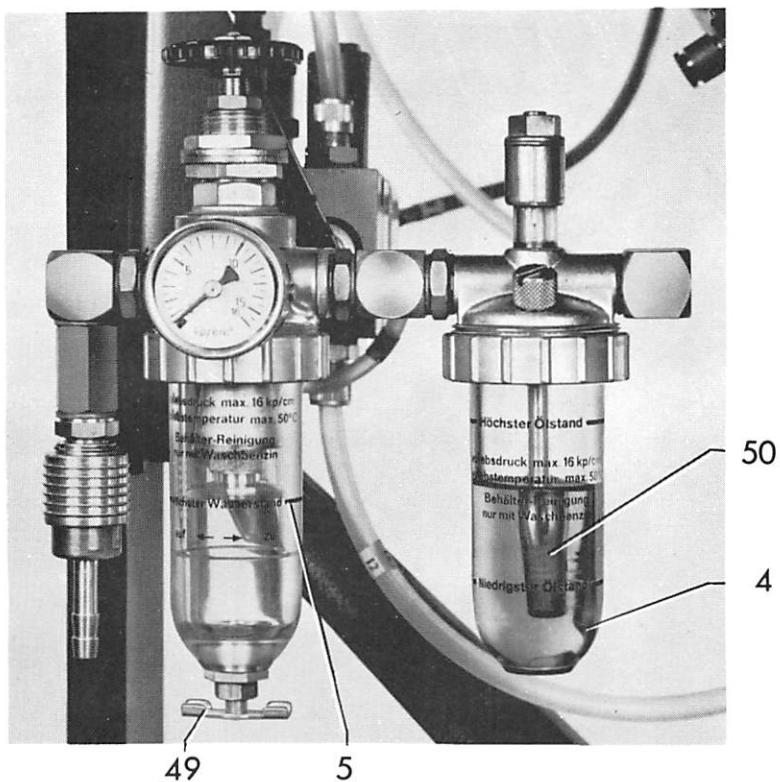


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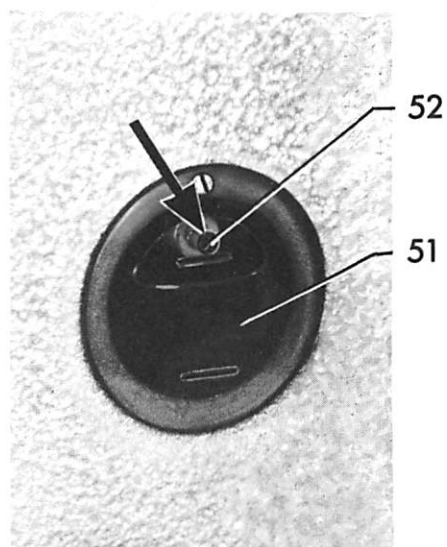
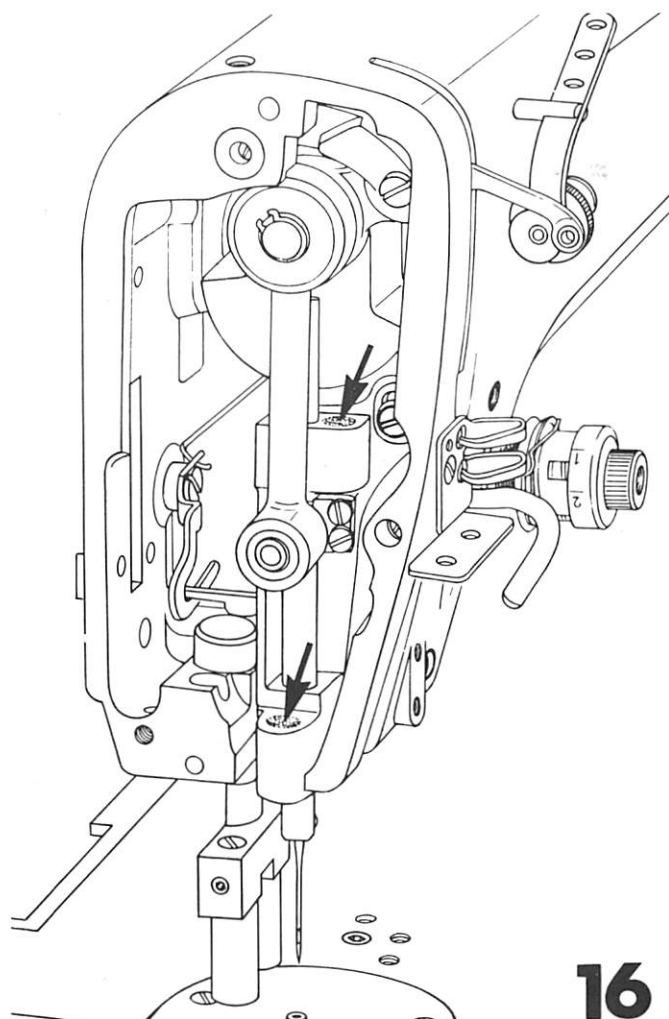


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14



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16. Needle and thread breakage

When the needle or the thread breaks, the red lamp in thread monitor 48 (Fig. 12) lights up. The sewing cycle, however, is not interrupted. When the machine has completed its cycle, switch toggle switch 7 (Fig. 13) to .

Then insert a new needle, as instructed in Section 3, or rethread the needle according to the instructions given in Section 9. After the trouble has been eliminated, switch toggle switch 7 to . The machine is now ready for sewing again.

17. Machine care

17.1. Conditioning unit (Fig. 14)

When the machine is constantly in use, check the conditioning unit every day.

The oil level must not drop below mark 4, and the water level must not rise above mark 5.

To drain the water, open drain screw 49 two to three turns. When the water has been drained, tighten drain screw 49 securely again.

If required, have a mechanic top up the oil in container 50.

17.2. Oiling the machine (Figs. 15 and 16)

There should be enough oil in the hook lubrication system so that the oil level is located between the two marks on oil sight glass 51 (Fig. 16). If required, top up the oil (Order No. 280-1-120 144) through hole 52.

On machines equipped with Pfaff 463 sewing head, apply a few drops of oil to the upper and lower foam plastic pad of the needle bar at regular intervals (see arrows in Fig. 15).

17.3. Cleaning the machine

Regularly remove the lint. Clean the vicinity of the sewing hook with a soft brush every day. To get at the hook, open cover 17 (Fig. 5) at the front of the machine.

Additional Instructions


18. Additional instructions for the Pfaff 3516-1/24
and -1/25

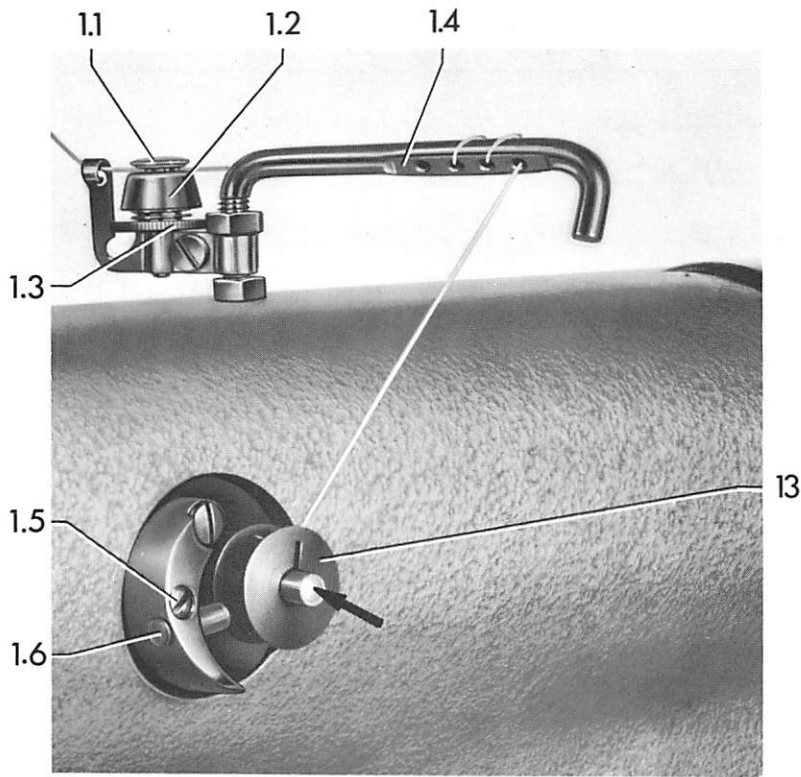
18.1. Threading the needle (Pfaff 463 sewing head with
new-type thread monitor

Switch toggle switch 7 (Fig. 13) to  .

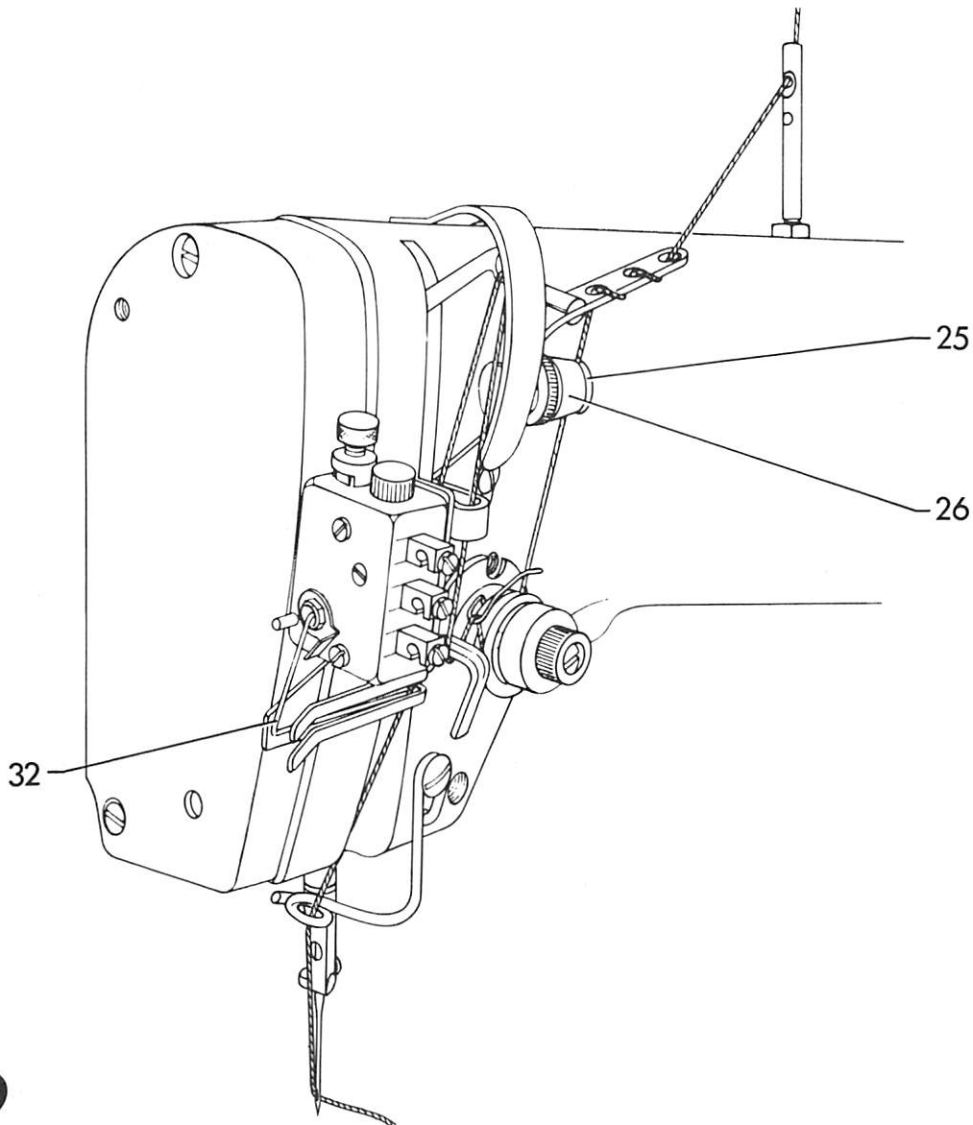
Pass the thread from the spool up and through
a hole of the thread guide on the thread stand,
then thread the machine as illustrated in Fig.
17.

Make sure the thread is drawn into thread re-
tainer 25 (to do this, push the spring-loaded
sleeve 26 to the left slightly), passes in
front of wire 32 of the thread monitor, and
is drawn through the needle eye from left to
right.

Then switch toggle switch 7 (Fig. 13) to  .



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19. Additional instructions for the Pfaff 3516-1/24-928/01
and -1/25-928/01

19.1. Winding the bobbin (Pfaff 483 sewing head)

19.1.1. Pass the thread from the spool up and through a hole of the thread guide on the thread stand, then thread the machine for bobbin winding as illustrated in Fig. 18. Wind a few turns of thread counter-clockwise on bobbin 13. Make sure the thread is drawn into thread retainer 1.1 (to do this, slightly push down the spring-loaded sleeve 1.2).


19.1.2. The thread tension is regulated by turning knurled disc 1.3. Turn this disc clockwise to decrease the tension, or counter-clockwise, to increase it.

19.1.3. To start the bobbin winder, push in the winder spindle with your thumb (see arrow).

19.1.4. If the thread piles up on one side of the bobbin, adjust thread guide 1.4 accordingly.


19.2.4. The amount of thread to be wound on the bobbin is regulated by loosening screw 1.5 and adjusting stud 1.6.

19.2. Threading the needle (Pfaff 483 sewing head)

19.2.1. Switch toggle switch 7 (Fig. 13) to  .

Pass the thread from the spool up and through a hole of the thread guide on the thread stand, then thread the machine as illustrated in Fig. 19.

Make sure the thread is drawn into thread retainer 25 (to do this, push the spring-loaded sleeve 26 to the left slightly), passes in front of wire 32 of the thread monitor, and is drawn through the needle eye from left to right.

Then switch toggle switch 7 (Fig. 13) to  .

20. Additional instructions for the Pfaff 3516-1/25
and -1/25-928/01

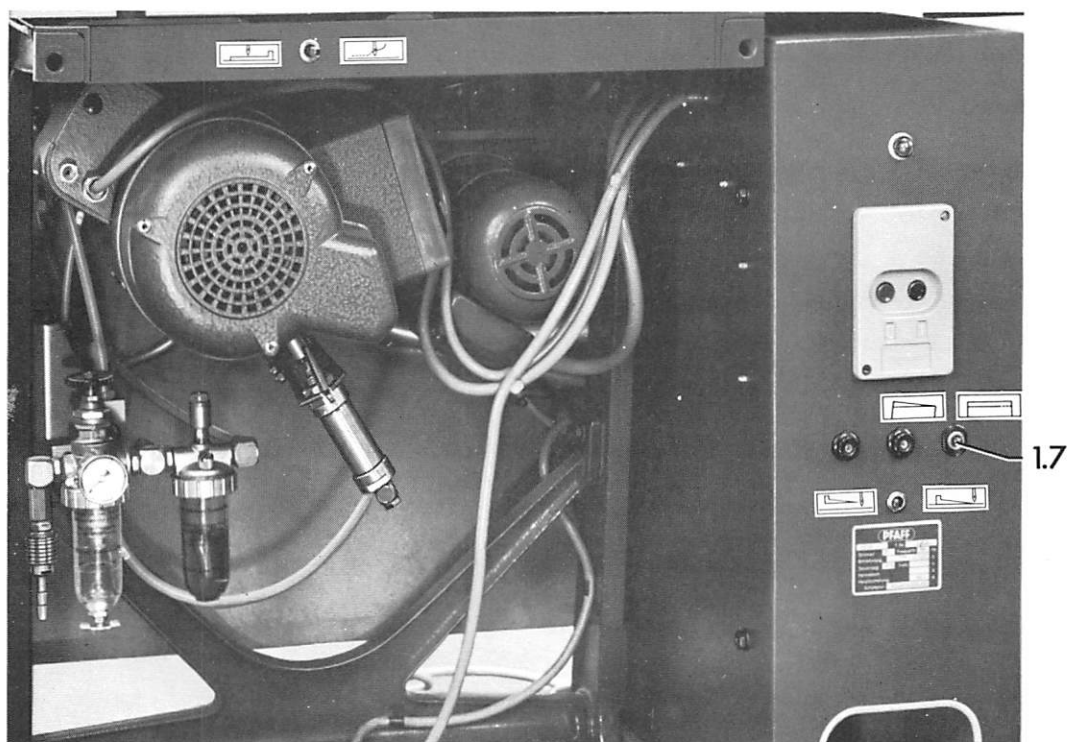
20.1. Switching on the start and finish bartacks (Fig. 20)

20.1.1. Switch toggle switch 1.7 to  .

In this position of the switch, a tack is made at the beginning of the seam only.

20.1.2. Switch toggle switch 1.7  .

In this position of the switch, the beginning and end of the seam are backtacked.



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