

Lamp Restoration - Before & After

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After adding a lamp to their collection, many collectors are faced with the question of whether or not they should take steps to restore the lamp, if needed. If the lamp has missing parts that are obtainable there isn't any question whether or not this should be done, and the same is the case with lamps that have had parts replaced incorrectly, or in the case of damaged parts for which original replacements are obtainable. Then there is the question of cleaning the lamp. Some collectors like their lamps left as they were found no matter how nasty they may look, others clean them to the extent of removing active rust, crusty deposits, etc., some hand polish metal parts and a few mechanically buff the metal to a mirror finish. This last technique does nothing for the lamp but decrease its value to other collectors since buffing removes details in the metal making the lamp look very distinctly unlike it was manufactured, remember that buffing is forever.

There are two other aspects of lamp restoration to consider. The first being the removal of dents and the straightening of bent parts such as the hook on a carbide lamp or oilwick lamp, or any part of a candlestick. The second being the replacement of rusted metal whether in the form of pinholes or metal parts that are rusted partially away.



Before Back View



Before Side View

A lamp with "character", prior to restoration.

Some collectors state that dents give character and a look of authenticity to a lamp that a mint-in-the-box lamp does not possess. However, offer any lamp with or without dents and see which one sells faster and which one brings a higher price, the answer is obvious. I prefer my lamps sans dents and to this end I began to experiment many years ago with

removing dents from carbide, safety and oilwick lamps. Having seen the results of others' abortive attempts at dent removal I had a fair idea what not to do. The cardinal rule of dent removal is to never use a sharp edged tool like a screwdriver. I have seen lamps, from which dents could easily have been removed with the right tools, defaced by some over zealous seller with a screwdriver. Sharp-edged tools leave sharp outward protrusions on the surface of the lamp when inserted in the lamp and pushed outward. What these have actually done is stretch the metal outward. The only way to even partially remove these is to insert something in the lamp that can be pushed on from the outside, this allows the protrusions to be pushed inward against the inserted piece.



I'm actually getting ahead of myself here, let's start with the correct way to remove dents. Since dents are generally made from the outside, the obvious way to remove them is from the inside pushing out. The problem with most dents is how to get proper access to them to push them out. Here is where your personal ingenuity comes into play. You must fashion tools that allow you to reach behind any dent you want to remove. These tools must all have rounded edges and smooth surfaces. The easiest dents to remove are those that do not require any reaching or bending around an internal part. A good example is the copper oilwick spout shown here before, during and after the dent removal process. A smooth steel rod is inserted in the spout of slightly smaller diameter than the spout. The lamp is then pressed down and the dent



gently tapped out with a small plastic hammer. The two secrets of successful dent removal that I can share with you are that the tool is most easily and effectively used when held in a bench vise, which leaves both hands free to work the lamp, and don't be in too much of a hurry, work slowly and methodically. Small dents can be pushed out in one motion but larger dents must be worked slowly across their entire surface. I have had to make specific tools to work out a single dent that could not be reached with existing tools.



The most difficult dents to remove in oilwick lamps are those that occur where the miner beat his oilwick against his boot to raise the wick and dented the wick tube and the lamp base, as well as where the vertical font sides meet the bottom. The most difficult dents to remove in carbide lamps are those that occur wherever there is significant change in the surface plane, such as where the top and side of the water chamber meet or where the side and bottom of the carbide chamber meet. Also any soldered joint that is dented has the potential to come apart when the dent is pushed out, another good reason to take your time and work slowly.

If you look at the before photos of the brass Scottish oilwick (shown on page one) you might wonder where to even start removing dents since there is more dented than non-dented surface. Looking at the before photos you might also ask why I even bought the lamp to begin with, the answer is that I saw potential in the lamp, I saw what it could be, not what it actually was at the time. It took approximately 3 1/2 hours using half a dozen different tools to achieve the results seen in the after photos. The finished result is a lamp that no one would be ashamed to put in their collection.





Partially Done Side View



Partially Done Side View



Partially Done Closeup View



After Closeup



After Side View



After Side View

I have found steel parts to be the easiest to work with, copper and brass more difficult and less forgiving, and aluminum by far the most difficult. When bent too far and then bent back aluminum has a nasty tendency to crack. Straightening the aluminum bonnet on the safety lamp shown here was a rather difficult task. While dents push easily out of copper and brass, it is more difficult to obtain a smooth surface than it is with steel.



Now let's look at rust restoration. How many of us have seen otherwise nice looking steel oilwicks riddled with pin holes even though the rest of the surface looks good. How did this occur without rusting the rest of the external surface. The answer is that it occurred from the inside out, most likely the result of an unused cotton wick being left in the lamp. The cotton absorbs water from the air and wherever the wick touches steel rust occurs. I have seen oilwicks where the spout has become paper thin because of internal rust.



There is a way to salvage these lamps and prevent further damage. I first clean the internal surface with a steel or brass brush and then apply a product made by Devcon called Wear Resistant Liquid, it is an epoxy compound filled with a fine grade of ceramic that is used to re-line worn equipment and for making wear resistant forming dies and fixtures. It is meant for industrial use only and can be difficult to get used to working with.

Shown in photos here are a Trethaway Bros highspout oilwick (next page) and a Trethaway Bros. brass dome lid oilwick that I experimented on many years ago and have kept just as conversation pieces. I would not consider either lamp to be collectible in the condition in which I found them so there was no reason why I shouldn't experiment with them. As can be seen in the before photo of the highspout oilwick is that the entire end 1/2" of the spout was partially rusted away and the rest of the lamp was riddled with pin holes (not as obvious as the spout end). I was able to fill all the pinholes from the inside and rebuild the spout end to its original dimensions and thickness (see photo). The nice thing about this product is that once it starts to set up it becomes the consistency of modeling clay (short duration) and can be formed as desired. It can then be filed and sanded as needed.



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On the two examples shown here I had not yet learned how to color the material to match the color of the lamp. When mixing the epoxy I found that I could add filings, rust dust, and other materials to change the color of the epoxy (originally dark gray) to match the color of the metal in the lamp. I can now fill pin holes so that the only way

they can be detected is with a magnifying glass. I always apply the material from the inside on the lamp. I have tried other commercially available products like PC7 but have not been happy with them. For those, like myself, who cannot solder, this material can also be used to reattach parts and close broken solder joints. It can also be used to keep stress cracked brass from opening up. A thin coating applied internally over the crack will prevent further cracking and separation, and the nice thing is that it cannot be seen.

To close the rust repair subject let me advise all collectors to pull dry unused wicks from all their steel oilwicks. Wicks that have sunshine fuel soaked into them do not have this problem as the moisture cannot be absorbed when the fuel is present.

Now if you want to start working on dent removal go find a couple of junk lamps and have at it.

