14 TYPING UNIT

LUBRICATION

1. GENERAL

1.01 This section contains the lubrication procedures for the 14 typing unit. This section and the section covering the teletypewriter general lubrication procedures provide the complete lubrication information for the maintenance of this unit.

1.02 The main-bail roller and the main-bail guide rollers, marked with (+) in 2.01 and (#) in 2.02, shall be lubricated first with oil, second with grease, and finally again with oil.

2. PARTS TO BE LUBRICATED

2.01 The following parts shall be lubricated with oil.

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

(b) Typing Unit:

(1) Stop pawl: Old style, 2 bearings; new style, oil hole.

(2) Trip latch: pivot.

(3) Trip-latch bell-crank pivot.

(4) Trip plunger.

(5) Selector cams; drop of oil on each cam peak.

(6) Locking-cam felt oiler; saturate.

(7) Pivots of locking lever and selecting levers.

(8) Selector-sword bearings; drop oil through rear end of slots in separator plates and on sword points.

(9) Selector T-lever pivots and all points of contact.

(10) Code bars; at posts.

(11) Locking wedge.

*(12) Selector arm: Pivots, locking wedge detent pin, sword-contacting surfaces and operating-screw contacting surface.

*(13) Selector-arm-stop detent: One drop on bearing surface of stop-detent eccentric.

(14) Armature bearings: Very sparingly. Be careful that no oil reaches that part of the armature opposite the magnet-core ends or armature stops (if so equipped).

(15) Main shaft: Remove rear orientation-plate mounting screw, loosen front mounting screw and swing plate to expose top of main shaft. Insert spout of oil can in hole in center of retaining disc and fill shaft with oil. Wipe excess oil from top of retaining disc. If the main shaft is not drilled to allow passage of oil, lubricate the printing clutch and sleeve freely through the two opposite holes located just above the worm gear.

(16) Main-shaft bearings: Oil liberally the top of each bearing.

(17) Selector-clutch felt washers: Pry the driving discs apart with a screwdriver and saturate with oil. Do this at two diametrically opposite places at both top and bottom felt washers.

(18) Main-bail operating-arm spring post: Saturate felt oilers.

*Holding-magnet selector only

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(19) Clutch-throwout lever: Two bearings.

(20) Main-shaft felt washers located in recess of fibre gear: Apply oil in the following manner:

1. Place a quantity of oil in the gear recess so that it covers the exposed edge of the friction disc.

2. Allow the unit to remain idle for at least five minutes.

3. Turn the motor by hand so that the friction disc will make a few revolutions with respect to the gear in order to facilitate the distribution of oil to the washer.

4. Remove the excess oil from the recess with a rag so that it will not be thrown out by the operation of the unit.

(21) Main-shaft-clutch friction disc: Oil upper projections of disc located inside the coil spring.

(22) Main-bail-cam prongs: Apply oil through the springs.

Note: Swing the motor back to give access to the rear of the unit.

+(23) Main-bail roller.

(24) Main-bail plunger — earlier designed mechanism: Fill oil-cup. On units equipped for more efficient lubrication, remove the 1/4 by 32 screw and lock washer from the plunger bushing. Saturate oil wicks and fill plunger with oil. Replace lock washer and screw.

(25) Main-bail lever: Two bearings.

(26) Main bail: Fill groove with oil.

(27) Square vertical guide posts (old style units); One drop of oil on top of each post.

+(28) Main-bail guide roller (new style units).

(29) Main-bail guide (new style units): One drop of oil on each side of roller-contacting surface.

(30) Pullbars : One drop of oil on top of each bar.

(31) Type-bar gears: Pull each type bar down against the platen. Put one drop of oil on top of type-bar gear at rear slot. Avoid excess oil on these parts.

(32) Ribbon-feed shaft: Two oil holes.

(33) Ribbon-feed lever: Oil hole.

(34) Ribbon-feed-lever roller.

(35) Ribbon-feed gears: One drop of oil on teeth.

(36) Ribbon-feed ratchet: One drop of oil on teeth.

(37) Ribbon-spool shafts: Two bearings each.

(38) Ribbon-reverse pawls and links: Four bearings on each side of unit.

(39) Ribbon-reverse shafts: Two bearings each.

(40) Ribbon-feed-shaft detent plunger.

(41) Tape-feed roll: Oil hole.

(42) Platen shaft: Four bearings.

(43) Carriage: Frame guide.

(44) Spacer shaft: Two bearings and gear. Oil through hole in main casting.

(45) Shift rocker and shift-rocker lever: Two pivot bearings.

(46) Pullbar lockout lever: Pivot and two rollers.

(47) Signal-bell hammer: Pivot.

(48) Carriage-locking pawl: Pivot bearing.

(49) Spacer-locking bail: Two pivot bearings.

(50) Spacer-locking pawl: One pivot bearing.

(51) Spacer-detent lever: Pivot bearing and roller. Apply oil from right side.

(52) Spacer-operating lever and roller.

(53) Spacer-feed pawl.

(54) Keyboard driving gears: Two oil cups.

(c) Bell and Break Signal Mechanism:

(1) Finger arm: Pivot.

(2) Detent arm: Pivot.

(3) Contact arm: Pivot.

(4) Detent-arm extension: One drop of oil in fingerarm fork.

(d) Mechanical End-of-line Indicator Mechanism:

(1) Worm shaft: Two bearings.

(2) Release bail: Two bearings.

(3) Cam-lever roller: Bearing.

(4) Cam lever: Bearing.

(5) Feed pawl.

(e) Motor Control on Upper Case H Mechanism: One drop of oil should be applied to the bearing points of each of the following:

(1) Contact lever: Two bearings.

(2) Latch lever: Two bearings.

(3) Operating lever: Two bearings.

(f) Push Tape Feed Mechanism: Feed roll and feed roll lever bearings - oil.

(g) Electrical End-of-line Indicator:

(1) Feed pawl: Pivot.

(2) Check pawl: Pivot.

(3) Latch: Pivot.

(4) Ratchet: Shaft bearing and teeth.

(5) Contact lever: Pivot.

(6) Dash-pot-plunger rod: Lubricate very sparingly.

(7) Release-armature-latch extension.

(8) Release-armature-extension adjusting screw: Face which bears against check pawl.

(9) Contact cam: Outer edge.

(h) Positive-Shift Mechanism:

(1) Shift-lock lever: Pivot bearing and point of contact with carriage-shift plate eccentric screw.

(2) Figures-locking pawl: Pivot bearing and point of contact with carriage shift plate.

2.02 The following parts shall be lubricated with grease.

(a) General: Both loops of all helical springs that exert an average tension of 2-1/2 pounds or more.

(b) Typing Unit:

(1) Five large gears at right rear of the unit: Apply sparingly.

(2) Codebar locklever: Contact surface with main bail.

(3) Ribbon-feed-shaft detent.

(4) Main-bail operating-arm adjusting screw: Contacting surface.

#(5) Main-bail roller.

#(6) Main-bail-guide rollers.

(7) For lubrication of motor bearings refer to the section covering the lubrication of motor units.

CAUTION: LUBRICATION INTERVALS, SPECIFIED IN OTHER INSTRUCTIONS, SHOULD BE CLOSELY ADHERED TO AS TOO MUCH GREASE CAUSES STARTING SWITCH TROUBLES ON SYNCHRONOUS MOTORS, COMMUTATOR TROUBLES AND FALSE GROUNDING ON DC MOTORS AND AC SERIES MOTORS.

(c) Mechanical End-of-line Indicator:

(1) Worn shaft.

(2) Detent drag spring.

(3) Feed ratchet.

(4) Cam-lever roller: Surface.

2.03 The main-bail roller and the main-bail-guide rollers, lubricated with grease in accordance with 2.02, should again be lubricated with oil.