

TELEBELT®

Tricks of the Trade

Volume: 07282003 ■ July 2003 ■ PMA-0010-6 TB



Tips on Replacing the Telescope Drive Cable

Read this entire procedure before starting the process of replacing the telescope drive cable for the Telebelt® TB 105 or TB 130. Make sure you have inspected the machine and have all necessary replacement cable, sheaves, bearings, clamps, thimbles and related parts on hand.



1 Position the machine and outriggers so that the feeder can be placed out of the way and the boom will be about 90° to the truck.



2 Extend the boom until the mid sections are extended a few feet to gain working room around the telescope drive assembly. Fully retract the tip section and lower the tip to the ground. Turn off the truck engine and put the keys in your pocket.



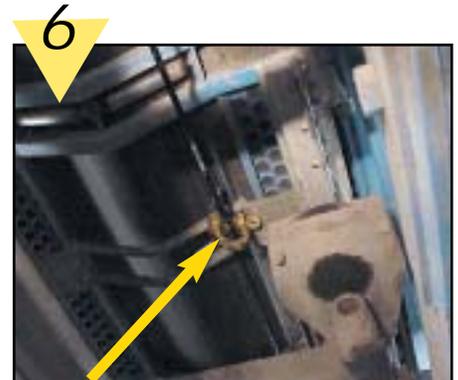
3 Connect the tensioning jack to the cable tensioning cylinder.



4 Completely release cable tension and disconnect the cable, as shown. Remove the cable clamps and pull the cable out of the 8" sheave, so the cable is running along the side of the aluminum boom sections.



5 Remove the cable attachment at the telescope drive (TB 105) or spring tensioner (TB 130). Remove the cable clamps and thimble and cut the cable, if necessary to make sure it is straight. If the existing cable has a swaged socket, cut it off.



6 Attach a clevis (see arrow) to a roller cradle on the passenger side of the boom. The clevis will hold the cable up and guide it to the top sheave on the passenger side of the telescope drive.



Putzmeister America ■ 1733 90th Street ■ Sturtevant, WI 53177 USA
Phone (262) 886-3200 ■ (800) 884-7210 ■ Facsimile (262) 884-6338



Telebelt® Tricks of the Trade Continued...

Telescope Drive Cable Replacement

7



This view is toward the telescope drive. It shows the cable running through the clevis to the top sheave (top wrap) of the drive.

8



Place a large bar (see arrow) through the boom sections. This will keep the boom from retracting or extending as the cable is pulled.

9



Cables supplied by Putzmeister have a swaged socket on one end. Leave the socket wired to the side of the cable reel, as shipped. Place the reel on stands, with the cable running from the bottom of the reel toward the truck.

*TB 105 cable part #A381586
TB 130 cable part #A320588*

10



Match the end of the new cable with the end you removed from the anchor point.

Note: Hardwood dunnage is a good work surface. When welding, the cable ends can be held in place with nails.

11



Braze the ends of the cables together. A steel coat hanger actually makes the best brazing rod for this step. The coat hanger will join the sections and still remain flexible enough to bend around the sheaves. Grind off excess material when finished brazing.

12

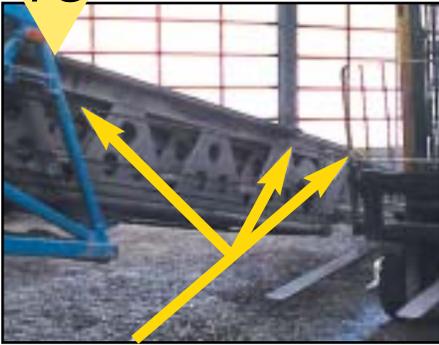


This shows the cables joined and ready to pull (at arrow).

Note: This bulletin applies to the Telebelt® TB 105 and TB 130 models only.



13



In photos 13 and 14, a loop has been formed in the cable end that was removed from the tension cylinder. The loop is attached to a forklift. Arrows point to the location of the cable.

The forklift is used to pull slack in the cable. Something with an automatic transmission works best, since it is easy to apply even tension at idle. A pickup truck trailer hitch also works well.

14



Three people are needed to pull the cable: one to feed the cable, one to operate the forklift and one to operate the Telebelt.

MAKE SURE ALL PERSONNEL ARE CLEAR OF THE BOOM

Start the unit and engage the right-hand PTO. Use the remote to slowly move the cable with the RETRACT function. Let the telescope drive do the work. DO NOT try to pull the cable through with the forklift.

Listen and watch for unusual noises or movement of the boom. If there is binding or if the weld joint breaks, **SHUT THE UNIT DOWN** and correct the problem or re-weld the joint.

15



Stop the pulling operation when the swaged socket can be connected to the anchor (TB 105) or spring tensioner (TB 130). **Shut the unit off to make the connection.**

If the swaged socket pin is too large for the existing anchor hole, connect it using a clevis, as shown at the arrow.

Restart the unit and use RETRACT and the forklift to remove the remaining slack. **SHUT THE UNIT BACK OFF.** Make sure the cable is positioned in the drive sheave grooves.

16



Remove the guide clevis and bar which were inserted in previous steps. Cut the cables apart at the weld joint.

Make sure the cable is still in position in the 8" sheaves at the heel of the tip section before tensioning the cable. In photo 16, the top arrow shows the position of the retract sheaves and the bottom arrow shows the position of the extend sheaves.

17



Pass the end of the cable around the take-up sheave. Form a loop with a cable clamp and pull the cable snug with the tension cylinder. Make sure the clamps are installed with the saddle on the "live" end of the cable.

Clamp cable to the tension track using the cut end of the cable as a spacer.

18



This photo shows the cable clamped to the tension track. This allows you to move the cylinder close to the sheave, so you won't run out of track before tensioning is completed.



19



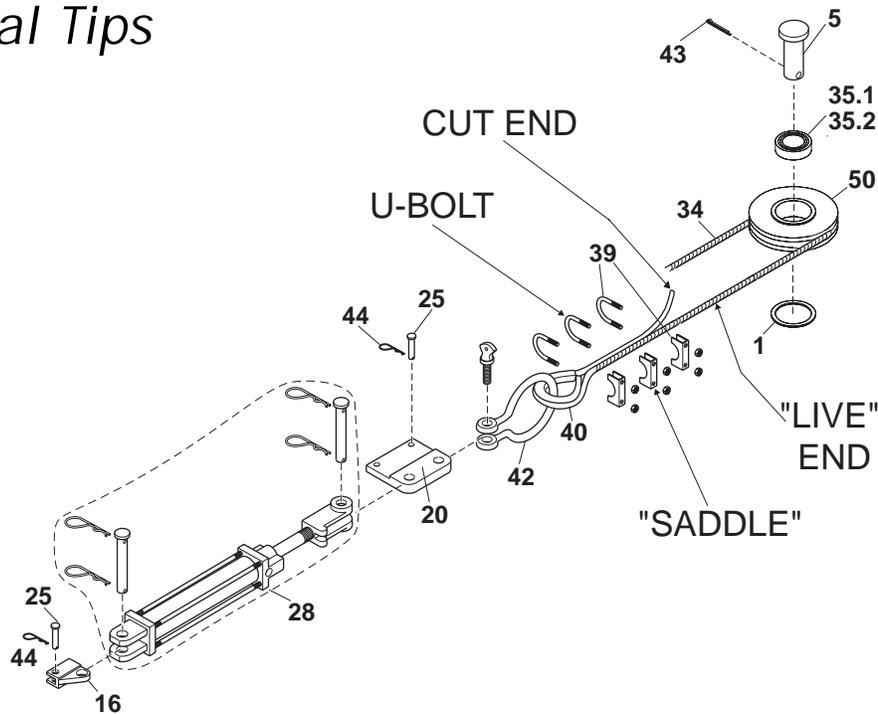
Move the tension cylinder toward the sheave and reform the loop with a thimble. Install the first clamp and pull enough tension to remove the clamp from the tension track.

Tension the cable enough to add the second and third clamps. Final tension is 2,500 psi. Leave a 5-ft (1.5 meter) "tail" and tie it off. The tail is needed if tension is released to make sheave repairs.

20



Additional Tips



A. When installing thimbles and cable clamps, note that cable clamps are directional. Always install the saddle of the clamp on the "live" (load) part of the cable. Install the U-bolts on the "dead" (cut) end of the cable. This is because the U-bolts distort the cable and can break strands.

B. Use three cable clamps on each end, 4" on center, and tighten them alternately and uniformly. Torque to 95 ft./lbs.

C. Leave a 5-ft (1.5 meter) "tail" (not shown) in the cut end, past the third clamp at the tension cylinder. You will need this for slack if you ever need to drop tension to change a sheave. Do not leave a long tail on the drive deadhead end.

D. Before tensioning the cable, check to make sure the cable did not slip out of any of the sheaves.

E. Tension the cable to 2,500 psi.

F. When the project is finished, check the tension again.

G. Monitor cable tension, as outlined in the Telebelt Operator's Manual.



Questions? Call the Putzmeister Service and Support Department for assistance.

1-800-890-0269