

Automation Devices, Inc.

SWAN-MATIC CAPPER INSTRUCTIONS C600 IDLER ARM ADJUSTMENT SETUP & OPERATION

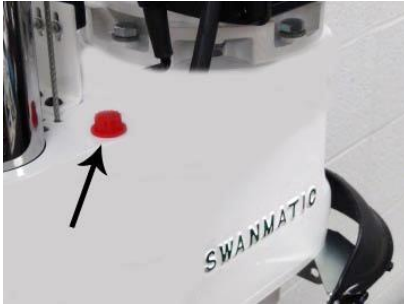


Figure 1.1

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.**

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.



Figure 1.2

The **Model C600 Pump Spray Cap Tightener** is designed for use in tightening trigger spray or finger pump spray caps. It is supplied with one driver wheel and one set of idler wheels. The driver wheel (on the right) rotates in a counterclockwise rotation. When the driver wheel and the idler wheels are both in contact with the cap to be tightened, the cap will spin on and tighten

The height of the driver wheel must correspond to the height of the cap to be tightened. Loosen the lock handle (Figure 1.2) on the capper column and raise or lower the head of the capper so that the bottom edge of the drive wheel is at the same height as the tightened down cap's bottom edge. Then adjust the height of the idler wheels to be parallel to the drive wheel. Finally adjust the idler wheels left or right to set the tightness of the wheels against the cap. The front idler wheel should be about 1/8 of an inch closer to the driver wheel than the diameter of the cap. For example, if the cap is 1 inch in diameter, the distance between the drive wheel and the front idler wheel should be 7/8 of an inch (Figure 1.3) approximately 15% less than the diameter of the cap.

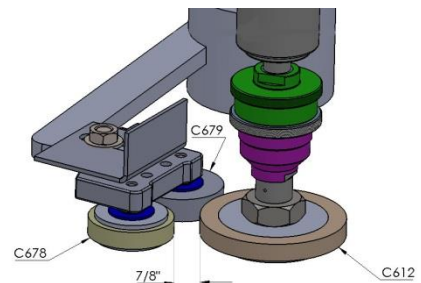
After the idler wheels are set, turn the main power switch on. Set the speed control at '5'. With the cap on the container and the threading started, push the bottle completely into the space between the driver wheel and the idler wheels. The bottle neck should push against the rear wheel of the idler assembly which should cause it to clamp around the bottle, thus tightening the cap. Check the removal torque on the cap.

The applied torque is a function of both the adjustable clutch assembly located just above the driver wheel and of the speed of the driver wheel. You may want to make the follow adjustments.

If the cap is too loose, tighten the clutch above the driver wheel and/or speed up the driver wheel.

If the cap is too tight, loosen the clutch above the driver wheel and/or slow down the speed of the driver wheel.

If you are getting excessive ware on your drive wheel, your clutch maybe too tight and/or your idler wheels are too loose.



NOTE: WHEEL C679 SHOULD BE TANGENT WITH WHEEL C612 & WHEEL C678 SHOULD BE ABOUT 1/8" CLOSER TO WHEEL C612 THAN THE DIAMETER OF THE CAP. (EX: C678 SHOULD BE 7/8" AWAY FROM C612 FOR A 1" DIAMETER CAP)

Figure 1.3

Warning

Do not wear baggy clothing. Long hair must be tied back at all times.

MAINTENANCE OF YOUR SWAN-MATIC CAPPER

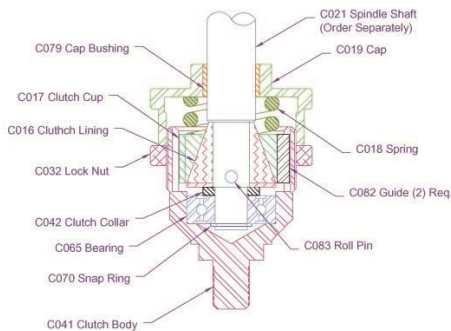
Periodic inspection of the oil level in the capper head housing is recommended to ensure that sufficient lubrication is present. The high oil level should be $2 \frac{3}{8}$ " from the top edge of the housing. We recommend E.P. SAE 80/90 weight gear oil (our P/N CO95) or equivalent. Approximately once 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).