



SNAP RING TOOLS AND RULES

Just about the time you get to thinking of putting on and taking off snap rings as a snap is just the time to rear back and give that lowly retainer ring a second think.

It may be small, but it's important—same as a cotter pin. Maybe a damaged snap ring won't cause any accidents all by its lonesome, but it sure can start things off in the wrong direction when it's not doing its job. And its job is to

act as a retainer for bearings, seals, pins, filter screens and—you name it.

When it's installed right, a snap ring makes a good positive lock in spots where there're no loads, or hardly any, working against the ring. However, it's awful easy not to install one right and that's good enough reason to go over the whole business every now and then. So let's start with the two types of rings.

INTERNAL

TO INSTALL OR REMOVE, COMPRESS, BUT JUST ENOUGH TO CLEAR



An internal retainer, or snap ring is used to keep some part, such as a filter screen, from moving around inside a housing. So you install an internal ring by compressing it—but only enough to let you place it into the retaining groove inside the housing. Then, as you let up on the pressure, the ring will expand itself into the groove like it had a mind of its own. You also remove it by compressing, but again—only enough to clear the ring from the groove and housing cavity.

EXTERNAL

TO INSTALL OR REMOVE, EXPAND, BUT JUST ENOUGH TO FREE FROM GROOVE



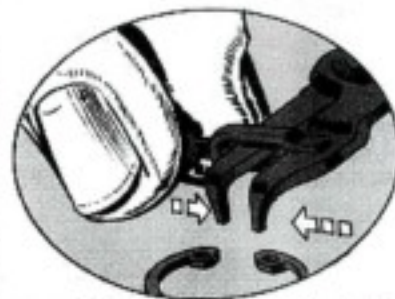
An external type ring holds parts like shafts or pins from moving around in locations where you can't allow too much end play. It's put on by expanding the ring—but only enough to slip it over the outside of the shaft or part it's supposed to hold in place. As you let go of the pressure, the lugs of the ring will ease toward each other until the ring seats itself in the groove. Comes time to pull it out, expand the ring only enough to free it from the groove.

PLIERS

Internal and external retaining ring pliers are the only—repeat only—types of tools to use on these rings. Sure! A substitute like a screwdriver, long-nosed plier or punch may do the job. But the percentages on damaging the ring are big enough to keep it from seating properly or preventing it from being reused. So what have you gained?

Even when you pick up the right type pliers, you've still got to be sure it's the right size, since each size matches up with certain size snap rings. The range on snap rings is from 0.125 to 5.177 inches in diameter and the lug holes change with the different sizes.

If you check back over your Army Aircraft Organizational Maintenance ABC Tool Kits, you'll see three external and four internal retaining ring pliers authorized for this reason. And every one of 'em has an adjustable stop which you're supposed to use. The correct adjustment keeps you from over-



expanding external rings and overcompressing internal rings. Taking time to adjust the stop is quicker than running back to the parts room for a new ring to replace the one you ruined.

Your issue pliers are all flat-jawed with straight tips. However, there're other retaining ring pliers with bent tips and round jaws. So if you ever think a particular job calls for the other kind of tip or jaw, the correct way to ask is by using the rules set up by AR 725-50, after you locate the right FSN in the 5120 Federal Stock Class catalog.

