

The Griffin Banjo – Maintenance and Adjustment

Your Griffin banjo will, on occasion, need adjustments to the set up to keep it performing at its best. This is not difficult, and the ability to carry out this work is a useful and satisfying skill for owners.

Nuts, bridges and tailpieces seldom need attention, and the main job will be adjustment of the truss rod and rim rods.

Tools needed:- an 8mm deep socket

a 7/16 AF spanner

a straight edge 18" long (a steel rule will do)

a small Allen key

The Truss Rod

The function of the truss rod is to set the curvature of the neck to give clearance or 'relief' over the fingerboard for the vibrating strings. It does not set the string height. Before starting and while the strings are still up to tension, place an 18" straight edge along the fingerboard between the strings and check the curvature (the following measurements are taken from the top of the frets, not the fingerboard itself).

A big gap around the middle of the neck, more than 1.25mm, and the banjo will be uncomfortable to play. No gap to speak of, and the strings are likely to buzz, usually on the 2nd and 3rd frets.

To remove the neck, take off the strings, turn the banjo face down and with a 7/16 AF spanner undo the nuts on the rim rods and wind them right up the thread. Use a small Allen key to hold the rods through the hole in the middle. Now undo the rods (with the key) from the lagbolts in the neck which can then be lifted off.

Up-Bow (too much clearance)

To correct an up-bow, place the 8mm socket on the adjuster in the heel of the neck and turn it anti-clockwise no more than quarter turn at a time, checking constantly with the straight edge. Try to achieve a fingerboard that is flat, or even with a small gap appearing under the straight edge at the 1st and 2nd frets (those nearest the nut). This will pull up under tension to give sufficient relief for the strings to vibrate.

Back-Bow (insufficient clearance)

To correct back-bow, place the 8mm socket on the adjuster in the end of the neck and turn it clockwise a small amount at a time. Note that for one turn or so the adjuster may feel loose as it takes up the slack in the threads before it starts working. At this point, checking with the straight edge may well show that clearance is restored and the neck has a small up-bow but, if not, keep turning until clearance is seen around the middle frets.

Now the adjuster must be turned back anti-clockwise until the neck is flat and/or a small gap is visible under the straight edge at the 1st and 2nd frets (as in adjusting for and up-bow; q.v.) The purpose of this is to set the truss rod in a position to oppose the string tension when it is applied.

Once truss rod adjustment is correct, carry on to see to the rim rods.

ReAssembly

Re-assemble the neck to the pot. The lagbolt holes are made oversize to accommodate slight repositioning of the neck so that the fingerboard is central and in the same plane as the head which is best done by sighting across the head from the tailpiece position.

Screw the rim rods onto the lagbolts just hand tight while the neck is positioned correctly, then tighten them firmly with the Allen key through the central hole.

On the upper rod (nearest the head) the nut is just nipped up gently. On the lower rod tighten the nuts firmly and evenly either side of the rim.

Re-install bridge and tailpiece, refit the strings and tune up to tension.

It is now possible to check the result of the truss rod setting. Place the straight edge along the fingerboard and ideally there should be a gap of 1mm or a bit less around the middle of the neck. Once the string height has been set with the rim rods the setup should be comfortable and easy to play on.

Rim Rods:-

The height of the strings over the fingerboard may now be set if necessary. A good height would be about 4mm above the fingerboard near the last couple of frets before the pot, though personal preferences may vary.

To LOWER the strings:- loosen the strings first.

On the lower rim rod, undo the inner nut, perhaps 3 or 4 flats, then take up the slack with the outer nut. Repeat if necessary. More than one full turn is seldom needed, and care should be taken with this.

To RAISE the strings:-

Slacken off the outer nut on the lower rim rod and tighten up the inner nut. Proceed cautiously here. The nut on the upper rod should be checked for tightness afterwards.

These two adjustments work by distorting the rim slightly, which is why care must be taken over the job.

It should be stated here that, with every banjo neck having its own characteristics, no hard and fast rule can be given for the exact setting of the truss rod and one or two tries may be necessary to get it just right. This can be faintly annoying, but practice makes perfect, and it will be found that the entire operation, dismantling to re-assembly, can be done in not much more than 20 minutes, and you will have acquired an essential and money-saving skill which will stand you in good stead hereafter.

Some Other Matters

Buzzes: There are only three things that cause buzzes – the string is loose in the nut, or in the bridge, or it is touching the frets somewhere. The last has been dealt with above, and the others are easily dealt with. Check if it is the nut which is the problem (and it usually is) by holding down the string at the 1st fret. If the buzz disappears the nut needs fixing. A knife carefully drawn through the slot may work, but a good fix is to place some bone dust in the slot and place a tiny drop of thin superglue on it, then recut the slot. In desperation, a piece of paper placed in the slot should get you going temporarily.

If the buzz is still present when the string is fretted, apply the above fixes to the bridge in the same way.

Some freak buzzes can be caused by anything loose on the banjo – the nut, a truss rod cover, or anything else; check everything carefully.

The Tailpiece: Not usually a problem. The two outer screws can be adjusted to line up the tailpiece; make sure they are located in the holes or slots in the tension hoop, and ensure that the big screw is in contact with the pot, otherwise the tailpiece will flap about.

Tuners: Tuner tension may be adjusted by the screw in the button. Do not over tighten – it's not good for the gears. Just as long as they do not unwind they are fine. If the 5th string tuner becomes loose (often the result of being kept in an overheated environment) here is a good fix:- Mix up a small amount of catalysed type wood filler (Wudfil, or even car body filler) and, having waxed the splines on the tuner with a candle or car wax, line the peg hole with a layer of filler and push the peg home with a sharp tap of a soft hammer. The filler sets rapidly and any squeeze-out can be easily removed with a small knife when it is semi set. This will hold the peg in use but allows it to be removed when necessary as the filler will not stick to the wax.

The Head: If the head has been changed make sure that the tension is even all the way round, best done by measuring at each hook from the base of the pot to the underside of the flesh hoop (the metal bit round the outside of the head). Do the head up good and tight – not rigid, but really tight if you want a good ringing tone.

Bridge Position: The bridge must go back in the correct position on the head or the tuning will be out when strings are fretted. Measure from the inside edge of the nut to fret 12; the distance from fret 12 to the bridge will be the same. To refine this, strike a harmonic directly over fret 12 and then compare that with the note when the string is fretted at that point. Adjust the bridge as necessary. Mark the correct spot with a tiny pencil point mark behind each side of the bridge. Please do not draw round the whole thing with a biro!

Don't forget to clean the fingerboard regularly with 0000 Grade steel wool and oil with raw sesame oil which is non oxidising.

Look after your banjo by keeping it clean, warm and comfortable, never hot and dry, or damp. If your house is hot get a humidifier for the banjo case.

These notes will help you keep your Griffin banjo in tip top condition but, if there is anything else you would like to know, or need advice on, please contact us and we will do our best to help you.

James Bowen