LYCOMING DIRECT DRIVE AIRCRAFT ENGINES

6. Polish the oil seal area of the shaft with crocus cloth while the shaft is rotated counter-clockwise when viewed from the flange (front) end of shaft. Do not move the cloth while polishing because the area must be free of spiral marks.

7. Clean the shaft to remove all traces of grinding dust and mask the bushing holes in the flange.

8. Cadmium plate (in accordance with AMS 2400) the flange and oil seal area of the crankshaft as indicated in figure 7-13. Do not plate beyond the 0.13 inch radius.

9. After plating, bake the crankshaft at 275° F. $\pm 10^{\circ}$ F. for 5 hours to eliminate possibility of surface embrittlement.

10. See the applicable Avco Lycoming Parts Catalog for the particular engine model for correct propeller flange bushings and install new plated service bushings in the flange. Chill the bushings by refrigeration and install with Avco Lycoming Service Tool No. ST-115.

11. Support crankshaft in vee-blocks at the end journals and measure run-out at refinished area. Total indicated run-out must not exceed 0.002 inch.

12. Examine crankshaft by magnetic particle method.

7-50. Crankshaft, Counterweight Bushing Replacement (Where applicable). Wear or damage to the crankshaft counterweight bushings located in the crankshaft counterweight lugs, is almost impossible to detect by normal inspection procedures. Because of this situation and as damage to the crankshaft counterweight bushings could cause failure of the counterweight and/or the crankshaft, it is mandatory that these bushings be replaced at overhaul. The procedure for removal and replacement of the crankshaft counterweight bushings follows.

1. Thread the bolt of the counterweight bushing puller through the puller plate, positioning the plate so that the recess in it will be next to the crankshaft when the puller bolt is inserted through the bushing in the crankshaft. Install the small puller bushing over the end of the bolt and then place the puller nut over the end of the bolt and tighten. As the nut is tightened on the bolt the counterweight bushing will be pushed out of its recess in the crankshaft counterweight mounting ear and into the recess in the puller plate. See figure 7-14.

2. Measure the ID of the roller bushing hole in the crankshaft. If the hole measures 0.9369 - 0.9377 inch, no reaming of the hole is necessary and a standard bushing may be installed. If the roller bushing hole measures more than 0.9377 inch, the next oversize bushing must be installed and the hole reamed accordingly. See Table 7-2.



NOTE: ENGINES WHICH INCORPORATE BODY FIT THRU-STUDS AS INDICATED BY ARROWS WILL BE STAMPED "X" OR "O" AS SHOWN ABOVE. ENGINES WITH STUDS SO IDENTIFIED NEED NOT BE REWORKED

Figure 7-11. Location of Thru-Studs to be Modified