



DON'T GIVE UP ON CORRODED FITTINGS

A threaded fitting that just flat-out refuses to loosen on a refrigerant line is hardly a rare item. Most technicians eventually just give up trying. Instead they just cut it out, and repair it with a cold process such as LOKRING. Before you go that far, however, here's another idea from a technician who said he's encountered the problem frequently on the GM C/K full-size pickups (GMC Sierra/Chevy Silverado), particularly the fittings at the condenser.

Inject plenty of penetrating solvent into the joint and give it time to work. But how? You can spray a little onto the threads at each end of the fitting, but that probably won't do it. In addition, use a No. 3 centering bit (Figure 80) to drill a small hole through the midpoint of one of the flats of the hex fitting - the bit is 7/64-inch diameter and has a depth of 7/64-inch. (Figure 81)

Then, using an aerosol can of lubricant, insert the straw through the hole and spray (Figure 82). Because you're also spraying

into the center of the fitting, you'll get enough penetrating solvent on all the threads and the fitting should free up.

You don't like the idea of drilling through the hex, because you might hit the threads inside the fitting? First of all, there isn't much to lose, if the alternative is cutting out the fitting. Second, even if you drilled through and actually hit a thread, all you might get is a slight nick, and the tip of the bit is just as likely to go into the groove between the peaks of the thread.

However, we actually miked the pieces involved. The nut was 0.105-inch thick, and the No. 3 centering drill bit's tip - if it went all the way in - was a whisker under 0.110-inch thick (7/64-inch), which could produce a minor nick that probably would clean up with a thread file, tap or die. In our test case, we didn't force the drill, so although it went through, it didn't seem to produce a visible nick, although the very tip of the drill did protrude ever so slightly (Figure 83).



Figure 80. This is a No. 3 centering drill bit. The centering bit is 7/64-inch in diameter (to produce a 1/8-inch hole) and the bit depth also is 7/64-inch (0.110-inch), so it just goes through a 0.105-inch thick nut.



Figure 81. Drill through the midpoint of one of the flats on the female hex, as shown. Don't force the drill and stop as soon as you can feel it go through. For illustrative purposes, we set up these photographs at a workbench.



Figure 82. The centering drill bit will produce a hole that's large enough for the straw of an aerosol can. Spray penetrating solvent through the drilled hole. Also spray solvent into each end of the fitting, and after the solvent works in, the fitting should loosen.

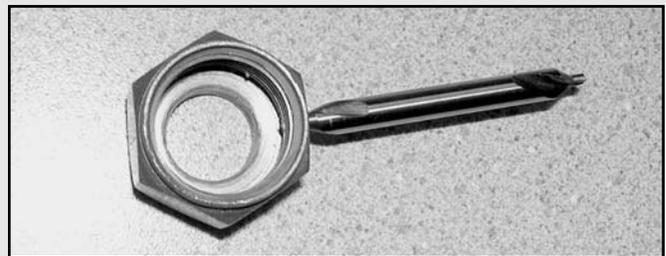


Figure 83. Close-up of the centering drill bit inserted through the fitting nut. The bit barely protrudes past the peak of the threads, so at worst it would put a minor nick on the edge of the fitting's male threads (if it went all the way through). A slight dressing with a thread file or cleanup with tap-and-die set should be all that's necessary, making this approach a lot easier than cutting out the fitting and installing a joint of some type as a repair.