

## Procedure 7.20 - Replacing the Drive Belt

### Removing the Drive Belt

1. Remove the covers as described in Procedure 7.1.

#### **WARNING**

Before continuing with this procedure, review the Warning and Caution statements listed in Section One, Things You Should Know.

2. Loosen the drive belt by pushing down on the top of the drive belt idler arm. Hold the idler arm down while you pull the belt out of the sheave rim. Place the belt on the left end of the sheave shaft.
3. Press down the stairarm with one hand. With your other hand, grasp and pull the end of the toothed belt connected to the return spring. Release the stairarm. Remove the belt from the toothed pulley and idler pulley (refer back to Diagram 7.10).
4. Remove the fasteners that secure the right bearing flanges to the sheave bracket. Repeat this step for the left bearing flanges.
5. Remove the sheave & toothed pulley assembly from the sheave brackets.
6. Using the 17mm open-end wrench, loosen the outer nuts on each end of the disk axle (refer back to Diagram 7.16).
7. Slide the disk assembly out of the disk brackets and away from the drive belt. Remove the belt from the climber.

### Replacing the Drive Belt

8. Push the disk assembly through the new drive belt. Position the belt against the disk hub and behind the drive belt idler as you slide the disk assembly into the disk brackets (refer back to Diagram 7.16).

#### **Important**

Make sure that the remote sensor assembly tabs straddle the disk target (refer back to Diagram 7.6). The outer nuts loosened in Step 6 must be on the outside of the disk brackets.

9. Using the 17mm open-end wrench, tighten the outer nuts on each end of the disk axle.
10. Lift the drive belt from the disk hub. Push the sheave assembly through the belt. Place the belt on the sheave shaft as you slide the sheave assembly into the sheave brackets (refer back to Diagram 7.18).
11. Slide the flanges and bearing on the right end of the sheave shaft next to the sheave bracket. Place two bolts through the sheave bracket and flanges.

12. Install the locknuts that secure the flanges to the sheave bracket.
13. Repeat Steps 11 and 12 for the flanges and bearing on the left end of the sheave shaft.
14. Stand at the back of the climber and face the disk assembly. The drive belt must be positioned over the disk hub and behind the drive belt idler (refer back to Diagram 7.16). Line up the drive belt in the center of the grooves on the disk hub.
15. Mount the drive belt on the sheave by performing the following sub-steps:
  - a. Kneel on the right side of the climber and face the sheave.
  - b. Hold the drive belt between the 12 o'clock and 3 o'clock positions on the sheave rim.
  - c. Turn the sheave counterclockwise.

**Note:**

As you move the sheave, the belt will position itself on the rim.

- d. Grasp the drive belt at the 4 o'clock position.
- e. Turn the sheave counterclockwise to fully seat the belt on the sheave rim.

**Note:**

Make sure that the belt is on the sheave rim before you continue with this procedure.

16. Kneel behind the stair arms. Press down on the ends of the stair arms. Watch the drive belt as it moves on the sheave, drive belt idler, and disk hub.
17. Choose one:

**IF...**

The drive belt has a significant tracking problem

The drive belt has a minor tracking problem

The drive belt tracks correctly

**THEN...**

Continue with the next step

Skip to Step 24

Skip to Step 27

18. Using the 17mm open-end wrench, loosen the outer nuts on each end of the disk axle. Remove the disk assembly from the disk mounting brackets and away from the drive belt.
19. Using the 17mm open-end wrench, loosen the inner nuts on the disk assembly.
20. Re-position the nuts on the disk axle. Using the 17mm open-end wrench, tighten the inner nuts on the disk assembly.

21. Push the disk assembly through the drive belt. Position the belt against the disk hub and behind the drive belt idler as you slide the disk assembly into the disk brackets.

**Important**

Make sure that the remote sensor assembly tabs straddle the disk target.

22. Using the 17mm open-end wrench, tighten the outer nuts on each end of the disk axle.
23. Return to Step 14.
24. Remove the set screws that secure the sheave to the sheave shaft. Gently tap the sheave to re-position it on the sheave shaft.
25. Add a drop of blue loctite to the tip of each set screw. Install the screws on the sheave hub.
26. Return to Step 16.
27. Inspect the gaps between the disk and the magnet assemblies as described in Procedure 5.1.
28. Check the operation of the climber as described in Section Four, then replace the covers as described in Procedure 7.1.