Replacing Band/Adjusting X-axis

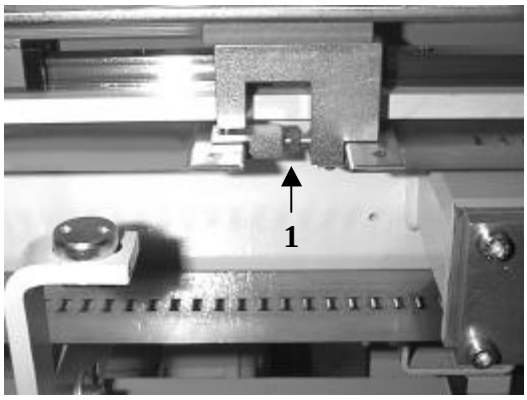

Fig. 1

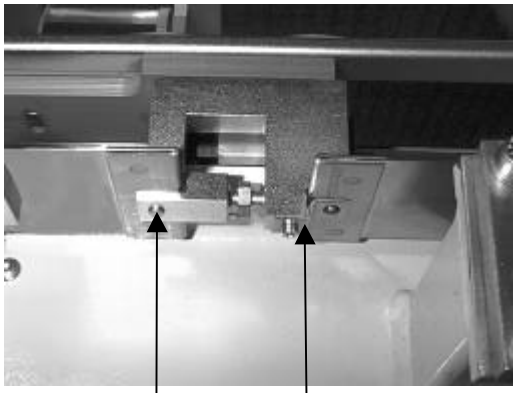

Fig. 2

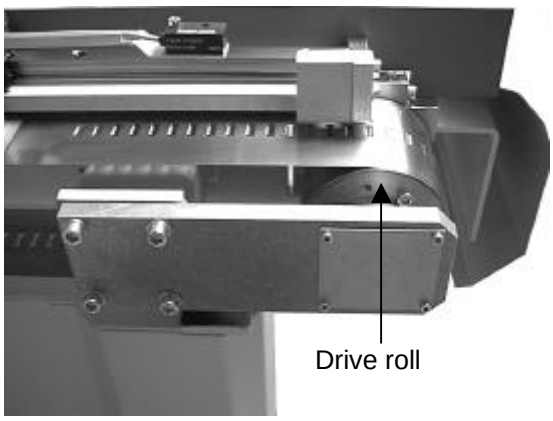

Fig. 3

Removing beam cover:

Tools required:
13 mm open-end wrench
10 mm open-end wrench (flat)
2.5 mm Allen key
Magnifier (10x)

Attention:
During the whole work please note that the band may not be bent or damaged.

Removing band:

1. With the tension screw (Fig. 1/1) release band tension until the band fixing bolt (Fig. 2/1) near the lock plate can be pulled out.

2. Remove lock plate for steel band.

3. Withdraw band.

Loosen drive roll:

When replacing a drive band the drive roll must always be loosened in order to allow the synchonizing shaft to be freely rotatable. This is necessary because the distance between hole in the band strap and toothing is variable. That is why the right-angularity must be adjusted again after replacing the band.
See section "Adjusting the beam".

Installing band:

4. From the front push band under the drive roll.

5. Wrap end of band around deflection roll and place band strap into the tension fork. Insert band fixing bolt.

Attention: It is absolutely necessary to ensure that the band is not catching a protruding screw causing damage during tensioning.

Replacing Band/Adjusting X-axis

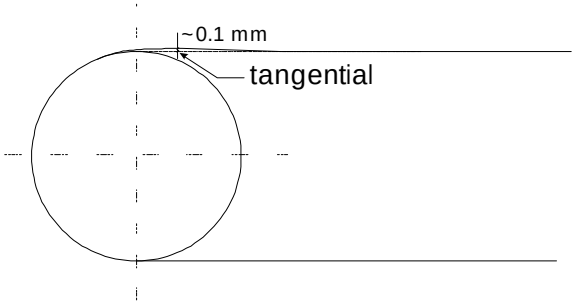

Fig. 4

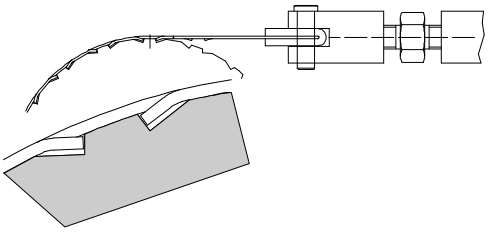

Fig. 5

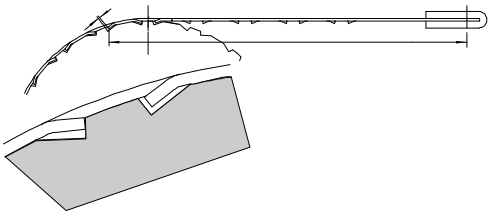

Fig. 6

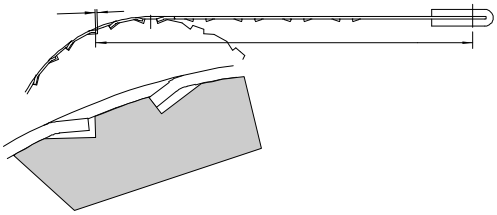

Fig. 7

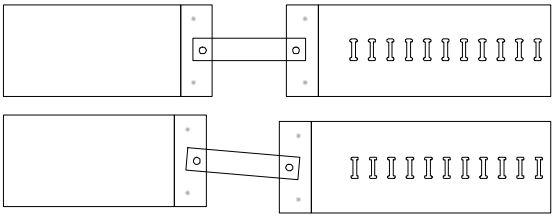

Fig. 8

6. Wrap end of band around the front drive roll and insert fixing bolt into band strap. Install lock plate.

7. Check band engagement before tensioning.
8. Align band on drive and deflection roll centrally.

9. Move beam backwards until the tension screw can just be reached.

10. Tension band with tension screw until band is nearly tangential to the roll. The band can be pressed still a little bit (~0.1 mm) to the roll (Fig. 4).

11. Move beam five times approx. 20 cm forwards and backwards and then into its front position.

12. Check band engagement using the magnifier. Now it must be a symmetrical engagement (Fig. 5). If this is not the case loosen tension screw and start again with step 10.

13. Move beam 20 cm backwards and check band engagement. There are 3 possiblities:
a) Band engagement symmetrically – Tension OK (Fig. 5)
b) Right backlash (Fig.6) Band too short Tension too low
c) Left backlash (Fig. 7) Band too long Tension too high

14. Change tension as mentioned and repeat step 10 (change tension in the front beam position)
15. Repeat step 10 in 3 to 5 steps always starting from the front beam position until the complete beam moving distance is covered. The band tension is correct if the band engagement is symmetrical over the complete moving distance.

16. If the band tension is quite correct the 2 screws for the carrier plate are slightly loosened to allow the band to be aligned. Subsequently, tighten the 3 screws carefully without distorting the carrier plate. Now both band edges must be aligned (Fig. 8).

Fig. 9

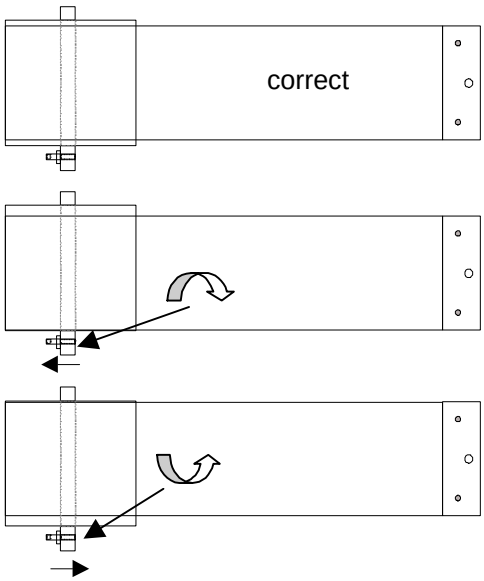

Fig. 10

17. Adjust right-angularity acc. to section “Adjusting the beam“.

Adjusting band running-off by shifting the deflection rolls:

18. Adjusting band running-off:
If the drive band is offset to the side of the deflection roll during adjustement the deflection roll must be re-adjusted.

Start Diagonal Test with an average speed.
If the drive band is offset to the side of the deflection roll it can be adjusted as follows:

Loosen lock nut (Fig. 9) and re-adjust roll accordingly using the adjusting screw during the Diagonal Test.
The band reacts very sensitive against any screw adjustments. As a result, is is very important to wait for several movement cycles after each adjustment until band is centered (Fig. 10).

Over the whole table area (X-axis) the band deviation from deflection to drive roll should not exceed the following values:

PN-800	0.4 mm
PN-1200	0.6 mm
PN-1600	0.8 mm

19. After steps 16 and 17 are carried out check band tension again and make corrections, if necessary.

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