

Procedure 6.6 - Replacing the Drive Roller or Drive Roller Bearings

WARNING

Always turn off the circuit breaker and unplug the treadmill before you remove the treadmill hood.

Note:

If the drive roller bearings require replacement, you may replace either the bearings or the entire drive roller. Replacing the bearings uses parts that are less expensive but requires more time to perform the replacement.

Removing the Drive Roller

1. Remove the hood.
2. Remove the running belt tension by turning the drive roller adjustment bolts counterclockwise.
3. Remove the drive motor as described in Procedure 6.5.
4. Remove the socket head screws that secure the top drive roller mounts.
5. Remove the top roller mounts, then remove the drive belt from the drive pulley.
6. Lift the drive roller from the lower roller mounts and slide it out of the running belt.
7. Slip the drive belt off the drive motor pulley, then set aside the drive belt until you are ready to install the drive roller.
8. If you are replacing the bearings or the bearings and shaft in drive roller...

THEN...

Continue with the next step.

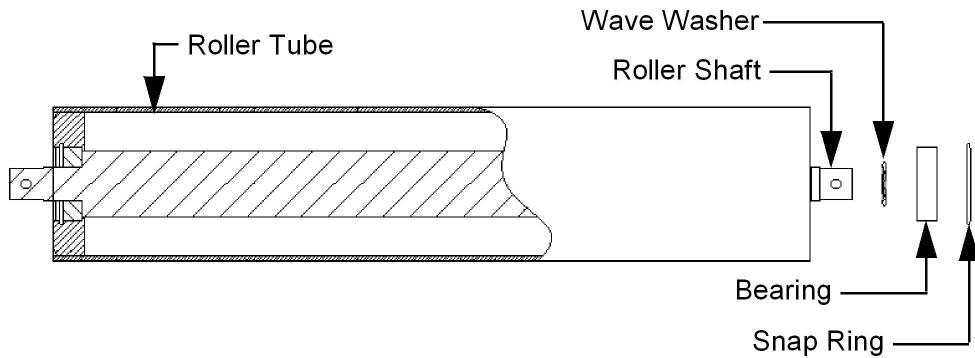
OTHERWISE...

Remove the bolts threaded through the drive roller shaft; then skip to Step 21.

Removing the Roller Bearings and Shaft

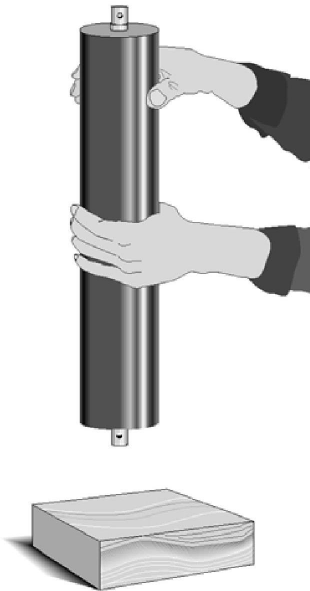
Always remove and replace the bearings and washers as a set. It is not necessary to replace the shaft if you are replacing the bearings. However, if you are replacing the shaft, you must also replace the bearings and washers.

Diagram 6.6 - Exploded View of a Roller



9. Remove the snap ring from both ends of the roller (see Diagram 6.6).
10. Hold the roller in a vertical position 3ñ4 inches above a block of wood. The block of wood must be on a hard solid surface such as a floor. (see Diagram 6.7)
11. Hold the roller with the end of the roller upward, and drop the roller onto the block of wood. The roller may need to be dropped several times to drive the bearing out of the roller.
12. Remove the bearing from the opposite end of the roller in the same manner. Care must be taken to keep the roller shaft in the bearing because the shaft is no longer being retained on the lower end of the roller as it is dropped onto the block of wood.
13. Remove the shaft from the roller.

Diagram 6.7 - Removing a Bearing



Replacing the Roller Bearings and Shaft

You will need an assistant to perform the following steps.

14. Have an assistant support the roller against a work surface. One end of the roller must be flush with the work surface.
15. Place a bearing on the roller, then position the bearing replacement tube against the outer race of the bearing

Note:

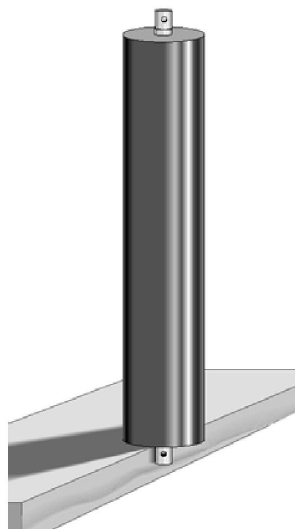
A ten inch length of 2 inch O.D. pipe with a cap threaded onto one end, will serve as a bearing replacement tool. The open end will be placed against the bearing and the end with the capped end will be struck with the hammer.

CAUTION

The bearing must go squarely into the roller tube. If the bearing is not square in the roller tube, you will be unable to insert the bearing.

16. Set the roller tube on a solid work surface. Place a new bearing in the bearing pocket on one end of the roller tube. Using the bearing replacement tool and a hammer or mallet, gently tap the bearing into the tube. The bearing will be below flush and the snap ring groove will be exposed when the bearing is properly set into the roller tube.
17. Using the snap ring pliers, install the snap ring.
18. Place a wave washer onto roller shaft. Slide the roller tube down over the shaft until the end of the shaft protrudes through the bearing. Invert the roller tube while holding the shaft in place. Set the roller tube on a block of wood as shown in Diagram 6.8.

Diagram 6.8 - Replacing the Roller Bearing



19. While an assistant supports the roller tube, place a wave washer on to the shaft. Slide the new bearing onto the upper end of the shaft. Using the bearing replacement tool and a hammer or mallet, gently tap the bearing into the tube. The bearing will be below flush and the snap ring groove will be exposed when the bearing is properly set in the roller tube.
20. Using the snap ring pliers, install a retaining ring next to the bearing just mounted in the roller.

Replacing the Drive Roller

21. Thread the drive roller adjustment bolts into the drive roller shaft.
22. Visually inspect the drive belt for wear, cracks, or other damage. Replace the drive belt if required.
23. Slide the drive roller through the running belt. Place the drive belt on the drive roller pulley and place the drive roller on the lower drive roller mounts.
24. Place the top roller mounts on the lower roller mounts.

Note:

When you place the top roller mounts over the ends of the roller shaft, the bolt heads and washers must be outside of the clamp formed by the upper and lower roller mounts.

25. Thread the socket head screws through the top roller mounts and into the lower roller mounts and tighten.
26. Push and hold the left side of the drive roller toward the drive motor.

Note:

Right, left, front, and back are from the perspective of a user standing on the treadmill and facing the electronic console.

27. Securely tighten the left hand drive roller adjustment bolt. It is important that the bolt pulls drive roller shaft all the way forward in the roller mount.
28. While applying rearward pressure to the drive roller, adjust the right hand drive roller adjustment bolt until the drive roller is square relative to the treadmill frame.
29. Position the drive belt on the drive motor pulley.
30. Position the drive motor parallel to the line scored on the motor mounting pedestal.
31. Tighten the four bolts that mount the pedestal to the drive motor mounting plate.
32. Inspect and adjust the tension of the drive belt as described in Procedure 3.2 of the Commercial Treadmill Service Manual.

33. Inspect and adjust the tension, tracking, and alignment of the running belt as described in Procedure 3.1 of the Commercial Treadmill Service Manual.
34. Check the operation of the treadmill as described in Section Three of this appendix, then replace the hood.

Procedure 6.7 - Replacing the Take-Up Roller or Take-Up Roller Bearings

Removing the Take-Up Roller

1. Remove the screws that secure the right and left end caps to the treadmill frame. Set the end caps and end cap mounting hardware aside.
2. Place a running belt gauge on each side of the running belt and set the gauges a mid range.
3. Remove the running belt tension by turning the take up roller tension adjustment bolts counterclockwise.
4. Turn the running belt tracking bolt counterclockwise 2½ turns.
5. Remove the socket head bolts that secure the top take-up roller mounts.
6. Remove the top roller mounts, then lift the take-up roller from the lower roller mounts.
7. If you are replacing the bearings or the bearings and shaft in the take-up roller...

THEN...

Continue with the next step.
you perform the following steps.

OTHERWISE...

Remove the tension limiting bolt and running belt tracking bolt from the take-up roller shaft. Skip to Step 19.

Removing the Roller Bearings and Shaft

Always remove and replace the bearings and washers as a set. It is not necessary to replace the shaft if you are replacing the bearings. However, if you are replacing the shaft, you must also replace the bearings and washers.

8. Remove the snap ring from one end of the roller (see Diagram 6.6).
9. Hold the roller in a vertical position 3½ inches above a block of wood. The block of wood must be on a hard solid surface such as a floor. (see Diagram 6.7).
10. Hold the roller with the end of the roller that has had the snap ring removed upward, and drop the roller onto the block of wood. The roller may need to be dropped several times to drive the bearing out of the roller.
11. Remove the bearing from the opposite end of the roller in right same manner. Care must be taken to keep the roller shaft in the bearing because the shaft is no longer being retained on the lower end of the roller as it is dropped onto the block of wood.
12. Remove the shaft from the roller.