

The Parker Fly Leaning Bridge Posts Issue

As with any instrument, there are issues an owner may experience. Some issues that Parker Fly owners may experience are unique to the fly. This means most traditional resources available for repair will not be able to help.

Almost all fly issues have a fix, but the leaning post issue, its resolutions, and the relevant physical parts are poorly described and documented.

The situation has led to much confusion and frustration on the Parker Forums. This information is an attempt to help resolve that confusion and get you back to enjoying your parker fly. Much of the instructional text is based on a post made by a forum member known as Shepherd. Thanks Shep!

Why the Bridge Posts Lean

There has been much misinformation regarding the cause of the leaning bridge posts.

In *most* cases, the issue has nothing to do with missing wood, or compressed wood (per floyd rose or traditional bridge posts, especially without bushings).

Leaning posts are caused by a tolerance stack up between the bushing and the bridge post in combination with slight variations in body thickness.

More specifically, the Inside Diameter of the bushing is a little too big relative to the Outside Diameter of the post. This was probably intentional, to allow for normal variations in coating thickness.

Unfortunately, when the bushing is inserted so that it's flush to the back, the post is only engaged with the bushing and the mounting screw by a few threads.

Under string tension, this allows the post to lean forward relative to the bushing and can cause issues with intonation. In the worst cases, the bridge can rub against the walls of the pocket, especially when using the whammy bar.

Images below.



Why didn't they know about this?

It doesn't happen on every guitar, and it can be very subtle, as it was on my DF845.

I'm speculating here, but when manufacturing transferred to USM in Chicago, they may have made the bodies just a little bit thicker (less aggressive finish sanding) and then caught it after a year or two. I doubt if Boston ever knew about the issue at all.

They probably had a whole bunch of bushings and posts made at once to better apply economies of scale. The best solution (all things considered) was to use the plastic stabilization rings on an "as needed" basis. My understanding is that they were adding them to every guitar in the last few years just to be sure there wasn't an issue later on.

The Stabilization Rings

The plastic stabilization rings are used to keep the posts centered relative to the bushings and preserve their ideal location for bridge travel and intonation.

The Inside Diameter of the ring is much closer to the Outside Diameter of the post. The Outside Diameter of the ring is also very close to the ID of the bushing hole. This puts the post exactly where it's intended to be, unless the hole is somehow in the wrong place.

(Due to normal variations in body thickness, it may be necessary to adjust the height of the rings with some sandpaper.)

The "washer" sits in the "extra" space between the bushing and the face of guitar to provide extra support. Washer needs to be sanded until bushing can sit just below flush at back of guitar



Post can't lean with washer in place.



You may be concerned that using plastic in this application will hurt your tone/sustain/resonance etc, but the density of the plastic resin used is actually very close to the density of wood.

Your tone/sustain/resonance should actually improve from increased contact between the posts and the body of the guitar, via the rings. At worst, you won't notice any difference in sound.

How to Install the Rings

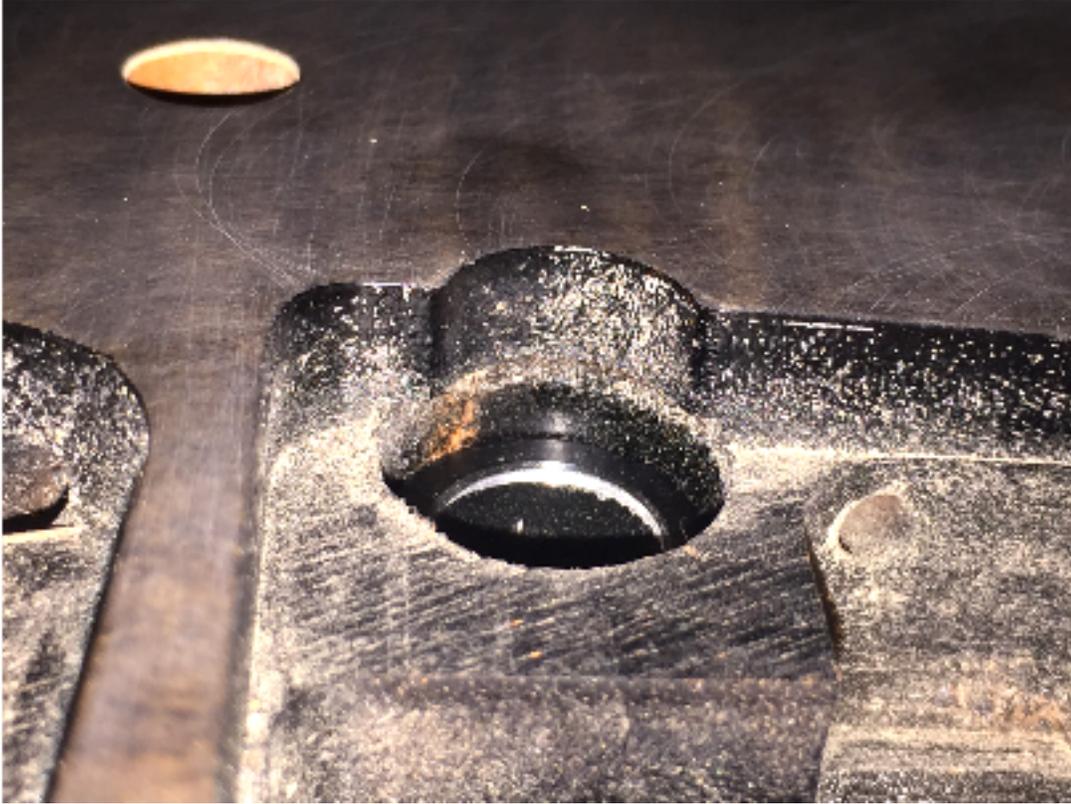
1. Put bridge in floating mode (to later allow bridge to move far enough to remove flat spring)
2. De-string
3. Remove Rear Cover (careful of the battery wires if you have a refined model)
4. Remove Flat Spring

5. Use masking tape to locate heights of both bridge posts relative to face of guitar



This will help you get your string height back to where you like it a little bit quicker during reassembly. You'll still need to tweak but it saves some effort. (I already started step 6 in this image for clarity.)

6. Remove bridge by turning the screws for the bridge posts (at the back side of the bushings) counterclockwise. Alternate between post screws 1-2 turns at a time until the bridge and posts come free- this alternation prevents the posts from binding.
7. Wrap the bridge in something soft (maybe some old but clean socks) to prevent dinging up your guitar while you work. And try to support it while it's hanging to avoid pulling the wires free. [Alternatively, you could remove the bridge saddles and ground wires to remove the bridge completely, but there should be enough slack to do what you need.]
8. Look inside the bridge pocket where the bushings are. Check for a gap between the top of the bushing and the inside face of the body hole/route they've been pushed into. These gaps are where the stabilizing rings will go.



9. Carefully tap the bushings out of the body through the back of the guitar, from the front. Be careful! Many light taps is better than a few hard ones. I used a screwdriver with a removable bit and a brad hammer to give me something safer to tap without damaging the bushing, post mounting screw, or the face of the guitar. (You might wrap another sock around the shaft of the screwdriver just in case that last tap goes a little too easy.) You also want to leave the ribs left by the press-fit bushings as in-tact as possible.



10. After removing the bushings, find the depth of each bushing hole. I used a folded up piece of paper inserted into the holes and marked the back edge of the body.



11. This will help you figure out the thickness that the plastic ring needs to be for a perfect fit. If it is already the correct thickness or a little smaller, go to the next step.



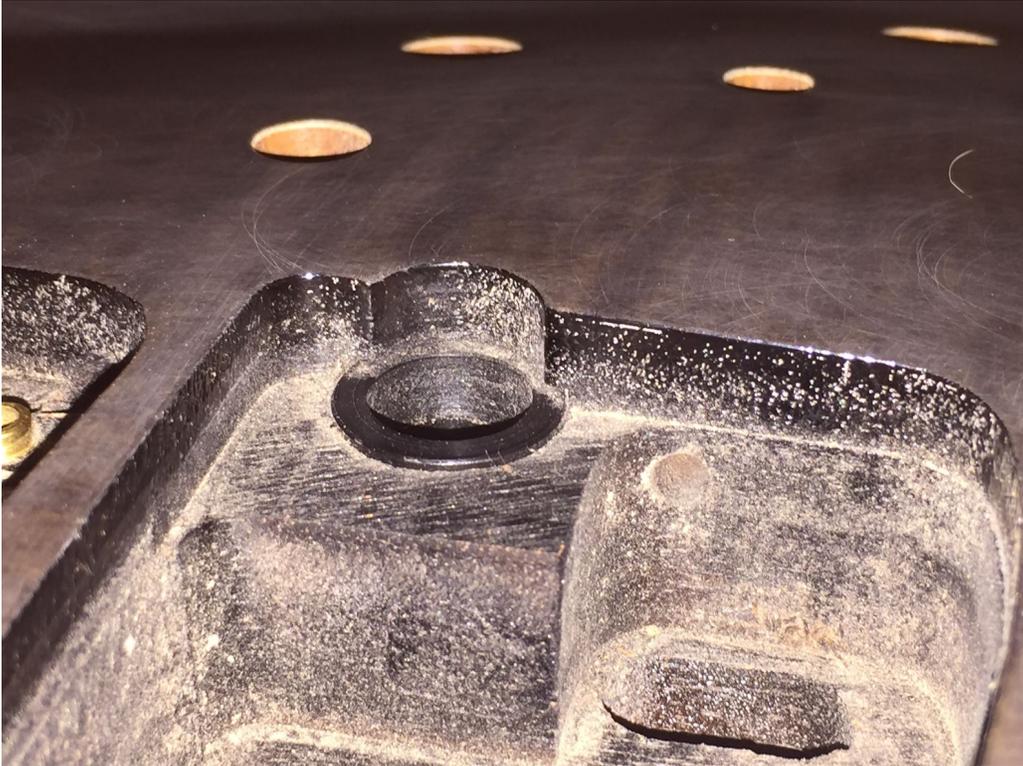
If the ring plus bushing is thicker than this measurement (as shown on the bass side), you'll need to sand the ring down using some sandpaper until it is the required thickness. Otherwise, your bushing will stick out the back of the guitar and the cover plate won't fit.

12. Press the ring into the bushing hole from the back of the instrument, as deep as it will go; it may be a tight fit. Here, you can see that the ring is in as far as it should go, and the bushing is not in yet.



You may need to tap the ring in, especially for the last few millimeters. When the gap noted in step 8 is gone, stop! If you try to go beyond this, you can damage the face of your guitar.

13. Make sure the screw side of the bushing faces the back of the guitar, and press the bushing back into the body, behind the ring. If the bushing feels a bit loose, try to slightly misalign the bushing with the ribs it originally made in the wood - it'll make new ribs between the old ones.



If it's still too loose, you'll need to use some white glue where the ribs are, let it dry after inserting the bushing, then proceed to the next step.

14. Reassemble the bridge in reverse order. Put some new strings on there. Be very glad you listened to Billy and used the tape idea on the posts. Reset your string height, spring tension, and intonation. Rock on!

Unofficial Fixes

Installing the alignment rings is actually pretty easy, aside from removing the bridge and working while it dangles around a bit. It offers a pretty solid repair, especially relative to time and effort.

But, if you're still not into that approach, or can't for some reason, here's a few unofficial alternatives. As with anything YMMV. Pick your poison!

Unofficial Fix 1

Remember that gap you saw when you first pulled the bridge off? You can carefully tap/press the bushings deeper into the guitar to remove that gap. This should improve the engagement of

the post to the bushing and post screw, reducing the amount of play. Check by removing a post from the bridge. Screw the post into the bushing until you reach your previous bridge height. Then see how much lean is present when you try to push it forward. If the lean is much improved, you're probably good to go.

Unofficial Fix 2

This is a great fix IMHO, but you might need to do some minor woodworking. You can replace the fly bushings with nitefly bushings and grub screws. For some reason, the nitefly bushings have an Inside Diameter that is closer to the Outside Diameter of the post. You may need to open up the bushing hole in the body very slightly. And drill a slightly larger recess on the backside of the body for the lip of the bushing with a forstner bit. (I guess you could instead file off the lip or drill a large hole in your cover plate.) Special thanks to forum member tinmachine for this fix (and a heads up on the mojo shell in the pix)!



Unofficial Fix 3

Last resort- use aluminum shims between the post and bushing if there is no room for a plastic stabilization ring, or if you can't get any rings, you're still skeptical about plastic improving your tone, you're on tour, your dog ate the rings, etc.

You can shim the post inside the bushing using a small strip of aluminum cut from a soda can. You'll have to experiment with the right width- too wide and it won't fit.

Something close to 6mm wide and 10mm tall inserted near the top of the bushing, at the neck side should work fine. Again, trim it narrower if the post is a very tight fit.



I've shown the parts outside of the guitar, and left the aluminum strip long and slightly misaligned for clarity. Be sure the strip doesn't get pushed and wrinkled when inserting the post, or you'll limit your range of downwards adjustment.

Conclusion/Disclaimer

I sure hope this helps a few of you! If you have questions, I can try to answer as time allows, and the forum is almost always a great resource too. Take your time and go slow, you can do it!

All that said, this is intended to clear up any confusion about the leaning post issue and help those who are willing to try to fix the issue themselves. I didn't cause the issue, I never worked for the factory, I have no communication with anyone involved with the factory, and I have not received anything in return. Sometimes I make mistakes, and there's no way to fully anticipate how people will interpret things. I'm just a guy with limited resources trying to help my fellow players out.

Unfortunately, there are people in this world who try to hold anyone but themselves responsible for issues they face. So, fair warning: ***If you do anything to your guitar, all risk is completely yours. I take no responsibility if you mess up your guitar.***

Best wishes always, Billy
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