THE PREVENTIVE MAINTENANCE SERIES

Mike Dawson

Homemade Corvair Tools

Some homemade tools you may use over and over on multiple projects, others you may only use once. It can still be fun being creative, and even that one use can be satisfying. The following are some of the ideas I either borrowed or made up myself. These tools can be made of anything your imagination comes up with. These are just my choices at the time; be creative!

Bezel Nut Sockets: There are several bezel nuts used on both early, FC & late model dashboards. Use a suitable worn out socket, or pick up a cheap one at a swap meet, or use steel stock for the sizes you want. Clamp your material in a vice and get to work with a cut off wheel. If you use steel stock, weld a large washer and nut across the end for tight bezel nut removal.



Front Wheel Bearing Race Removal Tools: Purchase a piece of 3/8" square steel stock at a hardware store and cut lengths as follows: early outer 1 3/8, early inner 1 ³/₄, late outer 1 ¹/₂ and late inner 2. The FC hub has the same bearings as late model. I welded the outer race drivers on to some worn out counter shafts and use them with my shop press; nicer than a hammer and punch. The inner drivers have to be laid inside the hub before using a pusher. These tools are illustrated in the '61 shop manual.



Positraction Plate Tester: A nut welded to a plate with two drilled holes can be bolted to one yoke while the other yoke is either attached to the axle (in the car) or while one yoke is held in a vice if you have the unit out of the case. Either way, apply your torque wrench to the nut and check the torque required to break the plates loose.



Oil Cooler Tester: Obtain a donor oil cooler adapter-to-case and plug one hole (tap, weld, etc.) while attaching a male air hose connection to the other hole. Add two seals, mount any cooler and immerse in water while applying 50+ psi.



PVC Seal Drivers: Schedule 40 PVC works great for seal drivers with either a hammer or shop press and I also use it to press on 4-speed synchronizer hubs. Seal driving applications include pressing (out and in) crankshaft main seals in the clutch/converter housings, differential side seals and converter hub seals.



Differential Side Sleeve Tool: The most efficient way to remove stubborn side sleeves is with a donor sleeve modified by welding a HD socket to it for impact wrench application.



Differential Pre-load Measurement: To be able to use my inch pound wrench on the Powerglide pinion shaft, I use a spare governor drive gear with a shock washer and '66 U-joint bolt welded on one end. For the manual pinion shaft I use a junk 4-speed transmission main shaft with a flange head bolt welded on the small end.



Powerglide Front Pump Cover Removal: Use of a slide hammer is the best approach so I selected a nut that my slide hammer screwed into and welded the nut to a 5/16" steel plate with two drilled holes that line up with the inner cover bolt holes.



Powerglide Piston Compressor: A push rod guide, two bolts and a Powerglide oil pump gear welded together make an easy to use compressor for removing and installing the clutch piston snap ring.



Drivers For Early Car and FC Rear Wheel Bearing Overhaul: These bearings usually only take some gentle taps for disassembly and assembly, but for the occasional problem child I made these drivers out of "scrap box" items that fit various races.



Men's Room Accessories: Pictured are a towel holder, toilet paper holder and hand soap stand in my downstairs working mans water closet, all made from Corvair "scrap box" leftovers and junk.

