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G503 WWII Jeep Hull Streamline Bakelite Compass Restore

One great tool that is enjoyed on the WWII Jeep is the Hull Streamline auto compass. It adds history and elegance to your historical offroad vehicle. Here are some details on how to restore this cool compass

There are a couple different type of WWII Hull Streamline compass that are the correct for the WWII time period. Here you see three brown or black bakelite face plates that are the same

Turning these on their sides you can see a few differences. The arms that hold the compass to a Windshield or Dash, and two the screws to dismantle the magnets for the N-S and E-W screws

There are two different typs of hinges as shown. Two which have different arms and have a clamp style and the third is mounted to a surface via screws.

	To remove the glass bulb can be done a couple of different ways. Use some sort of a knife to get underneath the glass lip and pull upward. Becareful not to damage the glass or the holder. Bulb should pop right out.
	When the glass bulb pops out, you most likely will have some of the fluid all over the device from leakage. Most leak, or are short of fluid.
	You should be able to unscrew the brass conainter from the glass, but these are usually frozen on there. You can heat the back and try and get it to unfreeze, Or....
	Or spray a little penetrating oil in the back and give it a little time to work.

	Here is a close up of what you are trying to resolve. There is a brass back plate that is usually frozen to the brass retainer.
	After a little time soaking in the penetrating oil, you will find that the two brass fittings will break free and you can see all of your pieces. Dump out the fluid and clean the glass.
	In this case you will see that the small brass "C" shaped wire broke from the back brass plate.
	Here is a look at the bottom side of the compass spool for reference

	To fix the wire to the back plate I used JB weld. I like this product and it will withstand heat and the keroscene lamp oil I will be filling later, so I applied the JB Weld and let it sit overnight.
	Here is a close up of the patched area. I applied the JB weld with a toothpick.
	You may need to make a new gasket, as the cork original may not be holding the fluid well enough. I went to Napa who gave me a piece of gasket they were not going to use, so I made some additional gaskets from the piece they gave me.
	Here you see that they are cut out close to the original

	Now that the fix is made to the compass and the gasket is ready, I pour the non odor pure lamp oil into a cup I cut in half. I will submerge the entire glass bulb to remove as much air as possible.
	Prior to putting the items together, I soak the new gasket in the lamp oil to get it saturated. This will help when I place the items back together.
	After saturating the gasket, I place it around the back plate to make sure the fit will be good
	Next, submerge the glass bulb overflowing the glass bulb, then place the back plate in the glass bulb and screw on the retainer with the bulb completely submerged

	Screw the retainer on tight, and pull out of the container of lamp oil. Wipe off and you should see very little to no air in the glass bulb
	You may want to let the glass bulb sit on a paper towel for a while to see if it is leaking. If so, tighten or repeat the steps. When your done, line up the white wire vertically in the bakelite container and your done