

Teres Bearing Assembly Instructions

19-Nov-2004

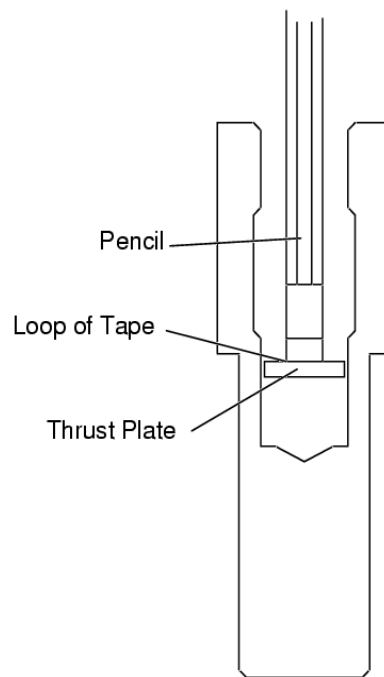
The Teres bearing was designed to have a lot of viscous damping. This damping helps swamp the effects of stylus drag, resulting in better speed stability. For this reason a fairly heavy oil (30 weight) is included. With a heavy oil the bearing will turn smoothly but there will be a lot of resistance. This is by design.

Please read this information carefully before assembling your bearing. The Teres bearing has been machined with very close tolerances. The radial clearance in the bearing is only 2 to 3 ten-thousandths. This tight tolerance results in superb stability reducing rocking to microscopic levels. However, with these tolerances it is imperative that the bearing is clean and that proper procedures be used for assembly. The objective is to have the bearing completely full of clean oil, including the recess in the top of the bearing housing. If air gets trapped in the bearing it will not seat and the air will remain trapped in the bearing for days and possibly forever. The bearing must be assembled dry to avoid trapping air. Here is the procedure:

1. Clean the bearing housing and spindle thoroughly. Wiping down the bearing surfaces with rubbing alcohol on lint free cloth works well.
2. Using the included 6-32 screw attach the bearing ground wire (black wire with a ring terminal on one end) to the bottom of the brass bearing housing. Pointing the crimp connector toward the center of the bearing will make it easier to install the bearing into the base.
3. Attach the brass bearing housing to the base using the supplied 1-1/8" nut. Hold the bearing housing tightly in one hand and tighten the bearing nut with a large wrench or pliers. The bearing nut should be snug but not excessively tight.
4. Fill the recess in the bottom of the spindle with oil and press in the ball bearing. This displaces air in the recess and will hold the ball bearing in place. Be

sure to completely wipe away any excess oil.

5. Place the brass thrust plate in the bottom of the bearing housing with the white Delrin button facing upward. The thrust plate needs to be held flat as it is lowered into the bearing. A simple method is to attach a small loop of tape to the end of a pencil. Then stick the thrust plate to the pencil and lower it in place. Be sure that the Delrin button is facing up!
6. Carefully pour 3.8ml of oil into the bearing housing without getting any oil on the sides of the bearing. The oil level should be just slightly below the top edge of the lower journal as shown in the illustration.

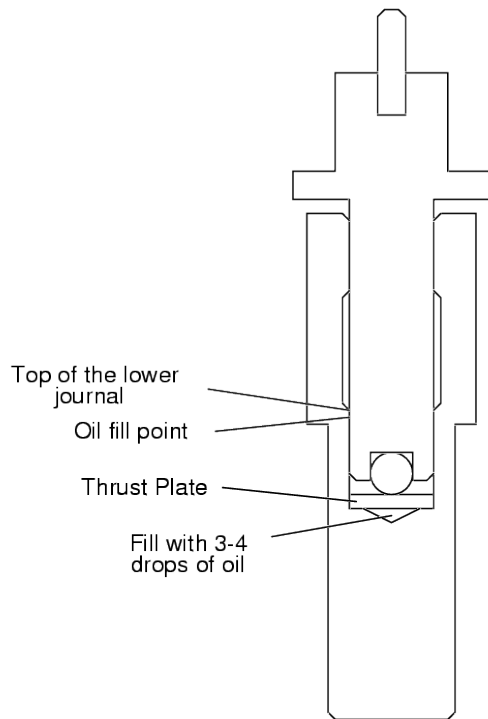


7. Insert the spindle into the bearing. The spindle will stop about 3/4" before it is fully seated. And if no air is trapped it will not feel spongy or pop up when released. If air is trapped you must start over.

- Place the platter on the spindle. The platter will generally slide onto the spindle with only a small amount of downward force. However, in some cases the clearances are a little tighter and it will take more force to seat the platter. Once the platter is in place wait for the spindle to displace the extra oil and fully seat. This will take 4 to 6 hours so be patient. When fully seated the gap between the platter and the base will be about 0.140" (slightly more than 1/8th inch). **WARNING**, do not spin the platter until the bearing has fully seated!

Detailed product information and updates are available from the Teres web page.

[Http://www.teresaudio.com](http://www.teresaudio.com)



- With the correct amount of oil the recess at the top of the bearing will be at least partially full of oil. If there is excess oil remove the platter and wipe up the excess. See section VIII for instructions for platter removal.
- Once the bearing has fully seated visually check for clearance (about 1mm) between the strobe disk and the sensor.
- Thread the chrome record centering pin into the top of the spindle.

X. Additional Information