

Blanket washup device

General information

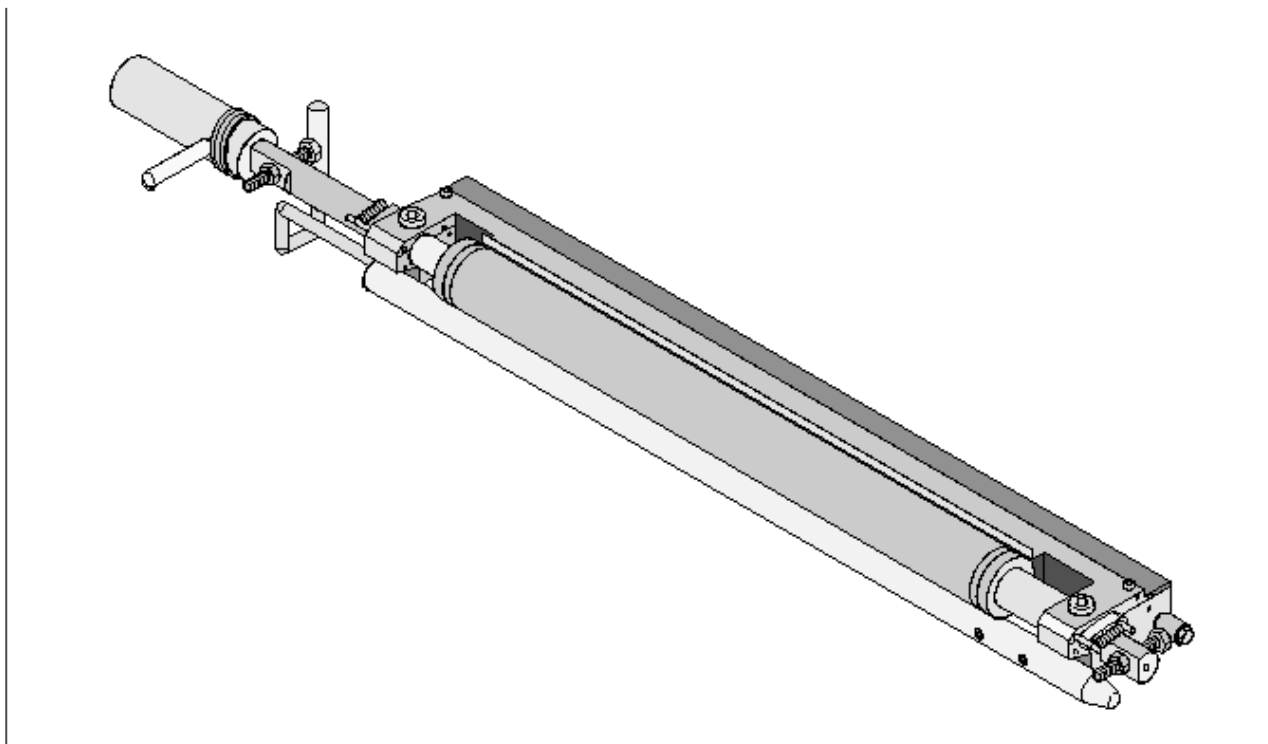


Fig. 1 Blanket washup device

The four blanket washup devices (Fig. 1) are of a similar structure. Chiefly, they differ in their position and their contact angles with the blanket cylinders. There is a constructional difference in the blanket washup device on PU 4.

Checking the cleaning effect

General information

- The cleaning effect of the blanket washup device can mainly be checked through a visual inspection.

Criteria:

- Cleanliness of the blanket
- Humidity on the blanket end (gap)
- A slight humidity at the blanket corners (PU 4) is permitted.

► Note

Check the evenness of the washup roller if there is an increased humidity on the edges on D.S. and O.S. Replace the washup roller if necessary.

The subject can be changed as a further inspection:

- Check the first new print sheet.

The cleanliness of the blanket is ensured when the old subject is not visible on the new printed sheet.

Replacing the washup roller

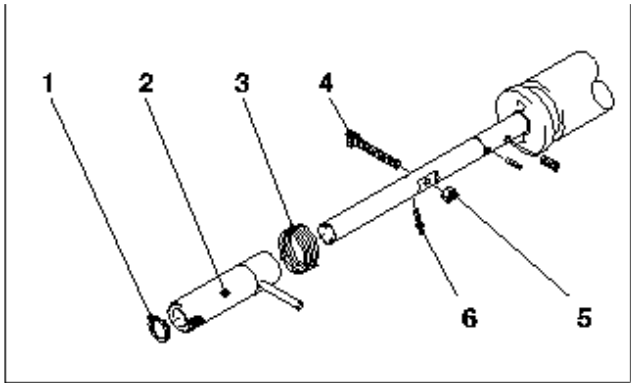


Fig. 2 Blanket washup device D.S.

1. Remove the blanket washup device of the corresponding printing unit and clean it.
2. Remove the circlip (Fig. 2 /1) and unhook the torsion spring (Fig. 2 /3).
3. Pull off the handle assembly (Fig. 2 /2) and remove the spring dowel sleeve (Fig. 2 /6).

► **Note**

Use a new spring dowel sleeve for the assembly.

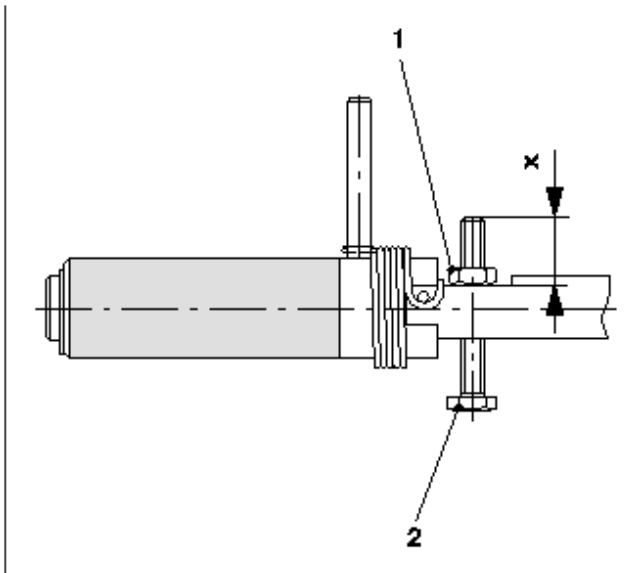


Fig. 3 Handle assembly on D.S.

4. Measure the distance x (Fig. 3) between the end of the hexagonal screw and the recess in the shaft, and note down the measured value (e.g. 19.1 mm), in order to avoid future re-adjustments.
5. Remove hexagon-head screw (Fig. 2 /4, 3 /2) and hexagon nut (Fig. 2 /5, 3 /1).

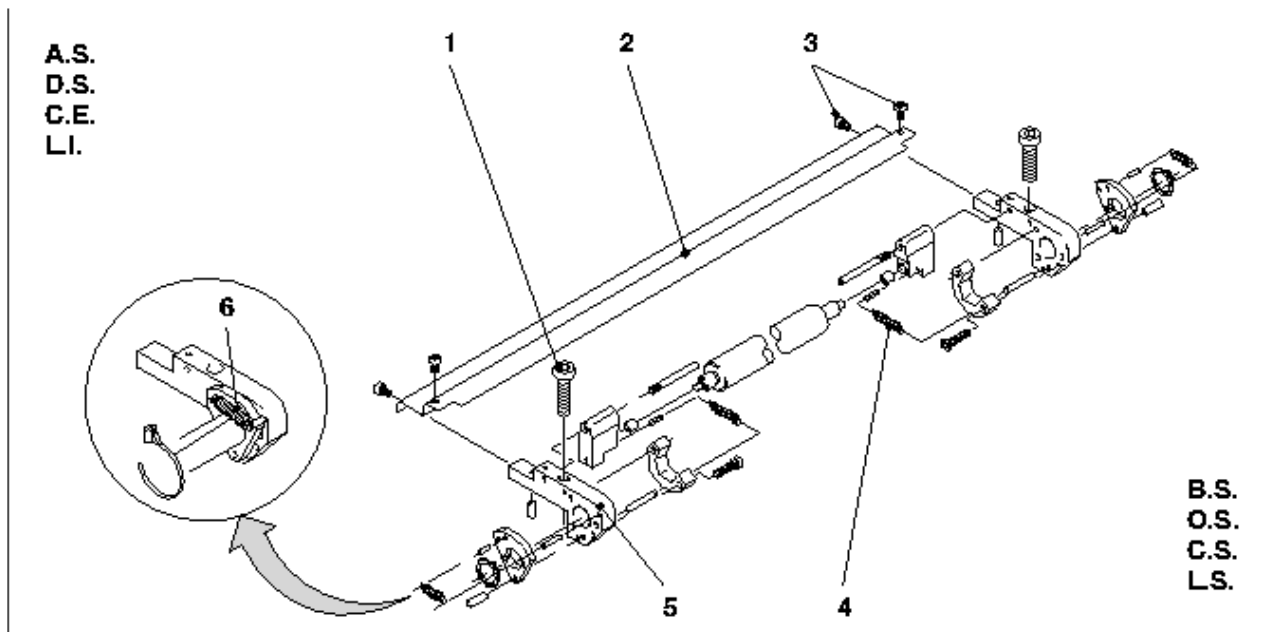


Fig. 4 Blanket washup device

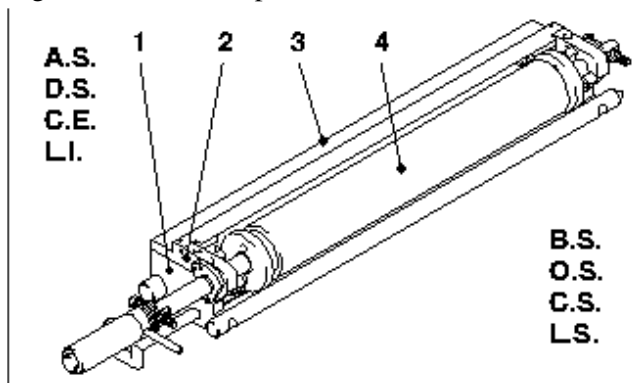


Fig. 5 Blanket washup device

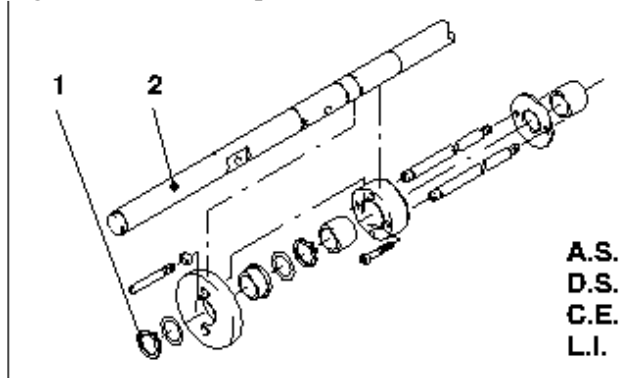


Fig. 6 Blanket washup device D.S.

6. Unscrew the Allen screw (Fig. 4 /1) on D.S. and O.S. and lift the shaft with washup roller (Fig. 5 /4), supporting unit (Fig. 5 /2), and cover (Fig. 5 /3) completely off the trough (Fig. 5 /1).
7. Unhook the tension spring (Fig. 4 /4) on D.S. and O.S.
8. Remove the tension spring (Fig. 4 /6) and cable tie on D.S.
9. Remove the circlip (Fig. 6 /1).
10. Unscrew the Allen screws (Fig. 4 /3) on O.S. This loosens the cover plate (Fig. 4 /2).
11. Remove D.S. bearing holder (Fig. 4 /5) with cover plate from the shaft (Fig. 6 /2) in the direction of D.S.

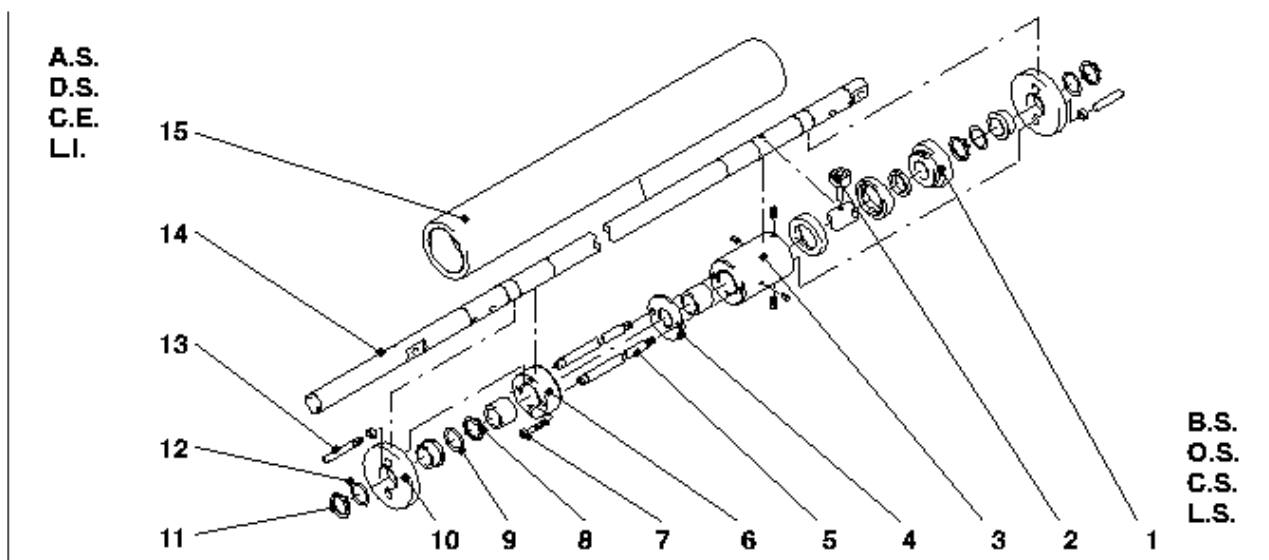


Fig. 7 Complete blanket washup device

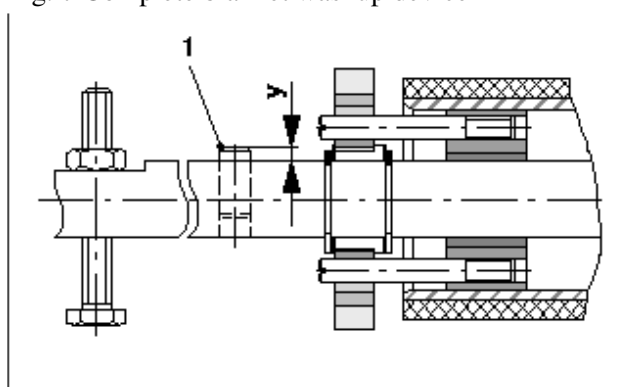


Fig. 8 Blanket washup device D.S.

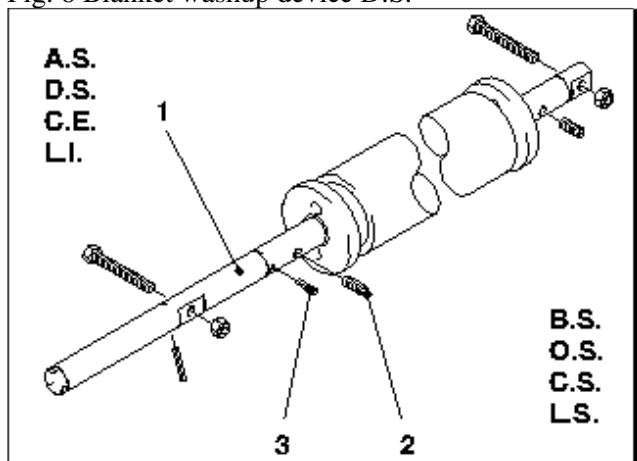


Fig. 9 Blanket washup device

12. Measure and note down the distance y (Fig. 8) (e.g. 1.7 mm). Sink spring dowel sleeve (Fig. 8 /1, 9 /3) into the shaft (Fig. 7 /14, 9 /1) so that washup roller and drive gear (Fig. 7 /10) can easily be removed later.
13. Unscrew the grub screw (Fig. 9 /2) of the parallel adjustment.

► **Note**

Maintain the position of the grub screw when reassembling the unit later. This avoids re-adjustment.

14. Remove circlip (Fig. 7 /11) and fitted disc (Fig. 7 /12) before the drive gear (Fig. 7 /10).
15. Remove the drive gear.
16. Remove circlip (Fig. 7 /8) and fitted disc (Fig. 7 /9) behind the drive gear.

17. Loosen the Allen screws (Fig. 7 /7) that are used for retaining the bearing (Fig. 7 /6).
18. Slightly raise the shaft of the blanket washup device on D.S. and pull the washup roller (Fig. 7 /15) together with bearing and drivers (Fig. 7 /13) in direction D.S.
19. Hold the bearing at the drivers and pull it out of the old washup roller.
20. Use the two pull rods to pull the new washup roller onto the shaft. Push the bearing at the drivers into the washup roller and tighten the two Allen screws (Fig. 7 /7). The following

points must be observed during this procedure:

- When you mount the washup roller over bush (Fig. 7 /3), bearing (Fig. 7 /1) and pull rods (Fig. 7 /5), the washup roller must be introduced without any force into the roller core until the thrust disc (Fig. 7 /4) hits the end.
- Visually inspect the recesses for the bearings in the washup roller (Fig. 7 /6, 7 /1) for dirt and rubber residuals. Clean them with a cleaning cloth and lightly lubricate them with Optimol Longtime PD2.
- Mount the washup roller with a slightly rotating movement. Never support a tight insertion of the washup roller by hitting the shaft ends of the blanket washup device. This would destroy the grooved ball bearing (Fig. 7 /2) between the cam discs.

21. Hold the shaft on D.S. and check the smooth functioning of the washup roller while you lift it up.
22. Assemble the blanket washup device in the inverse sequence.

Replacing distribution bearing

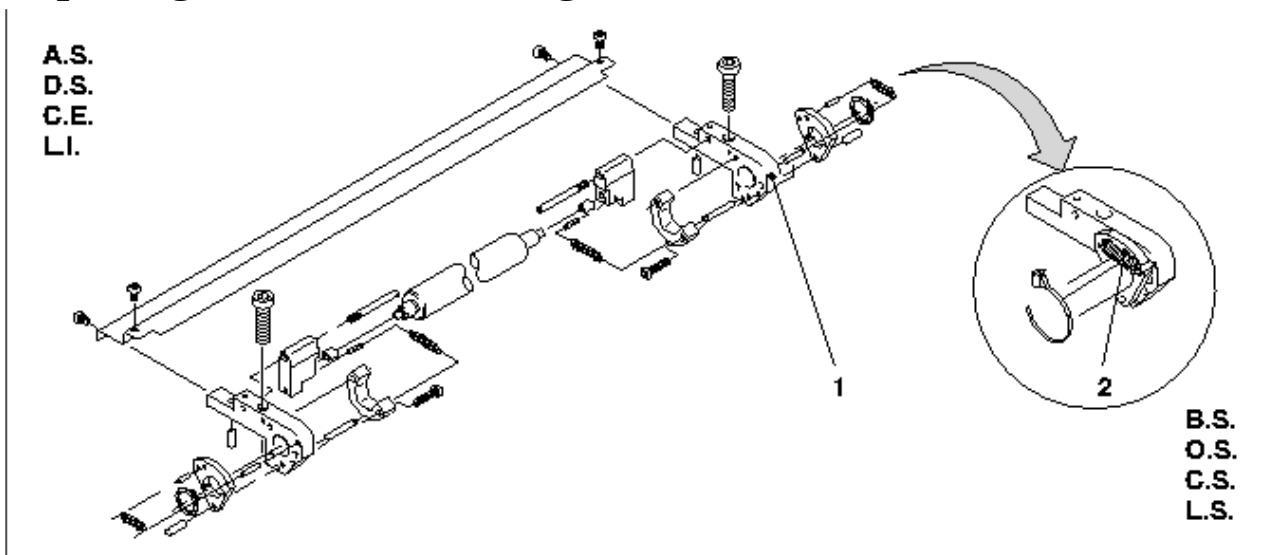


Fig. 10 Blanket washup device

Condition

- Prior to replacing the grooved ball bearing you must have removed the washup roller according to the description in Chapter C Mechanical system, printing unit, blanket cylinder, blanket washup device, replacing the washup roller.

Replacing distribution bearing

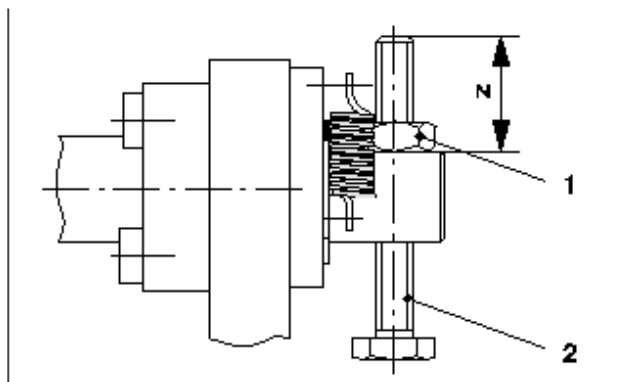


Fig. 11 Blanket washup device O.S.

1. Measure the distance z (Fig. 11) between the end of the hexagonal screw and the recess in the shaft, and note down the measured value (e.g. 15.5 mm), in order to avoid future re-adjustments.
2. Remove hexagon-head screw (Fig. 11 /2) and hexagon nut (Fig. 11 /1).
3. Remove the tension spring (Fig. 10 /2) and cable tie on O.S.
4. Remove O.S. bearing holder (Fig. 10 /1) with cover plate from the shaft in the direction of O.S.

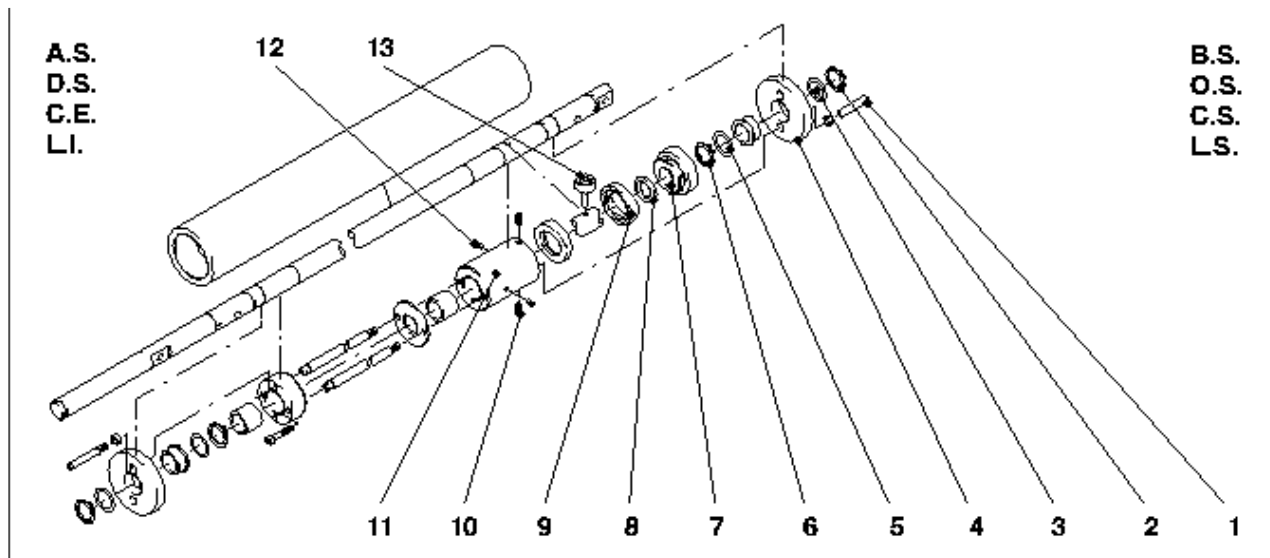


Fig. 12 Complete blanket washup device

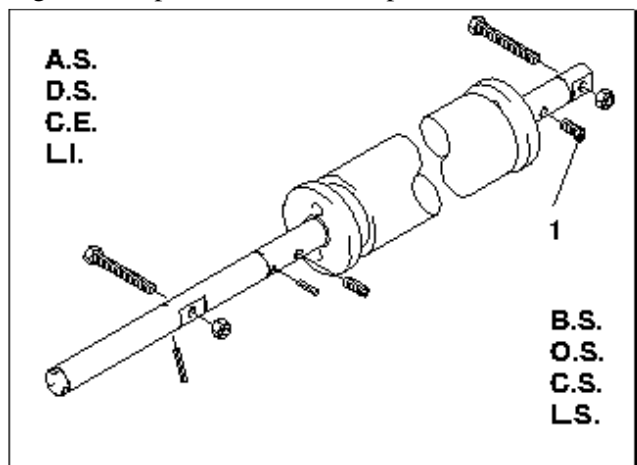


Fig. 13 Blanket washup device

5. Unscrew the grub screw (Fig. 13 /1) of the parallel adjustment.
 - **Note**
Maintain the position of the grub screw when reassembling the unit later. This avoids re-adjustment.
6. Remove circlip (Fig. 12 /2) and fitted disc (Fig. 12 /3) before the drive gear (Fig. 12 /4).
7. Remove the drive gear.
8. Remove circlip (Fig. 12 /6) and fitted disc (Fig. 12 /5) behind the drive gear.
9. Unscrew the grub screws (Fig. 12 /10) that clamp the bush (Fig. 12 /11).
 - **Note**
Prior to unscrewing the grub screws knock on them to loosen them. They may be glued in. A punch can be used for this purpose. Use new grub screws for the re-assembly.
10. Pull the bearing (Fig. 12 /7) at the straight pins (Fig. 12 /1) out of the bush.
 - **Note**
Sink spring dowel sleeve (Fig. 12 /12) only on O.S. into the bush. The gasket (Fig. 12 /8) is damaged by the removal of the spring

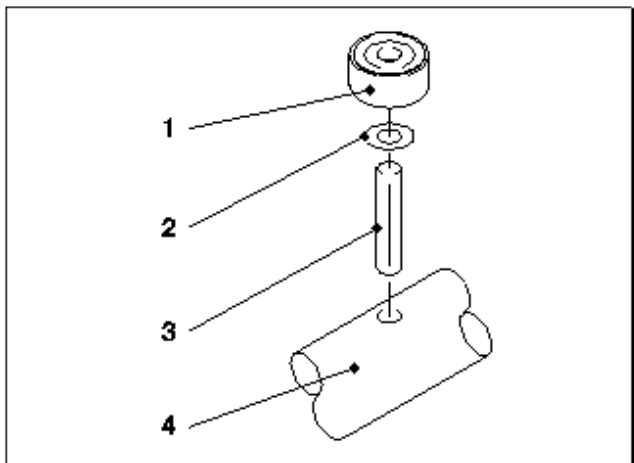


Fig. 14 Distribution bearing

11. Hold the bush and pull the shaft (Fig. 14 /4) in the direction O.S. until gasket, cam disc (Fig. 12 /9) and grooved ball bearing (Fig. 12 /13, 14 /1) become visible.
12. Remove gasket and cam disc.
13. Remove spring dowel sleeve (Fig. 14 /3) so that grooved ball bearing and fitted disc (Fig. 14 /2) can be replaced.
14. Replace old grooved ball bearing by a new bearing.

► **Note**

Ensure that a new fitted disc is installed when you install the grooved ball bearing. Drive in the new spring dowel sleeve to the upper edge of the inner bearing ring.

15. Lubricate the outer ring of the grooved ball bearing with Optimol Longtime PD2.
16. Assemble the blanket washup device in the inverse sequence.

► **Note**

When assembling the blanket washup device you must use the new gasket and the new spring dowel sleeve for the bush (Fig. 12 /11).

Adjustment

General information

The adjustment of the four blanket washup devices is subdivided into the following areas:

- Adjustment of the installation position in the press (PU 1...4).
- Adjustment of the washup roller in parallel to the blanket (PU 1...4).
- Adjustment of the lower steel shaft with respect to the washup roller (only PU 4).
- Adjustment of the pressing strip with respect to the blanket (PU 1...4).

Adjusting the installation position in the press (PU 1...4)

The guide distance must be adjusted in order to ensure a proper insertion of the blanket washup device into the press.

1. Loosen the Allen screws (Fig. 15 /1) and tighten them lightly.
2. Shift vertically to adjust the guide distance $x = 0.1...1.5 \text{ mm}$.
3. Tighten the Allen screws.

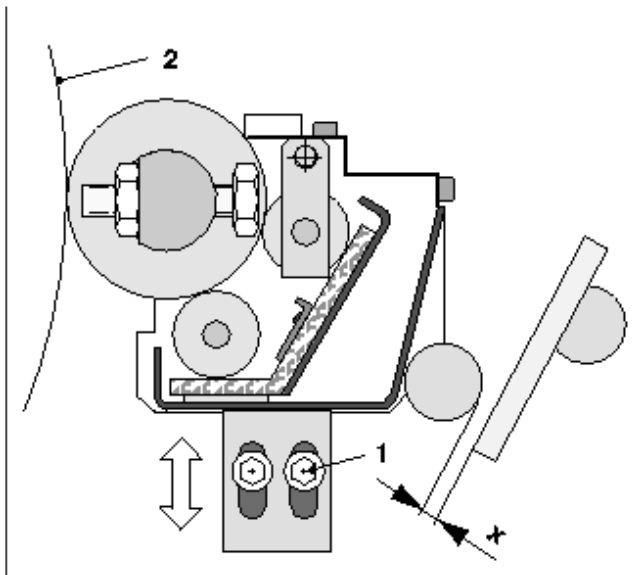


Fig. 15 Blanket washup device PU 1...3

When removing the unit from the press ensure that the blanket washup device does not rub at the blanket (Fig. 15 /2). If necessary, adjust the guide distance x to the minimum value.

Adjusting the washup roller in parallel to the blanket cylinder (PU 1...4)

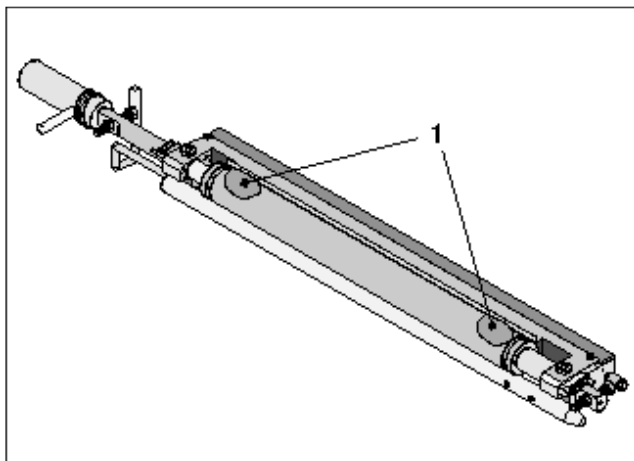


Fig. 16 Inking up the washup roller

1. Remove the blanket washup device from the press.
2. Partially ink up the washup roller (Fig. 16 /1).

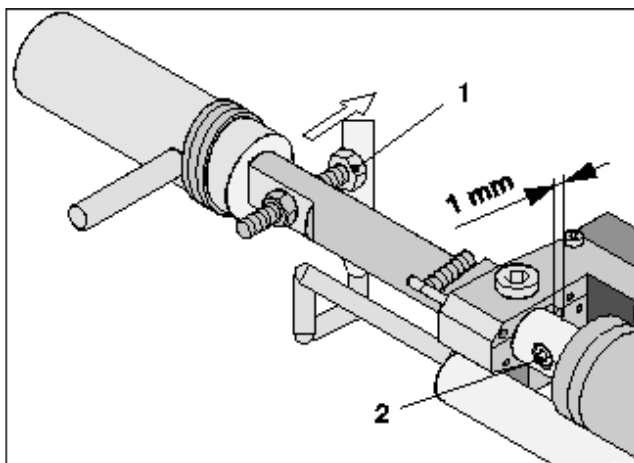


Fig. 17 Blanket washup device D.S.

3. Slacken the outer stop screws on D.S. and O.S. (Fig. 17 /1, 18 /1) fully.
4. Rotate the blanket cylinder into position so that the washup roller touches the blanket when it swings into position.
5. In the Service level, use the **Malfunction**, **Service**, **I/O inputs** buttons to select the required I/O input. Once you have selected the corresponding I/O input, you can use the **Change state** button to change the state. At press standstill: engage the blanket washup device with the blanket cylinder (see Tab. 1).
6. Check the pressing strip on D.S. and O.S. Specified value: **6...7 mm**.
7. Correct with grub screw on D.S. and O.S. (Fig. 17 /2, 18 /2).

The grub screws (Fig. 17 /2, 18 /2) are pre-adjusted such that there is still a play of **1 mm** in the boreholes of the bearing plates on D.S. and O.S.

PU	Blanket washup device to blanket cylinder
1	Gap number 216

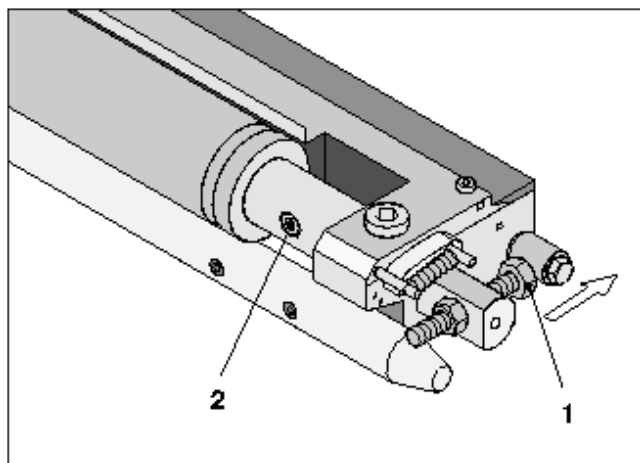


Fig. 18 Blanket washup device O.S.

2	Gap number 217
3	Gap number 218
4	Gap number 219

Tab. 1

Adjusting the lower steel shaft with respect to the washup roller (PU 4)

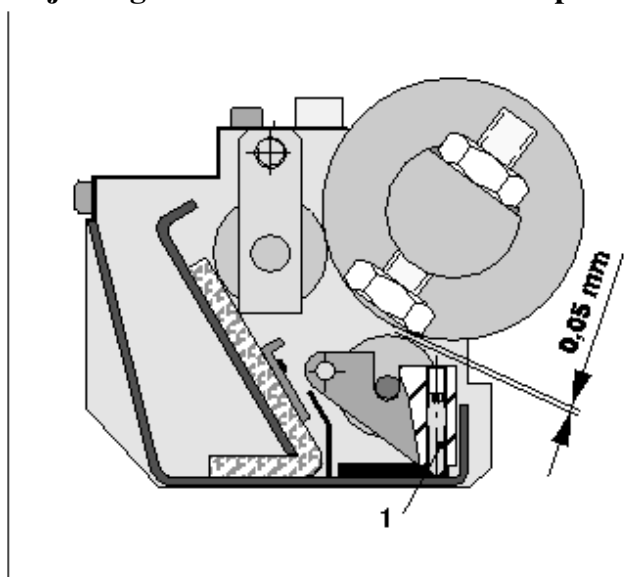


Fig. 19 Blanket washup device PU 4

Once the washup roller has been positioned in parallel to the blanket cylinder, the lower steel shaft of PU 4 must be adjusted. This is not necessary in PU 1...3.

1. Remove the blanket washup device from the press.
2. Turn the grub screw (Fig. 19 /1) on D.S. and O.S. until there is a **0.05 mm** gap. Use a feeler gauge to check.
3. Adjust the pressing strip with respect to the blanket.
4. After adjusting the contact area, turn the grub screws on D.S. and O.S. half a revolution. This squeezes the washing fluid off the washup roller.

Re-adjustment may become necessary if the washup result is not satisfactory.

The lower steel shaft need not be adjusted in PU 1...3 (see Fig. 20).

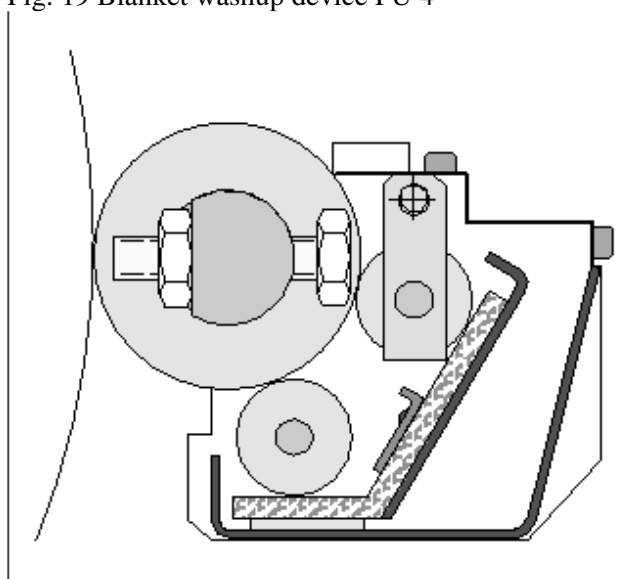


Fig. 20 Blanket washup device PU 1...3

Adjustment of the pressing strip with respect to the blanket (PU 1...4)

Prior to adjusting the pressing strip with respect to the blanket, you must have adjusted the washup roller in parallel to the blanket!

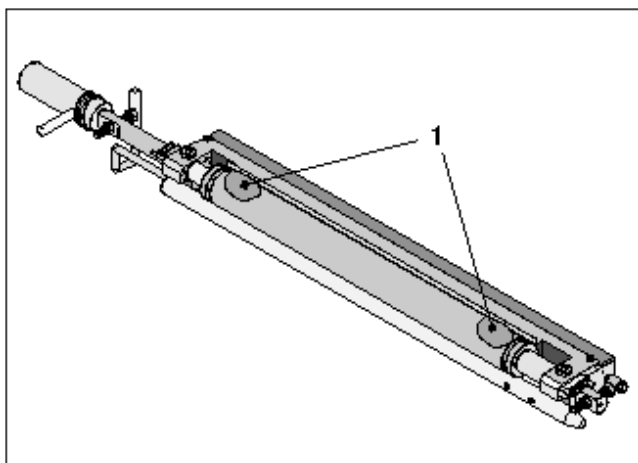


Fig. 21 Inking up the washup roller

1. Remove the blanket washup device from the press.
2. Partially ink up the washup roller (Fig. 21 /1).
3. Install the blanket washup device in the press.
4. In the Service level, use the **Malfunction , Service , I/O inputs** buttons to select the required I/O input. Once you have selected the corresponding I/O input, you can use the **Change state** button to change the state. Using the I/O inputs (see Tab. 2), engage the washup device with the blanket cylinder, hold for approx. 10 seconds and then disengage.

PU	Blanket washup device to blanket cylinder
1	Gap number 216
2	Gap number 217
3	Gap number 218
4	Gap number 219

Tab. 2

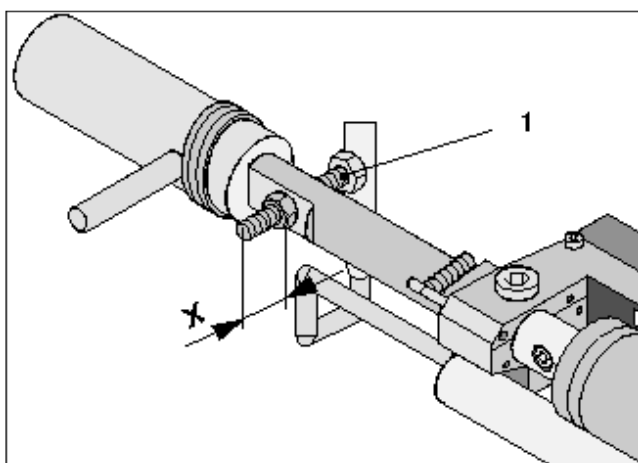


Fig. 22 Blanket washup device D.S.

5. Remove the blanket washup device from the press and measure the pressing strip on the blanket.
6. Set the contact areas to 4 ± 1 mm using the outer hexagon-head screws on D.S. and O.S. (Fig. 22 /1, 23 /1).

► **Note**
 You must perform a correction at the grub screws as shown in Fig. 17 /2 and Fig. 18 /2 if you can not obtain the pressing strip width of 4 ± 1 mm via the outer contact screws.

In PU 4, the outer hexagon-head screws (Fig. 22 /1, 23 /1) must be preset to a dimension x :

D.S. dimension x = 19 mm

O.S. dimension x = 18 mm

With PU 1...3, turn the hexagon-head screws in the press to the stops (visual inspection).

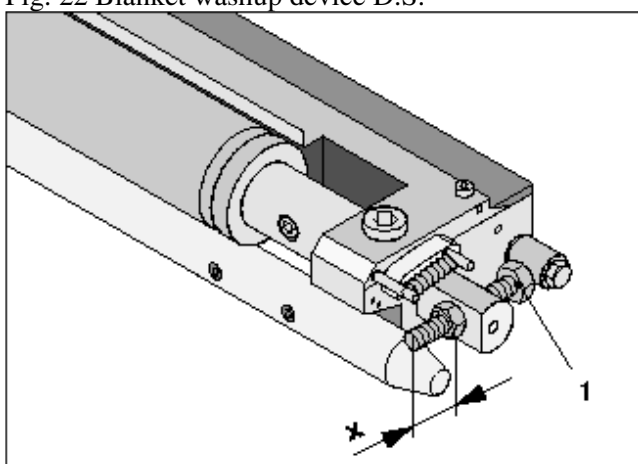


Fig. 23 Blanket washup device O.S.

Functional checks during the washup procedure (PU 1...4)

1. Manually fill the blanket washup device with washing fluid.

The washing fluid level must be approximately 2...3 mm when the washup felt is completely saturated.

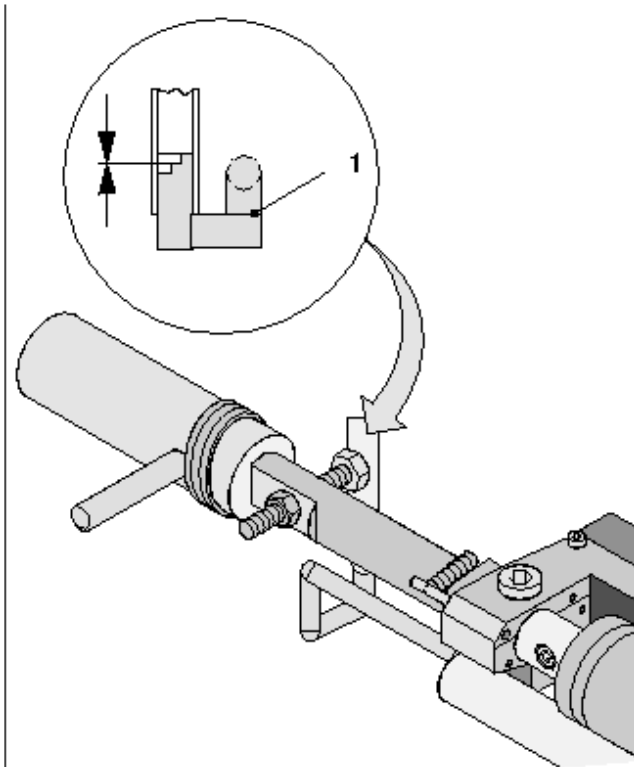


Fig. 24 Level indicator on the blanket washup device

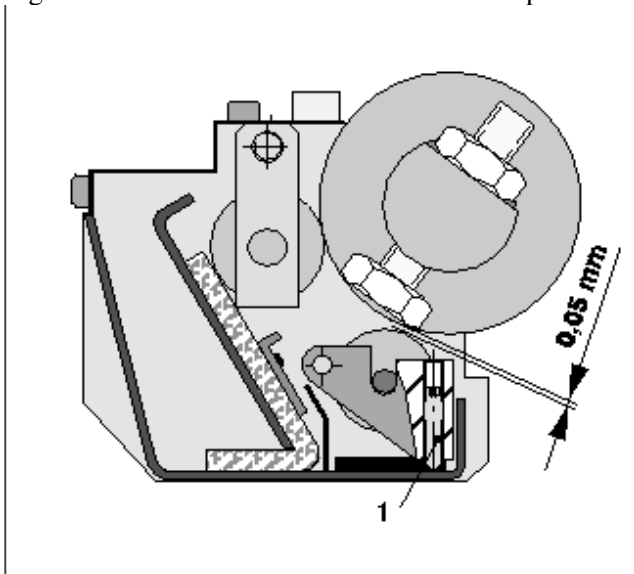


Fig. 25 Blanket washup device PU 4

Visual check of the fluid level: middle level (Fig. 24 /1).

Upper level: maximum filling level

Lower level: minimum filling level

2. Wash the blanket.
3. Check whether the washup roller rotates.
4. If there is humidity in the gap, reduce the pressing strip from the washup roller to the blanket by approximately **0.5 mm**.
5. If the washup roller stops, enlarge the pressing strip by approximately **0.5 mm**.
6. A delayed rotation of the washup roller in the gap is permitted.

Peculiarities with PU 4:

If the blanket is too damp in the gap area, screw in the grub screws of the lower steel shaft (Fig. 25 /1) on D.S. and O.S. by 1/8 turn clockwise. This increases the squeeze.

1. Check the washup result. Re-adjust the pressing strip if necessary.

► Note

If the metal cover was removed, you must secure the Allen screws with varnish after you have re-installed it.

Checking the filling hose

1. Open the protecting doors on D.S.
2. Remove the blanket washup device (Fig. 26 /2) from the corresponding printing unit.

► Note

Always ensure that the filling level (Fig. 27 /1) is not exceeded.

3. Check that the length of the filling hose (Fig. 26 /1) is **25 - 2 mm** (Fig. 27). Shorten it if necessary.
4. Install the blanket washup device.
5. Repeat steps 2...4 with the remaining three

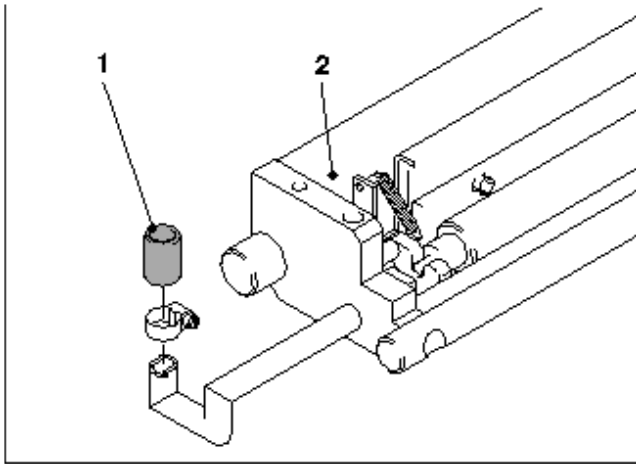


Fig. 26 Filling hose on D.S.

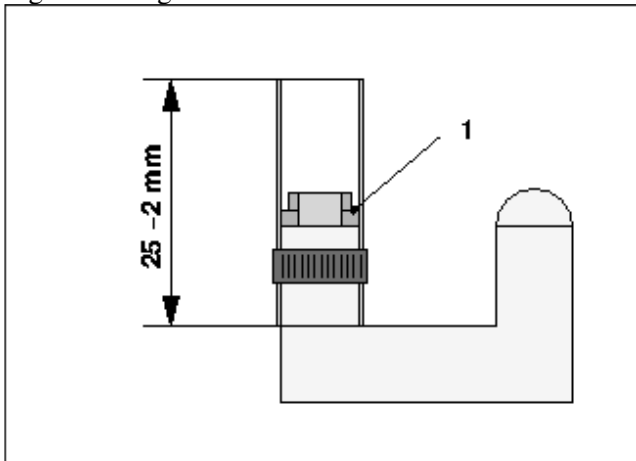


Fig. 27 Length of the filling hose

blanket washup devices.

6. Close the protecting doors on D.S.

Swinging the blanket washup device off the blanket cylinder

1. Connect the service notebook to the PC DISCO (X7 connector), and enable the service level.
2. Use the **Malfunction** , **Service** , **I/O inputs** buttons to select the required I/O input. Once you have selected the corresponding I/O input (Tab. 3), you can use the **Change state** button to change the state.

PU	Blanket washup device to blanket cylinder
1	Gap number 216
2	Gap number 217
3	Gap number 218
4	Gap number 219

Tab. 3