Starter - Positive Drive Type

So you got the starter drive extended and can't get it retracted. Some people have had luck spinning it on a wire wheel. Not me.

The positive drive has two pawls inside to keep it in the extended position until the engine starts and centrifugal force retracts them.

The drive has a spring loaded sheet metal cup with a collar on the outer end to keep the pin from coming out.

To remove the drive from the motor push the cup, collar down to clear the pin. Hold it in position with a small C clamp and use a drift to tap the pin out. Then the drive will slide off the end of the shaft.

Looking between the two halves of the drive toward the starter drive gear you will see a square inside spring C clip. Using two screwdrivers dig this clip out. Now the outer cover with the drive gear will slide off. Note that the cover has three groves inside to match three dogs on the gear.

You will see a male and female spiral gear. On the outside of the female gear you will see what looks like two pins. They are not pins. They are tight fitting caps. Don't bother to try and get them out. You can not get a good enough hold of them.

Looking down on the end you will see another round outer C clip. Dig it out.

NOTE: Pay close attention as to how everything comes off, spacers, wave washers etc. Also the female spiral gear has a shoulder on each end, one longer than the other. If I remember correctly the shorter one goes toward the ratchet gear.

Place a cloth over the whole thing and remove the female gear. Two cups and springs will fly out.

Slide the female gear off. Use a small screwdriver or drift and tap the caps out of the gear from the inside out.

Make sure the square C Clip is on the shaft.

Put the female gear back on the male gear all the way to the retracted position. KEEP IT THERE. Install a cup in the side hole of the female gear. You will note that it has a round ball like end that goes in first. Then place a spring in the hole. Then put a cap in and tap it in flush. Do the same thing to the other hole. Replace the spacers etc and wire C clip.

Put the cap with the drive gear on and work the square C clip back into position.

MAKE SURE it has remained in the retracted position or you will start over.

Put the drive back on the motor shaft. Tap the pin in flush.

Good luck,
Dave <(*)><