

SECTION I. REDUCTION OF COUNTERWEIGHT FORCES

In order to reduce the forces created by the present counterweights, they must be reduced to a length of $4\frac{1}{4}$ inches. See sketch.

1. Scribe a line completely around the counterweight and saw off material as necessary to shorten the weight to $4\frac{1}{4}$ inches. A small amount of stock should be left above the scribed line when sawing to permit filing down to the line in the interest of accuracy.

NOTE: If desired, machine milling may be used instead of the hand sawing method in which case weights should be identified and reinstalled on the same blade clamp from which they were removed, with 500 inch pounds torque on the 7/16-20 - 1-1/2 inch hollow head screws used to secure weight to clamp. Safety screws as in original installation.

2. Steel stamp a numeral "4" on the forward face, near the root, of all counterweights modified according to the above instructions.
3. Prime and silver paint unplated surface.

SECTION II. PROPELLER INSTALLATION AND ADJUSTMENT

PART A. -1 and -5 Propeller

When reinstalling the propeller on the airplane after having accomplished the counterweight modification, the following precautions should be taken.

1. Measure length of rear cone. These cones should be $1-15/32$ inches long. If shorter, a spacer should be used to make up the difference in length.
2. After completing installation as per instructions in the Hartzell Propeller Manual, a ground run of the engine should be made to adjust for proper static engine rpm (2025 rpm maximum).
3. Run engine for as short a time as possible with the propeller control in full increase rpm position, if rpm exceeds 2025, pull-out control until 2000 rpm is reached, and shut down engine with the control in this position. The position of the propeller jack plate in relation to the hub assembly should then be determined to insure a minimum clearance of $1/16$ inch between these two units of the assembly to prevent an excessive preload being put on the engine crankshaft by the propeller hydraulic element during