

BELL SYSTEM PRACTICES
Teletypewriter and Manual
Telegraph Station and P.B.X.
Installation and Maintenance

SECTION P36.602
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AT&T Co Standard

15 TYPE

PERFORATOR TRANSMITTERS

LUBRICATION

1. GENERAL

- 1.01 This section contains information for the lubrication of 15 type perforator transmitters.
- 1.02 This section is reissued to include information on the positive action perforating mechanism and to add to and revise the procedures.
- 1.03 The oils and grease referred to herein are those specified in Section P30.011. Teletypewriter Apparatus—Lubrication—General Requirements.

2. APPLICATION

- 2.01 Oil should be applied by means of a KS-8239 oil can, or by one having a slender spout not less than 3" long.
- (a) In lubricating small parts apply only a single drop of oil so that the oil remains on the part and does not flow off. Too much oil will give unsatisfactory results.
- (b) Oil cups should be well filled.
- 2.02 Grease should be applied with a KS-7461 or KS-8319 grease gun, toothpick, screwdriver blade or R-2119 brush.
- 2.03 After lubricating, wipe off excess oil or grease which may have found its way onto surfaces not requiring lubrication, being careful to avoid wiping old oil, grease or dirt into spaces between bearing surfaces.
- 2.04 Lubrication intervals shall be as specified in other instructions.

3. PARTS TO BE LUBRICATED

3.01 The following parts shall be lubricated with oil.

(a) **General**

- (1) Both loops of all helical springs that exert a nominal tension of less than 2-1/2 lbs.

(b) **Bottom of Perforator Transmitter**

- (1) Key levers: key-lever shaft and rear comb slots.
- (2) Ends of key-lever springs.
- (3) Selector-bar guide slots.
- (4) "Y" levers: bearing slots and arms.
- (5) "Y" lever connecting links: connections with extensions and "Y" levers.
- (6) Selector levers and contact-operating levers: bearing-rod bearings.
- (7) Universal-bar pivot-screw bearings and point of engagement with cutout lever.
- (8) Counter-control-cam lever: at pivot bearings.
- (9) Locking levers: at point of engagement with "Y" lever links.

(c) **Top of Perforator Transmitter**

- (1) Key-lever front-comb slots.
- (2) Spacer-bar loop: bearings and at point of engagement with its key lever.
- (3) Transmitting shaft: two oil cups.
- (4) Transmitting clutch: on sliding members, between teeth, on cam surface.
- (5) Locking loop: bearings and roller.
- (6) Contact levers: bearing shaft and guide slots.
- (7) Locking levers: bearing slots and at points of engagement with the contact levers.
- (8) Clutch-throw-out lever: bearings.
- (9) Intermediate pawl: pivot and lower extensions.
- (10) Trip-off pawl: joint and camming surface.
- (11) Keyboard-control operating lever: pivot and detent.
- (12) Keyboard-control operating-lever extension: at point of engagement with repeat space rod.
- (13) Universal-bar cutout-lever eccentric stud: at point of engagement with keyboard-control operating lever.
- (14) Repeat-space rod: at point of engagement with spacer-bar-loop extension, at point of engagement with cutout lever and at the bracket.
- (15) "Y" lever connecting link extensions: left end connections.
- (16) Selector-fingers: at selector lever connections, guide slots, and at points of engagement with punches and operating lever.

- (17) Punch-operating lever: oil holes (two).
- (18) Selector-finger retaining fork and roller: bearings.
- (19) Anti-chatter lever: pivot bearing and points of engagement with the adjusting screw and contact spring.
- (20) Anti-chatter-lever latch: bearing and point of engagement with latch screw and punch-contact operating-lever. (Apply oil sparingly to avoid the possibility of oil getting on the contacts.)
- (21) Punch-magnet control-contact operating-lever back-stop: slot on old style, screw head on new style.
- (22) Punch block: rear oil hole, punches and shedder-block guide pins.
- (23) Feed roll: bearings, ratchet teeth, star wheel.
- (24) Tape-tension-lever bearings.
- (25) Backspace lever: shoulder-screw bearings and point of engagement with release cam.
- (26) Backspace-pawl bearing screw.
- (27) Feed-pawl release cam: bearing, cam surface.
- (28) Feed-roll detent: roller and pivot.
- (29) Feed-pawl bearing.

(d) **Counter Unit**

- (1) Counter and release-magnet armature bearings. Be careful that no oil gets between the pole faces of the magnets and armatures.
- (2) Feed-pawl bearing screw.
- (3) Check-latch pawl: bearing screw and at point of engagement with the adjusting screw.
- (4) Latch pawl: bearing screw and on latching surface.
- (5) Ratchet wheel: on teeth, outer bearing, in drum.
- (6) Contact-lever bearing and cam.
- (7) Dashpot plunger.

3.02 The following parts shall be lubricated with grease.

(a) **General**

- (1) Loops of all helical springs that exert a nominal tension of 2-1/2 lbs. or more.

(b) **Top of Perforator Transmitter**

- (1) Transmitting-shaft gear.
- (2) Transmitting-cam sleeve: a light film of grease on all cams.

(c) **Counter Unit**

- (1) Cam surfaces.
- (2) End of dashpot plunger.