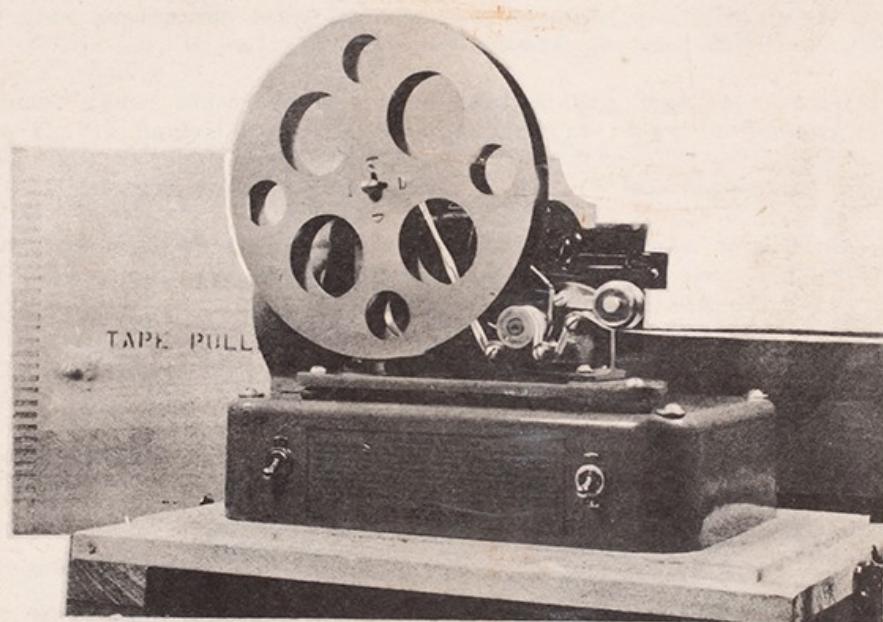


McELROY MANUFACTURING CORP.



USE AND OPERATION

TAPE PULLER MODEL TP-890-742

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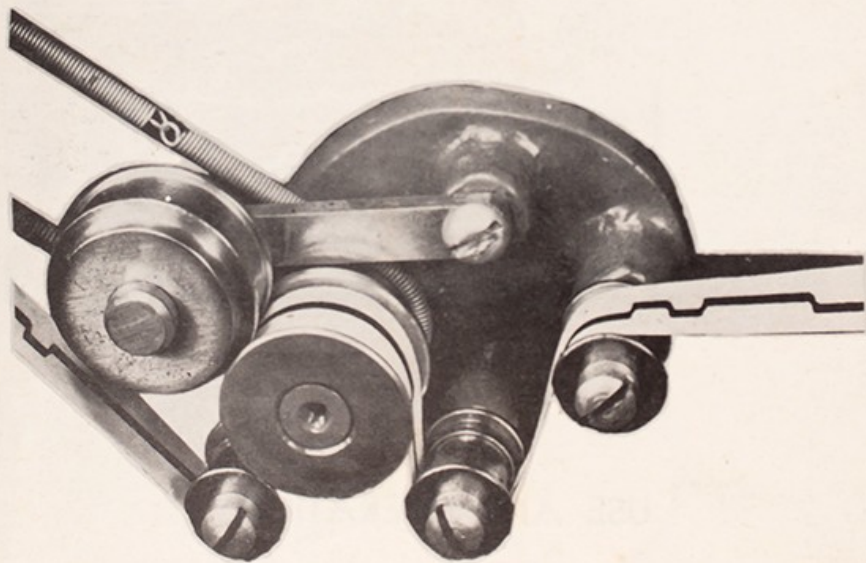
The McElroy TP-890-742 tape puller is required to operate the G-813 keyer, RRD-900 recorder for school work, SR-900 high speed communications recorder, and all other similar equipment which requires paper communication tape to be pulled and reeled at constant speed.

The TP-890-742 has a series 110 volt ac-dc motor which can be run at two speed ranges, selected with the switch on the right side of the chassis. With the switch in UP position, the puller runs at low speed; in DOWN position at high speed.

With either speed selections, and by varying the setting of the rheostat, the machine will pull tape at a constant rate at any selected speed. The tape may be pulled at a very slow rate, or so fast that square-inked characters will be recorded by the SR-900 up to 300 words per minute.

The puller motor is kept constant at high speeds by the heavy counterbalanced flywheel. Because the flywheel affect becomes less pronounced at low speeds, the motor at low speed is kept constant by a shunt from the line through to the field coil. This shunt is opened and closed by the speed selector switch.

When the switch is closed, the field strength is increased and, at the same time, part of the armature current is by-passed through the shunt. This reduces the speed but increases the horsepower of the motor.



Before starting the puller, the tape should be threaded through:

1. Over the first pulley.
2. Under the second pulley.
3. Over the traction pulley.
4. Under the last pulley.
5. Up to the take-up reel.

The spindle of the take-up reel is on a swivel, so that the reel can be rocked forward and tension relaxed on the coupling. In this position, the motor can be running at any speed; but the tape will not be pulled. The reel when placed in this setting will allow the motor to build up to speed before pulling up the tape. The weighted idler which is also on a swivel should be thrown over to the right while the motor is running and the tape is not pulling.

This weighted idler is *only* for the purpose of putting traction on the tape when the take-up reel is not being used.

When the motor is running at the speed required, the take-up reel is rocked back so that tension is put on the spring coupling; this puts pulling traction on the tape, and it runs through the machine and is wound up on the take-up reel.

If it is necessary to stop the tape suddenly, rock the reel forward so that tension is relaxed on the coupling. To unreel the tape, rock the reel forward and loosen the slip from the pulleys; the reel will then spin freely and allow the tape to be unwound from it.

If the tape puller is being used with an ink recorder, the puller should be far enough from the recorder so that the ink will dry before the tape is reeled. If the tape puller is being used with a keyer, puller and keyer can be placed as close together as is practicable.

So that it will not be a source of induction noise in radio communications receivers operating near it, the TP-890-742 has an adequate filter system installed in its base, two chokes in series with the line and condensers parallel to the line. Induction noises resulting from minute sparking at the motor brushes are thus kept out of the line.

CARE:

Oil the machine *only at the oil hole over the bearing at the flywheel end of the motor*. The reduction gears are packed in grease and sealed and normally require no attention. The shaft extending to the traction pulley passes through an oilite bushing set in rubber.

Do not put any oil on or near this bearing. The bearing does not need oil; the shaft through it is turning at slow speed and has plenty of clearance. The oilite bearing gives plenty of lubrication to the surface.

Do not slop oil or grease on the parts of this machine. A drop of light, high grade machine oil in the oil hole of the motor is all that is required. So that vibration would be reduced and the machine made quieter, and so that various parts would be in the easiest alignment and wear will be reduced, a considerable part of this machine is set on rubber grommets. Mineral oil will deteriorate this rubber; oil must be kept away from all rubber fittings.