

Replacing Punch Driven Gear (our part# CNC 1870)

This unit must be replaced when bushing slop exceeds tolerance resulting in short punch/die live, and poor quality holes. CNC Machinery LLC stocks this part.

This procedure requires common hand tools, and a 3-1/2" alignment tool. We have tools for rent on our website see part number CNC 6012

Caution this procedure involves proximity to mechanical gears, cylinders, and is considered inherently dangerous. We assume no liability for injury, or equipment damage as a result of performing this adjustment. If you are uncomfortable performing this adjustment please STOP and call for assistance. Far better to pay for a technician, than to damage machine, or risk injury

- 1). Turn PUNCH OFF to avoid inadvertently punching your alignment tool
- 2). Jog station to operators station
- 3). Remove 4 bolts and springs retaining lifter and remove lifter.
- 4). Inspect springs, studs and lifter for damage replace as needed.
Lifter 3-1/2 our part CNC 1851 , Spring CNC 2640



- 5). Remove 4 button head cap screws holding gear retainer plate, being careful to retain small shims under retainer. Remove and inspect retainer. Replace this if it appears damaged. Our part number CNC 3012.



- 6). Reach under turret bushing and press the bushing up from station. If it needs some persuasion use a brass or aluminum punch to break it loose. Clean area thoroughly.

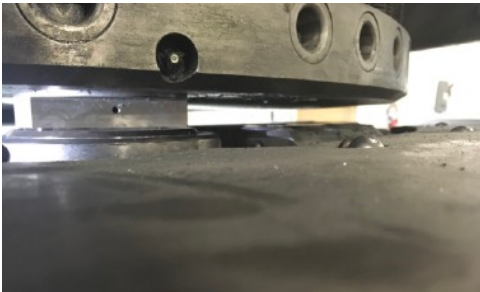
7). Apply an even coating of GOOD quality graphite grease to the new bushing. Install by carefully aligning key to die key by sight and gently engaging gear teeth. Use only a brass hammer, or dead blow to ensure bushing is seated completely.

8). Reinstall retainer making sure to reinstall the shims under the bolt holes. These shims are there to ensure station does not bind while spinning.

9). Insert alignment tool set. Place a 5"x5" piece of 16-18 gage sheetmetal between the punch and die to prevent tools from engaging while rotating the station to the ram.



10). Move turret to allow access to pulley bolts. Loosen all bolts a few turns, to allow center cog to move independently of the pulley



12). Jog station to punch. Remove sheetmetal and gently engage top and bottom alignment tool. I like to use a small pry bar to help this in. It should NOT take excessive force to engage. Rotating belt side to side while applying gentle pressure should allow the top to engage the bottom die.



13). After engaging ensuring the alignment pins are fully engaged, verify the motor is fully engage in the station. Rotate the belt to center the gear slop, then tighten a few of the retaining bolts.



14). Disengage the alignment tool and reinsert the Sheetmetal. Make sure it will be able to turn freely as the station will automatically reference when you jog.

15). Jog station to operator and tighten the remaining bolts on the cog. Keep in mind these bolts are tapped into an aluminum hub Overtightening will strip those threads, or break the bolts.

16). Jog station back to ram, and reinsert alignment tool to verify nothing has moved.

17). Remove alignment tool, and insert good punch and die to verify a nice even hole. I like using a 1/4 x 3 to test punch.

18). Continue to Sawtooth adjustment if needed.