Subject: Turntable thrust bearing (replacement) alternative
Posted by DanR on Fri, 12 Nov 2004 13:04:30 GMT
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If the turntable thrust-bearing (the platter rides on it) needs to be replaced and you can not get a replacement for it, there is a way to get the turntable up and running -- and it can be even better than with a bearing.Recently, I replaced the thrust-bearing on my 1964 Garrard Lab-80 with two stacked washers that I formed out of Teflon sheeting. The bearing had been "missing in action" for many years -- the platter riding only on the (well lubed) phenolic bearing-race (the little ball-bearings were retained in holes in the race -- and they fell out years ago when the platter was removed for some reason). A benefit from the use of Teflon-on-Teflon is that the turntable rumble [turntable on, no record -- and amp. at full volume] had virtually disappeared. And the speed is dead-on for the first time in years.If you perform this "operation", please let me know how it worked out for you.

Subject: Re: Turntable thrust bearing (replacement) alternative
Posted by Manualblock on Fri, 12 Nov 2004 14:33:42 GMT
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That table is idler wheel driven?

Subject: Re: Turntable thrust bearing (replacement) alternative
Posted by DanR on Fri, 12 Nov 2004 15:27:37 GMT
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The Garrard Lab 80 is an idler-driven unit. The use of the Teflon-on-Teflon washers should work on any type of turntable where there is a separate platter thrust-bearing. Direct-drives might have the turntable drive spindle directly coupled to the motor -- not sure -- someone on this forum site will know about that.However, as long as the thickness of the original thrust-bearing is matched fairly closely by the thickness of the Teflon washers (might need more than two stacked or a thicker stock), this fix should work nicely.Let me know how this works out if you are able to apply this remedy.

Subject: Re: Turntable thrust bearing (replacement) alternative
Posted by dwebb on Tue, 01 Feb 2005 02:32:24 GMT
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Sounds like an elegant solution. I have the same issue with the five balls being MIA from the thrust bearing. Do you by chance have the dimensions of the Teflon disks you made? Also, the phenolic bearing race seems to be captured beneath the Cam assembly. Did you have to remove this cam assembly to get access to slide the bearing race up the spindle?

Subject: Re: Turntable thrust bearing (replacement) alternative
Posted by DanR on Tue, 01 Feb 2005 10:47:17 GMT
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----- Original Message ----- From: "DanR" To: Sent: Tuesday, February 01, 2005 6:40 AMSubject: Re: Turntable thrust bearing (replacement) alternativeDale:The bearing-balls were MIA in my Lab-80, also. That's what happens when you get curious and remove the TT before you realize that there is an open-construction bearing assembly waiting to surprise you. You can maneuver the remaining phenolic race off of the spindle. Use care and a long enough tweezers or fine needle-nose pliers to grab the race. It should be able to be removed. If you can't get it off the spindle, leave it on and use thinner teflon washers. The teflon sheet should yield washers that, stacked, are about as thick as the original thrust-bearing - I don't know how much leeway there is in the vertical position of the TT relative to the idler-wheel. You can use more than two washers -- stacked -- if you need to. Make sure that all of the edges are smooth after you cut them from the sheet -- you don't want rough edges snagging each other (I don't know if the TT simply rotates on the upper washer or the TT and the upper washer rotate on the lower washer -- don't care either because it works).I took that race, placed it on a sheet of fairly thick teflon, traced it(pencil) onto the teflon and used an Exacto-knife to cut the inner hole first and then to cut the washer from the sheet. It took a little practice on a few samples (get a hand-sized or larger sheet of teflon) before I was able to get two acceptable teflon washers. They were a bit crude -- not perfectly round holes -- you have to make sure that any rough (flayed) edges are smoothed -- but I got them onto the spindle (stacked). The fix has worked perfectly ever since -- and the bearing rumble is gone, as a benefit.Some shops will -- for a fee -- punch out the washers -- the inner hole must be large enough to pass the spindle -- with little "slop" -- the outer diameter should match that of the shoulder that the washer sits on. Let me know how this works out for you ... Regards,> > DanR.

Subject: Re: Turntable thrust bearing (replacement) alternative
Posted by dwebb on Thu, 10 Feb 2005 04:33:23 GMT
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Hi Dan,I got the teflon sheet in the mail today and made some washers with a hollow punch set I borrowed from a friend at work. I applied the new alternative bearing solution, and am now listening to records on my Garrard for the first time since originally disassembling the unit! It sounds great and runs at the correct constant speed. I was pretty much convinced I had a problem with the idler assembly until reading your post and realizing my Garrard had the same bearing problem. Kudos for your help!Dale Webb

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Subject: Re: Turntable thrust bearing (replacement) alternative
Posted by DanR on Thu, 10 Feb 2005 12:21:04 GMT
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Dale;I am really happy that the solution worked and appreciate knowing that you have succeeded in getting the TT up and running properly.I, too, had the loss-of-bearing problem for many years and finally decided to take action.It's interesting to note the the Lab-80 was the first TT (at least from Garrard) that used the slick-plastic Delrin in a trip-mechanism. It was used because it is light-weight and a low-friction material that would allow the trip action to work with minimal drag on the unit.It was to your good fortune that you had access to the punch set. Cutting the washers out using the X-acto knife was not fun.Let me know from time to time how the fix is working -- it should perform well for many years ...Regards,DanR.

Subject: Re: Turntable thrust bearing (replacement) alternative
Posted by Daave on Wed, 16 Feb 2005 02:33:38 GMT
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Have you ever had the problem with the Lab-80 where neither the "Auto" nor the "manual" paddle switches will stay on?? Nothing seems bent-most of the old visible grease has been cleaned off from the various levers and arms on the underside of the turntable. I am the original owner of this turntable, it always ran very well, packed it away-now neither of the power switches will not stay in the "on" position. Any ideas on some adjustment-particularly with the main cam- that would cause the two power levers to not stay on?? Any advice would be greatly appreciated.Where did you order the teflon to make the bearings??Sounds like a great solution to improving the LAB-80. Thanks-Cheers-Dave

Subject: Re: Turntable thrust bearing (replacement) alternative
Posted by DanR on Wed, 16 Feb 2005 11:53:30 GMT
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Hello, David - cheers back to you!It appears that the teflon solution works! You can (usually) get sheets of teflon from gasket-making companies. This material is used frequently to make gaskets/seals for pipe-joints, etc. I got mine from such a company -- they gave me a bunch of left-over/scrap sheets at no cost.I saw your posting. I can envision the problem with the paddle switches -- but have not suffered that ... yet. If you are mechanically inclined -- turn the unit over -- make sure that you support it properly to avoid damaging the tone-arm and its bearings -- and examine the entire link system associated with the switches. It might be necessary to remove a shield -- especially the one over the phenolic wafer that has the grounding-switches. Manipulate the paddles and look for any type of mechanical latching mechanism that might not be activating -- maybe a spring is missing or a piece of something is bent or broken-off or something needs to be lightly lubricated. I do not have the manual so I cannot direct you to specific things -- and I

really do not want to turn my unit upside-down any more than I have to ... The arm lowering mechanism on mine did not work and I discovered that the problem was caused by old grease. A little cleaning and some liquid WD-40 (injected from a syringe with a fine needle) solved that problem. Because the TTs are now over 40 years old, you can expect to find that many problems are caused by deteriorated lubricants. Cleaning and re-lubing in recommended -- just don't get anything on the idler-wheel or on the TT inside rim.Let me know if you solve your problem.Regards,Dan

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Subject: Re: Turntable thrust bearing (replacement) alternative
Posted by DanR on Wed, 02 Mar 2005 13:12:57 GMT
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Original Message ----- From: "DanR" To: Sent: Thursday, February 10, 2005 8:14 AMSubject: Re: Turntable thrust bearing (replacement) alternative> Dale;>> I am really happy that the solution worked and appreciate knowing that you> have succeeded in getting the TT up and running properly.>> I, too, had the loss-of-bearing problem for many years and finally decidedto> take action.>> It's interesting to note the the Lab-80 was the first TT (at least from> Garrard) that used the slick-plastic Delrin in a trip-mechanism. It wasused> because it is light-weight and a low-friction material that would allowthe> trip action to work with minimal drag on the unit.>> It was to your good fortune that you had access to the punch set. Cutting> the washers out using the X-acto knife was not fun.>> Let me know from time to time how the fix is working -- it should perform> well for many years ...>> Regards,>> DanR.>>

Subject: Re: Turntable thrust bearing (replacement) alternative
Posted by Daave on Fri, 04 Mar 2005 19:49:01 GMT
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Hi Dan-Some corrosion on the post that the cueing cam assembly rotates on was preventing it from freely turning-so the catch lever would never "lock" into the ON position. Cleaning that up, removing all of the old grease that I could find got the ole LAB 80 running again. Now if I could just get the adjustment of the Eccentric screw on bottom correct to make it turn OFF when the arm gets to the middle of a record on "Manual" play!!! Garrard engineers really made things complicated-must have all been mechanical engineers!Cheers-Dave

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