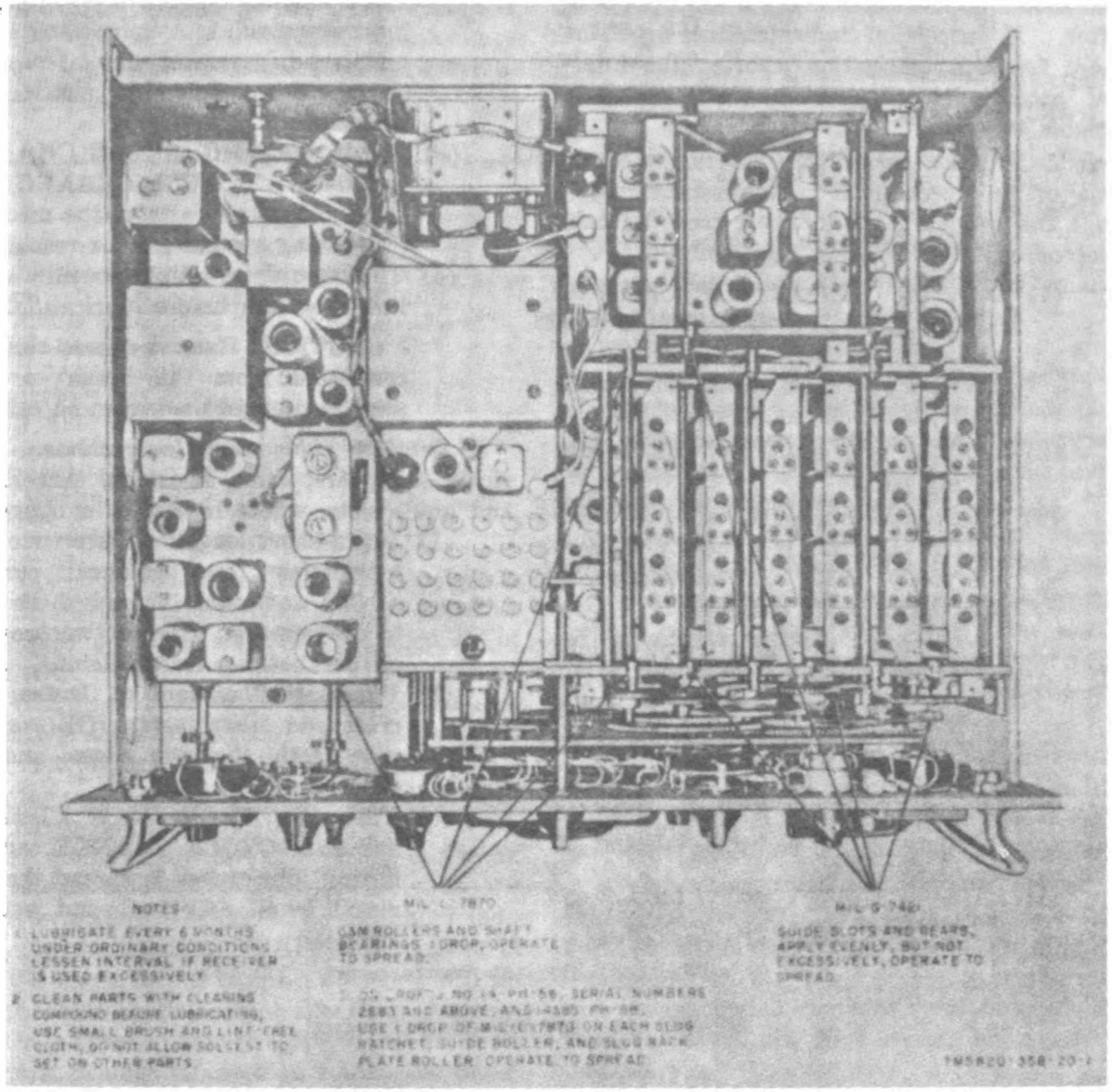

Figure 10. Receiver lubrication points.

The item numbers correspond to the ITEM numbers on the form.

Item	Maintenance procedures
15	Remove top and bottom dust covers where necessary. Inspect all tubes for proper seating, without removing them. Figures 2 and 3 show the locations of all tubes.
19	Use a clean, dry lint-free cloth for cleaning. Moisten the cloth with cleaning compound if necessary. After cleaning, wipe parts dry with a dry, lint-free cloth.

WARNING: Cleaning compound is flammable and its fumes are toxic. Do not use near a flame; provide adequate ventilation.

12. Lubrication

a. General. The only parts of the receiver that require lubrication are the mechanical tuning system, which includes the radiofrequency (rf) gear train assembly and cam racks, and the BFO PITCH control shaft bearing. The receiver is lubricated at the factory

and should be lubricated every 6 months thereafter. If inspection indicates the need for more frequent lubrication, shorten the interval accordingly. Overlubrication may cause trouble and should be avoided.

b. Lubrication Inspection. Check the condition of the mechanical tuning system every time the receiver is withdrawn from its cabinet or case. Proceed as follows:

(1) Turn the MEGACYCLE CHANGE and the KILOCYCLE CHANGE controls throughout their ranges; observe the operation of all gears, cams, shafts, bearings, and guide slots.

(2) Look for grit, sand, and dust in the moving parts.

(3) Check the operation of the BFO PITCH control. If it does not operate freely, check the lubrication of the control shaft bearing.

CAUTION: Do not attempt to lubricate the sealed tuning unit of the variable frequency oscillator (vfo) subchassis; unstable operation may result.

c. Cleaning Prior to Lubrication. Prior to lubrication, thoroughly clean the interior of the receiver as follows:

(1) Where necessary, remove the top and bottom dust covers of the receiver.

(2) Use a suitable brush dipped in cleaning compound to remove any dirt, grit, sand, grease, and oil from the gears, cams, guide slots, shafts, and bearings.

(3) Rotate the MEGACYCLE CHANGE and the KILOCYCLE CHANGE controls so that all parts of the mechanical tuning system can be reached.

(4) Thoroughly dry all parts with a clean lint-free cloth before lubrication.

CAUTION: Remove excess cleaning compound from the brush so that none is dropped on wires and cables.

d. Detailed Lubrication Instructions. Lubricate the gears, cams, bearings, slug racks, and guide slots, where indicated in figure 10.

(1) Dip a short length of bare wire into lubricating oil, general purpose (OGP) and touch the end of the wire to the bearing. One or two drops of oil per bearing is sufficient.

(2) Put a small amount of Grease, Aircraft and Instruments (GL) on the gear teeth, the cam edges, and the guide slots.

(3) Turn the MEGACYCLE CHANGE and KILOCYCLE CHANGE controls during lubrication to spread the lubricant to all gear teeth and wearing surfaces.

Section II. TROUBLESHOOTING

13. Visual Inspection

a. To determine the cause of receiver failure, check the items in *b* below; then start a detailed examination.

b. Partial or complete failure of the receiver to operate properly may be caused by one or more of the following faults:

(1) Improperly connected, worn, or broken power cable.

(2) Improperly connected, worn, or broken loudspeaker cord or headset cord.

(3) Burned-out fuse. Be sure to use a fuse of proper value (para 4*g*).

(4) Grounded or broken antenna or antenna lead-in.

(5) Improperly connected antenna lead-in.

(6) Broken tube.

(7) Improperly connected or improperly seated external or internal interconnecting cables (fig. 3, 5 and 6).

(8) Loose connection on rear panel terminal stripes (fig. 7). Be sure to check the ground connection at the rear of the receiver.

14. Overall Operational Test

Before performing the equipment performance check, make the rapid checks given in *a* through *d* below. If the receiver does not