

INSTRUCTIONS FOR INSTALLING THE 105048 SET OF PARTS
FOR LUBRICATING THE 74904 MAIN SHAFT OF MODEL 15 AND 20 PRINTERS

DESCRIPTION

The 105048 set of parts is designed to provide improved lubrication of the 74904 main shaft of model 15 and 20 printers. The new design provides for a main wick through the center of the shaft and ten cross wicks feeding from the main wick. This design provides a good reservoir of oil, but still permits passage of the oil through the entire length of the shaft.

The 105048 set of parts consists of the following parts:

1	71505 Oil Wick	12"
4	72521 Oil Wick	1/4"
4	89881 Oil Wick	3/16"
2	105045 Oil Wick	1/8"
1	74986 Screw	
2	8539 Screw	

For part numbers referred to, not included in the foregoing list, refer to the parts catalog.

INSTALLATION

The following procedure is recommended for installing the 105048 set of parts in the 74904 main shaft:

- (1) Remove the typing unit from its base and place it on its right side. Remove the range finder assembly by removing the two screws that mount it. Remove the top retaining disc (left-hand thread). Then remove the cam sleeve assembly, function bail spring, clutch throw-out lever spring and both main shaft bearing caps. Move the clutch throwout lever out of the way and carefully slide the shaft down and out of the typing unit.
- (2) Remove all parts from the main shaft except the driving gear and associated gear hub and ball bearing assembly which are assembled to the shaft.
- (3) Remove all of the old wicks from the shaft by pressing them out of the shaft with the round end of a No. 45 drill, or similar tool approximately .080" in diameter.
- (4) Clean the shaft thoroughly, inside and outside with mineral spirits. The inside should be swabbed out with a clean cloth saturated with mineral spirits, by pulling it through with a wire (No. 22 copper wire is suitable). Repeat this operation with fresh pieces of cloth until the cloth comes through clean.

CAUTION: Be careful not to get dirt on the shaft either from the hands or from the bench or table.

- (5) Cut a piece of wire (No. 22 copper wire is suitable) about 15" long. Loop one end of the wire around the 71505 wick near one end and pinch the loop tightly shut with pliers, so that the wick is securely held. Insert the free end of the wire into the selector end of the main shaft, feeding it through, and pull the attached wick through the shaft until the end of the wick is approximately 1/4" to 1/2" inside the end of the shaft. Unhook the wire from the wick and cut the wick off even with the gear end of the shaft.
- (6) Insert the 72521 and 89881 cross wicks in the shaft, using the round end of a No. 45 drill, or similar tool approximately .080" in diameter, pushing them in so that they become flush with the outside of the shaft.
- (7) Push the wick back into the shaft on the gear end so as to completely clear the end of the oil plug.
- (8) Install the 105045 cross wicks in that part of the shaft that mounts the selector cams, using the round end of a No. 45 drill, or similar tool approximately .080" in diameter, to push them in until they are flush with the outside of the shaft.
- (9) If conditions permit, the initial lubrication should be made at this point by immersing the shaft in a pan of oil for at least two minutes. If this cannot be done, hold the shaft in a vertical position and make repeated applications of oil to the inside of the shaft at the upper end until the oil begins to come out of the lower end (about ten minutes will be required). Apply a light film of oil over the outside of the shaft, using care to avoid getting dirt on the shaft.
- (10) Reassemble the shaft, reversing the procedure used in dismantling it, except as follows: Use the 8539 screws provided to hold the 74153 bearing and 74166 driving disc, and use the 74986 screw to hold the keyboard driving gear. The lock washers removed with the original screws should be used with the new screws.
- (11) Reinstall the main shaft and fasten in place by means of its bearing caps. Replace the cam sleeve assembly, top retaining disc, function bail spring, clutch throwout lever spring and range finder.
- (12) Check and remake the following adjustments, if necessary, according to the adjusting specification:
 - (a). Main Shaft Adjustment
 - (b). Main Shaft Clutch Throwout Lever Adjustment
 - (c). Armature Trip-Off Eccentric Adjustment
- (13) Lubricate the main shaft again and make all subsequent lubrications according to standard lubricating procedures.