

PREVENTIVE }
MAINTENANCE }

Verifier
Type 055

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PREVENTIVE MAINTENANCE

Verifier, Type 055

VERIFYING UNIT

I. Cleaning

The verifying unit should be thoroughly cleaned before oiling or inspecting. The rack should be cleaned with a stiff brush dipped in cleaning fluid.

II. Inspection

1. Dog Carrier for slight wink of rack when space solenoid is energized. Check this at several places on the rack, and be sure there is no backward movement of the rack.
2. Skip Lifter for wear and freedom of operation.
3. Escapement for $\frac{1}{64}$ " clearance to rack. Check by latching up the release bar link and moving the rack back and forth. Also, check by raising the rack just enough to remove the up-and-down play. The escapement should not drag on the rack teeth.

4. Sensing Pin Contacts for air gap when not attracted, and for good rise when closed. Make sure that the points do not close if a blank column is under the pin.

When the sensing magnet is energized and there is no card beneath the sensing pins, it is possible that all pins will not be pushed down far enough for the contact strap to make contact. Check with a card that has three successive holes in a column for those positions that do not operate when there is no card present. Both verifying and master units should be checked.

5. Solenoids for freedom of operation and proper adjustments.
6. Dog for wear and proper rise when space solenoid is attracted.
7. Circuit Breaker Contact for pitted points and proper adjustment.
8. Card Notcher should be approximately $\frac{1}{16}$ " above the die before being attracted, and when energized, should be drawn into the die so that the upper edge of the notching punch is below the level of the card line; that is, there should be no interference to the card movement when the punch has gone its limit of travel.
9. Pin Registration. This can easily be checked by making use of a hole just above the thumb lever that is already tapped for an 8-32 screw. The procedure is as follows:
 - (a) Punch a card with 12 through 9 in one column. Check registration of the holes with a card gauge.
 - (b) Insert the card in the bed and push the rack to the column punched. Be sure the dog is seated properly.
 - (c) Place an 8-32 screw in the above mentioned hole and screw it down until it binds on the master control bed casting. Take care not to tighten it too much so as not to warp the carriage.
 - (d) The pin sensing unit may now be raised, and the 8-32 screw will hold the rack in position.
 - (e) The card is now uncovered and held in position by 8-32 screw so that the card carriers, right and left, may be adjusted to center the holes in the card with the pin sensing holes in the card bed. Both verifying and master units should be checked.
10. Key Boards. Check all the keys for ease of operation. It is essential to have the keys free of binds so that they may always be depressed their full travel to insure that their respective contacts will be fully made. This is particularly essential when a key operates a contact with double points.

There should not be too much tension on the contact straps that operate against the contact bell cranks in order that all the keys may be operated fully with as little finger pressure as possible.

11. Relays (see *General Section—Duo Relays*)

III. Lubrication

Do not put oil on the sensing pins or the solenoid plungers.

IBM 6

- (1) Dog carrier stud.
- (2) Relay armature pivots.
- (3) Card rack teeth (with short dog).

IBM 9

- (1) Solenoid operating arm pivot.
- (2) Release bar link guide screws.

IBM 17

- (1) Light film on the surface of the phenolic pad on duo relays.

FEED UNIT

I. Cleaning

Clean all old dirt and grease from the unit. The governor should be removed and washed with cleaning fluid. The drive motor should be cleaned of all carbon.

II. Inspection

1. Motor Drive Clutch Pawl for proper unlatching and relatching on armature.
2. Feed Rack for proper feeding of cards. Check this by turning motor over by hand.
3. Main Rack for returning to column number one. This should also be checked by turning motor over by hand.
The rack stop right should not act as a limit on the feed stroke since this will bind the motor drive unit and cause excessive bearing wear.
4. Stationary Throat for wear and adjustment.
5. Feed Knife for wear and adjustment.
6. Drive Motor Brushes for wear.
7. Eject Gripper Jaws for looseness on its shaft and for broken ears on the upper jaw and for proper jaw opening.
8. Card Reversing Device for loose gears and freedom of action.

III. Lubrication

IBM 6

- (1) Card rack teeth (with short dog).
- (2) Rack rollers.
- (3) Motor.
- (4) Rack spring assembly.
- (5) Card reversing shaft bearings.

IBM 9

- (1) Bearing points on motor drive unit.
- (2) Feed rack gear shaft.
- (3) Eject shaft.

IBM 17

- (1) Card feed ratchet.

IBM 21

- (1) Gear housing on motor drive unit.