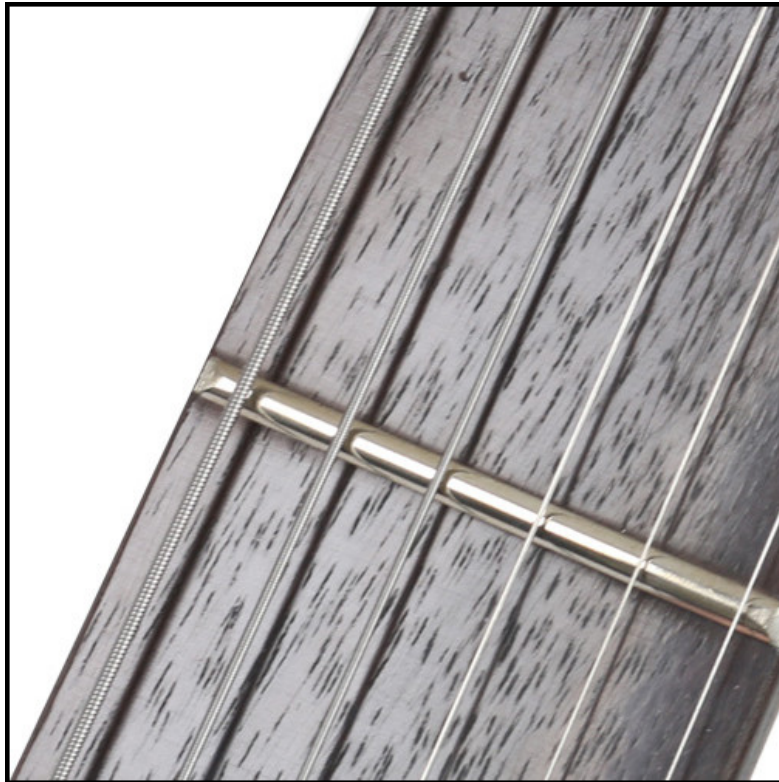


# Maintenance and Repair

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Guitars built by Bert Kwakkel are top class instruments. The great sound and a high level of playability are realized by a sophisticated build. The build has strength and ruggedness where it is necessary, sides and top are made of reinforced Brazilian Rosewood. The build has subtlety where it concerns the sound by means of a paper-thin and well-aged top supported by a unique and effective bracing system.

What's the implication of this? Well, you'll have to be very careful in handling the guitar!

The top is unbelievably thin. This is necessary to transfer the delicate vibrations from the strings as sound to the listener. It is just a law of nature; the mass and strength of the top determine the frequency characteristics of the guitar. The ancient mass-spring model.

The brace system takes care for the strength of the extremely light top. The weight of the top is important, the more mass, the more damping and attenuation which affect the sound. Consequently, luthiers strive for maximum strength and minimum weight. The gauge of a top is in the order of millimetres. I wonder how you saw this off a lump of wood!

To offer the top all freedom for vibration, the finishing is subtle too. A thick layer of varnish changes the vibration characteristics.

With a vulnerable top you have to be very careful. I took me quite some time getting used to it. If you accidentally slip your finger, the nail may very well scratch the top (as it did...).

In this context, the little joggles in the lid of an Eastman guitar case change into merciless teeth which may perforate your finish and worst case your top too.

Long ago, in haste I forgot to lock the case of my old Contreras. As soon as I picked up the case, the lid unlocked and the guitar dropped with its top right on the joggles of the case

locks. It was terrible, they pierced the top! Fortunately, this accident was not completely beyond repair, but you can still see the traces. That reminds me of the routine: Locks closed? Check, Check, Double-Check!

Bearing in mind the notion of the fragility of the Merula and the memory of the accident with the Contreras, I quickly accustomed myself to a high degree of cautiousness with the "traffic" from and to the guitar case. First, I have my attributes (Ergoplay and clip-on guitar tuner) within easy reach. I always use my arm to protect the guitar from falling lids. I take care walking between the case and my playing stool, no collisions, please! I'll never forget a double-check that all locks are secured before I pick up the case.

Trouble is, that you won't merely have to reckon with your own actions, you must take a good look at others too, A full collision or just grazing a bit happens quickly, as I found out to my sorrow and shame. It happens before you are aware of it. The thought of a large group of guitarists on a crampy stage with all this manoeuvring and swinging necks with hard headstocks makes me nervous a bit.

As usual, the first scratch is the worst. Just hope it will not turn into a crack!

Enough said about the causes for guitar repair. Let's discuss maintenance now!

For playing I use an Ergoplay knee support with suction cups. Unfortunately, this company does use soft plastic cups, rather than natural rubber cups. There are good reasons to do so, rubber e.g. dries out after a while, but it has its drawbacks. The plastic contains softening agents which might affect some types of finishing. The suction cups may cause rings that are very hard to remove, or even stay there permanently. This appeared the case with the Merula too.

Bert Kwakkel had a simple and effective solution: a piece of Golpeador. The Golpeador comes from the flamenco world, it is a protective plate for the fingerboard which prevents damage of the top as a consequence of the passionate strumming in flamenco music. You can buy it as sheets of plastic foil with some glue at the back, it works like a sticker. The glue is water based and does not affect most finishes. If you work carefully, the Golpeador will hold on the arched surface of the side, a bit of (careful!) heating of the plastic helps it getting into shape.

So now I have a practically invisible finish protection on the side. No rings anymore and problem solved!

After a bit, more than half a year it was time for the check-up with Bert Kwakkel.

In the meantime, I had done some simple maintenance myself. A few times new strings and some polishing with the polisher I had got. The Tuning Machines are maintenance free, oil or graphite are strictly prohibited. That's great, because that stuff used to cause stains. I did not prepare the fingerboard with linseed oil yet.

The Merula has an ebony fingerboard with a reasonably open structure, the graining is clearly visible. It is wood that requires some finishing and protection against dirt and sweat from your fingers. A good finisher is cooked linseed oil, one of the ingredients in traditional paint. Mind, do not use cold pressed linseed oil here, your fingerboard will never dry!

I made an appointment for the first month of the year and drove to Gaanderen on a drizzly day.

Bert started work immediately. First, he unwound the strings to create space for preparation of the fingerboard. Then he checked the alignment of the frets with a square and applied small corrections to the fret height with a flat file. The next step was rounding off the frets that were flattened as a consequence of the alignment correction. He used a special slotted file tool that fits on the frets. Finally, he polished the frets.

In the meantime, he had a keen eye for all details. He immediately spotted the damage as a consequence of a collision with another guitar's headstock. He also observed by inspection of the wood that I applied quite some pressure in the higher positions. Well, that's a heritage from the Bernabe that I have not gotten over yet. It was a good thing that he made me aware of that, I will reconsider my effort on the first frets.

After the fret alignment, he demonstrated how to prepare the fingerboard with cooked linseed oil. This substance smells like varnish. It is slightly toxic, so Bert switched on the exhaust hood for that purpose.

Then it was my turn to apply the linseed oil with a cloth. You could see that the wood was drinking it! Just another go over the complete fingerboard and let the oil soak in. After five to ten minutes I had to wipe the oil off thoroughly (do not forget to clean the frets). The time to wait depends a bit on the ambient temperature, the higher the temperature, the shorter the wait, because the oil gets viscid. After the treatment, the fingerboard looked as new and the strings could be reinstalled.

On completion, Bert decided to repair the scratch on the top. With the accuracy and dedication of a skilled surgeon he brought the wood back to its original shape. For this purpose he used some water and -you won't believe it!- a soldering iron. The boiling water seemed to pull back the wood in shape.

Next step was the finishing and drying. When necessary, Bert cooled the wood with a moist sponge to prevent overheating of the wood as a consequence of the drying. After a few layers of varnish, the wood was protected again. Now the finish has to cure, later he will polish the top when I am around with the guitar some time.

I was standing there and observing things. In admiration. Bert Kwakkel approaches his guitars not merely with the years long experience of a craftsman who masters his craft. He also approaches his instruments with love, like a parent fosters his or her child, with a clear tenderness. You notice that from his moves, from his care. His guitars, they are his children at that moment and they will remain so after completion.

I must admit that I -spotting this- almost started to feel guilty a bit that the scratch got there under my responsibility, a sense that I had not been sufficiently cautious and concerned to prevent it. So I was very happy that Bert was willing to repair the damage.

If I see someone involved in his craft in this way, getting totally absorbed in it, I start to envy him. That is caused by my observation that in technology -I have a job in the electronics industry- people get more and more detached from the things they are producing. They do not make or craft something, no, they are merely part of a process in which the final result seems far away or is much less visible. *Object oriented, Middleware, User Programmable, First Time Right*. Of course, that is partly caused by the complexity of matters.

I used to write -just a few years ago indeed! - technical books, complete manuals. The wind of progress started blowing, however, so our procedures and processes have changed. Writing books is *out*. Now I only write modules of subsection that are required to support

reuse in all eternity in whatever abstract reality they will be used. That's efficient and cost effective, they say. *Write once, use many* is the popular term.

Consequently, connecting to the real-world environment of the subject of your writing is more or less not done. It's quite weird writing if you have to presume that the subject is the only thing in the universe, while in reality it is just a small part of a greater whole!

All little modules are finally processed in a publishing machine with various results in all kinds of format. Sooner or later I will not even see the final result of my efforts. Then I will only "produce information" in the form of mindless semi manufactures rather than writing books with something inside the cover. You get disconnected, almost alienated from the subject. A sense that causes nightmares at times.

Yet if I see the luthier busy with his instruments, I get some little hope that finally the subject will overcome the object. That's a reassuring thought!

And the blackbird (Merula) shakes her feather, spreads a hint of a scent of linseed oil and starts singing with me!