

# Automation Devices, Inc.

## SWAN-MATIC SINGLE CYCLE CAPPER INSTRUCTIONS C500PB SETUP & OPERATION



Figure 1.1



Figure 1.3



Figure 1.5

Carefully unpack the Capper and any other associated equipment which may be in the container and check for damage. Set the machine on a level surface and remove the fill plug located on the top left rear of the capper head. Add the two quarts of Gear Oil (E.P. SAE 80w90 P/N C095 supplied) into the housing through the fill plug hole (Figure 1.1). **The capacity is two quarts Maximum.**

Attach the proper sized driver shell with a rubber insert on the lower end of the clutch and fasten it securely with the wrenches provided (Figure 1.2).

Connect power to the electric motor (after checking to make sure that the voltage marked on the nameplate is the same as the power supply to which the capper will be connected). Run the capper for several minutes at room temperature to thoroughly lubricate the mechanism. The capper should run free and easy with no effort. If it does not, inspect the capper for shipping damage.

Accurate alignment of the container cap to the insert and proper height and torque settings are critical for optimum capping results. Rotate the spindle until it reaches the bottom of its stroke. Place an already capped container under the insert, adjusting the capper

height so that the container cap just contacts the insert. The height of the capper head is adjusted by loosening the column locking handle (Figure 1.3) and rotating the adjustment handle (Figure 1.4). With the capped container directly under the insert, slide the backstop assembly (Figure 1.5) up against the container and tighten. Rotate the spindle until you can remove the container. Readjust the capper height directly down -  $\frac{1}{8}$  to  $\frac{1}{4}$  inch (depending on the dimensions of the cap and container) to allow for overtravel. Securely tighten the column locking handle.

### TORQUE ADJUSTMENT

Adjust the clutch (Figure 1.6) to set the capper for the desired torque. Hold the clutch cap (the upper section), either by hand or by using the wrench supplied, and loosen the center lock ring several turns. To increase the torque, turn the lower clutch section **into** the clutch cap. To decrease the torque, back the lower section **away from** the clutch cap. When the proper torque setting has been obtained, tighten the center lock ring to retain the setting.



Figure 1.2



Figure 1.4



Figure 1.6

**Important Note:** The shell and clutch should always stop momentarily near the end of each stroke when contact is made with the cap. Excessive rotation after contact will cause premature insert wear and damage to the cap.

## MAINTENANCE OF YOUR SWAN-MATIC CAPPER

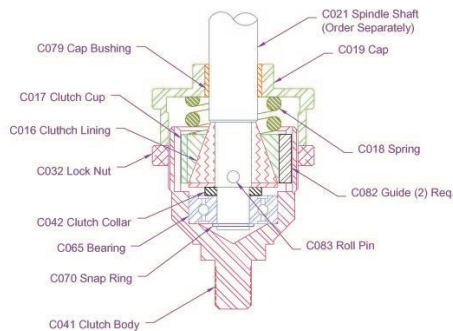
Periodic inspection of the oil level in the capper head housing is recommended to ensure that sufficient lubrication is present. The high oil level should be  $2 \frac{3}{8}$ " from the top edge of the housing. We recommend E.P. SAE 80/90 weight gear oil (our P/N CO95) or equivalent. Approximately once every six months, it is recommended that the clutch be disassembled, cleaned, and a good grade of lithium grease be applied to the clutch lining to ensure long life and consistent torque. Excessive grease may seep out of the clutch during operation.

### REPLACING SPINDLE OIL SEAL

**Always exercise extreme caution when removing the shaft seal to ensure the shaft itself is not permanently marked or scored.**

Unscrew and remove the lower section (C041) of the clutch from the clutch cap (C019) (upper section). This will expose a bearing (C065) on the lower end of the spindle shaft. This bearing is held in place with a snap ring on the under side. Remove the snap ring and press the bearing from the spindle. The fiber clutch cone (C016) is held in place with a  $\frac{3}{16}$ " diameter roll pin (C083). In removing the roll pin, be sure to use a punch of the proper diameter.

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**Be careful to support the spindle shaft (C021) to assure that it is not damaged or bent.**

After the roll pin is removed, the fiber cone and the remaining clutch parts can be removed from the spindle. **The factory recommends draining the oil before removing the seal to prevent oil loss.** The shaft seal (C059D) can be removed by puncturing the *metal section* on the lower side of the seal and then prying the seal out of its seat. The seal can also be removed by drilling several small holes in the metal section of the seal, inserting sheet metal screws part way in, and then prying the seal out.



Figure 2.1

After removing the seal from its seat, thoroughly clean the seat and shaft to remove all oil and foreign material. Inspect the shaft for score marks which could cause premature seal failure. If any marks cannot be removed by polishing the spindle, replacement will be required. If this is the case, contact the factory for parts and the proper procedure at 814-474-5561.

Before installing the new shaft seal, it is recommended that the lower end of the spindle shaft be covered with a *thin coating of oil*. This will allow the shaft seal to slide along the shaft without damaging the seal. **The seal should be installed with the open side up.** Before seating the seal, apply a layer of gasket sealer (i.e., Permatex or equivalent – our P/N C111) to the seat. Gently tap the shaft seal into place with a hammer and a block of wood or use Swan-Matic tool C059T (Figure 2.2). Make sure that the shaft seal is not misaligned and bound in the casting before attempting to seat it.

Replace the clutch in a reverse manner from how it was removed. Lubricate the clutch face with a good grade of bearing grease (such as Lubriplate or equivalent).



Figure 2.3



Figure 2.2

### IMPORTANT

The capper is shipped without oil. The two quarts supplied with the machine must be added to the machine before operating. **If the capper is to be returned for repair, the oil must be drained.** A socket head drain plug is located behind the spindle in the underside of the housing (Figure 2.3).