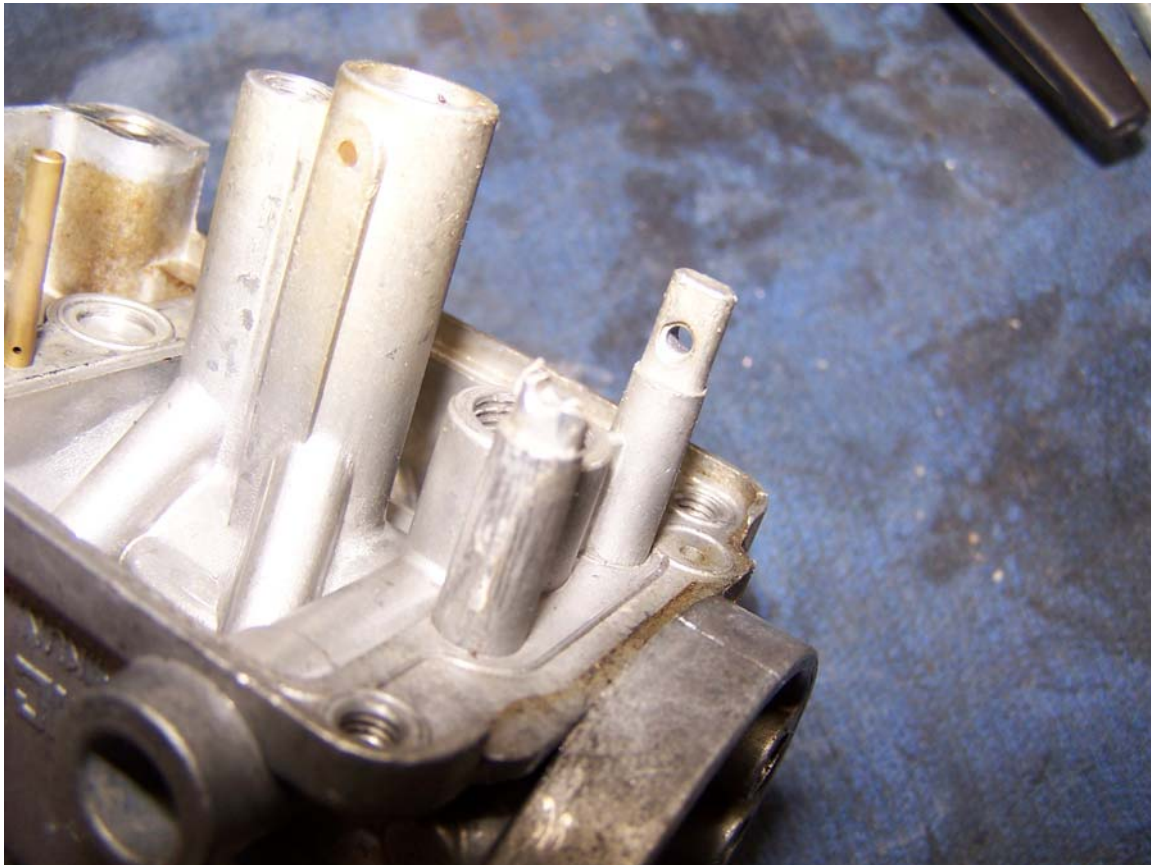


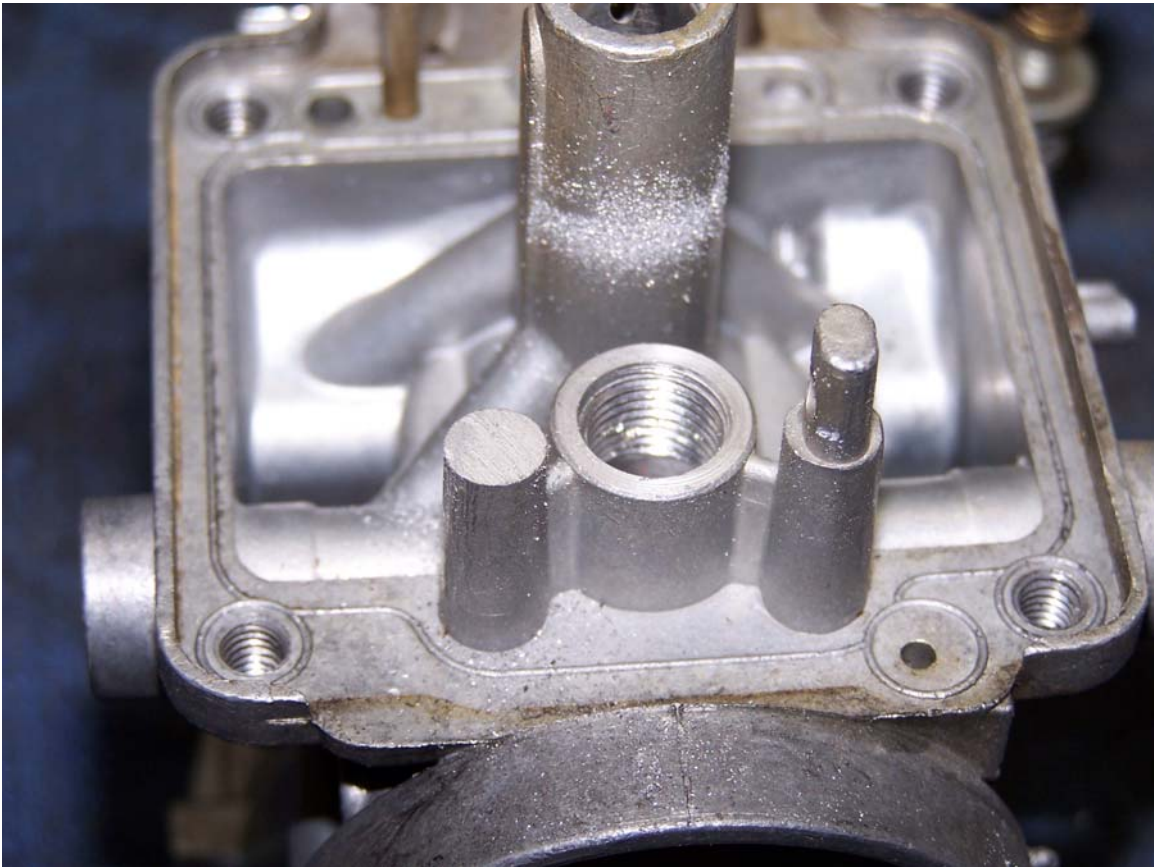
Mikuni MKII Post Repair

I recently bought a '78 XS750SE Special that hadn't been run for several years. When I put gas in it, it immediately poured out of the airbox, so I knew it was time to rebuild the carbs. Someone had obviously been there before me, and in the process had broken a float post, then tried to repair it by epoxying the pin to the post. I suppose this might have worked (it didn't), so I decided to repair it properly. Here's how I did it with normal shop tools and a little patience-

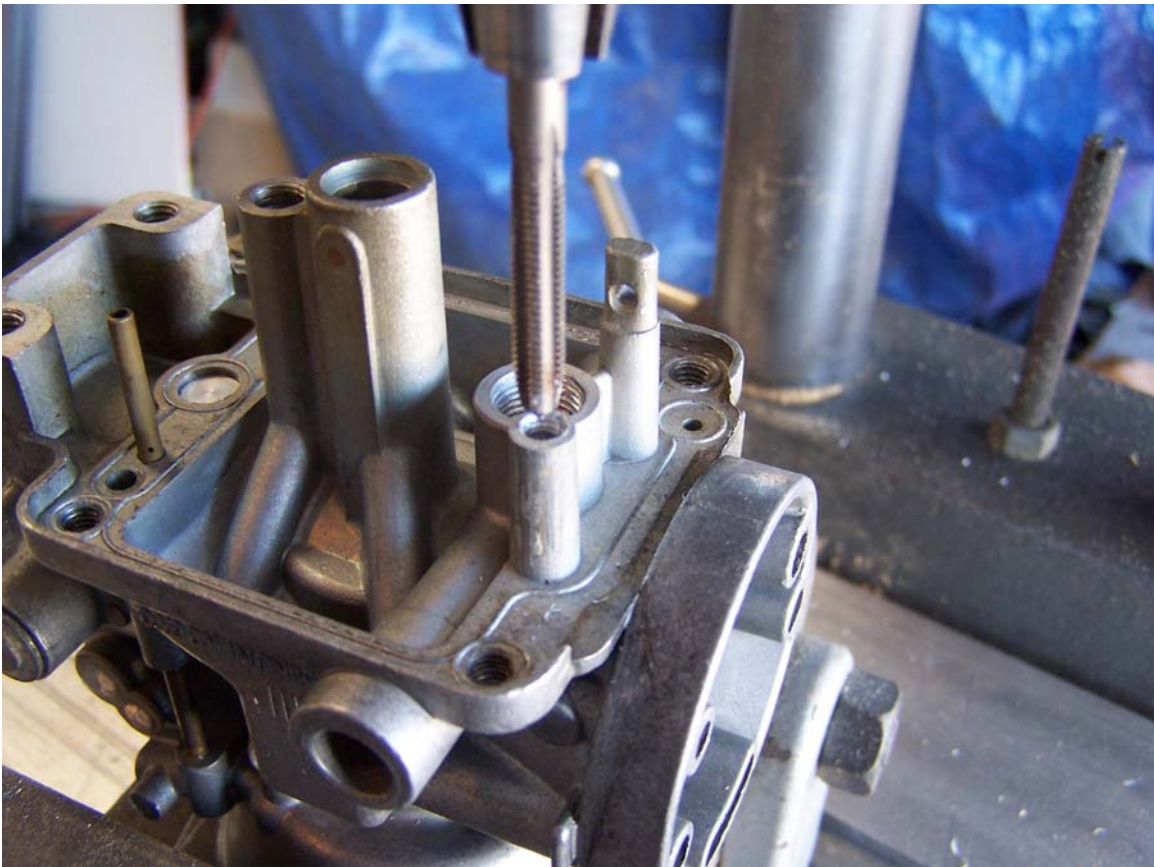
This photo shows the broken post –



To do this repair, it's best to completely disassemble and separate the carbs. I'm planning to have them ultrasonically cleaned at the local Yamaha dealer and completely rebuilding them when I get them back, so I'm not too worried about aluminum shavings getting into the passageways. I carefully hacksawed the top of the post off at the casting line that's below the pin hole, then smoothed the top off with a hand file.



Using a sharp center punch, I carefully punched a small guide hole in the center of the post. It's important to get it directly in the center. Then with a drill press, I drilled a pilot hole using a $3/32$ " drill bit, followed by a $5/32$ ". Set the depth on the drill press just deep enough so that you don't drill through the bottom. There's plenty of metal there. Then I threaded the hole with a 10-32 tap. I used the drill press to get it started, but I turn it by hand, not with the power on, to make sure the tap is perfectly vertical. Then I finished threading the hole by hand using a tap handle. Go slow and be careful, as the sidewalls of the post are fairly thin, the aluminum is soft, and you don't want to break anything.



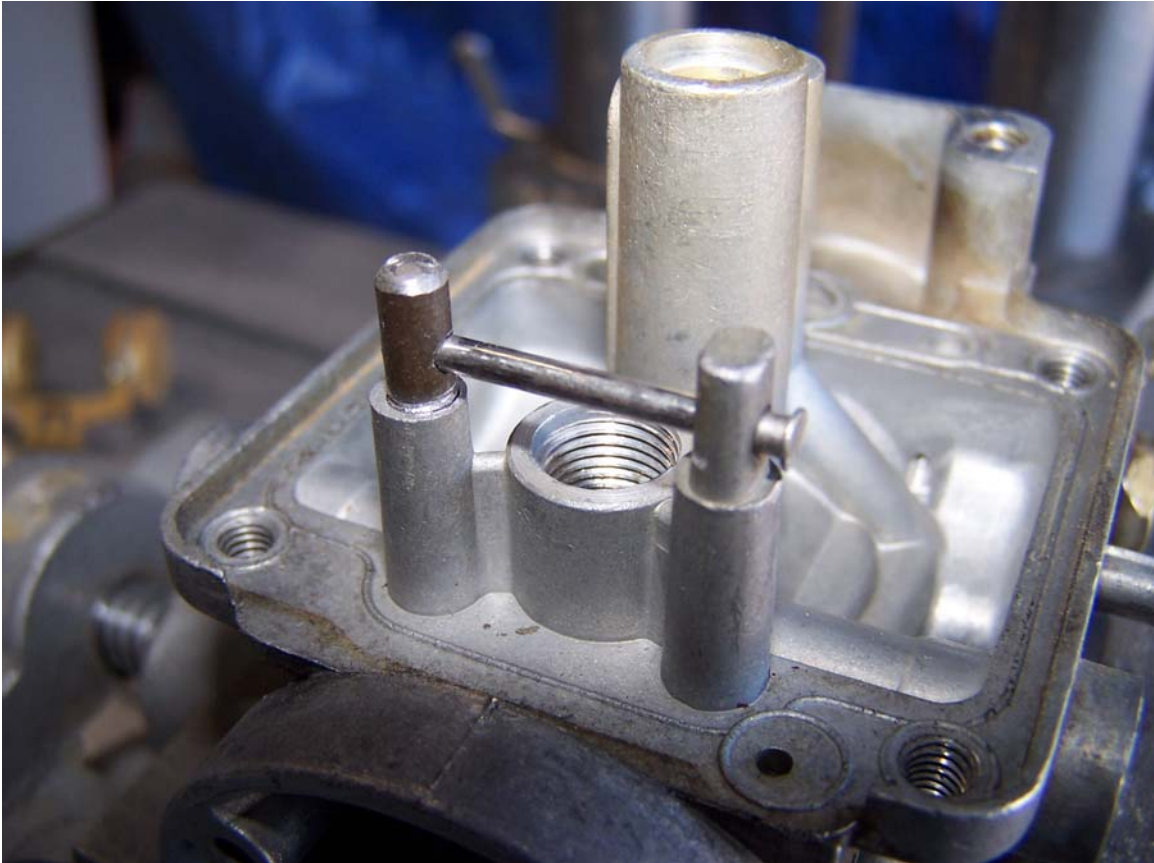
I used a 10-32 aircraft bolt that wasn't threaded all the way to the hex head. It's important to use this type of bolt because the pinhole needs as much meat around it as possible, and the threads might weaken it. Be careful and drill the pinhole directly in the center of the bolt, straight across. Using a 3/32" bit, I used the drill press to drill the hole and a drill press vise to hold the bolt. The pin is a little larger than 3/32", I used a small round file to fit it perfectly. You could also use the correct diameter numbered drill bit. In this photo, I'm trial fitting the bolt in the newly threaded post. I needed the bolt to go lower into the post, so I used a 10-32 die to cut more threads on the bolt. It's important to leave the hexhead on the bolt until all of the fitting is done, as you'll need to be able to hold the bolt securely in the vice.



After adding some threads to the bolt so that it fits lower into the post, I'm able to align the float pin and make sure it all fits.



After removing the bolt and clamping the hexhead in a vise, the head of the bolt can now be removed with a hacksaw, then the end of the bolt (I guess it's called a stud now) can be finished with a grinder. When I get the carb bodies back from being ultrasonically cleaned from the dealer, I'll Locktite the stud into the post. Here's the finished repair-



This procedure took about 2 hours to do, and saved an otherwise good carb body. -rjames