

28 AND 35 MULTIMAGNET NONTYPING REPERFORATOR BASE

DESCRIPTION AND PRINCIPLES OF OPERATION

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1. GENERAL

1.01 This section contains the description and principles of operation of the multi-magnet nontyping reperforator base.

2. DESCRIPTION

2.01 The reperforator base consists principally of two flat sheet metal plates attached by screws and separated by vibration mounts. The base has facilities for mounting the tape punch unit, a tape container and connectors, and a motor unit.

2.02 Listed below are parts, assemblies, or features which are not furnished with the base but are available.

- (a) Electrical locally-operated nonmetered tape feed-out set of parts.
- (b) Gears required for 200 word per minute operation.
- (c) Self-contained motorized tape winder set of parts.
- (d) Tape container assembly for 1 inch tape.
- (e) Tape container assembly for 7/8 inch tape.
- (f) Tape container assembly for 11/16 inch tape.

2.03 The mating plug to the grounded twist lock connector receptacle is furnished with the base but without a power cord. The length of the power cord varies with each particular installation and is therefore not furnished with the base.

2.04 A synchronous motor is used to drive the tape punch unit. The power supply requirements for the motor are:

(a) Input voltage: 115 volts \pm 10% ac.

(b) Phase: Single Phase

(c) Frequency: 60 Cycles \pm 0.75%.

(d) Input Current:

Starting: 4 amperes

Running: No load 1.06 amperes
Full load 1.25 amperes

(e) Start Capacitor Rating: 88 - 108 mf

(f) Horse Power: 25 mhp

3. PRINCIPLES OF OPERATION

BASE

3.01 Since the base is only used to provide facilities for mounting associated units, no theory of operation is required.

MOTOR

3.02 The synchronous motor is rated at 25 mhp, 60 cycles ac single phase, 3600 rpm, consisting of a two pole wound stator, and a ball bearing squirrel cage type rotor. The stator has two windings; a main running winding and a starting winding. The motor is wired in such a manner that the shaft rotates in a clockwise direction when viewed from the pinion end.

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3.03 The starting winding is in series with the 88 - 108 mf ac electrolytic capacitor and the current operated starting relay. The initial starting current causes the relay to pull up its contacts and close the starting winding circuit. As the motor gains speed, the current flowing through the motor and the relay coil decreases. When a predetermined current value is reached, the relay armature is released, the relay contacts are opened, and the starting winding is removed from the line. The motor continues to accelerate until it reaches a synchronous speed of 3600 rpm.

3.04 The starting relay, capacitor and thermal cutout switch are mounted on the motor

mounting bracket. The thermal cutout switch is in series with both the starting and running windings, and if excessive current is drawn by the motor, the switch will open the circuit. This is to prevent overheating and possible damage to the motor. The switch may be reset manually, if tripped, by depressing the red button which projects through the mounting bracket.

3.05 The motor is mounted by means of resilient mounts. Mounting straps fasten the resilient mounts to the mounting bracket. The motor shaft has a tapped hole for mounting the driving gear. All motor shaft end play is taken up by means of a spring washer which bears against the outer race of the bearing at the end opposite the pinion of the motor.

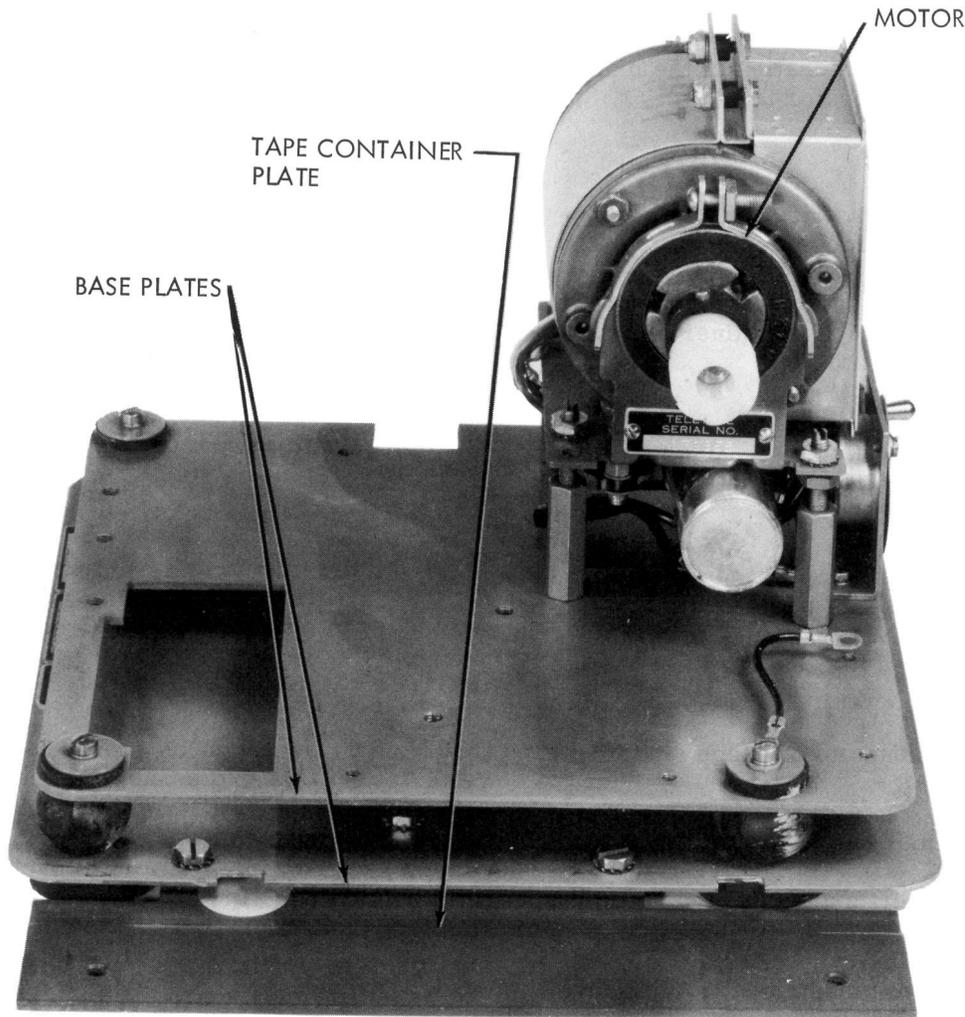


Figure 1 - Parallel Input Tape Punch Base with Motor Unit