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# Restoration of Circa 1960 Jubeltöne Chord Zither



**Completed by Ron Cook**

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**For Catherine Grote**

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## Background

Chord zithers, often called Guitar Zithers, were very popular in the United States from the late 1800s to the mid-1900s, and hundreds of thousands were made by several companies. The popularity of chord zithers in Europe, especially Germany, continued into the 1970s and a few are still being made today.

Jubeltöne was a popular German brand that was manufactured in West Germany before reunification. Several models were manufactured in the thousands and many continue to show up on auction sites.



The label reads “Konzert Salon-harfe” (concert salon-harp), the name Jubeltöne, and Qualitätsmarke, meaning High-quality Brand. The label does not show where this zither was made, and when I removed the back, there were no maker’s marks inside.



Jubeltöne zithers were made in several models and colors: black, red, and gold. Each color had a different floral image, some simple, and some very ornate. They do not appear to be decals and were probably stenciled.

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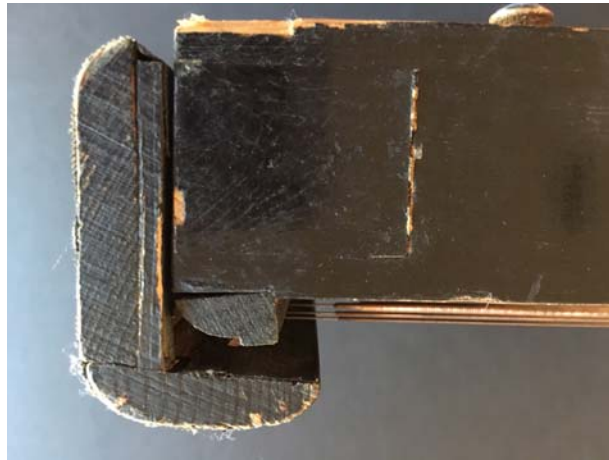
## Valuation

Chord zithers made in Europe and the U.S. were made in the millions from the late 1800s to the present. Because so many survive, it is hard to pin a value to them. Jubeltöne zithers usually sell on auction sites for under \$100, but some have been listed for over \$500. Whether or not they sell at that price is questionable. Other companies' higher valued zithers are much more ornate than Jubeltöne zithers, usually having wood, abalone, mother of pearl, and wire inlays. These have sold for \$1000 or more. Decaled and stenciled zithers are lower priced.

But, for many people, the value of an instrument is not monetary, but sentimental. To be able to have a restored piece of family history on display, to know its use, its background, and who played it, and to be able to pass it down to future generations, is priceless.

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## Day 1: Assessment



On the first day, I always look over an instrument to see how much work is needed to repair or restore it.

A common problem with many zithers is cracking. Wood shrinks and expands from changes in the environment. Hot and cold, as well as humidity, are factors in how cracks form. Wood shrinks more in width, across the grain, than length. This zither had several cracks.

The top had one wide crack, and the back had three large cracks. Since the back had a flat black painted surface that was fairly worn, I could see the wood grain showing the back with actually three pieces of wood, glued side to side. The cracks seemed to start at the glue joints.

The sides had no cracks or failed glue joints. There were a few chips along the edges. The bridge (lower photo) had pulled up a little from the string tension.

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## Days 2 & 3: Remove Strings and Hardware



It took me two days to remove the strings, tuning pins, and bridge wires. The bridges have several small steel rods that sit in little grooves that the strings go over. Without these rods, the strings would cut through the wood bridges. (This is often the case on cheaper “children’s” zithers.) The rods were rusty. The tuning pins were not very corroded and would need minimal cleaning.

I first removed the pin guard then started removing the strings. I labeled each of the three sets of chord strings, then every one of the single “harp” strings, so I’d know exactly where they go once the restoration was completed. Only three strings were missing.

Finally, I removed the three feet on the back and prepared to remove the back.



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## Days 4 & 5: Remove Back



I have to say that removing the back on this zither was the hardest one I've ever done. The reason was that it was not manufactured with hide glue, but with a modern PVA glue like yellow wood glue.

Hide glue is easily reversible by using heat and a little moisture, which softens the glue, so an instrument can be disassembled. PVA wood glue is not reversible and can make the glue joint stronger than the wood itself.

Since I couldn't take the back off normally, which would take only a few hours if it was hide glue, I had to work my heated knife around the back joint along with a combination of other thin knives for several hours each day until I was finally able to get the back off.

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## Day 6: Repairing Back Cracks

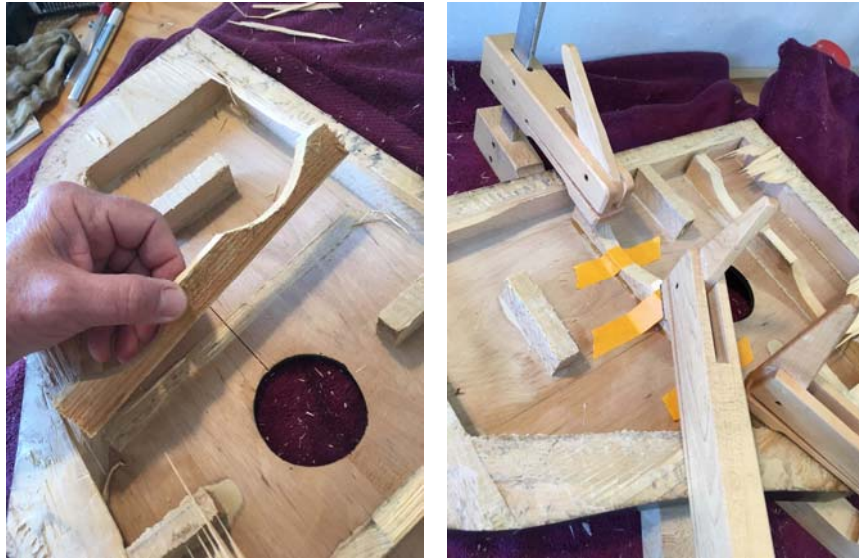


Now with the back off I could repair all the cracks. I have a special table that I use to glue wood pieces together for instruments I build or repair.

I applied white glue to the cracks and used plastic cam clamps (the orange clamps in the photo) to force the cracks closed. All the wood clamps help keep the back wood from buckling under pressure.

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## Day 7: Repairing Loose Brace



One of the internal braces was loose and came out when I removed the back. I used some hide glue to fasten the brace back in place



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## Day 8: Repairing Top Crack



For the single top crack, I used bar clamps to force the top crack closed. I used white glue again.

Using white glue on cracks is necessary due to the painted surfaces and the possible mildew or dirt in the crack. White glue is an all-purpose glue that works much like yellow wood glue. However, yellow wood glue needs perfectly clean surfaces to adhere well, which is nearly impossible in most cracks.

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## Day 9: Top Cleats



To help stabilize the top crack, and to keep the other joints in the three-piece top from ever opening from any more possible shrinkage, I glued small, thin hardwood cleats across each problem and potential problem area.

This is a process I've used on all crack repairs I've done.

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## Day 10: Bottom Cleats



On this day I glued cleats to the underside of the back to stabilize the areas where the cracks were.

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## Day 11: Sanding Back



There is always some glue that squeezes out when closing cracks with clamps. I needed to scrape the glue off and do some sanding to even out any irregularities.

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## Day 12: Gluing Back



Finally, it was time to put the zither back together. Even though the original glue was not hide glue, I felt compelled to stick to tradition and use hide glue to attach the back.

Any gluing process on instruments can take a lot of clamps.



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## Day 13: Preparing for Painting



To prepare for painting, I first needed to scrape off the glue that squeezed out when I glued the back on.

The back had a few scrapes and dents that were originally on it from use, so I used a natural epoxy wood filler. It dries quickly, and I was able to sand the back so it was nice and even.

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## Day 14: Masking Top and Staining Back



The top's finish was in good shape, except for where the crack was, and I didn't want any paint that I'll use for the back and sides to "leak" onto the top and mess up the stenciled binding, note area, and the floral image.

Before painting, I used some water-based black stain to cover the sanded areas on the back. If I didn't do this and just painted it, the light areas would show through.

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## Days 15 to 17: Painting Back



The back was originally flat black and the sides and top were a glossy black. Over three days I applied three coats of flat black enamel. It took most of each day for the paint to dry.

The blue masking tape on the back is covering the “Made in West Germany” stencil. This is historically important, and I didn’t want it painted over.

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## Days 18 to 20: Painting the Sides



For the next three days, I painted the sides with three coats of a glossy black enamel. Again, it took the rest of each day for the paint to dry.

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## Day 21: Cleaning the Top



After letting the paint cure for a couple of days, I cleaned the top with tepid water with a little liquid dish soap in it. This took off the dirt and stains that were on the top.



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## Day 22: Polishing



I polished the entire zither with a paste wax. On the top I also used a cotton swab to spread some black polish over the closed-up crack. The crack, even though closed, showed a thin lightly colored line that needed coating with the black wax to match it with the surrounding black surface.

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## Day 23: Fixing Pin Cover and Gluing Bridge



The tail pin cover had a loose piece on the edge that I reglued and clamped.

Before gluing the bridge back on, I coated it with a black wax to cover the wear and tear from the steel strings. The bridge had been tacked in place, but I added some hide glue, so it wouldn't lift up again from string tension as it had before.

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## Day 24: Cleaning Hardware



Today was hardware cleaning day. The tuning pins had only a little corrosion, but I wanted to clean that off so they wouldn't corrode more.

The wire bridge inserts were very corroded. I used a fine sandpaper to remove the corrosion, then smoothed out the wires with very fine steel wool.

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## Day 25: Staining Pin Cover and Swelling Tuning Pin Wood



The tail pin cover is wood with a fabric glued on. Fortunately, the fabric was not ripped or torn, but it was discolored. Again, I used black wax to coat and polish the fabric.

Before I could reinstall the tuning pins, I needed to pour in a special swelling liquid into the holes. This swelling liquid is used primarily by furniture restorers to make chair rungs fit tighter.

Often when removing tuning pins, the holes are a tiny bit larger. If I just put the pins back in, they would slip and not hold the strings in tune. A couple of applications of swelling liquid swells the wood so the tuning pins fit tighter.

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## Day 26: Reinstalling Tuning Pins



After letting the swelling liquid soak in for a couple of days, I was ready to reinstall the tuning pins.

As with many German made zithers, the tuning pins are reversed thread. I had to push in and turn counterclockwise to install the pins.



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## Days 27 & 28: Stringing

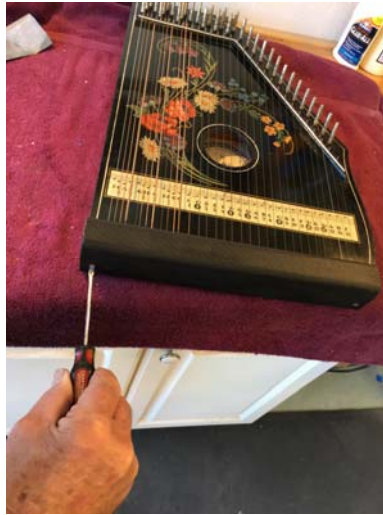


I was able to re-use all the strings I had taken off the zither. Only three strings were missing, and I had those in stock from a partial chord zither set.

The strings looked dull from age and did have some corrosion, so I used very fine steel wool to “polish” each string as I reinstalled them. This was a long process and took two days to complete.

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## Day 29: Reinstalling Tail Pin Cover



Finally, with all the strings on, I reinstalled the cleaned and polished tail pin cover.

With the tail pin cover on, this lovely Jubeltöne zither was finished.

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## Day 30: Completed



On the last day it was time to tune up the zither. I have a digital tuner that attaches to a part of the instrument with a clip, usually clipped to one of the tuning pins. When a string is plucked, the vibration is picked up through the clip, which has a contact microphone on it, and displays on the tuner's screen. With 33 strings, this took a little time.

Like many antique and vintage chord zithers, the tone is unique and very beautiful. I'm happy I was able to restore this zither to its former glory and be playable again. I'm sure that with good care, this Jubeltöne chord Zither should last through this century.