



# **Restoration of Circa 1920-1925 Kumalae Ukulele**



**Completed by Ron Cook**

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**For Bill London**

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## Background

Jonah Kumalae made a decision to set up a booth at the 1915 Panama Pacific International Exposition in San Francisco and never looked back. He showcased his finely crafted ukuleles with Hawaiian musicians brought over to play them and won a "Gold Award". He proudly displayed a decal of it on all his ukulele heads from that point on.

A friend of mine and ukulele enthusiast indicated that over 600 ukuleles were produced each month in Kumalae's workshop during the 1920s and 1930s. He also mentioned that Kumalae ukuleles were often handed out to passengers on cruise ships heading to the islands and classes were given during the voyage. Some hotels are rumored to have had Kumalae ukuleles in rooms for guests to have and play. By the end of 1930, thousands of Kumalae ukuleles found their way around the world. At its height, Kumalae employed 50 people and had a 20,000 square foot factory, where he also made instruments for other companies, like Sherman, Clay & Co. (see below) and for some mail order catalog companies.

Kumalae ukuleles were known for their beautiful curly Hawaiian koa wood and the ornate bindings on the higher-end instruments. Like many other ukulele manufacturers, Kumalae closed his business in the early 1940s due to a falloff of business during the war. As of 2012, Kumalae branded ukuleles have re-emerged, and several models are being manufactured in Ontario, Canada. However, these are more modern with various wood types and mechanical tuners.

The following photo is from a 1925 Sherman, Clay & Co. catalog showing five models numbered 21 through 25, which correspond with Kumalae models A through E, or 1 through 5, respectively. Described but not shown in the catalogue is a Style 20, a plain, "straight grain koa" ukulele with one inlaid ring (some had three very thin rings) around the soundhole. It sold for \$9.00. This model is also known as a Kumalae Style 0. All models of Kumalae ukuleles were French polished. Celluloid and mechanical friction tuners could be ordered in place of the stock wood pegs at additional cost.



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## Valuation

Even though Kumalae sold many thousands of ukuleles in the 1920s and 1930s, only a few have shown up for sale. More than likely, this is because of the very delicate nature of the instrument. The koa wood is very thin, and once away from Hawaii, the koa either dried out, cracked or split, or was kept in a damp environment where the hide glue softened and the instrument basically fell apart. Many were thrown away.

This particular ukulele is the Model 0, which was the “bottom” of the Standard size ukes. As mentioned before, it originally sold for nine dollars at Sherman, Clay, & Co. Since the original Kumalae ukuleles came with wooden friction pegs, I feel this one might have been purchased through a retailer, like Sherman, Clay, & Co., since it has the celluloid-style tuners.

Examples of Kumalae Model 0 Ukuleles, in all states of repair and disrepair that I’ve recently found for sale on ebay have been priced from around \$150 to over \$500. I also found some information about Tiny Tim’s Kumalae Ukulele that sold at auction for \$1600. The fancier Kumalae models, with intricate bindings and inlay, are showing up on ebay for around that same price.

I feel that this Model 0, in its restored condition, should be able to sell in the \$250 to \$350 range. It does fret true, producing a beautiful tone that, as my friend described, is “the real Hawaiian ukulele sound.”

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## Day 1: Assessment and String Removal



On Day 1, I made a full investigation and assessment of damages. Kumalae ukuleles are known for having almost paper-thin wood on the body, and this one, very similar to the other Kumalae ukulele I restored (and a little newer by 5 or 10 years), showed this to be still true. The top had two cracks on the top, one narrow, but long, below the bridge, and a shorter, but wider crack from the 12<sup>th</sup> fret to the sound hole. There was a small stress crack on the side next to the neck, and another “split” on the bottom of the lower bout.

The body had a slight rack to it where the neck and body were not on the same plane. As I’ll explain later, there were a few internal problems not seen here on the initial assessment that caused this problem.

The neck, however, was in perfect shape, and the head decal was clear and unscratched. It only needed cleaning. The celluloid-style tuning pins were also in good shape and just needed a good cleaning.

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## Day 2: Gear and Top Removal



On Day 2, I removed the tuning pins and began the long process of top removal. Since the top had a couple of small areas where the glue failed, I started steaming around those to soften up the surrounding hide glue, working with both a fine-bladed X-acto blade and a thin artist's palette knife. After a couple of hours, I was able to lift the top from the body.

Having the body open makes it easier for me to repair the side cracks and apply any necessary reinforcement. This also made it easier to fix the top cracks.

Once I removed the top I was able to notice what caused the slight racking. The large lower back brace had come loose on one end and the body went the opposite direction from the brace. Also, the side crack on the lower bout was from the brace trying to poke through. This problem also caused a section of kerf strip to pull away from the side.

Inside on the top and back were the number 18, which was probably used as a numbering system to match the top and back during manufacture.

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## Day 3: Beginning Top Repairs



On Day 3, I began repairing the top. As you can see in the first photo, the top brace below the sound hole had also come loose. I didn't notice at this point, but after gluing the back brace, I saw that the front brace was also almost completely loose. That repair came a few days later.

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## Day 4: Closing First Crack



The next day, Day 4, I started closing up the shorter, wide top crack. This crack was difficult to close up because it had accumulated a lot of dirt and grime in it. It also appeared that a previous attempt at repairing it took place some time ago, because there was also glue in the crack. I had to do a lot of careful cleaning before I could clamp it closed.

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## Day 5: Re-Gluing Top Braces



It was on Day 5 that I discovered that the upper bout's brace was barely holding on. After carefully loosening the rest of it, I re-glued and clamped it back in place.

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## Day 6: Closing Second Crack, Adding Brace, Gluing Cleats, and Begin Sanding Top



Several projects took place on Day 6. The first was to close-up and glue the crack below the bridge. Because this was a thinner (and probably newer) crack than the other one, there was no embedded dirt or grime. This one came together more easily.

One thing I noticed on the top's underside, was how thin and inefficient the bridge plate was. It was even a little warped, which caused a slight "bubble" on the top's surface. (The other Kumalae ukulele I restored was older and didn't have a bridge plate.) To compensate, and to further flatten the surface, I added a small pine brace. This will help keep the top from bowing under pressure from constant string tension.

Because the top is so thin, there's very little glue holding the two cracks closed. On all my similar repairs, I make tiny "cleats" on the underside to span the cracks, which adds strength to the repairs.

Later that day, after all the glue cured for 4 or 5 hours, I began to sand the top.

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## Day 7: More Top Sanding, Removing Back Brace, Fixing Side Crack



Day 7 was another busy day. After the glue dried on the cleats and new top brace, I continued to sand the old, scratched finish off the top. I went through nine different grits of sandpaper, from 80 to 600, then a final rubbing with a very fine 0000 steel wool.

Inside the body, I finished removing the loose back brace so I could close up and seal the small puncture the brace had caused.

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## Day 8: Re-gluing Back Brace and Broken Kerf Strip



Today, with the side crack and puncture mended, I re-glued the back brace in place. Later in the day, after the brace's glue had set, I was able to glue back the broken back kerf pieces.

Kerf strips are added to sides to allow a larger gluing area. All guitars, lutes, ukuleles, and many other stringed instruments have these kerf strips. In the right photo, the top's kerf strip is a notched pine. This is the most common type of kerf strip and usually used for the top and bottom. The bottom strip on this ukulele is a steam bent hardwood. This is not that common in most stringed instruments as it can become very brittle, as this one did.

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## Day 9: Gluing on the Top



With all interior repairs done, on Day 9 it was time to glue the top back on. I first used a pair of cam clamps at both ends so I could adjust and center the top before full clamping. The numerous side clamps are made specifically for this type of gluing. They have cork pads so as not to mar the surface.

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## Day 10: Sanding



This day was sanding day. Once again I worked through nine grits of sandpaper, finishing with the 0000 steel wool and then removing all the dust with an air hose and tack cloth.

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## Days 11 to 16: Applying Varnish



Nearly a whole week went by with daily coatings of a dark amber varnish. I use a varnish specially formulated for violins. This particular color perfectly matched the neck color. (No work needed to be done on the neck, so it retained the original coloring.)

The first day I coated the back and sides. The second day I coated the top, then continued to alternate for the next four days. I put on three coats.

## Day 17: A Type of “French” Polishing, Re-installing Tuners



I let the finish cure for a few days, then started the long polishing process. Using a cotton pad lightly soaked with a type of mineral oil, called Rubbing Oil, I first sprinkled some powdered pumice and rubbed the entire surface in the direction of the grain. Pumice rubbing removes any dust specks or streaks.

I then cleaned the surface with a dry rag, then rubbed the surface again, but with a very fine powder called Rottenstone. Once this is complete, the surface almost shines.

The last process is to apply a coating of paste wax. I use a mahogany-tinted polish, with is made especially for reddish woods like the koa on this ukulele.

After cleaning the tuning pegs, I reinstalled them into the peg head.

## Day 18: Stringing and Completion



On the last day, I strung the ukulele and tried it out with the old song, “Has Anybody Seen My Gal.” The uke sounded lovely.

Several years ago I spoke with Tony Graziano, a local internationally known ukulele builder. I was just working on my first ukulele, and he told me the old story that when building a ukulele, you make the wood so thin it fails, then make another piece just a tiny bit thicker to use on the instrument. The Kumalae ukuleles are made with that tiny bit thicker wood. That is why they are so light and sound so good. But their lightness and thin wood is also why so many haven’t survived. It is fortunate that this one was cared for enough to make it through its first hundred years. Now, it should be able to go for several hundred more.

Note: Martin Guitar Company started making ukuleles a year after Jonah Kumalae demonstrated his at the Panama Pacific International Exposition in San Francisco. In the 1920s and 1930s, the Martin styles and models were very similar to the Kumalae instruments and soon became more popular because of the Martin name and reputation. The Martins have also survived better, because the wood was a little thicker. Martins have a good tone, but the Kumalae Ukulele has that “real Hawaiian sound.”